

NXU -
Surge Arrester

User Instruction

Safety Warning

- 1 The product can only be installed and maintained by professionals, and should be checked regularly.
- 2 This product is strictly prohibited from being installed in an environment where there are flammable or explosive gases or moisture or condensation.
- 3 The power must be turned off when installing and maintaining the product.
- 4 It is strictly prohibited to touch the conductive parts of the product when it is in operation.
- 5 It is strictly prohibited for children to play with the product or packaging materials.
- 6 Prevent foreign objects from falling into the products.
- 7 When the product is installed and used, the wiring screws should be tightened, the wires should not be easy to loosen or pull out. The wires and the external disconnecter should be selected in strict accordance with the requirements.
- 8 Do not install the product in places where gaseous media can corrode metals or damage insulation.
- 9 When the red indicator protrudes from the front of the product, please replace the product in time.

1 Purpose of Use

The NXU - surge arrester is suitable for single phase three phase power distribution and control systems with a frequency of 50Hz 60Hz and a rated voltage of 230V 400V .It meets the level SPD test and is used to suppress transient overvoltage lower than the equipment withstand overvoltage and discharge surge energy to protect system circuits and equipment .Main features of the surge arrester :With the L PE ,N PE and L -N protection modes ,it is suitable for various power grid systems; with aging overheating protection and body degradation indication ,it has a plug in structure and the optional remote alarm function .

2 Key Technical Parameters

Table 1 Key Technical Parameters

| Maximum discharge current I_{max} @ 20 μ s kA | Maximum continuous working voltage U_c V ~ | Voltage protection level U_p kV | Nominal discharge current I_n @ 20 μ s kA | External disconnector |
|---|--|-----------------------------------|---|-----------------------|
| 20 | 275 | 1.2 | 10 | Fuse 63A gL gG |
| | 320 | 1.5 | | |
| | 385 | 1.6 | | |
| | 440 | 1.8 | | |
| 40 | 255 ^a | 1.8 | 20 | Fuse 125A gL gG |
| | 275 | 1.5 | | |
| | 320 | 1.6 | | |
| | 385 | 1.8 | | |
| | 440 | 2.0 | | |
| <p>^a I_{max} is applicable for the 1P +N and 3P +N specification of 40 kA and 20 kA . The I_{max} is 40 kA for N PE pole ,255 V for U_c ,1.8 kV for U_p ,and 20kA for I_n .</p> | | | | |

3 Installation

1)Outline and installation dimensions

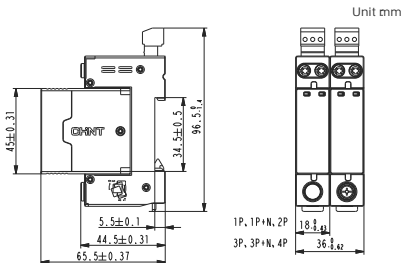


Figure 1 The NXU - F/surge arrester with remote signal output contact

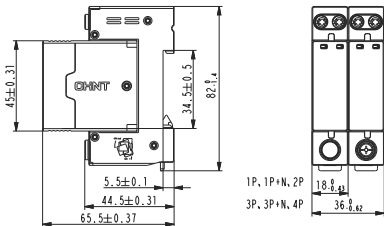


Figure 2 The NXU - surge arrester without remote signal output contact

2)Status indication

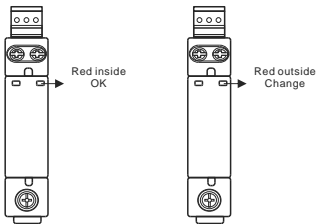


Figure 3 Status indication taking NXU - F/as an example

3)Installation

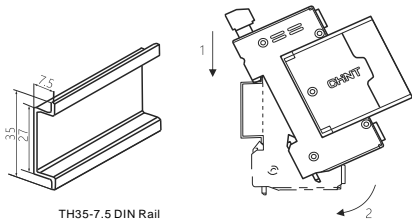


Figure 4 Installation instructions taking NXU - F/as an example

4)Disassembly

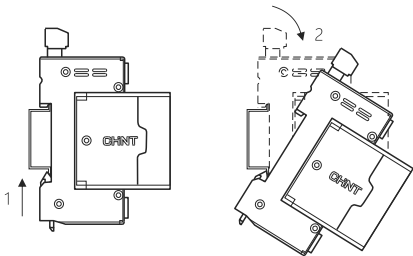


Figure 5 Disassembly instructions taking NXU - F/as an example

5)Wiring :copper wires only

Table 2 Copper wire cross sectional area

| L、 N、 PE | S(Cu) mm ² |
|-------------------------|-----------------------|
| 1P +N、 3P +N (L、 PE) | 4 |
| 1P、 2P、 3P、 4P (L、 N) | 4 |
| 1P +N、 3P +N (N) | 6 |
| 1P、 2P、 3P、 4P (PE) | 6 |

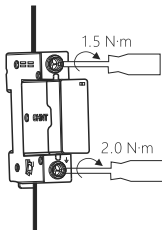
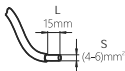


Figure 6 Wiring method taking NXU - as an example

4 Maintenance

- 1) Regularly check whether the surrounding environment meets the normal operating conditions of the surge arrester;
- 2) For a surge arrester without remote signal output contact or not connected to a signal indication, its working status should be checked regularly (especially after a lightning strike). If the degradation indicator of the surge arrester protection module has popped up, it means that the product has degraded and should be replaced in time;
- 3) For a surge arrester with remote signal output, the protection module should be replaced in time after the indication status has changed;
- 4) When replacing the protection module, pull it out in the vertical direction and do not swing it left and right or up and down. Insert a new module in the vertical direction and check if the specification and model match; do not insert it forcefully if it is blocked, and the reason may be that the specification and model do not match or the direction is incorrect and should be adjusted. See Figure 7.

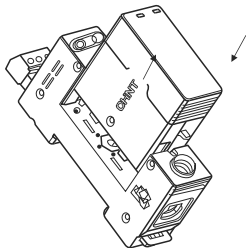


Figure 7 The replacement of the protection module taking NXU - F/ as an example

Table 5 Analysis and Troubleshooting of Common Faults

| Symptoms | Cause analysis | Troubleshooting method |
|----------------|--|---|
| Not protective | Unreliable ground ,or large ground impedance | Ground reliably ,or reduce the ground impedance |
| | The working voltage of the surge arrester does not match the equipment being protected | Replace the product |
| | The surge arrester is too far away from the equipment being protected | Add a surge arrester within 30m or shorten the distance |
| | Wiring is not tightened or loosens , resulting no power supply | Strip and tighten screws as required |

5 Environmental Protection

In order to protect the environment ,the product or product parts should be disposed of according to the industrial waste treatment process , or be sent to the recycling station for assortment dismantling and recycling .

CHINT

QC PASS

NXU -
Surge Arrester
IEC/EN 61643-11

Check 51

Test date: Please see the packing

ZHEJIANG CHINT ELECTRICS CO., LTD.

CHNT

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Surge Arrester
User Instruction**

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