



**RITIKA**  
Powering Lives Since 1985

ritSOL M+ : SOLAR HYBRID INVERTER

With Advanced MPPT Technology



## Salient Features

- ✓ Solar PCU with bidirectional inverter
- ✓ With MPPT charge controller
- ✓ Auto equalization for enhanced battery life
- ✓ Configurable battery current charge
- ✓ Solar/Grid power sharing for battery charging
- ✓ Grid export (optional)
- ✓ Configurable battery voltage for all types of batteries



Ritika Systems Private Limited  
[www.ritikasytems.in](http://www.ritikasytems.in)

Solar Panels  
Solar BOS  
Solar PCU  
Solar EPC  
Project Management

# ritSOL M+ : SOLAR HYBRID INVERTER

| TECHNICAL SPECIFICATIONS                 |  |         |          |           |           |   |
|--|--|---------|----------|-----------|-----------|---|
| Description                              | 1KW  | 2KW     | 3KW      | 6KW       | 10KW      |   |
| Inverter Rating                          | 1KW  | 2KW     | 3KW      | 7KW       | 10KW      |   |
| Maximum PV Rating                        | 1.5KW  | 3KW     | 3.6KW    | 8KW       | 12KW      |   |
| PV Vmp                                   | 60-90 V  | 60-90 V | 150-200V | 150-200V  | 180V-240  |   |
| PV Voc                                   | 80-120V  | 90-120V | 180-250V | 200V-250V | 200V-300V |   |
| MPPT Efficiency                          | 98%  |         |          |           |           |   |
| Mains Input                              | 170V to 270V AC Input  |         |          |           |           |   |
| Input PF                                 | 0.8  |         |          |           |           |   |
| Inverter Output                          | 230 VAC +/- 1% 1Ph 50Hz  |         |          |           |           |   |
| Isolation Transformer                    | Provided inbuilt   |         |          |           |           |   |
| Output Waveform                          | Sinusoidal   |         |          |           |           |   |
| Output THD                               | < 3% on linear load & < 5% on non-linear load  |         |          |           |           |   |
| Overload                                 | 110% for 10 minutes, 125% for 1 minutes, 150% for 1 sec  |         |          |           |           |   |
| Inverter Efficiency                      | > 85%  |         |          |           |           |   |
| Protections                              | Input & Output Over / Under Voltage, DC - High / Under Voltage, Battery Charging, Over Current, Output Overload / Short Circuit / Over Temp.   |         |          |           |           |   |
| Audio Alarm                              | Mains Fail, Battery Low Pre-alarm, Inverter Trip   |         |          |           |           |   |
| Nominal VDC                              | 48V  | 48V     | 96V      | 96V       | 120V      |   |
| Float Voltage from PV (14V/Battery)      | 56V  | 56V     | 112V     | 112V      | 140V      |   |
| Float Voltage from Mains (13.5V/Battery) | 54V  | 54V     | 108V     | 108V      | 135V      | - |
| Battery low alarm (10.5V/Battery)        | 42V  | 42V     | 84V      | 147V      | 105V      |   |
| Battery low trip (10.2V/Battery)         | 42V  | 42V     | 84V      | 147V      | 105V      |   |
| Boost Voltage (14.5V/Battery)            | 58V  | 58V     | 116V     | 203V      | 145V      |   |
| Metering                                 | Input & output Voltage, Current & Frequency, Battery Voltage, Charging & Discharging Current, PV Panel voltage, Total Power Generated From Solar Panel, Operating Mode   |         |          |           |           |   |
| Messages / Indications                   | Input - On / High / Low / Fail / Single phasing, Boost Charging, Battery - On / Float / Discharging / Low Trip, DC High, UPS - ON / OFF, Load on - UPS & Input, Output - Low / High / Overload / Fail / Short Circuit & Over Temp., Inverter On / Trip, PV Panel ON , PV Panel Reverse |         |          |           |           |   |
| Switchgear                               | MCB for Input, Battery, Output & Solar   |         |          |           |           |   |
| Termination                              | Input, Battery, Output & Solar   |         |          |           |           |   |
| Enclosure                                | IP 20  |         |          |           |           |   |
| Operating Temp.                          | 0 to 40 Deg C  |         |          |           |           |   |
| Humidity                                 | Up to 95% Rh (non-condensing)  |         |          |           |           |   |
| Cooling                                  | Forced Air   |         |          |           |           |   |
| Noise                                    | < 55 dB  |         |          | < 65 dB   |           |   |
| Cold Start                               | Provided   |         |          |           |           |   |
| Communication                            | RS 232   |         |          |           |           |   |
| Monitoring Software                      | UPS Monitoring Software on Windows XP Platform   |         |          |           |           |   |
| SCR Static Switch                        | Provided with changeover < 5 sec   |         |          |           |           |   |
| Wheels                                   | Provided   |         |          |           |           |   |



Shops



Filling stations



Hospitals



Residences



Offices