



Type Test Report				Date of issue: 1.9.2015																																																						
Customer:				Serial No.:																																																						
Customer ref.:				Type: M3AA 160MLA 2 Product Code: 3GAA161410-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>11,0</td> <td>2943</td> <td>10,8</td> <td>0,92</td> <td>S1</td> </tr> <tr> <td>400</td> <td>D 50</td> <td>11,0</td> <td>2943</td> <td>18,7</td> <td>0,92</td> <td>S1</td> </tr> <tr> <td>660</td> <td>Y 50</td> <td>11,0</td> <td>2934</td> <td>11,4</td> <td>0,93</td> <td>S1</td> </tr> <tr> <td>380</td> <td>D 50</td> <td>11,0</td> <td>2934</td> <td>19,6</td> <td>0,93</td> <td>S1</td> </tr> <tr> <td>415</td> <td>D 50</td> <td>11,0</td> <td>2948</td> <td>18,2</td> <td>0,91</td> <td>S1</td> </tr> <tr> <td>460</td> <td>D 60</td> <td>11,0</td> <td>3552</td> <td>16,5</td> <td>0,91</td> <td>S1</td> </tr> </tbody> </table>						V	Hz	kW	r/min	A	cos φ	Duty	690	Y 50	11,0	2943	10,8	0,92	S1	400	D 50	11,0	2943	18,7	0,92	S1	660	Y 50	11,0	2934	11,4	0,93	S1	380	D 50	11,0	2934	19,6	0,93	S1	415	D 50	11,0	2948	18,2	0,91	S1	460	D 60	11,0	3552	16,5	0,91	S1
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Eff class IE3				50Hz : IE3 - 92,1(100%) - 92,7(75%) - 92,4(50%) 60Hz : IE3 - 91,8(100%)																																																						
Resistance				Insulation resistance at				Overload																																																		
Line				Ambient: 22,7 °C				R > 2000 Mohm 1000 V																																																		
U ₁ - V ₁				0,4194 Ω				Volt. 130 % 60s																																																		
U ₁ - W ₁				0,4173 Ω				Curr. 160 % 120s																																																		
V ₁ - W ₁				0,4175 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		401,4 D	50	5,5	0,41		3000	0,11																																																		
Locked rotor test		63,3 D	50	19,6	0,86		0	0,40																																																		
Thermal test (100% load)	35,6	400 D	50	19,3	12,01	11,00	2947	0,90	91,63																																																	
Partial load points:																																																										
~75% load	26,6	400 D	50	14,8	8,98	8,25	2963	0,87	91,84																																																	
~50% load	17,6	400 D	50	10,8	6,05	5,50	2978	0,81	90,92																																																	
~25% load																																																										
Temperature rise at rated load.				[°C]		[K]		Method																																																		
Stator winding :				44,0		44,0		1																																																		
Frame :				42		42		2																																																		
Bearing D-end :				52		52		2																																																		
Ambient Temperature :				23		23		2																																																		
								Measurement method																																																		
								1 Resistance																																																		
								2 Thermometer																																																		
								3 Thermocouples																																																		
<p>These tests have been carried out on motor no. 3GV13 11256320 001, on date 2013-09-30 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																																																					
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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