


ABB Motors and Generators		Technical Data Sheet - DOL			
		Project	Location		
Department/Author		Customer name	Customer ref.		Item name 1.0002
Our ref.		Rev/Changed by A	Date of issue 21/11/2017	Saving ident wimes stock.do2.xls	Pages 1(3)
No.	Definition	Data	Unit	Remarks	
1	Product	TEFC, 3-phase, squirrel cage induction motor			
2	Product code	3GBA 281 230-ADM		Calc. ref.	3GZF021028-377
3	Type/Frame	M2BAX 280SMC 2			
4	Mounting	IM1001, B3(foot)			
5	Rated output P _N	90	kW		
6	Service factor	1			
7	Type of duty	S1(IEC) 100%			
8	Rated voltage U _N	400	VD	± 5 % (IEC 60034-1)	
9	Rated frequency f _N	50	Hz	± 2 % (IEC 60034-1)	
10	Rated speed n _N	2975	r/min		
11	Rated current I _N	156	A		
12	No-load current	41	A		
13	Starting current I _s /I _N	6.4		Fullfilled IEC 60034-12 design N,H	
14	Nominal torque T _N	289	Nm		
15	Locked rotor torque T _s /T _N	2.1			
16	Maximum torque T _{max} /T _N	2.8			
17	Minimum torque T _{min} /T _N	1.9			
18	Speed at minimum torque	2250	r/min		
Load characteristics (IEC 60034-2-1:2014)		Load %	Current A	Efficiency %	Power factor
19	PLL determined from residual loss	100	156	95.0 / IE3	0.88
20		75	119	95	0.86
21		50	85.1	94.2	0.81
22		<i>Start</i>	998		0.26
23	Maximum starting time from hot	15	s		
24	Maximum starting time from cold	27	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	6217/C3 - 6217/C3			
31	Type of Grease				
32	Sound pressure level (LP dB(A) 1m)	74	dB(A)	at load	
33	Moment of inertia J = ¼ GD2	0.99	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	Weight of rotor	124	kg		
41	Total weight of motor	618	kg		
42	Dimension drawing no.				
43					
44					
45					
Ex-motors					
46					
47					
48					
Option Variant Codes / Definition					
49					
50					
51					
52					
Remarks:					
Data based on situation 10/10/2017					
All data subject to tolerances in accordance with IEC					
Guaranteed values on request					

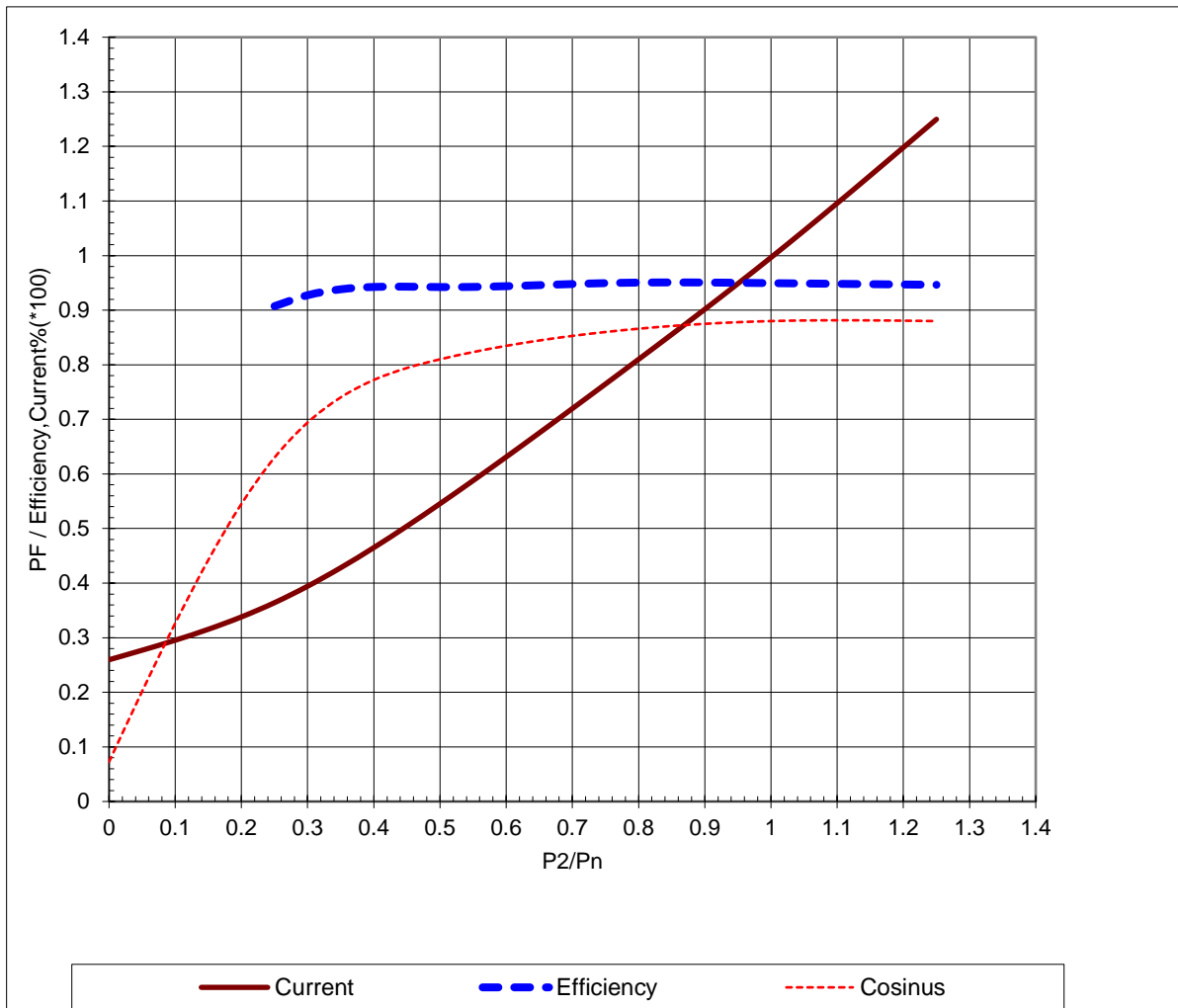
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Our ref. _____ Rev/Changed by **A** Date of issue **21/11/2017** Saving ident **wimes stock.do2.xls** Pages **2(3)**

Product **TEFC, 3-phase, squirrel cage induction motor**
 Type/Frame **M2BAX 280SMC 2** Calc. ref. **3GZF021028-377**
 Product code **3GBA 281 230-ADM**
 Rated output P_N **90** kW
 Type of duty **S1(IEC) 100%**

Voltage (V) **400** Current I_N (A) **156** Power factor at P_N **0.88**
 Frequency (Hz) **50** Speed (r/min) **2975** Efficiency (%) at P_N **95**



Load characteristics (IEC 60034-2-1:2014)
 Data based on situation 10/10/2017

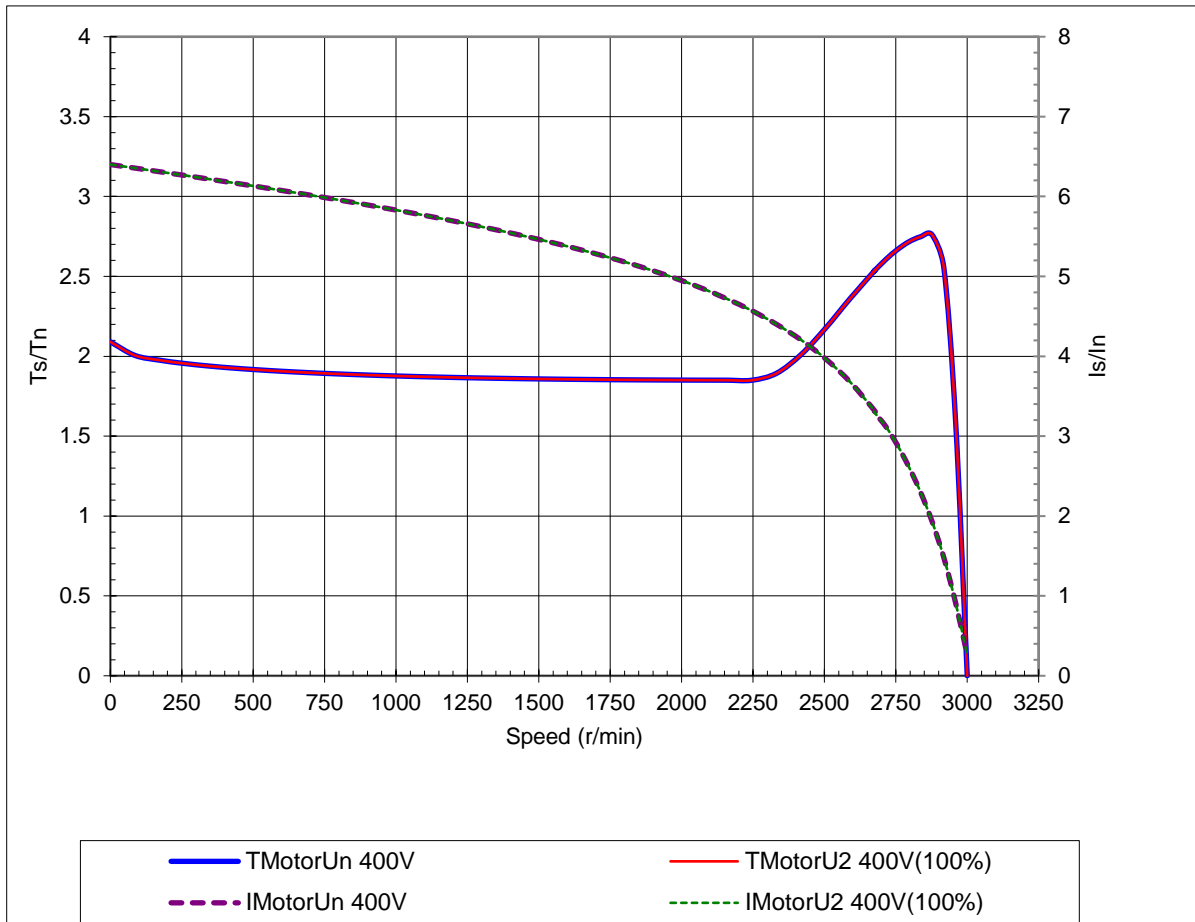
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Our ref.	Rev/Changed b Date of issue A 21/11/2017	Saving ident wimes stock.do2.xls	Pages 3(3)

Type of product	TEFC, 3-phase, squirrel cage induction motor		
Type/Frame	M2BAX 280SMC 2	Calc. ref.	3GZF021028-377
Product code	3GBA 281 230-ADM	Frequency (Hz)	50
Rated output P _N	90 kW	Rated current I _N	156 A
Type of duty	S1(IEC) 100%		

J _{motor} (kgm ²)	0.99	Voltage (V) 100%	400	Voltage (V)	400V(100%)
J _{load} (kgm ²)		T _{start} /T _N	2.1	T _{start} /T _N	2.1
Speed (r/min)	2975	Starting time (s)		Starting time (s)	
T _N (Nm)	289	Speed (r/min)		Speed (r/min)	
T _{load} (Nm)		I _s /I _n	6.4	I _s /I _n	6.4
Nbr. of Consecutive Starts at UN		T _{max} /T _n	2.8	T _{max} /T _n	2.8



Load characteristics (IEC 60034-2-1:2014)
Data based on situation 10/10/2017

All data subject to tolerances in accordance with IEC