



Type Test Report					Date of issue: 2011.12.28						
Customer:					Serial No.: 3GE093409T0002						
					Type: M3AA 90LB 4 HO					Product Code: 3GAA092004-_DE	
Customer ref.:											
Rating:					V	Hz	kW	r/min	A	cos φ	Duty
3~Motor					690	Y 50	2,2	1390	2,70	0,83	S1
Insul.cl.F					400	D 50	2,2	1390	4,70	0,83	S1
IP55					460	D 60	2,2	1710	4,20	0,77	S1
Eff class IE1					50Hz : IE1 - 80,0(100%) - 83,1(75%) - 83,1(50%)						
60Hz : IE1 - 83,9(100%)											
Resistance					Insulation resistance at 26,2 °C					Overload	
Line					R > 2000 Mohm 1000 V					Current 150 % 120s	
U <sub>1</sub> - V <sub>1</sub>					Ambient: 21,5 °C					Torque 160 % 15s	
U <sub>1</sub> - W <sub>1</sub>					5,65900 Ω					Speed 120 % 120s	
V <sub>1</sub> - W <sub>1</sub>					5,66400 Ω						
					5,65700 Ω						
					High-voltage test winding 2400 V					60 s	
Test	Torque [Nm]	Line U[V]	f[Hz]	Input I[A]	P1 [kW]	Output P2 [kW]	n[r/min]	cos φ	η [%]		
No load test		400 D	50	2,8	0,18		1500	0,10			
Locked rotor test		86,1 D	50	4,8	0,44		0	0,62			
Thermal test ( 100% load )	15,1	400 D	50	4,8	2,76	2,20	1392	0,82	79,60		
Partial load points:											
~75% load	11,1	400 D	50	3,8	2,02	1,65	1422	0,75	81,60		
~50% load	7,2	400 D	50	3,0	1,35	1,10	1450	0,63	81,50		
~25% load	3,6	400 D	50	2,6	0,73	0,55	1475	0,40	75,20		
Temperature rise at rated load.					°C	K	Method		Measurement method		
Stator winding :					69,9	3			1 Resistance		
Frame :					35,3	3			2 Thermometer		
Bearing D-end :					41,2	3			3 Thermocouples		
Ambient Temperature :					25	3					
Manufactured and tested in accordance with rules of IEC 60034-1 and IEC 60034-2-1.											
PLL determined from residual loss.											
On behalf of customer											
On behalf of manufacturer			Date of test			1.10.2009					
Tested by Asea Brown Boveri, S.A., Fabrica Motores , 08192 Sant Quirze del Valles , Spain								Telephone		+34 93 728 85 00	
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