

**DESCRIPTION**

The MLP-P100 is a high-performance surge protective device (SPD) for 100V AC power lines that protects electrical instruments by absorbing lightning-induced surge voltage.

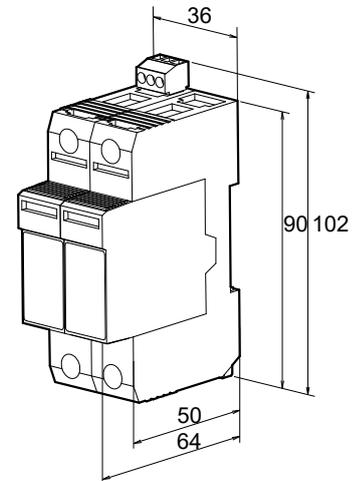
This SPD consists of a plug part and a socket part. The plug part features a deterioration indication function.

**ORDERING INFORMATION**

Ordering Code
MLP-P100

**SPECIFICATIONS**
**● PERFORMANCE**

Item	Measuring Conditions	Performance	
Maximum Continuous Operating Voltage (Uc)	—	150V AC (50/60Hz)	
Nominal Voltage (Un)	—	Single-phase 2-wire 100V, 150V	
Operation Starting Voltage	V1mA	L-L: 512-620V L-E: 256-310V	
Maximum Discharge Current (Imax)	8/20μs	L-L-E: 40kA	
Nominal Discharge Current (In)	8/20μs	L-L-E: 5kA	
Voltage Protection Level (Up)	As per JIS	L-L: 1400V max. L-E: 700V max.	
Overcurrent Protection	L/N-PE	Fuse 30A (FDS-20kA)	
Short-circuit Current Rating (IscCR)	—	25kA	
Temporary Overvoltage Characteristics (UT)	—	175V, 5 sec.	
Residual Current (IPE)	132V AC (L/N-PE)	1mA max.	
Response Time	—	3ns max.	
Degree of Protection	—	IP20	
Terminal Identification	—	Provided	
Status Indicator	Normal/Faulty	Green/Red	
Location Category	—	Indoor	
Terminals for Deterioration Detection	Normal	11-12	Closed
		11-14	Open
	Faulty	11-12	Open
		11-14	Closed
	Maximum Operating Voltage/Current	—	250V/1.5A AC
JIS Compliance	JIS C 5381-11 (class II)		


**● ENVIRONMENTAL**

Location of Use	Machine room or equipment enclosure
Rated Operating Temperature	-40 to 70°C
Rated Operating Humidity	90% RH max. (non-condensing)
Storage Temperature	-40 to 70°C
Storage Humidity	90% RH max. (non-condensing)
Altitude	2000m max.

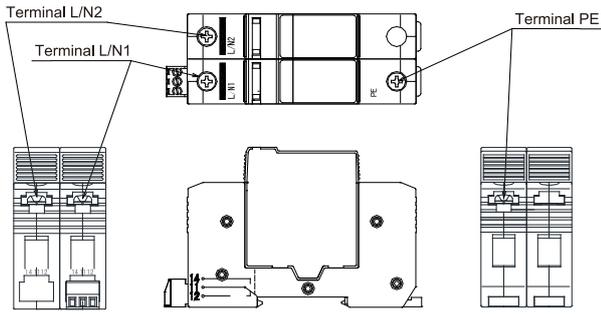
**● PHYSICAL**

Construction	Plug-and-socket, two-piece construction
Grounding	Class D [100Ω max.]
Installation	DIN rail mounting
Wiring	M4 screw terminal connection (less than 12mm wide)
	Recommended cable: 2mm <sup>2</sup> (AWG14) to 8mm <sup>2</sup> (AWG8) Tightening torque: 1.27 to 1.96 Nm NOTE: When using two solderless terminals stacked together, J.S.T. Mfg's V2-P4 or FV2-P4 is recommended.
Terminals for Deterioration Detection	Recommended cable: 0.05mm <sup>2</sup> (AWG30) to 2mm <sup>2</sup> (AWG14) Stripping length: 7 to 8 mm
Dimensions	W36 × D102 × H64 mm
Weight	Approx. 215g

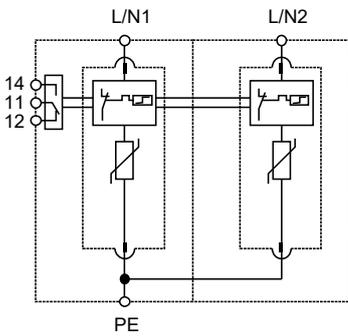
**● MATERIAL**

Plug / Socket	Polycarbonate
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**TERMINAL ASSIGNMENTS**

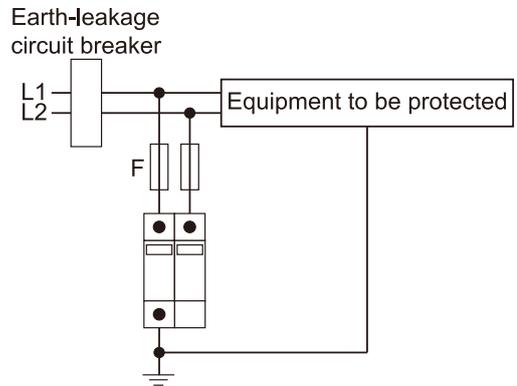


**BLOCK DIAGRAM**



**INSTALLATION EXAMPLE**

100V AC, secondary side of earth-leakage circuit breaker  
Single-phase, two-wire system, without earthing



F: Recommended fuses (FDS-20kA)

NOTE: If the distance from the MLP device to the equipment to be protected is over 10 meters, it is recommended that an additional MLP device adjacent to the equipment to be protected should be installed.