



Vertical Axis Wind Turbines Catalog 2026





Vertical-axis wind turbines (VAWTs) have some distinct advantages compared to the more common horizontal-axis turbines. Here are the main benefits, explained clearly:

1. No need to face the wind

- VAWTs **capture wind from any direction**
- No yaw system (no turning mechanism required)
- Works well in **turbulent, shifting winds** (e.g., cities, rooftops)

2. Better for urban environments

- Perform better around **buildings and obstacles**
- Can be installed on **rooftops or tight spaces**
- Often used in **architectural or decorative installations**

3. Quieter operation

- Generally produce **less noise** than traditional turbines
- Lower tip speeds (especially Savonius types)
- More suitable for **residential areas**



4. Easier maintenance

- Key components (generator, gearbox) are often **closer to the ground**
- No need for tall towers or complex servicing equipment
- **Safer and cheaper to maintain**

5. Good low-wind performance

- Many designs (especially Savonius or hybrids) **start at low wind speeds**
- Useful in areas where wind is **inconsistent or weak**

6. Compact and scalable

- Smaller footprint than large horizontal turbines
- Easier to install in **modular or distributed systems**
- Can be used for **small-scale or off-grid power**

7. Aesthetic and design flexibility

- Often designed to look **modern or artistic**
- Can be integrated into buildings or landscapes
- Popular for **visible sustainability projects**

GIROMILL-Series



MODEL	GM-600W	GM-1000W	GM-2000W
Rated Power	600W	1000W	2000W
Maximum Power	650W	1050W	2050W
Blade Length	1.0m	1.2m	1.4m
Rated Voltage	12V / 24V / 48V	12V / 24V / 48V	24V / 48V / 96V
Start-up Wind Speed	1.3m/s	2.0m/s	2.0m/s
Rated Wind Speed	10m/s	10m/s	10m/s
Rotor Diameter of Blades	0.6m	0.8m	0.9m
Cut-in Wind Speed	2.5m/s	2.5m/s	2.5m/s
Safe Wind Speed	40m/s	40m/s	40m/s
Blade Quantity	3	3	3
Blade Colors	White / Green / Red	White / Green / Red	White / Green / Red
Blade Material	Nylon / Fiberglass	Nylon / Fiberglass	Nylon / Fiberglass
Generator	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Control System	Electromagnet	Electromagnet	Electromagnet
Mounting Height	2m ~ 12m	2m ~ 12m	2m ~ 12m
Protection Grade	IP54	IP54	IP54
Operating Temperature	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years

GIROMILL-Series



Eco-GM-3000W



MODEL	GM-3000W	GM-5000W
Rated Power	3000W	5000W
Maximum Power	3100W	5100W
Blade Length	1.92m	2.8m
Rated Voltage	48V - 220V	96V - 220V
Start-up Wind Speed	2m/s	2m/s
Rated Wind Speed	10m/s	10m/s
Rotor Diameter	1.6m	1.8m
Cut-in Wind Speed	3m/s	3m/s
Blade Color	White	White
Safe Wind Speed	40m/s	40m/s
Blade Quantity	3	3
Blade Material	Glass Fiber	Glass Fiber
Generator	Maglev Generator	Maglev Generator
Control System	Electromagnet	Electromagnet
Mounting Height	6m ~ 20m	6m ~ 20m
Protection Grade	IP54	IP54
Operating Temp.	-40°C ~ 80°C	-40°C ~ 80°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years

GIROMILL-Series



MODEL	GM-10KW	GM-15KW	GM-20KW
Rated Power	10000W	15000W	20000W
Maximum Power	11000W	16000W	21000W
Blade Length	3m	3.6m	5m
Rated Voltage	96V - 220V	96V - 380V	96V - 380V
Start-up Wind Speed	2m/s	2m/s	2m/s
Rated Wind Speed	10m/s	10m/s	10m/s
Rotor Diameter	2m	2.4m	3m
Cut-in Wind Speed	3m/s	3m/s	3m/s
Blade Color	White	White	White
Safe Wind Speed	40m/s	40m/s	40m/s
Blade Quantity	3	3	3
Blade Material	Glass Fiber	Glass Fiber	Glass Fiber
Generator	Maglev Generator	Maglev Generator	Maglev Generator
Control System	Electromagnet	Electromagnet	Electromagnet
Mounting Height	6m ~ 20m	6m ~ 20m	6m ~ 20m
Protection Grade	IP54	IP54	IP54
Operating Temp.	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years

SAVONIUS-Series



MODEL	SV-Series 400W	SV-Series 800W	SV-Series 1000W
Rated Power	400W	800W	1000W
Maximum Power	450W	850W	1100W
Blade Length	1.05m	1.3m	1.5m
Rated Voltage	12V - 24V	12V - 48V	24V - 96V
Start-up Wind Speed	1.3m/s	1.3m/s	1.3m/s
Rated Wind Speed	11m/s	11m/s	11m/s
Wheel Diameter	1.05m	1.3m	1.5m
Blade Colors	White/Green/Orange/Black	White/Green/Orange/Black	White/Green/Orange/Black
Safe Wind Speed	40m/s	40m/s	40m/s
Blade Quantity	2	2	2
Blade Material	Glass Fiber	Glass Fiber	Glass Fiber
Generator	Maglev Generator	Maglev Generator	Maglev Generator
Control System	Electromagnet	Electromagnet	Electromagnet
Mounting Height	7m ~ 12m (9m)	7m ~ 12m (9m)	7m ~ 12m (9m)
Protection Grade	IP54	IP54	IP54
Operating Temperature	-25°C ~ 45°C	-25°C ~ 45°C	-25°C ~ 45°C
Altitude	≤ 4500m	≤ 4500m	≤ 4500m
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years

SAVONIUS-Series



MODEL	SV-Series 2000W	SV-Series 3000W	SV-Series 5000W
Rated Power	2000W	3000W	5000W
Maximum Power	2200W	3200W	5100W
Blade Length	2m	3.5m	4m
Rated Voltage	24V - 96V	48V - 220V	48V - 220V
Start-up Wind Speed	1.3m/s	1.3m/s	1.3m/s
Rated Wind Speed	11m/s	11m/s	11m/s
Wheel Diameter	2m	3.5m	4m
Blade Colors	White/Green/Orange/Black	White/Green/Orange/Black	White/Green/Orange/Black
Safe Wind Speed	40m/s	40m/s	40m/s
Blade Quantity	2	2	2
Blade Material	Glass Fiber	Glass Fiber	Glass Fiber
Generator	Maglev Generator	Maglev Generator	Maglev Generator
Control System	Electromagnet	Electromagnet	Electromagnet
Mounting Height	7m ~ 12m (9m)	7m ~ 12m (9m)	7m ~ 12m (9m)
Protection Grade	IP54	IP54	IP54
Operating Temperature	-25°C ~ 45°C	-25°C ~ 45°C	-25°C ~ 45°C
Altitude	≤ 4500m	≤ 4500m	≤ 4500m
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years

TULIP-Series



MODEL	Tulip 600W	Tulip 1000W	Tulip 2000W	Tulip 3000W
Rated Power	600W	1000W	2000W	3000W
Maximum Power	650W	1050W	2100W	3200W
Blade Height	1.1m	1.7m	2m	2m
Rated Voltage	12V - 24V	24V - 48V	24V - 96V	24V - 96V
Start-up Wind Speed	2m/s	2m/s	2m/s	2m/s
Rated Wind Speed	12m/s	12m/s	12m/s	12m/s
Cut-in Wind Speed	3.5m/s	3.5m/s	3.5m/s	3.5m/s
Wind Wheel Diameter	0.48m	0.52m	0.8m	1m
Survival Wind Speed	36m/s	36m/s	36m/s	36m/s
Blade Colors	White/Blue/Purple/Custom	White/Blue/Purple/Custom	White/Blue/Purple/Custom	White/Blue/Purple/Custom
Safe Wind Speed	40m/s	40m/s	40m/s	40m/s
Blade Quantity	02. Mrz	02. Mrz	02. Mrz	02. Mrz
Blade Material	Glass Fiber	Glass Fiber	Glass Fiber	Glass Fiber
Generator	Maglev Generator	Maglev Generator	Maglev Generator	Maglev Generator
Control System	Electromagnet	Electromagnet	Electromagnet	Electromagnet
Mounting Height	3m ~ 8m	3m ~ 8m	3m ~ 8m	3m ~ 8m
Protection Grade	IP54	IP54	IP54	IP54
Operating Temp.	-25°C ~ 45°C	-25°C ~ 45°C	-25°C ~ 45°C	-25°C ~ 45°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Operating Humidity	90%	90%	90%	90%
Altitude	4500m*	4500m*	4500m*	4500m*

*Rated altitude: 100m

HELIX-Series



MODEL	Helix 600W	Helix 1000W	Helix 2000W
Rated Power	600W	1000W	2000W
Maximum Power	650W	1050W	2050W
Blade Length	1m	1.2m	1.4m
Rated Voltage	12V - 48V	12V - 48V	24V - 96V
Start-up Wind Speed	1.3m/s	2m/s	2m/s
Rated Wind Speed	10m/s	10m/s	10m/s
Rotor Diameter	0.6m	0.8m	0.9m
Cut-in Wind Speed	2.5m/s	2.5m/s	2.5m/s
Blade Colors	White / Green / Red	White / Green / Red	White / Green / Red
Safe Wind Speed	40m/s	40m/s	40m/s
Blade Quantity	3	3	3
Blade Material	Nylon / Fiberglass	Nylon / Fiberglass	Nylon / Fiberglass
Generator	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Control System	Electromagnet	Electromagnet	Electromagnet
Mounting Height	2m ~ 12m	2m ~ 12m	2m ~ 12m
Protection Grade	IP54	IP54	IP54
Operating Temp.	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years

Darrieus H-Series



MODEL	DH 600W	DH 800W	DH 1000W
Rated Power	600W	800W	1000W
Maximum Power	650W	850W	1050W
Blade Length	1m	1.2m	1.3m
Rated Voltage	12V / 24V	12V - 48V	12V - 48V
Start-up Wind Speed	1.3m/s	1.3m/s	1.3m/s
Rated Wind Speed	11m/s	11m/s	11m/s
Rotor Diameter of Blades	0.6m	0.8m	0.8m
Cut-in Wind Speed	2.5m/s	2.5m/s	2.5m/s
Blade Color	White	White	White
Safe Wind Speed	40m/s	40m/s	40m/s
Blade Quantity	3	3	3
Blade Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Generator	PMG Maglev Generator	PMG Maglev Generator	PMG Maglev Generator
Control System	Electromagnet	Electromagnet	Electromagnet
Mounting Height	2m ~ 12m	2m ~ 12m	2m ~ 12m
Protection Grade	IP54	IP54	IP54
Operating Temperature	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years

Darrieus H-Series *HIGH POWER*



MODEL	DH 2KW	DH 3KW	DH 5KW	DH 6KW	DH 10KW
Rated Power	2000W	3000W	5000W	6000W	10000W
Maximum Power	2100W	3200W	5300W	6400W	10500W
Blade Length	2m	2.8m	3.2m	3.6m	4m
Rated Voltage	48V - 96V	96V - 220V	96V - 220V	96V - 380V	96V - 220V
Start-up Wind Speed	3m/s	3m/s	3m/s	3m/s	3m/s
Rated Wind Speed	11m/s	11m/s	11m/s	11m/s	11m/s
Rotor Diameter	1.6m	2m	2m	2.4m	2.6m
Gross Weight	112kg	187kg	219kg	260kg	310kg
Blade Colors	White/Multicolor	White/Multicolor	White/Multicolor	White/Multicolor	White/Multicolor
Safe Wind Speed	40m/s	40m/s	40m/s	40m/s	40m/s
Blade Quantity	3	3	3	3	3
Blade Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Generator	Maglev Generator	Maglev Generator	Maglev Generator	Maglev Generator	Maglev Generator
Control System	Electromagnet	Electromagnet	Electromagnet	Electromagnet	Electromagnet
Mounting Height	6m ~ 20m	6m ~ 20m	6m ~ 20m	6m ~ 20m	6m ~ 20m
Protection Grade	IP54	IP54	IP54	IP54	IP54
Operating Temp.	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years	20 Years	20 Years



Darrieus H-Series *INDUSTRIAL*

Control System	DH 15KW	DH 20KW	DH 30KW	DH 50KW	DH 60KW
Rated Power	15000W	20000W	30000W	50000W	60000W
Maximum Power	16000W	22000W	33000W	54000W	65000W
Blade Length	4.5m	6m	7m	8m	10m
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	3m	4m	5m	6m	8m
Gross Weight	420kg	680kg	750kg	920kg	1320kg
Blade Colors	White/Multicolor	White/Multicolor	White/Multicolor	White/Multicolor	White/Multicolor
Safe Wind Speed	40m/s	40m/s	40m/s	40m/s	40m/s
Blade Quantity	3	5	5	5	5
Blade Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Generator	Maglev Generator	Maglev Generator	Maglev Generator	Maglev Generator	Maglev Generator
Control System	Electromagnet	Electromagnet	Electromagnet	Electromagnet	Electromagnet
Mounting Height	6m ~ 20m	6m ~ 20m	6m ~ 20m	6m ~ 20m	6m ~ 20m
Protection Grade	IP54	IP54	IP54	IP54	IP54
Operating Temp.	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C	-40°C ~ 80°C
Overspeed Protection	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake	Electromagnetic Brake
Overload Protection	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit	Brake & Unloading Unit
Lubrication	Lubrication Grease	Lubrication Grease	Lubrication Grease	Lubrication Grease	Lubrication Grease
Design Life	20 Years	20 Years	20 Years	20 Years	20 Years