



Type Test Report				Date of issue: 1.9.2015							
Customer:				Serial No.:							
Customer ref.:				Type: M3AA 160MLD 2 Product Code: 3GAA161440-ADK							
Rating:				V	Hz	kW	r/min	A	cos φ	Duty	
3-Motor				690	Y 50	22,0	2944	22,0	0,90	S1	
Insul.cl.F				400	D 50	22,0	2944	38,0	0,90	S1	
IP55				415	D 50	22,0	2949	37,0	0,89	S1	
Eff class IE3				50Hz : IE3 - 92,7(100%) - 93,5(75%) - 93,4(50%)							
Resistance				Insulation resistance at				Overload			
Line				Ambient: 22,6 °C				R > 2000 Mohm 1000 V			
U <sub>1</sub> - V <sub>1</sub>				0,1942 Ω				Volt. 130 % 60s			
U <sub>1</sub> - W <sub>1</sub>				0,1940 Ω				Curr. 160 % 120s			
V <sub>1</sub> - W <sub>1</sub>				0,1949 Ω				Speed 120 % 120s			
				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	93,10		
Partial load points:											
~75% load	53,2	400 D	50	28,8	17,59	16,50	2959	0,88	93,80		
~50% load	35,3	400 D	50	20,7	11,73	11,00	2974	0,82	93,80		
~25% load	17,6	400 D	50	14,0	6,02	5,50	2988	0,62	91,40		
Temperature rise at rated load.				°C	[K]	Method		Measurement method			
Stator winding :				57,8		1		1 Resistance			
Frame :				53		2		2 Thermometer			
Bearing D-end :				54		2		3 Thermocouples			
Ambient Temperature :				23		2					
<p>These tests have been carried out on motor no. 3G1S 14391421366 001 , on date 2014-08-22 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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