

SOLAR PUMP CONTROLLER

Transformer Less Solar Pump Controller



12

Months Warranty

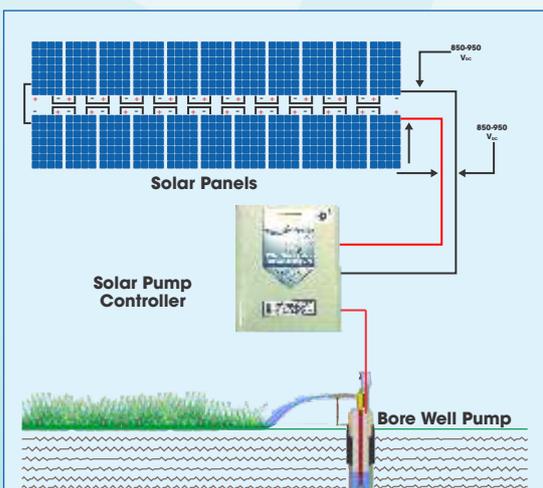
ETIPL (Elcomponics Technologies India Pvt. Ltd.) DSP based 3-Phase Solar Pump Controller with Inbuilt MPPT and VFD Suitable for Pumps upto 10 HP.

Model	Neer x _{10i}	Neer x _{7.5i}	Neer x _{5i}	Neer x _{3i}	Neer x _{2i}	Neer x _{1i}
Power Rating	10HP	7.5HP	5HP	3HP	2HP	1HP
Input Voltage Voc	760-880	760-880	490-750	440-670	290-540	220-540
Input Voltage Vmp	620-720	620-720	400-620	360-550	240-440	180-440
3-Phase Output Voltage	380 Vac	380 Vac	380 Vac	230/380 Vac	160/230/380 Vac	110/230/380 Vac
Frequency	10-60 Hz	10-60 Hz	10-60 Hz	10-60 Hz	10-60 Hz	10-60 Hz

OTHER KEYFEATURES

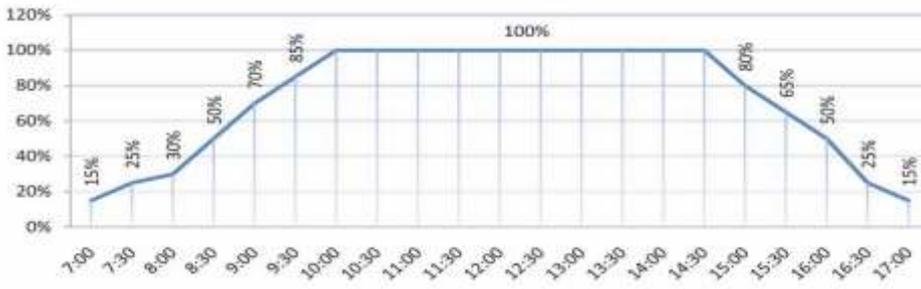
- Nature Air cooling, IP54 encloser
- Product Dimension: (LXDXH=52x42x36cm)
- Mc4 Connector for Pv input
- Operating Temperature – 0~55°C
- Pump Control Units Efficiency: > 95%
- Weight : 12kg Approx.
- Suitable for any type of 3- Ph AC pumps/motors
- Optional manual change over to switch between Solar & Grid input on special request
- 5-9 hours continuos working as per sun light availability
- No Batteries needed

Suggested Solar Input



Motor Power	Solar Panel (in Wp)			
	Depth Upto 100 ft	Depth Upto 250 ft	Depth Upto 400 ft	Depth Upto 500 ft
1 hp	800 W	1000 W	1100 W	1200 W
2 hp	1600 W	2000 W	2200 W	2400 W
3 hp	2400 W	3000 W	3300 W	3600 W
5 hp	4000 W	5000 W	5500 W	6000 W
6 hp	4800 W	6000 W	6600 W	7200 W
7.5 hp	6000 W	7500 W	8250 W	9000 W
10 hp	8000 W	10000 W	11000 W	12000 W

Water discharge (%) v/s Time



* Based on average data captured from Open-well /Submersible Installation.

OURS MAIN ADVANTAGES

Inbuilt MPPT & VFD Controlled by DSP :

Our unit will convert the panel voltage directly to three phase and vary the PWM for varying the panel current and the DSP will calculate at what current the maximum power will be extracted from the panel, this point will be tracked constantly. As and when this point varies the unit will follow and retrack this point at all sunlight intensities and weather conditions. In this way, we have obtained the maximum power from panel.

Because of the variable frequency drive the starting current of the motor will come down drastically. So the motor will start even at minimum intensity of sunlight. VFD will provide constant torque for wide range of intensity of sunlight.

Load through Protection:

If suddenly for whatever the reason motor is disconnected while running in full throttle, the boost voltage will suddenly rise causing IGBT to damage due to excess fly back voltage. The DSP will sense this hazardous condition and cut off the system in order to protect from excess fly back voltage.

All IGBTs in Single Module:

We are using single Module which contains all required IGBTs and boost Diode which is directly mounted on PCB. IGBTs drivers are also placed on same PCB and no wiring is required. Hence reliability is drastically enhanced.

Excess Temperature Protection:

Temperature sensor is placed inside the Module and accurately monitored. When due to any fault condition temperature exceeds the limits, unit is shut down.

Remote Control and Monitoring System: (optional)

The Solar Pump Controller can be provided with Zigbee communication system remote monitoring & Its performance parameters can be stored and uploaded to the designated WEBPORTAL Using Latest Zigbee.

Disclaimer : Due to constant quality improvement at our R&D center, specifications/models may change without prior notice.

To know more, visit our ELWORLD showroom at B-25, Lajpat Nagar-II, Delhi
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