VRLA BATTERY RACKS

SELECTION GUIDE FOR RB-SERIES RACKS

For use with UPS, TEL, and SGC Series Battery Systems

FEATURES:

- Designed for convenient and safe installation, operation and maintenance of C&D Technologies VRLA batteries
- Model selection is simple – Just provide the battery model number and system nominal DC link voltage or battery/cell quantity to select the correct rack
- Easy assembly using conventional tools for American Standard hardware
- Seismic racks certified to UBC 1997 Earthquake Seismic Level Zone 4 to insure a code compliant, secure installation
- Non-Seismic Racks are field convertible to meet Seismic Zone 4 requirements without de-installing batteries or cables
- Available in 1, 2, 3 and 4 tier configurations – each tier accommodates up to 5 batteries
- All rack components fabricated from 10 GA steel with welded end-frames for rugged service
- Acid resistant ASA61 Gray epoxy powder coat paint
- Adjustable support rails for easy mounting include KYDEX plastic insulators to maintain electrical isolation between batteries and rack
- Ground strap mounting provisions insure personal safety – Each vertical frame has two 15/32” mounting holes that accept single hole or dual hole lugs on 1” centers
- Predrilled 15/16” holes are provided at the base of each vertical frame for floor mounting

RB Non-Seismic Rack

Two Tier

RB Seismic Rack

Two Tier

RB Series - Battery Rack Selection Table

For Battery Systems

SYSTEM NOMINAL DC LINK	MAXIMUM NUMBER OF CELLS PER SYSTEM	MAXIMUM NUMBER OF BATTERIES PER SYSTEM	USE WITH BATTERY MODELS SGC12-30 12-45	USE WITH BATTERY MODELS SGC12-70 12-80 12-90 12-125	USE WITH BATTERY MODELS TEL12-30 12-45	USE WITH BATTERY MODELS TEL12-70 12-80 12-90 12-125	USE WITH BATTERY MODELS TEL6-180	USE WITH BATTERY MODELS UPS12-100MR 12-150MR 12-210MR	USE WITH BATTERY MODELS UPS12-300MR 12-350MR 12-400MR 12-490MRLP 12-490MR 12-540MR	USE WITH BATTERY MODELS UPS6-620MR	NUMBER OF TIERS PER RACK	NUMBER OF RACKS TO ORDER PER SYSTEM	EMPTY SLOTS PER SYSTEM
			RACK PART NUMBER SELECT ONLY ONE *For Seismic Requirements, See Note #1 At Bottom of Page*										
48 VDC	**24**	**4**	**RBN1T**	**RBW1T**							**1**	**1**	**1**
120 VDC	**60**	**10**	**RBN1T**								**1**	**2**	**0**
			RBN2T								**2**	**1**	
		10							**RBW1T**		**1**	**2**	
									RBW2T		**2**	**1**	
		20								**RBW1T**	**1**	**4**	
										RBW2T	**2**	**2**	
										RBW4T	**4**	**1**	
180 VDC	**90**	**15**	**RBN1T**								**1**	**3**	**0**
			RBN3T								**3**	**1**	
		15							**RBW1T**		**1**	**3**	
									RBW3T		**3**	**1**	
		30								**RBW1T**	**1**	**6**	
										RBW2T	**2**	**3**	
										RBW3T	**3**	**2**	
216 VDC	**108**	**18**	**RBN1T**								**1**	**4**	**2**
			RBN2T								**2**	**2**	
			RBN4T								**4**	**1**	
		18							**RBW1T**		**1**	**4**	
									RBW2T		**2**	**2**	
									RBW4T		**4**	**1**	
		36								**RBW1T**	**1**	**8**	**4**
										RBW2T	**2**	**4**	
										RBW4T	**4**	**2**	
240 VDC	**120**	**20**	**RBN1T**								**1**	**4**	**0**
			RBN2T								**2**	**2**	
			RBN4T								**4**	**1**	
		20							**RBW1T**		**1**	**4**	
									RBW2T		**2**	**2**	
									RBW4T		**4**	**1**	
		40								**RBW1T**	**1**	**8**	
										RBW2T	**2**	**4**	
										RBW4T	**4**	**2**	
360 VDC	**180**	**30**	**RBN1T**								**1**	**6**	**0**
			RBN2T								**2**	**3**	
			RBN3T								**3**	**2**	
		30							**RBW1T**		**1**	**6**	
									RBW2T		**2**	**3**	
									RBW3T		**3**	**2**	
		60								**RBW1T**	**1**	**12**	
										RBW2T	**2**	**6**	
										RBW3T	**3**	**4**	
										RBW4T	**4**	**3**	

NOTE #1 **For seismic applications, add "EQ" as a suffix to the rack Part Number**

Example: Non-Seismic rack Part Number RBW1T - Seismic application for the same rack use Part Number RBW1TEQ

RB Series - Battery Rack Selection Table (Continued)

For Battery Systems

SYSTEM NOMINAL DC LINK	MAXIMUM NUMBER OF CELLS PER SYSTEM	MAXIMUM NUMBER OF BATTERIES PER SYSTEM	USE WITH BATTERY MODELS			NUMBER OF TIERS PER RACK	NUMBER OF RACKS TO ORDER PER SYSTEM	EMPTY SLOTS PER SYSTEM
			SGC12-30 12-45	SGC12-70 12-80 12-90 12-125				
			TEL12-30 12-45	TEL12-70 12-80 12-90 12-125	TEL6-180			
			UPS12-100MR 12-150MR 12-210MR	UPS12-300MR 12-350MR 12-400MR 12-490MRLP 12-490MR 12-540MR	UPS6-620MR			
			RACK PART NUMBER SELECT ONLY ONE *For Seismic Requirements, See Note #1 At Bottom of Page*					
384 VDC	192	32	RBN1T RBN2T RBN4T			1 2 4	7 4 2	3 8
		32		RBW1T RBW2T RBW4T		1 2 4	7 4 2	3 8
		64			RBWIT RBW2T RBW3T	1 2 3	13 7 5	1 6 11
408 VDC	204	34	RBN1T RBN2T RBN4T			1 2 4	7 4 2	1 6
		34		RBW1T RBW2T RBW4T		1 2 4	7 4 2	1 6
		68			RBWIT RBW2T RBW3T	1 2 3	14 7 5	2 7
480 VDC	228 to 240	38 to 40	RBN1T RBN2T RBN4T			1 2 4	8 4 2	0 to 2
		38 to 40		RBW1T RBW2T RBW4T		1 2 4	8 4 2	
		76 to 80			RBWIT RBW2T RBW4T	1 2 4	16 8 4	0 to 4
	246 to 252	41 to 42	RBN1T RBN2T RBN3T			1 2 3	9 5 3	3 to 4 8 to 9 3 to 4
		41 to 42		RBW1T RBW2T RBW3T		1 2 3	9 5 3	3 to 4 8 to 9 3 to 4
		82 to 84			RBWIT RBW2T RBW3T	1 2 3	17 9 6	1 to 3 6 to 8

NOTE #1 **For seismic applications, add "EQ" as a suffix to the rack Part Number**

Example: Non-Seismic rack Part Number RBW1T - Seismic application for the same rack use Part Number RBW1TEQ

Options for Standard Racks

Part Number	Description	Quantity Required
SMF101N	Top Cover-Narrow Rack	1 per Rack
SMF101W	Top Cover-Wide Rack	1 per Rack
FIELD RETROFIT of Standard Rack to meet SEISMIC Zone 4 Certification UBC 1997 Standard		
SMF105N	Seismic Hold-Down-Kit - Narrow Rack	1 per Tier
SMF101N	Top Cover - Narrow Rack	1 per Rack
SMF105W	Seismic Hold-Down-Kit - Wide Rack	1 per Tier
SMF101W	Top Cover - Wide Rack	1 per Rack

Cross Reference - Model vs. C&D Order Number

Model Number	C&D Order Number	RB Rack Description
RBN1T	30046136	1 Tier Non-Seismic Narrow Battery Rack
RBN2T	30046137	2 Tier Non-Seismic Narrow Battery Rack
RBN3T	30046138	3 Tier Non-Seismic Narrow Battery Rack
RBN4T	30046139	4 Tier Non-Seismic Narrow Battery Rack
RBN4T	30046139	4 Tier Non-Seismic Narrow Battery Rack
RBN1TEQ	30046146	1 Tier Seismic (Zones 1-4) Narrow Battery Rack
RBN2TEQ	30046147	2 Tier Seismic (Zones 1-4) Narrow Battery Rack
RBN3TEQ	30046148	3 Tier Seismic (Zones 1-4) Narrow Battery Rack
RBN4TEQ	30046149	4 Tier Seismic (Zones 1-4) Narrow Battery Rack
RBW1T	30046140	1 Tier Non-Seismic Wide Battery Rack
RBW2T	30046141	2 Tier Non-Seismic Wide Battery Rack
RBW3T	30046142	3 Tier Non-Seismic Wide Battery Rack
RBW4T	30046143	4 Tier Non-Seismic Wide Battery Rack
RBW1TEQ	30046150	1 Tier Seismic (Zones 1-4) Wide Battery Rack
RBW2TEQ	30046151	2 Tier Seismic (Zones 1-4) Wide Battery Rack
RBW3TEQ	30046152	3 Tier Seismic (Zones 1-4) Wide Battery Rack
RBW4TEQ	30046153	4 Tier Seismic (Zones 1-4) Wide Battery Rack
SMF101N	30046156	Top Cover for RBN Narrow Racks
SMF101W	30046157	Top Cover for RBW Wide Racks
SMF105N	30046158	Seismic Bracing Kit per Tier for RBN Narrow Racks
SMF105W	30046159	Seismic Bracing Kit per Tier for RBN Wide Racks

INSTALLATION

- See C&D document 41-6976, RB Series Racks Assembly Instructions for details

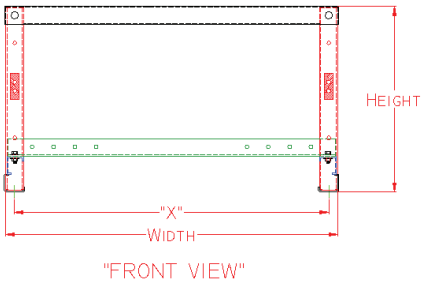
RB Series - Battery Rack Selection Table (Continued)

For Battery Systems

Rack Part Number	Seismic Zone	Max. Qty. Number of Tiers	Batteries per Tier	Total Batteries per Rack	Dimensions - inches			Rack Weight, lbs.		Use with Battery Models
					Width*	Depth	Height	Rack Only	Rack in Carton	
NARROW - "RBN" Rack Assemblies										
RBN1T	0	1	5	5	38.00*	18.50	21.13	52	57	UPS12-100MR UPS12-150MR UPS12-210MR
RBN1TEQ	1,2,3 or 4							87	92	
RBN2T	0	2		10			38.25	88	93	
RBN2TEQ	1,2,3 or 4							138	143	
RBN3T	0	3		15			55.38	124	129	SGC12-30 SGC12-45
RBN3TEQ	1,2,3 or 4							190	195	
RBN4T	0	4		20			72.50	162	167	TEL12-30 TEL12-45
RBN4TEQ	1,2,3 or 4							232	237	
WIDE - "RBW" Rack Assemblies										
RBWIT	0	1	5	5	44.00*	18.50	21.13	54	59	UPS12-300MR UPS12-350MR UPS12-400MR UPS12-490MRLP UPS12-490MR UPS12-540MR UPS6-620MR
RBWITEQ	1,2,3 or 4							104	109	
RBW2T	0	2		10			38.25	117	122	
RBW2TEQ	1,2,3 or 4							147	152	SGC12-70 SGC12-80 SGC12-90 SGC12-125
RBW3T	0	3		15			55.38	130	135	
RBW3TEQ	1,2,3 or 4							200	205	
RBW4T	0	4		20			72.50	170	175	TEL12-70 TEL12-80 TEL12-90 TEL12-125 TEL6-180
RBW4TEQ	1,2,3 or 4							252	257	

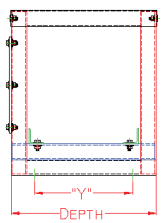
** Width of rack base only. Top cover adds 0.20 inch to nominal width dimension*

Two ground strap 15/32" mounting holes on 1" centers of each vertical frame



"FRONT VIEW"

One 15/16" floor mounting hole at each corner of the base

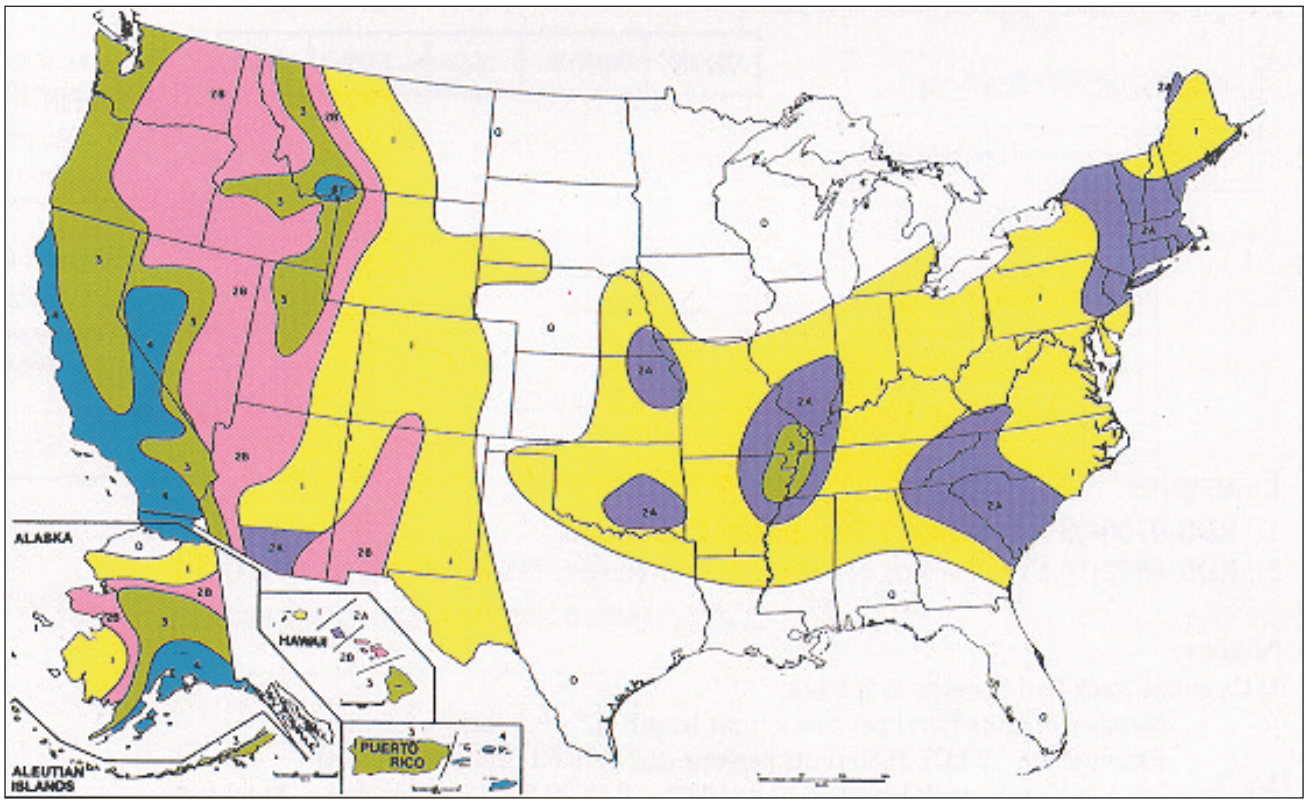


"SIDE VIEW"

RB Rack - Orientation

Seismic Zone Map of the United States

(Reference 1997 Uniform Building Codes)



C&D RB Battery Rack Selection

Based on UBC Seismic Loads (g)

UBC Seismic Zone	Non-essential, at or below grade (g)	Non-essential, above grade OR Essential at or below grade (g)	Essential above grade (g)	Use RB Battery Rack
ZONE-0	0.000	0.000	0.000	RB Rack
ZONE-1	0.075	0.113	0.169	
ZONE-2A	0.150	0.225	0.338	RB Rack with "EQ" Suffix in Model Number
ZONE-2B	0.200	0.300	0.450	
ZONE-3	0.300	0.450	0.675	
ZONE-4	0.400	0.600	0.900	

C&D Technologies, Inc. recommends that you consult your local or state building commission to verify the seismic zone factor and to check on local and special building requirements.

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