

**120V Models****GENERAL**

Rated Capacity: 1000VA, 1500VA, 2000VA, 3000VA with a power factor of 0.9  
Technology: True on-line, double conversion topology with integral automatic bypass

**INPUT**

Phase: Single phase plus ground  
Bypass Voltage: 96 - 138 VAC (user selectable)  
Input Voltage range: 100-120 VAC  
(60V @ 25%, 70V @ 50%, 80V @ 75% load, 90V @ 100%)  
Frequency: 50 / 60 Hz Auto sensing  
AC Frequency range: 45 - 65 Hz  
Synchronization range:  $\pm 5\%$   
Input Current: 1000VA - 8.6A, 1500VA - 13.2A, 2000VA - 17.6A  
3000 VA - 26.4A  
Input Power factor: 0.97

**OUTPUT**

Output Voltage: 100 / 110 / 115 / 120 VAC (user selectable)  
Voltage regulation:  $\pm 2\%$   
Voltage distortion:  $< 5\%$  THD with non-linear loads,  $< 2.5\%$  THD with linear loads  
Frequency regulation:  $\pm 0.25$  Hz (while on battery or in free run mode)  
Dynamic response:  $\pm 9\%$  max from 100% to 20 % or from 20% to 100 % linear load  
Overload capacity: 106 - 120% for 30 sec, 121- 150% for 10 sec  
Efficiency (HE Mode): Greater than 92%  
Efficiency (On-line Mode): Greater than 88%  
Crest Factor: 3 : 1

**230V Models****GENERAL**

Rated power: 1000VA, 1500VA, 2000VA, 3000VA with a power factor of 0.9  
Technology: True on-line, double conversion topology with integral automatic bypass

**INPUT**

Phase: Single phase plus ground  
Bypass Voltage: 184 - 265 VAC (user selectable)  
Input Voltage range: 120 / 140 / 160 / 180 VAC - 276 VAC  
(120V @ 25%, 140V @ 50%, 160V @ 75%, 180V @ 100% load)  
Frequency: 50 / 60 Hz Auto-sensing  
AC Frequency range: 45 - 65 Hz  
Synchronization range:  $\pm 5\%$   
Input Current: 1000VA - 4.7A, 1500VA - 7A, 2000VA - 9.4A, 3000VA - 14.1A  
Input Power factor: 0.97

**OUTPUT**

Output Voltage: 208 / 220 / 230 / 240 VAC (user selectable)  
Voltage regulation:  $\pm 2\%$   
Voltage distortion:  $< 5\%$  THD with non-linear loads,  $< 2.5\%$  THD with linear loads  
Frequency regulation:  $\pm 0.25$  Hz (while on battery or in free run mode)  
Dynamic response:  $\pm 9\%$  max from 100% to 20 % or from 20% to 100 % linear load  
Overload capacity: 106 - 120% for 30sec, 121 - 150% for 10 sec  
Efficiency (HE Mode): Greater than 92%  
Efficiency (On-line Mode): Greater than 88%  
Crest Factor: 3 : 1

**All Models****ENVIRONMENTAL**

Ambient temperature range:	+32 °F to +104°F	(+0 °C to +40 °C)
Optimum temperature range:	+59 °F to +77°F	(+15 °C to +25 °C)
Storage temperature:	+5 °F to +122°F	(-15 °C to +50 °C)
Cooling:	Forced air cooling	
Humidity:	0-95%, non-condensing	
Elevation:	6562 feet / 2000 meters max (operation)	
Audible noise:	< 45 db normal and battery mode (1000,1500 VA models)	
	< 50 db normal and battery mode (2000,3000 VA models)	

**STANDARDS**

Safety:	EN62040-1 (230V); UL1778 (120V)
Emissions:	EN62040-2 (230V); FCC Part 15 Subpart B (120V)
Immunity:	EN62040-2 Category C1 (1000VA,1500VA 230V only)
	EN62040-2 Category C2 (2000VA, 3000VA 230V only)
Conformity (120V):	UL 1778 5th Edition
Conformity (230V):	CE
Transient Immunity (120V):	Per IEEE 62.41 (formerly IEEE 587)
Transient Immunity (230V):	Per IEEE C 61000-4-5 level 3

**MODEL & PART NUMBER DESIGNATION****Plug & Receptacle Version**

120V Tower Models:	VTWP-1000-01, VTWP-1500-01, VTWP-2000-01, VTWP-3000-01
230V Tower Models:	VTWP-1000-02, VTWP-1500-02, VTWP-2000-02, VTWP-3000-02
120V Rack-Tower Models (2U):	VRTP-1000-01, VRTP-1500-01, VRTP-2000-01, VRTP-3000-01
230V Rack-Tower Models (2U):	VRTP-1000-02, VRTP-1500-02, VRTP-2000-02, VRTP-3000-02

### 120V Tower Models

Model Number	VTWP-1000-01	VTWP -1500-01	VTWP -2000-01	VTWP -3000-01
<b>Capacity</b>	1000VA   900W	1500VA   1350W	2000VA   1800W	3000VA   2700W
<b>Input Connection</b>	Fixed Power Cord			
<b>Output Connection</b>	6 x NEMA 5-15R		12 x NEMA 5-15R	8 x 5-20R +1 x L5-30R
<b>Battery Type &amp; Rating</b>	Sealed, lead-acid 7Ah/12V			
<b>Battery Quantity</b>	3	4	6	8
<b>Backup Time (full load)</b>	3~5 min			3~4 min
<b>Recharge Time</b>	<4 hours to 90 %			
<b>Dimensions in / mm W x D x H</b>	6 x 16.5 x 9.4 152 x 420 x 239	6 x 19.7 x 9.4 152 x 500 x 239	8.9 x 16.5 x 14.1 226 x 420 x 358	
<b>Weight lbs. / kg</b>	29.7 / 13.5	40.3 / 18.3	58.3 / 26.5	69.3 / 31.5

### 120V 19" Rack Mount Models (2U)

Model Number	VRTP-1000-01	VRTP -1500-01	VRTP -2000-01	VRTP -3000-01
<b>Capacity</b>	1000VA   900W	1500VA   1350W	2000VA   1800W	3000VA   2700W
<b>Input Connection</b>	Fixed Power Cord			
<b>Output Connection</b>	6 x NEMA 5-15R		4 x NEMA 5-20R	4 x NEMA 5-20R or 2 x 5-20R +1 x L5-30R
<b>Battery Type &amp; Rating</b>	Sealed, lead-acid 7Ah/12V			Sealed, lead-acid 9Ah/12V
<b>Battery Quantity</b>	3	4	6	6
<b>Backup Time (full load)</b>	3~5 min			3~4 min
<b>Recharge Time</b>	<4 hours to 90 %			
<b>Dimensions in / mm W x D x H</b>	16.9 x 16.7 x 3.3 429 x 425 x 84	16.9 x 19.7 x 3.3 429 x 500 x 84	16.9 x 25 x 3.3 429 x 635 x 84	
<b>Weight lbs. / kg</b>	33.5/ 15.2	45.8 / 20.8	63.8/ 29	

### 230V Tower Models

Model Number	VTWP-1000-02	VTWP -1500-02	VTWP -2000-02	VTWP -3000-02
<b>Capacity</b>	1000VA   900W	1500VA   1350W	2000VA   1800W	3000VA   2700W
<b>Input Connection</b>	IEC 320(10A)			IEC 320(16A)
<b>Output Connection</b>	4 x IEC 320(10A) 4 x 5-15R 2 x Europe		8 x IEC 320(10A) 1 x IEC 320(16A) 12 x 5-15R 6 x Europe	
<b>Battery Type &amp; Rating</b>	Sealed, lead-acid 7Ah/12V			
<b>Battery Quantity</b>	3	4	6	8
<b>Backup Time (full load)</b>	3~5 min			3~4 min
<b>Recharge Time</b>	<4 hours to 90 %			
<b>Dimensions in / mm W x D x H</b>	6.0 x 16.5 x 9.4 152 x 420 x 239	6 x 19.7 x 9.4 152 x 500 x 239	8.9 x 16.5 x 14.1 226 x 420 x 358	
<b>Weight lbs. / kg</b>	29.7 / 13.5	40.3 / 18.3	58.3 / 26.5	69.3 / 31.5

### 230V 19" Rack Mount Models (2U)

Model Number	VRTP-1000-02	VRTP -1500-02	VRTP -2000-02	VRTP -3000-02
<b>Capacity</b>	1000VA   900W	1500VA   1350W	2000VA   1800W	3000VA   2700W
<b>Input Connection</b>	IEC 320 (10A)			IEC 320 (16A)
<b>Output Connection</b>	4 x IEC 320(10A) 4 x 5-15R 2 x Europe		4 x NEMA 5-15R 4 x IEC 320(10A) 1 x IEC 320(16A) 2 x Europe	
<b>Battery Type &amp; Rating</b>	Sealed, lead-acid 7Ah/12V			
<b>Battery Quantity</b>	3	4	6	6
<b>Backup Time (full load)</b>	3~5 min			3~4 min
<b>Recharge Time</b>	<4 hours to 90 %			
<b>Dimensions in / mm W x D x H</b>	16.9 x 16.7 x 3.3 429 x 425 x 84	16.9 x 19.7 x 3.3 429 x 500 x 84	16.9 x 25 x 3.3 429 x 635 x 84	
<b>Weight lbs. / kg</b>	33.5 / 15.2	45.8 / 20.8	63.8 / 29	