

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

Motor type: FS: 449T - 4p - 250 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	Δ	60	250.00		1,785	222.40	171.60	124.90	72.00	1680.0	96.2	96.3	96.1	87.0	85.0	78.0	735.0	140	200	

Frame Type: PMD_AAA726_001_000_XP1	Type of constr.: (A) Foot mounted - End shield	Motor Prot.:(A) No winding protection	NEMA Des.: A	S.F.: 1.15
Mtr. WT:2,490 lbs	Insulation Class.:Insulation class F	Temp. Rise Cl.: B	Amb. Temp.: + to -20 °C @1000 m	kVA: H IP IP65

Mechanical data

Sound level (SPL / SWL) at 60 Hz	76.0 dB(A) / 87.0 dB(A)		Thickener	Polyurea					
Octave Band Center Frequencies Hertz			Safe Stall Time Hot	18 s					
250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	25 s	
SPL@3	64.0	72.0	70.0	68.0	61.0	55.0	dB(A)	Frame material	cast iron
Moment of inertia	69.6 Lb-ft ²		Color, paint shade						
Ext Load Inertia Capability:	1020.0 Lb ft ²		Coating (paint finish)	Standard Alkyed + Epoxy (C2)					
Bearings			Ventilation Type						
Bearing DE NDE	NU 320	6316 Z C3 S0	Method of cooling	TEFC					
Bearing_Type	Roller Bearing	Ball Bearing	Direction of rotation	Bidirectional					
AFBMA:	100RU03M0	80BC03JP30	Fan Material	Polypropylen ESD					
Grease			VFD	CT: 4:1 VT: 20:1					
Capacity	14.5 oz	7.5 oz	Space heaters	without					
Grease Type:	Exxon Mobile EM		Brake:	-/-					


Terminal box

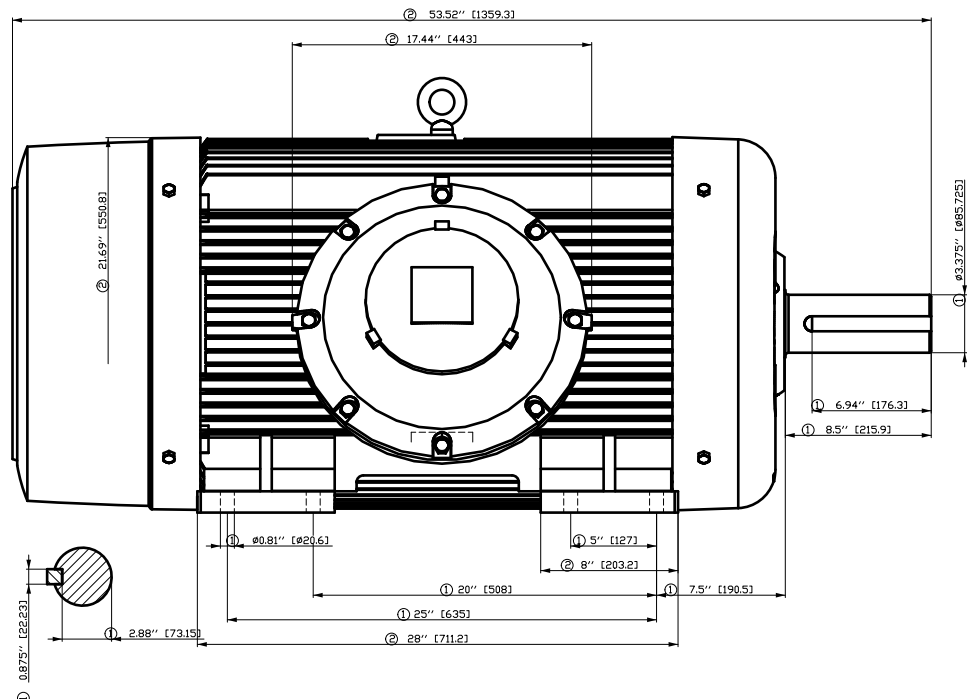
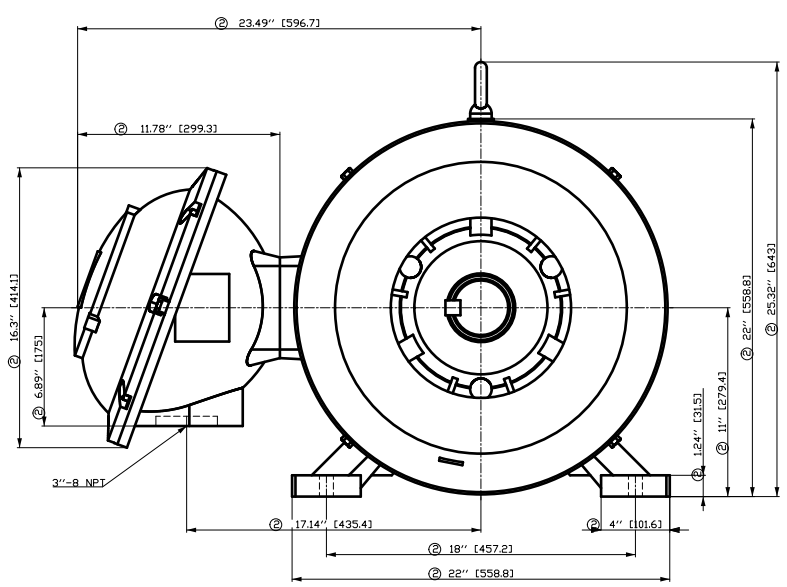
Lead Wire Connection	6 LEAD - DELTA				Terminal box position	(3) Mounting - F-1
Voltage	L1	L2	L3	Connected together	Material of terminal box	Cast Iron
----	----	----	----	----	Cable entry	-/-
----	T1	T2	T3	----		

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 1MB2221-4CB51-3AA3	document number					
© ABB 2024	rev. 01	creation date 2024-03-05 18:19	language en	Page 1/1			

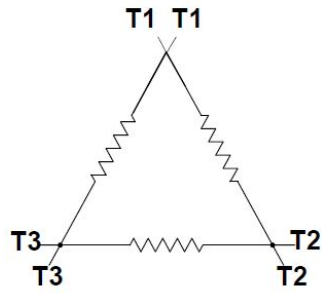


- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.


V&@a@a(A) aV''*) A[ia@e) A
V&@a@a@a(A) ab&@A &@**A

Tolerance	Surface	Material	Weight	Scale
FT ÖGGGF# ÖÖÍ F#-ÖÖIH É	Author Creator Approval Department Change Order	Öä ^)•ä) æ#íæ ä* T æ : ^æ@`)*	É	{ {
	Doc. State Revision	MLFB Item No Doc No	Doc Type Paper Size	/ CH
	Index RS		1st Language 2nd Language	^) â^
© ABB 2023	Project No	É	Ref No	É
			Sheet	F of F

Main terminal diagram



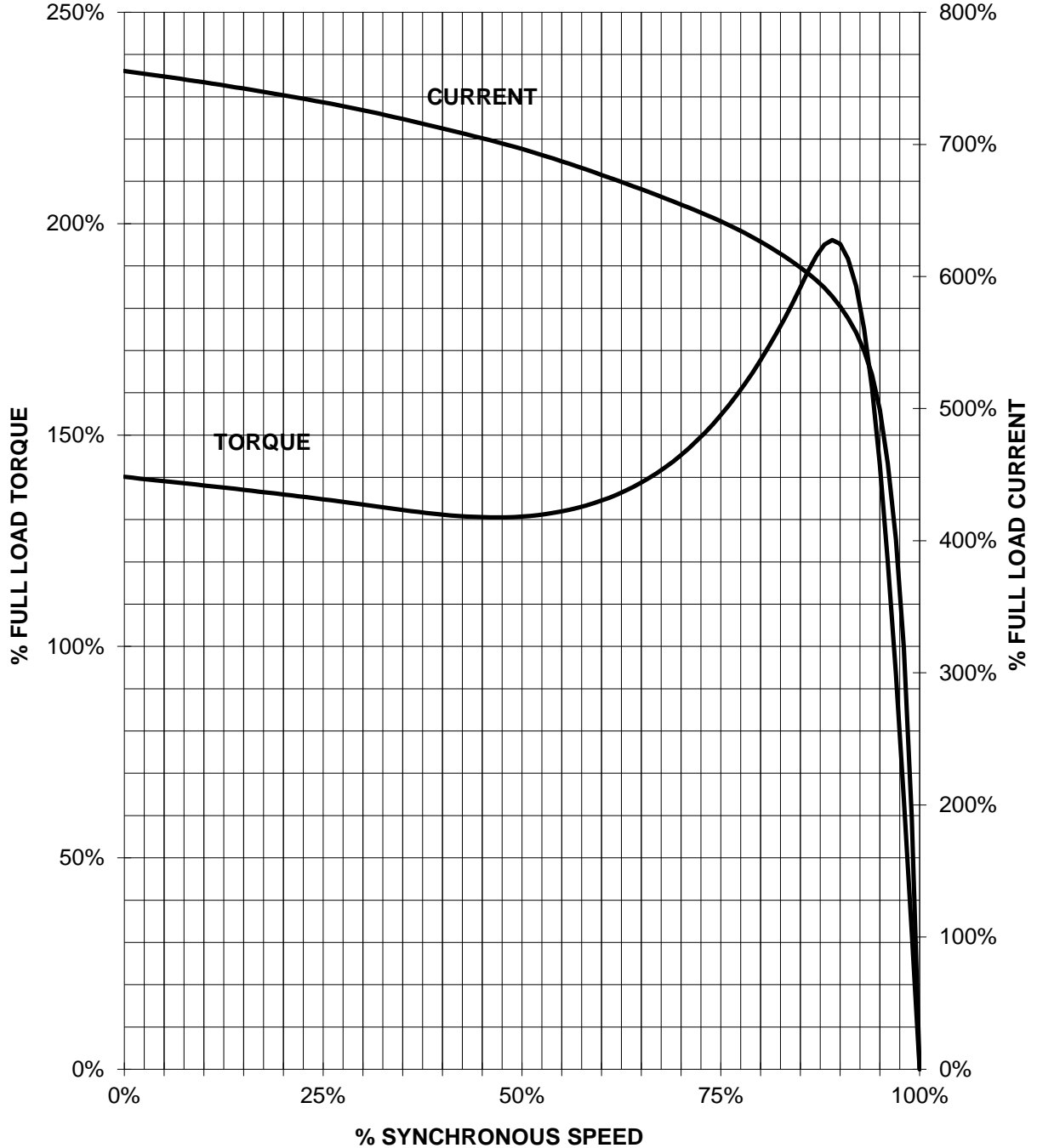
6 LEAD DELTA			
LINES			CONN.
L1	L2	L3	
T1	T2	T3	Δ

responsible dep. IN LVM	technical reference	created by	approved by	Project	Link documents
SIEMENS	document type Wiring Diagram	document status free			
	title 1MB2221-4CB51-3AA3	document number			
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SIEMENS INDUSTRY, INC.

HP 250 VOLTS <600 RPM 1800 TYPE XP100 1D1
HZ 60 PHASE 3 FRAME 449T NEMA B

TORQUE & CURRENT VS. SPEED



CUSTOMER: _____ ORDER#: _____

Certificate of Verification

Certificate: 2313253 (EEV101783)

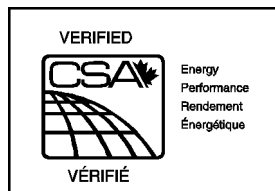
Master Contract: 153422

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.