

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

Rated Capacity: 700VA, 1000 VA, 1500 VA, 2000 VA, 3000 VA with a power factor of 0.7  
Technology: True on-line, double conversion topology with integral automatic bypass

**INPUT**

Phase: Single phase plus ground  
Input Voltage Range: 100V: 76-130V 110V: 80-138V 115V: 83.5-140V 120V: 87-140V  
Input Power factor: 0.98  
Frequency: 50 / 60 Hz Auto sensing  
AC Frequency range: 45 - 65 Hz  
Synchronization range:  $\pm 3$ Hz  
Input Current (120V): 700VA -5.8A, 1000VA -8.2A, 1500VA -12.4A, 2000VA -16.5A, 3000VA -25A  
Input Protection: Circuit Breaker for overload and short protection  
DC Bus Voltage: 700VA - 24V, 1000VA - 36V, 1500VA - 48V, 2000VA - 72V, 3000VA - 96V

**OUTPUT**

Output Voltage: 100 / 110 / 115 / 120 VAC  
Voltage regulation:  $\pm 2\%$  (700VA - 2000VA)  $\pm 3\%$  (3000VA)  
Voltage distortion:  $< 5\%$  THD with non-linear loads,  $< 3\%$  THD with linear loads  
Frequency regulation:  $\pm 0.25$  Hz (while on battery)  
Dynamic response:  $\pm 9\%$  max from 100% to 20 % or from 20% to 100 % linear load  
Overload capacity: 105% for 10 seconds, 130%  $\pm 10\%$  for 300 msec  
Efficiency (Bypass Mode): Greater than 95%  
Efficiency (On-line Mode): Greater than 88%  
Crest Factor: 3 : 1

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

Rated power: 700VA, 1000 VA, 1500 VA, 2000 VA, 3000 VA with a power factor of 0.7  
Technology: True on-line, double conversion topology with integral automatic bypass

**INPUT**

Phase: Single phase plus ground  
Input Voltage range: 208V: 152-260V 220V: 160-276V 230V: 167-280V 240V: 174-280V  
Input Power factor: 0.98  
Input Protection: Circuit Breaker for overload and short protection  
Frequency: 50 / 60 Hz Auto-sensing  
AC Frequency range: 45 - 65 Hz  
Synchronization range:  $\pm 3$ Hz  
Input Current (230V): 700VA - 3A, 1000VA - 4.4A, 1500VA - 6.5A, 2000VA - 8.7A, 3000VA - 13A  
DC Bus Voltage: 700VA - 24V, 1000VA - 36V, 1500VA - 48V, 2000VA - 72V, 3000VA - 96V

**OUTPUT**

Output Voltage: 208 / 220 / 230 / 240 VAC  
Voltage regulation:  $\pm 2\%$  (700VA - 2000VA)  $\pm 3\%$  (3000VA)  
Voltage distortion:  $< 5\%$  THD with non-linear loads,  $< 3\%$  THD with linear loads  
Frequency regulation:  $\pm 0.25$  Hz (while on battery)  
Dynamic response:  $\pm 9\%$  max from 100% to 20 % or from 20% to 100 % linear load  
Overload capacity: 105% for 10 seconds, 130%  $\pm 10\%$  for 300 msec  
Efficiency (Bypass Mode): Greater than 95%  
Efficiency (On-line Mode): Greater than 88%  
Crest Factor: 3 : 1

**All Models****ALARMS AND INDICATORS**

Battery Backup:	Slow beeping tone (approx. 0.25Hz)
Battery Low:	Rapid beeping tone (approx. 1.00Hz)
Overload:	Continuous Tone
Front Panel Display:	High Intensity LCD panel
Display Parameters:	Input voltage, Output voltage, Input Frequency, Output Frequency, Load (%), Internal Temperature (°C)
Communication (std): (optional):	RS-232 bi-directional communication port and solid state signaling Internal SNMP/WEB Card for monitoring and control on a network or the internet

**STANDARDS**

Safety:	EN50091-1-1
Emissions:	EN50091-2 class B
Immunity:	EN50091-2
Conformity:	UL 1778, cUL 107.1, 107.2, (120V models), CE (230V Models)
Transient Immunity (120V):	Per IEEE 62.41 (formerly IEEE 587)
Transient Immunity (230V):	Per IEEE C 61000-4-5 level 3

**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:	10,000 feet max (operation), 45,000 feet (storage)	
Audible noise:	< 45 db normal and battery mode (700-1000 VA models) < 52 db normal and battery mode (1500-3000 VA models)	

**MODEL & PART NUMBER DESIGNATION**

120V Tower Models:	ATWS-0700-01, ATWS-1000-01, ATWS-1500-01, ATWS-2000-01, ATWS-3000-01
230V Tower Models:	ATWS-0700-02, ATWS-1000-02, ATWS-1500-02, ATWS-2000-02, ATWS-3000-02
120V Rack-Tower Models:	ARMS-1000-01, ARMS-1500-01, ARMS-2000-01, ARMS-3000-01
230V Rack-Tower Models:	ARMS-1000-02, ARMS-1500-02, ARMS-2000-02, ARMS-3000-02

**120V Tower Models**

Capacity	700VA / 490 W	1000VA / 700W	1500VA / 1050W	2000VA / 1400W	3000VA / 2100W
Input Connection	Fixed power cord			Hardwire Terminals	
Output Connection	4 x NEMA 5-15R			8 x NEMA 5-15R + Hardwire Terminals	
Battery Type & Rating	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V
Battery Quantity	2	3	4	6	8
Backup time (full load)	6 min	8 min	7 min	8 min	7 min
Recharge time	<8 hours to 90%				
Dimensions ins/mm W x D x H	5.7 x 15.8 x 8.7 145 x 400 x 220			7.7 x 18.5 x 15.2 195 x 470 x 385	
Weight lbs/kg (net)	27.5 / 12.5	33 / 15	39.6 / 18	70.4 / 32	81.4 / 37

**120V 19" Rack-mount Models (3U)**

Capacity	700VA / 490 W	1000VA / 700W	1500VA / 1050W	2000VA / 1400W	3000VA / 2100W
Input Connection	Fixed power cord				
Output Connection	6 x NEMA 5-15R			4 x NEMA 5-15R	
Battery Type & Rating	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 21W/12V	Sealed, lead-acid 21W/12V
Battery Quantity	2	3	4	6	8
Backup time (full load)	6 min	8 min	7 min	6 min	5 min
Recharge time	<8 hours to 90%				
Dimensions ins/mm W x D x H	19 x 15.8 x 5.2 485 x 400 x 130			19 x 20 x 5.2 485 x 508 x 130	
Weight lbs/kg (net)	38 / 17.3	44 / 20	55 / 25	61.6 / 28	70.4 / 32

**230V Tower Models**

Capacity	700VA / 490 W	1000VA / 700W	1500VA / 1050W	2000VA / 1400W	3000VA / 2100W
Input Connection	IEC 320 (10A)				IEC 320 (16A)
Output Connection Options	4 x IEC 320 (10A)			8 x IEC 320 (10A)	
	4 x NEMA 5-15R			8 x NEMA 5-15R	
	2 x European			6 x European	
Battery Type & Rating	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V
Battery Quantity	2	3	4	6	8
Backup time (Full load)	6 min	8 min	7 min	8 min	7 min
Recharge time	<8 hours to 90%				
Dims ins/mm W x D x H	5.7 x 15.8 x 8.7 145 x 400 x 220			7.7 x 18.5 x 15.2 195 x 470 x 385	
Weight lbs/kg (net)	27.5 / 12.5	33 / 15	39.6 / 18	70.4 / 32	81.4 / 37

**230V 19" Rack-mount Models (3U)**

Capacity	700VA / 490 W	1000VA / 700W	1500VA / 1050W	2000VA / 1400W	3000VA / 2100W
Input Connection	IEC 320 (10A)				IEC 320 (16A)
Output Connection Options	4 x IEC 320 (10A)			Up to 12 x IEC 320 (10A)	
	4 x NEMA 5-15R			Up to 12 x NEMA 5-15R	
	2 x European			6 x European, 1 x IEC 320 (16A)	
Battery Type & Rating	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 7.2Ah/12V	Sealed, lead-acid 21W/12V	Sealed, lead-acid 21W/12V
Battery Quantity	2	3	4	6	8
Backup time (Full load)	6 min	8 min	7 min	6 min	5 min
Recharge time	<8 hours to 90%				
Dimensions ins/mm W x D x H	19 x 15.8 x 5.2 485 x 400 x 130			19 x 20 x 5.2 485 x 508 x 130	
Weight lbs/kg (net)	38 / 17.3	44 / 20	55 / 25	61.6 / 28	70.4 / 32