

VERTICAL WIND TURBINE TYPES



FSE Oy provides vertical and horizontal complete wind turbine system from 100w to 600kw and up.

We provide the vertical axis wind turbine, with a new design concept, technology, and environmental protection combined design, with high efficiency, stable operation, low noise, and other characteristics. It is suitable for homeowners, the same as a high power and high voltage large wind turbine is also suitable for a variety of scenarios including large farms, highways, power plants, offshore wind power, etc.

We can also provide the wind and solar hybrid system for all kinds of projects, Energy storage system like UPS for off grid projects.

We provide you with one-stop service of new energy including wind turbine, controller, off-grid system, solar energy, energy storage and so on.

The company's new energy products also include motor products, wind turbines and other ancillary products of photovoltaic power generation, such as controllers, inverters, solar panels, energy storage products, etc. These are used with the whole system, you can choose to match, off-grid system, grid-connected system and so on.



SR Series

STYLE

- Modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Workable to do hybrid with solar panel

RELIABLE

- High efficiency on low wind speed with 1.2m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	SR- 600W	SR- 800W	SR- 1000W
Rated Power	600W	800W	1000W
Maximum Power	650W	850W	1100W
Blade Length	600mm	600mm	600mm
Rated Voltage	12v/24v	12v/24v	12v/24v
Start-up Wind Speed	1.2m/s	1.2m/s	1.2m/s
Rated Wind Speed	12m/s	12m/s	12m/s
Gross Weight	11.7kg	11.9kg	11.7kg
Number Of Blades	5	5	5
Generator Type	Permanent magnet core- less Generator	-	Maglev PMG generator
Color	White/ Red/ Green/ Blue/ Customized	-	-
Blades Material	Nylon Fiber	-	-
Generator Case	Casting aluminum alloy	-	-
Mount Height (m)	1.5-8m	-	-
Work environment humidity	≤90%	-	-
Working Temperature	-25~+45°C	-	-
Generator protection grade	IP54	-	-
Altitude	≤4500m (rated altitude: 1000m)	-	-
Control System	Electromagnet	-	-
Overspeed Protection	Electromagnetic Brake	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-



ST Series

STYLE

- Compact, modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Works solo or together with solar panel hybrid systems

RELIABLE

- High efficiency on low wind speed with 2.5m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	ST- 300W	ST- 600W	ST- 1KW	ST- 2KW
Rated Power	200W	600W	1000W	2000W
Maximum Power	250W	650W	1100W	2200W
Blade Length	0.68m	1.1m	1.7m	2m
Rated Voltage	12v/24v	12v/24v	24v/48v	24v/48v
Start-up Wind Speed	1.2m/s	1.2m/s	2m/s	2m/s
Rated Wind Speed	12m/s	12m/s	13m/s	13m/s
Cut-in wind speed	3.5m/s	3.5m/s	4m/s	4m/s
Flange Diameter	DN20	DN20	DN40	DN50
Wind wheel diameter	0.38m	0.48m	1.0m	1.2m
Survival wind speed	36m/s	36m/s	40m/s	40m/s
Color	White	Blue	Purple	Customized
Number Of Blades	2	-	-	-
Blades Material	Glass Fiber	-	-	-
Generator Type	Permanent	Magnet AC	Synchronous	Generator
Mount Height(m)	3-8m	-	-	-
Work environment humidity	≤90%	-	-	-
Working Temperature	-25~+45°C	-	-	-
Generator protection grade	IP54	-	-	-
Altitude	≤4500m (rated altitude: 1000m)	-	-	-
Control System	Electromagnet	-	-	-
Overspeed Protection	Electromagnetic Brake	-	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-	-



SS Series

STYLE

- Modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Workable to do hybrid with solar panel

RELIABLE

- High efficiency on low wind speed with 1.3m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	SS- 400W	SS- 800W	SS- 1KW	SS- 2KW
Rated Power	400W	800W	1000W	1000W
Maximum Power	450W	850W	1100W	1100W
Blade Length	1.05m	1.3m	1.5m	2.0m
Rated Voltage	12v/24v	12v/48v	24v/96v	24v/96v
Start-up Wind Speed	1.3m/s	1.3m/s	1.5m/s	1.5m/s
Rated Wind Speed	11m/s	11m/s	11m/s	11m/s
Rotor diameter of Blades	0.52m	0.52m	0.67m	0.8m
Color	White	Blue	Purple-Black	Customized
Number Of Blades	2	-	-	-
Blades Material	Glass Fiber	-	-	-
Mount Height (m)	7~12m (9m)	-	-	-
Work environment humidity	≤90%	-	-	-
Working Temperature	-25~+45°C	-	-	-
Generator protection grade	IP54	-	-	-
Altitude	≤4500m	-	-	-
Control System	Electromagnet	-	-	-
Overspeed Protection	Electromagnetic Brake	-	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-	-



SXS Series

STYLE

- Modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Workable to do hybrid with solar panel

RELIABLE

- High efficiency on low wind speed with 1.3m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	SXS-3KW	SXS-5KW	SXS-10KW	SXS-15KW	SXS-20KW
Rated Power	3000W	5000W	10KW	15KW	20KW
Maximum Power	3100W	5100W	11KW	16KW	21KW
Blade Length	1.92m	2.8m	3.0m	3.6m	5.0m
Rated Voltage	48v-220v	96v-220v	96v-220v	96v-380v	96v-380v
Start-up Wind Speed	2m/s	2m/s	2m/s	2m/s	2m/s
Rated Wind Speed	10m/s	10m/s	10m/s	10m/s	10m/s
Rotor diameter of Blades	1.6m	1.8m	2.0m	2.4m	3.0m
Cut-in wind speed (m/s)	3m/s	3m/s	3m/s	3m/s	3m/s
Safe wind speed (m/s)	≤40m/s	-	-	-	-
Number Of Blades	3	-	-	-	-
Blades Material	Glass Fiber	-	-	-	-
Mount Height (m)	2~12m	-	-	-	-
Work environment humidity	≤90%	-	-	-	-
Working Temperature	-25~+45°C	-	-	-	-
Generator protection grade	IP54	-	-	-	-
Altitude	≤4500m	-	-	-	-
Control System	Electromagnet	-	-	-	-
Overspeed Protection	Electromagnetic Brake	-	-	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-	-	-



SH Series

STYLE

- Modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Workable to do hybrid with solar panel

RELIABLE

- High efficiency on low wind speed with 3m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	SH-15KW	SH-20KW	SH-30KW	SH-50KW	SH-60KW
Rated Power	15KW	20KW	10KW	15KW	20KW
Maximum Power	16KW	22KW	11KW	16KW	21KW
Blade Length	4500mm	6000mm	7000mm	10000mm	15000mm
Rated Voltage	220v-380v	220v-380v	380v	380v	380v
Start-up Wind Speed	4m/s	4m/s	4m/s	4m/s	4m/s
Rated Wind Speed	12m/s	12m/s	12m/s	12m/s	12m/s
Rotor diameter of Blades	3000mm	4000mm	5000mm	5000mm	6000mm
Cut-in wind speed (m/s)	5m/s	5m/s	5m/s	5m/s	5m/s
Safe wind speed (m/s)	≤55m/s	-	-	-	-
Number Of Blades	3	-	-	-	-
Blades colors	White/multicolor	-	-	-	-
Blades Material	Aluminium Alloy	-	-	-	-
Mount Height (m)	6~20m (12m)	-	-	-	-
Work environment humidity	≤90%	-	-	-	-
Working Temperature	-25~+45°C	-	-	-	-
Generator protection grade	IP54	-	-	-	-
Altitude	≤4500m	-	-	-	-
Control System	Electromagnet	-	-	-	-
Overspeed Protection	Electromagnetic Brake	-	-	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-	-	-
Lubrication	Lubrication Grease	-	-	-	-



SHN Series

STYLE

- Modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Workable to do hybrid with solar panel

RELIABLE

- High efficiency on low wind speed with 4m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	SHN-20KW	SHN-30KW	SHN-50KW	SHN-B-50KW	SHN-100KW	SHN-200KW
Rated Power	20KW	30KW	50KW	60KW	100KW	200KW
Maximum Power	21KW	32KW	55KW	65KW	110KW	210KW
Blade Length	7000mm	10000mm	15000mm	18000mm	25000mm	38000mm
Rated Voltage	380v	380v	380v	380v	380v	380v
Start-up Wind Speed	4m/s	4m/s	4m/s	4m/s	4m/s	4m/s
Rated Wind Speed	12m/s	12m/s	12m/s	12m/s	12m/s	12m/s
Rotor diameter of Blades	4650mm	5780mm	6650mm	8000mm	9000mm	11000mm
Gross weight	<400kg	<500kg	<620kg	<780kg	<1080kg	<2200kg
Safe wind speed (m/s)	≤55m/s	-	-	-	-	-
Generator	Three phase permanent magnet suspension motor	-	-	-	-	-
Number Of Blades	5	-	-	-	-	-
Blades colors	White	-	-	-	-	-
Blades Material	Aluminium Alloy	-	-	-	-	-
Mount Height (m)	6~20m (12m)	-	-	-	-	-
Work environment humidity	≤90%	-	-	-	-	-
Working Temperature	-25~+45°C	-	-	-	-	-
Generator protection grade	IP54	-	-	-	-	-
Altitude	≤4500m	-	-	-	-	-
Control System	Electromagnet	-	-	-	-	-
Overspeed Protection	Electromagnetic Brake	-	-	-	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-	-	-	-
Lubrication	Lubrication Grease	-	-	-	-	-



S Series

STYLE

- Modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Workable to do hybrid with solar panel

RELIABLE

- High efficiency on low wind speed with 2.5m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	S- 400W	S- 600W	S- 800W	S- 1KW
Rated Power	400W	600W	800W	1000W
Maximum Power	410W	650W	850W	1100W
Blade Length	580mm	530mm	580mm	600mm
Rated Voltage	12v/24v	12v/24v	12v/24v	12v/24v
Start-up Wind Speed	2.0m/s	2.0m/s	2.0m/s	2.0m/s
Rated Wind Speed	13m/s	13m/s	13m/s	13m/s
Gross Weight	9kg	9kg	9.5kg	9.5kg
Rotor diameter	1.2m	1.1m	1.2m	0.8m
Number Of Blades	3	5	6	8
Generator Type	Three phase permanent magnet AC synchronous Generator	-	-	-
Blades Material	Nylon Fiber	-	-	-
Shell Material	Nylon	-	-	-
Magnet material	NdFeB	-	-	-
Generator Case	Casting Aluminum alloy	-	-	-
Working Temperature	-40~-80°C	-	-	-
Control System	Electromagnet	-	-	-
Overspeed Protection	Electromagnetic Brake	-	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-	-
Lubrication	Lubrication Grease	-	-	-
Design Life	20 years	-	-	-



SD Series

STYLE

- Modern appearance, quiet operation
- IP 54, smooth curve fiberglass blades
 - Multi color options available

FLEXIBLE

- Wide power and voltage range
- Workable to do hybrid with solar panel

RELIABLE

- High efficiency on low wind speed with 2.5m/s.
 - Suitable for all applications
 - Long lifespan up to 10 years and good quality ensured
 - CE certified with ISO

ADVANCED

- Sustainable energy producing
- Environmental protecting for the whole world
 - Coreless PMG with low rpm

Model	SD-100KW	SD-150KW	SD-300KW	SD-500KW	SD-600KW
Rated Power	100KW	150KW	300KW	500KW	600KW
Maximum Power	120KW	155KW	350KW	550KW	650KW
Wheel diameter	18.0m	19.5m	23.5m	27.5m	38.5m
Rated Voltage	220v/600v	220v/600v	220v/600v	220v/600v	220v/600v
Start-up Wind Speed	4m/s	4m/s	4m/s	4m/s	4m/s
Rated Wind Speed	15m/s	15m/s	15m/s	15m/s	15m/s
Gross Weight	4300kg	4900kg	5500kg	6000kg	7200kg
Blades length	8.9m	9.5m	11.5m	13.5m	19m
Blades Quantity	3	-	-	-	-
Blades Material	Glass Fiber	-	-	-	-
Generator Type	Three phase permanent magnet AC synchronous Generator	-	-	-	-
Magnet material	NdFeB	-	-	-	-
Generator Case	Casting Aluminum Alloy	-	-	-	-
Working Temperature	-25~+65°C	-	-	-	-
Control System	Electromagnet	-	-	-	-
Overspeed Protection	Electromagnetic Brake	-	-	-	-
Overload Protection	Electromagnetic Brake and The Unloading unit	-	-	-	-