

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

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 (Un _{DC})	0.6 – 3 kV
Continuous operating voltage (UcDc)	1 – 4.7 kV
Nominal discharge current In 8/20 µs	10 kA
High current impulse Ihc 4/10 µs	100 kA
Long duration current impulse, 2000 µs	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 Uc
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										
	Max.	Residual voltage in [kV] peak at a specified impulse current								
TYPE continuous PROXAR-IIW voltage (DC)		Wave 1/ µs		Wave 1/ µs			Wave 1/ µs			
DC	Ŭc	5kA	10kA	2.5kA	5kA	10kA	20kA	125A	250A	500A
	kV	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
17	17	12.0	15.0	10.6	11 5	12.5	13.6	02	91	97

 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**

I LOI INICA							
	Insulation withstand voltage of empty housing		Minimal		e e	t	
	50 Hz	1.2/50 µs	Distance between	Distance between arrester and the	Heighi H	reepa, istanc L	Neigh
	(60s)	dry	arresters "b"	nearest grounded structure "a"		Ōp	1
	kV	kV	mm	mm	mm	mm	kg
1.0			66	38			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	29	63	83	55	125	120	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







Order configurator**:

		II		IV	V	VI	VII
	PROXAR-IIW		DC		0		
**) Empty fields to fill.							
PROXAR-IIW							
II Continious operating voltage L	c						
	-						
See table - ELECTRICAL DATA	-	UC					
III. Voltage type							
Direct voltage			DC				
		•	- •				
IV. Assembly (according fig. on pa	age 2)						
Vertical 1	0 /		-	1			
Horizontal 2				2			
			_				
V. Base							
Without base					0		
				_			
VI. Line terminal (according fig. or	n page 3)						
Without line terminal						0	
Line terminal 1						1	
Line terminal 2						2	
	•						
VII. Earth terminal (according fig.	on page 3)						
vvithout earth terminal							0
Earth terminal 1							1
						-	2

Order example:

Ι	II		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 Uc=**1.2** kV for **DC** system in vertical mounting version -**1** without base - **0**, line terminal - **1**, earth terminal - **1**.

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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