

**DESCRIPTION**

The MLP-P200AR is a high-performance surge protective device (SPD) for 200V AC power lines that protects electrical instruments by absorbing lightning-induced surge voltage.

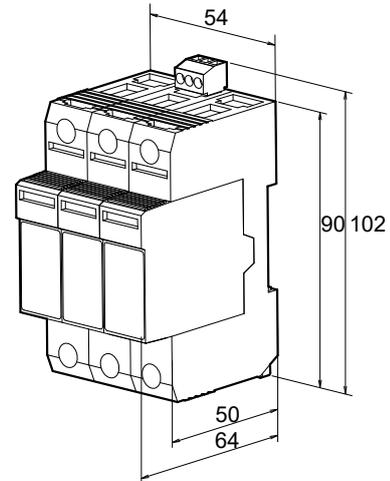
This SPD consists of a plug part and a socket part, and the plug part has a deterioration indication function. The product features a gas discharge tube (GDT) between the neutral (N) and protective earth (PE) lines.

**ORDERING INFORMATION**

Ordering Code
MLP-P200AR

**SPECIFICATIONS**
**● PERFORMANCE**

Item	Measuring Conditions	Performance
Maximum Continuous Operating Voltage (Uc)	L-N	255V AC (50/60Hz)
	N-PE	255V AC (50/60Hz)
Nominal Voltage (Un)	—	Single-phase 2-wire: 200V, 230V Single-phase 3-wire: 100V, 200V
Operation Starting Voltage	L-L (V1mA)	774-946V
	L-N (V1mA)	387-473V
	N-PE (100V/s)	800V min.
Maximum Discharge Current (Imax)	L-N/L-L (8/20μs)	40kA
	N-PE (8/20μs)	75kA
Nominal Discharge Current (In)	L-N/L-L (8/20μs)	20kA
	N-PE (8/20μs)	60kA
Voltage Protection Level (Up)	L-L (As per JIS)	2.8kV max.
	L-N (As per JIS)	1.4kV max.
	N-PE (As per JIS)	1.5kV max.
Overcurrent Protection	L-N	Fuse 30A (FDS-20kA)
Short-circuit Current Rating (IscCR)	L-N	25kA (50/60Hz)
Follow Current Interrupt Rating (Ifi)	N-PE	100A (50/60Hz)
Temporary Overvoltage Characteristics (U <sub>T</sub> )	L-N	335V, 5 sec.
	N-PE	120V, 200ms
Residual Current (I <sub>PE</sub> )	255V AC (L-N/N-PE)	1mA max.
Response Time	—	3ns max.
Degree of Protection	—	IP20
Location Category	—	Indoor
Terminal Identification	—	Provided



Status Indicator (L-N only)	Normal/Faulty	Green/Red	
Disconnection Indication	—	Provided	
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**

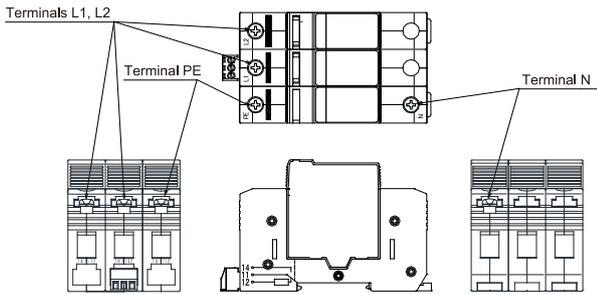
Construction	Plug-and-socket, two-piece construction (N-PE module is not detachable.)
Grounding	Class D [100Ω max.]
Installation	DIN rail mounting
Wiring	M4 screw terminal connection (less than 12mm wide)
	Recommended cable: 2mm <sup>2</sup> (AWG14) to 8mm <sup>2</sup> (AWG8) Tightening torque: 1.27 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	W54 × D102 × H64 mm
Weight	Approx. 325g

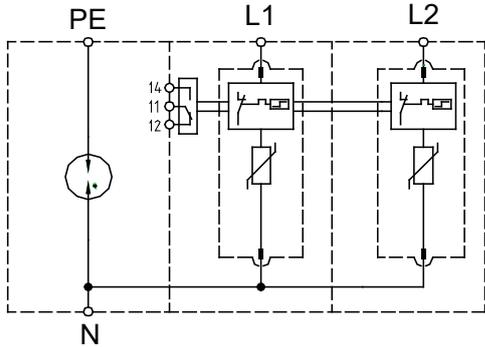
● MATERIAL

Plug / Socket	Polycarbonate
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TERMINAL ASSIGNMENTS



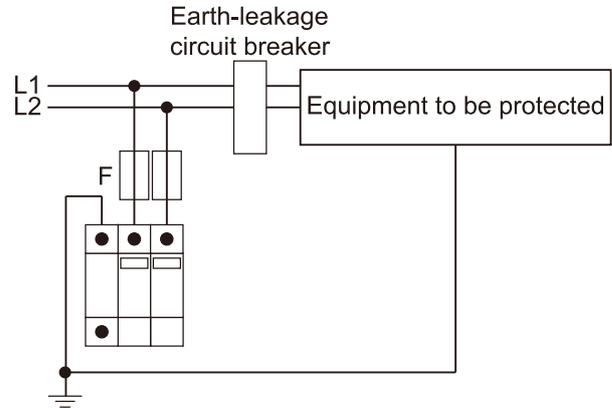
BLOCK DIAGRAM



INSTALLATION EXAMPLE

100V/200V AC, primary side of earth-leakage circuit breaker

Single-phase 2-wire (MLP-P200AR)



Single-phase 3-wire (MLP-P200AR)

