

### 3 KW HYBRID SOLAR PHOTOVOLTAIC NET METER SYSTEM

Hyperion provides the best solar power system in India with its unique Solar Hybrid Inverter matched with highly optimised and specially manufactured components like SPV panels and batteries to ensure high performance and maximum returns. Our solar power system is truly built to last. All our systems are MNRE certified. Below are brief technical specifications.



#### High Efficiency Solar Photovoltaic Module

- Cell Type: Poly-crystalline Silicon
- No. of Cells: 72
- Power: 300 Watts peak  $\pm 3$  Watts
- MNRE Specification: IEC 61215, IEC 61730- 1 & 2, IEC 61701



#### High Efficiency Microprocessor Controlled Transformer-less Solar PV Hybrid Inverter

- Rated Power: 3000 Watts
- Nominal DC Voltage: 360 VDC
- MPP Voltage Range: 250 VDC ~ 450 VDC
- Maximum DC Input Current: 13 Amp
- Output Voltage Range: 184 – 265 VAC
- Output Frequency Range: 47.5 ~ 50.2 Hz
- Electronic Efficiency:  $\geq 94\%$
- MNRE Specification: IEC 61683, IEC 600682-2-1, 2, 14, 30 and IEC 60529
- Communication interface: RS 485 & USB



#### Low Maintenance Tubular GEL Batteries

- Type: Tubular GEL VRLA Batteries
- Voltage: 12 VDC
- Capacity: 150 AH
- Life: 1800 cycles @ 80% DOD
- MNRE Specification: IS 15549



### High Quality Cables

- PVC Insulated Cables with working Voltages up to 1100V
- MNRE Specifications: IEC 60189/IS 694/IS 1554/IS/IEC 69947
- AC Cables – 1 core multi-strand 4 sq. mm. cable of maximum 10 mts. length each for Phase, Neutral and Earth from Electrical Mains to Inverter and from Inverter to Electrical Mains
- DC Cables – 1 core multi-strand 4 sq. mm. cable of maximum 10 mts. length each for Phase, Neutral and Earth from SPV Panels to Inverter
- Battery Cables - 1 core multi-strand 16 sq. mm. cable maximum 4 mts. length each for Phase and Neutral from Batteries to Inverter.



### Switches / Circuit Breakers / Connectors

- AC & DC Circuit Breakers – IS/IEC 60947 Part I, II, III EN 50521
- Lighting & Surge Protection
- Silver plated lugs



### Support Structure

- Hot Dip Galvanized MS Support Structure
- MNRE Standards: IS 1416.716.7 Part-1 with thickness of 100 microns as per IS 5905
- Withstands Wind Speed up to 150 kms/hour
- Bolt, Nuts, Fasteners etc.: Stainless Steel SS304

\* Above pictures are for illustrative purposes only. Actual material may vary.

### **OUR SCOPE OF WORK:**

1. Solar PV Modules – 10 nos.
2. Hybrid Inverter – 1 no.
3. Batteries – 4 nos.
4. Standard supporting structure with hardware – 1 lot
5. DC Cables (Phase, Neutral, Earth – each up to max. 10 mts.) – 1 lot
6. AC Cables (Phase, Neutral, Earth – each up to max. 10 mts.) – 1 lot
7. Battery Cables (Phase & Neutral – each up to max. 4 mts.) – 1 lot
8. SPV Array Box (500VDC Fuse, Isolator) – 1 no.
9. DC Distribution Box (500VDC MCB, 60VDC MCB) – 1 no.
10. AC Distribution Box (2 x 265VAC-32A MCBs) – 1 no.
11. Instruction Manual – 1 set
12. Installation, Testing and Commissioning

### **NOT IN OUR SCOPE OF WORK:**

1. Grid Power Supply (Building)
2. Load Analysis or Internal Energy Auditing
3. Internal load distribution and balancing (provided at extra cost)
4. Internal Wiring & Additional Wiring (provided at extra cost)
5. Supply Main Electrical Distribution Box
6. Provision of Electrical Earth (Ground)
7. Installation of Net Meter (it is the scope of DISCOM)
8. AC / DC Surge Protections (provided at extra cost)
9. Miscellaneous items (other than our scope)

### **WARRANTY:**

The 3 KW Solar Hybrid Photovoltaic System comes with a comprehensive warranty of 5 years.

1. Warranty of 25 years for SPV panels from the date of installation for peak performance at 90% at the end of 10 years and 80% at the end of 25 years.
2. Warranty of 1 year on Solar Hybrid Inverter against any manufacturing defects and free maintenance for 4 years covering all repairs and spares.
3. Prorated Warranty of 5 years on Batteries.
4. Cables, switchgear, fuses etc. are not covered under warranty.
5. Warranty does not cover damage due to lightning, high and low voltages supply from grid power, short circuit, fire, mishandling or any other external damage.
6. Service calls shall be charged at Rs.250/- per call during warranty period.

Net Meter is provided by AP DISCOM on payment and it is not in our scope of work. All product specifications are subject to change without notice.