



# XM3-HP

ALPHA'S NEXT-GENERATION UNINTERRUPTIBLE POWER SUPPLY





# NEXT-GENERATION POWER

From ground-breaking transformer design to the most intuitive and user-friendly interface in the industry, the XM3-HP sets the new standard in **intelligent power management**.



The **Alpha XM3-HP CableUPS** incorporates significant technological advancements across the entire power technology platform. These advancements focus on delivering three primary benefits: improved efficiency, optimized performance and reduced operating costs. The XM3-HP also incorporates a wide-range features including:

- 1 AlphaGuard™**  
Embedded battery balancing to maximize battery life and optimize performance
- 2 Advanced Ferro Technology**  
Maximum power efficiency under all modes of operation
- 3 AlphaApps**  
Intelligent diagnostics for remote preventative maintenance of batteries and power train
- 4 Alpha DOC**  
Dual Output Controller (DOC) provides two programmable outputs from a single XM3-HP
- 5 Alpha Smart-Display**  
Four-line display with intelligent, virtual keypad for optimal provisioning and diagnostics
- 6 Advanced Battery Management**  
Dynamic 5-stage charger technology maximizes AlphaCell® battery life
- 7 AlphaNet™ DOCSIS®-Based Communications**  
Intelligent monitoring and power system management





# ADVANCED EFFICIENCY TECHNOLOGY

The Alpha XM3-HP **triple efficiency** ferro technology optimizes the power supply's performance, resulting in significantly reduced utility power consumption and a direct savings in network operations.



## Exclusive Patent Protected Design

Moving the inverter winding to the output side of the ferro transformer minimizes conversion losses, improving overall inverter efficiency.

## Highest Line Mode Efficiency

The XM3-HP offers the highest line mode efficiency available, requiring less AC utility power to support a load.

$$\text{Utility Power (kW)} = \frac{\left( P_{\text{Network Load}} + \sum \left[ \frac{(P_{\text{@ Active}})^2}{V_{\text{@ Active}}^2} \times \Omega_{\text{of cable}} \times \text{Feet Distance} \right] \right)}{\text{Power Supply Efficiency}}$$

Cable Power Loss— $I^2R$

## Tightest Output Voltage Regulation

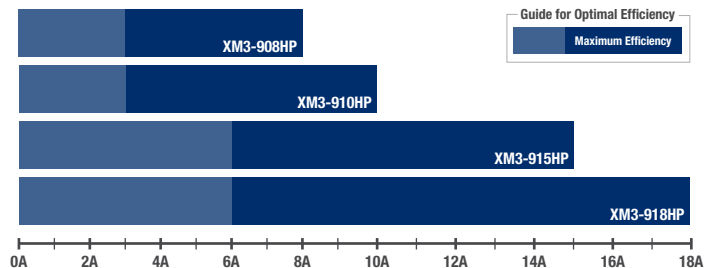
Alpha's XM3-HP provides the tightest output voltage regulation ever offered to reduce  $I^2R$  cable power losses.

## Maximum Inverter Efficiency

Significant gains in inverter efficiency directly translates into increased battery runtimes, further improving network performance and power outage recovery capabilities.

## Load Optimization

The XM3-HP is available in 8, 10, 15 and 18A models to best match network load requirements.



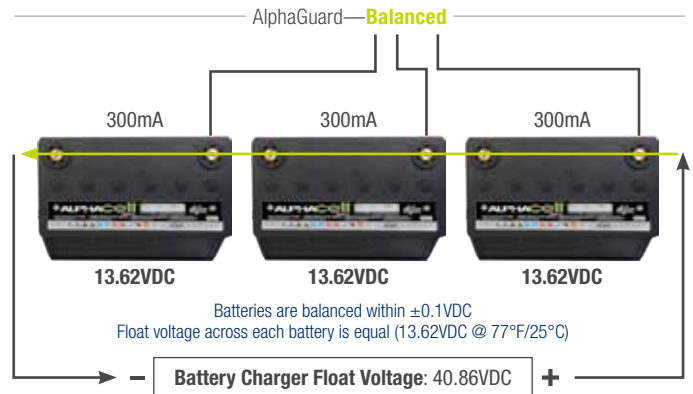
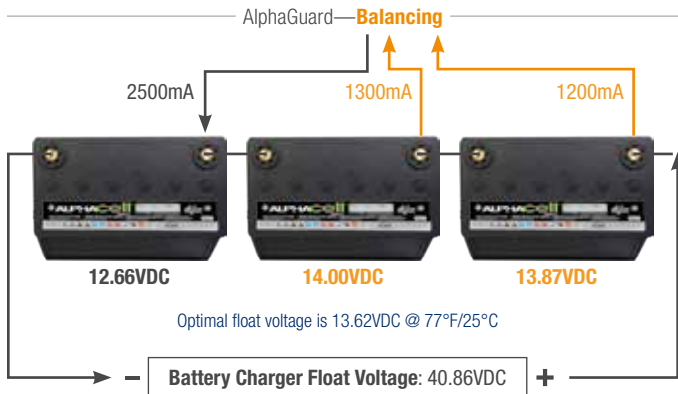


# ADVANCED BATTERY MANAGEMENT

The Alpha XM3-HP's advanced battery management optimizes battery life and contributes to **reducing both capital expenditures and on-going operating costs.**

## ➤ Embedded Battery Balancing

The Alpha XM3-HP embedded AlphaGuard uses advanced battery balancing technology to redirect current from overcharged batteries to the undercharged battery, optimizing battery service life.



## ➤ Dynamic Multi-Stage Charging

The Alpha XM3-HP's dynamic 5-stage battery charging technology provides system batteries with optimal charge management.

**BULK | ACCEPT | FLOAT | REFRESH | REST**

## ➤ Extended Runtime

The Alpha XM3-HP's advanced battery management and increased inverter efficiency maximizes battery runtime in the network.

AlphaCell HP (Estimated runtime minutes using XM3-HP @ 90VAC)								
	4A		6A		8A		10A	
Models:	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP
3 Batteries:	540	588	358	394	263	295	204	234
6 Batteries:	1144	1264	771	841	574	624	450	491
	12A		14A		16A			
Models:	3.5HP	4.0HP	3.5HP	4.0HP	3.5HP	4.0HP		
3 Batteries:	165	193	137	164	116	142		
6 Batteries:	368	404	308	342	264	295		

AlphaCell GXL (Estimated runtime minutes using XM3-HP @ 90VAC)								
	4A		6A		8A		10A	
Models:	195GXL	220GXL	195GXL	220GXL	195GXL	220GXL	195GXL	220GXL
3 Batteries:	476	550	313	363	229	265	177	205
6 Batteries:	1026	1177	685	789	506	585	396	458
	12A		14A		16A			
Models:	195GXL	220GXL	195GXL	220GXL	195GXL	220GXL		
3 Batteries:	142	164	118	136	99	115		
6 Batteries:	322	373	269	311	229	266		





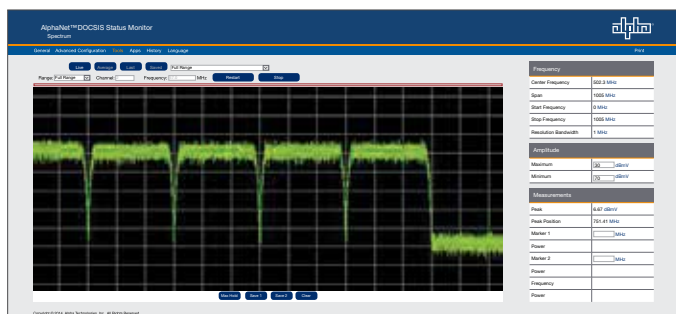
# ADVANCED INTELLIGENCE PLATFORM

The Alpha XM3-HP's internal intelligence provides Network Operation Centers (NOC) with the critical and highly relevant data necessary to **reduce operating expenses** through remote management.

## ➤ Integrated DOCSIS® Communications

The XM3-HP can be used as a network test probe when equipped with an AlphaNet DM3.0 integrated management hub, integrated DOCSIS enables access to all of the XM3-HP's advanced information and diagnostics:

- Full Spectrum Capture
- Bonded Channel Micro Reflections
- Bonded Channel Constellations



## ➤ Integrated AlphaApps

Power reliability algorithms use real-time data to predict service intervals, battery replacements and offer real-time insights into the health of your HFC network via standard EMS interface. Parameters include:

- Battery Health
- Remaining Battery Runtime
- Trending Battery MHOs
- Utility Performance Reports
- Utility Meter



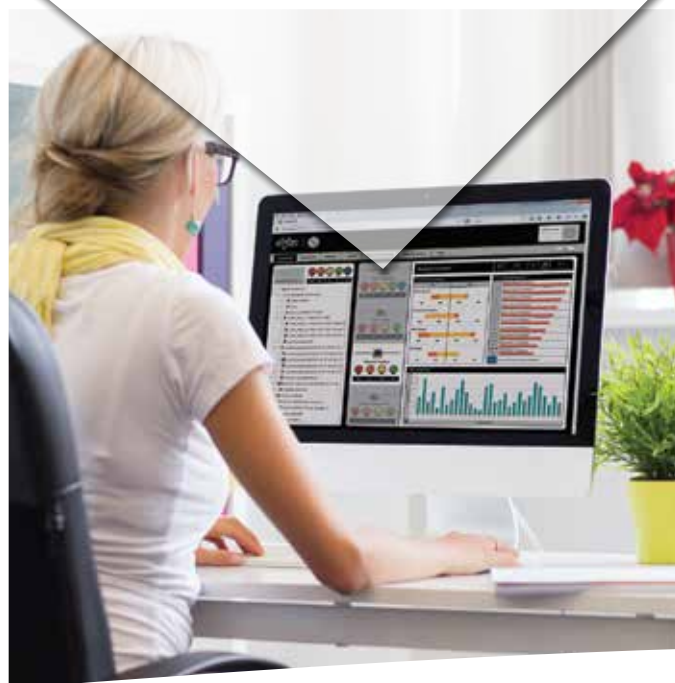
### DOCSIS Communications Menu

COMM - GENERAL  
CM MAC ADDRESS  
00:90:EA:00:36:EA  
↑ ↓ ESC

MAC Address

COMM - GENERAL  
CM IP ADDRESS  
192.168.1.120  
↑ ↓ ESC

IP Address



Fine Mode Parameters	908HP	910HP	915HP	918HP
Nominal AC Input Voltage:	120VAC	120VAC	120VAC, 240VAC	120VAC
Nominal Input Frequency:	60Hz	60Hz	60Hz	60Hz
Input Frequency Tolerance (%):	±3	±3	±3	±3
Input Voltage Operating Range Tolerance (%):	-25 / +15	-25 / +15	-25 / +15	-25 / +15
Input Voltage Range (VAC):	90-138	90-138	90-138, 173-276	90-138
Output Voltage (VAC):	63 / 89	63 / 89	63 / 89	63 / 89
Output Voltage Regulation (%):	-2.5 / +1	-2.5 / +1	-2.5 / +1	-2.5 / +1
Maximum Rated Output Current:	8A	10A	15A	18A
Maximum Output Power (VA):	720	900	1350	1620
Line Mode Efficiency:	Up to 94%	Up to 94%	Up to 94%	Up to 94%
Standby Efficiency:	Up to 91%	Up to 91%	Up to 91%	Up to 91%
Output Waveform:	Quasi-square wave	Quasi-square wave	Quasi-square wave	Quasi-square wave
Short Circuit Protection:	<150% of maximum current rating	<150% of maximum current rating	<150% of maximum current rating	<150% of maximum current rating
Transfer Characteristics:	Uninterrupted output	Uninterrupted output	Uninterrupted output	Uninterrupted output
Battery Voltage (VDC):	36	36	36	36

Battery Charger	908HP	910HP	915HP	918HP
Temperature Compensation:	Programmable (0 to 5mV / Cell / °C)	Programmable (0 to 5mV / Cell / °C)	Programmable (0 to 5mV / Cell / °C)	Programmable (0 to 5mV / Cell / °C)
Bulk Charger Current:	10A	10A	10A	10A
5 Stages:	Refresh, bulk, accept, float, rest	Refresh, bulk, accept, float, rest	Refresh, bulk, accept, float, rest	Refresh, bulk, accept, float, rest

Mechanical	908HP	910HP	915HP	918HP
Inverter Module:	Front plug in, hot swappable inverter module			
Dimensions H x W x D (in/mm):	7.8 x 15 (16.7 w/handle) x 10 (10.7 w/handle) / 198.1 x 381 (424.18 w/handle) x 254 (271.8 w/handle)			
Weight (lb/kg):	48.5 / 22.0	49 / 22.3	60 / 27.2	60.5 / 27.5
Input Power Connector (IEC 320/C20):	NEMA 5-15P plug	NEMA 5-15P plug	NEMA 5-15P plug / NEMA 6-15P plug	NEMA 5-20P plug
Battery Connector:	Anderson style 75A	Anderson style 75A	Anderson style 75A	Anderson style 75A
Remote Temperature Sensor:	Ring lug fastens to negative terminal on center battery			
Display	4 line x 20 character blue LCD with soft-key menu controls			

Environment	
Operating Temperature:	-40 to 60°C / -40 to 140°F (derate by 2°C / 3.6°F per 1000ft above 3000ft)
Relative Humidity:	0 to 95% non-condensing

Agency Compliance	
Safety:	CSA/UL 60950-1 (2 <sup>nd</sup> ), UL 1778 (4 <sup>th</sup> ) CSA No. 107.3, C/US
EMC:	FCC Part 15 Class A



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