

Specifications (SUNMAGIC | Single Phase | 5kVA - 30kVA)

STANDARD SPECIFICATION	SUNMAGIC - 5kVA to 30kVA									
INVERTER CAPACITY (kVA)	5	6	8	10	12.5	15	20	25	30	
INPUT										
Input Voltage Range*	170 V to 260 V, 1 Phase									
Nominal Frequency	50 Hz (± 6%)									
Input Fault Level	10 kA									
Self-Consumption	upto 4%									
DG / Grid Compatibility	Yes									
SOLAR										
Charger Type	MPPT									
Max PV Voltage (VOC)	250	250	250 / 300	300	300	300 / 500	300 / 500	500	500	
MPPT Voltage Range	130 - 200V for 96VDC / 165 -250V for 120VDC / 280-450V for 240VDC									
MPPT Modes Available	2 (Selectable)									
No. Of Channels	1									
Max I/P Amps per Channel (Amps)	52	63	83 / 66	83	104	125 / 63	166 / 83	104	125	
Panel Reverse Protection	Yes									
Solar Charger Efficiency	upto 95%									
BATTERY										
Nominal Battery Voltage (VDC)	96	96	96 / 120	120	120	120 / 240	120 / 240	240	240	
Grid Charging Current	Selectable as 5A Steps									
Input Power Factor (Grid Charging)	Near to Unity									
Battery Charging Voltage	Selectable from LCD Display									
Type & No. Of Cells	Lead Acid / VRLA / Ni-Cd/Lithium									
OUTPUT										
Output Current (Amp)	17.5	21	28	34	44	53	70	87	105	
Load Power Factor	0.8 lag									
Output Voltage (Inverter Mode)	230V AC ± 2 %									
Voltage Regulation	± 2 %									
Output Frequency (Free Running)	50 Hz ± 0.5%									
Output Waveform	Pure Sine wave									
Peak Inverter Efficiency (Full Load)	Upto 92 %									
Total Harmonic Distortion	≤ 3% at Linear Load									
Overload Capacity	125% for 60Sec, 150% for 5 Sec									
Changeover Time (Full load)	20 msec									
DC to AC Isolation	In built Isolation Transformer at Inverter Output									
Anti-Islanding Function	Available, In Compliance with IEC 62116									
Duty	Continuous									
CONFIGURATION										
Modes Available	Hybrid, Grid Export, Standalone									
Battery Buffer Setting	Selectable for 25%, 50%, 75%									
GRID feed mode	Enable / Disable option Available									
ENVIRONMENTAL										
Acoustic Noise Level from 1 m distance (Ref: ISO 3746)	≤ 65 dB									
Operating Temperature	0 to 40 Deg C Dust free, Cool & Dry Environment									
Storage Temperature	-10 Deg C to 60 Deg C									
Relative Humidity	Up to 95 % (Non-Condensing)									
Altitude	Upto 1000 & (1000 to 3000 deviation) **									
PHYSICAL										
Enclosure Protection Grade	IP 20 Compatible to IEC 60529:2001-02- As per MNRE Requirement									
Enclosure thickness	Frame 2.0mm & all covers 1.6mm									
Cooling	Forced Air									
Color	RAL 7016									
Cable Entry	Bottom									

* with tolerance of 5v

** 1.6 % derating per 100 m

PARAMETERS DISPLAYED ON LCD MIMIC									
General Group	System Rating, Date & Time, Current Status, Configuration, Fault Log								
Input Group	Input Voltage, Input Current, Input Frequency								
Output Group	Output Voltage, Output Current, Output Frequency								
Battery Group	Battery Voltage, Charging Current, Discharging Current, Battery Status								
Solar Group	Solar Voltage, Solar Current, Solar Power (KW), Solar Energy (KWh)								
Fault Log	Recent 9 fault log since last time								
Inverter Group	Voltage, Current								
Configuration	SGB, SBG, GSB, GFM, INVERTER								
Indication of Mimic	Fault, PV On, Grid On, Load On Mains, Inverter On, Charger On, Load On Battery								
Message Display On LCD	Output Under Voltage, Output Over Voltage, Output Overload, Short-Circuit, Standby Mode, Battery Low								
Reset	Buzzer reset (Manual), Overload, Short Circuit, Battery Low								
PROTECTIONS									
ALARMS ARE PROVIDED FOR IMPORTANT PROTECTIONS									
Input Group	Input MCB/MCCB, Input Under Voltage, Input Over Voltage, Charger Over voltage, Surge								
Output Group	Output High, Output Low, temperature, Over Load, Short Cuircuit								
Battery Group	Battery MCB/MCCB, Battery Low, Battery Over voltage								
Solar Group	Solar MCB/MCCB, Solar Fuse, Surge								
CONNECTIVITY									
Communication	RS 232, (Modbus RS485, GSM Connectivity - Optional)								
Monitoring	ENERLOG (Remote Monitoring Solution) - Optional								
Testing Standard	IEC -61683:1999, IEC- 60068-2-1, IEC-60068-2-2, IEC-60068-2-14, IEC-60068-2-30- As per MNRE Requirement								
Earthing Connection (Ref. IS 3043)	Earth Stud								
DIMENSIONS (STANDARD/OPTIONAL)									
Dimensions (in mm)	(Approx.)								
KVA Rating	5	6	8	10	12.5	15	20	25	30
Width (W)	380	450	450	450	450	450	450	450	450
Depth (D)	580	800	800	800	800	800	800	800	900
Height (H)	520	800	800	800	800	800	800	800	800
Weight (Kg)	84	125	165	175	200	220	296	320	350

Specifications are subject to change without prior notice
 ## Not for Life Support & Mission Critical Application

Updated on 04 October 2021

Application of Single Phase Solar Hybrid Inverter



Home



Farm House



Petrol Pump



Hospital



Institution



Rural Bank



Police Station



Shop



ATM



Railway Station



Microgrid



Primary Health Care Center