

Data sheet for three-phase Squirrel-Cage-Motors ABB

Motor type: FS: 145T - 4p - 1.5 hp -

Client order no.	Item-No.	Offer no.
Order no.	Consignment no.	Project
Remarks		

Electrical data

Class I Division 1 Groups D

U [V]	Δ/Y	f [Hz]	P [HP]	P [kW]	n [rpm]	I Load [Amps]					LRC	Nom. Eff Load [%]			Pwr. Factor Load [%]			Torque [lb-ft]	T _A /T _N LRT [%]	T _k /T _N BDT [%]
						4/4	3/4	1/2	0	4/4		3/4	2/4	4/4	3/4	2/4				
575	Y	60	1.50		1,740	1.70	1.30	1.10	0.90	15.2	86.5	87.0	85.8	77.3	71.8	58.5	4.5	333	422	
Frame Type: PMD_AAA726_001_000_XP1			Type of constr.: (A) Foot mounted - End shield							Motor Prot.:(A) No winding protection			NEMA Des.: B		S.F.: 1.15					
Mtr. WT:88 lbs			Insulation Class.:Insulation class F							Temp. Rise Cl.: B		Amb. Temp.: + to -20 °C @1000 m			kVA: M		IP IP65			

Mechanical data

Sound level (SPL / SWL) at 60 Hz	50.0 dB(A) / 62.0 dB(A)							Thickener	Polyurea				
Octave Band Center Frequencies Hertz										Safe Stall Time Hot	15 s		
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	21 s				
SPL@3	37.0	40.0	49.0	45.0	37.0	31.0	dB(A)	Frame material	cast iron				
Moment of inertia	0.2 Lb-ft ²							Color, paint shade					
Ext Load Inertia Capability:	9.0 Lb ft ²							Coating (paint finish)	Standard Alkyed + Epoxy (C2)				
Bearings								Ventilation Type					
Bearing DE NDE	6205 Z C3 S0			6205 Z C3 S0			Method of cooling	TEFC					
Bearing_Type	Ball Bearing			Ball Bearing			Direction of rotation	Bidirectional					
AFBMA:	25BC02JP30			25BC02JP30			Fan Material	Polypropylen ESD					
Grease								VFD	CT: 4:1 VT: 20:1				
Capacity	0.1 oz			0.1 oz			Space heaters	without					
Grease Type:	Exxon Mobile EM							Brake:	-/-				

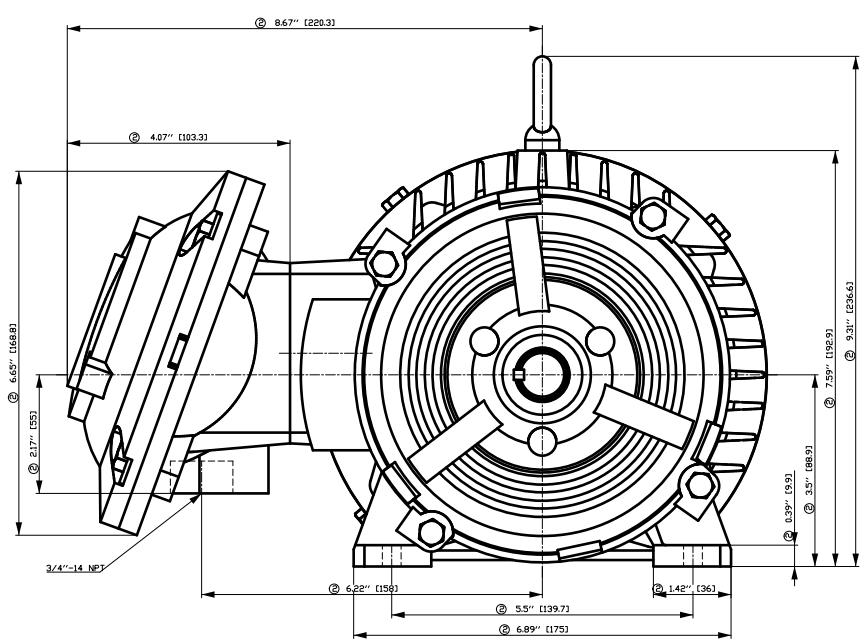
Terminal box

Lead Wire Connection					3 LEAD - WYE					Terminal box position	(3) Mounting - F-1		
Voltage	L1	L2	L3	Connected together						Material of terminal box	Cast Iron		
----	----	----	----	----						Cable entry	-/-		
----	T1	T2	T3	----									

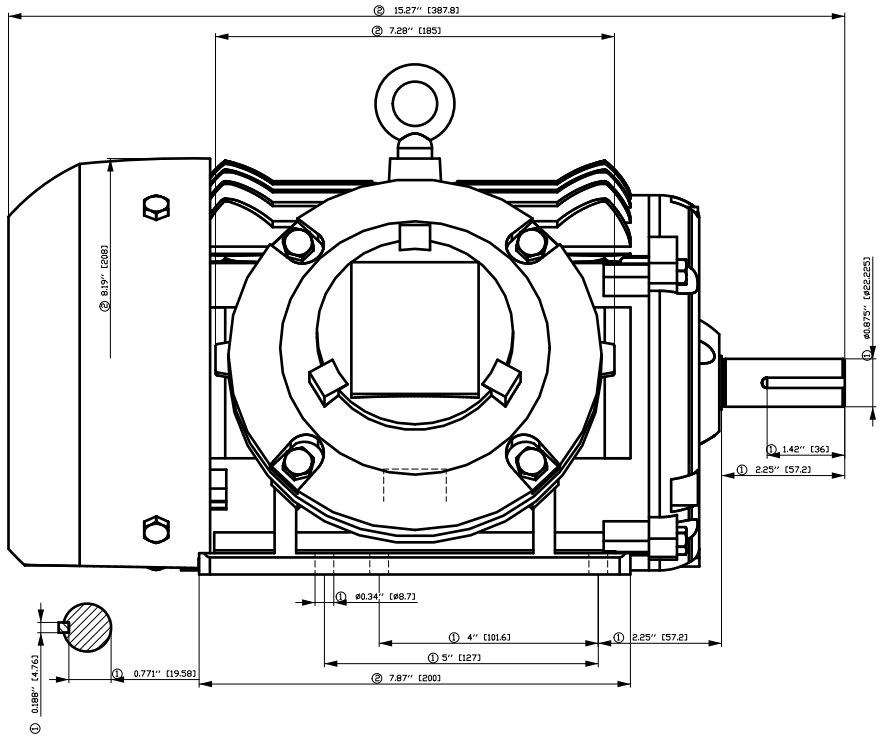
Notes:

I_L/I_N = locked rotor current / current nominal
M_L/M_N = locked rotor torque / torque nominal
M_B/M_N = break down torque / nominal torque
3) Value is valid only for DOL operation with motor design IC411
2) at rated power / at full load

responsible dep. IN LVM	technical reference	created by SPC	approved by	<i>Technical data are subject to change! There may be discrepancies</i>			
	document type datasheet	document status released		customer			
	title 1MB2221-1AB31-3AA3	document number					
© ABB 2024	rev. 01	creation date 2024-03-05 18:09	language en	Page 1/1			



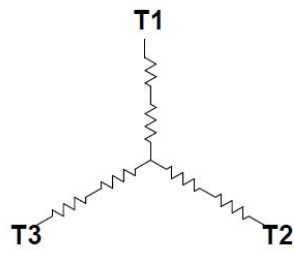
- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.



Tolerance	Surface	Material	Weight	Scale
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É	Creator	T æ : ^ & @ } *		
	Approval			
	Department			
	Change Order	MLFB		Doc Type
	Doc. State	HÖÖH		Paper Size
	Revision	Index RS		1st Language
				2nd Language
© ABB	Project No	É		Sheet
2023				F of F

V&@a&@A) a\i) * ^) A[i a @ @) A
V&@a&@a&@A* a b & @ A & @ ** ^ A

Main terminal diagram



3 LEAD WYE			
LINES			CONN.
L1	L2	L3	
T1	T2	T3	Y

responsible dep.
IN LVM

technical reference

created by

approved by

Project

[Link documents](#)

SIEMENS

document type
Wiring Diagram

document status
free

title
1MB2221-1AB31-3AA3

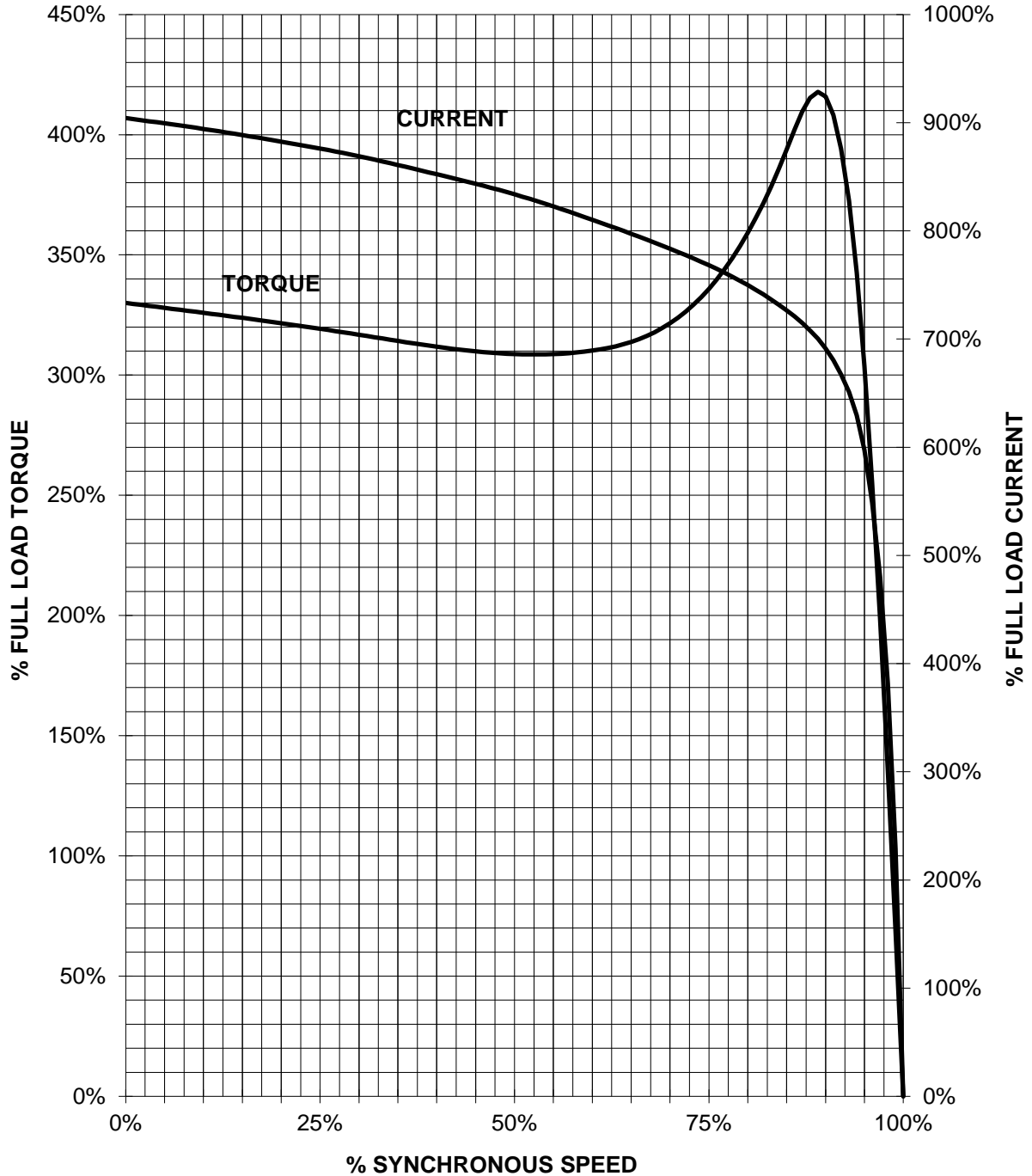
document number



SIEMENS INDUSTRY, INC.

HP 1,5 VOLTS <600 RPM 1800 TYPE XP100 1D1
HZ 60 PHASE 3 FRAME 145T NEMA B

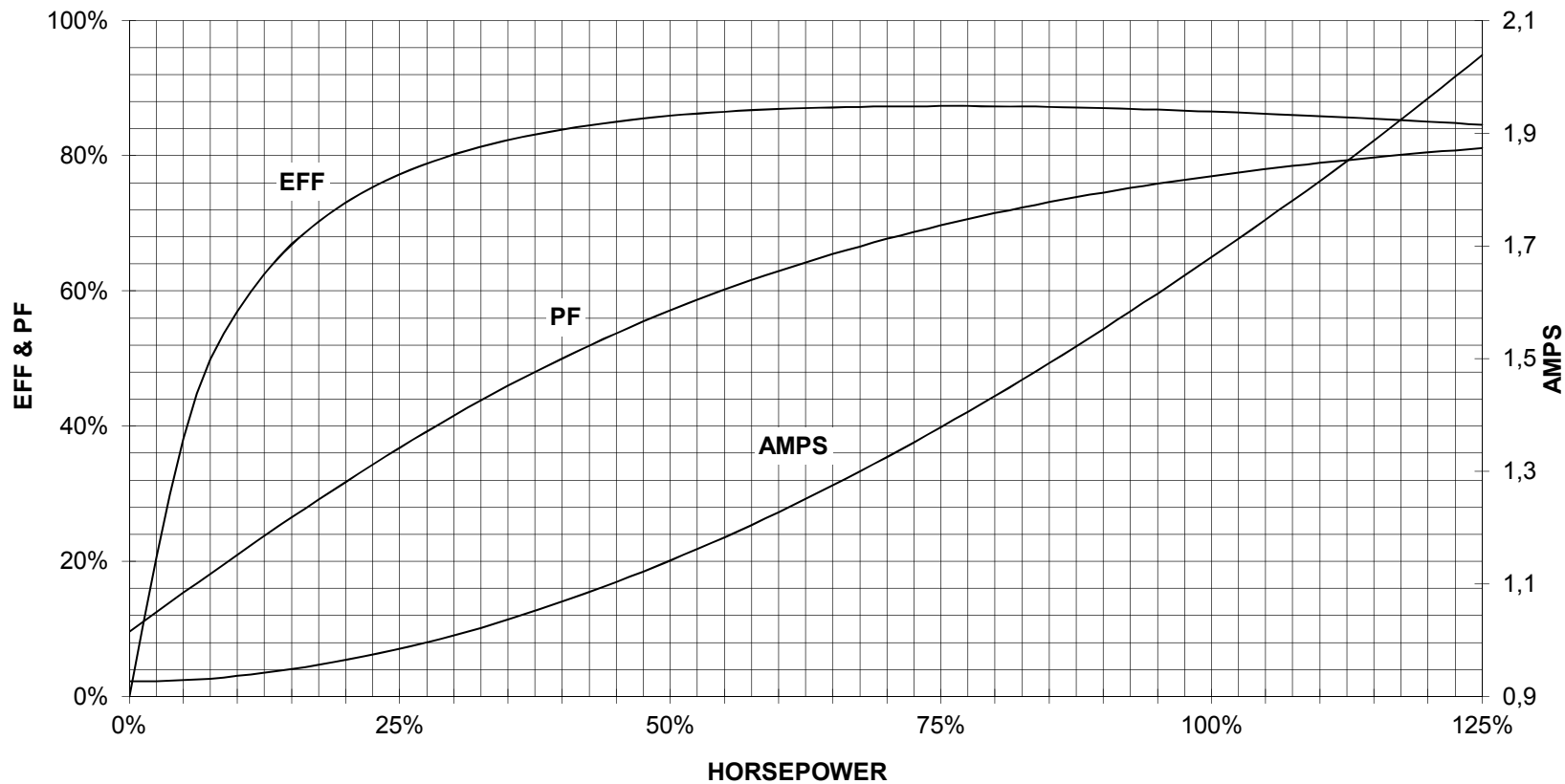
TORQUE & CURRENT VS. SPEED



CUSTOMER: _____ ORDER#: _____

1.5 HP 1800 RPM 145T FRAME 575 VOLTS 3 PHASE NEMA DESIGN B

**SIEMENS INDUSTRY, INC.
PERFORMANCE CURVE
XP100 1D1**



CUSTOMER _____ ORDER # _____ PO # _____

PERFORMANCE BASED ON DESIGN CALCULATIONS. SUBJECT TO CHANGE WITHOUT NOTICE.

REV. 1

Certificate of Verification

Certificate: 2313253 (EEV101783)

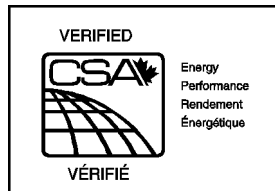
Master Contract: 153422

Project: 2313253

Date Issued: 2010-12-20

Issued to: Siemens, Sociedad Anonima de
Capital Variable Siemens SA de CV
Fabrica Guadalajara
Camino a la Tijera 1
Km 3.5 Carretera Guadalajara-Moreli
Tlajomulco de Zuniga, Jalisco 45640
Mexico
Attention: Mr. Luis Alberto Zermenio

The Motor listed below are eligible to bear the CSA EEV Mark shown



Issued by: Suhwan. Ahn

PRODUCTS

Class 8811-01 - ENERGY EFFICIENCY - MOTORS - Three Phase Induction

Class 8811-81 - ENERGY EFFICIENCY - MOTORS - Three Phase Induction – US Requirements

Energy Efficiency Verification of three phase induction motors, Premium Efficiency, Type XP100, XP100 ID1, 600V max., 60Hz, Enclosure TEFC, NEMA frame sizes 143 to 449, NEMA design A or B

Nominal efficiency values in percent at full load as follows:

Output	2 pole	4 pole	6 pole
hp	Efficiency (%)	Efficiency (%)	Efficiency (%)
1	82.5	85.5	82.5
1.5	84.0	86.5	87.5
2	85.5	86.5	88.5
3	86.5	89.5	89.5
5	88.5	89.5	89.5
7.5	89.5	91.7	91.0
10	90.2	91.7	91.0
15	91.0	92.4	91.7

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20	91.0	93.0	91.7
25	91.7	93.6	93.0
30	91.7	93.6	93.0
40	93.6	94.1	94.1
50	93.6	94.5	94.1
60	93.6	95.0	94.5
75	94.1	95.4	94.5
100	94.1	95.4	95.0
125	95.0	95.4	95.0
150	95.0	95.8	95.8
200	95.4	96.2	95.8
250	95.8	96.2	95.8
300	95.8	96.2	--

Energy Efficiency Verification of three phase induction motors, Energy Efficient, Type XP100, XP100 ID1, 600V max., 60Hz, Enclosure TEFC, NEMA frame sizes 143 to 449, NEMA design A or B

Nominal efficiency values in percent at full load as follows:

Output hp	8 pole Efficiency (%)
1	81.5
1.5	82.5
2	84.0
3	85.5
5	86.5
7.5	87.5
10	90.2
15	91.0
20	91.0
25	91.0
30	91.7
40	91.7
50	92.4
60	92.4
75	93.6
100	94.1
125	94.1
150	94.1
200	94.5

APPLICABLE REQUIREMENTS

- CSA Standard CAN/CSA C390-98 Energy Efficiency Test Methods for Three-Phase Induction Motors
- CSA Standard CAN/CSA C390-93 Energy Efficiency Test Methods for Three-Phase Induction Motors



CSA INTERNATIONAL

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Certificate: 2313253

Master Contract: 153422

Project: 2313253

Date: 2010-12-20

- Department of Energy - Office of Energy Efficiency - 10 CFR 431 - Energy Efficiency Program for Certain Commercial and Industrial Equipment and Test Procedures, Labeling, and Certification Requirements for Electric Motors; Final Rule.