


IEC LV Motors		Technical Data Sheet - DOL			
Department/Author SARAVANAN		Customer name	Customer ref	Item name 1.00008	
Our ref. Trielectric International FZE		Rev/Changed by A	Date of issue 10/2/2023	Saving ident untitled.xlsm	Pages 1(3)
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	3GAA 092 540-BSK		Calc. ref.	3GZF021009-480
3	Type/Frame	M3AA 90LD 4			
4	Mounting	IM3001, B5(flange)			
5	Rated output P _N	1.5	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	1439	r/min		
11	Rated current I _N	3.2	A		
12	No-load current	2	A		
13	Starting current I _s /I _N	8.2		Meet IEC 60034-12, N ₁ (H at 60 Hz)	
14	Nominal torque T _N	10	Nm		
15	Locked rotor torque T _s /T _N	3.5			
16	Maximum torque T _{max} /T _N	4			
17	Minimum torque T _{min} /T _N	3.4			
18	Speed at minimum torque	225	r/min		
19	Load characteristics (IEC 60034-2-1:2014)	Load %	Current A	Efficiency %	Power factor
20	PLL determined from residual loss	100	3.2	85.3 / IE3	0.78
21		75	2.7	84.7	0.7
22		50	2.3	82.8	0.56
22		Start	26.2		0.59
23	Maximum starting time from hot	36	s		
24	Maximum starting time from cold	66	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	6205-2Z/C3 - 6204-2Z/C3			
31	Type of Grease				
32	Sound pressure level (LP dB(A) 1m)	51	dB(A)	at load	
33	Moment of inertia J = ¼ GD ²	0.0055	kg-m²		
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	6	kg		
41	Total weight of motor	19	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 3/28/2022					
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
								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