

## 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 220VDC battery (programmable by factory from 220VDC to 280VDC depending on battery type)
Output current	2,5ADC
Charging characteristic	programmable by factory for several application (for example temperature-controlled characteristic, boost charge and other)
Line regulation,	±2%, measured directly at the connection terminal
Load regulation	
Ripple	<22500mV 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	> 300VDC 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% lout nom. can be achieved. It's possible to connect up to 8 units in parallel.
LED's	the green <b>LED Uin</b> 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 <b>LED Uout</b> 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 <b>LED Failure</b> 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

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