TACKE TW 600 600-200 43.0 !O!

File C:\WindPRO Data\WTGs2.5\TACKE TW 600 600-200 43.0 !o!.wtg

Company	TACKE
Type/Version	TW 600
Rated power	600,0 kW
Secondary generator	200,0 kW
Rotor diameter	43,0 m
Tower	Tubular
Grid connection	50 Hz
Origin country	DE
Blade type	TW 600
Generator type	Two generator
Rpm, rated power	27,0 rpm
Rpm, initial	18,0 rpm
Hub height(s)	50,0; 60,0 m
Maximum blade width	0,00 m
Blade width for 90% radius	0,00 m
Valid	No
Creator	EMD
Created	1998-10-06 00:00
Edited	1998-10-06 00:00

Power curve: DEWI 06/95 1.225 25.00 0.00

Source DEWI

Source date	Creator	Created	Edited	Default	Stop wind [m/s]	Speed	Air density [kg/m3]	Tip angle [°]	Power control	CT curve type
1995-06-01 00:00 Gemessen	EMD	2001-05-31 12:24	2001-05-31 12:26	Yes	25,0		1,225	0,0	Stall	Standard stall

Power curve

Wind speed [m/s]	2,00	3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	12,00	13,00	14,00	15,00	16,00
Power [kW]	0,00	2,60	20,00	46,70	78,80	131,80	196,50	268,00	342,60	416,00	478,10	529,90	572,60	608,00	628,30
Ce	0,000	0,108	0,351	0,420	0,410	0,432	0,431	0,413	0,385	0,351	0,311	0,271	0,235	0,203	0,172

Wind speed [m/s]	17,00	18,00	19,00	20,00	21,00	22,00	23,00	24,00	25,00
Power [kW]	630,80	627,70	626,60	623,20	614,80	639,20	592,80	600,00	600,00
Ce	0,144	0,121	0,103	0,088	0,075	0,067	0,055	0,049	0,043

Ct curve

Wind speed [m/s]	1,00	2,00	3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	12,00	13,00	14,00	15,00	16,00	17,00	18,00	19,00	20,00	21,00	22,00	23,00	24,00	25,00	26,00	27,00	28,00	29,00
Ct	0,10	0,10	0,10	0,80	0,82	0,85	0,82	0,78	0,74	0,68	0,62	0,55	0,49	0,43	0,38	0,32	0,28	0,25	0,21	0,20	0,19	0,17	0,16	0,15	0,14	0,13	0,12	0,11	0,10

HP curve comparison

Vmean	[m/s]	5	6	7	8	9	10
HP value	[MWh]	697	1 126	1 578	2 004	2 385	2 722
DEWI 06/95 1.225 25.00 0.00	[MWh]	709	1 116	1 549	1 973	2 361	2 695
Check value	**[%]**	**-2**	**1**	**2**	**2**	**1**	**1**

The table shows comparison between annual energy production calculated on basis of simplified "HP-curves" which assume that all WTG's performs quite similar - only specific power loading (kW/m^2) and single/dual speed or stall/pitch decides the calculated values. Productions are without wake losses. For further details, ask at the Danish Energy Agency for project report J.nr. 51171/00-0016 or see WindPRO manual chapter 3.5.2.
The method is refined in EMD report "20 Detailed Case Studies comparing Project Design Calculations and actual Energy Productions for Wind Energy Projects worldwide", jan 2003.
Use the table to evaluate if the given power curve is reasonable - if the check value are lower than -5%, the power curve probably is too optimistic due to uncertainty in power curve measurement.

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