

# GKM SunSpark (Single Phase Solar PCU)



Available Range 1 - 15 kVA

## FEATURES

- Multi Channel Interleaved MPPT Technology.
- Maximum Utilization of Solar Panel.
- Low Light Performance.
- Overload and Overvoltage Protection.
- Energy Management Features.
- Works As Standalone Solar Inverter In Case of No Grid.
- 40% Less Panel Required Than Other PCUs.
- Efficiency 99.5%.



# TECHNICAL SPECIFICATIONS

## GKM SunSpark (Solar PCU 1Ph in 1Ph out)

Parameters	Unit										
Model	Sungreen Max	1KVA	2KVA	3KVA	5KVA	5KVA	7.5KVA	10KVA	10KVA	15KVA	
Operating DC voltage	Volts	12	24	48	48	96	96	120	180	192	
System Capacity	KW	0.8	2	2.8	4	4	6	8	8	12	
Battery Capacity (Min / Max)	AH	100-250									
<b>SPV Parameters</b>											
SPV Open Circuit Voltage Range (Min / Max)	Volts	18-50	36-100	72-200	72-200	144-400	144-400	180-450	270-450	360-600	
Max SPV Power	KW	1	2.5	3.5	5	5	7.5	10	10	15	
Solar Charge Controller Rating	A	60	70	70	70	60	60	70	60	60	
Compatible SPV Panels		36/60/72 cell									
<b>MPPT Basted Charge Controller</b>											
Switching Element		Mosfet				IGBT Module					
Controller		DSP									
Type of Charger		MPPT									
MPPT Battery Current Limiting (Default)		25A				40A					
Efficiency		>95%									
<b>Battery Default Value</b>											
PCU Working Mode Selection by Dip Switch / Selection Switch	Mode	Smart Hybrid PCU	Smart	Mode Selection : Hybrid / PCU / Smart, INV / UPS Selection							
Grid Disconnect Solar Present (PCU / Smart)	Volts	Acc. Battery Type Achieve Boost(Mains Disconnect After 2min)	Tubular	According Battery type Achieve Boost (Mains Disconnect After 2 min)						Tubular	
Grid Reconnect (Smart / PCU)	Volts	11.8 / Batt. ±2%								12 V	
Low Cutt Off	Volts	10.5 / Batt ± 2 %									
Low Cutt Off Recovery by SPV	Volts	11.5 / batt ± 2 %									
zzer	Volts	10.7 / Batt ± 2 %									
High Cutt Off	Volts	16.5 / Batt ± 2 %									
High Cutt Off Recovery	Volts	15.0 / Batt ± 2 %									
Boost Charging Volt by SPV TUB/SMF	Volts	SMF	14.2V ± 2%	TUBULAR	14.8V ± 2%	Setable Through LCD					
Grid Boost Charging Volt TUB/SMF	Volts		14.0V ± 2 %		14.4V ± 2%						
Float Charging Voltage	Volts		13.5V ± 2%		13.7V ± 2%						
Grid Charging Current Enable by DIP Switch (Normal)	Amps	12A ± 2%		NA							
Grid Charging Current Enable by DIP Switch (High)	Amps	15A ± 2%		15 A ± 2%							
Grid Charging Current Disable by DIP Switch	Amps	0 Amp		Enable							
<b>Output</b>											
Output Voltage No Load	Volts	230± 2%									
Output Frequency	Hz	50± 2%									
Overload	Amps	3.4	8.6	10.4	17.3	17.3	26	34.7	34.7	52.2	
Over Load Retry UPS Mode		NA									
Overload retry inverter Mode		3 Times									
<b>Grid</b>											
Battery Charging Stages		5 (Softstart, Boost, Absorption, Float, Equalize)									
No of Phase		1 Phase- 3 Wire P,N,E									
Voltage Range (Inverter Mode)	Volts	100 - 200 ± 2%									
Voltage Range (UPS Mode)	Volts	175 - 255 ± 2%									
Frequency Range	Hz	45 - 55 ± 2%									
<b>Display</b>											
Display	Alphanumeric	16 x 2 LCD			20 x 4 LCD with switch Configuration						
Parameters	Output(Inverter)	Voltage, Current, Power and Frequency									
	Input(Grid)	Voltage and Frequency									
	Solar	Voltage, Current, Power and Frequency (optional )									
	Battery	Voltage, Current									
	Status / Faults	Inverter Status, Mains Status, Charger Status, Solar Status and Battery Status/ Charging Stages/ Over Temp., System Uptime									
<b>Inverter</b>											
Switching Element		MOSFET				IGBT					
INV / UPS (IT Mode)		By Dip Switch				By front Switch					
Output Voltage	Volts					230 ± 2%					
Efficiency		≥ 80%				≥ 85%					
Phase		1 Phase- 3 Wire P,N,E									
Output Waveform		Pure Sine Wave									
Frequency	Hz	50 ± 2%									
Changeover (Mains to Inverter)	ms	< 10ms									
Output Power Factor		0.8									
Switches		System On/OFF, Mode Selection : Hybrid / PCU / Smart, INV / UPS Selection									
Indication (LED)		Inverter On Mains in range, Battery Low / High, Charger On, Over Load, Faults									
Alarm (Audible)		Battery low, Over Load, Charger On, Inverter On, Solar Charger On									
Protection		Over Load, Short circuit Protection, Over Voltage, SPV Surge and Transient Protection (MOV Varistors), Reverse Polarity of Battery, Over temp. Protection, Under Voltage and Over Voltage protection									
Cooling		Forced Air Cooling (Temperature Controlled)									
Operating Temp	C	0 - 50									
Noise @ 1 meter Distance		50 dB									
Operating Humidity	%	95									
Protection Class		IP 20									
Dimension (L x W x H)	mm	432 x 382 x 216	470 x 400 x 500	600 x 400 x 610				680 x 400 x 810		730 x 730 x 830	
Net Weight	kg	18	28	39.5	50	530	83.73	84.6	86.7	100	

\*Specification are subject to change without prior notice due to constant improvement in design & technology.



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