HIGH VOLTAGE ZERO-PHASE CURRENT TRANSFORMER (ZCT) HZR-SERIES



HZR . HZS TYPE



CASE: BLACK COLOR

Sophisticated ZCT for supporting Ground fault relay

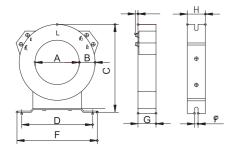
- It aims to provide excellent usability and safety, and designs more economical than conventional ZCT.
- With wide range of operation currents, it is conveniently structured for cabling nwork.
- · Light and easy for panel setting and also various kind of ZCT according to selection cable.

Specification

| Item | Rated Voltage(V) | Rated curr.(A) | Dia(ø) | Freq.(Hz) | Weight(kg) | | |
|----------------------------|--|----------------|---------|-----------|------------|--|--|
| HZR-050 | 6,600/3,300 | HZR-050 | HZR-050 | HZR-050 | HZR-050 | | |
| HZR-065 | 6,600/3,300 | HZR-065 | HZR-065 | HZR-065 | HZR-065 | | |
| HZR-080 | 6,600/3,300 | HZR-080 | HZR-080 | HZR-080 | HZR-080 | | |
| HZR-100 | 6,600/3,300 | HZR-100 | HZR-100 | HZR-100 | HZR-100 | | |
| HZR-120 | 6,600/3,300 | HZR-120 | HZR-120 | HZR-120 | HZR-120 | | |
| HZR-150 | 6,600/3,300 | HZR-150 | HZR-150 | HZR-150 | HZR-150 | | |
| HZR-200 | 6,600/3,300 | HZR-200 | HZR-200 | HZR-200 | HZR-200 | | |
| Rated zero-phase pri. curr | 200mA/100mV(Load 2 _{KΩ}) | | | | | | |
| | Confroming to JEC 1201 Dielectric Strength characteristics: 6A | | | | | | |
| | 22,000VAC, 50/60Hz for 1min (between primary conductor and mounting flange) | | | | | | |
| Dielectric strength | | | | | | | |
| Insulation resistance | 2,200VAC,50/60Hz for 1min(between secondary coil and test coil) | | | | | | |
| | >1,000MMΩ at 500VDC (between each coils, and between each coil and munting flans | | | | | | |

Dimension

| Item | Α | В | С | D | Е | F | G | Н | Hole(ø) |
|---------|-----|----|-----|-----|-----|----|----|----|---------|
| HZR-050 | 50 | 25 | 50 | 131 | 122 | 7 | 32 | 36 | 6 |
| HZR-065 | 65 | 26 | 65 | 143 | 133 | 7 | 39 | 37 | 6 |
| HZR-080 | 80 | 34 | 80 | 174 | 180 | 7 | 40 | 40 | 6 |
| HZR-100 | 100 | 38 | 100 | 203 | 180 | 7 | 40 | 40 | 6 |
| HZR-120 | 120 | 45 | 120 | 225 | 210 | 16 | 55 | 35 | 10 |
| HZR-150 | 150 | 45 | 150 | 260 | 210 | 16 | 55 | 35 | 10 |
| HZR-200 | 200 | 53 | 200 | 310 | 286 | 10 | 70 | 35 | 10 |





Special Specification

| Mold | Item | Use of Relay | | |
|-------|------------|--------------|--|--|
| Epoxy | 65ø, 120ø | HCD DCD | | |
| Mold | 150ø, 200ø | HGR, DGR | | |

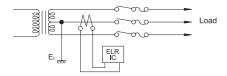
HOW TO INSTALLATION AND INSPECTION

Note: Incorrect installation of ZCT may result in malfunctioning of relay. Please refer to follwing wiring diagrams

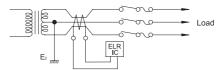
WRONG CONNECTION

RIGHT CONNECTION

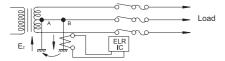
1) Load on neutral line will cause malfunctioning



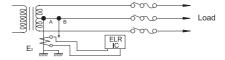
1) All of two lines of 1 \emptyset 2W, three lines of 1 \emptyset 3W, three lines of 3 \emptyset 3W, and four lines of 3 \emptyset 4W should go through ZCT.



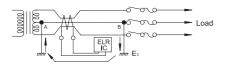
2) Because of load current on neutral line, the current between A-B cause erro operation. The relay may not activate relay operation in cases of leakage.



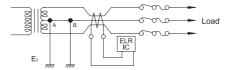
2) Cut off line B and provide class 2 grounding as required for ZCT.



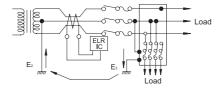
3) As load current is divided between A and B grounding, it will cause missing operation in case of leakage.



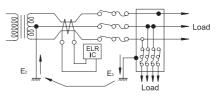
3) Earth the wires before ZCT to (the side of power source).



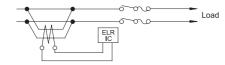
4) When neutral line and distribution board line are jointly connected to ZCT, malfunction will be introduced as the example of 3) above.



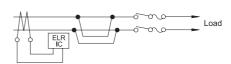
4) Provide class 3 grounding seperately for neutral line and distribution board each



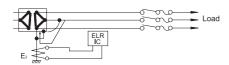
5) Leakage indication lacks accuracy.



5) Install ZCT correctly

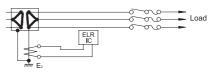


6) Occurrence of leakage will not activate relay operation.



Even if grounding is intentionally made to frame to frame, the leakage flows directly into to casing grounding without going through ZCT.

Grounding of frame should be installed after(in the down stream) the ZCT connection point.



Note: The frames are transformer casing, cubicle enclosure, and structural steel frames.