Features:

- Automatic protection: overload, short circuit, battery deep discharge
- Battery hot swapping
- Work without battery as power supply
- Absence output voltage drop-down during switch to battery and back
- LED indication for Power-ON
- Relay information outputs
- Maximum charge current 2A/5A (selecting by switch)
- Recommended battert capacity 17..100 Ah

SPECIFICATION

	Model name	UPS 300W Simple
Output	DC voltage (AC mode)	13,8 V (adjust. 12-14 V)
	DC voltage (Battery mode)	10,0..13,8 V
	Voltage ripple and noise	≤150 mV
	Battery maximum charge voltage	13,8 V
	Battery low voltage	10,5±0,5 V
	Rated current	16 A
	Maximum current (AC mode)	17 A
	Maximum current (Battery mode)	18 A
	Battery charge current	2A/5A (selecting by switch)
	Battery sustaining current	20 - 100 mA (depends of battery capacity)
	Recommended battery capacity	17..100 Ah
	UPS self consumption (AC absent)	≤110 mA
	Power source efficiency	≥86%
Input	AC Voltage range	90 - 130 VAC/180 - 264VAC (switch)
	No load power consumption	≤6 W
	Frequency range	47 - 63 Hz
Protection	Short circuit in load	Yes
	Overload	Yes
	Battery deep discharge	Yes
	Wrong polarity battery connection	Works only when the AC voltage is off
Indication	Green LED	'ON' - DC output voltage OK
Info outputs	Type	Relay (30V, 1A max.)
	AC present	Short - 'AC present' / Open - 'AC absent'
	Battery voltage	Short - battery voltage <11V / Open - battery voltage >11V
Safety	Withstand voltage I/P-O/P	1.5kV / 60 s / 5 mA
	Withstand voltage I/P-FG	1.5kV / 60 s / 5 mA
	Withstand voltage O/P-FG	0.5kV / 60 s / 5 mA
Others	Working temperature	-20..+60 °C
	Storage temperature	-20..+85 °C
	Dimension, mm	215x115x50
	Weight	0,9 kg
	Warranty period	2 years

MECHANICAL SPECIFICATION

Terminal Pin No.Assignment *(CN1)*

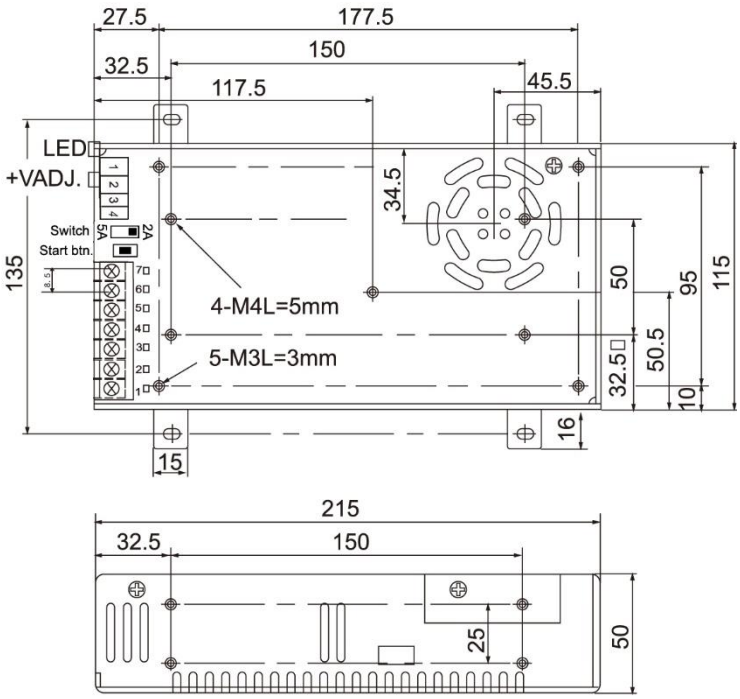
Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	Bat-	7	DC out −V
2	AC/N	5	Bat+		
3	FG ⏚	6	DC out +V		

Alarm Output Connector(CN2) : JST B4B-XH or equivalent

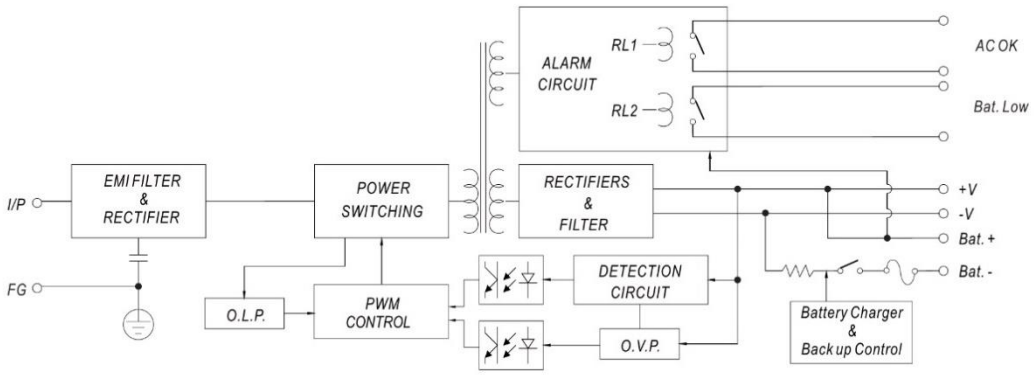
Pin No.	Assignment	Mating Housing	Terminal
1 2	AC OK	JST XHP or equivalent	JST SXH-001T-P0.6 or equivalent
3 4	Bat. Low		

Battery charge current selection switch (Switch)
'2A' - maximum charge current 2A
'5A' - maximum charge current 5A

Start button - press the button shortly (<1 sec.) to connect battery if AC absent



BLOCK DIAGRAM



ATTENTION !

1. Use only good quality batteries with a nominal capacity of at least 17 Ah. The maximum recommended battery capacity is 100 Ah.
2. The unit provides power to the load with high currents (up to 25A in overload mode), so use wires for connecting the load, as well as a battery of the appropriate section. The recommended section of copper wire is at least 2.5 mm2.
3. For batteries with a capacity of 17..50 Ah, the battery charge current switch must be set strictly to the "2A" position. For batteries 50..100 Ah, the switch can be set to the "5A" position (it is allowed to set the switch to the "2A" position, while the full charge time increases). SETTING THE CHARGING CURRENT HIGHER THAN THE PERMISSIBLE MAY RESULT IN BATTERY FAILURE TO THE EXTENT TO MECHANICAL DESTRUCTION DUE TO INCREASED GAS FORMATION INSIDE THE BATTERY!

RECOMMENDATIONS FOR SELECTING THE BATTERY CAPACITY

The choice of battery capacity is usually associated with the required time of equipment work, in the absence of mains voltage. It should be borne in mind that the nominal capacity (C) indicated on the battery is equal to the capacity that the battery gives out during a 20-hour discharge to a voltage of 1.75 V per cell. For a 12-volt battery containing six cells, this voltage is 10.5 V. For example, a battery with a nominal capacity of 7 Ah provides operation for 20 hours at a discharge current of about 0.35 A. If the discharge current differs from 20- hourly, then its real capacity will differ from the nominal one. An approximate dependence of the battery discharge time on the load current is shown in Fig.1. For example, a battery with a nominal capacity of 17Ah, when discharged with a current of 17A, will work for about 30 minutes. This is true for a quality new, fully charged battery, at an ambient temperature of about 20^0C. In addition, one should take into account the own consumption of an uninterruptible power supply unit (UPS), which also requires part of the energy to power the electronic components. The battery charge current should be about 0.1-0.2 C.

Fig. 1