

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

**Motor type:** FS: B445T - 4p - 150 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]					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	LRC	4/4	3/4	2/4	4/4	3/4	2/4			
575	$\Delta$	60	150.00		1,785	136.00	104.50	75.30	41.60	868.0	95.8	96.0	95.7	86.0	84.0	78.0	441.0	150	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.: B	S.F.: 1.15
Mtr. WT: 1,753 lbs	Insulation Class.: Insulation class F	Temp. Rise Cl.: B	Amb. Temp.: + 55 to -20 °C @1000 m	kVA: G IP IP65

## Mechanical data


Sound level (SPL / SWL) at 60 Hz	73.0 dB(A) / 84.0 dB(A)	Thickener	Polyurea
Octave Band Center Frequencies Hertz		Safe Stall Time Hot	20 s
250	500	1000	2000
4000	8000	Hz	
SPL@3	64.0	70.0	67.0
	66.0	59.0	49.0
Moment of inertia	45.0 Lb-ft <sup>2</sup>	Color, paint shade	
Ext Load Inertia Capability:	640.0 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
Bearing_Type	Ball Bearing	Ball Bearing	TEFC
AFBMA:	90BC03JP30	80BC03JP30	Direction of rotation
<b>Grease</b>			Bidirectional
Capacity	14.5 oz	7.5 oz	Fan Material
Grease Type:	Exxon Mobile EM		Polypropylen ESD
			VFD
			CT: n/a VT: 20:1
			Space heaters
			without
			Brake:
			-/-

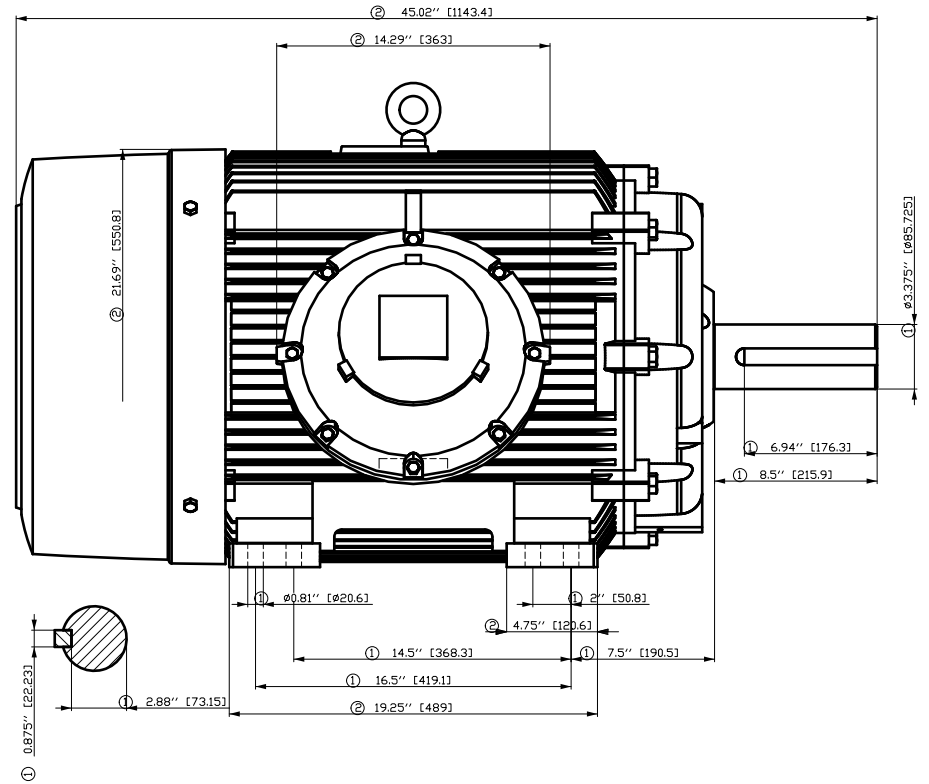
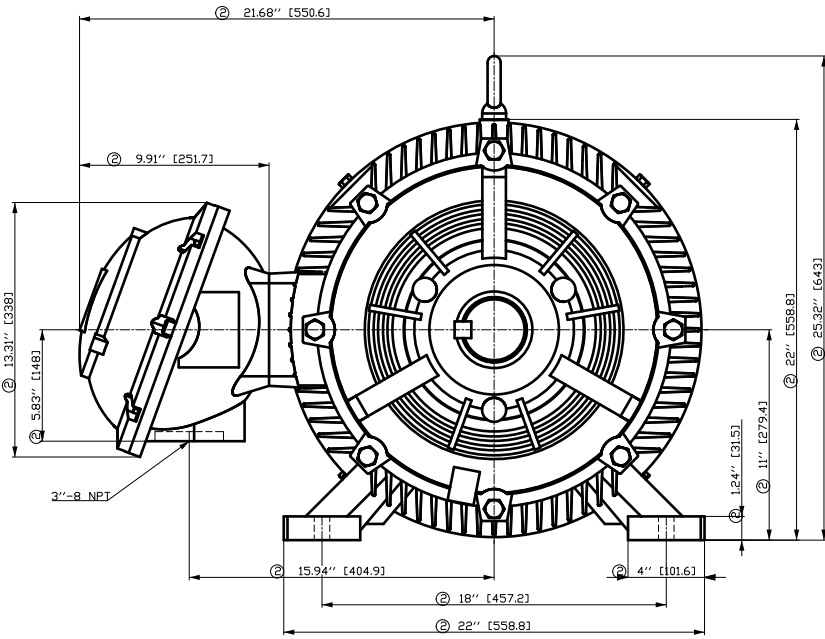
## Terminal box

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:

$I_r/I_N$  = locked rotor current / current nominal  
 $M_r/M_N$  = 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 1MB2121-4EB21-3AG3	document number					
© ABB 2024	rev. 01	creation date 2024-03-05 18:48	language en	Page 1/1			

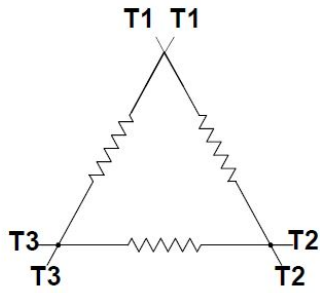


- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.

Tolerance	Surface	Material	Weight	Scale
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E	Creator			
	Approval			
	Department	MLFB	Doc Type	/
	Change Order	Item No	Paper Size	CH
	Doc. State	Doc No	1st Language	^
	Revision	Index	2nd Language	â^
© ABB	Project No	Ref No	Sheet	F of F

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V&@ B a @ a z a s ^ A ^ a b s a A & @ ^ A

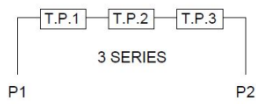
Main terminal diagram




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

Motor protection

THERMOSTATS

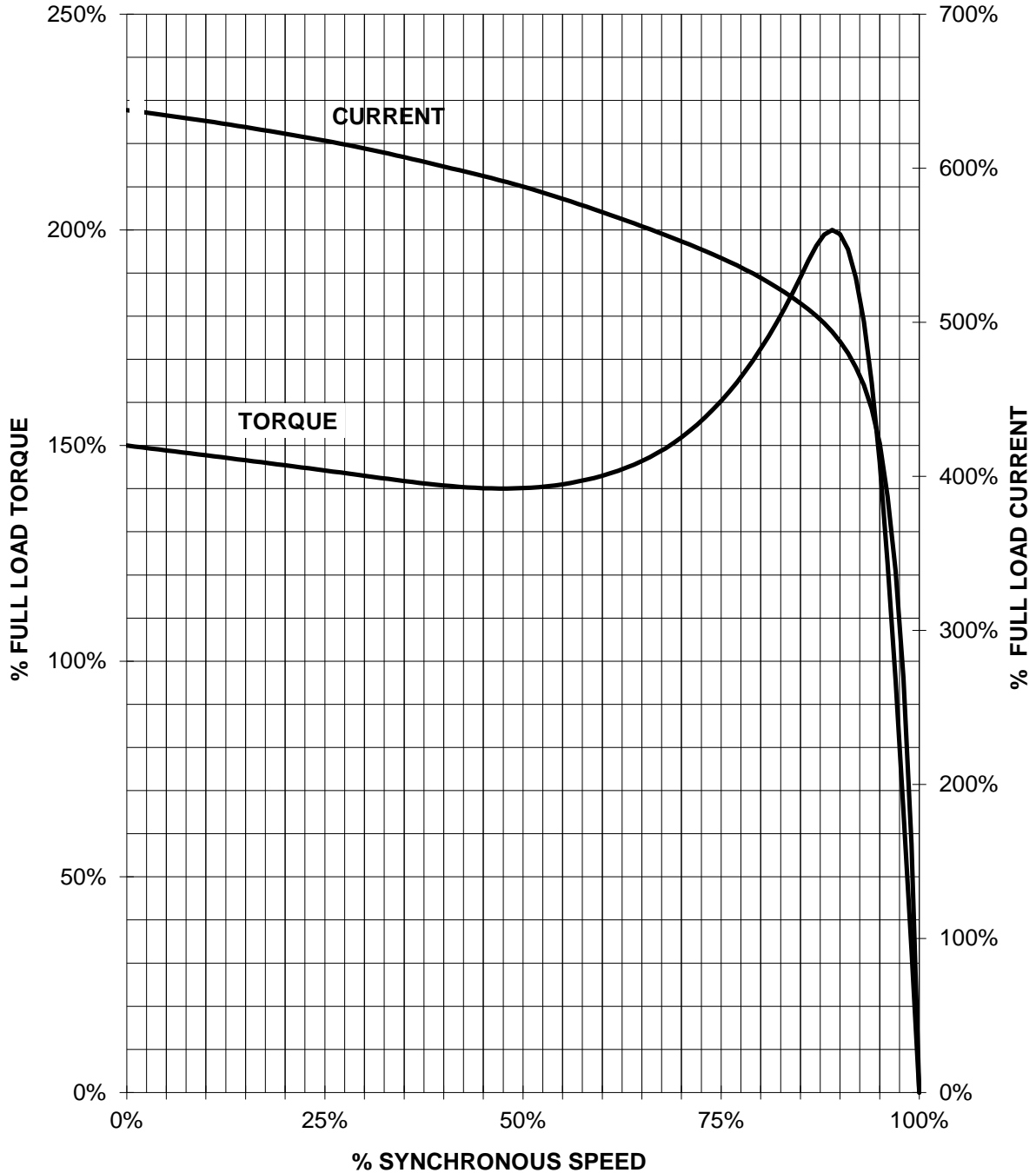


responsible dep. IN LVM	technical reference	created by	approved by	Project	<a href="#">Link documents</a>
<b>SIEMENS</b>	document type Wiring Diagram	document status free		document number	
	title 1MB2121-4EB21-3AG3	rev. 02	creation date 03/05/2024		
© INNOMOTICS 2024					

# SIEMENS INDUSTRY, INC.

HP 150 VOLTS <600 RPM 1800 TYPE XP100  
HZ 60 PHASE 3 FRAME B445T NEMA B

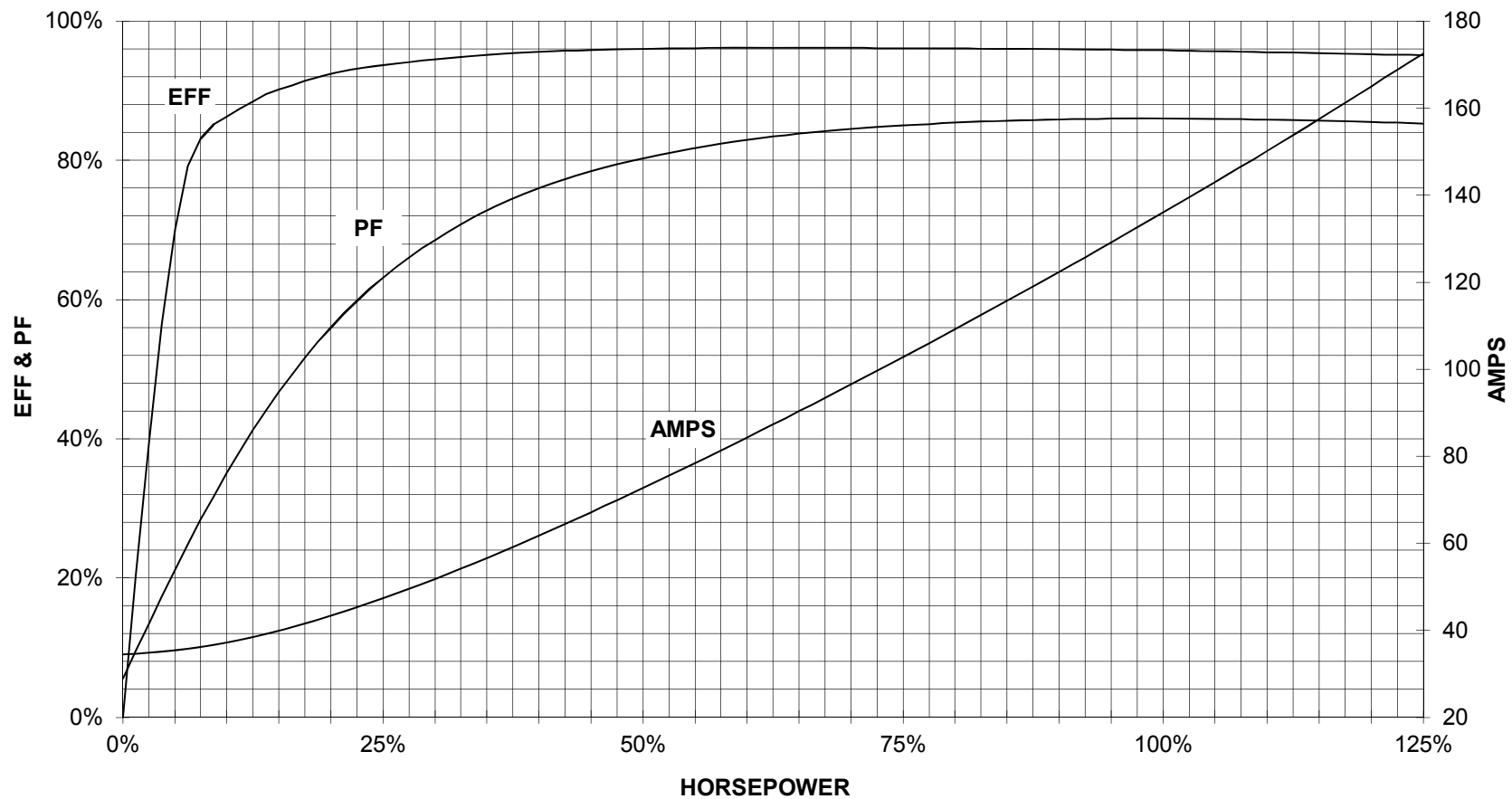
## TORQUE & CURRENT VS. SPEED



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

150 HP 1800 RPM B445T FRAME 575 VOLTS 3 PHASE NEMA DESIGN B

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



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

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

REV. 1

# Certificate of Verification

**Certificate:** 2313253 (EEV101783)

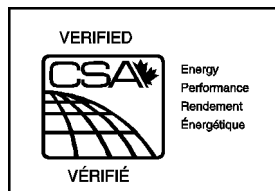
**Master Contract:** 153422

**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	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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**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.