RDU5

Surge Protection Device

Grade I protection

Grade II protection

Description

RDU5 Series SPD is mainly used for TN-C, TN-S, TT, IT and other power supply systems with AC50Hz/60Hz, nominal discharge current of 5kA~60kA, max. discharge current 10kA~100kA, rated operating voltage 220V/380V and below, has the limit protection on the grid lightning overvoltage and surge overvoltage.

Selection guidance

RDU5	A	15	2P	UC420
Code	Protection grade	Max. discharge current	Poles	Maximum sustainable operating voltage
Surge protection Device	A: Grade I B: Grade II	A: 15、25 、50 B: 10、20、40、60、80、100	1P 2P 3P 4P	UC420

Technical characteristics

☐ RDU5 Series SPD uses a very good nonlinear pistristor, connected between the phase line and zero line (L-N), phase line and ground line (L-PE), zero line and ground line (N-PE). Under the normal state, the SPD is in a very high resistance state, and the leakage current is almost zero, to ensure the normal power supply of the power supply system, When the overvoltage of the above situation occurs, the surge protector immediately conducts it quickly in the nanosecond level time, to limit the amplitude of the overvoltage in the safe working range of the equipment, and leading the energy of overvoltage into the ground, so as to protect the equipments. Afterward, the SPD is quickly changed to high resistance state, therefore, the normal power supply of the power supply system is not affected.

☐ The primary lightning protection device is a composite lightning protection device designed according to the requirements of SPD level I classification test, which can be used for the first and second level protection of the load equipment of the power lines, to prevent the low-voltage equipment from overvoltage interference or even direct lightning damage, and is applied to the lightning protection zone LPZ0A-2 interface.

☐ Switch-type composite lightning protection device is designed and manufactured according to IEC61643-1 and GB/T 18802.1 standards, with a high lightning flow and discharge capacity, a single module impact current up to 25KA (s). It can be widely used in the first stage of lightning protection of the equipment system in areas with high lightning risk, and can be combined for single / three-phase power supply lines.

☐ With internal wiring, the overall structure is compact, convenient installation wiring.

☐ High-speed response, fast action time.

☐ Working status is obvious, green (normal), red (Fault).

☐ Additional functions, such as acoustic and optical alarm (B), fault remote contact (X).

SURGE PROTECTION DEVICE

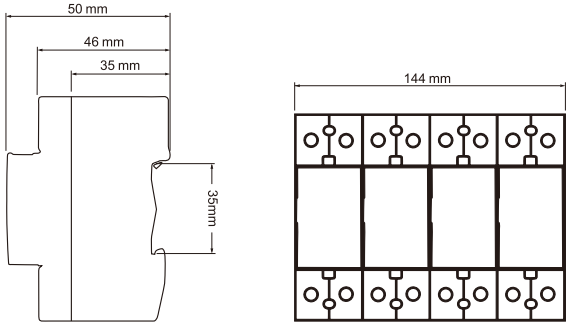
Main technical parameter

T1 Grade testing					
Model No. and specification	Maximum continuous operating voltage UC	Lightning impulse current limp (10/350μs)	Protection level up(kV)	Responding time ns	Working environment temperature °C
RDU5-A15	420V	15	2.0	⩽100	-40℃ ~ +85℃
RDU5-A25		25	2.5		
RDU5-A50		50	2.5		

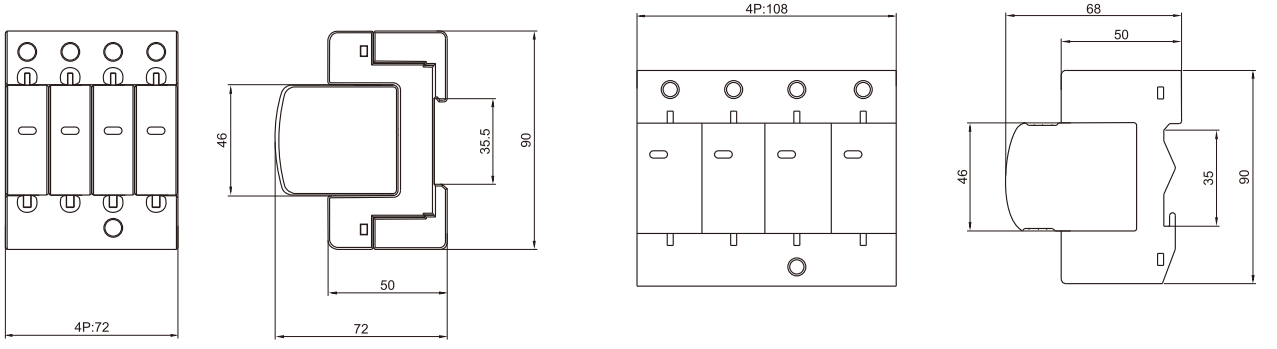
T2 Grade testing							
Model No. and specification	Rated working voltage	Maximum continuous operating voltage UC	Protection level up(kV)	Max. discharge current Imax(KA)	Norminal current In(KA)	Responding time ns	Working environment temperature □
RDU5-B10	220V / 380V	420V	1.2	10	5	⩽25	-40℃ ~ +85℃
RDU5-B20			1.5	20	10		
RDU5-B40			1.8	40	20		
RDU5-B60			2.2	60	30		
RDU5-B80			2.4	80	40		
RDU5-B100			2.5	100	60		

Note: The RDU5-B100 surge protector is of CITEL structure, and the rest of the RDU5-B series surge protectors are OBO structure products.

Appearance and installation dimensions



Grade I protection



Grade II protection