


IEC LV Motors		Technical Data Sheet - DOL			
Department/Author <b>SARAVANAN</b>		Customer name	Customer ref	Item name <b>1.00006</b>	
Our ref. <b>Trielectric International FZE</b>		Rev/Changed by <b>A</b>	Date of issue <b>10/2/2023</b>	Saving ident <b>untitled.xlsm</b>	Pages <b>1(3)</b>
<b>No.</b>	<b>Definition</b>	<b>Data</b>	<b>Unit</b>	<b>Remarks</b>	
1	Product	<b>TEFC, 3-phase, squirrel cage induction motor</b>			
2	Product code	<b>3GAA 131 120-ADK</b>		Calc. ref.	<b>3GZF021013-756</b>
3	Type/Frame	<b>M3AA 132SB 2</b>			
4	Mounting	<b>IM1001, B3(foot)</b>			
5	Rated output P <sub>N</sub>	<b>5.5</b>	kW		
6	Service factor	<b>1</b>			
7	Type of duty	<b>S1(IEC) 100%</b>			
8	Rated voltage U <sub>N</sub>	<b>400</b>	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f <sub>N</sub>	<b>50</b>	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n <sub>N</sub>	<b>2901</b>	r/min		
11	Rated current I <sub>N</sub>	<b>9.7</b>	A		
12	No-load current	<b>2.4</b>	A		
13	Starting current I <sub>s</sub> /I <sub>N</sub>	<b>7.9</b>		Meet IEC 60034-12, N	
14	Nominal torque T <sub>N</sub>	<b>18.1</b>	Nm		
15	Locked rotor torque T <sub>s</sub> /T <sub>N</sub>	<b>2.3</b>			
16	Maximum torque T <sub>max</sub> /T <sub>N</sub>	<b>3.4</b>			
17	Minimum torque T <sub>min</sub> /T <sub>N</sub>	<b>2.1</b>			
18	Speed at minimum torque	<b>450</b>	r/min		
19	Load characteristics (IEC 60034-2-1:2014)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	<b>100</b>	<b>9.7</b>	<b>89.2 / IE3</b>	<b>0.91</b>
21		<b>75</b>	<b>7.4</b>	<b>89.9</b>	<b>0.9</b>
22		<b>50</b>	<b>5.2</b>	<b>90.1</b>	<b>0.84</b>
22		<b>Start</b>	<b>77</b>		<b>0.39</b>
23	Maximum starting time from hot	<b>14</b>	s		
24	Maximum starting time from cold	<b>26</b>	s		
25	Insulation class / Temperature class	<b>F / B</b>			
26	Ambient temperature	<b>40</b>	°C		
27	Altitude	<b>1000</b>	m.a.s.l.		
28	Enclosure	<b>IP55</b>			
29	Cooling system	<b>IC411 self ventilated</b>			
30	Bearing DE/NDE	<b>6208-2Z/C3 - 6206-2Z/C3</b>			
31	Type of Grease				
32	Sound pressure level (LP dB(A) 1m)	<b>68</b>	dB(A)	at load	
33	Moment of inertia J = ¼ GD <sup>2</sup>	<b>0.0154</b>	kg-m <sup>2</sup>		
34	Balancing				
35	Vibration class				
36	Position of terminal box	<b>Top</b>			
37	Terminal box entries; no, dimens.				
38	Number of power terminals				
39	Direction of rotation	<b>CW or CCW</b>			
40	Weight of rotor	<b>13</b>	kg		
41	Total weight of motor	<b>58</b>	kg		
42	Dimension drawing no.				
43					
44					
45					
Ex-motors					
46					
47					
48					
Option Variant Codes / Definition					
49					
50					
51					
52					
Remarks:					
Data based on situation 7/13/2022					
All data subject to tolerances in accordance with IEC					
Guaranteed values on request					



# Motors in brief

## Motor sizes 56–132

Motor size	M3AA	56–63	71	80	90	100	112	132
Stator and end shields	Material	Die-cast aluminum alloy						
	Paint colour shade	Munsell blue 8B 4.5/3.25						
	Corrosion class	C3 according to IEO/EN 12944-5						
Feet	Integrated aluminum feet							
Bearings	D-end	6201-2Z/C3	6203-2Z/C3	6204-2Z/C3	6205-2Z/C3	6306-2Z/C3	6306-2Z/C3	6208-2Z/C3
								E2.6208-2Z/C3 <sup>2)</sup>
							E2.6308-2Z/C3 <sup>3)</sup>	
	N-end	6201-2Z/C3	6202-2Z/C3	6203-2Z/C3	6204-2Z/C3	6205-2Z/C3	6205-2Z/C3	6206-2Z/C3
Axially-locked bearings	Inner bearing cover	ND-end retaining ring	Locked at D-end					
Bearing seal	D-end	V-ring						
	N-end	Labyrinth seal						
Lubrication	Permanent grease lubrication. Grease temperature range -40°C to +160°C							
Measuring nipples for condition monitoring of the bearings	Not included							
Rating plate	Material	Aluminum						
Terminal box	Material	Die-cast aluminum alloy, integrated to stator						
	Cover screws material	Zinc-electroplated steel						
Connections	Openings	2x(M16+M16)	2x(M20 + M20)	2x(M20+M25)			2x(M20+M25) <sup>5)</sup>	
	Terminals	6 terminals for connection with cable lugs (not included)						
	Cable glands	Optional						
Fan	Material	Glass-fiber reinforced polypropylene						
Fan cover	Material	Polypropylene						
	Paint colour shade	Munsell blue 8B 4.5/3.25						
	Corrosion class	C3						
Stator winding	Material	Copper						
	Insulation	Insulation class F						
	Winding protection	Optional						
Rotor winding	Material	Die-cast aluminum						
Balancing	Half key balancing							
Key ways	Closed key way							
Drain holes	Without drain holes		Drain holes with closable plastic plugs, open on delivery					
External earthing bolt	As option							
Enclosure	IP 55							
Cooling method	IC 411							

<sup>1)</sup> (SM) except 4p 11&15kW HO

<sup>4)</sup> HO 2p 9,2&15kW

<sup>2)</sup> 2p 9,2kW HO

<sup>5)</sup> S, SB, M, MA

<sup>3)</sup> 2p 15kW HO

<sup>6)</sup> SC, MC, SMA-SME