

### ComPact 2700 AC/DC

Input: 208/230 VAC, 50/60/400 Hz

Output: 5-34 VDC

Maximum intermittent output: 100 A, 2800 W

Recommended maximum continuous output: 83 A, 2500 W

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 RS485 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. The ComPact 2700 is designed for applications where more than 83A/2500W output is intermittently required. It is not recommended to load the ComPact 2700 continuously above 83A/2500W. Please consult Comrod for details.

Part No.	NSN	Description
P600470	6130-25-162-9718	ComPact 2700 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

Patented

# ComPact 2700 AC/DC

## Specifications

### Electrical

#### AC Input

Input voltage	2500 W: 99-276 VAC 2800 W: 111-276 VAC
Power Factor -load: $\geq 50\%$ , Vin: 50/60 Hz	Typical 0.99
Input current -Load: 2800 W -Vin: 50/60 Hz	$\leq 14$ A
Total Harmonic Distortion -Load: 28 VDC, 80 A -Vin: 115/230 VAC, 50/60 Hz	$\leq 6\%$
Efficiency -Load: 28 VDC, 80 A	Vin: 120 VAC $\geq 88\%$ Vin: 230 VAC $\geq 90\%$

#### DC Output

Default output voltage	28.0 VDC
Adjustable output voltage	5-34 VDC
Overvoltage protection (OVP)	36.5 V
Default output current limit	100 A
Adjustable output current limit	5-100 A
Short circuit current	$\leq$ setting of current limiter +1 A
Load sharing	$\leq 2$ A deviation
Output voltage ripple and noise -Bandwidth: 20MHz	$\leq 100$ mVp-p
Load regulation	Typical: 70 mV
Line regulation	Negligible
Safety	CE marked

### EMC (fully qualified unless stated)

#### Electromagnetic Interference

MIL-STD-461G:  
Fully qualified up to 83A/2500W load.  
Designed to meet above 83A/2500W load.  
CE101, CE102, RE101, RE102, RS103, CS101, CS114, CS115, CS116 and CS118

#### Electrical systems in vehicles

MIL-STD-1275D:  
Imported voltage surge 40 V and 100 V and ripple 14 V

#### Electrostatic discharge

EN 61000-4-2  
ESD

### Package Contents

ComPact Power Supply, Information Sheet, Test Certificate.

### Environmental (fully qualified unless stated)

#### High temperature

##### Operational

MIL-STD-810G: Method 501.5, Procedure II,  
80 A / 2400 W: 60 °C  
Automatic derating to 83A/2500W when ComPact is above 60 °C  
(approximately 20 °C ambient at 2500W load)

##### 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-810G: 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 500.6, Procedure II, 4572 m (15000 ft) at 57.2 kPa

##### Storage

MIL-STD-810G: Method 500.6, Procedure I, 12192 m (40000 ft) at 18.8 kPa

#### Encapsulation

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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