

## Description

ComPact 2400 AC/DC PS is a compact DC power supply with nominal output of 28V/80A. It is a mechanically and electrically rugged unit capable of operating under harsh environmental conditions with large input voltage variations. It is a high efficiency unit designed to supply power to sensitive electronics.



NSN 6130-25-160-8484

The ComPact 2400 AC/DC PS input current is power factor corrected and designed for optimum utilization of weak power sources such as portable generators. The efficiency is very high due to soft switching technology. The ComPact 2400 AC/DC PS has an RS485 port that can be used for control, monitoring and setup. Detailed status and statistics can be retrieved over this port. The ComPact can operate stand alone or be mounted in 19" rack systems that occupies 2U (88.9mm/3.5") height. The signal connectors provides several signals: Alarm relay outputs and a bus for interconnection of multiple units in a redundant or parallel system. The unit is protected from under voltage, short circuit, over current and over temperature. The under voltage, over temperature and input voltage faults are latching and the unit does not restart before the input voltage is cycled.

Functions	
<b>Over temperature</b>	The unit is protected from over temperature. The unit derates to 65A at an ambient temperature of 66 °C, and shuts down at an ambient temperature of 78 °C, free standing unit. The unit automatically starts up again when the temperature drops.
<b>Input circuit breaker</b>	The input circuit breaker releases if the input current exceeds 30A and the unit shuts off.
<b>Alarms</b>	Status signals are fed to separate potential free outputs, and are indicated in separate LEDs for: Power OK Unit alarm Current limit
<b>Display</b>	The display can be toggled between output voltage and output current
<b>Input voltage</b>	When the input voltage is below the safe operating range, the converter is shut off. When the voltage returns, the converter is turned on again.
<b>Connectors</b>	AC input: 97B-3102E-16-10P (Bayonet) DC output: 97B-3102E-22-22S (Bayonet) Alarm 1: Binder 09-0404-30-02 Alarm 2: Binder 09-0412-30-04 NTC/PAR/COM: 2 pieces. Binder 09-0416-30-05
<b>Grounding</b>	Available in front
<b>Acoustic noise</b>	At ambient temperatures below 45°C the acoustic noise is 45 dBA.
<b>Frequency range</b>	45 - 430Hz
<b>Cooling</b>	Forced air by temperature controlled fan

# ComPact 2400 AC/DC PS

## Specification

Electrical data at 50Hz input voltage	
Input voltage	99 – 276VAC
Power Factor (PF)	Typical 0.99 @ full load
Input current at max load and 50Hz	28A @ 99VAC 24A @ 115VAC 12A @ 230VAC
Total Harmonic Distortion (THD) @ full load and 50Hz	Typical 6%
Efficiency at full load	> 88% @ 115VAC > 90% @ 230VAC
Nominal output voltage	Fixed 28 VDC
Nominal output current	Fixed 80A
Load sharing	Max 3 Amps deviation
Output voltage ripple and noise	<100mV p-p, 20MHz bandwidth
Output voltage regulation	<1.5% zero/max load
Short circuit current	≤88.0 Amps
OVP level	31.4V

Standards
<p><b>Electromagnetic Interference</b> The power supply meets the requirements of MIL-STD-461E and F; Ground Army; CE101, CE102, RE101 RE102, RS103, CS101, CS114, CS115 and CS116</p> <p>Electrical systems in vehicles MIL-STD-1275D</p> <p><b>Electrostatic discharge</b> The power supply meets the requirements of EN 61000-4-2 for ESD</p> <p><b>Safety</b> Designed to meet EN 60950</p> <p><b>Encapsulation</b> IP67</p>

Product	Part No.	NSN
Compact 2400 AC/DC PS	P600370	6130-25-160-8484

Environmental
<p><b>High temperature</b> <u>Operation</u> MIL-STD-810G: Method 501.5, Procedure II, 60°C <u>Storage</u> MIL-STD-810G: Method 501.5, Procedure I, 71°C</p> <p><b>Low temperature</b> <u>Operation</u> MIL-STD-810G: Method 502.5, Procedure II, -40°C <u>Storage</u> MIL-STD-810G: Method 502.5, Procedure I, -51°C</p> <p><b>Temperature shock</b> MIL-STD-810G: Method 503.5, -51°C - +71°C. (Non-operational)</p> <p><b>Humidity</b> MIL-STD-810G: Method 507.5, Procedure II</p> <p><b>Vibration</b> MIL-STD-810G, Method 514.6C Table 514.6C-VI. Composite wheeled vehicle vibration exposures figure 514.6C-3 .  MIL-STD-801G, Method 514.6D, Ground Vehicle Category 20, Wheeled/Tracked/Trailer, Procedure I/III</p> <p><b>Shock</b> MIL-STD-810G, Method 516.6, Procedure I, functional Shock, 40g 11ms</p> <p><b>Fungus</b> Analysis of the degree of inertness to fungus growth of the components in accordance with MIL-HDBK-454</p> <p><b>Altitude</b> MIL-STD-810G, Method 500.5, Procedure I (Storage) and II (Operational) Test altitude is 4750m(15000ft) at 57.2Kpa for Operational and 12195m (40000ft.) at 18.8Kpa. for Storage.</p>

Mechanical Data
<p><b>Dimensions:</b></p> <p>Width 220mm, 8.66"</p> <p>Depth in rack 390mm, 15.35"</p> <p>Depth total 420mm, 16.54"</p> <p>Height 88mm, 3.5" (2U)</p> <p>Weight 11.1kg, (24.5lbs)</p> <p>Mounting: Any direction and in 19" rack</p>