

ABB Oy MV Induction Machines		Classifying code or document type PERFORMANCE DATA OF GENERATOR			ABB	
Department/Author PWE/Kurucz	Date of issue 2008-05-15	Lang. En	Rev. date	Our ref. 2164HF500		
Customer ref. Gamesa 2 MW 50 Hz 2008	Saving Ident 8010739	Rev./Changed by A	Pages 1/2			

Driven Machine: WTG

Machine type code	AMK 500L4A			
Machine type	Slip ring machine, double fed			
Mounting designation	IM 1001			
Protected by enclosure / slipring	IP 54 / 21			
Method of cooling	IC 666			
Insulation	Class F			
Standards	IEC			
Ambient temperature, max.	+40 °C			
Altitude, max.	1000 m.a.s.l.			
Shortcircuited rotor				
Duty type	S1			
Temp. rise	Class F			
Connection of stator winding	Delta			
Rated output	1800 kW / 2045 kVA			
Voltage	690 V			
Frequency	50 Hz			
Speed	1514 rpm			
Max speed	2450 rpm, 2 min			
Current	1710 A			
Locked Rotor Voltage	1821 V			
Rotor Current	586A			
Connection of rotor winding	Star			
Rotor resistance/phase	0.0121 Ω			
Relat. Maximum torque	-2.3			
No load current	570 A			
Rated torque	-11712 Nm			
Load characteristics 1)	Load %	Current A	Efficiency %	Power Factor
	100	1710	97.2	0.88
	75	1321	97.3	0.85
	50	963	97.1	0.78
Direction of rotation	Uni-directional			
Weight of rotor	1890 kg			
Total weight of machine	5800 kg			
Inertia rotor / load	69.9 kgm ² / ___ kgm ²			
Bearings	Antifriction			

All machine data is subject to tolerances in accordance with IEC.

NOTE:

- 1) separate fan motors excluded (air flow 2.4 m3/sec)
- 2) customer Specification EF392573-3 + Deviation 8006009-A

ABB Oy


MV Induction
Machines

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Converter fed rotor

Speed range 1100 – 1950 rpm at 690 V delta

Power factor total 0.98cap – 1.0 – 0.96ind

Ambient temperature, max. 40 °C

U1 V	n rpm	P2 kW	Ist A	PFst	Irt A	Urt V	eta %
0.98cap							
690 / D	1100	573	671.5148	0.98943622	348.23471	530.13717	95.746361
690 / D	1680	2040	1577.3645	0.97554809	673.32028	230.31945	96.900234
690 / D	1950	2040	1365.4816	0.96724444	602.93509	597.13274	97.017393
1.0							
690 / D	1100	573	663.45133	1	323.97868	524.79889	95.903618
690 / D	1680	2040	1536.171	1	618.3944	221.14971	97.10749
690 / D	1950	2040	1318.7421	1	541.29386	575.27927	97.225002
0.96ind							
690 / D	1100	573	677.06593	-0.97843194	293.90373	517.14637	96.065522
690 / D	1680	2040	1613.3501	-0.9511982	584.6358	207.99422	97.16979
690 / D	1950	2040	1408.2011	-0.93542603	502.50268	543.89118	97.288255

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