Prysmian Group

Product Catalog

NEK 606/BFOU/RFOU/BU/RU

Marine, oil, gas and offshore cables

PRYSMIAN

Draka

Offshore Cables
Basic Program
IEC / NEK TS 606

Index

NEK 606 Cable types

List of all the cable types listed in NEK 606 : NEK 2004 Third Edition

NEK TS 606 Code		NEK TS 606 Description	Draka Norsk Kabel's cable type
Power cables LV and MV			
P1	P1 / P8	RFOU / TFOU 0,6/1 kV	RFOU 0,6/1 kV
P2	P2 / P9	RFOU / TFOU 3,6/6(7,2) kV	RFOU 3,676(7,2) kV
P3	P3/P10	RFOU / TFOU 6/10(12) kV	RFOU 6/10(12) kV
P4	P4/P11	RFOU / TFOU 8,7/15(17,5) kV	RFOU 8,7/15(17,5) kV
P5	P5/P12	BFOU 0,6/1 kV	BFOU 0,6/1 kV
P6	P6/P13	BFOU 3,6/6(7,2) kV	-
P7	P7/P14	BFOU 6/10(12) kV	-
P15		UX 0,6/1 kV	UX 0,6/1 kV
P16		IFLI 250V	IFLI 250V
P17		BU 0,6/1 kV	BU 0,6/1 kV
P18		RU 0,6/1 kV	RU 0,6/1 kV
P19	P19/P21	RFOU / TFOU 12/20(24) kV	RFOU 12/20(24) kV
P20	P20/P22	RFOU / TFOU 18/30(36) kV	RFOU 18/30(36) kV
P30		RFOU-HCF / TFOU-HCF 6/10(12) kV	RFOU-HCF 6/10(12) kV
P31		RFOU-HCF / TFOU-HCF 8,7/15(17,5) kV	RFOU-HCF 8,7/15(17,5) kV
P32		RFOU-HCF / TFOU-HCF 12/20(24) kV	RFOU-HCF 12/20(24) kV
P33		RFOU-HCF / TFOU-HCF 18/30(36) kV	RFOU-HCF 18/30(36) kV
P34		BFOU-HCF 0,6/1 kV	BFOU-HCF 0,6/1 kV
Instrumentation and telecommunication cables			
S1	S1/S5	RFOU(i) 250V	RFOU(i) 250V
S2	S2/S6	RFOU(c) 250V	RFOU(c) 250V
S3	S3/S7	BFOU(i) 250V	BFOU(i) 250V
S4	S4/S8	BFOU(c) 250V	BFOU(c) 250V
S9		IYXI(c) 60V	-
S10		IYOI(c) 60V	-
S11		RU(i) 250V	RU(i) 250V
S12		RU(c) 250V	RU(c) 250V
S13		BU(i) 250V	BU(i) 250V
S14		BU(c) 250V	BU(c) 250V
S15		BFOU-HCF(i) 250V	BFOU-HCF(i) 250V
S16		BFOU-HCF(c) 250V	BFOU-HCF(c) 250V
Optical Fibre Cable			
F1		QFCI	QFCI
F4		QFCI-HCF	QFCI-HCF
F5		QFCB	QFCI- MUD
F6		AICI	AICI
Cable types P8 – P14, P21 – P22, S5 – S8 and F5 are to be mud resistant as per NEK TS 606			

Halogen-free, mud resistant instrumentation cable RFOU(i) 150/250(300)V, S1/S5

Flame retardant halogen-free instrumentation cable. Mud resistant

RFOU(i) 150/250(300)V

EPR/EPR/TCWB/EVA

NEK TS 606 CodeS1/S5

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX (Zone 0, 1 & 2)- and safe areas. Meets the mud resistant requirements in NEK TS 606:2009.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU(i) 250V S1/S5 4 PAIR 0,75 mm2 IEC 60092-376 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	3.8	1.1	10 ± 0.8	185	54
1	2	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	3.8	1.1	10 ± 0.8	185	54
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	5.3	1.2	13 ± 0.8	275	85
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	5.3	1.2	13 ± 0.8	275	85
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	10.2	1.3	15 ± 0.8	430	166
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	10.2	1.3	15 ± 0.8	430	166
8	2	0.75	1.1	0.6	1.1	15.5 ± 0.8	0.3	13.6	1.5	19.5 ± 0.8	690	265
8	2	0.75	1.1	0.6	1.1	15.5 ± 0.8	0.3	13.6	1.5	19.5 ± 0.8	690	265
12	2	0.75	1.1	0.6	1.4	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	940	348
12	2	0.75	1.1	0.6	1.4	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	940	348
16	2	0.75	1.1	0.6	1.9	21.5 ± 1	0.3	17.8	1.7	26 ± 1	1240	439
16	2	0.75	1.1	0.6	1.9	21.5 ± 1	0.3	17.8	1.7	26 ± 1	1240	439
19	2	0.75	1.1	0.6	1.9	22.5 ± 1	0.3	17.8	1.7	27 ± 1	1360	489
19	2	0.75	1.1	0.6	1.9	22.5 ± 1	0.3	17.8	1.7	27 ± 1	1360	489
24	2	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	20.4	1.9	31.5 ± 1.5	1720	596
24	2	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	20.4	1.9	31.5 ± 1.5	1720	596
1	3	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	60
1	3	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	60
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	360	130
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	360	130
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.4	16.5 ± 0.8	510	192
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.4	16.5 ± 0.8	510	192
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	13.6	1.5	21.5 ± 1	800	317
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	13.6	1.5	21.5 ± 1	800	317
12	3	0.75	1.1	0.6	1.4	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1160	450
12	3	0.75	1.1	0.6	1.4	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1160	450
16	3	0.75	1.1	0.6	2.1	24.5 ± 1	0.3	17.8	1.8	29.5 ± 1	1540	542
16	3	0.75	1.1	0.6	2.1	24.5 ± 1	0.3	17.8	1.8	29.5 ± 1	1540	542
19	3	0.75	1.1	0.6	2.1	25.5 ± 1	0.3	20.4	1.8	30 ± 1.5	1720	636
24	3	0.75	1.1	0.6	2.5	30.5 ± 1.5	0.3	22.9	2	36 ± 1.5	2240	776
24	3	0.75	1.1	0.6	2.5	30.5 ± 1.5	0.3	22.9	2	36 ± 1.5	2240	776
1	2	1.5	1.6	0.7	1.1	8 ± 0.5	0.2	3.8	1.1	11 ± 0.8	230	71
1	2	1.5	1.6	0.7	1.1	8 ± 0.5	0.2	3.8	1.1	11 ± 0.8	230	71
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	420	168
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	420	168
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	600	252
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	600	252
8	2	1.5	1.6	0.7	1.1	19 ± 0.8	0.3	15.3	1.6	23.5 ± 1	980	420
8	2	1.5	1.6	0.7	1.1	19 ± 0.8	0.3	15.3	1.6	23.5 ± 1	980	420
12	2	1.5	1.6	0.7	1.4	23 ± 1	0.3	17.8	1.8	28 ± 1	1380	580
12	2	1.5	1.6	0.7	1.4	23 ± 1	0.3	17.8	1.8	28 ± 1	1380	580
16	2	1.5	1.6	0.7	1.9	26.5 ± 1	0.3	20.4	1.9	31.5 ± 1.5	1830	740

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
16	2	1.5	1.6	0.7	1.9	26.5 ± 1	0.3	20.4	1.9	31.5 ± 1.5	1830	740
19	2	1.5	1.6	0.7	1.9	27.5 ± 1	0.3	22.9	1.9	32.5 ± 1.5	2040	866
19	2	1.5	1.6	0.7	1.9	27.5 ± 1	0.3	22.9	1.9	32.5 ± 1.5	2040	866
24	2	1.5	1.6	0.7	2.3	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2790	1165
24	2	1.5	1.6	0.7	2.3	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2790	1165
32	2	1.5	1.6	0.7	2.4	37 ± 1.5	0.4	40.7	2.3	43 ± 2	3440	1480
1	3	1.5	1.6	0.7	1.1	8.5 ± 0.5	0.2	4.5	1.1	11.5 ± 0.8	260	93
1	3	1.5	1.6	0.7	1.1	8.5 ± 0.5	0.2	4.5	1.1	11.5 ± 0.8	260	93
2	3	1.5	1.6	0.7	1.1	13.5 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	510	212
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	13.6	1.5	20 ± 1	740	325
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	13.6	1.5	20 ± 1	740	325
8	3	1.5	1.6	0.7	1.1	21.5 ± 1	0.3	17.8	1.7	26 ± 1	1230	557
8	3	1.5	1.6	0.7	1.1	21.5 ± 1	0.3	17.8	1.7	26 ± 1	1230	557
12	3	1.5	1.6	0.7	1.4	26 ± 1	0.3	20.4	1.9	31 ± 1.5	1740	774
12	3	1.5	1.6	0.7	1.4	26 ± 1	0.3	20.4	1.9	31 ± 1.5	1740	774
16	3	1.5	1.6	0.7	2.3	31 ± 1.5	0.3	22.9	2	36 ± 1.5	2420	990
16	3	1.5	1.6	0.7	2.3	31 ± 1.5	0.3	22.9	2	36 ± 1.5	2420	990
24	3	1.5	1.6	0.7	2.5	38 ± 1.5	0.4	40.7	2.3	44 ± 2	3570	1547
24	3	1.5	1.6	0.7	2.5	38 ± 1.5	0.4	40.7	2.3	44 ± 2	3570	1547
1	2	2.5	2	0.7	1.1	9 ± 0.5	0.2	4.5	1.1	12 ± 0.8	280	99
2	2	2.5	2	0.7	1.1	13.5 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	530	225
2	2	2.5	2	0.7	1.1	13.5 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	530	225
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	13.6	1.5	20 ± 1	770	350

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110590		RFOU(I) 1PAIR 0.75mm² S1/S5	GREY	Yes	7021528920000	1044620
20105042		RFOU(I) 1PAIR 0.75mm² S1/S5	BLUE	Yes	7021528920017	1044619
20110591		RFOU(I) 2PAIR 0.75mm² S1/S5	GREY	Yes	7021528920062	1044621
20110592		RFOU(I) 2PAIR 0.75mm² S1/S5	BLUE	-	7021528920079	1044622
20110593		RFOU(I) 4PAIR 0.75mm² S1/S5	GREY	Yes	7021528920185	1044623
20110849		RFOU(I) 4PAIR 0.75mm² S1/S5	BLUE	-	7021528920192	1044624
20110594		RFOU(I) 8PAIR 0.75mm² S1/S5	GREY	Yes	7021528920307	1044628
20104951		RFOU(I) 8PAIR 0.75mm² S1/S5	BLUE	-	7021528920314	1044629
20110850		RFOU(I) 12PAIR 0.75mm² S1/S5	GREY	-	7021528920369	1044630
20131006		RFOU(I) 12PAIR 0.75mm² S1/S5	BLUE	-	7021528920376	1044631
	892042	RFOU(I) 16PAIR 0.75mm² S1/S5	GREY	-	7021528920420	1044633
	892043	RFOU(I) 16PAIR 0.75mm² S1/S5	BLUE	-	7021528920437	1044632
	892045	RFOU(I) 19PAIR 0.75mm² S1/S5	GREY	-	7021528920451	1044634
	892046	RFOU(I) 19PAIR 0.75mm² S1/S5	BLUE	-	7021528920468	1044635
20110595		RFOU(I) 24PAIR 0.75mm² S1/S5	GREY	-	7021528920482	1044636
	892049	RFOU(I) 24PAIR 0.75mm² S1/S5	BLUE	-	7021528920499	1044637

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20104949		RFOU(I) 1TRIP 0.75mm² S1/S5	GREY	Yes	7021528920604	1044690
20110596		RFOU(I) 1TRIP 0.75mm² S1/S5	BLUE	-	7021528920611	1044689
20110851		RFOU(I) 2TRIP 0.75mm² S1/S5	GREY	-	7021528920666	1044691
	892067	RFOU(I) 2TRIP 0.75mm² S1/S5	BLUE	-	7021528920673	1044692
20110852		RFOU(I) 4TRIP 0.75mm² S1/S5	GREY	-	7021528920789	1044693
	892079	RFOU(I) 4TRIP 0.75mm² S1/S5	BLUE	-	7021528920796	1044694
	892090	RFOU(I) 8TRIP 0.75mm² S1/S5	GREY	-	7021528920901	1044697
	892091	RFOU(I) 8TRIP 0.75mm² S1/S5	BLUE	-	7021528920918	1044698
	892096	RFOU(I) 12TRIP 0.75mm² S1/S5	GREY	-	7021528920963	1044699
	892097	RFOU(I) 12TRIP 0.75mm² S1/S5	BLUE	-	7021528920970	1044700
	892102	RFOU(I) 16TRIP 0.75mm² S1/S5	GREY	-	7021528921021	1044701
	892103	RFOU(I) 16TRIP 0.75mm² S1/S5	BLUE	-	7021528921038	1044702
	892106	RFOU(I) 19TRIP 0.75mm² S1/S5	GREY	-	7021528921069	-
	892108	RFOU(I) 24TRIP 0.75mm² S1/S5	GREY	-	7021528921083	1044707
	892109	RFOU(I) 24TRIP 0.75mm² S1/S5	BLUE	-	7021528921090	1044708
20110597		RFOU(I) 1PAIR 1.5mm² S1/S5	GREY	Yes	7021528922004	1044460
20110598		RFOU(I) 1PAIR 1.5mm² S1/S5	BLUE	Yes	7021528922011	1044459
20110599		RFOU(I) 2PAIR 1.5mm² S1/S5	GREY	Yes	7021528922066	1044661
20111211		RFOU(I) 2PAIR 1.5mm² S1/S5	BLUE	-	7021528922073	1044662
20110600		RFOU(I) 4PAIR 1.5mm² S1/S5	GREY	Yes	7021528922189	1044663
20110601		RFOU(I) 4PAIR 1.5mm² S1/S5	BLUE	-	7021528922196	1044664
20110602		RFOU(I) 8PAIR 1.5mm² S1/S5	GREY	Yes	7021528922301	1044668
20110603		RFOU(I) 8PAIR 1.5mm² S1/S5	BLUE	Yes	7021528922318	1044669
20110604		RFOU(I) 12PAIR 1.5mm² S1/S5	GREY	Yes	7021528922363	1044670
20110605		RFOU(I) 12PAIR 1.5mm² S1/S5	BLUE	-	7021528922370	1044671
20110606		RFOU(I) 16PAIR 1.5mm² S1/S5	GREY	Yes	7021528922424	1044673
20110607		RFOU(I) 16PAIR 1.5mm² S1/S5	BLUE	-	7021528922431	1044672
	892245	RFOU(I) 19PAIR 1.5mm² S1/S5	GREY	-	7021528922455	1044674
	892246	RFOU(I) 19PAIR 1.5mm² S1/S5	BLUE	-	7021528922462	1044675
	892248	RFOU(I) 24PAIR 1.5mm² S1/S5	GREY	-	7021528922486	1044678
20110853		RFOU(I) 24PAIR 1.5mm² S1/S5	BLUE	-	7021528922493	1044679
	892254	RFOU(I) 32PAIR 1.5mm² S1/S5	GREY	-	7021528922547	-
20110608		RFOU(I) 1TRIP 1.5mm² S1/S5	GREY	-	7021528922608	1044560
20110609		RFOU(I) 1TRIP 1.5mm² S1/S5	BLUE	-	7021528922615	1044559
	892266	RFOU(I) 2TRIP 1.5mm² S1/S5	GREY	-	7021528922660	1044762
	892278	RFOU(I) 4TRIP 1.5mm² S1/S5	GREY	-	7021528922783	1044764
	892279	RFOU(I) 4TRIP 1.5mm² S1/S5	BLUE	-	7021528922790	1044765
20110610		RFOU(I) 8TRIP 1.5mm² S1/S5	GREY	-	7021528922905	1044768
	892291	RFOU(I) 8TRIP 1.5mm² S1/S5	BLUE	-	7021528922912	1044769
	892296	RFOU(I) 12TRIP 1.5mm² S1/S5	GREY	-	7021528922967	1044770
	892297	RFOU(I) 12TRIP 1.5mm² S1/S5	BLUE	-	7021528922974	1044771
	892302	RFOU(I) 16TRIP 1.5mm² S1/S5	GREY	-	7021528923025	1044773
	892303	RFOU(I) 16TRIP 1.5mm² S1/S5	BLUE	-	7021528923032	1044772
	892308	RFOU(I) 24TRIP 1.5mm² S1/S5	GREY	-	7021528923087	1044779
	892309	RFOU(I) 24TRIP 1.5mm² S1/S5	BLUE	-	7021528923094	1044780
20110854		RFOU(I) 1PAIR 2.5mm² S1/S5	GREY	-	7021528924008	-
20110855		RFOU(I) 2PAIR 2.5mm² S1/S5	GREY	-	7021528924060	-
	892407	RFOU(I) 2PAIR 2.5mm² S1/S5	BLUE	-	7021528924077	-
20110856		RFOU(I) 4PAIR 2.5mm² S1/S5	GREY	-	7021528924183	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant instrumentation cable RFOU(c) 150/250(300)V, S2/S6

Flame retardant halogen-free instrumentation cable. Mud resistant

RFOU(c) 150/250(300)V

EPR/EPR/TCWB/EVA

NEK TS 606 CodeS2/S6

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX (Zone 0, 1 & 2)- and safe areas. Meets the mud resistant requirements in NEK TS 606:2009.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU(c) 250V S2/S6 8 PAIR 0,75 mm2 IEC 60092-376 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	5.3	1.2	13 ± 0.8	270	81
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	5.3	1.2	13 ± 0.8	270	81
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	8.5	1.3	15 ± 0.8	390	138
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	8.5	1.3	15 ± 0.8	390	139
8	2	0.75	1.1	0.6	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	600	223
8	2	0.75	1.1	0.6	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	600	223
12	2	0.75	1.1	0.6	1.4	18 ± 0.8	0.3	15.3	1.5	22 ± 1	820	307
12	2	0.75	1.1	0.6	1.4	18 ± 0.8	0.3	15.3	1.5	22 ± 1	820	307
16	2	0.75	1.1	0.6	1.9	20.5 ± 1	0.3	15.3	1.6	24.5 ± 1	1040	358
16	2	0.75	1.1	0.6	1.9	20.5 ± 1	0.3	15.3	1.6	24.5 ± 1	1040	358
19	2	0.75	1.1	0.6	1.9	21.5 ± 1	0.3	17.8	1.6	25.5 ± 1	1160	422
24	2	0.75	1.1	0.6	2.1	25 ± 1	0.3	20.4	1.8	29.5 ± 1	1450	510
24	2	0.75	1.1	0.6	2.1	25 ± 1	0.3	20.4	1.8	29.5 ± 1	1450	510
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.2	5.3	1.2	14 ± 0.8	310	94
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.2	5.3	1.2	14 ± 0.8	310	94
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	470	181
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	470	181
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	740	291
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	740	291
12	3	0.75	1.1	0.6	1.4	20 ± 1	0.3	15.3	1.6	24.5 ± 1	1010	384
12	3	0.75	1.1	0.6	1.4	20 ± 1	0.3	15.3	1.6	24.5 ± 1	1010	384
16	3	0.75	1.1	0.6	2.1	23 ± 1	0.3	17.8	1.7	27.5 ± 1	1350	486
24	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	20.4	1.9	33 ± 1.5	1860	664
24	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	20.4	1.9	33 ± 1.5	1860	664
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	410	162
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	410	162
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	560	234
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	560	234
8	2	1.5	1.6	0.7	1.1	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	890	379
8	2	1.5	1.6	0.7	1.1	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	890	379
10	2	1.5	1.6	0.7	1.2	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1070	459
10	2	1.5	1.6	0.7	1.2	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1070	459
12	2	1.5	1.6	0.7	1.4	22 ± 1	0.3	17.8	1.7	26.5 ± 1	1210	515
12	2	1.5	1.6	0.7	1.4	22 ± 1	0.3	17.8	1.7	26.5 ± 1	1210	515
16	2	1.5	1.6	0.7	1.9	25 ± 1	0.3	20.4	1.8	29.5 ± 1	1580	651
16	2	1.5	1.6	0.7	1.9	25 ± 1	0.3	20.4	1.8	29.5 ± 1	1580	651
19	2	1.5	1.6	0.7	1.9	26.5 ± 1	0.3	20.4	1.9	31 ± 1.5	1750	735
24	2	1.5	1.6	0.7	2.3	31 ± 1.5	0.3	25.4	2.1	36.5 ± 1.5	2270	924
32	2	1.5	1.6	0.7	2.4	34 ± 1.5	0.4	36.2	2.2	40 ± 2	2890	1252
32	2	1.5	1.6	0.7	2.4	34 ± 1.5	0.4	36.2	2.2	40 ± 2	2890	1252
2	3	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	480	190
2	3	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	480	190
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	670	290
8	3	1.5	1.6	0.7	1.1	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1130	516
12	3	1.5	1.6	0.7	1.4	24.5 ± 1	0.3	20.4	1.8	29.5 ± 1	1560	708
12	3	1.5	1.6	0.7	1.4	24.5 ± 1	0.3	20.4	1.8	29.5 ± 1	1560	708
16	3	1.5	1.6	0.7	2.1	28 ± 1	0.3	22.9	1.9	33 ± 1.5	2080	900
16	3	1.5	1.6	0.7	2.1	28 ± 1	0.3	22.9	1.9	33 ± 1.5	2080	900
24	3	1.5	1.6	0.7	2.5	35 ± 1.5	0.4	36.2	2.2	41 ± 2	3110	1365

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
24	3	1.5	1.6	0.7	2.5	35 ± 1.5	0.4	36.2	2.2	41 ± 2	3110	1365
2	2	2.5	2	0.7	1.1	13.5 ± 0.8	0.3	10.2	1.4	17.5 ± 0.8	490	200
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	680	309
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	680	309
12	2	2.5	2	0.7	2.1	27 ± 1	0.3	20.4	1.8	31.5 ± 1.5	1740	759

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110611		RFOU(C) 2PAIR 0.75mm² S2/S6	GREY	Yes	7021528926064	1044421
20110857		RFOU(C) 2PAIR 0.75mm² S2/S6	BLUE	-	7021528926071	1044422
20110612		RFOU(C) 4PAIR 0.75mm² S2/S6	GREY	Yes	7021528926187	1044423
20110613		RFOU(C) 4PAIR 0.75mm² S2/S6	BLUE	-	7021528926194	1044424
20110614		RFOU(C) 8PAIR 0.75mm² S2/S6	GREY	-	7021528926309	1044428
20110772		RFOU(C) 8PAIR 0.75mm² S2/S6	BLUE	-	7021528926316	1044429
20110615		RFOU(C) 12PAIR 0.75mm² S2/S6	GREY	-	7021528926361	1044430
	892637	RFOU(C) 12PAIR 0.75mm² S2/S6	BLUE	-	7021528926378	1044431
20109493		RFOU(C) 16PAIR 0.75mm² S2/S6	GREY	-	7021528926422	1044433
	892643	RFOU(C) 16PAIR 0.75mm² S2/S6	BLUE	-	7021528926439	1044432
	892645	RFOU(C) 19PAIR 0.75mm² S2/S6	GREY	-	7021528926453	1044434
20109494		RFOU(C) 24PAIR 0.75mm² S2/S6	GREY	-	7021528926484	1044438
	892649	RFOU(C) 24PAIR 0.75mm² S2/S6	BLUE	-	7021528926491	1044437
20110858		RFOU(C) 2TRIP 0.75mm² S2/S6	GREY	-	7021528926668	1044490
20110616		RFOU(C) 2TRIP 0.75mm² S2/S6	BLUE	-	7021528926675	1044491
20110859		RFOU(C) 4TRIP 0.75mm² S2/S6	GREY	-	7021528926781	1044492
	892679	RFOU(C) 4TRIP 0.75mm² S2/S6	BLUE	-	7021528926798	1044493
20120514		RFOU(C) 8TRIP 0.75mm² S2/S6	GREY	-	7021528926903	1044496
	892691	RFOU(C) 8TRIP 0.75mm² S2/S6	BLUE	-	7021528926910	1044497
	892696	RFOU(C) 12TRIP 0.75mm² S2/S6	GREY	-	7021528926965	1044499
	892697	RFOU(C) 12TRIP 0.75mm² S2/S6	BLUE	-	7021528926972	1044500
	892702	RFOU(C) 16TRIP 0.75mm² S2/S6	GREY	-	7021528927023	1044501
	892708	RFOU(C) 24TRIP 0.75mm² S2/S6	GREY	-	7021528927085	1044507
	892709	RFOU(C) 24TRIP 0.75mm² S2/S6	BLUE	-	7021528927092	1044508
20110617		RFOU(C) 2PAIR 1.5mm² S2/S6	GREY	Yes	7021528928068	1044461
20110618		RFOU(C) 2PAIR 1.5mm² S2/S6	BLUE	-	7021528928075	1044462
20110619		RFOU(C) 4PAIR 1.5mm² S2/S6	GREY	Yes	7021528928181	1044463
20110620		RFOU(C) 4PAIR 1.5mm² S2/S6	BLUE	-	7021528928198	1044464
20110621		RFOU(C) 8PAIR 1.5mm² S2/S6	GREY	Yes	7021528928303	1044468
	892831	RFOU(C) 8PAIR 1.5mm² S2/S6	BLUE	-	7021528928310	1044469
	892834	RFOU(C) 10PAIR 1.5mm² S2/S6	GREY	-	7021528928341	-
	892835	RFOU(C) 10PAIR 1.5mm² S2/S6	BLUE	-	7021528928358	-
20110622		RFOU(C) 12PAIR 1.5mm² S2/S6	GREY	-	7021528928365	1044470
	892837	RFOU(C) 12PAIR 1.5mm² S2/S6	BLUE	-	7021528928372	-
20109495		RFOU(C) 16PAIR 1.5mm² S2/S6	GREY	Yes	7021528928426	1044472
	892843	RFOU(C) 16PAIR 1.5mm² S2/S6	BLUE	-	7021528928433	1044473
	892845	RFOU(C) 19PAIR 1.5mm² S2/S6	GREY	-	7021528928457	1044474
20110860		RFOU(C) 24PAIR 1.5mm² S2/S6	GREY	-	7021528928488	1044478
	892854	RFOU(C) 32PAIR 1.5mm² S2/S6	GREY	-	7021528928549	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	892855	RFOU(C) 32PAIR 1.5mm² S2/S6	BLUE	-	7021528928556	-
20110861		RFOU(C) 2TRIP 1.5mm² S2/S6	GREY	-	7021528928662	1044561
	892867	RFOU(C) 2TRIP 1.5mm² S2/S6	BLUE	-	7021528928679	-
	892878	RFOU(C) 4TRIP 1.5mm² S2/S6	GREY	-	7021528928785	1044563
	892891	RFOU(C) 8TRIP 1.5mm² S2/S6	BLUE	-	7021528928914	1044568
	892896	RFOU(C) 12TRIP 1.5mm² S2/S6	GREY	-	7021528928969	1044569
	892897	RFOU(C) 12TRIP 1.5mm² S2/S6	BLUE	-	7021528928976	1044570
	892902	RFOU(C) 16TRIP 1.5mm² S2/S6	GREY	-	7021528929027	1044571
	892903	RFOU(C) 16TRIP 1.5mm² S2/S6	BLUE	-	7021528929034	1044572
	892908	RFOU(C) 24TRIP 1.5mm² S2/S6	GREY	-	7021528929089	1044577
	892909	RFOU(C) 24TRIP 1.5mm² S2/S6	BLUE	-	7021528929096	1044578
	893006	RFOU(C) 2PAIR 2.5mm² S2/S6	GREY	-	7021528930061	-
20120742		RFOU(C) 4PAIR 2.5mm² S2/S6	GREY	-	7021528930184	-
20110862		RFOU(C) 4PAIR 2.5mm² S2/S6	BLUE	-	7021528930191	-
20110863		RFOU(C) 12PAIR 2.5mm² S2/S6	GREY	-	7021528930368	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant, fire resistant instrumentation cable BFOU(i) 150/250(300)V, S3/S7

Fire resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BFOU(i) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeS3/S7

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFOU(i) 250V S3/S7 16 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	54
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	54
1	4	0.75	1.1	0.6	1.1	8.5 ± 0.5	0.2	4.5	1.2	12 ± 0.8	250	74
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	10.2	1.3	14.5 ± 0.8	360	133
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	10.2	1.3	14.5 ± 0.8	360	133
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	490	183
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	490	183
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	780	283
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	780	283
12	2	0.75	1.1	0.6	1.4	20.5 ± 1	0.3	17.8	1.7	25 ± 1	1060	373
12	2	0.75	1.1	0.6	1.4	20.5 ± 1	0.3	17.8	1.7	25 ± 1	1060	373
16	2	0.75	1.1	0.6	1.9	24 ± 1	0.3	20.4	1.8	28.5 ± 1	1400	465
16	2	0.75	1.1	0.6	1.9	24 ± 1	0.3	20.4	1.8	28.5 ± 1	1400	465
19	2	0.75	1.1	0.6	1.9	25 ± 1	0.3	20.4	1.9	29.5 ± 1	1550	514
19	2	0.75	1.1	0.6	1.9	25 ± 1	0.3	20.4	1.9	29.5 ± 1	1550	514
24	2	0.75	1.1	0.6	2.3	30 ± 1.5	0.4	31.7	2.1	35.5 ± 1.5	2100	708
24	2	0.75	1.1	0.6	2.3	30 ± 1.5	0.4	31.7	2.1	35.5 ± 1.5	2100	708
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	4.5	1.1	11 ± 0.8	220	68
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	4.5	1.1	11 ± 0.8	220	68
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.4	15.5 ± 0.8	410	146
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.4	15.5 ± 0.8	410	146
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	570	209
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	570	209
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	17.8	1.7	23 ± 1	960	359
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	17.8	1.7	23 ± 1	960	359
12	3	0.75	1.1	0.6	1.4	22.5 ± 1	0.3	20.4	1.8	27.5 ± 1	1310	477
12	3	0.75	1.1	0.6	1.4	22.5 ± 1	0.3	20.4	1.8	27.5 ± 1	1310	477
16	3	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	22.9	1.9	31.5 ± 1.5	1770	594
16	3	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	22.9	1.9	31.5 ± 1.5	1770	594
19	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	22.9	2	33 ± 1.5	2000	663
24	3	0.75	1.1	0.6	2.5	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2630	909
24	3	0.75	1.1	0.6	2.5	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2630	909
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	4.5	1.2	12 ± 0.8	260	79
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	4.5	1.2	12 ± 0.8	260	79
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	470	184
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	470	184
4	2	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	13.6	1.5	19.5 ± 0.8	670	269
4	2	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	13.6	1.5	19.5 ± 0.8	670	269
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1090	446
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1090	446
12	2	1.5	1.6	0.7	1.4	25.5 ± 1	0.3	20.4	1.9	30.5 ±	1530	606

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
										1.5		
12	2	1.5	1.6	0.7	1.4	25.5 ± 1	0.3	20.4	1.9	30.5 ± 1.5	1530	606
16	2	1.5	1.6	0.7	2.1	30 ± 1.5	0.3	22.9	2	35 ± 1.5	2060	766
16	2	1.5	1.6	0.7	2.1	30 ± 1.5	0.3	22.9	2	35 ± 1.5	2060	766
19	2	1.5	1.6	0.7	2.1	31 ± 1.5	0.4	36.2	2.1	36.5 ± 1.5	2440	998
24	2	1.5	1.6	0.7	2.3	36.5 ± 1.5	0.4	40.7	2.3	43 ± 2	3080	1211
24	2	1.5	1.6	0.7	2.3	36.5 ± 1.5	0.4	40.7	2.3	43 ± 2	3080	1211
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	12.5 ± 0.8	290	93
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	12.5 ± 0.8	290	93
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	550	213
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	550	213
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21 ± 1	820	342
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21 ± 1	820	342
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	20.4	1.8	27 ± 1	1370	584
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	20.4	1.8	27 ± 1	1370	584
12	3	1.5	1.6	0.7	1.6	28.5 ± 1	0.3	22.9	2	33.5 ± 1.5	1970	802
12	3	1.5	1.6	0.7	1.6	28.5 ± 1	0.3	22.9	2	33.5 ± 1.5	1970	802
16	3	1.5	1.6	0.9	2.3	36.5 ± 1.5	0.4	36.2	2.2	42.5 ± 2	3060	1125
16	3	1.5	1.6	0.9	2.3	36.5 ± 1.5	0.4	36.2	2.2	42.5 ± 2	3060	1125
24	3	1.5	1.6	0.9	2.7	45.5 ± 2	0.4	45.2	2.5	52 ± 2.5	4400	1598
24	3	1.5	1.6	0.9	2.7	45.5 ± 2	0.4	45.2	2.5	52 ± 2.5	4400	1598
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	300	99
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	300	99
2	2	2.5	2	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	560	225
4	2	2.5	2	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	830	367
8	2	2.5	2	0.7	1.1	23.5 ± 1	0.3	20.4	1.8	28 ± 1	1390	633
12	2	2.5	2	0.7	2.3	30 ± 1.5	0.3	22.9	2	35.5 ± 1.5	2170	874
16	2	2.5	2	0.9	2.3	36.5 ± 1.5	0.4	36.2	2.2	42.5 ± 2	3040	1222
1	3	2.5	2	0.7	1.1	10.5 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	350	129
8	3	2.5	2	0.7	1.3	25.5 ± 1	0.3	22.9	2	30.5 ± 1.5	1820	844
12	3	2.5	2	0.7	2.6	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2940	1284

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8
Shielded 16 and 24 triple 1,5 mm²	105	0,71	12,9	24,4
Shielded 16 pair 2,5 mm²	110	0,66	8,02	41,1

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110623		BFOU(I) 1PAIR 0.75mm² S3/S7	GREY	Yes	7021528932003	1043820
20110624		BFOU(I) 1PAIR 0.75mm² S3/S7	BLUE	Yes	7021528932010	1043819
20110625		BFOU(I) 1QUAD 0.75mm² S3/S7	GREY	-	7021528932034	-
20110626		BFOU(I) 2PAIR 0.75mm² S3/S7	GREY	Yes	7021528932065	1044020
20104969		BFOU(I) 2PAIR 0.75mm² S3/S7	BLUE	Yes	7021528932072	1044019
20110627		BFOU(I) 4PAIR 0.75mm² S3/S7	GREY	Yes	7021528932188	1044021
20110628		BFOU(I) 4PAIR 0.75mm² S3/S7	BLUE	-	7021528932195	1044022
20109496		BFOU(I) 8PAIR 0.75mm² S3/S7	GREY	Yes	7021528932300	1044028
20110773		BFOU(I) 8PAIR 0.75mm² S3/S7	BLUE	-	7021528932317	1044029
20110629		BFOU(I) 12PAIR 0.75mm² S3/S7	GREY	-	7021528932362	1044030
20110630		BFOU(I) 12PAIR 0.75mm² S3/S7	BLUE	-	7021528932379	1044031
20110631		BFOU(I) 16PAIR 0.75mm² S3/S7	GREY	Yes	7021528932423	1044033
20110632		BFOU(I) 16PAIR 0.75mm² S3/S7	BLUE	-	7021528932430	1044034
	893245	BFOU(I) 19PAIR 0.75mm² S3/S7	GREY	-	7021528932454	-
	893246	BFOU(I) 19PAIR 0.75mm² S3/S7	BLUE	-	7021528932461	-
20110633		BFOU(I) 24PAIR 0.75mm² S3/S7	GREY	-	7021528932485	1044036
	893249	BFOU(I) 24PAIR 0.75mm² S3/S7	BLUE	-	7021528932492	1044037
20110634		BFOU(I) 1TRIP 0.75mm² S3/S7	GREY	Yes	7021528932607	1043920
20110635		BFOU(I) 1TRIP 0.75mm² S3/S7	BLUE	-	7021528932614	1043919
20110636		BFOU(I) 2TRIP 0.75mm² S3/S7	GREY	-	7021528932669	1044121
20110864		BFOU(I) 2TRIP 0.75mm² S3/S7	BLUE	-	7021528932676	1044122
20111212		BFOU(I) 4TRIP 0.75mm² S3/S7	GREY	-	7021528932782	1044123
20110865		BFOU(I) 4TRIP 0.75mm² S3/S7	BLUE	-	7021528932799	1044124
20110637		BFOU(I) 8TRIP 0.75mm² S3/S7	GREY	-	7021528932904	1044128
20112240		BFOU(I) 8TRIP 0.75mm² S3/S7	BLUE	-	7021528932911	1044129
20110878		BFOU(I) 12TRIP 0.75mm² S3/S7	GREY	-	7021528932966	1044130
	893297	BFOU(I) 12TRIP 0.75mm² S3/S7	BLUE	-	7021528932973	1044131
20110774		BFOU(I) 16TRIP 0.75mm² S3/S7	GREY	-	7021528933024	1044132
	893303	BFOU(I) 16TRIP 0.75mm² S3/S7	BLUE	-	7021528933031	-
	893305	BFOU(I) 19TRIP 0.75mm² S3/S7	GREY	-	7021528933055	-
20131938		BFOU(I) 24TRIP 0.75mm² S3/S7	GREY	-	7021528933086	1044138
	893309	BFOU(I) 24TRIP 0.75mm² S3/S7	BLUE	-	7021528933093	1044139
20110638		BFOU(I) 1PAIR 1.5mm² S3/S7	GREY	Yes	7021528934007	1043860
20110639		BFOU(I) 1PAIR 1.5mm² S3/S7	BLUE	Yes	7021528934014	1043859
20110640		BFOU(I) 2PAIR 1.5mm² S3/S7	GREY	Yes	7021528934069	1044060
20111213		BFOU(I) 2PAIR 1.5mm² S3/S7	BLUE	-	7021528934076	1044061
20110641		BFOU(I) 4PAIR 1.5mm² S3/S7	GREY	Yes	7021528934182	1044063
20110642		BFOU(I) 4PAIR 1.5mm² S3/S7	BLUE	-	7021528934199	1044064
20110643		BFOU(I) 8PAIR 1.5mm² S3/S7	GREY	Yes	7021528934304	1044068
20110644		BFOU(I) 8PAIR 1.5mm² S3/S7	BLUE	-	7021528934311	1044069
20110645		BFOU(I) 12PAIR 1.5mm² S3/S7	GREY	Yes	7021528934366	1044070
20110646		BFOU(I) 12PAIR 1.5mm² S3/S7	BLUE	-	7021528934373	1044071
20109497		BFOU(I) 16PAIR 1.5mm² S3/S7	GREY	Yes	7021528934427	1044073
20109498		BFOU(I) 16PAIR 1.5mm² S3/S7	BLUE	-	7021528934434	1044074
	893445	BFOU(I) 19PAIR 1.5mm² S3/S7	GREY	-	7021528934458	-
20109499		BFOU(I) 24PAIR 1.5mm² S3/S7	GREY	Yes	7021528934489	1044076
20109500		BFOU(I) 24PAIR 1.5mm² S3/S7	BLUE	-	7021528934496	-
20110647		BFOU(I) 1TRIP 1.5mm² S3/S7	GREY	Yes	7021528934601	1044170
20110648		BFOU(I) 1TRIP 1.5mm² S3/S7	BLUE	-	7021528934618	1044169
20110866		BFOU(I) 2TRIP 1.5mm² S3/S7	GREY	-	7021528934663	1044171
	893467	BFOU(I) 2TRIP 1.5mm² S3/S7	BLUE	-	7021528934670	-
20109501		BFOU(I) 4TRIP 1.5mm² S3/S7	GREY	-	7021528934786	1044173
20117428		BFOU(I) 4TRIP 1.5mm² S3/S7	BLUE	-	7021528934793	1044174
20110649		BFOU(I) 8TRIP 1.5mm² S3/S7	GREY	-	7021528934908	1044177
20117424		BFOU(I) 8TRIP 1.5mm² S3/S7	BLUE	-	7021528934915	1044178
20109502		BFOU(I) 12TRIP 1.5mm² S3/S7	GREY	-	7021528934960	1044179
	893497	BFOU(I) 12TRIP 1.5mm² S3/S7	BLUE	-	7021528934977	1044180
20109503		BFOU(I) 16TRIP 1.5mm² S3/S7	GREY	-	7021528935028	1044181
	893503	BFOU(I) 16TRIP 1.5mm² S3/S7	BLUE	-	7021528935035	1044182
	893508	BFOU(I) 24TRIP 1.5mm² S3/S7	GREY	-	7021528935080	1044193
	893509	BFOU(I) 24TRIP 1.5mm² S3/S7	BLUE	-	7021528935097	1044194
20110650		BFOU(I) 1PAIR 2.5mm² S3/S7	GREY	Yes	7021528936001	1044140
20110867		BFOU(I) 1PAIR 2.5mm² S3/S7	BLUE	-	7021528936018	-
	893606	BFOU(I) 2PAIR 2.5mm² S3/S7	GREY	-	7021528936063	-
20110868		BFOU(I) 4PAIR 2.5mm² S3/S7	GREY	-	7021528936186	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	893630	BFOU(I) 8PAIR 2.5mm² S3/S7	GREY	-	7021528936308	-
	893636	BFOU(I) 12PAIR 2.5mm² S3/S7	GREY	-	7021528936360	-
20109504		BFOU(I) 16PAIR 2.5mm² S3/S7	GREY	-	7021528936421	-
20110869		BFOU(I) 1TRIP 2.5mm² S3/S7	GREY	-	7021528936605	-
	893690	BFOU(I) 8TRIP 2.5mm² S3/S7	GREY	-	7021528936902	-
	893696	BFOU(I) 12TRIP 2.5mm² S3/S7	GREY	-	7021528936964	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant, fire resistant instrumentation cable BFOU(c) 150/250(300)V, S4/S8

Fire resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BFOU(c) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeS4/S8

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFOU(c) 250V S4/S8 4 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10.5 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	340	113
2	2	0.75	1.1	0.6	1.1	10.5 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	340	113
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.4	16 ± 0.8	440	155
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.4	16 ± 0.8	440	155
8	2	0.75	1.1	0.6	1.1	16.5 ± 0.8	0.3	13.6	1.5	20.5 ± 1	680	240
8	2	0.75	1.1	0.6	1.1	16.5 ± 0.8	0.3	13.6	1.5	20.5 ± 1	680	240
12	2	0.75	1.1	0.6	1.4	19.5 ± 0.8	0.3	15.3	1.6	24 ± 1	910	307
12	2	0.75	1.1	0.6	1.4	19.5 ± 0.8	0.3	15.3	1.6	24 ± 1	910	307
16	2	0.75	1.1	0.6	1.9	22 ± 1	0.3	17.8	1.7	26.5 ± 1	1180	383
16	2	0.75	1.1	0.6	1.9	22 ± 1	0.3	17.8	1.7	26.5 ± 1	1180	383
19	2	0.75	1.1	0.6	1.9	23 ± 1	0.3	20.4	1.8	28 ± 1	1330	447
24	2	0.75	1.1	0.6	2.3	27.5 ± 1	0.3	22.9	2	32.5 ± 1.5	1700	536
24	2	0.75	1.1	0.6	2.3	27.5 ± 1	0.3	22.9	2	32.5 ± 1.5	1700	536
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	400	142
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	400	142
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	540	197
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	540	197
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	870	308
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	870	308
12	3	0.75	1.1	0.6	1.4	22 ± 1	0.3	17.8	1.8	27 ± 1	1180	410
12	3	0.75	1.1	0.6	1.4	22 ± 1	0.3	17.8	1.8	27 ± 1	1180	410
16	3	0.75	1.1	0.6	2.1	25.5 ± 1	0.3	20.4	1.9	30.5 ± 1.5	1580	513
16	3	0.75	1.1	0.6	2.1	25.5 ± 1	0.3	20.4	1.9	30.5 ± 1.5	1580	513
24	3	0.75	1.1	0.6	2.5	31.5 ± 1.5	0.4	36.2	2.1	37 ± 1.5	2350	820
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	10.2	1.4	16.5 ± 0.8	440	162
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	10.2	1.4	16.5 ± 0.8	440	162
4	2	1.5	1.6	0.7	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	600	234
4	2	1.5	1.6	0.7	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	600	234
8	2	1.5	1.6	0.7	1.1	20 ± 1	0.3	17.8	1.7	24.5 ± 1	990	404
8	2	1.5	1.6	0.7	1.1	20 ± 1	0.3	17.8	1.7	24.5 ± 1	990	404
12	2	1.5	1.6	0.7	1.4	24 ± 1	0.3	20.4	1.8	28.5 ± 1	1350	540
12	2	1.5	1.6	0.7	1.4	24 ± 1	0.3	20.4	1.8	28.5 ± 1	1350	540
16	2	1.5	1.6	0.7	1.9	27 ± 1	0.3	22.9	1.9	31.5 ± 1.5	1750	677
16	2	1.5	1.6	0.7	1.9	27 ± 1	0.3	22.9	1.9	31.5 ± 1.5	1750	677
24	2	1.5	1.6	0.7	2.3	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2620	1030
24	2	1.5	1.6	0.7	2.3	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2620	1030
2	3	1.5	1.6	0.7	1.1	14.5 ±	0.3	11.9	1.4	18.5 ±	540	207

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
						0.8				0.8		
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	540	207
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	760	307
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	760	307
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	17.8	1.8	27 ± 1	1270	516
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	17.8	1.8	27 ± 1	1270	516
12	3	1.5	1.6	0.7	1.4	27 ± 1	0.3	22.9	1.9	32 ± 1.5	1750	734
12	3	1.5	1.6	0.7	1.4	27 ± 1	0.3	22.9	1.9	32 ± 1.5	1750	734
16	3	1.5	1.6	0.7	2.3	31.5 ± 1.5	0.4	36.2	2.1	37 ± 1.5	2540	1032
16	3	1.5	1.6	0.7	2.3	31.5 ± 1.5	0.4	36.2	2.1	37 ± 1.5	2540	1032
24	3	1.5	1.6	0.7	2.7	38.5 ± 1.5	0.4	40.7	2.4	45 ± 2	3580	1417
2	2	2.5	2	0.7	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	530	217
4	2	2.5	2	0.7	1.1	16.5 ± 0.8	0.3	13.6	1.5	20.5 ± 1	740	325
8	2	2.5	2	0.7	1.1	22 ± 1	0.3	17.8	1.8	27 ± 1	1230	551
12	2	2.5	2	0.7	2.1	28 ± 1	0.3	22.9	1.9	32.5 ± 1.5	1860	784
16	2	2.5	2	0.9	2.3	33 ± 1.5	0.4	31.7	2.1	39 ± 1.5	2600	1054
24	2	2.5	2	0.9	2.7	41 ± 2	0.4	40.7	2.4	47.5 ± 2	3780	1511
4	3	2.5	2	0.7	1.1	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	950	435
8	3	2.5	2	0.7	1.1	25 ± 1	0.3	20.4	1.9	30 ± 1.5	1620	761
16	3	2.5	2	0.9	2.6	38.5 ± 1.5	0.4	36.2	2.3	44.5 ± 2	3570	1473

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8
Unshielded 16 and 24 pair 2,5 mm²	95	0,66	8,02	41,1
Unshielded 16 triple 2,5 mm²	95	0,66	8,02	41,1

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110651		BFOU(C) 2PAIR 0.75mm² S4/S8	GREY	Yes	7021528938067	1043821
20110652		BFOU(C) 2PAIR 0.75mm² S4/S8	BLUE	Yes	7021528938074	1043822
20110653		BFOU(C) 4PAIR 0.75mm² S4/S8	GREY	Yes	7021528938180	1043823
20110654		BFOU(C) 4PAIR 0.75mm² S4/S8	BLUE	Yes	7021528938197	1043824
20110655		BFOU(C) 8PAIR 0.75mm² S4/S8	GREY	Yes	7021528938302	1043828
20110656		BFOU(C) 8PAIR 0.75mm² S4/S8	BLUE	Yes	7021528938319	1043829
20110657		BFOU(C) 12PAIR 0.75mm² S4/S8	GREY	Yes	7021528938364	1043830
20110658		BFOU(C) 12PAIR 0.75mm² S4/S8	BLUE	-	7021528938371	1043831
20110659		BFOU(C) 16PAIR 0.75mm² S4/S8	GREY	Yes	7021528938425	1043833
20110660		BFOU(C) 16PAIR 0.75mm² S4/S8	BLUE	-	7021528938432	1043834
	893845	BFOU(C) 19PAIR 0.75mm² S4/S8	GREY	-	7021528938456	-
20109505		BFOU(C) 24PAIR 0.75mm² S4/S8	GREY	Yes	7021528938487	1043836
20118235		BFOU(C) 24PAIR 0.75mm² S4/S8	BLUE	-	7021528938494	1043837
20110661		BFOU(C) 2TRIP 0.75mm² S4/S8	GREY	-	7021528938661	1043921
	893867	BFOU(C) 2TRIP 0.75mm² S4/S8	BLUE	-	7021528938678	1043922
20110662		BFOU(C) 4TRIP 0.75mm² S4/S8	GREY	-	7021528938784	1043924
20118161		BFOU(C) 4TRIP 0.75mm² S4/S8	BLUE	-	7021528938791	1043925
20110663		BFOU(C) 8TRIP 0.75mm² S4/S8	GREY	-	7021528938906	1043928

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20113359		BFOU(C) 8TRIP 0.75mm² S4/S8	BLUE	Yes	7021528938913	1043929
20110664		BFOU(C) 12TRIP 0.75mm² S4/S8	GREY	-	7021528938968	1043930
	893897	BFOU(C) 12TRIP 0.75mm² S4/S8	BLUE	-	7021528938975	1043931
20110665		BFOU(C) 16TRIP 0.75mm² S4/S8	GREY	-	7021528939026	1043933
	893903	BFOU(C) 16TRIP 0.75mm² S4/S8	BLUE	-	7021528939033	1043934
	893908	BFOU(C) 24TRIP 0.75mm² S4/S8	GREY	-	7021528939088	1043936
20110666		BFOU(C) 2PAIR 1.5mm² S4/S8	GREY	Yes	7021528940060	1043862
20110667		BFOU(C) 2PAIR 1.5mm² S4/S8	BLUE	-	7021528940077	1043861
20110668		BFOU(C) 4PAIR 1.5mm² S4/S8	GREY	Yes	7021528940183	1043863
20110669		BFOU(C) 4PAIR 1.5mm² S4/S8	BLUE	-	7021528940190	1043864
20110670		BFOU(C) 8PAIR 1.5mm² S4/S8	GREY	Yes	7021528940305	1043868
20110671		BFOU(C) 8PAIR 1.5mm² S4/S8	BLUE	-	7021528940312	1043869
20110672		BFOU(C) 12PAIR 1.5mm² S4/S8	GREY	Yes	7021528940367	1043870
20110673		BFOU(C) 12PAIR 1.5mm² S4/S8	BLUE	-	7021528940374	1043871
20109506		BFOU(C) 16PAIR 1.5mm² S4/S8	GREY	Yes	7021528940428	1043873
20109507		BFOU(C) 16PAIR 1.5mm² S4/S8	BLUE	-	7021528940435	1043874
20109508		BFOU(C) 24PAIR 1.5mm² S4/S8	GREY	Yes	7021528940480	1043876
20109509		BFOU(C) 24PAIR 1.5mm² S4/S8	BLUE	-	7021528940497	1043877
20110775		BFOU(C) 2TRIP 1.5mm² S4/S8	GREY	-	7021528940664	1043971
	894067	BFOU(C) 2TRIP 1.5mm² S4/S8	BLUE	-	7021528940671	1043972
20110674		BFOU(C) 4TRIP 1.5mm² S4/S8	GREY	-	7021528940787	1043973
	894079	BFOU(C) 4TRIP 1.5mm² S4/S8	BLUE	-	7021528940794	1043974
20110675		BFOU(C) 8TRIP 1.5mm² S4/S8	GREY	Yes	7021528940909	1043977
	894091	BFOU(C) 8TRIP 1.5mm² S4/S8	BLUE	-	7021528940916	1043978
20109510		BFOU(C) 12TRIP 1.5mm² S4/S8	GREY	-	7021528940961	1043979
	894097	BFOU(C) 12TRIP 1.5mm² S4/S8	BLUE	-	7021528940978	-
20109511		BFOU(C) 16TRIP 1.5mm² S4/S8	GREY	Yes	7021528941029	1043981
	894103	BFOU(C) 16TRIP 1.5mm² S4/S8	BLUE	-	7021528941036	1043982
20110776		BFOU(C) 24TRIP 1.5mm² S4/S8	GREY	-	7021528941081	1043987
20110676		BFOU(C) 2PAIR 2.5mm² S4/S8	GREY	-	7021528942064	-
20110677		BFOU(C) 4PAIR 2.5mm² S4/S8	GREY	-	7021528942187	-
20110678		BFOU(C) 8PAIR 2.5mm² S4/S8	GREY	-	7021528942309	-
	894231	BFOU(C) 8PAIR 2.5mm² S4/S8	BLUE	-	7021528942316	-
20122326		BFOU(C) 12PAIR 2.5mm² S4/S8	GREY	-	7021528942361	-
20110777		BFOU(C) 16PAIR 2.5mm² S4/S8	GREY	-	7021528942422	-
	894248	BFOU(C) 24PAIR 2.5mm² S4/S8	GREY	-	7021528942484	-
	894278	BFOU(C) 4TRIP 2.5mm² S4/S8	GREY	-	7021528942781	-
	894290	BFOU(C) 8TRIP 2.5mm² S4/S8	GREY	-	7021528942903	-
	894302	BFOU(C) 16TRIP 2.5mm² S4/S8	GREY	-	7021528943023	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, unarmoured mud resistant instrumentation cable RU(i) 150/250(300)V, S11

Flame retardant halogen-free instrumentation cable. Mud resistant

RU(i) 150/250(300)V

EPR/EVA

NEK TS 606 CodeS11

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- (Zone 2) and safe areas. Meets the mud resistant requirements in NEK TS 606:2009.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RU(i) 250V S11 2 pair 0,75 mm2 IEC 60092-376 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1	6.5 ± 0.5	85	17
1	2	0.75	1.1	0.6	1	6.5 ± 0.5	85	17
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	140	34
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	140	34
4	2	0.75	1.1	0.6	1.2	11.5 ± 0.8	235	67
8	2	0.75	1.1	0.6	1.3	15.5 ± 0.8	420	133
12	2	0.75	1.1	0.6	1.4	18.5 ± 0.8	590	199
16	2	0.75	1.1	0.6	1.5	21 ± 1	760	265
24	2	0.75	1.1	0.6	1.7	25.5 ± 1	1120	397
1	3	0.75	1.1	0.6	1	7 ± 0.5	95	23
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	175	46
4	3	0.75	1.1	0.6	1.2	13 ± 0.8	290	92
8	3	0.75	1.1	0.6	1.4	18 ± 0.8	540	184
12	3	0.75	1.1	0.6	1.5	21 ± 1	770	276
16	3	0.75	1.1	0.6	1.6	23.5 ± 1	990	368
24	3	0.75	1.1	0.6	1.8	29 ± 1	1460	551
1	2	1.5	1.6	0.7	1	8 ± 0.5	120	34
1	2	1.5	1.6	0.7	1	8 ± 0.5	120	34
2	2	1.5	1.6	0.7	1.2	12 ± 0.8	215	68
2	2	1.5	1.6	0.7	1.2	12 ± 0.8	215	68
4	2	1.5	1.6	0.7	1.3	14.5 ± 0.8	370	136
8	2	1.5	1.6	0.7	1.5	20 ± 1	690	271
12	2	1.5	1.6	0.7	1.6	23.5 ± 1	970	406
16	2	1.5	1.6	0.7	1.7	26.5 ± 1	1260	541
24	2	1.5	1.6	0.7	2	32.5 ± 1.5	1880	811
1	3	1.5	1.6	0.7	1	8.5 ± 0.5	140	48
2	3	1.5	1.6	0.7	1.3	14 ± 0.8	285	96
4	3	1.5	1.6	0.7	1.3	16 ± 0.8	470	192
8	3	1.5	1.6	0.7	1.6	22.5 ± 1	900	383
16	3	1.5	1.6	0.7	1.9	30 ± 1.5	1700	765
24	3	1.5	1.6	0.7	2.2	37 ± 1.5	2520	1148

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20111817		RU(I) 250V 1PAIR 0.75mm² S11	GREY	-	7021528950007	1062100
20109512		RU(I) 250V 1PAIR 0.75mm² S11	BLUE	-	7021528950014	1062101
	895006	RU(I) 250V 2PAIR 0.75mm² S11	GREY	-	7021528950069	1062106
20112238		RU(I) 250V 2PAIR 0.75mm² S11	BLUE	-	7021528950076	1062107
	895018	RU(I) 250V 4PAIR 0.75mm² S11	GREY	-	7021528950182	1062118
	895030	RU(I) 250V 8PAIR 0.75mm² S11	GREY	-	7021528950304	1062130
	895036	RU(I) 250V 12PAIR 0.75mm² S11	GREY	-	7021528950366	1062136
	895042	RU(I) 250V 16PAIR 0.75mm² S11	GREY	-	7021528950427	1062142
	895048	RU(I) 250V 24PAIR 0.75mm² S11	GREY	-	7021528950489	1062148

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20112177		RU(I) 250V 1TRIP 0.75mm² S11	GREY	-	7021528950601	1062160
	895066	RU(I) 250V 2TRIP 0.75mm² S11	GREY	-	7021528950663	1062166
	895078	RU(I) 250V 4TRIP 0.75mm² S11	GREY	-	7021528950786	1062178
	895090	RU(I) 250V 8TRIP 0.75mm² S11	GREY	-	7021528950908	1062190
	895096	RU(I) 250V 12TRIP 0.75mm² S11	GREY	-	7021528950960	1062194
	895102	RU(I) 250V 16TRIP 0.75mm² S11	GREY	-	7021528951028	1062196
	895108	RU(I) 250V 24TRIP 0.75mm² S11	GREY	-	7021528951080	1062198
	895200	RU(I) 250V 1PAIR 1.5mm² S11	GREY	-	7021528952001	1062200
	895201	RU(I) 250V 1PAIR 1.5mm² S11	BLUE	-	7021528952018	1062201
20110870		RU(I) 250V 2PAIR 1.5mm² S11	GREY	-	7021528952063	1062206
20110871		RU(I) 250V 2PAIR 1.5mm² S11	BLUE	-	7021528952070	1062207
20110782		RU(I) 250V 4PAIR 1.5mm² S11	GREY	-	7021528952186	1062218
	895230	RU(I) 250V 8PAIR 1.5mm² S11	GREY	-	7021528952308	1062230
	895236	RU(I) 250V 12PAIR 1.5mm² S11	GREY	-	7021528952360	1062236
	895242	RU(I) 250V 16PAIR 1.5mm² S11	GREY	-	7021528952421	1062242
	895248	RU(I) 250V 24PAIR 1.5mm² S11	GREY	-	7021528952483	1062248
	895260	RU(I) 250V 1TRIP 1.5mm² S11	GREY	-	7021528952605	1062260
	895266	RU(I) 250V 2TRIP 1.5mm² S11	GREY	-	7021528952667	1062266
	895278	RU(I) 250V 4TRIP 1.5mm² S11	GREY	-	7021528952780	1062278
	895290	RU(I) 250V 8TRIP 1.5mm² S11	GREY	-	7021528952902	1062290
	895302	RU(I) 250V 16TRIP 1.5mm² S11	GREY	-	7021528953022	1062296
	895308	RU(I) 250V 24TRIP 1.5mm² S11	GREY	-	7021528953084	1062298

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, unarmoured mud resistant instrumentation cable RU(c) 150/250(300)V, S12

Flame retardant halogen-free instrumentation cable. Mud resistant

RU(c) 150/250(300)V

EPR/EVA

NEK TS 606 CodeS12

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- (Zone 2) and safe areas. Meets the mud resistant requirements in NEK TS 606:2009.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RU(c) 250V S12 2 pair 0,75 mm2 IEC 60092-376 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	135	30
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	195	55
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	195	55
8	2	0.75	1.1	0.6	1.3	15.5 ± 0.8	380	106
12	2	0.75	1.1	0.6	1.4	18 ± 0.8	510	158
16	2	0.75	1.1	0.6	1.5	19.5 ± 0.8	640	209
19	2	0.75	1.1	0.6	1.5	20.5 ± 1	730	247
24	2	0.75	1.1	0.6	1.6	24 ± 1	910	311
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	170	43
4	3	0.75	1.1	0.6	1.2	13 ± 0.8	265	81
4	3	0.75	1.1	0.6	1.2	13 ± 0.8	265	81
8	3	0.75	1.1	0.6	1.4	17.5 ± 0.8	490	158
16	3	0.75	1.1	0.6	1.6	22 ± 1	870	311
24	3	0.75	1.1	0.6	1.8	27 ± 1	1260	465
2	2	1.5	1.6	0.7	1.2	12 ± 0.8	210	62
4	2	1.5	1.6	0.7	1.2	14 ± 0.8	320	118
8	2	1.5	1.6	0.7	1.4	19.5 ± 0.8	610	229
12	2	1.5	1.6	0.7	1.6	22.5 ± 1	850	340
12	2	1.5	1.6	0.7	1.6	22.5 ± 1	850	340
16	2	1.5	1.6	0.7	1.7	24.5 ± 1	1080	452
24	2	1.5	1.6	0.7	1.9	30 ± 1.5	1550	674
2	3	1.5	1.6	0.7	1.2	13.5 ± 0.8	265	90
4	3	1.5	1.6	0.7	1.3	16 ± 0.8	430	174
8	3	1.5	1.6	0.7	1.5	21.5 ± 1	820	341
12	3	1.5	1.6	0.7	1.7	25.5 ± 1	1170	508
16	3	1.5	1.6	0.7	1.8	27.5 ± 1	1500	676
24	3	1.5	1.6	0.7	2.1	34 ± 1.5	2210	1011

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	895606	RU(C) 250V 2PAIR 0.75mm² S12	GREY	-	7021528956061	1062506
	895618	RU(C) 250V 4PAIR 0.75mm² S12	GREY	-	7021528956184	1062518
	895619	RU(C) 250V 4PAIR 0.75mm² S12	BLUE	-	7021528956191	-
	895630	RU(C) 250V 8PAIR 0.75mm² S12	GREY	-	7021528956306	1062530
	895636	RU(C) 250V 12PAIR 0.75mm² S12	GREY	-	7021528956368	1062536
20132983		RU(C) 250V 16PAIR 0.75mm² S12	GREY	-	7021528956429	1062542
	895645	RU(C) 250V 19PAIR 0.75mm² S12	GREY	-	7021528956450	1062545
20132984		RU(C) 250V 24PAIR 0.75mm² S12	GREY	-	7021528956481	1062548
	895666	RU(C) 250V 2TRIP 0.75mm² S12	GREY	-	7021528956665	1062566
20110873		RU(C) 250V 4TRIP 0.75mm² S12	GREY	-	7021528956788	1062578
	895679	RU(C) 250V 4TRIP 0.75mm² S12	BLUE	-	7021528956795	-
	895690	RU(C) 250V 8TRIP 0.75mm² S12	GREY	-	7021528956900	1062590
	895702	RU(C) 250V 16TRIP 0.75mm² S12	GREY	-	7021528957020	1062603

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	895708	RU(C) 250V 24TRIP 0.75mm² S12	GREY	-	7021528957082	1062608
20109513		RU(C) 250V 2PAIR 1.5mm² S12	GREY	-	7021528958065	1062706
	895818	RU(C) 250V 4PAIR 1.5mm² S12	GREY	-	7021528958188	1062718
	895830	RU(C) 250V 8PAIR 1.5mm² S12	GREY	-	7021528958300	1062730
	895836	RU(C) 250V 12PAIR 1.5mm² S12	GREY	-	7021528958362	1062736
	895837	RU(C) 250V 12PAIR 1.5mm² S12	BLUE	-	7021528958379	1062737
	895842	RU(C) 250V 16PAIR 1.5mm² S12	GREY	-	7021528958423	1062742
	895848	RU(C) 250V 24PAIR 1.5mm² S12	GREY	-	7021528958485	1062748
	895866	RU(C) 250V 2TRIP 1.5mm² S12	GREY	-	7021528958669	1062766
	895878	RU(C) 250V 4TRIP 1.5mm² S12	GREY	-	7021528958782	1062778
	895890	RU(C) 250V 8TRIP 1.5mm² S12	GREY	-	7021528958904	1062790
	895896	RU(C) 250V 12TRIP 1.5mm² S12	GREY	-	7021528958966	1062794
	895902	RU(C) 250V 16TRIP 1.5mm² S12	GREY	-	7021528959024	1062796
	895908	RU(C) 250V 24TRIP 1.5mm² S12	GREY	-	7021528959086	1062798

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, fire resistant, unarmoured, mud resistant instrumentation cable BU(i) 150/250(300)V, S13

Fire resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BU(i) 150/250(300)V

MGT/EPR/EVA

NEK TS 606 CodeS13

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX-(Zone 2) and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		"meter" "year" DRAKA 01 BU(i) 250V S13 8 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1	7.5 ± 0.5	95	17
1	2	0.75	1.1	0.6	1	7.5 ± 0.5	95	17
2	2	0.75	1.1	0.6	1.2	11 ± 0.8	165	34
2	2	0.75	1.1	0.6	1.2	11 ± 0.8	165	34
4	2	0.75	1.1	0.6	1.2	13 ± 0.8	260	67
8	2	0.75	1.1	0.6	1.4	17.5 ± 0.8	490	133
12	2	0.75	1.1	0.6	1.6	21 ± 1	700	199
12	2	0.75	1.1	0.6	1.6	21 ± 1	700	199
16	2	0.75	1.1	0.6	1.7	23.5 ± 1	900	265
24	2	0.75	1.1	0.6	1.9	29 ± 1	1300	397
1	3	0.75	1.1	0.6	1	7.5 ± 0.5	105	23
2	3	0.75	1.1	0.6	1.2	12 ± 0.8	200	46
4	3	0.75	1.1	0.6	1.3	14 ± 0.8	340	92
8	3	0.75	1.1	0.6	1.5	19.5 ± 0.8	640	184
12	3	0.75	1.1	0.6	1.7	23.5 ± 1	900	276
16	3	0.75	1.1	0.6	1.8	26 ± 1	1170	368
24	3	0.75	1.1	0.6	2	32 ± 1.5	1690	552
1	2	1.5	1.6	0.7	1	8.5 ± 0.5	130	34
1	2	1.5	1.6	0.7	1	8.5 ± 0.5	130	34
2	2	1.5	1.6	0.7	1.3	13.5 ± 0.8	250	68
2	2	1.5	1.6	0.7	1.3	13.5 ± 0.8	250	68
4	2	1.5	1.6	0.7	1.4	16 ± 0.8	420	136
4	2	1.5	1.6	0.7	1.4	16 ± 0.8	420	136
8	2	1.5	1.6	0.7	1.6	22 ± 1	770	271
8	2	1.5	1.6	0.7	1.6	22 ± 1	770	271
12	2	1.5	1.6	0.7	1.7	26 ± 1	1100	406
12	2	1.5	1.6	0.7	1.7	26 ± 1	1100	406
16	2	1.5	1.6	0.7	1.9	29.5 ± 1	1440	541
24	2	1.5	1.6	0.7	2.2	36.5 ± 1.5	2120	812
24	2	1.5	1.6	0.7	2.2	36.5 ± 1.5	2120	812
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	165	48
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	165	48
2	3	1.5	1.6	0.7	1.3	14.5 ± 0.8	310	96
4	3	1.5	1.6	0.7	1.4	17.5 ± 0.8	530	192
8	3	1.5	1.6	0.7	1.7	23.5 ± 1	1020	384
12	3	1.5	1.6	0.7	1.9	29 ± 1	1470	575
16	3	1.5	1.6	0.7	2	32.5 ± 1.5	1910	767
24	3	1.5	1.6	0.7	2.4	40.5 ± 2	2860	1150
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	170	55

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20109514		BU(I) 250V 1PAIR 0.75mm² S13	GREY	-	7021528962000	1063500
	896201	BU(I) 250V 1PAIR 0.75mm² S13	BLUE	-	7021528962017	1063501

	896206	BU(I) 250V 2PAIR 0.75mm² S13	GREY	-	7021528962062	1063506
	896207	BU(I) 250V 2PAIR 0.75mm² S13	BLUE	-	7021528962079	1063507
	896218	BU(I) 250V 4PAIR 0.75mm² S13	GREY	-	7021528962185	1063518
	896230	BU(I) 250V 8PAIR 0.75mm² S13	GREY	-	7021528962307	1063530
	896236	BU(I) 250V 12PAIR 0.75mm² S13	GREY	-	7021528962369	1063536
	896237	BU(I) 250V 12PAIR 0.75mm² S13	BLUE	-	7021528962376	-
	896242	BU(I) 250V 16PAIR 0.75mm² S13	GREY	-	7021528962420	1063542
	896248	BU(I) 250V 24PAIR 0.75mm² S13	GREY	-	7021528962482	1063548
20119107		BU(I) 250V 1TRIP 0.75mm² S13	GREY	-	7021528962604	1063560
	896266	BU(I) 250V 2TRIP 0.75mm² S13	GREY	-	7021528962666	1063566
	896278	BU(I) 250V 4TRIP 0.75mm² S13	GREY	-	7021528962789	1063578
	896290	BU(I) 250V 8TRIP 0.75mm² S13	GREY	-	7021528962901	1063590
	896296	BU(I) 250V 12TRIP 0.75mm² S13	GREY	-	7021528962963	1063596
	896302	BU(I) 250V 16TRIP 0.75mm² S13	GREY	-	7021528963021	1063602
	896308	BU(I) 250V 24TRIP 0.75mm² S13	GREY	-	7021528963083	1063608
20109515		BU(I) 250V 1PAIR 1.5mm² S13	GREY	-	7021528964004	1063700
20109516		BU(I) 250V 1PAIR 1.5mm² S13	BLUE	-	7021528964011	1063701
20109517		BU(I) 250V 2PAIR 1.5mm² S13	GREY	-	7021528964066	1063706
	896407	BU(I) 250V 2PAIR 1.5mm² S13	BLUE	-	7021528964073	1063707
20109518		BU(I) 250V 4PAIR 1.5mm² S13	GREY	-	7021528964189	1063718
	896419	BU(I) 250V 4PAIR 1.5mm² S13	BLUE	-	7021528964196	-
	896430	BU(I) 250V 8PAIR 1.5mm² S13	GREY	-	7021528964301	1063730
	896431	BU(I) 250V 8PAIR 1.5mm² S13	BLUE	-	7021528964318	-
	896436	BU(I) 250V 12PAIR 1.5mm² S13	GREY	-	7021528964363	1063736
	896437	BU(I) 250V 12PAIR 1.5mm² S13	BLUE	-	7021528964370	1063737
	896442	BU(I) 250V 16PAIR 1.5mm² S13	GREY	-	7021528964424	1063742
	896448	BU(I) 250V 24PAIR 1.5mm² S13	GREY	-	7021528964486	1063748
	896449	BU(I) 250V 24PAIR 1.5mm² S13	BLUE	-	7021528964493	-
	896460	BU(I) 250V 1TRIP 1.5mm² S13	GREY	-	7021528964608	1063760
	896461	BU(I) 250V 1TRIP 1.5mm² S13	BLUE	-	7021528964615	1063761
	896466	BU(I) 250V 2TRIP 1.5mm² S13	GREY	-	7021528964660	1063766
	896478	BU(I) 250V 4TRIP 1.5mm² S13	GREY	-	7021528964783	1063778
	896490	BU(I) 250V 8TRIP 1.5mm² S13	GREY	-	7021528964905	1063790
	896496	BU(I) 250V 12TRIP 1.5mm² S13	GREY	-	7021528964967	1063796
	896502	BU(I) 250V 16TRIP 1.5mm² S13	GREY	-	7021528965025	1063802
	896508	BU(I) 250V 24TRIP 1.5mm² S13	GREY	-	7021528965087	1063808
	896600	BU(I) 250V 1PAIR 2.5mm² S13	GREY	-	7021528966008	1063900

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, fire resistant, unarmoured, mud resistant instrumentation cable BU(c) 150/250(300)V, S14

Fire resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BU(c) 150/250(300)V

MGT/EPR/EVA

NEK TS 606 CodeS14

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX-(Zone 2) and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, 21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		"meter" "year" DRAKA 01 BU(c) 250V S14 8 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10.5 ± 0.8	150	30
4	2	0.75	1.1	0.6	1.2	12.5 ± 0.8	230	55
8	2	0.75	1.1	0.6	1.4	17 ± 0.8	420	107
12	2	0.75	1.1	0.6	1.5	19.5 ± 0.8	570	158
12	2	0.75	1.1	0.6	1.5	19.5 ± 0.8	570	158
16	2	0.75	1.1	0.6	1.6	21.5 ± 1	720	209
19	2	0.75	1.1	0.6	1.6	22.5 ± 1	820	247
24	2	0.75	1.1	0.6	1.8	26.5 ± 1	1040	311
2	3	0.75	1.1	0.6	1.2	12 ± 0.8	200	43
4	3	0.75	1.1	0.6	1.3	14.5 ± 0.8	310	81
8	3	0.75	1.1	0.6	1.5	19.5 ± 0.8	590	158
12	3	0.75	1.1	0.6	1.6	22.5 ± 1	780	235
16	3	0.75	1.1	0.6	1.7	24.5 ± 1	1000	312
24	3	0.75	1.1	0.6	1.9	30 ± 1.5	1430	466
2	2	1.5	1.6	0.7	1.2	13 ± 0.8	225	62
4	2	1.5	1.6	0.7	1.3	15.5 ± 0.8	360	118
8	2	1.5	1.6	0.7	1.5	21 ± 1	660	229
12	2	1.5	1.6	0.7	1.7	24.5 ± 1	940	341
16	2	1.5	1.6	0.7	1.8	26.5 ± 1	1200	452
24	2	1.5	1.6	0.7	2.1	33 ± 1.5	1770	675
2	3	1.5	1.6	0.7	1.3	15 ± 0.8	310	90
4	3	1.5	1.6	0.7	1.4	17.5 ± 0.8	500	174
8	3	1.5	1.6	0.7	1.6	23.5 ± 1	930	342
12	3	1.5	1.6	0.7	1.8	28 ± 1	1300	509
16	3	1.5	1.6	0.7	1.9	30.5 ± 1.5	1670	677
24	3	1.5	1.6	0.7	2.2	37.5 ± 1.5	2470	1012
2	2	2.5	2.0	0.7	1.3	14.5 ± 0.8	295	96

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110778		BU(C) 250V 2PAIR 0.75mm² S14	GREY	-	7021528968064	1064106
20115554		BU(C) 250V 4PAIR 0.75mm² S14	GREY	-	7021528968187	1064118
20109519		BU(C) 250V 8PAIR 0.75mm² S14	GREY	-	7021528968309	1064130
20119162		BU(C) 250V 12PAIR 0.75mm² S14	GREY	-	7021528968361	1064136
	896837	BU(C) 250V 12PAIR 0.75mm² S14	BLUE	-	7021528968378	-
20119164		BU(C) 250V 16PAIR 0.75mm² S14	GREY	-	7021528968422	1064142
	896845	BU(C) 250V 19PAIR 0.75mm² S14	GREY	-	7021528968453	1064145
20115190		BU(C) 250V 24PAIR 0.75mm² S14	GREY	-	7021528968484	1064148
20109520		BU(C) 250V 2TRIP 0.75mm² S14	GREY	-	7021528968668	1064166
20109521		BU(C) 250V 4TRIP 0.75mm² S14	GREY	-	7021528968781	1064178
20109522		BU(C) 250V 8TRIP 0.75mm² S14	GREY	-	7021528968903	1064190
	896896	BU(C) 250V 12TRIP 0.75mm² S14	GREY	-	7021528968965	1064196

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20119166		BU(C) 250V 16TRIP 0.75mm² S14	GREY	-	7021528969023	1064203
	896908	BU(C) 250V 24TRIP 0.75mm² S14	GREY	-	7021528969085	1064208
	897006	BU(C) 250V 2PAIR 1.5mm² S14	GREY	-	7021528970067	1064306
	897018	BU(C) 250V 4PAIR 1.5mm² S14	GREY	-	7021528970180	1064318
	897030	BU(C) 250V 8PAIR 1.5mm² S14	GREY	-	7021528970302	1064330
	897036	BU(C) 250V 12PAIR 1.5mm² S14	GREY	-	7021528970364	1064336
	897042	BU(C) 250V 16PAIR 1.5mm² S14	GREY	-	7021528970425	1064342
	897048	BU(C) 250V 24PAIR 1.5mm² S14	GREY	-	7021528970487	1064348
	897066	BU(C) 250V 2TRIP 1.5mm² S14	GREY	-	7021528970661	1064366
	897078	BU(C) 250V 4TRIP 1.5mm² S14	GREY	-	7021528970784	1064378
	897090	BU(C) 250V 8TRIP 1.5mm² S14	GREY	-	7021528970906	1064390
	897096	BU(C) 250V 12TRIP 1.5mm² S14	GREY	-	7021528970968	1064396
	897102	BU(C) 250V 16TRIP 1.5mm² S14	GREY	-	7021528971026	1064402
	897108	BU(C) 250V 24TRIP 1.5mm² S14	GREY	-	7021528971088	1064408
20109523		BU(C) 250V 2PAIR 2.5mm² S14	GREY	-	7021528972061	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant power cable RFOU 0,6/1(1,2)kV, P1/P8

Flame retardant halogen-free power cable.
Mud resistant

RFOU 0,6/1(1,2)kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP1/P8

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for power,control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU 0,6/1KV P1/P8 3 x 35/16 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core – Black
Two cores - Blue – Brown
Three cores - Brown - Black – Grey
Four cores - Blue - Brown - Black – Grey
Five cores - Blue - Brown - Black - Grey – Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue – Brown
Three cores + earth (4G) - Yellow/green - Brown - Black – Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black – Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 Ed 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	16	2.5	5.15	1.0	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	360	190
1	25	4	6.45	1.2	1.1	11.5 ± 0.8	0.2	5.3	1.2	14.5 ± 0.8	490	283
1	35	6	7.65	1.2	1.1	12.5 ± 0.8	0.3	10.2	1.3	16 ± 0.8	650	413
1	50	6	9.0	1.4	1.1	14.5 ± 0.8	0.3	10.2	1.4	18.5 ± 0.8	840	534
1	70	10	10.85	1.4	1.1	16.5 ± 0.8	0.3	12.7	1.4	20.5 ± 1	1110	757
1	95	10	12.60	1.6	1.1	18.5 ± 0.8	0.3	12.7	1.5	23 ± 1	1400	973
1	120	10	14.20	1.6	1.2	20.5 ± 1	0.3	15.3	1.6	25 ± 1	1720	1231
1	150	10	15.90	1.8	1.2	22.5 ± 1	0.3	15.3	1.6	27 ± 1	2060	1507
1	185	10	17.70	2.0	1.2	24.5 ± 1	0.3	17.8	1.7	29.5 ± 1	2480	1838
1	240	16	20.15	2.2	1.2	27.5 ± 1	0.3	20.4	1.8	32.5 ± 1.5	3130	2365
1	300	16	22.60	2.4	1.2	30.5 ± 1.5	0.3	20.4	1.9	35.5 ± 1.5	3840	2959
2	1.5	4	1.6	1.0	1.1	9.5 ± 0.5	0.2	5.3	1.2	12.5 ± 0.8	270	80
3	1.5	4	1.6	1.0	1.1	10 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	295	94
4	1.5	6	1.6	1.0	1.1	11 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	380	139
5	1.5	6	1.6	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	440	170
7	1.5	6	1.6	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	480	198
12	1.5	10	1.6	1.0	1.1	16 ± 0.8	0.3	13.6	1.5	20 ± 1	720	301
19	1.5	10	1.6	1.0	1.2	19 ± 0.8	0.3	15.3	1.6	23 ± 1	990	415
27	1.5	10	1.6	1.0	1.2	22.5 ± 1	0.3	17.8	1.8	27 ± 1	1310	550
37	1.5	16	1.6	1.0	1.2	25 ± 1	0.3	20.4	1.9	30 ± 1.5	1670	716
3G	1.5	-	1.6	1.0	1.1	10 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	295	94
4G	1.5	-	1.6	1.0	1.1	11 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	380	139
5G	1.5	-	1.6	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	440	170
7G	1.5	-	1.6	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	480	197
2	2.5	4	2.0	1.0	1.1	10.5 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	320	98
3	2.5	6	2.0	1.0	1.1	11 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	390	152
4	2.5	6	2.0	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	460	192
5	2.5	6	2.0	1.0	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	530	215
7	2.5	6	2.0	1.0	1.1	13.5 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	610	278
12	2.5	10	2.0	1.0	1.2	18 ± 0.8	0.3	15.3	1.6	22 ± 1	930	425
19	2.5	10	2.0	1.0	1.2	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1280	611
27	2.5	16	2.0	1.0	1.2	25 ± 1	0.3	20.4	1.9	30 ± 1.5	1720	819
37	2.5	16	2.0	1.0	1.4	28.5 ± 1	0.3	22.9	2	34 ± 1.5	2240	1074
3G	2.5	-	2.0	1.0	1.1	11 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	390	152
4G	2.5	-	2.0	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	460	192
5G	2.5	-	2.0	1.0	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	530	215
7G	2.5	-	2.0	1.0	1.1	13.5 ± 0.8	0.3	11.9	1.4	17.5 ± 0.8	610	277
2	4	6	2.55	1.0	1.1	11.5 ± 0.8	0.3	8.5	1.3	15 ± 0.8	410	157
3	4	6	2.55	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	480	210
4	4	6	2.55	1.0	1.1	13.5 ± 0.8	0.3	10.2	1.4	17 ± 0.8	560	247
5	4	6	2.55	1.0	1.1	14.5 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	660	300
3G	4	-	2.55	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	480	210
4G	4	-	2.55	1.0	1.1	13.5 ± 0.8	0.3	10.2	1.4	17 ± 0.8	560	247
5G	4	-	2.55	1.0	1.1	14.5 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	660	300
2	6	6	3.15	1.0	1.1	12.5 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	500	209
3	6	6	3.15	1.0	1.1	13.5 ± 0.8	0.3	10.2	1.4	17.5 ± 0.8	590	264
4	6	6	3.15	1.0	1.1	15 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	700	335
3G	6	-	3.15	1.0	1.1	13.5 ± 0.8	0.3	10.2	1.4	17.5 ± 0.8	590	264
4G	6	-	3.15	1.0	1.1	15 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	700	335
5G	6	-	3.15	1.0	1.1	16.5 ± 0.8	0.3	11.9	1.5	20.5 ± 1	820	390

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	10	10	4.05	1.0	1.1	14.5 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	670	300
3	10	10	4.05	1.0	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	780	391
4	10	10	4.05	1.0	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	950	496
3G	10	-	4.05	1.0	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	780	388
4G	10	-	4.05	1.0	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	950	496
5G	10	-	4.05	1.0	1.2	19 ± 0.8	0.3	15.3	1.5	23 ± 1	1140	603
2	16	16	5.15	1.0	1.1	16.5 ± 0.8	0.4	18.1	1.5	21 ± 1	950	481
3	16	16	5.15	1.0	1.1	17.5 ± 0.8	0.4	18.1	1.5	22.5 ± 1	1120	626
4	16	16	5.15	1.0	1.2	20 ± 1	0.4	22.6	1.6	24.5 ± 1	1400	806
5	16	16	5.15	1.0	1.2	22 ± 1	0.3	20.4	1.6	26 ± 1	1590	930
3G	16	-	5.15	1.0	1.1	17.5 ± 0.8	0.3	13.6	1.5	22 ± 1	1060	571
4G	16	-	5.15	1.0	1.2	20 ± 1	0.3	15.3	1.6	24 ± 1	1310	734
5G	16	-	5.15	1.0	1.2	22 ± 1	0.3	15.3	1.6	26 ± 1	1540	881
2	25	16	6.45	1.2	1.2	20.5 ± 1	0.4	22.6	1.6	25.5 ± 1	1340	685
3	25	16	6.45	1.2	1.2	22 ± 1	0.3	20.4	1.6	26 ± 1	1560	894
4	25	16	6.45	1.2	1.2	24 ± 1	0.3	20.4	1.7	28.5 ± 1	1910	1125
3G	25	-	6.45	1.2	1.2	22 ± 1	0.3	15.3	1.6	26 ± 1	1510	844
4G	25	-	6.45	1.2	1.2	24 ± 1	0.3	17.8	1.7	28.5 ± 1	1890	1100
5G	25	-	6.45	1.2	1.2	26.5 ± 1	0.3	20.4	1.8	31.5 ± 1.5	2260	1356
2	35	16	7.65	1.2	1.2	23 ± 1	0.3	20.4	1.7	27.5 ± 1	1600	828
3	35	16	7.65	1.2	1.2	24.5 ± 1	0.3	20.4	1.7	29 ± 1	1930	1142
4	35	16	7.65	1.2	1.2	27 ± 1	0.3	20.4	1.8	31.5 ± 1.5	2380	1456
4G	35	-	7.65	1.2	1.2	27 ± 1	0.3	20.4	1.8	31.5 ± 1.5	2380	1456
5G	35	-	7.65	1.2	1.2	30 ± 1.5	0.3	22.9	1.9	35 ± 1.5	2870	1795
2	50	25	9.0	1.4	1.2	26.5 ± 1	0.4	31.7	1.8	31.5 ± 1.5	2190	1181
3	50	25	9.0	1.4	1.2	28.5 ± 1	0.4	31.7	1.9	34 ± 1.5	2680	1617
4	50	25	9.0	1.4	1.4	32 ± 1.5	0.4	31.7	2	37.5 ± 1.5	3320	2052
4G	50	-	9.0	1.4	1.4	32 ± 1.5	0.3	22.9	2	37 ± 1.5	3230	1966
5G	50	-	9.0	1.4	1.4	35 ± 1.5	0.4	36.2	2.1	41 ± 2	4030	2531
2	70	35	10.85	1.4	1.2	30.5 ± 1.5	0.6	50.9	1.9	36.5 ± 1.5	3040	1782
3	70	35	10.85	1.4	1.4	33 ± 1.5	0.5	49.5	2	39 ± 1.5	3730	2385
4	70	35	10.85	1.4	1.4	36.5 ± 1.5	0.5	49.5	2.2	43 ± 2	4600	3018
5	70	35	10.85	1.4	1.4	40.5 ± 2	0.4	45.2	2.3	46.5 ± 2	5440	3610
4G	70	-	10.85	1.4	1.4	36.5 ± 1.5	0.4	36.2	2.2	42.5 ± 2	4470	2888
5G	70	-	10.85	1.4	1.4	40.5 ± 2	0.4	36.2	2.3	46.5 ± 2	5360	3528
2	95	50	12.60	1.6	1.4	35 ± 1.5	0.6	61.1	2.1	41.5 ± 2	3960	2317
3	95	50	12.60	1.6	1.4	37.5 ± 1.5	0.5	56.5	2.2	43.5 ± 2	4830	3126
4	95	50	12.60	1.6	1.4	41.5 ± 2	0.5	63.6	2.4	48.5 ± 2	6020	4020
4G	95	-	12.60	1.6	1.4	41.5 ± 2	0.4	40.7	2.4	48 ± 2	5790	3796
2	120	60	14.20	1.6	1.4	38 ± 1.5	0.6	71.3	2.2	45 ± 2	4810	2891
3	120	60	14.20	1.6	1.4	41 ± 2	0.6	71.3	2.3	48 ± 2	5950	3975
4	120	60	14.20	1.6	1.6	46 ± 2	0.6	71.3	2.5	53.5 ± 2.5	7440	5100
4G	120	-	14.20	1.6	1.6	46 ± 2	0.4	45.2	2.5	52.5 ± 2.5	7120	4781
5G	120	-	14.20	1.6	1.6	51 ± 2.5	0.5	49.5	2.7	58.5 ± 2.5	8610	5909
4G	150	-	15.90	1.8	1.6	51 ± 2.5	0.5	49.5	2.7	58.5 ± 2.5	8790	5931
5G	150	-	15.90	1.8	1.8	57 ± 2.5	0.5	63.6	2.9	64.5 ± 3	10725	7445
4G	185	-	17.70	2.0	1.8	56.5 ± 2.5	0.5	56.5	2.9	64.5 ± 3	10700	7241

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	800000	RFOU 0.6/1kV 1X 16/2.5 P1/P8	BLACK	-	7021528000009	-
	800001	RFOU 0.6/1kV 1X 25/4mm² P1/P8	BLACK	-	7021528000016	1044206
	800002	RFOU 0.6/1kV 1X 35/6mm² P1/P8	BLACK	-	7021528000023	1044207
	800003	RFOU 0.6/1kV 1X 50/6mm² P1/P8	BLACK	-	7021528000030	1044208
	800004	RFOU 0.6/1kV 1X 70/10mm² P1/P8	BLACK	-	7021528000047	-
	800005	RFOU 0.6/1kV 1X 95/10mm² P1/P8	BLACK	-	7021528000054	1044210

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20132989		RFOU 0.6/1kV 1X 120/10 P1/P8	BLACK	-	7021528000061	-
20133004		RFOU 0.6/1kV 1X 150/10 P1/P8	BLACK	-	7021528000078	1044211
	800008	RFOU 0.6/1kV 1X 185/10 P1/P8	BLACK	-	7021528000085	1044213
20110465		RFOU 0.6/1kV 1X 240/16 P1/P8	BLACK	-	7021528000092	1044214
20110466		RFOU 0.6/1kV 1X 300/16 P1/P8	BLACK	Yes	7021528000108	1044215
20110467		RFOU 0.6/1kV 2X 1.5/4mm² P1/P8	BLACK	Yes	7021528000153	1044220
20110469		RFOU 0.6/1kV 3X 1.5/4mm² P1/P8	BLACK	Yes	7021528000184	1044240
20110470		RFOU 0.6/1kV 4X 1.5/6mm² P1/P8	BLACK	Yes	7021528000191	1044260
20111209		RFOU 0.6/1kV 5X 1.5/6mm² P1/P8	BLACK	-	7021528000207	1044305
20110471		RFOU 0.6/1kV 7X 1.5/6mm² P1/P8	BLACK	Yes	7021528000214	1044307
20104950		RFOU 0.6/1kV 12X 1.5/10 P1/P8	BLACK	-	7021528000221	1044312
20110472		RFOU 0.6/1kV 19X 1.5/10 P1/P8	BLACK	Yes	7021528000238	1044319
	800024	RFOU 0.6/1kV 27X 1.5/10 P1/P8	BLACK	-	7021528000245	1044327
	800025	RFOU 0.6/1kV 37X 1.5/16 P1/P8	BLACK	-	7021528000252	1044337
20110468		RFOU 0.6/1kV 3G 1.5mm² P1/P8	BLACK	-	7021528000160	-
	800017	RFOU 0.6/1kV 4G 1.5mm² P1/P8	BLACK	-	7021528000177	-
	800026	RFOU 0.6/1kV 5G 1.5mm² P1/P8	BLACK	-	7021528000269	-
	800028	RFOU 0.6/1kV 7G 1.5mm² P1/P8	BLACK	-	7021528000283	-
20110473		RFOU 0.6/1kV 2X 2.5/4mm² P1/P8	BLACK	Yes	7021528000290	1044221
20110475		RFOU 0.6/1kV 3X 2.5/6mm² P1/P8	BLACK	Yes	7021528000320	1044241
20110476		RFOU 0.6/1kV 4X 2.5/6mm² P1/P8	BLACK	Yes	7021528000351	1044261
	800036	RFOU 0.6/1kV 5X 2.5/6mm² P1/P8	BLACK	-	7021528000368	1044355
	800037	RFOU 0.6/1kV 7X 2.5/6mm² P1/P8	BLACK	-	7021528000375	1044357
20109423		RFOU 0.6/1kV 12X 2.5/10 P1/P8	BLACK	-	7021528000382	1044362
20120716		RFOU 0.6/1kV 19X 2.5/10 P1/P8	BLACK	-	7021528000399	1044369
	800040	RFOU 0.6/1kV 27X 2.5/16 P1/P8	BLACK	-	7021528000405	1044377
20114663		RFOU 0.6/1kV 37X 2.5/16 P1/P8	BLACK	-	7021528000412	1044387
20110474		RFOU 0.6/1kV 3G 2.5mm² P1/P8	BLACK	Yes	7021528000306	-
	800033	RFOU 0.6/1kV 4G 2.5mm² P1/P8	BLACK	-	7021528000337	-
20114348		RFOU 0.6/1kV 5G 2.5mm² P1/P8	BLACK	-	7021528000344	-
	800044	RFOU 0.6/1kV 7G 2.5mm² P1/P8	BLACK	-	7021528000443	-
20110477		RFOU 0.6/1kV 2X 4/6mm² P1/P8	BLACK	Yes	7021528000450	1044222
20110478		RFOU 0.6/1kV 3X 4/6mm² P1/P8	BLACK	Yes	7021528000467	1044242
20110479		RFOU 0.6/1kV 4X 4/6mm² P1/P8	BLACK	-	7021528000474	1044262
	800048	RFOU 0.6/1kV 5X 4/6mm² P1/P8	BLACK	-	7021528000481	-
20110480		RFOU 0.6/1kV 3G 4mm² P1/P8	BLACK	Yes	7021528000498	-
	800043	RFOU 0.6/1kV 4G 4mm² P1/P8	BLACK	-	7021528000436	-
	800050	RFOU 0.6/1kV 5G 4mm² P1/P8	BLACK	-	7021528000504	-
20110481		RFOU 0.6/1kV 2X 6/6mm² P1/P8	BLACK	Yes	7021528000511	1044223
20110482		RFOU 0.6/1kV 3X 6/6mm² P1/P8	BLACK	Yes	7021528000528	1044243
20110483		RFOU 0.6/1kV 4X 6/6mm² P1/P8	BLACK	-	7021528000535	1044263
	800055	RFOU 0.6/1kV 3G 6mm² P1/P8	BLACK	-	7021528000559	-
20117131		RFOU 0.6/1kV 4G 6mm² P1/P8	BLACK	-	7021528000542	-
	800056	RFOU 0.6/1kV 5G 6mm² P1/P8	BLACK	-	7021528000566	-
20110484		RFOU 0.6/1kV 2X 10/10mm² P1/P8	BLACK	-	7021528000573	1044224
20110485		RFOU 0.6/1kV 3X 10/10mm² P1/P8	BLACK	Yes	7021528000580	1044244
20110486		RFOU 0.6/1kV 4X 10/10mm² P1/P8	BLACK	-	7021528000597	1044264
	800060	RFOU 0.6/1kV 3G 10mm² P1/P8	BLACK	-	7021528000603	-
	800062	RFOU 0.6/1kV 4G 10mm² P1/P8	BLACK	-	7021528000627	-
	800061	RFOU 0.6/1kV 5G 10mm² P1/P8	BLACK	-	7021528000610	-
20110487		RFOU 0.6/1kV 2X 16/16mm² P1/P8	BLACK	-	7021528000634	1044225
20110488		RFOU 0.6/1kV 3X 16/16mm² P1/P8	BLACK	Yes	7021528000641	1044245
20110489		RFOU 0.6/1kV 4X 16/16mm² P1/P8	BLACK	Yes	7021528000658	1044265
	800116	RFOU 0.6/1kV 5X 16/16mm² P1/P8	BLACK	-	7021528001167	-
	800068	RFOU 0.6/1kV 3G 16mm² P1/P8	BLACK	-	7021528000689	-
	800066	RFOU 0.6/1kV 4G 16mm² P1/P8	BLACK	-	7021528000665	-
	800067	RFOU 0.6/1kV 5G 16mm² P1/P8	BLACK	-	7021528000672	-
	800069	RFOU 0.6/1kV 2X 25/16mm² P1/P8	BLACK	-	7021528000696	1044226
20110490		RFOU 0.6/1kV 3X 25/16mm² P1/P8	BLACK	Yes	7021528000702	1044246

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110491		RFOU 0.6/1kV 4X 25/16mm² P1/P8	BLACK	Yes	7021528000719	1044266
	800073	RFOU 0.6/1kV 3G 25mm² P1/P8	BLACK	-	7021528000733	-
	800072	RFOU 0.6/1kV 4G 25mm² P1/P8	BLACK	-	7021528000726	-
	800074	RFOU 0.6/1kV 5G 25mm² P1/P8	BLACK	-	7021528000740	-
	800075	RFOU 0.6/1kV 2X 35/16mm² P1/P8	BLACK	-	7021528000757	-
20110492		RFOU 0.6/1kV 3X 35/16mm² P1/P8	BLACK	Yes	7021528000764	1044247
20110493		RFOU 0.6/1kV 4X 35/16mm² P1/P8	BLACK	-	7021528000771	1044267
	800078	RFOU 0.6/1kV 4G 35mm² P1/P8	BLACK	-	7021528000788	-
	800079	RFOU 0.6/1kV 5G 35mm² P1/P8	BLACK	-	7021528000795	-
	800081	RFOU 0.6/1kV 2X 50/25mm² P1/P8	BLACK	-	7021528000818	-
20110494		RFOU 0.6/1kV 3X 50/25mm² P1/P8	BLACK	Yes	7021528000825	1044248
20110495		RFOU 0.6/1kV 4X 50/25mm² P1/P8	BLACK	-	7021528000832	1044268
	800084	RFOU 0.6/1kV 4G 50mm² P1/P8	BLACK	-	7021528000849	-
	800085	RFOU 0.6/1kV 5G 50mm² P1/P8	BLACK	-	7021528000856	-
	800087	RFOU 0.6/1kV 2X 70/35mm² P1/P8	BLACK	-	7021528000870	-
20109424		RFOU 0.6/1kV 3X 70/35mm² P1/P8	BLACK	Yes	7021528000887	1044249
	800089	RFOU 0.6/1kV 4X 70/35mm² P1/P8	BLACK	-	7021528000894	1044269
	800092	RFOU 0.6/1kV 5X 70/35mm² P1/P8	BLACK	-	7021528000924	-
	800090	RFOU 0.6/1kV 4G 70mm² P1/P8	BLACK	-	7021528000900	-
	800091	RFOU 0.6/1kV 5G 70mm² P1/P8	BLACK	-	7021528000917	-
	800094	RFOU 0.6/1kV 2X 95/50mm² P1/P8	BLACK	-	7021528000948	-
20109426		RFOU 0.6/1kV 3X 95/50mm² P1/P8	BLACK	Yes	7021528000955	1044250
20109427		RFOU 0.6/1kV 4X 95/50mm² P1/P8	BLACK	Yes	7021528000962	1044270
	800097	RFOU 0.6/1kV 4G 95mm² P1/P8	BLACK	-	7021528000979	-
20109428		RFOU 0.6/1kV 2X 120/60 P1/P8	BLACK	-	7021528001006	-
20109429		RFOU 0.6/1kV 3X 120/60 P1/P8	BLACK	Yes	7021528001013	1044251
	800105	RFOU 0.6/1kV 4X 120/60 P1/P8	BLACK	-	7021528001051	-
	800106	RFOU 0.6/1kV 4G 120mm² P1/P8	BLACK	-	7021528001068	-
	800099	RFOU 0.6/1kV 5G 120mm² P1/P8	BLACK	-	7021528000993	-
20114321		RFOU 0.6/1kV 4G 150mm² P1/P8	BLACK	-	7021528001082	-
20132887		RFOU 0.6/1kV 5G 150mm² P1/P8	BLACK	-	7021528001150	-
	800110	RFOU 0.6/1kV 4G 185mm² P1/P8	BLACK	-	7021528001105	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	16	2.5	STCC	1.16	1.48	0.116	0.140	96	2240
1	25	4	STCC	0.734	0.936	0.110	0.132	127	3500
1	35	6	STCC	0.529	0.675	0.106	0.128	157	4900
1	50	6	STCC	0.391	0.499	0.104	0.125	196	7000
1	70	10	STCC	0.27	0.344	0.099	0.119	242	9800
1	95	10	STCC	0.195	0.249	0.097	0.116	293	13300
1	120	10	STCC	0.154	0.196	0.094	0.113	339	16800
1	150	10	STCC	0.126	0.161	0.092	0.111	389	21000
1	185	10	STCC	0.1	0.128	0.091	0.109	444	25900
1	240	16	STCC	0.0762	0.0972	0.089	0.107	522	33600
1	300	16	STCC	0.0607	0.0774	0.087	0.105	601	42000
2	1.5	4	STCC	12.2	15.6	0.110	0.132	20	210
3	1.5	4	STCC	12.2	15.6	0.110	0.132	16	210
4	1.5	6	STCC	12.2	15.6	0.110	0.132	16	210
5	1.5	6	STCC	12.2	15.6	0.110	0.132	13.5	210

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
7	1.5	6	STCC	12.2	15.6	0.110	0.132	12	210
12	1.5	10	STCC	12.2	15.6	0.110	0.132	10	210
19	1.5	10	STCC	12.2	15.6	0.110	0.132	8.5	210
27	1.5	10	STCC	12.2	15.6	0.110	0.132	7.5	210
37	1.5	16	STCC	12.2	15.6	0.110	0.132	7	210
3G	1.5	-	STCC	12.2	15.6	0.110	0.132	20	210
4G	1.5	-	STCC	12.2	15.6	0.110	0.132	16	210
5G	1.5	-	STCC	12.2	15.6	0.110	0.132	16	210
7G	1.5	-	STCC	12.2	15.6	0.110	0.132	12.5	210
2	2.5	4	STCC	7.56	9.64	0.103	0.123	26	350
3	2.5	6	STCC	7.56	9.64	0.103	0.123	21	350
4	2.5	6	STCC	7.56	9.64	0.103	0.123	21	350
5	2.5	6	STCC	7.56	9.64	0.103	0.123	17.5	350
7	2.5	6	STCC	7.56	9.64	0.103	0.123	15.5	350
12	2.5	10	STCC	7.56	9.64	0.103	0.123	13	350
19	2.5	10	STCC	7.56	9.64	0.103	0.123	11	350
27	2.5	16	STCC	7.56	9.64	0.103	0.123	10	350
37	2.5	16	STCC	7.56	9.64	0.103	0.123	9	350
3G	2.5	-	STCC	7.56	9.64	0.103	0.123	26	350
4G	2.5	-	STCC	7.56	9.64	0.103	0.123	21	350
5G	2.5	-	STCC	7.56	9.64	0.103	0.123	21	350
7G	2.5	-	STCC	7.56	9.64	0.103	0.123	16.5	350
2	4	6	STCC	4.7	5.99	0.096	0.115	34	560
3	4	6	STCC	4.7	5.99	0.096	0.115	28	560
4	4	6	STCC	4.7	5.99	0.096	0.115	28	560
5	4	6	STCC	4.7	5.99	0.096	0.115	23.5	560
3G	4	-	STCC	4.7	5.99	0.096	0.115	34	560
4G	4	-	STCC	4.7	5.99	0.096	0.115	28	560
5G	4	-	STCC	4.7	5.99	0.096	0.115	28	560
2	6	6	STCC	3.11	3.97	0.090	0.108	44	840
3	6	6	STCC	3.11	3.97	0.090	0.108	36	840
4	6	6	STCC	3.11	3.97	0.090	0.108	36	840
3G	6	-	STCC	3.11	3.97	0.090	0.108	44	840
4G	6	-	STCC	3.11	3.97	0.090	0.108	36	840
5G	6	-	STCC	3.11	3.97	0.090	0.108	36	840
2	10	10	STCC	1.84	2.35	0.084	0.101	61	1400
3	10	10	STCC	1.84	2.35	0.084	0.101	50	1400
4	10	10	STCC	1.84	2.35	0.084	0.101	50	1400
3G	10	-	STCC	1.84	2.35	0.084	0.101	61	1400
4G	10	-	STCC	1.84	2.35	0.084	0.101	50	1400
5G	10	-	STCC	1.84	2.35	0.084	0.101	50	1400
2	16	16	STCC	1.16	1.48	0.080	0.096	80	2240
3	16	16	STCC	1.16	1.48	0.080	0.096	67	2240
4	16	16	STCC	1.16	1.48	0.080	0.096	67	2240
5	16	16	STCC	1.16	1.48	0.080	0.096	56	2240
3G	16	-	STCC	1.16	1.48	0.080	0.096	80	2240
4G	16	-	STCC	1.16	1.48	0.080	0.096	67	2240
5G	16	-	STCC	1.16	1.48	0.080	0.096	67	2240
2	25	16	STCC	0.734	0.936	0.079	0.095	108	3500
3	25	16	STCC	0.734	0.936	0.079	0.095	89	3500
4	25	16	STCC	0.734	0.936	0.079	0.095	89	3500
3G	25	-	STCC	0.734	0.936	0.079	0.095	108	3500
4G	25	-	STCC	0.734	0.936	0.079	0.095	89	3500
5G	25	-	STCC	0.734	0.936	0.079	0.095	89	3500
2	35	16	STCC	0.529	0.675	0.076	0.092	133	4900

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
3	35	16	STCC	0.529	0.675	0.076	0.092	110	4900
4	35	16	STCC	0.529	0.675	0.076	0.092	110	4900
4G	35	-	STCC	0.529	0.675	0.076	0.092	110	4900
5G	35	-	STCC	0.529	0.675	0.076	0.092	110	4900
2	50	25	STCC	0.391	0.499	0.076	0.092	167	7000
3	50	25	STCC	0.391	0.499	0.076	0.092	137	7000
4	50	25	STCC	0.391	0.499	0.076	0.092	137	7000
4G	50	-	STCC	0.391	0.499	0.076	0.092	137	7000
5G	50	-	STCC	0.391	0.499	0.076	0.092	137	7000
2	70	35	STCC	0.27	0.344	0.074	0.088	206	9800
3	70	35	STCC	0.27	0.344	0.074	0.088	169	9800
4	70	35	STCC	0.27	0.344	0.074	0.088	169	9800
5	70	35	STCC	0.27	0.344	0.074	0.088	141.5	9800
4G	70	-	STCC	0.27	0.344	0.074	0.088	169	9800
5G	70	-	STCC	0.27	0.344	0.074	0.088	169	9800
2	95	50	STCC	0.195	0.249	0.073	0.088	249	13300
3	95	50	STCC	0.195	0.249	0.073	0.088	205	13300
4	95	50	STCC	0.195	0.249	0.073	0.088	205	13300
4G	95	-	STCC	0.195	0.249	0.073	0.088	205	13300
2	120	60	STCC	0.154	0.196	0.072	0.086	288	16800
3	120	60	STCC	0.154	0.196	0.072	0.086	237	16800
4	120	60	STCC	0.154	0.196	0.072	0.086	237	16800
4G	120	-	STCC	0.154	0.196	0.072	0.086	237	16800
5G	120	-	STCC	0.154	0.196	0.072	0.086	237	16800
4G	150	-	STCC	0.126	0.161	0.072	0.087	272	21000
5G	150	-	STCC	0.126	0.161	0.072	0.087	272	21000
4G	185	-	STCC	0.1	0.128	0.072	0.086	311	25900

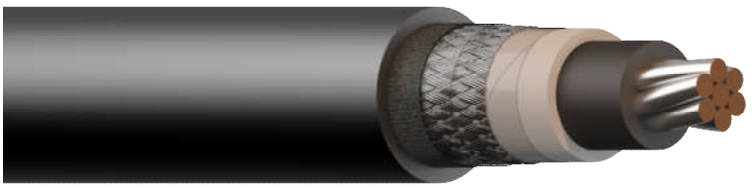
Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant power cable RFOU 0,6/1(1,2)kV, P1/P8, large single core cables



Flame retardant halogen-free power cable. Mud resistant. Single core cable.

RFOU 0,6/1(1,2)kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP1/P8

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Application

Fixed installation for power,control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU 0,6/1KV P1/P8 1 x 500/25 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core - Black
Two cores - Blue - Brown
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 ED 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	400	25	26.00	2.6	1.4	34.5 ± 1.5	0.4	31.7	2.1	40.5 ± 2	5070	3970
1	500	25	29.0	2.8	1.4	38 ± 1.5	0.4	36.2	2.2	44 ± 2	6220	4923
1	630	25	32.80	2.8	1.4	41.5 ± 2	0.4	40.7	2.3	48 ± 2	7650	6195

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110761		RFOU 0.6/1kV 1X 400/25 P1/P8	BLACK	-	7021528000115	-
	800012	RFOU 0.6/1kV 1X 500/25 P1/P8	BLACK	-	7021528000122	-
	800013	RFOU 0.6/1kV 1X 630/25 P1/P8	BLACK	-	7021528000139	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	400	25	STCC	0.0475	0.0606	0.087	0.104	690 dc / 670 ac	56000
1	500	25	STCC	0.0369	0.0471	0.085	0.103	780 dc / 720 ac	70000
1	630	25	STCC	0.0286	0.0365	0.083	0.100	890 dc / 780 ac	88200

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant power cable RFOU 0,6/1(1,2)kV, P1/P8, double braided

Flame retardant halogen-free power cable. Mud resistant. Double braided.

RFOU 0,6/1(1,2)kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP1/P8

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for power,control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape + rubberized Polyamide tape
Armour/screen	**O**	Two layers of tinned copper wire braid (double braid)
Tape over armour/screen		PET tape + rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU 0,6/1kV P1/P8 3 x 185/95 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core - Black
Two cores - Blue - Brown
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 ED 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
3	150	75	15.9	1.8	1.6	46 ± 2	0.4	90.5	2.6	54 ± 2.5	7470	4981
4	150	75	15.9	1.8	2	51.5 ± 2.5	0.5	99	2.8	61 ± 3	9480	6444
3	185	95	17.70	2.0	1.6	50.5 ± 2.5	0.5	127.2	2.7	59.5 ± 2.5	9230	6283
4	185	95	17.7	2.0	2	57 ± 2.5	0.5	113.1	3	67 ± 3	11430	7837
3	240	120	20.15	2.2	1.8	57.5 ± 2.5	0.6	142.5	3	68 ± 3	11800	8046

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20109430		RFOU 0.6/1kV 3X 150/75 P1/P8	BLACK	-	7021528001020	1044252
	800109	RFOU 0.6/1kV 4X 150/75 P1/P8	BLACK	-	7021528001099	-
20109425		RFOU 0.6/1kV 3X 185/95 P1/P8	BLACK	-	7021528000931	-
	800111	RFOU 0.6/1kV 4X 185/95 P1/P8	BLACK	-	7021528001112	-
20109431		RFOU 0.6/1kV 3X 240/120 P1/P8	BLACK	-	7021528001129	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
3	150	75	STCC	0.126	0.161	0.072	0.087	272	21000
4	150	75	STCC	0.126	0.161	0.072	0.087	272	21000
3	185	95	STCC	0.1	0.128	0.072	0.086	311	25900
4	185	95	STCC	0.1	0.128	0.072	0.086	311	25900
3	240	120	STCC	0.0762	0.0972	0.072	0.086	365	33600

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant MV power cable, RFOU 3,6/6(7,2)kV, P2/P9

Flame retardant halogen-free medium voltage (MV) cable. Mud resistant

RFOU 3,6/6(7,2) kV

EPR/EPR/TCWB/EVA

NEK 606 CodeP2/P9

Operating temperature : 90°C
Operating Voltage : 3,6/6(7,2) kV

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids.

Standards applied

IEC 60092-354	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 04 RFOU 3,6/6(7,2)KV P2/P9 3 x 120/60 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 04 = Draka Industrial Cable, Germany
Outer sheath colour		Red

Range and dimensions

Number of elements	Cross section core, mm²	Cross section screen, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	16	11	5,2	2,5	1,0	16,5±1,0	0,3	1,6	22,0±1,5	850	452
1	25	11	6,5	2,5	1,0	18,0±1,0	0,3	1,6	23,0±1,5	970	554
1	35	13	7,4	2,5	1,0	19,0±1,0	0,3	1,6	24,0±1,5	1150	675
1	50	13	8,8	2,5	1,0	20,5±1,0	0,3	1,7	25,5±1,5	1300	830
1	70	16	10,3	2,5	1,0	22,0±1,0	0,3	1,8	27,5±1,5	1600	1060
1	95	16	12,1	2,5	1,0	24,0±1,5	0,3	1,9	29,5±1,5	2000	1323
1	120	20	13,6	2,5	1,0	25,0±1,5	0,4	1,9	31,5±2,0	2300	1677
1	150	22	15,1	2,5	1,2	27,0±1,5	0,4	2,0	33,5±2,0	2710	2041
1	185	25	16,8	2,5	1,2	28,5±1,5	0,4	2,0	35,0±2,0	3230	2433
1	240	25	19,1	2,6	1,2	31,5±1,5	0,4	2,1	37,5±2,0	3930	2993
1	300	30	21,5	2,8	1,2	34,0±1,5	0,4	2,2	41,0±2,5	4700	3626
3	16	35	5,2	2,5	1,2	34,5±1,5	0,4	2,3	42,0±2,5	3100	1419
3	25	35	6,5	2,5	1,2	37,5±1,5	0,4	2,4	45,0±2,5	3570	1706
3	35	35	7,4	2,5	1,2	39,5±1,5	0,4	2,5	47,0±2,5	4020	1972
3	50	35	8,8	2,5	1,4	43,0±2,0	0,4	2,6	50,5±3,0	4700	2462
3	70	45	10,3	2,5	1,4	46,0±2,0	0,5	2,7	54,5±3,0	5900	3047
3	95	50	12,1	2,5	1,4	50,0±2,0	0,5	2,8	58,5±3,0	7200	4108
3	120	60	13,6	2,5	1,6	53.5±2.0	0.5	3,0	62.5±3.5	8200	4988
3	150	75	15,1	2,5	1,6	56,5±2,0	0,5	3,1	66,5±3,5	9600	6173
3	185	95	16,8	2,5	1,6	60,5±2,5	0,6	3,2	70,0±3,5	11250	7364
3	240	95	19,1	2,6	1,8	66,5±2,5	0,6	3,5	77,0±4,0	14000	9033
3	300	95	21,5	2,8	1,8	70,0±3,0	0,6	3,6	80,5±4,5	16500	10794

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804200	RFOU 3.6/6KV 1X 16/11mm² P2/P9	RED	-	7021528042009	-
	804201	RFOU 3.6/6KV 1X 25/11mm² P2/P9	RED	-	7021528042016	-
	804202	RFOU 3.6/6KV 1X 35/13mm² P2/P9	RED	-	7021528042023	-
	804203	RFOU 3.6/6KV 1X 50/13mm² P2/P9	RED	-	7021528042030	-
	804204	RFOU 3.6/6KV 1X 70/16mm² P2/P9	RED	-	7021528042047	-
	804205	RFOU 3.6/6KV 1X 95/16mm² P2/P9	RED	-	7021528042054	-
	804206	RFOU 3.6/6KV 1X 120/20mm² P2/P9	RED	-	7021528042061	-
	804207	RFOU 3.6/6KV 1X 150/22mm² P2/P9	RED	-	7021528042078	-
	804208	RFOU 3.6/6KV 1X 185/25mm² P2/P9	RED	-	7021528042085	-
	804209	RFOU 3.6/6KV 1X 240/25mm² P2/P9	RED	-	7021528042092	-
	804210	RFOU 3.6/6KV 1X 300/30mm² P2/P9	RED	-	7021528042108	-
	804220	RFOU 3.6/6KV 3X 16/35mm² P2/P9	RED	-	7021528042207	-
	804221	RFOU 3.6/6KV 3X 25/35mm² P2/P9	RED	-	7021528042214	-
	804222	RFOU 3.6/6KV 3X 35/35mm² P2/P9	RED	-	7021528042221	-
	804223	RFOU 3.6/6KV 3X 50/35mm² P2/P9	RED	-	7021528042238	-
	804224	RFOU 3.6/6KV 3X 70/45mm² P2/P9	RED	-	7021528042245	-
	804225	RFOU 3.6/6KV 3X 95/50mm² P2/P9	RED	-	7021528042252	-
	804226	RFOU 3.6/6KV 3X 120/60mm² P2/P9	RED	-	7021528042269	-
	804227	RFOU 3.6/6KV 3X 150/75mm² P2/P9	RED	-	7021528042276	-
	804228	RFOU 3.6/6KV 3X 185/95mm² P2/P9	RED	-	7021528042283	-
	804229	RFOU 3.6/6KV 3X 240/95mm² P2/P9	RED	-	7021528042290	-
	804230	RFOU 3.6/6KV 3X 300/95mm² P2/P9	RED	-	7021528042306	-

Electrical values power cables

Number of elements	Cross section core, mm²	Cross section screen, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Capacitans per phase, nF/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	16	11	STCC	1,16	1,48	0,149	0,179	310	96	2240
1	25	11	STCC	0,734	0,936	0,139	0,167	360	127	3500
1	35	13	STCC	0,529	0,675	0,133	0,160	390	157	4900
1	50	13	STCC	0,391	0,499	0,126	0,152	440	196	7000
1	70	16	STCC	0,270	0,344	0,121	0,145	490	242	9800
1	95	16	STCC	0,195	0,249	0,115	0,138	560	293	13300
1	120	20	STCC	0,154	0,196	0,119	0,143	610	339	16800
1	150	22	STCC	0,126	0,161	0,109	0,131	660	389	21000
1	185	25	STCC	0,100	0,128	0,105	0,127	730	444	25900
1	240	25	STCC	0,0762	0,0972	0,102	0,122	780	522	33600
1	300	30	STCC	0,0607	0,0774	0,099	0,119	810	601	42000
3	16	35	STCC	1,16	1,48	0,121	0,145	310	67	2240
3	25	35	STCC	0,734	0,936	0,112	0,135	360	89	3500
3	35	35	STCC	0,529	0,675	0,108	0,129	390	110	4900
3	50	35	STCC	0,391	0,499	0,102	0,123	440	137	7000
3	70	45	STCC	0,270	0,344	0,097	0,117	490	169	9800
3	95	50	STCC	0,195	0,249	0,093	0,112	560	205	13300
3	120	60	STCC	0,154	0,196	0.090	0,108	610	237	16800
3	150	75	STCC	0,126	0,161	0,088	0,105	660	272	21000
3	185	95	STCC	0,100	0,128	0,085	0,102	730	311	25900
3	240	95	STCC	0,0762	0,0972	0,083	0,100	780	365	33600
3	300	95	STCC	0,0607	0,0774	0,082	0,098	810	421	42000

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
15 x D	9 x D	50 N /mm²	-20°C

Halogen-free, mud resistant MV power cable, RFOU 6/10(12)kV, P3/P10

Flame retardant halogen-free medium voltage (MV) cable. Mud resistant

RFOU 6/10(12) kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP3/P10

Operating temperature : 90°C
Operating Voltage : 6/10(12) kV

Standards applied

IEC 60092-354	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 04 RFOU 6/10(12)KV P3/P10 3 x 95/50 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 04 = Draka Industrial Cable, Germany
Outer sheath colour		Red

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	16	11	5.2	3.4	1.0	18.5 ±1.0	0.3	12.7	1.6	24.0 ± 1,5	900	420
1	25	11	6.5	3.4	1.0	20,0 ±1.0	0.3	12.7	1.7	25.0 ± 1,5	1100	516
1	35	11	7.4	3.4	1.0	21.0 ± 1.5	0.3	12.7	1.7	26.0± 1.5	1200	611
1	50	11	8.8	3.4	1.0	22.0 ± 1.0	0.3	12.7	1.9	28.0 ± 1.5	1450	780
1	70	16	10.3	3.4	1.0	23.5 ±1.5	0.3	17.8	1.9	30.0 ± 2.0	1700	971
1	95	16	12.1	3.4	1.2	25.5 ±1.5	0.3	20.4	2.0	32.0 ± 2.0	2100	1251
1	120	20	13.6	3.4	1.2	27.5 ± 1.5	0.3	22.9	2.0	34.0 ± 2.0	2350	1506
1	150	19	15.1	3.4	1.2	28.5 ±1.5	0.3	20.4	2.0	35.0 ± 2.0	2600	1793
1	185	18	16.8	3.4	1.2	30.5 ±1.5	0.3	20.4	2.1	36.5 ± 2.0	3100	2138
1	240	21	19.1	3.4	1.2	33.0 ± 1.5	0.3	22.9	2.1	39.0± 2.0	3800	2702
1	300	29	21.5	3.4	1.2	35 ±1.5	0.3	30.5	2.2	41.5 ± 2.5	4600	3395
1	400	35	24.5	3.4	1.2	36 ±1.5	0.4	40.7	2.3	45.5 ± 2.5	5900	4536
1	500	40	27.5	3.4	1.4	41.5 ± 2.0	0.4	49.8	2.5	49.5 ± 2.5	7350	5782
1	630	40	32.3	3.4	1.4	46.5 ± 2.0	0.4	49.8	2.7	54.5 ± 3.0	8750	7016
3	16	32	5.2	3.4	1.4	39.0 ± 1.5	0.4	36.2	2.4	46.0 ± 2.5	3300	1145
3	25	31	6.5	3.4	1.4	42.0 ± 1.5	0.4	31	2.4	49.5 ± 2.5	3800	1465
3	35	35	7.4	3.4	1.4	43.5 ± 2.0	0.4	35	2.5	51.5± 3.0	4300	1573
3	50	31	8.8	3.4	1.6	47.0 ± 2.0	0.4	31	2.8	55 ± 3	5000	2124
3	70	35	10.3	3.4	1.6	50.0 ± 2.0	0.4	40.7	2.8	58.5 ± 3	6000	2880
3	95	50	12.1	3.4	1.6	54.0 ± 2.0	0.4	54.3	2.8	62.5± 3.0	7500	3975
3	120	60	13.6	3.4	1.6	57.5 ± 2.0	0.5	70.7	3	66.5 ± 3.0	8350	4650
3	150	75	15.1	3.4	1.6	60 ± 2	0.6	86.5	3.2	70.5 ± 3	9800	5634
3	185	45	16.8	3.4	1.6	64.5 ± 2.5	0.5	56.5	3.3	74.0 ± 3.5	11300	6511
3	240	53	19.1	3.4	1.6	69.5 ± 2.5	0.5	63.6	3.5	79.5± 3.5	13300	8609
3	300	55	21.5	3.4	1.6	74.5 ± 3.0	0.5	70.7	3.7	85.0± 4.0	16300	10725

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804000	RFOU 6/10KV 1X 16/11mm² P3/P10	RED	-	7021528040005	1061020
	804001	RFOU 6/10KV 1X 25/11mm² P3/P10	RED	-	7021528040012	1061021
	804002	RFOU 6/10KV 1X 35/11mm² P3/P10	RED	-	7021528040029	1061000
20080191		RFOU 6/10KV 1X 50/11mm² P3/P10	RED	Yes	7021528040036	1061001
20113313		RFOU 6/10KV 1X 70/16mm² P3/P10	RED	Yes	7021528040043	1061002
	804005	RFOU 6/10KV 1X 95/16mm² P3/P10	RED	-	7021528040050	1061003
20076157		RFOU 6/10KV 1X 120/20mm² P3/P10	RED	Yes	7021528040067	1061004
	804007	RFOU 6/10KV 1X 150/19mm² P3/P10	RED	-	7021528040074	1061005
20098204		RFOU 6/10KV 1X185/18mm² P3/P10	RED	-	7021528040081	1061006
20077819		RFOU 6/10KV 1X 240/21mm² P3/P10	RED	-	7021528040098	1061007
20076156		RFOU 6/10KV 1X 300/29mm² P3/P10	RED	-	7021528040104	1061008
	804011	RFOU 6/10KV 1X 400/35mm² P3/P10	RED	-	7021528040111	1061022
	804012	RFOU 6/10KV 1X 500/40mm² P3/P10	RED	-	7021528040128	1061023

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804013	RFOU 6/10KV 1X 630/40mm² P3/P10	RED	-	7021528040135	1061024
	804020	RFOU 6/10KV 3X 16/32mm² P3/P10	RED	-	7021528040203	1061009
	804021	RFOU 6/10KV 3X 25/31mm² P3/P10	RED	-	7021528040210	1061010
	804022	RFOU 6/10KV 3X 35/35mm² P3/P10	RED	-	7021528040227	1061011
	804023	RFOU 6/10KV 3X 50/31mm² P3/P10	RED	-	7021528040234	1061012
20076430		RFOU 6/10KV 3X 70/35mm² P3/P10	RED	-	7021528040241	1061013
20076152		RFOU 6/10KV 3X 95/50mm² P3/P10	RED	-	7021528040258	1061014
20086406		RFOU 6/10KV 3X 120/60mm² P3/P10	RED	-	7021528040265	1061015
20076162		RFOU 6/10KV 3X 150/75mm² P3/P10	RED	-	7021528040272	1061016
20077823		RFOU 6/10KV 3X 185/45mm² P3/P10	RED	-	7021528040289	1061017
	804029	RFOU 6/10KV 3X 240/53mm² P3/P10	RED	-	7021528040296	1061018
	804030	RFOU 6/10KV 3X 300/55mm² P3/P10	RED	-	7021528040302	1061019

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Capacitans per phase, nF/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	16	11	STCC	1.16	1.48	0.154	0.185	220	96	2240
1	25	11	STCC	0.734	0.936	0.144	0.173	250	127	3500
1	35	11	STCC	0.529	0.675	0.138	0.166	270	157	4900
1	50	11	STCC	0.391	0.499	0.132	0.158	300	196	7000
1	70	16	STCC	0.270	0.344	0.125	0.150	340	242	9800
1	95	16	STCC	0.195	0.249	0.119	0.142	380	293	13300
1	120	20	STCC	0.154	0.196	0.116	0.139	410	339	16800
1	150	19	STCC	0.126	0.161	0.111	0.133	450	389	21000
1	185	18	STCC	0.100	0.128	0.108	0.130	480	444	25900
1	240	21	STCC	0.0762	0.0972	0.104	0.125	540	522	33600
1	300	29	STCC	0.0607	0.0774	0.104	0.124	590	601	42000
1	400	35	STCC	0.0475	0.0606	0.090	0.118	660	690 dc / 670 ac	56000
1	500	40	STCC	0.0369	0.0471	0.097	0.117	720	780 dc / 720 ac	70000
1	630	40	STCC	0.0286	0.0365	0.092	0.110	840	890 dc / 780 ac	88200
3	16	32	STCC	1.16	1.48	0.119	0.143	220	67	2240
3	25	31	STCC	0.734	0.936	0.119	0.143	250	89	3500
3	35	35	STCC	0.529	0.675	0.114	0.137	270	110	4900
3	50	31	STCC	0.391	0.499	0.108	0.130	300	137	7000
3	70	35	STCC	0.270	0.344	0.103	0.124	340	169	9800
3	95	50	STCC	0.195	0.249	0.098	0.118	380	205	13300
3	120	60	STCC	0.154	0.196	0.095	0.114	410	237	16800
3	150	75	STCC	0.126	0.161	0.092	0.111	450	272	21000
3	185	45	STCC	0.100	0.128	0.092	0.111	480	311	25900
3	240	53	STCC	0.0762	0.0972	0.087	0.104	540	365	33600
3	300	55	STCC	0.0607	0.0774	0.084	0.101	590	421	42000

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
15 x D	9 x D	50 N /mm²	-20°C

Halogen-free, mud resistant MV power cable, RFOU 8,7/15(17,5)kV, P4/P11

Flame retardant halogen-free medium voltage (MV) cable. Mud resistant

RFOU 8,7/15(17,5) kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP4/P11

Operating temperature : 90°C
Operating Voltage : 8,7/15(17,5) kV

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009

Standards applied

IEC 60092-354	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 04 RFOU 8,7/15(17,5)KV P4/P11 1 x 300/29 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 04 = Draka Industrial Cable, Germany
Outer sheath colour		Red

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	25	20	6.5	4.5	1.0	22 ± 1.0	0.4	35	1.8	28.0 ± 1.5	1370	733
1	35	20	7.4	4.5	1.0	23.0 ± 1.5	0.4	27.1	1.8	29.0 ± 1.5	1500	824
1	50	20	8.8	4.5	1.0	24.0 ± 1.5	0.4	27.1	1.9	30.5 ± 1.5	1700	978
1	70	20	10.3	4.5	1.0	26.0 ± 1.5	0.4	27.1	1.9	32.0 ± 1.5	2000	1204
1	95	20	12.1	4.5	1.2	28.0 ± 1.5	0.4	31.7	2.0	34.5 ± 2.0	2450	1500
1	120	20	13.6	4.5	1.2	29.5 ± 1.5	0.4	31.7	2.0	36.0 ± 2.0	2700	1766
1	150	20	15.1	4.5	1.2	31.0 ±1.5	0.4	31.7	2.1	38.0 ± 2.0	3000	1793
1	185	20	16.8	4.5	1.2	33.0 ± 1.5	0.4	31.7	2.2	39.5 ± 2.5	3500	2424
1	240	25	19.1	4.5	1.2	35.0 ± 1.5	0.4	36.2	2.3	42.0 ±2.5	4300	2996
1	300	29	21.5	4.5	1.2	37.5 ±1.5	0.4	40.7	2.4	44.5 ± 2.5	5000	3612
1	400	30	25.6	4.5	1.5	42 ± 2.0	0.4	49.8	2.6	49.5 ± 2.5	6250	4772
3	25	35	6.5	4.5	1.4	46.5 ± 2.0	0.5	35	2.7	55 ± 3.0	4800	1864
3	35	35	7.4	4.5	1.6	49.0 ± 2.0	0.5	49.5	2.8	57.5 ± 3.0	5400	2152
3	50	40	8.8	4.5	1.6	52.0 ± 2.0	0.5	56.5	2.9	61.0 ± 3.0	6100	2667
3	70	40	10.3	4.5	1.6	55.5 ± 2.5	0.5	56.5	3.1	64.5 ± 3.0	7250	3344
3	95	55	12.1	4.5	1.6	59 ± 2.5	0.5	70.7	3.2	68.5 ± 3.0	8500	3998
3	120	60	13.6	4.5	1.6	62.5 ± 2.5	0.5	84.8	3.4	72 ± 3.5	9750	5166
3	150	80	15.1	4.5	1.8	66.0 ± 2.5	0.6	112	3.5	76.0 ± 3.5	11150	6321
3	185	95	16.8	4.5	1.8	69.5 ± 2.5	0.6	122.1	3.7	80.0 ± 4.0	13200	7606
3	240	95	19.1	4.5	1.8	74.5 ± 3.0	0.6	122.1	3.9	85.5 ± 4.0	15650	9114
3	300	95	21.5	4.5	1.8	80.0 ± 3.0	0.6	122.1	4.0	91.0 ± 4.0	17800	10420

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804501	RFOU 8.7/15KV 1X 25/20mm² P4/P11	RED	-	7021528045017	-
	804502	RFOU 8.7/15KV 1X 35/20mm² P4/P11	RED	-	7021528045024	-
	804503	RFOU 8.7/15KV 1X 50/20mm² P4/P11	RED	-	7021528045031	-
	804504	RFOU 8.7/15KV 1X 70/20mm² P4/P11	RED	-	7021528045048	-
	804505	RFOU 8.7/15KV 1X 95/20mm² P4/P11	RED	-	7021528045055	-
	804506	RFOU 8.7/15KV 1X 120/20mm² P4/P11	RED	-	7021528045062	-
	804507	RFOU 8.7/15KV 1X150/20 P4/P11	RED	-	7021528045079	-
	804508	RFOU 8.7/15KV 1X 185/20mm² P4/P11	RED	-	7021528045086	-
	804509	RFOU 8.7/15KV 1X 240/25mm² P4/P11	RED	-	7021528045093	-
20076154		RFOU 8.7/15KV 1X 300/29mm² P4/P11	RED	-	7021528045109	-
	804511	RFOU 8.7/15KV 1X 400/30mm² P4/P11	RED	-	7021528045116	-
	804521	RFOU 8.7/15KV 3X 25/35mm² P4/P11	RED	-	7021528045215	-
	804522	RFOU 8.7/15KV 3X 35/35mm² P4/P11	RED	-	7021528045222	-
	804523	RFOU 8.7/15KV 3X 50/40mm² P4/P11	RED	-	7021528045239	-
	804524	RFOU 8.7/15KV 3X 70/40mm² P4/P11	RED	-	7021528045246	-
	804525	RFOU 8.7/15KV 3X 95/55mm² P4/P11	RED	-	7021528045253	-
	804526	RFOU 8.7/15KV 3X 120/60mm² P4/P11	RED	-	7021528045260	-
	804527	RFOU 8.7/15KV 3X 150/80mm² P4/P11	RED	-	7021528045277	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804528	RFOU 8.7/15KV 3X 185/95mm² P4/P11	RED	-	7021528045284	-
	804529	RFOU 8.7/15KV 3X 240/95mm² P4/P11	RED	-	7021528045291	-
	804530	RFOU 8.7/15KV 3X 300/95mm² P4/P11	RED	-	7021528045307	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Capacitans per phase, nF/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	25	20	STCC	0.734	0.936	0.151	0.181	210	127	3500
1	35	20	STCC	0.529	0.675	0.145	0.174	230	157	4900
1	50	20	STCC	0.391	0.499	0.137	0.165	250	196	7000
1	70	20	STCC	0.270	0.344	0.130	0.156	280	242	9800
1	95	20	STCC	0.195	0.249	0.125	0.150	310	293	13300
1	120	20	STCC	0.154	0.196	0.120	0.144	340	339	16800
1	150	20	STCC	0.126	0.161	0.116	0.140	370	389	21000
1	185	20	STCC	0.100	0.128	0.113	0.135	400	444	25900
1	240	25	STCC	0.0762	0.0972	0.109	0.130	440	522	33600
1	300	29	STCC	0.0607	0.0774	0.105	0.126	480	601	42000
1	400	30	STCC	0.047	0.059	0.101	0.121	550	690 dc / 670 ac	56000
3	25	35	STCC	0.734	0.936	0.127	0.152	210	89	3500
3	35	35	STCC	0.529	0.675	0.122	0.146	230	110	4900
3	50	40	STCC	0.391	0.499	0.115	0.138	250	137	7000
3	70	40	STCC	0.270	0.344	0.109	0.131	280	169	9800
3	95	55	STCC	0.195	0.249	0.104	0.125	310	205	13300
3	120	60	STCC	0.154	0.196	0.100	0.121	340	237	16800
3	150	80	STCC	0.126	0.161	0.097	0.117	370	272	21000
3	185	95	STCC	0.100	0.128	0.097	0.117	400	311	25900
3	240	95	STCC	0.0762	0.0972	0.091	0.109	440	365	33600
3	300	95	STCC	0.0607	0.0774	0.088	0.106	480	421	42000

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
15 x D	9 x D	50 N /mm²	-20°C

Halogen-free, mud resistant MV power cable, RFOU 12/20(24)kV, P19/P21

Flame retardant halogen-free medium voltage (MV) cable. Mud resistant

RFOU 12/20(24) kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP19/P21

Operating temperature : 90°C
Operating Voltage : 12/20(24) kV

Standards applied

IEC 60092-354	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 04 RFOU 12/20(24)KV P19/P21 3 x 95/50 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 04 = Draka Industrial Cable, Germany
Outer sheath colour		Red

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	16	13	5.2	5.5	1.0	22.5 ±1.0	0.3	15.3	1.6	28 ± 1.5	1200	495
1	25	13	6.5	5.5	1.0	24 ±1.0	0.3	15.3	1.7	29.5 ± 1.5	1300	561
1	35	13	7.4	5.5	1.2	25 ±1.5	0.3	15.3	1.8	31 ± 2	1450	671
1	50	15	8.8	5.5	1.2	26.5 ±1.5	0.3	17.8	2.0	32.5 ± 2	1700	811
1	70	13	10.3	5.5	1.2	28 ± 1.5	0.3	15.3	2.1	34 ± 2.0	2000	1001
1	95	17	12.1	5.5	1.2	30 ±1.5	0.3	20.4	2.1	36 ± 2	2400	1210
1	120	15	13.6	5.5	1.3	31.5 ±1.5	0.3	17.8	2.1	38 ± 2	2650	1491
1	150	15	15.1	5.5	1.3	33 ±1.5	0.3	17.8	2.2	40 ± 2.5	3000	1835
1	185	18	16.8	5.5	1.4	35 ±1.5	0.3	20.4	2.2	41.5 ± 2.5	3500	2201
1	240	23	19.1	5.5	1.4	37.5 ±1.5	0.3	25.4	2.4	45.0 ± 2.5	4350	2915
1	300	28	21.5	5.5	1.4	41.0 ±2.0	0.3	30.5	2.6	47.0 ± 3.0	5200	3640
1	400	35	35.0	5.5	1.5	44.8 ±2.0	0.3	40.0	2.6	51.5 ± 3.0	6500	4400
3	16	31	5.2	5.5	1.4	48 ± 2.0	0.4	36.2	2.6	55.5 ± 3.0	9300	4112
3	25	35	6.5	5.5	1.4	51 ± 2.0	0.4	40.7	2.7	58.5 ± 3.0	4950	1558
3	35	35	7.4	5.5	1.4	53 ± 2.0	0.4	40.7	2.8	61 ± 3.0	5500	1885
3	50	35	8.8	5.5	1.8	57.0 ± 2.0	0.4	40.7	3.0	65.5 ± 3.5	6500	2276
3	70	35	10.3	5.5	1.8	60 ± 2.5	0.4	40.7	3.1	68.5 ± 3.5	7500	2979
3	95	50	12.1	5.5	2.0	64.5 ± 3.0	0.5	56.5	3.3	73.5 ± 4.0	9300	4112
3	120	60	13.6	5.5	2.0	67.5 ± 3.0	0.5	70.7	3.4	77 ± 4.0	10250	4761
3	150	75	15.1	5.5	2.0	71.0 ± 3.0	0.5	91.9	3.5	80.0 ± 4.5	11700	5822
3	185	45	16.8	5.5	2.0	75.0 ± 3.5	0.5	56.5	3.7	85.0 ± 4.5	12950	6615
3	240	55	19.1	5.5	2.2	79.5 ± 3.5	0.5	70.7	3.9	90.0 ± 4.5	15900	8797

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804100	RFOU 12/20KV 1X 16/13mm² P19/P21	RED	-	7021528041002	-
	804101	RFOU 12/20KV 1X 25/13mm² P19/P21	RED	-	7021528041019	-
	804102	RFOU 12/20KV 1X 35/13mm² P19/P21	RED	-	7021528041026	-
	804103	RFOU 12/20KV 1X 50/15mm² P19/P21	RED	-	7021528041033	-
20076155		RFOU 12/20KV 1X 70/13mm² P19/P21	RED	-	7021528041040	-
20076158		RFOU 12/20KV 1X 95/17mm² P19/P21	RED	-	7021528041057	-
	804106	RFOU 12/20KV 1X120/15mm² P19/P21	RED	-	7021528041064	-
20099891		RFOU 12/20KV 1X150/15mm² P19/P21	RED	Yes	7021528041071	1061035
20092205		RFOU 12/20KV 1X185/18mm² P19/P21	RED	-	7021528041088	-
20077821		RFOU 12/20KV 1X240/23mm² P19/P21	RED	-	7021528041095	-
20076160		RFOU 12/20KV 1X300/28mm² P19/P21	RED	Yes	7021528041101	1061038
	804111	RFOU 12/20KV 1X400/35mm² P19/P21	RED	-	7021528041118	-
	804120	RFOU 12/20KV 3X 16/31mm² P19/P21	RED	-	7021528041200	-
	804121	RFOU 12/20KV 3X 25/35mm² P19/P21	RED	-	7021528041217	-
	804122	RFOU 12/20KV 3X 35/35mm² P19/P21	RED	-	7021528041224	-
	804123	RFOU 12/20KV 3X 50/35mm² P19/P21	RED	-	7021528041231	-
	804124	RFOU 12/20KV 3X 70/35mm² P19/P21	RED	-	7021528041248	-
	804125	RFOU 12/20KV 3X 95/50mm² P19/P21	RED	-	7021528041255	-
	804126	RFOU 12/20KV 3X120/60mm² P19/P21	RED	-	7021528041262	-
	804127	RFOU 12/20KV 3X150/75mm² P19/P21	RED	-	7021528041279	-
20077822		RFOU 12/20kV 3X 185/45mm² P19/P21	RED	-	7021528041286	-
	804129	RFOU 12/20KV 3X240/55mm² P19/P21	RED	-	7021528041293	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Capacitans per phase, nF/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	16	13	STCC	1.16	1.479	0.164	0.197	170	96	2240
1	25	13	STCC	0.734	0.936	0.154	0.185	190	127	3500
1	35	13	STCC	0.529	0.675	0.149	0.178	200	157	4900
1	50	15	STCC	0.391	0.499	0.140	0.169	220	196	7000
1	70	13	STCC	0.270	0.344	0.133	0.160	250	242	9800
1	95	17	STCC	0.195	0.249	0.127	0.152	270	293	13300
1	120	15	STCC	0.154	0.196	0.124	0.149	300	339	16800
1	150	15	STCC	0.126	0.161	0.119	0.142	320	389	21000
1	185	18	STCC	0.100	0.128	0.116	0.139	340	444	25900
1	240	23	STCC	0.0762	0.0972	0.112	0.134	380	522	33600
1	300	28	STCC	0.0607	0.0774	0.108	0.130	410	601	42000
1	400	35	STCC	0,0475	0,0606	0.105	0.126	490	690 dc / 670 ac	56000
3	16	31	STCC	1.16	1.48	0.143	0.172	170	67	2240
3	25	35	STCC	0.734	0.936	0.133	0.160	190	89	3500
3	35	35	STCC	0.529	0.675	0.128	0.153	200	110	4900
3	50	35	STCC	0.391	0.499	0.121	0.145	220	137	7000
3	70	35	STCC	0.270	0.344	0.115	0.135	250	169	9800
3	95	50	STCC	0.195	0.249	0.109	0.131	270	205	13300
3	120	60	STCC	0.154	0.196	0.105	0.126	300	237	16800
3	150	75	STCC	0.126	0.161	0.102	0.122	320	272	21000
3	185	45	STCC	0.100	0.128	0.099	0.118	340	311	25900
3	240	55	STCC	0.0762	0.0972	0.095	0.114	380	365	33600

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
15 x D	9 x D	50 N /mm²	-20°C

Halogen-free, mud resistant MV power cable, RFOU 18/30(36)kV, P20/P22

Flame retardant halogen-free medium voltage (MV) cable. Mud resistant

RFOU 18/30(36) kV

EPR/EPR/TCWB/EVA

NEK 606 CodeP20/P22

Operating temperature : 90°C
Operating Voltage : 18/30(36) kV

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids.

Standards applied	
IEC 60092-354	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 04 RFOU 18/30(36)KV P20/P22 3x 120/60 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 04 = Draka Industrial Cable, Germany
Outer sheath colour		Red

Range and dimensions

Number of elements	Cross section core, mm²	Cross section screen, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	50	25	8.8	8.0	1,5	32.0±1.5	0.4	36.2	2.0	38.5±2.0	2500	1119
1	70	30	10.3	8.0	1,5	33,5±2,0	0,4	36.2	2,2	40,0±3.0	3000	1463
1	95	30	12,1	8.0	1,5	35,0±2.0	0,4	40.7	2,2	42,0±3.0	3400	1698
1	120	20	13,6	8.0	1.5	37.0±2.5	0.4	40.7	2.4	44.0±3.0	3500	1939
1	150	30	15.1	8.0	1,5	39,0±2.5	0,4	45.2	2,3	45,5±3.0	3900	2280
1	185	30	16.8	8.0	1.5	40.0±2.5	0.4	49.8	2.5	47.5±3.0	4600	2675
1	240	40	19.1	8.0	1,5	42.0±2.5	0.4	49.8	2.4	50.0±3.0	5400	3250
1	300	35	21,5	8,0	1,5	45,0±2,5	0,4	54.3	2,6	53,0+-3,5	6200	3867
3	35	45	7.4	8.0	1,8	65.0±2.5	0,6	112	3.5	74.5±3.5	7750	2879
3	70	85	10.3	8.0	1,8	70.0±2.5	0,6	122	3,7	80.5±3.5	10500	4244
3	95	90	12.1	8.0	1.8	74.0±2.5	0.6	122	3.6	85.0±3.5	11850	5088
3	120	95	13.6	8.0	2,0	78.0±2.5	0,6	122	3.8	88,0±4,0	13000	5403

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	804303	RFOU 18/30KV 1x 50/25mm² P20/P22	RED	-	7021528043037	-
	804304	RFOU 18/30KV 1x 70/30mm² P20/P22	RED	-	7021528043044	-
	804305	RFOU 18/30KV 1x 95/30mm² P20/P22	RED	-	7021528043051	-
20099892		RFOU 18/30KV 1x 120/20mm² P20/P22	RED	-	7021528043068	-
	804307	RFOU 18/30KV 1x 150/ 30mm² P20/P22	RED	-	7021528043075	-
	804308	RFOU 18/30KV 1x 185/ 30mm² P20/P22	RED	-	7021528043082	-
	804309	RFOU 18/30KV 1x 240/40mm² P20/P22	RED	-	7021528043099	-
20077940		RFOU 18/30KV 1x 300/35mm² P20/P22	RED	-	7021528043105	-
	804322	RFOU 18/30KV 3x 35/45mm² P20/P22	RED	-	7021528043228	-
	804324	RFOU 18/30KV 3x 70/85mm² P20/P22	RED	-	7021528043242	-
	804325	RFOU 18/30KV 3x 95/90mm² P20/P22	RED	-	7021528043259	-
	804326	RFOU 18/30KV 3x 120/95mm² P20/P22	RED	-	7021528043266	-

Electrical values power cables

Number of elements	Cross section core, mm²	Cross section screen, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Capacitans per phase, nF/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	50	25	STCC	0.391	0.499	0.152	0.182	180	196	7000
1	70	30	STCC	0.270	0.344	0.145	0.174	190	242	9800
1	95	30	STCC	0.195	0.249	0.138	0.165	210	293	13300
1	120	20	STCC	0.154	0.193	0.133	0.160	190	339	16800
1	150	30	STCC	0.126	0.161	0,129	0,154	250	389	21000
1	185	30	STCC	0.097	0.122	0.125	0.149	265	444	25900
1	240	40	STCC	0,0762	0,0972	0.120	0.143	290	522	33600
1	300	35	STCC	0.0607	0.0774	0.115	0.135	270	601	42000
3	35	45	STCC	0.529	0.675	0.141	0.170	160	110	4900
3	70	85	STCC	0.270	0.344	0,126	0,151	190	169	9800
3	95	90	STCC	0.195	0.249	0.117	0.141	180	205	13300
3	120	95	STCC	0.154	0.196	0.115	0.135	230	237	16800

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
15 x D	9 x D	50 N /mm²	-20°C

Halogen-free, mud resistant, fire resistant power cable, BFOU 0,6/1(1,2)kV, P5/P12

Fire resistant, flame retardant halogen-free power cable. Mud resistant

BFOU 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeP5/P12

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Application

Fixed installation for power, control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 BFOU 0,6/1kV P5/P12 3 x 25/16 mm2 FLEX - FLAME IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Black

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification power cables

Single core - Black
Two cores - Blue - Brown
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 Ed 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	16	4	5.15	1.0	1.1	10 ± 0.8	0.2	5.3	1.2	13 ± 0.8	370	198
1	25	6	6.45	1.2	1.1	11.5 ± 0.8	0.3	8.5	1.3	15.5 ± 0.8	530	314
1	35	6	7.65	1.2	1.1	13 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	660	413
1	50	10	9.0	1.4	1.1	15 ± 0.8	0.3	12.7	1.4	18.5 ± 0.8	870	559
1	70	10	10.85	1.4	1.1	16.5 ± 0.8	0.3	12.7	1.4	20.5 ± 1	1120	756
1	95	10	12.60	1.6	1.1	18.5 ± 0.8	0.3	15.3	1.5	23 ± 1	1430	996
1	120	10	14.20	1.6	1.2	20.5 ± 1	0.3	15.3	1.6	25 ± 1	1730	1231
1	150	10	15.90	1.8	1.2	23 ± 1	0.3	17.8	1.7	27.5 ± 1	2120	1535
1	185	10	17.70	2.0	1.2	25 ± 1	0.3	17.8	1.7	29.5 ± 1	2500	1839
1	240	16	20.15	2.2	1.2	28 ± 1	0.3	20.4	1.8	33 ± 1.5	3150	2365
1	300	16	22.60	2.4	1.2	30.5 ± 1.5	0.3	22.9	1.9	36 ± 1.5	3890	2984
2	1.5	4	1.6	1.0	1.1	10 ± 0.8	0.2	5.3	1.2	13 ± 0.8	285	80
3	1.5	6	1.6	1.0	1.1	10.5 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	360	125
4	1.5	6	1.6	1.0	1.1	11.5 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	410	156
5	1.5	6	1.6	1.0	1.1	13 ± 0.8	0.3	10.2	1.4	16.5 ± 0.8	480	170
7	1.5	6	1.6	1.0	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	540	215
12	1.5	10	1.6	1.0	1.2	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	800	318
19	1.5	10	1.6	1.0	1.2	20.5 ± 1	0.3	17.8	1.7	25 ± 1	1090	440
27	1.5	16	1.6	1.0	1.2	24 ± 1	0.3	20.4	1.9	29 ± 1	1440	577
32	1.5	16	1.6	1.0	1.4	26.5 ± 1	0.3	22.9	2	31.5 ± 1.5	1740	671
37	1.5	16	1.6	1.0	1.4	27.5 ± 1	0.3	22.9	2	32.5 ± 1.5	1860	741
3G	1.5	-	1.6	1.0	1.1	10.5 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	360	125
4G	1.5	-	1.6	1.0	1.1	11.5 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	410	156
5G	1.5	-	1.6	1.0	1.1	13 ± 0.8	0.3	10.2	1.4	16.5 ± 0.8	480	170
2	2.5	6	2.0	1.0	1.1	11 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	370	129
3	2.5	6	2.0	1.0	1.1	11.5 ± 0.8	0.3	10.2	1.3	15 ± 0.8	420	169
4	2.5	6	2.0	1.0	1.1	12.5 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	480	192
5	2.5	6	2.0	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	570	231
7	2.5	6	2.0	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	630	277
12	2.5	10	2.0	1.0	1.2	19 ± 0.8	0.3	17.8	1.6	23 ± 1	990	450
19	2.5	16	2.0	1.0	1.2	22.5 ± 1	0.3	20.4	1.8	27 ± 1	1370	636
27	2.5	16	2.0	1.0	1.4	27 ± 1	0.3	22.9	2	32 ± 1.5	1860	844
37	2.5	25	2.0	1.0	1.4	30.5 ± 1.5	0.4	36.2	2.2	36.5 ± 1.5	2510	1204

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
3G	2.5	-	2.0	1.0	1.1	11.5 ± 0.8	0.3	10.2	1.3	15 ± 0.8	420	169
4G	2.5	-	2.0	1.0	1.1	12.5 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	480	192
5G	2.5	-	2.0	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	570	231
7G	2.5	-	2.0	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	630	277
8G	2.5	-	2.0	1.0	1.1	19.5 ± 0.8	0.3	15.3	1.5	23.5 ± 1	790	333
2	4	6	2.55	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	450	173
3	4	6	2.55	1.0	1.1	13 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	510	210
4	4	6	2.55	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	610	263
5	4	6	2.55	1.0	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	690	300
3G	4	-	2.55	1.0	1.1	13 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	510	210
4G	4	-	2.55	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	610	263
5G	4	-	2.55	1.0	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	690	300
2	6	6	3.15	1.0	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	530	209
3	6	6	3.15	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	630	281
4	6	6	3.15	1.0	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	720	335
3G	6	-	3.15	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	630	281
4G	6	-	3.15	1.0	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	720	335
5G	6	-	3.15	1.0	1.1	17 ± 0.8	0.3	13.6	1.5	21.5 ± 1	880	406
2	10	10	4.05	1.0	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	690	299
3	10	10	4.05	1.0	1.1	16 ± 0.8	0.3	11.9	1.5	20 ± 1	810	390
4	10	10	4.05	1.0	1.1	18 ± 0.8	0.3	13.6	1.5	22 ± 1	970	496
3G	10	-	4.05	1.0	1.1	16 ± 0.8	0.3	11.9	1.5	20 ± 1	810	388
4G	10	-	4.05	1.0	1.1	18 ± 0.8	0.3	13.6	1.5	22 ± 1	970	496
5G	10	-	4.05	1.0	1.2	20 ± 1	0.3	15.3	1.6	24 ± 1	1180	603
2	16	16	5.15	1.0	1.1	17.5 ± 0.8	0.5	21.2	1.5	22 ± 1	990	501
3	16	16	5.15	1.0	1.1	18.5 ± 0.8	0.4	22.6	1.5	23 ± 1	1170	660
4	16	16	5.15	1.0	1.2	20.5 ± 1	0.4	22.6	1.6	25.5 ± 1	1410	806
5	16	16	5.15	1.0	1.2	23 ± 1	0.3	20.4	1.7	27.5 ± 1	1640	930
3G	16	-	5.15	1.0	1.1	18.5 ± 0.8	0.3	15.3	1.5	22.5 ± 1	1090	588
4G	16	-	5.15	1.0	1.2	20.5 ± 1	0.3	15.3	1.6	25 ± 1	1330	734
5G	16	-	5.15	1.0	1.2	23 ± 1	0.3	17.8	1.7	27.5 ± 1	1610	905
2	25	16	6.45	1.2	1.2	21 ± 1	0.4	22.6	1.6	26 ± 1	1370	685
3	25	16	6.45	1.2	1.2	22.5 ± 1	0.3	20.4	1.7	27 ± 1	1600	894
4	25	16	6.45	1.2	1.2	25 ± 1	0.3	20.4	1.8	29.5 ± 1	1960	1125
3G	25	-	6.45	1.2	1.2	22.5 ± 1	0.3	17.8	1.7	27 ± 1	1580	869
4G	25	-	6.45	1.2	1.2	25 ± 1	0.3	17.8	1.8	29.5 ± 1	1930	1100
5G	25	-	6.45	1.2	1.2	27.5 ± 1	0.3	20.4	1.8	32 ± 1.5	2290	1356
2	35	16	7.65	1.2	1.2	23.5 ± 1	0.3	20.4	1.7	28 ± 1	1640	828
3	35	16	7.65	1.2	1.2	25 ± 1	0.3	20.4	1.8	30 ± 1.5	2000	1142
4	35	16	7.65	1.2	1.2	28 ± 1	0.3	20.4	1.9	33 ± 1.5	2460	1456
3G	35	-	7.65	1.2	1.2	25 ± 1	0.3	17.8	1.8	30 ± 1.5	1980	1117
4G	35	-	7.65	1.2	1.2	28 ± 1	0.3	20.4	1.9	33 ± 1.5	2460	1456
5G	35	-	7.65	1.2	1.4	31 ± 1.5	0.3	22.9	2	36.5 ± 1.5	3000	1795

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	50	25	9.0	1.4	1.4	27.5 ± 1	0.4	31.7	1.8	32.5 ± 1.5	2270	1181
3	50	25	9.0	1.4	1.2	29 ± 1	0.4	31.7	1.9	34.5 ± 1.5	2730	1617
4	50	25	9.0	1.4	1.4	32.5 ± 1.5	0.4	31.7	2	38 ± 1.5	3370	2052
3G	50	-	9.0	1.4	1.2	29 ± 1	0.3	22.9	1.9	34 ± 1.5	2640	1531
4G	50	-	9.0	1.4	1.4	32.5 ± 1.5	0.3	22.9	2	38 ± 1.5	3280	1968
5G	50	-	9.0	1.4	1.4	36 ± 1.5	0.4	36.2	2.2	42 ± 2	4110	2531
2	70	35	10.85	1.4	1.6	31.5 ± 1.5	0.6	50.9	2	38 ± 1.5	3190	1783
3	70	35	10.85	1.4	1.4	33.5 ± 1.5	0.5	49.5	2	39 ± 1.5	3760	2386
4	70	35	10.85	1.4	1.4	37 ± 1.5	0.4	45.2	2.2	43 ± 2	4600	2977
3G	70	-	10.85	1.4	1.4	33.5 ± 1.5	0.3	25.4	2	38.5 ± 1.5	3520	2150
4G	70	-	10.85	1.4	1.4	37 ± 1.5	0.4	36.2	2.2	43 ± 2	4510	2888
5G	70	-	10.85	1.4	1.4	41 ± 2	0.4	40.7	2.3	47 ± 2	5440	3566
3	95	50	12.60	1.6	1.4	38 ± 1.5	0.6	61.1	2.2	44.5 ± 2	4930	3169
4	95	50	12.60	1.6	1.6	42.5 ± 2	0.5	63.6	2.4	49.5 ± 2	6130	4022
3G	95	-	12.60	1.6	1.4	38 ± 1.5	0.4	36.2	2.2	44 ± 2	4640	2901
4G	95	-	12.60	1.6	1.6	42.5 ± 2	0.4	40.7	2.4	49 ± 2	5890	3794
5G	95	-	12.60	1.6	1.6	47 ± 2	0.4	45.2	2.6	54 ± 2.5	7130	4688
3	120	60	14.20	1.6	1.4	41.5 ± 2	0.6	71.3	2.4	48.5 ± 2	6020	3976
4	120	60	14.20	1.6	1.6	46.5 ± 2	0.6	71.3	2.5	53.5 ± 2.5	7460	5060
4G	120	-	14.20	1.6	1.6	46.5 ± 2	0.4	45.2	2.5	53 ± 2.5	7170	4781
4G	150	-	15.90	1.8	1.6	52 ± 2.5	0.5	49.5	2.7	59.5 ± 2.5	8900	5943
5G	150	-	15.90	1.8	1.8	58 ± 2.5	0.5	63.6	2.9	66 ± 3	10900	7450
4G	185	-	17.70	2.0	1.8	57.5 ± 2.5	0.5	56.5	2.9	65.5 ± 3	10830	7251

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20120052		BFOU 0.6/1kV 1X 16/4mm² P5/P12	BLACK	-	7021528002003	1043605
20110496		BFOU 0.6/1kV 1X 25/6mm² P5/P12	BLACK	-	7021528002010	-
	800202	BFOU 0.6/1kV 1X 35/6mm² P5/P12	BLACK	-	7021528002027	-
20110497		BFOU 0.6/1kV 1X 50/10 P5/P12	BLACK	-	7021528002034	1043608
20110498		BFOU 0.6/1kV 1X 70/10 P5/P12	BLACK	-	7021528002041	1043609
20110499		BFOU 0.6/1kV 1X 95/10 P5/P12	BLACK	Yes	7021528002058	1043610
20110500		BFOU 0.6/1kV 1X 120/10 P5/P12	BLACK	-	7021528002065	1043611
20110501		BFOU 0.6/1kV 1X 150/10 P5/P12	BLACK	Yes	7021528002072	1043612
20110502		BFOU 0.6/1kV 1X 185/10 P5/P12	BLACK	Yes	7021528002089	1043613
20110503		BFOU 0.6/1kV 1X 240/16 P5/P12	BLACK	Yes	7021528002096	-
20109432		BFOU 0.6/1kV 1X 300/16 P5/P12	BLACK	Yes	7021528002102	1043615
20110504		BFOU 0.6/1kV 2X 1.5/4 P5/P12	BLACK	Yes	7021528002157	1043620
20110507		BFOU 0.6/1kV 3X 1.5/6 P5/P12	BLACK	Yes	7021528002188	1043640
20110508		BFOU 0.6/1kV 4X 1.5/6 P5/P12	BLACK	Yes	7021528002195	1043660
20110509		BFOU 0.6/1kV 5X 1.5/6 P5/P12	BLACK	-	7021528002201	1043705
20110510		BFOU 0.6/1kV 7X 1.5/6 P5/P12	BLACK	Yes	7021528002218	1043707
20109433		BFOU 0.6/1kV 12X 1.5/10 P5/P12	BLACK	Yes	7021528002225	1043712
20110511		BFOU 0.6/1kV 19X 1.5/10 P5/P12	BLACK	Yes	7021528002232	1043719
20110512		BFOU 0.6/1kV 27X 1.5/16 P5/P12	BLACK	-	7021528002249	1043727
	800227	BFOU 0.6/1kV 32X 1.5/16 P5/P12	BLACK	-	7021528002270	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20109434		BFOU 0.6/1kV 37X 1.5/16 P5/P12	BLACK	-	7021528002256	1043737
20110505		BFOU 0.6/1kV 3G 1.5mm² P5/P12	BLACK	-	7021528002164	1043619
20110506		BFOU 0.6/1kV 4G 1.5mm² P5/P12	BLACK	-	7021528002171	-
20110513		BFOU 0.6/1kV 5G 1.5mm² P5/P12	BLACK	-	7021528002263	-
20110515		BFOU 0.6/1kV 2X 2.5/6 P5/P12	BLACK	Yes	7021528002294	1043621
20110517		BFOU 0.6/1kV 3X 2.5/6 P5/P12	BLACK	Yes	7021528002324	1043641
20110519		BFOU 0.6/1kV 4X 2.5/6 P5/P12	BLACK	Yes	7021528002355	1043661
20121182		BFOU 0.6/1kV 5X 2.5/6 P5/P12	BLACK	-	7021528002348	-
20110520		BFOU 0.6/1kV 7X 2.5/6 P5/P12	BLACK	Yes	7021528002379	1043757
20110521		BFOU 0.6/1kV 12X 2.5/10 P5/P12	BLACK	-	7021528002386	1043762
20110522		BFOU 0.6/1kV 19X 2.5/16 P5/P12	BLACK	-	7021528002393	1043769
20112294		BFOU 0.6/1kV 27X 2.5/16 P5/P12	BLACK	-	7021528002409	1043777
20109435		BFOU 0.6/1kV 37X 2.5/25 P5/P12	BLACK	-	7021528002416	1043787
20110516		BFOU 0.6/1kV 3G 2.5mm² P5/P12	BLACK	Yes	7021528002300	1043639
20110518		BFOU 0.6/1kV 4G 2.5mm² P5/P12	BLACK	Yes	7021528002331	1043659
20110523		BFOU 0.6/1kV 5G 2.5mm² P5/P12	BLACK	-	7021528002423	1043755
20110514		BFOU 0.6/1kV 7G 2.5mm² P5/P12	BLACK	-	7021528002287	-
	800236	BFOU 0.6/1kV 8G 2.5mm² P5/P12	BLACK	-	7021528002362	-
20110526		BFOU 0.6/1kV 2X 4/6mm² P5/P12	BLACK	Yes	7021528002454	1043622
20110527		BFOU 0.6/1kV 3X 4/6mm² P5/P12	BLACK	Yes	7021528002461	1043642
20110528		BFOU 0.6/1kV 4X 4/6mm² P5/P12	BLACK	Yes	7021528002478	1043662
20110529		BFOU 0.6/1kV 5X 4/6mm² P5/P12	BLACK	-	7021528002485	-
20110529		BFOU 0.6/1kV 3G 4mm² P5/P12	BLACK	-	7021528002508	-
20110524		BFOU 0.6/1kV 4G 4mm² P5/P12	BLACK	Yes	7021528002430	-
20110525		BFOU 0.6/1kV 5G 4mm² P5/P12	BLACK	-	7021528002447	-
20110530		BFOU 0.6/1kV 2X 6/6mm² P5/P12	BLACK	Yes	7021528002515	1043623
20110531		BFOU 0.6/1kV 3X 6/6mm² P5/P12	BLACK	Yes	7021528002522	1043643
20110532		BFOU 0.6/1kV 4X 6/6mm² P5/P12	BLACK	Yes	7021528002539	1043663
20110533		BFOU 0.6/1kV 3G 6mm² P5/P12	BLACK	Yes	7021528002546	-
20110534		BFOU 0.6/1kV 4G 6mm² P5/P12	BLACK	-	7021528002553	-
20110535		BFOU 0.6/1kV 5G 6mm² P5/P12	BLACK	-	7021528002560	-
20110536		BFOU 0.6/1kV 2X 10/10 P5/P12	BLACK	Yes	7021528002577	1043624
20110537		BFOU 0.6/1kV 3X 10/10 P5/P12	BLACK	Yes	7021528002584	1043644
20110538		BFOU 0.6/1kV 4X 10/10 P5/P12	BLACK	Yes	7021528002591	1043664
20110539		BFOU 0.6/1kV 3G 10mm² P5/P12	BLACK	-	7021528002607	-
20110540		BFOU 0.6/1kV 4G 10mm² P5/P12	BLACK	-	7021528002614	-
20110541		BFOU 0.6/1kV 5G 10mm² P5/P12	BLACK	-	7021528002621	-
20109436		BFOU 0.6/1kV 2X 16/16 P5/P12	BLACK	Yes	7021528002638	1043625
20110542		BFOU 0.6/1kV 3X 16/16 P5/P12	BLACK	Yes	7021528002645	1043645
20110543		BFOU 0.6/1kV 4X 16/16 P5/P12	BLACK	Yes	7021528002652	1043665
	800316	BFOU 0.6/1kV 5X 16/16 P5/P12	BLACK	-	7021528003161	-
20110544		BFOU 0.6/1kV 3G 16mm² P5/P12	BLACK	-	7021528002669	-
20110546		BFOU 0.6/1kV 4G 16mm² P5/P12	BLACK	-	7021528002683	-
20110545		BFOU 0.6/1kV 5G 16mm² P5/P12	BLACK	-	7021528002676	-
20110547		BFOU 0.6/1kV 2X 25/16 P5/P12	BLACK	-	7021528002690	1043626
20110548		BFOU 0.6/1kV 3X 25/16 P5/P12	BLACK	Yes	7021528002706	1043646
20110549		BFOU 0.6/1kV 4X 25/16 P5/P12	BLACK	Yes	7021528002713	1043666
	800274	BFOU 0.6/1kV 3G 25mm² P5/P12	BLACK	-	7021528002744	-
	800272	BFOU 0.6/1kV 4G 25mm² P5/P12	BLACK	-	7021528002720	-
	800273	BFOU 0.6/1kV 5G 25mm² P5/P12	BLACK	-	7021528002737	-
20110762		BFOU 0.6/1kV 2X 35/16 P5/P12	BLACK	-	7021528002751	1043627
20110550		BFOU 0.6/1kV 3X 35/16 P5/P12	BLACK	Yes	7021528002768	1043647
20110551		BFOU 0.6/1kV 4X 35/16 P5/P12	BLACK	Yes	7021528002775	1043667
	800278	BFOU 0.6/1kV 3G 35mm² P5/P12	BLACK	-	7021528002782	-
	800279	BFOU 0.6/1kV 4G 35mm² P5/P12	BLACK	-	7021528002799	-
20110763		BFOU 0.6/1kV 5G 35mm² P5/P12	BLACK	-	7021528002805	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20121221		BFOU 0.6/1kV 2X 50/25 P5/P12	BLACK	-	7021528002812	-
20110552		BFOU 0.6/1kV 3X 50/25 P5/P12	BLACK	Yes	7021528002829	1043648
20110553		BFOU 0.6/1kV 4X 50/25 P5/P12	BLACK	-	7021528002836	1043668
	800286	BFOU 0.6/1kV 3G 50mm² P5/P12	BLACK	-	7021528002867	-
	800285	BFOU 0.6/1kV 4G 50mm² P5/P12	BLACK	-	7021528002850	-
	800284	BFOU 0.6/1kV 5G 50mm² P5/P12	BLACK	-	7021528002843	-
20110554		BFOU 0.6/1kV 2X 70/35 P5/P12	BLACK	-	7021528002874	1043629
20109437		BFOU 0.6/1kV 3X 70/35 P5/P12	BLACK	Yes	7021528002881	1043649
20109438		BFOU 0.6/1kV 4X 70/35 P5/P12	BLACK	-	7021528002898	1043669
20109439		BFOU 0.6/1kV 5X 70/35 P5/P12	BLACK	-	7021528002935	-
	800292	BFOU 0.6/1kV 3G 70mm² P5/P12	BLACK	-	7021528002928	-
	800290	BFOU 0.6/1kV 4G 70mm² P5/P12	BLACK	-	7021528002904	-
	800291	BFOU 0.6/1kV 5G 70mm² P5/P12	BLACK	-	7021528002911	-
20115558		BFOU 0.6/1kV 2X 95/50 P5/P12	BLACK	-	7021528002942	-
20109440		BFOU 0.6/1kV 3X 95/50 P5/P12	BLACK	Yes	7021528002959	1043650
20109441		BFOU 0.6/1kV 4X 95/50 P5/P12	BLACK	Yes	7021528002966	1043670
	800299	BFOU 0.6/1kV 3G 95mm² P5/P12	BLACK	-	7021528002997	-
20110764		BFOU 0.6/1kV 4G 95mm² P5/P12	BLACK	-	7021528002973	-
20109442		BFOU 0.6/1kV 5G 95mm² P5/P12	BLACK	-	7021528002980	-
20109443		BFOU 0.6/1kV 3X 120/60 P5/P12	BLACK	Yes	7021528003017	1043651
20120715		BFOU 0.6/1kV 4X 120/60 P5/P12	BLACK	-	7021528003048	-
	800306	BFOU 0.6/1kV 4G 120mm² P5/P12	BLACK	-	7021528003062	-
	800307	BFOU 0.6/1kV 4G 150mm² P5/P12	BLACK	-	7021528003079	-
20132888		BFOU 0.6/1kV 5G 150mm² P5/P12	BLACK	-	7021528003185	-
20121096		BFOU 0.6/1kV 4G 185mm² P5/P12	BLACK	-	7021528003109	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	16	4	STCC	1.16	1.48	0.118	0.142	96	2240
1	25	6	STCC	0.734	0.936	0.114	0.136	127	3500
1	35	6	STCC	0.529	0.675	0.108	0.129	157	4900
1	50	10	STCC	0.391	0.499	0.105	0.126	196	7000
1	70	10	STCC	0.27	0.344	0.1	0.12	242	9800
1	95	10	STCC	0.195	0.249	0.097	0.116	293	13300
1	120	10	STCC	0.154	0.196	0.095	0.114	339	16800
1	150	10	STCC	0.126	0.161	0.094	0.112	389	21000
1	185	10	STCC	0.1	0.128	0.092	0.11	444	25900
1	240	16	STCC	0.0762	0.0972	0.09	0.108	522	33600
1	300	16	STCC	0.0607	0.0774	0.088	0.106	601	42000
2	1.5	4	STCC	12.2	15.6	0.115	0.138	20	210
3	1.5	6	STCC	12.2	15.6	0.115	0.138	16	210
4	1.5	6	STCC	12.2	15.6	0.115	0.138	16	210
5	1.5	6	STCC	12.2	15.6	0.115	0.138	13.5	210
7	1.5	6	STCC	12.2	15.6	0.115	0.138	12	210
12	1.5	10	STCC	12.2	15.6	0.115	0.138	10	210
19	1.5	10	STCC	12.2	15.6	0.115	0.138	8.5	210
27	1.5	16	STCC	12.2	15.6	0.115	0.138	7.5	210
32	1.5	16	STCC	12.2	15.6	0.115	0.138	7	210
37	1.5	16	STCC	12.2	15.6	0.115	0.138	7	210
3G	1.5	-	STCC	12.2	15.6	0.115	0.138	20	210
4G	1.5	-	STCC	12.2	15.6	0.115	0.138	16	210
5G	1.5	-	STCC	12.2	15.6	0.115	0.138	16	210
2	2.5	6	STCC	7.56	9.64	0.107	0.129	26	350
3	2.5	6	STCC	7.56	9.64	0.107	0.129	21	350

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
5	2.5	6	STCC	7.56	9.64	0.107	0.129	17.5	350
4	2.5	6	STCC	7.56	9.64	0.107	0.129	21	350
7	2.5	6	STCC	7.56	9.64	0.107	0.129	15.5	350
12	2.5	10	STCC	7.56	9.64	0.107	0.129	13	350
19	2.5	16	STCC	7.56	9.64	0.107	0.129	11	350
27	2.5	16	STCC	7.56	9.64	0.107	0.129	10	350
37	2.5	25	STCC	7.56	9.64	0.107	0.129	9	350
3G	2.5	-	STCC	7.56	9.64	0.107	0.129	26	350
4G	2.5	-	STCC	7.56	9.64	0.107	0.129	21	350
5G	2.5	-	STCC	7.56	9.64	0.107	0.129	21	350
7G	2.5	-	STCC	7.56	9.64	0.107	0.129	16.5	350
8G	2.5	-	STCC	7.56	9.64	0.107	0.129	15.5	350
2	4	6	STCC	4.7	5.99	0.100	0.120	34	560
3	4	6	STCC	4.7	5.99	0.100	0.120	28	560
4	4	6	STCC	4.7	5.99	0.1	0.120	28	560
5	4	6	STCC	4.7	5.99	0.1	0.120	23.5	560
3G	4	-	STCC	4.7	5.99	0.1	0.120	34	560
4G	4	-	STCC	4.7	5.99	0.1	0.120	28	560
5G	4	-	STCC	4.7	5.99	0.1	0.120	28	560
2	6	6	STCC	3.11	3.97	0.094	0.112	44	840
3	6	6	STCC	3.11	3.97	0.094	0.112	36	840
4	6	6	STCC	3.11	3.97	0.094	0.112	36	840
3G	6	-	STCC	3.11	3.97	0.094	0.112	44	840
4G	6	-	STCC	3.11	3.97	0.094	0.112	36	840
5G	6	-	STCC	3.11	3.97	0.094	0.112	36	840
2	10	10	STCC	1.84	2.35	0.088	0.105	61	1400
3	10	10	STCC	1.84	2.35	0.088	0.105	50	1400
4	10	10	STCC	1.84	2.35	0.088	0.105	50	1400
3G	10	-	STCC	1.84	2.35	0.088	0.105	61	1400
4G	10	-	STCC	1.84	2.35	0.088	0.105	50	1400
5G	10	-	STCC	1.84	2.35	0.088	0.105	50	1400
2	16	16	STCC	1.16	1.48	0.082	0.099	80	2240
3	16	16	STCC	1.16	1.48	0.082	0.099	67	2240
4	16	16	STCC	1.16	1.48	0.082	0.099	67	2240
5	16	16	STCC	1.16	1.48	0.082	0.099	56	2240
3G	16	-	STCC	1.16	1.48	0.082	0.099	80	2240
4G	16	-	STCC	1.16	1.48	0.082	0.099	67	2240
5G	16	-	STCC	1.16	1.48	0.082	0.099	67	2240
2	25	16	STCC	0.734	0.936	0.081	0.098	108	3500
3	25	16	STCC	0.734	0.936	0.081	0.098	89	3500
4	25	16	STCC	0.734	0.936	0.081	0.098	89	3500
3G	25	-	STCC	0.734	0.936	0.081	0.098	108	3500
4G	25	-	STCC	0.734	0.936	0.081	0.098	89	3500
5G	25	-	STCC	0.734	0.936	0.081	0.098	89	3500
2	35	16	STCC	0.529	0.675	0.078	0.094	133	4900
3	35	16	STCC	0.529	0.675	0.078	0.094	110	4900
4	35	16	STCC	0.529	0.675	0.078	0.094	110	4900
3G	35	-	STCC	0.529	0.675	0.078	0.094	133	4900
4G	35	-	STCC	0.529	0.675	0.078	0.094	110	4900
5G	35	-	STCC	0.529	0.675	0.078	0.094	110	4900
2	50	25	STCC	0.391	0.499	0.078	0.094	167	7000
3	50	25	STCC	0.391	0.499	0.078	0.093	137	7000
4	50	25	STCC	0.391	0.499	0.078	0.093	137	7000
3G	50	-	STCC	0.391	0.499	0.078	0.093	167	7000
4G	50	-	STCC	0.391	0.499	0.078	0.093	137	7000

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
5G	50	-	STCC	0.391	0.499	0.078	0.093	137	7000
2	70	35	STCC	0.27	0.344	0.075	0.092	206	9800
3	70	35	STCC	0.27	0.344	0.077	0.092	169	9800
4	70	35	STCC	0.27	0.344	0.077	0.092	169	9800
3G	70	-	STCC	0.27	0.344	0.075	0.092	206	9800
4G	70	-	STCC	0.27	0.344	0.075	0.092	169	9800
5G	70	-	STCC	0.27	0.344	0.075	0.092	169	9800
3	95	50	STCC	0.195	0.249	0.075	0.090	205	13300
4	95	50	STCC	0.195	0.249	0.075	0.090	205	13300
3G	95	-	STCC	0.195	0.249	0.075	0.090	249	13300
4G	95	-	STCC	0.195	0.249	0.075	0.090	205	13300
5G	95	-	STCC	0.195	0.249	0.075	0.090	205	13300
3	120	60	STCC	0.154	0.196	0.073	0.088	237	16800
4	120	60	STCC	0.154	0.196	0.073	0.088	237	16800
4G	120	-	STCC	0.154	0.196	0.073	0.088	237	16800
4G	150	-	STCC	0.126	0.161	0.073	0.088	272	21000
4G	185	-	STCC	0.1	0.128	0.073	0.088	311	25900

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant, fire resistant power cable, BFOU 0,6/1(1,2)kV, P5/P12, double braided

Fire resistant, flame retardant halogen-free power cable. Mud resistant. Double braided.

BFOU 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeP5/P12

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Application

Fixed installation for power, control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape + rubberized Polyamide tape
Armour/screen	**O**	Two layers of tinned copper wire braid (double braid)
Tape over armour/screen		PET tape + rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 BFOU 0,6/1kV P5/P12 3 x 25/16 mm2 FLEX - FLAME IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Black

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification power cables

Single core - Black
Two cores - Blue - Brown
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 Ed 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	150	75	18.1	1.8	1.8	44 ± 2	0.4	90.5	2.5	52 ± 2.5	5390	3622
3	150	75	15.90	1.8	1.4	46.5 ± 2	0.4	86	2.6	54.5 ± 2.5	7510	4992
4	150	75	15.90	1.8	1.6	52 ± 2.5	0.5	99	2.8	61 ± 3	9470	6451
3	185	95	17.70	2.0	1.6	51 ± 2.5	0.5	127.2	2.8	60.5 ± 3	9350	6295
4	185	95	17.7	2.0	1.8	57.5 ± 2.5	0.6	122.1	2.9	68±3	11620	7750
2	240	120	20.2	2.2	1.8	54 ± 2.5	0.6	142.5	2.9	64 ± 3	9110	5845
3	240	120	20.2	2.2	1.8	58 ± 2.5	0.6	142.5	3	68.5 ± 3	11870	8042

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	800317	BFOU 0.6/1kV 2X 150/75 P5/P12	BLACK	-	7021528003178	-
20109444		BFOU 0.6/1kV 3X 150/75 P5/P12	BLACK	Yes	7021528003024	1043652
20117948		BFOU 0.6/1kV 4X 150/75 P5/P12	BLACK	-	7021528003093	-
20110765		BFOU 0.6/1kV 3X 185/95 P5/P12	BLACK	-	7021528003925	-
20118466		BFOU 0.6/1kV 4X 185/95 P5/P12	BLACK	-	7021528003918	-
	800315	BFOU 0.6/1kV 2X 240/120 P5/P12	BLACK	-	7021528003154	-
	800314	BFOU 0.6/1kV 3X 240/120 P5/P12	BLACK	-	7021528003147	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
2	150	75	KGTFR	0.126	0.161	0.072	0.088	331	21000
3	150	75	KGTFR	0.126	0.161	0.073	0.088	272	21000
4	150	75	KGTFR	0.126	0.161	0.073	0.088	272	21000
3	185	95	KGTFR	0.1	0.128	0.073	0.088	311	25900
4	185	95	KGTFR	0.1	0.128	0.073	0.088	311	25900
2	240	120	KGTFR	0.0762	0.0972	0.074	0.089	444	33600
3	240	120	KGTFR	0.0762	0.0972	0.074	0.089	365	33600

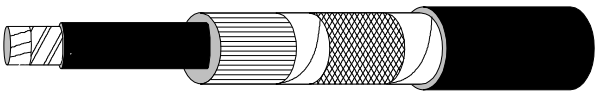
Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant, fire resistant power cable, BFOU 0,6/1(1,2)kV, P5/P12, large single core cables



Fire resistant, flame retardant halogen-free power cable. Mud resistant. Single core cable.

BFOU 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeP5/P12

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Application

Fixed installation for power, control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 BFOU 0,6/1kV P5/P12 3 x 25/16 mm2 FLEX - FLAME IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Black

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification power cables

Single core - Black
Two cores - Blue - Brown
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 Ed 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	400	25	26.00	2.6	1.4	35 ± 1.5	0.4	31.7	2.1	41 ± 2	5130	3974
1	500	25	29.0	2.8	1.4	38 ± 1.5	0.4	36.2	2.2	44.5 ± 2	6240	4923
1	630	25	32.80	2.8	1.4	42 ± 2	0.4	40.7	2.3	48.5 ± 2	7690	6205

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20132148		BFOU 0.6/1kV 1X 400/25 P5/P12	BLACK	-	7021528002119	-
	800212	BFOU 0.6/1kV 1X 500/25 P5/P12	BLACK	-	7021528002126	-
	800213	BFOU 0.6/1kV 1X 630/25 P5/P12	BLACK	-	7021528002133	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	400	25	STCC	0.0475	0.0606	0.088	0.105	690 dc / 670 ac	56000
1	500	25	STCC	0.0369	0.0471	0.086	0.103	780 dc / 720 ac	70000
1	630	25	STCC	0.0286	0.0365	0.084	0.100	890 dc / 780 ac	88200

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, mud resistant insulated conductor UX 1000V, P15

Flame retardant conductors

UX 1000V

Halogen-free, NEK TS 606 Type: P15

Maximum operating
Conductor temperature : 90°C
Operating voltage : 1000V

Application

Insulated conductor for earthing and bonding services.
Mud resistant in accordance with NEK TS 606:2009.

Standards applied

IEC:60092-353 & NEK TS 606:2009	- Design guidelines
IEC:60228 class 2	- Conductor
IEC:60332-1	- Flame retardance
IEC:60332-3-22	- Flame retardance
IEC:60754-1,2	- Halogen-free properties
IEC:61034-1,2	- Smoke density

CONSTRUCTION

	CODE LETTER	
Conductor		Tinned, stranded copper, IEC 60228 class 2 PETP-tape.
Insulation	**U**	Flame retardant halogen-free thermoset compound, HF90 (IEC 60092-360).
Unsheathed	**X**	
Marking		E.g; ”meter” ”year” DRAKA NORSK KABEL UX 1000V P15 1x 95 mm² IEC 332-3-22
Colour		Yellow/green

RANGE AND DIMENSIONS: UX 1000V Insulated conductor, P15

Conductor area (mm²)	Conductor diameter approx. (mm)	Insulation thickness (mm)	Diameter over insulation (mm)	Weight of conductor approx. (kg/km)	Copper content approx. (kg/km)
6	3,15	1,0	5,5±0,8	80	54
10	4,05	1,0	6,5±0,8	120	87
16	5,15	1,0	7,5±0,8	180	143
25	6,4	1,2	9,5±0,8	280	224
35	7,65	1,2	10,5±1,0	370	310
50	9,00	1,4	12,5±1,0	520	430
70	10,85	1,4	14,5±1,0	730	620
95	12,60	1,6	16,5±1,0	970	840
120	14,20	1,6	18,0±1,0	1220	1080
150	15,90	1,8	20,0±1,5	1520	1342
185	17,70	2,0	22,0±1,5	1890	1670
240	20,15	2,2	25,0±1,5	2450	2183
300	22,60	2,4	28,0±1,5	3090	2762
630	32,80	2,8	38,5±2,0	6350	5800

Electrical characteristics:

Conductor area (mm²)	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating at 1 second, Ampere
6	3.11	3.97	52	840
10	1.84	2.35	72	1400
16	1.16	1.48	96	2240
25	0.734	0.936	127	3500
35	0.529	0.675	157	4900
50	0.391	0.499	196	7000
70	0.27	0.344	242	9800
95	0.195	0.249	293	13300
120	0.154	0.196	339	16800
150	0.126	0.161	389	21000
185	0.100	0.128	444	25900
240	0.0762	0.0972	522	33600
300	0.0607	0.0774	601	42000
630	0.0286	0.0359	890 dc / 780 ac	88200

Installation recommendations:

In accordance with IEC 60092-352

Minimum bending radius		**Maximum pulling tension**	**Minium installation temperature**
During installation	**Fixed installed**	25N x total cross section of conductors	- 20 °C
8 x cable diameter	6 x cable diameter		

Ordering information:

New Part number	Old Part number	Conductor area (mm²)	Stock item	El-number (Norway only)
20109530		6	Yes	1045541
20109531		10	Yes	1045542
20109532		16	Yes	1045543
20109533		25	Yes	1045553
20109534		35	Yes	1045563
20109535		50	-	1045573
20109536		70	Yes	1045583
20109537		95	Yes	1045593
20121097		120	-	1045603
20109538		150	Yes	1045604
	800810	185	-	-
	800811	240	-	-
	800812	300	-	-
	800815	630	-	-

Halogen-free, fire resistant, unarmoured, mud resistant power cable, BU 0,6/1(1,2)kV, P17

Fire resistant, flame retardant halogen-free power cable. Mud resistant

BU 0,6/1(1,2)kV

MGT/EPR/EVA

NEK TS 606 CodeP17

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Application

Fixed installation for power, control and lighting in safe areas, emergency and critical systems where requirement for fire resistance exists. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009. These cables are double-insulated and Single core cables are used as battery cables.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 BU 0,6/1kV P17 1 x 70 mm2 IEC 60331-21 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core – Black
Two cores - Blue – Brown
Three cores - Brown - Black – Grey
Four cores - Blue - Brown - Black – Grey
Five cores - Blue - Brown - Black - Grey – Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue – Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 Ed 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	10	4.05	1.0	1	8.5 ± 0.5	165	91
1	16	5.15	1.0	1.1	10 ± 0.8	235	146
1	25	6.45	1.2	1.1	11.5 ± 0.8	350	231
1	35	7.65	1.2	1.2	13 ± 0.8	460	314
1	50	9.0	1.4	1.2	15 ± 0.8	620	434
1	70	10.85	1.4	1.3	17 ± 0.8	850	632
1	95	12.60	1.6	1.4	19.5 ± 0.8	1120	847
1	120	14.20	1.6	1.4	21 ± 1	1380	1082
1	150	15.90	1.8	1.5	23.5 ± 1	1730	1360
1	185	17.70	2.0	1.6	25.5 ± 1	2100	1664
1	240	20.15	2.2	1.7	29 ± 1	2700	2165
2	1.5	1.6	1.0	1.1	10 ± 0.8	150	28
3	1.5	1.6	1.0	1.1	10.5 ± 0.8	175	42
7	1.5	1.6	1.0	1.2	13 ± 0.8	310	98
19	1.5	1.6	1.0	1.5	21 ± 1	740	266
3G	1.5	1.6	1.0	1.1	10.5 ± 0.8	175	42
7G	1.5	1.6	1.0	1.2	13 ± 0.8	310	98
2	2.5	2.0	1.0	1.1	11 ± 0.8	185	46
3	2.5	2.0	1.0	1.2	11.5 ± 0.8	220	69
7	2.5	2.0	1.0	1.3	14.5 ± 0.8	400	161
12	2.5	2.0	1.0	1.4	19.5 ± 0.8	640	276
19	2.5	2.0	1.0	1.6	23 ± 1	970	436
3G	2.5	2.0	1.0	1.2	11.5 ± 0.8	220	69
4G	2.5	2.0	1.0	1.2	13 ± 0.8	265	92
5G	2.5	2.0	1.0	1.3	14.5 ± 0.8	340	115
3	4	2.55	1.0	1.2	13 ± 0.8	295	110
3G	4	2.55	1.0	1.2	13 ± 0.8	295	110
4G	4	2.55	1.0	1.3	14.5 ± 0.8	370	147
2	6	3.15	1.0	1.2	13.5 ± 0.8	310	110
3	6	3.15	1.0	1.2	14.5 ± 0.8	380	164
4G	6	3.15	1.0	1.3	16 ± 0.8	480	219
5G	6	3.15	1.0	1.4	18 ± 0.8	600	273
2	10	4.05	1.0	1.3	15.5 ± 0.8	440	182
3	10	4.05	1.0	1.3	16.5 ± 0.8	550	272
4G	10	4.05	1.0	1.4	18.5 ± 0.8	690	363
3	16	5.15	1.0	1.4	19 ± 0.8	790	438
4G	16	5.15	1.0	1.5	21.5 ± 1	1000	584
3	25	6.45	1.2	1.5	23 ± 1	1190	694
3G	25	6.45	1.2	1.5	23 ± 1	1190	694

Number of elements	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
3	35	7.65	1.2	1.7	26 ± 1	1550	942
4G	35	7.65	1.2	1.7	29 ± 1	2000	1256
3	50	9.0	1.4	1.9	30 ± 1.5	2120	1306
3	150	15.9	1.8	2.3	48 ± 2	5910	4091
4G	150	15.9	1.8	2.5	53.5 ± 2.5	7750	5455

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20130809		BU 0.6/1kV 1X 10mm² P17	BLACK	-	7021528012149	-
	801200	BU 0.6/1kV 1X 16mm² P17	BLACK	-	7021528012002	-
	801201	BU 0.6/1kV 1X 25mm² P17	BLACK	-	7021528012019	1061201
20110766		BU 0.6/1kV 1X 35mm² P17	BLACK	-	7021528012026	-
20121092		BU 0.6/1kV 1X 50mm² P17	BLACK	-	7021528012033	1061203
20110767		BU 0.6/1kV 1X 70mm² P17	BLACK	-	7021528012040	-
	801205	BU 0.6/1kV 1X 95mm² P17	BLACK	-	7021528012057	1061205
20121093		BU 0.6/1kV 1X 120mm² P17	BLACK	-	7021528012064	-
20109454		BU 0.6/1kV 1X 150mm² P17	BLACK	-	7021528012071	1061207
20132893		BU 0.6/1kV 1X 185mm² P17	BLACK	-	7021528012088	-
	801209	BU 0.6/1kV 1X 240mm² P17	BLACK	-	7021528012095	-
20109455		BU 0.6/1kV 2X 1.5mm² P17	BLACK	-	7021528012156	-
	801218	BU 0.6/1kV 3X 1.5mm² P17	BLACK	-	7021528012187	-
	801225	BU 0.6/1kV 7X 1.5mm² P17	BLACK	-	7021528012255	-
	801228	BU 0.6/1kV 19X 1.5mm² P17	BLACK	-	7021528012286	-
20112689		BU 0.6/1kV 3G 1.5mm² P17	BLACK	-	7021528012163	-
	801224	BU 0.6/1kV 7G 1.5mm² P17	BLACK	-	7021528012248	-
	801233	BU 0.6/1kV 2X 2.5mm² P17	BLACK	-	7021528012330	-
	801236	BU 0.6/1kV 3X 2.5mm² P17	BLACK	-	7021528012361	-
	801244	BU 0.6/1kV 7X 2.5mm² P17	BLACK	-	7021528012446	-
	801245	BU 0.6/1kV 12X 2.5mm² P17	BLACK	-	7021528012453	-
	801246	BU 0.6/1kV 19X 2.5mm² P17	BLACK	-	7021528012460	-
20096771		BU 0.6/1kV 3G 2.5mm² P17	BLACK	Yes	7021528012347	-
20117121		BU 0.6/1kV 4G 2.5mm² P17	BLACK	-	7021528012378	-
20131218		BU 0.6/1kV 5G 2.5mm² P17	BLACK	-	7021528012408	-
20109456		BU 0,6/1KV 3X 4 MM2 P17	BLACK	-	7021528012538	-
	801254	BU 0.6/1kV 3G 4mm² P17	BLACK	-	7021528012545	-
2019457		BU 0.6/1kV 4G 4mm² P17	BLACK	-	7021528012569	-
20109458		BU 0,6/1KV 2X 6 MM2 P17	BLACK	-	7021528012590	-
	801261	BU 0.6/1kV 3X 6mm² P17	BLACK	-	7021528012613	-
20109459		BU 0.6/1kV 4G 6mm² P17	BLACK	-	7021528012620	-
	801263	BU 0.6/1kV 5G 6mm² P17	BLACK	-	7021528012637	-
	801266	BU 0.6/1kV 2X 10mm² P17	BLACK	-	7021528012668	-
	801267	BU 0.6/1kV 3X 10mm² P17	BLACK	-	7021528012675	-
20109460		BU 0.6/1kV 4G 10mm² P17	BLACK	-	7021528012699	-
20121091		BU 0.6/1kV 3X 16mm² P17	BLACK	-	7021528012736	-
20113144		BU 0.6/1kV 4G 16mm² P17	BLACK	-	7021528012750	-
	801279	BU 0.6/1kV 3X 25mm² P17	BLACK	-	7021528012798	-
	801280	BU 0.6/1kV 3G 25mm² P17	BLACK	-	7021528012804	-
	801286	BU 0,6/1KV 3X 35 mm² P17	BLACK	-	7021528012866	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20109461		BU 0.6/1kV 4G 35mm² P17	BLACK	-	7021528012897	-
	801292	BU 0,6/1KV 3X 50 mm² P17	BLACK	-	7021528012927	-
	801298	BU 0,6/1KV 3X 150 mm² P17	BLACK	-	702152801298	-
20109462		BU 0.6/1kV 4G 150mm² P17	BLACK	-	7021528013078	-

Electrical values power cables

Number of elements	Cross section core, mm²	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	10	1.84	2.35	0.107	0.128	72	1400
1	16	1.16	1.48	0.1	0.12	96	2240
1	25	0.734	0.936	0.096	0.115	127	3500
1	35	0.529	0.675	0.093	0.111	157	4900
1	50	0.391	0.499	0.091	0.11	196	7000
1	70	0.27	0.344	0.087	0.105	242	9800
1	95	0.195	0.249	0.086	0.103	293	13300
1	120	0.154	0.196	0.084	0.1	339	16800
1	150	0.126	0.161	0.084	0.1	389	21000
1	185	0.1	0.128	0.083	0.099	444	25900
1	240	0.0762	0.128	0.082	0.098	522	33600
2	1.5	12.2	15.6	0.11	0.138	20	210
3	1.5	12.2	15.6	0.11	0.138	16	210
7	1.5	12.2	15.6	0.11	0.138	12	210
19	1.5	12.2	15.6	0.11	0.138	8.5	210
3G	1.5	12.2	15.6	0.11	0.138	20	210
7G	1.5	12.2	15.6	0.11	0.138	12.5	210
2	2.5	7.56	9.64	0.103	0.129	26	350
3	2.5	7.56	9.64	0.103	0.129	21	350
7	2.5	7.56	9.64	0.103	0.129	15.5	350
12	2.5	7.56	15.6	0.103	0.129	13	350
19	2.5	7.56	15.6	0.103	0.129	11	350
3G	2.5	7.56	9.64	0.103	0.129	26	350
4G	2.5	7.56	9.64	0.103	0.129	21	350
5G	2.5	7.56	9.64	0.103	0.129	21	350
3	4	4.7	5.99	0.096	0.120	28	560
3G	4	4.7	9.64	0.096	0.120	34	560
4G	4	4.7	9.64	0.096	0.120	28	560
2	6	3.11	3.97	0.09	0.112	44	840
3	6	3.11	3.97	0.09	0.112	36	840
4G	6	3.11	3.97	0.09	0.112	36	840
5G	6	3.11	3.97	0.09	0.112	36	840
2	10	1.84	3.97	0.084	0.105	61	1400
3	10	1.84	2.35	0.084	0.105	50	1400
4G	10	1.84	2.35	0.084	0.105	50	1400
3	16	1.16	1.48	0.08	0.099	67	2240
4G	16	1.16	1.48	0.08	0.099	67	2240
3	25	0.734	0.936	0.079	0.098	89	3500
3G	25	0.734	0.936	0.079	0.098	108	3500
3	35	0.529	0.675	0.076	0.094	110	4900

Number of elements	Cross section core, mm²	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
4G	35	0.529	0.675	0.076	0.094	110	4900
3	50	0.391	0.499	0.076	0.093	137	7000
3	150	0.126	0.161	0.072	0.088	272	21000
4G	150	0.126	0.161	0.072	0.088	272	21000

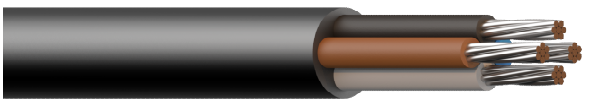
Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Halogen-free, unarmoured, mud resistant power cable, RU 0,6/1(1,2)kV, P18



Flame retardant halogen-free power cable.
Mud resistant

RU 0,6/1(1,2)kV

EPR/EVA

NEK TS 606 CodeP18

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Application

Fixed installation for power,control and lighting in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK TS 606:2009. These cables are double-insulated and Single core cables are used as battery cables.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering		No inner covering. (Additional tapes may be applied)
Armour/screen		No armour.
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RU 0,6/1KV P18 3 x 2,5 mm2 IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core – Black
Two cores - Blue – Brown
Three cores - Brown - Black – Grey
Four cores - Blue - Brown - Black – Grey
Five cores - Blue - Brown - Black - Grey – Black
Seven cores and above - White with black numbers
Two cores + earth (3G) - Yellow/green - Blue – Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core
Core identification - to HD308S2 - and IEC 60445 Ed 5.0 2010-08

Range and dimensions

Number of elements	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	25	6.45	1.2	1.1	11.5 ± 0.8	340	231
1	50	9.0	1.4	1.2	14.5 ± 0.8	610	434
1	70	10.9	1.4	1.3	16.5 ± 0.8	820	632
1	95	12.60	1.6	1.4	19 ± 0.8	1110	847
1	120	14.20	1.6	1.4	20.5 ± 1	1370	1082
1	150	15.90	1.8	1.5	23 ± 1	1710	1357
1	185	17.70	2.0	1.6	25.5 ± 1	2090	1664
1	240	20.15	2.2	1.7	28.5 ± 1	2680	2165
1	300	22.60	2.4	1.8	31.5 ± 1.5	3370	2757
2	1.5	1.6	1.0	1.1	9.5 ± 0.5	135	28
3	1.5	1.6	1.0	1.1	10 ± 0.8	160	42
4	1.5	1.6	1.0	1.1	11 ± 0.8	190	56
5	1.5	1.6	1.0	1.2	12 ± 0.8	240	70
7	1.5	1.6	1.0	1.2	12.5 ± 0.8	280	98
12	1.5	1.6	1.0	1.4	16.5 ± 0.8	460	168
19	1.5	1.6	1.0	1.5	19.5 ± 0.8	680	266
24	1.5	1.6	1.0	1.6	25 ± 1	890	335
3G	1.5	1.6	1.0	1.1	10 ± 0.8	160	42
4G	1.5	1.6	1.0	1.1	11 ± 0.8	190	56
5G	1.5	1.6	1.0	1.2	12 ± 0.8	240	70
7G	1.5	1.6	1.0	1.2	12.5 ± 0.8	280	98
2	2.5	2.0	1.0	1.1	10.5 ± 0.8	170	46
3	2.5	2.0	1.0	1.1	11 ± 0.8	205	69
4	2.5	2.0	1.0	1.2	12 ± 0.8	250	92
5	2.5	2.0	1.0	1.2	13.5 ± 0.8	320	115
7	2.5	2.0	1.0	1.3	14 ± 0.8	390	161
3G	2.5	2.0	1.0	1.1	11 ± 0.8	205	69
4G	2.5	2.0	1.0	1.2	12 ± 0.8	255	92
5G	2.5	2.0	1.0	1.2	13.5 ± 0.8	320	115
2	4	2.55	1.0	1.1	11.5 ± 0.8	220	74
3	4	2.55	1.0	1.2	12 ± 0.8	275	110
4	4	2.55	1.0	1.2	13.5 ± 0.8	340	147
3G	4	2.55	1.0	1.2	12 ± 0.8	275	110
4G	4	2.55	1.0	1.2	13.5 ± 0.8	340	147
5G	4	2.55	1.0	1.3	15 ± 0.8	410	184
2	6	3.15	1.0	1.2	12.5 ± 0.8	290	110
3	6	3.15	1.0	1.2	13.5 ± 0.8	360	164
4	6	3.15	1.0	1.3	15 ± 0.8	450	219
3G	6	3.15	1.0	1.2	13.5 ± 0.8	360	164
4G	6	3.15	1.0	1.3	15 ± 0.8	450	219
5G	6	3.15	1.0	1.3	16.5 ± 0.8	550	273
2	10	4.05	1.0	1.2	14.5 ± 0.8	410	182
3	10	4.05	1.0	1.3	15.5 ± 0.8	530	272

Number of elements	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
4G	10	4.05	1.0	1.3	17.5 ± 0.8	660	363
5G	10	4.05	1.0	1.4	19 ± 0.8	820	453
2	16	5.15	1.0	1.3	17 ± 0.8	600	292
3	16	5.15	1.0	1.4	18.5 ± 0.8	780	438
4	16	5.15	1.0	1.4	20 ± 1	950	585
3G	16	5.15	1.0	1.4	18.5 ± 0.8	780	438
4G	16	5.15	1.0	1.4	20 ± 1	980	584
5G	16	5.15	1.0	1.5	22.5 ± 1	1200	730
2	25	6.45	1.2	1.4	20.5 ± 1	900	463
3	25	6.45	1.2	1.5	22.5 ± 1	1170	694
4	25	6.45	1.2	1.6	24.5 ± 1	1420	924
4G	25	6.45	1.2	1.6	25 ± 1	1500	925
2	35	7.65	1.2	1.5	23 ± 1	1150	629
3	35	7.65	1.2	1.6	25 ± 1	1520	943
4G	35	7.65	1.2	1.7	28 ± 1	1950	1257
5G	35	7.65	1.2	1.8	31 ± 1.5	2370	1571
3	50	9.0	1.4	1.7	29.5 ± 1	2090	1306
5G	50	9.0	1.4	2	36.5 ± 1.5	3310	2177
3	70	10.85	1.4	1.9	34 ± 1.5	2900	1900
5G	70	10.85	1.4	2.1	42 ± 2	4550	3167

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	831701	RU 0.6/1kV 1X 25mm² P18	BLACK	-	7021528317015	-
	831703	RU 0.6/1kV 1X 50mm² P18	BLACK	-	7021528317039	1061403
	831704	RU 0,6/1KV 1X 70 MM2 P18	BLACK	-	7021528317046	-
	831705	RU 0.6/1kV 1X 95mm² P18	BLACK	-	7021528317053	-
	831706	RU 0.6/1kV 1X 120mm² P18	BLACK	-	7021528317060	-
	831707	RU 0.6/1kV 1X 150mm² P18	BLACK	-	7021528317077	1061407
	831708	RU 0.6/1kV 1X 185mm² P18	BLACK	-	7021528317084	-
	831709	RU 0.6/1kV 1X 240mm² P18	BLACK	-	7021528317091	-
	831710	RU 0.6/1kV 1X 300mm² P18	BLACK	-	7021528317107	-
	831715	RU 0.6/1kV 2X 1.5mm² P18	BLACK	-	7021528317152	-
20115552		RU 0.6/1kV 3X 1.5mm² P18	BLACK	-	7021528317183	-
20130984		RU 0.6/1kV 4X 1.5mm² P18	BLACK	-	7021528317213	-
	831724	RU 0.6/1kV 5X 1.5mm² P18	BLACK	-	7021528317244	-
	831725	RU 0.6/1kV 7X 1.5mm² P18	BLACK	-	7021528317251	-
	831726	RU 0.6/1kV 12X 1.5mm² P18	BLACK	-	7021528317268	-
	831728	RU 0.6/1kV 19X 1.5mm² P18	BLACK	-	7021528317282	-
	831729	RU 0,6/1KV 24X 1,5 MM2 P18	BLACK	-	7021528317299	-
20109463		RU 0.6/1kV 3G 1.5mm² P18	BLACK	-	7021528317169	-
	831719	RU 0.6/1kV 4G 1.5mm² P18	BLACK	-	7021528317190	-
	831720	RU 0.6/1kV 5G 1.5mm² P18	BLACK	-	7021528317206	-
	831723	RU 0.6/1kV 7G 1.5mm² P18	BLACK	-	7021528317237	-
	831733	RU 0.6/1kV 2X 2.5mm² P18	BLACK	-	7021528317336	-
20115556		RU 0.6/1kV 3X 2.5mm² P18	BLACK	-	7021528317367	-
	831739	RU 0,6/1KV 4X 2,5 MM2 P18	BLACK	-	7021528317398	-
	831741	RU 0.6/1kV 5X 2.5mm² P18	BLACK	-	7021528317411	-
	831743	RU 0.6/1kV 7X 2.5mm² P18	BLACK	-	7021528317435	-
20109464		RU 0.6/1kV 3G 2.5mm² P18	BLACK	-	7021528317343	1061434
20128690		RU 0.6/1kV 4G 2.5mm² P18	BLACK	-	7021528317374	1061437
	831740	RU 0.6/1kV 5G 2.5mm² P18	BLACK	-	7021528317404	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	831751	RU 0.6/1kV 2X 4mm² P18	BLACK	-	7021528317510	-
	831753	RU 0.6/1kV 3X 4mm² P18	BLACK	-	7021528317534	-
	831755	RU 0,6/1KV 4X 4 MM2 P18	BLACK	-	7021528317558	-
20109465		RU 0.6/1kV 3G 4mm² P18	BLACK	-	7021528317527	-
	831754	RU 0.6/1kV 4G 4mm² P18	BLACK	-	7021528317541	-
	831756	RU 0,6/1KV 5G 4mm² P18	BLACK	-	7021528317565	-
	831759	RU 0,6/1KV 2X 6 MM2 P18	BLACK	-	7021528317596	-
	831761	RU 0.6/1kV 3X 6mm² P18	BLACK	-	7021528317619	-
	831762	RU 0.6/1kV 4X 6mm² P18	BLACK	-	7021528317626	-
20109466		RU 0.6/1kV 3G 6mm² P18	BLACK	-	7021528317602	-
	831764	RU 0.6/1kV 4G 6mm² P18	BLACK	-	7021528317640	1061461
	831763	RU 0.6/1kV 5G 6mm² P18	BLACK	-	7021528317633	-
	831766	RU 0,6/1KV 2X 10 MM2 P18	BLACK	-	7021528317664	-
	831767	RU 0.6/1kV 3X 10mm² P18	BLACK	-	7021528317671	-
	831769	RU 0.6/1kV 4G 10mm² P18	BLACK	-	7021528317695	-
	831770	RU 0.6/1kV 5G 10mm² P18	BLACK	-	7021528317701	-
	831772	RU 0.6/1kV 2X 16mm² P18	BLACK	-	7021528317725	-
	831773	RU 0.6/1kV 3X 16mm² P18	BLACK	-	7021528317732	-
	831774	RU 0,6/1KV 4X 16 MM2 P18	BLACK	-	7021528317749	-
	831775	RU 0.6/1kV 3G 16mm² P18	BLACK	-	7021528317756	-
20109467		RU 0.6/1kV 4G 16mm² P18	BLACK	-	7021528317763	-
	831777	RU 0.6/1kV 5G 16mm² P18	BLACK	-	7021528317770	-
	831779	RU 0.6/1kV 2X 25mm² P18	BLACK	-	7021528317794	-
	831780	RU 0.6/1kV 3X 25mm² P18	BLACK	-	7021528317800	-
	831781	RU 0,6/1KV 4X 25 MM2 P18	BLACK	-	7021528317817	-
	831782	RU 0.6/1kV 4G 25mm² P18	BLACK	-	7021528317824	-
	831785	RU 0,6/1KV 2X 35 MM2 P18	BLACK	-	7021528317855	-
	831786	RU 0.6/1kV 3X 35mm² P18	BLACK	-	7021528317862	-
	831788	RU 0.6/1kV 4G 35mm² P18	BLACK	-	7021528317886	-
	831789	RU 0.6/1kV 5G 35mm² P18	BLACK	-	7021528317893	-
	831792	RU 0.6/1kV 3X 50mm² P18	BLACK	-	7021528317923	-
	831796	RU 0.6/1kV 5G 50mm² P18	BLACK	-	7021528317961	-
	831798	RU 0.6/1kV 3X 70mm² P18	BLACK	-	7021528317985	-
	831799	RU 0.6/1kV 5G 70mm² P18	BLACK	-	7021528317992	-

Electrical values power cables

Number of elements	Cross section core, mm²	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	25	0.734	0.499	0.094	0.113	127	3500
1	50	0.391	0.499	0.09	0.108	196	7000
1	70	0.27	0.344	0.085	0.102	242	9800
1	95	0.195	0.249	0.085	0.102	293	13300
1	120	0.154	0.196	0.083	0.1	339	16800
1	150	0.126	0.161	0.082	0.099	389	21000
1	185	0.1	0.128	0.082	0.098	444	25900
1	240	0.0762	0.0972	0.081	0.098	522	33600
1	300	0.0607	0.0774	0.08	0.096	601	42000
2	1.5	12.2	15.6	0.11	0.132	20	210
3	1.5	12.2	15.6	0.11	0.132	16	210
4	1.5	12.2	15.6	0.11	0.132	16	210
5	1.5	12.2	15.6	0.11	0.132	13.5	210
7	1.5	12.2	15.6	0.11	0.132	12	210

Number of elements	Cross section core, mm²	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
12	1.5	12.2	15.6	0.11	0.132	10	210
19	1.5	12.2	15.6	0.11	0.132	8.5	210
24	1.5	12.2	15.6	0.11	0.132	8	210
3G	1.5	12.2	15.6	0.11	0.132	20	210
4G	1.5	12.2	15.6	0.11	0.132	16	210
5G	1.5	12.2	15.6	0.11	0.132	16	210
7G	1.5	12.2	15.6	0.11	0.132	12.5	210
2	2.5	7.56	9.64	0.103	0.123	26	350
3	2.5	7.56	9.64	0.103	0.123	21	350
4	2.5	7.56	9.64	0.103	0.123	21	350
5	2.5	7.56	9.64	0.103	0.123	17.5	350
7	2.5	7.56	9.64	0.103	0.123	15.5	350
3G	2.5	7.56	9.64	0.103	0.123	26	350
4G	2.5	7.56	9.64	0.103	0.123	21	350
5G	2.5	7.56	9.64	0.103	0.123	21	350
2	4	4.7	5.99	0.096	0.115	34	560
3	4	4.7	5.99	0.096	0.115	28	560
4	4	4.7	5.99	0.096	0.115	28	560
3G	4	4.7	5.99	0.096	0.115	34	560
4G	4	4.7	5.99	0.096	0.115	28	560
5G	4	4.7	5.99	0.096	0.115	28	560
2	6	3.11	3.97	0.09	0.108	44	840
3	6	3.11	3.97	0.09	0.108	36	840
4	6	3.11	3.97	0.09	0.108	36	840
3G	6	3.11	3.97	0.09	0.108	44	840
4G	6	3.11	3.97	0.09	0.108	36	840
5G	6	3.11	3.97	0.09	0.108	36	840
2	10	1.84	2.35	0.084	0.101	61	1400
3	10	1.84	2.35	0.084	0.101	50	1400
4G	10	1.84	2.35	0.084	0.101	50	1400
5G	10	1.84	2.35	0.084	0.101	50	1400
2	16	1.16	1.48	0.08	0.096	80	2240
3	16	1.16	1.48	0.08	0.096	67	2240
4	16	1.16	1.48	0.08	0.096	67	2240
3G	16	1.16	1.48	0.08	0.096	80	2240
4G	16	1.16	1.48	0.08	0.096	67	2240
5G	16	1.16	1.48	0.08	0.096	67	2240
2	25	0.734	0.936	0.079	0.095	108	3500
3	25	0.734	0.936	0.079	0.095	89	3500
4	25	0.734	0.936	0.079	0.095	89	3500
4G	25	0.734	0.936	0.079	0.095	89	3500
2	35	0.529	0.675	0.076	0.092	133	4900
3	35	0.529	0.675	0.076	0.092	110	4900
4G	35	0.529	0.675	0.076	0.092	110	4900
5G	35	0.529	0.675	0.076	0.092	110	4900
3	50	0.391	0.499	0.076	0.092	137	7000
5G	50	0.391	0.499	0.076	0.092	137	7000
3	70	0.27	0.344	0.074	0.088	169	9800
5G	70	0.27	0.344	0.074	0.088	169	9800

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Cable for Variable Frequency Drives (VFD's), RFOU-VFD 0,6/1(1,8/3)kV with flexible conductors class 5 and separate earth cores

Flame retardant cables

RFOU-VFD 0,6/1 (1,8/3)kV

Power cable for variable frequency drives
Class 5 conductors
Halogen free and Mud resistant

Maximum operating conductor temperature : 90°C

Operating voltage : 0,6/1(1,2)kV

Application

Special cable for Variable Frequency Drives / Azimuth motors up to 1kV.
Suitable for voltage peaks up to 3600V.
Armoured cable for fixed installations in ships and offshore units. Can be installed and operated both indoors and outdoors. Oil and MUD resistant to NEK606.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 5	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

CONSTRUCTION

	CODE LETTER	
Conductor		Tinned, annealed, flexible copper, IEC 60228 class 5.
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up		3 insulated phase-conductors are laid up with 3 insulated earth conductors.
Bedding	**F**	Flame retardant halogen-free thermoset compound
Armour	**O**	Cu/PETP-tape Tinned copper wire braid. **Shield coverage is 100%** PETP-tape
Outer sheath	**U**	Flame retardant halogen-free thermoset compound, SHF2 (IEC 60092-360).
Marking		E.g; "meter" "DRAKA 01 RFOU – VFD 0,6/1(1,8/3)kV 3 × 95 + 3 x 16 mm² IEC 60332-3-22
Colour		Black or Yellow

Core identification:

The three main power cores: Brown – Black – Grey
All three Earth cores: Yellow/green

RANGE AND DIMENSIONS RFOU-VFD 0,6/1(1,8/3) kV

No. of cores and cond. area mm²	Cond. diam. appr. mmØ	Insulation thickness mm	Thickness of bedding approx. mm	Diameter over bedding mmØ	Armour/ screen wire diameter mmØ	Thickness of outer sheath, nominal mm	Diameter overall mmØ	Weight of cable kg/km	Copper content Approx. (kg/km)
3x 10 + 3x 4	4.3 2.7	2.8 1.0	1.5	24.5 ± 1,0	0.30	1.6	29,0 ± 1,0	1470	525
3x 25 + 3x 6	7,2 3,3	2,2 1.0	1,6	28,5±1,0	0,30	1,8	33,5±1,5	2180	1045
3x 35 + 3x 6	8,45 3,3	2,2 1,0	1.6	31.5 ± 1.5	0.30	1.9	36.5 ± 1.5	2540	1320
3x 50 + 3x 10	10,65 4,3	2,4 1,0	1,6	36,0±1,5	0,30	2,0	41,5±2,0	3500	1860
3x 95 + 3x 16	14,3 5.9	2,4 1,0	1,6	45,0±2,0	0,40	2,3	51,0±2,5	5690	3400
3x 95 + 3x 25	14,3 7,2	2,4 1,2	1,6	45.5±2,0	0,4	2,3	52±2,0	6000	3650
3x 120 + 3x 25	16,6 7,2	2,4 1,2	1,8	50,0±2,5	0,40	2,5	57,0±2,5	7130	4380
3x 150 + 3x 16	18,1 5,9	2,4 1,0	1,8	53,5±2,5	0,40	2,6	60,5±3,0	8200	5105
3x 150 + 3x 25	18,1	2,4 1,0	1,8	53,5 ± 2,5	0,40	2,6	60,5 ± 3,0	8390	5345
3x 150 + 3x 35	18,1	2,4 1,2	1,8	53,5 ± 2,5	0,40	2,6	60,5 ± 3,0	8560	5590
3x 185 + 3x 16	19,9 5,9	2,4 1,0	1,8	57,5±2,5	0,40	2,7	65,0±3,0	9550	6060

Tba = to be agreed in case of an order

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
		RFOU-VFD 1kV(3kV) 3x 10 mm² + 3x 4 mm²	YELLOW	-	-	-
	886833	RFOU-VFD 1kV(3kV) 3x 10 mm² + 3x 4 mm²	BLACK	-	-7021528868333	-
	886829	RFOU-VFD 1kV(3kV) 3x 25 mm² + 3x 6 mm²	YELLOW	-	7021528868296	-
		RFOU-VFD 1kV(3kV) 3x 25 mm² + 3x 6 mm²	BLACK	-	-	
		RFOU-VFD 1kV(3kV) 3x 35 mm² + 3x 6 mm²	BLACK	-	-	-
		RFOU-VFD 1kV(3kV) 3x 35 mm² + 3x 6 mm²	YELLOW	-	-	-
	886828	RFOU-VFD 1kV(3kV) 3x 50 mm² + 3x 10 mm²	YELLOW	-	7021528868589	-
20109486		RFOU-VFD 1kV(3kV) 3x 50 mm² + 3x 10 mm²	BLACK	-	7021528868319	-
	886360	RFOU-VFD 1kV(3kV) 3x 95 mm² + 3x 16 mm²	YELLOW	-	7021528863604	-
20109487		RFOU-VFD 1kV(3kV) 3x 95 mm² + 3x 16 mm²	BLACK	-	7021528868326	-
		RFOU-VFD 1kV(3kV) 3x 95 mm² + 3x 25 mm²	YELLOW	-	-	-
		RFOU-VFD 1kV(3kV) 3x 95 mm² + 3x 25 mm²	BLACK	-	-	-
	886756	RFOU-VFD 1kV(3kV) 3x 120 mm² + 3x 25 mm²	YELLOW	-	7021528867565	-
	887077	RFOU-VFD 1kV(3kV) 3x 120 mm² + 3x 25 mm²	BLACK	-	7021528870770	-
	886421	RFOU-VFD 1kV(3kV) 3x 150 mm² + 3x 16 mm²	YELLOW	-	7021528864212	-
		RFOU-VFD 1kV(3kV) 3x 150 mm² + 3x 16 mm²	BLACK	-	-	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
		RFOU-VFD 1kV(3kV) 3x 150 mm² + 3x 25 mm²	YELLOW	-	-	-
	887078	RFOU-VFD 1kV(3kV) 3x 150 mm² + 3x 25 mm²	BLACK	-	7021528870787	-
	886793	RFOU-VFD 1kV(3kV) 3x 150 mm² + 3x 35 mm²	YELLOW	-	7021528867930	-
		RFOU-VFD 1kV(3kV) 3x 150 mm² + 3x 35 mm²	BLACK	-	-	-
	887207	RFOU-VFD 1kV(3kV) 3x 185 mm² + 3x 16 mm²	YELLOW	-	7021528872071	-
		RFOU-VFD 1kV(3kV) 3x 185 mm² + 3x 16 mm²	BLACK	-	-	-

Electrical values power cables

No. of cores and cond. area mm²	Resistance at 20°C ohm/km	Resistance at 90°C ohm/km	Reactance at 50Hz Ohm/km	Current rating at 45°C Ampere	Short curcuit rating 1 sec. Ampere
3x 10 + 3x 4	**1,95 5,09**	**2,49 6,49**	**0,083**	**50**	**1400**
3x 25 + 3x 6	**0,795 3,39**	**1,014 4,323**	**0,089**	**89**	**3500**
3x 35 + 3x 6	**0,565 3,39**	**0,668 4,323**	**0,086**	**110**	**4900**
3x 50 + 3x 10	**0,393 1,95**	**0,501 2,486**	**0,081**	**137**	**7000**
3x 95 + 3x 16	**0,210 1,24**	**0,268 1,58**	**0,077**	**205**	**13300**
3x 95 + 3x 25	**0,210 0,795**	**0,268 1,014**	**0,077**	**205**	**13300**
3x 120 + 3x 25	**0,164 0,795**	**0,209 1,014**	**0,075**	**237**	**16800**
3x 150 + 3x 16	**0,132 1,24**	**0,1683 1,58**	**0,074**	**272**	**21000**
3x 150 + 3x 25	**0,132 0,795**	**0,1683 1,013**	**0,074**	**272**	**21000**
3x 150 + 3x 35	**0,132 0,565**	**0,1683 0,7204**	**0,074**	**272**	**21000**
3x 185 + 3x 16	**0,108 1,24**	**0,1683 1,58**	**0,073**	**311**	**25900**

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Cable for Variable Frequency Drives (VFD's), RFOU-VFD 0,6/1(1,8/3)kV with stranded conductors class 2 and tinned copper wire braid as earth

Flame retardant cables

RFOU-VFD 0,6/1kV(1,8/3kV)

EPR/EPR/TCWB/EVA

Halogen-free, Mud resistant

Maximum operating
Conductor temperature : 90°C
Operating voltage : 0,6/1kV (3 kV)

Application

Special cable for Variable Frequency Drives / Azimuth motors up to 1kV.
Suitable for voltage peaks up to 3600V.
Armoured cable for fixed installations in ships and offshore units. Can be installed and operated both indoors and outdoors. Oil and MUD resistant to NEK606.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-351	- Insulation
IEC 60092-359	- Sheath
IEC 60332-1	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

CONSTRUCTION

	CODE LETTER	
Conductor		Circular, tinned, stranded copper. IEC 60228 Class 2 (1)
Insulation	**R**	EP-rubber (2)
Bedding	**F**	Flame retardant and halogen-free thermoset compound. (3)
Armour	**O**	Cu/PETP-tape. (4) Tinned copper wire braid. (5) **Shield coverage is 100%** PETP-tape. (6)
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2.(7)
Marking		E.g; "meter" "year" DRAKA 01 RFOU-VFD 0,6/1kV (1,8/3) kV 3x 95/50 mm² IEC 60332-3-22
Colour		Yellow or Black

Core identification:

Three cores: Brown – Black - Grey

RANGE AND DIMENSIONS: RFOU-VFD 0,6/1kV (1,8/3)kV

No. of cores and cond. area (mm²)	Cond. diam. appr. (mmØ)	Insulation thickness (mm)	Thickness of inner covering, mm	Diameter bedding (mmØ)	Diameter of armour /shield wire (mmØ)	Thickness outer sheath, mm	Diameter outer sheath (mmØ)	Weight of cable approx (kg/km)	Copper content Approx. (kg/km)
3x 2.5/10	2.0	2.2	1.1	16.5 ± 0.8	0.30	1.5	20.5 ± 1	690	202
3x 4/10	2.55	2.2	1.1	17.5 ± 0.8	0.30	1.5	21.5 ± 1	780	243
3x 6/10	3,15	2.2	1.2	19 ± 0.8	0.30	1.6	23.5 ± 1	940	314
3x 10/10	4,05	2.2	1.2	21 ± 1	0.30	1.6	25 ± 1	1130	422
3x 16/16	5,15	2,2	1.6	24 ± 1	0.30	1.7	29 ± 1	1560	638
3x 25/16	6,75	2.2	1.6	28 ± 1	0.30	1.8	33 ± 1.5	2090	935
3x 50/25	9,10	2.2	1.7	33 ± 1.5	0.40	2	38.5 ± 1.5	3110	1617
3x 70/35	10.85	2.2	1.6	36.5 ± 1.5	0.50	2.2	43 ± 2	4160	2385
3x 95/50	12,60	2,4	2,0	42 ± 2,0	0.60	2,3	49 ± 2	5420	3166
3x 120/60	14.20	2.4	2.0	45.5 ± 2	0.60	2.5	53 ± 2.5	6590	3975
3x 150/70	15.90	2.4	1.4	48 ± 2,0	2 layer 0.40	2,7	56.5 ± 2,5	7800	5015
3x 185/95	17.7	2.4	2.0	53 ± 2.5	2 layer 0.50	2.8	63 ± 3	9660	6288
3x 240/120	20.15	2.4	1.8	58.5 ± 2.5	2 layer 0.60	3	68.5 ± 3	11970	8050

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
		RFOU-VFD 1kV(3kV) 3x 2.5/10 mm²	BLACK	-	-	-
		RFOU-VFD 1kV(3kV) 3x 4/10 mm²	BLACK	-	-	-
		RFOU-VFD 1kV(3kV) 3x 6/10 mm²	BLACK	-	-	-
		RFOU-VFD 1kV(3kV) 3x 10/10 mm²	BLACK	-	-	-
	886852	RFOU-VFD 1kV(3kV) 3x 16/16 mm²	YELLOW	-	7021528868524	-
	886854	RFOU-VFD 1kV(3kV) 3x 16/16 mm²	BLACK	-	7021528868548	-
	886972	RFOU-VFD 1kV(3kV) 3x 25/16 mm²	YELLOW	-	7021528869729	-
	886973	RFOU-VFD 1kV(3kV) 3x 50/25 mm²	YELLOW	-	7021528869736	-
		RFOU-VFD 1kV(3kV) 3x 70/35 mm²	BLACK	-	-	-
20114764		RFOU-VFD 1kV(3kV) 3x 95/50 mm²	BLACK	-	7021528868890	-
	886971	RFOU-VFD 1kV(3kV) 3x 120/60 mm²	YELLOW	-	7021528869712	-
		RFOU-VFD 1kV(3kV) 3x 150/70 mm²	BLACK	-	-	-
	886970	RFOU-VFD 1kV(3kV) 3x 185/95 mm²	YELLOW	-	7021528869705	-
20109484		RFOU-VFD 1kV(3kV) 3x 240/120 mm²	BLACK	-	-	-

Electrical characteristics

No. of cores and cond. area (mm²)	Resistance at 20°C (ohm/km)	Resistance at 90°C (ohm/km)	Reactance at 50Hz (ohm/km)	Current rating at 45°C (ampere)	Short curcuit rating, 1 sec (ampere)
3x 2.5/10	7.56	9.64	0.131	21	350
3x 4/10	4.7	5.99	0.122	28	560
3x 6/10	3.11	3.97	0.114	36	840
3x 10/10	1.84	2.35	0.105	50	1400
3x 16/16	1,16	1.48	0.098	67	2240
3x 25/16	0.734	0.936	0.091	89	3500
3x 50/25	0.391	0.499	0.084	137	7000
3x 70/35	0.270	0.344	0.081	169	9800
3x 95/50	0,195	0.249	0.080	205	13300
3x 120/60	0.154	0.196	0.078	237	16800
3x 150/70	0.126	0.161	0.076	273	21000
3x 185/95	0.100	0.128	0.074	311	25900
3x 240/120	0.0762	0.0972	0.073	366	33600

Correction factors for different ambient temperatures:

Ambient temp. °C	25	30	35	40	45	50	55	60	65	70	75
Rating factors	1,22	1,17	1,12	1,06	1,00	0,94	0,87	0,79	0,71	0,61	0,5

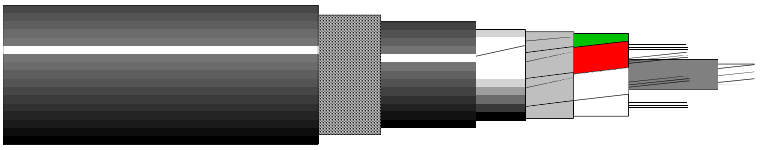
Installation recommendations:

In accordance with IEC 60092-352

Minimum bending radius		Maximum pulling tension	Minium installation temperature
During installation	Fixed installed	50N x total	
8 x cable diameter	6 x cable diameter	Cross section of conductors	- 20 °C

Fire resistant optical fibre cable, QFCI-I/O/RM-JM/-, F1

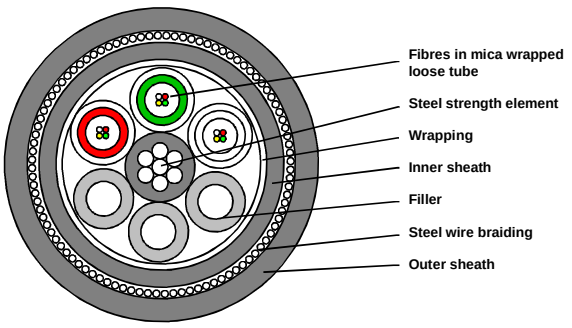
QFCI-I/O/RM-JM/-



Indoor and outdoor.
Fire resistant
Flame retardant halogen-free
Loose tube

NEK 606 Code F1

Optical cable for indoor and outdoor use in vital communication and emergency systems that need to be operational during fire. The cable has a patented design that ensures operation for more than 3 hours in fires up to 1000ºC. The cable is halogen free and flame retardant to protect against secondary damage to electronic equipment during and after fire. Outer sheath is made from black UV-stabilized and weather resistant material and may be exposed for shorter periods to fluids such as diesel and mineral oils. The resistance to these fluids is according to IEC60811-2-1. The cable is reinforced with a steel wire braiding. The fibres are protected in jelly filled loose tubes stranded around a central strength member to ensure optimum performance and long life. Each fibre and loose tube is colour coded for easy identification during splicing and termination. The outer sheath is marked to show fibre type and cable type. The sheath colour is BLACK.



Weight and dimensions

Number of fibres	Number of fibres in each tube	Number of tubes + fillers	Loose tube diameter (mm)	Outer diameter (mm)	Weight (kg/km)	Heat release (MJ/km)
4	2	2+4	2.2	13.5	260	1390
8	4	2+4	2.2	13.5	260	1381
12	4	3+3	2.2	13.5	260	1324
24	4	6+0	2.2	13.5	260	1138
48	8	6+0	2.2	13.5	260	1138

Other fibre counts are available on request.

Cable properties

Tensile strength (IEC 60794-1-2E1)		**Chemical reistance**	
Max tensile load during installation	1500 N	Mineral oils IRM 902 (IEC60811-2-1)	- 7 days/23°C
Max tensile load during operation	500 N		- 4 hours/70°C
		Diesel - IRM 903 (IEC60811-2-1)	- 7 days/23°C
			- 4 hours/70°C
Crush (IEC 60794-1-2E3)	3000 N/10cm	**Fire and smoke classifications**	
Impact (IEC 60794-1-2E4)	30J	IEC 60331-25 (750°C, 90 minutes)	<1.0 dB excess loss
Torsion (IEC 60794-1-2E7)	±1 turn/1m	Upgraded IEC 60331-25 (1000°C, 3 hours)	<1.5 dB excess loss
Cable bending		BP GS 112-2 Clause7.1	
Minimum bending diameter	250 mm	IEC 61034	
Cable bend (IEC 60794-1-2E11)	<0.1dB/ ±5 turn	IEC 60332-3-22 (Cat. A)	
		IEC 60332-3-24 (Cat. C)	
Temperature window		IEC 60754-1	
Operation	-40°C to +70°C	IEC 60754-2	
Installation	-10°C to +70°C		
Storage	-40°C to +70°C		

Ordering information

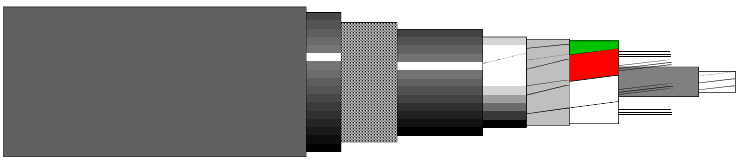
Part no	Number of fibres	Cabe Type	Fiber type	Stock Item	Fiber data sheet
20110842	8	G8-9/125 QFCI-I/O/RM-JM/-	OS2 Single mode	-	C03e
20109401	12	G12-9/125 QFCI-I/O/RM-JM/-	OS2 Single mode	Yes	C03e
20109404	24	G24-9/125 QFCI-I/O/RM-JM/-	OS2 Single mode	Yes	C03e
20109399	48	G48-9/125 QFCI-I/O/RM-JM/-	OS2 Single mode	Yes	C03e
20109398	4	G4-50/125 QFCI-I/O/RM-JM/-	OM2 50/125 multi mode	-	C23
20109402	12	G12-50/125 QFCI-I/O/RM-JM/-	OM2 50/125 multi mode	-	C23
20110759	24	G24-50/125 QFCI-I/O/RM-JM/-	OM2 50/125 multi mode	-	C23
694169	48	G48-50/125 QFCI-I/O/RM-JM/-	OM2 50/125 multi mode	-	C23
20109417	4	G4-50/125OM3 QFCI-I/O/RM-JM/-	OM3 MaxCap-OM3	-	C31
699875	12	G12-50/125OM3 QFCI-I/O/RM-JM/-	OM3 MaxCap-OM3	-	C31
699872	24	G24-50/125OM3 QFCI-I/O/RM-JM/-	OM3 MaxCap-OM3	-	C31
20110843	48	G48-50/125OM3 QFCI-I/O/RM-JM/-	OM3 MaxCap-OM3	-	C31
20110462	4	G4-62.5/125 QFCI-I/O/RM-JM/-	OM1 62.5/125 multi mode	Yes	C02
20110463	8	G8-62.5/125 QFCI-I/O/RM-JM/-	OM1 62.5/125 multi mode	Yes	C02
20109403	12	G12-62.5/125 QFCI-I/O/RM-JM/-	OM1 62.5/125 multi mode	Yes	C02
20109405	24	G24-62.5/125 QFCI-I/O/RM-JM/-	OM1 62.5/125 multi mode	Yes	C02
20109406	48	G48-62.5/125 QFCI-I/O/RM-JM/-	OM1 62.5/125 multi mode	-	C02

Colour codes

Fibre number	Colour	Tube number	Colour
1	White	1	Red
2	Red	2	Green
3	Yellow	3	White
4	Green	4	White
5	Blue	5	White
6	Grey	6	White
7	Brown		
8	Black		

We reserve the right to alter this specification without notice.
Other fibre types and qualities are available on request.

Fire resistant optical fibre cable, QFCI-I/O/RM/C-JM/-, MUD PROTECTED (F5)

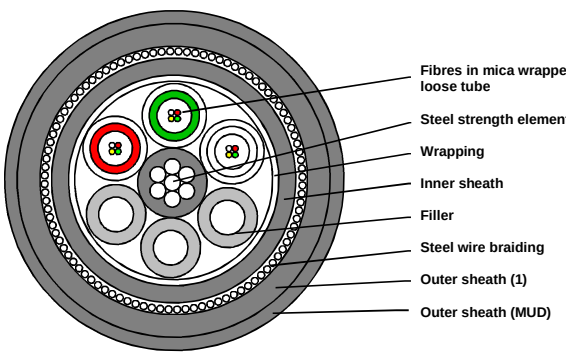


QFCI-I/O/RM/C-JM/-

Indoor and outdoor.
Fire resistant
Flame retardant halogen-free
Loose tube

NEK 606 Code (F5)

Optical cable for indoor and outdoor use in vital communication and emergency systems that need to be operational during fire. The cable has a patented design that ensures operation for more than 3 hours in fires up to 1000ºC. The cable is halogen free and flame retardant to protect against secondary damage to electronic equipment during and after fire. Outer sheath(1) is made from black UV-stabilized and weather resistant material and may be exposed for shorter periods to fluids such as diesel and mineral oils. The resistance to these fluids is according to IEC60811-2-1. The cable is reinforced with a steel wire braiding. The fibres are protected in jelly filled loose tubes stranded around a central strength member to ensure optimum performance and long life. Each fibre and loose tube is colour coded for easy identification during splicing and termination. The outer sheath is marked to show fibre type and cable type.
An additional outer sheath is added for improved oil- and MUD protection. The sheath colour is GREY.



Weight and dimensions

Number of fibres	Number of fibres in each tube	Number of tubes + fillers	Loose tube diameter (mm)	Outer diameter (mm)	Weight (kg/km)	Heat release (Estimated) (MJ/km)
8	4	2+4	2.2	15.5	325	2000
12	4	3+3	2.2	15.5	325	2000
24	4	6+0	2.2	15.5	325	2000
48	8	6+0	2.2	15.5	325	2000

Other fibre counts are available on request.

Cable properties

Tensile strength (IEC 60794-1-2E1)		**Chemical resistance**	
Max tensile load during installation	1500 N	Mineral oils IRM 902 (IEC60811-2-1)	- 7 days/100°C
Max tensile load during operation	500 N	Diesel - IRM 903 (IEC60811-2-1)	- 7 days/100°C
Crush (IEC 60794-1-2E3)	3000 N/10cm	**Fire and smoke classifications**	
Impact (IEC 60794-1-2E4)	30J	IEC 60331-25 (750°C, 90 minutes)	<1.0 dB excess loss
Torsion (IEC 60794-1-2E7)	±1 turn/1m	Upgraded IEC 60331-25 (1000°C, 3 hours)	<1.5 dB excess loss
Cable bending		BP GS 112-2 Clause7.1	
Minimum bending diameter	250 mm	IEC 61034	
Cable bend (IEC 60794-1-2E11)	<0.1dB/ ±5 turn	IEC 60332-3-22 (Cat. A)	
		IEC 60332-3-24 (Cat. C)	
Temperature window		IEC 60754-1	
Operation	-40°C to +70°C		
Installation	-10°C to +70°C		
Storage	-40°C to +70°C		

Ordering information

Part no	Number of fibres	Cabe Type	Fiber type	Stock Item	Fiber data sheet
20109485	8	G8-9/125 QFCI-I/O/RM/C-JM/-	OS2 Single mode		C03e
20109488	12	G12-9/125 QFCI-I/O/RM/C-JM/-	OS2 Single mode		C03e
20109483	24	G24-9/125 QFCI-I/O/RM/C-JM/-	OS2 Single mode		C03e
20116217	48	G48-9/125 QFCI-I/O/RM/C-JM/-	OS2 Single mode		C03e
20109490	8	G8-50/125 QFCI-I/O/RM/C-JM/-	OM2 50/125 multi mode		C23
20112243	12	G12-50/125 QFCI-I/O/RM/C-JM/-	OM2 50/125 multi mode		C23
20118902	24	G24-50/125 QFCI-I/O/RM/C-JM/-	OM2 50/125 multi mode		C23
	48	G48-50/125 QFCI-I/O/RM/C-JM/-	OM2 50/125 multi mode		C23
	12	G12-50/125OM3 QFCI-I/O/RM/C-JM/-	OM3 MaxCap-OM3		C31
	24	G24-50/125OM3 QFCI-I/O/RM/C-JM/-	OM3 MaxCap-OM3		C31
	48	G48-50/125OM3 QFCI-I/O/RM/C-JM/-	OM3 MaxCap-OM3		C31
20110577	4	G4-62.5/125 QFCI-I/O/RM/C-JM/-	OM1 62.5/125 multi mode		C02
20110579	8	G8-62.5/125 QFCI-I/O/RM/C-JM/-	OM1 62.5/125 multi mode		C02
20109481	12	G12-62.5/125 QFCI-I/O/RM/C-JM/-	OM1 62.5/125 multi mode		C02
20109482	24	G24-62.5/125 QFCI-I/O/RM/C-JM/-	OM1 62.5/125 multi mode		C02
20116216	48	G48-62.5/125 QFCI-I/O/RM/C-JM/-	OM1 62.5/125 multi mode		C02

Colour codes

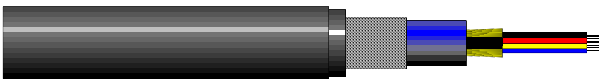
Fibre number	Colour	Tube number	Colour
1	White	1	Red
2	Red	2	Green
3	Yellow	3	White
4	Green	4	White
5	Blue	5	White
6	Grey	6	White
7	Brown		
8	Black		

Standard colur on outer sheet is Grey

We reserve the right to alter this specification without notice.
Other fibre types and qualities are available on request.

Flame retardant optical fibre cable, AICI-I/O/RM-W, F6

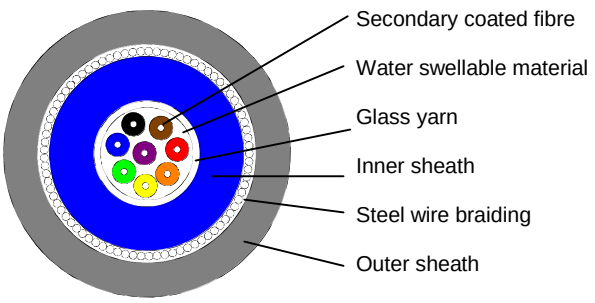
AICI-I/O/RM-W



Indoor and outdoor
Flame retardant and halogen free
Steel wire braiding
Tight buffer

NEK 606 Code F6

Optical cable for industrial environments. The cable is suitable for both indoor and outdoor installation. The outer sheath is made from black UV-stabilized and weather resistant material which is SHF1 classified, and may be exposed for shorter periods to fluids such as diesel and mineral oils. The resistance to these fluids is according to IEC60811-2-1. The cable is reinforced with a steel wire braiding between the two sheaths. Strength elements of glass yarn around the cable core allow easy installation of long lengths. The 0.9 mm tight buffer is easy to strip allowing fast and reliable splicing and connector mounting. Each fibre is colour coded for easy identification. The outer sheath is marked to show fibre type and cable type. The outer sheath is BLACK.



Weight and dimensions

Number of fibres	Secondary coating [mm]	Outer diameter [mm]	Weight [kg/km]	Tensile strength* [Inst./oper.] [N]
4	0.9	8.2	90	700/250
8	0.9	9.4	125	800/350
12	0.9	10.3	145	1200/500
24	0.9	12.0	185	1700/750

Cable properties

***Tensile strength** (IEC 60794-1-2E1)	
Max tensile load during installation	See above
Max tensile load during operation	See above
Crush (IEC 60794-1-2E3)	2000 N/10cm
Impact (IEC 60794-1-2E4)	1 impacts, 25J
Torsion (IEC 60794-1-2E7)	± 1 turn/1m
Cable bending	
Minimum bending diameter	15x outer diameter
Cable bend (IEC 60794-1-2E11)	<0.5 dB/ ± 5 turn
Flexibility (IEC 60794-1-2E8)	1000 cycles

Temperature window	
Operation	-40°C to +70°C
Installation	-10°C to +70°C
Storage	-40°C to +70°C
Water tightness* (IEC 60794-1-2F5B)	< 3 m/24 hours
Fire and smoke classifications	
IEC 60332-1	
IEC 60332-3-22 (Cat. A)	
IEC 60332-3-24 (Cat. C)	
IEC 61034	
IEC 60754-1	
IEC 60754-2	
Chemical reistance	
Mineral oils IRM 902 (IEC60811-2-1)	- 7 days/23°C - 4 hours/70°C
Diesel - IRM 903 (IEC60811-2-1)	- 7 days/23°C - 4 hours/70°C

*) – Steel wire braiding is not watertight.

Ordering information

Part no	Number of fibres	Cabe Type	Fiber type	Stock Item	Fiber data sheet
20109407	4	G4-9/125 AICI-I/O RM-W	OS2 Single mode	-	C03e
20109409	8	G8-9/125 AICI-I/O RM-W	OS2 Single mode	-	C03e
20109412	12	G12-9/125 AICI-I/O RM-W	OS2 Single mode	-	C03e
20117329	24	G24-9/125 AICI-I/O RM-W	OS2 Single mode	-	C03e
20122674	4	G4-50/125 AICI-I/O RM-W	OM2 50/125 multi mode	-	C34
695442	8	G8-50/125 AICI-I/O RM-W	OM2 50/125 multi mode	-	C34
695452	12	G12-50/125 AICI-I/O RM-W	OM2 50/125 multi mode	-	C34
20110876	24	G24-50/125 AICI-I/O RM-W	OM2 50/125 multi mode	-	C34
1019310	4	G4-50/125OM3BB AICI-I/O RM-W	OM3 MaxCap-BB-OM3	-	C31
20109410	8	G8-50/125OM3BB AICI-I/O RM-W	OM3 MaxCap-BB-OM3	-	C31
695453	12	G12-50/125OM3BB AICI-I/O RM-W	OM3 MaxCap-BB-OM3	-	C31
20117332	24	G24-50/125OM3BB AICI-I/O RM-W	OM3 MaxCap-BB-OM3	-	C31
20109408	4	G4-62.5/125 AICI-I/O RM-W	OM1 62.5/125 multi mode	Yes	C02
20109411	8	G8-62.5/125 AICI-I/O RM-W	OM1 62.5/125 multi mode	Yes	C02
20109413	12	G12-62.5/125 AICI-I/O RM-W	OM1 62.5/125 multi mode	-	C02
20109414	24	G24-62.5/125 AICI-I/O RM-W	OM1 62.5/125 multi mode	-	C02

OM4 and other fibre types on request.

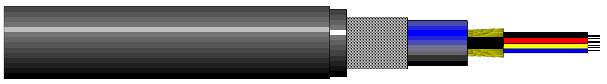
Colour code

Fibre no.	Colour	Fibre no.	Colour	Fibre no.	Colour
1	White	9	Violet	17	Blue + marker
2	Red	10	Turquise	18	Grey + marker
3	Yellow	11	Orange	19	Brown + marker
4	Green	12	Pink	20	Light Blue + marker
5	Blue	13	White + marker	21	Violet + marker
6	Grey	14	Red + marker	22	Turquise + marker
7	Brown	15	Yellow + marker	23	Orange + marker
8	Black	16	Green + marker	24	Pink + marker

Standard colour of outer sheath is black.

We reserve the right to alter this specification without notice.

Flame retardant optical fibre cable, AICI-I/O/RM/C-W, MUD PROTECTED

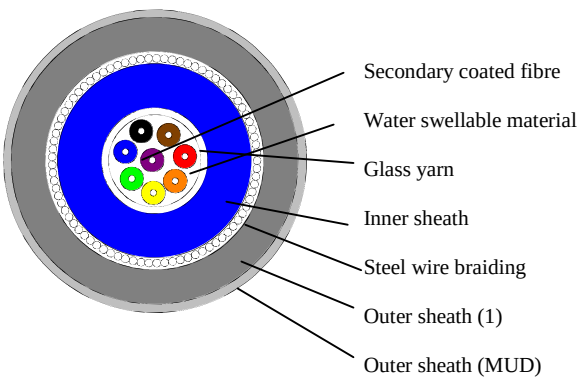


Armoured industrial cable
AICI-I/O/RM/C-W

Indoor and outdoor
Flame retardant and halogen free
Steel wire braiding
Tight buffer
MUD PROTECTED

Optical cable for industrial environments. The cable is suitable for both indoor and outdoor installation. Continiuous submergence in water is not recommended. Outer sheath (1) is made from black UV-stabilized and weather resistant material and may be exposed for shorter periods to fluids such as diesel and mineral oils. The resistance to these fluids is according to IEC60811-2-1. The cable is reinforced with a steel wire braiding between the two sheaths. Strength elements of glass yarn around the cable core allow easy installation of long lengths. The 0.9 mm tight buffer is easy to strip allowing fast and reliable splicing and connector mounting. Each fibre is colour coded for easy identification. The outer sheath is marked to show fibre type and cable type.

An additional outer sheath is added for improved oil- and MUD protection. The outer sheath is DARK GREY.



Weight and dimensions

Number of fibres	Secondary coating [mm]	Outer diameter [mm]	Weight [kg/km]	Tensile strength* [Inst./oper.] [N]
4	0.9	10.2	140	700/250
8	0.9	11.4	165	800/350
12	0.9	12.4	195	1200/500
24	0.9	14.0	240	1700/750

Cable properties

***Tensile strength** (IEC 60794-1-2E1)	
Max tensile load during installation	See above
Max tensile load during operation	See above
Crush (IEC 60794-1-2E3)	2000 N/10cm
Impact (IEC 60794-1-2E4)	1 impacts, 25J
Torsion (IEC 60794-1-2E7)	± 1 turn/1m
Cable bending	
Minimum bending diameter	15x outer diameter
Cable bend (IEC 60794-1-2E11)	<0.5 dB/ ± 5 turn
Flexibility (IEC 60794-1-2E8)	1000 cycles

Temperature window	
Operation	-40°C to +70°C
Installation	-10°C to +70°C
Storage	-40°C to +70°C
Water tightness* (IEC 60794-1-2F5B)	< 3 m/24 hours
Fire and smoke classifications	
IEC 60332-1	
IEC 60332-3-22 (Cat. A)	
IEC 60332-3-24 (Cat. C)	
IEC 61034	
IEC 60754-1	
Chemical reistance	
Mineral oils IRM 902 (IEC60811-2-1)	- 7 days /100°C
Diesel - IRM 903 (IEC60811-2-1)	- 7 days/100°C

*) – Steel wire braiding is not watertight.

Ordering information

Part no	Number of fibres	Cabe Type	Fiber type	Stock Item	Fiber data sheet
20116218	4	G4-9/125 AICI-I/O/RM/C-W	OS2 Single mode(G652D)	-	C03e
*	8	G8-9/125 AICI-I/O/RM/C-W	OS2 Single mode(G652D)	-	C03e
*	12	G12-9/125 AICI-I/O/RM/C-W	OS2 Single mode(G652D)	-	C03e
*	24	G24-9/125 AICI-I/O/RM/C-W	OS2 Single mode(G652D)	-	C03e
*	4	G4-50/125 AICI-I/O/RM/C-W	OM2 50/125 multi mode	-	C23
*	8	G8-50/125 AICI-I/O/RM/C-W	OM2 50/125 multi mode	-	C23
886926	12	G12-50/125 AICI-I/O/RM/C-W	OM2 50/125 multi mode	-	C23
*	24	G24-50/125 AICI-I/O/RM/C-W	OM2 50/125 multi mode	-	C23
*	4	G4-50/125OM3 AICI-I/O/RM/C-W	OM3 MaxCap-OM3	-	C31
*	8	G8-50/125OM3 AICI-I/O/RM/C-W	OM3 MaxCap-OM3	-	C31
*	12	G12-50/125OM3 AICI-I/O/RM/C-W	OM3 MaxCap-OM3	-	C31
*	24	G24-50/125OM3 AICI-I/O/RM/C-W	OM3 MaxCap-OM3	-	C31
886701	4	G4-62.5/125 AICI-I/O/RM/C-W	OM1 62.5/125 multi mode	-	C02
886774	8	G8-62.5/125 AICI-I/O/RM/C-W	OM1 62.5/125 multi mode	-	C02
*	12	G12-62.5/125 AICI-I/O/RM/C-W	OM1 62.5/125 multi mode	-	C02
*	24	G24-62.5/125 AICI-I/O/RM/C-W	OM1 62.5/125 multi mode	-	C02

Other fibre types/qualities on request(for example OM4)
*) Part numbers will be given on request. On inquiries or orders, please refer to datasheet number D92aici-mud_e22.doc

Colour code

Fibre no.	Colour	Fibre no.	Colour	Fibre no.	Colour
1	White	9	Violet	17	Blue + marker
2	Red	10	Turquise	18	Grey + marker
3	Yellow	11	Orange	19	Brown + marker
4	Green	12	Pink	20	Light Blue + marker
5	Blue	13	White + marker	21	Violet + marker
6	Grey	14	Red + marker	22	Turquise + marker
7	Brown	15	Yellow + marker	23	Orange + marker
8	Black	16	Green + marker	24	Pink + marker

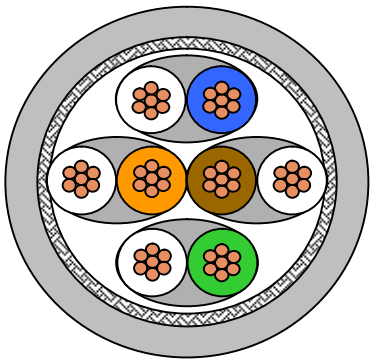
The outer sheath is as standard dark grey.

Optical fibre data sheet

Fibre type	**9/125**	**50/125-OM2**	**50/125-OM3**	**62.5/125-OM1**
Fiber data sheet	C03	C34	C31	C02
IEC60793-2-10, 20, 50 cat.	B.1.3	A1a.1	A1a.2	A1b
IEC11801 classification	OS2	OM2	OM3	OM1
ANSI/TIA/EIA classification	CAAB	AAAB	AAAC	AAAA
ITU-T type	G652.D	G651.1	G651.1	-
Core diameter	See mode field diameter	50 ± 2.5 µm	50 ± 2.5 µm	62.5 ± 2.5 µm
Mode field diameter	1310 nm 9.0 ± 0.4 µm 1550 nm 10.1 ± 0.5 µm			
Cladding diameter	125 ± 0.7 µm	125 ± 1.0 µm	125 ± 1.0 µm	125 ± 1.0 µm
Primary coating diameter (nominal)	242 ± 7 µm	242 ± 5 µm	242 ± 5 µm	242 ± 7 µm
Attenuation (Maximum values) 850 nm 1300 nm 1310 nm 1550 nm	 ≤ 0.39 dB/km ≤ 0.25 dB/km	 ≤ 2.7 dB/km ≤ 0.8 dB/km	 ≤ 2.5 dB/km ≤ 0.8 dB/km	 ≤ 3.2 dB/km ≤ 1.0 dB/km
Bandwidth(OFL) 850 nm 1300 nm		>500 MHz·km >500 MHz·km	>1500 MHz·km >500 MHz·km	>200 MHz·km >600 MHz·km
Chromatic Dispersion 1285-1330 nm 1550 nm 1625 nm	 ≤ 3 ps/nm·km ≤ 18 ps/nm·km ≤ 22 ps/nm·km			
Polarization Mode Disp. Max. Individual Fibre PMD_Q Link Design Value	 ≤ 0.5 ps/√km ≤ 0.2 ps/√km			
Group index of refraction 850 nm 1300/1310 nm(MMF/SMF) 1550 nm 1625 nm	 1.467 1.468 1.468	 1.482 1.477	 1.482 1.477	 1.496 1.491

Other fibrequalities/types and qualities are available on request, e.g. OM4 fibre.

S/FTP Installation Cable for tougher environments



Application

Generic Data transmission. This cabel is a **Cat5e S/FTP** cable meant for use as installation(horizontal) cable in tougher electrical and mechanical environment, including ships and offshore units.

Standards

EN 50173-1; EN 50288-2-1
ISO/IEC 11801; IEC 61156-5
Det Norske Veritas (DNV) spesification No. 6-827.50-2 and Lloyd Register approval system, 2002

Fire rating

LSHF-FR(SHF1) : IEC 60754-2; IEC 61034, IEC 60332-3-24

Chemical resistance

Mineral oils IRM 902 (IEC60811-2-1) : 7 days/23°C
4 hours/70°C
Diesel - IRM 903 (IEC60811-2-1) : 7 days/23°C
4 hours/70°C

Certification

This cable is certified by: Det Norske Veritas (DNV) and Lloyd Register.

Construction

Conductor	Stranded copper wire Ø 0.22 mm2
Insulation	PE, Ø 1.4 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs
Pair screen	Al-laminated plastic foil around each pair
Overall screen	Copper braid, tinned Ø 6,2 mm
Sheath	Oil resistant, Fire retardant and halogen free LSHF-FR(SHF1).

Mechanical Properties

Bending radius	Without load	8 x D
	With load	4 x D
Temperature range	During operation	-40°C to + 85°C
	During installation	-15°C to + 50°C
Fire load	4 pair	515 MJ/km
Maximum tensile load	During operation	No load
	During installation	100 N

Electrical Properties

at 20°C

DC loop resistance		≤ 158 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩxkm
Capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair to ground)	≤ 1500 pF/km
Mean Characteristic impedance	@ 100 MHz)	100 ± 5 Ω
Nominal velocity of propagation		0,75c
Propagation delay		≤ 450 ns/100 m
Delay skew		≤ 15 ns/100 m
Transfer impedance	at 1 MHz	≤ 10 mΩ /m
	at 10 MHz	≤ 8 mΩ /m
	at 30 MHz	≤ 10 mΩ /m
Coupling attenuation		≥ 85 dB

Nominal Transmission characteristics

at 20°C

F (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB/100m)	Return loss (dB)	PS-NEXT (dB)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)
1	2,1	90	88		87	85	85	82
4	4,0	90	86	27	87	83	85	82
10	6,3	90	84	30	87	81	79	76
16	8,0	90	82	30	87	79	75	72
20	9,0	90	81	30	87	78	73	70
31.25	11,4	90	79	30	87	76	69	66
62.50	16,5	86	70	30	83	67	63	60
100	21,3	83	62	30	80	59	59	56
155.00	24,2	81	57	26	78	54	57	54
200.00	31,5	78	47	25	75	44	53	50
250.00	35,8	77	41	25	74	38	51	48
300.00	47,1	73	26	23	70	23	47	44
600.00	60,1	71	11	20	68	8	44	41

Technical data

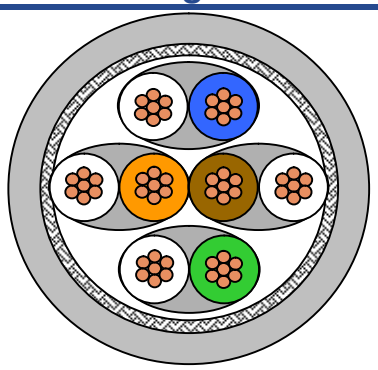
Part no.	Description	Colour	Outer diameter	Fire load		Weight
			mm	MJ/km	kWh/m	kg/km
1000745	ToughCat5 S/FTP 4x2/0,22mm²	Grey RAL7035	7,6	515	0,143	65

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
ToughCat C5e LSHF-FR 4x2/0.22mm2	1000745	60011599	**60011599**
ToughCat C5e LSHF-FR 4x2/0.22mm2 500DP	1000745-00500DP	60011599	**60015830**
ToughCat C5e LSHF-FR 4x2/0.22mm2 1000DP	1000745-01000DP	60011599	**60015833**

ICS IE ToughCat 7 S/FTP Installation cable for tougher environments

S/FTP Installation Cable for tougher environments



Application

Generic Data transmission. This cable is a **Cat7 S/FTP** cable meant for use as installation/horizontal cable in tougher electrical and mechanical environment, including ships and offshore units.

Standards

EN 50173-1; EN 50288-4-1
ISO/IEC 11801; IEC 61156-5
Det Norske Veritas (DNV) spesification No. 6-827.50-2

Fire rating

LSHF-FR(SHF1) : IEC 60754-2; IEC 61034, IEC 60332-3-24

Chemical resistance

Mineral oils IRM 902 (IEC60811-2-1) : 7 days/23°C, 4 hours/70°C
Diesel - IRM 903 (IEC60811-2-1) : 7 days/23°C, 4 hours/70°C

Certification

This cable is certified by: Det Norske Veritas (DNV) and **American Bureau of Shipping (**ABS)

Construction

Conductor	Stranded copper wire Ø 0.27 mm2
Insulation	PE, Ø 1.6 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs
Pair screen	Al-laminated plastic foil around each pair
Overall screen	Copper braid, tinned Ø 6,6 mm
Sheath	Oil resistant, Fire retardant and halogen free LSHF-FR (SHF1).

Mechanical Properties

Bending radius	Without load	8 x D
	With load	4 x D
Temperature range	During operation	-40°C to + 85°C
	During installation	-15°C to + 50°C
Fire load	4 pair	670 MJ/km
Maximum tensile load	During operation	No load
	During installation	100 N

Electrical Properties at 20°C

DC loop resistance		≤ 138 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩxkm
Capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair to ground)	≤ 1500 pF/km
Mean Characteristic impedance	@ 100 MHz)	100 ± 5 Ω
Nominal velocity of propagation		0,76c
Propagation delay		≤ 450 ns/100 m
Delay skew		≤ 15 ns/100 m
Transfer impedance	at 1 MHz	≤ 10 mΩ /m
	at 10 MHz	≤ 8 mΩ /m
	at 30 MHz	≤ 10 mΩ /m
Coupling attenuation		≥ 85 dB

Nominal Transmission characteristics at 20°C

F (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB/100m)	Return loss (dB)	PS-NEXT (dB)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)
1	2,0	90	88		87	85	85	82
4	3,6	90	86	27	87	83	85	82
10	5,5	90	84	30	87	81	79	76
16	7,5	90	82	30	87	79	75	72
20	7,7	90	82	30	87	79	73	70
31.25	9,8	90	80	30	87	77	69	66
62.50	14,0	86	72	30	83	69	63	60
100	17,9	83	65	30	80	62	59	56
155.00	22,4	81	59	26	78	55	57	54
200.00	25,6	78	52	25	75	49	53	50
250.00	28,8	77	48	25	74	45	51	48
300.00	31,6	73	41	23	70	38	47	44
600.00	45,7	71	25	20	68	22	44	41

Technical data

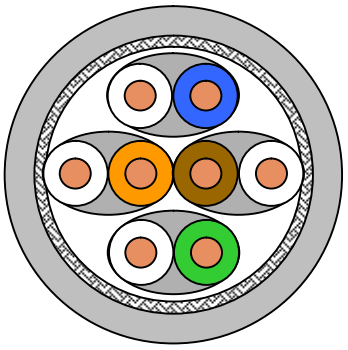
Part no.	Description	Colour	Outer diameter	Fire load		Weight
			mm	MJ/km	kWh/m	kg/km
1016274	ToughCat C7 LSHF-FR 4x2/0.27mm2	Grey RAL7035	8,1	670	0,186	75

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
ToughCat C7 LSHF-FR 4x2/0.27mm2	1016274	60011617	**60011617**
ToughCat C7 LSHF-FR 4x2/0.27mm2 500DP	1016274-00500DP	60011617	**60015820**
ToughCat C7 LSHF-FR 4x2/0.27mm2 1000DP		60011617	**60030363**

ICS IE ToughCat 7S* S/FTP Installation cable for tougher environments

S/FTP Installation Cable for tougher environments



* Version with Solid conductors

Application

Generic Data transmission. This cable is a **Cat7 S/FTP** cable meant for use as installation/horizontal cable in tougher electrical and mechanical environment, including ships and offshore units.

Standards

EN 50173-1; EN 50288-4-1
ISO/IEC 11801; IEC 61156-5
Det Norske Veritas (DNV) specification No. 6-827.50-2

Fire rating

LSHF-FR(SHF1) : IEC 60754-2; IEC 61034, IEC 60332-3-24

Chemical resistance

Mineral oils IRM 902 (IEC60811-2-1) : 7 days/23°C, 4 hours/70°C
Diesel - IRM 903 (IEC60811-2-1) : 7 days/23°C, 4 hours/70°C

Certification

This cable is certified by: Det Norske Veritas (DNV)

Construction

Conductor	Solid copper wire, Ø 0.56 mm (AWG 23)
Insulation	foamskin PE, Ø 1.4 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs (PiMF) to the core
Screen	copper braid, tinned
Sheath	Oil resistant, Fire retardant and halogen free LSHF-FR (SHF1).

Mechanical properties

Bending radius	Without load	8 x D
	With load	4 x D
Temperature range	During operation	-40°C to + 85°C
	During installation	-15°C to + 50°C
Fire load	4 pair	670 MJ/km
Maximum tensile load	During operation	No load
	During installation	200 N

Electrical properties at 20°C± 5°C

Loop resistance		≤ 150 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩ*km
Mutual capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Characteristic impedance	(1-100 MHz)	100 ± 5 Ω
	(100 - 250) MHz	100 ± 10 Ω
	(250 - 600) MHz	100 ± 15 Ω
Nominal velocity of propagation		ca. 79 %
Propagation delay		≤ 570 ns/100m
Delay skew		≤ 9 ns/100m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance(Grade 1)	at 1 MHz	≤ 10 mΩ/m
	at 10 MHz	≤ 10 mΩ/m
	at 30 MHz	≤ 10 mΩ/m
	at 100MHz	≤ 20 mΩ/m
Coupling attenuation		≥ 85 dB

Electrical data (nominal) acc. to Cat.7 (at 20°C)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
1,0	1,8	100	97	98	95	105	105	-
4,0	3,4	100	97	97	94	105	102	27
10,0	5,4	100	97	95	92	97	94	30
16,0	6,8	100	97	93	90	93	90	30
20,0	7,7	100	97	92	89	91	88	30
31,2	9,6	100	97	90	87	87	84	30
62,5	13,7	100	97	86	83	81	78	30
100,0	17,4	100	97	83	80	77	74	30
125,0	19,5	95	92	75	72	75	72	26
155,5	21,9	94	91	72	69	73	70	26
175,0	23,3	93	90	70	67	72	69	25
200,0	25,0	92	89	67	64	71	68	25
250,0	28,1	90	87	62	59	69	66	24
300,0	30,9	89	86	58	55	67	64	24
450,0	38,3	87	84	48	45	64	61	23
600,0	44,8	85	82	40	37	61	58	22

Technical data

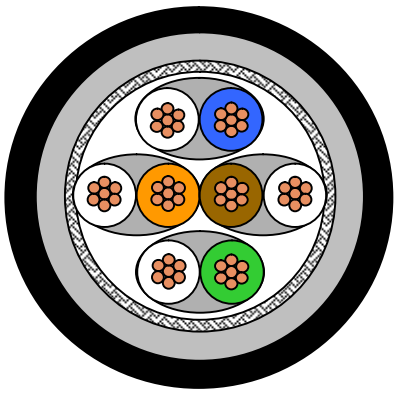
Part no.	Description	Colour	Outer diameter	Fire load		Weight
			mm	MJ/km	kWh/m	kg/km
1022322	ToughCat7S S/FTP 4x2/0.56	Grey RAL7035	7,6	670	0,186	64

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
ToughCat C7S LSHF-FR 4x2/0.56		60015280	**60015280**
ToughCat C7S LSHF-FR 4x2/0.56 500DP	1022322-00500DP	60015280	**60015282**

ICS IE ToughCat 5e MUD Protected S/FTP Installation cable for tougher environments

S/FTP Installation Cable for tougher environments



Application

Generic Data transmission. This **Cat.5e S/FTP** cable is based on our **DNV and Lloyd Register certified ToughCat**, but with an additional fire retardant, halogen-free, low smoke MUD protecting outer jacket. This cabel is meant for use as installation/horisontal cable in tougher electrical and mechanical environment, including ships and offshore units.

Standards

EN 50173-1; EN 50288-2-1
ISO/IEC 11801; IEC 61156-5

Fire rating

MUD protecting outer sheath	: IEC 60754-2, IEC 61034, IEC 60332-3-24
Inner sheath LSHF-FR(SHF1)	: IEC 60754-2, IEC 61034, IEC 60332-3-24

Chemical resistance

Mineral oils IRM 902 (IEC60811-2-1)	: 7 days/100°C
Diesel - IRM 903 (IEC60811-2-1)	: 7 days/100°C

Construction

Conductor	Stranded copper wire Ø 0.22 mm2
Insulation	PE, Ø 1.4 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs
Pair screen	Al-laminated plastic foil around each pair
Overall screen	Copper braid, tinned Ø 6,2 mm
Inner sheath	Oil resistant, Fire retardant and halogen free LSHF-FR (SHF1) Ø 7,7 mm
Outer sheath	MUD protecting

Mechanical Properties

Bending radius	Installation	8 x D
	Installed	4 x D
Temperature range	During operation	-40°C to + 85°C
	During installation	-15°C to + 50°C
Fire load	4 pair	(On request) MJ/km
Maximum tensile load, installation	During installation	100 N
	Installed	No load

Electrical Properties at 20°C

DC loop resistance		≤ 158 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩxkm
Capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair to ground)	≤ 300 pF/km
Mean Characteristic impedance	@ 100 MHz)	100 ± 5 Ω
Nominal velocity of propagation		0,75c
Propagation delay		≤ 450 ns/100 m
Delay skew		≤ 15 ns/100 m
Transfer impedance	at 1 MHz	≤ 10 mΩ /m
	at 10 MHz	≤ 8 mΩ /m
	at 30 MHz	≤ 10 mΩ /m
Coupling attenuation		≥ 85 dB

Nominal Transmission characteristics at 20°C

F (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB/100m)	Return loss (dB)	PS-NEXT (dB)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)
1	2,1	90	88		87	85	85	82
4	4,0	90	86	27	87	83	85	82
10	6,3	90	84	30	87	81	79	76
16	8,0	90	82	30	87	79	75	72
20	9,0	90	81	30	87	78	73	70
31.25	11,4	90	79	30	87	76	69	66
62.50	16,5	86	70	30	83	67	63	60
100	21,3	83	62	30	80	59	59	56
155.00	24,2	81	57	26	78	54	57	54
200.00	31,5	78	47	25	75	44	53	50
250.00	35,8	77	41	25	74	38	51	48
300.00	47,1	73	26	23	70	23	47	44
600.00	60,1	71	11	20	68	8	44	41

Technical data

Part no.	Description	Colour	Outer diameter	Fire load		Weight
			mm	MJ/km	kWh/m	kg/km
1000846	ToughCat MUD C5e S/FTP P 4Px0.22mm2	Dark Grey RAL7024	9,6	*)	*)	100

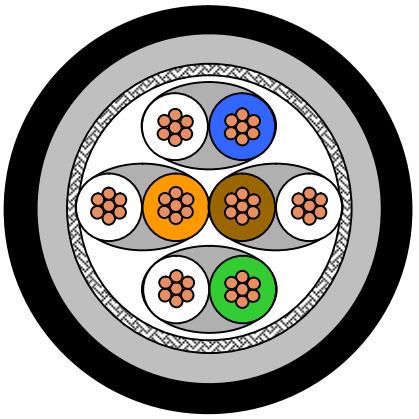
*)-On request

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
ToughCat MUD C5e S/FTP P 4Px0.22mm2	100846	60015701	**60015701**
ToughCat MUD C5e S/FTP 4Px0.22mm2 500DP	1000846-00500DP	60015701	**60015703**

ICS IE ToughCat 7 MUD Protected S/FTP Installation cable for tougher environments

S/FTP Installation Cable for tougher environments



Application

Generic Data transmission. This cable is a **Cat7 S/FTP** cable is based on our **DNV certified ToughCat**, but with an additional fire retardant, halogen-free, low smoke MUD protecting outer jacket. This cabel is meant for use as installation/horisontal cable in tougher electrical and mechanical environment, including ships and offshore units.

Standards

EN 50173-1; EN 50288-4-1
ISO/IEC 11801; IEC 61156-5

Fire rating

Inner sheath: LSHF-FR (SHF1) : IEC 60754-2; IEC 61034, IEC 60332-3-24
MUD protecting outer sheath : IEC 60754-2; IEC 61034, IEC 60332-3-24

Chemical resistance

Mineral oils IRM 902 (IEC60811-2-1) : - 7 days/100°C
Diesel - IRM 903 (IEC60811-2-1) : - 7 days/100°C

Certification

Pending.

Construction

Conductor	Stranded copper wire Ø 0.27 mm2
Insulation	PE, Ø 1.6 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs
Pair screen	Al-laminated plastic foil around each pair
Overall screen	Copper braid, tinned Ø 6,6 mm
Inner sheath	Oil resistant, Fire retardant and halogen free LSHF-FR (SHF1).
Outer sheath	MUD protecting

Mechanical Properties

Bending radius	Without load	8 x D
	With load	4 x D
Temperature range	During operation	-40°C to + 85°C
	During installation	-15°C to + 50°C
Fire load	4 pair	(on request) MJ/km
Maximum tensile load	During operation	No load
	During installation	100 N

Electrical Properties at 20°C

DC loop resistance		≤ 138 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩxkm
Capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair to ground)	≤ 1500 pF/km
Mean Characteristic impedance	@ 100 MHz)	100 ± 5 Ω
Nominal velocity of propagation		0,76c
Propagation delay		≤ 450 ns/100 m
Delay skew		≤ 15 ns/100 m
Transfer impedance	at 1 MHz	≤ 10 mΩ /m
	at 10 MHz	≤ 8 mΩ /m
	at 30 MHz	≤ 10 mΩ /m
Coupling attenuation		≥ 85 dB

Nominal Transmission characteristics at 20°C

F (MHz)	Attenuation (dB/100m)	NEXT (dB)	ACR (dB/100m)	Return loss (dB)	PS-NEXT (dB)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)
1	2,0	90	88		87	85	85	82
4	3,6	90	86	27	87	83	85	82
10	5,5	90	84	30	87	81	79	76
16	7,5	90	82	30	87	79	75	72
20	7,7	90	82	30	87	79	73	70
31.25	9,8	90	80	30	87	77	69	66
62.50	14,0	86	72	30	83	69	63	60
100	17,9	83	65	30	80	62	59	56
155.00	22,4	81	59	26	78	55	57	54
200.00	25,6	78	52	25	75	49	53	50
250.00	28,8	77	48	25	74	45	51	48
300.00	31,6	73	41	23	70	38	47	44
600.00	45,7	71	25	20	68	22	44	41

Technical data

Part no.	Description	Colour	Outer diameter	Fire load		Weight
			mm	MJ/km	kWh/m	kg/km
1019269	ToughCat MUD C7 S/FTP 4Px0.27mm2	Grey RAL7024	10,1	*)	*)	112

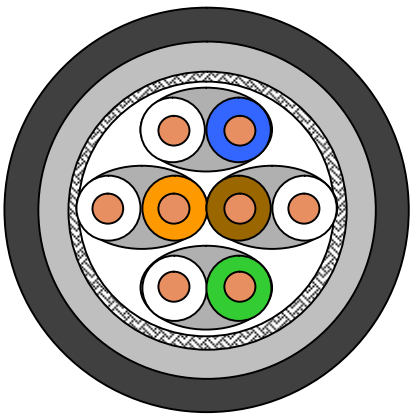
*) on request

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
ToughCat MUD C7 S/FTP 4Px0.27mm2		60015692	**60015692**
ToughCat MUD C7 S/FTP 4Px0.27mm2 500DP	1019269-00500DP	60015692	**60015695**

ICS IE ToughCat 7S* MUD Protected S/FTP Installation cable for tougher environments

S/FTP Installation Cable for tougher environments



* Version with Solid conductors

Application

Generic Data transmission. This cable is a **Cat7 S/FTP** cable is based on our **DNV certified ToughCat**, but with an additional fire retardant, halogen-free, low smoke MUD protecting outer jacket. This cabel is meant for use as installation/horisontal cable in tougher electrical and mechanical environment, including ships and offshore units.

Standards

EN 50173-1; EN 50288-4-1
ISO/IEC 11801; IEC 61156-5

Fire rating

Inner sheath: LSHF-FR (SHF1) : IEC 60754-2; IEC 61034, IEC 60332-3-24
MUD protecting outer sheath : IEC 60754-2; IEC 61034, IEC 60332-3-24

Chemical resistance

Mineral oils IRM 902 (IEC60811-2-1) : - 7 days/100°C
Diesel - IRM 903 (IEC60811-2-1) : - 7 days/100°C

Certification

The base construction(exclusive the extra MUD sheath) is certified by DnV.

Construction

Conductor	Solid copper wire, Ø 0.56 mm (AWG 23)
Insulation	foamskin PE, Ø 1.4 mm
Twisting	2 cores to the pair
Pair screen	Al-laminated plastic foil
Cable lay up	4 pairs (PiMF) to the core
Screen	copper braid, tinned
Inner sheath	Oil resistant, Fire retardant and halogen free LSHF-FR (SHF1).
Outer sheath	MUD protecting

Mechanical properties

Bending radius	Without load	8 x D
	With load	4 x D
Temperature range	During operation	-40°C to + 85°C
	During installation	-15°C to + 50°C
Fire load	4 pair	670 MJ/km
Maximum tensile load	During operation	No load
	During installation	200 N

Electrical properties at 20°C± 5°C

Loop resistance		≤ 155 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 5000 MΩ*km
Mutual capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Characteristic impedance	(1-100 MHz)	100 ± 5 Ω
	(100 - 250) MHz	100 ± 10 Ω
	(250 - 600) MHz	100 ± 15 Ω
Nominal velocity of propagation		ca. 79 %
Propagation delay		≤ 570 ns/100m
Delay skew		≤ 9 ns/100m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance(Grade 1)	at 1 MHz	≤ 10 mΩ/m
	at 10 MHz	≤ 10 mΩ/m
	at 30 MHz	≤ 10 mΩ/m
	at 100MHz	≤ 20 mΩ/m
Coupling attenuation		≥ 85 dB

Electrical data (nominal) acc. to Cat.7 (at 20°C)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
1,0	1,8	100	97	98	95	105	105	-
4,0	3,4	100	97	97	94	105	102	27
10,0	5,4	100	97	95	92	97	94	30
16,0	6,8	100	97	93	90	93	90	30
20,0	7,7	100	97	92	89	91	88	30
31,2	9,6	100	97	90	87	87	84	30
62,5	13,7	100	97	86	83	81	78	30
100,0	17,4	100	97	83	80	77	74	30
125,0	19,5	95	92	75	72	75	72	26
155,5	21,9	94	91	72	69	73	70	26
175,0	23,3	93	90	70	67	72	69	25
200,0	25,0	92	89	67	64	71	68	25
250,0	28,1	90	87	62	59	69	66	24
300,0	30,9	89	86	58	55	67	64	24
450,0	38,3	87	84	48	45	64	61	23
600,0	44,8	85	82	40	37	61	58	22

Technical data

Part no.	Description	Colour	Outer diameter	Fire load		Weight
			mm	MJ/km	kWh/m	kg/km
1026769	ToughCat MUD C7S 4x2/0.56	Dark Grey RAL7024	9,6	*)	*)	100

*)-On request

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
ToughCat MUD C7S 4x2/0.56 500DP	1026769-00500DP	60022014	**60015706**
ToughCat MUD C7S 4x2/0.56	1026769	60022014	**60022014**

ARCTIC GRADE instrumentation cable RFOU(i) 150/250(300)V, S1/S5

Flame retardant halogen-free instrumentation cable. Oil & Mud resistant. Cold bend / Cold impact resistant

RFOU(i) 150/250(300)V

EPR/EPR/TCWB/EVA

NEK TS 606 CodeS1/S5 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-352 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- and safe areas. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK TS 606:2009. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 Clause 8.9 & Annex E at -40°C / -35°C.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU(I) 250V S1/S5 4PAIR 0.75mm2 IEC 60092-376 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm^2	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	1.1	10 ± 0.8	185	54
1	2	0.75	1.1	0.6	1.1	7 ± 0.5	0.2	1.1	10 ± 0.8	185	54
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	1.2	13 ± 0.8	280	85
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	1.2	13 ± 0.8	280	85
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15.5 ± 0.8	430	166
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15.5 ± 0.8	430	166
8	2	0.75	1.1	0.6	1.1	15.5 ± 0.8	0.3	1.5	19.5 ± 0.8	690	265
8	2	0.75	1.1	0.6	1.1	15.5 ± 0.8	0.3	1.5	19.5 ± 0.8	690	265
16	2	0.75	1.1	0.6	1.9	21.5 ± 1	0.3	1.7	26.5 ± 1	1240	439
16	2	0.75	1.1	0.6	1.9	21.5 ± 1	0.3	1.7	26.5 ± 1	1240	439
24	2	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	1.9	31.5 ± 1.5	1720	596
24	2	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	1.9	31.5 ± 1.5	1720	596
1	3	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	1.1	10.5 ± 0.8	200	60
1	3	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	1.1	10.5 ± 0.8	200	60
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	1.3	15 ± 0.8	360	130
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	1.3	15 ± 0.8	360	130
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.4	17 ± 0.8	510	192
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.4	17 ± 0.8	510	192
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.5	21.5 ± 1	810	318
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.5	21.5 ± 1	810	318
16	3	0.75	1.1	0.6	2.1	24.5 ± 1	0.3	1.8	29.5 ± 1	1540	544
16	3	0.75	1.1	0.6	2.1	24.5 ± 1	0.3	1.8	29.5 ± 1	1540	544
24	3	0.75	1.1	0.6	2.5	30.5 ± 1.5	0.3	2	36 ± 1.5	2240	778
24	3	0.75	1.1	0.6	2.5	30.5 ± 1.5	0.3	2	36 ± 1.5	2240	778
1	2	1.5	1.6	0.7	1.1	8 ± 0.5	0.2	1.1	11.5 ± 0.8	230	71
1	2	1.5	1.6	0.7	1.1	8 ± 0.5	0.2	1.1	11.5 ± 0.8	230	71
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	420	168
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	420	168
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	600	252
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	600	252
8	2	1.5	1.6	0.7	1.1	19 ± 0.8	0.3	1.6	23.5 ± 1	980	420
8	2	1.5	1.6	0.7	1.1	19 ± 0.8	0.3	1.6	23.5 ± 1	980	420
12	2	1.5	1.6	0.7	1.4	23 ± 1	0.3	1.8	28 ± 1	1380	580
16	2	1.5	1.6	0.7	1.9	26.5 ± 1	0.3	1.9	32 ± 1.5	1820	740
16	2	1.5	1.6	0.7	1.9	26.5 ± 1	0.3	1.9	32 ± 1.5	1820	740
24	2	1.5	1.6	0.7	2.3	33 ± 1.5	0.4	2.2	39 ± 1.5	2770	1165
24	2	1.5	1.6	0.7	2.3	33 ± 1.5	0.4	2.2	39 ± 1.5	2770	1165
1	3	1.5	1.6	0.7	1.1	8.5 ± 0.5	0.2	1.1	12 ± 0.8	265	93
1	3	1.5	1.6	0.7	1.1	8.5 ± 0.5	0.2	1.1	12 ± 0.8	265	93
2	3	1.5	1.6	0.7	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	510	213
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.5	20 ± 1	740	325
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.5	20 ± 1	740	325
8	3	1.5	1.6	0.7	1.1	21.5 ± 1	0.3	1.7	26 ± 1	1230	558
8	3	1.5	1.6	0.7	1.1	21.5 ± 1	0.3	1.7	26 ± 1	1230	558
16	3	1.5	1.6	0.7	2.3	31 ± 1.5	0.3	2	36.5 ± 1.5	2410	992
16	3	1.5	1.6	0.7	2.3	31 ± 1.5	0.3	2	36.5 ± 1.5	2410	992
24	3	1.5	1.6	0.7	2.5	38 ± 1.5	0.4	2.3	44 ± 2	3550	1551
24	3	1.5	1.6	0.7	2.5	38 ± 1.5	0.4	2.3	44 ± 2	3550	1551
1	2	2.5	2	0.7	1.1	9 ± 0.5	0.2	1.1	12.5 ± 0.8	280	99
2	2	2.5	2	0.7	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	530	225
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	1.5	20.5 ± 1	770	350

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8
Shielded 16 and 24 triple 1,5 mm²	105	0,71	12,9	24,4

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	812000	RFOU(I) 1PAIR 0.75mm² S1/S5 Cold	GREY	-	7021528120004	-
	812001	RFOU(I) 1PAIR 0.75mm² S1/S5 Cold	BLUE	-	7021528120011	-
	812006	RFOU(I) 2PAIR 0.75mm² S1/S5 Cold	GREY	-	7021528120066	-
	812007	RFOU(I) 2PAIR 0.75mm² S1/S5 Cold	BLUE	-	7021528120073	-
	812018	RFOU(I) 4PAIR 0.75mm² S1/S5 Cold	GREY	-	7021528120189	-
	812019	RFOU(I) 4PAIR 0.75mm² S1/S5 Cold	BLUE	-	7021528120196	-
	812030	RFOU(I) 8PAIR 0.75mm² S1/S5 Cold	GREY	-	7021528120301	-
	812031	RFOU(I) 8PAIR 0.75mm² S1/S5 Cold	BLUE	-	7021528120318	-
	812042	RFOU(I) 16PAIR 0.75mm² S1/S5 Cold	GREY	-	7021528120424	-
	812043	RFOU(I) 16PAIR 0.75mm² S1/S5 Cold	BLUE	-	7021528120431	-
	812048	RFOU(I) 24PAIR 0.75mm² S1/S5 Cold	GREY	-	7021528120486	-
	812049	RFOU(I) 24PAIR 0.75mm² S1/S5 Cold	BLUE	-	7021528120493	-
	812060	RFOU(I) 1TRIP 0.75mm² S1/S5 Cold	GREY	-	7021528120608	-
	812061	RFOU(I) 1TRIP 0.75mm² S1/S5 Cold	BLUE	-	7021528120615	-
	812066	RFOU(I) 2TRIP 0.75mm² S1/S5 Cold	GREY	-	7021528120660	-
	812067	RFOU(I) 2TRIP 0.75mm² S1/S5 Cold	BLUE	-	7021528120677	-
	812078	RFOU(I) 4TRIP 0.75mm² S1/S5 Cold	GREY	-	7021528120783	-
	812079	RFOU(I) 4TRIP 0.75mm² S1/S5 Cold	BLUE	-	7021528120790	-
	812090	RFOU(I) 8TRIP 0.75mm² S1/S5 Cold	GREY	-	7021528120905	-
	812091	RFOU(I) 8TRIP 0.75mm² S1/S5 Cold	BLUE	-	7021528120912	-
	812102	RFOU(I) 16TRIP 0.75mm² S1/S5 Cold	GREY	-	7021528121025	-
	812103	RFOU(I) 16TRIP 0.75mm² S1/S5 Cold	BLUE	-	7021528121032	-
	812108	RFOU(I) 24TRIP 0.75mm² S1/S5 Cold	GREY	-	7021528121087	-
	812109	RFOU(I) 24TRIP 0.75mm² S1/S5 Cold	BLUE	-	7021528121094	-
	812200	RFOU(I) 1PAIR 1.5mm² S1/S5 Cold	GREY	-	7021528122008	-
	812201	RFOU(I) 1PAIR 1.5mm² S1/S5 Cold	BLUE	-	7021528122015	-
	812206	RFOU(I) 2PAIR 1.5mm² S1/S5 Cold	GREY	-	7021528122060	-
	812207	RFOU(I) 2PAIR 1.5mm² S1/S5 Cold	BLUE	-	7021528122077	-
	812218	RFOU(I) 4PAIR 1.5mm² S1/S5 Cold	GREY	-	7021528122183	-
	812219	RFOU(I) 4PAIR 1.5mm² S1/S5 Cold	BLUE	-	7021528122190	-
	812230	RFOU(I) 8PAIR 1.5mm² S1/S5 Cold	GREY	-	7021528122305	-
	812231	RFOU(I) 8PAIR 1.5mm² S1/S5 Cold	BLUE	-	7021528122312	-
	812236	RFOU(I) 12PAIR 1.5mm² S1/S5 Cold	GREY	-	7021528122367	-
	812242	RFOU(I) 16PAIR 1.5mm² S1/S5 Cold	GREY	-	7021528122428	-
	812243	RFOU(I) 16PAIR 1.5mm² S1/S5 Cold	BLUE	-	7021528122435	-
	812248	RFOU(I) 24PAIR 1.5mm² S1/S5 Cold	GREY	-	7021528122480	-
	812249	RFOU(I) 24PAIR 1.5mm² S1/S5 Cold	BLUE	-	7021528122497	-
	812260	RFOU(I) 1TRIP 1.5mm² S1/S5 Cold	GREY	-	7021528122602	-
	812261	RFOU(I) 1TRIP 1.5mm² S1/S5 Cold	BLUE	-	7021528122619	-
	812266	RFOU(I) 2TRIP 1.5mm² S1/S5 Cold	GREY	-	7021528122664	-
	812278	RFOU(I) 4TRIP 1.5mm² S1/S5 Cold	GREY	-	7021528122787	-
	812279	RFOU(I) 4TRIP 1.5mm² S1/S5 Cold	BLUE	-	7021528122794	-
	812290	RFOU(I) 8TRIP 1.5mm² S1/S5 Cold	GREY	-	7021528122909	-
	812291	RFOU(I) 8TRIP 1.5mm² S1/S5 Cold	BLUE	-	7021528122916	-
	812302	RFOU(I) 16TRIP 1.5mm² S1/S5 Cold	GREY	-	7021528123029	-
	812303	RFOU(I) 16TRIP 1.5mm² S1/S5 Cold	BLUE	-	7021528123036	-
	812308	RFOU(I) 24TRIP 1.5mm² S1/S5 Cold	GREY	-	7021528123081	-
	812309	RFOU(I) 24TRIP 1.5mm² S1/S5 Cold	BLUE	-	7021528123098	-
	812400	RFOU(I) 1PAIR 2.5mm² S1/S5 Cold	GREY	-	7021528124002	-
	812406	RFOU(I) 2PAIR 2.5mm² S1/S5 Cold	GREY	-	7021528124064	-
	812418	RFOU(I) 4PAIR 2.5mm² S1/S5 Cold	GREY	-	7021528124187	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE instrumentation cable RFOU(c) 150/250(300)V, S2/S6

Flame retardant halogen-free instrumentation cable. Oil & Mud resistant. Cold bend / Cold impact resistant

RFOU(c) 150/250(300)V

EPR/EPR/TCWB/EVA

NEK TS 606 CodeS2/S6 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-352 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- and safe areas. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK TS 606:2009. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 Clause 8.9 & Annex E at -40°C / -35°C.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire. Pairs/triples are identified by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU(C) 250V S2/S6 4PAIR 0.75mm2 IEC 60092-376 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Grey or Blue

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm^2	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	1.2	13.5 ± 0.8	275	81
2	2	0.75	1.1	0.6	1.1	10 ± 0.8	0.2	1.2	13.5 ± 0.8	275	81
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15.5 ± 0.8	390	138
4	2	0.75	1.1	0.6	1.1	11.5 ± 0.8	0.3	1.3	15.5 ± 0.8	390	138
8	2	0.75	1.1	0.6	1.1	15 ± 0.8	0.3	1.4	19.5 ± 0.8	600	223
8	2	0.75	1.1	0.6	1.1	15 ± 0.8	0.3	1.4	19.5 ± 0.8	600	223
16	2	0.75	1.1	0.6	1.9	20.5 ± 1	0.3	1.6	25 ± 1	1040	358
16	2	0.75	1.1	0.6	1.9	20.5 ± 1	0.3	1.6	25 ± 1	1040	358
24	2	0.75	1.1	0.6	2.1	25 ± 1	0.3	1.8	29.5 ± 1	1450	510
24	2	0.75	1.1	0.6	2.1	25 ± 1	0.3	1.8	29.5 ± 1	1450	510
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.2	1.2	14.5 ± 0.8	320	95
2	3	0.75	1.1	0.6	1.1	11 ± 0.8	0.2	1.2	14.5 ± 0.8	320	95
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.3	16.5 ± 0.8	470	181
4	3	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.3	16.5 ± 0.8	470	181
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.5	21 ± 1	740	291
8	3	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	1.5	21 ± 1	740	291
16	3	0.75	1.1	0.6	2.1	23 ± 1	0.3	1.7	27.5 ± 1	1350	488
24	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	1.9	33 ± 1.5	1860	667
24	3	0.75	1.1	0.6	2.3	28 ± 1	0.3	1.9	33 ± 1.5	1860	667
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	410	162
2	2	1.5	1.6	0.7	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	410	162
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	560	234
4	2	1.5	1.6	0.7	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	560	234
8	2	1.5	1.6	0.7	1.1	18.5 ± 0.8	0.3	1.6	23 ± 1	890	379
8	2	1.5	1.6	0.7	1.1	18.5 ± 0.8	0.3	1.6	23 ± 1	890	379
16	2	1.5	1.6	0.7	1.9	25 ± 1	0.3	1.8	30 ± 1.5	1580	651
16	2	1.5	1.6	0.7	1.9	25 ± 1	0.3	1.8	30 ± 1.5	1580	651
24	2	1.5	1.6	0.7	2.3	31 ± 1.5	0.3	2.1	36.5 ± 1.5	2270	924
2	3	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	1.4	17.5 ± 0.8	490	190
4	3	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	1.4	19.5 ± 0.8	670	291
8	3	1.5	1.6	0.7	1.1	21 ± 1	0.3	1.7	25.5 ± 1	1140	517
16	3	1.5	1.6	0.7	2.1	28 ± 1	0.3	1.9	33 ± 1.5	2090	903
16	3	1.5	1.6	0.7	2.1	28 ± 1	0.3	1.9	33 ± 1.5	2090	903
24	3	1.5	1.6	0.7	2.5	35 ± 1.5	0.4	2.2	41 ± 2	3100	1369
24	3	1.5	1.6	0.7	2.5	35 ± 1.5	0.4	2.2	41 ± 2	3100	1369
2	2	2.5	2	0.7	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	490	200
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	1.4	20 ± 1	680	309
4	2	2.5	2	0.7	1.1	16 ± 0.8	0.3	1.4	20 ± 1	680	309
12	2	2.5	2	0.7	2.1	27 ± 1	0.3	1.8	31.5 ± 1.5	1730	759

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8
Unshielded 24 pair 2,5 mm²	95	0,66	8,02	36,8
Unshielded 16 triple 2,5 mm²	95	0,66	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	812606	RFOU(C) 2PAIR 0.75mm² S2/S6 Cold	GREY	-	7021528126068	-
	812607	RFOU(C) 2PAIR 0.75mm² S2/S6 Cold	BLUE	-	7021528126075	-
	812618	RFOU(C) 4PAIR 0.75mm² S2/S6 Cold	GREY	-	7021528126181	-
	812619	RFOU(C) 4PAIR 0.75mm² S2/S6 Cold	BLUE	-	7021528126198	-
	812630	RFOU(C) 8PAIR 0.75mm² S2/S6 Cold	GREY	-	7021528126303	-
	812631	RFOU(C) 8PAIR 0.75mm² S2/S6 Cold	BLUE	-	7021528126310	-
	812642	RFOU(C) 16PAIR 0.75mm² S2/S6 Cold	GREY	-	7021528126426	-
	812643	RFOU(C) 16PAIR 0.75mm² S2/S6 Cold	BLUE	-	7021528126433	-
	812648	RFOU(C) 24PAIR 0.75mm² S2/S6 Cold	GREY	-	7021528126488	-
	812649	RFOU(C) 24PAIR 0.75mm² S2/S6 Cold	BLUE	-	7021528126495	-
	812666	RFOU(C) 2TRIP 0.75mm² S2/S6 Cold	GREY	-	7021528126662	-
	812667	RFOU(C) 2TRIP 0.75mm² S2/S6 Cold	BLUE	-	7021528126679	-
	812678	RFOU(C) 4TRIP 0.75mm² S2/S6 Cold	GREY	-	7021528126785	-
	812679	RFOU(C) 4TRIP 0.75mm² S2/S6 Cold	BLUE	-	7021528126792	-
	812690	RFOU(C) 8TRIP 0.75mm² S2/S6 Cold	GREY	-	7021528126907	-
	812691	RFOU(C) 8TRIP 0.75mm² S2/S6 Cold	BLUE	-	7021528126914	-
	812702	RFOU(C) 16TRIP 0.75mm² S2/S6 Cold	GREY	-	7021528127027	-
	812708	RFOU(C) 24TRIP 0.75mm² S2/S6 Cold	GREY	-	7021528127089	-
	812709	RFOU(C) 24TRIP 0.75mm² S2/S6 Cold	BLUE	-	7021528127096	-
	812806	RFOU(C) 2PAIR 1.5mm² S2/S6 Cold	GREY	-	7021528128062	-
	812807	RFOU(C) 2PAIR 1.5mm² S2/S6 Cold	BLUE	-	7021528128079	-
	812818	RFOU(C) 4PAIR 1.5mm² S2/S6 Cold	GREY	-	7021528128185	-
	812819	RFOU(C) 4PAIR 1.5mm² S2/S6 Cold	BLUE	-	7021528128192	-
	812830	RFOU(C) 8PAIR 1.5mm² S2/S6 Cold	GREY	-	7021528128307	-
	812831	RFOU(C) 8PAIR 1.5mm² S2/S6 Cold	BLUE	-	7021528128314	-
	812842	RFOU(C) 16PAIR 1.5mm² S2/S6 Cold	GREY	-	7021528128420	-
	812843	RFOU(C) 16PAIR 1.5mm² S2/S6 Cold	BLUE	-	7021528128437	-
	812848	RFOU(C) 24PAIR 1.5mm² S2/S6 Cold	GREY	-	7021528128482	-
	812866	RFOU(C) 2TRIP 1.5mm² S2/S6 Cold	GREY	-	7021528128666	-
	812878	RFOU(C) 4TRIP 1.5mm² S2/S6 Cold	GREY	-	7021528128789	-
	812891	RFOU(C) 8TRIP 1.5mm² S2/S6 Cold	BLUE	-	7021528128918	-
	812902	RFOU(C) 16TRIP 1.5mm² S2/S6 Cold	GREY	-	7021528129021	-
	812903	RFOU(C) 16TRIP 1.5mm² S2/S6 Cold	BLUE	-	7021528129038	-
	812908	RFOU(C) 24TRIP 1.5mm² S2/S6 Cold	GREY	-	7021528129083	-
	812909	RFOU(C) 24TRIP 1.5mm² S2/S6 Cold	BLUE	-	7021528129090	-
	813006	RFOU(C) 2PAIR 2.5mm² S2/S6 Cold	GREY	-	7021528130065	-
	813018	RFOU(C) 4PAIR 2.5mm² S2/S6 Cold	GREY	-	7021528130188	-
	813019	RFOU(C) 4PAIR 2.5mm² S2/S6 Cold	BLUE	-	7021528130195	-
	813036	RFOU(C) 12PAIR 2.5mm² S2/S6 Cold	GREY	-	7021528130362	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE Fire resistant, instrumentation cable BFOU(i) 150/250(300)V, S3/S7

Fire resistant, flame retardant halogen-free instrumentation cable. Oil & Mud resistant. Cold bend / Cold impact resistant

BFOU(i) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeS3/S7 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the OIL & MUD resistance requirement in NEK TS 606:2009. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 Clause 8.9 & Annex E at -40°C/-35°C.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-350 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFOU(I) 250V S3/S7 4PAIR 0.75mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	54
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	3.8	1.1	10.5 ± 0.8	200	54
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	10.2	1.3	14.5 ± 0.8	360	133
2	2	0.75	1.1	0.6	1.1	11 ± 0.8	0.3	10.2	1.3	14.5 ± 0.8	360	133
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	490	183
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	11.9	1.4	16.5 ± 0.8	490	183
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	780	283
8	2	0.75	1.1	0.6	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	780	283
16	2	0.75	1.1	0.6	1.9	24 ± 1	0.3	20.4	1.8	29 ± 1	1400	465
16	2	0.75	1.1	0.6	1.9	24 ± 1	0.3	20.4	1.8	29 ± 1	1400	465
24	2	0.75	1.1	0.6	2.3	30 ± 1.5	0.3	25.4	2	35.5 ± 1.5	2020	647
24	2	0.75	1.1	0.6	2.3	30 ± 1.5	0.3	25.4	2	35.5 ± 1.5	2020	647
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	4.5	1.1	11 ± 0.8	225	68
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	4.5	1.1	11 ± 0.8	225	68
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.4	16 ± 0.8	410	146
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.4	16 ± 0.8	410	146
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	570	209
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	570	209
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	17.8	1.7	23 ± 1	960	359
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	17.8	1.7	23 ± 1	960	359
16	3	0.75	1.1	0.6	2.1	26.5 ± 1	0.3	22.9	1.9	32 ± 1.5	1770	594
24	3	0.75	1.1	0.6	2.5	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2620	909
24	3	0.75	1.1	0.6	2.5	33 ± 1.5	0.4	36.2	2.2	39 ± 1.5	2620	909
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	4.5	1.1	12 ± 0.8	255	79
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	4.5	1.1	12 ± 0.8	255	79
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	480	184
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	480	184
4	2	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	13.6	1.5	19.5 ± 0.8	670	269
4	2	1.5	1.6	0.7	1.1	15.5 ± 0.8	0.3	13.6	1.5	19.5 ± 0.8	670	269
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1090	446
8	2	1.5	1.6	0.7	1.1	21 ± 1	0.3	17.8	1.7	25.5 ± 1	1090	446
12	2	1.5	1.6	0.7	1.4	25.5 ± 1	0.3	20.4	1.9	30.5 ± 1.5	1560	606
16	2	1.5	1.6	0.7	2.1	30 ± 1.5	0.3	22.9	2	35.5 ± 1.5	2080	766
16	2	1.5	1.6	0.7	2.1	30 ± 1.5	0.3	22.9	2	35.5 ± 1.5	2080	766
24	2	1.5	1.6	0.7	2.3	36.5 ± 1.5	0.4	40.7	2.3	43 ± 2	3060	1211
24	2	1.5	1.6	0.7	2.3	36.5 ± 1.5	0.4	40.7	2.3	43 ± 2	3060	1211
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	290	93
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	290	93
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	560	213
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	560	213
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	820	342

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	820	342
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	20.4	1.8	27.5 ± 1	1380	584
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	20.4	1.8	27.5 ± 1	1380	584
16	3	1.5	1.6	0.9	2.3	36.5 ± 1.5	0.4	36.2	2.2	42.5 ± 2	3040	1125
16	3	1.5	1.6	0.9	2.3	36.5 ± 1.5	0.4	36.2	2.2	42.5 ± 2	3040	1125
24	3	1.5	1.6	0.9	2.7	45.5 ± 2	0.4	45.2	2.5	52 ± 2.5	4370	1598
24	3	1.5	1.6	0.9	2.7	45.5 ± 2	0.4	45.2	2.5	52 ± 2.5	4370	1598
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	300	99
1	2	2.5	2	0.7	1.1	9.5 ± 0.5	0.2	4.5	1.2	13 ± 0.8	300	99
2	2	2.5	2	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.5	18.5 ± 0.8	560	225
4	2	2.5	2	0.7	1.1	17 ± 0.8	0.3	15.3	1.6	21.5 ± 1	830	367
8	2	2.5	2	0.7	1.1	23.5 ± 1	0.3	20.4	1.8	28 ± 1	1390	633
16	2	2.5	2	0.9	2.3	36.5 ± 1.5	0.4	36.2	2.2	42.5 ± 2	3020	1222
1	3	2.5	2	0.7	1.1	10.5 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	350	129
8	3	2.5	2	0.7	1.3	25.5 ± 1	0.3	22.9	2	30.5 ± 1.5	1820	844
12	3	2.5	2	0.7	2.6	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2930	1284

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8
Shielded 16 and 24 triple 1,5 mm²	105	0,71	12,9	24,4
Shielded 16 pair 2,5 mm²	110	0,66	8,02	41,1

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20110770		BFOU(I) 1PAIR 0.75mm² S3/S7 Cold	GREY	-	7021528132007	-
	813201	BFOU(I) 1PAIR 0.75mm² S3/S7 Cold	BLUE	-	7021528132014	-
	813206	BFOU(I) 2PAIR 0.75mm² S3/S7 Cold	GREY	-	7021528132069	-
	813207	BFOU(I) 2PAIR 0.75mm² S3/S7 Cold	BLUE	-	7021528132076	-
	813218	BFOU(I) 4PAIR 0.75mm² S3/S7 Cold	GREY	-	7021528132182	-
	813219	BFOU(I) 4PAIR 0.75mm² S3/S7 Cold	BLUE	-	7021528132199	-
	813230	BFOU(I) 8PAIR 0.75mm² S3/S7 Cold	GREY	-	7021528132304	-
	813231	BFOU(I) 8PAIR 0.75mm² S3/S7 Cold	BLUE	-	7021528132311	-
	813242	BFOU(I) 16PAIR 0.75mm² S3/S7 Cold	GREY	-	7021528132427	-
	813243	BFOU(I) 16PAIR 0.75mm² S3/S7 Cold	BLUE	-	7021528132434	-
	813248	BFOU(I) 24PAIR 0.75mm² S3/S7 Cold	GREY	-	7021528132489	-
	813249	BFOU(I) 24PAIR 0.75mm² S3/S7 Cold	BLUE	-	7021528132496	-
	813260	BFOU(I) 1TRIP 0.75mm² S3/S7 Cold	GREY	-	7021528132601	-
	813261	BFOU(I) 1TRIP 0.75mm² S3/S7 Cold	BLUE	-	7021528132618	-
	813266	BFOU(I) 2TRIP 0.75mm² S3/S7 Cold	GREY	-	7021528132663	-
	813267	BFOU(I) 2TRIP 0.75mm² S3/S7 Cold	BLUE	-	7021528132670	-
	813278	BFOU(I) 4TRIP 0.75mm² S3/S7 Cold	GREY	-	7021528132786	-
	813279	BFOU(I) 4TRIP 0.75mm² S3/S7 Cold	BLUE	-	7021528132793	-
	813290	BFOU(I) 8TRIP 0.75mm² S3/S7 Cold	GREY	-	7021528132908	-
	813291	BFOU(I) 8TRIP 0.75mm² S3/S7 Cold	BLUE	-	7021528132915	-
	813302	BFOU(I) 16TRIP 0.75mm² S3/S7 Cold	GREY	-	7021528133028	-
	813308	BFOU(I) 24TRIP 0.75mm² S3/S7 Cold	GREY	-	7021528133080	-
	813309	BFOU(I) 24TRIP 0.75mm² S3/S7 Cold	BLUE	-	7021528133097	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20113810		BFOU(I) 1PAIR 1.5mm² S3/S7 Cold	GREY	Yes	7021528134001	-
20126333		BFOU(I) 1PAIR 1.5mm² S3/S7 Cold	BLUE	-	7021528134018	-
20110771		BFOU(I) 2PAIR 1.5mm² S3/S7 Cold	GREY	-	7021528134063	-
	813407	BFOU(I) 2PAIR 1.5mm² S3/S7 Cold	BLUE	-	7021528134070	-
	813418	BFOU(I) 4PAIR 1.5mm² S3/S7 Cold	GREY	-	7021528134186	-
	813419	BFOU(I) 4PAIR 1.5mm² S3/S7 Cold	BLUE	-	7021528134193	-
	813430	BFOU(I) 8PAIR 1.5mm² S3/S7 Cold	GREY	-	7021528134308	-
	813431	BFOU(I) 8PAIR 1.5mm² S3/S7 Cold	BLUE	-	7021528134315	-
	813436	BFOU(I) 12PAIR 1.5mm² S3/S7 Cold	GREY	-	7021528134360	-
	813442	BFOU(I) 16PAIR 1.5mm² S3/S7 Cold	GREY	-	7021528134421	-
	813443	BFOU(I) 16PAIR 1.5mm² S3/S7 Cold	BLUE	-	7021528134438	-
	813448	BFOU(I) 24PAIR 1.5mm² S3/S7 Cold	GREY	-	7021528134483	-
	813449	BFOU(I) 24PAIR 1.5mm² S3/S7 Cold	BLUE	-	7021528134490	-
20126334		BFOU(I) 1TRIP 1.5mm² S3/S7 Cold	GREY	-	7021528134605	-
	813461	BFOU(I) 1TRIP 1.5mm² S3/S7 Cold	BLUE	-	7021528134612	-
	813466	BFOU(I) 2TRIP 1.5mm² S3/S7 Cold	GREY	-	7021528134667	-
	813467	BFOU(I) 2TRIP 1.5mm² S3/S7 Cold	BLUE	-	7021528134674	-
	813478	BFOU(I) 4TRIP 1.5mm² S3/S7 Cold	GREY	-	7021528134780	-
	813479	BFOU(I) 4TRIP 1.5mm² S3/S7 Cold	BLUE	-	7021528134797	-
	813490	BFOU(I) 8TRIP 1.5mm² S3/S7 Cold	GREY	-	7021528134902	-
	813491	BFOU(I) 8TRIP 1.5mm² S3/S7 Cold	BLUE	-	7021528134919	-
	813502	BFOU(I) 16TRIP 1.5mm² S3/S7 Cold	GREY	-	7021528135022	-
	813503	BFOU(I) 16TRIP 1.5mm² S3/S7 Cold	BLUE	-	7021528135039	-
	813508	BFOU(I) 24TRIP 1.5mm² S3/S7 Cold	GREY	-	7021528135084	-
	813509	BFOU(I) 24TRIP 1.5mm² S3/S7 Cold	BLUE	-	7021528135091	-
	813600	BFOU(I) 1PAIR 2.5mm² S3/S7 Cold	GREY	-	7021528136005	-
	813601	BFOU(I) 1PAIR 2.5mm² S3/S7 Cold	BLUE	-	7021528136012	-
	813606	BFOU(I) 2PAIR 2.5mm² S3/S7 Cold	GREY	-	7021528136067	-
	813618	BFOU(I) 4PAIR 2.5mm² S3/S7 Cold	GREY	-	7021528136180	-
	813630	BFOU(I) 8PAIR 2.5mm² S3/S7 Cold	GREY	-	7021528136302	-
	813642	BFOU(I) 16PAIR 2.5mm² S3/S7 Cold	GREY	-	7021528136425	-
	813660	BFOU(I) 1TRIP 2.5mm² S3/S7 Cold	GREY	-	7021528136609	-
	813690	BFOU(I) 8TRIP 2.5mm² S3/S7 Cold	GREY	-	7021528136906	-
	813696	BFOU(I) 12TRIP 2.5mm² S3/S7 Cold	GREY	-	7021528136968	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE Fire resistant, instrumentation cable BFOU(c) 150/250(300)V, S4/S8

Fire resistant, flame retardant halogen-free instrumentation cable. Oil & Mud resistant. Cold bend / Cold impact resistant

BFOU(c) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeS4/S8 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the OIL & MUD resistance requirement in NEK TS 606:2009. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 Clause 8.9 & Annex E at -40°C/-35°C.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-350 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFOU(C) 250V S4/S8 4PAIR 0.75mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10.5 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	340	113
2	2	0.75	1.1	0.6	1.1	10.5 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	340	113
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.3	16 ± 0.8	440	155
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	10.2	1.3	16 ± 0.8	440	155
8	2	0.75	1.1	0.6	1.1	16.5 ± 0.8	0.3	13.6	1.5	20.5 ± 1	680	240
8	2	0.75	1.1	0.6	1.1	16.5 ± 0.8	0.3	13.6	1.5	20.5 ± 1	680	240
16	2	0.75	1.1	0.6	1.9	22 ± 1	0.3	17.8	1.7	27 ± 1	1180	383
16	2	0.75	1.1	0.6	1.9	22 ± 1	0.3	17.8	1.7	27 ± 1	1180	383
24	2	0.75	1.1	0.6	2.3	27.5 ± 1	0.3	22.9	2	32.5 ± 1.5	1700	536
24	2	0.75	1.1	0.6	2.3	27.5 ± 1	0.3	22.9	2	32.5 ± 1.5	1700	536
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	400	143
2	3	0.75	1.1	0.6	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	400	143
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	550	198
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	550	198
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	870	308
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	15.3	1.6	23 ± 1	870	308
16	3	0.75	1.1	0.6	2.1	25.5 ± 1	0.3	20.4	1.8	30.5 ± 1.5	1560	513
16	3	0.75	1.1	0.6	2.1	25.5 ± 1	0.3	20.4	1.8	30.5 ± 1.5	1560	513
24	3	0.75	1.1	0.6	2.5	31.5 ± 1.5	0.4	36.2	2.1	37.5 ± 1.5	2350	822
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	450	162
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	450	162
4	2	1.5	1.6	0.7	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	600	234
4	2	1.5	1.6	0.7	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	600	234
8	2	1.5	1.6	0.7	1.1	20 ± 1	0.3	17.8	1.7	25 ± 1	990	404
8	2	1.5	1.6	0.7	1.1	20 ± 1	0.3	17.8	1.7	25 ± 1	990	404
12	2	1.5	1.6	0.7	1.4	24 ± 1	0.3	20.4	1.8	29 ± 1	1350	540
16	2	1.5	1.6	0.7	1.9	27 ± 1	0.3	22.9	1.9	32 ± 1.5	1740	677
16	2	1.5	1.6	0.7	1.9	27 ± 1	0.3	22.9	1.9	32 ± 1.5	1740	677
24	2	1.5	1.6	0.7	2.3	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2610	1030
24	2	1.5	1.6	0.7	2.3	33.5 ± 1.5	0.4	36.2	2.2	39.5 ± 1.5	2610	1030
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	540	207
2	3	1.5	1.6	0.7	1.1	14.5 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	540	207
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	760	307
4	3	1.5	1.6	0.7	1.1	17 ± 0.8	0.3	13.6	1.5	21 ± 1	760	307
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	17.8	1.8	27.5 ± 1	1270	517
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	17.8	1.8	27.5 ± 1	1270	517
12	3	1.5	1.6	0.7	1.4	27 ± 1	0.3	22.9	1.9	32.5 ± 1.5	1760	736
16	3	1.5	1.6	0.7	2.3	31.5 ± 1.5	0.4	36.2	2.1	37.5 ± 1.5	2540	1034
16	3	1.5	1.6	0.7	2.3	31.5 ± 1.5	0.4	36.2	2.1	37.5 ± 1.5	2540	1034
24	3	1.5	1.6	0.7	2.7	38.5 ±	0.4	40.7	2.4	45 ± 2	3560	1421

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
						1.5						
2	2	2.5	2	0.7	1.1	14 ± 0.8	0.3	11.9	1.4	18 ± 0.8	530	217
4	2	2.5	2	0.7	1.1	16.5 ± 0.8	0.3	13.6	1.5	20.5 ± 1	740	325
8	2	2.5	2	0.7	1.1	22 ± 1	0.3	17.8	1.8	27 ± 1	1230	551
16	2	2.5	2	0.9	2.3	33 ± 1.5	0.4	31.7	2.1	39 ± 1.5	2590	1054
24	2	2.5	2	0.9	2.7	41 ± 2	0.4	40.7	2.4	47.5 ± 2	3760	1511
8	3	2.5	2	0.7	1.1	25 ± 1	0.3	20.4	1.9	30 ± 1.5	1620	762
16	3	2.5	2	0.9	2.6	38.5 ± 1.5	0.4	36.2	2.3	44.5 ± 2	3550	1473

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8
Unshielded 16 and 24 pair 2,5 mm²	95	0,66	8,02	36,8
Unshielded 12, 16 and 24 triple 2,5 mm²	95	0,66	8,02	36,8

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	813806	BFOU(C) 2PAIR 0.75mm² S4/S8 Cold	GREY	-	7021528138061	-
	813807	BFOU(C) 2PAIR 0.75mm² S4/S8 Cold	BLUE	-	7021528138078	-
	813818	BFOU(C) 4PAIR 0.75mm² S4/S8 Cold	GREY	-	7021528138184	-
	813819	BFOU(C) 4PAIR 0.75mm² S4/S8 Cold	BLUE	-	7021528138191	-
	813830	BFOU(C) 8PAIR 0.75mm² S4/S8 Cold	GREY	-	7021528138306	-
	813831	BFOU(C) 8PAIR 0.75mm² S4/S8 Cold	BLUE	-	7021528138313	-
	813842	BFOU(C) 16PAIR 0.75mm² S4/S8 Cold	GREY	-	7021528138429	-
	813843	BFOU(C) 16PAIR 0.75mm² S4/S8 Cold	BLUE	-	7021528138436	-
	813848	BFOU(C) 24PAIR 0.75mm² S4/S8 Cold	GREY	-	7021528138481	-
	813849	BFOU(C) 24PAIR 0.75mm² S4/S8 Cold	BLUE	-	7021528138498	-
	813866	BFOU(C) 2TRIP 0.75mm² S4/S8 Cold	GREY	-	7021528138665	-
	813867	BFOU(C) 2TRIP 0.75mm² S4/S8 Cold	BLUE	-	7021528138672	-
	813878	BFOU(C) 4TRIP 0.75mm² S4/S8 Cold	GREY	-	7021528138788	-
	813879	BFOU(C) 4TRIP 0.75mm² S4/S8 Cold	BLUE	-	7021528138795	-
	813890	BFOU(C) 8TRIP 0.75mm² S4/S8 Cold	GREY	-	7021528138900	-
	813891	BFOU(C) 8TRIP 0.75mm² S4/S8 Cold	BLUE	-	7021528138917	-
	813902	BFOU(C) 16TRIP 0.75mm² S4/S8 Cold	GREY	-	7021528139020	-
	813903	BFOU(C) 16TRIP 0.75mm² S4/S8 Cold	BLUE	-	7021528139037	-
	813908	BFOU(C) 24TRIP 0.75mm² S4/S8 Cold	GREY	-	7021528139082	-
	814006	BFOU(C) 2PAIR 1.5mm² S4/S8 Cold	GREY	-	7021528140064	-
	814007	BFOU(C) 2PAIR 1.5mm² S4/S8 Cold	BLUE	-	7021528140071	-
	814018	BFOU(C) 4PAIR 1.5mm² S4/S8 Cold	GREY	-	7021528140187	-
	814019	BFOU(C) 4PAIR 1.5mm² S4/S8 Cold	BLUE	-	7021528140194	-
20116213		BFOU(C) 8PAIR 1.5mm² S4/S8 Cold	GREY	Yes	7021528140309	-
	814031	BFOU(C) 8PAIR 1.5mm² S4/S8 Cold	BLUE	-	7021528140316	-
	814036	BFOU(C) 12PAIR 1.5mm² S4/S8 Cold	GREY	-	7021528140361	-
	814042	BFOU(C) 16PAIR 1.5mm² S4/S8 Cold	GREY	-	7021528140422	-
	814043	BFOU(C) 16PAIR 1.5mm² S4/S8 Cold	BLUE	-	7021528140439	-
	814048	BFOU(C) 24PAIR 1.5mm² S4/S8 Cold	GREY	-	7021528140484	-
	814049	BFOU(C) 24PAIR 1.5mm² S4/S8 Cold	BLUE	-	7021528140491	-
	814066	BFOU(C) 2TRIP 1.5mm² S4/S8 Cold	GREY	-	7021528140668	-
	814067	BFOU(C) 2TRIP 1.5mm² S4/S8 Cold	BLUE	-	7021528140675	-
	814078	BFOU(C) 4TRIP 1.5mm² S4/S8 Cold	GREY	-	7021528140781	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	814079	BFOU(C) 4TRIP 1.5mm² S4/S8 Cold	BLUE	-	7021528140798	-
	814090	BFOU(C) 8TRIP 1.5mm² S4/S8 Cold	GREY	-	7021528140903	-
	814091	BFOU(C) 8TRIP 1.5mm² S4/S8 Cold	BLUE	-	7021528140910	-
	814096	BFOU(C) 12TRIP 1.5mm² S4/S8 Cold	GREY	-	7021528140965	-
	814102	BFOU(C) 16TRIP 1.5mm² S4/S8 Cold	GREY	-	7021528141023	-
	814103	BFOU(C) 16TRIP 1.5mm² S4/S8 Cold	BLUE	-	7021528141030	-
	814108	BFOU(C) 24TRIP 1.5mm² S4/S8 Cold	GREY	-	7021528141085	-
	814206	BFOU(C) 2PAIR 2.5mm² S4/S8 Cold	GREY	-	7021528142068	-
	814218	BFOU(C) 4PAIR 2.5mm² S4/S8 Cold	GREY	-	7021528142181	-
	814230	BFOU(C) 8PAIR 2.5mm² S4/S8 Cold	GREY	-	7021528142303	-
	814242	BFOU(C) 16PAIR 2.5mm² S4/S8 Cold	GREY	-	7021528142426	-
	814248	BFOU(C) 24PAIR 2.5mm² S4/S8 Cold	GREY	-	7021528142488	-
	814290	BFOU(C) 8TRIP 2.5mm² S4/S8 Cold	GREY	-	7021528142907	-
	814302	BFOU(C) 16TRIP 2.5mm² S4/S8 Cold	GREY	-	7021528143027	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE power cable RFOU 0,6/1(1,2)kV, P1/P8

Flame retardant halogen-free power cable. Oil & Mud resistant. Cold bend / Cold impact resistant

RFOU 0,6/1(1,2)kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP1/P8 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-352 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Application

Fixed installation for power,control and lighting in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK 606. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 clause 8.9 & Annex E at -40°C / -35°C.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-359)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU 0.6/1kV P1/P8 3 x 95/50mm2 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core - Black -
Two cores - Blue - Brown -
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers -
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core -
Core identification - to HD308S2 - and IEC 60445: Edition 5.0 2010-08 -

Range and dimensions

Number of elements	Cross section core, mm^2	Electrical Cross section braid, mm^2	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	16	2.5	5.15	1.0	1.1	9.5 ± 0.5	0.2	1.2	13 ± 0.8	370	190
1	25	4	6.45	1.2	1.1	11.5 ± 0.8	0.2	1.2	15 ± 0.8	490	283
1	35	6	7.65	1.2	1.1	12.5 ± 0.8	0.3	1.3	16.5 ± 0.8	660	413
1	50	6	9.0	1.4	1.1	14.5 ± 0.8	0.3	1.4	18.5 ± 0.8	840	534
1	70	10	10.85	1.4	1.1	16.5 ± 0.8	0.3	1.4	21 ± 1	1120	757
1	95	10	12.60	1.6	1.1	18.5 ± 0.8	0.3	1.5	23 ± 1	1400	973
1	120	10	14.20	1.6	1.2	20.5 ± 1	0.3	1.6	25 ± 1	1730	1231
1	150	10	15.90	1.8	1.2	22.5 ± 1	0.3	1.6	27 ± 1	2070	1507
1	185	10	17.70	2.0	1.2	24.5 ± 1	0.3	1.7	29.5 ± 1	2490	1838
1	240	16	20.15	2.2	1.2	27.5 ± 1	0.3	1.8	33 ± 1.5	3140	2365
1	300	16	22.60	2.4	1.2	30.5 ± 1.5	0.3	1.9	35.5 ± 1.5	3830	2959
2	1.5	4	1.6	1.0	1.1	9.5 ± 0.5	0.2	1.2	13 ± 0.8	275	80
3	1.5	4	1.6	1.0	1.1	10 ± 0.8	0.2	1.2	13.5 ± 0.8	300	94
4	1.5	6	1.6	1.0	1.1	11 ± 0.8	0.3	1.3	15 ± 0.8	380	139
5	1.5	6	1.6	1.0	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	450	170
7	1.5	6	1.6	1.0	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	490	198
12	1.5	10	1.6	1.0	1.1	16 ± 0.8	0.3	1.5	20 ± 1	720	301
19	1.5	10	1.6	1.0	1.2	19 ± 0.8	0.3	1.6	23.5 ± 1	1000	415
27	1.5	10	1.6	1.0	1.2	22.5 ± 1	0.3	1.8	27.5 ± 1	1320	550
37	1.5	16	1.6	1.0	1.2	25 ± 1	0.3	1.9	30.5 ± 1.5	1680	716
2	2.5	4	2.0	1.0	1.1	10.5 ± 0.8	0.2	1.2	14 ± 0.8	320	98
3	2.5	6	2.0	1.0	1.1	11 ± 0.8	0.3	1.3	15 ± 0.8	400	152
4	2.5	6	2.0	1.0	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	470	192
5	2.5	6	2.0	1.0	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	540	214
7	2.5	6	2.0	1.0	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	620	277
12	2.5	10	2.0	1.0	1.2	18 ± 0.8	0.3	1.6	22.5 ± 1	930	426
19	2.5	10	2.0	1.0	1.2	21 ± 1	0.3	1.7	26 ± 1	1290	611
27	2.5	16	2.0	1.0	1.2	25 ± 1	0.3	1.9	30.5 ± 1.5	1720	819
37	2.5	16	2.0	1.0	1.4	29 ± 1	0.3	2	34 ± 1.5	2240	1074
3G	2.5	-	2.0	1.0	1.1	11 ± 0.8	0.3	1.3	15 ± 0.8	400	152
2	4	6	2.55	1.0	1.1	11.5 ± 0.8	0.3	1.3	15.5 ± 0.8	420	157
3	4	6	2.55	1.0	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	490	210
4	4	6	2.55	1.0	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	570	247
5	4	6	2.55	1.0	1.1	14.5 ± 0.8	0.3	1.4	19 ± 0.8	670	300
3G	4	-	2.55	1.0	1.1	12 ± 0.8	0.3	1.3	16 ± 0.8	490	210
4G	4	-	2.55	1.0	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	570	247
12	4	10	2.55	1.0	1.2	20 ± 1	0.3	1.7	24.5 ± 1	1200	616
20	4	16	2.55	1.0	1.2	25 ± 1	0.3	1.9	30.5 ± 1.5	1830	935
2	6	6	3.15	1.0	1.1	12.5 ± 0.8	0.3	1.3	16.5 ± 0.8	510	209
3	6	6	3.15	1.0	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	590	264
4	6	6	3.15	1.0	1.1	15 ± 0.8	0.3	1.4	19 ± 0.8	700	335
3G	6	-	3.15	1.0	1.1	13.5 ± 0.8	0.3	1.4	17.5 ± 0.8	590	264
4G	6	-	3.15	1.0	1.1	15 ± 0.8	0.3	1.4	19 ± 0.8	700	335
5G	6	-	3.15	1.0	1.1	16.5 ± 0.8	0.3	1.5	20.5 ± 1	820	390
2	10	10	4.05	1.0	1.1	14.5 ± 0.8	0.3	1.4	18.5 ± 0.8	670	300
3	10	10	4.05	1.0	1.1	15.5 ± 0.8	0.3	1.4	19.5 ± 0.8	790	391

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
4	10	10	4.05	1.0	1.1	17 ± 0.8	0.3	1.5	21.5 ± 1	950	496
4G	10	-	4.05	1.0	1.1	17 ± 0.8	0.3	1.5	21.5 ± 1	950	496
5G	10	-	4.05	1.0	1.2	19 ± 0.8	0.3	1.5	23 ± 1	1140	603
2	16	16	5.15	1.0	1.1	16.5 ± 0.8	0.4	1.5	21.5 ± 1	950	481
3	16	16	5.15	1.0	1.1	18 ± 0.8	0.4	1.5	22.5 ± 1	1120	626
4	16	16	5.15	1.0	1.2	20 ± 1	0.4	1.6	24.5 ± 1	1400	806
3G	16	-	5.15	1.0	1.1	18 ± 0.8	0.3	1.5	22 ± 1	1060	571
4G	16	-	5.15	1.0	1.2	20 ± 1	0.3	1.6	24.5 ± 1	1320	734
5G	16	-	5.15	1.0	1.2	22 ± 1	0.3	1.6	26.5 ± 1	1570	905
2	25	16	6.45	1.2	1.2	20.5 ± 1	0.4	1.6	25.5 ± 1	1340	685
3	25	16	6.45	1.2	1.2	22 ± 1	0.3	1.6	26.5 ± 1	1570	893
4	25	16	6.45	1.2	1.2	24.5 ± 1	0.3	1.7	29 ± 1	1920	1125
4G	25	-	6.45	1.2	1.2	24.5 ± 1	0.3	1.7	29 ± 1	1890	1100
5G	25	-	6.45	1.2	1.2	27 ± 1	0.3	1.8	31.5 ± 1.5	2270	1356
2	35	16	7.65	1.2	1.2	23 ± 1	0.3	1.7	27.5 ± 1	1600	828
3	35	16	7.65	1.2	1.2	24.5 ± 1	0.3	1.7	29 ± 1	1940	1142
4	35	16	7.65	1.2	1.2	27 ± 1	0.3	1.8	32 ± 1.5	2390	1456
4G	35	-	7.65	1.2	1.2	27 ± 1	0.3	1.8	32 ± 1.5	2390	1456
5G	35	-	7.65	1.2	1.2	30 ± 1.5	0.3	1.9	35 ± 1.5	2860	1795
3	50	25	9.0	1.4	1.2	28.5 ± 1	0.4	1.9	34 ± 1.5	2690	1617
4	50	25	9.0	1.4	1.4	32 ± 1.5	0.4	2	37.5 ± 1.5	3310	2052
4G	50	-	9.0	1.4	1.4	32 ± 1.5	0.3	2	37.5 ± 1.5	3230	1970
5G	50	-	9.0	1.4	1.4	35 ± 1.5	0.4	2.1	41 ± 2	4010	2531
2	70	35	10.85	1.4	1.2	30.5 ± 1.5	0.6	1.9	36.5 ± 1.5	3040	1782
3	70	35	10.85	1.4	1.4	33 ± 1.5	0.5	2	39 ± 1.5	3720	2385
4	70	35	10.85	1.4	1.4	36.5 ± 1.5	0.5	2.2	43 ± 2	4580	3018
4G	70	-	10.85	1.4	1.4	36.5 ± 1.5	0.4	2.2	42.5 ± 2	4450	2888
2	95	50	12.60	1.6	1.4	35 ± 1.5	0.6	2.1	41.5 ± 2	3940	2317
3	95	50	12.60	1.6	1.4	37.5 ± 1.5	0.5	2.2	43.5 ± 2	4810	3126
4	95	50	12.60	1.6	1.4	41.5 ± 2	0.5	2.4	48.5 ± 2	6000	4020
4G	95	-	12.60	1.6	1.4	41.5 ± 2	0.4	2.4	48 ± 2	5770	3796
2	120	60	14.20	1.6	1.4	38 ± 1.5	0.6	2.2	45 ± 2	4790	2891
3	120	60	14.20	1.6	1.4	41 ± 2	0.6	2.3	48 ± 2	5930	3975
4	120	60	14.20	1.6	1.6	46 ± 2	0.6	2.5	53.5 ± 2.5	7420	5100

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	810000	RFOU 0.6/1kV 1X16/2.5 P1/P8 Cold	BLACK	-	7021528100006	-
	810001	RFOU 0.6/1kV 1X25/4 P1/P8 Cold	BLACK	-	7021528100013	-
	810002	RFOU 0.6/1kV 1X35/6 P1/P8 Cold	BLACK	-	7021528100020	-
	810003	RFOU 0.6/1kV 1X50/6 P1/P8 Cold	BLACK	-	7021528100037	-
	810004	RFOU 0.6/1kV 1X70/10 P1/P8 Cold	BLACK	-	7021528100044	-
	810005	RFOU 0.6/1kV 1X95/10 P1/P8 Cold	BLACK	-	7021528100051	-
	810006	RFOU 0.6/1kV 1X120/10 P1/P8 Cold	BLACK	-	7021528100068	-
	810007	RFOU 0.6/1kV 1X150/10 P1/P8 Cold	BLACK	-	7021528100075	-
	810008	RFOU 0.6/1kV 1X185/10 P1/P8 Cold	BLACK	-	7021528100082	-
	810009	RFOU 0.6/1kV 1X240/16 P1/P8 Cold	BLACK	-	7021528100099	-
	810010	RFOU 0.6/1kV 1X300/16 P1/P8 Cold	BLACK	-	7021528100105	-
	810015	RFOU 0.6/1kV 2X1.5/4 P1/P8 Cold	BLACK	-	7021528100150	-
	810018	RFOU 0.6/1kV 3X1.5/4 P1/P8 Cold	BLACK	-	7021528100181	-
	810019	RFOU 0.6/1kV 4X1.5/6 P1/P8 Cold	BLACK	-	7021528100198	-
	810020	RFOU 0.6/1kV 5X1.5/6 P1/P8 Cold	BLACK	-	7021528100204	-
	810021	RFOU 0.6/1kV 7X1.5/6 P1/P8 Cold	BLACK	-	7021528100211	-
	810022	RFOU 0.6/1kV 12X1.5/10 P1/P8 Cold	BLACK	-	7021528100228	-
	810023	RFOU 0.6/1kV 19X1.5/10 P1/P8 Cold	BLACK	-	7021528100235	-
	810024	RFOU 0.6/1kV 27X1.5/10 P1/P8 Cold	BLACK	-	7021528100242	-
	810025	RFOU 0.6/1kV 37X1.5/16 P1/P8 Cold	BLACK	-	7021528100259	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	810029	RFOU 0.6/1kV 2X2.5/4 P1/P8 Cold	BLACK	-	7021528100297	-
	810032	RFOU 0.6/1kV 3X2.5/6 P1/P8 Cold	BLACK	-	7021528100327	-
	810035	RFOU 0.6/1kV 4X2.5/6 P1/P8 Cold	BLACK	-	7021528100358	-
	810036	RFOU 0.6/1kV 5X2.5/6 P1/P8 Cold	BLACK	-	7021528100365	-
	810037	RFOU 0.6/1kV 7X2.5/6 P1/P8 Cold	BLACK	-	7021528100372	-
	810038	RFOU 0.6/1kV 12X2.5/10 P1/P8 Cold	BLACK	-	7021528100389	-
	810039	RFOU 0.6/1kV 19X2.5/10 P1/P8 Cold	BLACK	-	7021528100396	-
	810040	RFOU 0.6/1kV 27X2.5/16 P1/P8 Cold	BLACK	-	7021528100402	-
	810041	RFOU 0.6/1kV 37X2.5/16 P1/P8 Cold	BLACK	-	7021528100419	-
	Tba	RFOU 0.6/1kV 3G 2.5 P1/P8 Cold	BLACK	-	-	-
	810045	RFOU 0.6/1kV 2X 4/6 P1/P8 Cold	BLACK	-	7021528100457	-
	810046	RFOU 0.6/1kV 3X 4/6 P1/P8 Cold	BLACK	-	7021528100464	-
	810047	RFOU 0.6/1kV 4X 4/6 P1/P8 Cold	BLACK	-	7021528100471	-
	810048	RFOU 0.6/1kV 5X 4/6 P1/P8 Cold	BLACK	-	7021528100488	-
	Tba	RFOU 0.6/1kV 3G 4 P1/P8 Cold	BLACK	-	-	-
	Tba	RFOU 0.6/1kV 4G 4 P1/P8 Cold	BLACK	-	-	-
	810150	RFOU 0.6/1kV 12X4/10 P1/P8 Cold	BLACK	-	7021528101508	-
	810151	RFOU 0.6/1kV 20X4/16 P1/P8 Cold	BLACK	-	7021528101515	-
	810051	RFOU 0.6/1kV 2X 6/6 P1/P8 Cold	BLACK	-	7021528100518	-
	810052	RFOU 0.6/1kV 3X 6/6 P1/P8 Cold	BLACK	-	7021528100525	-
	810053	RFOU 0.6/1kV 4X 6/6 P1/P8 Cold	BLACK	-	7021528100532	-
	Tba	RFOU 0.6/1kV 3G 6 P1/P8 Cold	BLACK	-	-	-
	Tba	RFOU 0.6/1kV 4G 6 P1/P8 Cold	BLACK	-	-	-
	810056	RFOU 0.6/1kV 5G 6 P1/P8 Cold	BLACK	-	7021528100563	-
	810057	RFOU 0.6/1kV 2X10/10 P1/P8 Cold	BLACK	-	7021528100570	-
	810058	RFOU 0.6/1kV 3X10/10 P1/P8 Cold	BLACK	-	7021528100587	-
	810059	RFOU 0.6/1kV 4X10/10 P1/P8 Cold	BLACK	-	7021528100594	-
	Tba	RFOU 0.6/1kV 4G 10 P1/P8 Cold	BLACK	-	-	-
	Tba	RFOU 0.6/1kV 5G 10 P1/P8 Cold	BLACK	-	-	-
	810063	RFOU 0.6/1kV 2X16/16 P1/P8 Cold	BLACK	-	7021528100631	-
	810064	RFOU 0.6/1kV 3X16/16 P1/P8 Cold	BLACK	-	7021528100648	-
	810065	RFOU 0.6/1kV 4X16/16 P1/P8 Cold	BLACK	-	7021528100655	-
	Tba	RFOU 0.6/1kV 3G 16 P1/P8 Cold	BLACK	-	-	-
	Tba	RFOU 0.6/1kV 4G 16 P1/P8 Cold	BLACK	-	-	-
	810067	RFOU 0.6/1kV 5G 16 P1/P8 Cold	BLACK	-	7021528100679	-
	810069	RFOU 0.6/1kV 2X25/16 P1/P8 Cold	BLACK	-	7021528100693	-
	810070	RFOU 0.6/1kV 3X25/16 P1/P8 Cold	BLACK	-	7021528100709	-
	810071	RFOU 0.6/1kV 4X25/16 P1/P8 Cold	BLACK	-	7021528100716	-
	Tba	RFOU 0.6/1kV 4G 25 P1/P8 Cold	BLACK	-	-	-
	810074	RFOU 0.6/1kV 5G 25 P1/P8 Cold	BLACK	-	7021528100747	-
	810075	RFOU 0.6/1kV 2X35/16 P1/P8 Cold	BLACK	-	7021528100754	-
	810076	RFOU 0.6/1kV 3X35/16 P1/P8 Cold	BLACK	-	7021528100761	-
	810077	RFOU 0.6/1kV 4X35/16 P1/P8 Cold	BLACK	-	7021528100778	-
	Tba	RFOU 0.6/1kV 4G 35 P1/P8 Cold	BLACK	-	-	-
	810079	RFOU 0.6/1kV 5G 35 P1/P8 Cold	BLACK	-	7021528100792	-
	810082	RFOU 0.6/1kV 3X50/25 P1/P8 Cold	BLACK	-	7021528100822	-
	810083	RFOU 0.6/1kV 4X50/25 P1/P8 Cold	BLACK	-	7021528100839	-
	Tba	RFOU 0.6/1kV 4G 50 P1/P8 Cold	BLACK	-	-	-
	Tba	RFOU 0.6/1kV 5G 50 P1/P8 Cold	BLACK	-	-	-
	810087	RFOU 0.6/1kV 2X70/35 P1/P8 Cold	BLACK	-	7021528100877	-
	810088	RFOU 0.6/1kV 3X70/35 P1/P8 Cold	BLACK	-	7021528100884	-
	810089	RFOU 0.6/1kV 4X70/35 P1/P8 Cold	BLACK	-	7021528100891	-
		RFOU 0.6/1kV 4G 70 P1/P8 Cold	BLACK	-	-	-
	810094	RFOU 0.6/1kV 2X95/50 P1/P8 Cold	BLACK	-	7021528100945	-
	810095	RFOU 0.6/1kV 3X95/50 P1/P8 Cold	BLACK	-	7021528100952	-
	810096	RFOU 0.6/1kV 4X95/50 P1/P8 Cold	BLACK	-	7021528100969	-
		RFOU 0.6/1kV 4G 95 P1/P8 Cold	BLACK	-	-	-
	810100	RFOU 0.6/1kV 2X120/60 P1/P8 Cold	BLACK	-	7021528101003	-
	810101	RFOU 0.6/1kV 3X120/60 P1/P8 Cold	BLACK	-	7021528101010	-
	810105	RFOU 0.6/1kV 4X120/60 P1/P8 Cold	BLACK	-	7021528101058	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	16	2.5	STCC	1.16	1.48	0.118	0.142	96	2240
1	25	4	STCC	0.734	0.936	0.111	0.134	127	3500
1	35	6	STCC	0.529	0.675	0.108	0.129	157	4900
1	50	6	STCC	0.391	0.499	0.105	0.126	196	7000
1	70	10	STCC	0.27	0.344	0.100	0.120	242	9800
1	95	10	STCC	0.195	0.249	0.097	0.117	293	13300
1	120	10	STCC	0.154	0.196	0.095	0.114	339	16800
1	150	10	STCC	0.126	0.161	0.093	0.112	389	21000
1	185	10	STCC	0.1	0.128	0.092	0.110	444	25900
1	240	16	STCC	0.0762	0.0972	0.090	0.108	522	33600
1	300	16	STCC	0.0607	0.0774	0.088	0.105	601	42000
2	1.5	4	STCC	12.2	15.6	0.110	0.132	20	210
3	1.5	4	STCC	12.2	15.6	0.110	0.132	16	210
4	1.5	6	STCC	12.2	15.6	0.110	0.132	16	210
5	1.5	6	STCC	12.2	15.6	0.110	0.132	13.5	210
7	1.5	6	STCC	12.2	15.6	0.110	0.132	12	210
12	1.5	10	STCC	12.2	15.6	0.110	0.132	10	210
19	1.5	10	STCC	12.2	15.6	0.110	0.132	8.5	210
27	1.5	10	STCC	12.2	15.6	0.110	0.132	7.5	210
37	1.5	16	STCC	12.2	15.6	0.110	0.132	7	210
2	2.5	4	STCC	7.56	9.64	0.103	0.123	26	350
3	2.5	6	STCC	7.56	9.64	0.103	0.123	21	350
4	2.5	6	STCC	7.56	9.64	0.103	0.123	21	350
5	2.5	6	STCC	7.56	9.64	0.103	0.123	17.5	350
7	2.5	6	STCC	7.56	9.64	0.103	0.123	15.5	350
12	2.5	10	STCC	7.56	9.64	0.103	0.123	13	350
19	2.5	10	STCC	7.56	9.64	0.103	0.123	11	350
27	2.5	16	STCC	7.56	9.64	0.103	0.123	10	350
37	2.5	16	STCC	7.56	9.64	0.103	0.123	9	350
3G	2.5	-	STCC	7.56	9.64	0.103	0.123	26	350
2	4	6	STCC	4.7	5.99	0.096	0.115	34	560
3	4	6	STCC	4.7	5.99	0.096	0.115	28	560
4	4	6	STCC	4.7	5.99	0.096	0.115	28	560
5	4	6	STCC	4.7	5.99	0.096	0.115	23.5	560
3G	4	-	STCC	4.7	5.99	0.096	0.115	34	560
4G	4	-	STCC	4.7	5.99	0.096	0.115	28	560
12	4	10	STCC	4.7	5.99	0.096	0.115	17.5	560
20	4	16	STCC	4.7	5.99	0.096	0.115	14.5	560
2	6	6	STCC	3.11	3.97	0.090	0.108	44	840
3	6	6	STCC	3.11	3.97	0.090	0.108	36	840
4	6	6	STCC	3.11	3.97	0.090	0.108	36	840
3G	6	-	STCC	3.11	3.97	0.090	0.108	44	840
4G	6	-	STCC	3.11	3.97	0.090	0.108	36	840
5G	6	-	STCC	3.11	3.97	0.090	0.108	36	840
2	10	10	STCC	1.84	2.35	0.084	0.101	61	1400
3	10	10	STCC	1.84	2.35	0.084	0.101	50	1400
4	10	10	STCC	1.84	2.35	0.084	0.101	50	1400
4G	10	-	STCC	1.84	2.35	0.084	0.101	50	1400
5G	10	-	STCC	1.84	2.35	0.084	0.101	50	1400
2	16	16	STCC	1.16	1.48	0.080	0.096	80	2240
3	16	16	STCC	1.16	1.48	0.080	0.096	67	2240
4	16	16	STCC	1.16	1.48	0.080	0.096	67	2240
3G	16	-	STCC	1.16	1.48	0.080	0.096	80	2240
4G	16	-	STCC	1.16	1.48	0.080	0.096	67	2240
5G	16	-	STCC	1.16	1.48	0.080	0.096	67	2240
2	25	16	STCC	0.734	0.936	0.079	0.095	108	3500
3	25	16	STCC	0.734	0.936	0.079	0.095	89	3500
4	25	16	STCC	0.734	0.936	0.079	0.095	89	3500
4G	25	-	STCC	0.734	0.936	0.079	0.095	89	3500

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
5G	25	-	STCC	0.734	0.936	0.079	0.095	89	3500
2	35	16	STCC	0.529	0.675	0.076	0.092	133	4900
3	35	16	STCC	0.529	0.675	0.076	0.092	110	4900
4	35	16	STCC	0.529	0.675	0.076	0.092	110	4900
4G	35	-	STCC	0.529	0.675	0.076	0.092	110	4900
5G	35	-	STCC	0.529	0.675	0.076	0.092	110	4900
3	50	25	STCC	0.391	0.499	0.076	0.092	137	7000
4	50	25	STCC	0.391	0.499	0.076	0.092	137	7000
4G	50	-	STCC	0.391	0.499	0.076	0.092	137	7000
5G	50	-	STCC	0.391	0.499	0.076	0.092	137	7000
2	70	35	STCC	0.27	0.344	0.074	0.088	206	9800
3	70	35	STCC	0.27	0.344	0.074	0.088	169	9800
4	70	35	STCC	0.27	0.344	0.074	0.088	169	9800
4G	70	-	STCC	0.27	0.344	0.074	0.088	169	9800
2	95	50	STCC	0.195	0.249	0.073	0.088	249	13300
3	95	50	STCC	0.195	0.249	0.073	0.088	205	13300
4	95	50	STCC	0.195	0.249	0.073	0.088	205	13300
4G	95	-	STCC	0.195	0.249	0.073	0.088	205	13300
2	120	60	STCC	0.154	0.196	0.072	0.086	288	16800
3	120	60	STCC	0.154	0.196	0.072	0.086	237	16800
4	120	60	STCC	0.154	0.196	0.072	0.086	237	16800

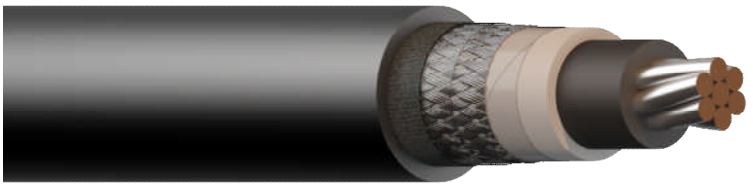
Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE power cable RFOU 0,6/1(1,2)kV, P1/P8, large single core cables



Flame retardant halogen-free power cable. Oil & Mud resistant. Cold bend / Cold impact resistant. Single core cable

RFOU 0,6/1(1,2)kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP1/P8 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-352 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Application

Fixed installation for power,control and lighting in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK 606. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 clause 8.9 & Annex E at -40°C / -35°C.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU 0.6/1kV P1/P8 1 x 400/25mm2 IEC 60092-353 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core - Black -
Two cores - Blue - Brown -
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers -
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core -
Core identification - to HD308S2 - and IEC 60445: Edition 5.0 2010-08 -

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	400	25	26.00	2.4	1.4	34.5 ± 1.5	0.4	2.1	40.5 ± 2	5050	3970

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	810011	RFOU 0.6/1kV 1X400/25 P1/P8 Cold	BLACK	-	7021528100112	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	400	25	STCC	0.0475	0.0606	0.087	0.104	690 dc / 670 ac	56000

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE power cable RFOU 0,6/1(1,2)kV, P1/P8, double braided

Flame retardant halogen-free power cable. Oil & Mud resistant. Cold bend / Cold impact resistant. Double braided.

RFOU 0,6/1(1,2)kV

EPR/EPR/TCWB/EVA

NEK TS 606 CodeP1/P8

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-352 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Application

Fixed installation for power,control and lighting in both EX- and safe areas, general purposes. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK 606. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 clause 8.9 & Annex E at -40°C / -35°C.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over inner covering		PET tape + rubberized Polyamide tape
Armour/screen	**O**	Two layers of tinned copper wire braid (double braid)
Tape over armour/screen		PET tape + rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 RFOU 0,6/1kV P1/P8 3 x150/70 mm2 IEC 60092-353 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel,
Outer sheath colour		Black

Core identification power cables

Single core - Black -
Two cores - Blue - Brown -
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers -
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core -
Core identification - to HD308S2 - and IEC 60445: Edition 5.0 2010-08 -

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
3	150	75	15.9	1.8	1.6	46 ± 2	0.4	2.6	54 ± 2.5	7440	4981
4	150	75	15.9	1.8	2	51.5 ± 2.5	0.5	2.8	61 ± 3	9450	6444
3	185	95	17.70	2.0	1.6	50.5 ± 2.5	0.5	2.7	59.5 ± 2.5	9200	6283
4	185	95	17.7	2.0	2	57 ± 2.5	0.5	3	67 ± 3	11390	7837
3	240	120	20.15	2.2	1.8	57.5 ± 2.5	0.6	3	68 ± 3	11760	8046

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	810102	RFOU 0.6/1kV 3X150/75 P1/P8 Cold	BLACK	-	7021528101027	-
	810103	RFOU 0.6/1kV 4X150/75 P1/P8 Cold	BLACK	-	7021528101034	-
	810106	RFOU 0.6/1kV 3X185/95 P1/P8 Cold	BLACK	-	7021528101065	-
	810107	RFOU 0.6/1kV 4X185/95 P1/P8 Cold	BLACK	-	7021528101072	-
	810112	RFOU 0.6/1kV 3X240/120 P1/P8 Cold	BLACK	-	7021528101126	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
3	150	75	STCC	0.126	0.161	0.072	0.087	272	21000
4	150	75	STCC	0.126	0.161	0.072	0.087	272	21000
3	185	95	STCC	0.1	0.128	0.072	0.086	311	25900
4	185	95	STCC	0.1	0.161	0.072	0.086	311	25900
3	240	120	STCC	0.0762	0.0972	0.072	0.086	365	33600

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE Fire resistant power cable, BFOU 0,6/1(1,2)kV, P5/P12

Fire resistant, flame retardant halogen-free power cable. Oil & Mud resistant. Cold bend / Cold impact resistant

BFOU 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeP5/P12 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-350 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Application

Fixed installation for power, control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK 606. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 Clause 8.9 & Annex E at -40°C/-35°C.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 BFOU 0.6/1kV P5/P12 3 x 50/25mm2 FLEX - FLAME IEC 60092-353 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Black

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification power cables

Single core - Black -
Two cores - Blue - Brown -
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers -
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core -
Core identification - to HD308S2 - and IEC 60445: Edition 5.0 2010-08 -

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	16	4	5.15	1.0	1.1	10 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	380	198
1	25	6	6.45	1.2	1.1	11.5 ± 0.8	0.3	8.5	1.3	15.5 ± 0.8	540	314
1	50	10	9.0	1.4	1.1	15 ± 0.8	0.3	12.7	1.4	19 ± 0.8	880	559
1	70	10	10.85	1.4	1.1	16.5 ± 0.8	0.3	12.7	1.4	21 ± 1	1130	757
1	95	10	12.60	1.6	1.1	19 ± 0.8	0.3	15.3	1.5	23.5 ± 1	1440	996
1	120	10	14.20	1.6	1.2	20.5 ± 1	0.3	15.3	1.6	25.5 ± 1	1740	1231
1	150	10	15.90	1.8	1.2	23 ± 1	0.3	17.8	1.7	28 ± 1	2130	1535
1	185	10	17.70	2.0	1.2	25 ± 1	0.3	17.8	1.7	30 ± 1.5	2510	1838
1	240	16	20.15	2.2	1.2	28 ± 1	0.3	20.4	1.8	33 ± 1.5	3160	2365
1	300	16	22.60	2.4	1.2	31 ± 1.5	0.3	22.9	1.9	36 ± 1.5	3880	2984
2	1.5	4	1.6	1.0	1.1	10 ± 0.8	0.2	5.3	1.2	13.5 ± 0.8	290	80
3	1.5	6	1.6	1.0	1.1	10.5 ± 0.8	0.3	8.5	1.3	14.5 ± 0.8	360	125
4	1.5	6	1.6	1.0	1.1	11.5 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	420	156
5	1.5	6	1.6	1.0	1.1	13 ± 0.8	0.3	10.2	1.4	17 ± 0.8	490	170
7	1.5	6	1.6	1.0	1.1	13 ± 0.8	0.3	11.9	1.4	17 ± 0.8	540	214
12	1.5	10	1.6	1.0	1.2	17.5 ± 0.8	0.3	15.3	1.6	22 ± 1	810	318
19	1.5	10	1.6	1.0	1.2	20.5 ± 1	0.3	17.8	1.7	25 ± 1	1100	440
27	1.5	16	1.6	1.0	1.2	24.5 ± 1	0.3	20.4	1.9	29.5 ± 1	1450	577
37	1.5	16	1.6	1.0	1.4	27.5 ± 1	0.3	22.9	2	33 ± 1.5	1870	741
2	2.5	6	2.0	1.0	1.1	11 ± 0.8	0.3	8.5	1.3	15 ± 0.8	370	129
3	2.5	6	2.0	1.0	1.1	11.5 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	430	169
4	2.5	6	2.0	1.0	1.1	12.5 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	480	192
7	2.5	6	2.0	1.0	1.1	14.5 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	640	277
12	2.5	10	2.0	1.0	1.2	19 ± 0.8	0.3	17.8	1.6	23.5 ± 1	990	450
19	2.5	16	2.0	1.0	1.2	22.5 ± 1	0.3	20.4	1.8	27.5 ± 1	1380	636
27	2.5	16	2.0	1.0	1.4	27 ± 1	0.3	22.9	2	32.5 ± 1.5	1870	844
37	2.5	25	2.0	1.0	1.4	30.5 ± 1.5	0.4	36.2	2.2	36.5 ± 1.5	2500	1204
3G	2.5	-	2.0	1.0	1.1	11.5 ± 0.8	0.3	10.2	1.3	15.5 ± 0.8	430	169
2	4	6	2.55	1.0	1.1	12 ± 0.8	0.3	10.2	1.3	16 ± 0.8	460	173
3	4	6	2.55	1.0	1.1	13 ± 0.8	0.3	10.2	1.3	17 ± 0.8	510	210
4	4	6	2.55	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	610	263
3G	4	-	2.55	1.0	1.1	13 ± 0.8	0.3	10.2	1.3	16.5 ± 0.8	510	210
2	6	6	3.15	1.0	1.1	13.5 ± 0.8	0.3	10.2	1.4	17.5 ± 0.8	540	209

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
3	6	6	3.15	1.0	1.1	14 ± 0.8	0.3	11.9	1.4	18.5 ± 0.8	630	281
4	6	6	3.15	1.0	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	730	335
5G	6	-	3.15	1.0	1.1	17.5 ± 0.8	0.3	13.6	1.5	21.5 ± 1	890	406
2	10	10	4.05	1.0	1.1	15 ± 0.8	0.3	11.9	1.4	19 ± 0.8	690	299
3	10	10	4.05	1.0	1.1	16 ± 0.8	0.3	11.9	1.5	20.5 ± 1	810	390
4	10	10	4.05	1.0	1.1	18 ± 0.8	0.3	13.6	1.5	22 ± 1	980	496
5G	10	-	4.05	1.0	1.2	20 ± 1	0.3	15.3	1.6	24.5 ± 1	1190	603
2	16	16	5.15	1.0	1.1	17.5 ± 0.8	0.5	21.2	1.5	22.5 ± 1	990	500
3	16	16	5.15	1.0	1.1	18.5 ± 0.8	0.4	22.6	1.5	23 ± 1	1170	660
4	16	16	5.15	1.0	1.2	21 ± 1	0.4	22.6	1.6	25.5 ± 1	1410	806
2	25	16	6.45	1.2	1.2	21 ± 1	0.4	22.6	1.6	26 ± 1	1370	685
3	25	16	6.45	1.2	1.2	22.5 ± 1	0.3	20.4	1.7	27.5 ± 1	1610	894
4	25	16	6.45	1.2	1.2	25 ± 1	0.3	20.4	1.8	30 ± 1.5	1960	1125
2	35	16	7.65	1.2	1.2	23.5 ± 1	0.3	20.4	1.7	28.5 ± 1	1650	828
3	35	16	7.65	1.2	1.2	25.5 ± 1	0.3	20.4	1.8	30 ± 1.5	2010	1142
4	35	16	7.65	1.2	1.2	28 ± 1	0.3	20.4	1.9	33 ± 1.5	2470	1456
5G	35	-	7.65	1.2	1.4	31.5 ± 1.5	0.3	22.9	2	36.5 ± 1.5	2990	1795
3	50	25	9.0	1.4	1.2	29 ± 1	0.4	31.7	1.9	34.5 ± 1.5	2720	1617
4	50	25	9.0	1.4	1.4	32.5 ± 1.5	0.4	31.7	2	38.5 ± 1.5	3360	2052
4G	50	-	9.0	1.4	1.4	32.5 ± 1.5	0.3	25.4	2	38 ± 1.5	3300	1991
5G	50	-	9.0	1.4	1.4	36 ± 1.5	0.4	36.2	2.2	42 ± 2	4090	2531
2	70	35	10.85	1.4	1.6	31.5 ± 1.5	0.6	50.9	2	38 ± 1.5	3160	1783
3	70	35	10.85	1.4	1.4	33.5 ± 1.5	0.5	49.5	2	39 ± 1.5	3750	2386
4	70	35	10.85	1.4	1.4	37 ± 1.5	0.4	45.2	2.2	43 ± 2	4580	2977
5G	70	-	10.85	1.4	1.4	41 ± 2	0.4	40.7	2.3	47 ± 2	5420	3566
3	95	50	12.60	1.6	1.4	38 ± 1.5	0.6	61.1	2.2	44.5 ± 2	4900	3168
4	95	50	12.60	1.6	1.6	42.5 ± 2	0.5	63.6	2.4	49.5 ± 2	6100	4022
3	120	60	14.20	1.6	1.4	41.5 ± 2	0.6	71.3	2.4	48.5 ± 2	6000	3976
4	120	60	14.20	1.6	1.6	46.5 ± 2	0.6	71.3	2.5	53.5 ± 2.5	7430	5060

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	810200	BFOU 0.6/1kV 1X16/4 P5/P12 Cold	BLACK	-	7021528102000	-
	810201	BFOU 0.6/1kV 1X25/6 P5/P12 Cold	BLACK	-	7021528102017	-
	810203	BFOU 0.6/1kV 1X50/10 P5/P12 Cold	BLACK	-	7021528102031	-
	810204	BFOU 0.6/1kV 1X70/10 P5/P12 Cold	BLACK	-	7021528102048	-
	810205	BFOU 0.6/1kV 1X95/10 P5/P12 Cold	BLACK	-	7021528102055	-
	810206	BFOU 0.6/1kV 1X120/10 P5/P12 Cold	BLACK	-	7021528102062	-
	810207	BFOU 0.6/1kV 1X150/10 P5/P12 Cold	BLACK	-	7021528102079	-
	810208	BFOU 0.6/1kV 1X185/10 P5/P12 Cold	BLACK	-	7021528102086	-
	810209	BFOU 0.6/1kV 1X240/16 P5/P12 Cold	BLACK	-	7021528102093	-
	810210	BFOU 0.6/1kV 1X300/16 P5/P12 Cold	BLACK	-	7021528102109	-
	810215	BFOU 0.6/1kV 2X1.5/4 P5/P12 Cold	BLACK	-	7021528102154	-
	810218	BFOU 0.6/1kV 3X1.5/6 P5/P12 Cold	BLACK	-	7021528102185	-
	810219	BFOU 0.6/1kV 4X1.5/6 P5/P12 Cold	BLACK	-	7021528102192	-
	810220	BFOU 0.6/1kV 5X1.5/6 P5/P12 Cold	BLACK	-	7021528102208	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	810221	BFOU 0.6/1kV 7X1.5/6 P5/P12 Cold	BLACK	-	7021528102215	-
	810222	BFOU 0.6/1kV 12X1.5/10 P5/P12 Cold	BLACK	-	7021528102222	-
	810223	BFOU 0.6/1kV 19X1.5/10 P5/P12 Cold	BLACK	-	7021528102239	-
	810224	BFOU 0.6/1kV 27X1.5/16 P5/P12 Cold	BLACK	-	7021528102246	-
	810225	BFOU 0.6/1kV 37X1.5/16 P5/P12 Cold	BLACK	-	7021528102253	-
	810229	BFOU 0.6/1kV 2X2.5/6 P5/P12 Cold	BLACK	-	7021528102291	-
	810232	BFOU 0.6/1kV 3X2.5/6 P5/P12 Cold	BLACK	-	7021528102321	-
	810235	BFOU 0.6/1kV 4X2.5/6 P5/P12 Cold	BLACK	-	7021528102352	-
20115940		BFOU 0.6/1kV 7X2.5/6 P5/P12 Cold	BLACK	Yes	7021528102376	-
	810238	BFOU 0.6/1kV 12X2.5/10 P5/P12 Cold	BLACK	-	7021528102383	-
	810239	BFOU 0.6/1kV 19X2.5/16 P5/P12 Cold	BLACK	-	7021528102390	-
	810240	BFOU 0.6/1kV 27X2.5/16 P5/P12 Cold	BLACK	-	7021528102406	-
	810241	BFOU 0.6/1kV 37X2.5/25 P5/P12 Cold	BLACK	-	7021528102413	-
	Tba	BFOU 0.6/1kV 3G2.5 P5/P12 Cold	BLACK	-	-	-
	810245	BFOU 0.6/1kV 2X4/6 P5/P12 Cold	BLACK	-	7021528102451	-
	810246	BFOU 0.6/1kV 3X4/6 P5/P12 Cold	BLACK	-	7021528102468	-
	810247	BFOU 0.6/1kV 4X4/6 P5/P12 Cold	BLACK	-	7021528102475	-
20110769		BFOU 0.6/1kV 3G 4 P5/P12 Cold	BLACK	-	7021528102505	-
	810251	BFOU 0.6/1kV 2X6/6 P5/P12 Cold	BLACK	-	7021528102512	-
	810252	BFOU 0.6/1kV 3X6/6 P5/P12 Cold	BLACK	-	7021528102529	-
	810253	BFOU 0.6/1kV 4X6/6 P5/P12 Cold	BLACK	-	7021528102536	-
	Tba	BFOU 0.6/1kV 5G 6 P5/P12 Cold	BLACK	-	-	-
	810257	BFOU 0.6/1kV 2X10/10 P5/P12 Cold	BLACK	-	7021528102574	-
	810258	BFOU 0.6/1kV 3X10/10 P5/P12 Cold	BLACK	-	7021528102581	-
	810259	BFOU 0.6/1kV 4X10/10 P5/P12 Cold	BLACK	-	7021528102598	-
	Tba	BFOU 0.6/1kV 5G 10 P5/P12 Cold	BLACK	-	-	-
	810263	BFOU 0.6/1kV 2X16/16 P5/P12 Cold	BLACK	-	7021528102635	-
	810264	BFOU 0.6/1kV 3X16/16 P5/P12 Cold	BLACK	-	7021528102642	-
	810265	BFOU 0.6/1kV 4X16/16 P5/P12 Cold	BLACK	-	7021528102659	-
	810269	BFOU 0.6/1kV 2X25/16 P5/P12 Cold	BLACK	-	7021528102697	-
	810270	BFOU 0.6/1kV 3X25/16 P5/P12 Cold	BLACK	-	7021528102703	-
	810271	BFOU 0.6/1kV 4X25/16 P5/P12 Cold	BLACK	-	7021528102710	-
	810275	BFOU 0.6/1kV 2X35/16 P5/P12 Cold	BLACK	-	7021528102758	-
	810276	BFOU 0.6/1kV 3X35/16 P5/P12 Cold	BLACK	-	7021528102765	-
	810277	BFOU 0.6/1kV 4X35/16 P5/P12 Cold	BLACK	-	7021528102772	-
	Tba	BFOU 0.6/1kV 5G 35 P5/P12 Cold	BLACK	-	-	-
	810282	BFOU 0.6/1kV 3X50/25 P5/P12 Cold	BLACK	-	7021528102826	-
	810283	BFOU 0.6/1kV 4X50/25 P5/P12 Cold	BLACK	-	7021528102833	-
	Tba	BFOU 0.6/1kV 4G 50 P5/P12 Cold	BLACK	-	-	-
	Tba	BFOU 0.6/1kV 5G 50 P5/P12 Cold	BLACK	-	-	-
	810287	BFOU 0.6/1kV 2X70/35 P5/P12 Cold	BLACK	-	7021528102871	-
	810288	BFOU 0.6/1kV 3X70/35 P5/P12 Cold	BLACK	-	7021528102888	-
	810289	BFOU 0.6/1kV 4X70/35 P5/P12 Cold	BLACK	-	7021528102895	-
	Tba	BFOU 0.6/1kV 5G 70 P5/P12 Cold	BLACK	-	-	-
	810295	BFOU 0.6/1kV 3X95/50 P5/P12 Cold	BLACK	-	7021528102956	-
	810296	BFOU 0.6/1kV 4X95/50 P5/P12 Cold	BLACK	-	7021528102963	-
	810301	BFOU 0.6/1kV 3X120/60 P5/P12 Cold	BLACK	-	7021528103014	-
	810304	BFOU 0.6/1kV 4X120/60 P5/P12 Cold	BLACK	-	7021528103045	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
1	16	4	STCC	1.16	1.48	0.119	0.143	96	2240
1	25	6	STCC	0.734	0.936	0.115	0.138	127	3500
1	50	10	STCC	0.391	0.499	0.106	0.127	196	7000
1	70	10	STCC	0.27	0.344	0.101	0.121	242	9800
1	95	10	STCC	0.195	0.249	0.098	0.117	293	13300
1	120	10	STCC	0.154	0.196	0.096	0.115	339	16800
1	150	10	STCC	0.126	0.161	0.094	0.113	389	21000
1	185	10	STCC	0.1	0.128	0.092	0.111	444	25900
1	240	16	STCC	0.0762	0.0972	0.09	0.109	522	33600
1	300	16	STCC	0.0607	0.0774	0.088	0.106	601	42000
2	1.5	4	STCC	12.2	15.6	0.115	0.138	20	210
3	1.5	6	STCC	12.2	15.6	0.115	0.138	16	210
4	1.5	6	STCC	12.2	15.6	0.115	0.138	16	210
5	1.5	6	STCC	12.2	15.6	0.115	0.138	13.5	210
7	1.5	6	STCC	12.2	15.6	0.115	0.138	12	210
12	1.5	10	STCC	12.2	15.6	0.115	0.138	10	210
19	1.5	10	STCC	12.2	15.6	0.115	0.138	8.5	210
27	1.5	16	STCC	12.2	15.6	0.115	0.138	7.5	210
37	1.5	16	STCC	12.2	15.6	0.115	0.138	7	210
2	2.5	6	STCC	7.56	9.64	0.107	0.129	26	350
3	2.5	6	STCC	7.56	9.64	0.107	0.129	21	350
4	2.5	6	STCC	7.56	9.64	0.107	0.129	21	350
7	2.5	6	STCC	7.56	9.64	0.107	0.129	15.5	350
12	2.5	10	STCC	7.56	9.64	0.107	0.129	13	350
19	2.5	16	STCC	7.56	9.64	0.107	0.129	11	350
27	2.5	16	STCC	7.56	9.64	0.107	0.129	10	350
37	2.5	25	STCC	7.56	9.64	0.107	0.129	9	350
3G	2.5	-	STCC	7.56	9.64	0.107	0.129	26	350
2	4	6	STCC	4.7	5.99	0.100	0.120	34	560
3	4	6	STCC	4.7	5.99	0.100	0.120	28	560
4	4	6	STCC	4.7	5.99	0.1	0.120	28	560
3G	4	-	STCC	4.7	5.99	0.100	0.120	34	560
2	6	6	STCC	3.11	3.97	0.094	0.112	44	840
3	6	6	STCC	3.11	3.97	0.094	0.112	36	840
4	6	6	STCC	3.11	3.97	0.094	0.112	36	840
5G	6	-	STCC	3.11	3.97	0.094	0.112	36	840
2	10	10	STCC	1.84	2.35	0.088	0.105	61	1400
3	10	10	STCC	1.84	2.35	0.088	0.105	50	1400
4	10	10	STCC	1.84	2.35	0.088	0.105	50	1400
5G	10	-	STCC	1.84	2.35	0.088	0.105	50	1400
2	16	16	STCC	1.16	1.48	0.082	0.099	80	2240
3	16	16	STCC	1.16	1.48	0.082	0.099	67	2240
4	16	16	STCC	1.16	1.48	0.082	0.099	67	2240
2	25	16	STCC	0.734	0.936	0.081	0.098	108	3500
3	25	16	STCC	0.734	0.936	0.081	0.098	89	3500
4	25	16	STCC	0.734	0.936	0.081	0.098	89	3500
2	35	16	STCC	0.529	0.675	0.078	0.094	133	4900
3	35	16	STCC	0.529	0.675	0.078	0.094	110	4900
4	35	16	STCC	0.529	0.675	0.078	0.094	110	4900
5G	35	-	STCC	0.529	0.675	0.078	0.094	110	4900
3	50	25	STCC	0.391	0.499	0.078	0.093	137	7000
4	50	25	STCC	0.391	0.499	0.078	0.093	137	7000
4G	50	-	STCC	0.391	0.499	0.078	0.093	137	7000
5G	50	-	STCC	0.391	0.499	0.078	0.093	137	7000
2	70	35	STCC	0.27	0.344	0.075	0.092	206	9800
3	70	35	STCC	0.27	0.344	0.077	0.092	169	9800
4	70	35	STCC	0.27	0.344	0.077	0.092	169	9800
5G	70	-	STCC	0.27	0.344	0.077	0.092	169	9800

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
3	95	50	STCC	0.195	0.249	0.075	0.090	205	13300
4	95	50	STCC	0.195	0.249	0.075	0.090	205	13300
3	120	60	STCC	0.154	0.196	0.073	0.088	237	16800
4	120	60	STCC	0.154	0.196	0.073	0.088	237	16800

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

ARCTIC GRADE Fire resistant power cable, BFOU 0,6/1(1,2)kV, P5/P12, double braided

Fire resistant, flame retardant halogen-free power cable. Oil & Mud resistant. Cold bend / Cold impact resistant. Double braided.

BFOU 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/EVA

NEK TS 606 CodeP5/P12 Arctic Grade

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke
CSA 22.2 0.3-01 (-40°C/-35°C) / IEC 60092-350 Annex E (-40°C/-35°C)	- Cold Bend / Cold Impact

Application

Fixed installation for power, control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists. For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the OIL & MUD resistance requirement in NEK 606. Meets the cold bend / cold impact requirement in CSA 22.2 0.3-01 and IEC 60092-350 Clause 8.9 & Annex E at -40°C/-35°C.

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Two layers of tinned copper wire braid (double braid)
Tape over armour/screen		Rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free, mud and cold bend / cold impact resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		E.g. "meter" "year" DRAKA 01 BFOU 0.6/1kV P5/P12 3 x 50/25mm2 FLEX - FLAME IEC 60092-353 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21 IEC 60332-3-22 ARCTIC GRADE Cold bend (-40 deg. C) / Cold impact (-35 deg. C)
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Black

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification power cables

Single core - Black -
Two cores - Blue - Brown -
Three cores - Brown - Black - Grey
Four cores - Blue - Brown - Black - Grey
Five cores - Blue - Brown - Black - Grey - Black
Seven cores and above - White with black numbers -
Two cores + earth (3G) - Yellow/green - Blue - Brown
Three cores + earth (4G) - Yellow/green - Brown - Black - Grey
Four cores + earth (5G) - Yellow/green - Blue - Brown - Black - Grey
G / X in cable description - G = One of the cores are yellow/green - X = no yellow/green core -
Core identification - to HD308S2 - and IEC 60445: Edition 5.0 2010-08 -

Range and dimensions

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
3	150	75	15.90	1.8	1.4	46.5 ± 2	0.4	86	2.6	54.5 ± 2.5	7480	4992
4	150	75	15.90	1.8	1.6	52 ± 2.5	0.5	99	2.8	61 ± 3	9440	6451
3	185	95	17.70	2.0	1.6	51 ± 2.5	0.5	127.2	2.8	60.5 ± 3	9310	6295
4	185	95	17.7	2.0	1.8	57.5 ± 2.5	0.4	54.3	2.9	68±3	11590	7750
3	240	120	19.1	2.2	2.0	56.0 ±2.0	0.7	138.5	3.0	65.0 ± 3.0	11830	8042

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	810302	BFOU 0.6/1kV 3X150/75 P5/P12 Cold	BLACK	-	7021528103021	-
	810309	BFOU 0.6/1kV 4X150/75 P5/P12 Cold	BLACK	-	7021528103090	-
	810392	BFOU 0.6/1kV 3X185/95 P5/P12 Cold	BLACK	-	7021528103922	-
	810391	BFOU 0.6/1kV 4X185/95 P5/P12 Cold	BLACK	-	7021528103915	-
	810314	BFOU 0.6/1kV 3X240/120 P5/P12Cold	BLACK	-	7021528103144	-

Electrical values power cables

Number of elements	Cross section core, mm²	Electrical Cross section braid, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
3	150	75	STCC	0.126	0.161	0.073	0.088	272	21000
4	150	75	STCC	0.126	0.161	0.073	0.088	272	21000
3	185	95	STCC	0.1	0.128	0.073	0.088	311	25900
4	185	95	STCC	0.1	0.128	0.073	0.088	311	25900
3	240	120	STCC	0.0762	0.0972	0.074	0.089	365	33600

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-40°C

eXtended Fire Resistant, instrumentation cable BFOU-XFR(i) 150/250(300)V

eXtended Fire Resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BFOU-XFR(i) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009.
Cables have extended fire resistant (XFR) properties to IEC 60331-1&2 including water spray according to EN 50200 Annex E (90 minutes).

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1,-2 EN 50200:2006 Annex E	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFOU-XFR(I) 250V 4PAIR 1.5mm2 FLEX - FLAME IEC 60092-376 EN 50200:2006 Annex E IEC 60331-1*) or IEC 60331-2*) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	1	1.1	9.5 ± 0.5	0.2	5.3	1.1	12.5 ± 0.8	265	69
1	2	0.75	1.1	1	1.1	9.5 ± 0.5	0.2	5.3	1.1	12.5 ± 0.8	265	69
2	2	0.75	1.1	1	1.1	14.5 ± 0.8	0.3	11.9	1.3	18 ± 0.8	470	150
2	2	0.75	1.1	1	1.1	14.5 ± 0.8	0.3	11.9	1.3	18 ± 0.8	470	150
4	2	0.75	1.1	1	1.1	17 ± 0.8	0.3	13.6	1.4	21 ± 1	650	200
4	2	0.75	1.1	1	1.1	17 ± 0.8	0.3	13.6	1.4	21 ± 1	650	200
8	2	0.75	1.1	1	1.1	23.5 ± 1	0.3	17.8	1.6	27.5 ± 1	1060	308
8	2	0.75	1.1	1	1.1	23.5 ± 1	0.3	17.8	1.6	27.5 ± 1	1060	308
12	2	0.75	1.1	1	1.4	28 ± 1	0.3	20.4	1.7	32.5 ± 1.5	1450	400
12	2	0.75	1.1	1	1.4	28 ± 1	0.3	20.4	1.7	32.5 ± 1.5	1450	400
16	2	0.75	1.1	1	1.9	32.5 ± 1.5	0.3	22.9	1.8	37.5 ± 1.5	1940	491
16	2	0.75	1.1	1	1.9	32.5 ± 1.5	0.3	22.9	1.8	37.5 ± 1.5	1940	491
24	2	0.75	1.1	1	2.3	40.5 ± 2	0.4	40.7	2.1	46.5 ± 2	2950	799
24	2	0.75	1.1	1	2.3	40.5 ± 2	0.4	40.7	2.1	46.5 ± 2	2950	799
1	3	0.75	1.1	1	1.1	10.5 ± 0.8	0.2	5.3	1.1	13.5 ± 0.8	290	75
1	3	0.75	1.1	1	1.1	10.5 ± 0.8	0.2	5.3	1.1	13.5 ± 0.8	290	75
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	540	163
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	540	163
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22.5 ± 1	780	243
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22.5 ± 1	780	243
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	20.4	1.7	29.5 ± 1	1320	386
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	20.4	1.7	29.5 ± 1	1320	386
12	3	0.75	1.1	1	1.4	31 ± 1.5	0.3	22.9	1.8	36 ± 1.5	1830	503
12	3	0.75	1.1	1	1.4	31 ± 1.5	0.3	22.9	1.8	36 ± 1.5	1830	503
16	3	0.75	1.1	1	2.1	36 ± 1.5	0.3	25.4	1.9	41.5 ± 2	2480	621
16	3	0.75	1.1	1	2.1	36 ± 1.5	0.3	25.4	1.9	41.5 ± 2	2480	621
24	3	0.75	1.1	1	2.5	45 ± 2	0.4	45.2	2.2	51 ± 2.5	3730	1000
24	3	0.75	1.1	1	2.5	45 ± 2	0.4	45.2	2.2	51 ± 2.5	3730	1000
1	2	1.5	1.6	1	1.1	10.5 ± 0.8	0.2	5.3	1.1	13.5 ± 0.8	310	86
1	2	1.5	1.6	1	1.1	10.5 ± 0.8	0.2	5.3	1.1	13.5 ± 0.8	310	86
2	2	1.5	1.6	1	1.1	16 ± 0.8	0.3	13.6	1.4	20 ± 1	580	201
2	2	1.5	1.6	1	1.1	16 ± 0.8	0.3	13.6	1.4	20 ± 1	580	201
4	2	1.5	1.6	1	1.1	19 ± 0.8	0.3	15.3	1.5	23 ± 1	820	286
4	2	1.5	1.6	1	1.1	19 ± 0.8	0.3	15.3	1.5	23 ± 1	820	286
8	2	1.5	1.6	1	1.1	26 ± 1	0.3	20.4	1.7	30.5 ± 1.5	1360	472
8	2	1.5	1.6	1	1.1	26 ± 1	0.3	20.4	1.7	30.5 ± 1.5	1360	472
12	2	1.5	1.6	1	1.4	31.5 ± 1.5	0.3	22.9	1.9	36.5 ± 1.5	1910	633
12	2	1.5	1.6	1	1.4	31.5 ± 1.5	0.3	22.9	1.9	36.5 ± 1.5	1910	633
16	2	1.5	1.6	1	2.1	37 ± 1.5	0.4	36.2	2	42.5 ± 2	2700	899
16	2	1.5	1.6	1	2.1	37 ± 1.5	0.4	36.2	2	42.5 ± 2	2700	899
24	2	1.5	1.6	1	2.3	45.5 ± 2	0.4	45.2	2.3	51.5 ± 2.5	3810	1259
24	2	1.5	1.6	1	2.3	45.5 ± 2	0.4	45.2	2.3	51.5 ±	3810	1259

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
										2.5		
1	3	1.5	1.6	1	1.1	11.5 ± 0.8	0.2	6	1.2	14.5 ± 0.8	360	108
1	3	1.5	1.6	1	1.1	11.5 ± 0.8	0.2	6	1.2	14.5 ± 0.8	360	108
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	22 ± 1	680	230
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	22 ± 1	680	230
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	17.8	1.6	25 ± 1	1030	368
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	17.8	1.6	25 ± 1	1030	368
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	32.5 ± 1.5	1680	586
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	32.5 ± 1.5	1680	586
12	3	1.5	1.6	1	1.6	35.5 ± 1.5	0.3	25.4	2	40.5 ± 2	2470	828
12	3	1.5	1.6	1	1.6	35.5 ± 1.5	0.3	25.4	2	40.5 ± 2	2470	828
16	3	1.5	1.6	1	2.3	41 ± 2	0.4	40.7	2.2	47 ± 2	3480	1171
16	3	1.5	1.6	1	2.3	41 ± 2	0.4	40.7	2.2	47 ± 2	3480	1171
24	3	1.5	1.6	1	2.7	51 ± 2.5	0.5	63.6	2.6	58 ± 2.5	5170	1781
24	3	1.5	1.6	1	2.7	51 ± 2.5	0.5	63.6	2.6	58 ± 2.5	5170	1781
1	2	2.5	2	1	1.1	11.5 ± 0.8	0.2	6	1.2	14.5 ± 0.8	360	114
1	2	2.5	2	1	1.1	11.5 ± 0.8	0.2	6	1.2	14.5 ± 0.8	360	114
2	2	2.5	2	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	21.5 ± 1	660	242
2	2	2.5	2	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	21.5 ± 1	660	242
4	2	2.5	2	1	1.1	20.5 ± 1	0.3	15.3	1.6	25 ± 1	970	367
4	2	2.5	2	1	1.1	20.5 ± 1	0.3	15.3	1.6	25 ± 1	970	367
8	2	2.5	2	1	1.1	28.5 ± 1	0.3	20.4	1.8	33 ± 1.5	1620	634
8	2	2.5	2	1	1.1	28.5 ± 1	0.3	20.4	1.8	33 ± 1.5	1620	634
12	2	2.5	2	1	2.3	36 ± 1.5	0.3	25.4	2	41.5 ± 2	2570	901
12	2	2.5	2	1	2.3	36 ± 1.5	0.3	25.4	2	41.5 ± 2	2570	901
16	2	2.5	2	1	2.3	40.5 ± 2	0.4	40.7	2.2	46.5 ± 2	3330	1268
16	2	2.5	2	1	2.3	40.5 ± 2	0.4	40.7	2.2	46.5 ± 2	3330	1268
1	3	2.5	2	1	1.1	12 ± 0.8	0.2	6	1.2	15.5 ± 0.8	410	137
1	3	2.5	2	1	1.1	12 ± 0.8	0.2	6	1.2	15.5 ± 0.8	410	137
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23 ± 1	790	305
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23 ± 1	790	305
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27 ± 1	1200	484
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27 ± 1	1200	484
8	3	2.5	2	1	1.3	30.5 ± 1.5	0.3	22.9	2	35.5 ± 1.5	2120	844
8	3	2.5	2	1	1.3	30.5 ± 1.5	0.3	22.9	2	35.5 ± 1.5	2120	844
12	3	2.5	2	1	2.6	40.5 ± 2	0.4	40.7	2.2	46.5 ± 2	3490	1328
12	3	2.5	2	1	2.6	40.5 ± 2	0.4	40.7	2.2	46.5 ± 2	3490	1328

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	65	0,94	26,3	17,9
Shielded triple 0,75 mm²	65	0,94	26,3	17,9
Shielded pair 1,5 mm²	80	0,84	12,9	32,6
Shielded triple 1,5 mm²	80	0,84	12,9	32,6
Shielded pair 2,5 mm²	100	0,77	8,02	48
Shielded triple 2,5 mm²	100	0,77	8,02	48

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	822300	BFOU-XFR(I) 1PAIR 0.75mm²	GREY	-	7021528223002	-
	822301	BFOU-XFR(I) 1PAIR 0.75mm²	BLUE	-	7021528223019	-
	822306	BFOU-XFR(I) 2PAIR 0.75mm²	GREY	-	7021528223064	-
	822307	BFOU-XFR(I) 2PAIR 0.75mm²	BLUE	-	7021528223071	-
	822318	BFOU-XFR(I) 4PAIR 0.75mm²	GREY	-	7021528223187	-
	822319	BFOU-XFR(I) 4PAIR 0.75mm²	BLUE	-	7021528223194	-
	822330	BFOU-XFR(I) 8PAIR 0.75mm²	GREY	-	7021528223309	-
	822331	BFOU-XFR(I) 8PAIR 0.75mm²	BLUE	-	7021528223316	-
	822336	BFOU-XFR(I) 12PAIR 0.75mm²	GREY	-	7021528223361	-
	822337	BFOU-XFR(I) 12PAIR 0.75mm²	BLUE	-	7021528223378	-
	822342	BFOU-XFR(I) 16PAIR 0.75mm²	GREY	-	7021528223422	-
	822343	BFOU-XFR(I) 16PAIR 0.75mm²	BLUE	-	7021528223439	-
	822348	BFOU-XFR(I) 24PAIR 0.75mm²	GREY	-	7021528223484	-
	822349	BFOU-XFR(I) 24PAIR 0.75mm²	BLUE	-	7021528223491	-
	822360	BFOU-XFR(I) 1TRIP 0.75mm²	GREY	-	7021528223606	-
	822361	BFOU-XFR(I) 1TRIP 0.75mm²	BLUE	-	7021528223613	-
	822366	BFOU-XFR(I) 2TRIP 0.75mm²	GREY	-	7021528223668	-
	822367	BFOU-XFR(I) 2TRIP 0.75mm²	BLUE	-	7021528223675	-
	822378	BFOU-XFR(I) 4TRIP 0.75mm²	GREY	-	7021528223781	-
	822379	BFOU-XFR(I) 4TRIP 0.75mm²	BLUE	-	7021528223798	-
	822390	BFOU-XFR(I) 8TRIP 0.75mm²	GREY	-	7021528223903	-
	822391	BFOU-XFR(I) 8TRIP 0.75mm²	BLUE	-	7021528223910	-
	822396	BFOU-XFR(I) 12TRIP 0.75mm²	GREY	-	7021528223965	-
	822397	BFOU-XFR(I) 12TRIP 0.75mm²	BLUE	-	7021528223972	-
	822402	BFOU-XFR(I) 16TRIP 0.75mm²	GREY	-	7021528224023	-
	822403	BFOU-XFR(I) 16TRIP 0.75mm²	BLUE	-	7021528224030	-
	822408	BFOU-XFR(I) 24TRIP 0.75mm²	GREY	-	7021528224085	-
	822409	BFOU-XFR(I) 24TRIP 0.75mm²	BLUE	-	7021528224092	-
	822700	BFOU-XFR(I) 1PAIR 1.5mm²	GREY	-	7021528227000	-
	822701	BFOU-XFR(I) 1PAIR 1.5mm²	BLUE	-	7021528227017	-
	822706	BFOU-XFR(I) 2PAIR 1.5mm²	GREY	-	7021528227062	-
	822707	BFOU-XFR(I) 2PAIR 1.5mm²	BLUE	-	7021528227079	-
	822718	BFOU-XFR(I) 4PAIR 1.5mm²	GREY	-	7021528227185	-
	822719	BFOU-XFR(I) 4PAIR 1.5mm²	BLUE	-	7021528227192	-
	822730	BFOU-XFR(I) 8PAIR 1.5mm²	GREY	-	7021528227307	-
	822731	BFOU-XFR(I) 8PAIR 1.5mm²	BLUE	-	7021528227314	-
	822736	BFOU-XFR(I) 12PAIR 1.5mm²	GREY	-	7021528227369	-
	822737	BFOU-XFR(I) 12PAIR 1.5mm²	BLUE	-	7021528227376	-
	822742	BFOU-XFR(I) 16PAIR 1.5mm²	GREY	-	7021528227420	-
	822743	BFOU-XFR(I) 16PAIR 1.5mm²	BLUE	-	7021528227437	-
	822748	BFOU-XFR(I) 24PAIR 1.5mm²	GREY	-	7021528227482	-
	822749	BFOU-XFR(I) 24PAIR 1.5mm²	BLUE	-	7021528227499	-
	822760	BFOU-XFR(I) 1TRIP 1.5mm²	GREY	-	7021528227604	-
	822761	BFOU-XFR(I) 1TRIP 1.5mm²	BLUE	-	7021528227611	-
	822766	BFOU-XFR(I) 2TRIP 1.5mm²	GREY	-	7021528227666	-
	822767	BFOU-XFR(I) 2TRIP 1.5mm²	BLUE	-	7021528227673	-
	822778	BFOU-XFR(I) 4TRIP 1.5mm²	GREY	-	7021528227789	-
	822779	BFOU-XFR(I) 4TRIP 1.5mm²	BLUE	-	7021528227796	-
	822790	BFOU-XFR(I) 8TRIP 1.5mm²	GREY	-	7021528227901	-
	822791	BFOU-XFR(I) 8TRIP 1.5mm²	BLUE	-	7021528227918	-
	822796	BFOU-XFR(I) 12TRIP 1.5mm²	GREY	-	7021528227963	-
	822797	BFOU-XFR(I) 12TRIP 1.5mm²	BLUE	-	7021528227970	-
	822802	BFOU-XFR(I) 16TRIP 1.5mm²	GREY	-	7021528228021	-
	822803	BFOU-XFR(I) 16TRIP 1.5mm²	BLUE	-	7021528228038	-
	822808	BFOU-XFR(I) 24TRIP 1.5mm²	GREY	-	7021528228083	-
	822809	BFOU-XFR(I) 24TRIP 1.5mm²	BLUE	-	7021528228090	-
	828900	BFOU-XFR(I) 1PAIR 2.5mm²	GREY	-	7021528289008	-
	828901	BFOU-XFR(I) 1PAIR 2.5mm²	BLUE	-	7021528289015	-
	828906	BFOU-XFR(I) 2PAIR 2.5mm²	GREY	-	7021528289060	-
	828907	BFOU-XFR(I) 2PAIR 2.5mm²	BLUE	-	7021528289077	-
	828918	BFOU-XFR(I) 4PAIR 2.5mm²	GREY	-	7021528289183	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	828919	BFOU-XFR(I) 4PAIR 2.5mm²	BLUE	-	7021528289190	-
	828930	BFOU-XFR(I) 8PAIR 2.5mm²	GREY	-	7021528289305	-
	828931	BFOU-XFR(I) 8PAIR 2.5mm²	BLUE	-	7021528289312	-
	828936	BFOU-XFR(I) 12PAIR 2.5mm²	GREY	-	7021528289367	-
	828937	BFOU-XFR(I) 12PAIR 2.5mm²	BLUE	-	7021528289374	-
	828942	BFOU-XFR(I) 16PAIR 2.5mm²	GREY	-	7021528289428	-
	828943	BFOU-XFR(I) 16PAIR 2.5mm²	BLUE	-	7021528289435	-
	828960	BFOU-XFR(I) 1TRIP 2.5mm²	GREY	-	7021528289602	-
	828961	BFOU-XFR(I) 1TRIP 2.5mm²	BLUE	-	7021528289619	-
	828966	BFOU-XFR(I) 2TRIP 2.5mm²	GREY	-	7021528289664	-
	828967	BFOU-XFR(I) 2TRIP 2.5mm²	BLUE	-	7021528289671	-
	828978	BFOU-XFR(I) 4TRIP 2.5mm²	GREY	-	7021528289787	-
	828979	BFOU-XFR(I) 4TRIP 2.5mm²	BLUE	-	7021528289794	-
	828990	BFOU-XFR(I) 8TRIP 2.5mm²	GREY	-	7021528289909	-
	828991	BFOU-XFR(I) 8TRIP 2.5mm²	BLUE	-	7021528289916	-
	828996	BFOU-XFR(I) 12TRIP 2.5mm²	GREY	-	7021528289961	-
	828997	BFOU-XFR(I) 12TRIP 2.5mm²	BLUE	-	7021528289978	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

eXtended Fire Resistant, instrumentation cable BFOU-XFR(c) 150/250(300)V

eXtended Fire Resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BFOU-XFR(c) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009. Cables have extended fire resistant (XFR) properties to IEC 60331-1&2 including water spray according to EN 50200 Annex E (90 minutes).

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2 EN 50200:2006 Annex E	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFOU-XFR(C) 250V 4PAIR 1.5mm2 FLEX - FLAME IEC 60092-376 EN 50200:2006 Annex E IEC 60331-1*) or IEC 60331-2*) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	1	1.1	14 ± 0.8	0.3	10.2	1.3	17.5 ± 0.8	440	130
2	2	0.75	1.1	1	1.1	14 ± 0.8	0.3	10.2	1.3	17.5 ± 0.8	440	130
4	2	0.75	1.1	1	1.1	16.5 ± 0.8	0.3	11.9	1.3	20 ± 1	580	172
4	2	0.75	1.1	1	1.1	16.5 ± 0.8	0.3	11.9	1.3	20 ± 1	580	172
8	2	0.75	1.1	1	1.1	22 ± 1	0.3	17.8	1.5	26.5 ± 1	960	282
8	2	0.75	1.1	1	1.1	22 ± 1	0.3	17.8	1.5	26.5 ± 1	960	282
12	2	0.75	1.1	1	1.4	26.5 ± 1	0.3	20.4	1.6	30.5 ± 1.5	1290	358
12	2	0.75	1.1	1	1.4	26.5 ± 1	0.3	20.4	1.6	30.5 ± 1.5	1290	358
16	2	0.75	1.1	1	1.9	29.5 ± 1	0.3	22.9	1.7	34.5 ± 1.5	1690	435
16	2	0.75	1.1	1	1.9	29.5 ± 1	0.3	22.9	1.7	34.5 ± 1.5	1690	435
24	2	0.75	1.1	1	2.3	36.5 ± 1.5	0.4	36.2	2	42.5 ± 2	2530	668
24	2	0.75	1.1	1	2.3	36.5 ± 1.5	0.4	36.2	2	42.5 ± 2	2530	668
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.3	19.5 ± 0.8	530	159
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.3	19.5 ± 0.8	530	159
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22.5 ± 1	750	231
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22.5 ± 1	750	231
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	17.8	1.6	29 ± 1	1210	334
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	17.8	1.6	29 ± 1	1210	334
12	3	0.75	1.1	1	1.4	30 ± 1.5	0.3	22.9	1.7	34.5 ± 1.5	1670	461
12	3	0.75	1.1	1	1.4	30 ± 1.5	0.3	22.9	1.7	34.5 ± 1.5	1670	461
16	3	0.75	1.1	1	2.1	34 ± 1.5	0.3	25.4	1.8	39 ± 1.5	2240	564
16	3	0.75	1.1	1	2.1	34 ± 1.5	0.3	25.4	1.8	39 ± 1.5	2240	564
24	3	0.75	1.1	1	2.5	42.5 ± 2	0.4	40.7	2.1	48 ± 2	3340	868
24	3	0.75	1.1	1	2.5	42.5 ± 2	0.4	40.7	2.1	48 ± 2	3340	868
2	2	1.5	1.6	1	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	540	179
2	2	1.5	1.6	1	1.1	15.5 ± 0.8	0.3	11.9	1.4	19.5 ± 0.8	540	179
4	2	1.5	1.6	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22 ± 1	750	268
4	2	1.5	1.6	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22 ± 1	750	268
8	2	1.5	1.6	1	1.1	25 ± 1	0.3	17.8	1.7	29.5 ± 1	1210	405
8	2	1.5	1.6	1	1.1	25 ± 1	0.3	17.8	1.7	29.5 ± 1	1210	405
12	2	1.5	1.6	1	1.4	29.5 ± 1	0.3	22.9	1.8	34.5 ± 1.5	1680	567
12	2	1.5	1.6	1	1.4	29.5 ± 1	0.3	22.9	1.8	34.5 ± 1.5	1680	567
16	2	1.5	1.6	1	1.9	33 ± 1.5	0.3	25.4	1.9	38 ± 1.5	2180	704
16	2	1.5	1.6	1	1.9	33 ± 1.5	0.3	25.4	1.9	38 ± 1.5	2180	704
24	2	1.5	1.6	1	2.3	41 ± 2	0.4	40.7	2.2	47 ± 2	3260	1077
24	2	1.5	1.6	1	2.3	41 ± 2	0.4	40.7	2.2	47 ± 2	3260	1077
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.4	21.5 ± 1	660	224
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.4	21.5 ± 1	660	224
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	17.8	1.5	25 ± 1	960	350

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	17.8	1.5	25 ± 1	960	350
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	32.5 ± 1.5	1580	543
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	32.5 ± 1.5	1580	543
12	3	1.5	1.6	1	1.4	34 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2190	762
12	3	1.5	1.6	1	1.4	34 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2190	762
16	3	1.5	1.6	1	2.3	38.5 ± 1.5	0.4	40.7	2.1	44.5 ± 2	3150	1080
16	3	1.5	1.6	1	2.3	38.5 ± 1.5	0.4	40.7	2.1	44.5 ± 2	3150	1080
24	3	1.5	1.6	1	2.7	47.5 ± 2	0.4	45.2	2.4	54 ± 2.5	4450	1462
24	3	1.5	1.6	1	2.7	47.5 ± 2	0.4	45.2	2.4	54 ± 2.5	4450	1462
2	2	2.5	2	1	1.1	17 ± 0.8	0.3	13.6	1.4	20.5 ± 1	620	234
2	2	2.5	2	1	1.1	17 ± 0.8	0.3	13.6	1.4	20.5 ± 1	620	234
4	2	2.5	2	1	1.1	19.5 ± 0.8	0.3	15.3	1.5	24 ± 1	880	343
4	2	2.5	2	1	1.1	19.5 ± 0.8	0.3	15.3	1.5	24 ± 1	880	343
8	2	2.5	2	1	1.1	27 ± 1	0.3	20.4	1.8	31.5 ± 1.5	1480	577
8	2	2.5	2	1	1.1	27 ± 1	0.3	20.4	1.8	31.5 ± 1.5	1480	577
12	2	2.5	2	1	2.1	33.5 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2240	811
12	2	2.5	2	1	2.1	33.5 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2240	811
16	2	2.5	2	1	2.3	36.5 ± 1.5	0.4	36.2	2.1	42.5 ± 2	2900	1101
16	2	2.5	2	1	2.3	36.5 ± 1.5	0.4	36.2	2.1	42.5 ± 2	2900	1101
24	2	2.5	2	1	2.7	45 ± 2	0.4	45.2	2.4	51.5 ± 2.5	4150	1558
24	2	2.5	2	1	2.7	45 ± 2	0.4	45.2	2.4	51.5 ± 2.5	4150	1558
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23 ± 1	780	297
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23 ± 1	780	297
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27 ± 1	1160	461
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27 ± 1	1160	461
8	3	2.5	2	1	1.1	30 ± 1.5	0.3	22.9	1.9	35 ± 1.5	1950	788
8	3	2.5	2	1	1.1	30 ± 1.5	0.3	22.9	1.9	35 ± 1.5	1950	788
12	3	2.5	2	1	2.6	39 ± 1.5	0.4	40.7	2.1	44.5 ± 2	3230	1241
12	3	2.5	2	1	2.6	39 ± 1.5	0.4	40.7	2.1	44.5 ± 2	3230	1241
16	3	2.5	2	1	2.6	42.5 ± 2	0.4	40.7	2.3	48.5 ± 2	3950	1518
16	3	2.5	2	1	2.6	42.5 ± 2	0.4	40.7	2.3	48.5 ± 2	3950	1518

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	55	0,94	26,3	17,9
Unshielded triple 0,75 mm²	55	0,94	26,3	17,9
Unshielded pair 1,5 mm²	65	0,89	12,9	32,6
Unshielded triple 1,5 mm²	65	0,89	12,9	32,6
Unshielded pair 2,5 mm²	75	0,77	8,02	48
Unshielded triple 2,5 mm²	75	0,77	8,02	48

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	822906	BFOU-XFR(C) 2PAIR 0.75mm²	GREY	-	7021528229066	-
	822907	BFOU-XFR(C) 2PAIR 0.75mm²	BLUE	-	7021528229073	-
	822918	BFOU-XFR(C) 4PAIR 0.75mm²	GREY	-	7021528229189	-
	822919	BFOU-XFR(C) 4PAIR 0.75mm²	BLUE	-	7021528229196	-
	822930	BFOU-XFR(C) 8PAIR 0.75mm²	GREY	-	7021528229301	-
	822931	BFOU-XFR(C) 8PAIR 0.75mm²	BLUE	-	7021528229318	-
	822936	BFOU-XFR(C) 12PAIR 0.75mm²	GREY	-	7021528229363	-
	822937	BFOU-XFR(C) 12PAIR 0.75mm²	BLUE	-	7021528229370	-
	822942	BFOU-XFR(C) 16PAIR 0.75mm²	GREY	-	7021528229424	-
	822943	BFOU-XFR(C) 16PAIR 0.75mm²	BLUE	-	7021528229431	-
	822948	BFOU-XFR(C) 24PAIR 0.75mm²	GREY	-	7021528229486	-
	822949	BFOU-XFR(C) 24PAIR 0.75mm²	BLUE	-	7021528229493	-
	822966	BFOU-XFR(C) 2TRIP 0.75mm²	GREY	-	7021528229660	-
	822967	BFOU-XFR(C) 2TRIP 0.75mm²	BLUE	-	7021528229677	-
	822978	BFOU-XFR(C) 4TRIP 0.75mm²	GREY	-	7021528229783	-
	822979	BFOU-XFR(C) 4TRIP 0.75mm²	BLUE	-	7021528229790	-
	822990	BFOU-XFR(C) 8TRIP 0.75mm²	GREY	-	7021528229905	-
	822991	BFOU-XFR(C) 8TRIP 0.75mm²	BLUE	-	7021528229912	-
	822996	BFOU-XFR(C) 12TRIP 0.75mm²	GREY	-	7021528229967	-
	822997	BFOU-XFR(C) 12TRIP 0.75mm²	BLUE	-	7021528229974	-
	823002	BFOU-XFR(C) 16TRIP 0.75mm²	GREY	-	7021528230024	-
	823003	BFOU-XFR(C) 16TRIP 0.75mm²	BLUE	-	7021528230031	-
	823008	BFOU-XFR(C) 24TRIP 0.75mm²	GREY	-	7021528230086	-
	823009	BFOU-XFR(C) 24TRIP 0.75mm²	BLUE	-	7021528230093	-
	823306	BFOU-XFR(C) 2PAIR 1.5mm²	GREY	-	7021528233063	-
	823307	BFOU-XFR(C) 2PAIR 1.5mm²	BLUE	-	7021528233070	-
	823318	BFOU-XFR(C) 4PAIR 1.5mm²	GREY	-	7021528233186	-
	823319	BFOU-XFR(C) 4PAIR 1.5mm²	BLUE	-	7021528233193	-
	823330	BFOU-XFR(C) 8PAIR 1.5mm²	GREY	-	7021528233308	-
	823331	BFOU-XFR(C) 8PAIR 1.5mm²	BLUE	-	7021528233315	-
	823336	BFOU-XFR(C) 12PAIR 1.5mm²	GREY	-	7021528233360	-
	823337	BFOU-XFR(C) 12PAIR 1.5mm²	BLUE	-	7021528233377	-
	823342	BFOU-XFR(C) 16PAIR 1.5mm²	GREY	-	7021528233421	-
	823343	BFOU-XFR(C) 16PAIR 1.5mm²	BLUE	-	7021528233438	-
	823348	BFOU-XFR(C) 24PAIR 1.5mm²	GREY	-	7021528233483	-
	823349	BFOU-XFR(C) 24PAIR 1.5mm²	BLUE	-	7021528233490	-
	823366	BFOU-XFR(C) 2TRIP 1.5mm²	GREY	-	7021528233667	-
	823367	BFOU-XFR(C) 2TRIP 1.5mm²	BLUE	-	7021528233674	-
	823378	BFOU-XFR(C) 4TRIP 1.5mm²	GREY	-	7021528233780	-
	823379	BFOU-XFR(C) 4TRIP 1.5mm²	BLUE	-	7021528233797	-
	823390	BFOU-XFR(C) 8TRIP 1.5mm²	GREY	-	7021528233902	-
	823391	BFOU-XFR(C) 8TRIP 1.5mm²	BLUE	-	7021528233919	-
	823396	BFOU-XFR(C) 12TRIP 1.5mm²	GREY	-	7021528233964	-
	823397	BFOU-XFR(C) 12TRIP 1.5mm²	BLUE	-	7021528233971	-
	823402	BFOU-XFR(C) 16TRIP 1.5mm²	GREY	-	7021528234022	-
	823403	BFOU-XFR(C) 16TRIP 1.5mm²	BLUE	-	7021528234039	-
	823408	BFOU-XFR(C) 24TRIP 1.5mm²	GREY	-	7021528234084	-
	823409	BFOU-XFR(C) 24TRIP 1.5mm²	BLUE	-	7021528234091	-
	828506	BFOU-XFR(C) 2PAIR 2.5mm²	GREY	-	7021528285062	-
	828507	BFOU-XFR(C) 2PAIR 2.5mm²	BLUE	-	7021528285079	-
	828518	BFOU-XFR(C) 4PAIR 2.5mm²	GREY	-	7021528285185	-
	828519	BFOU-XFR(C) 4PAIR 2.5mm²	BLUE	-	7021528285192	-
	828530	BFOU-XFR(C) 8PAIR 2.5mm²	GREY	-	7021528285307	-
	828531	BFOU-XFR(C) 8PAIR 2.5mm²	BLUE	-	7021528285314	-
	828536	BFOU-XFR(C) 12PAIR 2.5mm²	GREY	-	7021528285369	-
	828537	BFOU-XFR(C) 12PAIR 2.5mm²	BLUE	-	7021528285376	-
	828542	BFOU-XFR(C) 16PAIR 2.5mm²	GREY	-	7021528285420	-
	828543	BFOU-XFR(C) 16PAIR 2.5mm²	BLUE	-	7021528285437	-
	828548	BFOU-XFR(C) 24PAIR 2.5mm²	GREY	-	7021528285482	-
	828549	BFOU-XFR(C) 24PAIR 2.5mm²	BLUE	-	7021528285499	-
	828566	BFOU-XFR(C) 2TRIP 2.5mm²	GREY	-	7021528285666	-
	828567	BFOU-XFR(C) 2TRIP 2.5mm²	BLUE	-	7021528285673	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	828578	BFOU-XFR(C) 4TRIP 2.5mm²	GREY	-	7021528285789	-
	828579	BFOU-XFR(C) 4TRIP 2.5mm²	BLUE	-	7021528285796	-
	828590	BFOU-XFR(C) 8TRIP 2.5mm²	GREY	-	7021528285901	-
	828591	BFOU-XFR(C) 8TRIP 2.5mm²	BLUE	-	7021528285918	-
	828596	BFOU-XFR(C) 12TRIP 2.5mm²	GREY	-	7021528285963	-
	828597	BFOU-XFR(C) 12TRIP 2.5mm²	BLUE	-	7021528285970	-
	828602	BFOU-XFR(C) 16TRIP 2.5mm²	GREY	-	7021528286021	-
	828603	BFOU-XFR(C) 16TRIP 2.5mm²	BLUE	-	7021528286038	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

eXtended Fire Resistant, instrumentation cable BFCU-XFR(i) 150/250(300)V, steel wire braided

eXtended Fire Resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BFCU-XFR(i) 150/250(300)V

MGT/EPR/EPR/GSWB/EVA

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009.
Cables have extended fire resistant (XFR) properties to IEC 60331-1&2 including water spray according to EN 50200 Annex E (90 minutes).

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2 EN 50200:2006 Annex E	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape + rubberized Polyamide tape
Armour/screen	**C**	Galvanized steel wire braid
Tape over armour/screen		PET tape + rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFCU-XFR(I) 250V 4PAIR 1.5mm2 FLEX - FLAME IEC 60092-376 EN 50200:2006 Annex E IEC 60331-1*) IEC 60331-2*) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	1	1.1	9.5 ± 0.5	0.3	8.5	1.1	13.5 ± 0.8	300	17
1	2	0.75	1.1	1	1.1	9.5 ± 0.5	0.3	8.5	1.1	13.5 ± 0.8	300	17
2	2	0.75	1.1	1	1.1	14.5 ± 0.8	0.3	11.9	1.3	18.5 ± 0.8	470	34
2	2	0.75	1.1	1	1.1	14.5 ± 0.8	0.3	11.9	1.3	18.5 ± 0.8	470	34
4	2	0.75	1.1	1	1.1	17 ± 0.8	0.3	13.6	1.4	21.5 ± 1	650	67
4	2	0.75	1.1	1	1.1	17 ± 0.8	0.3	13.6	1.4	21.5 ± 1	650	67
8	2	0.75	1.1	1	1.1	23.5 ± 1	0.3	17.8	1.6	28 ± 1	1060	134
8	2	0.75	1.1	1	1.1	23.5 ± 1	0.3	17.8	1.6	28 ± 1	1060	134
12	2	0.75	1.1	1	1.4	28 ± 1	0.3	20.4	1.7	33 ± 1.5	1450	200
12	2	0.75	1.1	1	1.4	28 ± 1	0.3	20.4	1.7	33 ± 1.5	1450	200
16	2	0.75	1.1	1	1.9	32.5 ± 1.5	0.3	22.9	1.8	37.5 ± 1.5	1920	267
16	2	0.75	1.1	1	1.9	32.5 ± 1.5	0.3	22.9	1.8	37.5 ± 1.5	1920	267
24	2	0.75	1.1	1	2.3	40.5 ± 2	0.46	47.9	2.1	46.5 ± 2	2980	400
24	2	0.75	1.1	1	2.3	40.5 ± 2	0.46	47.9	2.1	46.5 ± 2	2980	400
1	3	0.75	1.1	1	1.1	10.5 ± 0.8	0.3	8.5	1.1	14 ± 0.8	330	24
1	3	0.75	1.1	1	1.1	10.5 ± 0.8	0.3	8.5	1.1	14 ± 0.8	330	24
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.4	20 ± 1	550	47
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.4	20 ± 1	550	47
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	23 ± 1	780	93
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	23 ± 1	780	93
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	20.4	1.7	30 ± 1.5	1310	186
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	20.4	1.7	30 ± 1.5	1310	186
12	3	0.75	1.1	1	1.4	31 ± 1.5	0.3	22.9	1.8	36 ± 1.5	1810	279
12	3	0.75	1.1	1	1.4	31 ± 1.5	0.3	22.9	1.8	36 ± 1.5	1810	279
16	3	0.75	1.1	1	2.1	36 ± 1.5	0.3	25.4	1.9	41.5 ± 2	2470	371
16	3	0.75	1.1	1	2.1	36 ± 1.5	0.3	25.4	1.9	41.5 ± 2	2470	371
24	3	0.75	1.1	1	2.5	45 ± 2	0.46	53.8	2.2	51.5 ± 2.5	3770	557
24	3	0.75	1.1	1	2.5	45 ± 2	0.46	53.8	2.2	51.5 ± 2.5	3770	557
1	2	1.5	1.6	1	1.1	10.5 ± 0.8	0.3	8.5	1.2	14.5 ± 0.8	350	34
1	2	1.5	1.6	1	1.1	10.5 ± 0.8	0.3	8.5	1.2	14.5 ± 0.8	350	34
2	2	1.5	1.6	1	1.1	16 ± 0.8	0.3	11.9	1.4	20.5 ± 1	560	68
2	2	1.5	1.6	1	1.1	16 ± 0.8	0.3	11.9	1.4	20.5 ± 1	560	68
4	2	1.5	1.6	1	1.1	19 ± 0.8	0.3	15.3	1.5	23.5 ± 1	820	136
4	2	1.5	1.6	1	1.1	19 ± 0.8	0.3	15.3	1.5	23.5 ± 1	820	136
8	2	1.5	1.6	1	1.1	26 ± 1	0.3	20.4	1.7	31 ± 1.5	1360	272
8	2	1.5	1.6	1	1.1	26 ± 1	0.3	20.4	1.7	31 ± 1.5	1360	272
12	2	1.5	1.6	1	1.4	31.5 ± 1.5	0.3	22.9	1.9	37 ± 1.5	1900	408
12	2	1.5	1.6	1	1.4	31.5 ±	0.3	22.9	1.9	37 ± 1.5	1900	408

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
						1.5						
16	2	1.5	1.6	1	2.1	37 ± 1.5	0.46	41.9	2.1	43 ± 2	2750	544
16	2	1.5	1.6	1	2.1	37 ± 1.5	0.46	41.9	2.1	43 ± 2	2750	544
24	2	1.5	1.6	1	2.3	45.5 ± 2	0.46	53.8	2.4	52 ± 2.5	3880	816
24	2	1.5	1.6	1	2.3	45.5 ± 2	0.46	53.8	2.4	52 ± 2.5	3880	816
1	3	1.5	1.6	1	1.1	11.5 ± 0.8	0.3	8.5	1.2	15.5 ± 0.8	390	49
1	3	1.5	1.6	1	1.1	11.5 ± 0.8	0.3	8.5	1.2	15.5 ± 0.8	390	49
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	22 ± 1	680	97
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	22 ± 1	680	97
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	15.3	1.6	25.5 ± 1	1000	193
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	15.3	1.6	25.5 ± 1	1000	193
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	33 ± 1.5	1680	386
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	33 ± 1.5	1680	386
12	3	1.5	1.6	1	1.6	35.5 ± 1.5	0.3	25.4	2	41 ± 2	2460	579
12	3	1.5	1.6	1	1.6	35.5 ± 1.5	0.3	25.4	2	41 ± 2	2460	579
16	3	1.5	1.6	1	2.3	41 ± 2	0.46	47.9	2.2	47.5 ± 2	3510	772
16	3	1.5	1.6	1	2.3	41 ± 2	0.46	47.9	2.2	47.5 ± 2	3510	772
24	3	1.5	1.6	1	2.7	51 ± 2.5	0.46	59.8	2.6	58 ± 2.5	5080	1157
24	3	1.5	1.6	1	2.7	51 ± 2.5	0.46	59.8	2.6	58 ± 2.5	5080	1157
1	2	2.5	2	1	1.1	11.5 ± 0.8	0.3	8.5	1.2	15.5 ± 0.8	390	55
1	2	2.5	2	1	1.1	11.5 ± 0.8	0.3	8.5	1.2	15.5 ± 0.8	390	55
2	2	2.5	2	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	22 ± 1	660	109
2	2	2.5	2	1	1.1	17.5 ± 0.8	0.3	13.6	1.5	22 ± 1	660	109
4	2	2.5	2	1	1.1	20.5 ± 1	0.3	15.3	1.6	25.5 ± 1	970	218
4	2	2.5	2	1	1.1	20.5 ± 1	0.3	15.3	1.6	25.5 ± 1	970	218
8	2	2.5	2	1	1.1	28.5 ± 1	0.3	20.4	1.8	33.5 ± 1.5	1620	435
8	2	2.5	2	1	1.1	28.5 ± 1	0.3	20.4	1.8	33.5 ± 1.5	1620	435
12	2	2.5	2	1	2.3	36 ± 1.5	0.3	25.4	2	41.5 ± 2	2550	652
12	2	2.5	2	1	2.3	36 ± 1.5	0.3	25.4	2	41.5 ± 2	2550	652
16	2	2.5	2	1	2.3	40.5 ± 2	0.46	47.9	2.2	46.5 ± 2	3370	869
16	2	2.5	2	1	2.3	40.5 ± 2	0.46	47.9	2.2	46.5 ± 2	3370	869
1	3	2.5	2	1	1.1	12 ± 0.8	0.3	10.2	1.2	16 ± 0.8	450	78
1	3	2.5	2	1	1.1	12 ± 0.8	0.3	10.2	1.2	16 ± 0.8	450	78
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23.5 ± 1	790	155
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23.5 ± 1	790	155
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27.5 ± 1	1200	310
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27.5 ± 1	1200	310
8	3	2.5	2	1	1.3	30.5 ± 1.5	0.3	22.9	2	36 ± 1.5	2120	619
8	3	2.5	2	1	1.3	30.5 ± 1.5	0.3	22.9	2	36 ± 1.5	2120	619
12	3	2.5	2	1	2.6	40.5 ± 2	0.46	47.9	2.2	47 ± 2	3520	929
12	3	2.5	2	1	2.6	40.5 ± 2	0.46	47.9	2.2	47 ± 2	3520	929

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	65	0,94	26,3	17,9
Shielded triple 0,75 mm²	65	0,94	26,3	17,9
Shielded pair 1,5 mm²	80	0,84	12,9	32,6
Shielded triple 1,5 mm²	80	0,84	12,9	32,6
Shielded pair 2,5 mm²	100	0,77	8,02	48
Shielded triple 2,5 mm²	100	0,77	8,02	48

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	821000	BFCU-XFR(I) 1PAIR 0.75mm²	GREY	-	7021528210002	-
	821001	BFCU-XFR(I) 1PAIR 0.75mm²	BLUE	-	7021528210019	-
	821006	BFCU-XFR(I) 2PAIR 0.75mm²	GREY	-	7021528210064	-
	821007	BFCU-XFR(I) 2PAIR 0.75mm²	BLUE	-	7021528210071	-
	821018	BFCU-XFR(I) 4PAIR 0.75mm²	GREY	-	7021528210187	-
	821019	BFCU-XFR(I) 4PAIR 0.75mm²	BLUE	-	7021528210194	-
	821030	BFCU-XFR(I) 8PAIR 0.75mm²	GREY	-	7021528210309	-
	821031	BFCU-XFR(I) 8PAIR 0.75mm²	BLUE	-	7021528210316	-
	821036	BFCU-XFR(I) 12PAIR 0.75mm²	GREY	-	7021528210361	-
	821037	BFCU-XFR(I) 12PAIR 0.75mm²	BLUE	-	7021528210378	-
	821042	BFCU-XFR(I) 16PAIR 0.75mm²	GREY	-	7021528210422	-
	821043	BFCU-XFR(I) 16PAIR 0.75mm²	BLUE	-	7021528210439	-
	821048	BFCU-XFR(I) 24PAIR 0.75mm²	GREY	-	7021528210484	-
	821049	BFCU-XFR(I) 24PAIR 0.75mm²	BLUE	-	7021528210491	-
	821060	BFCU-XFR(I) 1TRIP 0.75mm²	GREY	-	7021528210606	-
	821061	BFCU-XFR(I) 1TRIP 0.75mm²	BLUE	-	7021528210613	-
	821066	BFCU-XFR(I) 2TRIP 0.75mm²	GREY	-	7021528210668	-
	821067	BFCU-XFR(I) 2TRIP 0.75mm²	BLUE	-	7021528210675	-
	821078	BFCU-XFR(I) 4TRIP 0.75mm²	GREY	-	7021528210781	-
	821079	BFCU-XFR(I) 4TRIP 0.75mm²	BLUE	-	7021528210798	-
	821090	BFCU-XFR(I) 8TRIP 0.75mm²	GREY	-	7021528210903	-
	821091	BFCU-XFR(I) 8TRIP 0.75mm²	BLUE	-	7021528210910	-
	821096	BFCU-XFR(I) 12TRIP 0.75mm²	GREY	-	7021528210965	-
	821097	BFCU-XFR(I) 12TRIP 0.75mm²	BLUE	-	7021528210972	-
	821102	BFCU-XFR(I) 16TRIP 0.75mm²	GREY	-	7021528211023	-
	821103	BFCU-XFR(I) 16TRIP 0.75mm²	BLUE	-	7021528211030	-
	821108	BFCU-XFR(I) 24TRIP 0.75mm²	GREY	-	7021528211085	-
	821109	BFCU-XFR(I) 24TRIP 0.75mm²	BLUE	-	7021528211092	-
	821400	BFCU-XFR(I) 1PAIR 1.5mm²	GREY	-	7021528214000	-
	821401	BFCU-XFR(I) 1PAIR 1.5mm²	BLUE	-	7021528214017	-
	821406	BFCU-XFR(I) 2PAIR 1.5mm²	GREY	-	7021528214062	-
	821407	BFCU-XFR(I) 2PAIR 1.5mm²	BLUE	-	7021528214079	-
	821418	BFCU-XFR(I) 4PAIR 1.5mm²	GREY	-	7021528214185	-
	821419	BFCU-XFR(I) 4PAIR 1.5mm²	BLUE	-	7021528214192	-
	821430	BFCU-XFR(I) 8PAIR 1.5mm²	GREY	-	7021528214307	-
	821431	BFCU-XFR(I) 8PAIR 1.5mm²	BLUE	-	7021528214314	-
	821436	BFCU-XFR(I) 12PAIR 1.5mm²	GREY	-	7021528214369	-
	821437	BFCU-XFR(I) 12PAIR 1.5mm²	BLUE	-	7021528214376	-
	821442	BFCU-XFR(I) 16PAIR 1.5mm²	GREY	-	7021528214420	-
	821443	BFCU-XFR(I) 16PAIR 1.5mm²	BLUE	-	7021528214437	-
	821448	BFCU-XFR(I) 24PAIR 1.5mm²	GREY	-	7021528214482	-
	821449	BFCU-XFR(I) 24PAIR 1.5mm²	BLUE	-	7021528214499	-
	821460	BFCU-XFR(I) 1TRIP 1.5mm²	GREY	-	7021528214604	-
	821461	BFCU-XFR(I) 1TRIP 1.5mm²	BLUE	-	7021528214611	-
	821466	BFCU-XFR(I) 2TRIP 1.5mm²	GREY	-	7021528214666	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	821467	BFCU-XFR(I) 2TRIP 1.5mm²	BLUE	-	7021528214673	-
	821478	BFCU-XFR(I) 4TRIP 1.5mm²	GREY	-	7021528214789	-
	821479	BFCU-XFR(I) 4TRIP 1.5mm²	BLUE	-	7021528214796	-
	821490	BFCU-XFR(I) 8TRIP 1.5mm²	GREY	-	7021528214901	-
	821491	BFCU-XFR(I) 8TRIP 1.5mm²	BLUE	-	7021528214918	-
	821496	BFCU-XFR(I) 12TRIP 1.5mm²	GREY	-	7021528214963	-
	821497	BFCU-XFR(I) 12TRIP 1.5mm²	BLUE	-	7021528214970	-
	821502	BFCU-XFR(I) 16TRIP 1.5mm²	GREY	-	7021528215021	-
	821503	BFCU-XFR(I) 16TRIP 1.5mm²	BLUE	-	7021528215038	-
	821508	BFCU-XFR(I) 24TRIP 1.5mm²	GREY	-	7021528215083	-
	821509	BFCU-XFR(I) 24TRIP 1.5mm²	BLUE	-	7021528215090	-
	828700	BFCU-XFR(I) 1PAIR 2.5mm²	GREY	-	7021528287004	-
	828701	BFCU-XFR(I) 1PAIR 2.5mm²	BLUE	-	7021528287011	-
	828706	BFCU-XFR(I) 2PAIR 2.5mm²	GREY	-	7021528287066	-
	828707	BFCU-XFR(I) 2PAIR 2.5mm²	BLUE	-	7021528287073	-
	828718	BFCU-XFR(I) 4PAIR 2.5mm²	GREY	-	7021528287189	-
	828719	BFCU-XFR(I) 4PAIR 2.5mm²	BLUE	-	7021528287196	-
	828730	BFCU-XFR(I) 8PAIR 2.5mm²	GREY	-	7021528287301	-
	828731	BFCU-XFR(I) 8PAIR 2.5mm²	BLUE	-	7021528287318	-
	828736	BFCU-XFR(I) 12PAIR 2.5mm²	GREY	-	7021528287363	-
	828737	BFCU-XFR(I) 12PAIR 2.5mm²	BLUE	-	7021528287370	-
	828742	BFCU-XFR(I) 16PAIR 2.5mm²	GREY	-	7021528287424	-
	828743	BFCU-XFR(I) 16PAIR 2.5mm²	BLUE	-	7021528287431	-
	828760	BFCU-XFR(I) 1TRIP 2.5mm²	GREY	-	7021528287608	-
	828761	BFCU-XFR(I) 1TRIP 2.5mm²	BLUE	-	7021528287615	-
	828766	BFCU-XFR(I) 2TRIP 2.5mm²	GREY	-	7021528287660	-
	828767	BFCU-XFR(I) 2TRIP 2.5mm²	BLUE	-	7021528287677	-
	828778	BFCU-XFR(I) 4TRIP 2.5mm²	GREY	-	7021528287783	-
	828779	BFCU-XFR(I) 4TRIP 2.5mm²	BLUE	-	7021528287790	-
	828790	BFCU-XFR(I) 8TRIP 2.5mm²	GREY	-	7021528287905	-
	828791	BFCU-XFR(I) 8TRIP 2.5mm²	BLUE	-	7021528287912	-
	828796	BFCU-XFR(I) 12TRIP 2.5mm²	GREY	-	7021528287967	-
	828797	BFCU-XFR(I) 12TRIP 2.5mm²	BLUE	-	7021528287974	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

eXtended Fire Resistant, instrumentation cable BFCU-XFR(c) 150/250(300)V, steel wire braided

eXtended Fire Resistant, flame retardant halogen-free instrumentation cable. Mud resistant

BFCU-XFR(c) 150/250(300)V

MGT/EPR/EPR/GSWB/EVA

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists. Meets the mud resistant requirements in NEK TS 606:2009. Cables have extended fire resistant (XFR) properties to IEC 60331-1&2 including water spray according to EN 50200 Annex E (90 minutes).

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2 EN 50200:2006 Annex E	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape + rubberized Polyamide tape
Armour/screen	**C**	Galvanized steel wire braid
Tape over armour/screen		PET tape + rubberized Polyamide tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA 01 BFCU-XFR(C) 250V 4PAIR 1.5mm2 FLEX - FLAME IEC 60092-376 EN 50200:2006 Annex E IEC 60331-1*) or IEC 60331-2*) IEC 60332-3-22
Manufacturing unit		DRAKA 01 = Draka Norsk Kabel
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm

Core identification instrumentation cables

Pair - Black - Light Blue
Triple - Black - Light Blue - Brown
Quad - Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	1	1.1	14 ± 0.8	0.3	10.2	1.3	18 ± 0.8	440	30
2	2	0.75	1.1	1	1.1	14 ± 0.8	0.3	10.2	1.3	18 ± 0.8	440	30
4	2	0.75	1.1	1	1.1	16.5 ± 0.8	0.3	11.9	1.3	20.5 ± 1	580	56
4	2	0.75	1.1	1	1.1	16.5 ± 0.8	0.3	11.9	1.3	20.5 ± 1	580	56
8	2	0.75	1.1	1	1.1	22 ± 1	0.3	17.8	1.5	26.5 ± 1	960	107
8	2	0.75	1.1	1	1.1	22 ± 1	0.3	17.8	1.5	26.5 ± 1	960	107
12	2	0.75	1.1	1	1.4	26.5 ± 1	0.3	20.4	1.6	31 ± 1.5	1290	159
12	2	0.75	1.1	1	1.4	26.5 ± 1	0.3	20.4	1.6	31 ± 1.5	1290	159
16	2	0.75	1.1	1	1.9	29.5 ± 1	0.3	22.9	1.7	34.5 ± 1.5	1680	210
16	2	0.75	1.1	1	1.9	29.5 ± 1	0.3	22.9	1.7	34.5 ± 1.5	1680	210
24	2	0.75	1.1	1	2.3	36.5 ± 1.5	0.46	41.9	2	42.5 ± 2	2550	313
24	2	0.75	1.1	1	2.3	36.5 ± 1.5	0.46	41.9	2	42.5 ± 2	2550	313
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.3	20 ± 1	530	43
2	3	0.75	1.1	1	1.1	16 ± 0.8	0.3	11.9	1.3	20 ± 1	530	43
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	23 ± 1	750	82
4	3	0.75	1.1	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	23 ± 1	750	82
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	17.8	1.6	29.5 ± 1	1210	159
8	3	0.75	1.1	1	1.1	25 ± 1	0.3	17.8	1.6	29.5 ± 1	1210	159
12	3	0.75	1.1	1	1.4	30 ± 1.5	0.3	22.9	1.7	35 ± 1.5	1670	237
12	3	0.75	1.1	1	1.4	30 ± 1.5	0.3	22.9	1.7	35 ± 1.5	1670	237
16	3	0.75	1.1	1	2.1	34 ± 1.5	0.3	25.4	1.8	39 ± 1.5	2220	314
16	3	0.75	1.1	1	2.1	34 ± 1.5	0.3	25.4	1.8	39 ± 1.5	2220	314
24	3	0.75	1.1	1	2.5	42.5 ± 2	0.46	47.9	2.1	48.5 ± 2	3370	469
24	3	0.75	1.1	1	2.5	42.5 ± 2	0.46	47.9	2.1	48.5 ± 2	3370	469
2	2	1.5	1.6	1	1.1	15.5 ± 0.8	0.3	11.9	1.4	20 ± 1	540	62
2	2	1.5	1.6	1	1.1	15.5 ± 0.8	0.3	11.9	1.4	20 ± 1	540	62
4	2	1.5	1.6	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22.5 ± 1	750	118
4	2	1.5	1.6	1	1.1	18.5 ± 0.8	0.3	15.3	1.4	22.5 ± 1	750	118
8	2	1.5	1.6	1	1.1	25 ± 1	0.3	17.8	1.7	30 ± 1.5	1220	230
8	2	1.5	1.6	1	1.1	25 ± 1	0.3	17.8	1.7	30 ± 1.5	1220	230
12	2	1.5	1.6	1	1.4	29.5 ± 1	0.3	22.9	1.8	34.5 ± 1.5	1670	342
12	2	1.5	1.6	1	1.4	29.5 ± 1	0.3	22.9	1.8	34.5 ± 1.5	1670	342
16	2	1.5	1.6	1	1.9	33 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2160	454
16	2	1.5	1.6	1	1.9	33 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2160	454
24	2	1.5	1.6	1	2.3	41 ± 2	0.46	47.9	2.2	47.5 ± 2	3290	678
24	2	1.5	1.6	1	2.3	41 ± 2	0.46	47.9	2.2	47.5 ± 2	3290	678

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Mechanical cross-section of the braid, mm²	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.4	22 ± 1	660	91
2	3	1.5	1.6	1	1.1	17.5 ± 0.8	0.3	13.6	1.4	22 ± 1	660	91
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	15.3	1.5	25.5 ± 1	930	175
4	3	1.5	1.6	1	1.1	21 ± 1	0.3	15.3	1.5	25.5 ± 1	930	175
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	33 ± 1.5	1580	344
8	3	1.5	1.6	1	1.1	28 ± 1	0.3	20.4	1.8	33 ± 1.5	1580	344
12	3	1.5	1.6	1	1.4	34 ± 1.5	0.3	25.4	1.9	39 ± 1.5	2190	512
12	3	1.5	1.6	1	1.4	34 ± 1.5	0.3	25.4	1.9	39 ± 1.5	2190	512
16	3	1.5	1.6	1	2.3	38.5 ± 1.5	0.46	41.9	2.1	44.5 ± 2	3130	681
16	3	1.5	1.6	1	2.3	38.5 ± 1.5	0.46	41.9	2.1	44.5 ± 2	3130	681
24	3	1.5	1.6	1	2.7	47.5 ± 2	0.46	53.8	2.4	54.5 ± 2.5	4500	1018
24	3	1.5	1.6	1	2.7	47.5 ± 2	0.46	53.8	2.4	54.5 ± 2.5	4500	1018
2	2	2.5	2	1	1.1	17 ± 0.8	0.3	13.6	1.4	21 ± 1	620	101
2	2	2.5	2	1	1.1	17 ± 0.8	0.3	13.6	1.4	21 ± 1	620	101
4	2	2.5	2	1	1.1	19.5 ± 0.8	0.3	15.3	1.5	24 ± 1	880	193
4	2	2.5	2	1	1.1	19.5 ± 0.8	0.3	15.3	1.5	24 ± 1	880	193
8	2	2.5	2	1	1.1	27 ± 1	0.3	20.4	1.8	32 ± 1.5	1480	378
8	2	2.5	2	1	1.1	27 ± 1	0.3	20.4	1.8	32 ± 1.5	1480	378
12	2	2.5	2	1	2.1	33.5 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2220	562
12	2	2.5	2	1	2.1	33.5 ± 1.5	0.3	25.4	1.9	38.5 ± 1.5	2220	562
16	2	2.5	2	1	2.3	36.5 ± 1.5	0.46	41.9	2.1	42.5 ± 2	2920	746
16	2	2.5	2	1	2.3	36.5 ± 1.5	0.46	41.9	2.1	42.5 ± 2	2920	746
24	2	2.5	2	1	2.7	45 ± 2	0.46	53.8	2.4	52 ± 2.5	4190	1114
24	2	2.5	2	1	2.7	45 ± 2	0.46	53.8	2.4	52 ± 2.5	4190	1114
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23.5 ± 1	780	148
2	3	2.5	2	1	1.1	19 ± 0.8	0.3	15.3	1.5	23.5 ± 1	780	148
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27 ± 1	1160	286
4	3	2.5	2	1	1.1	22.5 ± 1	0.3	17.8	1.6	27 ± 1	1160	286
8	3	2.5	2	1	1.1	30 ± 1.5	0.3	22.9	1.9	35.5 ± 1.5	1940	564
8	3	2.5	2	1	1.1	30 ± 1.5	0.3	22.9	1.9	35.5 ± 1.5	1940	564
12	3	2.5	2	1	2.6	39 ± 1.5	0.46	47.9	2.1	45.5 ± 2	3280	842
12	3	2.5	2	1	2.6	39 ± 1.5	0.46	47.9	2.1	45.5 ± 2	3280	842
16	3	2.5	2	1	2.6	42.5 ± 2	0.46	47.9	2.3	49 ± 2	3980	1119
16	3	2.5	2	1	2.6	42.5 ± 2	0.46	47.9	2.3	49 ± 2	3980	1119

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	55	0,94	26,3	17,9
Unshielded triple 0,75 mm²	55	0,94	26,3	17,9
Unshielded pair 1,5 mm²	65	0,89	12,9	32,6
Unshielded triple 1,5 mm²	65	0,89	12,9	32,6
Unshielded pair 2,5 mm²	75	0,77	8,02	48
Unshielded triple 2,5 mm²	75	0,77	8,02	48

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	821606	BFCU-XFR(C) 2PAIR 0.75mm²	GREY	-	7021528216066	-
	821607	BFCU-XFR(C) 2PAIR 0.75mm²	BLUE	-	7021528216073	-
	821618	BFCU-XFR(C) 4PAIR 0.75mm²	GREY	-	7021528216189	-
	821619	BFCU-XFR(C) 4PAIR 0.75mm²	BLUE	-	7021528216196	-
	821630	BFCU-XFR(C) 8PAIR 0.75mm²	GREY	-	7021528216301	-
	821631	BFCU-XFR(C) 8PAIR 0.75mm²	BLUE	-	7021528216318	-
	821636	BFCU-XFR(C) 12PAIR 0.75mm²	GREY	-	7021528216363	-
	821637	BFCU-XFR(C) 12PAIR 0.75mm²	BLUE	-	7021528216370	-
	821642	BFCU-XFR(C) 16PAIR 0.75mm²	GREY	-	7021528216424	-
	821643	BFCU-XFR(C) 16PAIR 0.75mm²	BLUE	-	7021528216431	-
	821648	BFCU-XFR(C) 24PAIR 0.75mm²	GREY	-	7021528216486	-
	821649	BFCU-XFR(C) 24PAIR 0.75mm²	BLUE	-	7021528216493	-
	821666	BFCU-XFR(C) 2TRIP 0.75mm²	GREY	-	7021528216660	-
	821667	BFCU-XFR(C) 2TRIP 0.75mm²	BLUE	-	7021528216677	-
	821678	BFCU-XFR(C) 4TRIP 0.75mm²	GREY	-	7021528216783	-
	821679	BFCU-XFR(C) 4TRIP 0.75mm²	BLUE	-	7021528216790	-
	821690	BFCU-XFR(C) 8TRIP 0.75mm²	GREY	-	7021528216905	-
	821691	BFCU-XFR(C) 8TRIP 0.75mm²	BLUE	-	7021528216912	-
	821696	BFCU-XFR(C) 12TRIP 0.75mm²	GREY	-	7021528216967	-
	821697	BFCU-XFR(C) 12TRIP 0.75mm²	BLUE	-	7021528216974	-
	821702	BFCU-XFR(C) 16TRIP 0.75mm²	GREY	-	7021528217025	-
	821703	BFCU-XFR(C) 16TRIP 0.75mm²	BLUE	-	7021528217032	-
	821708	BFCU-XFR(C) 24TRIP 0.75mm²	GREY	-	7021528217087	-
	821709	BFCU-XFR(C) 24TRIP 0.75mm²	BLUE	-	7021528217094	-
	822006	BFCU-XFR(C) 2PAIR 1.5mm²	GREY	-	7021528220063	-
	822007	BFCU-XFR(C) 2PAIR 1.5mm²	BLUE	-	7021528220070	-
	822018	BFCU-XFR(C) 4PAIR 1.5mm²	GREY	-	7021528220186	-
	822019	BFCU-XFR(C) 4PAIR 1.5mm²	BLUE	-	7021528220193	-
	822030	BFCU-XFR(C) 8PAIR 1.5mm²	GREY	-	7021528220308	-
	822031	BFCU-XFR(C) 8PAIR 1.5mm²	BLUE	-	7021528220315	-
	822036	BFCU-XFR(C) 12PAIR 1.5mm²	GREY	-	7021528220360	-
	822037	BFCU-XFR(C) 12PAIR 1.5mm²	BLUE	-	7021528220377	-
	822042	BFCU-XFR(C) 16PAIR 1.5mm²	GREY	-	7021528220421	-
	822043	BFCU-XFR(C) 16PAIR 1.5mm²	BLUE	-	7021528220438	-
	822048	BFCU-XFR(C) 24PAIR 1.5mm²	GREY	-	7021528220483	-
	822049	BFCU-XFR(C) 24PAIR 1.5mm²	BLUE	-	7021528220490	-
	822066	BFCU-XFR(C) 2TRIP 1.5mm²	GREY	-	7021528220667	-
	822067	BFCU-XFR(C) 2TRIP 1.5mm²	BLUE	-	7021528220674	-
	822078	BFCU-XFR(C) 4TRIP 1.5mm²	GREY	-	7021528220780	-
	822079	BFCU-XFR(C) 4TRIP 1.5mm²	BLUE	-	7021528220797	-
	822090	BFCU-XFR(C) 8TRIP 1.5mm²	GREY	-	7021528220902	-
	822091	BFCU-XFR(C) 8TRIP 1.5mm²	BLUE	-	7021528220919	-
	822096	BFCU-XFR(C) 12TRIP 1.5mm²	GREY	-	7021528220964	-
	822097	BFCU-XFR(C) 12TRIP 1.5mm²	BLUE	-	7021528220971	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	822102	BFCU-XFR(C) 16TRIP 1.5mm²	GREY	-	7021528221022	-
	822103	BFCU-XFR(C) 16TRIP 1.5mm²	BLUE	-	7021528221039	-
	822108	BFCU-XFR(C) 24TRIP 1.5mm²	GREY	-	7021528221084	-
	822109	BFCU-XFR(C) 24TRIP 1.5mm²	BLUE	-	7021528221091	-
	829106	BFCU-XFR(C) 2PAIR 2.5mm²	GREY	-	7021528291063	-
	829107	BFCU-XFR(C) 2PAIR 2.5mm²	BLUE	-	7021528291070	-
	829118	BFCU-XFR(C) 4PAIR 2.5mm²	GREY	-	7021528291186	-
	829119	BFCU-XFR(C) 4PAIR 2.5mm²	BLUE	-	7021528291193	-
	829130	BFCU-XFR(C) 8PAIR 2.5mm²	GREY	-	7021528291308	-
	829131	BFCU-XFR(C) 8PAIR 2.5mm²	BLUE	-	7021528291315	-
	829136	BFCU-XFR(C) 12PAIR 2.5mm²	GREY	-	7021528291360	-
	829137	BFCU-XFR(C) 12PAIR 2.5mm²	BLUE	-	7021528291377	-
	829142	BFCU-XFR(C) 16PAIR 2.5mm²	GREY	-	7021528291421	-
	829143	BFCU-XFR(C) 16PAIR 2.5mm²	BLUE	-	7021528291438	-
	829148	BFCU-XFR(C) 24PAIR 2.5mm²	GREY	-	7021528291483	-
	829149	BFCU-XFR(C) 24PAIR 2.5mm²	BLUE	-	7021528291490	-
	829166	BFCU-XFR(C) 2TRIP 2.5mm²	GREY	-	7021528291667	-
	829167	BFCU-XFR(C) 2TRIP 2.5mm²	BLUE	-	7021528291674	-
	829178	BFCU-XFR(C) 4TRIP 2.5mm²	GREY	-	7021528291780	-
	829179	BFCU-XFR(C) 4TRIP 2.5mm²	BLUE	-	7021528291797	-
	829190	BFCU-XFR(C) 8TRIP 2.5mm²	GREY	-	7021528291902	-
	829191	BFCU-XFR(C) 8TRIP 2.5mm²	BLUE	-	7021528291919	-
	829196	BFCU-XFR(C) 12TRIP 2.5mm²	GREY	-	7021528291964	-
	829197	BFCU-XFR(C) 12TRIP 2.5mm²	BLUE	-	7021528291971	-
	829202	BFCU-XFR(C) 16TRIP 2.5mm²	GREY	-	7021528292022	-
	829203	BFCU-XFR(C) 16TRIP 2.5mm²	BLUE	-	7021528292039	-

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Hydraulic and Turbine oils resistant, instrumentation cable BFOV(i) 150/250(300)V

Fire resistant, flame retardant halogen-free instrumentation cable. Resistant to turbine and hydraulic oils.

BFOV(i) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists.

Especially resistant to the following hydraulic oils: HydraWay HVXA 46, Nyco Turbonycoil 600, Nyco Turbonycoil 610, Mobil Glygoyle 11 and Turbway 32.

Standards applied	
IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Lay up / Shielding		Individually shielded pairs/triples/quads are laid up in concentric layers and wrapped with a PETP tape.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**V**	Flame retardant, halogen-free and oil resistant thermoset compound (Therban), SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA NORSK KABEL BFOV(i) 250V 16 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification instrumentation cables

Pair	Black - Light Blue
Triple	Black - Light Blue - Brown
Quad	Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	1.1	10.5 ± 0.8	200	54
1	2	0.75	1.1	0.6	1.1	7.5 ± 0.5	0.2	1.1	10.5 ± 0.8	200	54
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.4	16.5 ± 0.8	490	183
1	3	0.75	1.1	0.6	1.1	8 ± 0.5	0.2	1.1	11 ± 0.8	220	70
4	3	0.75	1.1	0.6	1.1	14 ± 0.8	0.3	1.4	17.5 ± 0.8	570	209
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	1.7	23 ± 1	960	359
12	3	0.75	1.1	0.6	1.4	22.5 ± 1	0.3	1.8	27.5 ± 1	1290	475
1	2	1.5	1.6	0.7	1.1	9 ± 0.5	0.2	1.1	12 ± 0.8	250	79
1	3	1.5	1.6	0.7	1.1	9.5 ± 0.5	0.2	1.2	12.5 ± 0.8	285	93

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8
Shielded 16 and 24 triple 1,5 mm²	105	0,71	12,9	24,4
Shielded 16 pair 2,5 mm²	110	0,66	8,02	41,1

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20114120		BFOV(I) 1PAIR 0.75mm²	GREY	Yes	7021528866643	-
20114414		BFOV(I) 1PAIR 0.75mm²	BLUE	Yes	7021528872507	-
	886706	BFOV(I) 4PAIR 0.75mm²	GREY	-	7021528867060	-
	886665	BFOV(I) 1TRIP 0.75mm²	GREY	-	7021528866650	-
20110587		BFOV(I) 4TRIP 0.75mm²	GREY	-	7021528872521	-
20114116		BFOV(I) 8TRIP 0.75mm²	GREY	-	7021528872538	-
20115141		BFOV(I) 12TRIP 0.75mm²	BLUE	-	7021528873054	-
	886663	BFOV(I) 1PAIR 1.5mm²	GREY	-	7021528866636	-
	886447	BFOV(I) 1TRIP 1.5mm²	GREY	-	7021528864472	-

Other no. of pairs/triples and cross sectional area are available on request

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Hydraulic and Turbine oils resistant, instrumentation cable BFOV(c) 150/250(300)V

Fire resistant, flame retardant halogen-free instrumentation cable. Resistant to turbine and hydraulic oils.

BFOV(c) 150/250(300)V

MGT/EPR/EPR/TCWB/HNBR

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists.

Especially resistant to the following hydraulic oils: HydraWay HVXA 46, Nyco Turbonycoil 600, Nyco Turbonycoil 610, Mobil Glygoyle 11 and Turbway 32.

Standards applied

IEC 60092-376 (2003-05)	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and oil resistant thermoset compound (Therban), SHF2 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA NORSK KABEL BFOV(c) 250V 4 PAIR 0,75 mm2 FLEX - FLAME IEC 60092-376 IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Outer sheath colour		Grey or Blue

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification instrumentation cables

Pair	Black - Light Blue
Triple	Black - Light Blue - Brown
Quad	Black - Light Blue - Brown - Grey

Range and dimensions

Number of elements	No of cores in element	Cross section core, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	2	0.75	1.1	0.6	1.1	10.5 ± 0.8	0.3	1.3	14.5 ± 0.8	340	113
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.3	16 ± 0.8	440	155
4	2	0.75	1.1	0.6	1.1	12.5 ± 0.8	0.3	1.3	16 ± 0.8	440	155
8	2	0.75	1.1	0.6	1.1	16.5 ± 0.8	0.3	1.5	20.5 ± 1	680	240
8	2	0.75	1.1	0.6	1.1	16.5 ± 0.8	0.3	1.5	20.5 ± 1	680	240
12	2	0.75	1.1	0.6							
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	1.6	23 ± 1	870	308
8	3	0.75	1.1	0.6	1.1	18.5 ± 0.8	0.3	1.6	23 ± 1	870	308
2	2	1.5	1.6	0.7	1.1	13 ± 0.8	0.3	1.4	16.5 ± 0.8	440	162
4	2	1.5	1.6	0.7							
4	2	1.5	1.6	0.7							
8	2	1.5	1.6	0.7							
8	3	1.5	1.6	0.7	1.1	22.5 ± 1	0.3	1.8	27 ± 1	1270	517

Electrical values instrumentation cables

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8
Unshielded 16 and 24 pair 2,5 mm²	95	0,66	8,02	41,1
Unshielded 16 triple 2,5 mm²	95	0,66	8,02	41,1

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
	887204	BFOV(C) 2PAIR 0.75mm²	GREY	-	7021528872040	-
20114112		BFOV(C) 4PAIR 0.75mm²	GREY	Yes	7021528872514	-
	886769	BFOV(C) 4PAIR 0.75mm²	BLUE	-	7021528867695	-
20114046		BFOV(C) 8PAIR 0.75mm²	GREY	-	7021528872545	-
20115142		BFOV(C) 8PAIR 0.75mm²	BLUE	-	7021528873023	-
20115143		BFOV(C) 12PAIR 0.75mm²	BLUE	-	7021528873030	-
20113991		BFOV(C) 8TRIP 0.75mm²	GREY	-	7021528872552	-
20115144		BFOV(C) 8TRIP 0.75mm²	BLUE	-	7021528873047	-
	886449	BFOV(C) 2PAIR 1.5mm²	GREY	-	7021528864496	-

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20115151		BFOV(C) 4PAIR 1.5mm²	GREY	-	7021528873061	-
20115152		BFOV(C) 4PAIR 1.5mm²	BLUE	-	7021528873078	-
20115155		BFOV(C) 8PAIR 1.5mm²	GREY	-	7021528873085	-
	886451	BFOV(C) 8TRIP 1.5mm²	GREY	-	7021528864519	-

Other no. of pairs/triples and cross sectional area are available on request.

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Hydraulic and Turbine oils resistant, power cable BFOV 0,6/1(1,2)kV

Fire resistant, flame retardant halogen-free power cable. Resistant to turbine and hydraulic oils.

BFOV 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/HNBR

Operating temperature : 90°C
Operating Voltage : 0,6/1(1,2)kV

Application

Fixed installation for power, control and lighting in both EX- and safe areas, emergency and critical systems where requirement for fire resistance exists.
Especially resistant to the following hydraulic oils: HydraWay HVXA 46, Nyco Turbonycoil 600, Nyco Turbonycoil 610, Mobil Glygoyle 11 and Turbway 32.

Standards applied

IEC 60092-353	- Design
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-1, -2, -21	- Fire Resistant
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned annealed stranded circular copper (STCC), IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over inner covering		PET tape
Armour/screen	**O**	Tinned annealed copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**V**	Flame retardant, halogen-free and oil resistant thermoset compound (Therban), SHF2 (IEC 60092-360)
Marking text		E.g. meter" "year" DRAKA NORSK KABEL BFOV 0.6/1kV 3 x 4/6mm² FLEX - FLAME IEC 60331-1*) or IEC 60331-2*) IEC 60331-21**) IEC 60332-3-22
Outer sheath colour		Black

*) IEC 60331-1 for cables with an overall diameter exceeding 20 mm and IEC 60331-2 for cables with an overall diameter not exceeding 20 mm
**) IEC 60331-21 also at enhanced temperature 1000°C for 180 minutes

Core identification power cables

Single core	Black
Two cores	Blue - Brown
Three cores	Brown - Black - Grey
Four cores	Blue - Brown - Black - Grey
Five cores	Blue - Brown - Black - Grey - Black
Seven cores and above	White with black numbers
Two cores + earth (3G)	Yellow/green - Blue - Brown
Three cores + earth (4G)	Yellow/green - Brown - Black - Grey
Four cores + earth (5G)	Yellow/green - Blue - Brown - Black - Grey
G / X in cable description	G = One of the cores are yellow/green - X = no yellow/green core

Range and dimensions

Number of elements	Cross section core, mm²	Cross section screen, mm²	Conductor Diameter, mm	Insulation Thickness, mm	Thickness Inner covering, mm	Diameter inner covering, mm	Diameter Braid Wire, mm	Thickness Outer Sheath, mm	Diameter outer sheath, mm	Weight of Cable Approx. (Kg/Km)	Copper content Approx. (kg/km)
2	1.5	4	1.6	1.0	1.1	10 ± 0.8	0.3	1.2	13 ± 0.8	285	79
2	2.5	6	2.0	1.0	1.1	11 ± 0.8	0.3	1.3	14.5 ± 0.8	360	129
2	6	6	3.15	1.0	1.1	13 ± 0.8	0.3	1.4	17 ± 0.8	540	209
3	1.5	6	1.6	1.0	1.1	10.5 ± 0.8	0.3	1.3	14.5 ± 0.8	350	125
3	2.5	6	2.0	1.0	1.1	11.5 ± 0.8	0.3	1.3	15 ± 0.8	420	165
3	4	6	2.55	1.0	1.1	13 ± 0.8	0.3	1.3	16.5 ± 0.8	500	209
3	6	6	3.15	1.0	1.1	14 ± 0.8	0.3	1.4	18 ± 0.8	620	280
3	16	16	5.15	1.0	1.1	18.5 ± 0.8	0.4	1.5	23 ± 1	1170	660

Ordering information

New Part number	Old Part number	Description	Sheath Colour	Stock item	EAN No. DNK	EL No.
20117367		BFOV 0.6/1kV 2X 1.5/4mm²	BLACK	-	7021528873122	-
	886453	BFOV 0.6/1kV 2X 2.5/6mm²	BLACK	-	7021528864533	-
	886705	BFOV 0.6/1kV 2X 6/6mm²	BLACK	-	7021528867053	-
20117363		BFOV 0.6/1kV 3X 1.5/6mm²	BLACK	-	7021528866674	-
20117365		BFOV 0.6/1kV 3X 2.5/6mm²	BLACK	-	7021528873115	-
	886666	BFOV 0.6/1kV 3X 4/6mm²	BLACK	-	7021528866667	-
	886668	BFOV 0.6/1kV 3X 6/6mm²	BLACK	-	7021528866681	-
	886744	BFOV 0.6/1kV 3X 16/16mm²	BLACK	-	7021528867442	-

Other no. of cores and cross sectional area are available on request.

Electrical values power cables

Number of elements	Cross section core, mm²	Cross section screen, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
2	1.6	4	STCC	12.2	15.6	0.115	0.138	16	210
2	2.5	6	STCC	7.56	9.64	0.107	0.129	26	350
2	6	6	STCC	3.11	3.97	0.094	0.112	44	840
3	1.5	6	STCC	12.2	15.6	0.115	0.138	16	210
3	2.5	6	STCC	7.56	9.64	0.107	0.129	21	350
3	4	6	STCC	4.7	5.99	0.100	0.120	28	560

Number of elements	Cross section core, mm²	Cross section screen, mm²	Conductor type 2	Max. conductor resistance at 20°C, Ohm/km	Max. conductor resistance at 90°C, Ohm/km	Reactance at 50Hz, Ohm/km	Reactance at 60Hz, Ohm/km	Current rating IEC 60092-352 Table B.4, Ampere	Short circuit rating 1 second, Ampere
3	6	6	STCC	3.11	3.97	0.094	0.112	36	840
3	16	16	STCC	1.16	1.48	0.107	0.129	67	2240

Ambient temperature correction factors

Ambient Temp °C	35	40	45	50	55	60	65	70	75	80
Rating factor	1.10	1.05	1.00	0.94	0.88	0.82	0.74	0.67	0.58	0.47

Installation recommendations

Minimum Bending Radius during Installation	Minimum Bending Radius Fixed Installed	Maximum Tensile Load During Installation	Minimum Installation Temperature
8 x D	6 x D	50 N /mm²	-20°C

Hydro Carbon Fire Resistant Cables

Draka Norsk Kabel, part of the **Prysmian Group**, is a global solution supplier in cables, combining innovation with technological leadership. **Draka Norsk Kabel** has developed a unique product range for use in critical areas.

- a complete range of **Hydro Carbon Fire (HCF) resistant cables**

The design is based on a fire proof elastomeric cable covered with our unique protective composite. Due to its cooling and thermal properties this construction is capable of withstanding hydro carbon fires at 1100°C (2000°F).

Excellence centre

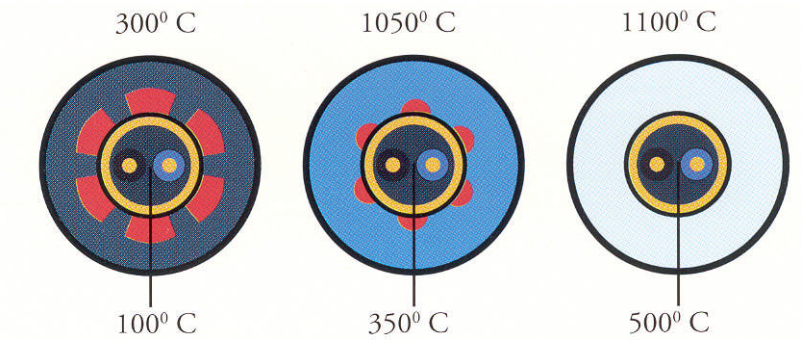
Research and development is a continuous process at **Prysmian Group** and **Draka Norsk Kabel**, the excellence centre in the overall group of specially designed products for Offshore applications, such as the ***"Hydro Carbon Fire (HCF) resistant cables"***. **Draka Norsk Kabel** has developed considerable expertise in the area of fire resistant cables. Introduced in 1975, the first elastomeric cables were marketed under the name BFOH. In the early eighties, they were replaced by the halogen-free BFOU, part of the Flex-Flame range.

Flexible and cost saving installation

The *"FLEX-FLAME HCF"* cable is flexible, easy to install and terminate whereas; similar products, e.g. cables protected with extra thermal insulation, have the disadvantage of a higher derating factor as well as higher installation costs. Mineral insulated cables have the disadvantage of alloy conductors, requiring larger conductor cross-sectional areas, complex, time consuming installation and a limited range.

Properties of the design

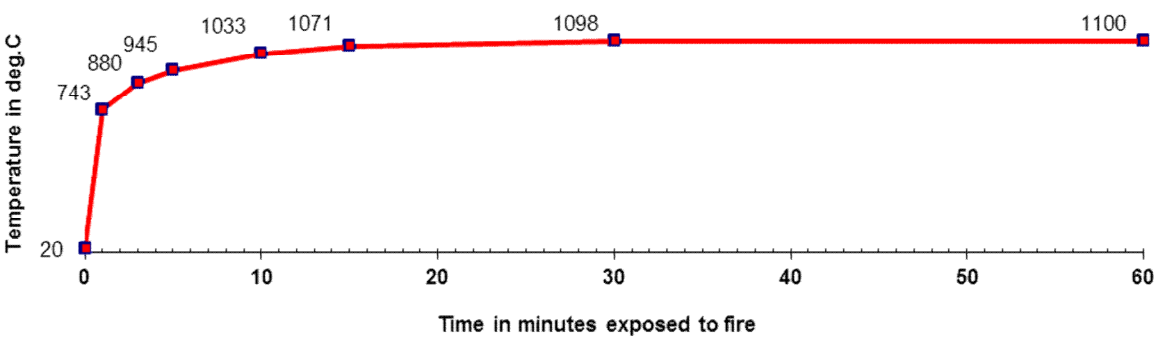
The unique design of the cable gives good heat transmission during normal operating temperature, thus reducing the requirement for derating. If the cable is exposed to a hydrocarbon fire, rapid changes in the material state will give a cooling effect, which is maintained during the critical period.



When this process is completed, the layer will turn into a firm, ceramic substance which provides heat insulation. Consequently, this is why the conductor temperature can be kept at a low level (approx. 500°C/900°F) even if the temperature should exceed 1100°C (2000°F). For Instrument and Communications applications, the values of Capacitance, Inductance, Resistance and Attenuation are not unduly affected.

Certifications and approvals

According to most current requirements, the cables shall pass the IEC 60331 part 21 gas flame test at 750°C (1350°F) for minimum 90 minutes without short circuit. This test temperature however, is more typical to cellulose fires, not to hydrocarbon fires, the latter being more common in Refineries, Petrochemical Industry and Production/Drilling Rigs.
The HCF cables will function in hydrocarbon fires exceeding 1100°C / 2000°F for a period of 30-60 minutes, in accordance with EN 1363-2 / ISO 834. See fig. below.



Considering this important fact may be more crucial than enduring 90 minutes at lower temperatures (750 – 1000°C / 1350 – 1850°F). The outstanding performance of the HCF cable from Draka Norsk Kabel satisfies both requirements.

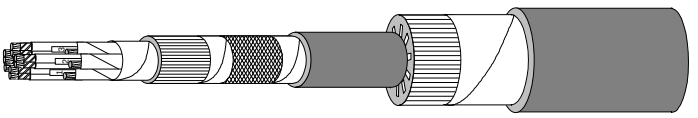
The product portfolio range

The *"FLEX-FLAME HCF"* 1100°C (2000°F) cables cover the entire range from Instrument and Telecommunications cables to Medium Voltage and High Voltage Power cables as described below.

Application:	**Cable type/voltage:**	**Fire class:**
Instrument and Telecommunication	BFOU HCF 250 V	H-30
Control	BFOU HCF 0,6/1 kV	H-30
Power L.V.	BFOU HCF 0,6/1 kV	H-30 – H-60
Power M.V.	RFOU HCF 6/10 (12) kV	H-60
	RFOU HCF 8,7/15 (17.5) kV	H-60
	RFOU HCF 12/20 (24) kV	H-60
	RFOU HCF 18/30 (36) kV	H-60
Power H.V.	RFOU HCF 26/45 (52) kV	H-60
Optical fibre cable	QFCI HCF	H-30

Our state-of-the-art cable systems support many major customers in the oil, gas and petrochemical industry. Now years of research and development within Draka Norsk Kabel has resulted in a range of cables, specially designed for the Hydrocarbon Processing Industry's most critical systems: Fire and Gas Detection, Emergency Shutdown, Communications Systems etc.

Hydro Carbon Fire resistant instrument cable BFOU-HCF(i) 150/250(300)V, S15



HydroCarbon Fire resistant, flame retardant halogen-free instrumentation cable.

BFOU-HCF(i) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA/HCF/SHF1

NEK 606 Code S15

FlexFlame | HCF

Draka

1100°C / 2000°F / 200 kW/m²

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for hydrocarbon fire resistance is vital.

Standards applied

IEC 60092-376 (2003-05)	- Design
Draka Norsk Kabel	- HCF protection
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-21	- Fire Resistant
EN 1363-2 / ISO 834	- HC Fire resistance
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned stranded circular copper, IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together. Pairs/Triples are screened by copper backed polyester tape with tinned copper drain wire. Each pair/triple is wrapped with polyester tape to prevent electrical contact with adjacent pairs/triples. Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over bedding		PET tape
Armour/screen	**O**	Tinned copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
HCF protection	**-HCF**	Extruded heatblock compound
Tape		Lapped glassfibre tape
Overall sheath		Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
Marking text		Eg. "meter" "år" DRAKA NORSK KABEL BFOU-HCF(i) 250V S15 4 PAIR 1,5 mm2 HCF 1100/30 FLEX - FLAME IEC 60331-21 IEC 60332-3-22
Outer sheath colour		Grey, Blue or Black

Core identification instrumentation cables

Pair	Black - Light Blue
Triple	Black - Light Blue - Brown

Range and dimensions

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
	886723 Grey	1 pair 0,75	7.5 ± 0.5	0.2	10.5 ± 0.8	37.0 ± 1,5	1500
	887086 Blue	1 pair 0,75	7.5 ± 0.5	0.2	10.5 ± 0.8	37.0 ± 1,5	1500
	886722 Blue	1 triple 0,75	8,0 ± 0,5	0,2	11,0 ± 0,8	37,5 ± 1,5	1640
	886563 Grey	1 pair 1,5	9,0±0,5	0,2	12,0±0,8	38,5±1,5	1880
	886714 Blue	1 pair 1,5	9,0±0,5	0,2	12,0±0,8	38,5±1,5	1880
	886751 Black	1 pair 1,5	9,0±0,5	0,2	12,0±0,8	38,5±1,5	1880
	Grey	2 pair 1,5	13,0±0,8	0,3	17,0±0,8	44,0±2,0	2360
	886802 Grey	4 pair 1,5	15,5±0,8	0,3	19,5±0,8	47,0±2,0	2730
	Grey	5 pair 1,5	17.0±0,8	0,3	21,0±1,0	48,5±2,0	2950
	886803 Grey	8 pair 1,5	21.0±1,0	0,3	25,5±1,0	53.0±2,5	3570
	886804 Grey	10 pair 1,5	24,0±1.0	0,3	29,0±1,0	57,0±2,5	
	886805 Grey	12 pair 1,5	25,0±1,0	0,3	30.0±1,5	63,0±3.0	5060
	886710 Grey	1 triple 1,5	9,5 ± 0,5	0,2	12,5±0.8	39,5±1,5	1870
	Grey	12 triple 1.5	28.5 ± 1	0.3	33.5 ± 1.5	66.5 ± 3.0	5770
20118210	Grey	1 pair 2.5	9.5 ± 0.5	0.2	13.0 ± 0.8	39.5 ± 1.5	1900

Other no. of cores and cross sectional area are available on request.

Electrical values instrumentation cables

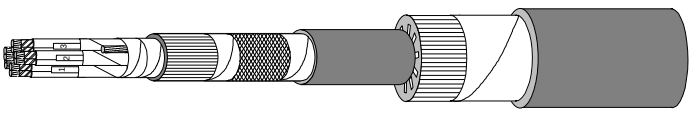
Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8

Installation recommendations

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius [mm] During Installation	Fixed Installed	Maximum pulling tension [N]
		20 x D	**12 x D**	
1 pair 0,75	37.0 ± 1,5	740	444	75
1 triple 0,75	37,5 ± 1,5	750	450	112,5
1 pair 1,5	38,5±1,5	770	462	150
2 pair 1,5	44.0±2,0	880	528	300
4 pair 1,5	47,0±2,0	940	564	600
5 pair 1,5	48,5±2,0	970	582	750
8 pair 1,5	53.0±2,5	1060	636	1200
10 pair 1,5	57,0±2,5	1140	684	1500
12 pair 1,5	63,0±3.0	1260	756	1800
1 triple 1,5	39.5 ± 1.5	790	474	225
12 triple 1.5	66.5 ± 3.0	1330	798	2700
1 pair 2.5	39.5 ± 1.5	790	474	250

Minimum installation temperature: - 10 °C

Hydro Carbon Fire resistant instrument cable BFOU-HCF(c) 150/250(300)V, S16



HydroCarbon Fire resistant, flame retardant halogen-free instrumentation cable.

BFOU-HCF(c) 150/250(300)V

MGT/EPR/EPR/TCWB/EVA/HCF/SHF1

NEK 606 Code S16

FlexFlame | HCF

Draka

1100°C / 2000°F / 200 kW/m²

Operating temperature : 90°C
Operating Voltage : 150/250(300)V

Standards applied

IEC 60092-376 (2003-05)	- Design
Draka Norsk Kabel	- HCF protection
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-21	- Fire Resistant
EN 1363-2 / ISO 834	- HC Fire resistance
IEC 60754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for instrumentation, communication, control and alarm systems in both EX- and safe areas, emergency and critical systems where requirement for hydrocarbon fire resistance is vital.

Construction

	Code Letter	
Conductor		Tinned stranded circular copper, IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Pair / Triple / Quad twisting		Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire.Pairs/triples are identified by numbered tape or by numbers printed directly on the insulated conductors.
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over bedding		PET tape
Armour/screen	**O**	Tinned copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
HCF protection	**-HCF**	Extruded heatblock compound
Tape		Lapped glassfibre tape
Overall sheath		Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
Marking text		Eg. "meter" "år" DRAKA NORSK KABEL BFOU-HCF(c) 250V S16 4 PAIR 1,5 mm2 HCF 1100/30 FLEX - FLAME IEC 60331-21 IEC 60332-3-22
Outer sheath colour		Grey, Blue or Black

Core identification instrumentation cables

Pair	Black - Light Blue
Triple	Black - Light Blue - Brown

Range and dimensions

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
	886681 Black	8 pair 0,75	16.5±0.8	0.3	20.5± 1	40.5 ± 3	2790
	886761 Blue	2 pair 1,5	13,0±0,8	0,3	16,5±0,8	44,0±2,0	2310
	886562 Grey	4 pair 1,5	15,0±0,8	0,3	19,0±0,8	46,0±2,0	2600
	886752 Black	8 pair 1,5	20,0±1,0	0,3	24,5±1,0	52,5±2,5	3410
	886709 Grey	12 pair 1,5	24,0±1,0	0,3	28,5±1,0	56,5±2,5	4030
	886762 Black	24 pair 1,5	33,5±1,5	0,4	39,5±1,5	72,5±3,5	6930

Other no. of cores and cross sectional area are available on request.

Electrical values instrumentation cables

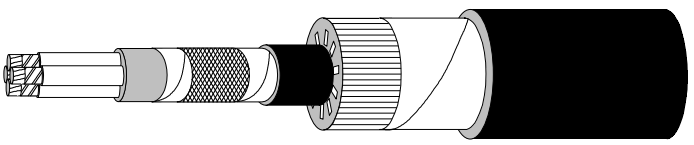
TYPE [mm2]	Capacitance approx. [nF/km]	Inductance approx. [mH/km]	Resist. 20°C [Max.ohm/km]	L/R ratio, (microH/Ohm)
Unshielded pair 0.75mm²	100	0.67	26.3	12.7
Unshielded pair 1,5	110	0,63	12,9	24,4

Installation recommendations

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius During Installation	Minimum bending radius Fixed Installed	Maximum pulling tension [N]
		[mm]		
		20 x D	**12 x D**	
8 pair 0.75	40.5±2.0	810	486	600
2 pair 1,5	44,5±2,0	890	534	300
4 pair 1,5	46,0±2,0	920	552	600
8 pair 1,5	52,5±2,5	1050	630	1200
12 pair 1,5	56,0±2,5	1120	672	1800
24 pair 1,5	72,5±3,5	1450	870	3600

Minimum installation temperature: - 10°C

Hydro Carbon Fire resistant power cable BFOU-HCF 0,6/1(1,2)kV, P34



HydroCarbon Fire resistant, flame retardant halogen-free power cable.

BFOU-HCF 0,6/1(1,2)kV

MGT/EPR/EPR/TCWB/EVA/HCF/SHF1

NEK 606 Code P34

FlexFlame | HCF

Draka

1100°C / 2000°F / 200 kW/m²

Operating temperature : 90°C
Operating Voltage : 0,6/1kV

Standards applied

IEC 60092-353	- Design
Draka Norsk Kabel	- HCF protection
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-21	- Fire Resistant
EN 1363-2 / ISO 834	- HC Fire resistance
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Application

Fixed installation for power, control and lightning in both EX- and safe areas, emergency and critical systems where requirement for fire resistance is vital.

Construction

	Code Letter	
Conductor		Tinned stranded circular copper, IEC 60228 class 2
Insulation	**B**	Mica-tape + EP-rubber, IEC 60092-360 (EPR)
Lay up / Shielding		Cores laid up in concentric layers
Inner covering	**F**	Flame retardant and halogen-free thermoplastic compound
Tape over bedding		PET tape
Armour/screen	**O**	Tinned copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
HCF protection	**-HCF**	Extruded heatblock compound
Tape		Lapped glassfibre tape
Overall sheath		Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
Marking text		Eg. "meter" "år" DRAKA NORSK KABEL BFOU-HCF 0,6/1kV P34 12 x 2,5/10 mm2 HCF 1100/30 FLEX - FLAME IEC 60331-21 IEC 60332-3-22
Outer sheath colour		Black

Core identification power cables

Single core	Black
Two cores	Blue – Brown
Two cores + earth	Blue - Brown - Yellow/green
Three cores	Brown - Black – Grey
Three cores + earth	Brown - Black - Grey - Yellow/green
Four cores	Blue - Brown - Black – Grey
Four cores + earth	Blue - Brown - Black - Grey - Yellow/green
Five cores	Blue - Brown - Black - Grey - Black
Above five cores	Black numbers on white base

Range and dimensions

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
		1x 50/6	15,0±0,8	0,20	18,5±0,8	45,5±2,5	2900
		1x 70/6	16,5±0,8	0,30	20,5±1,0	47,5±2,5	3300
		1x 95/10	18,5±0,8	0,30	23,0±1,0	50,5±3,0	3800
		1x 120/10	20,5±1,0	0,30	25,0±1,0	52,5±3,0	4260
		1x 150/10	23,0±1,0	0,30	27,0±1,0	54,5±3,0	4750
		1x 185/10	25,0±1,0	0,30	29,5±1,0	57,5±3,0	5380
	886549	1x 240/16	28,0±1,0	0,30	32,5±1,5	66,0±3,5	7050
		1x 300/16	30,5±1,5	0,30	35,5±1,5	68,0±3,5	8000
	886375	2x 1,5/4	10,0±0,8	0,20	13,0±0,8	40,5±2,5	1890
	886700	2x 2,5/6	11,0±0,8	0,30	14,5±0,8	42,0±2,5	2080
		3x 1,5/4	10,5±0,8	0,20	14,0±0,8	42.0±2,5	2140
	886338	3x 2,5/6	11,5±0,8	0,30	15,0±0,8	42,5±2,5	2200
	885499	3x 4/6	13,0±0,8	0,30	16,5±0,8	43,0±2,5	2400
	885882	3x 6/6	14,0±0,8	0,30	18,0±0,8	45,0±2,5	2600
	885138	3x 16/16	18,5±0,8	0,40	23,0±1,0	50,0±3,0	3500
		3x 35/16	25,0±1,0	0,30	29,5±1,0	57,5±3,0	4840
		3x 70/35	33,0±1,5	0,50	39,0±1,5	72,0±4,0	8150
		3x 120/60	41,0±2,0	0,60	48,0±2,0	81,5±4,5	11300
		3x 150/70	46,0±2,0	0,40 *	54,5±2,5	88,5±4,5	13300
	886799	3x 4 + E	14.0 ± 0.8	0.30	18.0 ± 0.8	45.5 ± 2.5	2580
	886174	3x 6 + E	15.5 ± 0.8	0.30	19.5 ± 0.8	47.5 ± 2.5	2870
	886680	3x 10 + E	18.0 ± 0.8	0.30	22.0 ± 1.0	50.0 ± 3.0	3180
	886175	3x 16 + E	20.5 ± 1.0	0.30	25.0 ± 1.0	53,5±3,0	3750
	886547	4x 2,5/6	12.5 ± 0.8	0.30	16.5 ± 0.8	44,0±2,5	2300
		4x 4/6	14.0 ± 0.8	0.30	18.0 ± 0.8	45,5 ± 2,5	2650
	886607	4x 6/6	15.5 ± 0.8	0.30	19.5 ± 0.8	47,5±2,5	2870
		4x 10/10	18.0 ± 0.8	0.30	22.0 ± 1.0	50.0 ± 3.0	3180

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
	886546	4x 16/16	20.5 ± 1.0	0.40	25.5 ± 1.0	53,0 ± 3,0	3830
	886644	4x 25/16	25.0 ± 1.0	0.30	29.5 ± 1.0	58.5 ± 3.0	4730
	886676	4x 10 + E	20.0 ± 1.0	0.3	24.0 ± 1.0	52.5 ± 3.0	3540
	886608	7x 1,5/6	14,0±0,8	0,30	17,5±0,8	44,5±2,5	2550
	885139	12x 1,5/10	18,5±0,8	0,30	22,5±1,0	50,0±3,0	3140
	885124	7x 2,5/6	15,0±0,8	0,30	19,0±0,8	46,0±2,5	2760
	886036	12x 2,5/10	20,5±1,0	0,30	24,5±1,0	52,0±3,0	3500
	886548	27x 1,5/16	26.5±1.0	0.30	31.0±1.5	64,5±3,5	5070
	886645	37x 1,5/16	30.0 ±1.5	0.30	35.5 ± 1.5	69.0 ± 3.5	5920

* This cable has a double braid (two layers of wires)
Other no. of cores and cross sectional area are available on request.

ELECTRICAL DATA

No. of cores x cross section	Conductor resistance DC [Ω/km] at 20 °C	at 90 °C	Reactance [Ω/km] at 50 / 60 Hz	Impedance [Ω/km] at 90 °C At 50 / 60 Hz	Continous current rating at 45 °C	Short circuit [Ampere] 1 sec	0,3 sec
1 X 50/6	0,391	0,4986	0,161/0,193	0,524/0,535	196	7000	12780
1 X 70/6	0,270	0,344	0,152/0,182	0,376/0,390	242	9800	17892
1 X 95/10	0,195	0,2486	0,146/0,176	0,289/0,305	293	13300	24282
1 X 120/10	0,154	0,1964	0,141/0,170	0,242/0,260	339	16800	30672
1 X 150/10	0,126	0,161	0,137/0,164	0,211/0,223	389	21000	38340
1 X 185/10	0,100	0,128	0,133/0,160	0,185/0,205	444	25900	47286
1 X 240/16	0,0762	0,0972	0,133/0,159	0,165/0,187	522	3360	61344
1 X 300/16	0,0607	0,0774	0,128/0,154	0,150/0,173	601	42000	76681
2x 1,5/4	12,2	15,56	0,115/0,138	15,556/15,567	20	210	383
2x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	26	350	639
3x 1,5/4	12,2	15,56	0,115/0,138	15,556/15,567	16	210	383
3x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	21	350	639
3x 4/6	4,70	5,99	0,100/0,120	5,993/5,994	28	560	1022
3x 6/6	3,11	3,97	0,094/0,112	3,967/3,9672	36	840	1534
3x 16/16	1,16	1,46	0082/0,099	1,481/1,482	67	2240	4089
3x 35/16	0,529	0,675	0,078/0,094	0,679/0,681	110	4900	8946
3x 70/35	0,270	0,344	0,077/0,092	0,352/0,356	169	9800	17892
3x 120/60	0,154	0,196	0,073/0,088	0,209/0,215	237	16800	30672
3x 150/70	0,126	0,161	0,073/0,088	0,177/0,183	272	21000	38340
3x 4 + E	4,70	5,99	0,100/0,120	5,993/5,994	28	560	1022
3x 6 + E	3,11	3,97	0,094/0,112	3,967/3,9672	36	840	1534
3x 10 + E	1.84	2.35	0.088/0.105	2.351/2.352	50	1400	2556
3x 16 + E	1,16	1,46	0082/0,099	1,481/1,482	67	2240	4089

No. of cores x cross section	Conductor resistance DC [Ω/km] at 20 °C	at 90 °C	Reactance [Ω/km] at 50 / 60 Hz	Impedance [Ω/km] at 90 °C At 50 / 60 Hz	Continous current rating at 45 °C	Short circuit [Ampere] 1 sec	0,3 sec
4x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	21	350	639
4x 4/6	4,70	5,99	0.100/0.120	5,991/5,9912	28	560	1022
4x 6/6	3,11	3,97	0,094/0,112	3,967/3,9672	36	840	1534
4x 10/10	1.84	2.35	0.088/0.105	2.351/2.352	50	1400	2556
4x 16/16	1,16	1,46	0082/0,099	1,481/1,482	67	2240	4089
4x 25/16	0.734	0.936	0.081/	0.098	89	3500	6390
4x 10 + E	1.84	2.35	0.088/0.105	2.351/2.352	50	1400	2556
7x 1,5/6	12,2	15,56	0,115/0,138	15,556/15,567	12	210	383
12x 1,5/10	12,2	15,56	0,115/0,138	15,556/15,567	10	210	383
7x 2,5/6	7,56	9,64	0,107/0,129	9,640/9,641	15,5	350	639
12x 2,5/10	7,56	9,64	0,107/0,129	9,640/9,641	13	350	639
27x 1,5/16	12,2	15,56	0,115/0,138	15,556/15,567	7,5	210	383
37x 1,5/16	12,2	15,56	0,115/0,138	15,556/15,567	7	210	383

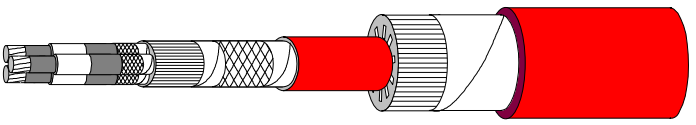
INSTALLATION DATA

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius During Installation [mm]	Fixed Installed [mm]	Maximum pulling tension [N]
		20 x D	**12 x D**	
1x 50/6	45,5±2,5	910	546	2500
1x 70/6	47,5±2,5	950	570	3500
1x 95/10	50,5±3,0	1010	606	4750
1x 120/10	52,5±3,0	1050	630	6000
1x 150/10	54,5±3,0	1090	654	7500
1x 185/10	57,5±3,0	1150	690	9250
1x 240/16	66,0±3,5	1320	792	12000
1x 300/16	68,0±3,5	1360	816	15000
2x 1,5/4	40,5±2,5	810	486	150
2x 2,5/6	42,0±2,5	840	504	250
3x 1,5/4	42,0±2,5	840	504	225
3x 2,5/6	42,5±2,5	850	510	375
3x 4/6	43,0±2,5	860	516	600
3x 6/6	45,0±2,5	900	540	900
3x 16/16	50,0±3,0	1000	600	2400
3x 35/16	57,5±3,0	1150	690	5250
3x 70/35	72,0±4,0	1440	864	10500
3x 120/60	81,5±4,5	1630	978	18000
3x 150/70	88,5±4,5	1770	1062	20000
3x 4 + E	45.5 ± 2.5	910	546	800
3x 6 + E	47.5 ± 2.5	950	570	1200
3x 10 + E	50.0 ± 3.0	1000	600	2000
3x 16 + E	53,5±3,0	1070	642	3200

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius [mm] During Installation	Fixed Installed	Maximum pulling tension [N]
4x 2,5/6	44,0±2,5	880	528	500
4x 4/6	45,5 ± 2,5	910	546	800
4x 6/6	47,5±2,5	950	570	1200
4x 10/10	50.0 ± 3.0	1000	600	2000
4x 16/16	53,0 ± 3,0	1060	636	3200
4x 25/16	58.5 ± 3.0	1170	702	5000
4x 10 + E	52.5 ± 3.0	1050	630	2500
7x 1,5/6	44,5±2,5	890	536	525
12 x 1,5/10	50,0±3,0	1000	600	900
7x 2,5/6	46,0±2,5	920	552	875
12x 2,5/10	52,0±3,0	1040	624	1500
27x 1,5/16	64,5±3,5	1290	774	2025
37x 1.5/16	69.0 ± 3.5	1380	828	2775

Minimum installation temperature: - 10 °C

Hydro Carbon Fire resistant MV power cable RFOU-HCF 6/10(12)kV, P30



HydroCarbon Fire resistant, flame retardant halogen-free medium voltage power cable.

RFOU-HCF 6/10(12)kV

EPR/EPR/TCWB/EVA/HCF/SHF1

NEK 606 Code P30

FlexFlame | HCF

Draka

1100°C / 2000°F / 200 kW/m²

Operating temperature : 90°C

Operating Voltage : 6/10(12)kV

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, emergency and critical systems where requirement for fire resistance is vital.

Standards applied

IEC 60092-354	- Design
Draka Norsk Kabel	- HCF protection
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-21 and -31	- Fire Resistant
EN 1363-2 / ISO 834	- HC Fire resistance
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over bedding		PET tape
Armour/screen	**O**	Tinned copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
HCF protection	**-HCF**	Extruded heatblock compound
Tape		Lapped glassfibre tape
Overall sheath		Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA NORSK KABEL RFOU-HCF 6/10(12)kV P30 1x 70/16 mm2 HCF 1100/60 FLEX - FLAME
Outer sheath colour		Red

Range and dimensions

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
	886498	1x 70/16	23,5±1,5	0,3	30,0±2,0	62,0±3,0	5220
	886795	1x 95/16	25,5±1,5	0,3	32,0±2,0	64,5±3,0	5900
	887247	1x 120/20	27,5±1,5	0,3	34,0±2,0	66,5±3,0	6340
		1x 150/19	28,5±1,5	0,3	35,0±2,0	67,5±3,0	6670
	887182	1x 185/18	30,5±1,5	0,3	36,5±2,0	69,0±3,0	7320
		1x 240/21	33,0±1,5	0,3	39,0±2,0	72,0±3,5	8250
		1x 300/29	35,0±1,5	0,3	41,5±2,5	74,5±3,5	9280
		3x 50/31	47,0±2,0	0,4	55,0±3,0	89,0±4,5	10970

Other no. of cores and cross sectional area are available on request.

Type (mm^2)	Diameter of copper conductor approx. mmØ	Insulation thickness, nominal mm	Semi-conducting layer thickness approx. mm	Diameter over insulated, screened conductor, approx. mm
1x 70/16	10,3	3,4	0,8	21,5
1x 95/16	12,1	3,4	0,8	23,0
1x 120/20	13,6	3,4	0,8	24,5
1x 150/19	15,1	3,4	0,8	26,0
1x 185/18	16,8	3,4	0,8	28,0
1x 240/21	19,1	3,4	0,8	30,0
1x 300/29	21.5	3,4	0,8	32,5
3x 50/31	8,8	3,4	0,8	20,0

ELECTRICAL DATA

No. of cores x cross section	Conductor resistance DC [Ω/km]		Reactance [Ω/km]	Impedance [Ω/km] at 90 °C	Continous current rating	Short circuit (conductor) [Ampere]	
[mm2]	at 20 °C	at 90 °C	at 50 Hz	at 50 Hz	at 45 °C	1 sec	0,3 sec
1x 70/16	0,270	0,344	0,172	0,385	242	9800	17892
1x 95/16	0,195	0,249	0,164	0,298	293	13300	24282
1x 120/20	0,154	0,196	0,159	0,253	339	16800	30672
1x 150/19	0,126	0,161	0,153	0,222	389	21000	38340
1x 185/18	0,100	0,128	0,148	0,195	444	25900	47286
1x 240/21	0,0762	0,0972	0,143	0,173	522	33600	61344
1x 300/29	0,0607	0,0774	0,137	0,158	601	42000	76681
3x 50/31	0,391	0,499	0,108	0,261	137	7000	12780

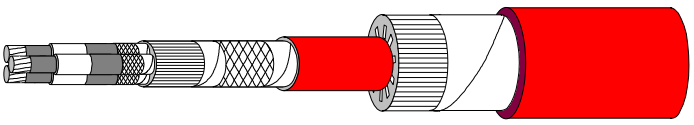
INSTALLATION DATA

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius [mm] During Installation	Fixed Installed	Maximum pulling tension [N]
		20 x D	**12 x D**	
1 x70/16	62,0±3,0	1240	744	3500
1x 95/16	64,5±3,0	1290	774	4750
1x 120/20	66,5±3,0	1330	798	6000
1x 150/19	67,5±3,0	1350	810	7500
1x 185/18	69,0±3,0	1380	828	9250
1x 240/21	72,0±3,5	1440	864	12000
1x 300/29	74,5±3,5	1490	894	15000
3x 50/31	89,0±4,5	1780	1068	7500

Minimum installation temperature: - 10 °C

The RFOU-HCF MV cables are available on request in all voltage levels from 3,6/6(7,2)kV up to and including 26/45(52)kV. Please be aware that we have a limitation on the cable diameter which allows us to manufacture mainly single core cables on these voltage levels.

Hydro Carbon Fire resistant MV power cable RFOU-HCF 8,7/15(17,5)kV, P31



HydroCarbon Fire resistant, flame retardant halogen-free medium voltage power cable.

RFOU-HCF 8,7/15(17,5)kV

EPR/EPR/TCWB/EVA/HCF/SHF1

NEK 606 Code P31

FlexFlame | HCF

Draka

1100°C / 2000°F / 200 kW/m²

Operating temperature : 90°C

Operating Voltage : 8,7/15(17,5)kV

Application

Fixed installation for medium voltage (MV) power in both EX- and safe areas, emergency and critical systems where requirement for fire resistance is vital.

Standards applied

IEC 60092-354	- Design
Draka Norsk Kabel	- HCF protection
IEC 60228 class 2	- Conductor
IEC 60092-360	- Insulation
IEC 60092-360	- Sheath
IEC 60332-1-2	- Flame Retardant
IEC 60332-3-22	- Flame Retardant
IEC 60331-21	- Fire Resistant
EN 1363-2 / ISO 834	- HC Fire resistance
IEC 600754-1,2	- Halogen Free
IEC 61034-1,2	- Low Smoke

Construction

	Code Letter	
Conductor		Tinned stranded and compressed copper (STCC), IEC 60228 class 2
Conductor screen semiconductive		Semiconductive layer (EP-rubber)
Insulation	**R**	EP-rubber, IEC 60092-360 (EPR)
Insulation screen semicoductive		Semiconductive layer (EP-rubber)
Lay up / Shielding		Cores are laid up together. Cores are identified by Brown, Black or Grey threads under and over the metallic screen on each conductor.
Inner covering	**F**	Flame retardant and halogen-free thermoset compound
Tape over bedding		PET tape
Armour/screen	**O**	Tinned copper wire braid
Tape over armour/screen		PET tape
Outer sheath	**U**	Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-360)
HCF protection	**-HCF**	Extruded heatblock compound
Tape		Lapped glassfibre tape
Overall sheath		Flame retardant, halogen-free thermoplastic compound, SHF1 (IEC 60092-360)
Marking text		Eg. "meter" "year" DRAKA NORSK KABEL RFOU-HCF 8,7/15(17,5)kV P31 3x 35/35 mm2 HCF 1100/60 FLEX - FLAME
Outer sheath colour		Red

Range and dimensions

New Part number	Old Part number	Type [mm2]	Diameter over bedding [mm]	Thickness of armour wires [mmØ]	Diameter sheath [mm]	Diameter overall HCF-protection (mm)	Weight of cable approx. [kg/km]
		1x 70/20	26.0 ± 1.5	0.4	32.0 ± 1.5	64.5 ± 3.0	5750
		1x 120/20	29.5 ± 1.5	0.4	36.0 ± 2.0	69.0 ± 3.0	6850
		3x 35/35	49,0 ± 2,0	0,5	57,5 ± 3,0	92,0 ± 4,5	11600

Type (mm^2)	Diameter of copper conductor approx. mmØ	Insulation thickness, nominal mm	Semi-conducting layer thickness approx. mm	Diameter over insulated, screened conductor, approx. mm
1x 70/20	10.3	4.5	0.8	21.8
1x 120/20	13.6	4.5	0.8	26.0
3x 35/35	7.4	4.5	0.8	19.6

ELECTRICAL DATA

No. of cores x cross section [mm2]	Conductor resistance DC [Ω/km]		Reactance [Ω/km]	Impedance [Ω/km] at 90 °C	Continous current rating	Short circuit (conductor) [Ampere]	
	at 20 °C	at 90 °C	at 50 Hz	at 50 Hz	at 45 °C	1 sec	0,3 sec
1x 70/20	0.270	0.339	0.130	0.156	225	9800	17892
1x 120/20	0.154	0.193	0.120	0.144	320	16800	30672
3x 35/35	0.529	0.675	0.122	0.685	100	4900	8946

INSTALLATION DATA

TYPE [mm^2]	Overall Diameter [mmØ]	Minimum bending radius [mm]		Maximum pulling tension [N]
		During Installation	Fixed Installed	
		20 x D	**12 x D**	
1x 70/20	64.5 ± 3.0	1290	774	3500
1x 120/20	69.0 ± 3.0	1380	828	6000
3x 35/35	92,0±4,5	1840	1104	5250

Minimum installation temperature: - 10°C

The RFOU-HCF MV cables are available on request in all voltage levels from 3,6/6(7,2)kV up to and including 26/45(52)kV. Please be aware that we have a limitation on the cable diameter which allows us to manufacture mainly single core cables on these voltage levels.

Approvals

Our cables carry these major approvals:

	DET NORSKE VERITAS	AMERICAN BUREAU OF SHIPPING	LLOYDS REGISTER OF SHIPPING	BUREAU VERITAS	RUSSIAN MARITIME REGISTER OF SHIPPING
RFOU (c) 250V RFOU (i) 250V	●	●	●	●	●
RFOU (c) 250V Arctic Grade RFOU (i) 250V Arctic Grade	●				
RU (c) 250V RU (i) 250V	●				
RFOU 0,6/1 kV	●	●	●	●	●
RFOU 0,6/1 kV Arctic Grade	●				
RFOU 3,6/6(7,2)kV	●				
RFOU 6/10(12) kV	●				
RFOU 8,7/15(17,5) kV	●				
RFOU 12/20(24) kV	●				
RU 0,6/1 kV	●	●	●		
UX 1000V	●				
BFOU (c) 250V BFOU (i) 250V	●	●	●	●	●
BFOU (c) 250V Arctic Grade BFOU (i) 250V Arctic Grade	●				
BFOU-XFR (c) 250V BFOU-XFR (i) 250V BFCU-XFR (c) 250V BFCU-XFR (i) 250V	●				
BU (c) 250V BU (i) 250V	●	●	●		
BFOU 0,6/1 kV	●	●	●	●	●
BFOU 0,6/1 kV Arctic Grade	●				
BU 0,6/1kV	●	●	●		
BFCU (c) 250V BFCU (i) 250V	●	●			
BFCU 0,6/1kV	●	●			
RFCU (c) 250V RFCU (i) 250V	●	●			
RFCU 0,6/1kV	●	●			
QFCI	●				
AICI	●				
ToughCat 5e S/FTP	●	●			
ToughCat 7 S/FTP	●	●			
ToughCat 7S S/FTP	●	●			

All cables are designed in accordance with IEC 60092-350, IEC 60092-353, IEC 60092-354 and IEC 60092-376 except those marked with *) . They are designed in accordance with BS 6883

Standards and tests

Standards	Designation Title
IEC 60092-350	Electrical installations in ships - Part 350: General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications
IEC 60092-352	Electrical installations in ships - Part 352: Choice and installation of electrical cables
IEC 60092-353	Electrical installations in ships – Part 353: Single and multicore non-radial field power cables with extruded solid insulation for rated voltage 1 kV and 3 kV.
IEC 60092-354	Electrical installations in ships – Part 354: Single -and three-core power cables with extruded solid insulation for rated voltages 6 kV (U_m = 7,2kV) up to 30 kV (U_m = 36 kV)
IEC 60092-360	Electrical installations in ships – Part 359: Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables
IEC 60092-376	Electrical installations in ships – Part 376: Cables for control and instrumentation circuits 150/250 V (300 V)
IEC 60228	Conductors of insulated cables.
IEC 60331-1	Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter exceeding 20 mm
IEC 60331-2	Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter not exceeding 20 mm
IEC 60331-3	Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0,6/1,0 kV tested in a metal enclosure
IEC 60331-11	Test for electric cables under fire conditions – Circuit integrity – Part 11 Apparatus – Fire alone at a flame temperature of at least 750°C
IEC 60331-21	Test for electric cables under fire conditions – Circuit integrity – Part 21 Procedures and requirements – Cables of rated voltage up to and including 0,6/1kV
IEC 60331-25	Test for electric cables under fire conditions – Circuit integrity – Part 25 Procedures and requirements – Optical fibre cables
IEC 60332-1-1	Test on electric and optical fibre cables under fire conditions. Part 1-1 Test for vertical flame propagation for a single insulated wire or cable - Apparatus
IEC 60332-1-2	Test on electric and optical fibre cables under fire conditions. Part 1-2 Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame
IEC 60332-1-3	Test on electric and optical fibre cables under fire conditions. Part 1-3 Test for vertical flame propagation for a single insulated wire or cable – Procedure for determination of flaming droplets/particles
IEC 60332-2-1	Test on electric and optical fibre cables under fire conditions. Part 2-1 Test for vertical flame propagation for a single small insulated wire or cable - Apparatus
IEC 60332-2-2	Test on electric and optical fibre cables under fire conditions. Part 2-2 Test for vertical flame propagation for a single small insulated wire or cable – Procedure

Standards	Designation Title
	for diffusion flame
IEC 60332-3-10	Tests on electric and optical fibre cables under fire conditions. Part 3-10: test for vertical flame spread of vertically-mounted bunched wires or cables – Apparatus
IEC 60332-3-21	Tests on electric cables under fire conditions. Part 3-21 Test for vertical flame spread of vertically-mounted bunched wires or cables – Category A F/R
IEC 60332-3-22	Tests on electric and optical fibre cables under fire conditions. Part 3-22: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category A
IEC 60332-3-23	Tests on electric and optical fibre cables under fire conditions. Part 3-23: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category B
IEC 60332-3-24	Tests on electric and optical fibre cables under fire conditions. Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category C
IEC 60332-3-25	Tests on electric and optical fibre cables under fire conditions. Part 3-25: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category D
IEC 60445	Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals, conductor terminations and conductors
IEC 60754-1	Test on gases evolved during combustion of electrical cables. Part 1: Determination of the amount of halogen acid gas.
IEC 60754-2	Test on gases evolved during combustion of electrical cables. Part 2: Determination of degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity.
IEC 60811-100	Electric and optical fibre cables – Test methods for non-metallic materials – Part 100: General
IEC 61034-1	Measurement of smoke density of cables burning under defined conditions. Part 1: Test apparatus.
IEC 61034-2	Measurement of smoke density of cables burning under defined conditions. Part 2: Test procedure and requirements.
IEC 61892-4	Mobile and fixed offshore units - Electrical installations – Part 4: Cables

Definition of terms

Flame retardance

The cables shall withstand the test specified in IEC 60332-3-22/-23/-24.
Single, earth and bonding wires shall withstand the test specified in IEC 60332-1-2.

Fire resistance

Fire resistant cables shall be tested in accordance with IEC 60331-1, 60331-2, 60331-21 and IEC 60331-25 (optical fibre cables).

Content of halogen

To demonstrate that the cables are halogen-free they shall be tested to IEC 60754-1;
- maximum content of halogen = 5 mg/g.

Alternatively the cables shall be tested to IEC 60754-2;
- pH value should not be less than 4,3
- The conductivity value should not exceed 10 µS/mm.

Smoke Emission

During a cable fire the smoke emission is recommended to have a minimum value of 60% when tested in accordance with IEC 61034-2

Oil resistance

For cables with thermoplastic sheath material there are no requirements for oil resistance properties.

All thermoset sheathed cables shall be suitable for an oil production installation.
The oil resistance properties shall be demonstrated by a test according to IEC 60092-360 SHF-2 with the cable immersed in IRM oil no. 902 at 100°C for 24 hours.

Mud resistance

In accordance with NEK TS 606 the mud resistant cables shall have a sheath that complies with the requirements in IEC 60092-360 for SHF2 and the below specified.

Mud resistant cables shall be designed with sheathing compounds suitable for installation and operation in contact with MUD unless otherwise specified.

The MUD resistance test requirements for sheathing compounds are as follows:

Test fluid	Temperature	Duration	Tensile strength variation	Elongation at break variation	Volume swell variation	Weight increase variation
Mineral oil type IRM 903	100°C	7 d	30%	30%	30%	30%
Calcium Bromide Brine (Waterbased)	70°C	56 d	25%	25%	20%	15%
EDC-95-11 (Oil based)	70°C	56 d	25%	25%	20%	15%

Fire, flame, smoke and corrosion test methods

Cables' integrity during a fire

Fire resistance
During a fire it is vital that emergency circuits should continue to function.
This could be communication circuits, emergency lights, alarms and fire pumps, etc.

On oil rigs and platforms and other confined areas this could be a matter of life and death.

Cables that will function in a fire ensuring circuit integrity

BFOU / BFCU / BU cables

These cable types have Mica tape applied around the conductors which are then insulated with heat-resistant EPDM and have and outer sheathing of a halogen-free thermoset material. BFOU cables have metal braid armour between the insulation and outer sheathing.

Test method
IEC 60331 -21 and -25, 750°C fire for 90 minutes.

As an option we offer cables to 1000°C for 3 hours with an upgraded IEC 60331-21 and -25 test.

IEC 60331-1 or 60331-2 fire test at 830°C for 90 minutes with hammer shock

Our range of BFOU-XFR with eXtended Fire Resistant properties can also withstand the
IEC 60331-1 or 60331-2 fire test at 830°C for 90 minutes with hammer shock (every 5 minutes) followed by 90 minutes fire with waterspray in accordance with EN 50200 ANNEX E + hammershock every 5 minutes

Flame propagation

Flame retardant cables must be self-extinguishing when the source of flames dies out.

Flame retardant cables with built-in self-extinguishing properties

These cables have sheathing and bedding with hydrated flame retardants that provide resistance to ignition and flame spread.

Test methods

IEC 60332 – 1
IEC 60332 – 3 – 22/23/24 (category A, B and C, respectively)

IEC 60332 - 3 (Category)	Amount of combustible material in litres per metre of cable ladder	Burning time Minutes
- 22 (Cat. A)	7	40
- 23 (Cat. B)	3,5	40
- 24 (Cat. C)	1,5	20

Smoke risk to personnel

Smoke evolution is of major significance in situations where escape routes are limited in the event of fire.

Cables having exceptionally low smoke emission

All offshore topside cables and fire resistant cables listed in this catalogue, have sheathing and insulation based on halogen-free materials.
To minimize the risk of smoke and toxic gases, each component from conductor tapes to outer sheath has been taken into consideration.

Test method

3 m Cube Test for the measurement of smoke density.
IEC 61034 - 2

Damage to expensive equipment

Corrosion

Halogen-free cables will not cause corrosion to metals.
When halogen - containing cables burn, the gases generated in combustion of the sheathing and insulation may cause corrosion.
The secondary effects after a fire are often many times larger than the damages caused by the fire itself.

Test method

IEC 60754 - 1
IEC 60754 - 2

Installation recommendations

The following installation recommendations are in accordance with IEC regulations and practice.

Different regulations may apply in other countries.

Minimum cable bending radius.

Cables for rated voltages up to 0,6/1 kV, in accordance with IEC 60092-352.

Outer diameter of cable	Minimum bending radius when fixed installed		Minimum bending radius during installation
	Unbraided cables	Braided cables	
D < 25mm	4D	6D	8D
D > 25mm	6D	6D	8D

Medium voltage cables up to and including 12/20(24) kV:

Minimum bending radius during installation:	15D
Minimum bending radius when fixed installed:	9D

Installation temperature.

Minimum recommended installation temperature for cables of rated voltage up to 30 kV, such as:

RFOU – BFOU – RU – BU	-20°C
RFOU – BFOU Arctic Grade	-40°C

Pulling tension.

The cable pulling tension during installation can be estimated by means of the following formula:

p = 50 N × total cross section of conductors in the armoured cable

or

p = 25 N × total cross section of conductors in the unarmoured cable

Additional tension will be supplied from the braid and the insulation and sheathing compound.

Electrical data

Conductor Resistance

Resistance formula:

$$R = p \frac{L}{A}$$

R = resistance in ohm per phase

p = specific resistance $\frac{\text{Ohm} \bullet \text{mm}^2}{\text{m}}$

A = conductor area mm², L = conductor length, m

Resistance as a function of temperature:

$R = R_0 (1 + \alpha (t\text{-}20\ °C))$

R = Resistance at t=20°C, t = conductor temperature °C, α = 0,00393 for copper

Conductor resistance tinned annealed copper 250V.

In accordance with IEC 60092-376.

Nominal conductor area	No. of wires and diameter of wires	Approx. diam.	Max. resistance pr km	
			20°C	90°C
mm²	mm	mmØ	ohm	ohm
0,5	7x 0,30	0,9	41,6	53,0
0,75	7x 0,36	1,1	26,3	33,5
1	7x 0,43	1,3	19,3	24,6
1,5	7x 0,525	1,6	12,9	16,4
2,5	7x 0,67	2,0	8,02	10,2

Conductor resistance tinned annealed copper 0,6/1kV, 1,8/3(3,6)kV.

In accordance with IEC 60228, class 2. Tinned stranded annealed copper conductors for single core and multi-core cables 0,6/1kV and 1,8/3kV

Nominal conductor area	No. of wires and diameter of wires	Approx. diam.	Max. resistance pr km	
			20°C	90°C
mm²	mm	mmØ	ohm	ohm
1	7x 0,43	1,3	18,2	23,2
1,5	7x 0,525	1,6	12,2	15,6
2,5	7x 0,67	2,0	7,56	9,64
4	7x 0,85	2,55	4,70	5,99
6	7x 1,05	3,15	3,11	3,97
10	7x 1,35	4,05	1,84	2,35
16	7x 1,71	5,15	1,16	1,48
25	7 x 2,15	6,45	0,734	0,936
35	19x 1,53	7,65	0,529	0,675
50	19x 1,80	9,1	0,391	0,499
70	19x 2,17	10,85	0,270	0,344
95	37x 1,80	12,6	0,195	0,249

Nominal conductor area	No. of wires and diameter of wires	Approx. diam.	Max. resistance pr km	
			20°C	90°C
mm²	mm	mmØ	ohm	ohm
120	37x 2,03	14,2	0,154	0,196
150	37x 2,27	15,9	0,126	0,161
185	37x 2,52	17,7	0,100	0,128
240	61x 2,24	20,15	0,0762	0,0972
300	61x 2,52	22,6	0,0607	0,0774
400	91x 2,36	26,0	0,0475	0,0606
500	91x 2,64	29,0	0,0369	0,0463
630	127x 2,52	32,8	0,0286	0,0359

Conductor resistance, tinned annealed copper conductor 3,6/6(7,2)kV, 6/10(12)kV, 8,7/15(17,5)kV, 12/20(24)kV and 18/30(36)kV.

In accordance with IEC 60228, class 2. Compressed tinned stranded annealed copper conductors for single core and multicore cables 3,6/6kV, 6/10kV, 8,7/15kV, 12/20(24)kV and 18/30(36)kV.

Nominal conductor area	No. of wires and diameter of wires *)	Approx. diam.	Max. resistance pr km	
			20°C	90°C
mm²	mm	mmØ	ohm	ohm
16	7x 1,71	5,2	1,16	1,48
25	7 x 2,14	6,5	0,734	0,936
35	19x 1,53	7,4	0,529	0,675
50	19x 1,80	8,8	0,391	0,499
70	19x 2,17	10,3	0,270	0,344
95	37x 1,80	12,1	0,195	0,249
120	37x 2,03	13,6	0,154	0,196
150	37x 2,27	15,1	0,126	0,161
185	37x 2,52	16,8	0,100	0,128
240	61x 2,24	19,1	0,0762	0,0972
300	61x 2,52	21,5	0,0607	0,0774

*) Diameter of wires before compressing

Wire gauge conversion table

US Standard cross-section to square millimetres

U.S. Standard	Equivalent cross-section mm²	Nearest available cross-section mm²
20 AWG	0.519	0.5 – 0.75
18	0.823	1.0
16	1.31	1.5
14	2.08	2.5
12	3.31	4
10	5.26	6
8	8.37	10
6	13.30	16
4	21.15	25
2	33.62	35
1	42.41	50
1/0	53.49	50 - 70
2/0	67.23	70
3/0	85.01	95
4/0	107.2	120
250 MCM	126.7	120 - 150
300	152.0	150
350	177.3	185
400	202.7	185
450	228.0	185-240
500	253.4	240
550	278.7	240 – 300
600	304.0	300
650	329.4	300
700	354.7	300 – 400
750	380.0	400
800	405.4	400
850	430.7	400
900	456.0	400
950	481.4	400
1000	506.7	400 – 630
1250	633.4	630
1500	760.0	800
1750	886.7	800 – 1000
2000	1013.4	1000

Current ratings for 250V and 0,6/1kV cables in fixed installations.

Current carrying capacities in continuous service at maximum rated temperature of 90°C.
In accordance with IEC 60092-352 (2005) Annex B, Table B.4. Ambient temperature 45°C

Conductor area mm²	1-core Amp	2-core Amp	3-4 core Amp
1	18	15	13
1,5	23	20	16
2,5	30	26	21
4	40	34	28
6	52	44	36
10	72	61	50
16	96	82	67
25	127	108	89
35	157	133	110
50	196	167	137
70	242	206	169
95	293	249	205
120	339	288	237
150	389	331	273
185	444	377	311
240	522	444	365
300	601	511	421
400	690 dc / 670 ac	587 dc / 570 ac	483 dc / 469 ac
500	780 dc / 720 ac	663 dc / 612 ac	546 dc / 504 ac
630	890 dc / 780 ac	757 dc / 663 ac	623 dc / 546 dc

For cables with more than 4 cores, the current ratings are given by the following formula:

$$I = \frac{I_1}{\sqrt[3]{N}}$$

I_1 = current rating for single core
N = number of cores

No. of cores	1,5 mm² Amp	2,5 mm² Amp
5	13	18
7	12	16
12	10	13
19	9	11
24	8	10
37	7	9

Current rating for 1,8/3(3,6)kV, 3,6/6(7,2)kV, 6/10(12)kV, 8,7/15(17,5)kV, 12/20(24)kV and 18/30(36)kV cables in fixed installations.

Current carrying capacities in continuous service at maximum rated temperature of 90°C.
In accordance with IEC 60092-352 (2005) Annex B, Table B.4.

Conductor area mm²	1-core Amp	2-core Amp	3-4 core Amp
16	96	82	67
25	127	108	89
35	157	133	110
50	196	167	137
70	242	206	169
95	293	249	205
120	339	288	237
150	389	331	273
185	444	377	311
240	522	444	365
300	601	511	421
400	690 dc / 670 ac	-	-
500	780 dc / 720 ac	-	-
630	890 dc / 780 ac	-	-

The tabled current ratings must be adjusted for ambient air temperatures other than 45°C.

Appropriate rating factors are:

Ambient air temp. °C	35	40	45	50	55	60	65	70	75	80
Rating factors	1,10	1,05	1,00	0,94	0,88	0,82	0,74	0,67	0,58	0,47

Short circuit ratings

The following short circuit currents are for cables normally operating at a maximum conductor temperature of 90°C.

The theoretical temperature that arises in the conductor during a short circuit, which is used as a basis of the calculation, is 250°C. EPR and XLPE insulation are capable of withstanding short term temperatures up to 250°C.The short circuit currents for copper conductors given in the table are values for one second, for other durations the current may be calculated from the following formula:

$$I_t = \frac{I}{\sqrt{t}}$$

I_t = short ciricut current for t sec. (Amp),
I = short circuit current for one sec. (Amp),
t = short circuit duration (sec.)

The duration of the short circuit based on these assumptions should be between 0,2 sec. and 5 sec.

Conductor area mm²	Current 1 second amperes	Conductor area mm²	Current 1 second amperes
1,0	140	70	9800
1,5	210	95	13300
2,5	350	120	16800
4	560	150	21000
6	840	185	25900
10	1400	240	33600
16	2240	300	42000
25	3500	400	56000
35	4900	500	70000
50	7000	630	88200

Reactance

The reactance of a cable operating in an AC system depends on many factors, including, in particular, the axial spacing between conductors and the proximity and magnetic properties of adjacent steelwork. The former is known for multicore cable, but may vary for single core cables depending upon the spacing between them and their disposition when installed. Reactance of cables in certain disposition when installed. Reactance of cables in certain dispositions remote from steelwork are calculable and are shown. The tabulated values are for cables with circular conductors. The value for a sector-shaped conductor should be taken as 90% of the calculated value.

Induction for 2-, 3- and 4- conductor cables is given by the formula:

$$L = 0{,}2 * \left(\ln \left(\frac{2a}{d} \right) + 0{,}25 \right) * 10^{-6}$$

L = Induction in H/m and phase, a = Axial space between conductors in mm.
d = conductor diameter in mm.
Reactance for 2-, 3- and 4-conductor cables is given by the formula:

$$X = 2 * \pi * f * L * I$$

X = Reactance in ohm pr. Phase, f = frequency in Hz, L = Induction in H/m and phase
I = Conductor length in meter.

Reactance Values for Cables

Power and control cables. RFOU 0,6/1 kV

Cross-section mm²	2-, 3- and 4 cores ohm/km 60 Hz	50 Hz	1- core* ohm/km 60 Hz	50 Hz
1,5	0,132	0,110		
2,5	0,123	0,103		
4	0,115	0,096		
6	0,108	0,090		
10	0,101	0,084		
16	0,096	0,080	0,140	0,116
25	0,095	0,079	0,132	0,110
35	0,092	0,076	0,128	0,106
50	0,092	0,076	0,125	0,104
70	0,088	0,074	0,119	0,099
95	0,088	0,073	0,116	0,097
120	0,086	0,072	0,113	0,094
150	0,087	0,072	0,111	0,092
185	0,086	0,072	0,109	0,091
240	0,086	0,072	0,107	0,089
300	0,086	0,071	0,105	0,087

*) Reactance for 1-conductor cables given at Three- foil formation

Power and control cables, BFOU 0,6/1 kV.

Cross- section mm²	2-, 3- and 4 core ohm/km 60 Hz	50 Hz	1- core* ohm/km 60 Hz	50 Hz
1,5	0,138	0,115		
2,5	0,129	0,107		
4	0,120	0,100		
6	0,112	0,094		
10	0,105	0,088		
16	0,099	0,082	0,142	0,118
25	0,098	0,081	0,136	0,114
35	0,094	0,078	0,129	0,108
50	0,093	0,078	0,126	0,105
70	0,090	0,075	0,120	0,100
95	0,090	0,075	0,116	0,097
120	0,088	0,073	0,114	0,095
150	0,088	0,073	0,112	0,094
185	0,088	0,073	0,110	0,092
240	0,087	0,072	0,108	0,090
300	0,086	0,072	0,106	0,088

*) Reactance for 1-conductor cables given at Three- foil formation

Medium Voltage Power cables. RFOU 6/10 kV

Cross-section mm²	3 core ohm/km 50 Hz	3 core ohm/km 60 Hz	1- core* ohm/km 50 Hz	1- core* ohm/km 60 Hz
16	0.119	0.143	0.154	0.185
25	0.119	0.143	0.144	0.173
35	0.114	0.137	0.138	0.166
50	0.108	0.130	0.132	0.158
70	0.103	0.124	0.125	0.150
95	0.098	0.118	0.119	0.142
120	0.095	0.114	0.116	0.139
150	0.092	0.111	0.111	0.133
185	0.092	0.111	0.108	0.130
240	0.087	0.104	0.104	0.125
300	0.084	0.101	0.104	0.124
400	-	-	0.090	0.118
500	-	-	0.097	0.117
630	-	-	0.092	0.110

*) Reactance for 1-conductor cables given at Three- foil formation

Medium Voltage Power cables. RFOU 12/20(24)kV.

Cross-section mm²	3 core ohm/km 50 Hz	3 core ohm/km 60 Hz	1-core* ohm/km 50 Hz	1-core* ohm/km 60 Hz
35	0.128	0.153	0.149	0.178
50	0.121	0.145	0.140	0.169
70	0.115	0.135	0.133	0.160
95	0.109	0.131	0.127	0.152
120	0.105	0.126	0.124	0.149
150	0.102	0.122	0.119	0.142
185	0.099	0.118	0.116	0.139
240	0.095	0.114	0.112	0.134
300	-	-	0.108	0.130

*) Reactance for 1-conductor cables given at Three- foil formation

Impedance

Induction for 2-, 3- and 4- conductor cables is given by the formula:

$Z = \sqrt{(R^2 + X^2)}$

Z = Impedansce in ohm pr. phase, R = Resistance at operating temprature in ohm pr. phase.

X = Reactance in ohm pr. phase.

Electrical characteristics for instrumentation and telecommunication cables such as 250 V cables: RFOU and BFOU *according to IEC 60092-376*

Cables with collective screen

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Unshielded pair 0,75 mm²	100	0,67	26,3	12,7
Unshielded triple 0,75 mm²	100	0,67	26,3	12,7
Unshielded pair 1,5 mm²	110	0,63	12,9	24,4
Unshielded triple 1,5 mm²	110	0,63	12,9	24,4
Unshielded pair 2,5 mm²	125	0,59	8,02	36,8
Unshielded triple 2,5 mm²	125	0,59	8,02	36,8
Unshielded 16 and 24 pair 2,5 mm²	95	0,66	8,02	41,1
Unshielded 16 triple 2,5 mm²	95	0,66	8,02	41,1

Cables with individually screened pair/triples

Type	Capacitance, approx. (nF/km)	Inductance, approx, (mH/km)	Resistance at 20°C, max. (Ohm/km)	L/R ratio, (microH/Ohm)
Shielded pair 0,75 mm²	110	0,67	26,3	12,7
Shielded triple 0,75 mm²	110	0,67	26,3	12,7
Shielded pair 1,5 mm²	125	0,63	12,9	24,4
Shielded triple 1,5 mm²	125	0,63	12,9	24,4
Shielded pair 2,5 mm²	145	0,59	8,02	36,8
Shielded triple 2,5 mm²	145	0,59	8,02	36,8
Shielded 16 and 24 triple 1,5 mm²	105	0,71	12,9	24,4
Shielded 16 pair 2,5 mm²	110	0,66	8,02	41,1

Material properties

Polymeric materials used in cables for ships and offshore topside installations

For more than 30 years Draka Norsk Kabel has been facing the same challenge :

The increasing severe performance criteria demands from our ship and offshore customers.

Elastomers are the major part of our cable construction.
The insulation, bedding and sheathing have been developed through intensive research and development to meet the offshore and ship industry's specific and stringent requirements.

This information is not intended to give you details of the elastomers in use.
For correct selection and application of materials our technical representatives will be pleased to provide you with more complete information.

EP - rubber (EPDM)
EPDM is a hydrocarbon rubber that combines electrical performance suitable for fire resistant offshore cables with mechanical toughness and resistance to ozone, UV light and heat.
Its wet electrical properties are unique.

Applications : Wire insulation
Bedding compounds

Flame retardant halogen-free termoset compound (EVA)
EVA, ethylene vinyl acetate, is a multi-functional elastomer,
which resists the combined deteriorating influences of heat, oil and weather.
(In accordance with IEC 60092-360, type SHF2). For offshore applications, EVA can be compounded to produce high quality cable sheathing with low smoke and flame propagation, and with no emission of halogenous acids.

Applications : Cable sheathing on offshore oil platforms,
ships, hotels and in rooms with expensive
equipment, which must not be subjected to
corrosion damage.

Low smoke , Flame retardant , Halogen-free and Thermoplastic compounds , HFFR.

When PVC is not acceptable due to the problems chlorine (halogen) containing materials present in the event of a fire HFFR must be used.
(In accordance with IEC 60092-360, type SHF1).

Our HFFR materials will not propagate a fire along a cable run, drip or give off black smoke.
No acid gases will be released during a fire that can corrode and damage expensive equipment.

Applications: Cable sheathing for
Rooms with IT equipment
High - rise buildings (hotels)
Hospitals
Telephone exchanges
Subway systems, airports and many others.

XLPE – Crosslinked Polyethylene
Polyethylene is the most used plastic material. By introducing chemical bonding between the chains in PE we get XLPE, a thermoset type of PE.
In cable insulation it is used for the excellent insulation properties , very good mechanical strength , low density and good thermal stability.

Applications : Wire insulations

Physical and chemical properties of Draka's sheathing compounds for use in offshore topside and shipboard cables

	Enhanced oil resistant EVA (SHF2)	NITRILE/ PVC	PVC	HFFR (SHF1)	Arctic Grade (SHF2)	Hydraulic Oil Resistant (SHF2)
Mechanical properties	3 - 4	4	4	2 - 3	3-4	4
Weathering (O_2 -O_3)	5	4	5	4 - 3	5	4-5
Heat resistance	4	3	2 - 3	4	4	4
Low temperature	3	3	2	3	5	3-4
Hydrocarbons general	3 - 4	4	2	0	3 - 4	3 - 4
Hydrocarbons high aromatic (MUD)	3 - 4 *	4	1	0	3 - 4 *	3 - 4 *
Hydraulic oils	1	1-2	1	0	2	5
Sea-water	3	4	4	3	3	3 - 4
Fire resistant	4	3	4	4	4	4
Oxygen Index	4	3	4	4	4	4
Smoke generation	5	2	1	5	4-5	4-5
Halogens	No	Cl	Cl	No	No	No

5 - Excellent, 4 - Very good, 3 - Good, 2 - Medium, 1 - Poor, 0 - Not recommended

* Drilling MUD is not one chemical, but a mix of different chemicals and each producer have their own composition. The sheathing material could be resistant to the aromatics in the MUD, but be affected by other chemicals like corrosion inhibitors. Each MUD must therefore be tested for compatibility with the cable sheathing. The test method for this MUD test is described in NEK TS 606: 2009 Fourth edition.

SHF1 versus SHF2

The table below addresses only some main characteristics differences.
For complete information see IEC 60092-360

	SHF1	SHF2
Type of material	Halogen-free Thermoplastic	Halogen-free Elastomeric or thermosetting material
Some main characteristics		
Mechanical characteristics after immersion in hot oil (IEC 60811-404)	No requirements	100 °C for 24 hours: • ±40% maximum variation in tensile strength: • ±40% maximum variation in elongation at break
Hot set test (IEC 60811-507)	No requirements	200 °C, 15 min time under load with 20 (N/mm^2) mechanical stress: • 175% Maximum elongation under load • 25% Maximum permanent elongation after cooling
Pressure test at high temperature IEC 60811-508)	80 °C, 4-6 h under load depending on cable diameter: • 50% Maximum permissible deformation	No requirements
Heat shock test (IEC 60811-509)	150 °C) 1h duration:	No requirements
Ozone resistance test IEC 60811-403 (Alternative test method B may be used)	No requirements	25 ± 2°C for 24 h: • 275±25) x 10^{-4} ozone concentration (in volume)

Core colours for cables according to NEK TS 606

Please look at the actual page for each cable type.

Instrumentation and communications cable for fixed installation (conductor size from 0,75 mm² and above) such as RFOU, BFOU, RU and BU 250V.

Pair: Black -- Light blue
Triple: Black -- Light blue - Brown

Pairs and triples are identified by numbered tape with printed black numbers.

Power and control cables for fixed installation, such as RFOU, BFOU, RU and BU 0,6/1kV

One core:	Black
Two cores:	Blue – Brown
Two cores + earth	Blue – Brown – Yellow/green
Three cores:	Brown - Black – Grey
Three cores + earth	Brown - Black – Grey – Yellow/green
Four cores:	Blue - Brown - Black– Grey
Four cores + earth	Blue - Brown - Black– Grey – Yellow/green
Five cores	Blue - Brown - Black– Grey - Black

Above 5-cores : Black numbers on white base.

Colours are in accordance with IEC 60445 and Cenelec HD 308S2

Medium Voltage cables for fixed installation, RFOU

1-core : Off-white insulation + black semi-conductive layer.

3-cores : Off-white insulation + black semi-conductive layer identified by Brown - Black - Grey threads under and over the metallic screen on each individual core.

Separate earth conductor (if any): Yellow/green

Drum capacity in meters

Free space mm.	30	30	30	30	30	30	30	40	50	60	60	60	60	70	70	80	90	100	Free space mm
Drum No:	R5	R6	R6T	R8	R9	R10	R10A	R11	R12	R14	R14A	R16	R16A	R18	R20	R22	R24	R26	Drum No:
Overall cable diam.mm																			Overall cable diam.mm
10	360	720	850	1470															10
12	250	500	565	1020	1440														12
14	185	370	425	770	1105	1520													14
16		280		550	825	1160		1335											16
18				450	620	920	570	1010	1510										18
20				375	510	745	460	850	1100	1565	1065								20
22					420	615	380	700	885	1925	880	1645							22
24					340	515	320	580	830	1075	740	1380	870						24
26						440	270	470	685	905	630	1175	740	1485					26
28						380	235	440	555	745	540	985	635	1255	1685				28
30						330	205	345	525	705	470	930	555	1045	1375				30
32							180	330	410	560	415	755	490	980	1300	1565			32
34							160		395	545	370	735	430	825	1105	1350			34
36							140		370	420	330	580	385	765	1035	1265			36
38							130		285	405	295	560	345	630	860	1070	1570		38
40							115			390	265	445	310	605	830	1035	1355	2060	40
42										300	240	430	285	485	640	820	1255	1870	42
44										285	220	410	260	460	620	790	1065	1700	44
46											200	390	235	440	595	760	1025	1560	46
48											185	315	215	445	595	635	895	1430	48
50											170	300	200	340	460	605	855	1320	50
52											160	285	185	320	440	580	820	1220	52
54											145	285	170	320	420	550	665	1130	54
56											135		160	300	420	445	670	1050	56
58											125		150	300	420	425	635	980	58
60											120		140	215	400	425	640	915	60
62													130	215	310	400	500	860	62
64													120		290	405	500	805	64
66													115		290	380	475	755	66
68													110		275	295	475	715	68
70													100		275	275	445	675	70
72															255	275	360	635	72
74															260	275	360	600	74
76																255	335	570	76
78																255	335	540	78

Code designation for cables

A cable code of 2 - 4 letters is used to describe the construction.
Additional abbrevation for instrumentation cables: Collective screen = (c) Individual pair or triple screen = (i)
The interpretation (per letter) can be read from the table below:

1st. letter: Insulation		2nd. letter Bedding / inner sheath		3rd. letter Armouring / screen		4th. letter Outer sheath	
A	Fibre, tight cladded	**A**	Aluminium (optional with corrosion protection)	**A**	Strength member yarn	**A**	Yarn + bitumen
B	Fire resistant tape + insulation (Halogen-free)	**B**	Corrogated aluminium (o.w.c.p.)	**B**	Steel tapes, 2 off	**B**	Hydrocarbon resistant sehath
C	Polychloroprene (Neoprene) PCP, or chlorinated polyethylene - CPE	**C**	Polychloroprene (Neoprene) PCP, or chlorinated polyethylene - CPE	**C**	Galvanized steel wire braid	**C**	Polychloroprene (Neoprene) PCP, or chlorinated polyethylene - CPE
D	Impregnated paper Drip free	**D**	Aluminium + Plastics	**D**	Oil filled cable reinforcement (Longitudinal / Transverse)	**D**	
E	Polyethylene - PE Polypropylene - PP	**E**	Polyethylene - PE Polypropylene - PP	**E**	Oil filled cable reinforcement (Transverse only)	**E**	Polyethylene - PE Polypropylene - PP
F	PE or PP + filling compound	**F**	Bedding or taping (Halogen-free)	**F**	Flat steel wire armour	**F**	Semi-conducting PE
G	Polyamid - PA	**G**		**G**		**G**	PE + PA
H	Chlorosulphonated polyethylene - CSP	**H**	Chlorosulphonated polyethylene - CSP	**H**	Steel tape + steel wires	**H**	Chlorosulphonated polyethylene - CSP
I	Thermoplastic compound (Halogen-free)	**I**	Thermoplastic compound (Halogen-free)	**I**	Steel tapes, 4 off	**I**	Thermoplastic compound (Halogen-free)
K	Paper	**K**	Lead	**K**	Steel wire, plastics or rubber coated	**K**	Lead
L	Air + plastics (Coaxial cable)	**L**	Aluminium laminate + plastics sheath	**L**	Aluminium (laminated to outer jacket)	**L**	
M	Expanded PE or PP + filling compound	**M**	Polyester	**M**		**M**	Polyester
N	Impregnated paper	**N**	Polyurethane	**N**	Steel (laminated to outer jacket)	**N**	Polyurethane
O	Impregnated paper, oilfilled cable	**O**	Lead + Plastics	**O**	Copper wire braid (Tinned or bare)	**O**	
P	Polyvinylchloride - PVC	**P**	Polyvinylchloride - PVC	**P**	Phosphorbronze wire braid	**P**	Polyvinylchloride - PVC
Q	Fibre in loose tube	**Q**		**Q**	Steel wires + counter steel tape (optional)	**Q**	
R	Ethylenepropylene rubber - EPR	**R**	Ethylenepropylene rubber - EPR	**R**	Steel wires (round) + filling compound	**R**	Ethylenepropylene rubber - EPR
S	Silicone rubber	**S**	Bedding or taping + concentric conductor	**S**	Concentric conductor (Screen)	**S**	Silicone rubber
T	Cross-linked polyethylene XLPE	**T**	PE + aluminium wire + steel tape	**T**		**T**	Cross-linked polyethylene XLPE
U	Halogen-free thermoset compound EMA or EVA	**U**	Halogen-free thermoset compound EMA or EVA	**U**		**U**	Halogen-free thermoset compound EMA or EVA
V	Fibre, slotted core	**V**	Aluminium screen	**V**	Double wire armour (two layers)	**V**	Other halogen-free thermoset materials
W	Other materials	**W**	Other materials	**W**	Catenary wire	**W**	Other materials
X	No insulation	**X**	No bedding or equivalent	**X**	No armour	**X**	No sheath
Y		**Y**	Screen	**Y**		**Y**	
Z	Flour plastics PTFE / FEP	**Z**	Flour plastics	**Z**		**Z**	Flour plastics

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