

# Power

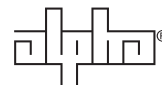
## XM Series 2

Cable UPS® Power Supply



- Proven Cable UPS uninterruptible power
- Easily accessible front panel connections
- User programmable system control and status monitoring options
- Programmable, three stage, 10A temperature-compensated battery charger
- LCD Smart Display provides operating data, status information and troubleshooting aid
- Optional embedded transponder reduces external wiring for easier installation
- Modular design allows easy migration from non-standby to standby to centralized powering

Alpha's XM2 Series power supply is the industry's leading power technology. A variety of power ratings make it an ideal match for network architectures worldwide. Advanced product design features include modularity, increased output power and N+1 redundancy capability. Optional dual independent outputs provide additional protection and enhanced system reliability. AC or DC generator compatibility as well as flexible system control and advanced status monitoring options support easy migration to centralized powering.



## XM2 Series

### Nominal Specifications

Model	Input Voltage (VAC)	Input Frequency (Hz)	Output Voltage (VAC)	Output Current (A)	Maximum Output Power (VA)	Typical Standby Time (min)	Battery Voltage (VDC)	Approx. Weight (lb/kg)
XM2-922:	200/240	60	63/75/87	22.5	2025	110	48	92/42
XM2-922 HV:	200/240	60	63/75/89	22.5	2025	110	48	92/42
XM2-1350-48:	120/240	60	63/75/87	15/18/22.5	1350	180	48	70/32
XM2-915:	120/240	60	63/75/87	15	1350	125	36	70/32
XM2-915 HV:	120/240	60	63/75/89	15	1350	125	36	64/29
XM2-910:	120/240	60	63/75/87	10	900	200	36	62/28
XM2-906G6:	120/240	60	63/87	8/6	525	360	36	60/27
XM2-915P:	190/220/253	60	63/75/87	15	1350	125	36	70/32
XM2-615P:	190/220/253	60	63	15	900	200	36	62/28
XM2-915M:	100/112/127	60	63/75/87	15	1350	125	36	70/32
XM2-615M:	100/112/127	60	63	15	900	200	36	62/28
XM2-915E:	190/220/247	50	63/75/87	15	1350	125	36	82/37
XM2-615E-48:	220	50	63	15	253	280	48	70/32
XM2-615E:	190/220/247	50	63	15	900	200	36	70/32
XM2-1350J5 CFR:	200	50	63/75/87	15/18/22.5	1350	125	36	95/29
XM2-615J5:	100	50	63	15	900	200	36	62/28
XM2-615J5 CFR:	100	50	63	15	900	200	36	70/32

Note: Standby times based on single string 180GXL batteries at 25°C (77°F) and typical 80% load. Figures may vary according to battery age, capacity & condition, type of load, temperature and other factors.

Note: 20A utility service required for XM2-915, XM2-915 HV, XM2-915M, XM2-1350, XM2-1350-48 and 15A utility service required for XM2-615M, XM2-610, XM2-615, XM2-615J5, XM2-615J5 CFR, XM2-906G6 when using 120VAC input.

### General Specifications

#### Input

Power Factor:	>0.90 at full load
Voltage:	±15%
Voltage (XM2-915/922 HV):	-25 to 15%
Voltage (XM2-906G6):	-30 to 20%
Frequency:	±3%

#### Output

Waveform:	Quasi-square wave
Voltage Regulation:	±5%
Frequency Stability:	±0.05% inverter mode, ±1% normal mode
Short Circuit Current:	150% of maximum current rating
Transformer Efficiency:	90% typical line mode, 80% typical standby mode
Transfer Characteristics:	Uninterrupted output

#### Battery Charger

Temperature Compensation:	Programmable (0 to 5mV/Cell/°C)
Charger Current:	10A at 80% load and nominal input (bulk charge mode)
Charge Time:	8hrs typical to 90% capacity
Three Stage:	Bulk, accept, float

#### Mechanical

Front Panel Connections:	Battery, output and communication modules
Status Display:	2 x 20 LCD with backlight
Dimensions (in):	15W x 8.75H x 13D
(mm):	381W x 222H x 330D
Finish:	Black, epoxy powder coat

#### Environment

Operating Ambient Temp.:	-40 to 55°C (-40 to 133°F)
Relative Humidity:	0 to 95% non-condensing

#### Agency Compliance

FCC Part 15 Class A  
UL1778, CSA 22.2 No. 107.1-M95

#### Smart Display Features

Built-in Diagnostics	Output Power (W)
Output Voltage	% load
Input Voltage	Charger Current
Output Current	Input Frequency
Battery Voltage	Battery Temperature
Output VA	Standby Time
Number of Events	

Note: General Specifications reference most commonly used models. For model-specific information, consult product manual. Other voltages and configurations may be available. For more information, contact your Alpha sales representative.

## XM2 Series

### Standard Features

- Front access modular components
- Front panel connections and test points
- Power factor corrected (PFC) battery charger
- Standby events counter and timer
- Input and output voltage display
- Battery voltage and current display
- Automatic performance monitoring
- Smart display
- Programmable system self test
- Remote temperature sensor

### Optional Features

**PIM/N+1 Protective Interface Module:** Provides two programmable outputs from a single XM Series 2. The PIM protects system components and provides isolation between distribution legs by shutting down the load during over-current conditions. The PIM has a user programmable over-current threshold, as well as a programmable over-current tolerance period which specifies the time in seconds (1 to 10) that an over-current condition will be allowed on the XM Series 2 output before the individual output channel is shut down. A user programmable retry limit allows the user to select how many times (1 to 40) the PIM will attempt to reconnect an output which was shut down for an over-current condition. The PIM also provides redundant power supply capability (N+1) for multiple power supply configurations.

**ATS Automatic Tap Switch:** The ATS extends the input AC operating voltage range from  $\pm 15\%$  to  $\pm 30\%$ . The ATS is used when a broader input operating range is needed due to utility voltage fluctuations. Only available with input voltage tapped modules. Currently available in XM2-615 P/E/M and XM2-915 P/E/M. Not used in the United States or Canada.

### Optional Status Monitoring Cards



#### DSM - DOCSIS® Status Monitor

- Network enables the Alpha XM2 series Broadband UPS with an embedded cable modem
- DOCSIS 1, 1.1 and 2 certified
- Supports standard networking protocols including SNMPv1, v2c and v3
- Embedded WEB server for direct unit diagnostics
- Directly monitor two strings of 36V or 48V batteries
- MIBs include ANSI/SCTE 25-3 (HMS-022) power supply and
- ANSI/SCTE 38-6 generator MIBs
- Craft port provides local technician access



#### ESM - Ethernet Status Monitor

- Network enables the Alpha XM2 series Broadband UPS with Ethernet access
- Supports standard networking protocols including SNMPv1, v2c and v3
- Embedded WEB server for direct unit diagnostics
- Directly monitor two strings of 36V or 48V batteries
- MIBs include ANSI/SCTE 25-3 (HMS-022) power supply and
- ANSI/SCTE 38-6 generator MIBs
- Craft port provides local technician access



#### EDSM - Enhanced Digital Status Monitor

- Single interface card for either embedded or external digital transponder
- Supports ANSI/SCTE 25-3 (HMS-022) communications standards
- Single EDSM and transponder supports up to six power supplies
- System control for multiple power supply installations

## XM2 Series

### Optional Status Monitoring Cards



#### DOCSIS-V Embedded Transponders

- DOCSIS embedded transponder used with EDSM digital status interface
- Uses existing headend CMTS
- Directly monitors up to four strings of 36V or 48V batteries
- Supports ANSI/SCTE HMS standards
- Single transponder supports up to six power supplies and a generator
- Supports advanced VoIP testing functions



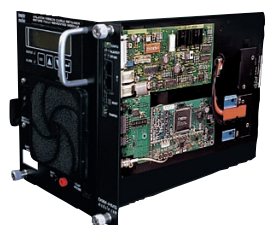
#### HMS Embedded Transponder

- Embedded transponder used with EDSM digital status interface
- Supports ANSI/SCTE HMS PHY, MAC and Power supply monitoring standards
- Optional generator monitoring



#### AM Networks Embedded Transponder

- Embedded transponder used with EDSM digital status interface
- Supports AM Networks proprietary communications
- Directly monitors two strings of 36V or 48V batteries



#### Cheetah™ by Tollgrade® - Proprietary Embedded Transponder

- Embedded transponder used with USM-2.5 analog interface option
- Supports Cheetah proprietary communications
- Optional generator monitoring



#### XM2-SI - Digital Serial Interface

- Installed in an XM2 to communicate with multiple XM2s containing an ESM, DSM or EDSM
- Simple modular cable connects between XM2 power supplies



#### USM-2.5 - Analog Status Interface

- Single interface card for either embedded or external analog transponder
- Can be collocated with embedded Cheetah™ by Tollgrade® transponder
- Field replaceable, configurable for legacy transponders

For more information visit [www.alpha.com](http://www.alpha.com)

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