



## Powerware® 9315-500 Uninterruptible Power System

Product Focus

Model 400 400 kVA/360 kW/320 kW  
Model 500 500 kVA/ 450 kW/400 kW



### Features

- DC Expert® battery management system featuring: +/- 3% battery runtime; Battery health indication
- Powerware Hot Sync™ technology for parallel redundancy and capacity scalability
- Large display panel provides metering, statistics, alarm history and an active mimic screen
- Prioritized cooling of components
- Power Management Software compatibility
  - PowerVision®, LanSafe™, FORESEER®
  - Software Suite CD is bundled with the UPS
- Connectivity options
  - ConnectUPS-X Web Card, Modbus Card, Single port serial Card
  - Environmental Monitoring Probe for ambient temperature and humidity monitoring (requires the Web Card option)
  - Expansion Chassis available for increased communications capabilities
- Intelligent input filter option

#### 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
Output Power Factor Rating:	0.8 lagging to 0.9 leading without load derating

#### Environmental Specifications

Ambient temp:	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 25 kV 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)

#### 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
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#### 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

#### Battery Specifications

Matching cabinets:	Line-up and remote available
Battery type:	Sealed, valve regulated lead acid
Recharge time:	10-12 times the discharge time to 95%
Other battery options:	Wet cell batteries; open racks available

For battery runtimes and configurations, refer to Bulletin BAT01FXA

#### Communications

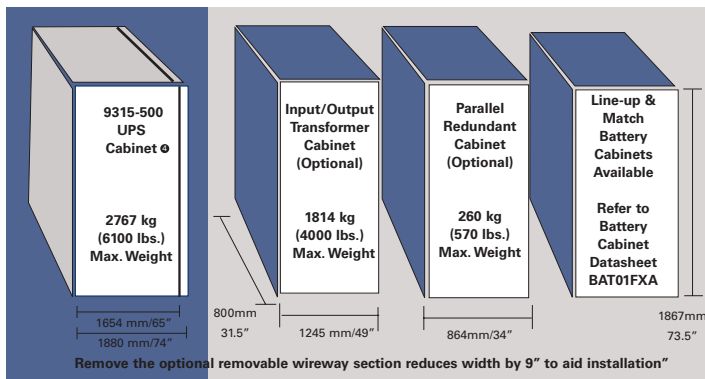
Software Compatibility:	PowerVision®, LanSafe™, FORESEER®
Communication Cards:	Connect UPS-X Web Card Modbus Card Single port serial Card Environmental Monitoring Probe (EMP)*

\* Requires Connect UPS-X Web Card

# POWERWARE 9315-500 PERFORMANCE CHARACTERISTICS

		Model 500				Model 400					
		500 kVA/ 400 kW	500 kVA/ 450 kW	500 kVA/ 400 kW	500 kVA/ 450 kW	400 kVA/ 320 kW	400 kVA/ 360 kW	400 kVA/ 320 kW	400 kVA/ 360 kW	400 kVA/ 320 kW	400 kVA/ 360 kW
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
<b>Input voltage range</b>											
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
<b>AC input (with input filter)</b>											
Nominal amps	Amps	528	605	422	484	410	468	410	468	944	1077
Maximum amps <sup>Ⓞ</sup>	Amps	640	720	512	576	560	626	560	626	1280	1440
<b>AC input (without input filter)</b>											
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 <sup>Ⓞ</sup>	Amps	800	850	640	658	640	715	640	715	N/A	N/A
<b>Bypass input</b>											
Nominal amps	Amps	601	601	480	480	480	480	1110	1110	1110	1110
<b>AC output</b>											
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
<b>DC link</b>											
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 <sup>Ⓞ</sup>	Volts	401	401	401	401	401	401	401	401	401	401
Maximum amps <sup>Ⓞ</sup>	Amps	1000	1120	1000	1120	800	901	800	901	800	901
<b>Physical attributes (w/o batt.)</b>											
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
<b>System efficiencies (typical)</b>											
@ 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
<b>Full load heat dissipation<sup>Ⓞ</sup></b>											
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<sup>Ⓞ</sup>



- Optional 0.9 Power Factor
  - Maximum amps equals full load current plus battery recharge current.
  - End on Discharge based on 1.67 v/cell. Maximum Amps based on 1.8 v/cell.
  - All accessories feature plug and play capability.
  - Refer to Installation Manual for actual system Line-ups.
  - 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.

