

### ComPact 2400 AC/DC

Input: 120/230 VAC, 50/60/400 Hz  
Output: 5-34 VDC, 80 A, 2400 W

### ComPact family summary

MIL-STD-810G, MIL-STD-461G, MIL-STD-1275D  
Power Factor Correction (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.

Part No.	NSN	Description
P600360	6130-25-160-4350	ComPact 2400 AC/DC, Green



### 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 alarm relay 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 and back
<b>Acoustic noise</b>	At ambient temperatures below 45°C the acoustic noise is 45 dBA.
<b>Frequency range</b>	45-430 Hz
<b>Cooling</b>	Forced air by temperature controlled fan

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# ComPact 2400 AC/DC

## Specifications

Electrical		
<b>AC input</b>		
Input voltage		99-276 VAC
Power Factor -load: ≥ 50 %, Vin: 50/60 Hz		Typical 0.99
Input current	Vin: 99 VAC	≤ 29 A
-Load: 2500 W	Vin: 120 VAC	≤ 24 A
-Vin: 50/60 Hz	Vin: 230 VAC	≤ 12 A
Total Harmonic Distortion -Load: 28 VDC, 80 A -Vin: 115/230 VAC, 50/60 Hz		≤ 6 %
Efficiency	Vin: 120 VAC	≥ 88 %
-Load: 28 VDC, 80 A	Vin: 230 VAC	≥ 90 %
<b>DC Output</b>		
Default output voltage		28.0 VDC
Adjustable output voltage		5-34 VDC
Overvoltage protection (OVP)		36.5 V
Default output current limit		83 A
Adjustable output current limit		5-83 A
Short circuit current		≤ Setting of current limiter +1 A
Load sharing		≤ 2 A deviation
Output voltage ripple and noise -Bandwidth: 20MHz		≤ 100 mVp-p
Load regulation		Typical: 70 mV
Line regulation		Negligible
Safety		CE marked

EMC (fully qualified unless stated)	
<b>Electromagnetic Interference</b> MIL-STD-461G: CE101, CE102, RE101, RE102, RS103, CS101, CS114, CS115, CS116 and CS118	
<b>Electrical systems in vehicles</b> MIL-STD-1275D: Imported voltage surge 40 V and 100 V and ripple 14 V	
<b>Electrostatic discharge</b> EN 61000-4-2: ESD	

Environmental (fully qualified unless stated)	
<b>High temperature</b> <u>Operational</u> MIL-STD-810G: Method 501.5, Procedure II, +60 °C <u>Storage</u> MIL-STD-810G: Method 501.5, Procedure I, +71 °C	
<b>Low temperature</b> <u>Operational</u> MIL-STD-810G: Method 502.5, Procedure II, -40 °C <u>Storage</u> MIL-STD-810G: Method 502.5, Procedure I, -51 °C	
<b>Temperature shock</b> MIL-STD-810G: Method 503.5, -51-+71 °C, non-operational	
<b>Humidity</b> MIL-STD-810G: Method 507.5, Procedure II, operational	
<b>Vibration</b> MIL-STD-810G: Method 514.6C Table 514.6C-VI. Composite wheeled vehicle vibration exposures figure 514.6C-3  MIL-STD-810G: Method 514.6D, Category 20, Ground Vehicles, Wheeled/Tracked/Trailer, Procedure I	
<b>Shock</b> MIL-STD-810G: Method 516.6, Procedure I, functional Shock, 40 g, 11 ms	
<b>Fungus</b> MIL-HDBK-454: Analysis of the degree of inertness to fungus growth of the components	
<b>Salt Fog</b> MIL-STD 810G: Method 509.5, 24 h spray, 24 h dry, 2 times	
<b>Altitude</b> <u>Operational</u> MIL-STD-810G: Method 500.6, Procedure II, 4572 m (15000 ft) at 57.2 kPa <u>Storage</u> MIL-STD-810G: Method 500.6, Procedure I, 12192 m (40000 ft) at 18.8 kPa	
<b>Encapsulation</b> IP67: Immersion in 1 m water for 30 minutes .	

Mechanical	
Enclosure	Die cast and machined aluminum.
Surface finish	Paint finish. Surface finish consistent with die casting.
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

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