


ABB Motors and Generators		Technical Data Sheet				
Department/Author		Project	Location		Item name 1.00006	
Our ref.		Rev/Changed by A	Date of issue 12/22/2017	Saving ident untitled.xls	Pages 1(3)	
No.	Definition	Data	Unit	Remarks		
1	Product	TEFC, 3-phase, squirrel cage induction motor				
2	Product code	E3BA 315 MLC6-ADCIN				
3	Type/Frame	E3BA315MLC6				
4	Mounting	IM1001, B3(foot)				
5	Rated output P_N	132	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	229	A			
12	Method of starting	DOL				
13	Starting current I_s/I_N	7.7				
14	Nominal torque T_N	1276	Nm			
15	Locked rotor torque T_s/T_N	2.2				
16	Maximum torque T_{max}/T_N	2.5				
17						
18						
Load characteristics		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	100	229	95.4 / IE3	0.84	
20		75	180	95.4	0.8	
21		50	138	93.4	0.71	
22						
23	Thermal withstand time hot	22	s			
24	Thermal withstand time cold	52	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	6319/C3 - 6316/C3				
31	Sound pressure level (LP dB(A) 1m)	85	dB(A)	at no-load		
32	Moment of inertia $J = \frac{1}{4} GD^2$	8.05	kg-m ²			
33	Position of terminal box	Top				
34	Direction of rotation	Bi-directional				
35	Total weight of motor	1305	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


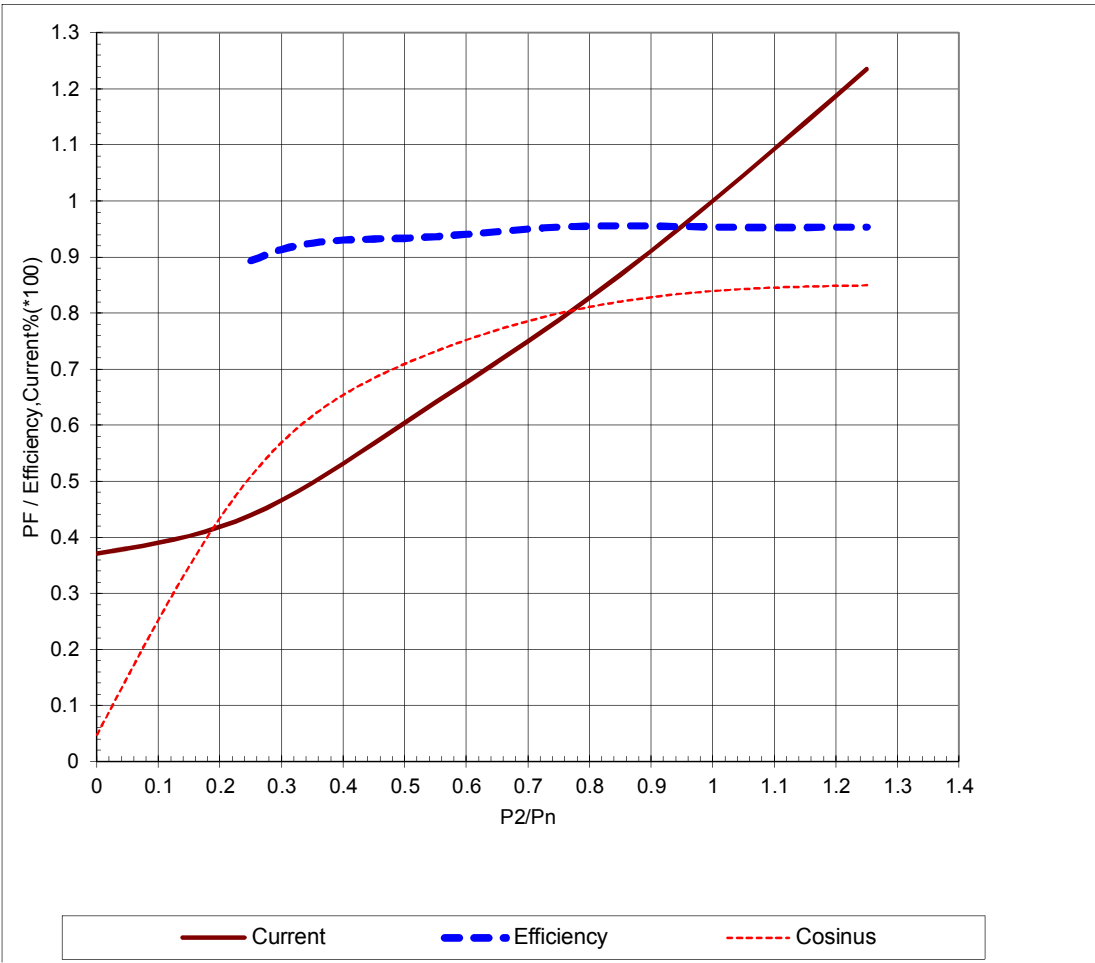

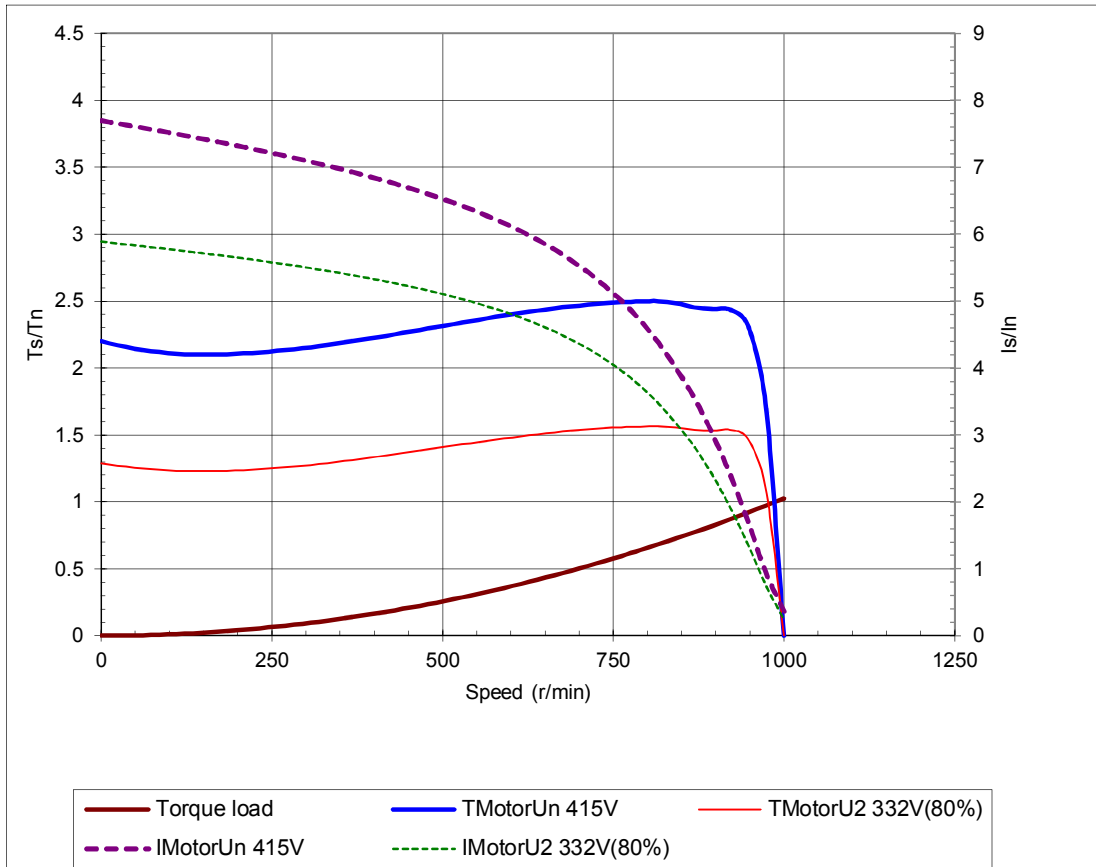
ABB Motors and Generators	Load Curves		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name 1.00006
Our ref.	Rev/Changed by A	Date of issue 12/22/2017	Saving ident untitled.xls
Pages 2(3)	Product TEFC, 3-phase, squirrel cage induction motor		
Type/Frame E3BA315MLC6			
Product code E3BA 315 MLC6-ADCIN			
Rated output P _N 132 kW			
Type of duty S1 100%			
Voltage (V)	415	Current I _N (A)	229
Frequency (Hz)	50	Speed (r/min)	988
		Power factor at P _N	0.84
		Efficiency (%) at P _N	95.4
			
<p>Data based on situation 10/2/2014</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
Our ref.	Rev/Changed b Date of issue	Saving ident	Pages
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Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	E3BA315MLC6		
Product code	E3BA 315 MLC6-ADCIN	Frequency (Hz)	50
Rated output P _N	132 kW	Rated current I _N	229 A
Type of duty	S1 100%		

J _{motor} (kgm ²)	8.1	Voltage (V) 100%	415	Voltage (V)	332V(80%)
J _{load} (kgm ²)		T _{start} /T _N	2.2	T _{start} /T _N	1.3
Speed (r/min)	988	Starting time (s)	0.4	Starting time (s)	0.7
T _N (Nm)	1276	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	2.5	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


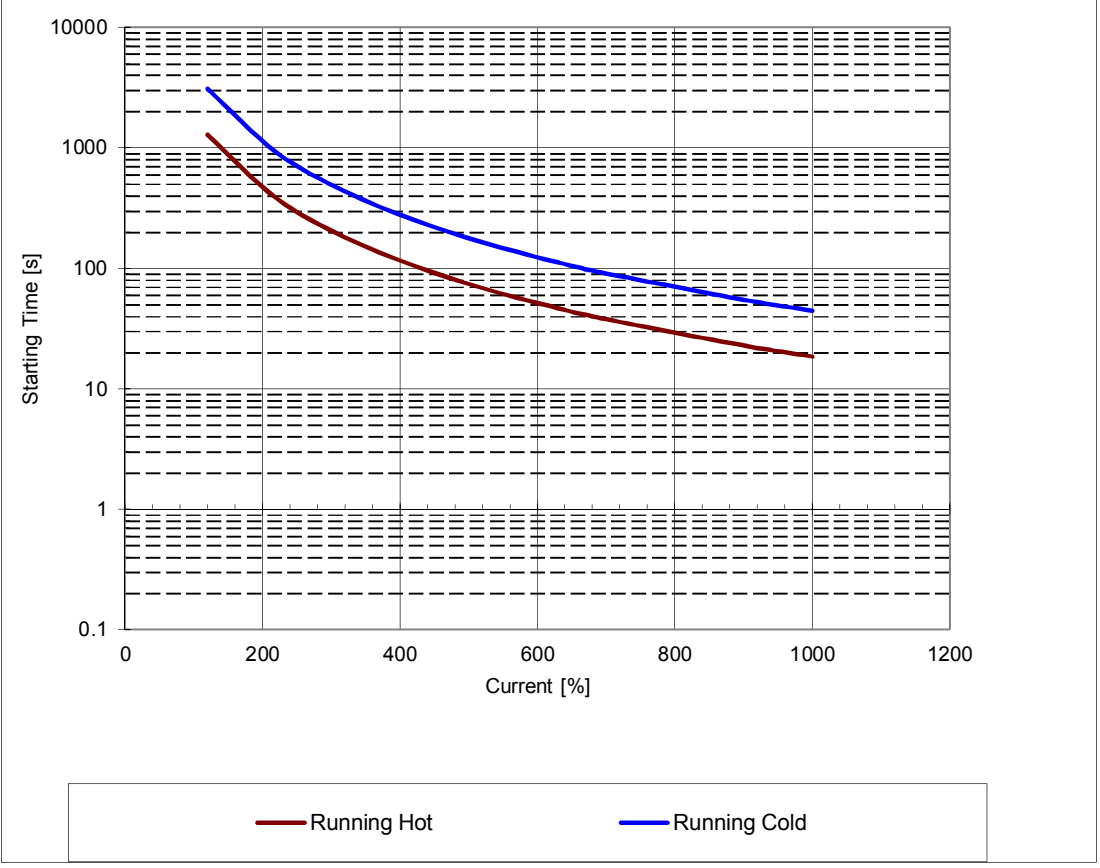
ABB Motors and Generators	Current & Speed Vs Time			
	Project	Location		
Department/Author	Customer name	Customer ref.	Item name 1.00006	
Our ref.	Rev/Changed b Date of issue A 12/22/2017	Saving ident untitled.xls	Pages 4(3)	
Type of product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	E3BA315MLC6			
Product code	E3BA 315 MLC6-ADCIN	Frequency (Hz)	50	
Rated output P_N	132 kW	Rated current I_N	229	A
Type of duty	S1 100%			
J_{motor} (kgm ²)	8.1	Voltage (V) 100%	415	Voltage (V) 332V(80%)
J_{load} (kgm ²)		T_{start}/T_N	2.2	T_{start}/T_N 1.3
Speed (r/min)	988	Starting time (s)	0.4	Starting time (s) 0.7
T_N (Nm)	1276	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	2.5	T_{max}/T_N 1.6

Speed [rpm] vs Starting Time [s] and Current [A]

Legend: — Speed [rpm] (red line), — Current [A] (blue line)

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 1.00006	
Our ref.	Rev/Changed b Date of issue A 12/22/2017	Saving ident untitled.xls	Pages 5(3)	
Type of product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	E3BA315MLC6			
Product code	E3BA 315 MLC6-ADCIN	Frequency (Hz)	50	
Rated output P _N	132 kW	Rated current I _N	229	A
Type of duty	S1 100%			
J _{motor} (kgm ²)	8.1	Voltage (V) 100%	415	Voltage (V) 332V(80%)
J _{load} (kgm ²)		T _{start} /T _N	2.2	T _{start} /T _N 1.3
Speed (r/min)	988	Starting time (s)	0.4	Starting time (s) 0.7
T _N (Nm)	1276	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	2.5	T _{max} /T _N 1.6
 <p>The graph plots Starting Time [s] on a logarithmic y-axis (0.1 to 10000) against Current [%] on a linear x-axis (0 to 1200). 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 3000s at 100% current and drops to about 50s at 1000% current. The 'Running Hot' curve starts at approximately 1200s at 100% current and drops to about 20s at 1000% current.</p>				
Data based on situation 10/2/2014				
All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004				