

## VR SOLAR®

For Renewable Energy Storage  
Capacities from 33 to 100 Ampere-hours

C&D Technologies' Powercom Division offers a complete line of renewable energy storage battery products. The VR Solar®, with its grid alloy and high paste density, provides superior performance in both high cycling and float applications. This VRLA/AGM battery is designed to be easy to install and maintain, and offers long life and exceptional performance.



### FEATURES AND BENEFITS

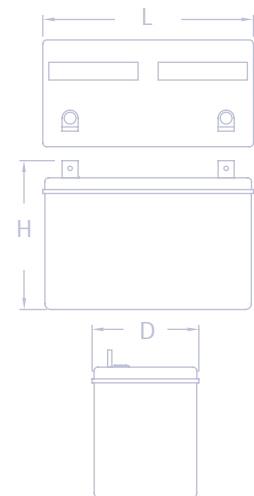
- High density pasted plates for high cycle life
- Low calcium Lead/Tin alloy plates for efficient gas recombination for long life in both cycling and float applications
- High two-hour discharge rate for Grid-Tied UPS applications
- High-strength, leak-free polymer container allows for non-restricted shipping;  
Water: non-hazardous per IMDG Amendment 27  
Surface: non-hazardous per DOT-CFR title 49, 171-189 Air: IATA/ICAO, provision A67
- UL-recognized component
- Battery hardware included
- Excellent choice for both small stand alone PV systems and small hybrid systems

### AVAILABLE OPTIONS

- Copper and cable connections
- Standard and EP racks with multiple tiers

### SPECIFICATIONS

Model	Length		Depth		Height		Weight	
	in	mm	in	mm	in	mm	lbs	kg
VRS12-33C	7.77	197.4	5.19	131.8	7.35	186.7	28	13
VRS12-50C	8.99	228.3	5.47	138.9	8.84	224.5	41	19
VRS12-75C	10.76	273.3	6.83	173.5	8.67	220.2	55	25
VRS12-100C	13.42	340.9	6.80	172.7	9.48	240.8	70	32

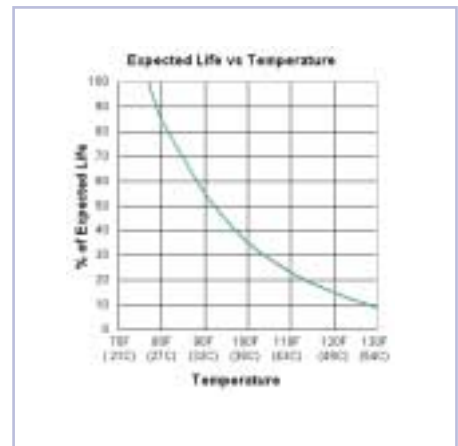
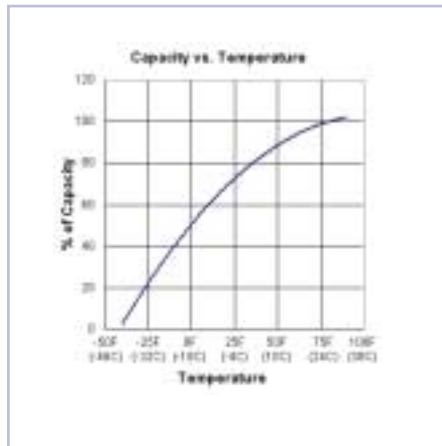


<b>Electrolyte:</b>	1.300 @ 77F (25C)
<b>Recommended Operating Temperature Range</b>	74F (23C) to 80F (27C)
<b>Operating Temperature Range</b>	-40F (-40C) to 160F (71C)
<b>Grid Material</b>	Low calcium, tin, lead alloy
<b>Jar &amp; Cover Material</b>	Polypropylene

**PERFORMANCE RATINGS**

Model	Ampere Hour & Power to 1.75 Volts per cell @ 77F (25C)											
	2 Hr Capacity		6 Hr Capacity		12 Hr Capacity		20 Hr Capacity		72 Hr Capacity		100 Hr Capacity	
	Ah	KWh	Ah	KWh	Ah	KWh	Ah	KWh	Ah	KWh	Ah	KWh
VRS12-33C	25.9	0.307	29.5	0.351	31.8	0.379	33.0	0.394	33.8	0.406	34.0	0.408
VRS12-50C	37.0	0.439	43.4	0.517	47.8	0.570	50.0	0.599	51.8	0.622	52.0	0.624
VRS12-75C	55.0	0.652	66.0	0.786	72.0	0.861	75.0	0.898	77.8	0.933	78.0	0.936
VRS12-100C	69.6	0.826	83.7	0.997	93.5	1.117	100.0	1.200	103.5	1.240	104.0	1.250

**BATTERY CHARACTERISTICS**



**CHARGING CHARACTERISTICS**

<b>Float Charge Voltage</b>	13.62 to 13.80 VDC/Unit
<b>Recommended Maximum Charging Current Limit:</b>	VRS12-33C 6.6 amperes @ 100% DOD VRS12-50C 10.0 amperes @ 100% DOD VRS12-75C 15.0 amperes @ 100% DOD VRS12-100C 20.0 amperes @ 100% DOD
<b>Equalization and Cycle Service Charging Voltage</b>	14.4 to 14.8 VDC/Unit Average at 77F (25C)
<b>Temperature Correction Factor</b>	3 mV/F per cell when operating below 77F (25C) -3 mV/F per cell when operating above 77F (25C)

**BATTERY CONNECTIONS**

Terminal	VRS12-33C "L"		VRS12-50C "L"		VRS12-75C SAE & Stud		VRS12-100C "L"	
<b>Bolt</b>	1/4"	[6mm]	1/4"	[6mm]	5/16"	[8mm]	1/4"	[6mm]
<b>Torque</b>	40in-lbs	[4.5 N-m]	40in-lbs	[4.5 N-m]	40in-lbs	[4.5 N-m]	65in-lbs	[7.4 N-m]
<b>Re-Torque</b>	32in-lbs	[3.5 N-m]	32in-lbs	[3.5 N-m]	32in-lbs	[3.5 N-m]	52in-lbs	[5.9 N-m]



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