

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

Motor type: FS: B449T - 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	6318 Z C3 S0			6316 Z C3 S0			Method of cooling				TEFC		
Bearing_Type	Ball Bearing			Ball Bearing			Direction of rotation				Bidirectional		
AFBMA:	90BC03JP30			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

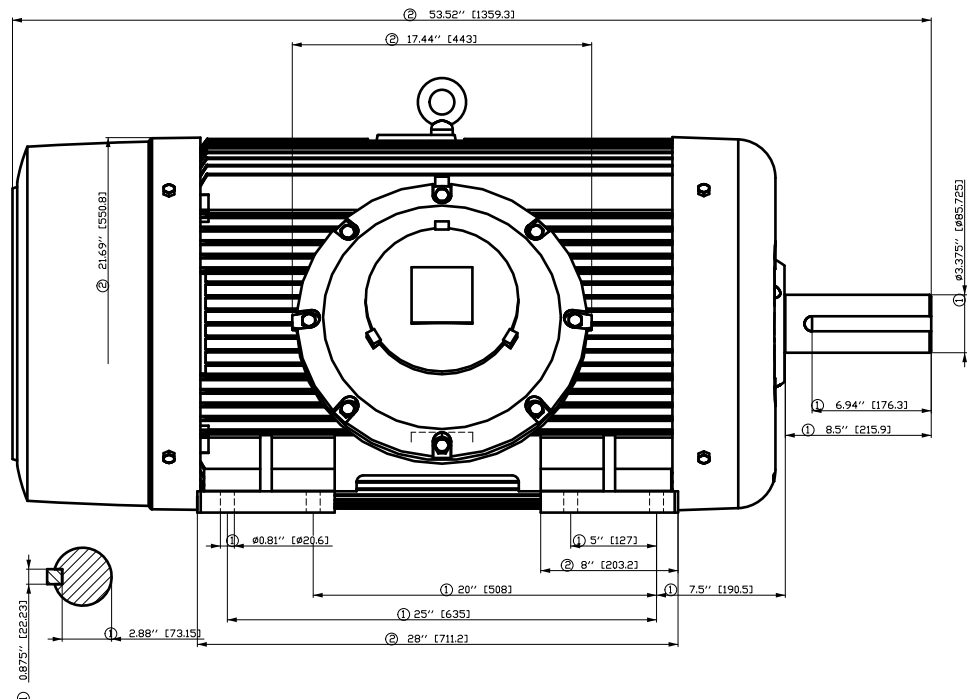
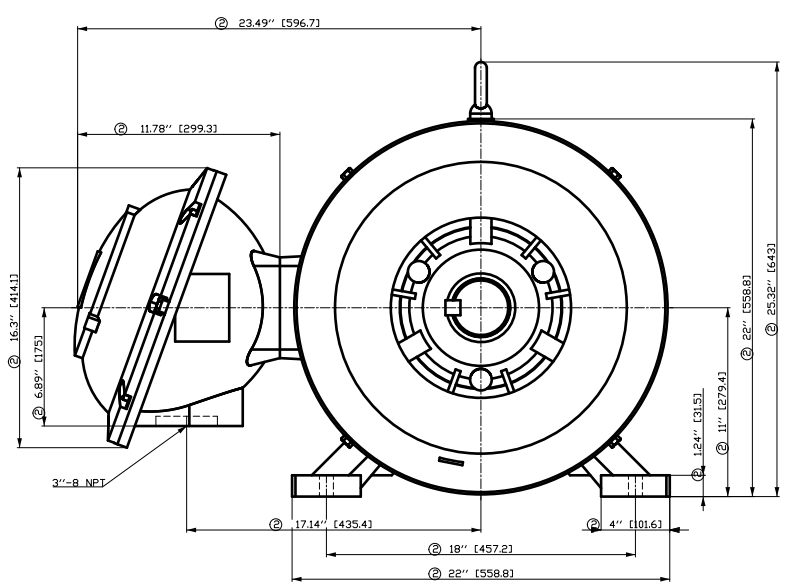
Lead Wire Connection					6 LEAD - DELTA					Terminal box position					(3) Mounting - F-1				
Voltage	L1	L2	L3	Connected together	Material of terminal box					Cast Iron									
----	----	----	----	----	Cable entry					-/-									
----	T1	T2	T3	----															

Notes:

I_L/I_N = locked rotor current / current nominal
M_L/M_N = locked rotor torque / torque nominal
M_k/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 1MB2221-4EB51-3AA3		document number				
© ABB 2024		rev. 01	creation date 2024-03-05 18:13	language en	Page 1/1		

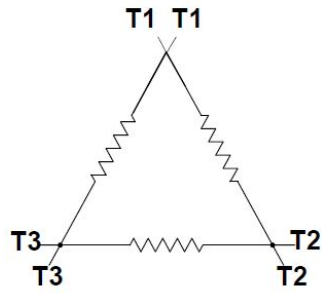


- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.


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

Tolerance	Surface	Material	Weight	Scale
FT ÖGGGFÈ ÖÖÍ FÈÖÖH È	Author Creator Approval Department Change Order	Öv Tæ: ^æ@`)*	È	{ {
	Doc. State Revision	MLFB Item No Doc No		
© ABB	Index Project No	RS È		
2023			Doc Type Paper Size 1st Language 2nd Language Sheet	/ CH ^) â^ F of F

Main terminal diagram



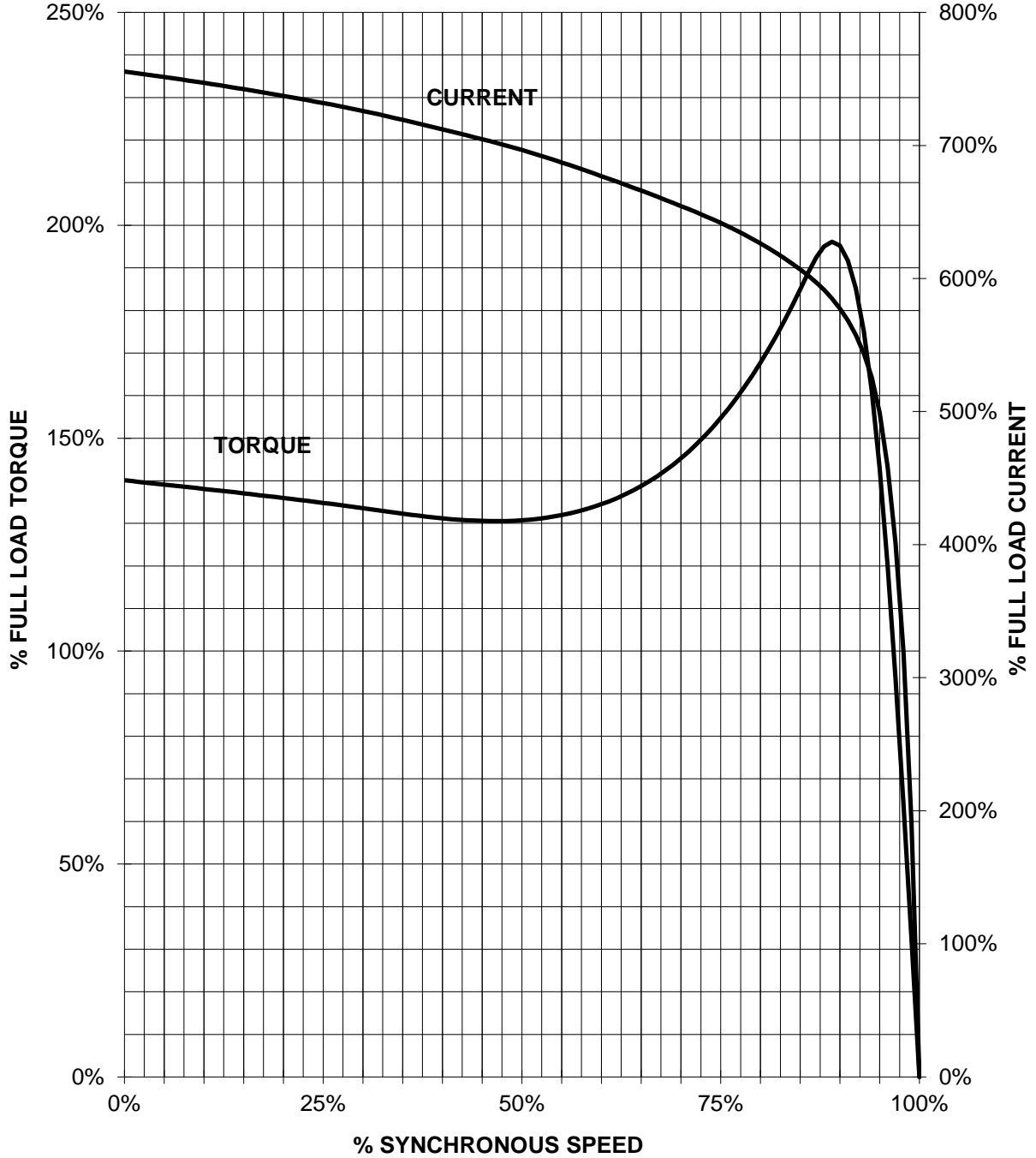
6 LEAD DELTA			
LINES			CONN.
L1	L2	L3	
T1	T2	T3	Δ

responsible dep. IN LVM	technical reference	created by	approved by	Project	Link documents
SIEMENS	document type Wiring Diagram	document status free			
	title 1MB2221-4EB51-3AA3	document number			
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SIEMENS INDUSTRY, INC.

HP 250 VOLTS <600 RPM 1800 TYPE XP100 1D1
HZ 60 PHASE 3 FRAME B449T NEMA B

TORQUE & CURRENT VS. SPEED



CUSTOMER: _____ ORDER#: _____

Certificate of Verification

Certificate: 2313253 (EEV101783)

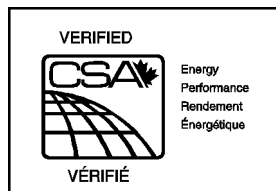
Master Contract: 153422

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 hp	2 pole Efficiency (%)	4 pole Efficiency (%)	6 pole 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.