
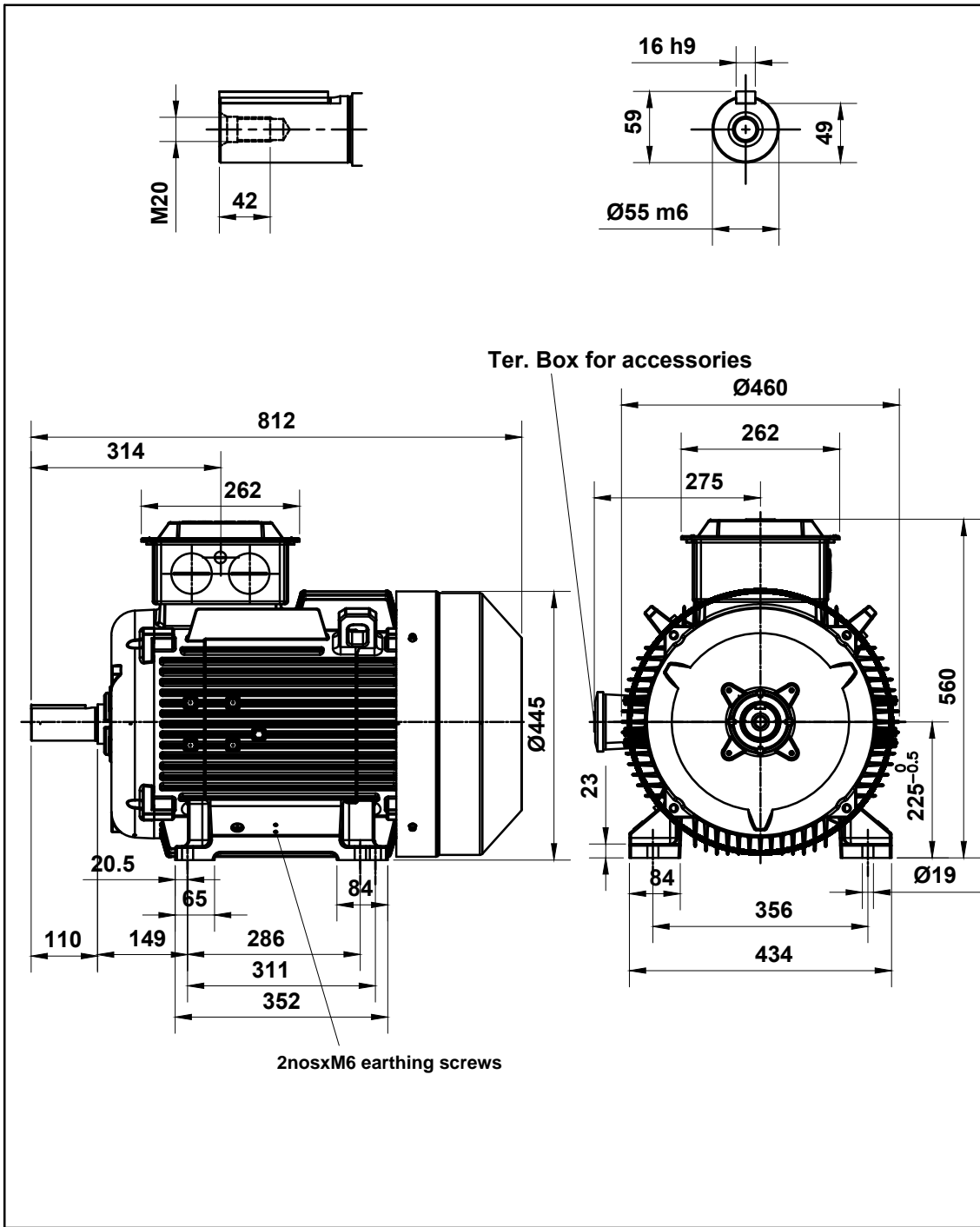



IEC LV Motors		Technical Data Sheet			
Project		Location			
Department/Author		Customer name		Customer ref	Item name
Our ref.		Rev/Changed by	Date of issue	Saving ident	Pages
		A	6/12/2025	untitled (1).xlsm	1(3)
No.	Definition	Data	Unit	Remarks	
1	Product	<b>TEFC, 3-phase, squirrel cage induction motor</b>			
2	Product code	<b>3GBA 221 210-ADDIN</b>		Calc. ref.	3GZH021022-48
3	Type/Frame	<b>M2BAX 225SMA 2</b>			
4	Mounting	<b>IM1001, B3(foot)</b>			
5	Rated output P <sub>N</sub>	<b>45</b>	kW		
6	Service factor	<b>1</b>			
7	Type of duty	<b>S1 100%</b>			
8	Rated voltage U <sub>N</sub>	<b>415</b>	VD	+10, -10 %	
9	Rated frequency f <sub>N</sub>	<b>50</b>	Hz	+5, -5 %	
10	Rated speed n <sub>N</sub>	<b>2967</b>	r/min		
11	Rated current I <sub>N</sub>	<b>79.2</b>	A		
12					
13	Starting current I <sub>s</sub> /I <sub>N</sub>	<b>8.2</b>			
14	Nominal torque T <sub>N</sub>	<b>145</b>	Nm		
15	Locked rotor torque T <sub>s</sub> /T <sub>N</sub>	<b>3</b>			
16	Maximum torque T <sub>max</sub> /T <sub>N</sub>	<b>3.7</b>			
17					
18					
Load characteristics		Load %	Current A	Efficiency %	Power factor
19	PLL determined from residual loss	<b>100</b>	<b>79.2</b>	<b>94.1 / IE3</b>	<b>0.84</b>
20		<b>75</b>	<b>61.5</b>	<b>94.2</b>	<b>0.81</b>
21		<b>50</b>	<b>45.2</b>	<b>93.4</b>	<b>0.74</b>
22					
23	Thermal withstand time hot	<b>12</b>	s		
24	Thermal withstand time cold	<b>25</b>	s		
25	Insulation class / Temperature class	<b>F / B</b>			
26	Ambient temperature	<b>55</b> °C			
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>6313-2Z/C3 - 6210-2Z/C3</b>			
31	Sound pressure level (LP dB(A) 1m)	<b>85</b>	dB(A)	at no-load	
32	Moment of inertia J = ¼ GD2	<b>0.296</b>	kg-m2		
33	Position of terminal box	<b>Top</b>			
34	Direction of rotation	<b>Bi-directional</b>			
35	Weight of rotor	<b>68</b>	kg		
36	Total weight of motor	<b>287</b>	kg		
37	Paint shade	<b>Munsell Blue</b>			
38	Cable size	<b>2R x 3C x 120 sq.mm. (2nos. * M50)</b>			
39	Vibration	<b>As Per IS 12075</b>			
40					
41					
42	Method of Starting	<b>VFD</b>			
43	Efficiency level IE3 are at Sinusoidal supply				
44	Temperature rise is limited to Class B upto 34.3kW				
45	Speed range 30% to 100%				
Ex-motors					
46					
47					
48					
<b>Specialties</b>					
49	CE Marking				
50	55deg Ambient				
51	Space heater, PTC 3nos.				
52	SS Nameplate, SS Hardware				
53	VPI Treated				
54	Jacking bolt provision				
Remarks:					
Applicable standards: IS 12615:2018, IEC 60034-30-1:2014					
All performance values are subject to IS/IEC tolerances					



<b>Motor Dimension Print</b>	Motor Type : <b>M2BAX 225 2P (IE3)</b>	Document N° : <b>3GZH500022-117</b>
Description : <b>Motor IE3 foot mounted IM1001 (With Acc. box)</b>		
Unit : <b>ABB, LV Motors, India</b> Date : <b>20117-01-19</b>	Issued by : <b>ARUN</b> Approved by : <b>DKS</b>	Replaces : Replaced by :
<b>ABB India Ltd.</b>	Customer Reference :	<b>ABB</b>