


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 112 310-CDCIN		Calc. ref.	3GZH021011-6	
3	Type/Frame	M2BAX 112MA 4				
4	Mounting	IM3601, B14(flange)				
5	Rated output P _N	3.7	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	1435	r/min			
11	Rated current I _N	7.5	A			
12						
13	Starting current I _s /I _N	7				
14	Nominal torque T _N	24.6	Nm			
15	Locked rotor torque T _S /T _N	2.8				
16	Maximum torque T _{max} /T _N	3.3				
17						
18						
Load characteristics		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	100	7.5	86.3 / IE2	0.8	
20		75	6	86.9	0.74	
21		50	4.8	85.9	0.62	
22						
23	Thermal withstand time hot	6	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	6206-2Z/C3 - 6205-2Z/C3				
31	Sound pressure level (LP dB(A) 1m)	68	dB(A)	at no-load		
32	Moment of inertia J = ¼ GD ²	0.01195	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	41	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


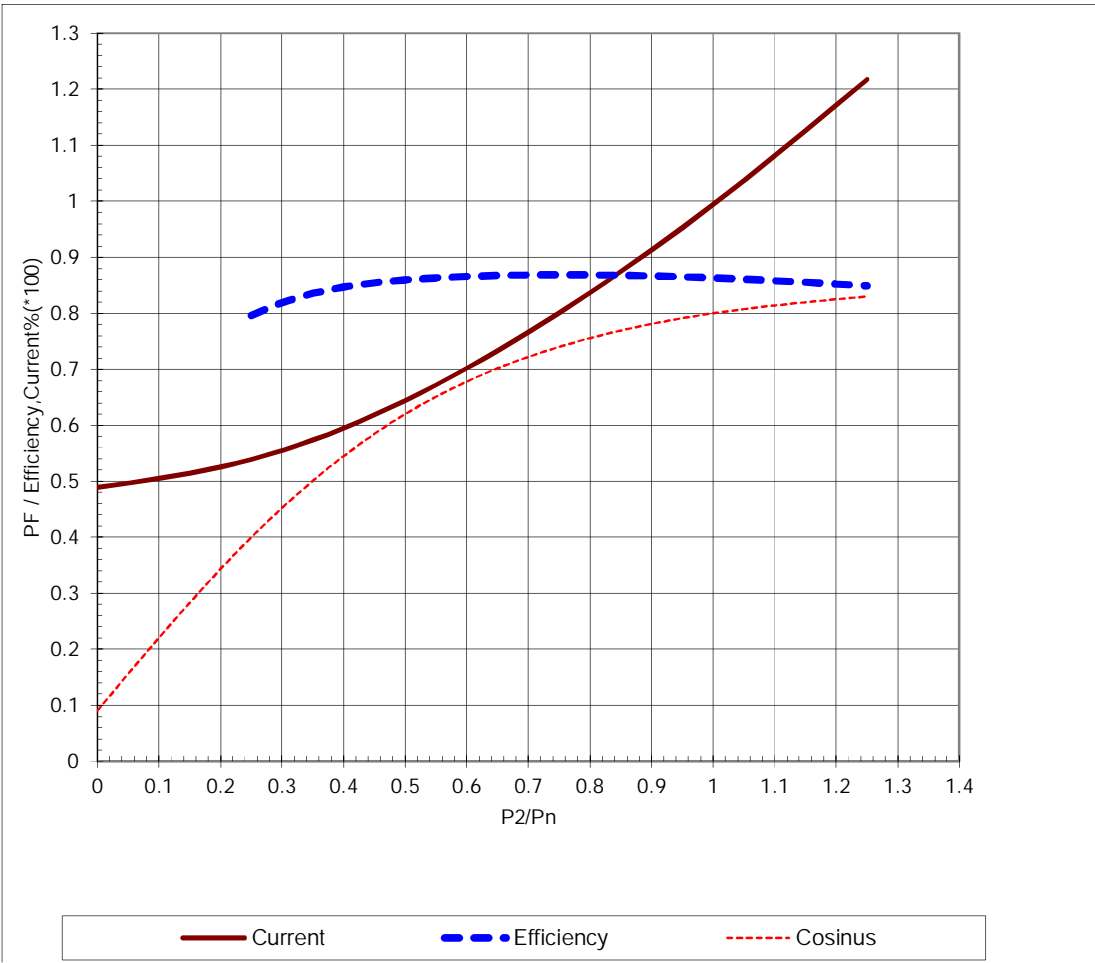
ABB Motors and Generators	Load Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 1.00001
Our ref.	Rev/Changed by A	Date of issue 1/16/2019	Saving ident untitled.xls
			Pages 2(3)
Product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M2BAX 112MA 4	Calc. ref.	3GZH021011-6
Product code	3GBA 112 310-CDCIN		
Rated output P _N	3.7	kW	
Type of duty	S1 100%		
Voltage (V)	415	Current I _N (A)	7.5
Frequency (Hz)	50	Speed (r/min)	1435
		Power factor at P _N	0.8
		Efficiency (%) at P _N	86.3
			
<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>			



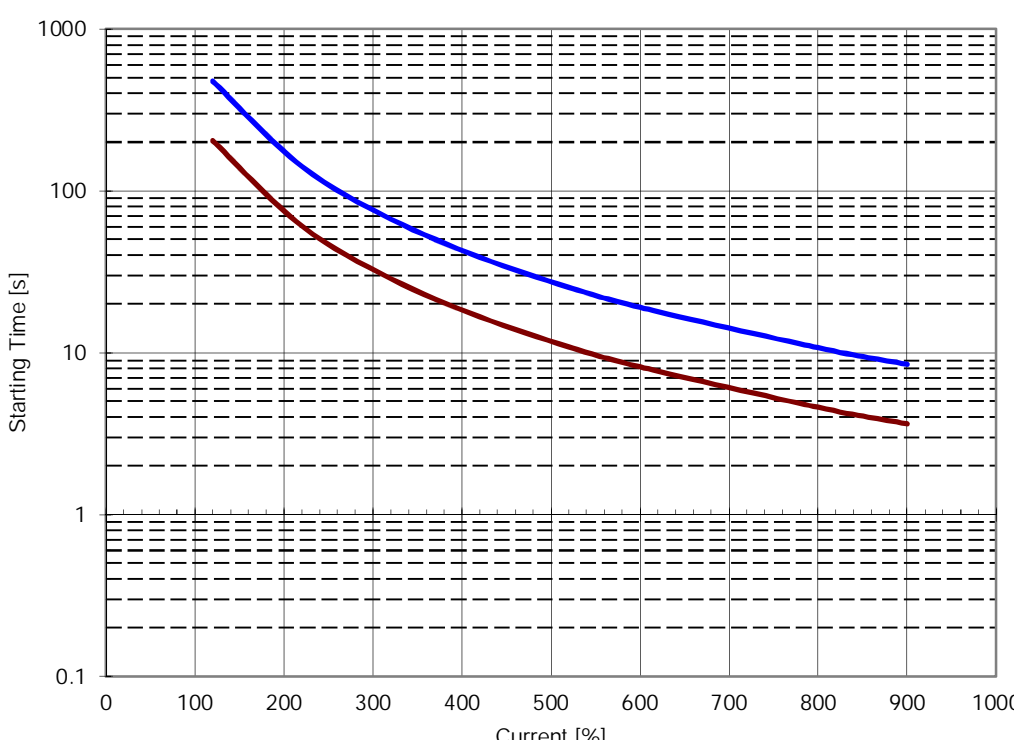
ABB Motors and Generators	Starting Curves							
	Project	Location						
Department/Author	Customer name	Customer ref.		Item name 1.00001				
Our ref.	Rev/Changed by A	Date of issue 1/16/2019	Saving ident untitled.xls	Pages 3(3)				
Type of product	TEFC, 3-phase, squirrel cage induction motor							
Type/Frame	M2BAX 112MA 4	Calc. ref.	3GZH021011-6					
Product code	3GBA 112 310-CDCIN	Frequency (Hz)	50					
Rated output P _N	3.7 kW	Rated current I _N	7.5	A				
Type of duty	S1 100%							
J _{motor} (kgm ²)	0.012	Voltage (V) 100%	415	Voltage (V) 415V(100%)				
J _{load} (kgm ²)		T _{start} /T _N	2.8	T _{start} /T _N 2.8				
Speed (r/min)	1435	Starting time (s)		Starting time (s)				
T _N (Nm)	24.6	Speed (r/min)		Speed (r/min)				
T _{load} (Nm)		I _s /I _N	7	I _s /I _N 7				
		T _{max} /T _N	3.3	T _{max} /T _N 3.3				
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> TMotorUn 415V</td> <td style="width: 50%;"> TMotorU2 415V(100%)</td> </tr> <tr> <td> IMotorUn 415V</td> <td> IMotorU2 415V(100%)</td> </tr> </table>					TMotorUn 415V	TMotorU2 415V(100%)	IMotorUn 415V	IMotorU2 415V(100%)
TMotorUn 415V	TMotorU2 415V(100%)							
IMotorUn 415V	IMotorU2 415V(100%)							
Data based on situation 8/8/2016								
All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004								

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
Pages 5(3)	Type of product TEFC, 3-phase, squirrel cage induction motor Type/Frame M2BAX 112MA 4 Calc. ref. 3GZH021011-6 Product code 3GBA 112 310-CDCIN Frequency (Hz) 50 Rated output P _N 3.7 kW Rated current I _N 7.5 A Type of duty S1 100%		
J _{motor} (kgm ²) 0.012	Voltage (V) 100% 415	Voltage (V) 415V(100%)	
J _{load} (kgm ²)	T _{start} /T _N 2.8	T _{start} /T _N 2.8	
Speed (r/min) 1435	Starting time (s)	Starting time (s)	
T _N (Nm) 24.6	Speed (r/min)	Speed (r/min)	
T _{load} (Nm)	I _s /I _N 7	I _s /I _N 7	
	T _{max} /T _N 3.3	T _{max} /T _N 3.3	



— Running Hot	— Running Cold
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Data based on situation 8/8/2016
All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004