

# Powerware® 9315-80

## Features

- ▶ DC Expert™ battery management system featuring:
  - +/- 3% battery run time
  - Battery health indication
- ▶ Powerware Hot Sync™ Redundant capability
- ▶ Large display panel provides metering, statistics, alarm history and an active mimic screen
- ▶ Prioritized cooling of components
- ▶ Flexible communication capability
  - Local Communications
    - Monitor panel
    - Illuminated indicators
    - Control panel
  - Remote communications
    - Relay interface contacts
    - Building alarm contacts (programmable)
    - Summary alarm contacts
    - RS232 port (standard)
    - EPO kit
    - Remote monitor panel
- ▶ Communications options
  - Embedded communications slot to accept the following cards:
    - ConnectUPS-X SNMP/Web card
    - Multi-server card (S-RS232 serial port output)
    - Single port serial card
  - Expansion chassis available for increased communications capabilities
- ▶ Intelligent input filter option



Model 50 50kVA/40kW  
 Model 65 65kVA/52kW  
 Model 80 80kVA/64kW

## Environmental Specifications

<b>Ambient temp:</b>	0°C to +40°C
<b>Storage:</b>	-20°C to +70°C
<b>Relative humidity:</b>	5-95% non-condensing
<b>Altitude:</b>	1500 meters (5000ft.) at 40°C ambient temperature without load derating
<b>Audible noise:</b>	Less than 65 dBA at 1 meter; in accordance with ISO 7779
<b>Electrostatic discharge:</b>	Withstands 25kV without damage or disturbance to the load; exceeds requirements of IEC 801-2
<b>EMC:</b>	Meets FCC Class A and EN 50091-2 (CISPR 22, Class A)

## Input Specifications

<b>Voltage range:</b>	(See chart on other side)
<b>Frequency range:</b>	(60 Hz) 57-63 Hz; (50 Hz) 47-53 Hz
<b>Surge protection:</b>	Meets ANSI C62.41, Category A & B, EN 50091-2 and EN 50082-2
<b>Power factor:</b>	0.95 typical at full load with input filter. Input current distortion less than 7% with input filter

## Output Specifications

<b>Voltage THD:</b>	Less than 5% (100% non-linear load with 3:1 crest factor); less than 3% (100% linear load)
<b>Voltage regulation:</b>	Better than ±1%
<b>Transient response:</b>	Less than 5% for 100% load step; full recovery within 1 cycle
<b>Frequency:</b>	(free run) ±0.005 Hz
<b>Frequency sync range:</b>	±0.5 Hz
<b>Frequency slew rate:</b>	1 Hz/second maximum
<b>Voltage adjustment range (operator):</b>	±5%

## Battery Specifications

<b>Matching cabinets</b>	Line-up or remote
<b>Battery type</b>	Sealed, valve regulated lead acid
<b>Recharge time</b>	10-12 times the discharge time to 95%
<b>Other battery options</b>	Wet cell and nickel-cadmium batteries; open racks available <i>For battery runtimes and configurations, refer to Bulletin BAT01FXA.</i>

## Safety

<b>UL1778 Listed</b>	cUL CAN/CSA C22.2 NO.107.1-M91 Listed EN 50091-1 All cabinets provide seismic mounting features Selectable DC ground fault detection capability
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*Note: Dual feed input not available for 208V or 220V input. Specifications subject to change without notice.*

## Powerware Recommends

Software	Connectivity	Service	System Solutions
<ul style="list-style-type: none"> <li>&gt; PowerVision®</li> <li>&gt; LanSafe™</li> <li>&gt; FORESEER®</li> </ul>	<ul style="list-style-type: none"> <li>&gt; ConnectUPS-X SNMP/WEB card</li> <li>&gt; Multi-server card</li> </ul>	<ul style="list-style-type: none"> <li>&gt; ProActive Service Plan</li> <li>&gt; Preventive Maintenance</li> <li>&gt; CELLWATCH®</li> </ul>	<ul style="list-style-type: none"> <li>&gt; PF² Flywheel</li> <li>&gt; PDM</li> <li>&gt; RPP</li> <li>&gt; Powerware Hot Sync</li> <li>&gt; External Maintenance Bypass</li> </ul>

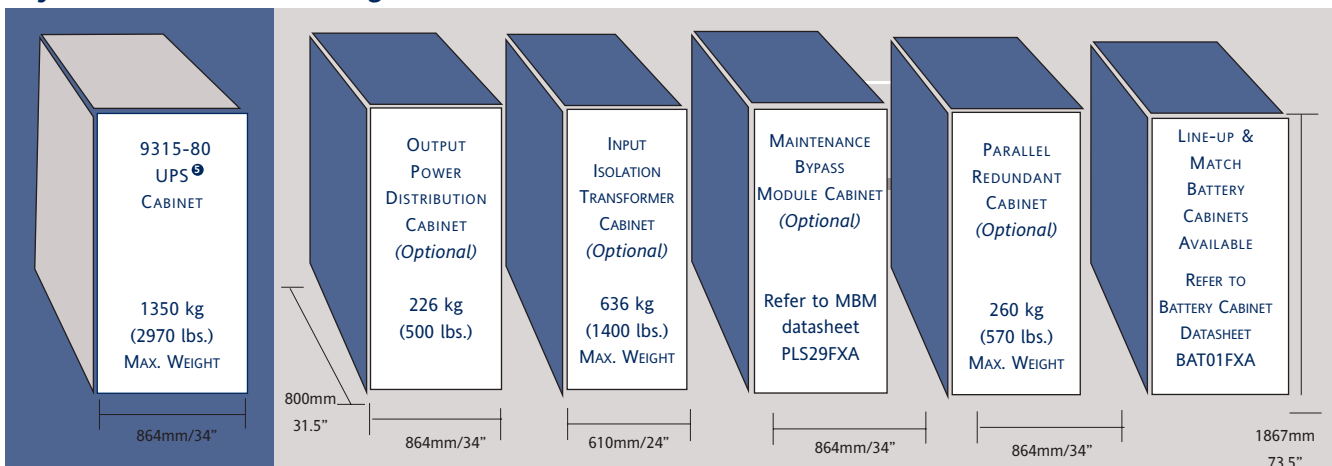
Please contact your sales representative for a solution tailored to your specific needs.

## Powerware 9315-80 Performance Characteristics

		Model 50							Model 65							Model 80						
		50kVA/40kW							65kVA/52kW							80kVA/64kW						
Input voltage	Volts	480	480	208	220	600	600	400 <sup>1</sup>	480	480	208	220	600	600	400 <sup>1</sup>	480	480	208	220	600 <sup>1</sup>		
Output voltage	Volts	208	480	208	208	600	208	400	208	480	208	208	600	208	400	208	480	208	208	600		
<b>Input voltage range</b>																						
Minimum	Volts	408	408	177	187	510	510	340	408	408	177	187	510	510	340	408	408	177	187	510		
Maximum	Volts	528	528	229	242	660	660	440	528	528	229	242	660	660	440	528	528	229	242	660		
Input / output frequency	Hz	60	60	60	60	60	60	50/60	60	60	60	60	60	60	50/60	60	60	60	60	60		
<b>AC input (with input filter)</b>																						
Nominal amps	Amps	56	56	128	120	45	45	69	72	72	167	156	58	58	90	89	89	205	192	72		
Maximum amps <sup>2</sup>	Amps	69	69	160	150	56	56	86	90	90	208	195	72	72	112	111	111	256	240	89		
<b>AC input (without input filter)</b>																						
Nominal amps	Amps	66	66	150	142	52	52	81	85	85	196	186	68	68	105	105	105	241	228	84		
Maximum amps <sup>2</sup>	Amps	82	82	188	178	65	65	101	106	106	245	232	85	85	131	131	131	301	285	105		
<b>Bypass input</b>																						
Nominal amps	Amps	60	60	139	131	48	48	74	78	78	180	171	63	63	97	96	96	222	210	77		
<b>AC output</b>																						
Nominal amps	Amps	139	60	139	139	48	139	74	180	78	180	180	63	180	97	222	96	222	222	77		
10 minutes max.	Amps	174	75	174	174	60	174	93	225	98	225	225	79	225	121	278	120	278	278	96		
<b>DC link</b>																						
Nominal DC voltage	Volts	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480		
Float voltage	Volts	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540		
End of discharge <sup>3</sup>	Volts	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401	401		
Maximum amps <sup>4</sup>	Amps	100	100	100	100	100	100	100	130	130	130	130	130	130	130	160	160	160	160	160		
<b>Physical attributes (w/o batt.)</b>																						
Installed weight	Lbs	2000	2000	2475 <sup>5</sup>	2475	2475	3400	2475	2000	2000	2475 <sup>5</sup>	2475	2475	3400	2475	2000	2000	2475 <sup>5</sup>	2475	2475		
Installed width	Inches	34	34	34	34	34	58	34	34	34	34	34	34	58	34	34	34	34	34	34		
<b>System efficiencies (typical)</b>																						
@ 100% load	%	92	92	91	91	91	91	91	92	92	91	91	91	91	91	92	92	91	91	91		
@ 75% load	%	92	92	91	90	90	90	90	92	92	91	91	91	91	91	92	92	91	91	91		
@ 50% load	%	92	92	90	90	91	90	92	92	92	91	90	91	90	92	92	92	90	91	91		
<b>Full load heat dissipation</b>																						
BTU/Hr. (x1000)		11.9	11.9	13.5	13.5	13.5	13.5	13.5	15.4	15.4	17.6	17.6	17.6	17.6	17.6	19.0	19.0	21.6	21.6	21.6		
KCal/Hr. (x1000)		3.00	3.00	3.40	3.40	3.40	3.40	3.40	3.89	3.89	4.43	4.43	4.43	4.43	4.43	4.79	4.79	5.45	5.45	5.45		
Inverter efficiency (full load)	%	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94		

<sup>1</sup> Easily adjustable for 380 or 415 VAC input/output, 50 or 60 Hz. <sup>2</sup> Maximum amps equals full load current plus battery recharge current. <sup>3</sup> End of discharge based on 1.67 v/cell, maximum amps based on 1.8 v/cell. <sup>4</sup> For dual feed add 495 lbs.

## Physical Dimensions and Weights



<sup>5</sup> All accessories feature plug and play capability. Shipping pallet and packaging adds 50 to 300 lbs. per shipping unit. Casters are standard for ease of installation.

Due to continuing improvement programs specifications are subject to change without notice. Battery run times are approximate and may vary with equipment, configuration, battery age, temperature, etc. Powerware®, CELLWATCH, DC Expert, Foreseer, Hot Sync, LanSafe and PowerVision are trademark(s) of Powerware Corporation. © 2004 Powerware Corporation

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