

### DCU20 – 20A DIN Rail High Performance DC-UPS

- CPU controlled, LCD interface
- Multiple user settable parameters
- BI VOLTAGE: 12 or 24Vdc
- Battery Chemistry: Lead, Ni-Mh, Li
- Battery charging current: Max. 5A
- Output Current: Max. 20A
- Multiple protections
- Remote shut down
- Cold start
- Monitoring and setup with **POWERMASTER** PC application
- PC shutdown management possible



### TECHNICAL DATA

DCU20	
<b>INPUT DATA</b>	
Rated input voltage	12Vdc or 24Vdc (range 10...29Vdc)
Rated input current	20A
No load power consumption	< 3W
<b>BATTERY SECTION</b>	
Rated battery voltage	12Vdc or 24Vdc - Other voltages possible by request
Battery chemistries	Lead-Acid / NiMH (NiCd) / Li-ION (LiFePO <sub>4</sub> )
Maximum battery charge current	5A
Allowed battery capacity	up to 150Ah (charge current @ 0.1C)
Maximum battery current	20A (up to 35A for 5s)
Load to Battery switch time	< 5μs
Battery protection	<ul style="list-style-type: none"> <li>• Protected against overcurrent</li> <li>• Deep discharge and reverse polarity</li> </ul>
<b>BATTERY HEALT MONITOR</b>	
Battery inter. resistance range	1mΩ...300mΩ (using Kelvin connection)
Additional monitoring functions	<ul style="list-style-type: none"> <li>• Coulomb counter</li> <li>• Battery temperature through optional 10kΩ NTC sensor</li> <li>• Battery operating time since installation</li> <li>• Number of cycles</li> </ul>
<b>USER INTERFACE</b>	
1.5 inch color graphic LCD	Used to indicate the unit's status and the access the configuration menus
4 buttons	Used to program the unit and to access various menus
Red LED	<ul style="list-style-type: none"> <li>• <b>Constantly on:</b> generic failure on the system, details on the LCD</li> <li>• <b>Blinking:</b> battery backup function active</li> </ul>
2 Dry contacts (relays) rated 30V/1A	<ul style="list-style-type: none"> <li>• Indicates that the unit is ready to operate (Ready)</li> <li>• Indicates a battery failure by toggling at 1Hz</li> <li>• Indicates that the load is operating from the battery (Backup)</li> </ul>
USB interface	<ul style="list-style-type: none"> <li>• Mini USB connector used to interface the unit with a PC</li> <li>• Temperature sensor WNTC-2MT (optional)</li> </ul>
<b>GENERAL DATA</b>	
Efficiency / Power loss at full load (on power supply)	> 97.5% / < 13W
Efficiency / Power loss at full load (on battery)	> 96.5% / < 18W
Battery charger efficiency / power loss	> 90% / < 16W
Maximum backup time	User programmable, up to battery deep discharge threshold
Operating temperature	- 40°C...+ 60°C (for T < -20°C the LCD is not operating, but the unit will operate correctly)
Storage ambient temperature	- 20°C...+ 85°C
Isolation against enclosure	750Vac
Cooling method	Natural convection cooling
Standards & Approvals	EN60950 (reference), CE marking
EMC Standards	EN61000-6-2, EN61000-6-4
Protection degree	IP20 acc. to EN60529
IN / Battery / OUT Connectors	2.5mm <sup>2</sup> , screw type pluggable (24...12AWG)
Auxiliary contacts connectors	0.5mm <sup>2</sup> , pluggable (28...20AWG)
Temperature sensor connectors	Friction lock connector
USB Connector	Mini USB connector
Case material	Aluminum
Approx. Weight	0.5kg
Size (W x H x D)	54 x 115 x 110mm
Mounting rail	IEC 60715/H15/TH35-7.5(-15)
Rail mounting information	Vertical, allow 10mm spacing between adjacent items