

ABB Motors and Generators		Technical Data Sheet		
		Project	Location	
Department/Author	Customer name	Customer ref.		Item name 3.00001
Our ref.	Rev/Changed by A	Date of issue 6/15/2019	Saving ident m2bax_ie3_2_4_6_8p_flange_b5.xls	Pages 1(3)
No.	Definition	Data	Unit	Remarks
1	Product	TEFC, 3-phase, squirrel cage induction motor		
2	Product code	3GBA 283 220-BDMIN		
3	Type/Frame	M2BAX 280SMB 6		
4	Mounting	IM3001, B5(flange)		
5	Rated output P_N	45	kW	
6	Service factor	1		
7	Type of duty	S1 100%		
8	Rated voltage U_N	415	VD	+10, -10 %
9	Rated frequency f_N	50	Hz	+5, -5 %
10	Rated speed n_N	991	r/min	
11	Rated current I_N	87	A	
12	Method of Starting	DOL		
13	Starting current I_s/I_N	7.7		
14	Nominal torque T_N	434	Nm	
15	Locked rotor torque T_s/T_N	2.7		
16	Maximum torque T_{max}/T_N	3		
17				
18				
	Load characteristics	Load %	Current A	Efficiency % Power factor
19	PLL determined from residual loss	100	87	93.7 / IE3 0.77
20		75	64.2	93.7 0.78
21		50	50.2	91.7 0.68
22				
23	Thermal withstand time hot	15	s	
24	Thermal withstand time cold	28	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)	85	dB(A)	at no-load
32	Moment of inertia $J = \frac{1}{4} GD^2$	1.87	kg-m2	
33	Position of terminal box	Top		
34	Direction of rotation	Bi-directional		
35	Weight of rotor	173	kg	
36	Total weight of motor	562	kg	
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Ex-motors				
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Option Variant Codes / Definition				
49	Application check not made in absence of load details.			
50	Efficiency level : IE3 as per IS12615 2018.			
51				
52				
Remarks:				
Applicable standards: IS 12615 2018				

All performance values are subject to IS/IEC tolerances





