



Test Report				Date of issue: 19.11.2015																																																																																													
				Type: M3JM 225SMA 2																																																																																													
				Product Code: 3GJM221210-_DK																																																																																													
				Protection type: Ex d I Mb																																																																																													
				Cert. No.: LCIE 10 ATEX 3057X/																																																																																													
				IECEX LCI 04.0005X																																																																																													
Rating:																																																																																																	
<table border="1"> <thead> <tr> <th></th> <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</td> <td>Y 50</td> <td>45,0</td> <td>2972</td> <td>44,5</td> <td>0,89</td> <td>S1</td> </tr> <tr> <td>Insul.cl.F</td> <td>400</td> <td>D 50</td> <td>45,0</td> <td>2972</td> <td>76,8</td> <td>0,89</td> <td>S1</td> </tr> <tr> <td>IP66</td> <td>660</td> <td>Y 50</td> <td>45,0</td> <td>2968</td> <td>46,8</td> <td>0,89</td> <td>S1</td> </tr> <tr> <td></td> <td>380</td> <td>D 50</td> <td>45,0</td> <td>2968</td> <td>81,2</td> <td>0,89</td> <td>S1</td> </tr> <tr> <td></td> <td>415</td> <td>D 50</td> <td>45,0</td> <td>2974</td> <td>74,0</td> <td>0,89</td> <td>S1</td> </tr> <tr> <td></td> <td>460</td> <td>D 60</td> <td>45,0</td> <td>3575</td> <td>66,8</td> <td>0,89</td> <td>S1</td> </tr> </tbody> </table>												V	Hz	kW	r/min	A	cos φ	Duty	3-Motor	690	Y 50	45,0	2972	44,5	0,89	S1	Insul.cl.F	400	D 50	45,0	2972	76,8	0,89	S1	IP66	660	Y 50	45,0	2968	46,8	0,89	S1		380	D 50	45,0	2968	81,2	0,89	S1		415	D 50	45,0	2974	74,0	0,89	S1		460	D 60	45,0	3575	66,8	0,89	S1																															
	V	Hz	kW	r/min	A	cos φ	Duty																																																																																										
3-Motor	690	Y 50	45,0	2972	44,5	0,89	S1																																																																																										
Insul.cl.F	400	D 50	45,0	2972	76,8	0,89	S1																																																																																										
IP66	660	Y 50	45,0	2968	46,8	0,89	S1																																																																																										
	380	D 50	45,0	2968	81,2	0,89	S1																																																																																										
	415	D 50	45,0	2974	74,0	0,89	S1																																																																																										
	460	D 60	45,0	3575	66,8	0,89	S1																																																																																										
Eff class IE3																																																																																																	
50Hz : IE3-94,9(100%)-95,2(75%)-94,8(50%)																																																																																																	
60Hz : IE3-94,4(100%)																																																																																																	
Resistance				Insulation resistance at 22 °C				Overload																																																																																									
Line				R > 2000 Mohm 1000 V				Torque 160 % 15s																																																																																									
Ambient: 23 °C																																																																																																	
U ₁ - V ₁				0,05380 Ω																																																																																													
U ₁ - W ₁				0,05375 Ω																																																																																													
V ₁ - W ₁				0,05382 Ω																																																																																													
				High-voltage test winding 2400 V				60 s																																																																																									
<table border="1"> <thead> <tr> <th rowspan="2">Test</th> <th rowspan="2">Torque [Nm]</th> <th colspan="2">Line</th> <th colspan="2">Input</th> <th colspan="2">Output</th> <th rowspan="2">cos φ</th> <th rowspan="2">η [%]</th> </tr> <tr> <th>U[V]</th> <th>f[Hz]</th> <th>I[A]</th> <th>P1 [kW]</th> <th>P2 [kW]</th> <th>n[r/min]</th> </tr> </thead> <tbody> <tr> <td>No load test</td> <td></td> <td>400,5</td> <td>D 50</td> <td>18,3</td> <td>0,82</td> <td></td> <td>3000</td> <td>0,06</td> <td></td> </tr> <tr> <td>Locked rotor test</td> <td></td> <td>70,8</td> <td>D 50</td> <td>77,2</td> <td>3,40</td> <td></td> <td>0</td> <td>0,36</td> <td></td> </tr> <tr> <td>Thermal test (100% load)</td> <td>144,6</td> <td>400,0</td> <td>D 50</td> <td>75,9</td> <td>47,1</td> <td>45,0</td> <td>2972</td> <td>0,90</td> <td>95,5</td> </tr> <tr> <td colspan="11">Partial load points:</td> </tr> <tr> <td>~75% load</td> <td>110,0</td> <td>400,0</td> <td>D 50</td> <td>59,3</td> <td>35,9</td> <td>34,3</td> <td>2980</td> <td>0,87</td> <td>95,6</td> </tr> <tr> <td>~50% load</td> <td>73,8</td> <td>400,0</td> <td>D 50</td> <td>42,3</td> <td>24,2</td> <td>23,1</td> <td>2987</td> <td>0,83</td> <td>95,2</td> </tr> <tr> <td>~25% load</td> <td>38,6</td> <td>400,0</td> <td>D 50</td> <td>27,8</td> <td>13,0</td> <td>12,1</td> <td>2995</td> <td>0,68</td> <td>93,0</td> </tr> </tbody> </table>											Test	Torque [Nm]	Line		Input		Output		cos φ	η [%]	U[V]	f[Hz]	I[A]	P1 [kW]	P2 [kW]	n[r/min]	No load test		400,5	D 50	18,3	0,82		3000	0,06		Locked rotor test		70,8	D 50	77,2	3,40		0	0,36		Thermal test (100% load)	144,6	400,0	D 50	75,9	47,1	45,0	2972	0,90	95,5	Partial load points:											~75% load	110,0	400,0	D 50	59,3	35,9	34,3	2980	0,87	95,6	~50% load	73,8	400,0	D 50	42,3	24,2	23,1	2987	0,83	95,2	~25% load	38,6	400,0	D 50	27,8	13,0	12,1	2995	0,68	93,0
Test	Torque [Nm]	Line		Input		Output		cos φ	η [%]																																																																																								
		U[V]	f[Hz]	I[A]	P1 [kW]	P2 [kW]	n[r/min]																																																																																										
No load test		400,5	D 50	18,3	0,82		3000	0,06																																																																																									
Locked rotor test		70,8	D 50	77,2	3,40		0	0,36																																																																																									
Thermal test (100% load)	144,6	400,0	D 50	75,9	47,1	45,0	2972	0,90	95,5																																																																																								
Partial load points:																																																																																																	
~75% load	110,0	400,0	D 50	59,3	35,9	34,3	2980	0,87	95,6																																																																																								
~50% load	73,8	400,0	D 50	42,3	24,2	23,1	2987	0,83	95,2																																																																																								
~25% load	38,6	400,0	D 50	27,8	13,0	12,1	2995	0,68	93,0																																																																																								
Temperature rise at rated load.																																																																																																	
				[°C]		[K]		Method		Measurement method																																																																																							
Stator winding :				50		1				1 Resistance																																																																																							
Frame :				31		2				2 Thermocouples																																																																																							
Bearing D-end :				29		2				3 Thermometer																																																																																							
Ambient Temperature :				24		2																																																																																											
<p>These tests have been carried out on motor no. 3GV1110779325001, on date 2011-09-20 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> <p>On behalf of customer</p> <p>On behalf of manufacturer</p> <p>Tested by ABB AB, LV Motors, 721 70 Västerås, Sweden</p> <p>Telephone +46 (0)21 32 90 00 Telefax +46 (0)21 32 90 22</p>																																																																																																	

Computer print-out valid without signature.