

# Wind Power Plant

## Product Features

- Wind Turbine Simulator
- Stand-Alone Renewable Energy Systems
- Micro Grid-Connected WTG System
- Active and Reactive Power Control
- Multifunction Energy Measurement
- Developed Interoperable SCADA



## Specifications

### Wind Turbine Simulator

- Permanent Magnet Synchronous Generator (PMSG) : 1 hp
- Induction Motor : 1 hp
- Inverter Motor Drive Power Rating : 1 kVA

### Inverter on Grid 3 Phase

- Maximum input power : 5.5 kW
- Nominal voltage : 370 Vdc
- Operating voltage : 100 Vdc – 550 Vdc
- Startup voltage : >125 Vdc
- Startup power : 30 W
- Absolute maximum voltage : 600 Vdc
- Full power range : 220 Vdc – 450 Vdc
- Number of inputs : 2 pairs MC4
- Rated current : 12 Adc x 2
- Maximum short circuit current per MPPT (Isc) : 15A / 15A
- Power factor output adjustable : 0.80 leading – 0.80 lagging

### Power meter 3 Phase

- 3 Phase 4 Wire System
- Display Type Backlit LCD
- Class 1 reactive energy conforming to IEC 62053-24
- Class 0.5S active energy conforming to IEC 62053-22
- Class 5 harmonic distortion (I THD & U THD)
- Total harmonic distortion up to the 31st harmonic measurement current 5 - 6000 mA
- (Phase to Phase ) measurement voltage 35 - 480 V AC 50/60 Hz
- (Phase to Neutral) measurement voltage 20 - 277 V AC 50/60 Hz
- Energy Measurement Displayed Vrms, Irms, P, Q, S, PF, f, THDv, THDi
- Communication Port Protocol Modbus RTU 4800/ 9600/ 19200 Bps, 38.4 Kbps Even/Odd Or None - 2 Wires, Insulation 2500 V
- Communication Service Remote Monitoring

### Stand-Alone Renewable Energy Systems

- Wind Turbine Generator Power Rating : 100 W
- Battery Charger Power Rating : 100 W
- Battery Voltage : 12 V
- Battery Capacity : 12 Ah
- Inverter Off Grid : 1 Phase
- Power Rating : 100 W

### SCADA System

- SCADA remote operation

### System Structure

- Dimension D 800 x W 1500 x H 750 mm.
- Table surface melamine-coated plywood and covered with PVC edges
- Main Power Inlet 1 phase with electric wire 3 m.
- Circuit Breaker 1 phase
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- Pilot Lamp 1 unit
- Emergency stop 1 unit
- Dual Outlets Plug 220 Volt 2 unit