## Seismically Certified Low Resistance Grounding Resistors



Advantages with Post Glover'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 <b>MUST</b> be tested on a shake table, not just simulated. Post Glover is the only US 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 7-10)  • 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 low resistance grounding products that successfully meets the requirements of both the International Building Code (IBC 2012) 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 7-10). 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.



LRG on 3 Axis Shake Table

IBC 2012 Compliance Details				
Occupancy category	i, ii, iii, iv			
Seismic Design category	A, B, C, D			
Importance factor (I <sub>p</sub> )	≤ 1.5			
Mapped spectral acceleration for short periods (S <sub>s</sub> )	300% g			
Design spectral response accelerations for short periods (S <sub>ds</sub> )	2.0 (HRG), 2.5 (LRG)			
Site Class	A, B, C, D			
Equipment location	No limitations ( $Zh=1$ )			



## 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 L" x W" x H"	Weight Ibs
2400	100	10 seconds	48 x 48 x 48	675
2400	200	10 seconds	48 x 48 x 48	675
2400	400	10 seconds	48 x 48 x 48	700
4160	100	10 seconds	48 x 48 x 48	825
4160	200	10 seconds	48 x 48 x 48	825
4160	400	10 seconds	48 x 48 x 48	850
7200	100	10 seconds	48 x 48 x 48	975
7200	200	10 seconds	48 x 48 x 48	975
7200	400	10 seconds	48 x 48 x 48	1000
8000	100	10 seconds	48 x 48 x 48	975
8000	200	10 seconds	48 x 48 x 48	975
8000	400	10 seconds	48 x 48 x 48	1000



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

