

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 higher AC voltages 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 for worldwide markets.

FlexNet MPS48-7 Series

Specifications

Models:	FlexNet MPS48-7F FlexNet MPS48-7T	Mechanical	
Input		Unit	
Voltage Range:	90 to 132, or 180 to 264Vac (switch selectable) or 220 to 305Vac or 280 to 382Vac with optional step-down transformers	Dimensions (in/mm):	17.5H x 12.75W x 5.25D/445H x 324W x 133D
Frequency:	47 to 63Hz	Weight (lb/kg):	11/4.9 (not including battery)
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	ELH100 Apollo (lb/kg):	11.234/5.096
		ELH100 Apollo (with wall mount brackets) (lb/kg):	15.64/7.094
Output		Unit and carton	
Voltage:	42 to 56Vdc	Dimensions (in/mm):	19.9H x 16W x 7.25D/505H x 406W x 184D
Power:	50W continuous	Weight (lb/kg):	11/4.9 (not including battery)
Ripple:	<250mVrms	Weight (lb/kg):	34.6/15.7 (including battery)
Noise:	<2Vp-p	Operating Temperature	
Transfer Characteristics:	Uninterrupted upon loss of AC service	With Heater Option:	-40° to 131°F/-40° to 55°C
		Without Heater Option:	-4° to 131°F/-20° to 55°C
		Storage Temperature:	-58° to 158°F/-50° to 70°C
		Humidity:	0 to 95%
		Altitude:	Up to 10,000 ft./3,000m with ambient derating Above 6,000 ft./1,800m, 36°F/2°C per 1,000 ft./300m
Battery		Regulatory	
Type:	Four valve-regulated lead-acid (VRLA) (Batteries sold separately)	Agency Compliance	
Storage Temperature:	-4° to 104°F/-20° to 40°C	FCC/GR1089 Class B, CSA-NRTL/C (CSA60950), CE, C-Tic,	
Capacity:	7.2Ah @ 20 hr. rate to 1.75Vdc	RoHS compliant per European Union's Directive	
Dimensions with terminal (in/mm):	5.94L x 2.56W x 3.86H/151L x 65W x 98H	2002/95/EC, Restrictions of Hazardous Substances	
Dimensions without terminal (in/mm):	5.94L x 2.56W x 3.70H/151L x 65W x 94H	Siesmic Zone 4 rated per GR-63	
Weight (lb/kg):	5.95/2.7	Complies with IPx5 water intrusion criteria per IEC	
Runtime @ 77°F/25°C:	18 hrs. 20W load, 8 hrs. 40W load	60529 standard	
Recharge @ 77°F/25°C:	13 hrs. 20W load, 25 hrs. 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

Options

Battery heater mats
 Batteries
 277Vac step down transformer
 347Vac step down transformer
 Street light power tap
 Power cord



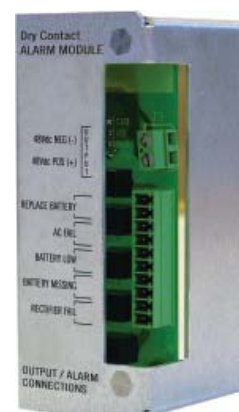
Front view
MPS48-7 shown with batteries and AC
service installed



Mounting Bracket
(Included)



MPS48-7F Interface Module



MPS48-7T Interface Module

FlexNet MPS48-7 Series

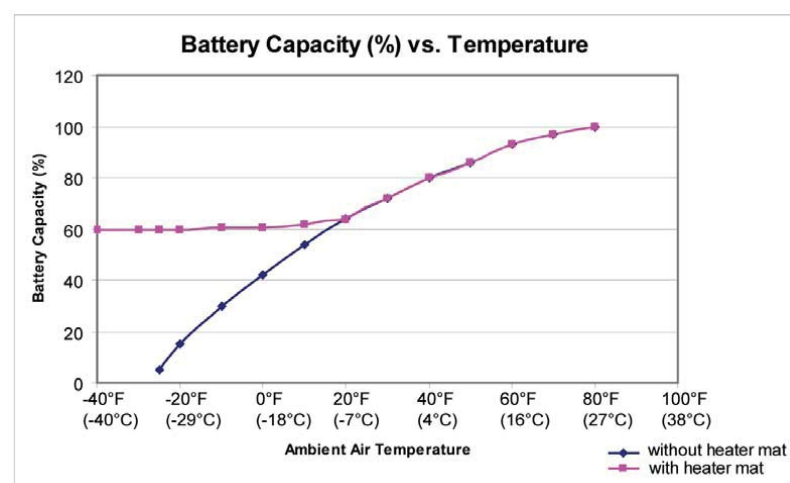
Ordering Guide

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 LED's 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 vs. 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
MPS-SDXB	Transformer Kit, 277Vac Step-Down to 230Vac
MPS-SDXC	Transformer Kit, 347Vac Step-Down to 230Vac
AX-STDBAT-7	Battery 7.2Ah AGM Battery, 1 year warranty
AX-LONGBAT-7	Battery 7.2Ah AGM Battery, 3 year warranty
CBL-SL-25	Cable, UPS, Streetlight AC PWR Tap Cable, 2 Cond w/GND Lug and Wire, 25ft
MPS-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
MPS-SDXB, MPS-SDXC



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

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