

### DHO 60-385(3+0)-FM

Grade II, Type 2

Location of use: Distribution box

Power supply system: TN-S, TN-C, TT

Nominal Discharge Current ( $I_n$ ): 30 kA(8/20 $\mu$ s) T2

Max. Discharge Current ( $I_{max}$ ): 60 kA(8/20 $\mu$ s) T2

Protective Element: High Energy MOV

Housing Design: Plug-in module and separate base design

Housing Material: PA 66 UL 94 V-0

Certification Marks:



Rated voltage  $U_n$

Max. continues operating voltage  $U_c$

Rated operational voltage  $U_o$

Rated operational voltage  $U_e$

Rated frequency  $f$

Residual current(PE)  $I_{PE}$

Short-circuit current tolerance

Current type

Nominal discharge current  $I_n$  (8/20 $\mu$ s)

Max. discharge current  $I_{max}$  (8/20 $\mu$ s)

Protection level  $U_p$

L-PE At  $I_n$  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

Remote warning contact (only -FM case)



230 V AC

385 VAC (L-PE)

220 V AC

230 V AC

50/60 Hz

$\leq 15 \mu A$

300 A

AC

30 kA T2

60 kA T2

$\leq 2.2 kV$

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

$\geq 100N$

14.5mm

single-pole change-over contact  
plugable MC 1,5/3 ST



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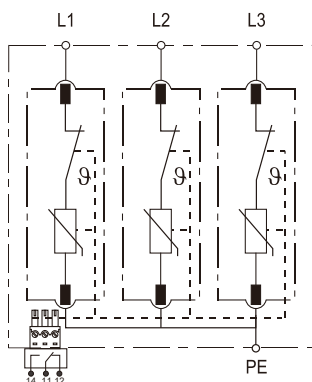
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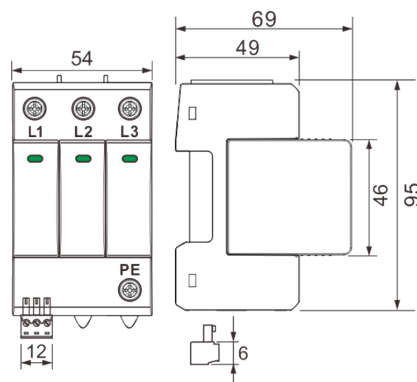
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|                                                                |                                     |
|----------------------------------------------------------------|-------------------------------------|
| Fine-/solid strand                                             | 1,5/1,5 mm <sup>2</sup> / AWG 26-16 |
| Spec/torque/dimension                                          | M2 / 0,25 N.m / 7 mm                |
| Max. operating voltage                                         | 250 VAC                             |
| Max. operating current                                         | 0.75 A AC                           |
| Response time tA ( L-PE)                                       | ≤ 25 ns                             |
| Max. required fuse : series wiring/parallel wiring             | 160 A gL/gG,                        |
| Temperature range                                              | -40°C...+85°C (100°C pass)          |
| Type of protection according to IEC 60529                      | IP20                                |
| Clearances and creepage distances according To EN 60664-1:2003 | ≥ 6mm                               |
| Contamination level                                            | 2                                   |
| Overvoltage category                                           | III                                 |
| Altitude                                                       | 4000 m                              |
| And IEC / EN 61643-11                                          |                                     |
| Test class EN/IEC                                              | T1/I&T2/ II                         |
| Insulating material                                            |                                     |
| Housing                                                        | PA 66                               |
| Inflammability class in acc. To UL 94                          | V0                                  |
| In accordance to test standards                                | 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 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



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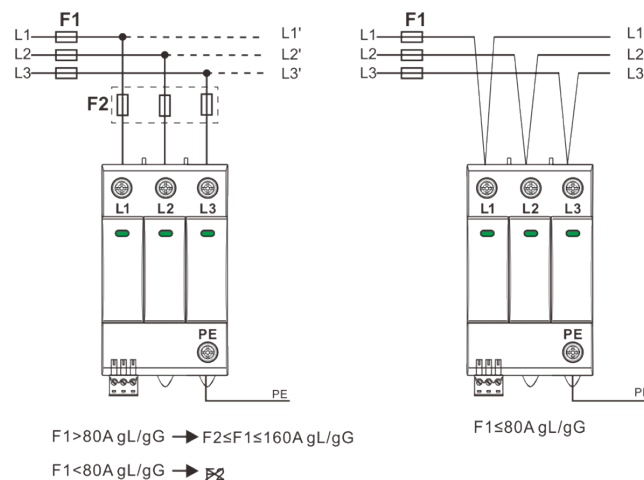
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shall be given to limit the total wiring length of conductors between connectionpoints of the SPD assembly to a value not greater than 0.5 m.

- 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(3+0)-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  $-40\text{ }^{\circ}\text{C} \sim 85\text{ }^{\circ}\text{C}$ , 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.

