



ADM KIAN Series Smart PWM Inverter

The ADM KIAN Series provides a cost-effective and dependable solar solution for everyday energy needs. Its PWM technology ensures stable operation and simple system management, making it easy to use and maintain.



PWM Technology

PWM (Pulse Width Modulation) inverter technology converts DC power from solar panels or batteries into AC power by rapidly switching the current. It is a cost-effective, reliable, and easy-to-maintain solution, ideal for basic solar applications, though less efficient than MPPT systems.

Key Features

- Intelligent logic control for smooth and efficient system operation
- PWM-based technology for stable and reliable performance
- Pure sine wave UPS with up to 85% efficiency
- Intelligent Solar Optimization Technique (ISOT) for improved energy utilization
- High-efficiency inbuilt charge controller (up to 98%)
- Intelligent battery monitoring for enhanced battery life and safety
- Automatic battery charging initiation at 110 volts
- Dual output support with both AC and DC supply
- Robust design suitable for everyday residential applications

Parameters	Units	Ratings		
Model		1100 (850VA)	1550 (1000VA)	2150 (1500VA)
Operating DC Voltage	Volts	12	12	12
SPV Parameters				
Solar Working Mode Selection by Dip Switch		SMART	HYBRID	
SPV Open Circuit Voltage Range	VOC	16-30 / 42V	16-30 / 42V	32-60 / 42V
Max SPV Power	W	600	800	1200
Max Batt Current	Amps	50	60	60
Recommended Panel Cell	CELL	36	36	60/72
PWM Based Charge Controller				
Switching Element		MOSFET		
Controller		DSP		
Efficiency		95%		
Battery				
Low Cut Off	Volts	10.5/Batt +/-2%		
Low Cut Off Recovery by SPV	Volts	11.5/Batt +/-2%		
Low Buzzer (Warning)	Volts	10.7/Batt +/-2%		
High Cut Off	Volts	15.0/Batt +/-2%		
High Cut Off Recovery	Volts	15.0/Batt +/-2%		
Battery Selection by DIP Switch	Volts	TUB - 14.4V+/-2%	SMF - 14.4V+/-2%	
Boost Charging Volt by SPV	Volts	TUB - 14.4V+/-2%	SMF - 14.4V+/-2%	
Boost Charging Volt by Grid	Volts	TUB - 14.4V+/-2%	SMF - 14.4V+/-2%	
Float Charging Volt by Grid	Volts	TUB - 13.8V+/-2%	SMF 13.5V+/-2%	
Grid Charging Current Selection by Dip-switch configuration	Normal	10A +/-2% - High	12A +/-2% - Disable	0A
Output				
Output @ No load		230 +/-2%		
Output Frequency		50 +/-2%		
Overload		680W	800W	1.6KW
		3.1	3.6	6.9
Typical Efficiency		55	67	67
		≥85%		
Display				
Display		Alphanumeric - 20x4 LCD		
Output (Inverter)		Voltage, Current (Load%) and Frequency		
Input (Grid)		Voltage and Frequency		
Solar		Voltage, Current		
Battery		Voltage, Current		
Status/Faults		Inverter Status, Mains Status, Charger Status and Battery Status/Charging Stages Grid CHG Enable/Disable, CHG High/Low, SMF/Tubular		
Grid				
No of Phase		1Phase-3Wire P,N,E		
Voltage Range(Inverter)	V	100-280 +/-2%		
Voltage Range(UPS)	V	175-255 +/-2%		
Frequency Range	Hz	45-55 +/-2%		
Battery Charging Stages		5 (Softstart, Boost, Absorption, Float, Equalise)		
Inverter				
Switching Element		MOSFET		
Output Voltage	V	230 +/-2%		
Phase		1Phase-3Wire P,N,E		
Output Waveform		Pure Sine Wave		
Frequency	Hz	50		
Changeover Frequency	ms	<10ms		
Output Power Factor	Pf	0.8		
Over Load Retry		3 Times		
Switches		ON/OFF, Mode Hybrid / Smart/PCU, INV UPS, TUB/SMF Switch Configuration Setting CHG.LO/CHG.HI, CHG. Configuration		
Indication		Inverter On, Mains In Range, Battery Low/High, Charger On, Overload, Faults		
Alarm		Battery Low, Overload, Charger On, Inverter On, Solar Charger On		
Protection		Overload, Short Battery Overload, Charger On, Inverter On, Solar Charger On Reverse Polarity of Battery, Over temperature Protection, under voltage and over voltage protection (MOV Varistors)		
Cooling		Forced Air cooling (Temp Controlled)		
Operating Temp	°C	0-50		
Operating Humidity	%	95		
Protection Class		IP20		
Noise @ 1Meter Distance		50dB		
Weight	Kg	11.2	15.73	46.5
Dimension LxWxH (mm)	LWH	350 x 342 x 215		432 x 381 x 215

Parameters	Units	Ratings		
Model		2800 (2000 VA)	4150 (2500 VA)	5550 (5000VA)
Operating DC Voltage	Volts	24	48	48
SPV Parameters				
Solar Working Mode Selection by Dip Switch		PCU		
SPV Open Circuit Voltage Range	VOC	32-60 +/-2V	64-120 +/-2V	64-120 +/-2V
Max SPV Power	W	1600	2800	4000
Max Batt Current	Amps	60	80	80
Recommended Panel Cell	CELL	36/72	60/72	60/72
PWM Based Charge Controller				
Switching Element		MOSFET		
Controller		DSP		
Efficiency		95%		
Battery				
Low Cut Off	Volts	10.5/Batt +/-2%		
Low Cut Off Recovery by SPV	Volts	11.5/Batt +/-2%		
Low Buzzer (Warning)	Volts	10.7/Batt +/-2%		
High Cut Off	Volts	15.5/Batt +/-2%		
High Cut Off Recovery	Volts	15.0/Batt +/-2%		
Battery Selection by DIP Switch	Volts	TUB - 14.4V+/-2%	SMF - 14.4V+/-2%	
Boost Charging Volt by SPV	Volts	TUB - 14.4V+/-2%	SMF - 14.4V+/-2%	
Boost Charging Volt by Grid	Volts	TUB - 14.4V+/-2%	SMF - 14.4V+/-2%	
Float Charging Volt by Grid	Volts	TUB - 13.8V+/-2%	SMF 13.5V+/-2%	
Grid Charging Current Selection by Dip-switch configuration	Normal	10A +/-2% - High	12A +/-2% - Disable	0A
Output				
Output @ No load		230 +/-2%		
Output Frequency		50 +/-2%		
Overload		1.6KW	3KW	4KW
		6.9	13	17.3
Typical Efficiency		67	83	83
		≥85%		
Display				
Display		Alphanumeric - 20x4 LCD		
Output (Inverter)		Voltage, Current (Load%) and Frequency		
Input (Grid)		Voltage and Frequency		
Solar		Voltage, Current		
Battery		Voltage, Current		
Status/Faults		Inverter Status, Mains Status, Charger Status and Battery Status/Charging Stages Grid CHG Enable/Disable, CHG High/Low, SMF/Tubular		
Grid				
No of Phase		1Phase-3Wire P,N,E		
Voltage Range(Inverter)	V	100-280 +/-2%		
Voltage Range(UPS)	V	175-255 +/-2%		
Frequency Range	Hz	45-55 +/-2%		
Battery Charging Stages		5 (Softstart, Boost, Absorption, Float, Equalise)		
Inverter				
Switching Element		MOSFET		
Output Voltage	V	230 +/-2%		
Phase		1Phase-3Wire P,N,E		
Output Waveform		Pure Sine Wave		
Frequency	Hz	50		
Changeover Frequency	ms	<10ms		
Output Power Factor	Pf	0.8		
Over Load Retry		3 Times		
Switches		ON/OFF, Mode Hybrid / Smart/PCU, INV UPS, TUB/SMF CHG.LO/CHG.HI, CHG. Configuration		Switch Configuration Setting
Indication		Inverter On, Mains In Range, Battery Low/High, Charger On, Overload, Faults		
Alarm		Battery Low, Overload, Charger On, Inverter On, Solar Charger On		
Protection		Overload, Short Battery Overload, Charger On, Inverter On, Solar Charger On Reverse Polarity of Battery, Over temperature Protection, under voltage and over voltage protection (MOV Varistors)		
Cooling		Forced Air cooling (Temp Controlled)		
Operating Temp	°C	0-50		
Operating Humidity	%	95		
Protection Class		IP20		
Noise @ 1Meter Distance		50dB		
Weight	Kg	20.55	30.5	46.5
Dimension LxWxH (mm)	LWH	432 x 262 x 215	464 x 400 x 297	600 x 600 x 610