



Technical Data Sheet



Project: Location: **United Arab Emirates**

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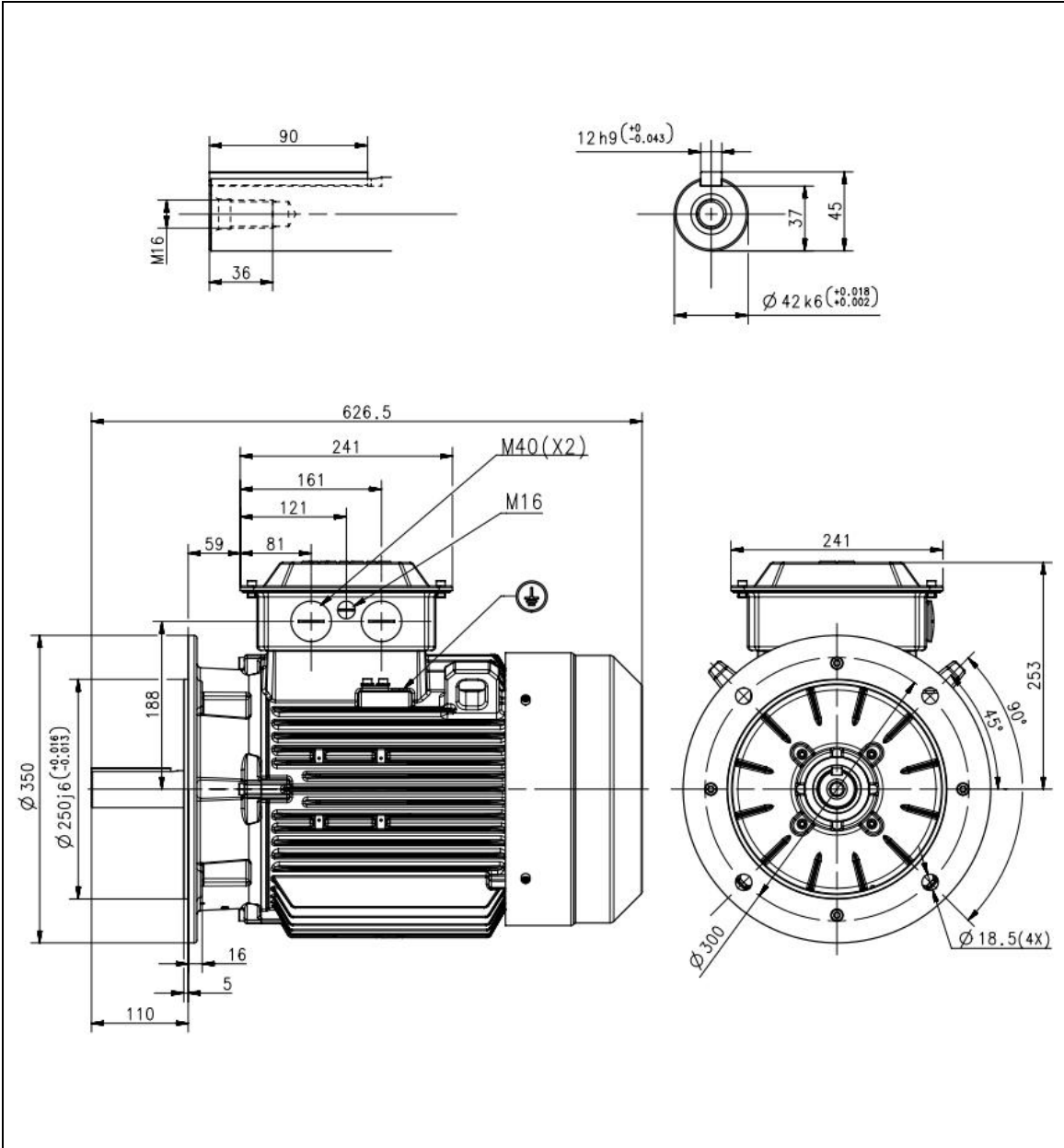
Our ref. **Stock** | Rev/Changed by: **A** | Date of issue: **9/14/2021** | Saving ident: | Pages: **1(3)**

No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	3GBA 163 420-BDCIN Calc. ref. 3GZH021016-8		
3	Type/Frame	M2BAX 160MLB 6		
4	Mounting	IM3001, B5(flange)		
5	Rated output P _N	11	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	965	r/min	
11	Rated current I _N	23.9	A	
12				
13	Starting current I _s /I _N	7		
14	Nominal torque T _N	109	Nm	
15	Locked rotor torque T _s /T _N	2.1		
16	Maximum torque T _{max} /T _N	2.8		
17				
18				
	Load characteristics	Load %	Current A	Efficiency % Power factor
19	PLL determined from residual loss	100	23.9	88.7 / IE2 0.75
20		75	19.1	89.2 0.7
21		50	15.2	88.5 0.59
22				
23	Thermal withstand time hot	15	s	
24	Thermal withstand time cold	24	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)	73	dB(A)	at no-load
32	Moment of inertia J = ¼ GD2	0.1293	kg-m2	
33	Position of terminal box	Top		
34	Direction of rotation	Bi-directional		
35	Weight of rotor	43	kg	
36	Total weight of motor	147	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: IE2 M2BAX 160MLB6 B5, V1, V3 IE3 M2BAX 160MLA4 160MA6 B5, V1, V3	Document No: 3GZC500016-10 H 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:	ABB	

Motors in brief

General performance IE2 high efficiency cast iron motors

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	Aliphatic polyurethane enamel paint_70µm				
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	D-end	V-ring				
	N-end	V-ring				
Lubrication		Permanently lubricated shielded bearings				
Terminal Box	Material	Sheet of Steel, Cold Rolled				
	Surface	Treatment Similar to stator				
	Screws	Steel 8.8				
Connections	Cable Entries	2xM40, 1xM16			2xM50, 1xM16	
	Cable Sizes	2Rx3Cx70mm ²			2Rx3Cx120mm ²	
	Terminal Stud Size	M6			M10	
	Terminal Box	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	Similar to stator				
Stator winding	Material	Copper				
	Insulation	Insulation class F				
Rotor winding	Material	Diecast aluminum				
Balancing method		Half Key Balancing as standard				
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		Integrated with the stator				