



SECURINESS

Miljøvenlig Gadebelysning

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MILJØVENLIG OG GRØN GADEBELYSNING

Sol og Vind hybrid gadebelysning – teknisk beskrivelse



Wind & solar hybrid lights

LED STREET LIGHT

LED street light are combined with high power LEDs with high lumens, special quadric optical lens and stable constant current driver. Our patent structures for LEDs layout can make sure the uniformity of the lighting more than 0.45. The whole lamp is made of aluminum alloy ensure dust resistance, waterproof and self cleaning ability.

Features and Benefits

- Patent pending technology of corrugated matrix light can maximally improved the brightness and illumination uniformity.
- Our unique integrated aluminum fuselage structure with excellent heat dissipation coefficient, prolong the light source life.
- Maximal shining efficiency is up to 110lm/W by adoption advance LED chips.
- Power factor is over 0.98 without pollution to the grid.
- Saving installation cost by cutting down 70% diameter of cable and capacity of transformer.
- Containing no toxic mercury.
- Containing no UV and IR



Model No.	Input Voltage	Average illuminance	Power Consumption	Luminous flux	Distance of lamp poles	Lamp Height	Weight
CH-125	24VDC	≥ 12lux	45W	2800lm	20m	6m	9.2kgs
CH-234	24VDC	≥ 15lux	60W	3400lm	25m	7m	10.9kgs
CH-352	24VDC	≥ 15lux	80W	4800lm	25-30m	8m	11kg

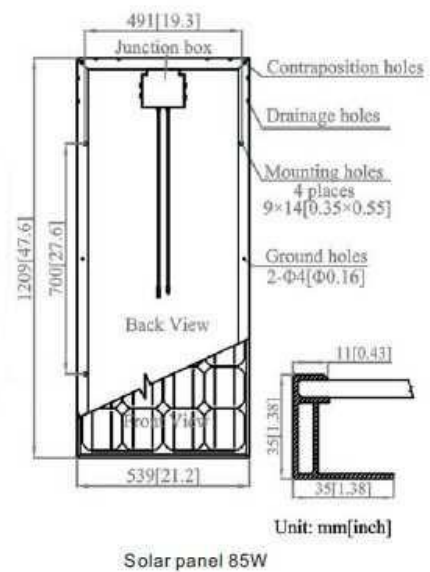
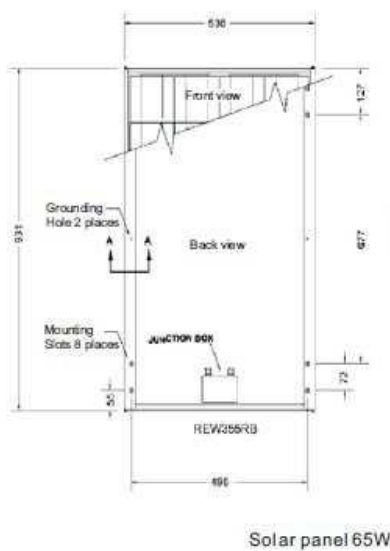
Solar Panel 65W/85W

Monocrystalline

Model	CH-65-12	C
Maximum Power	65W	85W
Open circuit voltage	22.2V	22
Optimum operating voltage	18V	17.7V
Short circuit current	3.8A	5.
Optimum operation current	3.6A	4.52A
Operation temperature	-40°C ~ 80°C	-40
Maximum system voltage	600V DC	600V DC
Series fuse rating	20A	20
Dimension of cells	125 x 93.8mm	125 x 125mm
No. of cells and connection	36pcs(4 x 9)	36
Dimension of modules	931 x 536 x 30	209 x 539 x 35
Weight	6.1kgs	7.



Module Diagram



Wind Turbine Generator

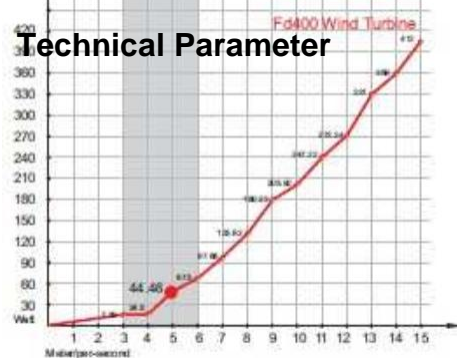
MODEL: CH-423

Charateristics

- Low start-up wind speed. High system efficiency. Lower noise.
- New electrical output devise can prevent cable twist when the windmill, this trouble often happen in traditional wind turbine.
- New connection devise that simplify the installation and maintenance.
- The blade use new material-fiberglass & nylon, and lower wastage of material per 100W electrical energy.
- The generator use magnetic circuit rotor with special stator. Which can reduce the torque and make a better match between the wine rotor and generator, enlarge the scope of effective wind speed, increase the output energy.
- The controller have the advantage of rectification, stabilivolt. And the alarm function to indicate troubles as overcharge, lower voltage in the battery.
- Use damping device which not only can ensure the sensitivity for windward and direction, but also avoid the flatter.
- Intelligent sinusoid inverter cover the DC into AC of 220V/50HZ or 110V/60HZ, and have the function of automatic protection against short circuit, overloading, over discharge and

overdischarge in the battery, which prolong the life of battery.

Technical Parameter



CH-423 output power curve

Rate power	400W	Blade material	Fiber Glasses & Nylon
Voltage	12/24V	Charge indicator	When on charging, bright light
Star up wind speed	2.8m/s	Output Waveform	Pure oscillation(distortion < 3%)
Survive wind speed	50m/s	Over-vol protection	14.5VDC, 29VDC
Roter Diameter	1.7m	Under-vol protection	10.5VDC, 21VDC
Storm stand	Up to 50m/s	Overload protection	100-120%
Weight	22kgs		Automatic lock in 25sec
size	1100x600x200mm		

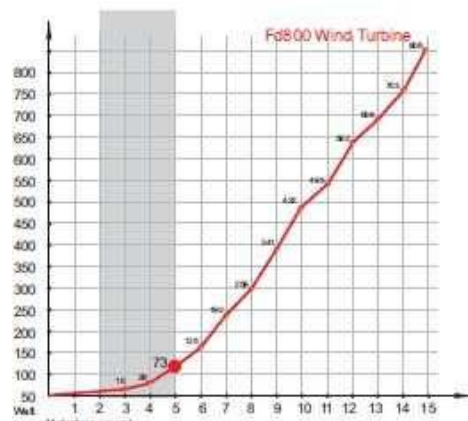
Wind Turbine Generator

Model: CH-424

Characteristic

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CH-424 Output power curve



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Roter Diameter	1.7m	Under-vol protection	10.5VDC, 21VDC
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size	110x60x20		

Controller of solar wind hybrid lights

The intelligent solar wind hybrid LED street light controller

can converse AC generated by wind turbine and DC generated by solar panel and store in the battery.

According to the advanced micro control function, it makes the solar panel offers the MPPT charging, and increase charging efficiency up to 30%. It can be set with

ON/OFF time and automatically adjust charging and discharging time, lighting power according to energy remain in the battery. The item owns many technical patents.



Technical Parameter

P/N	WSLC-24V-25A
Wind power generator input	3 level, AC \leq 60V, P \leq 400W
Wind generator control model	PWN
Over-voltage input protection	AC 60 \pm 5V
PV Battery input	DC 35V pm, P \leq 500W
PV charging control model	(MPPT)
Over-current input protection	DC 20A \pm 2A
Battery applied	24V, 100 ~ 200Ah
Battery full charge voltage	DC 22 \pm 0.3V
Battery full recharge value	DC 24 \pm 0.3V
Battery average charge value	DC 28.8 \pm 0.3V
Battery float charge value	DC 27.5 \pm 0.3V
Battery full recharge value	DC 27.5 \pm 0.3V
Output branch	1
Dimension	234 x 149 x 75mm
Working environment	-10 $^{\circ}$ C ~ 50 $^{\circ}$ C
	Humidity 0 ~ 90%

Storage Battery



This is the deep cycle battery, with 12 years floating design life, superiorly designed for free frequent cyclic discharge application under extreme temperature. 400 cycles could be available at 100% DOD. Offering extra-durable cyclic performance, high efficiency of recovery.

Cells per unit	6
Voltage Per unit	12V
Capacity	150AH@220hr-rate to 1.75V per cell @25°
Weight	Approx. 44.5kg
Max. Discharge Current	1500A(5 sec)
Internal Resistance	Approx.6mΩ
Operatin Temperature Range	Discharge:-40° ~ 60°C Charge:-20° ~ 50°C Storage:-40° ~ 60°C
Normal Operatin Temperature Range	25°C±5°C
Float charging Voltage	13.6 to 13.8 VDC/unit
	Average at 25°C
Recommended Maximum Charging Current Limit	30A
Equalization and Cycle service	14.2 to 14.4VDC/unit
	Average at 25°C



ISO9001:2000 Certificate

