

# 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, Div 1 Gr. C&D; Class II, Div1, Gr. F&G, T3C**

U [V]	$\Delta / Y$	f [Hz]	P [HP]	P [kW]	n [rpm]	I Load [Amps]					LRC	Nom. Eff Load [%]			Pwr. Factor Load [%]			Torque [lb-ft]	T <sub>A</sub> /T <sub>N</sub> LRT [%]	T <sub>k</sub> /T <sub>N</sub> BDT [%]
						4/4	3/4	1/2	0			4/4	3/4	2/4	4/4	3/4	2/4			
575	$\Delta$	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.:(G) Thermostats, Klixon type, normally closed					NEMA Des.: A			S.F.: 1.15					
Mtr. WT:2,490 lbs			Insulation Class.:Insulation class F				Temp. Rise Cl.: B					Amb. Temp.: + 40 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
SPL@3	64.0	72.0	70.0	68.0	61.0
				55.0	dB(A)
Moment of inertia	69.6 Lb-ft <sup>2</sup>		Color, paint shade		
Ext Load Inertia Capability:	1020.0 Lb ft <sup>2</sup>		Coating (paint finish)	Standard Alkyed + Epoxy (C2)	
<b>Bearings</b>			<b>Ventilation Type</b>		
Bearing DE   NDE	6318 Z C3 S0		Method of cooling	TEFC	
Bearing_Type	Ball Bearing		Direction of rotation	Bidirectional	
AFBMA:	90BC03JP30		Fan Material	Polypropylen ESD	
<b>Grease</b>			VFD	CT: n/a VT: 20:1	
Capacity	14.5 oz		Space heaters	without	
Grease Type:	Exxon Mobile EM		Brake:	-/-	


## Terminal box

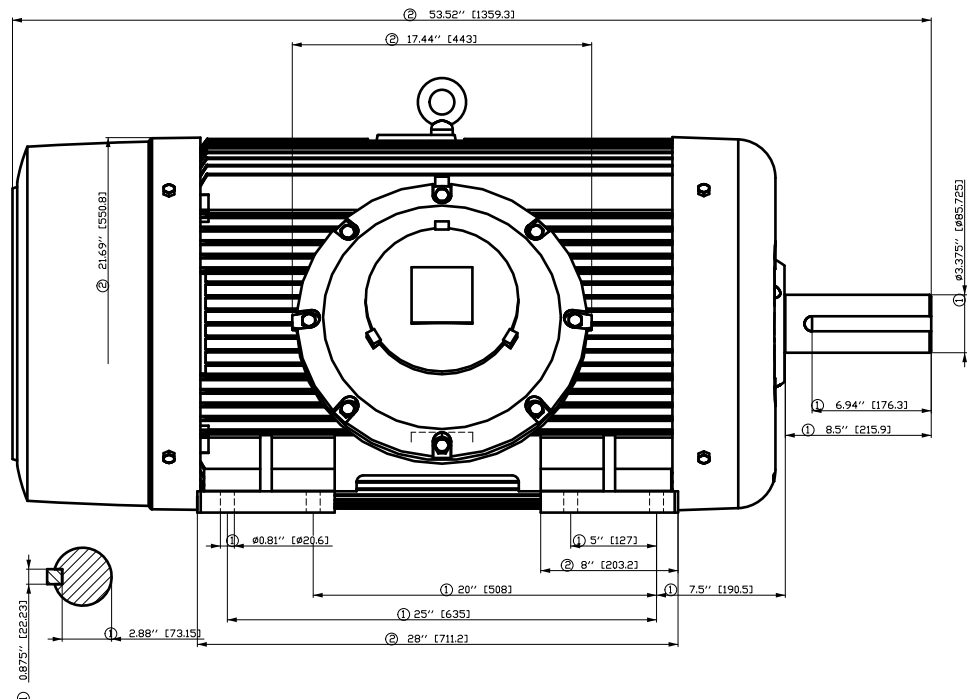
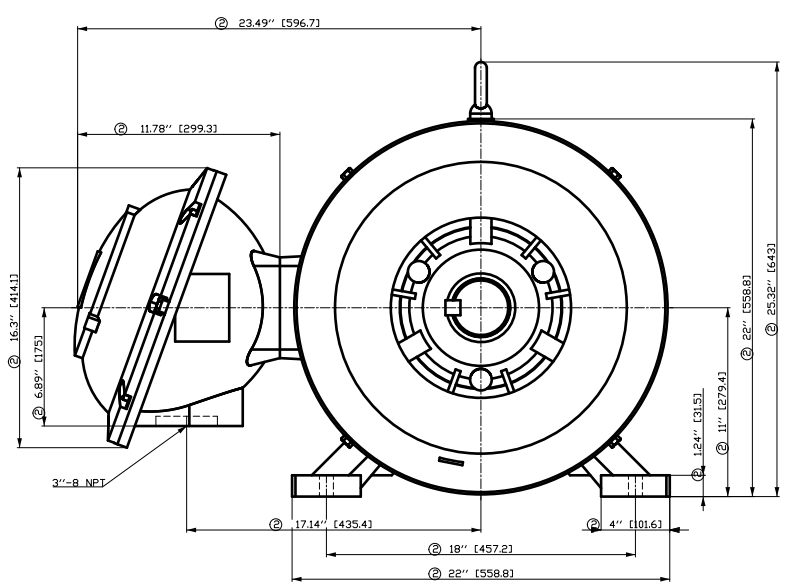
Lead Wire Connection	6 LEAD - DELTA				Terminal box position	(3) Mounting - F-1	
Voltage	L1	L2	L3	Connected together	Material of terminal box	Cast Iron	
----	----	----	----	----	Cable entry	-/-	
----	T1	T2	T3	----			

### Notes:

I<sub>L</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>L</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>B</sub>/M<sub>N</sub> = 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 1MB2121-4EB51-3AG3	document number					
© ABB 2024	rev. 01	creation date 2024-03-05 18:53	language en	Page 1/1			

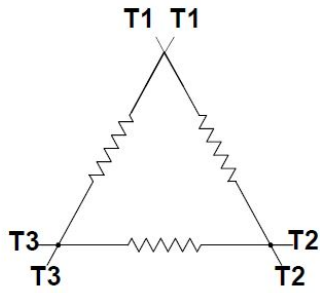


- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.

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

Tolerance	Surface	Material	Weight	Scale
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	Doc. State Revision	ÍÖÖ RS	MLFB Item No Doc No	Doc Type Paper Size 1st Language 2nd Language
© ABB 2023	Project No	È	Ref No	È
				Sheet F of F

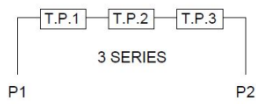
Main terminal diagram




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

Motor protection

THERMOSTATS

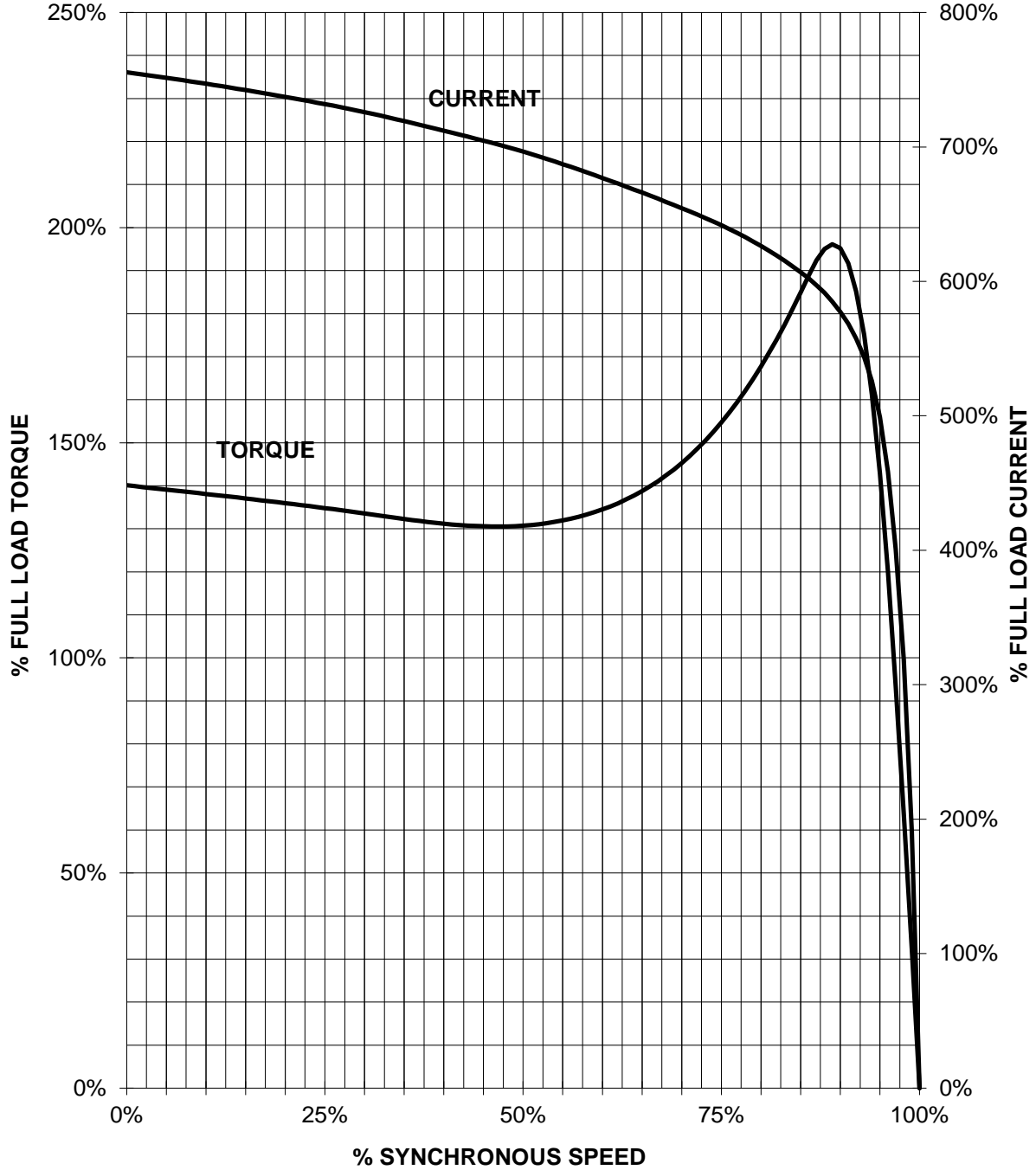


responsible dep. IN LVM	technical reference	created by	approved by	Project	<a href="#">Link documents</a>
<b>SIEMENS</b>	document type Wiring Diagram	document status free			
	title 1MB2121-4EB51-3AG3	document number			
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# SIEMENS INDUSTRY, INC.

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

## TORQUE & CURRENT VS. SPEED



CUSTOMER: \_\_\_\_\_ ORDER#: \_\_\_\_\_

# Certificate of Verification

**Certificate:** 2313253 (EEV101783)

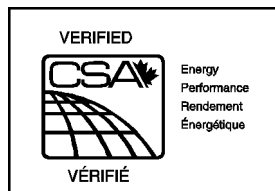
**Master Contract:** 153422

**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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**Project:** 2313253

**Date:** 2010-12-20

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

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**Date:** 2010-12-20

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- 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.