



Type Test Report				Date of issue: 2015-06-10							
Customer:				Serial No.: 3G1S14391421366001							
				Type: M3AA 180MLA 2 Product Code: 3GAA181051-ADL							
Customer ref.:											
Rating:											
				V	Hz	kW	r/min	A	cos φ	Duty	
3-Motor				400	D	50	22,0	2944	38,0	0,90	S1
Insul.cl.F				690	Y	50	22,0	2944	22,0	0,90	S1
IP55				415	D	50	22,0	2949	37,0	0,89	S1
Eff class IE3				50Hz : IE3 - 92,7(100%) - 93,4(75%) - 93,2(50%)							
Resistance				Insulation resistance at 22,6 °C				Overload			
Line				R > 2000 Mohm 1000 V				Current 150% 120s			
U ₁ - V ₁				Ambient: 22,6 °C				Torque 160% 15s			
U ₁ - W ₁				0,19420 Ω				Speed 120% 120s			
V ₁ - W ₁				0,19400 Ω							
				0,19490 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		400,5 D	50	10,6	0,45		3000	0,06			
Locked rotor test		57,3 D	50	38,2	1,62			0,43			
Thermal test (100% load)	71,4	400 D	50	37,6	23,63	22,00	2944	0,91	93,1		
Partial load points:											
~75% load	53,2	400 D	50	28,8	17,59	16,50	2959	0,88	93,8		
~50% load	35,3	400 D	50	20,7	11,73	11,00	2974	0,82	93,8		
~25% load	17,6	400 D	50	14,0	6,02	5,50	2988	0,62	91,4		
Temperature rise at rated load.				[°C]	[K]	Method		Measurement method			
Stator winding :				57,8	1			1 Resistance			
Frame :				30,5	2			2 Thermometer			
Bearing D-end :				31,6	2			3 Thermocouples			
Ambient Temperature :				23	2						
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 2014-08-22											
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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