

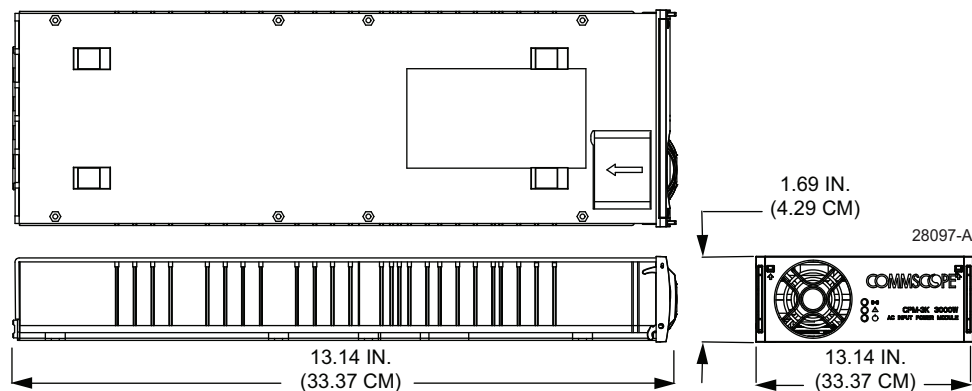
## Constellation™ Power Supply (CPM-3K)

The Constellation Power Supply (CPM-3K), shown below, is installed in a Constellation Power Transmitter (CPCX-12) to provide long-haul transmission of fault-managed power via a powered fiber cable. If a fault occurs within the Constellation system wiring, power transmission is stopped, preventing fire, equipment damage, and personal injury. Tables 1, 2, and 3, below, list specifications.



The Constellation system is a Limited Power Source per IEC/UL/Can 62368-1 suitable for supplying a Class 2 circuit under NEC Art. 725 and CEC Rule 16-200. Always follow local codes.

### DIMENSIONS



### SPECIFICATIONS

Table 1. Input Data

PARAMETER	SPECIFICATION
Voltage (nominal)	176 - 277 VAC / 260 - 400 VDC
Voltage (range)	85 - 305 VAC / 260 - 410 VDC
Frequency	45 - 66 Hz / 15 - 18.5 Hz/DC
Current (maximum) @ nominal input, full load	18.2 A <sub>RMS</sub>
Power factor	> 0.99 at 50 % load or more

**Table 1. Input Data, continued**

PARAMETER	SPECIFICATION
Protection	Fuse in L & N. Varistor. Disconnect when $V_{IN}$ is out of range

**Table 2. Output Data**

PARAMETER	SPECIFICATION
Voltage (nominal)	336 VDC
# Pb cell supported	156 - 168
Power continuous (max)	3000 W
Power @ 85 VAC / 85 VDC	1200 W
Current continuous (max)	9 A (@ $V_{OUT} < 336$ VDC) / 7.9 A (@ $V_{OUT} < 381$ VDC)
Current sharing (10 - 100% load)	+/- 5 % of maximum current from 10 to 100 % load
Static voltage regulation (10 - 100% load)	+/- 0.5 %
Dynamic voltage regulation	+/- 2.0% for 10-90 % or 90-10 % load variation, regulation time < 10 ms
Hold up time	> 20 ms; output voltage > 300 VDC at 1500 W load
Ripple	< 1000 mVP-P 30 MHz bandwidth
Protection	Over-voltage shutdown, Hot plug in - Inrush current limiting, ORing diode, Fuse, Short circuit proof, High temperature protection, Overload shutdown

**Table 3. Other Specifications**

PARAMETER	SPECIFICATION
Efficiency @ 230 VAC / 380 VDC input	96.2 % / 96.6 %
Isolation	3.0 kVAC - input to output, 1.5 kVAC - input to earth, 3.0 kVAC - CAN to primary, 3.0 kVAC - CAN to secondary
Alarms (Red LED)	Low mains shutdown, High and low temperature, Rectifier failure, Overvoltage on output, Fan failure, Low voltage alarm, CAN bus failure
Warnings (Yellow LED)	Rectifier in power derate mode, Remote battery current limit activated, Input voltage okay
Normal (Green LED)	Input and output okay
Acoustic noise	40 dBa @ 250 °C (at nominal input); 58 dBa @ 40 °C (at full load)
MTBF (Telecordia SR-232 Iss. 3 Meth. II Case L1)	2 291 210h (@ $T_{ambient} = 25$ °C)
Operating temperature	-40 to 75 °C (-40 to +167 °F) humidity 5 - 95 % RH non-condensing; Outer power de-rates linear from 3000 W @ 50 °C (122 °F) to 980 W @ 75 °C (167 °F)
Storage temperature	-40 to +85 °C (-40 to +185 °F) humidity 0 - 99% RH non-condensing
Weight	<1.95 kg (4.3 lbs.)

For details refer to the Constellation Power Transmitter (CPCX-12) Quick Start Guide (TC-96354-IP) or the Constellation Best Practices Guide (TC-96352-IP). These documents are available to be viewed or downloaded using the following URL: <http://www.commscope.com/SupportCenter>