



FIRE STAR

OFF-GRID SOLAR INVERTER



Hassle free installation and user friendly design



LCD Display for easy viewing



DSP based technology with interleaved MPPT switching



Multiple AC/DC, load and battery related protections



Compatible with grid and genset with automatic changeover.



Equipped with remote monitoring facility



4-stage charger enhances battery life by 1-2 years



MPPT efficiency at 99%
System efficiency at 90-94%

TECHNICAL SPECIFICATIONS

Power Rating (KVA)	0.8	1 1.5	2	3	5	6	10	20	40	60	80	100	120
Power in Watts (KW)	0.5	1	1.6	2.4	4	4.8	8	16	32	48	64	80	96
Battery voltage (V)	12	24	24 48	36 48	48 120	60 120	120 180	120 360	360 720	360 720	360 720	480 720	480 768

- Mains Charger PWM controlled SMPS based 4-Stage Charger
- Control Device Digital Signal Processor (DSP)
- Power Device MOSFET IGBT
- Solar Charge Controller 2-Phase Interleaved MPPT 4-Phase Interleaved MPPT

INPUT AND OUTPUT DATA

- MPPT Input Voltage (Vmp) 16V - 88V 64V - 850V
- Output Voltage Range 10V - 60V 40V - 720V
- AC Input / Output Configuration 1-Phase to 1-Phase / 3-Phase to 3-Phase (from 5 KVA onwards)
- AC Input Voltage Range 120V - 290V Each Phase
- Charging Current 10% of Battery Ah Capacity (Settable)
- Output Voltage 230V AC +/-2% Each Phase
- Output Wave Shape Pure Sine Wave
- Output T.H.D <2%
- Crest Factor 4:1
- Output Frequency 50 Hz / 60 Hz (Settable)
- Phase Displacement for 3-Phase output 120 degrees +/-1%

EFFICIENCY

- Max. Inverter Efficiency 90 - 94%
- Max. MPPT Efficiency >99%

PROTECTION DEVICES

- Isolated sensing of mains • Output Short Circuit Protection • Protection against 440V mains input • Protection against reverse polarity • Dynamic short circuit protection with fold-back current limiting • Protections against errors like battery-low, over-load, heavy load, short circuit etc. • Early warning for battery low and overload conditions • Cutoff and auto restart with permanent cut off after 5 consecutive cutoff • MPPT over-voltage / over-current • MPPT reverse polarity • Lightning / Surge protection

GENERAL DATA

- Operating Temperature Range -10C to 60 C
- Noise Emission Less than 45db at 1 meter
- Topology Transformer based
- Battery Low Settable
- Switchover time 20msec 60msec
- Minimum Wattage Detection 15W
- Cooling concept Forced convection with fan
- Environmental Protection Rating IP 21

FEATURES

- Inbuilt Lightning Arrestor • Multiple Built-in Protections • RS 485 port for data reading, Remote monitoring system via Zigbee/GSM • Display-16 x 4 LCD • Warranty - 2 years, extendable to 5 years • Battery Management System (Optional)

STANDARDS

- Efficiency IEC 61683
- Environmental IEC 60068-2-1, IEC60068-2-2, IEC 60068-2-14, IEC 60068-2-30

Specifications subject to change without prior notice

Authorized Dealer