

## Input

Input voltage range 85- 265VAC, 40-70Hz (other frequencies possible. Please ask for)  
 Inrush current appr. limited by 5Ω - NTC

at Vin:

230VAC 46A

115VAC 23A

Fuse 20 AT or MCB 20A characteristic K externally

No load input current appr.

at Vin:

230VAC 100mA

115VAC 160mA

Switch on delay time 2s

Hold up time >8ms (typ.10ms) at nominal output load

Turn on >80VAC

Turn off <82VAC / >270VAC

Spikes acc. EN 61000-4-5, Class 3

Bursts acc. EN 61000-4-4, Level 3

## Output

Output voltage for 48VDC battery (programmable by factory from 48VDC to 60VDC depending on battery type)

Output current 13ADC

Charging characteristic programmable by factory for several application (for example temperature-controlled characteristic, boost charge and other)

Line regulation,

Load regulation ±2%, measured directly at the connection terminal

Ripple < 500mV p-p typ without battery

Response time typ. 2ms

Load transient 10-100-10% typ. 6%

On/off overshoot none

Overload protection electronically

Over voltage protection > 66VDC switch off, not automatic return, no effect on external over voltage

Sense lines internally connected (optional on connector)

Parallel-/redundant Connection active ORing decoupling.

Active current sharing using the active current sharing in a parallel connection, the communication between the units is done by the use of a current share bus. Thereby a current symmetry off < 5% Iout nom. can be achieved. It's possible to connect up to 8 units in parallel.

LED`s the green **LED Uin** at front is lightning if input voltage is ok.,  
 (the LED is flashing if input voltage is ok. but the primary inhibit is open)  
 the green **LED Uout** at front is lightning if output voltage is ok.,  
 (the LED is flashing if input voltage is ok. but the 24VDC inhibit is active)  
 the red **LED Failure** is lightning if unit fails (see description alarm)

Alarm Signals over potential free relay contacts NOC/NCC  
 rating max. 250VDC; 0,5ADC or 264VAC; 3AAC  
 interface IO-Link optional  
 (alarm by failures: input voltage out of tolerance, overtemperature,  
 internal over voltage (OVP active), overload at output, unit fails).

Battery and -circuit at startup and when battery current is lower than the defined value for 2 hours, output voltage is increased to a higher defined value for 1 second (no alarm if no other error is detected)  
 - if charging current now does not rise, alarm is set.  
 - if charging current rise for at least 0.5 sec. the alarm output is reset.  
 the defined values for the current are depending from type of unit

## Inhibit

- primary  
for turn on the unit, contacts 3 and 4 on connector X1 must be closed by switch or wire.  
(Connection is made by factory. For use primary inhibit, remove the connection and add for  
example a switch)

### Attention

no galvanic isolation, **connected with Input,**  
On / Off levels            contacts 3 and 4 closed - unit "On" output voltage is normal  
   contacts 3 and 4 open - unit "Off" out voltage 0VDC

-Inhibit 24VDC (Connector X2)

digital input, Unom. 24VDC  
galvanic isolated 750 VAC and 1000 VDC permanently  
connector                    2-wire  
on / off levels                signal "0": 0-5VDC; output voltage is normal  
   signal "1": 15-30VDC; output voltage 0VDC  
Input impedance            1200Ω, input current max 25mA

## General Data

Operating temperature        -20°C to +55°C  
Current derating                automatically from +55°C to +75°C about 2,5%/°C with a free convection.  
Storage temperature          -40°C to +85°C  
Humidity                            75% without condensation  
Efficiency  
at nominal load                  >90%  
Power dissipation                max.85W  
Over temperature protection    shut off, at hot spot off about 110°C. Automatically restart after cooling down.  
Construction                    acc. EN 61010, SELV  
RFI interference                 acc. EN 55011"A"  
EMC / CE                         acc. EN 61000-6-4, EN 61000-6-2  
Grounding the input and/or output potentials, connecting input to output, may cause changes  
in EMC or ripple levels.  
Protection class                 I acc. EN 61140  
Case                                 for chassis mount IP 20  
Connection                        plug-in terminals on front  
Weight                               app. 7,5kg