

### ComPact 2400-48 AC/DC

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 utilization 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**

<b>Over temperature</b>	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.
<b>Input circuit breaker</b>	The input circuit breaker is for failure protection and is also used as ON/OFF switch.
<b>Alarms</b>	Status signals are fed to separate potential free outputs, and are indicated in separate LEDs.
<b>Display</b>	The display can be toggled between output voltage, output current and alarm/error codes.
<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-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
<b>Grounding</b>	Available in the front
<b>Acoustic noise</b>	At ambient temperature below 45°C the acoustic noise is 45 dBA.
<b>Frequency</b>	45-430 Hz
<b>Cooling</b>	Forced air by temperature controlled fan

Patented

# ComPact 2400-48 AC/DC

## Specifications

### Electrical data

Input voltage		99—276 VAC
Power Factor -load: ≥ 50 %, Vin: 50/60 Hz		Typical: 0.99
Input current	Vin: 99 VAC	≤ 29 A
-Load: 2400 W	Vin: 120 VAC	≤ 23 A
-Vin: 50/60 Hz	Vin: 230 VAC	≤ 12 A
Total Harmonic Distortion -Load: 2400 W, Vin: 50/60 Hz		≤ 6%
Efficiency	Vin: 120 VAC	≥ 88%
-Load: 56 VDC, 40 A	Vin: 230 VAC	≥ 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 regulation		Negligible
Safety		CE marked

### Standards

#### Electromagnetic Interference

The power supply is designed to meet MIL-STD-461E and F: CE101, CE102, RE101, RE102, RS103, CS101, CS114, CS115 and CS116

#### Electrostatic discharge

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

### Environmental

#### 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—+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 (15000 ft) at 57.2 kPa

##### Storage

MIL-STD-810G: Method 500.5, Procedure I, 12195 m (40000 ft) 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 .

### Weight and Dimensions

Width	220 mm, 8.66"
Depth in rack	390 mm, 15.35"
Depth total	420 mm, 16.54"
Height	88 mm, 3.5" (2U)
Weight	11.1 kg, (24.5 lbs)

Patent Pending