

SUNFED OFF-GRID SINE WAVE SOLAR INVERTERS

1kVA to 10kVA (with built-in AVR)



The new Range of **SUNFED** Sine-wave Solar Inverters from **MITRAMAX ENERGY** are based on the carefully developed technology that enables harvesting of 10 to 15% more solar energy than conventional Inverters. **SUNFED** Solar inverter uses efficient torroid-cored output transformer and 90% high efficiency which ensures peak production while providing simplified system planning, long endurance and maintenance free operation. **SUNFED** Inverters can be integrated into any off-grid power systems up to 10kVA in size.

The users do not need additional Line Voltage Regulator for line stability since **SUNFED** has a built-in Line Voltage Regulator giving stable line when the unit is in line power mode.

SUNFED series provided comprehensive operational Remote Status Monitoring via RS232 Port to monitor Status of system, battery parameters, AC output load and energy real-time on demand

EFFICIENT

- Maximum efficiency 90%
- Very low no load losses saves lot of energy loss, longer power backup
- Intelligent battery management SW ensures guaranteed backup energy in battery
- Monitor System Status via RS232 port

FLEXIBLE

- SUNFED systems cover a wide range from 1kVA to 10kVA
- Its built-in Live Voltage Stabiliser delivering stabilised voltage when in Line Mode
- Ideal to go with Sun any place; deserts, forests and hinterlands

SIMPLE

- Easy and Quick commissioning
- Complete off-grid management
- Excellent Solar back-up when grid fails

DURABLE

- Extreme overload capability
- Active thermal management system
- Two-year standard warranty

1kVA to 10kVA **SUNFED** SOLAR INVERTERS from **MITRAMAX ENERGY** offer first class possibilities in the installation of self-sufficient energy system. In conjunction with a battery pack they offer an independent source of stable 230V AC, for homes and offices, which meets with the highest quality standards. They are designed to deliver pure Solar Energy at any point under the Sun. Their unique design integrates Line Power, if available, as a backup source. **SUNFED** System offers a high degree of flexibility at system planning and layout.

Computers, TVs, Home Appliances and other products last longer and run better when powered with true sine-wave electricity. Our embedded solar chargers use multiple stages to perform quick recharging while prolonging battery life, saving batteries from unnecessary wear and prolonging their life on these costly components of the energy system. Rugged construction and simplified design deliver industry-leading reliability, an important consideration for those seeking an energy independent lifestyle.

TECHNICAL SPECIFICATIONS

Rated output capacity		1kVA	2kVA	3kVA	5kVA	10kVA
Peak Power capacity		800W	1.6kW	2.4kW	4kW	8kW
Nominal Battery voltage(DC)		12V	24V	48V	96V	192V
Solar Priority Operating Mode Logic		Normally works as a Solar Inverter working from Solar Energy or Battery When Battery voltage, on load, drops to its under voltage limit, line power is turned on to feed the load and also charge battery from power line				
PV Solar Modules		1000Wp	2000Wp	3000Wp	5000Wp	10,000Wp
MPPT Current Controller		Built-in every LEECH PV Module				
Min Solar Energy Generation on a clear Sunny Day		3.5WH	7WH	10WH	18WH	35W
AC Input	Voltage(AC)	165V~275V (Mains mode)				
	Frequency	50Hz±5Hz				
Output (AC)	Voltage	230V±3% (Inverter Mode)				
	Frequency	50Hz±1%				
Solar Input (solar intensity dependent)		56A	56A	42A	35A	35A
Battery Charger	Charge Current	1~20A –Auto-detect real-time, self-setting				
	Charge time	8~16 hours				
	Battery protection	Automatic self-test. Charge and Discharge Level Protection				
Display	Information shown	Input and Output Voltage, Frequency, Battery capacity, load Level,				
Remote Data via RS232 Port		Status of system, battery parameters, AC Output, Battery Status, Load, Energy delivery etc.				
Output wave type		Pure Sine wave (THD ≤3)				
Overload capacity		120% for 60s, 130% for 10s				
Inverter efficiency		90% max/ 87% average				
No Load DC Input Current		Less than 1% of the Full load Input DC Current				
Transfer time to Mains		≤3ms				
Protections		Output overload, short-circuit				
		Battery reverse polarity				
		Input high/low voltage protection				
		Overheat protection				
Safety Approvals		CE and EMC				
Environment	Temperature	-10°C to +50°C				
	Humidity	10%~90%, Non-condensing				
	Altitude	≤4000m				
Dimensions (mm)	Width	395	460	500	500	500
	Depth	145	200	284	284	284
	Height	210	330	500	500	500
Net weight (kg)		10	18	19	36	48

RS232 SAMPLE DATA CAPTURE

