

an EnerSys® company

FXM HP 650

Rugged UPS Module



- 650W/VA UPS designed to operate in extreme environments and provide maximum flexibility
- Advanced next-generation control and monitoring platform with high resolution color touchscreen LCD display with advanced local UI
- Built-in data loggers to monitor performance logs, user configurable alarms and advanced equation editing for custom data and actions
- Integrated USB host for local firmware upgrades, configuration updates, backup, restoration and cloning
- Wide range Automatic Voltage Regulation (AVR) lengthens battery life by providing protection without transferring to backup mode during voltage surge or sag
- Independently programmable control and reporting dry contacts allow monitoring and controlling of key functions

The FXM HP UPS continues the longstanding excellence in Battery Backup Systems by ensuring equipment in security, communications, traffic, industrial environments, and many other critical applications remains safe and protected from power disturbances and outages.

Thanks to its powerful programmable temperature compensated battery charger, the FXM UPS is capable of providing the runtime and extended battery life you need. The FXM HP colored LCD touchscreen display provides access to multiple configurable tabs for quick system status, overview and configuration without the need of a laptop.

Multiple communication ports including two Ethernet connections permits simultaneous local craft access as well as permanent LAN/WAN connectivity. A USB key may also be used to quickly backup and restore site configuration settings and data logs. Enhanced security using modern encryption technology ensures proper authentication and privacy for remote connection with the UPS. Environmental conditions and other equipment can be monitored via a single IP interface via CAN port using Alpha® Analog Digital Input Output (ADIO) devices.

FXM HP 650-24 Rugged UPS Module

Electrical			
120VAC Model			
Battery:	String Voltage: 24VDC Battery Breaker Rating: 80A Maximum Charging Current: 10A		
Input:	Nominal Voltage: 120VAC Voltage Range: 85 to 171VAC Frequency: 50Hz or 60Hz (Autodetect Frequency is the default configuration, can also be manually configured.) manually configured.) ±5% Maximum Current: 8.25A(@Nominal voltage and max battery charging current) AC Breaker Rating: 10A		
Output:	Waveform: Pure sinewave Nominal Voltage: 120VAC Voltage Regulation: ±10% on line mode, ±2% on inverter mode Power at S5°C: 650VA/Watts@60Hz Frequency: Output frequency = Input frequency Frequency Tolerance, Backup Mode: ±0.3 Hz		
230VAC Model			
Battery:	String Voltage: 24VDC Battery Breaker Rating: 80A Maximum Charging Current: 10A		
Input:	Nominal Voltage: 210/220/230/240VAC Voltage Range: 153 to 322VAC Frequency: Nominal: 50Hz or 60Hz (Autodetect Frequency is the default configuration, can also be manually configured.) ±5% Maximum Current: 4.4A (@ Nominal voltage and max battery charging current) Input Breaker Rating: 5.5A		
Output:	Waveform: Pure sinewave Nominal voltage: 210/220/230/240VAC (same as input) Voltage regulation: ±10% on line mode, ±2% on inverter mode Power at 55°C: 650VA/Watts@230/240V Frequency: Output frequency = Input frequency Frequency: Tolerance: Backup Mode: ±0.3 Hz		
Communication Inte	rface		
Protocol:	SNMP: SNMP v3 via Ethernet. Compatible with subscription and discovery services TCP/IP: IPv4 or IPv6 Email: SMIP via Ethernet		
Security:	Password: 256-bit Encryption Secured Web Interface: SSL for HTTPS		
Display:	Full graphic LCD, 480x272 pixels, Resistive touch screen		
Ports:	 2 x RJ45: Ethernet 1 x RJ11: Battery Temperature Compensation 1 x RJ12: for Alpha CAN devices 1 x USB-A: For upgrades or file management via a standard USB flash drive 1 x USB-Mini B: For soft shutdown using MegaTec protocol complaint client 		
Indicators:	 Solid Green: Line Mode, Flashing Green: Inverter mode Yellow/Amber: Minor alarms Red: Major/Critical alarms 		
Dry Contacts:	Programmable NO/NC (250VAC, 1A)*, 3 user inputs, ATS		
Factory Default:	 C1: On Battery C2, C3: Low Battery + No Line C4: Load Shed Timer 1 C5: Alarm C6*: 24VDC @ 500mA C7: User Inputs S1: Self test S2: User Input S3: Shutdown(EPO) C8: ATS (24VDC @ 10mA) 		

Mechanical				
Dimensions:	mm: 89H x 432W x 229D inches: 3.47H x 17W x 9DD			
Weight:	11.3kg/25lbs	11.3kg/25lbs		
Environmental				
Operating Temp Range*:	-40 to 74°C (-40 to 165°	-40 to 74°C (-40 to 165°F)		
Humidity:	Up to 95% (non condensin	Up to 95% (non condensing)		
Altitude (m/ft):	Up to 3700 (12,000)**	Up to 3700 (12,000)**		
Audible noise @ 25°C***:	45dBa @ 1 meter (39in)			
MTBF (hours):	250K + as per Telcordia SR-332, 100% duty cycle,	250K + as per Telcordia SR-332, 100% duty cycle, full load, @ 40°C		
	Normal mode:	13.26Watts/45.26BTU/HR	2	
BTU/Hr:	Backup mode:	120VAC Model: 205.15Watts/700BTU/HR 230VAC Model: 205Watts/699.49BTU/HR		
*120VAC/60Hz module derates after 55°C (131°F). 230VAC module derates after 55°C (131°F) @220/230/240V. Derates 1.4% per °C past listed temperature range until a maximum of 74°C, Refer to manual for non listed voltage settings. **Derates 2°C per 300m (1000ft) above 1400m (4500ft) **** Measured at 25°C ambient temperature				
Performance				
Typical Transfer Time:	<5ms	<5ms		
Load Crest Factor:	3:1 (load dependent)	3:1 (load dependent)		
Lightning/Surge Protection:	ANSI/IEEE C62.41.2:2002, Criteria A & B			
*At nominal AC Input, full load and at				
Power Connector O				
120VAC, 24VDC Battery Bus Models				
Input:	Out	put:		
		put:	Terminal Block	
Input: Standard	Out Terminal Block	put:	Terminal Block	
Input: Standard (0170023-002)	Out Terminal Block		Terminal Block Terminal Block	
Input: Standard (0170023-002) 230VAC, 24VDC Batter Standard	Out ● Terminal Block y Bus Models T			
Input: Standard (0170023-002) 230VAC, 24VDC Batter Standard (0170023-201)	Out ● Terminal Block y Bus Models T			
Input: Standard (0170023-002) 230VAC, 24VDC Batter Standard (0170023-201) Agency Compliance	Out Terminal Block Bus Models Terminal Block			
Input: Standard (0170023-002) 230VAC, 24VDC Batter Standard (0170023-201) Agency Compliance Electrical Safety:	Out Terminal Block Bus Models Terminal Block Terminal Block UL 1778, CAN/CSA-C22.2 Corrections	₩		
Input: Standard (0170023-002) 230VAC, 24VDC Batter Standard (0170023-201) Agency Compliance Electrical Safety: Marks:	Out Terminal Block Bus Models Terminal Block Terminal Block UL 1778, CAN/CSA-C22.2 Corrections	₩	Terminal Block	



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FXM HP 650-48 Rugged UPS Module

Imput: manually configured.) ±5% Maximum Current: 10.5A (@ Nominal voltage and AC Breaker Rating: 15A Output: Waveform: Pure sinewave Nominal Voltage: 120VAC Voltage Regulation: ±10% on line mode, ±2% on Power at 55°C: 650W/VA Frequency: Output frequency = Input frequency Frequency: Output frequency Security: Possword: 256-bit Encryption Security: Possword: 256-bit Encryption Secured Web Interface: SSL for HITPS Display: Full graphic LCD, 480x272 pixels, Resistive touch screent • 1 x RU1: Borter Jemenstrion • 1 x USB-A: For upgrades or file management via a • 1 x USB-A: For upgrades or file management via a • 1 x USB-Mini B: For soft shutdown using MegaTec p Indicators: • Solid Green: Line Mode, <th colspan="5">120VAC Model</th>	120VAC Model				
Input: Voltage Range: 85 to 171VAC Frequency: SOHz or 60Hz (Autodetect Frequency is the manually configured.) ±5% Maximum Current: 10.5A (@ Nominal voltage and AC Breaker Rating: 15A Output: Waveform: Pure sinewave Nominal Voltage: 120VAC Voltage Regulation: ±10% on line mode, ±2% on Power at 55°C: 650W/VA Frequency: Output frequency = Input frequency Frequency: Output frequency = Input frequency Frequency: Output frequency = Input frequency = SNMP: SNMP v3 via Ethernet. Compatible with subscritter (CP/IP: IPV4 or IPV6 Email: SMTP via Ethernet Security: Password: 256-bit Encryption Secured Web Interface: SSL for HTTPS Display: Full graphic LCD, 480x272 pixels, Resistive touch screent Ports: - 2 x RJ45: Ethernet - 1 x K111: Battery Temperature Compensation - 1 x K112: for Alpha CAN devices - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via a - 1 x USB-Air or upgrades or file management via - 2 < C, C3: Low Battery	Battery Breaker Rating: 50A				
Nominal Voltage: 120VAC Voltage Regulation: ±10% on line mode, ±2% on Power at 55°C: 650W/VA Frequency: Output frequency = Input frequency Frequency: Output frequency = Input frequency Frequency: Output frequency = Input frequency Scommunication Interface Sommunication Interface Protocol: SNMP v3 via Ethemet. Compatible with subscri TCP/IP: IPv4 or IPv6 Email: SMIP via Ethemet Security: Password: 256-bit Encryption Secured Web Interface: SSL for HTTPS Display: Full graphic LCD, 480x272 pixels, Resistive touch screent • 1 x R111: Battery Temperature Compensation • 1 x R12: for Alpha CAN devices • 1 x USB-A: For upgrades or file management via a • 1 x USB-A: For upgrades or file	Voltage Range: 85 to 171VAC Frequency: 50Hz or 60Hz (Autodetect Frequency is the default configuration, can also be manually configured.) ±5% Maximum Current: 10.5A (@ Nominal voltage and max battery charging current)				
SNMP: SNMP v3 via Ethernet. Compatible with subscription. TCP/IP: IPv4 or IPv6 Email: SMTP via Ethernet Security: Password: 256-bit Encryption Secured Web Interface: SSL for HITPS Display: Full graphic LCD, 480x272 pixels, Resistive touch screen • 2 x R145: Ethernet • 1 x R111: Battery Temperature Compensation • 1 x R112: for Alpha CAN devices • 1 x USB-A: For upgrades or file management via a • 1 x USB-Mini B: For soft shutdown using MegaTec p Indicators: • Solid Green: Line Mode, • Flashing Green: Line Mode, • Flashing Green: Line Mode, • Yellow/Amber: Minor alarms • Red: Major/Critical alarms • C1: On Battery • C2, C3: Low Battery + No Line	Nominal Voltage: 120VAC Voltage Regulation: ±10% on line mode, ±2% on inverter mode Power at 55°C: 650W/VA Frequency: Output frequency = Input frequency				
Protocol: TCP/IP: IPv4 or IPv6 Email: SMTP via Ethernet Security: Password: 256-bit Encryption Display: Full graphic LCD, 480x272 pixels, Resistive touch screen Ports: - 2 x RJ45: Ethernet Indicators: - 1 x RJ11: Battery Temperature Compensation Indicators: - Solid Green: Line Mode, Flashing Green: Inverter mode - Yallow/Amber: Minor alarms Programmable NO/NC (250VAC, IA)*, 3 user inputs, A - C1: On Battery Programmable NO/NC (250VAC, IA)*, 3 user inputs, A C1: On Battery - C2, C3: Low Battery + No Line	Communication Interface				
Secured Web Interface: SSECURITY: Display: Full graphic LCD, 480x272 pixels, Resistive touch screen • 2 x RJ45: Ethernet • 2 x RJ45: Ethernet • 1 x RJ11: Battery Temperature Compensation • 1 x RJ12: for Alpha CAN devices • 1 x LSI2: for Alpha CAN devices • 1 x USB-A: For upgrades or file management via a • 1 x USB-Mini B: For soft shutdown using MegaTec p • Solid Green: Line Mode, • Flashing Green: line Mode, • Flashing Green: Inverter mode • Yellow/Amber: Minor alarms • Red: Major/Critical alarms Dry Contacts: Programmable NO/NC (250VAC, TA)*, 3 user inputs, A • C1: On Battery • C2; C3: Low Battery + No Line					
Ports: 2 x RI45: Ethernet 1 x RJ11: Battery Temperature Compensation 1 x RJ12: for Alpha CAN devices 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a • Solid Green: Inverter mode • Yellow/Amber. Minor alarms • Red: Major/Critical alarms • Red: Major/Critical alarms • C1: On Battery • C2: C3: Low Battery + No Line					
Ports: 1 x RJ11: Battery Temperature Compensation 1 x RJ12: for Alpha CAN devices 1 x RJ2: for Alpha CAN devices 1 x USB-A: For upgrades or file management via a 1 x USB-A: For upgrades or file management via a Indicators: • Solid Green: Line Mode, • Flashing Green: Line Mode, • Flashing Green: Inverter mode • Yellow/Amber: Minor alarms • Red: Major/Critical alarms Dry Contacts: Programmable NO/NC (250VAC, 1A)*, 3 user inputs, A • C1: On Battery • C2, C3: Low Battery + No Line	Full graphic LCD, 480x272 pixels, Resistive touch screen				
Indicators: • Flashing Green: Inverter mode • Yellow/Amber: Minor alarms • Yellow/Amber: Minor alarms Dry Contacts: Programmable NO/NC (250VAC, 1A)*, 3 user inputs, A • C1: On Battery • C2, C3: Low Battery + No Line	• 1 x RJ11: Battery Temperature Compensation				
C1: On Battery C2, C3: Low Battery + No Line	 Salid Green: Line Mode, Flashing Green: Inverter mode Yellow/Amber: Minor alarms 				
• C2, C3: Low Battery + No Line	S				
Factory Default: • C5: Alarm • C6*: 48VDC @ 500mA • C7: User Inputs • S1: Self test • S2: Ulser Input • S3: Shutdown(EPO) • C8: ATS (48VDC @ 10mA)	 C2, C3: Low Battery + No Line C4: Load Shed Timer 1 C5: Alarm C6*: 48VDC @ 500mA C7: User Inputs S1: Self test S2: User Input S3: Shutdown(EPO) 				

Dimensions: mm: 89H x 432W x 2290 indexs: 3.47H x 17W x 90 Weight: 11.3kg (25ks) Ervirionmental Operating Temp Range*: 40 to 74°C (40 to 165°F) Humidity: Up to 95% (non condensing) Athitude (m/ft): Athitude (m/ft): Up to 95% (non condensing) Athitude (m/ft): Audible noise @ 25°C***: 4588 @1 meter (39in) Athitude (m/ft): MTBF (hours): Z50K + as per feloridin SK332, 100K dity cycle, full load, @ 40°C (2000)** BTU/Hr: Normal mode: 13.5Watts/46.068fU/HR BTU/Hr: Rackup mode: 10Watts/3758fU/HR **120WC module dentes after 55°C (31°P). Bernets 14% per °C post loted temperature range until a maximum of 74°C. ************************************	Mechanical					
indee: 3.47H x 17W x 90 Weight: 11.3kg (25 lbs) Environmental .40 to 74°C (-40 to 165°F) Operating Temp Range*: -40 to 74°C (-40 to 165°F) Humidity: Up to 95% (non condensing) Adtible noise @ 25°C**: 45dBa @ 1 meter (39m) MTBF (hours): 250K + es per Flocadia SER 322, 100% daty cycle, full load, @ 40°C BTU/Hr: Normal mode: 13.5Watts/46.06BIU/HR BTU/Hr: Normal mode: 13.5Watts/46.06BIU/HR BTU/Hr: Normal mode: 13.5Watts/46.06BIU/HR BTU/Hr: Normal mode: 10Watts/375BIU/HR **** Measured at 25°C ombient temperature Portex 1000 (15000f) shove 1400m (4500ff) **** Measured at 25°C ombient temperature Portex 1000 (1500ff) Preformance Short (4500ff) Typical Efficiency* (resistive load): >98% Status (1500ff) Status (2000ff) Short (2000ff) Mission (2000ff) Status (1500ff) Typical Efficiency* (resistive load): >98% Status (1500ff) Status (1500ff) Typical Efficiency* (resistive load): >98% Status (1500ff) <		mm: 89H x 432W x 229	mm: 89H x 432W x 229D			
Performance -40 to 74°C (-40 to 165°F) Humidity: Up to 95% (non condensing) Altirude (m/ft): Up to 3700 (12,000)** Audible noise @ 25°C***: 45d80 @ 1 meter (39in) MTBF (hours): 250K + as per Tekcordia SR-332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Tekcordia SR-332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Tekcordia SR-332, 100% duty cycle, full load, @ 40°C BTU/Hr: Normal mode: 13.5Warts/46.046FU/HR maximum of 74°C. **120/MC module detects ofter 55°C (131°F). Deates 1.4% per °C post lsted temperature range until a maximum of 74°C. **120/MC module detects ofter 55°C (131°F). Deates 1.4% per °C post lsted temperature range until a maximum of 74°C. **120/MC module detects ofter 55°C (131°F). Deates 1.4% per °C post lsted temperature range until a maximum of 74°C. **120/MC module <3% Yprical Output Voltage THD <3% Yprical Transfer Time: <3% Vigical Efficiency* <98% (resistive load): Xi (load dependent) Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: ANSI/IEE 662.41.2:2002, Citteria A & B *14 nominol A	Dimensions:	inches: 3.47H x 17W x 9	90			
Operating Temp Range*: 40 to 74 °C (-40 to 165 °F) Humidity: Up to 95% (non condensing) Altirude (m/ft): Up to 3700 (12,000)** Audible noise @ 25 °C ***: 45d80 @1 meter (39in) MTBF (hours): 250K + as per Teloradia SR 332, 100% duty cycle, full load, @ 40 °C BTU/Hr: Vermal mode: 13.5Warts/46.04BTU/HR BTU/Hr: Normal mode: 13.5Warts/46.04BTU/HR BTU/Hr: Normal mode: 10/Warts/375BTU/HR **120WC module derotes after 55°C (131 °F). Deardes 1.4% per °C post listed temperature range until a maximum of 74 °C. ************************************	Weight:	11.3kg (25lbs)	11.3kg (25lbs)			
Privilia or privility: Up to Y5% (non condensing) Altitude (m/ft): Up to 3700 (12,000)** Audible noise @ 25°C***: 45dBa @ 1 meter (39m) MTBF (hours): 250K + as per Telcordia SR 332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Telcordia SR 332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Telcordia SR 332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Telcordia SR 332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Telcordia SR 332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Telcordia SR 332, 100% duty cycle, full load, @ 40°C *** Mormal mode: 13.5Watts/46.068fU/HR BTU/Hr: 8 100Watts/3758fU/HR *** Measured at 25°C ambient temperature Performance 33% Typical Efficiency* (resistive load): >98% Typical Efficiency* (resistive load): >98% Typical Ifficiency* (resistive load): >98% Typical Ifficiency* (resistive load): >98% Typical Ifficiency* (resistive load): >98% Typical Ifficiency* (resistive load): Simma State Simma State	Environmental					
Altitude (m/ft): Up to 3700 (12,000)** Audible noise @ 25 ° C***: 45dBa @ 1 meter (39in) MTBF (hours): 250K + as per Telcordia SR-332, 100% duty cycle, full load, @ 40° C BTU/Hr: Normal mode: 13.5Watts/46.066TU/HR BTU/Hr: Backup mode: 100Watts/375BTU/HR **120VAC module derates after 55° C (131° F). Derates 1.4% per °C post listed temperature range until a maximum of 74° C. **** **120VAC module derates after 55° C (131° F). Derates 1.4% per °C post listed temperature range until a maximum of 74° C. **** **120VAC module derates after 55° C (131° F). Derates 1.4% per °C post listed temperature range until a maximum of 74° C. **** **** Measured at 25 °C ambient temperature <3% Performance <3% Typical Efficiency* (resistive load): >98% >98% Typical Fransfer Time: <5ms Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: ANSI/TEEE (62.41.2:2002, Criteria A & B * *14 nominal AC laput, full load and at 25°C ambient temperature Poweer Connector Options 120	Operating Temp Range*:	-40 to 74°C (-40 to 165	5°F)			
Audible noise @ 25°C***: 45d8a @ 1 meter (39in) MTBF (hours): 250K + as per Telcordia SR:332, 100% duty cycle, full load, @ 40°C BTU/Hr: 250K + as per Telcordia SR:332, 100% duty cycle, full load, @ 40°C BTU/Hr: Backup mode: 13.5Watts/46.068TU/HR BTU/Hr: Backup mode: 10Watts/3758TU/HR **120WAC module derates after 55°C (131°F). Derates 1.4% per °C post listed temperature range until a maximum of 74°C. **Teloritis 2°C per 300m (1000f) above 1400m (4500f) **** Measured at 25°C ambient temperature Performance Typical Output Voltage THD (resistive load): <3% Typical Efficiency* (resistive load): >98% Syncal Transfer Time: <5ms Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: MISI/TEEE (62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25°C ambient temperature Power Connector Options 120VAC Model Input: Output: Input: Ut 1778, CM/CSA-C22.2 No. 107.3 Terminal Block Aggency Complicance CS*Us Us Electrical Safety: Ut 1778, CM/CSA-C22.2 No. 107.3 Terminal Block Aggency C**Us C**Us<	Humidity:	Up to 95% (non condensi	Up to 95% (non condensing)			
MTBF (hours): 250K + as per Telcordia SR:332, 100% duty cycle, full load, @ 40° C BTU/Hr: Normal mode: 13.5Watts/46.068TU/HR Backup mode: 110Watts/3758TU/HR **120WAC module denters 65° C (131° F). Deartes 1.4% per °C post listed temperature range until a maximum of 74° C. **Termentes 2°C per 30m (1000f) above 1400m (4500fr) **** Measured at 25°C ambient temperature Performance Typical Efficiency* (resistive load): >98% Typical Efficiency* (resistive load): >98% Typical Efficiency* (resistive load): >98% Typical Efficiency* (resistive load): >98% Typical Fractor: 31 (load dependent) Lightning/Surge Protection: ANSI/IEEE (62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25°C ambient temperature Poweer Connector Options 120VAC Model Imput: Output: Standard 0170023:101 Terminal Block Imput: Standard 0170023:101 Imput: Imput: Standard 0170023:101 Imput: Imput: Standard Compliance Imput: Imput: Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Imput: Marks: <th>Altitude (m/ft):</th> <th>Up to 3700 (12,000)**</th> <th></th>	Altitude (m/ft):	Up to 3700 (12,000)**				
MilBP (nours): SR-332, 100% duty cycle, full load, @ 40° C BTU/Hr: Normal mode: 13.5Watts/46.068TU/HR Backup mode: 110Watts/3758TU/HR **120WAC module dentes after 55°C (131°F). Dentes 1.4% per °C post listed temperature range until a maximum of 74°C. ***TOWAC module dentes after 55°C (131°F). Dentes 1.4% per °C post listed temperature range until a maximum of 74°C. ***Toentes 2°C per 300m (1000f) above 1400m (4500fr) **** Measured at 25°C ambient temperature Performance Typical Output Voltage THD (resistive load): <3%	Audible noise @ 25°C**	*: 45dBa @ 1 meter (39in)	45dBa @ 1 meter (39in)			
BTU/Hr: Deckup mode: 110Watts/375BTU/HR **120VAC module dentes after 55 °C (131 °F). Dentes 1.4% per °C past listed temperature range until a maximum of 74 °C. **** Measured at 25 °C ambient temperature Performance Typical Output Voltage THD (resistive load): <3%	MTBF (hours):		e, full load, @ 40°C			
Backup mode: 110Watts/375BTII/HR ****120VAC module dentes after 55 °C (131 °F). Derates 1.4% per °C past listed temperature range until a maximum of 74 °C. **** Measured at 25 °C ambient temperature Performance Typical Output Voltage THD (resistive load): <3% Typical Efficiency* (resistive load): >98% Typical Fractor: 3:1 (load dependent) Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: ANSI/IEEE C62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25 °C ambient temperature Power Connector Options 120VAC Model Imput: Output: Standard 0170023-101 Imput: Output: Standard 0170023-101 Terminal Block Imput: Aggency Compliance UI 1778, CAN/CSA-C22.2 No. 107.3 Terminal Block Marks: Imput: UI 1778, CAN/CSA-C22.2 No. 107.3	NTIL /II	Normal mode:	13.5Watts/46.06BTU/HR			
*** Derotes 2°C per 300m (1000ft) above 1400m (4500ft) **** Measured at 25°C ambient temperature Performance Typical Output Voltage THD (resistive load): <3% Typical Efficiency* (resistive load): >98% Typical Transfer Time: >98% Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: ANSI/IEEE (62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25°C ambient temperature Poweer Connector Options 120VAC Model Imput: Output: Standard 0170023-101 Imput: Output: Standard Imput: Imput: Marks: Imput: UI 1778, CAN/CSA-C22.2 No. 107.3 Marks: Imput: Imput: Marks: Imput: Imput:	BIU/ fir:	Backup mode:	110Watts/375BTU/HR			
Typical Output Voltage THD (resistive load): <3% Typical Efficiency* (resistive load): >98% Typical Transfer Time: <5ms Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: ANSI/IEEE (62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25°C ambient temperature ANSI/IEEE (62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25°C ambient temperature Poweer Connector Options 120VAC Model Imput: Output: Standard 0170023-101 Imput: Output: Standard 0170023-101 Imput: Imput: Agency Compliance Imput: Imput: Barks: Imput: Imput: Standard 0170023-101 Imput: Imput: <	*** Measured at 25°C ambient te					
YP3% >>9% Typical Transfer Time: <5ms Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: ANSI/IEEE C62.41.2:2002, Criteria A & B *Ar nominal AC Input, full load and at 25°C ambient temperature Power Connector Options 120VAC Model Input: Output: Standard 0170023-101 Imput: Imput: Agency Compliance Imput: Imput: Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Imput: Marks: Imput: Imput: Imput: Imput: UL 1778, CAN/CSA-C22.2 No. 107.3 Imput: Imput:	Typical Output Voltage TH	D <3%	<3%			
Load Crest Factor: 3:1 (load dependent) Lightning/Surge Protection: ANSI/IEEE (62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25°C ambient temperature Power Connector Options 120VAC Model Input: Output: Standard 0170023-101 Imput: Output: Agency Compliance Imput: Imput: Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Imput: Marks: Imput: Imput: Imput: CFR Tirle 47 FCC Part 15 – Class A, ICES-003 – Class A Imput: Imput:		>98%	>98%			
Lightning/Surge Protection: ANSI/IEEE C62.41.2:2002, Criteria A & B *At nominal AC Input, full load and at 25°C ambient temperature Power Connector Options 120VAC Model Input: Output: Standard 0170023-101 Terminal Block Imput: Agency Compliance Ull 1778, CAN/CSA-C22.2 No. 107.3 Terminal Block Marks: Imput: Imput: Imput: Imput: Ull 1778, CAN/CSA-C22.2 No. 107.3 Imput: Imput:	Typical Transfer Time:	<5ms	<5ms			
*At nominal AC Input, full load and at 25°C ambient temperature Power Connector Options 120VAC Model Input: Standard 0170023-101	Load Crest Factor:	3:1 (load dependent)	3:1 (load dependent)			
Power Connector Options 120VAC Model Input: Output: Standard Imple: Imple: Standard Imple: Imple: Ottput: Imple: Imple: Standard Imple: Imple: Agency Compliance Imple: Imple: Electrical Safety: Imple: Imple: Marks: Imple: Imple: EMC: CFR Title 47 FCC Part 15 - Class A, ICES-003 - Class A	Lightning/Surge Protectio	n: ANSI/IEEE C62.41.2:2002	ANSI/IEEE C62.41.2:2002, Criteria A & B			
120VAC Model Input: Output: Standard 0170023-101 Imple: Imple: </th <td colspan="5"></td>						
Input: Output: Standard 0170023-101 Image: Compliance Image: Compliance Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Image: Compliance Marks: Image: Compliance Image: Compliance Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Image: Compliance Marks: Image: Compliance Image: Compliance Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Image: Compliance Marks: Image: Compliance Image: Compliance Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Image: Compliance Marks: Image: Compliance Image: Compliance Image: Compliance Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Image: Compliance Image: Compliance Electrical Safety: Image: Compliance Image: Compliance Image: Compliance Image: Compliance Electrical Safety: Image: Compliance Image: Compliance Image: Compliance Image: Compliance Electrical Safety: Image: Compliance Image: Compliance Image: Compliance Image: Compliance Image: Compliance <td colspan="6">Power Connector Options</td>	Power Connector Options					
Standard 0170023-101 Image: Compliance Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Marks: Image: Compliance EMC: CFR Tirle 47 FCC Part 15 - Class A, ICES-003 - Class A	120VAC Model					
0170023-101 Image: Compliance for the second s	Input:	Ou	itput:			
Electrical Safety: UL 1778, CAN/CSA-C22.2 No. 107.3 Marks: C.S. EMC: CFR Tirlle 47 FCC Part 15 - Class A, ICES-003 - Class A		© ⊗ Terminal Block	C Terminal Block			
Marks: C EMC: CFR Title 47 FCC Part 15 - Class A, ICES-003 - Class A	Agency Compliance					
EMC: CFR Title 47 FCC Part 15 - Class A, ICES-003 - Class A	Electrical Safety:	UL 1778, CAN/CSA-C22.2	2 No. 107.3			
	Marks:					
RoHS: Yes	EMC:	CFR Title 47 FCC Part 15	CFR Title 47 FCC Part 15 — Class A, ICES-003 — Class A			
	RoHS:	Yes	Yes			



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