



Type Test Report				Date of issue: 1.9.2015																																																						
Customer:				Serial No.:																																																						
Customer ref.:				Type: M3AA 160MLC 2 Product Code: 3GAA161430-BDK																																																						
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>18,5</td> <td>2942</td> <td>17,9</td> <td>0,93</td> <td>S1</td> </tr> <tr> <td>400</td> <td>D 50</td> <td>18,5</td> <td>2942</td> <td>30,8</td> <td>0,93</td> <td>S1</td> </tr> <tr> <td>660</td> <td>Y 50</td> <td>18,5</td> <td>2935</td> <td>18,9</td> <td>0,93</td> <td>S1</td> </tr> <tr> <td>380</td> <td>D 50</td> <td>18,5</td> <td>2935</td> <td>32,6</td> <td>0,93</td> <td>S1</td> </tr> <tr> <td>415</td> <td>D 50</td> <td>18,5</td> <td>2948</td> <td>30,0</td> <td>0,92</td> <td>S1</td> </tr> <tr> <td>460</td> <td>D 60</td> <td>18,5</td> <td>3551</td> <td>26,8</td> <td>0,93</td> <td>S1</td> </tr> </tbody> </table>						V	Hz	kW	r/min	A	cos φ	Duty	690	Y 50	18,5	2942	17,9	0,93	S1	400	D 50	18,5	2942	30,8	0,93	S1	660	Y 50	18,5	2935	18,9	0,93	S1	380	D 50	18,5	2935	32,6	0,93	S1	415	D 50	18,5	2948	30,0	0,92	S1	460	D 60	18,5	3551	26,8	0,93	S1
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Eff class IE3				50Hz : IE3 - 93,1(100%) - 93,9(75%) - 93,9(50%) 60Hz : IE3 - 92,9(100%)																																																						
Resistance				Insulation resistance at				Overload																																																		
Line				Ambient: 22,4 °C				R > 2000 Mohm 1000 V																																																		
U ₁ - V ₁				0,2244 Ω				Volt. 130 % 60s																																																		
U ₁ - W ₁				0,2222 Ω				Curr. 160 % 120s																																																		
V ₁ - W ₁				0,2231 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		402 D	50	8,3	0,57		3000	0,10																																																		
Locked rotor test		57,6 D	50	31,1	1,22		0	0,39																																																		
Thermal test (100% load)	59,8	400 D	50	31,8	19,96	18,50	2952	0,91	92,70																																																	
Partial load points:																																																										
~75% load	44,7	400 D	50	24,3	14,93	13,88	2967	0,89	92,97																																																	
~50% load	29,6	400 D	50	17,4	10,02	9,25	2980	0,83	92,30																																																	
~25% load	14,8	400 D	50	11,6	5,23	4,63	2993	0,65	88,32																																																	
Temperature rise at rated load.			[°C]	[K]	Method		Measurement method																																																			
Stator winding :			50,6	50,6	1		1 Resistance																																																			
Frame :			48		2		2 Thermometer																																																			
Bearing D-end :			46		2		3 Thermocouples																																																			
Ambient Temperature :			23		2																																																					
<p>These tests have been carried out on motor no. 3GV13 11123829 001, on date 2013-03-01 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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