



Type Test Report				Date of issue: 1.9.2015					
Customer:				Serial No.:					
Customer ref.:				Type: M3AA 160MLD 2 Product Code: 3GAA161440-ADG					
Rating:									
	V	Hz	kW	r/min	A	cos φ	Duty		
3-Motor	690	Y 50	22,0	2933	22,0	0,90	S1		
Insul.cl.F	400	D 50	22,0	2933	38,0	0,90	S1		
IP55	415	D 50	22,0	2940	37,4	0,89	S1		
	440	D 60	22,0	3539	34,0	0,92	S1		
	460	D 60	22,0	3546	32,8	0,91	S1		
Eff class IE2	50Hz : IE2 - 91,7(100%) - 92,8(75%) - 92,8(50%) 60Hz : IE3 - 92,2(100%)								
Resistance				Insulation resistance at 21,8 °C		Overload			
Line	Ambient: 20,1 °C			R > 2000 Mohm 1000 V		Current 150 % 120s Torque 160 % 15s Speed 120 % 120s			
U ₁ - V ₁	0,20000 Ω								
U ₁ - W ₁	0,19880 Ω								
V ₁ - W ₁	0,19850 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		402 D	50	11,6	0,58		3000	0,07	
Locked rotor test		57 D	50	37,3	1,47		0	0,4	
Thermal test (100% load)	71,4	400 D	50	38,5	23,84	22,00	2942	0,89	92,29
Partial load points:									
~75% load	53,0	400 D	50	29,4	17,62	16,36	2946	0,86	92,87
~50% load	36,0	400 D	50	21,9	12,08	11,19	2964	0,80	92,63
~25% load	18,1	400 D	50	15,0	6,31	5,65	2982	0,61	89,53
Temperature rise at rated load.				°C	[K]	Method		Measurement method	
Stator winding :				69,7	1			1 Resistance	
Frame :				31,3	2			2 Thermometer	
Bearing D-end :				38,1	2			3 Thermocouples	
Ambient Temperature :				22	2				
<p>These tests have been carried out on motor no. 3GV1110833570002, on date 2012-02-17 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					Telephone +46 (0)21 32 90 00 Telefax +46 (0)21 32 90 22				

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