

Next-Gen Solar Hybrid Inverters



M1 Series

1-Phase • IP66
3KW • 5KW • 6KW



IP66 PROTECTION RATING

Sealed against dust & moisture for a very low failure rate



2 × PV SOLAR

Dual MPPT-oversize the array up to 200% of rating



200% OVERLOAD

Handles 200% overload for up to 10 seconds



HIGH EFFICIENCY

→97% efficient - high-frequency IGBT design



< 5 MS SWITCH-OVER

Near-instant switchover, no compressor restart



ON-GRID MODE

Runs in pure on-grid mode without battery requirement



SMART LOAD

Sheds non-essential loads by battery SOC, diverts surplus solar



GENERATOR PORT

Dedicated DG input for seamless backup power



PARALLEL READY

Up to 3 units in parallel for higher load



LOWER BILLS

Time-of-Use ready-shift heavy loads to cheap hours



KENT CENTCOM CLOUD

For seamless monitoring, configuration, & remote diagnosis



4G DATA LOGGER

Data on Indian server with 5-year 4G data pack

Technical Specifications

Model	M1-3KW		M1-5KW	M1-6KW
Product Code	131001		131002	131013
Suitable Load	1 Inverter AC + Lighting load		2 Inverter ACs + 1 Submersible + Lighting Load	2 Inverter ACs + 1 Submersible + Extra Lighting Load
Battery Input Data				
Battery Type	Lead-acid or Lithium-ion			
Battery Voltage Range (V)	40-60			
Max. Charging/Discharging Current (A)	70/70	120/120	135/135	
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
Number of Battery Inputs	1			
PV String Input Data				
Max. PV access power (W)	6000	10000	12000	
Max. PV Input Power (W)	4800	8000	9600	
Max. PV Input Voltage (V)	500			
Start-up Voltage (V)	125			
MPPT Voltage Range (V)	230-425			
Rated PV Input Voltage (V)	370			
Max. Operating PV Input Current (A)	18			
Max. Input Short-Circuit Current (A)	27			
No. of MPP Trackers/No. of Strings per MPP Tracker	2/1+1			
AC Output Data				
Rated AC Output Power (W)	3000	5000	6000	
Max. AC Output Power (W)	3300	5500	6600	
Rated/Max. AC Output Current (A)	14	24	29	
Peak Power (W)	2 times of rated power @ 10 sec			
Rated output voltage (V)	220/230			
Rated Output Frequency (Hz)	50/60			
DC Injection Current	0.50%			
Output Voltage Waveform	Pure Sine Wave			
Total current Harmonic Distortion ThDi	<3%			
AC Input Data (Grid and Generator)				
Max. Input Power to Battery (W)	3000	5000	6000	
Rated Input Voltage (V)	230			
Rated Input Frequency (Hz)	50/60			
Grid Input Current (A)	27	43	43	
Generator Input Current (A)	30			
Efficiency				
Max. Efficiency	96.90%	97.30%		
Euro Efficiency	96%	96.20%		
MPPT Efficiency	99.90%			
Equipement Protection				
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Insulation Impedance Detection			
Surge Protection Level	TYPE II(DC), TYPE II(AC)			
Interface				
LCD/LED Display	LCD			
Communication Interface	WIFI, 4G, RS485, CAN			
4G Data logger	Included with 5-year data pack			
General Data				
Operating Temperature Range (°C)	-40 to +70			
Permissible Ambient Humidity	0-100%			
Permissible Altitude (m)	2000			
Noise (db)	<35			
Ingress Protection (IP) Rating	IP66			
Inverter Topology	Non-Isolated (solar), Isolated (battery)			
Over Voltage Category	OVC II(DC), OVC III(AC)			
Cabinet Size (WxHxD) (mm)	228 x 470 x 340			
Weight (kg)	19			
Type of Cooling	Natural convection			
Warranty	5 years			
Safety/EMC Standard	IEC62109-1/-2, EN61000-6-1,EN61000-6-2,EN61000-6-3,EN61000-6-4			
Certifications	IS 16221 (PART 2): 2015/IEC 62109-2: 2011, IS 16169: 2019/IEC 62116: 2014, IS 17980: 2022/IEC 62891:2020			

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