Vertical Wind Turbine Brochure

LisePro wind turbine SINCE 1988





LisePro LP01-V (1000 W)

lisepro.com



LisePro wind turbine SINCE 1988 lisepro.com



Specification

Generator Type: Three Phase

Permanent Magnet

Rotor Height: 2.8 m (9.2 ft)
Rotor Width: 2.0 m (6.6 ft)
Turbine Weight: 78 kg (172.0 lbs)
Blade Material: Aluminum Alloy

Blade Quantity: 3 pcs

Performance

Rated Power: 1000 W Max Output Power: 1500 W

Cut In Wind Speed: 2.5m/s (5.6 mph)
Rated Wind Speed: 10m/s (22.4 mph)
Survival Wind Speed: 50m/s (111.9 mph)

Generator Efficiency: 96%

Noise Level: < 45 dB(A)
Warranty: 5 years

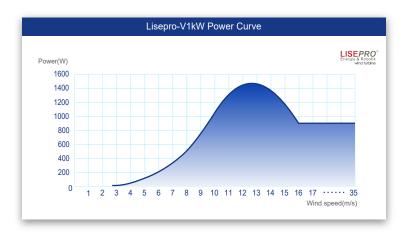
Safety

Blades RPM Limitation: 320 RPM
PWM Dump Load: 2kW Box
Electrical Brake: Auto/ Manual

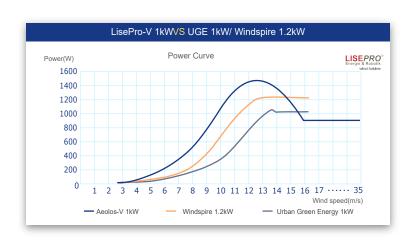
Optional

Remote Monitoring System (Internet/ Wireless)
Auto Hydraulic Brake System (Unattended Site)

Off Grid: 24/ 48 V Grid Tied: 110/ 220 V



LIS				
	Annual Energy Output(KWh)	Wind Speed(m/s)	Annual Energy Output(KWh)	Wind Speed(m/s)
1	5431 kWh	8 m/s	558 kWh	3 m/s
	6159 kWh	9 m/s	1253 kWh	4 m/s
	6715 kWh	10 m/s	2262 kWh	5 m/s
	7134 kWh	11 m/s	3416 kWh	6 m/s
	7449 kWh	12 m/s	4509 kWh	7 m/s













5 YEAR WARRANTY CE

LisePro Energie Robotik Ltd. (TR) ATATÜRK MAH. Bingül sok. 7 / Istanbul TURKEY Tel:+90 212 863 2230 E-mail: info@lisepro.com





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Why Choose Lisepro-V 1 kW Wind Turbine?

Triple Safety Protection

Special Blade Design: LisePro blades use the special aerodynamic design which limits the max rotating speed to 320 rpm even the wind speed is 30m/s or 40m/s. It is safer and more reliable than traditional vertical axis wind turbine.



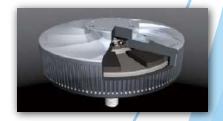
PWM Dump Load: LisePro-V 1kW wind turbine has the 2kW dump load box with PWM loading function. This will consume the over power output and control the voltage in strong wind speed.



Mechanical Brake: The manual mechanical brake can stop the windturbine for maintenance or typhoon coming. We have the auto mechanical brake system for remote installation site without people checking as optional fuction.

High Efficiency

Low Cut-in Wind Speed: LisePro-V 1kW could start up with 1.5m/s wind speed and has the power output in 2.5m/s to inverter. This is more efficient than the vertical wind turbines with a 3.5m/s or even 4.5m/s cut in wind speed.



More Annual Energy Production: According to EN61400-2(IEC 61400-2) standard, LisePro-V 1kW annual output is 2262kWh at 5m/s wind speed. The annual output at 10m/s is 6715 kWh.

MPPT Charger for Off Grid: LisePro-V 1kW uses 24V/48V MPPT charging controller to increase the charging efficiency to 94%. It can can charge the battery bank when wind speed is above 3.0m/s.









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Intelligence Control

Remote Monitoring System: Customer can remote monitor the wind turbine operation, wind speed and power output in office, home, airport and anywhere through the internet.



Auto Hydraulic Brake System: It is suitable for the remote installation sites, like the island, telecommunication tower station which does not have people checking and monitoring. This system can auto stop the wind turbine in over voltage, over wind speed, generator over temperature and all any other faults. It can auto release the wind turbine to run after the abnormal warnings.



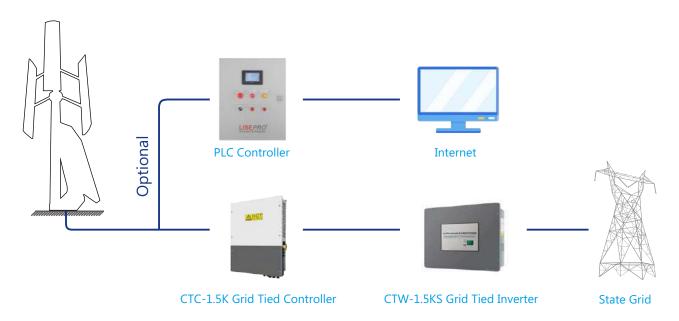


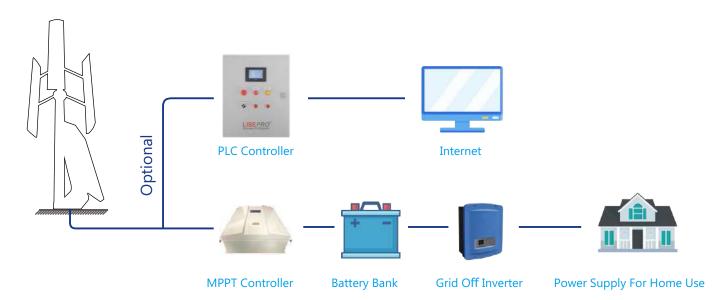
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Wiring Diagram

Grid-on









Vertical Wind Turbine Brochure LisePro-v 3 kW



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Specification

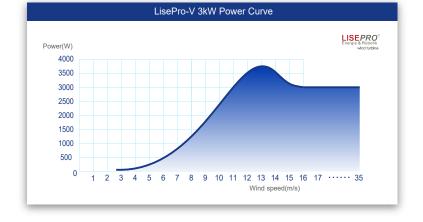
Generator Type: **Three Phase**

Permanent Magnet

Rotor Height: 3.6m (11.81 ft) Rotor Width: 2.8m (9.2 ft) **Turbine Weight:** 106 kg (233.7 lbs) Blade Material: **Aluminum Alloy**

Blade Quantity: 3 pcs

Working Temperature: -20 °C to 50 °C 20 years Design Lifetime:



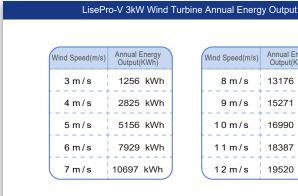
Performance

Rated Power: 3000 W Max Output Power: 3800 W

Cut In Wind Speed: 2.5m/s (5.6 mph) Rated Wind Speed: 11m/s (24.6 mph) Survival Wind Speed: 52.5m/s (117.4 mph)

Generator Efficiency: 96%

Noise Level: < 45 dB(A)Warranty: 5 years





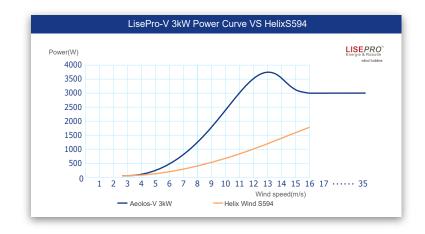
Safety

Blades RPM Limitation: 320 RPM **PWM Dump Load:** 5kW Box **Electrical Brake:** Auto/ Manual

Optional

Remote Monitoring System (Internet/Wireless) Auto Hydraulic Brake System Auto/ Manual

Off Grid: 48/96 V Grid Tied: 300 V













5 YEAR WARRANTY

LisePro Energie Robotik Ltd. (TR) ATATÜRK MAH. Bingül sok. 7 / Istanbul TURKEY Tel:+90 212 863 2230 E-mail: info@lisepro.com





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Why Choose Lisepro-V 3 kW Wind Turbine?

Triple Safety Protection

Special Blade Design: LisePro blades use the special aerodynamic design which limits the max rotating speed to 320 rpm even the wind speed is 30m/s or 40m/s. It is safer and more reliable than traditional vertical axis wind turbine.



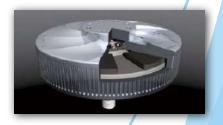
PWM Dump Load: LisePro-V 3kW wind turbine has the 5kW dump load box with PWM loading function. This will consume the over power output and control the voltage in strong wind speed.

Mechanical Brake: The manual mechanical brake can stop the windturbine for maintenance or typhoon coming. We have the auto mechanical brake system for remote installation site without people checking as optional fuction.



High Efficiency

Low Cut-in Wind Speed: LisePro-V 3kW could start up with 1.5m/s wind speed and has the power output in 2.5m/s to inverter. This is more efficient than the vertical wind turbines with a 3.5m/s or even 4.5m/s cut in wind speed.



More Annual Energy Production: According to EN61400-2(IEC 61400-2) standard, LisePro-V 3kW annual output is 5156kWh at 5m/s wind speed. The annual output at 10m/s is 16990 kWh.

MPPT Charger for Off Grid: LisePro-V 3kW uses 48V/96V MPPT charging controller to increase the charging efficiency to 94%. It can can charge the battery bank when wind speed is above 3.0m/s.







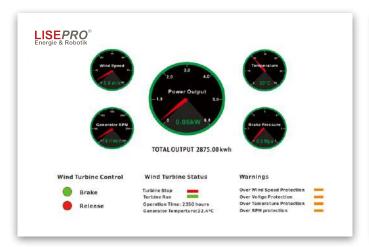


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Intelligence Control

Remote Monitoring System: Customer can remote monitor the wind turbine operation, wind speed and power output in office, home, airport and anywhere through the internet.





Auto Hydraulic Brake System: It is suitable for the remote installation sites, like the island, telecommunication tower station which does not have people checking and monitoring. This system can auto stop the wind turbine in over voltage, over wind speed, generator over temperature and all any other faults. It can auto release the wind turbine to run after the abnormal warnings.





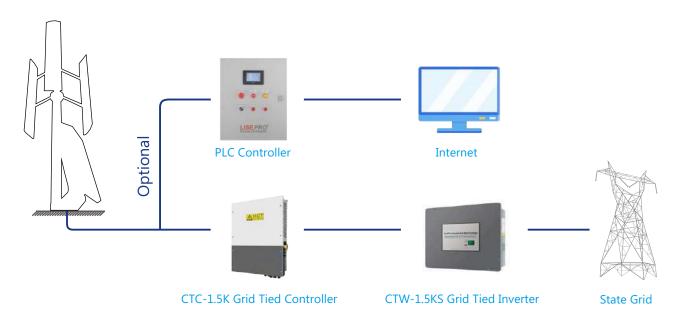


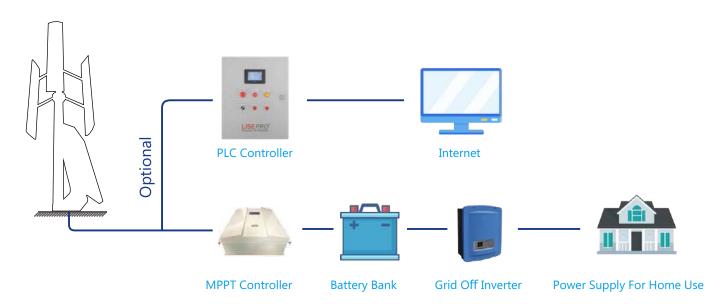
LisePro wind turbine SINCE 1988 lisepro.com



Wiring Diagram

Grid-on







wind turbine



LisePro-V Series

Vertical Wind Turbine Brochure LisePro-v 5 kW



LisePro wind turbine SINCE 1988 lisepro.com



Specification

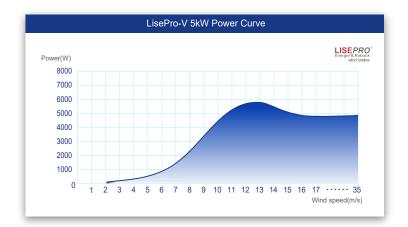
Generator Type: Three Phase

Permanent Magnet

Rotor Height: 4.8 m (15.7 ft)
Rotor Width: 4.5 m (14.8 ft)
Turbine Weight: 500 kg (1102.3 lbs)
Blade Material: Aluminum Alloy

Blade Quantity: 3 pcs

Working Temperature: $-20 \,^{\circ}\text{C}$ to $50 \,^{\circ}\text{C}$ Design Lifetime: 20 years



Performance

Rated Power: 5000 W Max Output Power: 6000 W

Cut In Wind Speed: 2.5m/s (5.6 mph)
Rated Wind Speed: 11m/s (24.6 mph)
Survival Wind Speed: 52.5m/s (117.4 mph)

Generator Efficiency: 96%

Noise Level: < 45 dB(A)
Warranty: 5 years

LisePro-V 5kW Wind Turbine Annual Energy Output Annual Energy Output(KWh) Annual Energy Output(KWh) Wind Speed(m/s) Wind Speed(m/s) 2296 kWh 22442 kWh 3 m/s 8 m/s 25753 kWh 4 m/s 5145 kWh 9 m/s 9247 kWh 28447 kWh 5 m/s 10 m/s 13933 kWh 11 m/s 30621 kWh 6 m/s 7 m/s 18466 kWh 12 m/s 32376 kWh

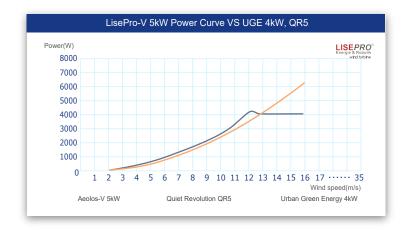
Safety

Blades RPM Limitation: 150 RPM
PWM Dump Load: 7.5kW Box
Electrical Brake: Auto/ Manual
Auto Hydraulic Brake System Auto/ Manual

Optional

Remote Monitoring System (Internet/Wireless)

Off Grid: 48/ 96 V Grid Tied: 360 V















LISEPRO®





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Why Choose Lisepro-V 5 kW Wind Turbine?

Triple Safety Protection

Special Blade Design: LisePro blades use the special aerodynamic design which limits the max rotating speed to 200 rpm even the wind speed is 30m/s or 40m/s. It is safer and more reliable than traditional vertical axis wind turbine.



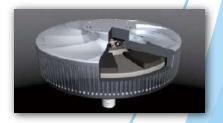
PWM Dump Load: LisePro-V 5kW wind turbine has the 7.5kW dump load box with PWM loading function. This will consume the over power output and control the voltage in strong wind speed.



Mechanical Brake: The manual mechanical brake can stop the windturbine for maintenance or typhoon coming. We have the auto mechanical brake system for remote installation site without people checking as optional fuction.

High Efficiency

Low Cut-in Wind Speed: LisePro-V 5kW could start up with 1.5m/s wind speed and has the power output in 2.5m/s to inverter. This is more efficient than the vertical wind turbines with a 3.5m/s or even 4.5m/s cut in wind speed.



More Annual Energy Production: According to EN61400-2(IEC 61400-2) standard, LisePro-V 5kW annual output is 9247kWh at 5m/s wind speed. The annual output at 10m/s is 28447 kWh.

MPPT Charger for Off Grid: LisePro-V 5kW uses 48V/96V MPPT charging controller to increase the charging efficiency to 94%. It can can charge the battery bank when wind speed is above 3.0m/s.







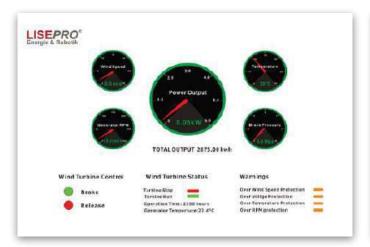


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Intelligence Control

Remote Monitoring System: Customer can remote monitor the wind turbine operation, wind speed and power output in office, home, airport and anywhere through the internet.





Auto Hydraulic Brake System: It is suitable for the remote installation sites, like the island, telecommunication tower station which does not have people checking and monitoring. This system can auto stop the wind turbine in over voltage, over wind speed, generator over temperature and all any other faults. It can auto release the wind turbine to run after the abnormal warnings.





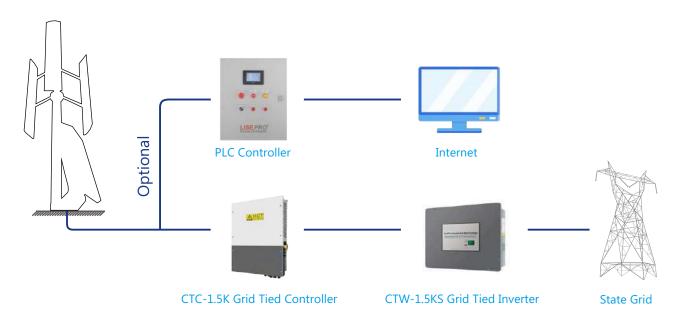


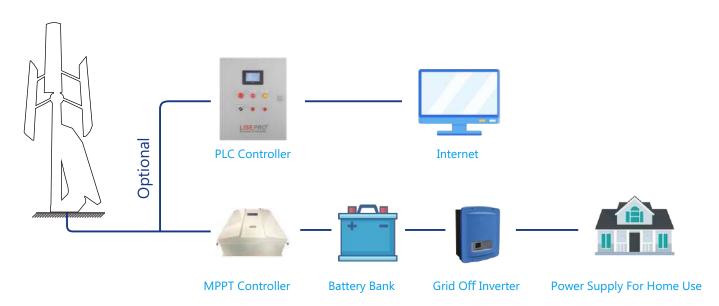
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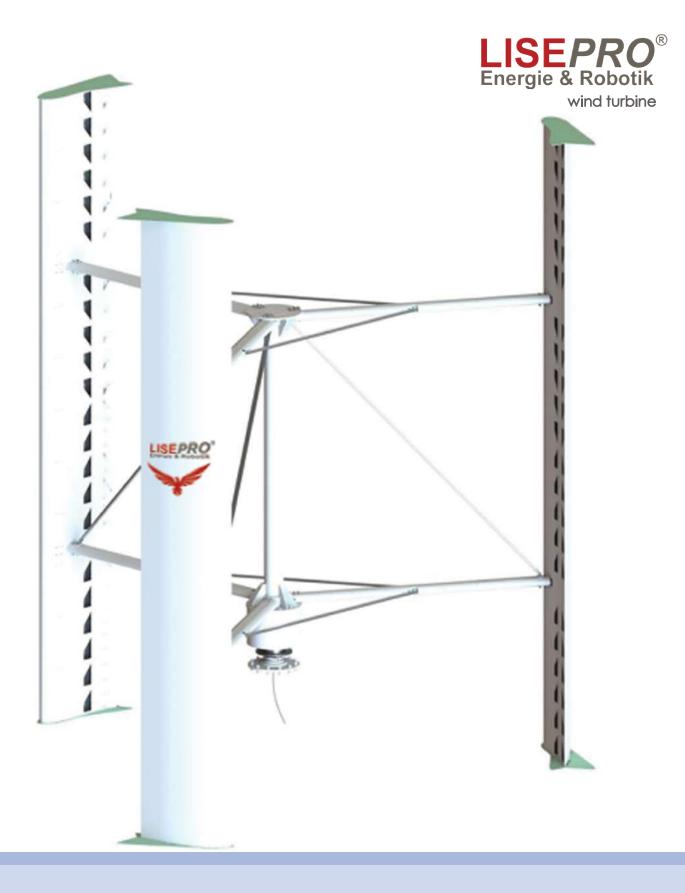


Wiring Diagram

Grid-on







Vertical Wind Turbine Brochure LisePro-v 10 kW

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LisePro wind turbine SINCE 1988 lisepro.com



Specification

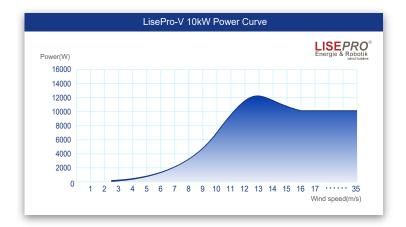
Generator Type: Three Phase

Permanent Magnet

Rotor Height: 6.0 m (19.7 ft)
Rotor Width: 5.5 m (18.0 ft)
Turbine Weight: 980 kg (2160.5 lbs)
Blade Material: Aluminum Alloy

Blade Quantity: 3 pcs

Working Temperature: $-20 \,^{\circ}\text{C}$ to $50 \,^{\circ}\text{C}$ Design Lifetime: 20 years



LisePro-V 10kW Wind Turbine Annual Energy Output

Performance

Rated Power: 10 kW Max Output Power: 12 kW

Cut In Wind Speed: 2.5m/s (5.6 mph)

Rated Wind Speed: 11m/s (24.6 mph)

Survival Wind Speed: 52.5m/s (117.4 mph)

Generator Efficiency: 96%

Noise Level: < 45 dB(A)
Warranty: 5 years



23434 kWh

32088 kWh

6 m/s

7 m/s

 Wind Speed(m/s)
 Annual Energy Output(KWh)

 8 m/s
 40061 kWh

 9 m/s
 46968 kWh

 10 m/s
 52770 kWh

 11 m/s
 57576 kWh

 12 m/s
 61544 kWh

LISEPRO

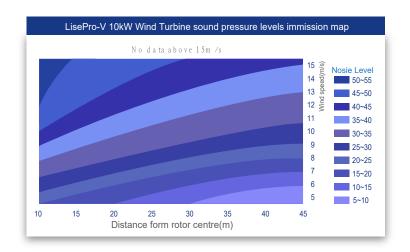
Safety

Blades RPM Limitation: 150 RPM
PWM Dump Load: 12kW Box
Electrical Brake: Auto/ Manual

Optional

Auto Hydraulic Brake System Auto/ Manual Remote Monitoring System (Internet/ Wireless)

Off Grid: 96/ 120 V Grid Tied: 400 V















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Why Choose Lisepro-V 10 kW Wind Turbine?

Triple Safety Protection

Special Blade Design: LisePro blades use the special aerodynamic design which limits the max rotating speed to 150 rpm even the wind speed is 30m/s or 40m/s. It is safer and more reliable than traditional vertical axis wind turbine.



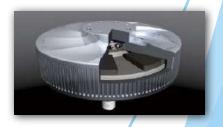
PWM Dump Load: LisePro-V 10kW wind turbine has the 12kW dump load box with PWM loading function. This will consume the over power output and control the voltage in strong wind speed.

Mechanical Brake: The manual mechanical brake can stop the windturbine for maintenance or typhoon coming. We have the auto mechanical brake system for remote installation site without people checking as optional fuction.



High Efficiency

Low Cut-in Wind Speed: LisePro-V 10kW could start up with 1.5m/s wind speed and has the power output in 2.5m/s to inverter. This is more efficient than the vertical wind turbines with a 3.5m/s or even 4.5m/s cut in wind speed.



More Annual Energy Production: According to EN61400-2(IEC 61400-2) standard, LisePro-V 10kW annual output is 15026kWh at 5m/s wind speed. The annual output at 10m/s is 52770 kWh.

MPPT Charger for Off Grid: LisePro-V 10kW uses 96V/120V MPPT charging controller to increase the charging efficiency to 94%. It can can charge the battery bank when wind speed is above 3.5m/s.







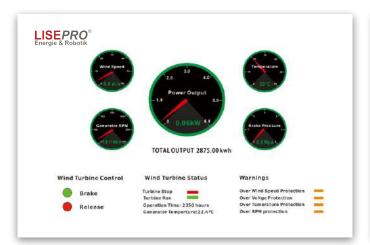


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Intelligence Control

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Auto Hydraulic Brake System: It is suitable for the remote installation sites, like the island, telecommunication tower station which does not have people checking and monitoring. This system can auto stop the wind turbine in over voltage, over wind speed, generator over temperature and all any other faults. It can auto release the wind turbine to run after the abnormal warnings.







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Wiring Diagram

Grid-on

