

12kW / 6kW Grid Tied Inverter

The 12 KW / 6 KW Grid Tied Inverter efficiently converts DC from solar panels to AC with nearly 98% efficiency, making it ideal for maximizing solar energy output and selling excess power back to the utility company. It has a durable and weather-resistant design, user-friendly interface and advanced safety features. Equipped with two MPPT channels and 3 level T-Type NPC energy-efficient topology, this inverter offers optimal power generation efficiency and good power quality. It also complies with functional safety standards and includes critical protection features for safe operation, with an ARM core-based controller with advanced algorithms for accurate MPPT, grid synchronization and protection.

- **Residential**
- **Commercial**
- **Agricultural**
- **Community**
- **Micro-grid**



Key Features of 12KW Grid Tied Inverter



High efficiency for maximum energy savings



Maximum Power Point Tracking (MPPT) for optimized energy harvesting



Wide input voltage ranges for versatile operation



Specifically designed for Indian conditions



Built-in protection for added safety and reliability



Incorporation of advanced, futuristic technology



3-level inverter topology for superior energy efficiency



Human-machine interface (HMI) for intuitive control



Low Total Harmonic Distortion (THD) for high power quality



USB host for convenient local firmware upgrades



IP65 protection class for durability in harsh environments



Adherence to EN/IEC 62109-1 and EN/IEC 62109-2 grid safety standards



Digital display with fault indication for easy monitoring



Compliance with international grid integration standards (VDE-AR-N 4105, EN 62109, EN 62000-6-1, EN 62000-6-3, UI1741, IEEE 1547)

Specification	12kW	6kW
Efficiency		
Max. Efficiency	98.50%	
European Weighted Efficiency	98.00%	
Input		
Recommended Max. PV Power	12,000 Wp	6,000 Wp
Max. Input Voltage	1000 V	
Operating Voltage Range	250-1000 V	
Start-up Voltage	250 V	
Rated Input Voltage	650VDC - 750VDC	
Max. Input Current per MPPT	8.70 A	
Max. Short-Circuit Current	9.24 A	
Number of MPP Trackers	2	1
Max. Input Number per MPP Tracker	1	
Output		
Grid Connection	3 Phase	
Rated Output Power	12,000 W	6,000 W
Max. Apparent Power	13,200 VA	6.6 VA
Rated Output Voltage	230 Vac / 400 Vac, 5%, 3W+N+PE	
Rated AC Grid Frequency	50 Hz	
Max. Output Current	18A	9A
Max. Total Harmonic Distortion	≤ 3%	
Protection		
Input-Side Disconnection Device	Yes	
Anti-Islanding	Yes	
AC Over-Current	Yes	
AC Short-Circuit	Yes	
Ac Over-Voltage	Yes	
DC Reverse-Polarity	Yes	
ARC Fault	Yes	
General Data		
Operation Temperature Range	-25 °C ~ +60 °C (-13 °F ~ 140 °F)	
Cooling	Natural Convection	
Display	Thin Film Transistor (TFT) Graphic LCD Display	
Communication	RS232; Wi-Fi, Ethernet, USB	
Weight (with Mounting Plate)	35 Kg	25 Kg
Dimensions (W x H x D)(incl. Mounting Plate)(mm)	544 x 780 x 385	400 x 320 x 200
Degree of Protection	Ip 65	
Night-time Power Consumption	< 7 W	
Standard Compliance		
Safety	EN/IEC 62109-1 and EN/IEC 62109-2 VDE-AR-N 4105, EN 62109, EN 62000-6-1, EN 62000-6-3, CE, UL1741, CSA C22.2 No. 107.1, AS4777.1, AS4777.2 and AS4777.3	
Grid Connection Standards		

