

Vertiv™ eSure™ Converter

C48/58 -2000P3



Key Benefits

Converter, 48 to 58 VDC, 2000 W Peak / 1600 W Average

- Reduce power consumption and lower operating costs with 95% peak efficiency.
- Easily add capacity with hot pluggable interchangeable components.
- Ensure high availability with wide input voltage range from 41 VDC to 58 VDC.
- Power your 5G sites in the harsh environments with operation from -40°C to +65°C.
- Enjoy peace of mind with high quality UL recognized design.

Easily support higher power 5G remote radios on cell towers with modular 2000 watt eSure™ power extend converters.

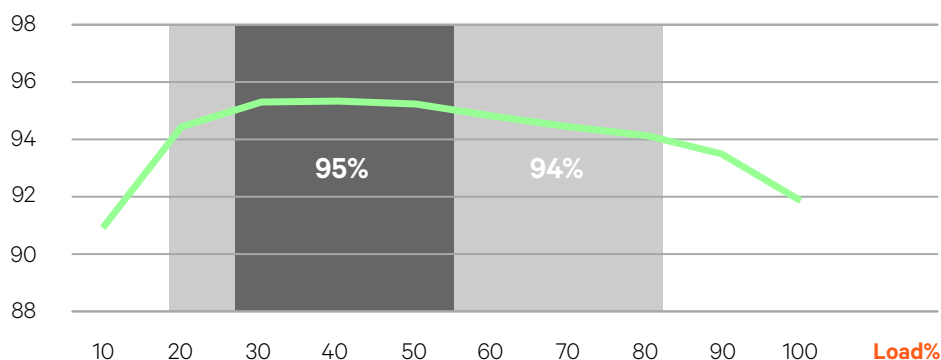
Description

The Vertiv™ eSure™ C48/58-2000P3 high-efficiency converter is designed to operate from a nominal -48 VDC source to provide nominal -58 VDC load power, which is adjustable to application needs up to 2000 watts peak, 1600 watts average. This constant power converter designed with the latest patented switchmode technology, uses digital signal processing (DSP) for efficient operation.

The eSure C48/58-2000P3 DC to DC converter is ideal for feeding high power remote radio heads (RRHs). 58 VDC is regulated over a wide input range to minimize voltage drop in the cable feeding the RRH and sustain operation to end of battery discharge. When redundancy is critical or loads are high, multiple eSure C48/58-2000P3 converters can be connected in parallel to support a variety of telecom applications. Unified remote management and control of the power system is enabled when combined with a Vertiv™ NetSure™ controller.



% Efficiency



C48/58-2000P3 Efficiency Curve at 53.5 VDC Nominal Input

Technical Specifications

DC Input	C48/58-2000P3
Voltage	41 VDC to 58.5 VDC, 48 VDC (nominal)
Maximum Current	53 A

DC Output	
Voltage	56 VDC to 58 VDC
Maximum Power	2000 W peak, 1600 W average at 40°C, 1280 W average at 65°C
Maximum Current	35.7 A at 2000 W peak (see figure 1), 28.6 A at 1600 W average, 22.9 A at 1280 W average, all at 56 VDC
Peak Efficiency	>95%
Noise	< 250mV pk-pk; < 20mV rms; <38 dBrnC

Control and Monitoring

Alarms and Signaling	Alarm and status reported via CAN bus to system controller
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure Flashing Red LED: Fan Failure

Environmental

Operating Temperature	-40°C to +80°C / -40°F to +176°F (see figure 2)
Storage Temperature	-40°C to +85°C / -40°F to +185°F
Relative Humidity	0 to 90%
Altitude	2000 m / 6560 ft at full power

Standards Compliance

Safety	UL62368-1, EN62368-1, IEC62368-1
EMC	FCC CFR 47 Part 15 Class A conducted and Class B radiated
Environment	REACH, RoHS

Mechanics

Dimensions (H x W x D)	41 x 84.5 x 252.5 mm / 1.61 x 3.33 x 9.94 inches
Weight	1.13 kg / 2.49 lbs

Ordering Information

Part Number	Description
1C48582000P3	eSure™ converter, -48 to -58 VDC, 2000 W peak / 1600 W average

Figures

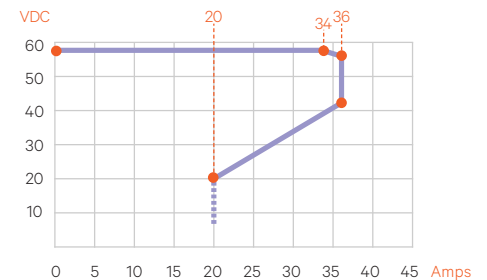


Figure 1: Output Voltage vs. Output Current at Maximum peak Power 2000 W

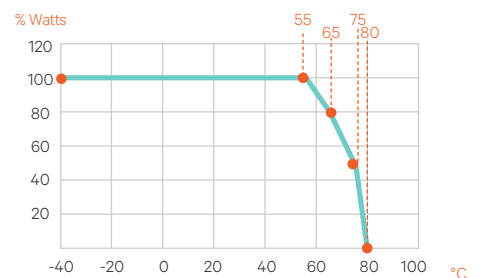


Figure 2: Output Power vs. Temperature at -41VDC ≥ Vin ≥ -58VDC