



Type Test Report				Date of issue: 1.9.2015					
				Serial No.:					
Customer:				Type: M3AA 160MLD 4					
Customer ref.:				Product Code: 3GAA162440-ADG					
Rating:									
	V	Hz	kW	r/min	A	cos φ	Duty		
3-Motor	690	Y 50	22,0	1463	23,6	0,85	S1		
Insul.cl.F	400	D 50	22,0	1463	40,7	0,85	S1		
IP55	415	D 50	22,0	1467	39,6	0,84	S1		
	440	D 60	22,0	1766	41,7	0,86	S1		
	460	D 60	22,0	1770	35,4	0,84	S1		
Eff class IE2	50Hz : IE2 - 91,6(100%) - 93,0(75%) - 93,2(50%)								
	60Hz : IE1 - 92,3(100%)								
Resistance				Insulation resistance at 21,9 °C		Overload			
Line				R > 2000 Mohm 1000 V		Current 150 % 120s			
U ₁ - V ₁				Ambient: 21,1 °C		Torque 160 % 15s			
U ₁ - W ₁				0,23770 Ω		Speed 120 % 120s			
V ₁ - W ₁				0,23660 Ω					
				0,23720 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		399 D	50	13,9	0,55		1500	0,06	
Locked rotor test		84 D	50	40,1	1,92		0	0,33	
Thermal test (100% load)	143,5	400 D	50	41,3	24,17	22,00	1464	0,84	91,04
Partial load points:									
~75% load	108,1	400 D	50	32,2	18,16	16,72	1477	0,81	92,06
~50% load	71,1	400 D	50	23,8	12,00	11,07	1485	0,73	92,22
~25% load	36,5	400 D	50	17,3	6,36	5,71	1493	0,53	89,70
Temperature rise at rated load.				°C	[K]	Method		Measurement method	
Stator winding :				74,5		1		1 Resistance	
Frame :				39,0		2		2 Thermometer	
Bearing D-end :				48,6		2		3 Thermocouples	
Ambient Temperature :				22		2			
<p>These tests have been carried out on motor no. 3GV1110817238001, on date 2012-01-04 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				
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