



Type Test Report				Date of issue: 1.9.2015																																																						
Customer:				Serial No.:																																																						
Customer ref.:				Type: M3AA 160MLB 4 Product Code: 3GAA162420-ADK																																																						
Rating:				<table border="1"> <thead> <tr> <th>V</th> <th>Hz</th> <th>kW</th> <th>r/min</th> <th>A</th> <th>cos φ</th> <th>Duty</th> </tr> </thead> <tbody> <tr> <td>690</td> <td>Y 50</td> <td>15,0</td> <td>1474</td> <td>16,1</td> <td>0,84</td> <td>S1</td> </tr> <tr> <td>400</td> <td>D 50</td> <td>15,0</td> <td>1474</td> <td>27,8</td> <td>0,84</td> <td>S1</td> </tr> <tr> <td>660</td> <td>Y 50</td> <td>15,0</td> <td>1471</td> <td>17,0</td> <td>0,85</td> <td>S1</td> </tr> <tr> <td>380</td> <td>D 50</td> <td>15,0</td> <td>1471</td> <td>29,0</td> <td>0,85</td> <td>S1</td> </tr> <tr> <td>415</td> <td>D 50</td> <td>15,0</td> <td>1477</td> <td>27,0</td> <td>0,83</td> <td>S1</td> </tr> <tr> <td>460</td> <td>D 60</td> <td>15,0</td> <td>1778</td> <td>24,3</td> <td>0,83</td> <td>S1</td> </tr> </tbody> </table>						V	Hz	kW	r/min	A	cos φ	Duty	690	Y 50	15,0	1474	16,1	0,84	S1	400	D 50	15,0	1474	27,8	0,84	S1	660	Y 50	15,0	1471	17,0	0,85	S1	380	D 50	15,0	1471	29,0	0,85	S1	415	D 50	15,0	1477	27,0	0,83	S1	460	D 60	15,0	1778	24,3	0,83	S1
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Eff class IE3				50Hz : IE3 - 92,6(100%) - 93,4(75%) - 93,2(50%) 60Hz : IE3 - 93,1(100%)																																																						
Resistance				Insulation resistance at				Overload																																																		
Line				R > 2000 Mohm 1000 V				Volt. 130 % 60s																																																		
U ₁ - V ₁				Ambient: 22,6 °C				Curr. 160 % 120s																																																		
U ₁ - W ₁				0,2971 Ω				Speed 120 % 120s																																																		
V ₁ - W ₁				0,2957 Ω																																																						
				0,2959 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		401,3 D	50	9,9	0,36		1500	0,05																																																		
Locked rotor test		84,2 D	50	28,2	1,19			0,29																																																		
Thermal test (100% load)	97,0	400 D	50	28,0	16,22	15,00	1476	0,84	92,46																																																	
Partial load points:																																																										
~75% load	72,4	400 D	50	21,9	12,09	11,25	1483	0,80	93,08																																																	
~50% load	48,1	400 D	50	16,4	8,07	7,50	1490	0,71	92,90																																																	
~25% load	23,9	400 D	50	12,1	4,17	3,75	1497	0,50	89,90																																																	
Temperature rise at rated load.			[°C]	[K]	Method		Measurement method																																																			
Stator winding :				52,7	1		1 Resistance																																																			
Frame :			55		2		2 Thermometer																																																			
Bearing D-end :			57		2		3 Thermocouples																																																			
Ambient Temperature :			23		2																																																					
<p>These tests have been carried out on motor no. 3GV13 11256322 001 , on date 2013-10-08 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																																																					
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