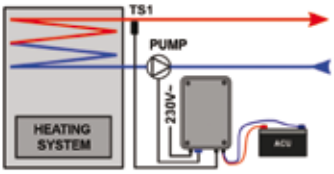
BACK-UP POWER SUPPLY FOR HEATING SYSTEMS V-PI

- Full value sinusoid output 230V/50Hz
- Intelligent recharging of batteries
- Load control
- Overload and overheat protection
- Back-up power supply also for electric pumps
- Possibility for connecting of external temperature sensor
- Possibility for connecting of another external input
- Possibility of connecting of V-GSM gate
- Possibility of individual set up

Description:



V-PI is a series of back-up supply power resources primarily designed for supplying circulation pumps for heating systems during power cuts. In the normal regime the circulation pumps are supplied from the grid and the device only checks up batteries and charges them occasionally. When the power cut occurs the device switches on the inverter which replaces the grid for a needed period. Time in which the device is able to supply energy depends on energy input of circulation pumps and on battery characteristics. When there is a power cut the device controls accumulator performance and load on the input and according to that it switches on, reduces or switches off the inverter.

Basic technical data

V-PI-	06xx	10xx	15xx	30xx	
Output	60VA	100VA	150VA	300VA	

	xx12	
Nominal input voltage	12 VDC	1)
Charging starts at	12,8 V	
Charging sops at	14,4 V	

Output voltage	230 V / 50 Hz ± 15%	2)
Scale of working temperatures	0 - 55 °C	
Size [h x š x d]	335 x 240 x160 / 235 x 290 x 115 mm	
Weight	cca 2,5/3,5 kg	3)

Recommended battery capacity	12Ah / 40VA	18Ah / 60VA	24Ah / 100VA	36Ah / 150VA	4)

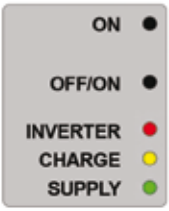
1) Battery voltage
2) Plastic / metal box
3) Without battery – plastic 150W / metal 300W box
4) Orientation values for a given input of pumps and two hours back-up power supply.

Description:

Back-up power supply system V-PI is in its basic composition is connected with the grid power supply 230V/ 50Hz by a flex cable and with the circulation pump. Battery is according to its size connected internally (up to 18Ah) or externally - through outside cables - when battery is bigger.

For the inverter switch of function in the case that the output temperature of the heater fells under the set- up level and when the heater is not working and it is not needed to discharge the battery any more, it is necessary to ad an external sensor to the back up power supply device. Inverter switches of by itself also when there is no load on the output.

In the normal situation output relays are connected to the grid and circulation pumps are supplied directly from the grid. The device controls status of the battery and when the voltage in it drops under the set up level it starts its charging. (Yellow LED indicates charging). When the battery is charged the indicator switches of.



When the power cut occurs the device waits approx 5 seconds for power supply recovery. Red LED switches of and the sound indicator switches of also. Then only the device switches on and output relay is connected to the inverter and the inverter is switched on. A sinusoid voltage of 50Hz is then provided by the device. When the grid voltage is provided – recovered again the inverter works for another 5 seconds until it switches of. Red LED switches of also and the sound indicator stops bleeping. After this time device waits for another1. second and only then connects the output relay to the grid. Device then returns into its normal regime including battery charging.

Device has two control buttons and three signalizing LED. Upper switch (ZAP.) allows the device to switch on. It allows it also when there is no voltage in the grid. When another button is pushed shortly (VYP./ ZAP). the device disconnects the inverter. When the button is pushed for longer (approx. 3 seconds) the device is switched of completely.

Some parameters (e.g. load control, switch-of of the sound indicator) can be adjusted by the software set up which also enables set up of a connected GSM port.

Utilization of V-GSM-SI for transmitting of warning messages

When a GSM port V-GSM-SI is connected to the back up power supply the device, it is possible to set up monitoring of several characteristics of it and to send them up to 8 telephone numbers. When for example power cut occurs SMS warning message can be sent to the responding telephone number.

At present following events can be monitored:

- **Power cut / Power recovery**
- **Low battery voltage**
- **Overload of the back up power supply resource**
- **High temperature of the back up power supply resource**