

Wind Turbines



1 kw hybrid wind turbine

Sun-Air research institute recommends using any renewable energy resource available at each location thus optimizing the flow of generating hours, cost efficiency ratio, and equipment description periods. Therefore, solar and wind hybrid energy system is at hand for off-grid (and on-grid) installation. This system is highly cost-efficient in terms of energy resources and it can provide power from the energy storage system.



Solar panel features

Solar panel : Monocrystalline

Nominal power : 274 W

Size : 1.96 * 0.96 cm²

Weight : 22 kg

Working temperature : -40 to 85 °C

Wind turbine features

Wind turbine : SARI 1kW

Nominal power : 1000 W

Rotor diameter : 2.5 m

Generator weight : 25 kg

Blade type : Composite

Rotor speed : 430 rpm

Yaw control : passive

Revolution protection : vertical Furling

Cut-in wind speed : 3 m/s

Generator type : PM

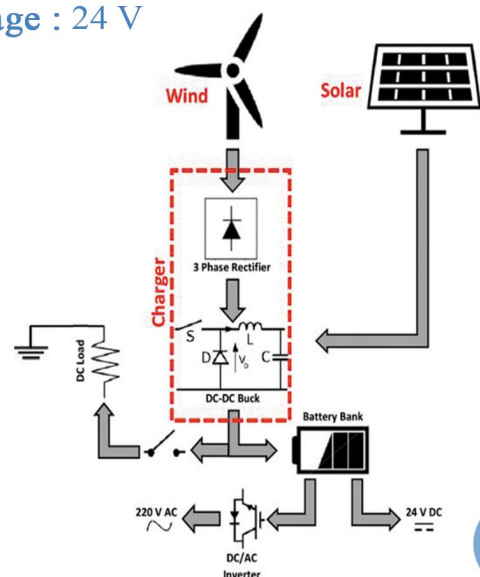
Tower height : 6 m

Energy storage system features

Battery type : Lithium

Capacity : 50/400 Ah

Voltage : 24 V



5 kw hybrid wind turbine

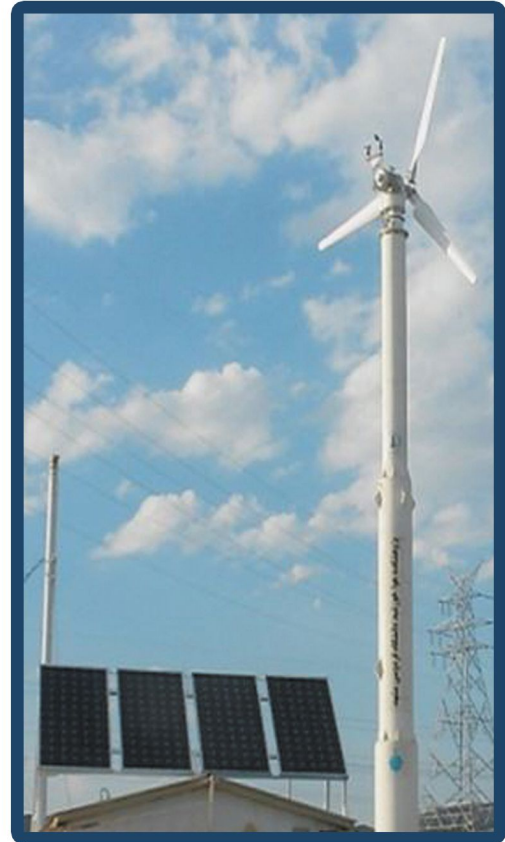
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Wind turbine features

- Wind turbine : SARI 3kW
- Nominal power : 3000 W
- Rotor diameter : 2.4 m
- Generator weight : 136 kg
- Blade type : Composite
- Rotor speed : 180 rpm
- Yaw control : passive
- Revolution protection : Stall
- Cut-in wind speed : 3 m/s
- Nominal wind speed : 12 m/s
- Generator type : PM
- Tower height : 9 m

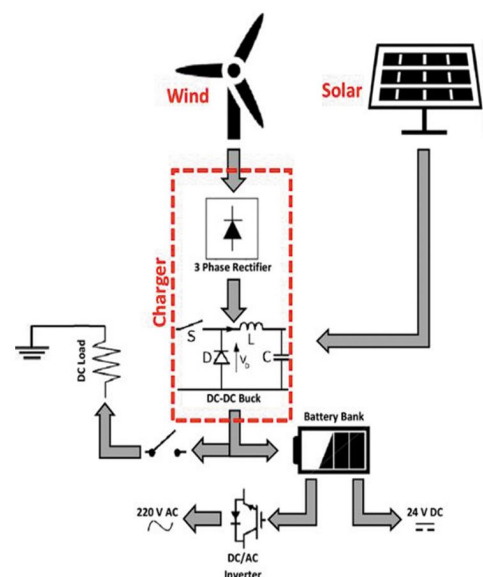
Energy storage system features

- Battery type : Lithium
- Capacity : 50/400 Ah
- Voltage : 48 V



Solar panel features

- Solar panel : Monocrystalline
- Nominal power : 2000 W
- Size (every panel) : 1.96 * 0.96 cm²
- Weight : 154 kg
- Working temperature : -40 to 85 °C



100 kw wind turbine

Despite the evident trend for multi megawatt units of wind turbines, there is also a growing demand for small and medium scale wind turbines in the market. These products are focused to bring independence to remote/rural communities by empowering them with a sustainable source of energy.

SARI 100kW wind turbines, utilize state of the art technology in the wind energy sector (i.e. modular PMG config) to offer an efficient solution in order to improve community's resilience and self-sufficiency.



Main features

- Nominal power : 100 kW
- Wind turbine : SARI 100kW
- Nominal wind speed : 10 m/s
- Cut-in wind speed : 4 m/s
- Cut-off wind speed : 23 m/s
- Rotor diameter : 24.5 m
- Nominal rotor speed : 50 rpm
- Hub height : 30 m
- Tower height : 28.8 m
- Wind standard class : Class III B
- Pitch & yaw control : Active
- Survival wind speed : 52.5 m/s
- Generator type : PM
- Coverter type: Full

250 kw wind turbine

Despite the evident trend for multi megawatt units of wind turbines, there is also a growing demand for small and medium scale wind turbines in the market. These products are focused to bring independence to remote/rural communities by empowering them with a sustainable source of energy.

SARI 250kW wind turbines, utilize state of the art technology in the wind energy sector (i.e. modular PMG config) to offer an efficient solution in order to improve community's resilience and self-sufficiency.



Main features

- Nominal power : 250 kW
- Wind turbine : SARI 250kW
- Nominal wind speed : 12 m/s
- Cut-in wind speed : 4 m/s
- Cut-off wind speed : 25 m/s
- Rotor diameter : 31 m
- Nominal rotor speed : 44 rpm
- Hub height : 31.3 m
- Tower height : 30 m
- Wind standard class : Class IC
- Pitch & yaw control : Active
- Survival wind speed : 70 m/s
- Generator type : PM
- Converter type: Full