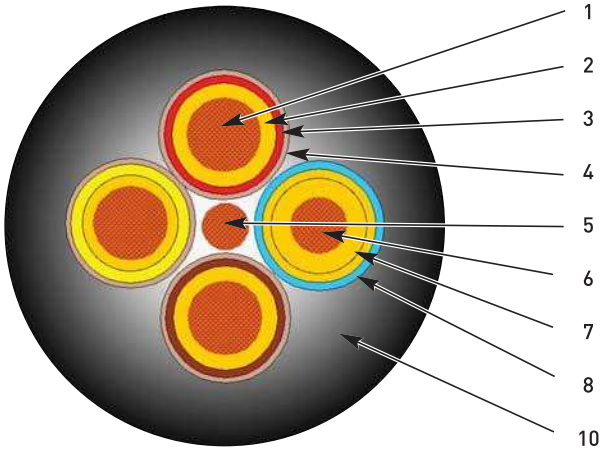
Type 7 Trailing Cable

640/1100 volt in accordance with BS 6708:1998

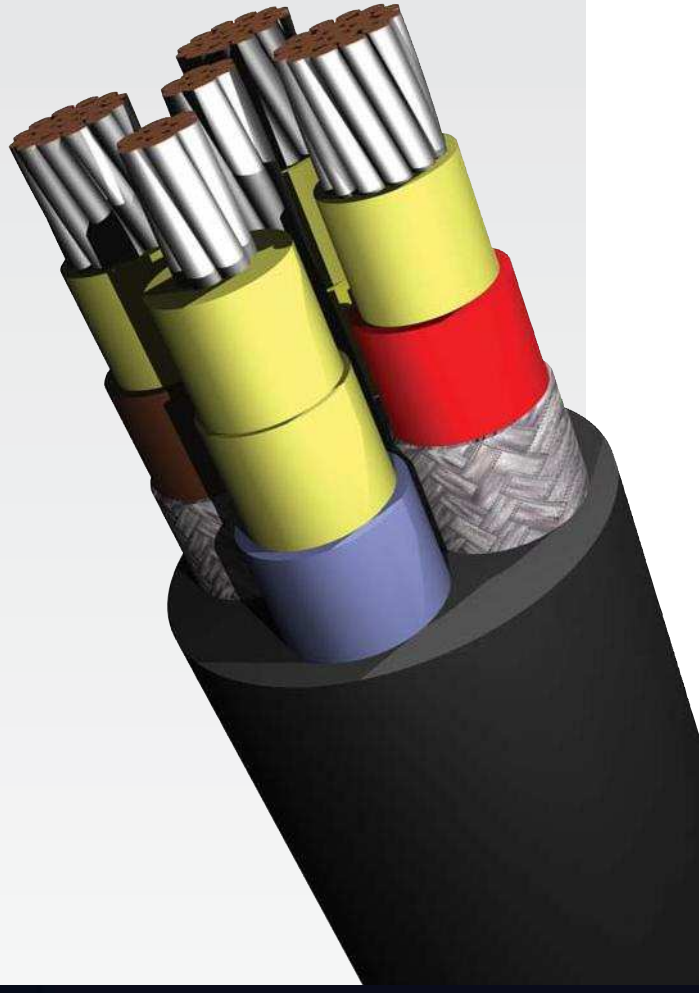
For use with coal cutters and similar face equipment. BCS 188:1978 refers



Item	Description	Details
1	Phase conductor	(3 off) TAC flex conductors
2	Phase insulation	Extruded MEPR yellow
3	Phase identification	Proofed tape – red, yellow, brown
4	Phase core screen	Composite copper/nylon braid
5	Earth conductor	(1 off) TAC flex conductor
6	Pilot conductor	(1 off) TAC flex conductor
7	Pilot insulation	Extruded MEPR yellow
8	Pilot identification	Proofed tape – blue
9	Lay up	3 power cores + 1 pilot core laid up around the uninsulated earth core
10	Overall sheath	Extruded heavy duty PCP black

Description

Flexible tinned annealed copper (TAC) conductors, MEPR insulated, 3 copper/nylon screened power cores plus 1 unscreened pilot core, laid up around a flexible TAC bare earth conductor, sheathed overall with a heavy duty flame retardant elastomeric compound. The pilot unit has 1 MEPR insulated unscreened conductor insulated to the same diameter as the screened phase cores.



AEI CABLES

Type 7 Trailing Cable To BS 6708:1998

TECHNICAL DETAILS

Phase Conductor									
Number and nom. CSA	mm^2	3 x 16 mm^2	3 x 25 mm^2	3 x 35 mm^2	3 x 50 mm^2	3 x 70 mm^2	3 x 95 mm^2	3 x 120 mm^2	3 x 150 mm^2*
Nominal stranding	mm	126/0.40	196/0.40	276/0.40	396/0.40	360/0.50	475/0.50	608/0.50	756/0.50
Nominal conductor diameter	mm	5.50	7.00	8.50	10.00	11.70	13.50	15.40	17.20
Nominal diameter over insulation	mm	8.85	10.35	11.60	13.60	15.70	17.25	20.05	22.20
Nominal diameter over screen	mm	11.15	12.65	13.90	15.90	18.00	19.55	22.35	24.50
Earth Conductor									
Number and nom. CSA	mm^2	1 x 16 mm^2	1 x 16 mm^2	1 x 18 mm^2	1 x 25 mm^2	1 x 35 mm^2	1 x 50 mm^2	1 x 50 mm^2	1 x 70 mm^2
Nominal stranding	mm	126/0.40	126/0.40	147/0.40	196/0.40	276/0.40	396/0.40	396/0.40	360/0.50
Nominal diameter	mm	5.50	5.50	6.00	7.00	8.50	10.00	10.00	11.70
Pilot Conductor									
Number and nom. CSA	mm^2	1 x 16 mm^2	1 x 16 mm^2	1 x 16 mm^2	1 x 25 mm^2	1 x 35 mm^2	1 x 50 mm^2	1 x 70 mm^2	1 x 95 mm^2
Nominal stranding	mm	126/0.40	126/0.40	126/0.40	196/0.40	276/0.40	396/0.40	360/0.50	475/0.50
Nominal diameter	mm	5.50	5.50	5.50	7.00	8.50	10.00	11.70	13.50
Nominal diameter over insulation **	mm	11.15	12.65	13.90	15.90	18.00	19.55	22.35	24.50
Cable Details									
Overall diameter – minimum	mm	35.80	39.70	43.10	48.50	55.10	62.40	68.00	70.40
Overall diameter – maximum	mm	38.60	42.90	46.30	51.80	58.80	66.10	72.50	78.40
Minimum bending radius	mm	310	350	370	420	470	520	580	630
Maximum pulling tension	kgf	480	640	830	1200	1680	2000	2000	2000
Approximate cable weight	kg/km	2340	2860	3410	4420	5800	7600	9090	10900
Electrical Details									
Continuous current rating at 25°C ambient	Amps	85	110	135	170	205	250	295	320
Intermittent current rating at 25°C ambient	Amps	96	125	150	200	250	310	355	385
Maximum d.c. resistance at 20°C:									
- Power conductor	Ω/km	1.240	0.795	0.565	0.393	0.277	0.210	0.164	0.132
- Pilot conductor	Ω/km	1.240	1.240	1.240	0.795	0.565	0.393	0.277	0.210
- 3 screens and earth in parallel	Ω/km	0.660	0.560	0.540	0.440	0.300	0.260	0.240	0.176
Nominal reactance at 50 Hz	Ω/km	0.109	0.107	0.101	0.098	0.095	0.094	0.092	0.080
Nominal reactance at 60 Hz	Ω/km	0.131	0.128	0.121	0.118	0.114	0.113	0.110	0.096
Minimum insulation resistance at 20°C	MΩ/km	435	375	325	285	260	250	250	250
3 Phase volt drop based on full load current	mV/A/mt	2.62	1.68	1.20	0.84	0.61	0.47	0.38	0.32

*Not included in BS 6708, but designed in accordance with the specification requirements.
** Built up to match the diameter of the phase conductors.