

TECHNICAL SPECIFICATION

Surge arresters SPD type



Description:

The surge arrester consists of a semi-conductor valve element that opens at certain conditions. At normal conditions of the system, the surge arrester has infinitely high resistance between the protected conductors and earthing circuit. At voltage increase due to atmospheric nature or system failure, the valve element opens and leads the excessive voltage to the grounded circuit. After reversion of the normal voltage the valve element closes. The arrester can endure high momentary overloading.

Functions:

- protection of heavy-loaded electrical circuits from overload
- used to protect not only particular consumers/circuits, but also the whole panel
- remarkable with high reliability of current characteristics
- control: automatic switching off at exit failure and recovery after eliminating the danger

Technical data:

- Rated operating voltage U_c : - the operating voltage of the surge arrester 275/440V; 50Hz
- Surge voltage U_p : the voltage created in surge arrester terminals at rated discharge current running: according to the tables
- Rated discharge current I_n – the rated value of discharge current with a sinusoid $8/20\mu s$, which can be repeatedly led to the ground: according to the tables
- Full discharge current I_{max} – the peak value of the discharge current with a sinusoid $8/20\mu s$, which the surge arrester can bear once: according to the table
- Constant operating current: up to $800\mu A$ for 1P, 2P and 3P; up to $600\mu A$ for 1P + N, 3P + N
- Indication for damaged surge arrester
- Offered in types: 1P; 1P + N; 3P; 3P + N

Connecting:

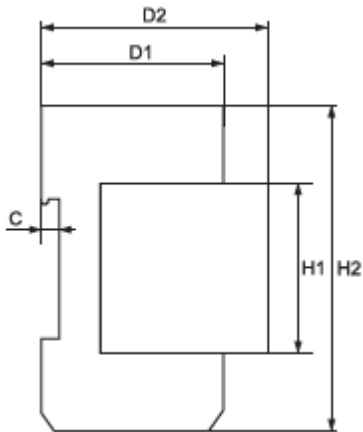
- Flexible or rigid conductors with corresponding section

Mounting:

- On DIN-rail
- Mounting position: Vertical
- mounting in the distribution box on the front or right before the breaker according to the attached schemes
- Breakers plastic material of UV rays and non-flammable
- Ambient temperature: $-10^{\circ}C + 65^{\circ}C$
- Installation altitude: up to 2000m

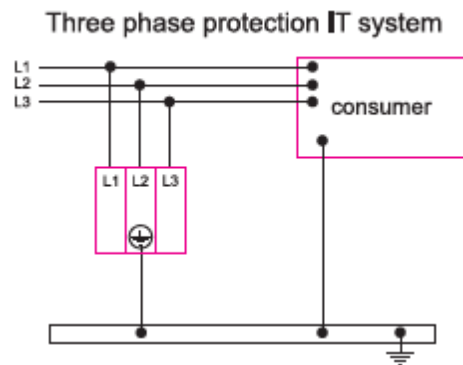
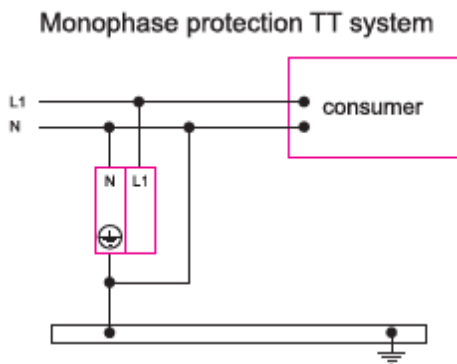
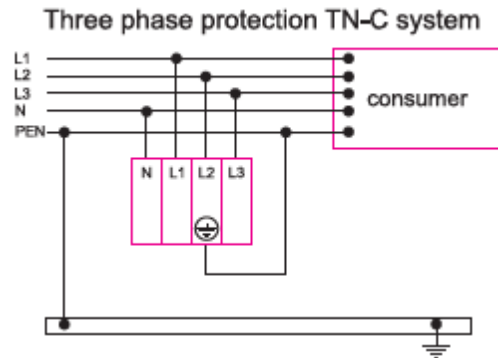
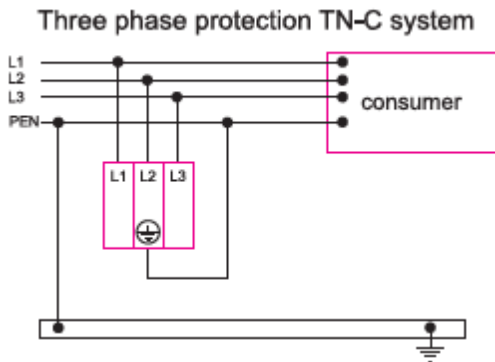
COLOUR CODE for all types 5kA - yellow; white – 10kA; green – 20 kA and red 40kA

Dimensions:



C	H1	H2	D1	D2
5	90	45	43.5	58

Schemes:



The surge arrester selection is made according to the overload risk level or atmosphere activity, named B, C or D (from high to low risk level).

The company offers the following models of arresters:

Model SPD – Bxxxx – for systems with exceptionally high risk level. Mounted mainly in the beginning of the installation or in the main panel.

Model SPD – Cxxxx – for systems with high or average risk level. Mounted in the beginning of the installation or before the breaker.

Model SPD – Dxxxx – for systems with low risk level. Suitable for secondary protection of consumers in combination with SPD – Bxxxx/SPD – Cxxxx

Variants:

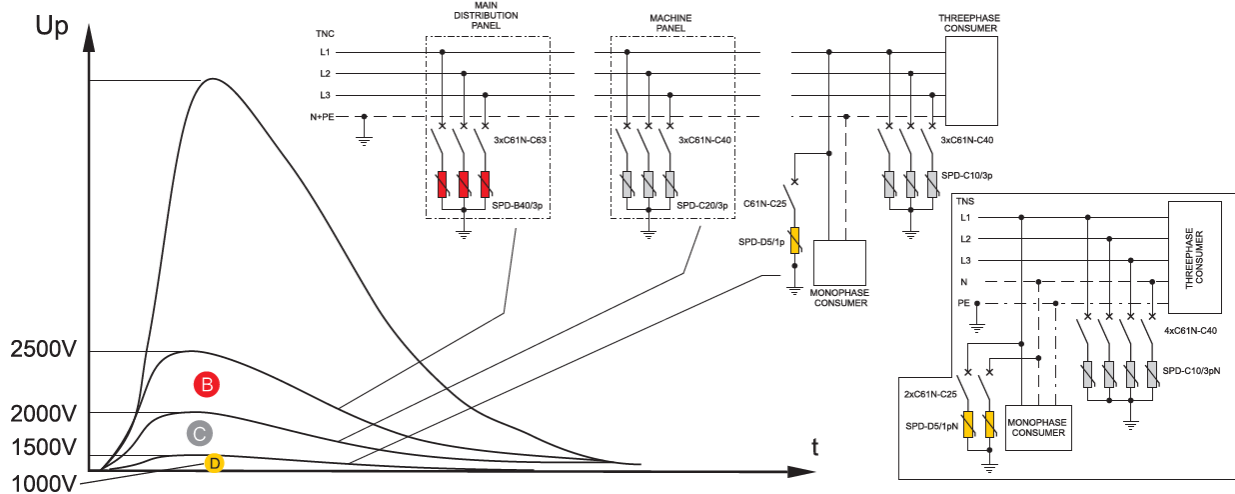


Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing / box	Catalogue number
SPD-D5/1p	5	10	275	1.2	17 / 170	64101
SPD-C10/1p	10	20	275	1.2	17 / 170	64102
SPD-C20/1p	20	40	275	1.8	17 / 170	64103
SPD-B40/1p	40	60	275	2	17 / 170	64104

Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing / box	Catalogue number
SPD-D5/1pN	5	10	275	1.2	8 / 80	64201
SPD-C10/1pN	10	20	275	1.2	8 / 80	64202
SPD-C20/1pN	20	40	275	1.8	8 / 80	64203
SPD-B40/1pN	40	60	275	2	8 / 80	64204

Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing / box	Catalogue number
SPD-D5/3P	5	10	440	1.2	5 / 50	64301
SPD-C10/3P	10	20	440	1.2	5 / 50	64302
SPD-C20/3P	20	40	440	1.8	5 / 50	64303
SPD-B40/3P	40	60	440	2	5 / 50	64304

Type of the arrester	In (kA)	I _{max} (kA)	U _c (V)	U _p (kV)	Packing / box	Catalogue number
SPD-D5/3pN	5	10	440	1.2	5 / 50	64401
SPD-C10/3pN	10	20	440	1.2	5 / 50	64402
SPD-C20/3pN	20	40	440	1.8	5 / 50	64403
SPD-B40/3pN	40	60	440	2	5 / 50	64404



Standards:

EN 61 643-1

