

**12V and 24V versions**

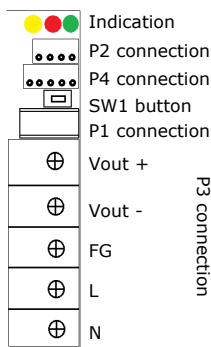
- Provides emergency power when AC input power source fails
- 3 x LED status indicator
- Additional external indication for the box
- Charge voltage thermal stabilization
- Miniature aluminum enclosure, plastic or metal box
- Disconnects battery from load if battery voltage below 10.6V
- Battery hot swapping
- Without battery operates as DC Power supply
- Built in undershoot protection
- 4 X status outputs (bare collector)
- Pulse battery charging
- Battery connection control

Specification:

	Model	UPS 30W	UPS 45W	UPS 75W
Output	Output voltage (mains mode)	14.1V / 28.2V		
	Output voltage (battery mode)	10.2V-13.8V / 20.4V-27.6V		
	Battery charge voltage	13.8V / 27.6V (battery charging voltage thermal stabilization)		
	Battery cut-off voltage	10.4V-10.6V / 20.8V-21.2V		
	Load output current	2.0A/1.0A	3.0A/1.5A	5.0A/2.5A
	Max output current (mains mode)	3.0A/1.5A	4.5A/2.25A	7.0A/3.5A
	Max output current (battery mode)	4.0A/2.0A	5.5A/2.75A	7.5A/3.75A
	Battery charge power	8W/6W	10W/8W	12W/10W
	Battery/output voltage loss	0.15V (max current)		
	Battery charge sustaining current	20-100 mA (depends on battery capacity)		
	Recommended battery capacity	7Ah	9-12Ah	9-18Ah
	Output voltage noise and ripples	≤40mV	≤50mV	≤60mV
	Primary source efficiency	87%		
Input	Voltage range	86-264VAC, 110-360VDC		
	Frequency range	47-63 (400) Hz		
	Open-circuit power	≤1.0W		
Indication	Yellow LED	ON — 220V mains available, blinks - protection ON		
	Red LED	ON — battery voltage below 12.8V, blinks - battery is unplugged		
	Green LED	ON — voltage availability on power supply output		
Safety & EMC	Confirmed safety standards	IEC61000-3-2:2004, EN61000-3-3:2004, EN55013:2004, EN55020:2003, IEC60065:2009		
	Input/output breakdown voltage	3000V/60s/5mA		
	Input/ground breakdown voltage	1500V/60s/5mA		
	Output/ground breakdown voltage	500V/60s/5mA		
	Insulation resistance (input/output, input/ground, output/ground)	100MΩ, ±500V		
Others	MTBF	150 000 hours		
	Warranty	3 hours		

BOX	height, mm/inch	width, mm/inch	depth, mm/inch	weight, g/lb
Metal 18Ah	310/12.2	200/7.87	80/3.14	1734/3.8
Metal 7Ah	230/9.06	180/7.09	70/2.76	1190/2.6
Plastic 7Ah	210/8.27	180/7.09	105/4.13	472/1.04

Jacks pinout, indication elements



P2 connection

External indication (0.8" pin step),
 from the board edge:

- 1 - Vout -
- 2 - GREEN LED pin
- 3 - RED LED pin
- 4 - YELLOW LED pin

P4 connection

Information outputs (bare collector) (0.8" pin step),
 from the board edge:

- 1 - Vout -
- 2 - Battery voltage is below 11V - transistor is closed
- 3 - 220V Mains availability - transistor is open when mains is available
- 4 - Voltage availability on ps output - transistor is open when there are 12V on ps output
- 5 - Battery charge/power problem - transistor is closed in case of short circuit, battery polarity reversal or line break
- 6* - Vout +

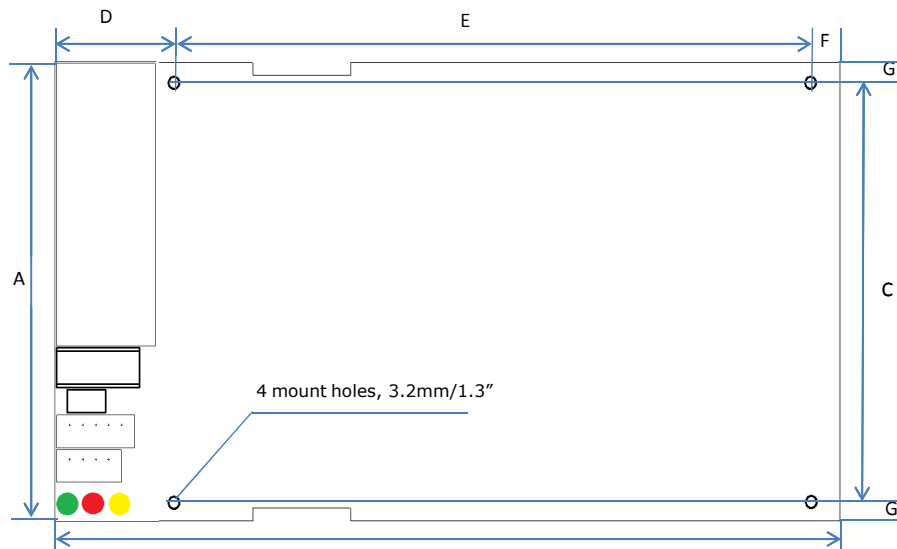
SW1* button is used to turn ON the power supply connected to battery without mains

P1 connection is used to plug in battery

P3 connection* is the main power connection, pin description is on drawing

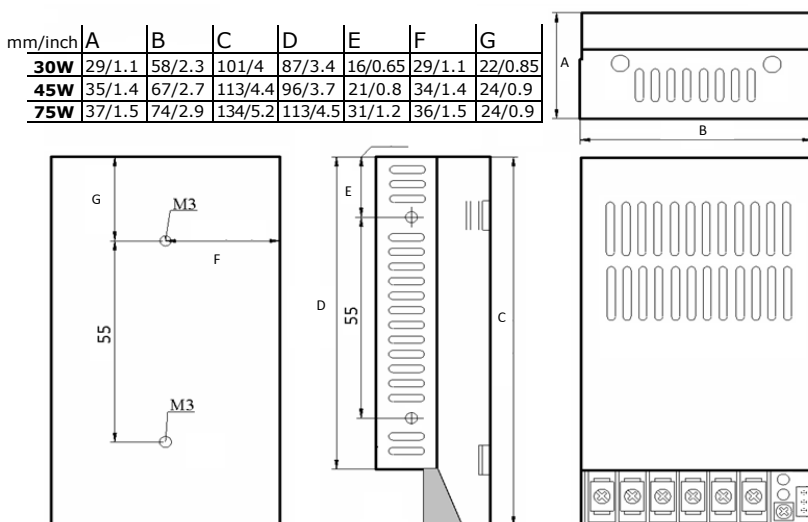
*P3 connection of **45W** model is equipped with an additional info pin #3 from P4 connection

Dimensions and landing places. OPF model

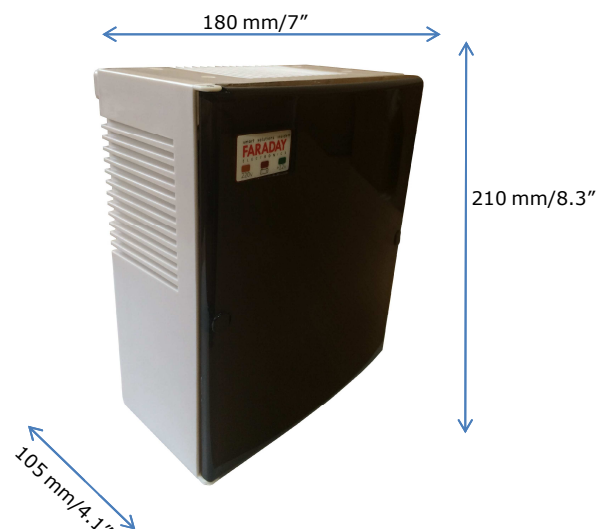


(mm/inch)	30W	45W	75W
A	55.5/2.2	65/2.6	70/2.8
B	97.5/3.8	107/4.2	128/5
C	46.9/1.9	57.5/2.3	63.5/2.5
D	26.5/1	17.5/0.7	18.5/3.1
E	66.5/2.6	65/2.6	103/4.1
F	4.5/0.2	24.5/0.96	5/0.2
G	4.3/0.2	3.5/1.4	3/0.12

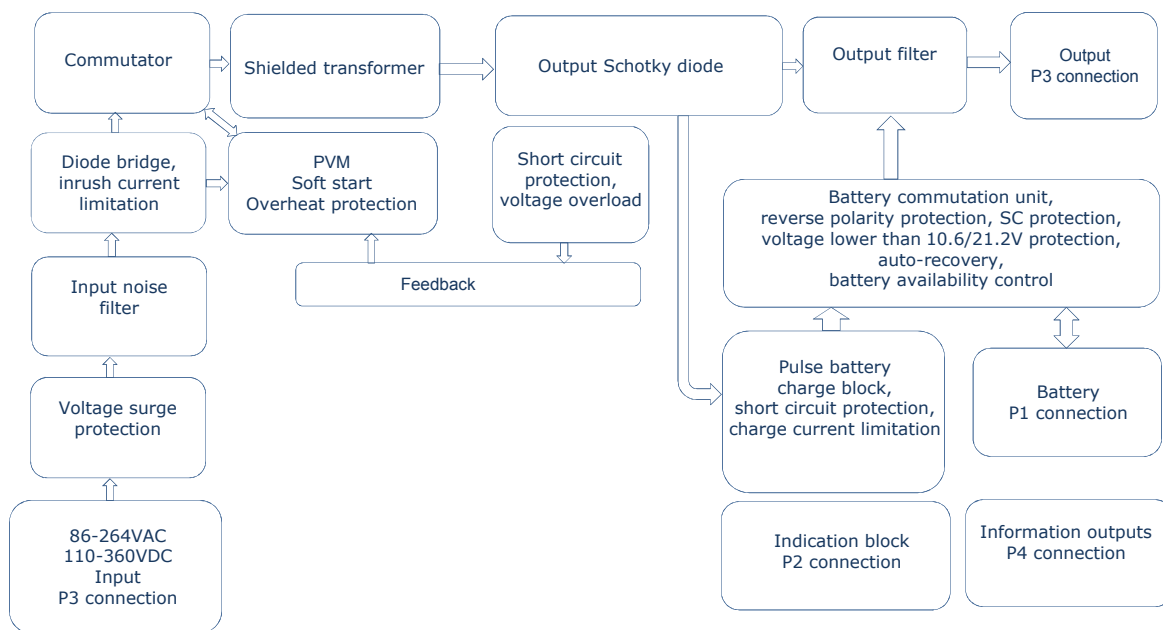
Model Simple, aluminium housing



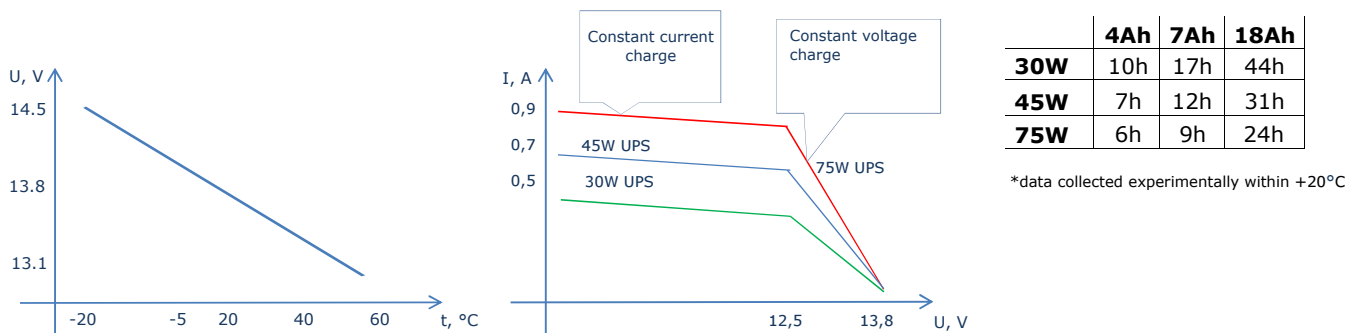
Plastic BOX



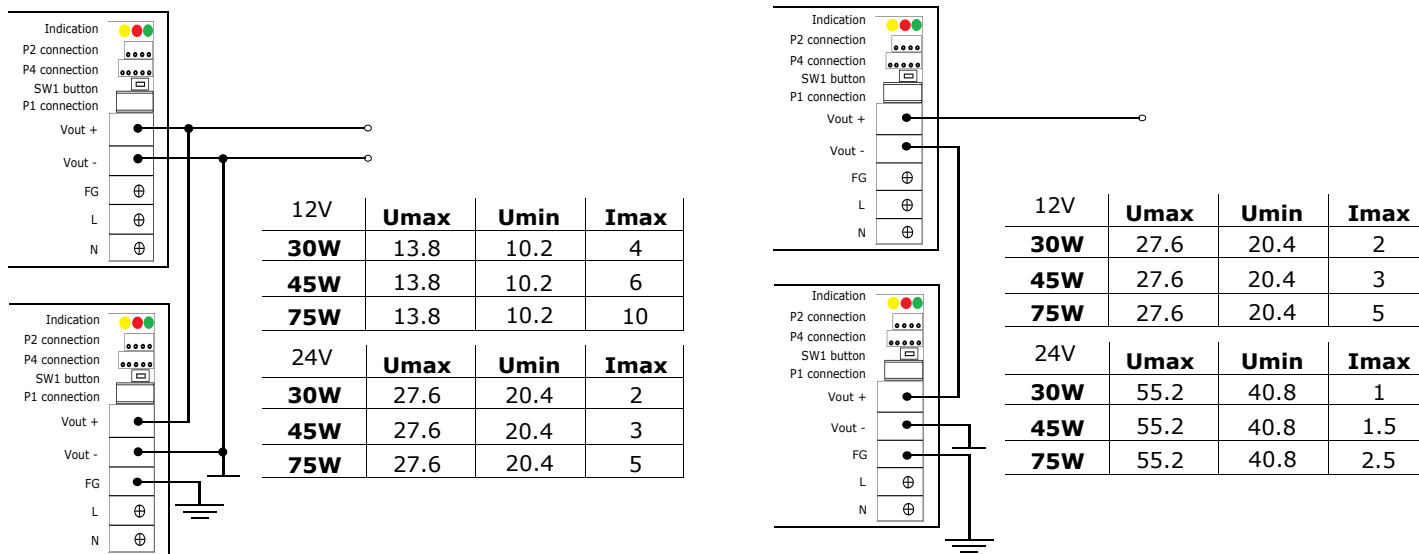
UPS 30W, UPS 45, UPS 75W Uninterruptible Power Supply flow sheet



**Battery charge voltage vs ambient temperature plot,
 battery charge curve, approximate charge time for batteries of different capacity**

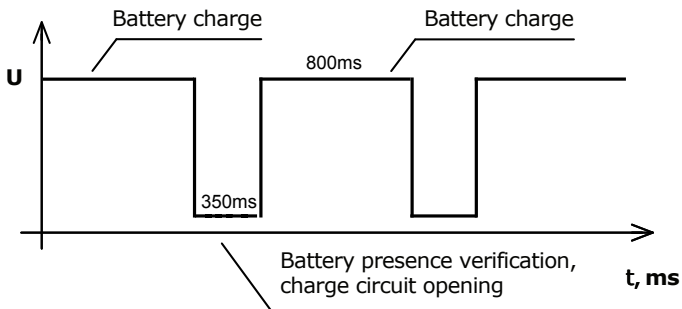


12V & 24V models power supply characteristics in parallel and series connection

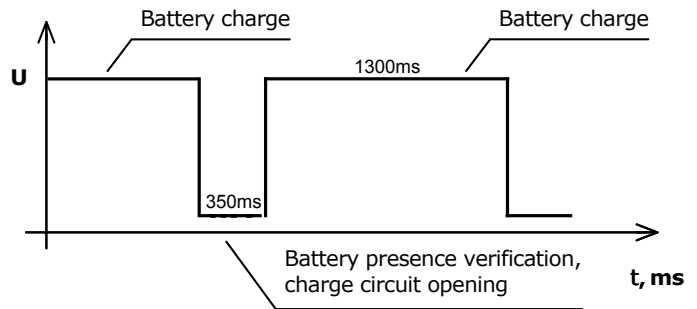


Battery state information pin output in case of short circuit, line break or reverse polarity connection

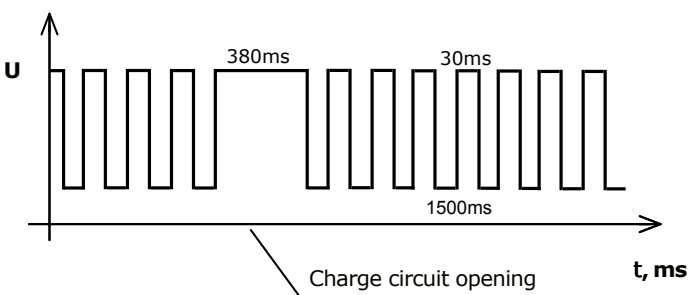
Line break, battery absence (under load)



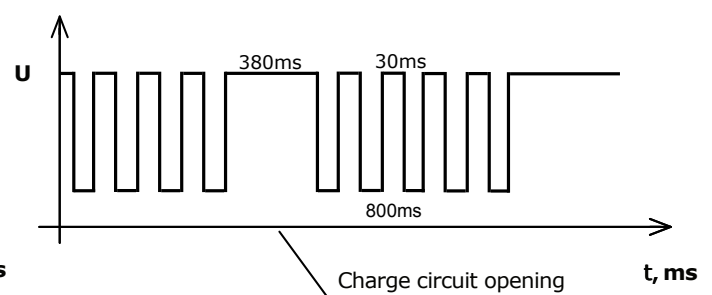
Line break, battery absence (without load)



Reverse polarity, SC (under load)



Reverse polarity, SC (without load)



Operating manual, power supply specification and functions

When connecting the power supply first connect mains, then load. Connect the battery after there is AC power at the input of power supply. At mains power supply automatically charges the battery up to 13.8V/27.6V, after battery is full charged current drain will reduce to 10-50mA depending on battery type and capacity. In case of short-circuit the battery cells or voltage slump (due to an internal failure) below 9V battery will disconnect from the power supply, which switches to overload protection mode -relay will turn ON/OFF with 30-50Hz frequency. In case of battery short circuit or reverse polarity connection power supply will switch to automatic recovery protection mode.