

Powerware® 9315-500



Powerware 9315-500
Model 400 400kVA/360kW/320kW
Model 500 500kVA/450kW/400kW

Features

- ▶ DC Expert™ battery management system
 - ▶ +/- 3% battery run time
 - ▶ Battery health indication
- ▶ Powerware Hot Sync™ Redundant and Capacity 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 (5-RS232)
 - Single port serial card
 - Modbus
 - Modem
 - Expansion chassis available for increased communications capabilities
- ▶ Intelligent input filter option
- ▶ Prioritized cooling

Environmental Specifications

Ambient temperature: 0°C to +40°C
Storage: -20°C to +70°C
Relative humidity: 5-95% non-condensing
Altitude: 1500 meters (5000ft.) at 40°C ambient temperature without load derating
Audible noise: Less than 72 typically dBA at 1 meter; in accordance with ISO 7779

Electrostatic discharge: Withstands 25kV without damage or disturbance to the load; exceeds requirements of IEC 801-2
EMC: Meets FCC Class A and EN 50091-2 (CISPR 22, Class A)

Input Specifications

Voltage range: (See chart on other side)
Frequency range: (60 Hz) 57-63 Hz; (50 Hz) 47-53 Hz
Surge protection: Meets ANSI C62.41, Category A & B, EN 50091-2 and EN 50082-2
Power factor: 0.96 typical at full load with input filter. Input current distortion less than 7% with input filter

Output Specifications

Voltage THD: Less than 5% (100% non-linear load with 3:1 crest factor); less than 3% (100% linear load)
Voltage regulation: Better than ±1%
Transient response: Less than 5% for 100% load step; full recovery within 1 cycle
Frequency: (free run) ±0.005 Hz
Frequency sync range: ±0.5 Hz
Frequency slew rate: 1 Hz/second maximum
Voltage adjustment range (operator): ±5%
Power Factor: 0.8 and 0.9 rated output to accommodate both leading and lagging power factor loads

Battery Specifications

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

Safety

UL1778 Listed
 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

Powerware Recommends

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

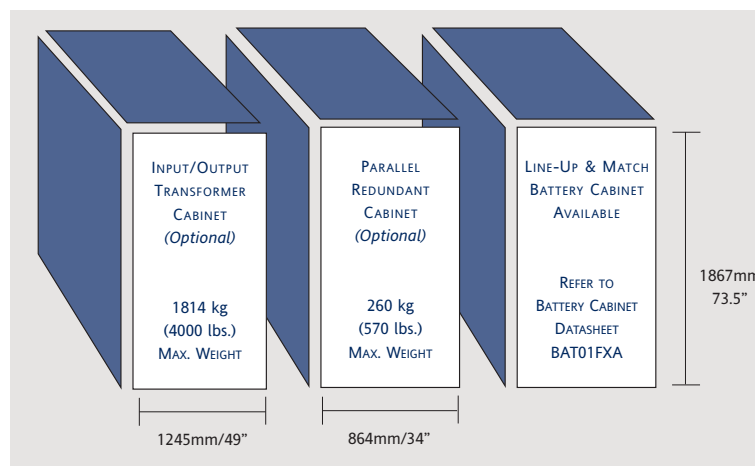
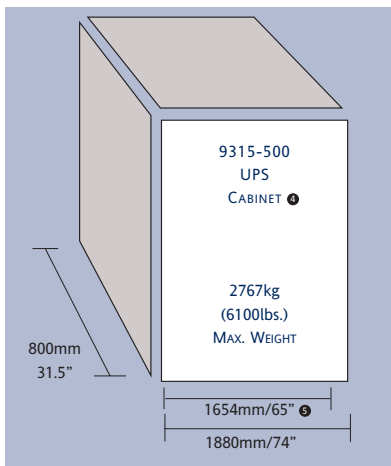
Please contact your sales representative for a solution tailored to your specific needs.

Powerware 9315-500 Performance Characteristics

		Model 500					Model 400				
		500kVA/400kW	500kVA/450kW ¹	500kVA/400kW	500kVA/450kW ¹	400kVA/320kW	400kVA/360kW ¹	400kVA/320kW	400kVA/360kW ¹	400kVA/320kW	400kVA/360kW ¹
Input voltage	Volts	480	480	600	600	480	480	480	480	208	208
Output voltage	Volts	480	480	600	600	480	480	208	208	208	208
Input voltage range											
Minimum -15	Volts	408	408	570	570	408	408	408	408	177	177
Maximum +10	Volts	528	528	660	660	528	526	528	528	229	229
Input / output frequency	Hz	60	60	60	60	60	60	60	60	60	60
AC input (with input filter)											
Nominal amps	Amps	528	605	422	484	410	468	410	468	944	1077
Maximum amps ²	Amps	640	720	512	576	560	626	560	626	1280	1440
AC input (without input filter)											
Nominal amps	Amps	648.5	729.5	518.8	583.6	521.6	585.4	521.6	585.4	1199.7	1346.3
Maximum amps ²	Amps	800	850	640	658	640	715	640	715	N/A	N/A
Bypass input											
Nominal amps	Amps	601	601	480	480	480	480	1110	1110	1110	1110
AC output											
Nominal amps	Amps	601	601	480	480	480	480	1110	1110	1110	1110
10 minutes max.	Amps	750	750	600	600	600	600	1388	1388	1388	1388
DC link											
Nominal DC voltage	Volts	480	480	480	480	480	480	480	480	480	480
Float voltage	Volts	540	540	540	540	540	540	540	540	540	540
End of discharge ³	Volts	401	401	401	401	401	401	401	401	401	401
Maximum amps ³	Amps	1000	1120	1000	1120	800	901	800	901	800	901
Physical attributes (w/o batt.)											
Installed weight	Lbs	6100	6100	14,100	14,100	6100	6100	10,100	10,100	14,100	14,100
Installed width	Inches	74	74	123	123	74	74	123	123	123	123
System efficiencies (Typical)											
@ 100% load	%	93.5	93.0	92.5	92.0	94.0	93.7	93.0	92.7	92.0	91.7
@ 75% load	%	93.0	92.6	92	91.5	93.5	93.3	92.5	92.4	91.5	91.5
@ 50% load	%	92.0	92.0	91	91	93	93	92	92	91	91
Full load heat dissipation ⁴											
BTU/Hr. (x1000)		88.8	107.6	102.5	122.9	65.6	77.5	76.5	89.7	87.4	102.0
KCal/Hr. (x1000)		22.4	27.1	25.8	31	16.5	19.5	19.3	22.6	22.0	25.7
Inverter efficiency (full load)	%	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0



Physical Dimensions and Weights ⁵



- ¹ Optional 0.9 Power Factor
- ² Maximum amps equals full load current plus battery recharge current.
- ³ End on Discharge based on 1.67 v/cell. Maximum Amps based on 1.8 v/cell.
- ⁴ All accessories feature plug and play capability.
- ⁵ Removable wireway section reduces width by 9" to aid installation.
- ⁶ Refer to Installation Manual for actual system Line-ups.
- ⁷ Heat rejection data is worst case to ensure cooling capacity (includes losses from filters and transformers).

Shipping pallet and packaging adds 50 to 300 lbs. per shipping unit.

Specifications subject to change without notice.

Powerware

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