


IEC LV Motors		Technical Data Sheet			
Department/Author Saravanan		Customer name	Customer ref	Item name 1.00002	
Our ref. Trielectric International FZE		Rev/Changed by A	Date of issue 10/6/2023	Saving ident untitled.xlsm	Pages 1(3)
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	3GBA 351 230-BDCIN		Calc. ref.	3GZH021035-4
3	Type/Frame	M2BAX 355SMC 2			
4	Mounting	IM3001, B5(flange)			
5	Rated output P _N	355	kW		
6	Service factor	1			
7	Type of duty	S1 100%			
8	Rated voltage U _N	400	VD		± 5 %
9	Rated frequency f _N	50	Hz		± 2 %
10	Rated speed n _N	2982	r/min		
11	Rated current I _N	612	A		
12					
13	Starting current I _s /I _N	7			
14	Nominal torque T _N	1137	Nm		
15	Locked rotor torque T _s /T _N	2.1			
16	Maximum torque T _{max} /T _N	2.7			
17					
18					
Load characteristics		Load %	Current A	Efficiency %	Power factor
19	PLL determined from residual loss	100	612	95.0 / IE2	0.88
20		75	476	95	0.85
21		50	345	94	0.79
22					
23	Thermal withstand time hot	67	s		
24	Thermal withstand time cold	135	s		
25	Insulation class / Temperature class	F / B			
26	Ambient temperature	50	°C		
27	Altitude	1000	m.a.s.l.		
28	Degree of protection	IP55			
29	Cooling system	IC411			
30	Bearing DE/NDE	6316/C3 - 6316/C3			
31	Sound pressure level (LP dB(A) 1m)	90	dB(A)		at no-load
32	Moment of inertia J = ¼ GD2	3.6	kg-m2		
33	Position of terminal box	Top			
34	Direction of rotation	Bi-directional			
35	Total weight of motor	1598	kg		
36	Paint shade	Munsell Blue			
37	Cable size				
38	Vibration	As Per IS 12075			
39					
40					
41					
42					
43					
44					
45					
Ex-motors					
46					
47					
48					
Option Variant Codes / Definition					
49					
50					
51					
52					
Remarks:					
Applicable standards: IS 12615:2018, IEC 60034-30-1:2014					

All performance values are subject to IS/IEC tolerances

Motors in brief

General performance IE2 high efficiency cast iron motors

Size		280 2-8 Pole	315 2 Pole	315 4-8 Pole	355 2 Pole	355 4-8 Pole
Stator	Material	Cast iron grade 150, IS:210				
	Paint colour shade	Munsell blue 8B 4.5/3.25 / NCS 4822 B05G				
	Surface Treatment	C3 medium according to ISO / EN 12944-5				
Feet		Integrated with stator				
	Material	Cast iron grade 150, IS:210				
Bearing end shields	Material	Cast iron grade 150, IS:210				
	Paint colour shade	Munsell blue 8B 4.5/3.25 / NCS 4822 B05G				
	Surface Treatment	Aliphatic polyurethane paint ≥ 80µm				
Bearings	D-end	6316/C3	6316/C3	6319/C3	6319/C3	6322/C3
	N-end	6315/C3	6316/C3	6316/C3	6319/C3	6319/C3
Axially-locked	Inner Bearing Cover	As standard, locked at D-end				
Bearing seals	D-end	Oil Seal				
	N-end					
Lubrication		Regreasable Bearings, Regreasing nipple M10X1				
Terminal Box	Material	Cast iron grade 150, IS:210				
	Surface	Similar to stator				
	Screws	Steel				
Connections	Cable Entries	2 x 2" BSC		2 x 2-1/2" BSC*		
	Cable Sizes	280 : 2Rx3Cx185Sqmm Cu/Al Cable 315 : 2Rx3Cx240Sqmm Cu/Al Cable 355 : 2Rx3Cx240Sqmm Cu/Al Cable*				
	Terminal Stud Size	M12		M16		
	Terminal Box	6 terminals for connection, cable lugs (not included)				
Fan	Material	Polypropylene, Reinforced with 20% glass fibre			Aluminium	
Fan Cover	Material	Sheet of steel, Cold Rolled				
	Paint colour shade	Munsell blue 8B 4.5/3.25 / NCS 4822 B05G				
	Surface Treatment	Similar to stator				
Stator winding	Material	Copper				
	Insulation	Insulation class F				
Rotor winding	Material	Diecast aluminum				
Balancing method		Half Key Balancing as standarad				
Key ways		Open Key Way				
Enclosure		IP 55				
Cooling method		IC 411				
Drain holes		Drain holes with closable plastic plugs, open on delivery				
Lifting lugs		Bolted to the Stator				

*Cable Size for 355MLC2,355MLD2,355MLB4, 355MLB6H & 355MLB4H will be 2Rx3Cx300 Sqmm Cu/Al , Threaded opening 2x3" BSC