ComPact 2400-48 AC/DC

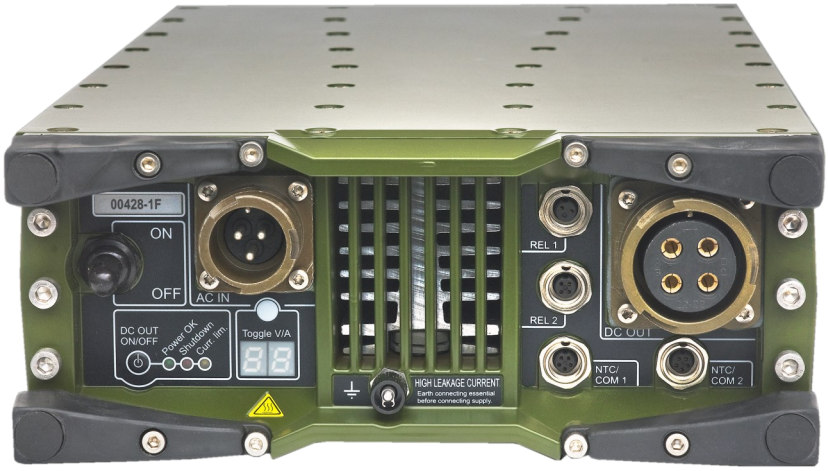
ComPact power supply and battery charger,
99-276 VAC / 48 VDC, 40 A

Power Supplies and UPS

Input: 120/230 VAC, 50/60/400 Hz

Output: 20-65 VDC, 40 A, 2400 W

Part number: P600610



ComPact Family Summary

- PFC
- RS-485 bus
- Active load sharing
- Battery temperature compensated charging
- Stand alone or mounted in 19" rack
- Alarm relay outputs
- RoHS compliant
- IP67

Description

The input current of ComPact is power factor corrected and designed for optimum utilisation of weak power sources such as portable generators. The efficiency is very high due to soft switching technology. ComPact can operate stand alone or be mounted in 19" rack system.

The RS-485 bus can be used for control, monitoring and setup. Detailed status and statistics can be retrieved. The bus is also used for interconnecting multiple units in a redundant or parallel system. The signal connectors provide several signals in addition to the RS-485 bus: alarm relay outputs and input for battery temperature sensor. Temperature compensated charging ensures full battery capacity over the entire temperature range. ComPact can be configured to charge different battery technologies such as Li-Ion, LiPo, lithium iron phosphate and lead-acid. ComPact can be software configured according to customer specification. The firmware is user upgradeable for future battery technologies and facilities. ComPact is protected from overvoltage, overcurrent, short circuit, reversed polarity and over temperature.

Functions

Over Temperature	The unit is protected from over temperature by derating the output current. It shuts down if the temperature continues to rise. The unit automatically starts up again when the temperature drops.
Input Circuit Breaker	The input circuit breaker is for failure protection and is also used as ON/OFF switch.
Alarms	Status signals are fed to separate potential free outputs, and are indicated in separate LEDs.
Display	The display can be toggled between output voltage, output current and alarm/error codes.
Input Voltage	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.
Connectors	AC input: 97B-3102E-16-10P-PCC-622 Amphenol or similar DC output: 97B-3102E-22-22S-622 Amphenol or similar Alarm 1: Binder 09-0404-30-02 Alarm 2: Binder 09-0412-30-04 NTC/COM: 2 pieces. Binder 09-0416-30-05
Grounding	Available in the front
Acoustic Noise	At ambient temperature below 45°C the acoustic noise is 45 dBA.
Frequency	45-430 Hz
Cooling	Forced air by temperature controlled fan

Patented

Electrical Specifications

Input Voltage		99-276 VAC
Power Factor -Load: ≥ 50 %, Vin: 50/60 Hz		Typical: 0.99
Input Current -Load: 2400 W -Vin: 50/60 Hz	Vin: 99 VAC Vin: 120VAC Vin: 230 VAC	≤ 29 A ≤ 23 A ≤ 12 A
Total Harmonic Distortion -Load: 2400 W, Vin: 50/60 Hz		≤ 6%
Efficiency -Load: 56 VDC, 40 A	Vin: 120 VAC Vin: 230 VAC	≥ 88% ≥ 90%
Default Output Voltage		48.0 VDC
Adjustable Output Voltage		20-65 VDC
Default Output Current Limit		42 A
Adjustable Current Limit		3-42 A
Short Circuit Current		≤ setting of current limiter +1 A
Load Sharing		≤ 2 A deviation
Output Voltage Ripple and Noise -Bandwidth: 20MHz		≤ 300 mVp-p
Load Regulation		Typical: 50 mV
Line Regualtion		Negligible
Safety		CE marked

Environmental Specifications

High Temperature

Operational

MIL-STD-810G: Method 501.5, Procedure II, + 60°C

Storage

MIL-STD-810G: Method 501.5, Procedure I, + 71°C

Low Temperature

Operational

MIL-STD-810G: Method 502.5, Procedure II, - 40°C

Storage

MIL-STD-810G: Method 502.5, Procedure I, - 51°C

Temperature Shock

MIL-STD-810G: Method 503.5, - 51 to + 71°C, non-operational

Humidity

MIL-STD-810G: Method 507.5, Procedure II, operational

Vibration

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, Category 20, Ground Vehicles, Wheeled/Tracked/Trailer, Procedure I

Shock

MIL-STD-810G: Method 516.6, Procedure I, functional Shock, 40 g, 11 ms

Fungus

MIL-HDBK-454: Analysis of the degree of inertness to fungus growth of the components

Salt Fog

MIL-STD-810G: Method 509.5, 24 h spray, 24 h dry, 2 times

Altitude

Operational

MIL-STD-810G: Method 500.5, Procedure II, 4750 m at 57.2 kPa

Storage

MIL-STD-810G: Method 500.5, Procedure I, 12195 m at 18.8 kPa

Encapsulation

The power supply is designed to meet the requirements of IP67 and has been tested by immersion in 1 m water for 30 minutes.

Standards

Electromagnetic Interference

The power supply is designed to meet MIL-STD-461G:

CE101, CE102, RE101, RE102, RS103, CS101, CS114, CS115, CS116 and CS118.

Electrostatic Discharge

The power supply is designed to meet the requirements of EN 61000-4-2 for ESD.

Weight and Dimensions

Width	220 mm
Depth in Rack	390 mm
Depth Total	420 mm
Height	88 mm, (2U)
Weight	11.1 kg

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Partnered Supplier

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