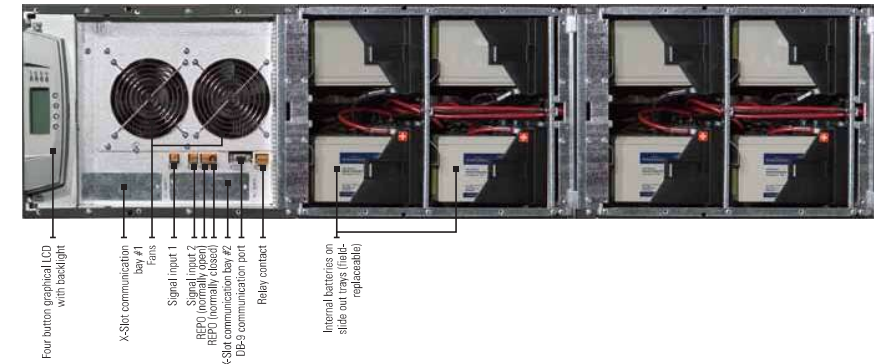


### Technical Specifications for 10 and 15 kVA<sup>1</sup>

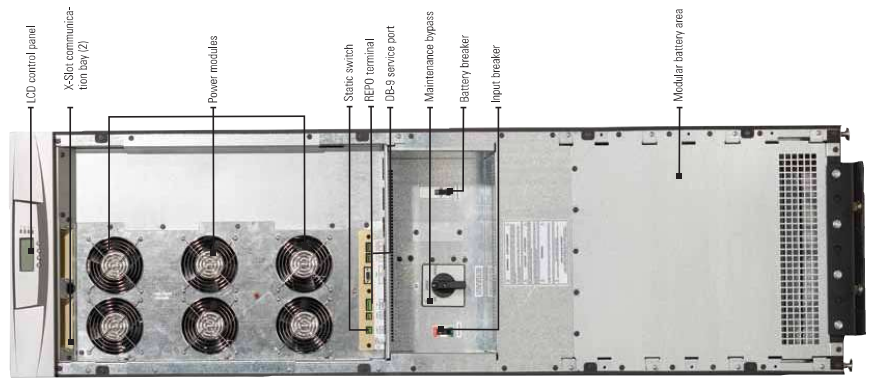
<b>Power</b>	10 kVA/9 kW and 15 kVA/13.5 kW at 0.9 power factor
<b>Topology</b>	Double conversion
<b>Electrical input</b>	
Nominal input voltage	208V/120V or 220V/127V three-phase 400V models also available
Input voltage range	±5% from nominal at 100% load without derating
Operating frequency	50/60 Hz (45 to 65 Hz)
Input power factor	>0.98 typical, >0.98 frequency converter
Input current distortion	≤5% THD
<b>Electrical output</b>	
Nominal output voltage	208V/120, 220V/127 Vdc
Output voltage regulation	±1% static, ±5% dynamic at 100% resistive load, typical < 1ms response time
Efficiency	91%, typical
Heat dissipation (BTU/hr)	10 kVA models: 3,798 @ 208V and 220V input 6,194 @ 480V and 600V (with input isolation transformer) 15 kVA models: 5,122 @ 208V and 220V input 8,134 @ 480V and 600V (with input isolation transformer)
<b>Battery</b>	
Battery type	9 Ah, sealed, lead-acid, maintenance-free
Battery runtime	See battery backup time chart
Battery replacement	Field-replaceable
Charger	Default is 3A4 per battery string. Charger current is configurable from 0.5A to 25A per string with an overall maximum of 34A (limited by input current)
Start-on-battery	Allows start of UPS without utility input
<b>General</b>	
Diagnostics	Full system self-test at startup
UPS bypass	Automatic on overload or UPS failure
Parallel for redundancy	Yes, using Powerware Hot Sync technology and capacity
Dimensions and weights	See model selection table
Overload (normal operation)	150% for 5 sec / 125% for 1 min (online), 110% for 10 min
<b>Communications</b>	
LCD display	Graphical LCD with blue backlight
LEDs	(4) LEDs for notice and alarm
Audible alarms	Yes
Communication ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input
Communication slots	(1) X-Slot communication bays
Power management software	Bundled Software Suite CD
<b>Environmental</b>	
Operating temperature	50–104°F (10–40°C), 45°C with 7.5% derating; 32–77°F (0–25°C); Recommended battery storage: 58–77°F (15–25°C)
Relative humidity	0–95%, non-condensing
Audible noise	< 56 dBA at 1 meter (noiseless room) typical
Altitude	9,843 ft (3,000m) without derating
<b>Certifications</b>	
Safety certifications	IEC 62040-1-1, IEC 60950, EN 62040-1-1, UL 1778
EMC compliance	EN 50091-2, Class A
Quality	ISO 9001:2000 and ISO 14001:1996
Markings	UL, cUL



Front view of three-high module with cover off

### Technical Specifications for 20 and 30 kVA<sup>1</sup>

<b>Power</b>	20 kVA/18 kW and 30 kVA/27 kW at 0.9 power factor
<b>Topology</b>	Double conversion
<b>Electrical input</b>	
Nominal input voltage	208V/120V, 220V/127V +10, -15% 400V models also available
Operating frequency	50/60 Hz (45 to 65 Hz)
Input power factor	>0.98 typical, >0.98 frequency converter
Input current distortion	≤5% THD
<b>Electrical output</b>	
Nominal output voltage	208V/120, 220V/120 Vdc
Output voltage regulation	±1% static, ±4% dynamic with 100% step load recovery within 1 ms response time
Efficiency	91%, typical
Heat dissipation (BTU/hr)	20 kVA models: 6,762 @ 208V and 220V input 10,450 @ 480V and 600V (with input isolation transformer) 30 kVA models: 9,220 @ 208V and 220V input 13,581 @ 480V and 600V (with input isolation transformer)
<b>Battery</b>	
Battery type	9 Ah, sealed, lead-acid, maintenance-free
Battery runtime	See battery backup time chart
Battery replacement	Field-replaceable
Charger	Default is 3A
<b>General</b>	
Diagnostics	Full system self-test at startup
UPS bypass	Automatic on overload or UPS failure
Parallel for redundancy	Yes, using Powerware Hot Sync technology for redundancy and capacity
Dimensions and weights	See model selection table
Overload	150% for 5 sec / 125% for 1 min (online), 110% for 10 min
<b>Communications</b>	
LCD display	Graphical LCD with blue backlight
LEDs	(4) LEDs for notice and alarm
Audible alarms	Yes
Communication ports	(1) RS-232, (1) relay contact, (1) REPO, (2) environmental input
Communication slots	(2) X-Slot communication bays
Power management software	Bundled Software Suite CD
<b>Environmental</b>	
Operating temperature	50–104°F (10–40°C), 45°C with 7.5% derating; 32–77°F (0–25°C); Recommended battery storage: 58–77°F (15–25°C)
Relative humidity	0–95%, non-condensing
Audible noise	< 55 dBA at 1 meter depending on load
Altitude	< 3000m
<b>Certifications</b>	
Safety certifications	IEC 62040-1-1, IEC 60950, EN 62040-1-1, UL 1778
EMC compliance	EN 50091-2, Class A
Quality	ISO 9001:2000 and ISO 14001:1996
Markings	UL, cUL, NOM/HSYCE



20/30 kVA UPS