



Type Test Report				Date of issue: 1.9.2015							
				Serial No.:							
Customer:				Type: M3AA 280SMB 2							
Customer ref.:				Product Code: 3GAA281220-ADG							
Rating:											
				V	Hz	kW	r/min	A	cos φ	Duty	
3-Motor				690	Y 50	90,0	2971	88,7	0,89	S1	
Insul.cl.F				400	D 50	90,0	2971	153,0	0,89	S1	
IP55				415	D 50	90,0	2974	149,0	0,88	S1	
				440	D 60	90,0	3573	138,0	0,90	S1	
Eff class IE2				460	D 60	90,0	3575	133,0	0,89	S1	
				50Hz : IE2 - 94,9(100%) - 95,2(75%) - 94,7(50%)							
				60Hz : IE2 - 94,7(100%)							
Resistance				Insulation resistance at 23,5 °C				Overload			
Line				R > 2000 Mohm 1000 V				Current 150 % 120s			
U ₁ - V ₁				Ambient: 21,3 °C				Torque 160 % 15s			
U ₁ - W ₁				0,03015 Ω				Speed 120 % 120s			
V ₁ - W ₁				0,03000 Ω							
				0,03005 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		401 D	50	35,0	1,7		3000	0,07			
Locked rotor test		69,5 D	50	154,9	6,91		0	0,37			
Thermal test (100% load)	289,5	400 D	50	153,5	94,92	90,00	2969	0,89	94,82		
Partial load points:											
~75% load	232,5	400 D	50	124,2	76,19	72,47	2977	0,89	95,12		
~50% load	135,8	400 D	50	78,9	44,88	42,50	2988	0,82	94,71		
~25% load	72,7	400 D	50	53,0	24,69	22,81	2995	0,67	92,37		
Temperature rise at rated load.				°C	[K]	Method		Measurement method			
Stator winding :				94,5	1			1 Resistance			
Frame :				32,4	2			2 Thermometer			
Bearing D-end :				61,3	2			3 Thermocouples			
Ambient Temperature :				25	2						
<p>These tests have been carried out on motor no. 09 517977 10001, on date 2009-03-31 which is identical in electrical design with the above.</p> <p>Manufactured and tested in accordance with rules of IEC 60034-1 and IEC 60034-2-1. PLL determined from residual loss.</p>											
On behalf of customer											
On behalf of manufacturer											
Date of test											
Tested by ABB AB, LV Motors, 721 70 Västerås, Sweden											
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