


ABB Motors and Generators		Technical Data Sheet				
Department/Author		Project	Location		Item name	
Our ref.		Rev/Changed by	Date of issue	Saving ident	Pages	
		A	1/16/2019	untitled.xls	1(3)	
No.	Definition	Data	Unit	Remarks		
1	Product	TEFC, 3-phase, squirrel cage induction motor				
2	Product code	3GBA 131 110-HDCIN			Calc. ref.	3GZH021013-15
3	Type/Frame	M2BAX 132SA 2				
4	Mounting	IM2001, B35(foot-flange)				
5	Rated output P _N	5.5	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	2915	r/min			
11	Rated current I _N	10.5	A			
12						
13	Starting current I _s /I _N	7				
14	Nominal torque T _N	18	Nm			
15	Locked rotor torque T _S /T _N	2				
16	Maximum torque T _{max} /T _N	3.4				
17						
18						
Load characteristics		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	100	10.5	87.0 / IE2	0.84	
20		75	8.2	87.8	0.8	
21		50	6.3	86.7	0.7	
22						
23	Thermal withstand time hot	7	s			
24	Thermal withstand time cold	15	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 self ventilated				
30	Bearing DE/NDE	6208-2Z/C3 - 6208-2Z/C3				
31	Sound pressure level (LP dB(A) 1m)	67	dB(A)	at no-load		
32	Moment of inertia J = ¼ GD ²	0.0117	kg·m ²			
33	Position of terminal box	Top				
34	Direction of rotation	Bi-directional				
35	Weight of rotor	10	kg			
36	Total weight of motor	54	kg			
37						
38						
39						
40						
41						
42						
43						
44						
45						
Ex-motors						
46						
47						
48						
Option Variant Codes / Definition						
49						
50						
51						
52						
Remarks:						
Data based on situation 8/8/2016						

All performance values are subject to IS/IEC tolerances


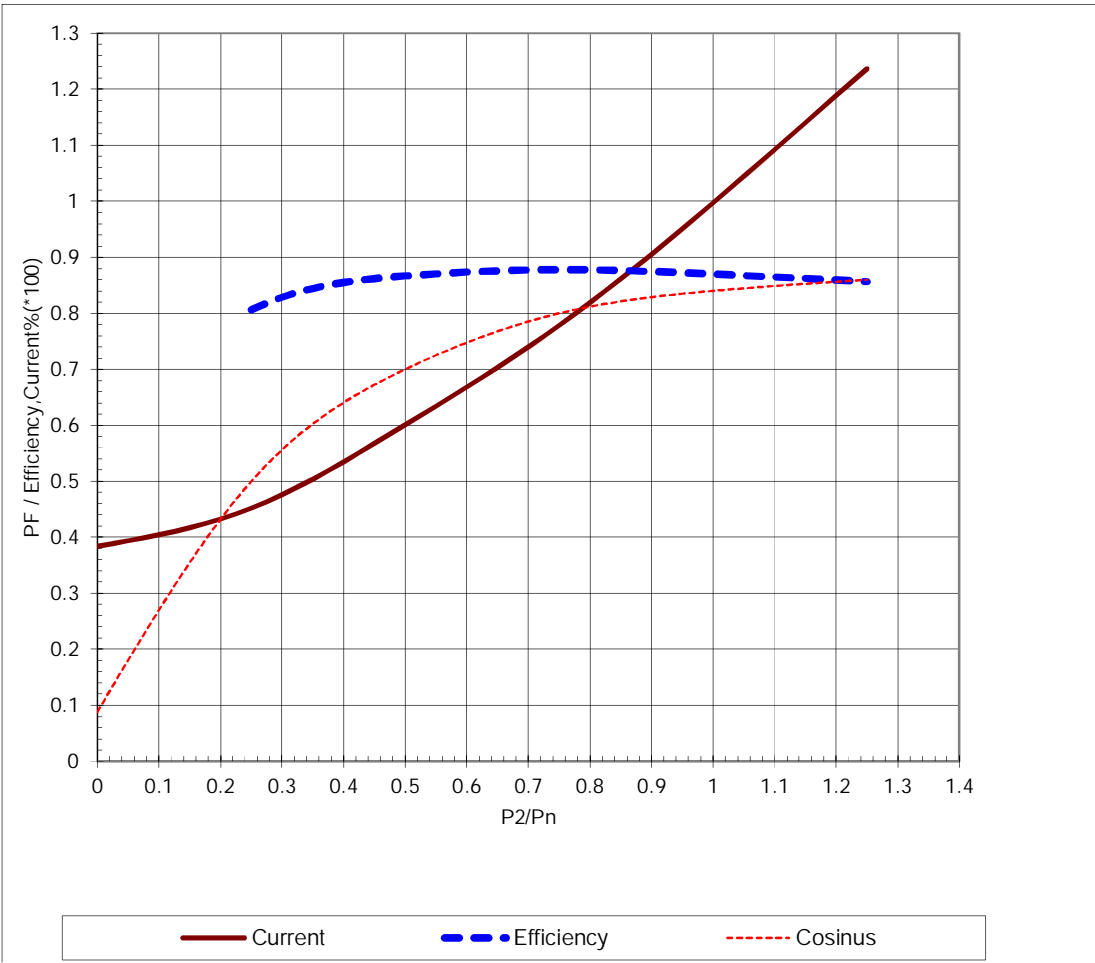


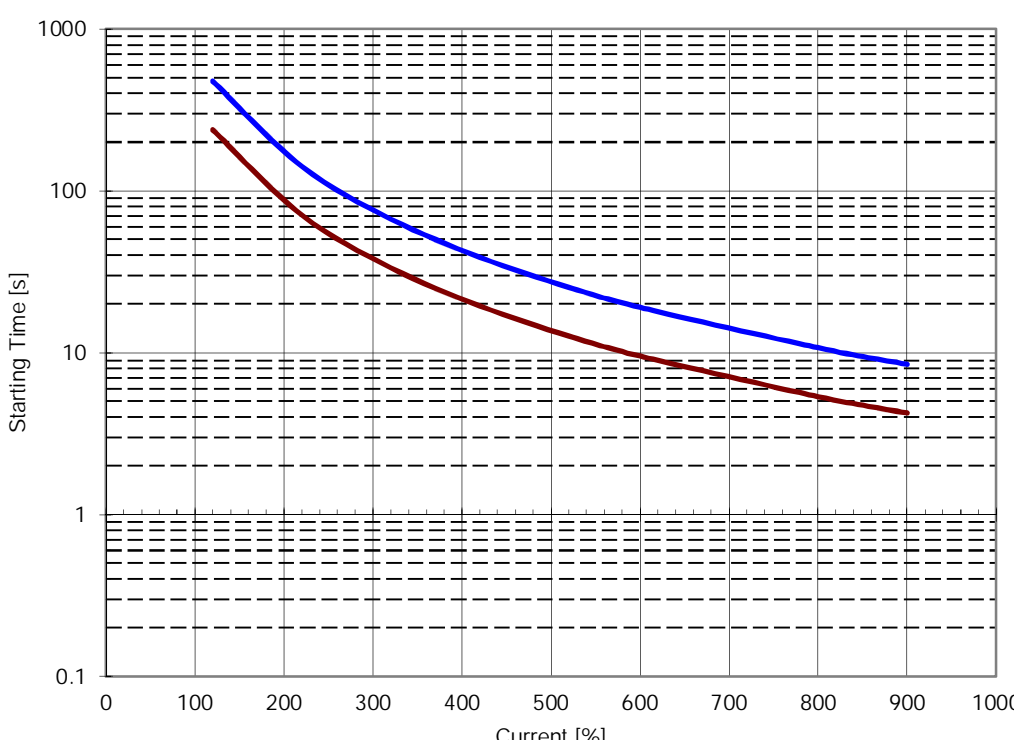
ABB Motors and Generators	Load Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 1.00001
Our ref.	Rev/Changed by A	Date of issue 1/16/2019	Saving ident untitled.xls
Pages 2(3)	Product TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M2BAX 132SA 2	Calc. ref.	3GZH021013-15
Product code	3GBA 131 110-HDCIN		
Rated output P _N	5.5 kW		
Type of duty	S1 100%		
Voltage (V)	415	Current I _N (A)	10.5
Frequency (Hz)	50	Speed (r/min)	2915
		Power factor at P _N	0.84
		Efficiency (%) at P _N	87
			
<p>Data based on situation 8/8/2016</p> <p style="text-align: center;">All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004</p>			

ABB Motors and Generators	Starting Curves			
	Project	Location		
Department/Author	Customer name	Customer ref.		Item name 1.00001
Our ref.	Rev/Changed by A	Date of issue 1/16/2019	Saving ident untitled.xls	Pages 3(3)
Type of product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	M2BAX 132SA 2	Calc. ref.	3GZH021013-15	
Product code	3GBA 131 110-HDCIN	Frequency (Hz)	50	
Rated output P _N	5.5 kW	Rated current I _N	10.5	A
Type of duty	S1 100%			
J _{motor} (kgm ²)	0.0117	Voltage (V) 100%	415	Voltage (V) 415V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2	T _{start} /T _N 2
Speed (r/min)	2915	Starting time (s)	0.1	Starting time (s)
T _N (Nm)	18	Speed (r/min)		Speed (r/min)
T _{load} (Nm)		I _s /I _N	7	I _s /I _N 7
		T _{max} /T _N	3.4	T _{max} /T _N 3.4

The graph plots torque (Ts/Tn) on the left y-axis (0 to 4.5) and current (Is/In) on the right y-axis (0 to 9) against speed (r/min) on the x-axis (0 to 3250). Two torque curves are shown: a solid blue line for 415V (T_{MotorUn}) and a solid red line for 415V(100%) (T_{MotorU2}). Two current curves are shown: a dashed purple line for 415V (I_{MotorUn}) and a dashed green line for 415V(100%) (I_{MotorU2}). The 415V(100%) torque curve peaks at approximately 3.4 around 2250 r/min. The 415V current curve starts at 7 at 0 r/min and decreases to 1 at 3000 r/min.

Data based on situation 8/8/2016
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ABB Motors and Generators	Thermal Withstand Curve		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 1.00001
Our ref.	Rev/Changed by A	Date of issue 1/16/2019	Saving ident untitled.xls
Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M2BAX 132SA 2	Calc. ref.	3GZH021013-15
Product code	3GBA 131 110-HDCIN	Frequency (Hz)	50
Rated output P _N	5.5 kW	Rated current I _N	10.5 A
Type of duty	S1 100%		
J _{motor} (kgm ²)	0.0117	Voltage (V) 100%	415
J _{load} (kgm ²)		T _{start} /T _N	2
Speed (r/min)	2915	Starting time (s)	0.1
T _N (Nm)	18	Speed (r/min)	
T _{load} (Nm)		I _s /I _N	7
		T _{max} /T _n	3.4
		Voltage (V)	415V(100%)
		T _{start} /T _N	2
		Starting time (s)	
		Speed (r/min)	
		I _s /I _N	7
		T _{max} /T _n	3.4



Current [%]	Starting Time [s] - Running Hot	Starting Time [s] - Running Cold
120	200	400
200	100	200
300	60	130
400	40	90
500	28	65
600	20	48
700	15	36
800	11	27
900	8	20

Data based on situation 8/8/2016

All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004