



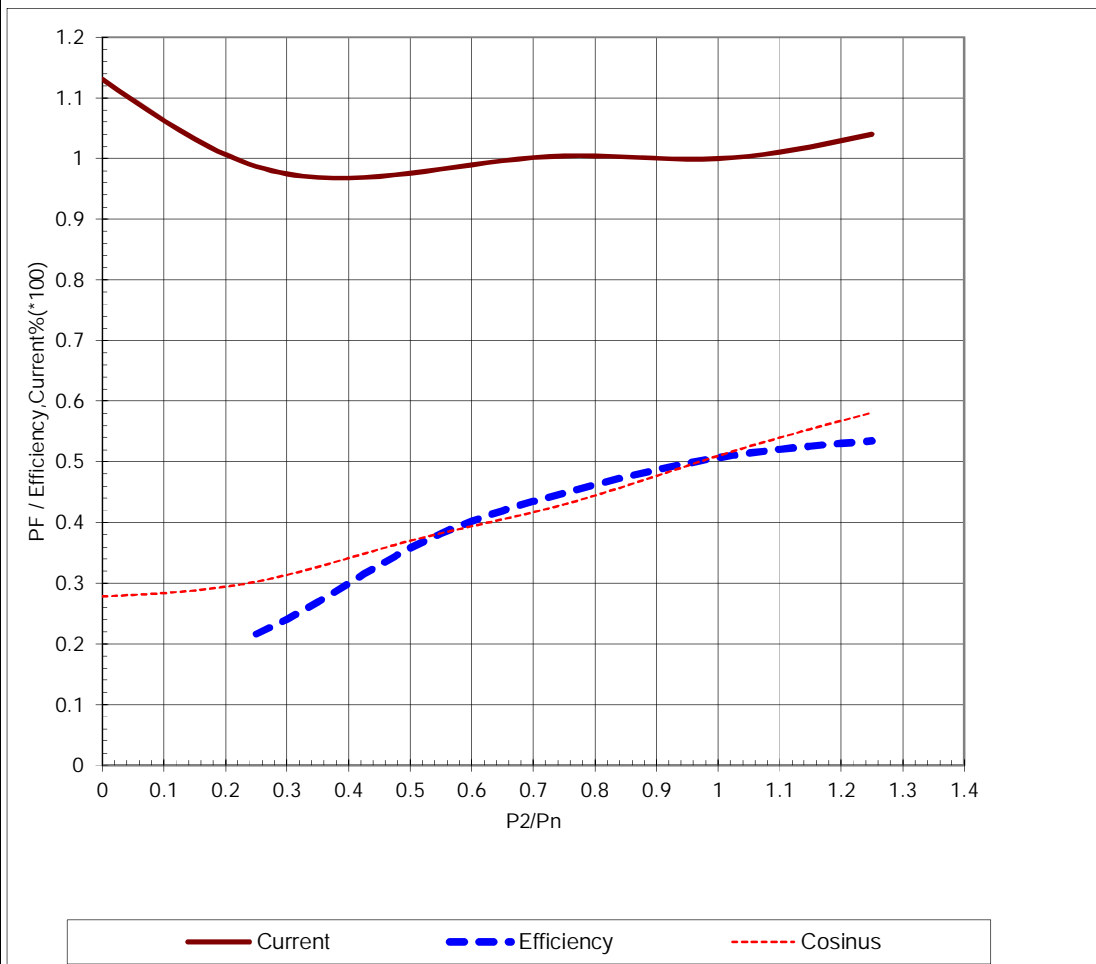
ABB Motors and Generators		Technical Data Sheet				
Department/Author		Project	Location		Item name	
Our ref.		Rev/Changed by	Date of issue	Saving ident	Pages	
		A	1/15/2019	untitled.xls	1(3)	
No.	Definition	Data	Unit	Remarks		
1	Product	TEFC, 3-phase, squirrel cage induction motor				
2	Product code	3GBA 074 320-ASDIN				
3	Type/Frame	M2BAX71MB8				
4	Mounting	IM1001, B3(foot)				
5	Rated output P _N	0.12	kW			
6	Service factor	1				
7	Type of duty	S1 100%				
8	Rated voltage U _N	415	VY	+10, -10 %		
9	Rated frequency f _N	50	Hz	+5, -5 %		
10	Rated speed n _N	680	r/min			
11	Rated current I _N	0.65	A			
12						
13	Starting current I _s /I _N	3				
14	Nominal torque T _N	1.69	Nm			
15	Locked rotor torque T _S /T _N	2.6				
16	Maximum torque T _{max} /T _N	2.7				
17						
18						
Load characteristics		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	100	0.65	50.7 / IE3	0.51	
20		75	0.65	44.9	0.43	
21		50	0.63	35.8	0.37	
22						
23	Thermal withstand time hot	17	s			
24	Thermal withstand time cold	27	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	6203-2Z/C3 - 6202-2Z/C3				
31	Sound pressure level (LP dB(A) 1m)	66	dB(A)	at no-load		
32	Moment of inertia J = ¼ GD2	0.0011	kg·m2			
33	Position of terminal box	Top				
34	Direction of rotation	Bi-directional				
35	Total weight of motor	12	kg			
36		User defined motor				
37						
38						
39						
40						
41						
42						
43						
44						
45						
Ex-motors						
46						
47						
48						
Option Variant Codes / Definition						
49						
50						
51						
52						
Remarks:						
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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 1/15/2019	Saving ident untitled.xls
Pages 2(3)			
Product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M2BAX71MB8		
Product code	3GBA 074 320-ASDIN		
Rated output P _N	0.12 kW		
Type of duty	S1 100%		

Voltage (V)	415	Current I _N (A)	0.65	Power factor at P _N	0.51
Frequency (Hz)	50	Speed (r/min)	680	Efficiency (%) at P _N	50.7



Data based on situation 12/21/2015

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


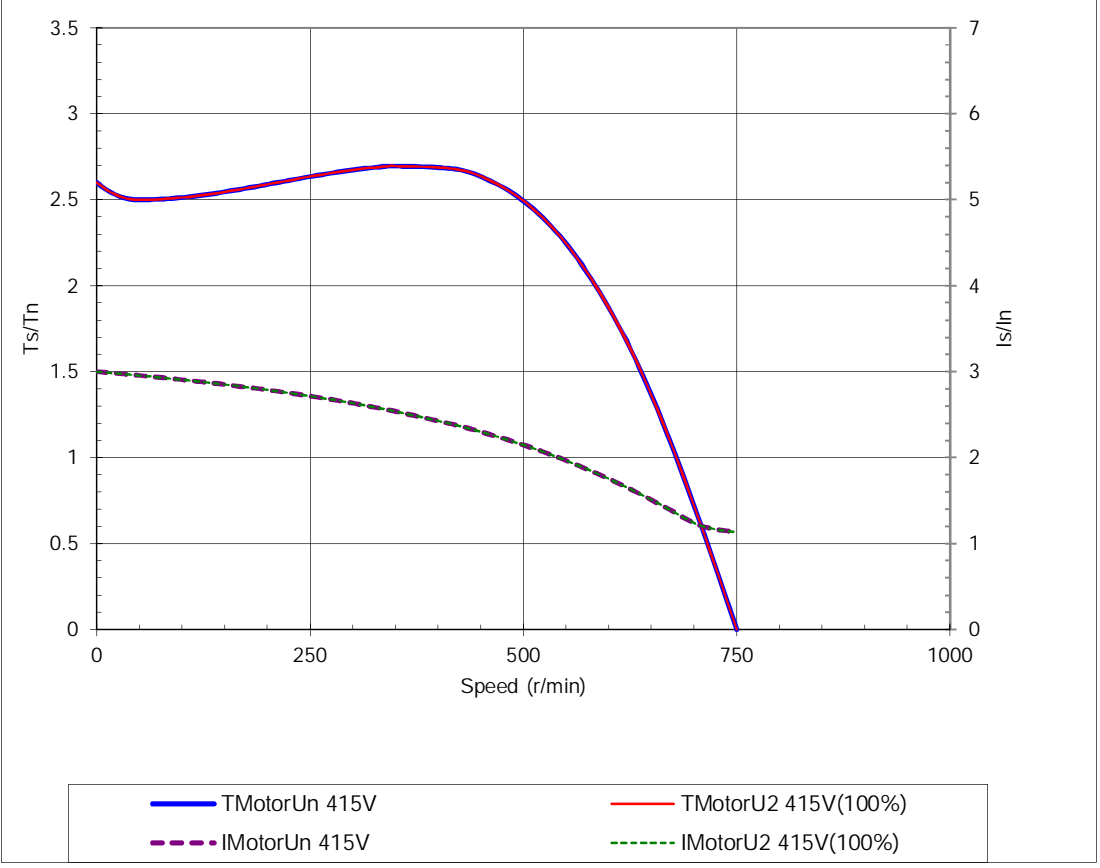
ABB Motors and Generators	Starting Curves			
	Project	Location		
Department/Author	Customer name	Customer ref.		Item name 1.00001
Our ref.	Rev/Changed b	Date of issue	Saving ident	Pages
	A	1/15/2019	untitled.xls	3(3)
Type of product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	M2BAX71MB8			
Product code	3GBA 074 320-ASDIN	Frequency (Hz)	50	
Rated output P _N	0.12 kW	Rated current I _N	0.65	A
Type of duty	S1 100%			
J _{motor} (kgm ²)	0.0011	Voltage (V) 100%	415	Voltage (V) 415V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.6	T _{start} /T _N 2.6
Speed (r/min)	680	Starting time (s)		Starting time (s)
T _N (Nm)	1.69	Speed (r/min)		Speed (r/min)
T _{load} (Nm)		I _s /I _N	3	I _s /I _N 3
		T _{max} /T _N	2.7	T _{max} /T _N 2.7
				
Data based on situation 12/21/2015				
All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004				


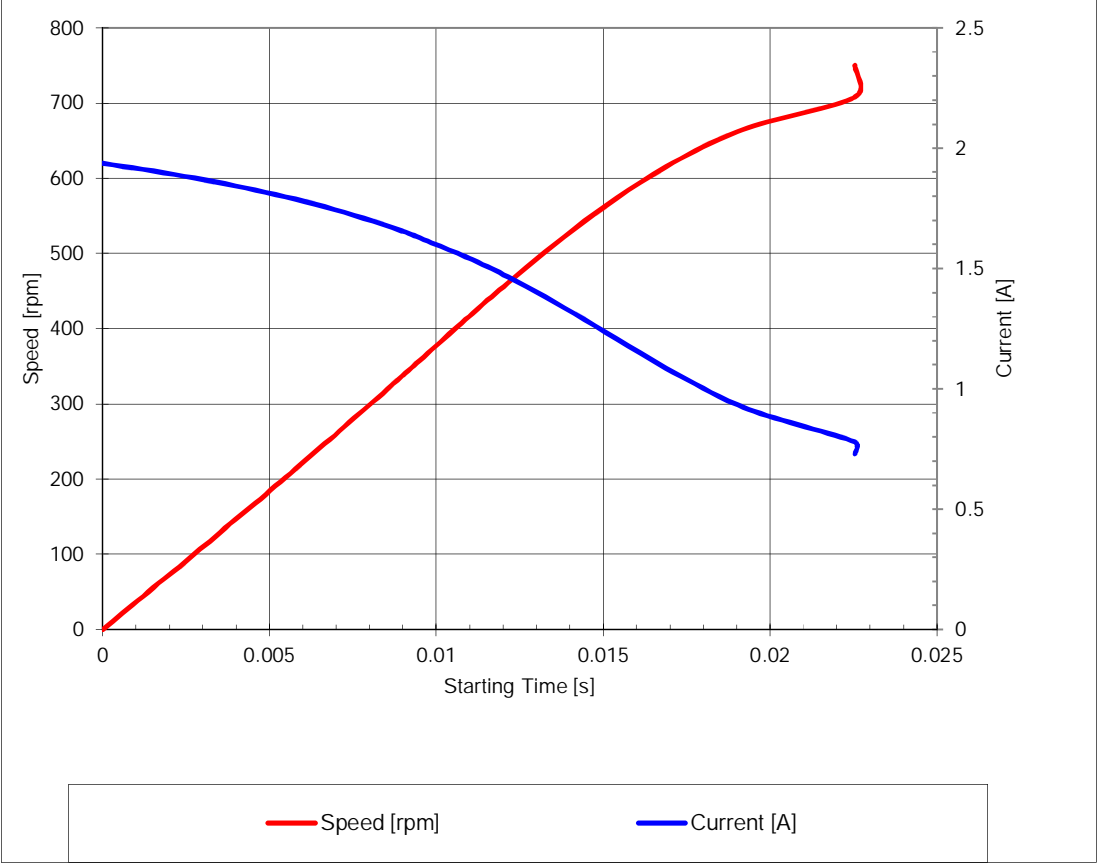

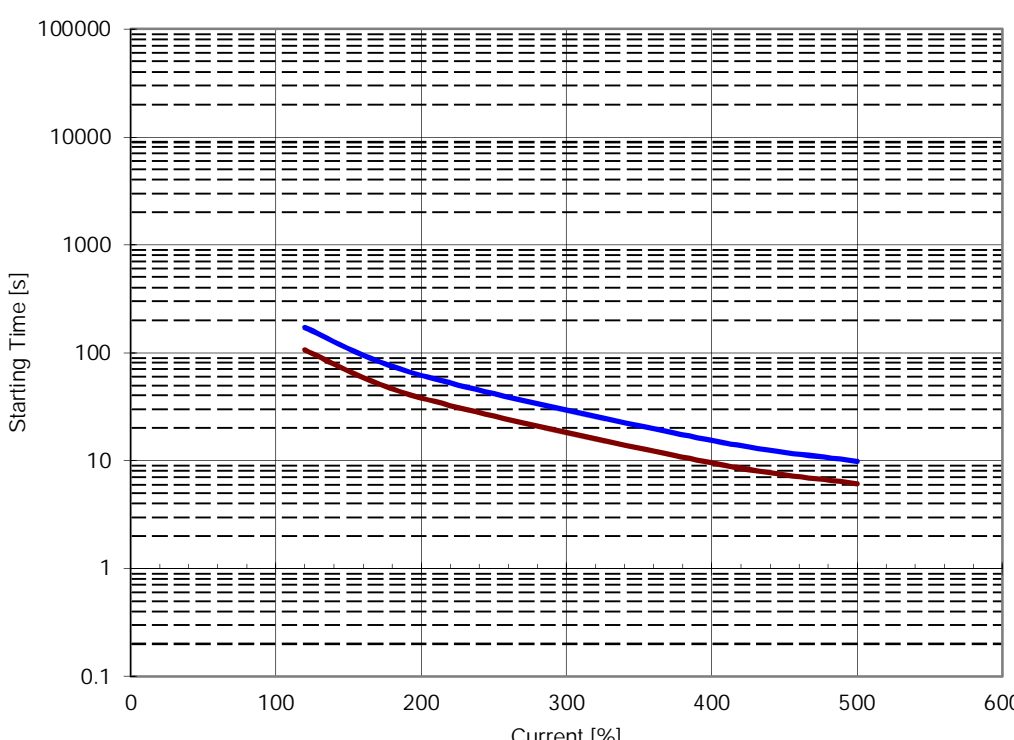
ABB Motors and Generators	Current & Speed Vs Time				
	Project	Location			
Department/Author	Customer name	Customer ref.		Item name 1.00001	
Our ref.	Rev/Changed b	Date of issue	Saving ident	Pages	
	A	1/15/2019	untitled.xls	4(3)	
Type of product	TEFC, 3-phase, squirrel cage induction motor				
Type/Frame	M2BAX71MB8				
Product code	3GBA 074 320-ASDIN		Frequency (Hz)	50	
Rated output P_N	0.12	kW	Rated current I_N	0.65	A
Type of duty	S1 100%				
J_{motor} (kgm ²)	0.0011	Voltage (V) 100%	415	Voltage (V)	415V(100%)
J_{load} (kgm ²)		T_{start}/T_N	2.6	T_{start}/T_N	2.6
Speed (r/min)	680	Starting time (s)		Starting time (s)	
T_N (Nm)	1.69	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	3	I_s/I_n	3
		T_{max}/T_n	2.7	T_{max}/T_n	2.7
					
<p>Data based on situation 12/21/2015</p> <p>All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004</p>					

ABB Motors and Generators	Thermal Withstand Curve		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 1.00001
Our ref.	Rev/Changed b Date of issue A 1/15/2019	Saving ident untitled.xls	Pages 5(3)
Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M2BAX71MB8		
Product code	3GBA 074 320-ASDIN	Frequency (Hz)	50
Rated output P _N	0.12 kW	Rated current I _N	0.65 A
Type of duty	S1 100%		
J _{motor} (kgm ²)	0.0011	Voltage (V) 100%	415 Voltage (V) 415V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.6 T _{start} /T _N 2.6
Speed (r/min)	680	Starting time (s)	Starting time (s)
T _N (Nm)	1.69	Speed (r/min)	Speed (r/min)
T _{load} (Nm)		I _s /I _n	3 I _s /I _n 3
		T _{max} /T _n	2.7 T _{max} /T _n 2.7



The graph plots Starting Time [s] on a logarithmic y-axis (0.1 to 100,000) against Current [%] on a linear x-axis (0 to 600). Two curves are shown: a red line for 'Running Hot' and a blue line for 'Running Cold'. Both curves show a decrease in starting time as current increases. The 'Running Cold' curve starts at approximately 150s at 100% current and drops to about 10s at 500% current. The 'Running Hot' curve starts at approximately 100s at 100% current and drops to about 7s at 500% current.

Current [%]	Starting Time [s] (Running Cold)	Starting Time [s] (Running Hot)
100	~150	~100
200	~60	~40
300	~35	~25
400	~22	~16
500	~14	~10

Data based on situation 12/21/2015
All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004