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# CON-900WC

# Ultra Capacitor Charger

## Description

This wall mounting DC/DC converter operates from a 24VDC input and provides an isolated and floating output, which can be programmed between 10- 30V. The unit has been designed to recharge and operate with Ultra Caps UPS systems used in critical applications, where uncontrolled loss of output is not an option. The powerful software suite provided with the unit allows the user to monitor the Vset, Vout, Iout converter temperature, UV, OV, OT warning and OT alarm. The following parameters can be set; OVP, UVP, V max, V hold, I limit and V reset. The units are protected to IP 54 and can operate in ambient temperatures of -40° C to + 70° C. The converters can be further ruggedized with the addition of conformal coating and the securing of the larger components. The units are suitable for many applications including Rail, Industrial and Telecom.



- Extended operating temperature range
- Control & monitoring software
- Wide DC input voltage range
- Volt free alarm contacts
- Rugged construction
- Convection cooled
- Stainless steel case

## Technical Data

### General

Electrical Safety EN 60950, VDE 0805 (Overload & Shortcircuit protected)

### Input DC

Nominal Voltage 24 (16 - 32) VDC

### Output (Ultracapacitor Charging)

Nominal Voltage	29.5VDC (10 - 30V programmable)
Recharge Voltage	27.5VDC (17.5 - 29.5V programmable)
Stability	±1%
Efficiency	>85%
Maximum Output Power	900W
Output Current	30A
Current Limitation	Constant current, without disconnection, but temperature limited

### Ultracapacitor Protection

Ultracapacitor Protection Two-stage, redundant and adjustable OVP (Via software) 31V hardware OVP

### Environmental Conditions

Ambient Temperature	-40° C to +70° C, according to EN 50155
Relative Humidity	<75% average per year
Shock & Vibration	According to EN 50155
Amplitude	Below transit frequency: 7.5mm
Amplitude Acceleration	Above transit frequency: 20m/s <sup>2</sup>



## Technical Data (continued)

### Isolation

Input	500V
Output	500V
Input to Output	1500V

### EMC

Burst	According to EN 50121-3-2, 2kV criteria A, direct coupled
Surge	1.8kV/source 100 , 1.0kV/source 2
Conductive HF	3Vrms 1kHz AM, 80%, 150kHz - 80MHz
ESD	8kV air, 6kV contact
Emitted Disturbance Immunity	10V/m 80MHz - 1GHz, 80% AM, 900MHz pulse modulated
Conductive Disturbance Emitted	99dBµV QP 150kHz - 500kHz, 93dBµV 500kHz - 30MHz 20 - 230MHz 47 dBµV/m QP, 230MHz - 1GHz 40 dBµV/m QP (10m measuring distance)

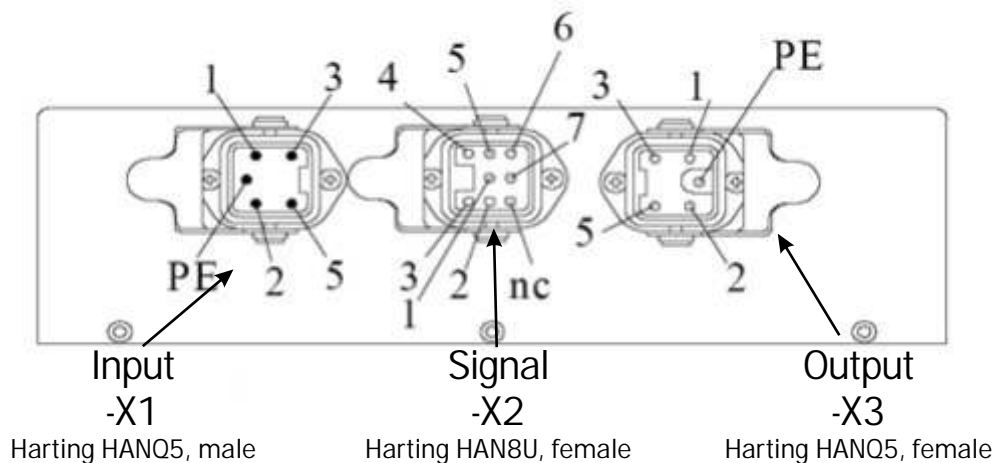
### Signals

Temperature Sensor	(0 - 10VDC full scale) current limited by Poly-Switch 0.1A, RXE 010
Alarm Contact	Potential free contacts, output good for OV, UV and OT

### Mechanical Data

Case Material	Stainless steel
Dimensions	270 x 115 x 255mm (W x H x D)
Weight	Approx. 6.5kg
Classification	IP54
Cooling	Convection via heat sink on wall side
Protection	Overload, short-circuit, OVP, UVP, OT, reverse polarity for input signal
Connections	RS232, Female SUBD 9Pin connector

## Connection Data



### Input -X1

1	Input voltage reference 0V
2	Input voltage reference 0V
3	Input voltage positive +U <sub>in</sub>
5	Input voltage positive +U <sub>in</sub>

### Signal -X2

2	Measurement voltage converter output reference (<100mA)
3	Measurement voltage converter output positive (<100mA)
4	Not connected
5	Not connected
6	Alarm normal open (NO)
7	Alarm normal close (NC)
1	Alarm common (C)

### Output -X3

1	Output voltage reference 0V
2	Output voltage reference 0V
3	Output voltage positive +U <sub>out</sub>
5	Output voltage positive +U <sub>out</sub>