

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

**Motor type:** FS: B447T - 4p - 200 hp -

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

## Electrical data

Class I Division 1 Groups D

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	200.00		1,785	182.40	140.30	103.80	58.40	1160.0	96.2	96.5	96.2	85.0	83.0	75.0	588.0	160	200	
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:2,503 lbs			Insulation Class.:Insulation class F					Temp. Rise Cl.: B					Amb. Temp.: + to -20 °C @1000 m		kVA: G		IP IP65			

## Mechanical data

Sound level (SPL / SWL) at 60 Hz	74.0 dB(A) / 85.0 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	63.0	70.0	67.0	68.0	60.0	50.0	dB(A)	Frame material	cast iron		
Moment of inertia	56.5 Lb-ft <sup>2</sup>							Color, paint shade			
Ext Load Inertia Capability:	831.0 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			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		
<b>Grease</b>								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

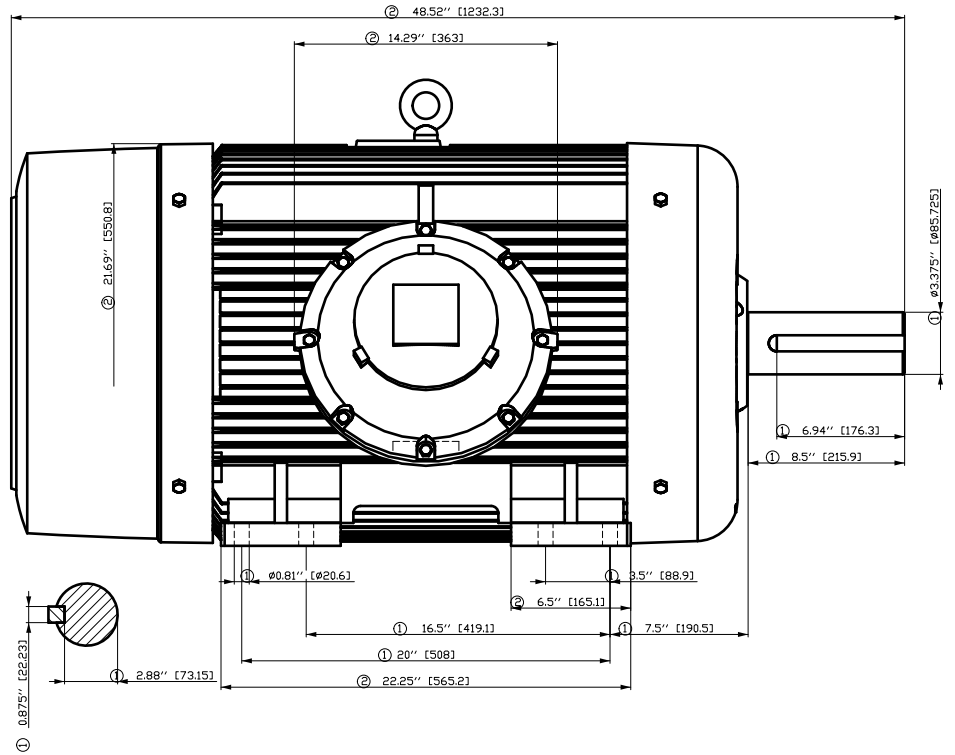
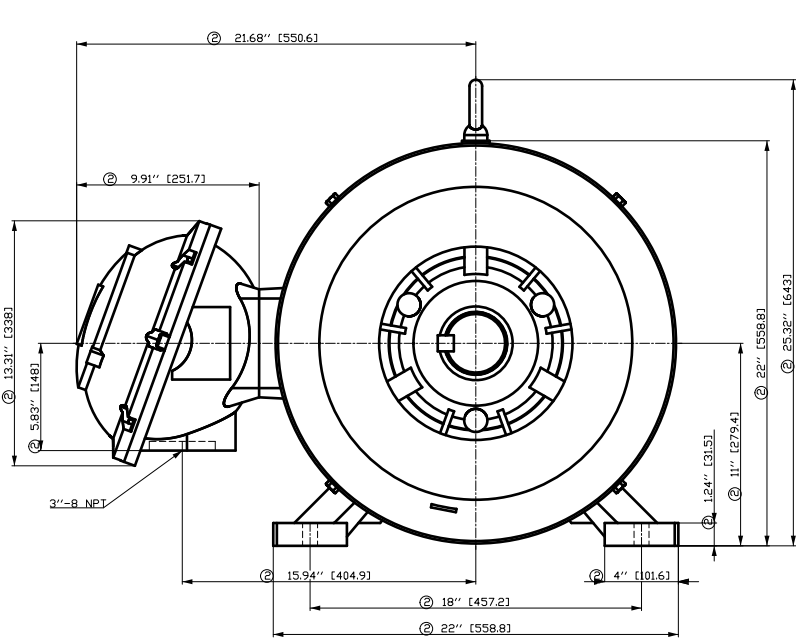
Lead Wire Connection					6 LEAD - DELTA					Terminal box position	(3) Mounting - F-1			
Voltage	L1	L2	L3	Connected together						Material of terminal box	Cast Iron			
----	----	----	----	----						Cable entry	-/-			
----	T1	T2	T3	----										

### Notes:

I<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 1MB2221-4EB31-3AA3	document number					
© ABB 2024	rev. 01	creation date 2024-03-05 18:11	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) aV) ^) A[ i&@e) A  
 V&@ B&@a&@A^ ab&@A &@e) ^A

Tolerance	Surface	Material	Weight	Scale
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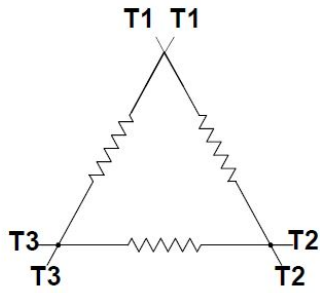
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Main terminal diagram



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  
1MB2221-4EB31-3AA3

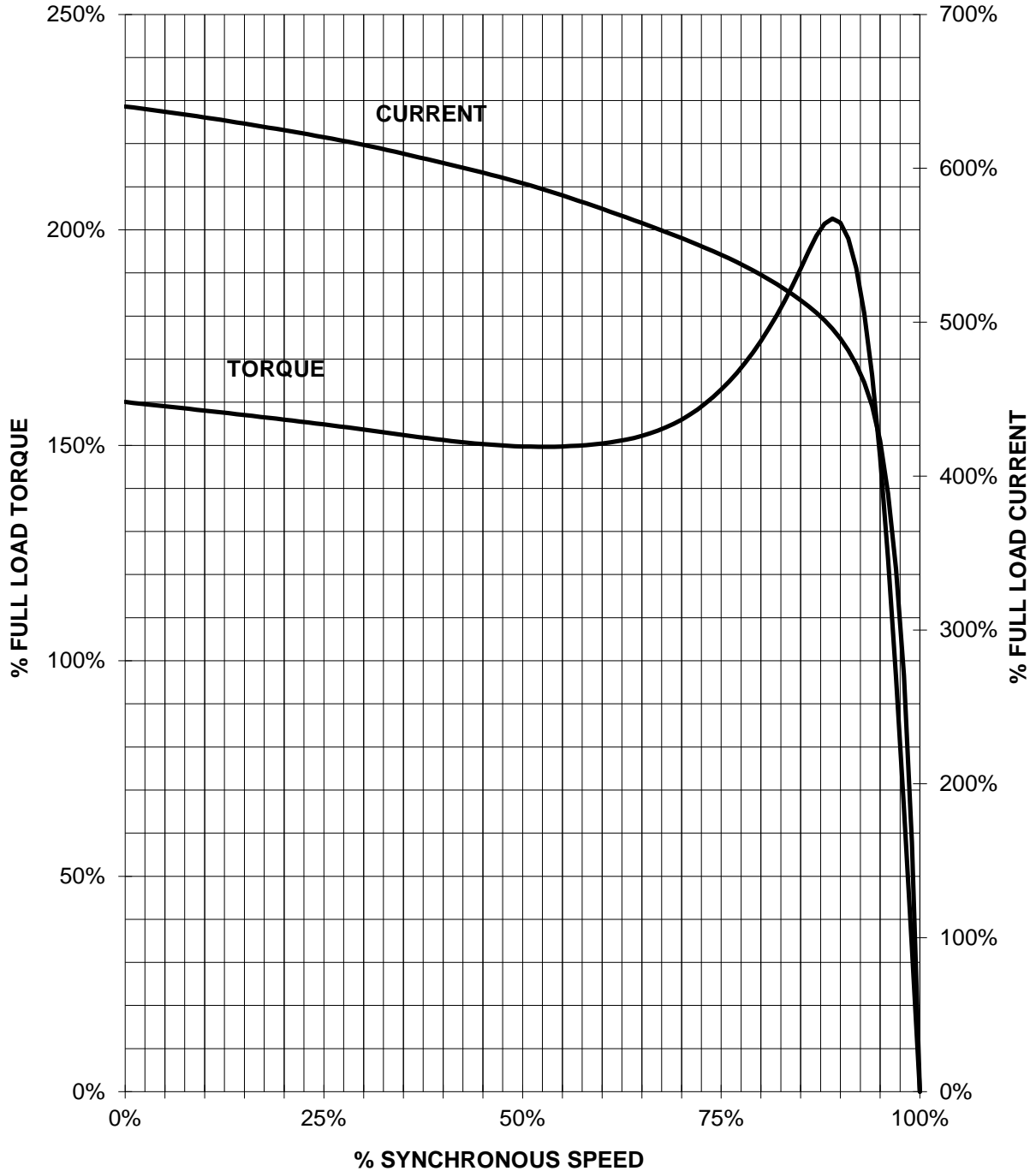
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# SIEMENS INDUSTRY, INC.

HP 200 VOLTS <600 RPM 1800 TYPE XP100 1D1  
HZ 60 PHASE 3 FRAME B447T NEMA B

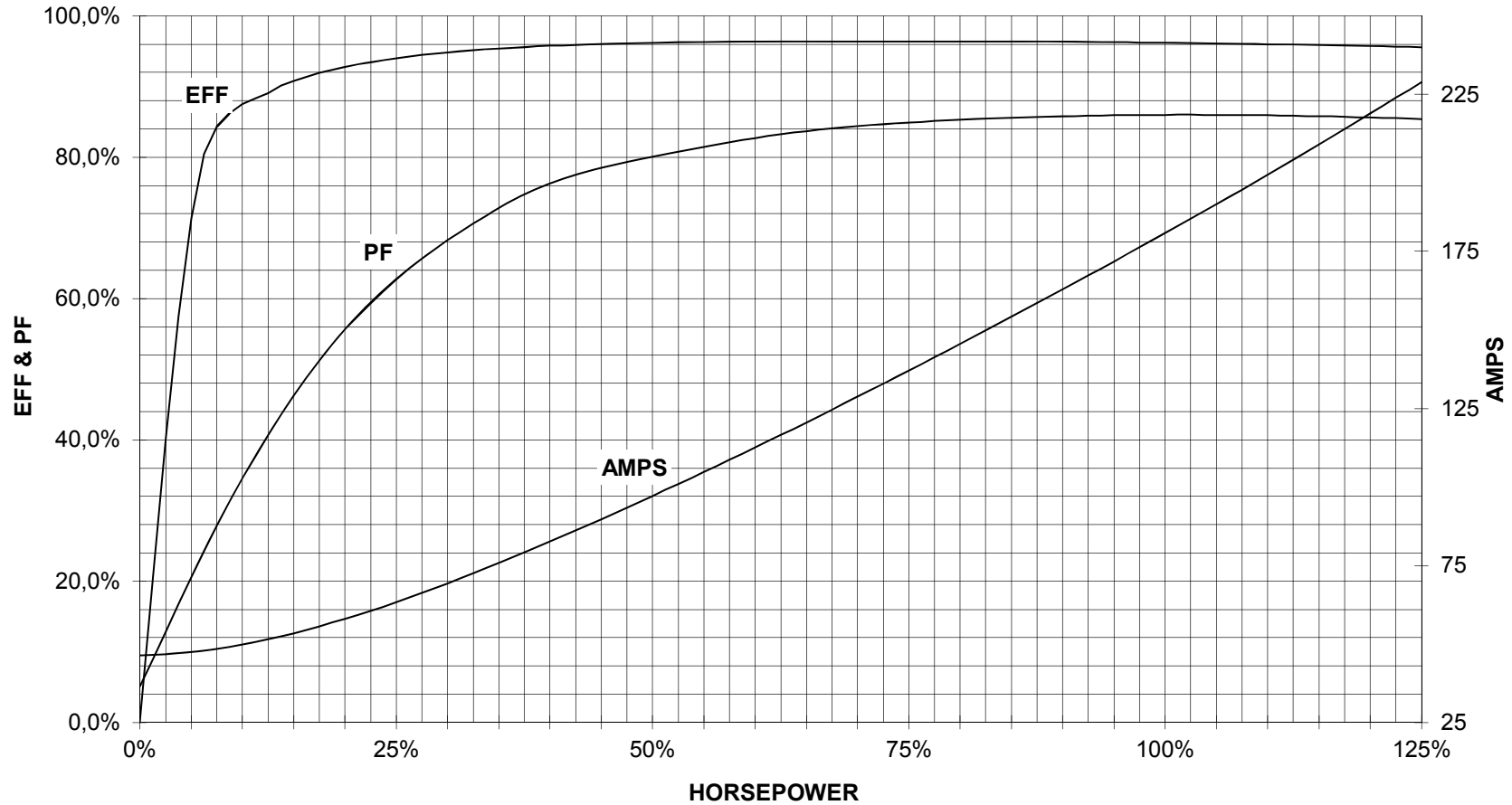
## TORQUE & CURRENT VS. SPEED



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

200 HP 1800 RPM B447T FRAME 575 VOLTS 3 PHASE NEMA DESIGN B

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



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

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

REV. 1

# Certificate of Verification

**Certificate:** 2313253 (EEV101783)

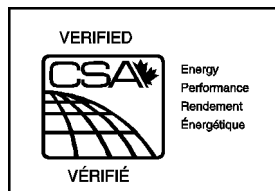
**Master Contract:** 153422

**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 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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**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

**Master Contract:** 153422

**Project:** 2313253

**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.