300W Grid-Off Wind Turbine System with Guy table tower

1,Pictures

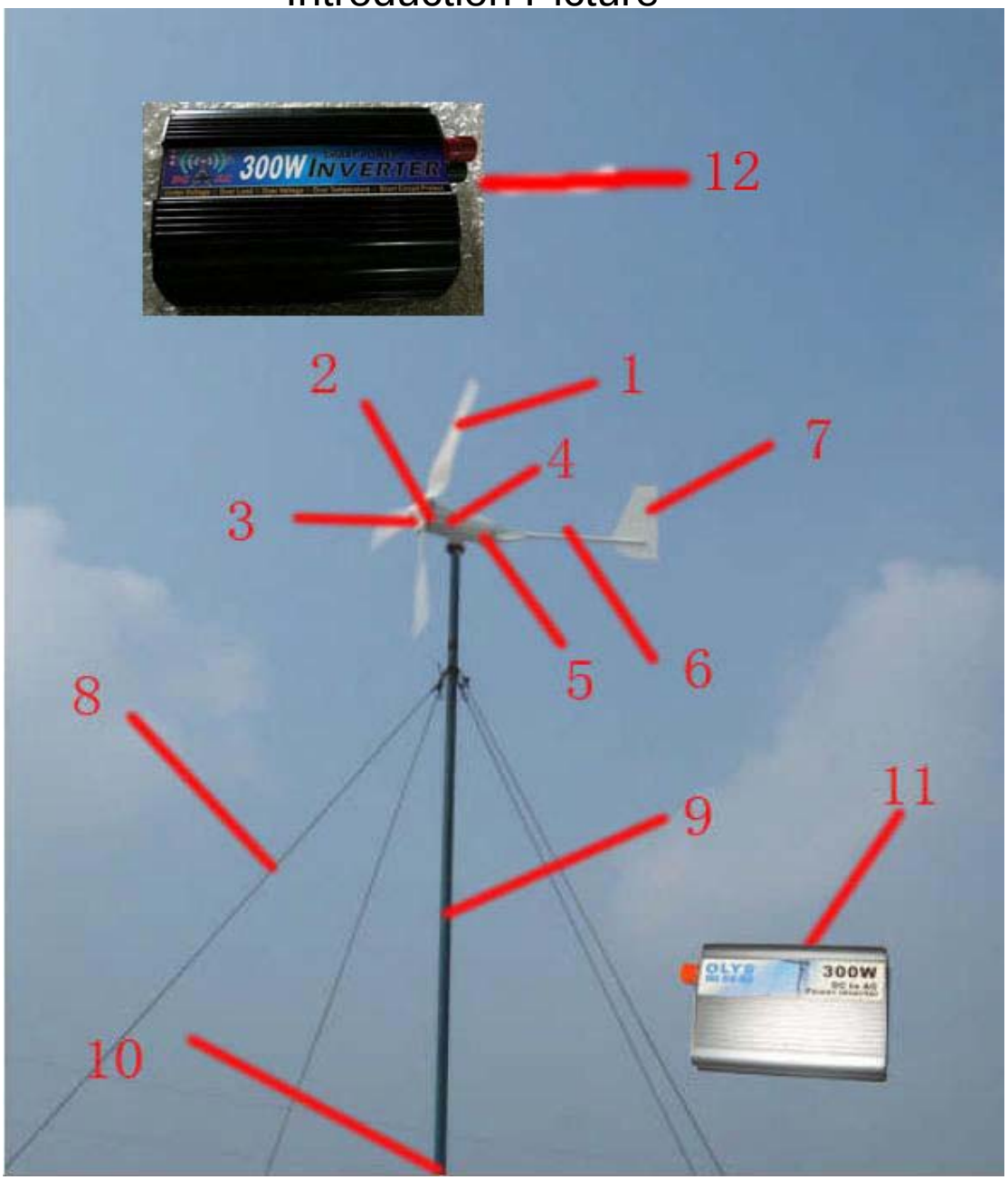
Resolute Picture For 300W Wind Turbine System

Model:1

Model:2

2,Packing Content

Introduction Picture



Details:1:Blade(3PCS) 2: Flange(1 Piece) 3:Nose Cone(1Set,)

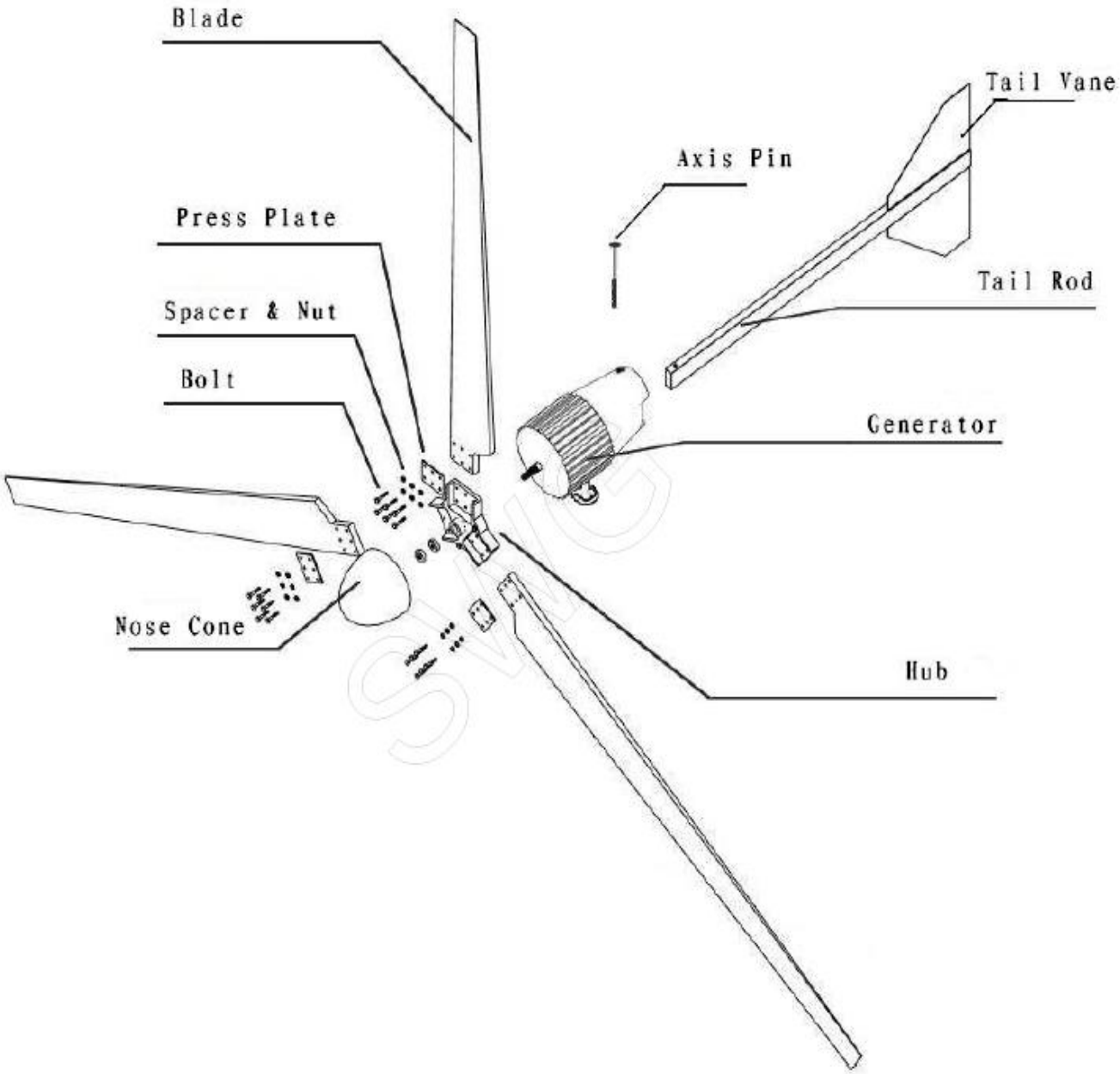
4:Generator(1 Set) 5:Turning System (1Set)

6:tail Rod(1Set) 7:Tail Vane(2PCS) 8:Tower Wire(4PCS)

9:Guy Table Tower(1Piece) 10:Base Install Parts

11:Controller(1Piece) 12:Inverter(1Piece)

300W Wind turbine generator constituent diagram



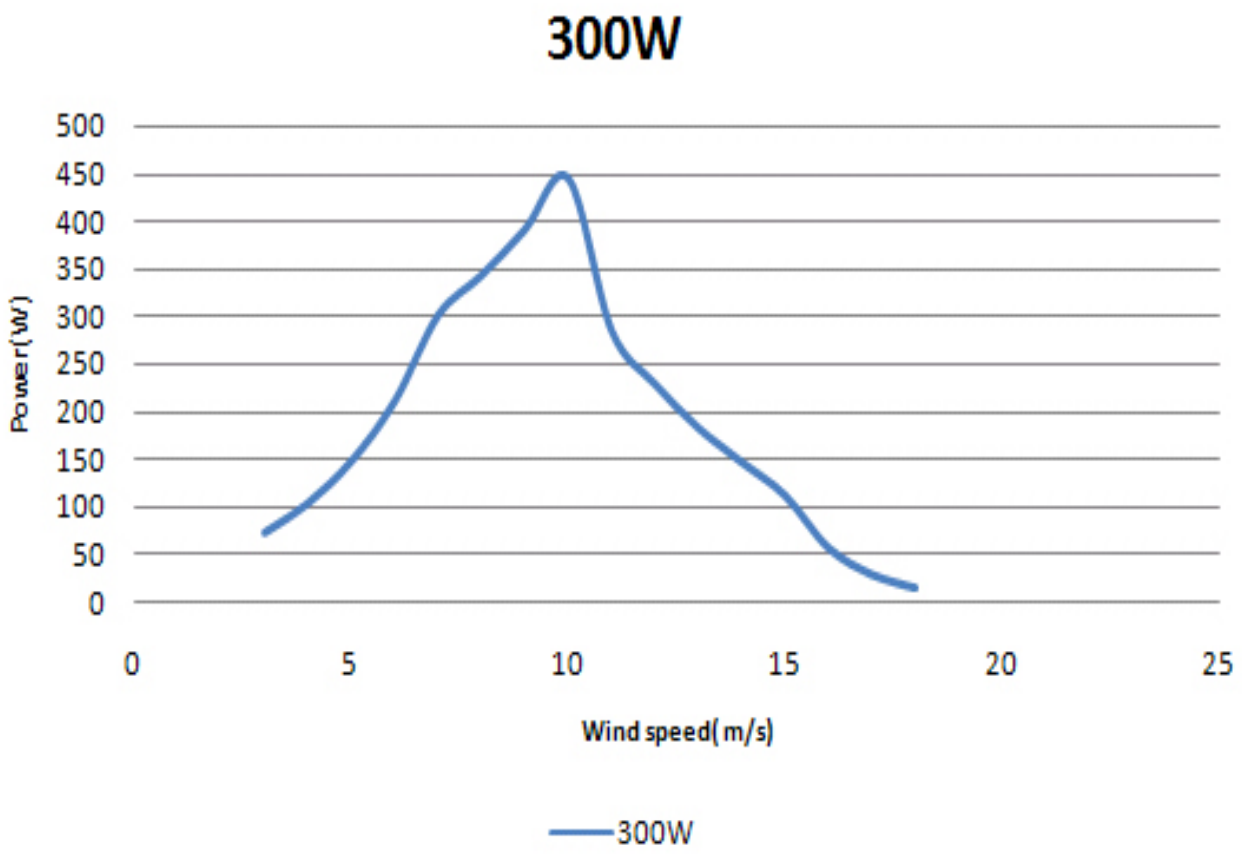
Packing list Of 300W,24V Wind Turbine System

Name	Quantity	Weight(KG)	Packing Size(CM)	Packing Form	Volume	Contents
Turbine Box	1	22KG	112*59*21	Plywood Case	0.14CBM	Generator
						Controller
						Flange
						Nose Cone
						Base
						Turnbuckle
						Steel Wire
						Anchor
						Screw
						Clamp
						Inverter
Tower Box	1	23.5KG	4.8*4.8*200	Nude	0.01CBM	Tower:3 Section
Blade Box	1	6KG	90*24*13	Plywood Case	0.03CBM	Blade,Tail Rod
Total	3	51.5KG			0.18CBM	

3,Parameter of 300W wind Turbine

Rated Power	300W
Rated Voltage	24V
Diameter Of Blade	1.5M
Starting Wind Speed	2.5M/S
Rated Wind Speed	12M/S
Safety Wind Speed	35M/S
Yaw way	Mechanical
Rotating Speed	450R/M
Cover Material	aluminium alloy
Blade's Material	Glass fiber reinforced plastics
Blade's Quantity	3
Height Of Tower	6M
Thickness Of Tower	2.5MM
Diameter Of Tower	48MM
Recommended Accumulator	12V150AH,2PCS
Inverter	Revised Sine Wave
Controller	Grid-off controller
Over-Speed Protection Methods	Yawing and Unloading

4,Power Curve Of 300W Wind Turbine



5, Academic power capacity

Power per year(kWh)

WindSpeed(M/S)	KWH	WindSpeed(M/S)	KWH	WindSpeed(M/S)	KWH	WindSpeed(M/S)	KWH
4	149	8	631	12	2628	16	2759
4.5	184	8.5	771	12.5	2865	16.5	2488
5	219	9	902	13	3101	17	2208
5.5	263	9.5	1095	13.5	3381	17.5	1989
6	307	10	1288	14	3662	18	1770
6.5	377	10.5	1568	14.5	3995	18.5	1594
7	438	11	1840	15	4319	19	1419
7.5	534	11.5	2234	15.5	3539	19.5	1139

Power per year(W)

WindSpeed(M/S)	W	WindSpeed(M/S)	W	WindSpeed(M/S)	W	WindSpeed(M/S)	W
4	17	8	72	12	300	16	315
4.5	21	8.5	88	12.5	327	16.5	284
5	25	9	103	13	354	17	252
5.5	30	9.5	125	13.5	386	17.5	227
6	35	10	147	14	418	18	202
6.5	43	10.5	179	14.5	456	18.5	182
7	50	11	210	15	493	19	162
7.5	61	11.5	255	15.5	404	19.5	130

6. Circumstance

Temperature: -40~+60 Celsius degree

Humidity: less than 95%

7. General data

Protection Level IP54

Insulation Level B

Cooling Mode IC0041

Drive Mode Direct driven by wheel

Adjust Speed Method :Automatic

Adjust Direction Method: Automatic

8,300W Wind Generator Data

300W wind generators are three phases permanent magnet (NdFeB) synchronous alternator.

Rated power(W)	300	Magnetic pole count	8
Rated voltage(DCV)	12/24	Rated speed(rpm)	450
Rated voltage(ACV)	8/17	Max speed(rpm)	600
Rated current(DCA)	25/12	Weight(kg)	12.5
Rated current(ACA)	35/17		

9,300W Wind Turbine Blade Data

Material of blades	Carbon fiber
Number of blades	3
Diameter (m)	1.5
Area(m2)	1.8
TSR	3

10.300W Off-Grid Controller Data

Dump loader power(W)	300
Batteries rated voltage(V)	12/24
Float charge voltage(V)	15/30
Overvoltage(V)	15/30
Over charge resume voltage(V)	14/28
Under voltage(V)	10.5/21
Under charge resume voltage	12/24
Working	Continuous and intelligent
Circumstance	-10~40 Celsius degree; Humidity: less than 85%

11,300W Off-Grid Modified Wave Inverter

Input Voltage Range.....Type(1)	DC20-28V
Input Voltage Range.....Type(2)	DC29-43V
Input Voltage Range.....Type(3)	DC38-58V
Output Voltage Range.....	AC210-230V
Maximum AC Output Power	300W
Long Term Power Output	240W
Surge Capacity:	600W
Optimum Efficiency	＞90%
No Load Current Draw	＜0.3A
Output Frequency	50±2Hz
Output Waveform	Modified Sine Wave
Short Circuit protect	Yes
Under Voltage Alarm	Yes
Under Voltage Shutdown	Yes
Over Load Protect	Yes
Over Voltage Shutdown	Yes
Over temperature Shutdown	Yes
Cooling Fan	Yes
Operating temperature Range	Range0℃-40℃
Dimensions(L*W*H)	143MM*105MM*57MM
Weight	0.6KG

12,300W Guy Table Tower

Height(m)	6
Diameter (mm)	48
Thickness	2.5
Sections	3
Weight(kg)	23.5

13. Concrete base

For 300W guy cable tower(refer to figure 2)

Radius(m)	3.0
Center base dimension(m)(L*W*D)	0.5*0.5*0.8
Side base dimension(m)(L*W*D)	0.4*0.4*0.6

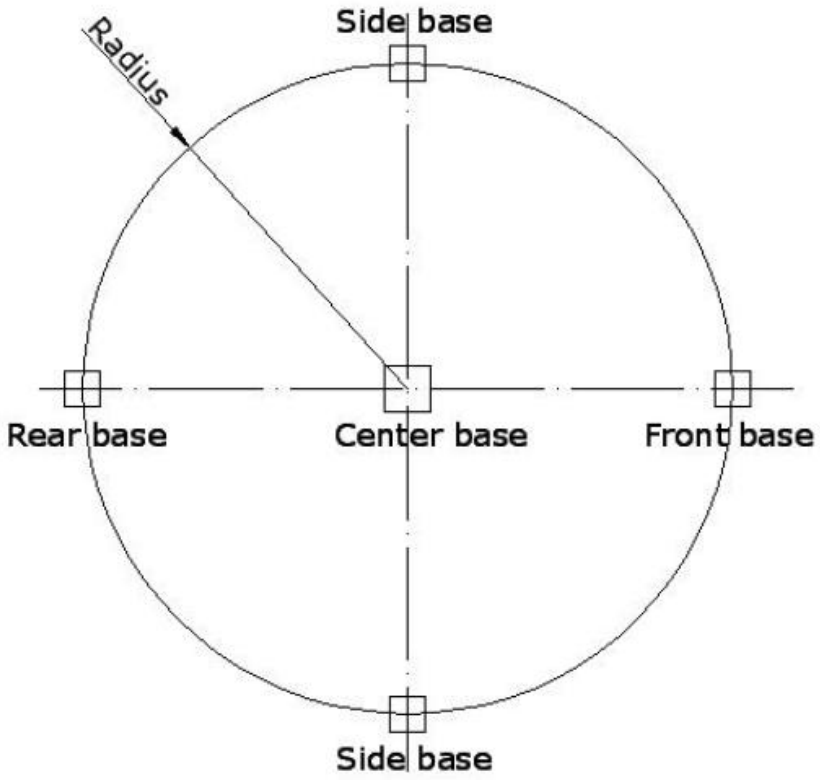


Figure 2

14. Electrical wires

Length(m)	20
Cross-Section Area(mm2)	2.5

15, Suggested batteries For 300W wind turbine

Battery voltage (V)	12
Capacity (AH)	150
Number	2PCS
Charging time(h)	14

16, Noise report (tested by hand held sound level meter)

Round Wind Speed(m/s)	Sound(db)	Round Wind Speed(m/s)	Sound(db)
3	20.9	8	49.8
4	23.4	9	51.6
5	28.5	10	61.8
6	36.7	11	66.2
7	43.6	12	69.5

Test position: At 12m away from generator (average value of 3 point-rear, left, right).

Notes: The sound value includes wind noise.