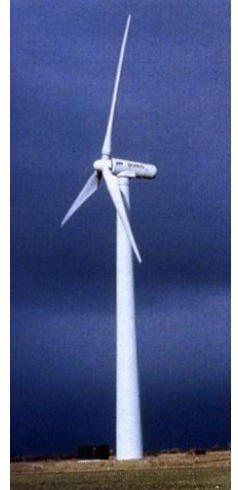


BONUS MK III 450 37.0

Company BONUS
 Type/Version MK III
 Rated power 450,0 kW
 Secondary generator 0,0 kW
 Rotor diameter 37,0 m
 Tower Tubular
 Grid connection 50 Hz
 Origin country DK
 Blade type LM 17
 Generator type One generator
 Rpm, rated power 30,0 rpm
 Rpm, initial 0,0 rpm
 Hub height(s) 35,0; 42,3 m
 Maximum blade width 0,00 m
 Blade width for 90% radius 0,00 m
 Valid No
 Creator EMD
 Created 1999-11-08 00:00
 Edited 1999-11-08 00:00



Power curve: Fab / Ris# Sep 92 1.225 25.00 0.00
 Source Fab / Ris# Sep 92

Source date	Creator	Created	Edited	Default	Stop windSpeed [m/s]	Air density [kg/m3]	Tip angle [°]	Power control	CT curve type
1899-12-30 00:00	EMD	1992-12-04 00:00	2000-11-15 14:18	No	25,0	1,225	0,0	Stall	Standard stall

Power curve

Wind speed [m/s]	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
Power [kW]	0,00	24,90	63,90	109,00	162,40	217,80	272,00	331,10	373,30	423,50	454,70	466,90	476,20	469,70	435,60
Ce	0,000	0,302	0,449	0,483	0,482	0,454	0,413	0,378	0,328	0,293	0,252	0,210	0,177	0,145	0,113

Wind speed [m/s]	19,00	20,00	21,00	22,00	23,00	24,00	25,00
Power [kW]	425,00	414,90	410,00	405,00	400,00	395,00	390,00
Ce	0,094	0,079	0,067	0,058	0,050	0,043	0,038

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]	488	793	1 117	1 440	1 728	1 976

Fab / Ris# Sep 92 1.225 25.00 0.00 [MWh]	534	864	1 206	1 532	1 819	2 058
Check value [%]	-9	-8	-7	-6	-5	-4

