Relay Rack Two-Post Relay Rack

GENERAL INSTALLATION GUIDE





an EnerSys company



Relay Rack: Two-Post Relay Rack

General Installation Guide Part # 9400008-J1 Effective: 11/2013

Alpha Technologies' seismic rack is a modular two-post relay rack. The rack has been Zone 4 rated and is NEBS L3 certified for up to 2500lb. The bolt together design enables the rack to be flat packed, which significantly simplifies the end user's shipping and storage process. The racks are available in various heights (3.5', 7', 7'6", 8' and 9'). Standard 19" or 23" mounting options enable customers to use the racks for installing equipment and/or power systems. These racks can be used with a wide variety of termination panels, battery accessories and distribution options that help configure the optimal power system.

Seismic bolted Standalone Racks

23" SEISMIC RACK, BLACK			
PART NUMBER	HEIGHT	DYNAMIC RATING (GR63)	STATIC RATING
0300063-003	3.5'	500lb	1000lb
0300047-001	7'	1500lb	3000lb
0300047-002	7'	1000lb	2000lb
0300047-003	7'	500lb	1000lb
0300064-001	7'6"	1500lb	3000lb
0300065-001	8'	1500lb	3000lb
0300066-001	9'	1500lb	3000lb

19" SEISMIC RACK, BLACK				
PART NUMBER	HEIGHT	DYNAMIC RATING (GR63)	STATIC RATING	
0300062-001	7'	1500lb	3000lb	
0300062-002	7'	1000lb	2000lb	
0300062-003	7'	500lb	1000lb	

Non-Seismic Bolted Standalone Racks

23" NON-SEISMICE RACK, BLACK			
PART NUMBER	HEIGHT	SIMULATED STATIC LOADING	
030-510-20-123	7'	500lbs	
19" NON-SEISMICE RACK, BLACK			

19" NON-SEISMICE RACK, BLACK			
PART NUMBER	HEIGHT	SIMULATED STATIC LOADING	
030-510-20-119	<i>7</i> '	500lbs	

Seismic Welded Standalone Racks

23" SEISMIC BATTERY RACK, BLACK*			
PART NUMBER	HEIGHT	DYNAMIC RATING (GR63)	
0300163-001	7'	2500lb	

^{*}Welded rack which cannot be used in 'flat pack' applications



Seismic rack front view

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Accessories

A4405501105			
MOUNTING KIT			
PART NUMBER	WIDTH	WIDTH DESCRIPTION	
0380042-021	NA	Seismic kit includes seismic anchors and washers	
5900708-001	NA	Rack joining bracket (require 2 per rack)	
5901537-001	30"	Extension base (clips to the base front)	
INSULATION KIT			
PART NUMBER	WIDTH	DESCRIPTION	
0380063-001	23"	Includes insulation pad and bushings	
0380108-001	19"	Includes insulation pad and bushings	
SEISMIC BATTERY TRAY (DOES NOT I	NCLUDE BREAKER HOUSING)		
PART NUMBER	WIDTH	DESCRIPTION	
0300061-003	23"	Fits most batteries (4 per tray)	
0300077-002	19"	Designed for the following batteries (4 per tray): • Exide/GNB Marathon M12V90FT • C&D Technologies TEL 12-115 FNG • East Penn 12AVR100-3ET	
BREAKER HOUSING, RACK MOUNT	OR LEFT/RIGHT MOUNT ON BATTERY TRA	Y	
PART NUMBER	WIDTH	DESCRIPTION	
0380128-001 (black)	NA	AM breakers, single-pole GJ	

Seismic Flat Pack Racks

STEP 1: SELECT REQUIRED ZONE 4 SEISMIC RATING OF THE RACK						
PART NUMBER	DYNAMIC LOADING (GR63)	STATIC LOADING	DESCRIPTION			
0370117-001	1500lbs	3000lbs	1500lb, 7', 44RU Vertical rail kit			
0370117-002	1000lbs	2000lbs	1000lb, 7', 44RU Vertical rail kit			
0370117-003	500lbs	1000lbs	500lb, 7', 44RU Vertical rail kit			
STEP 2: SELECT REQUIRED	WIDTH OF THE RACK					
PART NUMBER	WIDTH	DESCRIPTION				
0370117-004	23"	23" Top and base kit				
0370117-005	19"	19" Top and base kit				

Flat Pack Assembly Instructions

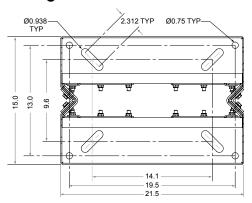
Refer to 0370017-F0, at the end of the guide, for seismic flat pack rack assembly instructions.

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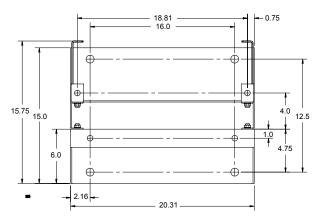
For more information visit www.alpha.com



Mounting Details



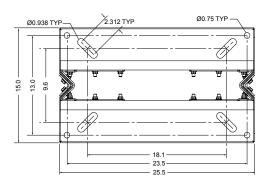
19" Seismic bolted rack mouting details (top view)



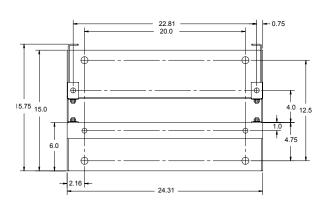
19" Non-Seismic bolted rack mouting details (top view)

NOTE:

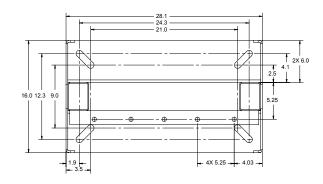
- If rack-mounted equipment extends beyond the base dimensions, install a base extension part #5901537-001 to the front of the base.
- Refer to the above figure to mark the anchor hole positions.
- If applicable, place the floor insulation pad where the rack is to be installed.
- Move the rack to its exact final position over the anchoring holes (and the insulation pad if applicable).
- Install the anchoring hardware (and the insulation bushing if applicable) for each anchor FINGER TIGHT.
- Check that the rack is level front-to-back and side-to-side.
- Add shims as needed under one or two of the corners of the rack, placing the shims as close as possible to the bolts. To place a shim, take just enough weight off the rack to slide the shim into place.
- Allow the full weight of the rack to rest on the shims, and then check for level again.
- Once the rack is level, tighten all bolts to the torque recommended by the anchor manufacturer.



23" Seismic bolted rack mouting details (top view)



23" Non-Seismic bolted rack mouting details (top view)



23" Seismic welded rack mouting details (top view)

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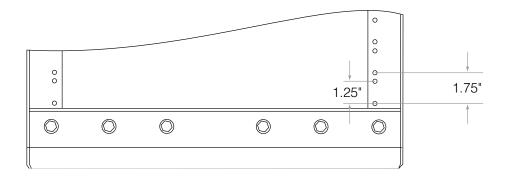
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Rack Features

Spacing

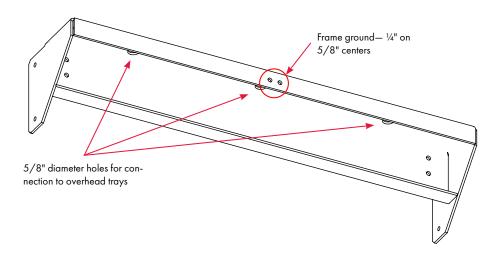
Use 12-24 thread forming screws.



Frame Ground

The power plant frame must be connected to the MGB or FGB. This connection is necessary for personnel safety and to meet many telco-grounding requirements. Use #6 AWG (16mm) cable for small to medium size power plants and #2/0 cable for large plants (> 800A).

Remove paint in lug contact area (Figure 5) to ensure a good electrical connection.



Connections to Overhead Trays

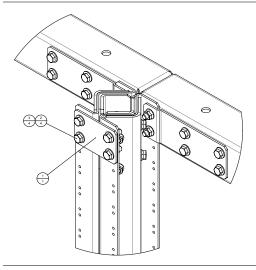
The rack upper cross bar (Figure 5) has three 5/8" diameter holes to accommodate threaded rod attachment to overhead trays.



Rack Features

Rack Joining Bracket

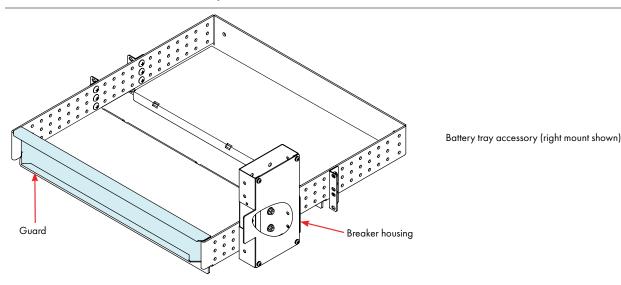
For systems with multiple racks, bolt each pair of racks together with brackets #5900708-001. Use one bracket at the top and one at the bottom. **Note: For Seismic bolted racks only**



Battery Tray and Breaker Housing

- 1. Install the battery trays in the rack with the screws and brackets provided with the battery trays.
- 2. Adjust the guard (Figure 6) to fit the depth of the batteries.
- 3. Install the breaker housing (Figure 6), if applicable, on the left or right side of the battery tray. The breaker housing can also be installed in the rack.

Note: For Seismic (bolted & welded) racks only



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