



# Neutral Grounding Resistor (NGR) Checklist

Today's Date:

Company Name:

Company Address:

Customer Name:

Company street address

Company city

Company state/province

Project Name:

Company zip/postal code

Project Location (Address):

Bid Required By (Date):

Project street address

Requested Delivery Date:

Project city

Project state/province

Planned Commissioning Date:

Project zip/postal code

Is drawing approval required? YES NO

Note: Dimensional drawing are provided with the quotation. As built drawings will be provided withing 1-3 weeks of a purchase being received.

## NGR Specification

1. System Type:

Wye          Delta          (c/w zig zag transformer)

6. Pulsing Circuit:

Yes          No

2. NGR Quantity:

7. Enclosure Type:

3. System Voltage (LL):

480 V          600 V          2,400 V  
4,160 V          13,800 V          25,000 V

Other:

Please specify

NEMA Type 3R (IP54)

Backplate Only

Painted Galvanized Steel

Stainless Steel

*Please specify:*

SS 304

SS 316

SS 316L (*recommended for offshore*)

4. Time Rating (Duty):

Continuous          10 Sec.          60 Sec.

Other:

Please specify

5. NGR Let-Through Current:

5 A          10 A          25 A  
100 A          400 A          Other:

Please specify

## Advanced Functionality

1. Switchgear Configuration:

Single Main                                      Main-Tie-Main                                      Other Please specify

2. Resistor Monitoring Relay:

NGRM 5x0 Series                                      NGRM 7x0 Series                                      Other Please specify

3. Feeder Monitoring and Control:

Number of Feeders:                                      Number of Feeders requiring AC/DC:  
(Feeders with VFD's, UPS or other non-linear loads)  
 None

\* indicating 5kV L-L and below offerings will include Type B ground-fault detection. Above 5kV will include Type A ground-fault detection.

NOTE: For a quote with the correct CTs, include information of feeder sizes and number of conductors. Contact TAG@bender-us.com for assistance with feeder level detection and one-line review.

4. Options:

Virtual Training                                      Commissioning  
 Test Resistor                                      Heater                                      Horn  
 Analog Handheld Ammeter                                      Light                                      Control Power Transformer  
 Other: Please specify

5. Separate Control Package

480 and 600 V units are quoted in one enclosure. MV units are supplied with NGR and controls separate unless otherwise specified.

6. Corrosive Environment

NOTE: If yes is checked, the enclosure type will be changed to stainless steel, unless otherwise requested.

## Special Requests or Additions

Additional CT Required                                      Brand, Ratio, Other Information:

Seismic Rating Required                                      Level:

Cable Entry or Bushings:                                      Bushings Top                                      Knockout Plate                                      Bushings Side

Altitude greater than 3000 m AMSL required:

Please provide file name if supplying single line diagram:



**Notes**

**Preferred Channel**

**Consulting Engineer:**

