



Type Test Report					Date of issue: 2011.12.19						
Customer:					Serial No.: 3GE072709T1502						
					Type: M3AA 90L 2					Product Code: 3GAA091442-_HE	
Customer ref.:											
Rating:					V	Hz	kW	r/min	A	cos φ	Duty
3~Motor					415	D 50	1,50	2910	2,90	0,85	S1
Insul.cl.F											
IP55											
Eff class IE2					50Hz : IE2 - 84,1(100%) - 84,3(75%) - 82,3(50%)						
Resistance					Insulation resistance at 30 °C					Overload	
Line					R > 2000 Mohm 1000 V					Current 150 % 120s	
U <sub>1</sub> - V <sub>1</sub>					Ambient: 31,0 °C					Torque 160 % 15s	
U <sub>1</sub> - W <sub>1</sub>					7,18000 Ω					Speed 120 % 120s	
V <sub>1</sub> - W <sub>1</sub>					7,20000 Ω						
					7,21000 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		415 D	50	1,45	0,11		3000	0,11			
Locked rotor test		68,4 D	50	3,1	0,20		0	0,54			
Thermal test ( 100% load )	4,9	415 D	50	2,9	1,78	1,50	2908	0,85	84,10		
Partial load points:											
~75% load	3,7	415 D	50	2,3	1,33	1,13	2935	0,78	84,30		
~50% load	2,4	415 D	50	1,91	0,91	0,75	2959	0,66	82,30		
~25% load	1,2	415 D	50	1,61	0,51	0,38	2979	0,44	73,30		
Temperature rise at rated load.					°C	K	Method		Measurement method		
Stator winding :					42,6	3			1 Resistance		
Frame :					13	3			2 Thermometer		
Bearing D-end :					13	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			20.7.2007					
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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