

TECHNICAL SPECIFICATION

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|--|---|-------|--------|--------|---------|---------|---------|---------|---------|---------|--|
| Parameter | RATING | | | | | | | | | | |
| System Rating | 1KVA | 2KVA | 3KVA | 5KVA | 5KVA | 7.5KVA | 7.5KVA | 10KVA | 10KVA | 15KVA | |
| Operating DC Voltage | 24V | 24V | 48V | 48V | 96V | 96V | 120V | 120V | 180V | 240V | |
| PHOTOVOLTAIC INPUT | | | | | | | | | | | |
| Voltage Range (Min - Max) VOC | 36-90 | 36-90 | 72-180 | 72-180 | 144-360 | 144-360 | 180-450 | 180-450 | 270-450 | 360-600 | |
| Max PV Power Recommended | 1KW | 2KW | 3KW | 5KW | 5KW | 7.5KW | 7.5KW | 10KW | 10KW | 15KW | |
| MPPT BASED CHARGE CONTROLLER | | | | | | | | | | | |
| Micro-Controller | DSP | | | | | | | | | | |
| Type of Charger | MPPT (Maximum Power Point Tracking) | | | | | | | | | | |
| Efficiency | 95% | | | | | | | | | | |
| CONFIGURABLE PARAMETER | | | | | | | | | | | |
| Battery Low Alarm | 10.7V +/- 2% | | | | | | | | | | |
| Battery Low Cut & High Cut | 10.5V & 15.5V +/- 2% | | | | | | | | | | |
| Battery Charging Voltage & Current by Solar | 14.5V & 25A +/- 2% | | | | | | | | | | |
| Battery Charging Voltage & Current by Grid | 14V & 10A +/- 2% | | | | | | | | | | |
| Grid Low Cut Voltage_INV/UPS | 100/175V +/- 2% | | | | | | | | | | |
| Grid High Cut Voltage_INV/UPS | 280/255V +/- 2% | | | | | | | | | | |
| Change Over Time (Mains - Inverter / Inverter - Mains) | < 10 Milliseconds | | | | | | | | | | |
| Mode Selection | HYBRID /PCU /SMART | | | | | | | | | | |
| Working Modes Selection | Inverter / UPS | | | | | | | | | | |
| Battery Selection (Optional) | Tubular / SMF | | | | | | | | | | |
| Battery Charging (Optional) | Enable/Disable | | | | | | | | | | |
| BATTERY | | | | | | | | | | | |
| Grid Disconnect (Solar Available) | 14.5V / Battery OR 25A Batt. Charging | | | | | | | | | | |
| Grid Reconnect (PCU MODE) | 12V / Battery | | | | | | | | | | |
| Temperature Compensation | 3mV / Cell ,18mV / Battery (Optional) | | | | | | | | | | |
| LCD | | | | | | | | | | | |
| Display | 20x4 Alphanumeric LCD Graphical Color Display 3.2" (Optional) | | | | | | | | | | |
| DISPLAY PARAMETERS | | | | | | | | | | | |
| Input / Output | Voltage, Current, Frequency, Power, Energy (Optional) | | | | | | | | | | |
| Load | Load in %, Actual Running Load in Watt, Energy (Optional) | | | | | | | | | | |
| Battery | Battery Level & Battery Voltage, Charging Current by Grid/Solar, Discharging Current to Inverter Charging Stages(Soft Start, Bulk, Absorption, Float & Equalize) | | | | | | | | | | |
| Solar | Solar Voltage, Charging Current by Solar, Charging Stages(Soft Start, Bulk, Absorption, Float & Equalize) | | | | | | | | | | |
| Status and Faults | Overheat, Mains High / Low, Inverter On/Off , SPV Status Low / High, Output Low, Battery Low / High | | | | | | | | | | |
| COMMUNICATION | | | | | | | | | | | |
| RMS (Remote Monitoring System) | RS232 Comm Port (Optional) RS232 Comm Port (Optional) | | | | | | | | | | |
| INVERTER | | | | | | | | | | | |
| Control Topology | PWM | | | | | | | | | | |
| Output Voltage | 230V | | | | | | | | | | |
| Output Phase | 1 Phase , 3 Wire (P,N,E) | | | | | | | | | | |
| Output Waveform | Digitally Filtered Pure Sine Wave | | | | | | | | | | |
| Frequency | 50 Hz | | | | | | | | | | |
| Voltage Regulation | 2% | | | | | | | | | | |
| Output Distortion at Full Load | <3% | | | | | | | | | | |
| Overload Capacity | 100% - 105% : 2 Min with 3 Times Auto Reset, 105% - 120% : 30 Secs with 3 Times Auto Reset, 120% - 150% : 5 Second, 150%-200%: 2 Second, 200%-300%: 500 msec, 300%-400%: 20 msec, >400%: Immediate | | | | | | | | | | |
| Noise at I Meter | 60 dB | | | | | | | | | | |
| Cooling | Forced Cooling (Temperature Controlled) | | | | | | | | | | |
| Protections | Overload, Short Circuit, Over Voltage, SPV Surge and Transient (MOV Varistors), Reverse Polarity of Battery, Over Temperature, Under voltage and Over voltage | | | | | | | | | | |
| Environment Standard Compliance | IP 20, IP21 (Optional) | | | | | | | | | | |

* Specification may change due to continuous R&D