

DC to DC Converter

MHSB20A

Key Features

- 20 amp converter designed for -48V DC power applications
- Modular hot pluggable unit
- Wide operating temperature range
- Diode protected output for true redundancy

The MHSB20A DC to DC converter from Emerson Network Power provides high reliability and availability.

Description

The modular 20 amp MHSB20A is a high frequency DC to DC converter. Plug'n'play technology allows for easy system configuration. System capacity can be increased by simply plugging an additional converter into an existing converter shelf or a newly added expansion shelf — no adjustments or setup are required.

Additional Information

The 20 amp MHSB20A converter is designed for use with NetSure™ 721 and NetSure™ 701 DC power systems as well as the 160 amp DC to DC converter shelf, MHSB160CAB.



Converter MHSB20A

Technical Specifications

DC Input	
Nominal Voltage	-48VDC
Operating Voltage Range	-42.0VDC to -60.0VDC
Input Current	Max 13 amps
Input Protection	If the input voltage decreases beyond a non-adjustable predetermined value, the converter circuitry shuts down, disabling the output. The converter will recover automatically when the DC input voltage returns within normal operating limits. Overcurrent is protected by an internal fuse.
Operating Efficiency	88% nominal

DC Output	
Output Voltage	+24VDC
Output Current	20 amps maximum
Regulation	Steady state output voltage remains within +/-0.5 volt from -42.0VDC to 60.0VDC input and 0 to 100% load
Voice Band Noise	The voice-frequency noise generated by the converters does not exceed 32dBnC output noise from 5% to 100% load
Wide Band Noise	Does not exceed 150 mv peak-to-peak or 15 mv rms

Protection	
Current Limiting	20.5 amps to 23 amps
High Voltage Shutdown	27.6 volts to 30 volts
Parallel Operation	Output blocking diode

Monitoring	Status Alarm	Visual Indicator Color
Visual Indicators for Converter Module	Normal operation	Green
Visual Indicators for Converter Shelf	Input OK Minor Alarm Major Alarm	Green Yellow Red

Physical Characteristics	
Mounting	Plug-in installation
Dimensions (H x W x D)	4.2 x 2.3 x 11.7 inches (106.7 x 58.4 x 297.2mm)
Weight	3.2 lbs. (1.5 kg)

Environmental	
Temperature	-40°F to 149°F (-40°C to 65°C) at full rated output
Altitude	10,000 feet (3028m) derate by 1 deg C per 1000 feet above sea level
Ventilation	Front to back
Audible Noise	The converter does not produce sound levels above 60dB(A), measured 5 feet in front of the converter, at the same horizontal line as the middle of the converter at 25°C
Protection	The converter detects internal temperature and reduces output power to maintain components within design parameters. It recovers automatically when temperature is within normal operating range.
Safety Compliance	UL recognized (UL60950) for USA & Canada, CE marked, NEBS Certified

Ordering Information

Part Number	Description
486800128	20 amp MHSB20A converter
588249700	MHSB160CAB converter shelf
582127000	NetSure™ 721 DC power system
582126000	NetSure™ 701 DC power system

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