

Outdoor cable termination

APECB 84–420 kV

2

Use

For installations in which the termination is to be used as a fixed connection point.

Standard

Meets the requirements of:

- IEC 60840, ≤ 170 kV
- IEC 62067, 245–420 kV
- IEEE 48

Design

The cable termination consists of an insulator installed on a box body made of aluminium castings. The box body consists partly of insulating material, which provides an insulated installation. The base part is to be installed on a bracket. For 420 kV a corona shield and a post-insulator kit PIU 420 B/G are included.

The electrical stress control component is a premolded rubber stress cone. The insulator has sheds of short-long type and is filled with synthetic insulating oil.

The composite insulator design includes grey silicone rubber sheds and a fiberglass reinforced epoxy resin hollow core. It is light-weight and less sensitive for outer damages.

The porcelain insulators are available in brown on request.

A bolt clamp in the top fitting is used to connect the conductor to the top bolt. Top bolt and bolt clamp are included in the kit.

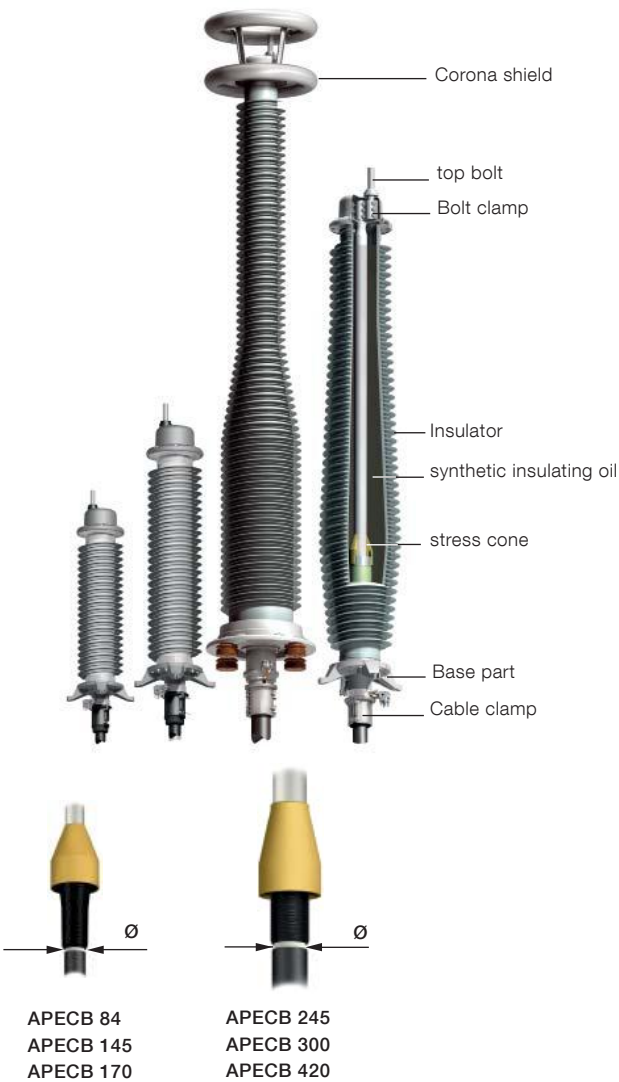
For the maximum permitted diameter over the cable oversheath and the diameter over prepared insulation, see the table below.

Installation

Installation can be simplified by assembling the termination horizontally on the ground before lifting it into place.

The following cable data should be stated when ordering, see page 5/1:

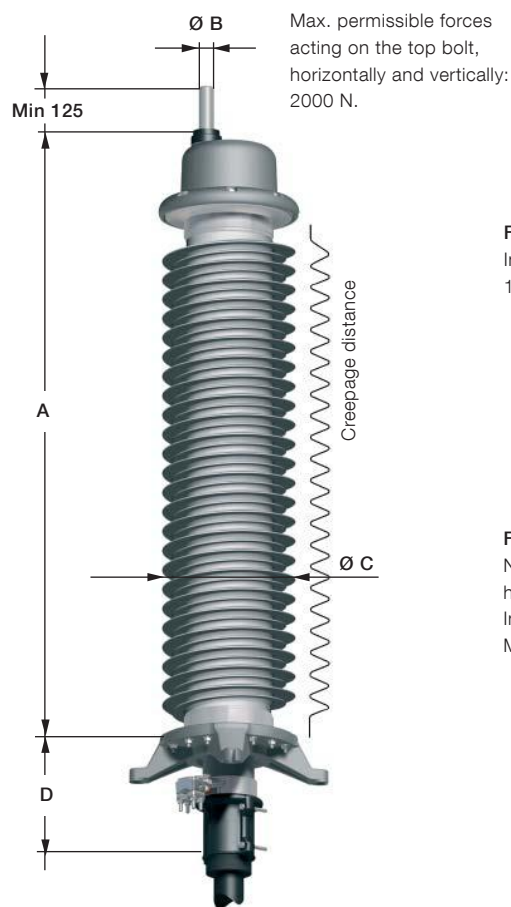
- Voltage
- Diameter over prepared insulation
- Conductor cross section and diameter
- Screen, sheath design and cross section
- Overall cable diameter
- Optical fibres integrated in screen
- Diameter and material of the top bolt, copper or aluminium



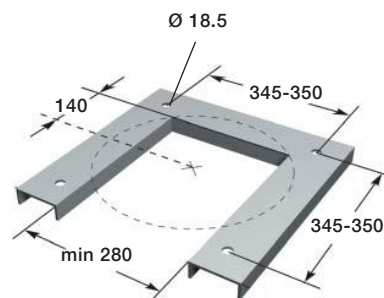
Voltage U_m	Insulation diameter		Outer sheath
	min	max	
	\varnothing		\varnothing
kV	mm		mm
≤ 170	45.5	107	170
245	73	120	170
300	73	120	170
420	80	124	170

Technical specification

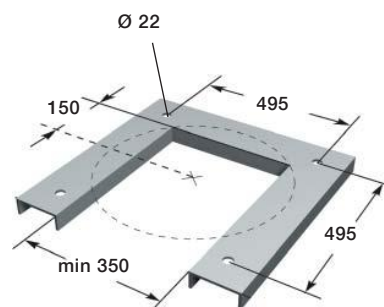
APECB 84–420 kV



Fixing to bracket for 84–300 kV
Insulated or non-insulated: four 18 mm holes for M16 bolts.



Fixing to bracket for 420 kV
Non-insulated: four 18 mm holes for M16 bolts.
Insulated: four 22 mm holes for M20 bolts.



Dimensions in mm

2

Voltage	Insulator	Designation*	Dimensions				Creepage distance	Net weight
			A	ØB	ØC	D	min	
kV			mm				mm	kg/item
84	Composite	APECB 841 P	1320	40/50/54/60	359	235	2820	100
145	Composite	APECB 1452 P	1620	40/50/54/60	359	235	3750	105
170	Composite	APECB 1703 P	1820	40/50/54/60	359	235	4500	110
170	Composite	APECB 1704 P	2140	40/50/54/60	359	235	5950	120
170	Composite	APECB 1705 P	2720	40/50/54/60	359	235	8000	135
245	Composite	APECB 2456 P	3030	40/50/54/60	490	235	9360	290
300	Composite	APECB 3006 P	3030	40/50/54/60	490	235	9360	290
420	Composite	APECB 4201 P	4600	40/50/54/60	600	395	14900	600

* When the cable diameter is larger than 120 mm, add: Ø 170 at the end of the designation (e.g. APECB 841 P Ø 170).

Applications and accessories

APECB 84–420 kV

2



Inclination up to 30°.



GAP-APECB
Rod gap.



PIU 420 B/G
Post insulator kit for fixing APECB 420 kV when insulated installation. Included in the kit.



Accessories, to be ordered separately



OKT
Optical fiber kit for cables with integrated optical fibers in the earth screen.



SV140, SV190, SV 215
Tools for installation of stress cones as follows:
– SV 140 for SKG
– SV 190 for SKGB
– SV 215 for SKGE

Designation	Description
GAP-APECB	Rod gap for protection against overvoltage 84-170 kV
PIU-APEC	Post-insulator kit for fixing APECB 420 kV for insulated installation
OKT	Optical fiber kit for integrated optical fibers in the screen of the cable 84–420 kV
SV 140	Installation tool for stress cone, SKG for cable termination APECB 84–170
SV 190	Installation tool for stress cone, SKGB for cable termination APECB 245–300
SV 215	Installation tool for stress cone, SKGE for cable termination APECB 420

Designation	Description	See page
JSA*	Earthing kit for cable with metallic sheath, e.g. lead. Not needed if cable has only Cu-wire screen.	2/30
SCK*	Screen connection for Al-foil (APL)radial waterproof cable. Not needed if cable has only Cu-wire screen.	2/30

* NB: if earthing kit is required, this increases the cable outer diameter Ø by 20 mm.