

DATASHEET

Mains power protection

MMP CPV Series

Type 2 (Class II / Class C) protector

$I_{max} = 40 \text{ kA } 8/20 \mu\text{s}$



Features & benefits

- The varistor based design eliminates the high follow current (I_f) associated with spark gap based surge protection
- The CPV Series utilises replaceable protection modules
- A red indicator shows when the protector requires replacement (replacement module part no. MMP CXXX where XXX is the system voltage - 100, 550, 1000)

Application

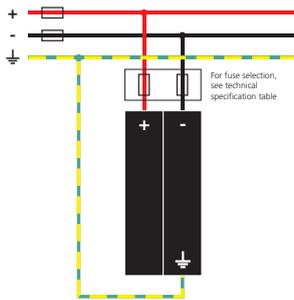
Use on single phase mains supplies and power distribution systems for protection against partial direct or indirect lightning strikes.

- This indication can also trigger a remote signal contact to interface with a building management system. Please use '/S' after the part no. to order the remote indication (change-over) contact version

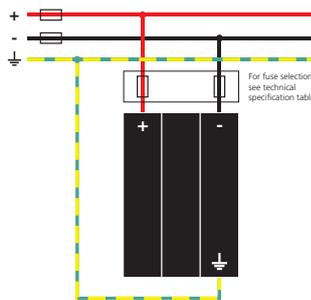
Installation

Should be installed on the DC side of the DC-AC inverter, as close as possible (within 10 m) to the equipment to be protected. The protector's base is suitable for attachment to a 35 mm top hat DIN rail. Note: a separate mains surge protector should also be installed on the AC side of the DC-AC inverter.

The diagrams below illustrate how to wire the appropriate MMP protector to the PV electrical system.



100 V DC, 550 V DC



1000 V DC

MMP CPV Series - Technical specification

Electrical specification	MMP C100PV	MMP C550PV	MMP C1000PV
Maximum continuous operating voltage (U_c)	100 Vdc	550 Vdc	1000 Vdc
Signal contact ratings	250 VRMS / 0.5 A	250 VRMS / 0.5 A	250 VRMS / 0.5 A
Back up fuse	Fuses specifically designed for use on PV systems are recommended. Determine the most appropriate back up fuse from assessment of the nominal current of the PV module, and the open circuit voltage of the PV array: 1. multiply the nominal current of the photovoltaic module by a factor of 1.4 and select the closest, higher value fuse to the calculated figure. 2. multiply the open circuit voltage of the PV array by a factor of 1.2 and ensure that the the selected fuse has a higher voltage withstand than the calculated figure.		
Part numbers			
SPD part no.	MMP C100PV	MMP C550PV	MMP C1000PV
SPD part no. with signal contact	MMP C100PV/S	MMP C550PV/S	MMP C1000PV/S
Transient specification	MMP C100PV	MMP C550PV	MMP C1000PV
Arrestor classification ¹			
EN	2	2	2
IEC	II	II	II
E DIN VDE 0675	C	C	C
Let-through voltage (U_p) ² at I_n (8/20 μ s)	< 700 V	< 1.9 kV	< 3.65 kV
Nominal discharge current at I_n (8/20 μ s)	20 kA	20 kA	20 kA
Maximum discharge current I_{max} (8/20 μ s)	40 kA	40 kA	40 kA
Mechanical specification	MMP C100PV	MMP C550PV	MMP C1000PV
Temperature range	-40 to +80 °C		
Connection type			
for power	35 mm ² solid conductor, 25 mm ² stranded conductor - maximum torque 4.5 Nm		
for signal (remote contact)	1.5 mm ² conductor (/S option) - maximum torque 0.25 Nm		
Mounting	Indoor, 35 mm top hat DIN rail		
Degree of protection	IP20		
Case material	Thermoplastic, UL 94 V-0		
Weight ³	445 g	485 g	595 g
Dimensions to DIN 43880	90 mm x 68 mm x 36 mm (2TE)	90 mm x 68 mm x 36 mm (2TE)	90 mm x 68 mm x 54 mm (3TE)
	Units with the remote signal contact terminals (removable) are 100 mm high		

¹ Tested to BS EN/IEC-61643

² Values stated are per pole

³ Remote signal contact adds 5 g to weight

