

## Transformer terminations type TT

### Fluid filled terminations

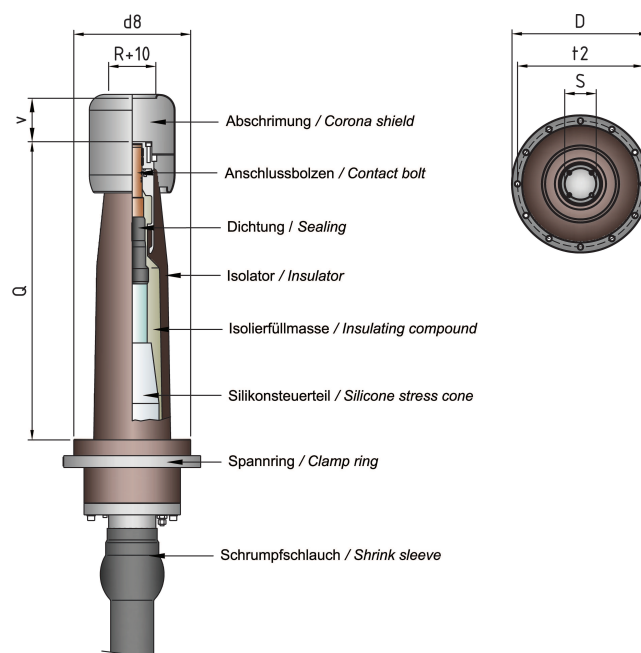
#### For polymeric cables up to 550 kV

Brugg offers a complete range of conventional fluid filled terminations for oil-immersed transformers for voltage systems up to 550 kV and cross sections up to 2500 mm<sup>2</sup>. Based on the outstanding properties of the prefabricated and electrically tested slip on stress cones, the reliable modular construction of the TT terminations allow its application to all types of polymeric insulated cables independently of the cable manufacturer. The insulators and corona shields are designed according to EN 50299-1 thus allowing its installation to all transformers independently from the manufacturer. All materials used are UV and corrosion resistant thus allowing the terminations to be applicable for both indoors and outdoors installations.

All terminations are type tested according to the international standards IEC 60840 ( $\leq 170$  kV) and IEC 62067 ( $> 170$  kV).

### Product main features

- For all types of polymeric insulated cables
- Wide application range
- Sliding contact system for Cu and Al conductors
- Pre-fabricated and factory tested silicone rubber stress cone
- Insulators tested according EN 50089
- Cold pouring silicone oil
- Cable screen connection without plumbing



### Main dimensions according to EN 50299-1

Type	Q mm	V mm	d8 mm	R+10 mm	D mm	S mm	t2 mm
TT 1.72-11	583		245		300	80	270
TT 1.170-11	757	120	297	110	348	80	320
TT 1.170-12	757	120	297	110	348	80	320
TT 1.245-11	960	160	558	150	620	110	582
TT 1.300-11	960	160	558	150	620	110	582
TT 1.420-11	1400	160	616	150	690	110	640
TT 1.550-11	1400	160	616	150	690	110	640

### Technical data

Type	Drawing	Max. operating voltage U <sub>m</sub> kV	Range of diameter over prepared cable insulation, min. - max. mm	Equivalent cable cross-section (Cu/Al) <sup>1</sup> mm <sup>2</sup>	Max. cable dia- Q meter mm	mm
TT 1.72-11	S1944-4	72.5	35 - 71	240 - 1200	115	583
TT 1.170-11	S1929-4	170.0	57 - 80	240 - 1200	115	757
TT 1.170-12	S1928-4	170.0	80 - 115	1000 - 2500	150	757
TT 1.245-11	S1945-4	245.0	58 - 115	240 - 2500	150	960
TT 1.300-11	S1685-4	300.0	76 - 129	400 - 2500	150	960
TT 1.420-11	S1687-4	420.0	76 - 129	400 - 2500	170	1400
TT 1.550-11	S1750-4	550.0	90 - 129	400 - 2500	170	1400

<sup>1</sup> Values for reference only. The exact application depend on the diameter over the prepared cable insulation.

Note: for installations  $> 45^\circ$  oil expansion tanks type ET-2 are required. For 420 kV and 550 kV ET-2 tanks are necessary.