Adding Green Energy to Life, Value to the World





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✓/SoyutWind/

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SoyutWind is a subsidiary of ÇOLAK Holding A.Ş.

Shaping the Future With Sustainable Solutions

As SoyutWind, Türkiye's leading power in the field of wind energy, we serve the energy needs of not only Türkiye but also the region. As Türkiye's first and only domestic wind turbine manufacturer, we produce renewable energy solutions with our turbine capacity reaching up to 2.5 MW.

Up to 1 MW, we are the first and only manufacturer of direct drive turbines in Türkiye and the region. With half a century of experience and innovative engineering, we offer more efficient and durable turbines. We meet the future with confidence.



Since 1974, Çolak Holding A.Ş. has played a pioneering role in the energy sector and we have been working with the mission of making renewable energy resources more accessible and effective. Since 2000, we have been focusing on wind turbine production under the brand name SoyutWind, and we continue to take innovative steps in energy production. In our production facilities in Ankara-Temelli, we produce all components of wind turbines in global standards and with a sustainable total quality management approach.

1974

SoyutWind's parent company Çolak Holding | Soyut Group was established.

Soyut Energy has imported photovoltaic cells and successfully implemented the first solar energy 1994 applications in Türkiye.

Bringing Green Energy to Homes Adding Value to the World

With the motto "Generate Your Own Energy", SoyutWind wind turbines, which can reach high power even at low wind speeds, are designed to meet the energy needs of your home. With our 1 kW - 50 kW household wind turbines, we leave energy production under your control.



100% In-house Design & Manufacturing

We are manufacturing blades, nacelles, towers and control & scada systems at our 15.000 m² closed and 120.000 m² open area factory located in Temelli-Ankara/Türkiye. Our blades specifically design to generate more electricity at low wind speeds.



We Harness the Power of Wind and Combine it with Water

As one of the industry's oldest windmill manufacturers, we offer economical agricultural irrigation options.

16 blades, working depth of 60 meters and a capacity of 90 tons per day, we offer Soyut WindMill Wind Water Pumps for agricultural irrigation and to meet the water needs of homes.

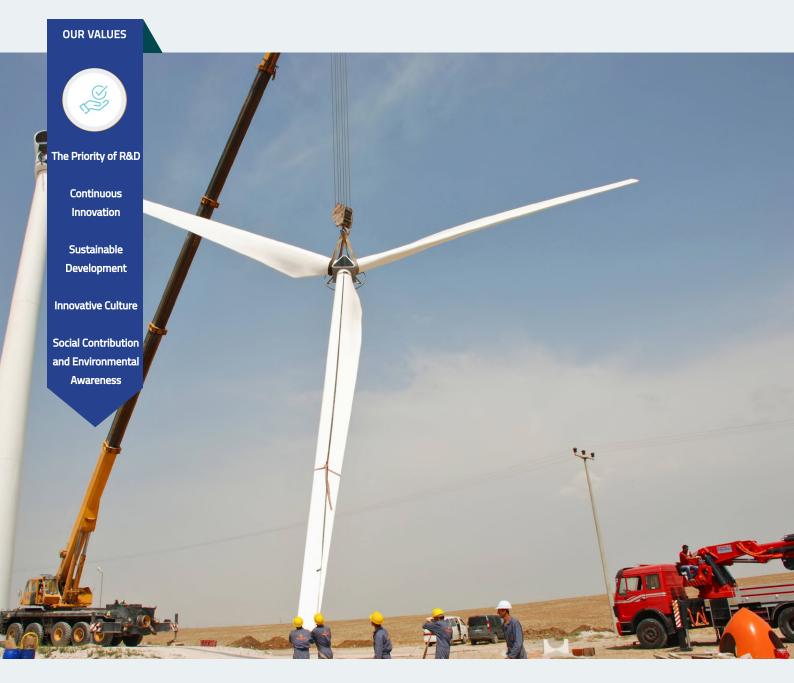


Soyut Energy has started to manufacture parts of francis model hydro turbines with a power of 3.6 MW. SoyutWind brand was established. The first Turkish 2000 manufactured wind turbine's R&D studies started.

Local Innovation, Global Transformation

As SoyutWind, our vision is to take our place among the world's leading brands in the field of renewable energy technologies and to be one of the actors of the global energy transformation by making wind energy a more accessible resource. With advanced technology and environmentally friendly wind turbines, we aim to reduce the carbon footprint of energy production in our country and the world and accelerate the adoption of renewable energy.

Our biggest goal is to ensure that individuals and societies achieve a sustainable future by maximizing the power generated from wind energy with a continuous innovation approach.



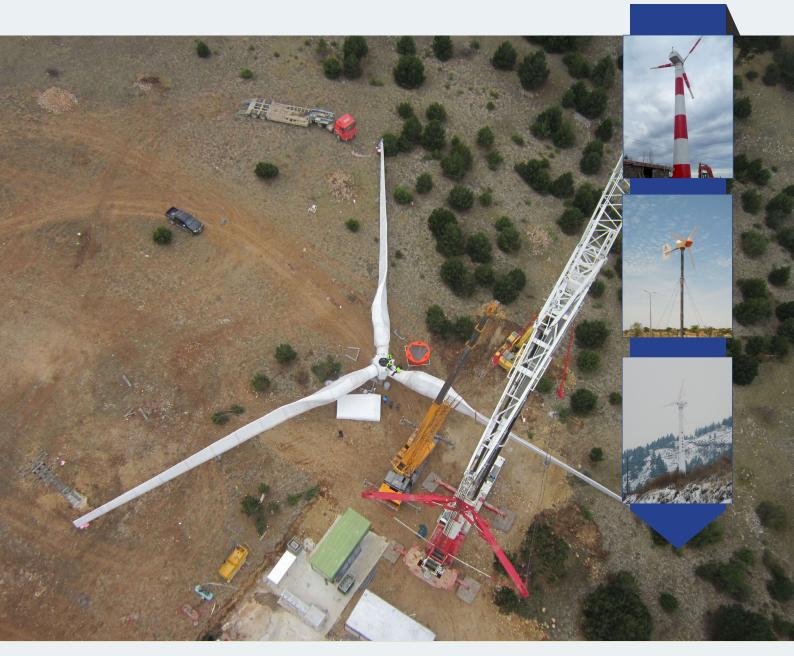
The production, optimization, and installation of Türkiye's first unlicensed 250 kW wind turbine have been completed. With the SoyutWind brand, production of residential wind turbines has begun to meet the 2006 clean energy needs of homes.



For a Cleaner and More Livable World

As SoyutWind, we aim to produce high quality, innovative and environmentally friendly wind turbines with our desire to create a sustainable world and our belief in renewable energy solutions. By developing a wide range of wind turbines from 1 kW to 2.5 MW, we aim to meet energy needs with environmentally friendly methods and promote energy independence.

The most important mission of our company is to contribute to the global energy transformation and ensure that both individuals and societies benefit from renewable energy sources in the most efficient way. In this journey, we are committed to leaving a cleaner and livable world to future generations by acting with a competent engineering approach and the principle of sustainability.



Under the Soyut WindMill brand, we have started the production of windpumps that will reduce energy costs for 2008 farmers and increase agricultural irrigation efficiency.

Türkiye's first wind turbine export was carried out. The initial exports were made to Africa as part of a 2009 United Nations project.

OUR SERVICES

Comprehensive Engineering and Design Services

As an organization specialized in engineering services, we carry out the mechanical design and engineering of all the products we manufacture together with our in-house engineers and the scientists, academicians and environmental consultants we cooperate with.



Turnkey Wind Turbine Solutions

As SoyutWind, we offer turnkey solutions for turbine types ranging from 1 kW to 2500 kW. In this context, we provide reliable and high quality services in all engineering, manufacturing, logistics, construction, installation and commissioning process involved in a WPP (Wind Power Plant) project.



Wind Potential and Land Analysis Consulting

In order to determine the sites suitable for your WPP investment, we can provide you wind resource data of the location you are interested in instead of installing wind mast so that you can have a decision in a faster and less costly way.

With the consultancy services we provide, micrositing and CFD analysis of the potential site can be carried out. We can also suggest alternative lands by conducting different site surveys.



SoyutWind started to manufacture 1 MW capacity wind turbines.

10 kW permanent magnet generator (pmg)2017 wind turbines were produced and exported.



2015

OUR SERVICES

System Performance and Maintenance Services

You can always rely on our know-how and expertise for the maximum performance of your system. You can access remote monitoring, maintenance-repair and possible failure intervention information from a single source with detailed reports. With the on-site and rapid intervention of our expert teams, possible failure situations are prevented and periodic maintenance of the turbine is carried out in the fastest and most reliable way.



Project Approval and Feasibility Studies

In order to ensure the highest performance in energy production, we complete land selection, wind data analysis, field studies, due diligence, obtain the necessary permits and complete the project approval procedures accurately and quickly.



Financial Analysis and Resource Acquisition

The financial analysis of your technically analyzed wind power plant (WPP) investment is carried out by our experienced team at SoyutWind. According to the financial analysis of your project, we evaluate the most suitable domestic or foreign financing alternatives and partnership-financing methods such as venture capital and inform the WPP investor.



The first 50 kW capacity permanent magnet generator (pmg) has been manufactured in Türkiye by SoyutWind.



Since 1974...

2021

RESIDENTIAL WIND TURBINE

Green Energy for Your Home

If you are looking for an ideal, environmentally friendly and renewable energy source for your home, our battery charged wind turbines with different capacities between 1 kW and 30 kW are the perfect option. Our wind turbines with their high efficiency and user-friendly design, allow you to generate your own electricity and also offer everything you need for a sustainable lifestyle.



The electricity generation capacity of domestic wind turbines depends on several factors. These include the size of the turbine, the wind speed and the efficiency of the turbine. Depending on the average annual wind speed and the rotor diameter of the turbine, the SoyutWind household wind turbine can generate between 3,000 and 10,000 kilowatt-hours (kWh) of electricity per year. This is enough to meet the annual electricity needs of many households.

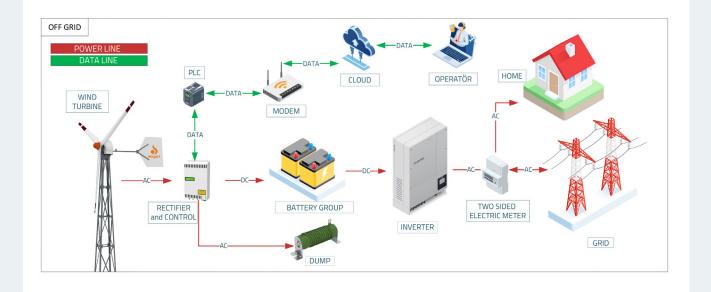
The location of the turbine can significantly affect the generation capacity. For example, in areas where the wind blows frequently and strongly, the turbine will generate more electricity. The height of the turbine is also important; generally, the higher the height of the turbine, the higher the wind speed and hence the higher the electricity production.

This information is important to understand the potential of domestic wind turbines. When assessing whether a turbine is suitable for your home, it is necessary to consider the average wind speed in your location and the characteristics of the turbine. As SoyutWind, we are happy to provide you with detailed information and guidance on this subject. You can contact us for more information. Step into a sustainable, efficient and economical energy solution with our domestic wind turbines.



CONNECTION DIAGRAM







1 KW

Off Grid System





Rotor Diameter

Swept Area Tower Height

Blade Type

Tower Type

Gearbox

Brake

Alternator

Voltage

Control System

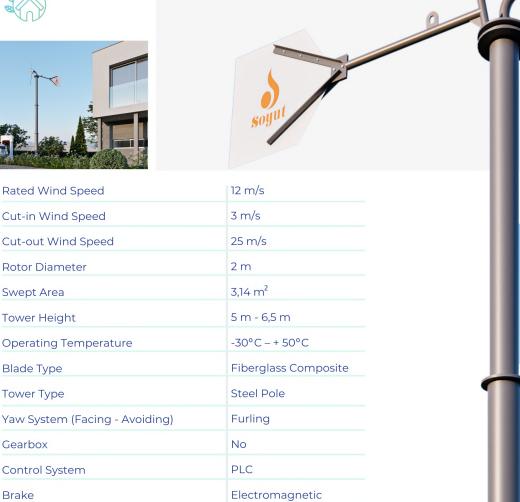
Wind Speed Sensor

Temperature Sensor

Lightning Protection

Battery Voltage

Remote Control and Monitoring



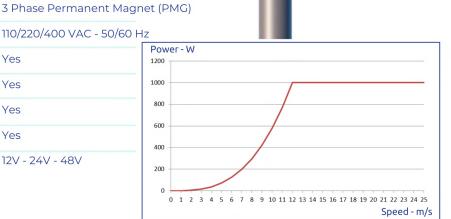
Yes

Yes

Yes

Yes

12V - 24V - 48V



3 KW

Off Grid System





Rated Wind Speed	12 m/s
Cut-in Wind Speed	3 m/s
Cut-out Wind Speed	25 m/s \$11,11
Rotor Diameter	4 m
Swept Area	12,56 m ²
Tower Height	5 m - 6,5 m
Operating Temperature	-30°C - + 50°C
Blade Type	Fiberglass Composite
Tower Type	Steel Pole
Yaw System (Facing - Avoiding)	Furling
Gearbox	No
Control System	PLC
Brake	Electromagnetic
Alternator	3 Phase Permanent Magnet (PMG)
/oltage	110/220/400 VAC - 50/60 Hz
Wind Speed Sensor	Yes 3000
Temperature Sensor	Yes 2500
Remote Control and Monitoring	Yes
_ightning Protection	Yes 1500
Battery Voltage	12V - 24V - 48V
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Speed - m/s

5 KW

Off Grid System





Rated Wind Speed	10 m/s
Cut-in Wind Speed	3 m/s
Cut-out Wind Speed	25 m/s
Rotor Diameter	6,5 m
Swept Area	33,18 m ²
Tower Height	6,5 m
Operating Temperature	-30°C - + 50°C
Blade Type	Fiberglass Composite
Tower Type	Steel Lattice
Yaw System (Facing - Avoiding)	Furling
Gearbox	No
Control System	PLC
Brake	Electromagnetic
Alternator	3 Phase Permanent Magnet (PMC)
Voltage	110/220/400 VAC - 50/60 Hz
Wind Speed Sensor	Yes 6000
Temperature Sensor	Yes 5000
Remote Control and Monitoring	Yes 4000
Lightning Protection	Yes 2000
Battery Voltage	24V - 48V - 96V

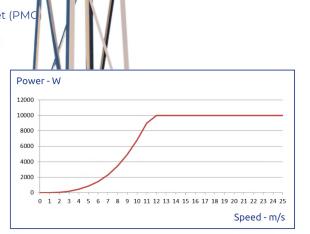
10 KW

Off Grid System





Rated Wind Speed	12 m/s	
Cut-in Wind Speed	3 m/s	
Cut-out Wind Speed	25 m/s	
Rotor Diameter	7,5 m	
Swept Area	44,18 m ²	
Tower Height	8,5 m	
Operating Temperature	-30°C – + 50°C	
Blade Type	Fiberglass Composite	
Tower Type	Steel Lattice	
Yaw System (Facing - Avoiding)	Furling	
Gearbox	No	
Control System	PLC	
Brake	Electromagnetic	
Alternator	3 Phase Permanent Magnet	
Voltage	110/220/400 VAC - 50/60 Hz	
Wind Speed Sensor	Yes	
Temperature Sensor	Yes	
Remote Control and Monitoring	Yes	
Lightning Protection	Yes	
Battery Voltage	24V - 48V - 96V	



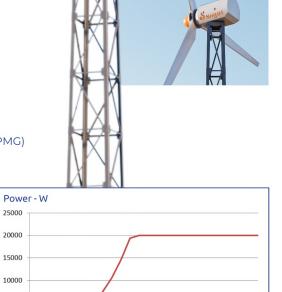
20 KW

Off Grid System





Rated Wind Speed	12 m/s	
Cut-in Wind Speed	3 m/s	
Cut-out Wind Speed	25 m/s	
Rotor Diameter	11 m	
Swept Area	95 m ²	
Tower Height	12 m - 14 m	
Operating Temperature	-30°C – + 50°C	
Blade Type	Fiberglass Composite	
Tower Type	Steel Lattice	
Yaw System	Electric	
Gearbox	No	
Control System	PLC	
Brake	Electromagnetic	
Alternator	3 Phase Permanent Magnet (P	MG)
Voltage	110/220/400 VAC - 50/60 Hz	
Wind Speed Sensor	Yes	Powe
Temperature Sensor	Yes	25000 -
Remote Control and Monitoring	Yes	20000 -
Lightning Protection	Yes	15000 -
Battery Voltage	24V - 48V - 96V	5000 -



0 1 2 3 4 5 6 7 8 9 1011 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Speed - m/s

30 KW

Off Grid System



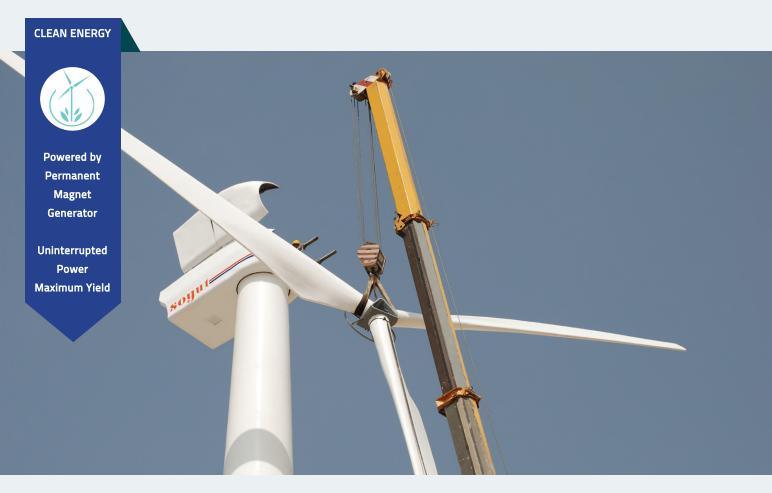
Rated Wind Speed	12 m/s	Ī
Cut-in Wind Speed	3 m/s	
Cut-out Wind Speed	25 m/s	Osoyut
Rotor Diameter	15 m	
wept Area	176,7 m ²	
ower Height	18 m - 22 m	X
Operating Temperature	-30°C – + 50°C	
Blade Type	Fiberglass Composite	
ower Type	Steel Lattice	
aw System	Electric	
iearbox	No	
ontrol System	PLC	X A
ake	Electromagnetic	
ternator	3 Phase Permanent Magnet ((PMG)
bltage	110/220/400 VAC - 50/60 Hz	
'ind Speed Sensor	Yes	Power - W
emperature Sensor	Yes	35000
emote Control and Monitoring	Yes	25000
ightning Protection	Yes	20000
Battery Voltage	24V - 48V - 96V	10000

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Speed - m/s

ON GRID WIND TURBINES

We are Converting Wind into Energy with Tomorrow's Technology

By completing the period from manufacturing to commissioning in a short time, we offer sustainable and high quality products with our international certificates. We shape the future with sustainable solutions.



Founded in 1974, Soyut Enerji operates as a strong subsidiary of Çolak Holding A.Ş., which operates in a wide range of fields from production to finance, from trade to renewable energy solutions.

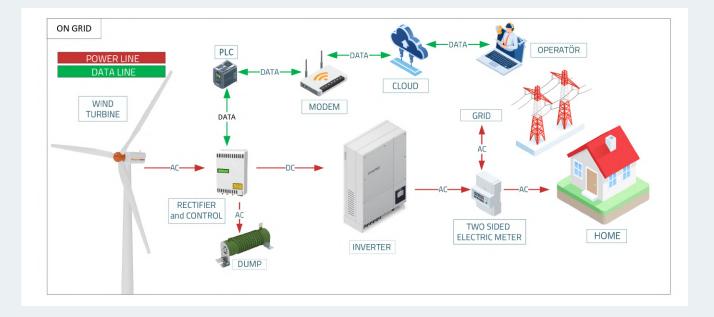
We manufacture all components of wind turbines - blades, tower, nacelle and control systems - in our factory in Ankara-Temelli, which has a closed area of 15,000 m² and an open area of 120,000 m² in accordance with international quality standards. We aim to meet energy needs with environmentally friendly methods and promote energy independence.





CONNECTION DIAGRAM







50 KW

On Grid System





Rated Wind Speed	12 m/s	
Cut-in Wind Speed	3 m/s	
Cut-out Wind Speed	25 m/s	
Rotor Diameter	17 m	
Swept Area	227 m ²	
Tower Height	22 m - 25 m	
Operating Temperature	-30°C – + 50°C	
Blade Type	Fiberglass Composite	
Tower Type	Steel Lattice	
Yaw System	Electric	
Gearbox	No	
Control System	PLC	
Brake	Electromagnetic	
Alternator	3 Phase Permanent Magnet	
Voltage	110/220/400 VAC - 50/60 Hz	
Wind Speed Sensor	Yes	
Temperature Sensor	Yes	
Remote Control and Monitoring	Yes	
Lightning Protection	Yes	



100 KW

On Grid System





Rated Wind Speed	12 m/s
Cut-in Wind Speed	3 m/s
Cut-out Wind Speed	25 m/s
Rotor Diameter	22 m
Swept Area	378 m ²
Tower Height	25 m - 30 m
Operating Temperature	-30 °C - + 50 °C
Blade Type	Fiberglass Composite
Tower Type	Tubular Steel / Steel Lattice
Yaw System	Electric
Pitch Control	Yes
Control System	PLC
Brake	Electromagnetic / Hydraulic
Alternator	Synchronous / Asynchronous / 3 Phase (PMG)
Voltage	110/220/400 VAC - 50/60 Hz
Wind Speed Sensor	Yes Power - kW
Temperature Sensor	Yes 100
Remote Control and Monitoring	Yes 80
Lightning Protection	Yes 60

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Speed - m/s

250 KW

On Grid System





Rated Wind Speed	12 m/s		
Cut-in Wind Speed	3 m/s		
Cut-out Wind Speed	25 m/s		
Rotor Diameter	34 m		
Swept Area	907,9 m ²		
Tower Height	36 m - 40 m		
Operating Temperature	-30°C – + 50°C		
Blade Type	Fiberglass Composite		
Tower Type	Tubular Steel / Steel Lattice		
Yaw System	Electric		
Pitch Control	Yes		
Control System	PLC		
Brake	Electromagnetic / Hydraulic	:	
Alternator	Synchronous / Asynchronou	ıs / 3 Phase (P	MG)
Voltage	110/220/400 VAC - 50/60 Hz		
Wind Speed Sensor	Yes	Power - kW	
Temperature Sensor	Yes	250	
Remote Control and Monitoring	Yes	200	
Lightning Protection	Yes	150	
		50	
		50	

0

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Speed - m/s

500 KW On Grid System Rated Wind Speed 12 m/s 3 m/s Cut-in Wind Speed 25 m/s Cut-out Wind Speed 49 m **Rotor Diameter** 1.885,7 m² Swept Area Tower Height 48 m - 50 m -30°C - + 50°C Operating Temperature Fiberglass Composite Blade Type Tubular Steel / Steel Lattice Tower Type Electric Yaw System Yes **Pitch Control** PLC **Control System** Electromagnetic / Hydraulic Brake Synchronous / Asynchronous / 3 Phase (PMG) Alternator 110/220/400/690 VAC - 50/60 Hz Voltage Power - kW Wind Speed Sensor Yes 600 **Temperature Sensor** Yes 500 400 Remote Control and Monitoring Yes 300 Lightning Protection Yes 200 100 0 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 Speed - m/s

1000 KW

On Grid System





Rated Wind Speed	12 m/s	
Cut-in Wind Speed	3 m/s	
Cut-out Wind Speed	25 m/s	
Rotor Diameter	58 - 70 m	
Swept Area	3.848,5 m ²	
Tower Height	65 m - 70 m	Soyu
Operating Temperature	-30° C – + 50° C	
Blade Type	Fiberglass Composite	
Tower Type	Tubular Steel / Steel Lattice	
Yaw System	Electric	
Pitch Control	Electric	
Control System	PLC	
Brake	Electromagnetic / Hydraulic	
Alternator	Synchronous / Asynchronous / 3 Phase (PMG)	
Voltage	220/400/690 VAC - 50/60 Hz	
Wind Speed Sensor	Yes Power - kW	
Temperature Sensor	Yes 1000	
Remote Control and Monitoring	Yes 800	
Lightning Protection	Yes 400	

0

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Speed - m/s

2500 KW

On Grid System





site
el Lattice
Hydraulic
nchronous / 3 Phase (PMG)
AC - 50/60 Hz
Power - kW 3000
2500
2500

AGRICULTURAL IRRIGATION

We Harness the Power of Wind and Combine it with the Water

Soyut WindMill is a subsidiary of ÇOLAK Holding A.Ş. (www.colakholding.com), which was established in 1974 and operates in the fields of energy, production, finance and trade.

Soyut WindMill manufactures wind mills in as short as 15 days.



We combined the power of wind with water in Africa with the Soyut WindMill wind water pump, which was produced and exported with 100% in-house design and engineering (2009).

AGRICULTURAL IRRIGATION

The environmentally friendly Soyut WindMill wind water pump offers a sustainable irrigation solution for your farmland. It also meets the water needs of homes. Aerodynamic blades and advanced technology ensure effective water pumping even in the lightest winds. Its durability is enhanced with a galvanized steel tower and stainless steel pump, and the system offers 50% more energy savings than fossil fuel alternatives. Protect our planet while increasing your agricultural productivity. Soyut WindMill reduces your agricultural irrigation costs with wind power.



Irrigation with Wind Water Pump in Agriculture

A wind pump is a wind mill that pumps water from various water sources, including boreholes. The pumped water is often used to provide clean drinking water, irrigate agricultural fields or hydrate and feed animals. Wind energy;

- It reduces dependence on external energy sources.
- It is a clean energy and has almost no harm to the environment.
- No fuel consumption and no air pollution.
- It does not cause pollution like that produced by fossil fuel power plants.









Weight	1200 kg
Capacity	57 tons / day (60 m depth)
Number of Blades	16
Blade Angle	40°
Rotor Diameter	4,8 m
Tower Type	Steel Lattice
Tower Height	10 m
Tower Bottom Width	170 cm x 170 cm
Tower Top Width	60 cm x 60 cm
Cut-in Wind Speed	4 m/s
Rated Wind Speed	10 m/s
Cut-out Wind Speed	12 m/s
Wind Protection	Furling
Facing into the Wind	Yes (Tail)
Brake	Yes (Mechanical)



WindMill 6

Wind Pump





Weight	1.450 kg
Capacity	90 tons / day (60 m depth)
Number of Blades	16
Blade Angle	40°
Rotor Diameter	6 m
Tower Type	Steel Lattice
Tower Height	10 m
Tower Bottom Width	170 cm x 170 cm
Tower Top Width	60 cm x 60 cm
Cut-in Wind Speed	4 m/s
Rated Wind Speed	10 m/s
Cut-out Wind Speed	12 m/s
Wind Protection	Furling
Facing into the Wind	Yes (Tail)
Brake	Yes (Mechanical)



Our Certificates

Our company is committed to sustainability and quality standards through a series of internationally recognized certifications. Our wind turbine technologies are continuously developed and tested to meet and exceed the highest standards in the industry.



CE: Guarantees that our products comply with European Union health, safety and environmental protection standards.





ISO 9001: It certifies that our quality management systems comply with international standards aimed at maximizing customer satisfaction.



CERTIFICATE

UT WIND RUZGAR TUR

Çevre Yönetim Sisten

ISO 14001:2015

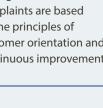
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MLAS



ISO 10002: It shows that the methods we apply for the effective management of customer complaints are based on the principles of customer orientation and continuous improvement.





ISO 45001: Demonstrates that our occupational health and safety management systems comply with international standards to protect the health and safety of our employees.





ISO 50001: It covers processes that ensure the continuous improvement of energy management systems in terms of energy efficiency, usage, and consumption.





ISO 14001: Evidence that our environmental management systems aim to reduce environmental impact and adhere to the principles of





MLAS

SoyutWind Signature in Challenging Projects

While SoyutWind engineers design and manufacture durable wind turbines that withstand challenging geographical conditions, the logistics and installation team transforms the power of the wind into electricity in remote geographies, hot climates, and snowy mountains.



Our wind turbines, suitable for various conditions, are produced with domestic resources and advanced engineering using state-of-the-art technology at our factory in Ankara/Türkiye.





In challenging geographical conditions, our experienced installation and logistics team achieves unparalleled success.





With projects implemented in remote regions and under varying climatic conditions, SoyutWind has a significant signature in the global energy transition.





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