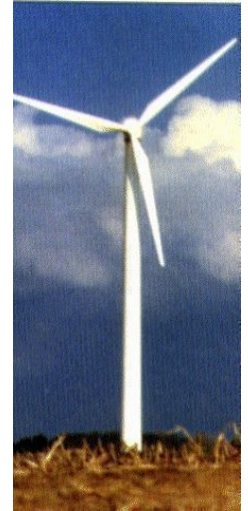


TACKE TW 600 600-200 43.0 !O!

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 windSpeed [m/s]	Air density [kg/m3]	Tip angle [°]	Power control	CT curve type
1995-06-01 00:00	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/m²) 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.

TACKE TW 600 600-200 43.0 !O!

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