



Type Test Report				Date of issue: 1.9.2015																																																					
Customer:				Serial No.:																																																					
Customer ref.:				Type: M3AA 160MLC 6 Product Code: 3GAA163430-ADG																																																					
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>3-Motor</td> <td>690 Y</td> <td>50</td> <td>15,0</td> <td>971</td> <td>18,1</td> <td>0,77</td> <td>S1</td> </tr> <tr> <td>Insul.cl.F</td> <td>400 D</td> <td>50</td> <td>15,0</td> <td>971</td> <td>31,3</td> <td>0,77</td> <td>S1</td> </tr> <tr> <td>IP55</td> <td>415 D</td> <td>50</td> <td>15,0</td> <td>974</td> <td>30,9</td> <td>0,75</td> <td>S1</td> </tr> <tr> <td></td> <td>440 D</td> <td>60</td> <td>15,0</td> <td>1173</td> <td>28,3</td> <td>0,77</td> <td>S1</td> </tr> <tr> <td></td> <td>460 D</td> <td>60</td> <td>15,0</td> <td>1176</td> <td>27,6</td> <td>0,75</td> <td>S1</td> </tr> </tbody> </table>							V	Hz	kW	r/min	A	cos φ	Duty	3-Motor	690 Y	50	15,0	971	18,1	0,77	S1	Insul.cl.F	400 D	50	15,0	971	31,3	0,77	S1	IP55	415 D	50	15,0	974	30,9	0,75	S1		440 D	60	15,0	1173	28,3	0,77	S1		460 D	60	15,0	1176	27,6	0,75	S1
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Eff class IE2				50Hz : IE2 - 89,7(100%) - 91,2(75%) - 91,2(50%) 60Hz : IE2 - 90,2(100%)																																																					
Resistance				Insulation resistance at 22,1 °C			Overload																																																		
Line				R > 2000 Mohm 1000 V			Current 150 % 120s Torque 160 % 15s Speed 120 % 120s																																																		
Ambient: 20,3 °C U ₁ - V ₁ 0,3974 Ω U ₁ - W ₁ 0,3961 Ω V ₁ - W ₁ 0,3970 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 D	50	16,2	0,53		1000	0,05																																																	
Locked rotor test		84 D	50	30,6	1,40			0,31																																																	
Thermal test (100% load)	147,4	400 D	50	31,7	16,78	15,00	972	0,76	89,39																																																
Partial load points:																																																									
~75% load	111,9	400 D	50	26,2	12,72	11,48	980	0,70	90,25																																																
~50% load	74,0	400 D	50	21,2	8,50	7,65	987	0,58	90,00																																																
~25% load	37,7	400 D	50	17,7	4,55	3,92	994	0,37	86,21																																																
Temperature rise at rated load.				[°C] [K] Method			Measurement method																																																		
Stator winding :				71,0 1			1 Resistance																																																		
Frame :				43,3 2			2 Thermometer																																																		
Bearing D-end :				33,7 2			3 Thermocouples																																																		
Ambient Temperature :				22 2																																																					
<p>These tests have been carried out on motor no. 3GV1110719610004, on date 2012-01-30 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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