

VAL series



Lightning protectors adapted to JIS and 8/20 μ s wave-form.

Protectors are equipped with Varistors adapted to 8/20 μ s and can be used to protect inductive lightning. Applicable to power distribution board installed in office floor.



VAL-CP series

Thin and high performance type lightning protectors adapted to class II.

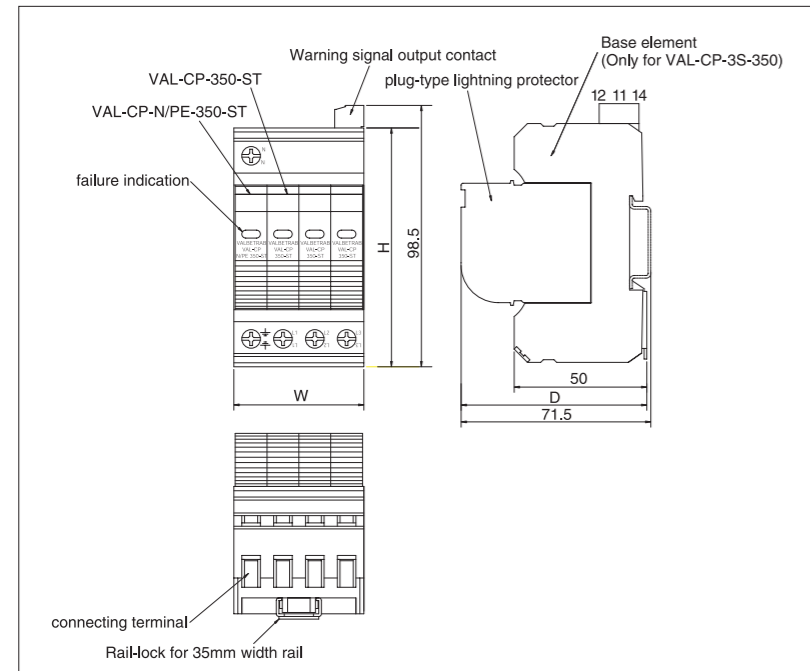
VALVETRAB compact is the lightning protector adapted to the inductive lightning wave-form (class II 8/20 μs).

Main body consists of plug type lightning protectors and base part and is equipped with warning signal output contact and failure indication function as standard equipment.

According to the application line-up, for single phase 2 wires, single phase 3 wires, 3 phase 3 wires etc. is prepared.

External figure

unit(mm)



	VAL-CP-3S-350	VAL-CP-2S-350	VAL-CP-1S-350	VAL-CP-3C-350	VAL-CP-2C-350
W	49	37	24	37	24
H	90				
D	70				

Specifications

Type-name	VAL-CP-3S-350	VAL-CP-2S-350	VAL-CP-1S-350	VAL-CP-3C-350	VAL-CP-2C-350
Test class	※1 Class II				
Rated voltage	UN AC240V				
Max. continuous operating voltage	UC AC350V				
Nominal discharge current I _n (8/20) μs	L ~ N	20kA × 3	20kA × 2	20kA × 1	20kA × 3
	N ~ PE	20kA			
Max. discharge current I _{max} (8/20) μs	L ~ N	40kA × 3	40kA × 2	40kA × 1	40kA × 3
	N ~ PE	40kA			
Voltage protection level (Voltage limitation) U _P	L ~ N	less than 1.4kV			
	N ~ PE	less than 1.3kV			
Required max. back-up fuse	125A				
Short-circuit current withstanding without back-up fuse	25kA				
Applied cable	2.5 ~ 16mm ² (Recommended 5.5 ~ 14 mm ²)				
Failure indication function	equipped				
Warning signal output contact	equipped 1 connecting contact				

※1 IEC 61643-1/JIS C 5381-1



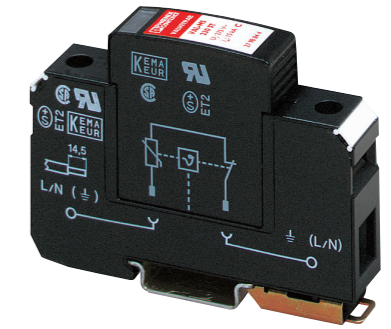
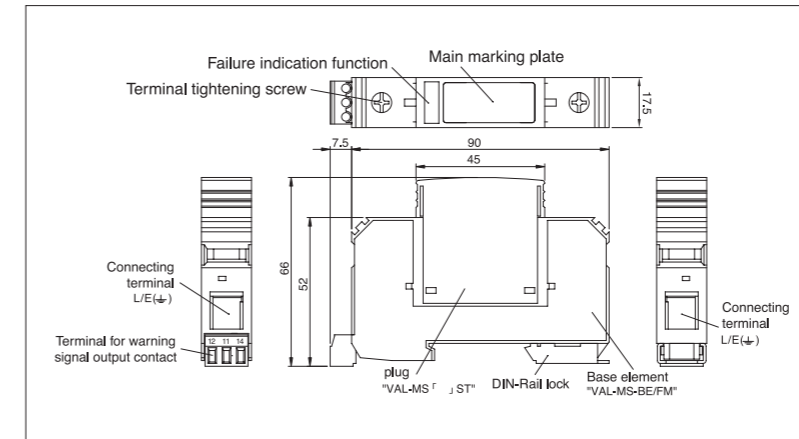
VAL-MS series

Lightning protectors specified to 8/20 μs and class II

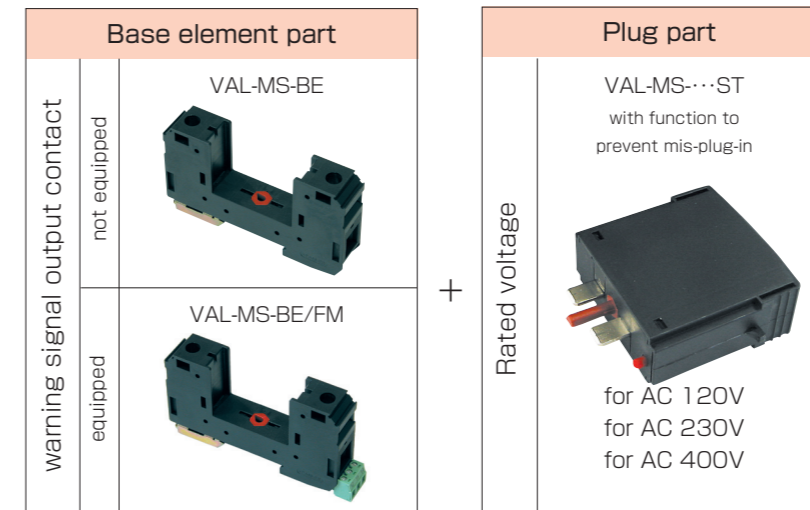
The lightning protector consists of lightning protector part and base element part. Failure indication function and line separation function at failure are equipped as the standard equipment. (/FM) type is equipped with warning signal output contact.

External figure

unit(mm)



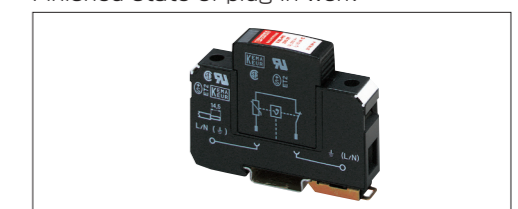
Equipment construction



Plug-in work of lightning protector



Finished state of plug-in work



Specifications

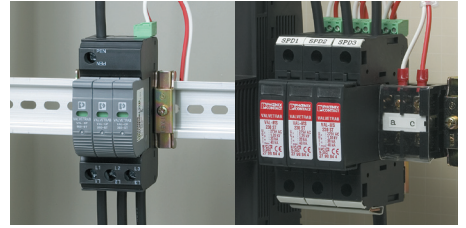
Type-name	VAL-MS-60ST	VAL-MS-120ST	VAL-MS-230ST	VAL-MS-400ST	VAL-MS-500ST
Test class	※1 Class II				
Rated voltage	UN AC60V(DC80V)	AC110V	AC230V	AC400V	AC500V
Max. continuous operation voltage U _c	AC75V(DC100V)	AC150V	AC275V	AC440V	AC600V
Nominal discharge current I _n (8/20) μs	15kA	20kA			15kA
Max. discharge current I _{max} (8/20) μs	40kA				30kA
Voltage protection level (Voltage limitation) U _P	less than 0.5kV	less than 0.8kV	less than 1.35kV	less than 2.2kV	less than 2.8kV
Required max. back-up fuse	125A				
Applied cable	0.5 ~ 25mm ² (Recommended 5.5 ~ 14 mm ²)				
Failure indication function	equipped				
Warning signal output contact	equipped 1 connecting contact ※2				

※1 IEC 61643-1/JIS C 5381-1

※2 Base element equipped with warning signal output contact VAL-MS-BE/FM

Lightning protector using lightning protection element

VAL series



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