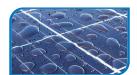




# **KALPAVRIKSHA**

### **UNIVERSAL SOLAR PUMP CONTROLLER**



**DUST & RAIN PROOF IP 65 DESIGN** 



SUPPORTS A VARIETY OF **SOLAR PUMPS** 



**USER FRIENDLY** LCD DISPLAY



**AGRARIAN APPLICATION SUPPORT** 



SHOCK-PROOF CONNECTIONS



**INTELLIGENT DIGITAL CONTROL** 



**GPRS ENABLED & BLUETOOTH CONNECTIVITY** 



**POWERED WITH REMOTE** MONITORING SYSTEM



# SHAKTI KALPAVRIKSHA UNIVERSAL SOLAR PUMP CONTROLLER (KUSPC)

#### **ABOUT THE PRODUCT**

Kalpavriksha Universal Solar Pump Controller (KUSPC) is a solar converter designed for maximum utilization of solar power available at the site throughout the year. Multiple applications such as Water Pumping, Atta Chakki, Deep Freezer, Thresher etc. can be operated from this single solar powered product. The KUSPC automatically supports the application selected by the user from the graphical display. The product comes with IP65 rating and thus is suitable to be installed in an external environment. All the protection features for various applications are inbuilt. An option to monitor and control the KUSPC remotely using a mobile APP or a website is also available.

#### **TECHNICAL SPECIFICATION**

DADAMETERS	MODEL 1		MODEL 2	
PARAMETERS	3 HP	5 HP	7.5 HP	10 HP
PV INPUT				
PV Voltage Range	200 - 770 VDC			
Max. PV Current	10 A		20 A	
MPPT Range		290 - 650 VDC		
Nominal PV Voltage	370 VDC	580 VDC	370 VDC	580 VDC
Number of PV Inputs	1		2	
Max. Power	3000 W	5000 W	7500 W	10000 W
PV Start Voltage	200 VDC			
MOTOR-PUMP OUTPUT				
Voltage range	0 - 230 VAC	0 - 415 VAC	0 - 230 VAC	0 - 415 VAC
Max. Current	12 A		20 A	
Operating Frequency Range	0 - 200 Hz			
Power factor Range	0.75 - 1			
Motor Types	IPMSM, PMSM, BLDC, ACIM			
Peak Efficiency	>93%	>96%	>96%	
Protection	Shortcircuit, Dryrun, Overtemperature, Overload etc			
OTHER APPLICATION OUTPUTS (4 NOs				
Voltage Range	415VAC ± 5%			
Motor Type	ACIM			
Max. Current	5A	8.5 A	10A	17 A
Nominal Frequency	48-50Hz			
Operating Frequency range	0-52 Hz (through Constant V by F)			
Power Factor Range	0.75 - 1			
MPPT Accuracy	>98%			
Max. Efficiency	>93%			
Total Harmonic Distortion (THDv)	<3% (at nominal power)			
Total Harmonic Distortion (THDi)	<5% (at nominal power)			
D. J. W.	Output voltage low, Output frequency low/high, Low			
Protection	irradiance/PV power, Current overload, Peak Torque overload			
DISPLAY & COMMUNICATION				
Display Type	Graphical LCD			
Status Indicator	LEDs			
Serial Communication	RS232 & RS485			
Senai Communication	MODBUS			
Aux Ports	3 Nos : 1 Input port & 2 Output ports			
USB	Yes			
Remote Monitoring	Yes (Optional)			
WiFi	Yes (Optional)			
PHYSICAL				
LXWXH	584.5 x 444.5	x 182.4 mm3		
Net Wt. / Gross Wt.	26kg/30kg		30kg/35kg	
OTHER INFO				
Pollution Degree	PD3			
Over Voltage Category	Category II			
Protection Class	Class I			
Operating Temperature	-10 to 50 °C			
Relative Humidity	0~95% RH (Non-condensing)			
Altitude	3000 m (> 2000 m power derating)			
IP Degree of Protection	IP 65 (Indoor & Outdoor Installation)			
Cooling	Natural Convection			
Standards	IEC62109-1/2, IEC61683, IEC60068-2-(1,2,14,30), IEC 60529, IEC61000-6-2/3, EN 50530/IEC 62891			



#### **APPLICATION**

- Runs various agrarian applications from solar such as pump, thresher, chaff cutter, atta chakki etc.
- Increases farmer's income

# **FEATURES**



















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## **SHAKTI PUMPS (INDIA) LIMITED**

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