

# Surge Arrester, Size 4, for Transformers and Offshore

The surge arrester model series HV-CONNEX size 4 is used to protect metal-enclosed switchgears (GIS) or transformers which are equipped with size 4 HV-CONNEX bushings (with or without voltage tap). The surge arrester is installed directly onto the switchgear or transformer and prevents excessively high levels of over voltage from entering the system. The surge arresters are particularly suited to limiting over voltages caused by the reflection of travelling waves.

Use of these arresters requires the transition from the overhead line to the cable to be protected with suitable arresters when using a length of cable to connect the switchgear to the overhead line.

### Properties of HV-CONNEX surge arresters:

- Enclosed system
- Solid insulation
- No arcing
- High short-circuit strength
- Maintenance-free
- Resistant for outdoor use

### Regulations:

Specified parameters are based on tests under the surge arrester standard IEC 60099-4.



*Picture may vary.*

## Technical Data

<b>Article no.</b>	<b>827 541 450</b>	
<b>Size</b>	<b>4</b>	
<b>Applicable standards</b>	<b>IEC 60099-4</b>	
<b>Environment temperature</b>	<b>(°C)</b>	<b>-25 bis +40</b>
<b>Rated voltage <math>U_r</math></b>	<b><math>U_r</math> (kV)</b>	<b>45</b>
<b>Max. continuous rating <math>U_c</math></b>	<b><math>U_c</math> (kV)</b>	<b>36</b>
<b>temporary surge</b>	<b><math>U_{TOV(1s)}</math> (kV)</b>	<b>48.2</b>
<b>temporary surge</b>	<b><math>U_{TOV(10s)}</math> (kV)</b>	<b>46.4</b>
<b>Max. residual voltage <math>U_{res}</math> at 1/2 <math>\mu</math>s 10 kA</b>	<b>1/2 <math>\mu</math>s 10 kA (kV)</b>	<b>132</b>
<b>Max. residual voltage <math>U_{res}</math> at 5 kA, 8/20 <math>\mu</math>s</b>	<b>8/20 <math>\mu</math>s 5 kA (kV)</b>	<b>112</b>
<b>Max. residual voltage <math>U_{res}</math> at 8/20 <math>\mu</math>s 10 kA</b>	<b>8/20 <math>\mu</math>s 10 kA (kV)</b>	<b>119,9</b>
<b>Max. residual voltage <math>U_{res}</math> at 8/20 <math>\mu</math>s 20 kA</b>	<b>8/20 <math>\mu</math>s 20 kA (kV)</b>	<b>136</b>

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Max. residual voltage $U_{res}$ at 30/60 $\mu$ s 125 A	30/60 $\mu$ s 125 A (kV)	88
Max. residual voltage $U_{res}$ at 30/60 $\mu$ s 500 A	30/60 $\mu$ s 500 A (kV)	94
Rated discharge surge current	(kA)	10
Bemessungs-Kurzschlussstrom	(kA)	40
High peak current	(kA)	100
Long-wave peak current	(A)	420
Line discharge class		2
Power consumption capacity	(kJ/kV)	4,28
Protection Type		IP 66
Weight	(kg)	40