ABB Motors and Generators	Technical Data Sheet		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name **3.00002**
Our ref.	Rev/Changed by **A**	Date of issue **6/15/2019**	Saving ident **m2bax_ie3_2_4_6_8p_foot cum flan** / Pages **1(3)**

No.	Definition	Data	Unit	Remarks	
1	Product	***TEFC, 3-phase, squirrel cage induction motor***			
2	Product code	***3GBA 283 230-HDMIN***			
3	Type/Frame	***M2BAX 280SMC 6***			
4	Mounting	***IM2001, B35(foot-flange)***			
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	***993***	r/min		
11	Rated current I_N	***102***	A		
12	Method of Starting	***DOL***			
13	Starting current I_s/I_N	***7.7***			
14	Nominal torque T_N	***529***	Nm		
15	Locked rotor torque T_S/T_N	***2.8***			
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*	**102**	**94.1 / IE3**	**0.8**
20		*75*	**76.2**	**94.1**	**0.8**
21		*50*	**58.5**	**92.1**	**0.71**
22					
23	Thermal withstand time hot	***16***	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 = ¼ GD2	***2.57***	kg-m2		
33	Position of terminal box	***Top***			
34	Direction of rotation	***Bi-directional***			
35	Weight of rotor	***199***	kg		
36	Total weight of motor	***615***	kg		
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	

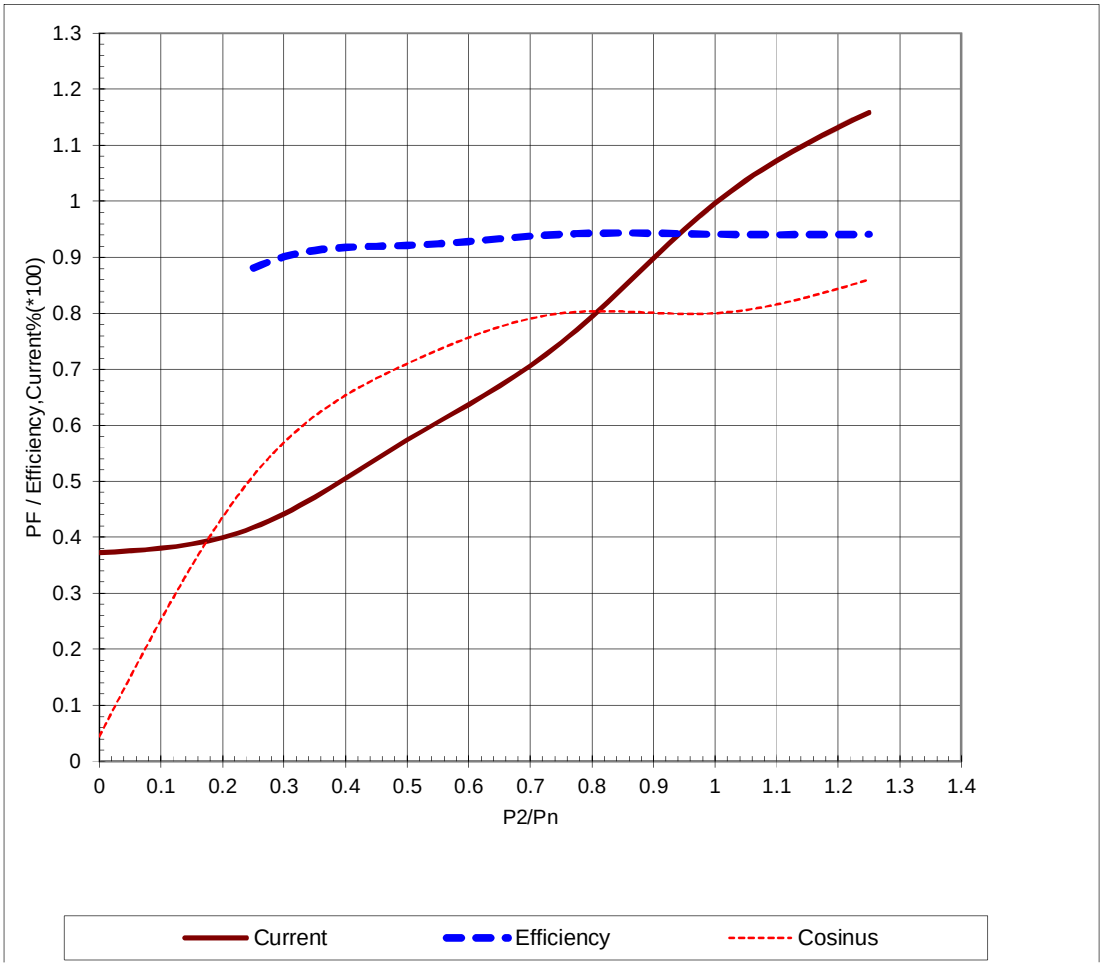
Remarks:

Applicable standards: IS 12615 2018

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 **3.00002**
Our ref.	Rev/Changed by / Date of issue	Saving ident	Pages
	A **6/15/2019**	**m2bax_ie3_2_4_6_8p_foot cum flang**	**2(3)**

Product	**TEFC, 3-phase, squirrel cage induction motor**				
Type/Frame	**M2BAX 280SMC 6**				
Product code	**3GBA 283 230-HDMIN**				
Rated output P_N	**55** kW				
Type of duty	**S1 100%**				
Voltage (V)	**415**	Current I_N (A)	**102**	Power factor at P_N	**0.8**
Frequency (Hz)	**50**	Speed (r/min)	**993**	Efficiency (%) at P_N	**94.1**

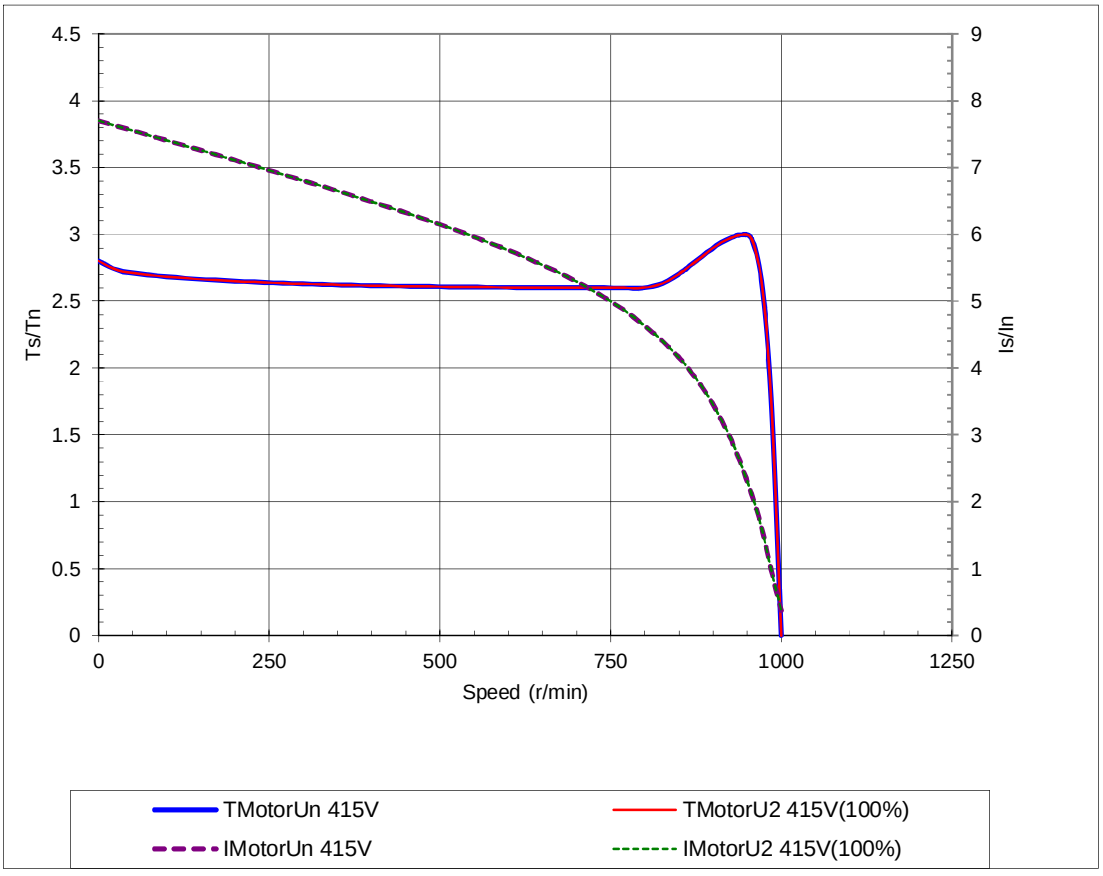


Applicable standards: IS 12615 2018 28.7.2015

ABB Motors and Generators	Starting Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 3.00002
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages
	A 6/15/2019	m2bax_ie3_2_4_6_8p_foot cum flar	3(3)

Type of product	**TEFC, 3-phase, squirrel cage induction motor**			
Type/Frame	**M2BAX 280SMC 6**			
Product code	**3GBA 283 230-HDMIN**	Frequency (Hz)	**50**	
Rated output P_N	**55** kW	Rated current I_N	**102**	A
Type of duty	**S1 100%**			

J_{motor} (kgm2)	**2.6**	Voltage (V) 100%	***415***	Voltage (V)	***415V(100%)***
J_{load} (kgm2)		T_{start}/T_N	***2.8***	T_{start}/T_N	***2.8***
Speed (r/min)	**993**	Starting time (s)		Starting time (s)	
T_N (Nm)	**529**	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	***7.7***	I_s/I_n	***7.7***
		T_{max}/T_n	***3***	T_{max}/T_n	***3***

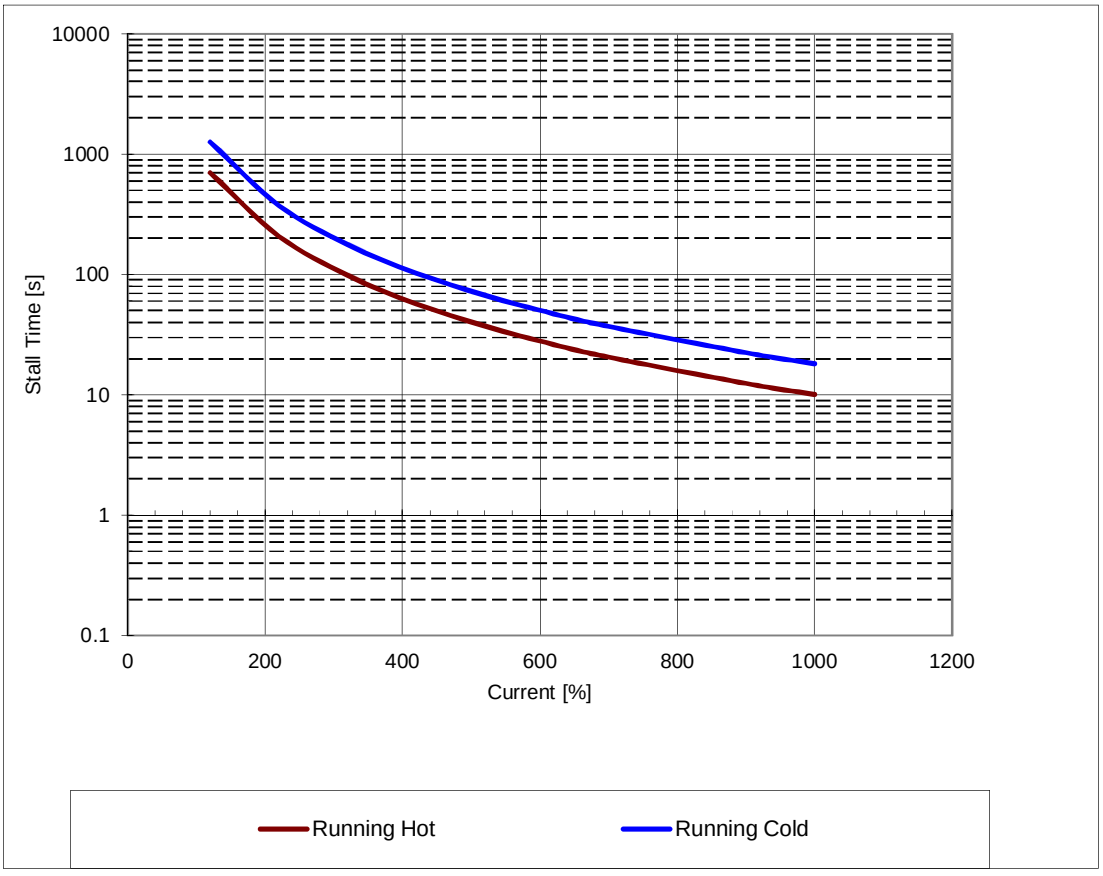


Applicable standards: IS 12615 2018 28.7.2015

ABB Motors and Generators	Thermal Withstand Curve		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 3.00002
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages
	A 6/15/2019	m2bax_ie3_2_4_6_8p_foot cum flar	5(3)

Type of product	**TEFC, 3-phase, squirrel cage induction motor**			
Type/Frame	**M2BAX 280SMC 6**			
Product code	**3GBA 283 230-HDMIN**	Frequency (Hz)	**50**	
Rated output P_N	**55** kW	Rated current I_N	**102**	A
Type of duty	**S1 100%**			

J_{motor} (kgm2)	**2.6**	Voltage (V) 100%	***415***	Voltage (V)	***415V(100%)***
J_{load} (kgm2)		T_{start}/T_N	***2.8***	T_{start}/T_N	***2.8***
Speed (r/min)	**993**				
T_N (Nm)	**529**	Speed (r/min)		Speed (r/min)	
T_{load} (Nm)		I_s/I_n	***7.7***	I_s/I_n	***7.7***
		T_{max}/T_n	***3***	T_{max}/T_n	***3***



Applicable standards: IS 12615 2018 28.7.2015