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We reserve the right to modify our system at the time of delivery to the latest, recent state of technology. We are not responsible for printing or typographical errors. All transactions are subject to our general terms and conditions.

What is the cutting-edge?

- vertical arrangement of the drive shaft
- sophisticated rotor and blade design
- highly efficient permanentmagnet generator
- optimized power curve regulation

This new technical concept guarantees a roughly noiseless rotation both at a light wind and at storm.

AIRVVIN®VERTICAL wind turbines running - already at a light wind - independent. They don't need an additional, yield decreasing power from the net.

The compact design as of a mast height of only 6 m makes possible building a plant near the consumption place just next to buildings also in your property.

They already reach her nominal power at low mast height of 6 m (19.6 ft) and realistic wind speed as of 10 m/s (22 mph).

By the intelligent control system AIRVVIN®VERTICAL works on an optimal standard of service and produces always energy at the highest possible level.

In a residential neighborhood small wind turbines are mostly installed at a height between 6 m and 10 m. At 10 m height and lower, especially where people live, the average wind speed is about 3 or 4 m/s. But the special design of the AIRVVIN®VERTICAL wind turbine allowed to get the most of the energy from the wind. Even at the low wind speed.

The exceptional design of AIRVVIN®VERTICAL generate energy at low wind speed, at not constantly blowing wind (not from the same direction or at the same speed) and tolerate wind gust for energy production.

If an inverter is in use, the electricity can go straight in your house (thru your main panel). It's true sine wave inverter. The inverter recognized if the battery voltage is to low and disconnect the system from your house until the system (battery voltage) is again ready to feed in your house.

The characteristics of AIRVVIN®VERTICAL make a noiseless operating possible and is very well suitable for communities and noise sensitive areas.

Additional Application and use for AIRVVIN®VERTICAL

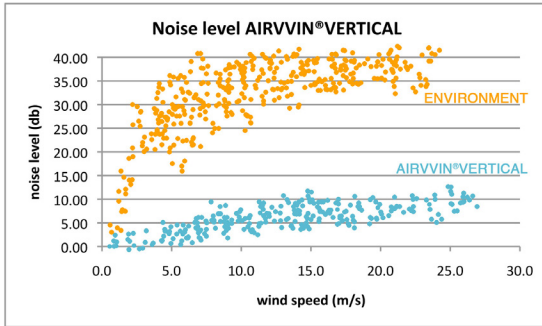


- Emergency backup
- Security
- Charging for E- cars and E-shopping carts (Supermarket)
- Advertising
- Water heating
- Energy for heat pumps
- Pumps
- Energy for weather and sience station
- Illumination, Lights
- heating suport
- ...and more

Noise development AIRVVIN®VERTICAL

Noise development at the distance of 16 ft

The noise is below the enviromet sound level - therefore almost quiet



Wind direction independent



Noiseless



Self starting at low wind



Robust at high wind



Independent off-grid



In-grid



Multiple applications

The performance of wind turbine system is impossible to predict with any certainty due to the variability in the wind from location to location and from year to year. This estimate is based upon the best available information but is given as guidance only and should not be considered as a guarantee. For a greater level of certainty, it is recommended that on-site wind speed monitoring is undertaken for at least a year.

AIRVVIN®VERTICAL wind turbines



AVR05TX



AVR1KTX



AVR2TX



AVR3TX

AIRVVIN®VERTICAL hybrid wind turbines and solar



AVT0100/1500



AVCU610



AVEC

AIRVVIN®VERTICAL hybrid wind and solar LED lights



AVSL660TX



AIRVVIN®VERTICAL hybrid wind and solar LED lights



AVRGL18



AVGL18



AVS24

AIRVVIN®VERTICAL AVR05TX



Component	Characteristics	Unit	AVR05TX
Power	Rated power	W	500
	Rated wind speed	mph	22
	Rated RPM	RPM	150
	Start wind	mph	2.6
	Operating wind	mph	3.3 - 100
	Survival wind	mph	111
Rotor	Rotor height	ft	1,8
	Rotor diameter	ft	1,35
	Swept area	sq ft	2,43
	Blade number	qty	3
	Rotor material		Aluminum
Regulation	Independant/ Batteries	VDC	12 / 24
	Grid connection	VAC	-
	Output frequency	Hz	-
Generator	Permanent-Magnet		3 Phase AC
	Protection class		IP54
	Output voltage	VAC	0~49
Gear	gearless		direct drive
Safety-system	Electrical brake		yes
	Aerodynamic brake		yes
	Mechanical brake		no
Bearing	Ball bearing		maintenance free
	Housing		dust & water proof
Mast	Steel mast height	ft	13 / 20
Foundation	Size	ft	3.2 x 3.2 x 4.9
Weight	Rotor and Generator	lbs	156
	Life span	year	20

AIRVVIN®VERTICAL AVR1KTX



Component	Characteristics	Unit	AVR1KTX
Power	Rated power	W	1000
	Rated wind speed	mph	22.0
	Rated RPM	rpm	120
	Start wind	mph	5.1
	Operating wind	mph	5.5 - 100.0
	Survival wind	mph	111.0
Rotor	Rotor height	ft	9.8
	Rotor diameter	ft	5.9
	Swept area	sq ft	57.8
	Blade number	qty	3
	Rotor material		Aluminium
Regulation	Independant/ Batteries	VDC	12 / 24
	Grid connection	VAC	-
	Output frequency	Hz	-
Generator	Permanent-Magnet		3 Phase AC
	Protection class		IP54
	Output voltage	VAC	0~49
Gear	gearless		direct drive
Safety-system	Electrical brake		yes
	Aerodynamic brake		yes
	Mechanical brake		no
Bearing	Ball bearing		maintenance free
	Housing		dust & water proof
Mast	Steel mast height	ft	26.0
Foundation	Size	ft	3.9x3.9x6.2
Weight	Rotor and Generator	lbs	429
	Life span	year	20

AIRVIN®VERTICAL AVR2TX



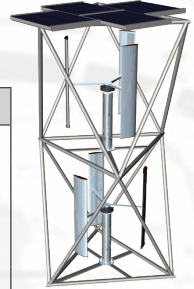
Component	Characteristics	Unit	AVR2TX
Power	Rated power	W	3000
	Rated wind speed	mph	22.0
	Rated RPM	RPM	120
	Start wind	mph	5.0
	Operating wind	mph	4.4 - 56.0
	Survival wind	mph	80.0
Rotor	Rotor height	ft	12
	Rotor diameter	ft	9.8
	Swept area	sq ft	117.6
	Blade number	qty	5
	Rotor material		Aluminum
Regulation	Independant/ Batteries	VDC	48
	Grid connection	VAC	220(110)
	Output frequency	Hz	50(60)
Generator	Permanent-Magnet		3 Phase AC
	Protection class		IP54
	Output voltage	VAC	0~300
Gear	gearless		direct drive
Safety-system	Electrical brake		yes
	Aerodynamic brake		yes
	Mechanical brake	option	yes
Bearing	Ball bearing		maintenance free
	Housing		dust & water proof
Mast	Steel mast (standart) height	ft	24
Foundation	Size	ft	7.2x7.2x4.9
Weight	Rotor and Generator	lbs	645

AIRVVIN® VERTICAL AVR3TX



Component	Characteristics	Unit	AVR3
Power	Rated power	W	5000
	Rated wind speed	mph	22.0
	Rated RPM	rpm	120
	Start wind	mph	4.0
	Operating wind	mph	4.4 - 56.0
	Survival wind	mph	110.0
Rotor	Rotor height	ft	13.7
	Rotor diameter	ft	16.0
	Swept area	sq ft	219.2
	Blade number	qty	5
	Rotor material		Aluminum
Regulation	Independant/ Batteries	VDC	48
	Grid connection	VAC	220(110) / 380
	Output frequency	Hz	50(60)
Generator	Permanent-Magnet		3 Phase AC
	Protection class		IP54
	Output voltage	VAC	0~300
Gear	gearless		direct drive
Safety-system	Electrical brake		yes
	Aerodynamic brake		yes
	Mechanical brake		yes
Bearing	Ball bearing		maintenance free
	Housing		dust & water proof
Mast	Steel mast height	ft	8 / 10
Foundation	Size	ft	8.5x8.5x5.5
Weight	Rotor and Generator	lbs	943
	Life span	year	20

AIRVVIN® VERTICAL AVT01000/1500



Bauteil	Eigenschaften	Einheit	AVT01000
Power	Rated power	W	2 x 500
	Rated wind speed	mph	22.0
	Rated RPM	rpm	150
	Start wind	mph	5.1
	Operating wind	mph	5.5 - 100.0
	Survival wind	mph	111.0
Rotor	Rotor height	ft	9.8
	Rotor diameter	ft	6.8
	Swept area	sq ft	66,6
	Blade number	qty	3
	Rotor material		Aluminium
Regulation	Independant/ Batteries	VDC	12 / 24
	Grid connection	VAC	-
	Output frequency	Hz	-
Generator	Permanent-Magnet		3 Phase AC
	Protection class		IP54
	Output voltage	VAC	0~49
Gear	gearless		direct drive
Safety-system	Electrical brake		yes
	Aerodynamic brake		yes
	Mechanical brake		no
Bearing	Ball bearing		maintenance free
	Housing		dust & water proof
Photovoltaik	12V Polycrystalline	or	4 x 125Wp
	24V Polycrystalline		4 x 125Wp
Frame	Size	ft	3.9x3.9x6
Weight	Rotor and Generator	lbs	308
	life span	years	20

AIRVIN®VERTICAL AVCU610/620



Component	Characteristics	Unit	AVCU610/620
Power	Rated power	W	500
	Rated wind speed	mph	22
	Rated RPM	RPM	150
	Start wind	mph	2.6
	Operating wind	mph	3.3 - 100
	Survival wind	mph	111
Rotor	Rotor height	ft	1,8
	Rotor diameter	ft	1,35
	Swept area	sq ft	2,43
	Blade number	qty	3
	Rotor material		Aluminum
Regulation	Independant/ Batteries	VDC	12 / 24
Generator	Permanent-Magnet		3 Phase AC
	Protection class		IP54
	Output voltage	VAC	0~49
Gear	gearless		direct drive
Safety-system	Electrical brake		yes
	Aerodynamic brake		yes
	Mechanical brake		no
Bearing	Ball bearing		maintenance free
	Housing		dust & water proof
Photovoltaik	12V Polycrystalline	OR	2 x 60Wp
	24V Polycrystalline		2 x 55Wp
Frame	Size	ft	140 x 140 x 260
Weight	Rotor and Generator	lbs	156
	Life span	year	20

Energy-Container AVEC (20 ft (Standard)) von 1,7 - 5,3 kW

Hybrid solution for independent power supply (includet):

- 20 ft Container (standard - different on request -) and Ground screw foundation
- Vertical axis wind turbines AIRVVIN®VERTICAL
- High efficient poly crystalline photovoltaic modules
- Controller and inverter (the controller allowed the additional integration for an emergency power supply: like diesel generator)
- Batterie charger, High performance batteries

AV- Energy Container							
Unit	Power	AV-EC1	AV-EC2	AV-EC3	AV-EC4	AV-EC5	AV-EC6
Solar Segment	1,125 kW	x	x	x	x	x	x
Solar Segment	1,125 kW				x	x	x
Solar Segment	1,125 kW				x	x	x
							x
AV-R03	300W	x	x		x	x	
AV-R03	300W	x	x		x	x	
AV-R03	300W		x			x	
AV-R03	300W		x			x	
AV-R1K	1,0 kW			x			x
AV-R1K	1,0 kW			x			x
Power total (in kW):	1,725	2,325	3,125	3,975	4,575	5,375	



1. All segments are loaded for the shipment into the container.
2. After reach the final destination the container will taken in position and start with the ground anchorage.
3. The ground screws (=foundation) are screwed with help of a positioning device into the ground.
4. Mount the connecting rod between container and the ground screws.
5. Fix the solar frame to the container and mount the solar brackets to the ground screws and the solar frame
6. Put the mast for the wind power station in the prepared openings and screw them together.
7. Fix the assembled rotor and generator to the mast
8. Screw the solar panels to the frame and fix them.
9. Connect the controller, battery charger and inverter to the batteries inside the container.
10. Place the diesel generator (if available) outside and plug him in to the system (for emergency only)
11. Connect the electricity consumer...

AIRVVIN® VERTICAL AVSL660



Component	Characteristics	Unit	AVSL660
Power	Rated power	W	500
	Rated wind speed	mph	22
	Rated RPM	RPM	150
	Start wind	mph	2.6
	Operating wind	mph	3.3 - 100
	Survival wind	mph	111
Rotor	Rotor height	ft	1,8
	Rotor diameter	ft	1,35
	Swept area	sq ft	2,43
	Blade number	qty	3
	Rotor material		Aluminum
Regulation	Independant/ Batteries	VDC	12 / 24
	Grid connection	VAC	-
	Output frequency	Hz	-
Generator	Permanent-Magnet		3 Phase AC
	Protection class		IP54
	Output voltage	VAC	0~49
Gear	gearless		direct drive
Safety-system	Electrical brake		yes
	Aerodynamic brake		yes
	Mechanical brake		no
Bearing	Ball bearing		maintenance free
	Housing		dust & water proof
Mast	Steel mast height	ft	30
Foundation	Size	ft	5
Weight	Rotor and Generator	lbs	120 x 120 x 140
	Life span	year	20

Solar Street Lamp AVGL18



- Grid independent
- Energy reserve for 3 – 4 days
- Light sensor for day and night operation
- Noiseless and stable
- Attractive and innovative
- Ranch gate power and light
- Street and garden illumination



Power	LED 6W	
Solar	Module	Solar 16W
Controller	Intelligence charge and discharge management system	
	Illumination Control	Solar sensor automatic control
Battery	Battery system	Intelligent charge and discharge management system
Light system	LED	12 V , 15 A
	Lightning time	8 hours a day, Normal illumination lasting for 3-5 continuous cloudy or rainy days.
Pole	Total height	3,50m

Solar Street Lamp AVSL 24



- Grid independent
- Energy reserve for 3 – 4 days
- Light sensor for day and night operation
- Noiseless and stable
- Attractive and innovative
- Ranch gate power and light
- Street and garden illumination

Power	LED 24W	
Solar	Module	Solar 2x60W (120W)
Controller	Intelligence charge and discharge management system	
	Illumination Control	Solar sensor automatic control
Battery	Battery system	Intelligent charge and discharge management system
Light system	LED	12 V , 15 A
	Lightning time	8 hours a day, Normal illumination lasting for 3-5 continuous cloudy or rainy days.
Pole	Total height	4,0m

