



**ON GRID
SOLAR INVERTER**
1KW TO 6KW
SINGLE PHASE



Key Features



**BIG LCD
DISPLAY**



**COMPACT &
EASY TO INSTALL**



**POWER
EXPORT LIMIT**



**WIFI / GPRS / LAN
COMMUNICATION
OPTIONAL**



**Patented
Cooling Design**



**Unique H6 Topology
Helps Prevent
Leakage Current**



**Dual Cooling System
(Force + Natural)**



**Built-in
DC Switch**

Smart Conversion. Maximum Solar Performance.

The Smarten STAR Series On-Grid Solar Inverter is engineered for efficient and reliable solar power conversion across residential and commercial applications. With advanced MPPT technology, intelligent cooling, comprehensive protection and flexible communication, the STAR Series delivers dependable performance across a wide range of operating conditions.

TECHNICAL SPECIFICATIONS

Model	S1KW	S1.5KW	S2.2KW	S3KW	S3.6KW	S4.2KW	S5KW	S6KW
DC SIDE / INPUT PARAMETERS								
Maximum DC Power (W)	1500W	2250W	3300W	4500W	5400W	6300W	7500W	7500W
Maximum DC Voltage (Vdc)	550	550	550	550	550	550	550	550
Minimum System Start / Shutdown Voltage (Vdc)	70 / 65	100 / 75	100 / 75	100 / 75	100 / 75	100 / 75	100 / 75	100 / 75
MPPT Voltage Range (Vdc)	70~500	100~500	100~500	100~500	100~500	100~500	100~500	100~500
Maximum Input Current (A)	18A					22A		
Max. Input Short-Circuit Current per MPPT	25A					30A		
Number of MPPT Trackers	1							
Strings per MPPT Tracker	1							
AC SIDE / OUTPUT PARAMETERS								
Nominal Output Power (W)	1000	1500	2200	3000	3600	4000	5000	6000
Maximum Output Power (W)	1100	1650	2420	3300	3960	4400	5500	6600
Nominal Output Voltage Range (V)	208, 220, 230, 240 / 180~270							
AC Grid Frequency Range (Hz)	50 Hz, 60 Hz (Auto-Selection) / 44~55 Hz; 54~65 Hz							
Maximum Output Current (A)	6	8	12	14.35	17.22	21	23	28
AC Connection (with PE)	Single-Phase							
Current Distortion (THDi)	<1.5%	<1.5%	<1.5%	<1.5%	<2.5%	<2.5%	<2.5%	<2.5%
Power Factor	~1 (Adjustable from 0.8 Leading to 0.8 Lagging)							
EFFICIENCY								
Maximum Conversion Efficiency	97.3%	97.3%	97.4%	97.5%	97.8%	97.8%	97.5%	97.6%
European Efficiency	97.0%	97.0%	97.1%	97.2%	97.3%	97.3%	97.2%	97.3%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
SAFETY AND PROTECTION								
DC Reverse-Polarity Protection	Yes							
Anti-Islanding / Overvoltage Protection	Yes							
Short-Circuit Protection	Yes							
Leakage Current Protection	Yes							
Grid Monitoring / Ground Fault Monitoring	Yes							
DC / AC Side SPD (Thermally Protected)	Yes							
GENERAL PARAMETERS								
Dimensions (L × W × H) (mm)	300 / 294 / 104					370 / 318.5 / 105.5		
Weight (kg)	5					7		
Embedded DC Switch	Optional							
Night Power Consumption (W)	< 0.2							
Isolation Type	Transformerless							
Degree of Protection	IP65 Compliant with IEC 60529							
Operating Temperature Range (°C)	-25 ~ +60							
Cooling Method	Smart Cooling							
Operating Altitude (m)	< 2000 m Without Power Derating							
Acoustic Noise Level (dB)	< 25							
Display	Graphic LCD							
Communication Interface	Standard WiFi, Optional RS485							

