

DHO 40-420(1+0)-FM

Grade II. Type 2

Location of use: Distribution box

Power supply system: TN-S,TT,IT

Nominal Discharge Current (In): 20 kA(8/20μs) T2

Max. Discharge Current (Imax): 40 kA(8/20μs) 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 Un

230 V AC

Max. continues operating voltage Uc

420 VAC (L-PE)

Rated operational voltage Uo

220 V AC

Rated operational voltage Ue

230 V AC

Rated frequency f

50/60 Hz

Residual current(PE) I_{PE}

≤ 5 μA

Short-circuit current tolerance

300 A

Current type

AC

Nominal discharge current In (8/20μs)

20 kA T2

Max. discharge current Imax (8/20μs)

40 kA T2

Protection level Up

L-PE At In impuls current

≤ **1.89 kV (Noted 2.0)**

At Imax impuls current

≤ 2.31 kV

Measured limiting voltage 3kA/6 kV (1.2/50μs) U_{max}

≤ 0.90 kV

TOV behaviour

L-N U_T:

440 V (120 min)

Mounting connection

35mm DIN rail

fine*/-/solid strand

For M5 biconnect terminal blocks

0.5-25 mm² / 0.5-35 mm²

Terminal Screw Torque

2.0 N.m

Test force

≥ 100N

* fine strand wires must furnish with ferrules

Strip length

14.5mm



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PE connection M5 2.0N.m

Remote warning contact (only -FM case)

Fine-/solid strand

Spec/torque/dimension

Max. operating voltage

Max. operating current

Response time t_A (L-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

Verify Certification

single-pole change-over contact

pluggable MC 1,5/3 ST

1,5/1,5 mm² / AWG 26-16

M2 / 0,25 N.m / 7 mm

250 VAC

0.75 A AC

≤ 25 ns

80A gL/gG,

-40°C...+85°C (100°C pass)

IP20

≥ 6mm

2

III

4000 m

T1/I&T2/ II

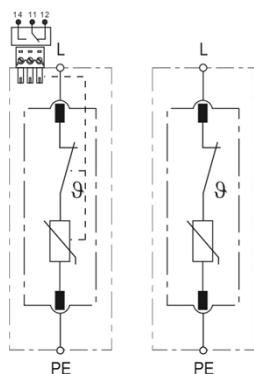
PA 66

V0

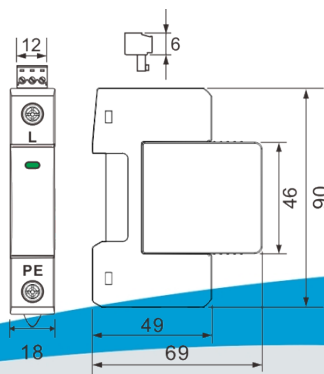
IEC 61643-11 GB18802.11



Diagram



Dimensions



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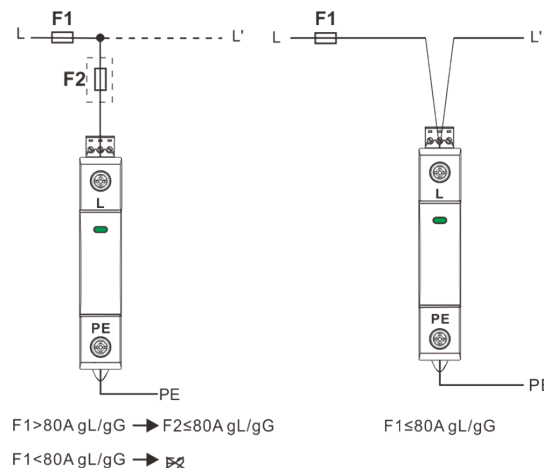
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Direction for Use

- 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 16mm². 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 40-420(1+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.



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- **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.



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