



INDOOR SURGE ARRESTER TYPE PROXAR-IIW DC IN SILICONE HOUSING FOR DC APPLICATION

CATALOGUE CARD

APPLICATION

Surge arresters type **PROXAR-IIW DC** in silicone housing are intended for protection DC power engineering networks against overvoltages with particular emphasis on: converters, switchgears and circuit breakers and equipment of traction vehicles and as a component in a multistage surge protection against multiple lightning and switching overvoltages. This surge arrester is intended for indoor applications.

OPERATING CONDITIONS

Surge arresters adapted for indoor installation and temperate and tropical climate up to 1000 m over the level sea. Dimension of surge arresters enables installation in DC switchgear in minimum pole distances.

ADVANTAGES

- Low residual voltage
- High energy input capacity – high energy absorption capacity
- Stable U-I characteristics even after multiple strokes
- Housing resistant to rough handling
- High resistance to damage under atmospheric conditions
- High short circuit capability
- High durability and operating reliability under various environmental conditions
- Ability to install in any position (vertically or horizontally)
- Easy mounting and maintenance free
- Small dimensions and weight

ADDITIONAL EQUIPMENT

For customer's request manufacturer can deliver accessories accordingly to customer's requirements. Below figure 1 shows the surge arrester type PROXAR-IIW DC, figure 2 presents line and earth terminals.

System voltage (U_{nDC})	0.6 – 3 kV
Continuous operating voltage (U_{cDC})	1 – 4.7 kV
Nominal discharge current I_n 8/20 μ s	10 kA
High current impulse I_{hc} 4/10 μ s	100 kA
Long duration current impulse, 2000 μ s	600 A
Line discharge class according to IEC 60099-4: 2009	2
Line discharge class according to EN 50526-1: 2012	DC-A
Energy capability, 2 impulses	5.5 kJ/kV U_c
Short circuit rating	31.5 kA/0.2s
Service conditions:	
- ambient temperature	-45 °C do +60 °C*
- altitude up to	1000 m*
Mechanical data:	
- specified long-term load (SLL)	350 Nm
- specified short-term load (SSL)	560 Nm
- torsional strength	100 Nm
- vertical load	1000 N

*) For higher values please contact with manufacturer.

ELECTRICAL DATA

TYPE PROXAR-IIW DC	Max. continuous operating voltage (DC) U _c kV	Residual voltage in [kV] peak at a specified impulse current								
		Wave 1/... μs		Wave 1/... μs				Wave 1/... μs		
		5kA	10kA	2.5kA	5kA	10kA	20kA	125A	250A	500A
		kV	kV	kV	kV	kV	kV	kV	kV	kV
1.0	1.0	2.8	3.2	2.3	2.5	2.7	2.9	2.0	2.0	2.1
1.2	1.2	3.3	3.8	2.7	2.9	3.2	3.5	2.4	2.4	2.5
1.5	1.5	4.1	4.8	3.4	3.7	4.0	4.3	2.9	3.0	3.1
1.8	1.8	5.0	5.8	4.1	4.4	4.8	5.2	3.5	3.6	3.7
2.0	2.0	5.5	6.4	4.5	4.9	5.3	5.8	3.9	4.0	4.1
2.2	2.2	6.1	7.0	5.0	5.4	5.8	6.4	4.3	4.4	4.6
2.5	2.5	6.9	8.0	5.6	6.1	6.6	7.2	4.9	5.0	5.2
3.0	3.0	8.3	9.6	6.8	7.4	8.0	8.7	5.9	6.0	6.2
3.2	3.2	8.8	10.2	7.2	7.8	8.5	9.2	6.3	6.4	6.6
3.6	3.6	9.9	11.5	8.1	8.8	9.5	10.4	7.1	7.2	7.5
4.2	4.2	11.6	13.4	9.5	10.3	11.1	12.1	8.2	8.4	8.7
4.5	4.5	12.4	14.4	10.1	11.0	11.9	13.0	8.8	9.0	9.3
4.7	4.7	12.9	15.0	10.6	11.5	12.5	13.6	9.2	9.4	9.7

Attention: There is possibility to make surge arresters PROXAR-IIW DC in different nominal and continuous operating voltage.

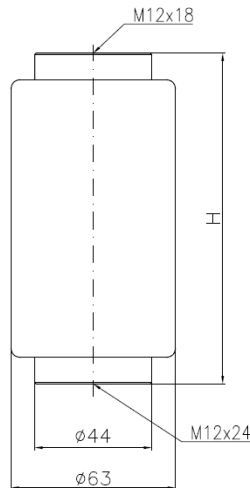


Fig. 1. Surge arrester type PROXAR-IIW DC

The figure above shows the installation of surge arresters type PROXAR-IIW DC. Figure 1 shows a vertical installation. There is also a possibility to work / install surge arresters in a horizontal position. Completion of surge arresters to work in horizontal position is the same as for vertical installation.

TECHNICAL DATA

Type PROXAR-IIW DC	Insulation withstand voltage of empty housing		Minimal distances		Height H mm	Creepage distance L mm	Weight kg
	50 Hz (60s)	1.2/50 μs dry	Distance between arresters „b”	Distance between arrester and the nearest grounded structure „a”			
	kV	kV	mm	mm			
1.0	29	63	66	38	125	120	0.90
1.2			68	40			0.90
1.5			74	46			0.90
1.8			76	48			0.90
2.0			76	48			0.95
2.2			81	52			0.95
2.5			83	55			0.95
3.0			90	61			0.95
3.2			92	63			0.95
3.6			97	68			0.95
4.2			106	77			1.00
4.5			107	78			1.00
4.7	113	83	1.00				

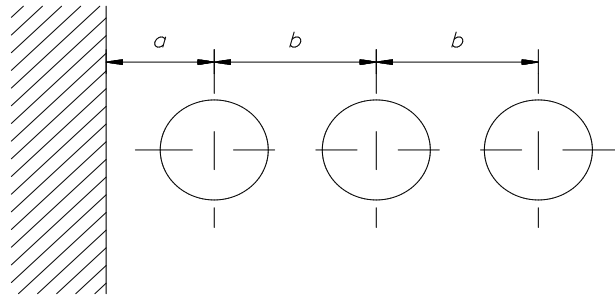


Fig. 2 Minimal mounting distances of surge arresters.

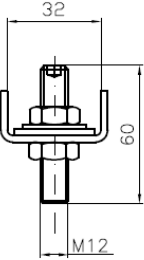
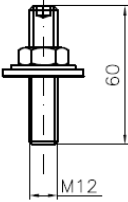
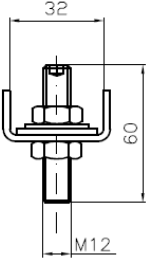
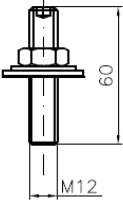
LINE ACCESSORIES	LINE TERMINAL 1	Weight: 0.12kg	LINE TERMINAL 2	Weight: 0.058kg
	 <p style="text-align: center;">Stainless steel</p>		 <p style="text-align: center;">Stainless steel</p>	
EARTH ACCESSORIES	EARTH TERMINAL 1	Weight: 0.12kg	EARTH TERMINAL 2	Weight: 0.058kg
	 <p style="text-align: center;">Stainless steel</p>		 <p style="text-align: center;">Stainless steel</p>	

Fig. 3. Equipment for surge arresters type PROXAR-IIW DC

Order configurator**:

I	II	III	IV	V	VI	VII
PROXAR-IIW		DC		0		

***) Empty fields to fill.

I. Type of product
PROXAR-IIW

II. Continuous operating voltage U_c
 See table – ELECTRICAL DATA

III. Voltage type
 Direct voltage

IV. Assembly (according fig. on page 2)

Vertical 1

Horizontal 2

V. Base

Without base

VI. Line terminal (according fig. on page 3)

Without line terminal

Line terminal 1

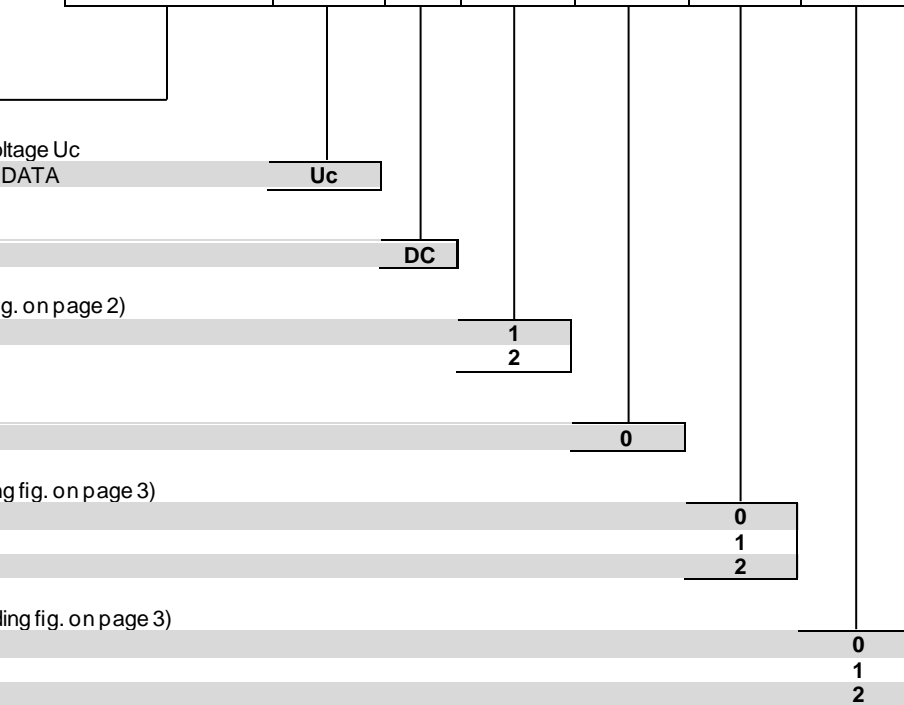
Line terminal 2

VII. Earth terminal (according fig. on page 3)

Without earth terminal

Earth terminal 1

Earth terminal 2



Order example:

I	II	III	IV	V	VI	VII
PROXAR-IIW	1.2	DC	1	0	1	1

PROXAR-IIW 1.2 DC 1011 – 3 pcs.

Description: Surge arrester type **PROXAR-IIW** of continuous operating voltage U_c=**1.2** kV for **DC** system in vertical mounting version -**1** without base - **0**, line terminal - **1**, earth terminal - **1**.

PROTEKTEL Sp. z o.o.
Piłsudskiego 92 str.
PL 06-300 Przasnysz
Poland
Tel./Fax +48 029 7525784
E-mail: protektel@protektel.pl
www.protektel.pl

Note:

The manufacturer reserves the right to change technical data or designee without prior notice.
PROXAR® is a registered trademark newest family of surge arresters produced by Protektel