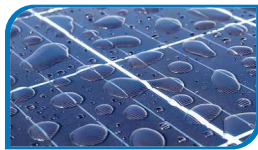


# KALPAVRIKSHA

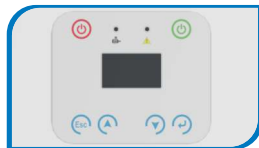
## UNIVERSAL SOLAR PUMP CONTROLLER



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



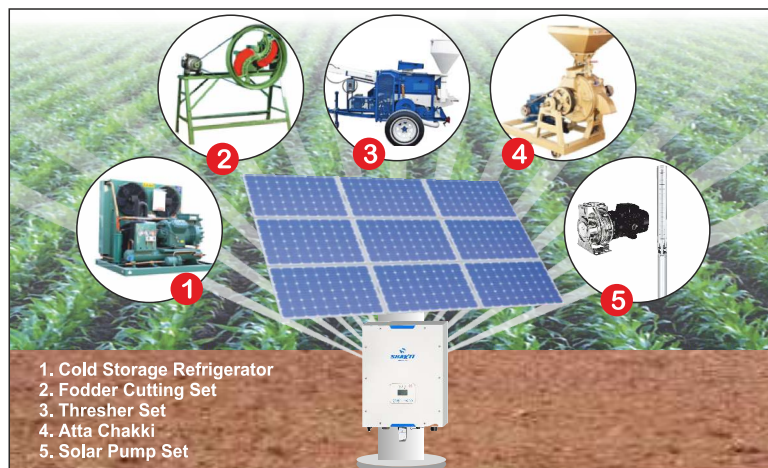
# SHAKTI KALPAVRIKSHA UNIVERSAL SOLAR PUMP CONTROLLER (KUSPC)

## 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

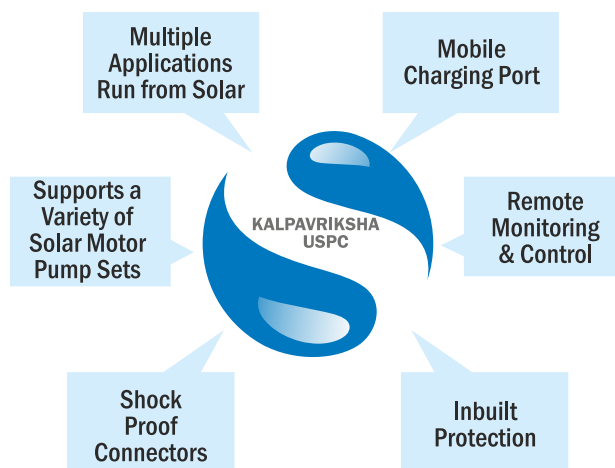
PARAMETERS	MODEL 1		MODEL 2	
	3 HP	5 HP	7.5 HP	10 HP
PV INPUT				
PV Voltage Range	200 - 770 VDC			
Max. PV Current	10 A		20 A	
MPPT Range	200 - 450 VDC	290 - 650 VDC	200 - 450 VDC	290 - 650 VDC
Nominal PV Voltage	370 VDC	580 VDC	370 VDC	580 VDC
Number of PV Inputs	1		2	
Max. Power	3000 W	5000 W	7500 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 $\pm$ 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)			
Protection	Output voltage low, Output frequency low/high, Low irradiance/PV power, Current overload, Peak Torque overload			
DISPLAY & COMMUNICATION				
Display Type	Graphical LCD			
Status Indicator	LEDs			
Serial Communication	RS232 & RS485			
	MODBUS			
Aux Ports	3 Nos : 1 Input port & 2 Output ports			
USB	Yes			
Remote Monitoring	Yes (Optional)			
WiFi	Yes (Optional)			
PHYSICAL				
L X W X H	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			
Applicable Standards	IEC61683, IEC60068-2-(1,2,14,30), IEC 60529 Certified as per MNRE guidelines			



## 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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