Seismically Certified Neutral Grounding Resistors

Advantages with PGR's Seismic Design	
Fully Engineered	The enclosures and bracing were designed to exceed the minimum requirements of the specifications, and proven in simulations. Post Glover is the only US resistor manufacturer using ANSYS design software.
Fully Tested	To meet I_p=1.5, the product ***MUST*** be tested on a shake table, not just simulated. Post Glover is the only resistor manufacturer to complete this.
No Guesswork	Designed and tested in accordance with: • *American Society of Civil Engineers Minimum Design Loads for Buildings and Other Structures (ASCE 7-05)* • *Acceptance Criteria for Seismic Certification by Shake Table Testing (ICC-ES AC-156)* • *IEEE Std 32-1972 Standard Requirements, Terminology, and Test Procedures for Neutral Grounding Devices*
UL Approved	Seismic withstand capability coupled with third party certification to meet the most demanding applications.

When seismic events occur, stand-by generators become the primary source for many facilities and installations. With more and more generators being specified with neutral grounding resistors (NGR's), it is critical that NGR's meet the durability standards required in seismically active regions.

Post Glover continues to lead the resistor industry in supplying customer-driven solutions by submitting their neutral grounding products to rigorous, independent analysis. The result is a line of both low and high resistance grounding products that successfully meet the requirements of both the **International Building Code (IBC 2009)** and the **State of California's Office of Statewide Health Planning and Development (OSHPD).**

Fully Engineered, Fully Tested

To ensure maximum reliability and safety in equipment designs, Post Glover engineered their seismic-specific neutral grounding resistors in accordance with American Society of Civil Engineers Minimum Design Loads for Buildings and Other Structures (ASCE 7-05).
These designs were then verified using advanced modeling and simulation techniques within ANSYS design software. From this, a family of products was then subjected to stringent physical qualification tests using a tri-axial seismic table in accordance with Acceptance Criteria for Seismic Certification by Shake Table Testing (ICC-ES AC-156). The successful completion of these tests led to the first family of grounding resistors to gain OSHPD Pre-Approval.

IBC 2009 Compliance Details	
Occupancy category	i, ii, iii, iv
Seismic Design category	A, B, C, D
Importance factor (I_p)	≤ 1.5
Mapped spectral acceleration for short periods (S_s)	300% g
Design spectral response accelerations for short periods (S_{ds})	2.0 (HRG), 2.5 (LRG)
Site Class	A, B, C, D
Equipment location	No limitations ($\frac{Z}{h} = 1$)

Link to HRG Report

LRG on 3 Axis Shake Table

Link to LRG Report

Use these links to access the OSHPD Application for Pre-Approval Seismic Certification Test Reports.

324 Governor Road • Braeside, Victoria 3195 • AUS
Phone: +61 (0)3 9587 4099 • Fax: +61 (0)3 9587 4130
www.postgloverasia.com
Quality System Certified to ISO 9001

4750 Olympic Blvd. • Erlanger, KY 41018 • USA
Phone: 800-537-6144 / 859-283-0778 • Fax: 859-283-2978
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Serving the Electrical Industry Since 1892

Post Glover "The Resistor Specialists"

Seismically Certified Neutral Grounding Resistors

Common Ratings Available with IBC Certification and UL Post Glover has certified a family of designs based on size, weight and resistor type. Please contact the factory with your application for exact details.				
Volts (L-N)	**Initial Amps**	**Duty**	**Footprint LxWxH ”**	**Weight lbs**
277	2-10	Continuous	21x20x86	390
2400	100	10 seconds	48x48x48	925
2400	200	10 seconds	48x48x48	925
2400	400	10 seconds	48x48x48	925
4160	100	10 seconds	48x48x48	950
4160	200	10 seconds	48x48x48	950
4160	400	10 seconds	48x48x48	1025
8000	100	10 seconds	48x48x48	1025
8000	200	10 seconds	48x48x48	1025
8000	400	10 seconds	48x48x48	1025

3D Model of an HRG assembly indicating bracing and reinforced mounting feet.

View of low resistance grounding enclosure bracing and additional resistor assembly supports.

Why you should use NGR's	
Protect Equipment	Limit ground fault current reducing damage and stress to equipment and power system components
Reduce Down Time	Drastically reduce equipment damage, minimizing re-work time and expense
Increase Safety	Limit flash hazard possibility in the event of a potential arcing fault
Fast Fault Location	Allows for zone-selective relaying and controlled, localized shutdowns

For more information or a detailed quote, please contact your local Post Glover representative or visit us at *www.postglover.com*

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