Terminations for paper and polymeric insulated cables 1 kV



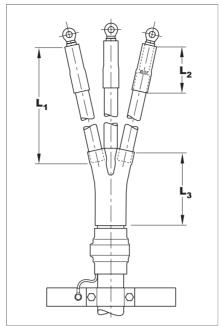
Cable

The terminations are designed for 3- and 4-core polymeric insulated cables with or without armour and 3- and 4-core paper insulated cables including cables with reduced neutral conductor.

For example: NAYY, NAYBY,
NAKBA,BBF, ABBF, RBF, ARBF,
ARBF, AABBY, ACBY, YAKY, XAKXS,
KRFtA, AYKY, CYKY, CNKODY, ANKOY,
ANKOPV, NAYY, NAYBY, NAKBA, PP
00-A, XP 00-A,N(A)YY, PP 41-A,
N(A)YBY, N(A)YC(W)Y,IPO 13,
N(A)KBA.

Design of terminations for plastic cables

The cable crutch is sealed by an adhesive lined heat-shrinkable breakout. which is installed over the cores and the end of the oversheath. Heat-shrinkable tubings seal between the cable lug and the end of the core insulation. All materials are resistant to UV-light and weathering. A solderless earth connection system consisting of a roll spring and an earth braid is included in terminations for armoured cables. In case UV-light protection of the core insulation is required, a CGPT insulating tubing can be ordered separately. All terminations can be ordered as complete kits or as components. Kits with the modification code -L12 include mechanical lugs with a busbar connection hole for M12 connection bolts, with code -L16 for M16 bolts.



Dimensions L₁, L₂, L₃ see table page 17

Design of terminations for paper cables

The cores of the paper cable are covered with heat-shrinkable tubings. All materials are resistant to UV-light, weathering and cable oil. The cable cores can be cut to the required length at the place of installation. A heat-shrinkable breakout and tubings prevent any moisture ingress or oil leakage at the end of the metal sheath or of the cable cores. The kit includes a solderless earth connection system for the metal sheath, consisting of a roll spring, an earth braid, copper mesh and insulating tubing. The kit includes supplementary materials for cable preparation. Kits with the modification code -L12 include mechanical lugs with a busbar connection hole for M12 connection bolts, with code -L16 for M16 bolts.

For 3-core cables

The termination includes in addition a solderless neutral connection system for the aluminium sheath, consisting of stainless steel hose clamps, an earth braid and a mechanical lug.



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Selection tables for paper insulated cables 1 kV

Complete terminations for 3-core paper cables

Cross section	Ordering description Core length L1 (mm)*			Dimensions (mm)	
(mm²)	250 x 4 = 1000	750 x 4 = 3000	1000 x 4 = 4000	L ₃	L ₂
without lugs	•				
25- 70	GUST 01/3x 25- 70/ 250	GUST 01/3x 25- 70/ 750	GUST 01/3x 25- 70/1000	165	80
70-120	GUST 01/3x 70-120/ 250	GUST 01/3x 70-120/ 750	GUST 01/3x 70-120/1000	215	100
120-240	GUST 01/3x120-240/ 250	GUST 01/3x120-240/ 750	GUST 01/3x120-240/1000	220	150
including me	echanical lugs				
25- 70	GUST 01/3x 25- 70/ 250-L12	GUST 01/3x 25- 70/ 750-L12	GUST 01/3x 25- 70/1000-L12	255	80
70-120	GUST 01/3x 70-120/ 250-L12	GUST 01/3x 70-120/ 750-L12	GUST 01/3x 70-120/1000-L12	215	100
120-240	GUST 01/3x120-240/ 250-L12	GUST 01/3x120-240/ 750-L12	GUST 01/3x120-240/1000-L12	220	150

Note: All terminations kits include 1 mechanical lug for the neutral connection.

^{*} The core length L1 can be individually cut to the required length at the place of installation, minimum length is 100 mm. The sum of the core lengths L1 must not exceed 4 times the standard length L1 as given in the table.

Cross section	Ordering description Core length L1 (mm)*			Dimensions (mm)	
(mm²)	250 x 4 = 1000	750 x 4 = 3000	1000 x 4 = 4000	L_3	L ₂
without lugs					
4- 25	GUST 01/4x 4- 25/ 250	GUST 01/4x 4- 25/ 750	GUST 01/4x 4- 25/1000	95	50
16- 70	GUST 01/4x 16- 70/ 250	GUST 01/4x 16- 70/ 750	GUST 01/4x 16- 70/1000	165	80
70-150	GUST 01/4x 70-150/ 250	GUST 01/4x 70-150/ 750	GUST 01/4x 70-150/1000	215	100
120-240	GUST 01/4x120-240/ 250	GUST 01/4x120-240/ 750	GUST 01/4x120-240/1000	220	150
including med	chanical lugs				
25- 70	GUST 01/4x 25- 70/ 250-L12	GUST 01/4x 25- 70/ 750-L12	GUST 01/4x 25- 70/1000-L12	255	80
70-150	GUST 01/4x 70-150/ 250-L12	GUST 01/4x 70-150/ 750-L12	GUST 01/4x 70-150/1000-L12	215	100
120-240	GUST 01/4x120-240/ 250-L12	GUST 01/4x120-240/ 750-L12	GUST 01/4x120-240/1000-L12	220	150

^{*} The core length L1 can be individually cut to the required length at the place of installation, minimum length is 100 mm. The sum of the core lengths L1 must not exceed 4 times the standard length L1 as given in the table.

Breakout and tubing components for paper cable terminations

Cross section Ordering description				Dimensions (mm)	
(mm²)	Breakout	Insulating tubing*	Sealing boot	L_3	L ₂
4- 25	502K033-S	MWTM 10/ 3-A/U	MWTM 16/ 5- 50/S	95	50
16- 35	502K033-S	MWTM 16/ 5-A/U	MWTM 25/ 8-100/S	95	100
35- 70	502K046-S	MWTM 25/ 8-A/U	MWTM 25/ 8-100/S	165	100
70-150	502K016-S	MWTM 25/ 8-A/U	MWTM 35/12-100/S	215	100
185-300	502K026-S	MWTM 35/12-A/U	MWTM 50/16-150/S	220	150

^{*} Tubing lengths depend on the local installation requirements, technical and ordering details of MWTM see page 88.

Selection tables for plastic insulated cables 1 kV

Complete terminations for 3- and 4-core plastic cables

Terminations without lugs			Terminations including mechanical lugs				
Cross	Ordering description		Cross	Ordering description		Dimensions	
section (mm²)	for cables without armo	ur with tape armour	section (mm²)	for cables without armour	with tape armour	L ₃ (mm)	L ₂ (mm)
4- 35	EPKT 0015	EPKT 0015-CEE01				95	50
25- 70	EPKT 0031	EPKT 0031-CEE01	25- 70	EPKT 0031-L12	EPKT 0031-L12-CEE01	165	100
70-150	EPKT 0047	EPKT 0047-CEE01	50-150	EPKT 0047-L12	EPKT 0047-L12-CEE01	215	100
150-400	EPKT 0063	EPKT 0063-CEE01	120-240	EPKT 0063-L12	EPKT 0063-L12-CEE01	220	150

Note: For 3-core cables the concentric neutral wires are sealed with sealing tape S1052 (details see page 95, length needed per termination approx. 50 mm) and insulated with MWTM tubing (see table for paper cables above). Sealing tape S1052 and MWTM tubing have to be ordered separately.

Breakout and tubing components for plastic cable terminations

Cross section (mm²)	Ordering description Breakout	Insulating tubing*	Cross section (mm²)	Ordering description Sealing boot	Dimensions (mm) L ₃ L ₂	
1,5- 10	502S013-S	CGPT 9/ 3-0	1,5- 10	MWTM 10/ 3- 50/S	60	50
4- 35	502K033-S	CGPT 12/ 4-0	4- 35	MWTM 16/ 5- 50/S	95	50
25- 95	502K046-S	CGPT 18/ 6-0	25- 70	MWTM 25/ 8-100/S	165	100
50-150	502K016-S	CGPT 24/ 8-0	70-150	MWTM 35/12-100/S	215	100
120-400	502K026-S	CGPT 39/13-0	150-400	MWTM 50/16-150/S	220	150

^{*} For outdoor terminations the cores can be protected against weathering and UV-light with the insulating tubing CGPT. Tubing lengths depend on the local installation requirements, technical and ordering details of MWTM and CGPT tubing see page 88 and 89.