

# GKM PurePower (Solar Home PCU)

## FEATURES

- AI Based Controller.
- Pure Sine Wave Output With Low THD.
- Low Standby Power Consumption.
- Charging in Deep Discharge.
- LCD/LED Display
- Built-In UPS/IT Mode.
- Designed For Continuous Reliable And Robust Operations.
- Different Battery Selection Mode To Enhance Battery Life.
- Double Stage MOSFET Over Current Protection.
- Priority Selection Mode (Hybrid, PCU Lite, PCU Ultra).

**Our Range 1 - 5 kVA**



# TECHNICAL SPECIFICATIONS



## GKM PurePower (Solar Home UPS)

Parameters		Rating				
System Model Name		PurePower 1212	PurePower 1825	PurePower 2525	PurePower 3025	PurePower 5048
Capacity		1050 VA	1600 VA	2500 VA	3000 VA	5000VA
Operating DC Voltage		12 V	24 V	24 V	24 V	48V
Switching Element		Mosfet				
Display Type		LCD				
Parameters		Default Value		Default Value		
Nominal Grid Voltage		230V				
Nominal Frequency		50Hz				
Frequency Range		45-55 Hz ± 1 Hz				
Battery Charging Method 4 Stage		Bulk/Absorption/Float/Equalize				
Grid - Battery Charging	TUB (Default)	Boost	14.4V ± 0.2V (Each Battery)			
		Float	13.8V ± 0.2V (Each Battery)			
Grid - Battery Charging	SMF	Boost	14.2V ± 0.2V (Each Battery)			
		Float	13.8V ± 0.2V (Each Battery)			
Grid - Battery Charging Current	Enable	Default	12A ± 1A	15A ± 1A		
		Maximum	12A ± 1A	18A ± 1A		
	Disable	Normal/Boost		Charging Current 0.0A		
Grid Reconnect @ Battery Voltage		11.7V ± 0.2V (Each Battery)				
Grid Low Cut Voltage	UPS Mode Enable	170V ± 10V				
	UPS Mode Disable	100V ± 10V				
Grid Low Cut Recovery	UPS Mode Enable	180V ± 10V				
	UPS Mode Disable	110V ± 10V				
Grid High Cut Voltage	UPS Mode Enable	265V ± 10V				
	UPS Mode Disable	290V ± 10V				
Grid High Cut Voltage	UPS Mode Enable	255V ± 10V				
	UPS Mode Disable	280V ± 10V				
Changeover (Batt. To Mains)	UPS Mode Enable/Disable	<6ms/<6ms				
Changeover (Mains To Batt.)	UPS Mode Enable/Disable	<6ms/<30ms				
DG Mode	Enable/Disable	Disable				
Parameters (Battery Mode)						
Output Phase		1 Phase				
Output Waveform		Sinewave				
Nominal Output Voltage		220V ± 5%				
Discharging Current		55A ± 2A	50A ± 2A	72A ± 2A	92A ± 2A	120A ± 2A
Nominal Frequency		50Hz ± 1%				
Battery Low Buzzer		10.8V ± .02V (Each Battery)				
Battery Low Cut		10.5V ± .02V (Each Battery)				
Battery High Cut		16.5V ± .02V (Each Battery)				
Parameters (Battery Mode)						
Voltage Harmonic		< 3% (Linear Load)				
Over Load Capacity	UPS Mode Disable	>110% 3-Times Auto Reset with 30Sec0. Delay and 4th Time Shut Down				
	UPS Mode Enable	>110% 1st Time Shut Down after 30 Sec Delay.				
	>150% Output Goes Down					
Protection		Overload, Battery Low, Battery High, Over Temperature, Short Circuit, PV Reverse, PV High, Mains Fuse Trip, Grid Overload				
Parameters (Solar)						
Switching Element		Mosfet				
Operating Mode/PCU/LITE/PCU ULTRA		Hybrid				
Type of Charger		PWM				
SPV Charging Voltage	TUB	Boost	± .02V (Each Battery)			
		Float	± .02V (Each Battery)			
SPV Charging Voltage	SMF	Boost	± .02V (Each Battery)			
		Float	± .02V (Each Battery)			
Efficiency		≥ 97%				
Solar Current MIN.		>1A (Below 1A, System will act like Solar Absent)				
Solar Current MAX.		30A	50A	55A	75A	70A
Input Voltage Range (Max) Voc		25V	45V	54V	54V	172V
Maximum PV Power Recommended		900W	1800W	2000W	2400W	4000W
Parameters (Environment)						
Operating Temperature		0 - 50°C				
Cooling		Fan				
Max. Relative Humidity @25°C (Non Condensing)		95%				
Noise @ 1 Meter		50dB				
Standard Compliance		Ip20				

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



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