



Technical Data Sheet - DOL



Project Location
United Arab Emirates

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Our ref. **Stock** Rev/Changed by **A** Date of issue **9/15/2021** Saving ident Pages **1(3)**

No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	3GAA 102 540-BSE Calc. ref. 3GZF021010-260		
3	Type/Frame	M3AA 100LD 4		
4	Mounting	IM3001, B5(flange)		
5	Rated output P _N	3	kW	
6	Service factor	1		
7	Type of duty	S1(IEC) 100%		
8	Rated voltage U _N	400	VY	± 5 % (IEC 60034-1)
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)
10	Rated speed n _N	1445	r/min	
11	Rated current I _N	6.3	A	
12	No-load current	3.5	A	
13	Starting current I _s /I _N	7		Meet IEC 60034-12, N
14	Nominal torque T _N	19.8	Nm	
15	Locked rotor torque T _s /T _N	2.4		
16	Maximum torque T _{max} /T _N	3		
17	Minimum torque T _{min} /T _N	2.1		
18	Speed at minimum torque	270	r/min	
Load characteristics (IEC 60034-2-1:2014)		Load %	Current A	Efficiency %
19	PLL determined from residual loss	100	6.3	85.7 / IE2
20		75	5.2	86.1
21		50	4.2	85.1
22		<i>Start</i>	44	0.61
23	Maximum starting time from hot	15	s	
24	Maximum starting time from cold	27	s	
25	Insulation class / Temperature class	F / B		
26	Ambient temperature	40	°C	
27	Altitude	1000	m.a.s.l.	
28	Enclosure	IP55		
29	Cooling system	IC411 self ventilated		
30	Bearing DE/NDE	6306-2Z/C3 - 6205-2Z/C3		
31	Type of Grease			
32	Sound pressure level (LP dB(A) 1m)	63	dB(A)	at load
33	Moment of inertia J = ¼ GD ²	0.011	kg-m ²	
34	Balancing			
35	Vibration class			
36	Position of terminal box	Top		
37	Terminal box entries; no, dimens.			
38	Number of power terminals			
39	Direction of rotation	CW or CCW		
40	Weight of rotor	9	kg	
41	Total weight of motor	28	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 12/10/2019
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	
								6308-2Z/C3 ¹⁾	
								E2.6208-2Z/C3 ²⁾ E2.6308-2Z/C3 ³⁾	
	N-end	6201-2Z/C3	6202-2Z/C3	6203-2Z/C3	6204-2Z/C3	6205-2Z/C3	6205-2Z/C3	6206-2Z/C3 E2.6206-2Z/C3 ⁴⁾	
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) ⁵⁾ 2x(M40+M32+M12) ⁶⁾		
		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								

¹⁾ (SM) except 4p 11&15kW HO

⁴⁾ HO 2p 9,2&15kW

²⁾ 2p 9,2kW HO

⁵⁾ S, SB, M, MA

³⁾ 2p 15kW HO

⁶⁾ SC, MC, SMA-SME