

# Power

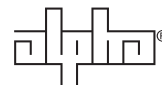
## FlexNet™ MPS50-48C

Supports Cisco Aironet 1500 Series Wi-Fi Outdoor Mesh Access Point



- Rugged outdoor wall or pole mount 48V DC UPS battery backup power supply
- Aesthetically pleasing and minimizes presence in public locations
- Preconnectorized cables reduce installation time and errors
- 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's FlexNet MPS50-48C multipurpose power supply platform provides primary and standby power for the Cisco Aironet 1500 Series Outdoor Mesh Network Access Point. Integrating the Cisco Wireless Mesh Networking solution with MPS50-48C standby battery power allows service providers to extend uninterrupted, reliable data and Wi-Fi broadband service to cities for public safety, municipal service, and city-wide Hot-Zone access. This unit provides 48VDC power, diagnostics and network management information to the Cisco Aironet 1500 Series. This power supply is suited for both North America and International Markets in a single unit.



## FlexNet MPS50-48C

### Specifications

#### Input

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 (in): 5.94L x 2.56W x 3.86H with terminal  
 (mm): 151L x 65W x 98H  
 (in): 5.94L x 2.56W x 3.70H without terminal  
 (mm): 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

#### LED Status Indicators

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

#### Mechanical

Unit  
 Dimensions (in): 17.5H x 12.75W x 5.25D  
 (mm): 445H x 324W x 133D  
 Weight (lbs/kg): 11/4.9 (not including battery)

#### Unit and carton

Dimensions (in): 19.9H x 16W x 7.25D  
 (mm): 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

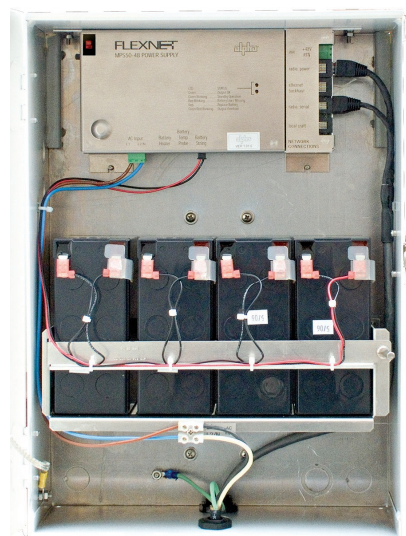
With Heater Option: -40 to 55°C  
 Without Heater Option: -20 to 55°C  
 Storage Temperature: -50 to 70°C  
 Humidity: 0 to 95%  
 Altitude: Up to 10000ft with ambient derating  
 Above 6000ft, 2°C/10000ft

#### Regulatory

Agency Compliance: FCC part 15 Class A, CSA-NRTL/C (CSA950), CE, C-Tic, RoHS compliant per European Union's Directive 2002/95/EC, Restrictions of Hazardous Substances Zone 4 rated per GR-63  
 Complies with IPx5 water intrusion criteria per IEC 60529 standard

#### Warranty:

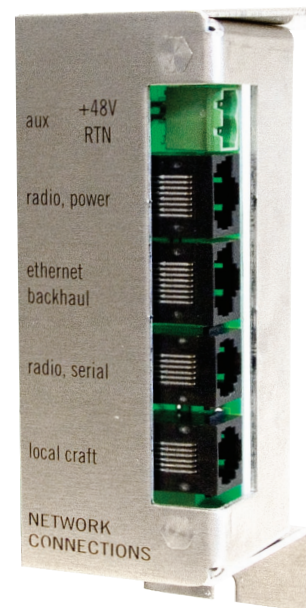
3 year (repair or replace electronics)  
 Battery warranty separate



Front view  
 MPS50-48C shown with batteries and  
 AC service installed



Mounting Bracket  
 (Included)



Aironet 1500 Interface Module

### Benefits

Aironet Ethernet backhaul from MPS50-48C  
 Craft port RS232 interface  
 Keyed battery connection prevents miss wires  
 Heater mat option provides greater runtime in cold climates  
 Weather tight, aluminum construction supports installation in harsh environments  
 Single mounting bracket supports all installations  
 Batteries readily available through multiple suppliers  
 Product options minimize installation errors and time  
 Housing knockouts support variety of cable routing scenarios  
 277VAC step down transformer option  
 Street light power tap option  
 Power cord option

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## FlexNet MPS50-48C

### Ordering Guide

The MPS50-48C provides up to 50Watts of continuous 48VDC standby power for Cisco's Aironet 1500 series outdoor mesh access point in roof-top and pole-top applications.

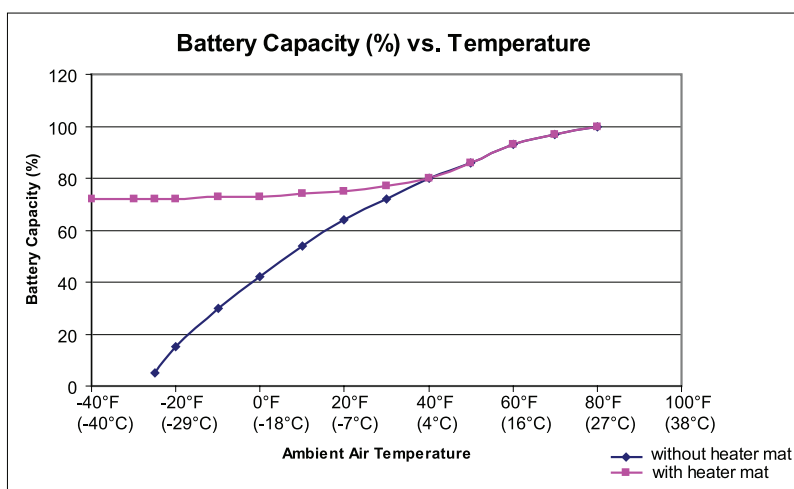
The MPS50-48C interface module includes an RJ11 connection providing RS232 craft access to the diagnostics and network management information from the MPS50-48 to the radio, an RJ45 ethernet connection to the radio data for easy backhaul access connection. Auxiliary equipment such as a camera can be powered with the 48VDC terminal block.

A user selectable 120/240V slide switch located on the faceplate of the MPS50-48C supports input voltages from 90 to 264VAC. Several AC supply connection configurations are supported including an optional power cord, 1/2" EMT conduit routing with either 120VAC residential mains or commercial 208 or 240VAC and the optional preconnectorized streetlight tap cable. The step down transformer is required for streetlight tap applications with a 480 Y/277VAC source.

Local status is provided both visually with LED's and electrically through a serial RS232 RJ11 connector accessing the same data transmitted to the Aironet 1500 from the MPS50-48.

Preconnectorized Aironet 1500 to MPS50-48C interface cables of varying lengths provide a reliable and efficient field installation.

The MPS50-48C housing is constructed of weather/corrosion resistant powder coated aluminum providing protection from penetration by dust and wind driven rain. A universal mounting bracket is included supporting wall mounting or mounting onto concrete, steel or wood poles. Wall and pole mounting attachment 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. MPS50-48C is supplied with a single strain relief bushing supporting the preconnectorized cables to the Aironet 1500.

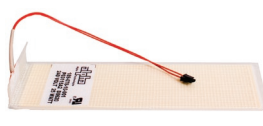
Model Number	Product Name
MPS50-48C	FlexNet MPS50-48C 48VDC 50Watt
MPS-CWK-120	Battery Heater for the MPS50-48 120VAC
MPS-CWK-240	Battery Heater for the MPS50-48 240VAC
UPS-SDXB	Transformer Kit, 277VAC Step-Down to 115VAC Bellos
AX-STDBAT-7	Battery 7.2AH AGM Battery, 1 year Warranty
AX-LONGBAT-7	Battery 7.2AH AGM Battery, 3 year warranty
CBL-UPS-CA-5	Cable, UPS to Cisco Aironet 1500, Preconnectorized, 5ft
CBL-UPS-CA-15	Cable, UPS to Cisco Aironet 1500, Preconnectorized, 15ft
CBL-CA-25	Cable, UPS (unterminated) to Cisco Aironet 1500 (connectorized), 25ft
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 Angel Low Profile, 8ft



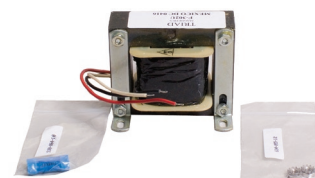
MPS50-48C to Radio  
CBL-UPS-CA-5/15



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

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