SHURflo Pump Controller

LCB-GO in Weatherproof Box

Description

The SHURflo "LCB-GO" pump controller is a DC power converter designed as an interface between a DC (Solar)-Pump (e.g. SHURflo 9300 series) and a DC power source, like solar panels or wind generators. The main function of this controller is to maximise the daily water output while providing protection for the pump.

The sold state controller will protect the pump system and give trouble free service for many years. When used in a solar pumping system (directly connected to the solar power), it will protect the pump from over voltage and over current conditions; it will also provide current boosting in low sunshine (radiation) conditions.

The manual will show you how to make the connection for your particular system configuration and the wiring diagram is given.

Features

- Current Boosting for the matching-the-load requirements of the pump motor
- Voltage limiting for pump protection
- Remote float switch circuit
- Weatherproof box
- On/Off Toggle Switch

Specifications

Nominal Input Voltage	24 V DC
Max Input Voltage	45 V DC (open circuit)
Start Up Voltage	25 V +/- 2%
Output Voltage Limit	28 V
Max Power Consumption	150 W
Max Output Current	5 A
Power Consumption	25 mA
Ambient temperature	-10℃ to +45℃
Short Circuit Protection	20 seconds
IP rating of Box	IP55

Installation

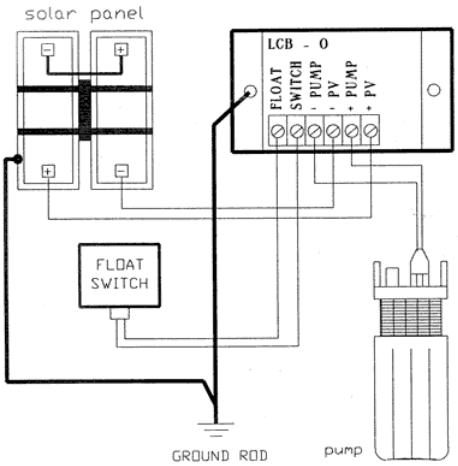
- Find a dry and shady spot for your controller (e.g. under the solar panel).
- Mount the weatherproof box with the switch and cable glands facing downwards.
- Connect the PV-panel cable while covering the solar panels against sunshine (radiation).
- Connect the pump cable.
- If a float switch is required, connect its cables to the float switch terminals. The existing switch can stay in place.
- Double-check your wiring before you remove the covers from the solar panels.

Power Matching of the Controller

For use on panel direct systems, the LCB Pump Controller is set to keep the voltage constant around the maximum power point of the panels, and matching the electric requirements of the pump. The purpose for the matching is to maximise the daily water output of the solar pumping system.

Terminals

- Float Switch On/Off circuit to turn the pump on and off (shorting the two terminals will turn the pump off)
- PUMP-(OUT) Negative wire from the pump
- PV- (IN) Negative wire from the PV array
- PV+ (IN) Positive wire from the PV array
- PUMP+(OUT) Positive wire from the pump



RAINBOW POWER COMPANY LTD

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1 Alternative Way (PO Box 20240) Nimbin NSW 2480 Australia
tel: (02) 6689 1430 fax: (02) 6689 1109
international: +61 2 6689 1088 international: +61 2 6689 1109
email: sales@rpc.com.au website: www.rpc.com.au
A.B.N. 74 003 323 420 Lic:198555C (NSW), 69172 (Qld)

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