



# The MCS 600 series ...

## Power System ES 48/10A-4 HBA

### Features

- Up to 40A output current
- Fan cooled rectifiers ESR 48V - 10 A - B
- Hot pluggable, all connectors at the rear
- Power system controller Smart CSU

### Applications

- Mini power systems
- Wireless base stations
- Core network components
- Telecommunications/data networks



### Description

ES 48/10A-4 HBA Power system combines a compact modular design with intelligent power features and state-of-the-art technology. ES 48/10A-4 HBA Power Shelf which offers advanced features making it a perfect choice for outdoor cabinets and PCS applications.

ES48/10A-4 HBA Power Shelf is capable of providing  $-48\text{VDC}$  power with a load range of up to 40Amps. Up to four plug-in rectifiers modules can be equipped on a Power Shelf, each module with a rating of  $+10\text{A}$  at  $-48\text{V}$ . The shelf also houses and Alarm Unit to provide alarms comprehensive remote monitoring Control.



## ES 48/10A- 4 HBA: Technical specifications

### General

Efficiency, at 220Vrms	90 %
Safety	UL 60950 CAN/CSA-C22.2 No.60950
EMI, radiated	FCC Part 15, class B
Compliant with	CISPR 22, class B

### Input

AC connection	1 $\Phi$ 220 V <sub>rms</sub>
Voltage range	90 ... 275 V <sub>rms</sub> 276 ... 300 V <sub>rms</sub> (no damage)
Frequency range	45 ... 65 Hz
Current maximum	16 A
Inrush current	<36 A <sub>peak</sub>
Mains terminal	Terminal block
AC switch	None

### Output

Voltage, nominal	54.3 V <sub>dc</sub>
Voltage adjust range	42 ... 59.5 V <sub>dc</sub>
Load regulation	< $\pm$ 0.5 %
Line regulation	< $\pm$ 0.1 %
Over voltage protection	59.5 V $\pm$ 0.5 V
Maximum power	2400 W, max.
Current limit	44 A
Load sharing	< $\pm$ 5%
LVDS	100 A x 1 on battery side
Battery Disconnect	50 A breaker x1

### Load distribution

Distribution	4 positions 10A maximum
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### Power system controller

Smart CSU	
7 segment LED	Display DCV DCI
LED Indicator	LED «FL/EQU» LED «MAJ» LED «MIN» LED «HV» LED «HVSD» LED «LV» LED «LVDS OPEN» LED «FUSE ALM» LED «AC FAIL»
Relay outputs	8
Communication interface	RS 232 Ethernet (RJ 45)
WEB/SNMP function	Optional

### Mechanics

Construction	Shelf
Width, overall	19" / 482.6 mm
Depth, overall	12" / 304.4 mm
Height, overall	5.27" / 134 mm
Weight, system (empty)	22 lb / 10 kg
Weight, rectifier	4.4 lb / 2.0 kg per rectifier

### Environment

Operating temperature	- 5 ... + 65 °C
Reduced power	+ 55 ... + 65 °C
Relative humidity	95 % max, non condensing
Altitude	- 500 ~ 10000 feet

### Power module

Rectifier	ESR 48 V - 10 A - B
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\*Specifications are subject to change due to technical progress