



Pluggable surge arresters with solid insulation

The new HV-CONNEX dry pluggable surge arrester for 72.5 kV voltages offers various benefits compared to conventional surge arresters.

Due to its insulation and field control made from solid silicone, no liquids or insulating gases relevant for the environment are present. This makes installation and operation particularly easy because it does not require regulations for pressure vessels to be followed and gas monitoring is therefore not necessary. The solid insulation also allows for enormous space savings when installing the surge arrester, which is easy to remove or replace.

The new surge arrester is yet another component from the extensive HV-CONNEX series. Whether they are cable or overhead line connections, test fixtures, or surge arresters: All transformer and GIS components utilize the same universal dry pluggable connector sockets of the CONNEX system. This allows for a high level of flexibility in design, commissioning, and use of the transformers and GIS.

The Data – The Details

Surge Arrester, Size 4 for Transformer and GIS

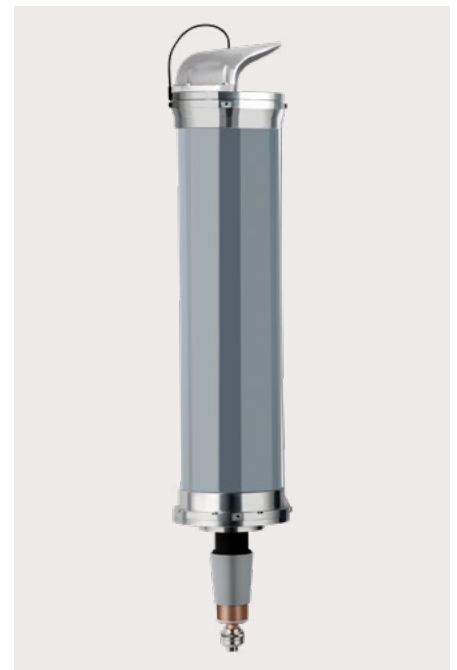
Article number for Transformer		827 541 425	827 541 450	827 541 525	827 541 613	827 541 650	827 541 725
Article number for GIS			827 542 450	827 542 525	827 542 613	827 542 650	827 542 725
Max. rated voltage	U_r [kV]	42.5	45.0	52.5	61.3	65.0	72.5
Max. continuous rating	U_c [kV]	34.0	36.0	42.0	49.0	52.0	58.0
Temporary surge	$U_{TOV(1s)}$ [kV]	45.5	48.2	56.2	65.6	69.6	77.6
Temporary surge	$U_{TOV(10s)}$ [kV]	43.8	46.4	54.1	63.1	67.0	74.7
Max. residual voltage U_{res} at	1/<20 μ s 10 kA [kV]	124.0	132.0	154.0	179.0	190.0	212.0
Max. residual voltage U_{res} at	8/20 μ s 5 kA [kV]	106.0	112.0	131.0	152.0	162.0	180.0
Max. residual voltage U_{res} at	8/20 μ s 10 kA [kV]	113.3	119.9	139.9	163.2	173.2	193.2
Max. residual voltage U_{res} at	8/20 μ s 20 kA [kV]	129.0	136.0	159.0	185.0	196.0	219.0
Max. residual voltage U_{res} at	30/60 μ s 125 A [kV]	85.0	88.0	103.0	120.0	127.0	142.0
Max. residual voltage U_{res} at	30/60 μ s 500 A [kV]	89.0	94.0	109.0	127.0	135.0	151.0

Technical Data

Nominal discharge current	10 kA, 8/20 μ s
Rated short circuit current	40 kA, 0,2s
High current impulse	100 kA, 4/10 μ s
Long duration current impulse	420 A, 2000 μ s
Rated frequency	50 - 60 Hz
Line discharge class	2
Energy absorption capacity	4,28 kJ/kV $_{Ur}$
Weight	ca. 40 kg

The Advantages

- Solid insulation and field control made from silicone
- No costly oil and gas insulation work
- Contact-safe replacement of transformer and GIS
- Easy connection and pretestability of GIS and transformer with utilization of the full CONNEX system



Surge arrester