



NEOSOL

Solar PCU

- Single Phase - 5KVA - 12.5KVA
- Three Phase - 10KVA - 100KVA

Reliable
BACK-UP Solution



Features

- DSP Based Design
- Fully Automatic Operation
- True Bidirectional Inverter
- Built-In MPPT Charger
- Settable Battery Charging Current
- Selectable Priority Feature
- Built-In Isolation Transformer
- Interactive LCD Display

Optional Features

- Remote Monitoring System

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Factory Address

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Regd. Address

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TECHNICAL SPECIFICATION FOR SOLAR PCU

1 PHASE SOLAR PCU

Model No.	SP5K	SP6.25K	SP7.5K	SP10K	SP12.5K
Battery Bank	96V	96V	120V	120V	180V
MPPT Charge Controller					
Technology	True MPPT Based Charge Controller				
Switching Device	IGBT				
Max PV Array Voltage	288V DC		360V DC		450V DC
MPPT Voltage Range	140-220V		210-280 V		280-360 V
MPPT Charge Controller Efficiency	>94%				
MPPT Charge Controller Capacity	5KWp	6.25KWp	7.5KWp	10KWp	12.5KWp
INVERTER					
Type	IGBT Based True Sine Wave Inverter				
Inverter Capacity	5KVA	6.25KVA	7.5KVA	10KVA	12.5KVA
Output Voltage & Regulation	1 Phase, 230 VAC L-N, +/- 1%				
Output Voltage	220/230/240 VAC L-N (Settable through Display)				
Output Frequency	50 Hz +/- 0.5 HZ				
Voltage THD**	<3%				
Inverter Efficiency	Upto 90%				
Change Over	Inverter↔Mains:<15mSec,				
No Load consumption	<2% of the Nominal Rating				
Overload	101 - 125% for 30 sec, 126 - 150% for 15 sec, 151 - 200% for 3 sec				
Crest Factor	3:1				
Load Power Factor	0.8 Lag				
Environment					
Operating Temperature	0 to +50°C				
Storage Temperature	-10 to 50°C				
Relative Humidity	95% non-condensing				
Cooling	Forced Air cooled				
Noise Level	<50 dB				
Protection Class	IP 20				
Compliance					
Efficiency Measurement	As per IEC 61683				
Environmental Testing	As per IEC 60068-2 (1, 2, 14, 30)				
Protections (Displayed on LCD during event and reset once system is running normal)	Short circuit, Overload, PV overvoltage, Battery Overvoltage/Overcharge, Battery Under voltage, PV reverse Polarity Protection, Grid Over voltage, Grid Under Voltage, Inverter Over Voltage, Inverter Under Voltage, Over Temperature				
Mechanical Dimension (L x W x H) mm	680x350x650			700x 450 x 800	
LED Indication	Main On, Load On Bypass, Inverter On, PV On, Battery Low, Load On, Fault				
LCD Display	Output voltage, Output current, Output power, Load Percentage, Output frequency, PV Voltage, PV Current, PV Power, Battery Voltage, Battery Charging Current, Battery Capacity%, Grid Current, Grid Power, Load Status, PV Status, Grid Status, Battery Status, Heatsink Temperature, Solar Energy generated(Kwh), Output Energy Consumption(Kwh), Grid Consumption(Kwh), PCU Priority Mode				
Communication	RS 232 / Wifi / GSM Based Remote Monitoring (Optional)				
Operation Mode	Settable through Display / Android App 1. Solar Energy Mode(PV Priority, S-B-G) 2. Battery Backup mode(Grid Priority, S-G-B) 3. High Backup Mode (G-S-B)				
INPUT MAINS					
AC Input	230VAC -20%+15% , 1φ 50Hz				
Frequency	50 Hz +/-5%				
Battery Charging Current from Grid	10/20/30A Settable through Display				
Charging Type	Bidirectional				
*Specification are subject to change without prior notice due to constant improvement in design & Technology. **Vthd at on load condition.					

TECHNICAL SPECIFICATION FOR SOLAR PCU

3 PHASE SOLAR PCU

Model No.	SP10K	SP15K	SP20K	SP25K	SP30K	SP40K	SP50K	SP60K	SP80K	SP100K	
Battery Bank	180V	180V	240V	240V	240V	240V	360V	360V	360V	360V	
MPPT Charge Controller											
Technology	True MPPT Based Charge Controller										
Switching Device	IGBT										
Max PV Array Voltage	450V DC		550V DC				720V DC				
MPPT Voltage Range	280-360 V		350-450 V				415-570 V				
MPPT Charge Controller Efficiency	>94%										
MPPT Charge Controller Capacity	10KWp	15KWp	20KWp	25KWp	30KWp	40KWp	50KWp	60KWp	80KWp	100KWp	
INVERTER											
Type	IGBT Based True Sine Wave Inverter										
Inverter Capacity	10KVA	15KVA	20KVA	25KVA	30KVA	40KVA	50KVA	60KVA	80KVA	100KVA	
Output Voltage & Regulation	3 Phase, 400 VAC L-L/230 VAC L-N, +/- 1%										
Output Voltage	220/230/240 VAC L-N (Settable through Display)										
Output Frequency	50 Hz +/- 0.5 HZ										
Voltage THD**	<3%										
Inverter Efficiency	Upto 90%										
Change Over	Inverter↔Mains:<15mSec,										
No Load consumption	<2% of the Nominal Rating										
Overload	101 - 125% for 30 sec, 126 - 150% for 15 sec, 151 - 200% for 3 sec										
Crest Factor	3:1										
Load Power Factor	0.8 Lag										
Environment											
Operating Temperature	0 to +50°C										
Storage Temperature	-10 to 50°C										
Relative Humidity	95% non-condensing										
Cooling	Forced Air cooled										
Noise Level	<50 dB										
Protection Class	IP 20										
Compliance											
Efficiency Measurement	As per IEC 61683										
Environmental Testing	As per IEC 60068-2 (1, 2, 14, 30)										
Protections (Displayed on LCD during event and reset once system is running normal)	Short circuit, Overload, PV overvoltage, Battery Overvoltage/Overcharge, Battery Under voltage, PV reverse Polarity Protection, Grid Over voltage, Grid Under Voltage, Inverter Over Voltage, Inverter Under Voltage, Over Temperature, Grid Phase Reversal										
Mechanical Dimension (L x W x H) mm	700x450x800		1000x600x1150				1000x1000x1250				
LED Indication	Main On, Load On Bypass, Inverter On, PV On, Battery Low, Load On, Fault										
LCD Display	Output voltage(R, Y, B), Output current(R, Y, B), Output power, Load Percentage(R, Y, B), Output frequency, PV Voltage, PV Current, PV Power, Battery Voltage, Battery Charging Current, Battery Capacity%, Grid Voltage, Grid Current, Grid Power, Load Status, PV Status, Grid Status, Battery Status, Heatsink Temperature, Solar Energy generated(Kwh), Output Energy Consumption(Kwh), Grid Energy Consumption (Kwh), PCU Priority Mode										
Communication	RS 232 / Wifi / GSM Based Remote Monitoring (Optional)										
Operation Mode	Settable through Display / Android App 1. Solar Energy Mode(PV Priority, S-B-G) 2. Battery Backup mode(Grid Priority, S-G-B) 3. High Backup Mode (G-S-B)										
INPUT MAINS											
AC Input	400VAC -20%+15% , 3φ 50Hz										
Frequency	50 Hz +/-5%										
Battery Charging Current from Grid	10/20/30A Settable through Display										
Charging Type	Bidirectional										
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