HDY3N SURGE PROTECTIVE DEVICES

Safety Notice

Make sure to read this manual carefully before installation, operation, maintenance and inspection and correctly install and use this product according to the manual.

⚠ Danger:

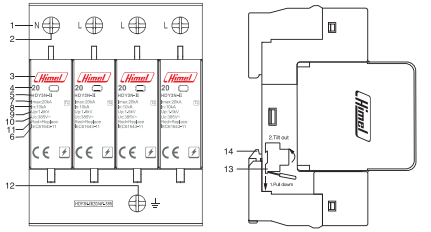
- Never touch the conductive parts in use;
- Make sure that the product is electrically neutral during maintenance and care;
- Prohibit to test the product by means of short circuit;

⚠ Attention:

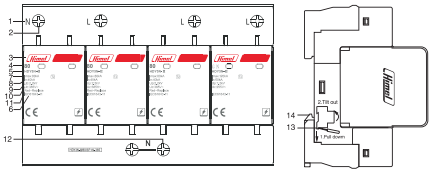
- The installation, maintenance and care shall be implemented by qualified professionals;
- Before using the product, please make sure its continuous operating voltage, nominal discharge current and voltage protection level comply with operating requirements;
- The product has already been damaged if the indication window shows red, and it should be replaced.
- The fuse or circuit breaker is serially connected onto a live wire branch, and the grounding system connections should be good.
- Make a good waste treatment for product scrap. Thanks for your cooperation;

Understanding HDY3N Surge Protective Device

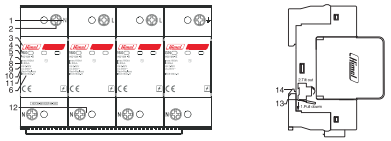
Panel Introduction



HDY3N–40、HDY3N–65



HDY3–80、HDY3–120



HDY3N–160

Note:
1 Wire code 2 Terminal block 3 Trade mark 4 Indication window
5 Product model 6 Executive standards and testing type
7 Maximum discharge current Imax(8/20μs):
20kA,40kA,65kA,80kA,120kA,160kA
8 Nominal discharge current In(8/20μs):
10kA,20kA,30kA,40kA,60kA, 80kA
9 Voltage protection level Up:
1.3kV,1.5kV,1.6kV,1.8kV,1.9kV,2.0kV,2.2kV,2.5kV,2.8kV etc.
10 Maximum continuous operating voltage Uc: 275V, 340V, 385V, 440V etc.
11 If the indication window turns red, it shows that the module needs to be replaced
12 Grounding terminal 13 Product disassembly diagram
14 Fixed clip

Conditions of Normal use, Installation and Transportation

Conditions of normal use and installation

- Ambient operating temperature-40℃~+80℃;
- The altitude of the installation site does not exceed 2000m;

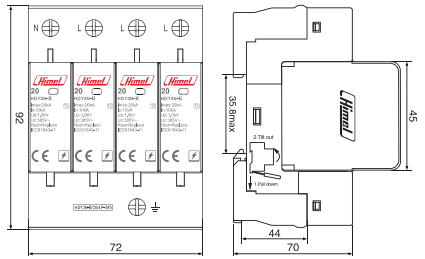
- The atmospheric relative humidity does not exceed 50% at the highest ambient temperature of+40℃. Higher relative humidity is allowed under lower temperature, e.g. up to 90% for 20℃. Protective measures shall be taken for condensation occasionally due to temperature change.
- It shall be installed in places where there is no shock and vibration, or rain and snow either;
- Pollution class: 23;
- Installation category: Class Ⅱ, Ⅲ and IV;
- Protection class:IP20 (IP40 for installation in the distribution box, distribution cabinet or box).

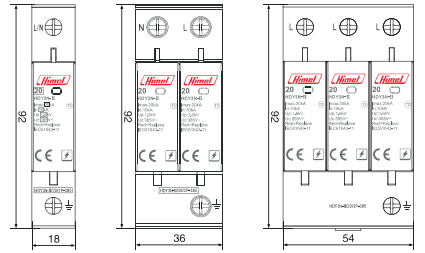
Conditions of normal storage and transportation

- Ambient air temperature-20℃ ~ +60℃, limiting temperature-40℃ ~ +70℃;
- Relative humidity: 30% ~ 90% at room temperature;
- When being transported, the product should be handled with care without upside down or intense collision.

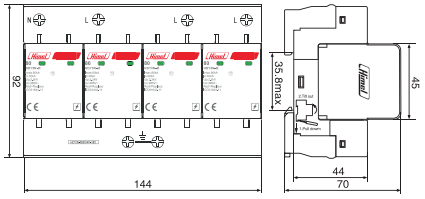
Product Installation

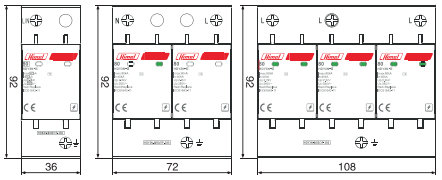
Overall and installation dimensions



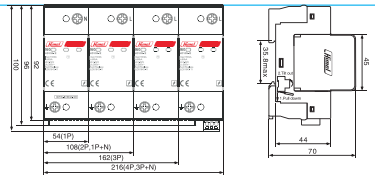


Overall Dimension of HDY3N-20, 40 and 65





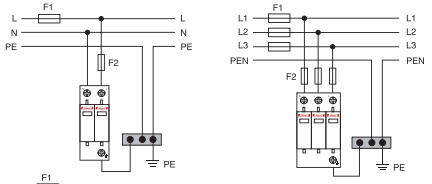
Overall Dimension of HDY3N-80 and 120



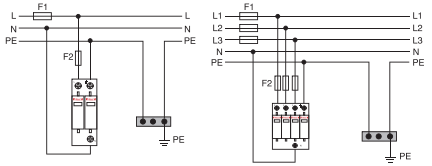
Overall Dimension of HDY3N-160

Debugging and Operation

- Before installation, please check if the technical specifications of the product meet the requirements and the product is damaged;
- Connect the wires according to the pad printed marks;
- The recommended cross-sectional areas of connecting conductors are: earth wire ⩾10mm², live/null line⩾4mm², Class 1zone live/null line⩾6mm², the conductor from distribution box to grounding strip ⩾16mm²;
- Installation diagram of HDY3N surge protective devices in different electrical systems:



TN System
HDY3N Installation Diagram



TT System
HDY3N Installation Diagram

Maintenance and Care

The maintenance and care must be implemented by qualified persons;
Make sure that the product is electrically neutral during maintenance and care;
The maintenance and care should be conducted before thunderstorm season and after a lightning strike, with maintenance details shown in the following table

Maintenance and care

Item	Content
Appearance	No dust or condensation, and clean if any No damage No discoloring shell and connection terminals Normal if the indication window shows green(NPE shows yellow), red means being damaged;
Terminal connections	Screw up as per the torque2.5N•m, without loosening

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User manual

HDY3N
Surge protective devices

Complied Standard:IEC/EN 61643-11
☐Please carefully read the User Manual before the installation and use of the products,keep it properly as backup.

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