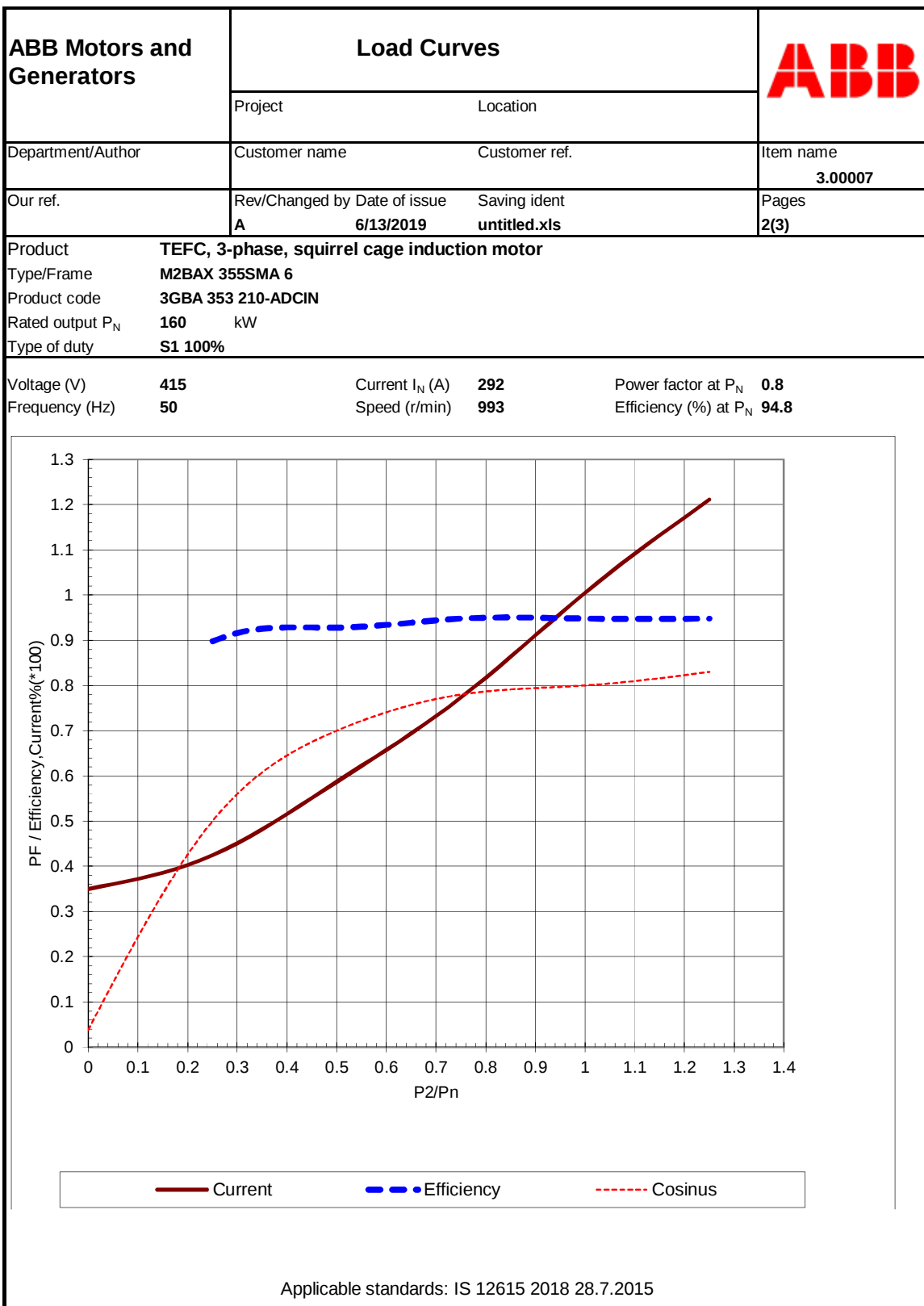


ABB Motors and Generators		Technical Data Sheet				
Project		Location				
Department/Author		Customer name		Customer ref.		
Our ref.		Rev/Changed by A		Date of issue 6/13/2019		
		Saving ident untitled.xls		Item name 3.00007		
				Pages 1(3)		
No.	Definition	Data	Unit	Remarks		
1	Product	TEFC, 3-phase, squirrel cage induction motor				
2	Product code	3GBA 353 210-ADCIN				
3	Type/Frame	M2BAX 355SMA 6				
4	Mounting	IM1001, B3(foot)				
5	Rated output P_N	160	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	292	A			
12	Method of Starting	DOL				
13	Starting current I_s/I_N	7				
14	Nominal torque T_N	1539	Nm			
15	Locked rotor torque T_s/T_N	2.3				
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	292	94.8 / IE2	0.8	
20		75	226	94.8	0.78	
21		50	171	92.8	0.7	
22						
23	Thermal withstand time hot	18	s			
24	Thermal withstand time cold	33	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	6322/C3 - 6316/C3				
31	Sound pressure level (LP dB(A) 1m)	85	dB(A)	at no-load		
32	Moment of inertia $J = \frac{1}{4} GD^2$	7.3	kg-m2			
33	Position of terminal box	Top				
34	Direction of rotation	Bi-directional				
35	Weight of rotor	412	kg			
36	Total weight of motor	1309	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 : IE2 as per IS12615 2018.					
51						
52						
Remarks:						
Applicable standards: IS 12615 2018						

All performance values are subject to IS/IEC tolerances



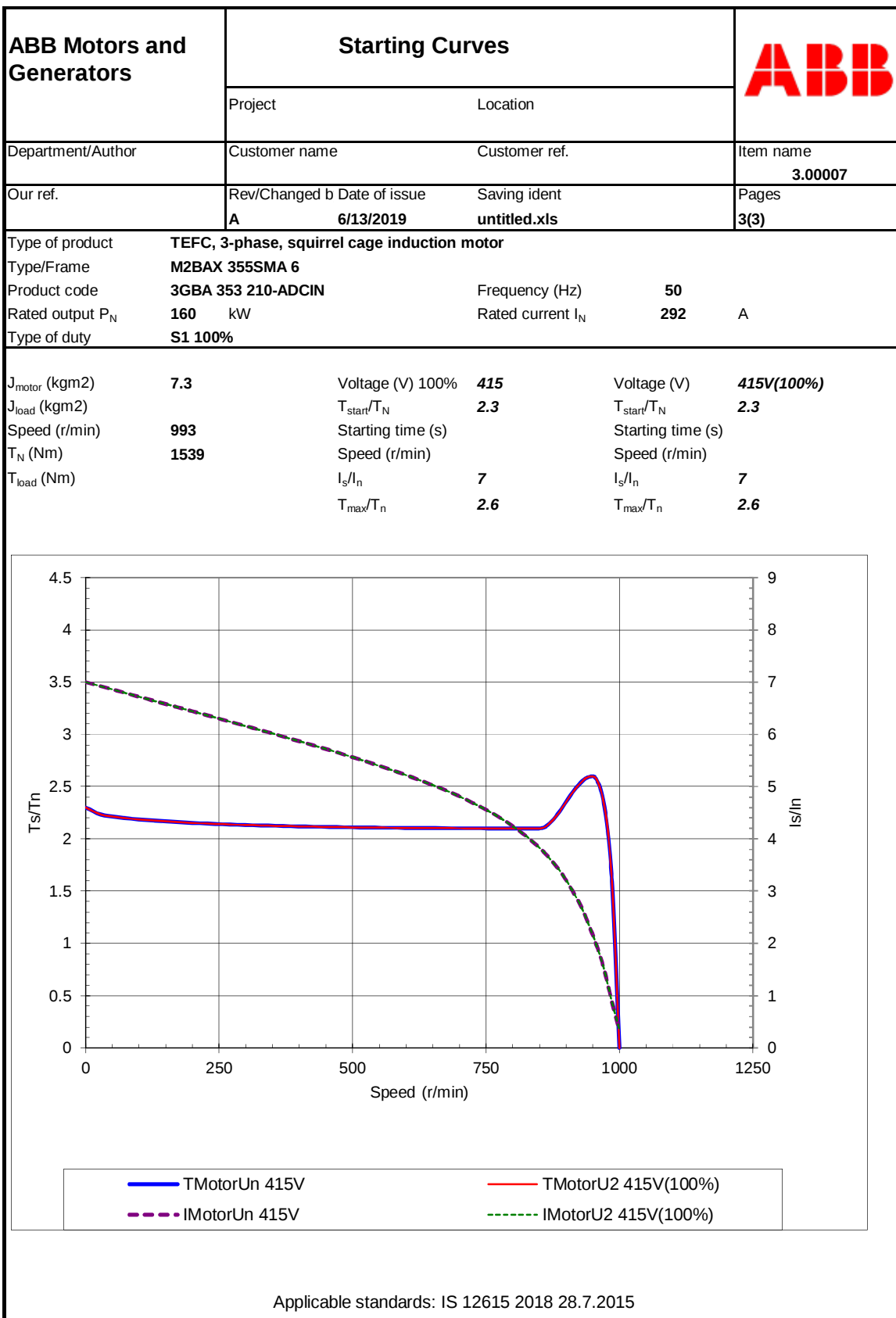
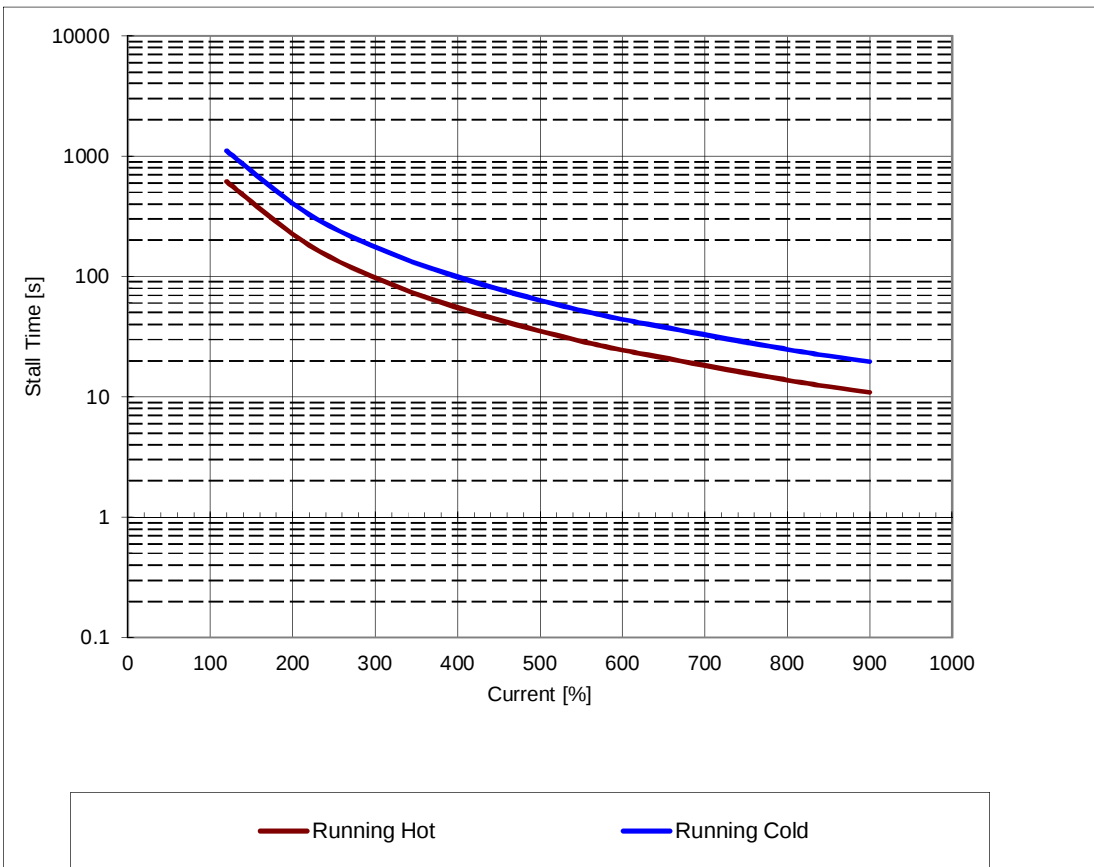


ABB Motors and Generators	Thermal Withstand Curve			
	Project		Location	
Department/Author	Customer name	Customer ref.		Item name 3.00007
Our ref.	Rev/Changed b Date of issue A 6/13/2019	Saving ident untitled.xls		Pages 5(3)
Type of product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	M2BAX 355SMA 6			
Product code	3GBA 353 210-ADCIN	Frequency (Hz)	50	
Rated output P _N	160 kW	Rated current I _N	292	A
Type of duty	S1 100%			
J _{motor} (kgm ²)	7.3	Voltage (V) 100%	415	Voltage (V) 415V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.3	T _{start} /T _N 2.3
Speed (r/min)	993			
T _N (Nm)	1539	Speed (r/min)		Speed (r/min)
T _{load} (Nm)		I _s /I _n	7	I _s /I _n 7
		T _{max} /T _n	2.6	T _{max} /T _n 2.6



The graph plots Stall Time [s] on a logarithmic y-axis (0.1 to 10000) against Current [%] on a linear x-axis (0 to 1000). Two curves are shown: 'Running Hot' (red line) and 'Running Cold' (blue line). Both curves show a decrease in stall time as current increases. The 'Running Cold' curve is consistently higher than the 'Running Hot' curve, indicating longer stall times for the same current when the motor is cold.

Current [%]	Stall Time [s] (Running Cold)	Stall Time [s] (Running Hot)
100	1000	600
200	300	180
300	150	90
400	80	50
500	50	30
600	35	20
700	25	15
800	18	11
900	13	8

Applicable standards: IS 12615 2018 28.7.2015