ComPact 2400 AC/DC

Power supply and battery charger

ComPact 2400 AC/DC is a compact DC power supply and battery charger 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, with or without backup battery.

NSN 6130-25-160-4350

The ComPact 2400 AC/DC 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 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, external battery temperature sensing and a bus for interconnection of multiple units in a redundant or parallel system. ComPact 2400 AC/DC can be configured to charge different battery technologies such as LI-Ion, NiMH, NiCd and Lead acid. The unit is software-upgradeable for future battery technologies. Temperature compensated charging ensures full battery capacity over entire temperature range. The unit is protected from over voltage, short circuit, over current and over temperature.
ComPact 2400 AC/DC can be software configured according to customer specification.

Functions

Over temperature	The unit is protected from over temperature. The unit derates to 65A at an ambient temperature of 66 ºC, and shuts down at an ambient temperature of 78 ºC, free standing unit. The unit automatically starts up again when the temperature drops.
Input circuit breaker	The input circuit breaker releases if the input current exceeds 35A and the unit shuts off.
Alarms	Status signals are fed to separate potential free outputs, and are indicated in separate LEDs for: Power OK Unit failure Current limit
Display	The display can be toggled between output voltage and output current
Input voltage	When the input voltage is outside 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 (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
Grounding	Available in front
Acoustic noise	At ambient temperatures below 40 ºC the acoustic noise is 45 dBA.
Frequency range	45 - 420Hz

Specifications subject to change without notice, the information in this document does not form part of any quotation or contract

Power division: Comrod A/S, N-1392 Vettre - Norway. Telephone (+47) 66907200. Telefax (+47) 66907201. E-mail: ars@comrod.com
Comrod A/S, N-4120 Tau - Norway. Telephone (+47) 51740500. Telefax (+47) 51740501. E-mail: sales@comrod.com

Rev: 06/01/12

ComPact 2400 AC/DC
Power supply

SPECIFICATION

Electrical data at 50Hz input voltage

Input voltage	99 – 264 VAC
Power Factor (PF)	> 0.95 (typical 0.99)
Input current at max load and 50Hz	28A @ 99VAC 24A @ 115VAC 12A @ 230VAC
Total Harmonic Distortion (THD) @ 28V, 80A 230V, 50Hz	<6%
Efficiency at full load	> 88% @ 115 VAC > 90% @ 230 VAC
Nominal output voltage	28 VDC (adjustable 21.5 – 30,0 VDC)
Nominal output current	80A
Load sharing	Less than 10% deviation with 2 - 10 units in parallel
Output voltage ripple and noise	<100mV p-p, 20MHz band-width
Output voltage regulation	<1,5% zero/max load
Adjustable current limit	5 – 80 Amps
Short circuit current	≤88.0 Amps

EMC

Electromagnetic Interference
The power supply meets the requirements of MIL-STD-461E; Ground Army; CE101, CE102, RE101 RE102, RS103, CS101, CS114, CS115 and CS116

Electrical system in Vehicles
MIL-STD-1275D

Electrostatic discharge
The power supply meets the requirements of MIL-STD-1686 for ESD

Safety
EN 60950

Encapsulation
IP67

Cooling
Forced air by speed controlled fan

Product	Part Number	NSN
Compact 2400 AC/DC	P600360	6130-25-160-4350

Environmental

High temperature
Operation
MIL-STD-810G, Method 501.5, Procedure II , 60ºC
Storage
MIL-STD-810G, Method 501.5, Procedure I, 71ºC

Low temperature
Operation
MIL-STD-810G, Method 502.5, Procedure II, - 40ºC
Storage
MIL-STD-810G, Method 502.5, Procedure I, -51ºC

Temperature shock
MIL-STD-810G, Method 503.5, -51ºC - +71ºC. (Non-operational)

Humidity
MIL-STD-810G, Method 507.5, Procedure II

Vibration
MIL-STD-810G, Methode 514.6C Table 514.6C-VI. Composite wheeled vehicle vibration exposures figure 514.6C-3

Shock
MIL-STD-810G, Method 516.6, Procedure I, functional shock, 15g 11ms

Fungus
Analysis of the degree of inertness to fungus growth of the components in accordance with MIL-HDBK-454

Altitude
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

Mechanical data

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

Specifications subject to change without notice, the information in this document does not form part of any quotation or contract

Power division: Comrod A/S, N-1392 Vettre - Norway. Telephone (+47) 66907200. Telefax (+47) 66907201. E-mail: ars@comrod.com
Comrod A/S, N-4120 Tau - Norway. Telephone (+47) 51740500. Telefax (+47) 51740501. E-mail: sales@comrod.com