


ABB Motors and Generators		Technical Data Sheet - DOL				
Project		Location				
Department/Author		Customer name		Customer ref.		Item name 1,00001
Our ref.		Rev/Changed by A	Date of issue 23.09.2019	Saving ident untitled.xls	Pages 1(3)	
No.	Definition	Data	Unit	Remarks		
1	Product	TEFC, 3-phase, squirrel cage induction motor				
2	Product code	3GAA 081 612-BSJ				Calc. ref. 3GZF021008-222
3	Type/Frame	M3AA 80B 2				
4	Mounting	IM3001, B5(flange)				
5	Rated output P _N	0,75	kW			
6	Service factor	1				
7	Type of duty	S1(IEC) 100%				
8	Rated voltage U _N	400	VY	± 5 % (IEC 60034-1)		
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)		
10	Rated speed n _N	2885	r/min			
11	Rated current I _N	1,70	A			
12	No-load current	1,1	A			
13	Starting current I _s /I _N	7,5		Meet IEC 60034-12, N		
14	Nominal torque T _N	2,5	Nm			
15	Locked rotor torque T _s /T _N	4,1				
16	Maximum torque T _{max} /T _N	4,6				
17	Minimum torque T _{min} /T _N	4,1				
18	Speed at minimum torque	510	r/min			
Load characteristics (IEC 60034-2-1:2014)		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	100	1,70	80,7 / IE3	0,76	
20		75	1,53	80,9	0,66	
21		50	1,30	80,2	0,52	
22		Start	12,8		0,68	
23	Maximum starting time from hot	16	s			
24	Maximum starting time from cold	29	s			
25	Insulation class / Temperature class	F / B				
26	Ambient temperature	40	°C			
27	Altitude	1000	m.a.s.l.			
28	Enclosure	IP55				
29	Cooling system	IC411 self ventilated				
30	Bearing DE/NDE	6204-2Z/C3 - 6203-2Z/C3				
31	Type of Grease					
32	Sound pressure level (LP dB(A) 1m)	60	dB(A)	at load		
33	Moment of inertia J = ¼ GD2	0,002	kg-m2			
34	Balancing					
35	Vibration class					
36	Position of terminal box	Top				
37	Terminal box entries; no, dimens.					
38	Number of power terminals					
39	Direction of rotation	CW or CCW				
40	Total weight of motor	9	kg			
41	Dimension drawing no.					
42						
43						
44						
45						
Ex-motors						
46						
47						
48						
Option Variant Codes / Definition						
49						
50						
51						
52						
Remarks:						
Data based on situation 05.07.2016						
All data subject to tolerances in accordance with IEC						
Guaranteed values on request						

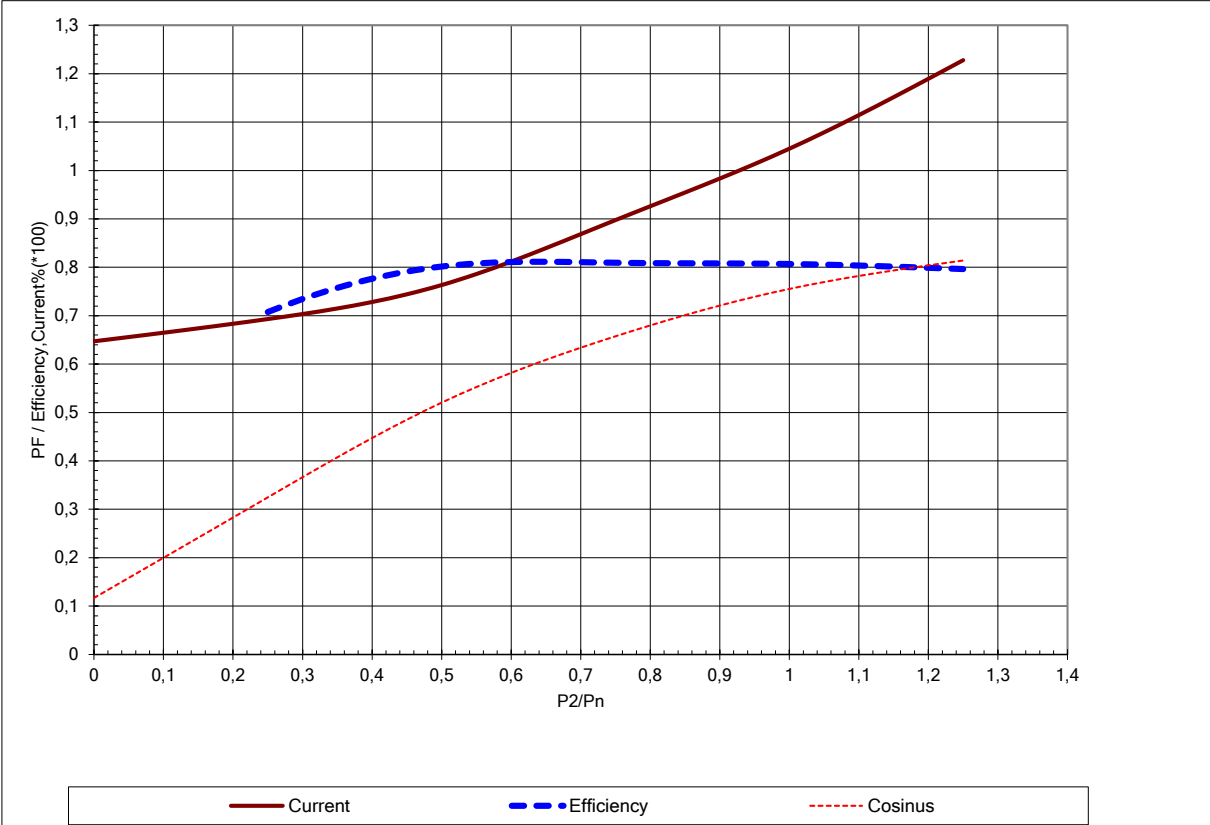
ABB Motors and Generators	Load Curves			
	Project	Location		
Department/Author	Customer name	Customer ref.		Item name 1,00001
Our ref.	Rev/Changed by A	Date of issue 23.09.2019	Saving ident untitled.xls	Pages 2(3)
Product	TEFC, 3-phase, squirrel cage induction motor			
Type/Frame	M3AA 80B 2	Calc. ref.	3GZF021008-222	
Product code	3GAA 081 612-BSJ			
Rated output P _N	0,75	kW		
Type of duty	S1(IEC) 100%			
Voltage (V)	400	Current I _N (A)	1,70	Power factor at P _N 0,76
Frequency (Hz)	50	Speed (r/min)	2885	Efficiency (%) at P _N 80,7
				
<p>Load characteristics (IEC 60034-2-1:2014) Data based on situation 05.07.2016</p> <p style="text-align: center;">All data subject to tolerances in accordance with IEC</p>				


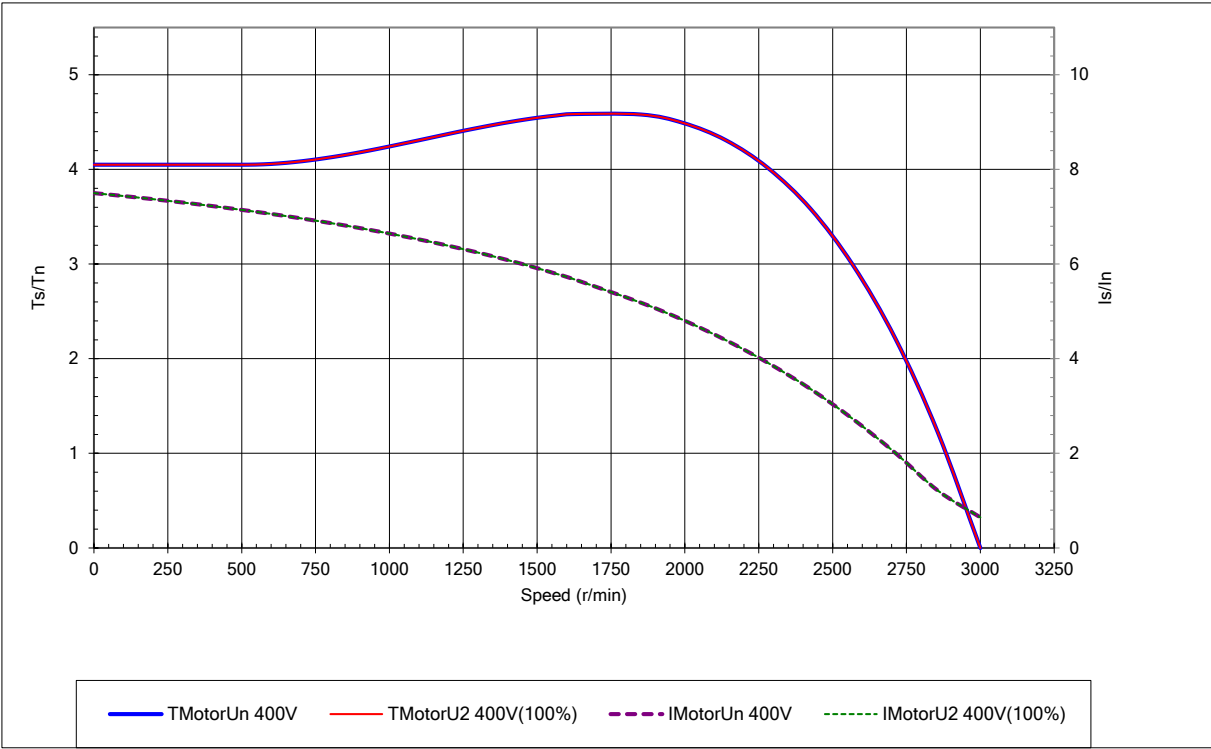
ABB Motors and Generators		Starting Curves			
		Project		Location	
Department/Author		Customer name		Customer ref.	Item name
Our ref.		Rev/Changed by	Date of issue	Saving ident	Pages
		A	23.09.2019	untitled.xls	3(3)
Type of product TEFC, 3-phase, squirrel cage induction motor					
Type/Frame		M3AA 80B 2		Calc. ref.	3GZF021008-222
Product code		3GAA 081 612-BSJ		Frequency (Hz)	50
Rated output P _N		0,75	kW	Rated current I _N	1,70 A
Type of duty		S1(IEC) 100%			
J _{motor} (kgm ²)		0,002	Voltage (V) 100%	400	Voltage (V) 400V(100%)
J _{load} (kgm ²)			T _{start} /T _N	4,1	T _{start} /T _N 4,1
Speed (r/min)		2885	Starting time (s)		Starting time (s)
T _N (Nm)		2,5	Speed (r/min)	0	Speed (r/min) 0
T _{load} (Nm)			I _s /I _n	7,5	I _s /I _n 7,5
Nbr. of Consecutive Starts at UN			T _{max} /T _N	4,6	T _{max} /T _N 4,6
 <p>The graph displays the load characteristics of the motor. The x-axis represents Speed in r/min, ranging from 0 to 3250. The left y-axis represents Ts/Tn, ranging from 0 to 5. The right y-axis represents Is/In, ranging from 0 to 10. Four curves are shown: TMotorUn 400V (solid blue), TMotorU2 400V(100%) (solid red), IMotorUn 400V (dashed purple), and IMotorU2 400V(100%) (dashed green). The TMotor curves show torque characteristics, while the IMotor curves show current characteristics. The 400V(100%) curves are generally higher than the 400V curves.</p>					
Load characteristics (IEC 60034-2-1:2014)					
Data based on situation 05.07.2016					
All data subject to tolerances in accordance with IEC					



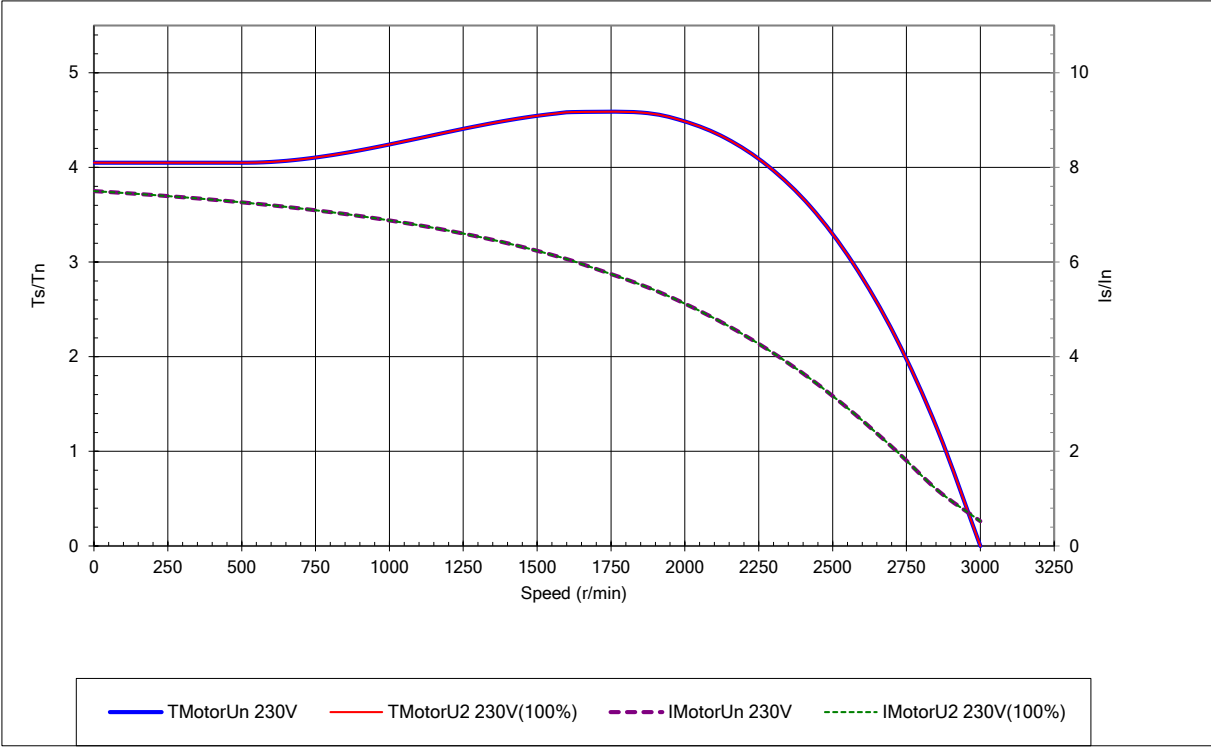
ABB Motors and Generators		Technical Data Sheet - DOL				
Project		Location				
Department/Author		Customer name		Customer ref.	Item name 2,00001	
Our ref.		Rev/Changed by A	Date of issue 23.09.2019	Saving ident untitled.xls	Pages 1(3)	
No.	Definition	Data	Unit	Remarks		
1	Product	TEFC, 3-phase, squirrel cage induction motor				
2	Product code	3GAA 081 612-BSJ			Calc. ref.	3GZF021008-222
3	Type/Frame	M3AA 80B 2				
4	Mounting	IM3001, B5(flange)				
5	Rated output P _N	0,75	kW			
6	Service factor	1				
7	Type of duty	S1(IEC) 100%				
8	Rated voltage U _N	230	VD	± 5 % (IEC 60034-1)		
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)		
10	Rated speed n _N	2885	r/min			
11	Rated current I _N	2,9	A			
12	No-load current	1,54	A			
13	Starting current I _s /I _N	7,5		Meet IEC 60034-12, N		
14	Nominal torque T _N	2,5	Nm			
15	Locked rotor torque T _s /T _N	4,1				
16	Maximum torque T _{max} /T _N	4,6				
17	Minimum torque T _{min} /T _N	4,1				
18	Speed at minimum torque	510	r/min			
Load characteristics (IEC 60034-2-1:2014)		Load %	Current A	Efficiency %	Power factor	
19	PLL determined from residual loss	100	2,9	80,7 / IE3	0,76	
20		75	2,7	80,9	0,66	
21		50	2,3	80,2	0,52	
22		Start	22,1		0,68	
23	Maximum starting time from hot	50	s			
24	Maximum starting time from cold	90	s			
25	Insulation class / Temperature class	F / B				
26	Ambient temperature	40	°C			
27	Altitude	1000	m.a.s.l.			
28	Enclosure	IP55				
29	Cooling system	IC411 self ventilated				
30	Bearing DE/NDE	6204-2Z/C3 - 6203-2Z/C3				
31	Type of Grease					
32	Sound pressure level (LP dB(A) 1m)	60	dB(A)	at load		
33	Moment of inertia J = ¼ GD2	0,002	kg-m2			
34	Balancing					
35	Vibration class					
36	Position of terminal box	Top				
37	Terminal box entries; no, dimens.					
38	Number of power terminals					
39	Direction of rotation	CW or CCW				
40	Total weight of motor	9	kg			
41	Dimension drawing no.					
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Ex-motors						
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Option Variant Codes / Definition						
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Remarks:						
Data based on situation 05.07.2016						
All data subject to tolerances in accordance with IEC						
Guaranteed values on request						

ABB Motors and Generators		Load Curves			
		Project	Location		
Department/Author	Customer name	Customer ref.		Item name	
Our ref.	Rev/Changed by	Date of issue	Saving ident	Pages	
	A	23.09.2019	untitled.xls	2,00001	
Product	TEFC, 3-phase, squirrel cage induction motor			Calc. ref.	3GZF021008-222
Type/Frame	M3AA 80B 2				
Product code	3GAA 081 612-BSJ				
Rated output P _N	0,75	kW			
Type of duty	S1(IEC) 100%				
Voltage (V)	230	Current I _N (A)	2,9	Power factor at P _N	0,76
Frequency (Hz)	50	Speed (r/min)	2885	Efficiency (%) at P _N	80,7
					
<p>Load characteristics (IEC 60034-2-1:2014) Data based on situation 05.07.2016</p> <p style="text-align: center;">All data subject to tolerances in accordance with IEC</p>					

ABB Motors and Generators		Starting Curves			
		Project		Location	
Department/Author		Customer name		Customer ref.	Item name
Our ref.		Rev/Changed by	Date of issue	Saving ident	Pages
		A	23.09.2019	untitled.xls	3(3)
Type of product TEFC, 3-phase, squirrel cage induction motor					
Type/Frame		M3AA 80B 2		Calc. ref.	3GZF021008-222
Product code		3GAA 081 612-BSJ		Frequency (Hz)	50
Rated output P _N		0,75	kW	Rated current I _N	2,9 A
Type of duty		S1(IEC) 100%			
J _{motor} (kgm ²)		0,002	Voltage (V) 100%	230	Voltage (V) 230V(100%)
J _{load} (kgm ²)			T _{start} /T _N	4,1	T _{start} /T _N 4,1
Speed (r/min)		2885	Starting time (s)		Starting time (s)
T _N (Nm)		2,5	Speed (r/min)	0	Speed (r/min) 0
T _{load} (Nm)			I _s /I _n	7,5	I _s /I _n 7,5
Nbr. of Consecutive Starts at UN			T _{max} /T _N	4,6	T _{max} /T _N 4,6
 <p>The graph displays the load characteristics of the motor. The x-axis represents Speed in r/min, ranging from 0 to 3250. The left y-axis represents the torque ratio Ts/Tn, ranging from 0 to 5. The right y-axis represents the current ratio Is/In, ranging from 0 to 10. There are four curves: a solid blue line for TMotorUn 230V, a solid red line for TMotorU2 230V(100%), a dashed purple line for IMotorUn 230V, and a dashed green line for IMotorU2 230V(100%). The torque curves (T) show a peak around 1750 r/min, while the current curves (I) show a peak around 1750 r/min and then decrease as speed increases.</p>					
Load characteristics (IEC 60034-2-1:2014)					
Data based on situation 05.07.2016					
All data subject to tolerances in accordance with IEC					