1. General

This SPD (Surge Protective Device) is suitable for a.c. power line, this SPD is intended use of protect from abnormal voltage such as indirect lightning surge.
This product corresponds to IEC61643-11 Class I test, Class II test.

2. Service Condition

2.1 Install Location : Indoor
2.2 Ambient Temperature : -40°C~+70°C
2.3 Relative Humidity : ≤95%(non-condensing)
2.4 Storage Temperature : -40°C~+70°C
2.5 Storage Humidity : ≤95%(non-condensing)
2.6 Altitude : ≤2000m

3. Appearance, Dimensions and Marking

3.1 Appearance and Dimensions.

Table.1

Model Number	Appearance
MZS-200AV	T-050680A02

3.2 Marking

Following particulars are marked on the body of this product;
(1)Manufacture's name or trademark
(2)Maximum continuous operation voltage U_c
(3)Type of current(~)
(4)Test classification and discharge parameter (I_{imp})
(5)Voltage protection level U_P
(6)Degree of protection(IP code)
(7)Identification of terminals
(8)Max. mains-side overcurrent protection
(9)CE Logo, KEMA Logo

3.3 Fault indicator

The fault indicator of this product will draw out a red bar from the display window at the time of deterioration.
Red bar are visible from the display window all the time.
The contact terminals are as listed in Table 1 in each state.

4. Characteristics

4.1 SPD characteristics shown in Table.2

Table.2

Item		Measurement condition	Characteristics
1.Model Number			MZS-200AV
2.Complies with standard			IEC 61643-11:2011
3.Approvals			KEMA
4.Test classification			Class I, Class II
5.Maximum continuous operation voltage U_c		L-N/PE	275V (50/60Hz)
6.Impulse discharge current I_{imp}		10/350μs	25kA
7.Nominal discharge current I_n		8/20μs	25kA
8.Voltage protection level U_p		L-N/PE	≤1.5kV
9.Overcurrent protection			≤315A (fuse)
10.Short-circuit current rating I_{SCCR}			25kA(50/60Hz)[N3]
11.Temporary overvoltage U_T		L-N/PE	335V 5s (50/60Hz)
12.Leakage current I_{PE}		AC255V (L-N/PE)	≤1mA
13.Response time			≤3ns
14.Number of ports			1port
15.Location			In door
16.Mounting method			35mm DIN rail
17.Degree of protection			IP20
18.Identification of terminals			L,PE
19.Fault indicator		Fault indication	Protruding the red bar
20.Remote contact	Normal	11－12	Short
		11－14	Open
	Fault	11－12	Open
		11－14	Short
	Maximum operation voltage/current		AC125V/1.5A,AC250V/1.5A

Note 1) Test Conditions

Temperature 20±15°C, Humidity 65±20% (IEC 160-1963 (normal condition of test place)).

Note 2) Do not use "L-N,L-PE" voltage more than U_c.

Note 3) Including external disconnector.

5. Connection cable

5.1 Cable size : cross-section 5.5~22mm^2 (AWG10~4)
Cable stripping length : about 15mm (Figure.1)
Recommended tightening torque : 2.94~3.43N・m (30~35kgf・cm)

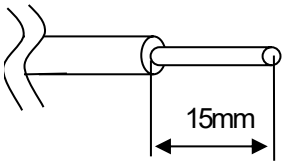


Figure.1

5.2 Remote contact
Cable size : cross-section 0.05~2mm^2 (AWG30~14)
Cable stripping length : 7~8mm

6. Inspection Condition

The inspection of electrical characteristics, mechanical characteristics and appearance shall be held as following Table.3

Table.3

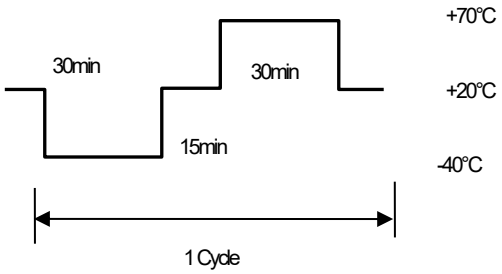
Item	Inspection type	How to check for Characteristics
1.Insuration resistance	Sampling	DC350V≥1000MΩ
2.Table 2:4~10	Type	According to IEC 61643-11:2011
3. Response time	Type	According to Table.2
4.Remote contact	Type	
5.Low temperature test	Type	After Table.4 test I_{PE}: According to Table.2
6.High temperature test	Type	
7.High temperature-humidity test	Type	
8.Temperature cycle test	Type	
9.Vibration test	Type	
10.Appearance, display	Sampling	According to Table.1
11.Dimension		

Note 1) Sampling Inspection; Single sampling plan, Normal inspection, Special inspection levels S-3based ISO-2859 and AQL=2.5
Note 2) "Type inspection; This inspection is executed when the main material is changed.

7. Environmental Test

Table.4 shows the environmental test condition of this product.

Table.4

Item	Test Condition	Test Time
1.Low temperature test	Ta=-40±3℃	1000h
2.High temperature test	Ta=+70±2℃	1000h
3.High temperature-humidity test	Ta=+40±2℃ 90~95%	4days
4.Temperature cycle test		30 cycles
5.Vibration test	Frequency:40(Hz) Sweep rate:19.6m/s²(2G)	15min/3axis

8. Packing and Marking of Wrapping Box

8.1 Packing

Packaging unit 1 pieces packed in a box.

8.2 Marking of wrapping box

Following particulars are marking on wrapping box.

(1) Product Name (2) Manufacturer's name (3) Quantity

9. Quality guarantee period

The warranty period of this product has been one year since the product was delivered.

If defective product claims are found to be justifiable, replacement products meeting the applicable specification will be provided.

10. Environmental Correspondence (RoHS compliant)

This product is applicable to EU RoHS Directive (*) for regulated substances (10 substances: lead, mercury, cadmium, hexavalent chromium, PBB, PBDE, DEHP, BBP, DBP, DIBP), and does not include controlled substances that exceed regulatory limits.

* European Parliament and Council Directive 2011/65/EU , (EU)2015/863

11. Caution

Please use in combination with fuse or breaker to avoid short fault by hitting AC overload voltage.