

EnerTech

SunMagic -REefi

5kVA ~ 300kVA
3ph-3ph

Reliable & Performing PCU
for your Energy conversion needs!



SPECIFICATION

STANDARD SPECIFICATION SMART STORAGE SOLAR INVERTER SunMagic REeFI																		
INVERTER CAPACITY (kVA)	5	10	15	20	25	30	40	50	60	80	100	120	150	200	250	300		
GRID																		
Input Wiring	3PH five wire (3 PH + N + E)																	
Input Neutral Requirement	YES																	
Nominal Voltage	330V to 450V FOR 3PH																	
Grid Frequency Sync Range	50 Hz (± 6%)																	
Unity power Factor for grid charging	Near to Unity																	
Operating condition	Continuous																	
Input Fault Level	≥10 kA																	
Self-Consumption	up to 4%																	
Charger Peak Efficiency	upto 95%																	
DG Compatibility	YES (Double of Inverter Capacity)																	
Grid Compatibility	YES SAME AS INVERTER CAPACITY																	
Input Voltage distortion allowed	LESS THAN 3%																	
Grid Charger capacity	50% of KVA rating																	
SOLAR																		
Charger Type	MPPT																	
Max PV Connection in kWp	5	10	15	20	25	30	40	50	60	80	100	120	150	200	250	300		
Max PV Voltage (VOC)	250V	300V	500V	500V	500V	500/600 V	600V	900V	1100V	1100V								
MPPT Voltage Range	120-180V	165-250V	300-450V for 240VDC / 450-600V for 360VDC OR 384VDC											800 - 1000V				
MPPT Modes Available	3 (Selectable)																	
No of MPPT Channel	1				2				2		2		2		3		3	
Panel Reverse Protection	Yes																	
Solar Charger Efficiency	up to 95%																	
BATTERY																		
Nominal Battery Voltage (VDC)	96	120	240	360	360 / 384								480/600	576 / 600				
Battery Buffer Setting	DC Voltage Selectable Through kay pad																	
Grid Charging Current	SETTABLE THROUGH KAY PAD																	
Temperature Compensated Charging	YES																	
Battery Charging Voltage	Selectable from LCD Display																	
Type & No. of cells	Lead Acid / VRLA / Ni-Cd/ Lithium Ion																	
BMS compatible	YES																	
OUTPUT																		
Load Power Factor	Unity (kVA = kW)																	
Output Voltage (Inverter Mode)	415V AC ± 2 %																	
Output Frequency (Free Running)	50 Hz ± 1%																	
Output Waveform	Pure Sine wave																	
Peak Inverter Efficiency (Full Load)	upto 90%																	
Total Harmonic Distortion	upto 3% at Linear Load																	
Overload Capacity	125% for 60Sec, 150% for 5 Sec																	
Changeover Time (Full load)	10 msec																	
DC to AC Galvanic Isolation	In built Isolation Transformer at Inverter Output																	
Anti Islanding Function	In Compliance with IEC 62116																	
Auto Bypass feature	YES																	
Unbalance load handaling capacity	YES																	
Duty	Continuous																	
CONFIGURATION																		
Modes Available	Grid saving, Battery backup, Export																	
power Export to Grid	Enable / Disable option Available																	
power import from Grid	Enable / Disable option Available																	
ENVIRONMENTAL																		
Acoustic Noise Level from 1 m	≤ 65 dB																	
Operating Temperature	0 to 40 Deg C (Dust free cooled and dry environment)																	
Storage Temperature	-10 Deg C to 60 Deg C																	
Relative Humidity	Up to 95 % (Non Condensing)																	
Altitude	< 1000 meter above sea level																	
Sysmic Requirement	upto 0.5g																	

SPECIFICATION

PHYSICAL																
Enclosure Protection Grade	IP 20 Compatible to IEC 60529:2001-02- As per MNRE Requirement															
Enclosure Thickness	as per industrial standard															
Cooling	Forced Air															
Colour	RAL 7016			RAL 9016												
Cable Entry	Bottom															
Parameters displayed on LCD																
Input Group	1. Voltage, 2.Current, 3. Frequency, 4. kW, 5. kVA, 6. Import kWh , 7. Export kWh, 8. PF															
Inverter Group	1. Voltage, 2. Current, 3. Frequency, 4. kVA															
OutputGroup	1. Voltage, 2. Frequency															
OutputGroup	1. Solar Voltage , 2. Solar Current, 3. Power(kW), 4. Solar Energy (kWh)															
Battery Group	1. Voltage, 2.Current 3. SoC															
PROTECTIONS																
ELECTRICAL PROTECTIONS	CIRCUIT BREAKER and Fuse															
ELECTRONIC PROTECTIONS																
	Alarms are provided for all important protections.															
inverter Group	1.Input Under Voltage, 2.Input Over Voltage, 3. Charger Over Voltage, 4. Under /Over Frequency															
inverter Group	1. Output Under Voltage,2.Output Over Voltage 3. Overload, 4. Output short Circuit, 5. Inverter Over Temperature															
Solar Group	1. Surge Protection , 2. Reverse PV Panel protection															
Battery Group	1. Battery low , 2. Battery Over charge 3.,Battery Charging Current limit															
CONNECTIVITY																
Communication	RS 232 or RS 485															
Protocol	MODBUS RTU															
LCD with backlight & Tactile kay pad Interface	YES															
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															
Safety Factor	1 for electronic devices, 1 for electrical															
Earthing Connection (Ref. is 3043)	Earth terminal block	25- 40 kVA : 3 x 25 mm GI (Earth bus bar running along the panel)	45-150 kVA : 6 x 50 mm GI (Earth bus bar running along the panel)	200-300KVA : 6 x 50 mm GI (Earth bus bar running along the panel)												
Illumination lamp	N.A.		11 W CFL													
Gland Plate	NA		3 mm MS C.R.C.A.													
Utility Socket	NA		5 A / 230 VAC													
Dimensions (in mm)																
KVA Rating	5	10	15	20	25	30	40	50	60	80	100	120	150	200	250	300
Width (W)	450	450	450	450	450	450	600	800	800	1100	1100	1100	1565	1570	2900	2900
Depth (D)	800	800	800	800	950	950	1000	950	950	800	800	800	850	850	850	850
Height (H)	800	800	800	800	800	800	1300	1700	1700	1900	1900	1900	1900	1900	1900	1900
Weight (Kg) APPROX.	125	150	150	300	350	350	650	650	700	850	900	1000	1200	1400	1500	1600
Add on ACCESSORIES (not standard Part fo inverter)																
1)GSM Based Remote Monitoring, 2.) 2) Modbus RS485 3) RADIATION SENSOR (Pyranometer) 4) SMOKE DETECTOR. 5) IP 42 Enclosure and above. 6) MANUAL BYPASS																

