

# FXM 650

## Rugged UPS Module



*Your Power Solutions Partner*

- 650W/VA UPS module designed to operate in extreme environments and provide maximum flexibility while ensuring critical loads remain protected and running during power outages and other power disturbances
- 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
- Temperature compensated battery charging protects batteries from overcharging or undercharging at extreme temperatures, extending the life of the battery
- Local and remote monitoring and control via RS232 port and Ethernet SNMP interface\*



**Alpha FXM is a line of rugged UPS power modules used worldwide in the most demanding environments where clean backup power is needed.** Designed to perform in the most extreme demanding environments, Alpha FXM units ensure equipment in security, communications, traffic, industrial environments, and many other critical applications remains safe and protected from power disturbances. Thanks to its powerful programmable battery charger, the FXM is capable of providing the runtime you need. All FXM models are available in 120Vac and 230Vac.

\*Ethernet SNMP card is standard on the 120Vac model and optional on the 230Vac model

# Power

# FXM 650 Rugged UPS Module

Consult your Alpha representative for P/N configurations

## ELECTRICAL

### ➤ 120Vac Model

**Battery string voltage:**.....24Vdc or 48Vdc

**Nominal voltage:**.....120Vac

**Frequency:** .....60Hz/50Hz ±5% (auto detection)

#### Input:

Current:.....8.7A (@ nominal voltage and max battery charging current)

Voltage range: .....85 to 175Vac

#### Output:

Waveform: .....Pure sinewave

Nominal voltage: .....120Vac

Voltage regulation: .....±10% on line mode, ±2% on inverter mode

Power at 55°C: .....650W/VA

Charge current: .....10A max

Frequency: .....Output frequency = Input frequency

### ➤ 230Vac Model

**Battery string voltage:**.....24Vdc

**Nominal voltage:**.....230Vac

**Frequency:** .....60Hz/50Hz±5% (auto detection)

#### Input:

Current: .....4.5A (@ nominal voltage and max battery charging current)

Voltage range: .....150 to 328Vac

#### Output:

Waveform: .....Pure sinewave

Nominal voltage: .....230Vac

Voltage regulation .....±10% on line mode, ±2% on inverter mode

Power at 55°C: .....650W/VA

Frequency: .....Output frequency = Input frequency

## MECHANICAL

### Dimensions:

mm:.....88H x 432W x 229D

inches: .....3.47H x 17W x 9D

**Weight:**.....11kg (25lbs)

## COMMUNICATION INTERFACE:

**Display:**.....2 x 20 backlit alpha-numeric LCD

**Ports:** .....DE-9 Female: Local RS232 Communication

RJ45: Remote Communication

RJ11: Battery Temperature Compensation

**Indicators:** .....Green & Red LED's

Solid Green: Line Mode

Flashing Green: Inverter Mode

Flashing Red: Alarm

Solid Red: Fault

**Dry Contacts:** .....Programmable NO/NC (250Vac, 1A)\*,  
3 user inputs, ATS

### Factory Default:

- C1: On Battery
- C2, C3: Low Battery
- C4: Load Shed Timer 1
- C5: Alarm
- C6\*: 48Vdc @ 500mA
- C7: User Inputs
- S1: Self test
- S2: User Input
- S3: Shutdown(EPO)
- C8: ATS

\* C6 is factory configurable only

## ENVIRONMENTAL

**Operating temp range\*:**....-40 to 74°C (-40 to 165°F)

**Humidity:** .....Up to 95% (non condensing)

**Altitude(m/ft):** .....Up to 3700 (12,000)\*\*

**Audible noise @ 25°C:**.....45dBA @ 1 meter (39in)

**MTBF (hours):**.....150K + as per Telcordia  
SR-332, 100% duty cycle ,full load

**BTU/Hr:**.....Normal mode 9W

Backup mode FXM 650-48: 143W

Backup mode FXM 650-24: 217W

\*Derates after 55°C

\*\*Derates 2°C per 300m (1000ft) above 1400m (4500ft)

## PERFORMANCE

**Typical output voltage THD:**.... <3% (resistive load)



**Typical efficiency:** .....>98% (resistive load)

**Typical transfer time:** .....<5ms



**Load Crest factor:** .....3:1 (load dependent)

## POWER CONNECTOR OPTIONS

### 120Vac Model

Input		Output	
Standard		Terminal Block	

### 230Vac Model

Standard		Terminal Block	
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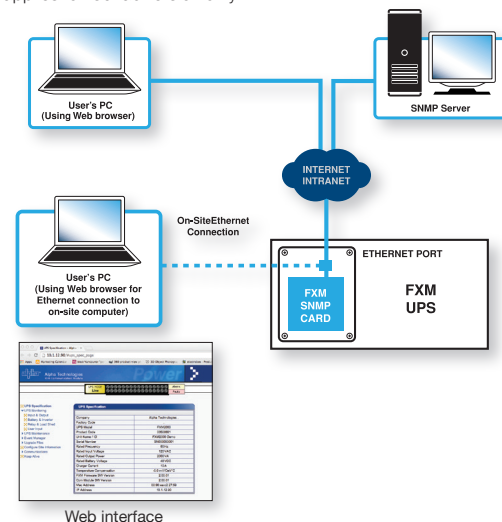
## AGENCY COMPLIANCE

**Electrical safety:** .....UL1778, CSA 22.2 No 107.3-03

**Marks:**  

**EMI:** .....Class A FCC/CISPR  
[EN 50091-2:1995]

\*\*CE applies to 230Vac version only



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