



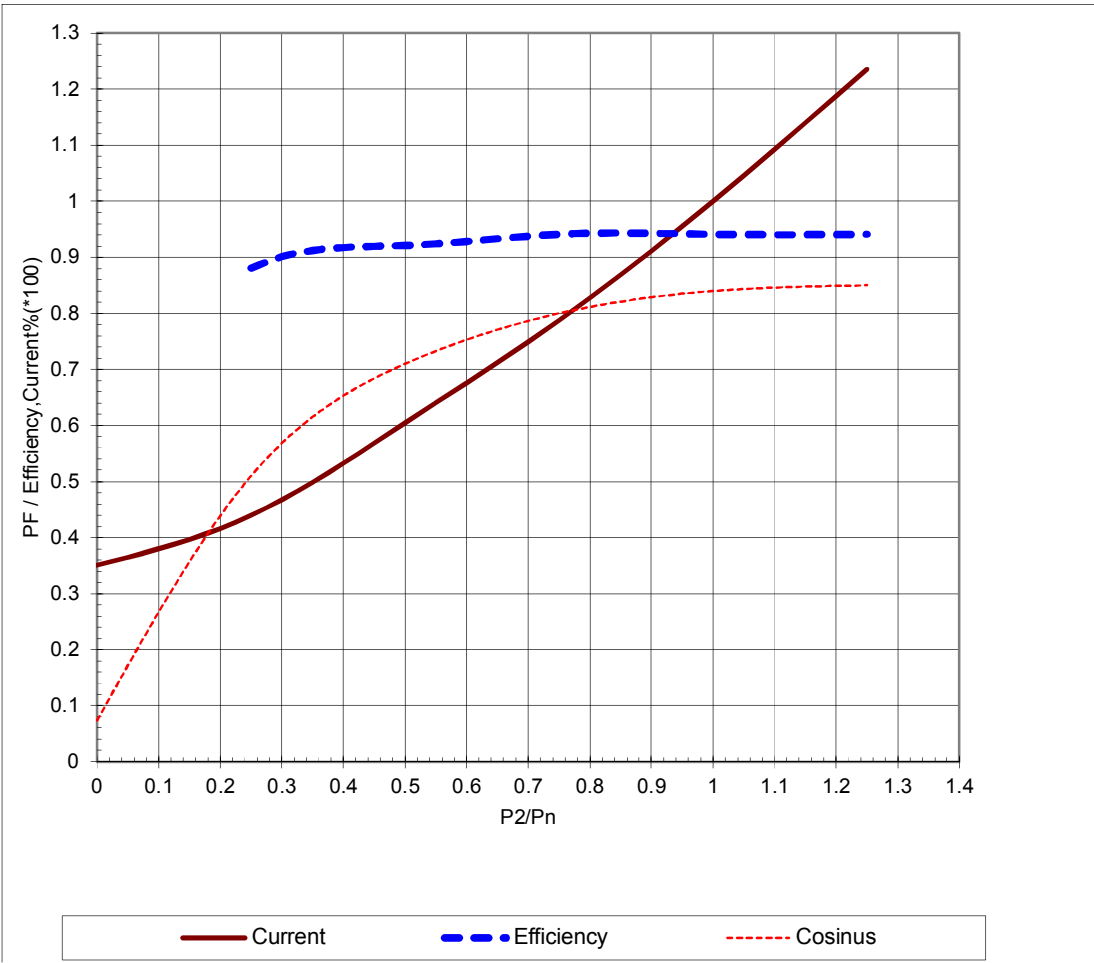
ABB Motors and Generators		Technical Data Sheet			
		Project	Location		
Department/Author	Customer name	Customer ref.		Item name	
Our ref.	Rev/Changed by	Date of issue	Saving ident	Pages	
	A	12/22/2017	untitled.xls	1(3)	
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	E3HX 280 SMB6			
3	Type/Frame	E3HX280SMB6			
4	Mounting	IM1001, B3(foot)			
5	Rated output P_N	55	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	988	r/min		
11	Rated current I_N	96.8	A		
12	Method of starting	DOL			
13	Starting current I_s/I_N	7.7			
14	Nominal torque T_N	532	Nm		
15	Locked rotor torque T_s/T_N	2.5			
16	Maximum torque T_{max}/T_N	2.6			
17					
18					
Load characteristics		Load %	Current A	Efficiency %	Power factor
19	PLL determined from residual loss	100	96.8	94.1 / IE3	0.84
20		75	76.2	94.1	0.8
21		50	58.5	92.1	0.71
22					
23	Thermal withstand time hot	22	s		
24	Thermal withstand time cold	38	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	6316/C3 - 6315/C3			
31	Sound pressure level (LP dB(A) 1m)	85	dB(A)	at no-load	
32	Moment of inertia $J = \frac{1}{4} GD^2$	2.45	kg-m ²		
33	Position of terminal box	Top			
34	Direction of rotation	Bi-directional			
35	Total weight of motor	680	kg		
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
Ex-motors					
46					
47					
48					
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:					
Data based on situation 10/2/2014					

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 1.00002
Our ref.	Rev/Changed by A	Date of issue 12/22/2017	Saving ident untitled.xls
			Pages 2(3)

Product TEFC, 3-phase, squirrel cage induction motor
Type/Frame E3HX280SMB6
Product code E3HX 280 SMB6
Rated output P_N 55 kW
Type of duty S1 100%

Voltage (V) 415 **Current I_N (A)** 96.8 **Power factor at P_N** 0.84
Frequency (Hz) 50 **Speed (r/min)** 988 **Efficiency (%) at P_N** 94.1

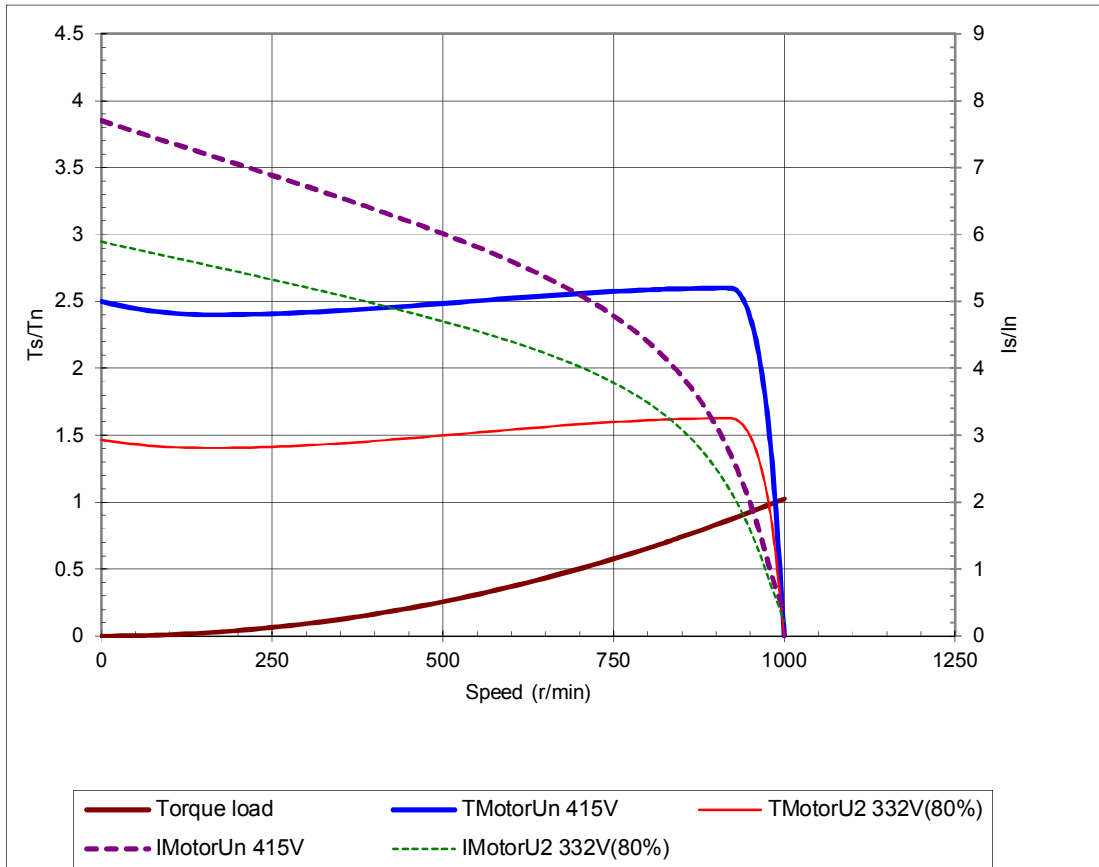


Data based on situation 10/2/2014
 All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004

ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 1.00002
Our ref.	Rev/Changed b Date of issue A 12/22/2017	Saving ident untitled.xls	Pages 3(3)


Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	E3HX280SMB6		
Product code	E3HX 280 SMB6	Frequency (Hz)	50
Rated output P _N	55 kW	Rated current I _N	96.8 A
Type of duty	S1 100%		

J _{motor} (kgm ²)	2.5	Voltage (V) 100%	415	Voltage (V)	332V(80%)
J _{load} (kgm ²)		T _{start} /T _N	2.5	T _{start} /T _N	1.5
Speed (r/min)	988	Starting time (s)	0.2	Starting time (s)	0.5
T _N (Nm)	532	Speed (r/min)	988	Speed (r/min)	978
T _{load} (Nm)		I _s /I _N	7.7	I _s /I _N	5.9
		T _{max} /T _N	2.6	T _{max} /T _N	1.6



Data based on situation 10/2/2014


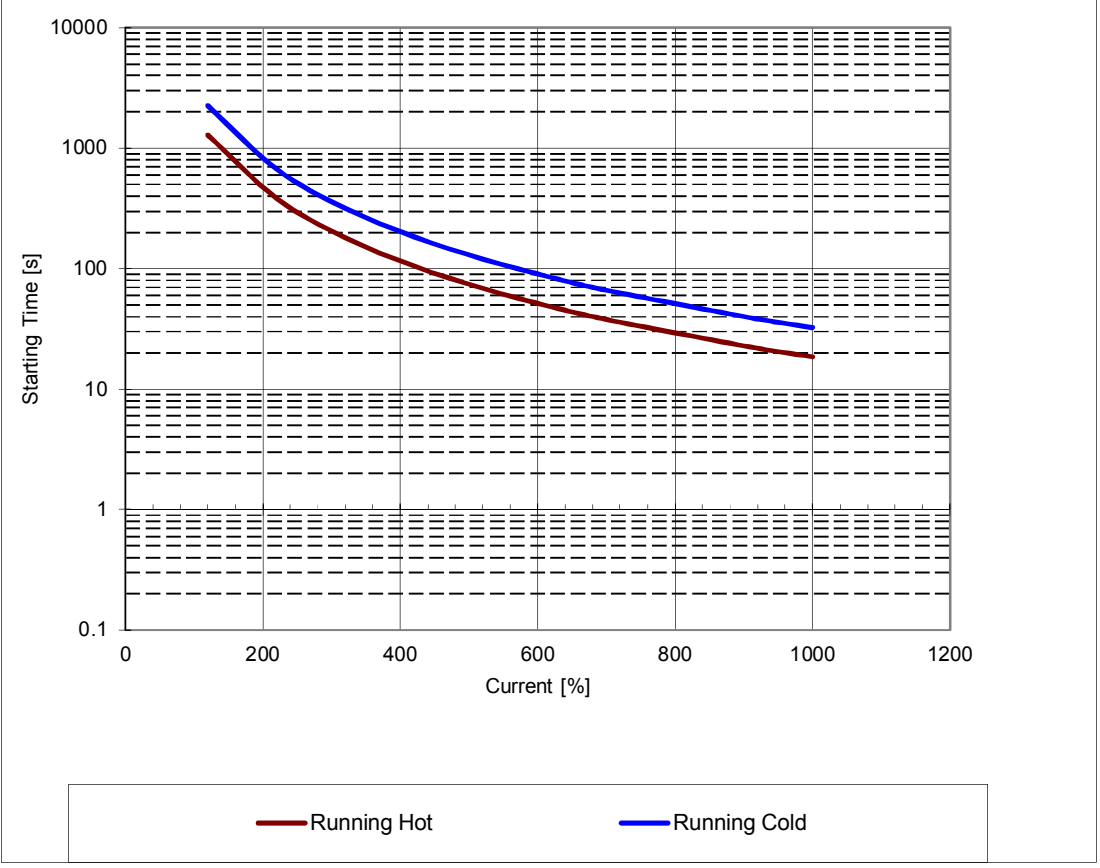
All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004

ABB Motors and Generators	Current & Speed Vs Time			
	Project	Location		
Department/Author	Customer name	Customer ref.	Item name 1.00002	
Our ref.	Rev/Changed b	Date of issue	Saving ident	Pages
	A	12/22/2017	untitled.xls	4(3)
Type of product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	E3HX280SMB6			
Product code	E3HX 280 SMB6	Frequency (Hz)	50	
Rated output P_N	55 kW	Rated current I_N	96.8	A
Type of duty	S1 100%			
J_{motor} (kgm ²)	2.5	Voltage (V) 100%	415	Voltage (V) 332V(80%)
J_{load} (kgm ²)		T_{start}/T_N	2.5	T_{start}/T_N 1.5
Speed (r/min)	988	Starting time (s)	0.2	Starting time (s) 0.5
T_N (Nm)	532	Speed (r/min)	988	Speed (r/min) 978
T_{load} (Nm)		I_s/I_N	7.7	I_s/I_N 5.9
		T_{max}/T_N	2.6	T_{max}/T_N 1.6

Starting Time [s]	Speed [rpm]	Current [A]
0.00	0	1100
0.05	250	900
0.10	500	750
0.15	750	600
0.20	900	450
0.25	1000	50

Data based on situation 10/2/2014

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 1.00002
Our ref.	Rev/Changed b	Date of issue	Saving ident	Pages
	A	12/22/2017	untitled.xls	5(3)
Type of product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	E3HX280SMB6			
Product code	E3HX 280 SMB6	Frequency (Hz)	50	
Rated output P _N	55 kW	Rated current I _N	96.8	A
Type of duty	S1 100%			
J _{motor} (kgm ²)	2.5	Voltage (V) 100%	415	Voltage (V) 332V(80%)
J _{load} (kgm ²)		T _{start} /T _N	2.5	T _{start} /T _N 1.5
Speed (r/min)	988	Starting time (s)	0.2	Starting time (s) 0.5
T _N (Nm)	532	Speed (r/min)	988	Speed (r/min) 978
T _{load} (Nm)		I _s /I _n	7.7	I _s /I _n 5.9
		T _{max} /T _n	2.6	T _{max} /T _n 1.6
				
<p>Data based on situation 10/2/2014</p> <p>All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004</p>				