
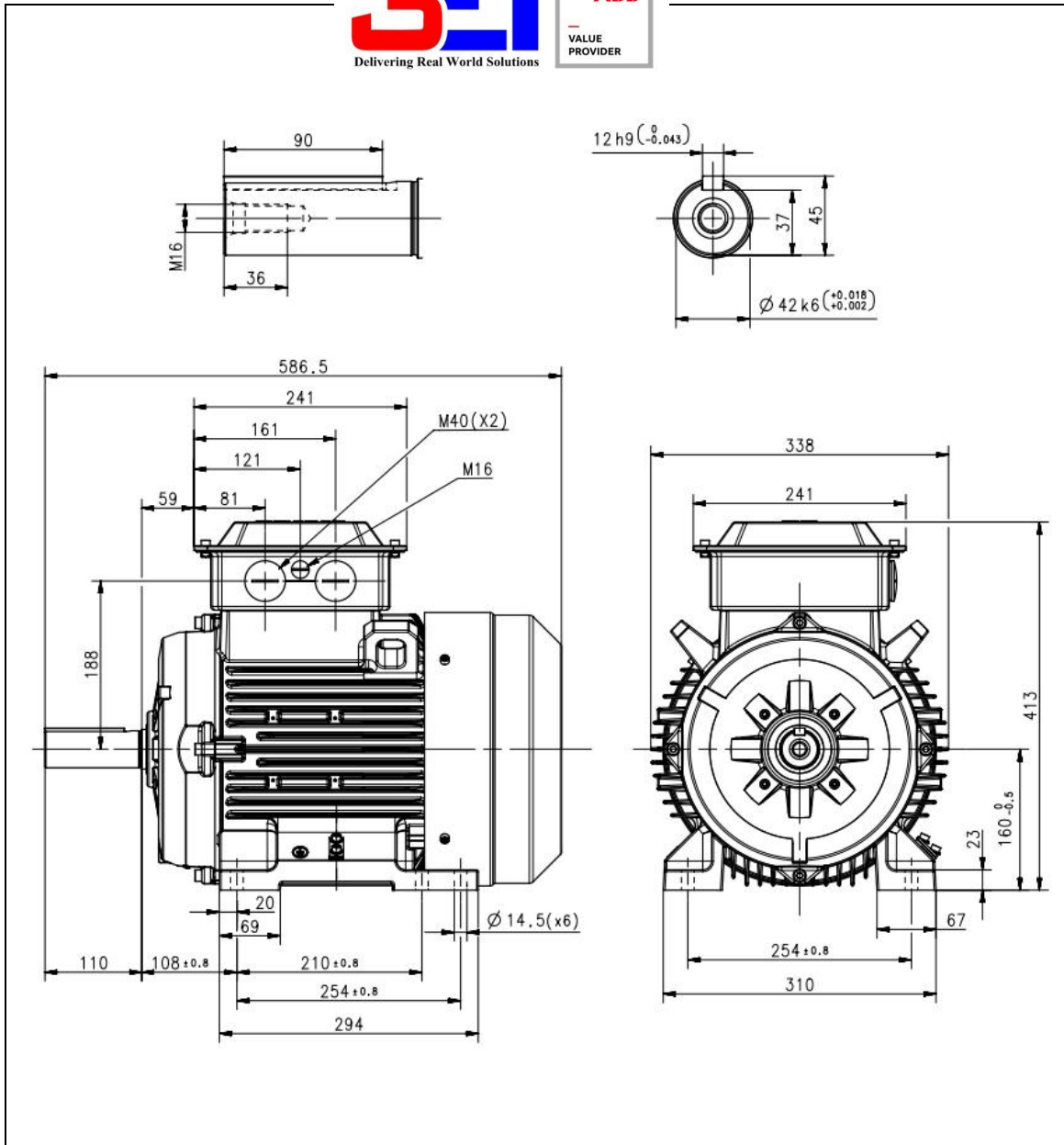
		<b>Technical Data Sheet</b>				
Project		Location				
		<b>United Arab Emirates</b>				
Company <b>Trielectric International FZE</b>		Contact <b>Mr.Saravanan(+971564345964)</b>		Contact <b>Mr.Tamizh(+971502353763)</b>		
Item name <b>1.00011</b>		Our ref. <b>Stock</b>		Pages <b>1(3)</b>		
Rev/Changed by <b>A</b>		Date of issue <b>9/14/2021</b>		Saving ident		
No.	Definition	Data	Unit	Remarks		
1	Product	<b>TEFC, 3-phase, squirrel cage induction motor</b>				
2	Product code	<b>3GBA 162 410-BDCIN</b>				
3	Type/Frame	<b>M2BAX 160MLA 4</b>				
4	Mounting	<b>IM3001, B5(flange)</b>				
5	Rated output P <sub>N</sub>	<b>11</b>	kW			
6	Service factor	<b>1</b>				
7	Type of duty	<b>S1 100%</b>				
8	Rated voltage U <sub>N</sub>	<b>400</b>	VD	± 5 %		
9	Rated frequency f <sub>N</sub>	<b>50</b>	Hz	± 2 %		
10	Rated speed n <sub>N</sub>	<b>1455</b>	r/min			
11	Rated current I <sub>N</sub>	<b>21.8</b>	A			
12						
13	Starting current I <sub>s</sub> /I <sub>N</sub>	<b>7</b>				
14	Nominal torque T <sub>N</sub>	<b>72</b>	Nm			
15	Locked rotor torque T <sub>s</sub> /T <sub>N</sub>	<b>2.1</b>				
16	Maximum torque T <sub>max</sub> /T <sub>N</sub>	<b>2.9</b>				
17						
18						
Load characteristics		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	<b>100</b>	<b>21.8</b>	<b>89.8 / IE2</b>	<b>0.81</b>	
20		<b>75</b>	<b>17.1</b>	<b>90.4</b>	<b>0.77</b>	
21		<b>50</b>	<b>13.1</b>	<b>89.4</b>	<b>0.68</b>	
22						
23	Thermal withstand time hot	<b>10</b>	s			
24	Thermal withstand time cold	<b>16</b>	s			
25	Insulation class / Temperature class	<b>F / B</b>				
26	Ambient temperature	<b>50</b>				
27	Altitude	<b>1000</b>	m.a.s.l.			
28	Degree of protection	<b>IP55</b>				
29	Cooling system	<b>IC411</b>				
30	Bearing DE/NDE	<b>6209-2Z/C3 - 6209-2Z/C3</b>				
31	Sound pressure level (LP dB(A) 1m)	<b>77</b>	dB(A)	at no-load		
32	Moment of inertia J = ¼ GD2	<b>0.084</b>	kg-m2			
33	Position of terminal box	<b>Top</b>				
34	Direction of rotation	<b>Bi-directional</b>				
35	Weight of rotor	<b>31</b>	kg			
36	Total weight of motor	<b>115</b>	kg			
37	Paint shade	<b>Munsell Blue</b>				
38	Cable size					
39	Vibration	<b>As Per IS 12075</b>				
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:

<b>Dimension Print</b>		Motor Type: M2BAX 160MLA2 160MLA4 160MLA6 160MLB2 160MLB4 160MLC2 B3, B6, B7, B8, V5, V6	Document No: 3GZC500016-5 D 13 BA 160 A
Description: STANDARD SQUIRREL CAGE MOTOR			
Unit: ABB Motors and Generators	Issued by: Bin Zou	Replaces:	
Date: 2015-08-11	Approved by: Anna Feng	Replaced by:	
<b>ABB Ltd.</b>	Customer Reference:	<b>ABB</b>	

## Motors in brief

General performance IE2 high efficiency cast iron motors

Size	160	180	200	225	250	
<b>Stator</b>	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				
<b>Feet</b>		Integrated with stator				
	Material	Cast iron grade 200 : ISO 185				
<b>Bearing end shields</b>	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				
<b>Bearings</b>	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
<b>Axially-locked</b>	Inner Bearing Cover	As standard, locked at D-end				
<b>Bearing seals</b>	D-end	V-ring				
	N-end	V-ring				
<b>Lubrication</b>		Permanently lubricated shielded bearings				
<b>Terminal Box</b>	Material	Sheet of Steel, Cold Rolled				
	Surface	Treatment Similar to stator				
	Screws	Steel 8.8				
<b>Connections</b>	Cable Entries	2xM40, 1xM16			2xM50, 1xM16	
	Cable Sizes	2Rx3Cx70mm <sup>2</sup>			2Rx3Cx120mm <sup>2</sup>	
	Terminal Stud Size	M6			M10	
	Terminal Box	6 terminals for connection, cable lugs (not included)				
<b>Fan</b>	Material	Polypropylene, Reinforced with 20% glass fibre				
<b>Fan Cover</b>	Material	Sheet of Steel, Cold Rolled				
	Paint colour shade	Munsell blue 8B 4.5/3.25 / NCS 4822 B05G				
	Surface Treatment	Similar to stator				
<b>Stator winding</b>	Material	Copper				
	Insulation	Insulation class F				
<b>Rotor winding</b>	Material	Diecast aluminum				
<b>Balancing method</b>		Half Key Balancing as standard				
<b>Key ways</b>		Open Key Way				
<b>Enclosure</b>		IP 55				
<b>Cooling method</b>		IC 411				
<b>Drain holes</b>		Drain holes with closable plastic plugs, open on delivery				
<b>Lifting lugs</b>		Integrated with the stator				