

# Power

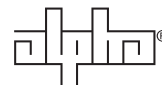
## FlexNet™ MPS48-7 Series

MPS48-7F and MPS48-7T 50W 48VDC Indoor/Outdoor UPS



- Rugged 48VDC 50W wall or pole mount
- Aesthetically pleasing and minimizes presence in public locations
- LED local status indicators
- Temperature compensated battery charging for optimum battery life
- Optional battery heater provides extended runtimes in cold conditions
- Local and remote status monitoring and reporting

Alpha extends its family of FlexNet element powering solutions to include the MPS48-7F and MPS48-7T multipurpose power supplies. The MPS48-7F supports fiber-to-the-home applications including MDU, MTU and SBU ONT products. The MPS48-7T supports critical network communication loads. These units are indoor or outdoor, wall or pole mounted microprocessor controlled UPS system providing 50Watts of 48VDC. The input is powered from 120, 240 or 277VAC with an optional step-down transformer. A 48VDC string of standard 7.2Ah maintenance free sealed lead acid batteries provide standby power. The onboard microprocessor monitors and controls critical functions including temperature compensated battery charge management, periodic battery capacity testing, and local and remote status reporting providing higher service availability. A ruggedized outdoor enclosure protects against rain and lightning, and resists wind and vibration from storms or road traffic. This power supply is suited to both North America and International Markets.



## FlexNet MPS48-7 Series

### Specifications

Models:	FlexNet MPS48-7F FlexNet MPS48-7T
<b>Input</b>	
Voltage Range:	90 to 132, or 180 to 264VAC (switch selectable) or 250 to 305VAC with optional step-down transformer
Frequency:	47 to 63Hz
Surge Protection:	ANSI/IEEE Std. C62.41 to Category A, B, or C requirements, using a "Ring Wave" or "Combination" waveform, at a level of 6kV

### Output

Voltage:	42 to 56VDC
Power:	50W continuous
Ripple:	<250mVrms
Noise:	<2Vp-p
Transfer Characteristics:	Uninterrupted upon loss of AC service

### Battery

Type:	Four Valve Regulated Lead Acid (VRLA) (Batteries sold separately)
Storage Temperature:	-4 to 104°F (-20 to 40°C)
Capacity:	7.2Ah @ 20hr rate to 1.75VDC
Dimensions with terminal (in/mm):	5.94L x 2.56W x 3.86H/151L x 65W x 98H
Dimensions without terminal (in/mm):	5.94L x 2.56W x 3.70H/151L x 65W x 94H
Weight (lbs/kg):	5.95/2.7
Runtime @ 77°F (25°C):	18hrs 20W load, 8hrs 40W load
Recharge @ 77°F (25°C):	13hrs 20W load, 25hrs 40W load

### Alarms

MPS48-7T:	Dry contact, Visual with LED's
MPS48-7F:	Visual with LED's and electrically per PacketCable™ UPS

### LED Status Indicators

Green Steady:	Output within parameters
Green Blinking:	Standby Operation
Red Blinking:	Low or Missing Battery
Red Steady:	Replace Battery

### Remote – Five 24 gauge wires from UPS to ONT

AC Fail = Output power drawn from battery  
 Replace Battery = Battery has failed periodic self test  
 Battery Missing = Battery is disconnected  
 Battery Low = Indicates battery has <40% remaining runtime  
 AC Fail = loss of service AC alarm

### Mechanical

Unit	
Dimensions (in/mm):	17.5H x 12.75W x 5.25D/445H x 324W x 133D
Weight (lbs/kg):	11/4.9 (not including battery)
ELH100 Apollo (lb/kg):	11.234/5.096
ELH100 Apollo (with wall mount brackets) (lb/kg):	15.64/7.094

### Unit and carton

Dimensions (in/mm):	19.9H x 16W x 7.25D/505H x 406W x 184D
Weight (lbs/kg):	11/4.9 (not including battery)
Weight (lbs/kg):	34.6/15.7 (including battery)

### Operating Temperature

With Heater Option:	-40 to 55°C
Without Heater Option:	-20 to 55°C
Storage Temperature:	-50 to 70°C
Humidity:	0 to 95%
Altitude:	Up to 10000ft with ambient derating Above 6000ft, 2°C/1000ft

### Regulatory

Agency Compliance  
 FCC/GR1089 Class B, CSA-NRTL/C (CSA60950), CE, C-Tic,  
 RoHS compliant per European Union's Directive  
 2002/95/EC, Restrictions of Hazardous Substances  
 Siesmic Zone 4 rated per GR-63  
 Complies with IPx5 water intrusion criteria per IEC  
 60529 standard



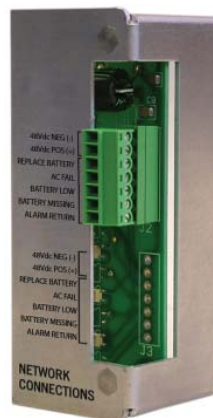
Front view  
MPS48-7 shown with batteries and AC  
service installed



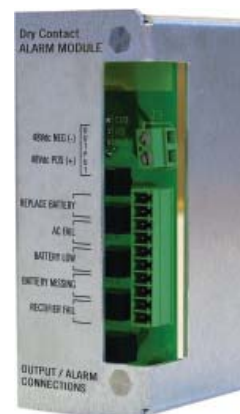
Mounting Bracket  
(Included)

### Options

Battery heater mats  
 Batteries  
 277VAC step down transformer  
 Street light power tap  
 Power cord



MPS48-7F Interface Module



MPS48-7T Interface Module

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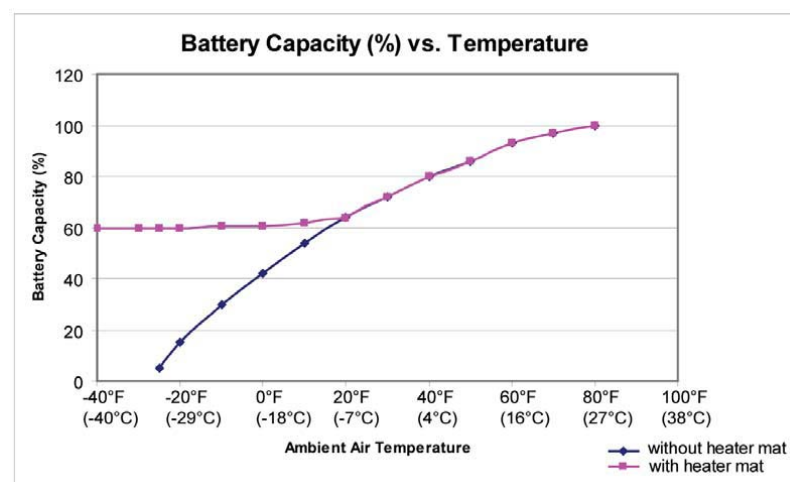
### Ordering Guide

The MPS48-7F standby battery power allows service providers to extend uninterrupted, reliable voice, video and data broadband service to FTTx subscribers. The MPS48-7T provides the same reliable backup battery power to mission telecom applications. Both power supplies provide up to 50W of continuous 48VDC standby power.

A user selectable 120/240V slide switch located on the faceplate supports input voltages from 90 to 264VAC or 250/305VAC with optional step-down transformer. Several AC supply connection configurations are supported including an optional power cord, ½" EMT conduit routing with either 120VAC residential mains or commercial 208 or 240VAC and the optional preconnectorized streetlight tap cable.

Local status is provided both visually with LEDs and electrically per PacketCable™ UPS Specifications for the MPS48-7F and dry contact alarms for the MPS48-7T. Alarms reported include AC fail, replace battery, battery missing and battery low.

A weather resistant powder coated aluminum outdoor enclosure protects against rain and lightning, and resists wind and vibration from storms or road traffic. A universal mounting bracket is included supporting wall mounting or mounting onto concrete, steel or wood poles. Wall and pole mounting hardware is not included.



Optional 120 or 240VAC battery heater kits support greater standby battery capacity in cold conditions. Battery performance is typically stated at normal room ambient temperatures of 25°C/77°F. As ambient temperatures drop the chemical reaction occurring within a battery during a discharge becomes less and less efficient. Battery heaters elevate the battery temperature in order to extend cold weather runtimes. The chart provides a graphical representation of VRLA (valve regulated lead acid) battery capacity derating over temperature with and without a battery heater mat.

The AC service is routed into the enclosure through 1/2" EMT (Electrical Metal Tube) knockouts located on the bottom, sides or back surfaces of the housing. Separate 3/4" EMT knockouts on the bottom, sides or back surfaces of the housing support data and power cables.

This chart is an approximation of the effectiveness of a heater verse no heater.

Model Number	Product Name
MPS48-7T	FlexNet Battery Backup Power Supply 48VDC 50Watt Supporting the Dry Contact Alarms - including mounting bracket, battery cable kit, AC cable strain relief liquid tight fitting.
MPS48-7F	FlexNet Battery Backup Power Supply 48VDC 50Watt Supporting the PacketCable Alarms - including mounting bracket, battery cable kit, AC cable strain relief liquid tight fitting.
MPS-CWK-120	Battery Heater for the MPS48-7 120VAC
MPS-CWK-240	Battery Heater for the MPS48-7 240VAC
UPS-SDXB	Transformer Kit, 277VAC Step-Down to 115VAC
AX-STDBAT-7	Battery 7.2Ah AGM Battery, 1 year Warranty
AX-LONGBAT-7	Battery 7.2Ah AGM Battery, 3 year warranty
CBL-UPS-SL-25	Cable, UPS, Streetlight AC PWR Tap Cable, 2 Cond w/GND Lug and Wire, 25ft
UPS100-AC-Cord	AC Line Cord, 5-15P Right Angle Low Profile, 8ft



Line Cord  
UPS100-AC-Cord



Streetlight AC Tap  
CBL-UPS-SL-25



Battery Heater  
MPS-CWK-120/240



Step-down Transformer  
UPS-SDXB



7.2Ah Battery  
AX-STDBAT-7  
AX-LONGBAT-7

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

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