

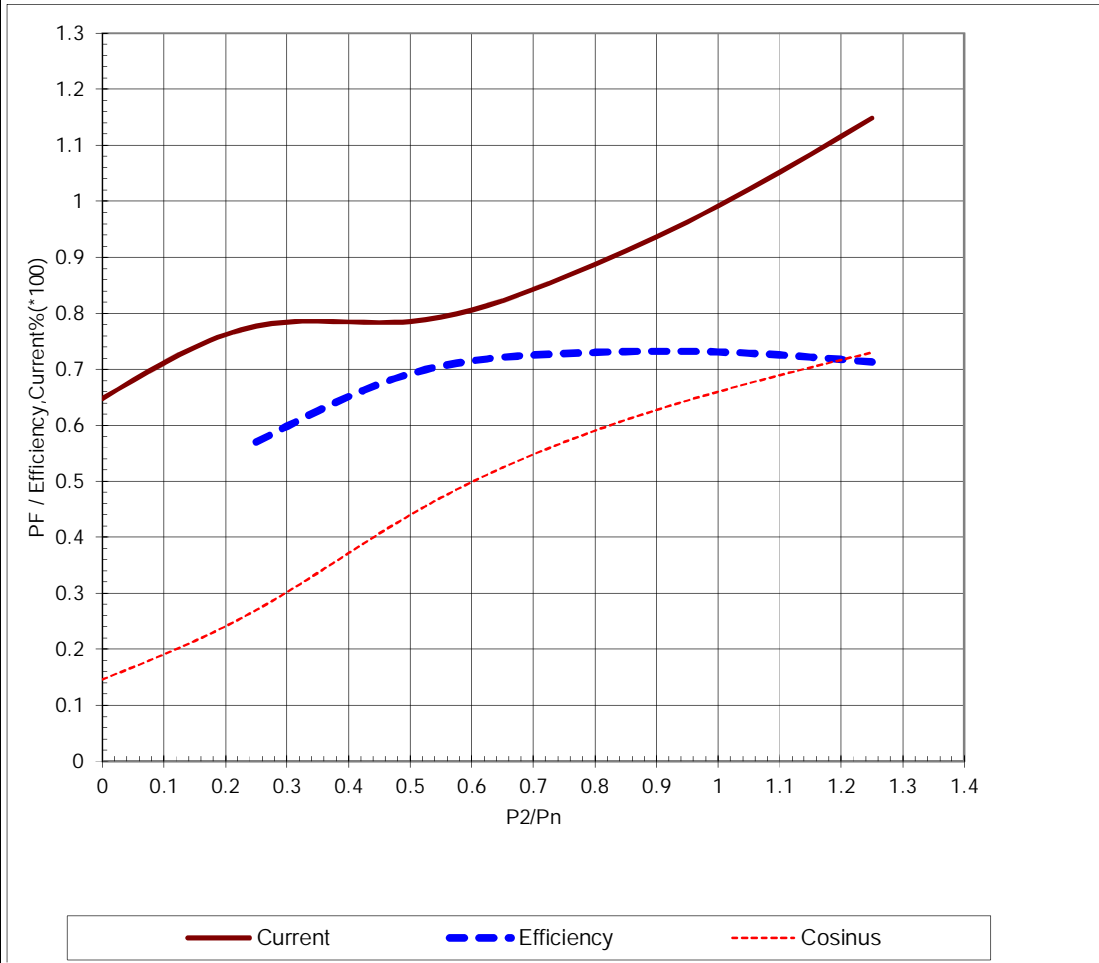


ABB Motors and Generators		Technical Data Sheet				
Department/Author		Project	Location		Item name	
Our ref.		Rev/Changed by	Date of issue	Saving ident	Pages	
		A	1/17/2019	untitled.xls	1(3)	
No.	Definition	Data	Unit	Remarks		
1	Product	<b>TEFC, 3-phase, squirrel cage induction motor</b>				
2	Product code	<b>3GBA 083 320-ASCIN</b>				
3	Type/Frame	<b>M2BAX 80MB 6</b>				
4	Mounting	<b>IM1001, B3(foot)</b>				
5	Rated output P <sub>N</sub>	<b>0.55</b>	kW			
6	Service factor	<b>1</b>				
7	Type of duty	<b>S1 100%</b>				
8	Rated voltage U <sub>N</sub>	<b>415</b>	VY	+10, -10 %		
9	Rated frequency f <sub>N</sub>	<b>50</b>	Hz	+5, -5 %		
10	Rated speed n <sub>N</sub>	<b>910</b>	r/min			
11	Rated current I <sub>N</sub>	<b>1.6</b>	A			
12						
13	Starting current I <sub>s</sub> /I <sub>N</sub>	<b>4</b>				
14	Nominal torque T <sub>N</sub>	<b>5.8</b>	Nm			
15	Locked rotor torque T <sub>S</sub> /T <sub>N</sub>	<b>2.1</b>				
16	Maximum torque T <sub>max</sub> /T <sub>N</sub>	<b>2.5</b>				
17						
18						
Load characteristics		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	<b>100</b>	<b>1.6</b>	<b>73.1 / IE2</b>	<b>0.66</b>	
20		<b>75</b>	<b>1.38</b>	<b>72.8</b>	<b>0.57</b>	
21		<b>50</b>	<b>1.26</b>	<b>69.2</b>	<b>0.44</b>	
22						
23	Thermal withstand time hot	<b>10</b>	s			
24	Thermal withstand time cold	<b>24</b>	s			
25	Insulation class / Temperature class	<b>F / B</b>				
26	Ambient temperature	<b>50</b>	°C			
27	Altitude	<b>1000</b> m.a.s.l.				
28	Degree of protection	<b>IP55</b>				
29	Cooling system	<b>IC411 self ventilated</b>				
30	Bearing DE/NDE	<b>6204-2Z/C3 - 6203-2Z/C3</b>				
31	Sound pressure level (LP dB(A) 1m)	<b>60</b>	dB(A)	at no-load		
32	Moment of inertia J = ¼ GD2	<b>0.00274</b>	kg-m2			
33	Position of terminal box	<b>Top</b>				
34	Direction of rotation	<b>Bi-directional</b>				
35	Total weight of motor	<b>15</b>	kg			
36		<b>User defined motor</b>				
37						
38						
39						
40						
41						
42						
43						
44						
45						
Ex-motors						
46						
47						
48						
Option Variant Codes / Definition						
49						
50						
51						
52						
Remarks:						
8/8/2016 9:00:00 AM						

<b>ABB Motors and Generators</b>	<b>Load Curves</b>		
	Project	Location	
Department/Author	Customer name	Customer ref.	Item name <b>1.00001</b>
Our ref.	Rev/Changed by <b>A</b>	Date of issue <b>1/17/2019</b>	Saving ident <b>untitled.xls</b>
			Pages <b>2(3)</b>

**Product** TEFC, 3-phase, squirrel cage induction motor  
**Type/Frame** M2BAX 80MB 6  
**Product code** 3GBA 083 320-ASCIN  
**Rated output P<sub>N</sub>** 0.55 kW  
**Type of duty** S1 100%

**Voltage (V)** 415      **Current I<sub>N</sub> (A)** 1.6      **Power factor at P<sub>N</sub>** 0.66  
**Frequency (Hz)** 50      **Speed (r/min)** 910      **Efficiency (%) at P<sub>N</sub>** 73.1



Data based on situation 8/8/2016  
 All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004


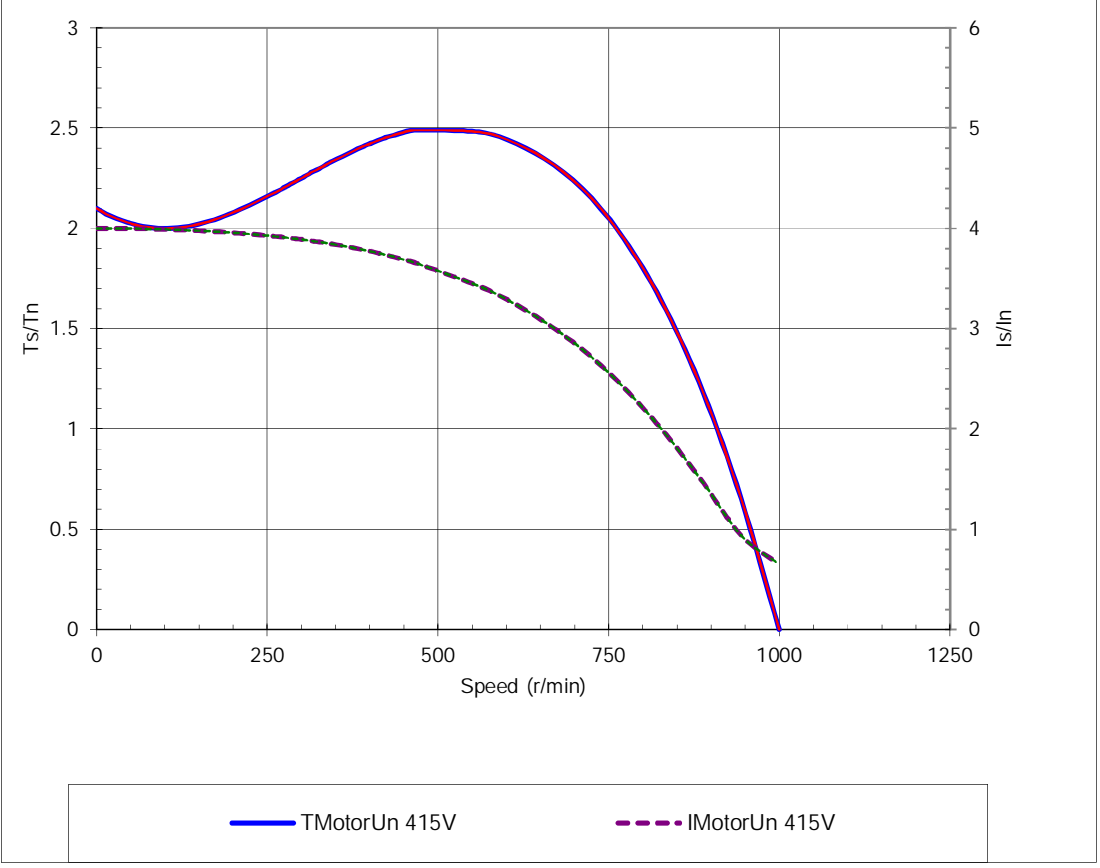

ABB Motors and Generators	Starting Curves			
	Project	Location		
Department/Author	Customer name	Customer ref.	Item name <b>1.00001</b>	
Our ref.	Rev/Changed b Date of issue <b>A 1/17/2019</b>	Saving ident <b>untitled.xls</b>	Pages <b>3(3)</b>	
Type of product	<b>TEFC, 3-phase, squirrel cage induction motor</b>			
Type/Frame	<b>M2BAX 80MB 6</b>			
Product code	<b>3GBA 083 320-ASCIN</b>	Frequency (Hz)	<b>50</b>	
Rated output P <sub>N</sub>	<b>0.55 kW</b>	Rated current I <sub>N</sub>	<b>1.6</b>	A
Type of duty	<b>S1 100%</b>			
J <sub>motor</sub> (kgm <sup>2</sup> )	<b>0.0027</b>	Voltage (V) 100%	<b>415</b>	Voltage (V) <b>415V(100%)</b>
J <sub>load</sub> (kgm <sup>2</sup> )		T <sub>start</sub> /T <sub>N</sub>	<b>2.1</b>	T <sub>start</sub> /T <sub>N</sub> <b>2.1</b>
Speed (r/min)	<b>910</b>	Starting time (s)		Starting time (s)
T <sub>N</sub> (Nm)	<b>5.8</b>	Speed (r/min)		Speed (r/min) <b>1395</b>
T <sub>load</sub> (Nm)		I <sub>s</sub> /I <sub>n</sub>	<b>4</b>	I <sub>s</sub> /I <sub>n</sub> <b>4</b>
		T <sub>max</sub> /T <sub>n</sub>	<b>2.5</b>	T <sub>max</sub> /T <sub>n</sub> <b>2.5</b>
				
<p>Data based on situation 8/8/2016</p> <p>All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004</p>				


ABB Motors and Generators	Current & Speed Vs Time			
	Project	Location		
Department/Author	Customer name	Customer ref.		Item name <b>1.00001</b>
Our ref.	Rev/Changed b	Date of issue	Saving ident	Pages
	<b>A</b>	<b>1/17/2019</b>	<b>untitled.xls</b>	<b>4(3)</b>
Type of product	<b>TEFC, 3-phase, squirrel cage induction motor</b>			
Type/Frame	<b>M2BAX 80MB 6</b>			
Product code	<b>3GBA 083 320-ASCIN</b>	Frequency (Hz)	<b>50</b>	
Rated output $P_N$	<b>0.55 kW</b>	Rated current $I_N$	<b>1.6</b>	<b>A</b>
Type of duty	<b>S1 100%</b>			
$J_{motor}$ (kgm <sup>2</sup> )	<b>0.0027</b>	Voltage (V) 100%	<b>415</b>	Voltage (V) <b>415V(100%)</b>
$J_{load}$ (kgm <sup>2</sup> )		$T_{start}/T_N$	<b>2.1</b>	$T_{start}/T_N$ <b>2.1</b>
Speed (r/min)	<b>910</b>	Starting time (s)		Starting time (s)
$T_N$ (Nm)	<b>5.8</b>	Speed (r/min)		Speed (r/min) <b>1395</b>
$T_{load}$ (Nm)		$I_s/I_N$	<b>4</b>	$I_s/I_N$ <b>4</b>
		$T_{max}/T_n$	<b>2.5</b>	$T_{max}/T_n$ <b>2.5</b>

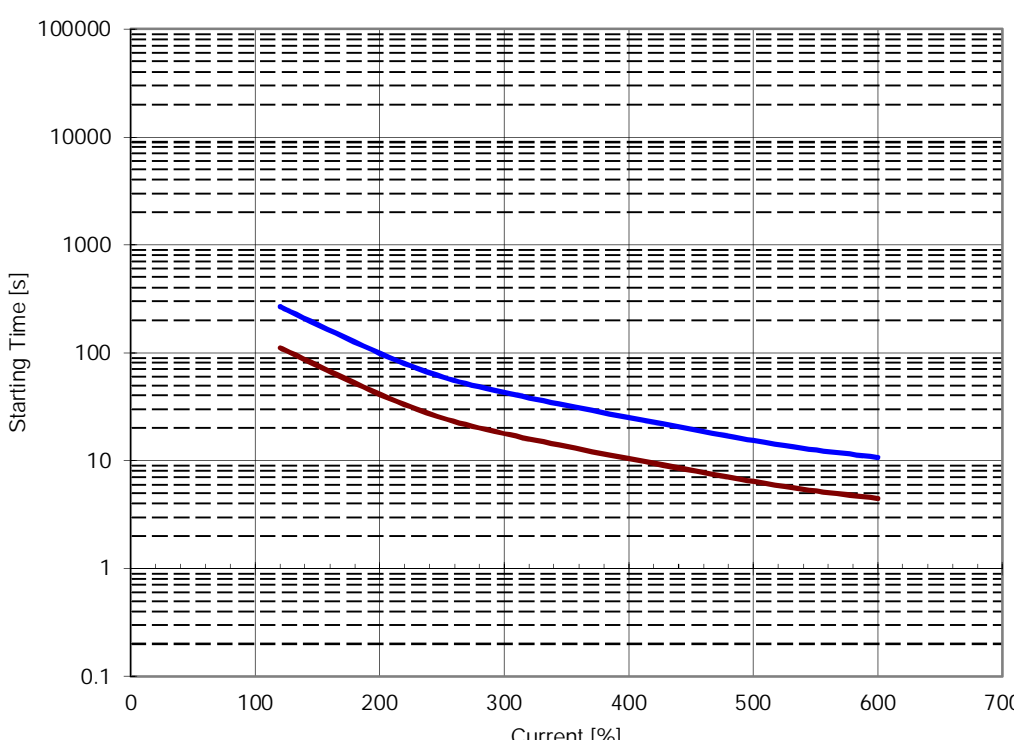
Speed [rpm] vs Starting Time [s] and Current [A]

Starting Time [s]	Speed [rpm]	Current [A]
0.000	0	6.5
0.005	200	6.2
0.010	400	5.8
0.015	600	5.2
0.020	800	4.5
0.025	1000	1.5

Data based on situation 8/8/2016  
All data subject to tolerances in accordance with IS/IEC 60034-1 : 2004

<b>ABB Motors and Generators</b>	<b>Thermal Withstand Curve</b>			
	Project	Location		
Department/Author	Customer name	Customer ref.		Item name <b>1.00001</b>
Our ref.	Rev/Changed b Date of issue <b>A 1/17/2019</b>	Saving ident <b>untitled.xls</b>		Pages <b>5(3)</b>
Type of product	<b>TEFC, 3-phase, squirrel cage induction motor</b>			
Type/Frame	<b>M2BAX 80MB 6</b>			
Product code	<b>3GBA 083 320-ASCIN</b>	Frequency (Hz)	<b>50</b>	
Rated output P <sub>N</sub>	<b>0.55 kW</b>	Rated current I <sub>N</sub>	<b>1.6</b>	<b>A</b>
Type of duty	<b>S1 100%</b>			
J <sub>motor</sub> (kgm <sup>2</sup> )	<b>0.0027</b>	Voltage (V) 100%	<b>415</b>	Voltage (V) <b>415V(100%)</b>
J <sub>load</sub> (kgm <sup>2</sup> )		T <sub>start</sub> /T <sub>N</sub>	<b>2.1</b>	T <sub>start</sub> /T <sub>N</sub> <b>2.1</b>
Speed (r/min)	<b>910</b>	Starting time (s)		Starting time (s)
T <sub>N</sub> (Nm)	<b>5.8</b>	Speed (r/min)		Speed (r/min) <b>1395</b>
T <sub>load</sub> (Nm)		I <sub>s</sub> /I <sub>n</sub>	<b>4</b>	I <sub>s</sub> /I <sub>n</sub> <b>4</b>
		T <sub>max</sub> /T <sub>n</sub>	<b>2.5</b>	T <sub>max</sub> /T <sub>n</sub> <b>2.5</b>



Current [%]	Running Hot [s]	Running Cold [s]
100	~100	~200
200	~40	~100
300	~25	~60
400	~18	~45
500	~14	~35
600	~11	~28

Data based on situation 8/8/2016

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