



Type Test Report				Date of issue: 1.9.2015																																																						
Customer:				Serial No.:																																																						
Customer ref.:				Type: M3AA 180MLA 2 Product Code: 3GAA181410-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>22,0</td> <td>2957</td> <td>21,7</td> <td>0,91</td> <td>S1</td> </tr> <tr> <td>400</td> <td>D 50</td> <td>22,0</td> <td>2957</td> <td>37,4</td> <td>0,91</td> <td>S1</td> </tr> <tr> <td>660</td> <td>Y 50</td> <td>22,0</td> <td>2952</td> <td>22,9</td> <td>0,91</td> <td>S1</td> </tr> <tr> <td>380</td> <td>D 50</td> <td>22,0</td> <td>2952</td> <td>39,5</td> <td>0,91</td> <td>S1</td> </tr> <tr> <td>415</td> <td>D 50</td> <td>22,0</td> <td>2961</td> <td>36,0</td> <td>0,91</td> <td>S1</td> </tr> <tr> <td>460</td> <td>D 60</td> <td>22,0</td> <td>3563</td> <td>32,5</td> <td>0,91</td> <td>S1</td> </tr> </tbody> </table>						V	Hz	kW	r/min	A	cos φ	Duty	690	Y 50	22,0	2957	21,7	0,91	S1	400	D 50	22,0	2957	37,4	0,91	S1	660	Y 50	22,0	2952	22,9	0,91	S1	380	D 50	22,0	2952	39,5	0,91	S1	415	D 50	22,0	2961	36,0	0,91	S1	460	D 60	22,0	3563	32,5	0,91	S1
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Eff class IE3				50Hz : IE3 - 93,2(100%) - 93,9(75%) - 93,8(50%) 60Hz : IE3 - 92,9(100%)																																																						
Resistance				Insulation resistance at				Overload																																																		
Line				R > 2000 Mohm 1000 V				Volt. 130 % 60s																																																		
U ₁ - V ₁				Ambient: 22,2 °C				Curr. 160 % 120s																																																		
U ₁ - W ₁				0,1775 Ω				Speed 120 % 120s																																																		
V ₁ - W ₁				0,1774 Ω																																																						
				0,1778 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		401,2 D	50	10,2	0,49		3000	0,07																																																		
Locked rotor test		61,1 D	50	38,3	1,59			0,39																																																		
Thermal test (100% load)	70,9	400 D	50	37,7	23,47	22,00	2964	0,90	93,74																																																	
Partial load points:																																																										
~75% load	53,0	400 D	50	28,9	17,53	16,50	2975	0,88	94,10																																																	
~50% load	35,2	400 D	50	20,8	11,73	11,00	2986	0,81	93,78																																																	
~25% load	17,5	400 D	50	13,9	6,05	5,50	2996	0,63	90,80																																																	
Temperature rise at rated load.			[°C]	[K]	Method		Measurement method																																																			
Stator winding :			41,4	41,4	1		1 Resistance																																																			
Frame :			46		2		2 Thermometer																																																			
Bearing D-end :			47		2		3 Thermocouples																																																			
Ambient Temperature :			23		2																																																					
<p>These tests have been carried out on motor no. 3GV13 11256350 001 , on date 2014-03-04 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																																																					
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