















DCW20 is a microprocessor controlled unit that can perform 2 functions:

- A) DC-UPS rated 960W/20A usable in any system 12...48Vdc
- DC/DC converter (non isolated) rated 960W/20A usable in any combination of IN/OUT voltages 12...48Vdc

For the UPS function it may use 1 battery of 12V, independently of the operating load voltage. For any supply voltages (12...48Vdc) it may use also multiple battery configuration (12...58Vdc).

DCW20 monitors the voltage coming from a DC power supply and in case of power failure a backup battery is supplying the energy to the load. In normal condition the battery is kept charged by an integrated battery charger supporting various battery chemistries.

As a DC/DC converter (no battery present) the load has to be connected to the battery connector. The input voltage is converted to any output voltage as per the set-up (programmable by front keys or communication interfaces).

Main Features

- Digital Power regulation, LCD interface
- Integrated battery charger for 12...48V multi-chemistries batteries with a charging current up to 20A
- Can be operate on super capacitors module
- Battery voltage independent of load voltage
- 20A or 960W rated load
- Multiple protections
- Remote ON/OFF or other remote control functions possible through **INHIBIT** input
- Automatic sensing of input voltage, load current and battery current
- Battery protection against reverse polarity connection and overcurrent
- Battery health monitoring system: measuring battery internal resistance, battery temperature, charge/discharge cycles and Coulomb counter
- User settable maximum backup time
- Auxiliary output with same voltage as battery voltage (5A Max.), protected against overcurrent/shortcircuit
- Modbus over RS-485 and USB interfaces for control and monitoring

Embedded user interface

- 4 keys and 1 color graphic CSTN LCD display
- Allows online device configuration
- Displays the DCW20 status and alarms
- USB communication port for remote monitoring and configuration
- Dry contacts for programmable status signals

■ Suitable for POWERMASTER software

- Connection through USB interface
- Remote monitoring and configuration
- Firmware upgrade
- Same functionalities of the embedded user interface with the ease of
- available for Windows and Android

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TECHNICAL DATA

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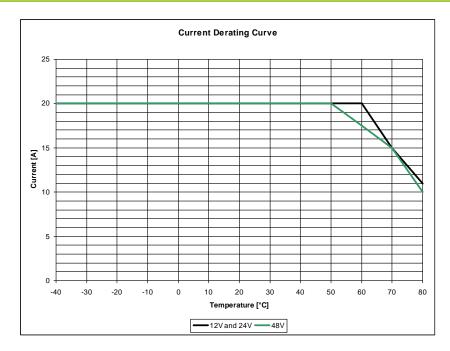
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IN/Battery/OUT Connection terminals	2.5mm², screw type pluggable (2412AWG)
Auxiliary connection terminals	Up to 0.5mm², Fast pluggable type (20AWG)
Temperature sensor connector	Friction lock connector
Communication interface connector	Mini USB-B type
Case material	Aluminum
Weight	0.50kg
Size (W x H x D)	54.0 x 115.0 x 110.0mm

- Start-up type tested: 40°C, possible at nominal voltage with load deration.
 For temperature ≤ 20°C the LCD is not operating, but the unit will operate correctly.

- For more details, performance and descriptions regarding all parameters not indicated in the above table, please refer to the user manual downloadable from www.nextys.com
- Technical parameters are typical, measured in laboratory environment at 25°C, 24Vdc input and 24V lead acid battery, at nominal values, after minimum 5 minutes of operation.
- Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.
 Data may change without prior notice in order to improve the product.





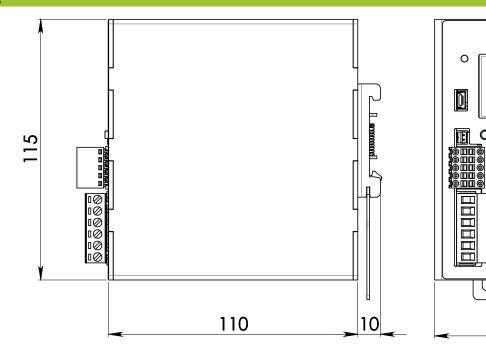
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DIMENSIONS



CONNECTION



IN/Battery/OUT Connection:

IN: (connect to power supply)

- + = Positive DC
- - = Negative DC

Battery: (connect to battery)

- + = Positive DC
- - = Negative DC

OUT: (connect to load)

- + = Positive DC
- - = Negative DC

Auxiliary Connections:

RL1 / RL2: (programmable dry contact)

- RL1 = NO
- RL2 = NO
- RL COM = COM

Modbus: (over RS-485, 2 wire interface)

- MBUS A = RX/TX
- MBUS B = RX/TX
- GND = Common

INHIBIT: (5...30Vdc)

- INH+ = Positive DC
- INH- = Negative DC

AUX: (12...48Vdc not regulated 5A Max.)

- AUX + = Positive DC
- AUX = Negative DC

T SENSE: (remote temperature sensor for battery charging)

Optional WNTC-2MT

Mini USB-B Type



- 1 = VBUS (+5V)
- 2 = Data (D-)
- 3 = Data (D+)
- 4 = Not connected (ID)
- 5 = GND

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