IEC LV Motors	Technical Data Sheet			
	Project		Location	
Department/Author **Gugan E**	Customer name		Customer ref	Item name **1.00002**
Our ref. **Trielectric International FZE**	Rev/Changed by **A**	Date of issue **9/25/2023**	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 161 420-BDDIN***		Calc. ref.	3GZH021016-34
3	Type/Frame	***M2BAX 160MLB 2***			
4	Mounting	***IM3001, B5(flange)***			
5	Rated output P_N	***15***	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	***2940***	r/min		
11	Rated current I_N	***28***	A		
12					
13	Starting current I_s/I_N	***7.7***			
14	Nominal torque T_N	***49***	Nm		
15	Locked rotor torque T_S/T_N	***2.9***			
16	Maximum torque T_{max}/T_N	***3.6***			
17					
18					

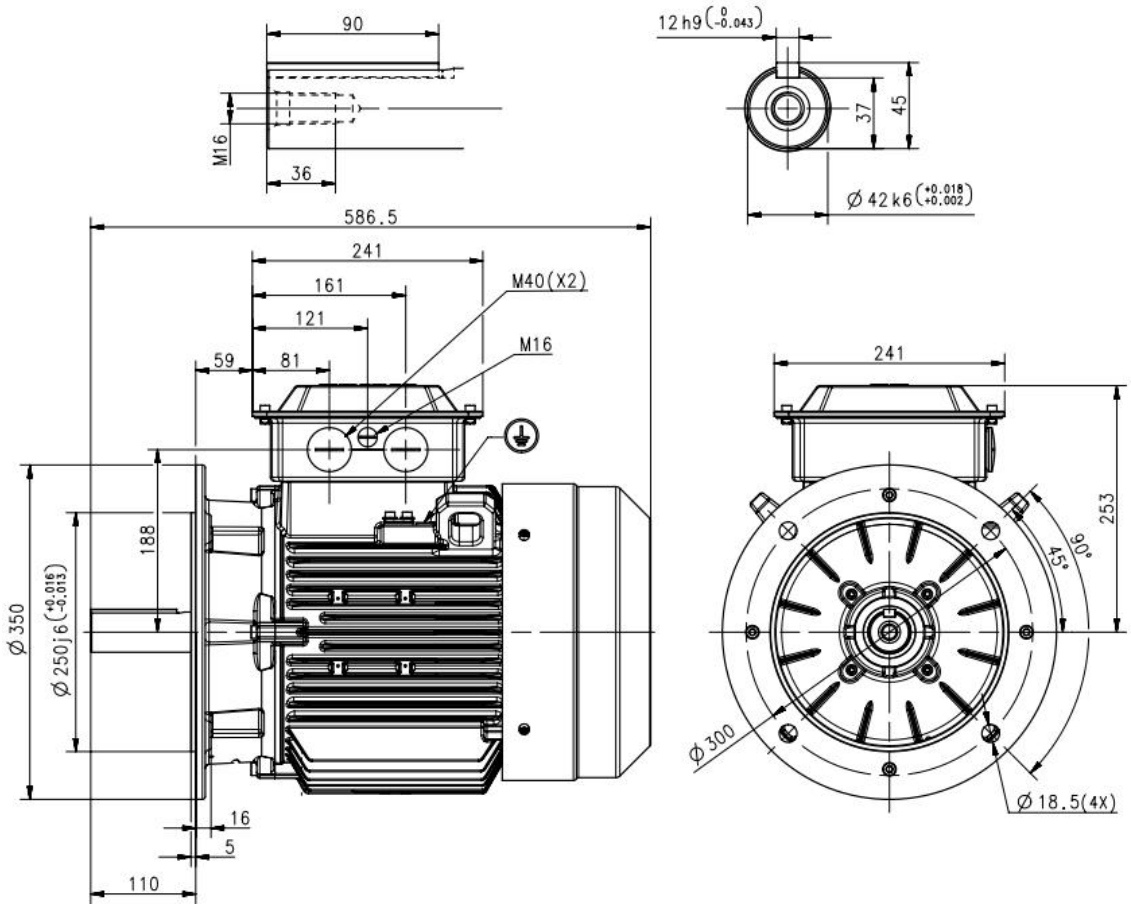
	Load characteristics	Load %	Current A	Efficiency %	Power factor
19	PLL determined from residual loss	*100*	**28**	**91.9 / IE3**	**0.84**
20		*75*	**22**	**92.1**	**0.8**
21		*50*	**16.7**	**91.3**	**0.71**
22					

23	Thermal withstand time hot	***16***	s	
24	Thermal withstand time cold	***26***	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	***6209-2Z/C3 - 6209-2Z/C3***		
31	Sound pressure level (LP dB(A) 1m)	***85***	dB(A)	at no-load
32	Moment of inertia J = ¼ GD2	***0.063***	kg-m2	
33	Position of terminal box	***Top***		
34	Direction of rotation	***Bi-directional***		
35	Weight of rotor	***28***	kg	
36	Total weight of motor	***126***	kg	
37	Paint shade	***Munsell Blue***		
38	Cable size			
39	Vibration	***As Per IS 12075***		
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



Additional information:

Dimension Print	Motor Type: IE3 M2BAX 160MLA2 160MLB2 B5, V1, V3	Document No: 3GZC500016-73 B 13 BA 160 A
Description: STANDARD SQUIRREL CAGE MOTOR		

Unit:	ABB Motors and Generators	Issued by:	Jeff Wang	Replaces:
Date:	2016-03-21	Approved by:	Adam Zhu	Replaced by:

ABB Ltd.	Customer Reference:	

Motors in brief

General performance IE3 premium efficency cast iron motors in brief

Size		160	180	200	225	250
Stator	Material	Cast Iron Grade 200:ISO 185				
	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 200 : ISO 185				
Bearing end shields	Material	Cast iron grade 200 : ISO 185				
	Paint colour shade	Munsell blue 8B 4.5/3.25/NCS 4822 B05G				
	Surface Treatment	C3 medium according to ISO / EN 12944-5				
Bearings	D-end	6209-2Z/C3	6310-2Z/C3	6312-2Z/C3	6313-2Z/C3	6315-2Z/C3
	N-end	6209-2Z/C3	6209-2Z/C3	6209-2Z/C3	6210-2Z/C3	6212-2Z/C3
Axially-locked	Inner Bearing Cover	As standard, locked at D-end				
Bearing seals		Axial seal standard, radial on request				
Measuring nipple		Not included				
Lubrication		Permanently lubricated shielded bearings				
Rating plate	Material	Aluminium				
Terminal Box	Frame material	Sheet of Steel, cold rolled				
	Cover material	Sheet of Steel, cold rolled				
	Cover screws material	Steel 8.8				
Connections	Cable entries	2xM40, 1xM16		2xM50, 1xM16		
	Cable Sizes	2Rx3Cx70mm2		2Rx3Cx120mm2		
	Terminal Stud Size	M6		M10		
	Terminals	6 terminals for connection, cable lugs (not included)				
Fan	Material	Polypropylene, Reinforced with 20% glass fibre				
Fan Cover	Material	Sheet of steel, cold rolled				
	Paint Colour shade	Munsell blue 8B 4.5/3.25/NCS 4822 B05G				
	Surface Treatment	C3 medium according to ISO/EN 12944-5				
Stator winding	Material	Copper				
	Insulation	Insulation class F, Temperature rise class B unless otherwise stated.				
	Winding protection	-				
Rotor winding	Material	Pressure diecast aluminium				
Balancing method		Half Key Balancing as Standard				
Key ways		Open Key Way				
Enclosure		IP 55, Higher protection on request				
Cooling method		IC 411				
Drain holes		Drain holes with closable plastic plugs, open on delivery				
Lifting lugs		Integrated with the stator				