

ZNR Application Note

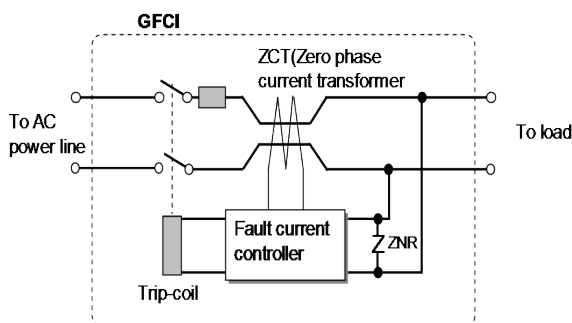
GFCI (Ground Fault Circuit Interrupter)

1. Industry Segments:

Field of Industry: Energy Distribution Equipment

Product: GFCI(Ground Fault Circuit Interrupter), Leakage current detector/controller, ELB

2. Transient Surge Voltage and its Protection by Using ZNR:



Aim of ZNR Application:

Protection of a fault current controller in GFCI against lightning surge

Problems with Surge Voltage:

Kind of surge voltage: Lightning surge voltage

Path of surge voltage: AC power line

Failed parts or circuits: Damage of the fault current controller

How to Apply ZNR to Circuit: (Blue Part Numbers Indicate NEW "E-Series")

Connection: AC power line (line-line) to the fault current controller

ZNR part number selection (representative):

For AC100V system: [ERZE05A271](#), [ERZE07A271](#), [ERZE08A271](#)

For AC200V system: [ERZE05A471](#), [ERZE07A471](#), [ERZE08A471](#)

Precaution in surge protection designing (Parameters to be considered for ZNR selection):

Along with max. AC line voltage, varistor voltage should be selected

ZNR should be connected to the secondary side of GFCI (load side)

3. Relevant Technical Information and References:

JISC8222 Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses(RCBOs)

4. More Information:

Home page for up-to-date information: <http://na.industrial.panasonic.com/products/circuit-thermal-protection/circuit-protection/znr-transientsurge-absorbers>