

DHO 60-385(1+1)-FM

Grade II. Type 2  
Location of use: Distribution box  
Power supply system: TN-S,TT  
Nominal Discharge Current (In): 30 kA(8/20μs) T2  
Max. Discharge Current (Imax): 60 kA(8/20μs) T2  
Protective Element: High Energy MOV+GDT  
Housing Design: Plug-in module and separate base design  
Housing Material: PA 66 UL 94 V-0  
Certification Marks:



Rated voltage Un  
Max. continues operating voltage Uc

Rated operational voltage Uo  
Rated operational voltage Ue  
Rated frequency f  
Residual current(PE) I<sub>PE</sub>  
Short-circuit current tolerance  
Current type  
Nominal discharge current In (8/20μs)  
Max. discharge current Imax (8/20μs)  
Protection level Up

L-N At In impuls current  
N-PE At In impuls current

Mounting connection  
fine\*/-/solid strand

Terminal Screw Torque  
Test force

\* fine strand wires must furnish with ferrules

Strip length

PE connection M5 2.0N.m



230 V AC  
385 VAC (L-N)  
255 VAC (N-PE)  
220 V AC  
230 V AC  
50/60 Hz  
≤ 15 μA  
300 A  
AC  
30 kA T2  
60 kA T2  
≤ 2.2 kV  
≤ 1.5 kV  
35mm DIN rail  
For M5 biconnect terminal blocks  
0.5-25 mm<sup>2</sup> / 0.5-35 mm<sup>2</sup>  
2.0 N.m  
≥ 100N  
14.5mm



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Remote warning contact (only -FM case)

Fine-/solid strand

Spec/torque/dimension

Max. operating voltage

Max. operating current

Response time  $t_A$  ( L-N/N-PE)

Max. required fuse : series wiring/parallel wiring

Temperature range

Type of protection according to IEC 60529

Clearances and creepage distances according

To EN 60664-1:2003

Contamination level

Overvoltage category

Altitude

And IEC / EN 61643-11

Test class EN/IEC

Insulating material

Housing

Inflammability class in acc. To UL 94

In accordance to test standards

single-pole change-over contact

pluggable MC 1,5/3 ST

1,5/1,5 mm<sup>2</sup> / AWG 26-16

M2 / 0,25 N.m / 7 mm

250 VAC

0.75 A AC

$\leq 25$  ns/ $\leq 100$  ns

160 A gL/gG,

-40°C...+85°C (100°C pass)

IP20

$\geq 6$ mm

2

III

4000 m

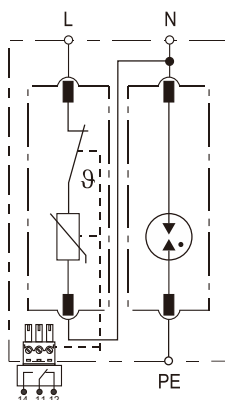
T1/I&T2/ II

PA 66

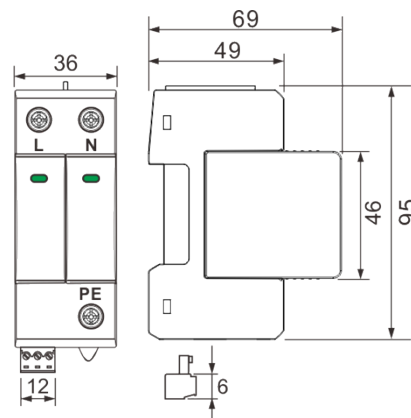
V0

IEC 61643-11 GB18802.11

Diagram



Dimensions



## Direction for Use

- The DC/AC SPD must be installed by an electrically skilled electrician. The installation position can not be directly touched by hands. Installation and connection to service must be done only when the system is



Shanghai DHOCEAN Technology Co., Ltd.

202, Building 22, 1288 Luoning Road, Baoshan, Shanghai 200949, P.R. China

www.dhocean.cn

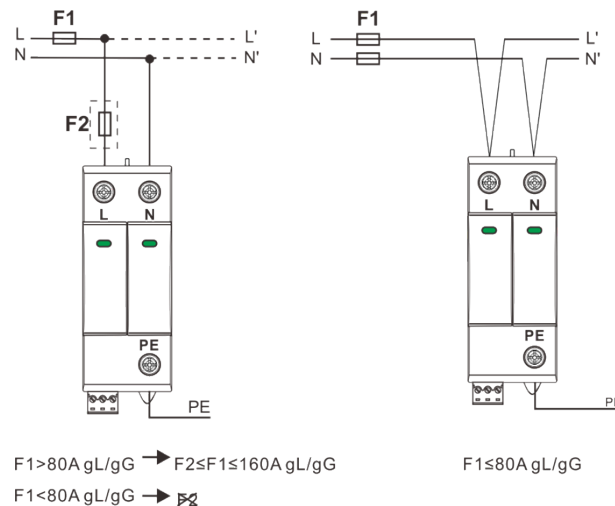
info@dhocean.cn

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de-energized. Check whether the SPD is in good condition, Red light indicates fault and the SPD needs replacement; Green light on in the notice window indicates normal.

- Install according to the wiring diagram and the installation requirements of SPD in GB 16895.22/IEC 60364-5-53, Grounding Conductor Cross-Sectional Area should not be less than 16mm<sup>2</sup>. Consideration shall be given to limit the total wiring length of conductors between connection points of the SPD assembly to a value not greater than 0.5 m.
- Connection of remote warning contact: The SPD of the power module is equipped with a remote warning contact interface (11-12 is normally closed; 11-14 is normally open), can be used for remote centralized monitoring or alarming.
- After the wiring completed, check whether the module is assembled in place (if yes, 11-12 is closed, and 11-14 is disconnected). If No, re-press the module.

## Connection Diagram



## Operation and maintenance

- DHO 60-385(1+1)-FM After the power module SPD fails to work, it is automatically separated from the power supply line through the thermal fuse protection system inside the module, the display window changes from "green" to "red", and 11-12 of the remote contact interface is disconnected; 11- 14 is closed. When the deterioration indication window of the SPD power module is "red" or occurs a remote alarm signal, the SPD should be replaced by professionals immediately.
- **After a thunderstorm, check the SPD's display window on the power module.**

## Packaging transportation and storage

- **Packaging:** Each SPD power module is packaged independently attached Series User Manual.
- **Transportation:** The product should have a covering during transportation, and should be no violent vibration and impact.
- **Storage:** Product storage temperature during -40 °C ~ 85 °C, relative humidity 5% ~ 95%. The warehouse is well ventilated, the floor is dry, and there is no corrosive gas. Products with a storage period of more than a year should be re-inspected before they are qualified for use.

