

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

Motor type: FS: 286T - 4p - 30 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				
460	Δ	60	30.00		1,775	35.00	27.30	20.50	12.00	227.0	93.6	94.1	93.9	85.0	82.0	73.0	89.0	180	251	
230	$\Delta\Delta$	60	30.00		1,775	70.00	54.61	40.98	24.00	454.0	93.6	94.1	93.9	85.0	82.0	73.0	89.0	180	251	
400	Δ	50	25.00		1,476	34.76	27.41	21.12	14.17	230.8	92.6	93.3	93.1	82.9	78.2	6.8	89.0	201	313	
200	$\Delta\Delta$	50	25.00		1,476	69.52	54.82	42.24	28.34	461.6	92.6	93.3	93.1	82.9	78.2	6.8	89.0	201	313	

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:493 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	65.0 dB(A) / 76.0 dB(A)							Thickener	Polyurea
Octave Band Center Frequencies Hertz								Safe Stall Time Hot	24 s
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	44 s
SPL@3	51.0	55.0	55.0	62.0	59.0	51.0	dB(A)	Frame material	cast iron
Moment of inertia	4.9 Lb-ft ²							Color, paint shade	
Ext Load Inertia Capability:	144.0 Lb ft ²							Coating (paint finish)	Standard Alkyed + Epoxy (C2)
Bearings									
Bearing DE NDE	6310 Z C3 S0			6310 Z C3 S0			Method of cooling	TEFC	
Bearing_Type	Ball Bearing			Ball Bearing			Direction of rotation	Bidirectional	
AFBMA:	50BC03JP30			50BC03JP30			Fan Material	Polypropylen ESD	
Grease									
Capacity	2.6 oz			2.6 oz			VFD	CT: 4:1 VT: 20:1	
Grease Type:	Exxon Mobile EM							Space heaters	without
							Brake:	-/-	

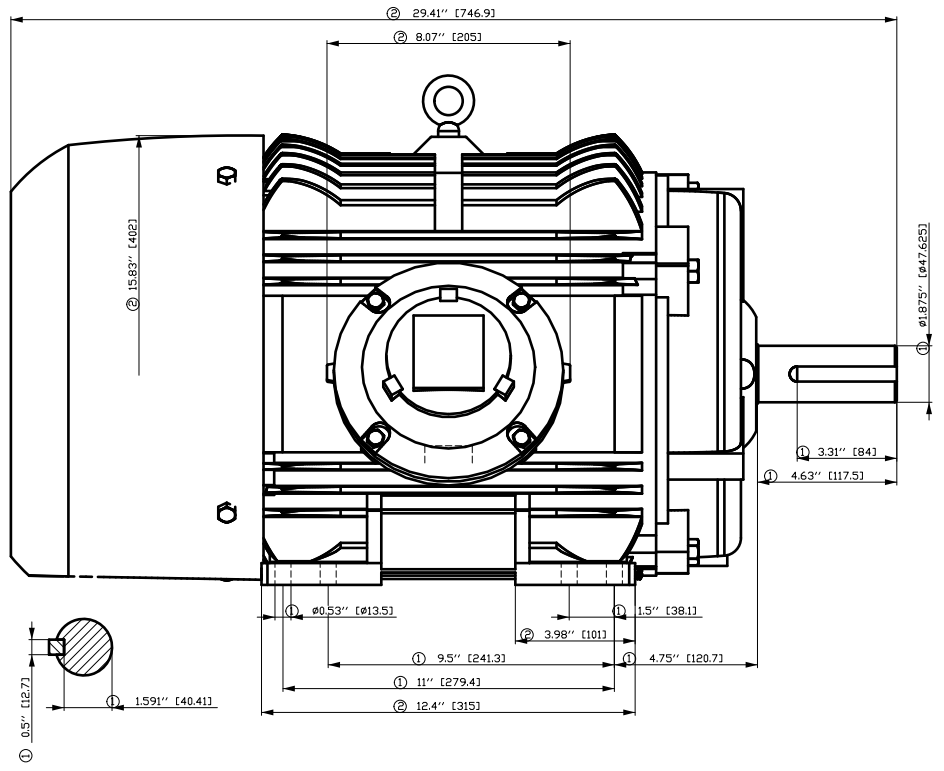
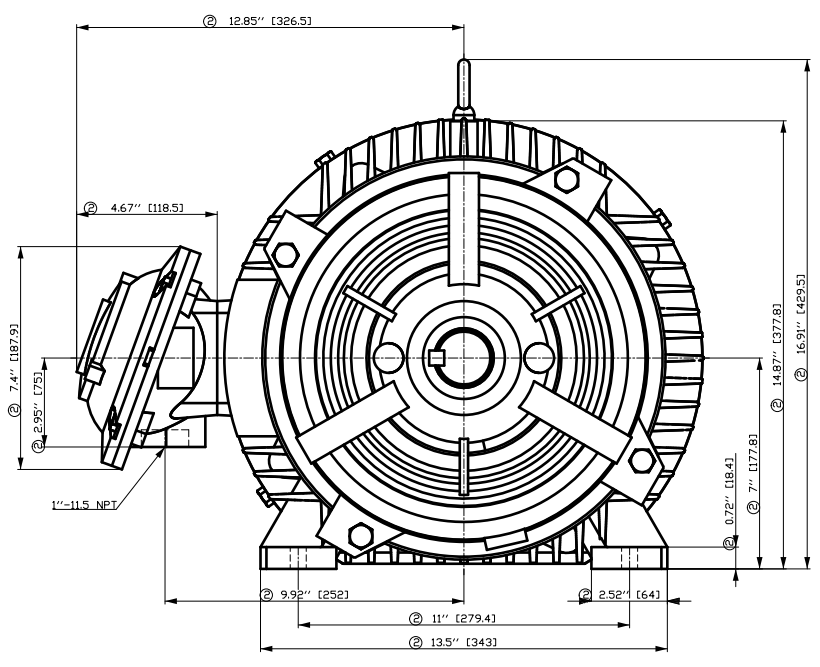
Terminal box

Lead Wire Connection					9 LEAD - DELTA					Terminal box position	(3) Mounting - F-1
Voltage	L1	L2	L3	Connected together						Material of terminal box	Cast Iron
LOW	T1 T7 T6	T2 T8 T4	T3 T9 T5	---						Cable entry	-/-
HIGH	T1	T2	T3	T4 T7-T5 T8-T6 T9							

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 1MB2221-2CB21-6AA3	document number					
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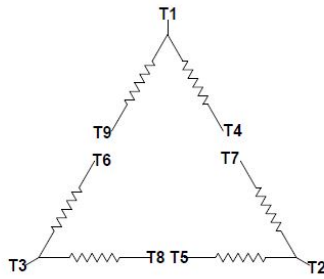


- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.


Tolerance	Surface	Material	Weight	Scale
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É	Creator	T a : ^ & @ } *		
	Approval			
	Department			
	Change Order	MLFB		Doc Type
	Doc. State	HÖB		Paper Size
	Revision	Index RS		1st Language
				2nd Language
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2023				Sheet
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V&@ B&@z&@z&@ A* ab&@A &@&@ *^A

Main terminal diagram



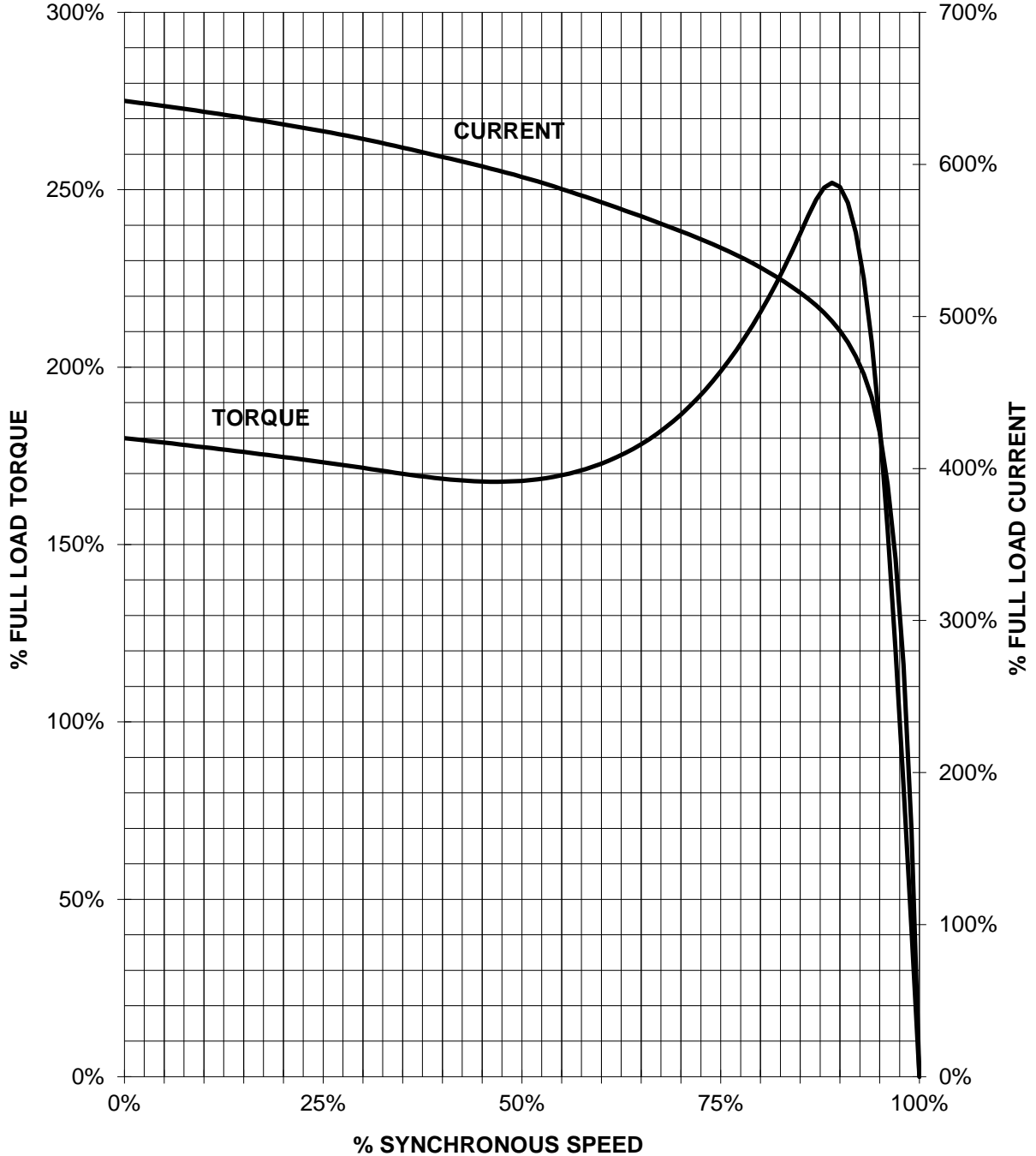
9 LEAD DELTA						
Volts	LINES			CONNECTED TOGETHER	CONN.	
	L1	L2	L3			
LOW	T1 T6	T7 T4	T2 T8 T3 T9 T5		Δ Δ	
HIGH	T1	T2	T3	T4 T7-T5 T8-T6 T9	Δ	

responsible dep. IN LVM	technical reference	created by	approved by	Project	Link documents
SIEMENS	document type Wiring Diagram	document status free		document number	
	title 1MB2221-2CB21-6AA3	rev. 02	creation date 03/05/2024		
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SIEMENS INDUSTRY, INC.

HP 30 VOLTS <600 RPM 1800 TYPE XP100 1D1
HZ 60 PHASE 3 FRAME 286T NEMA B

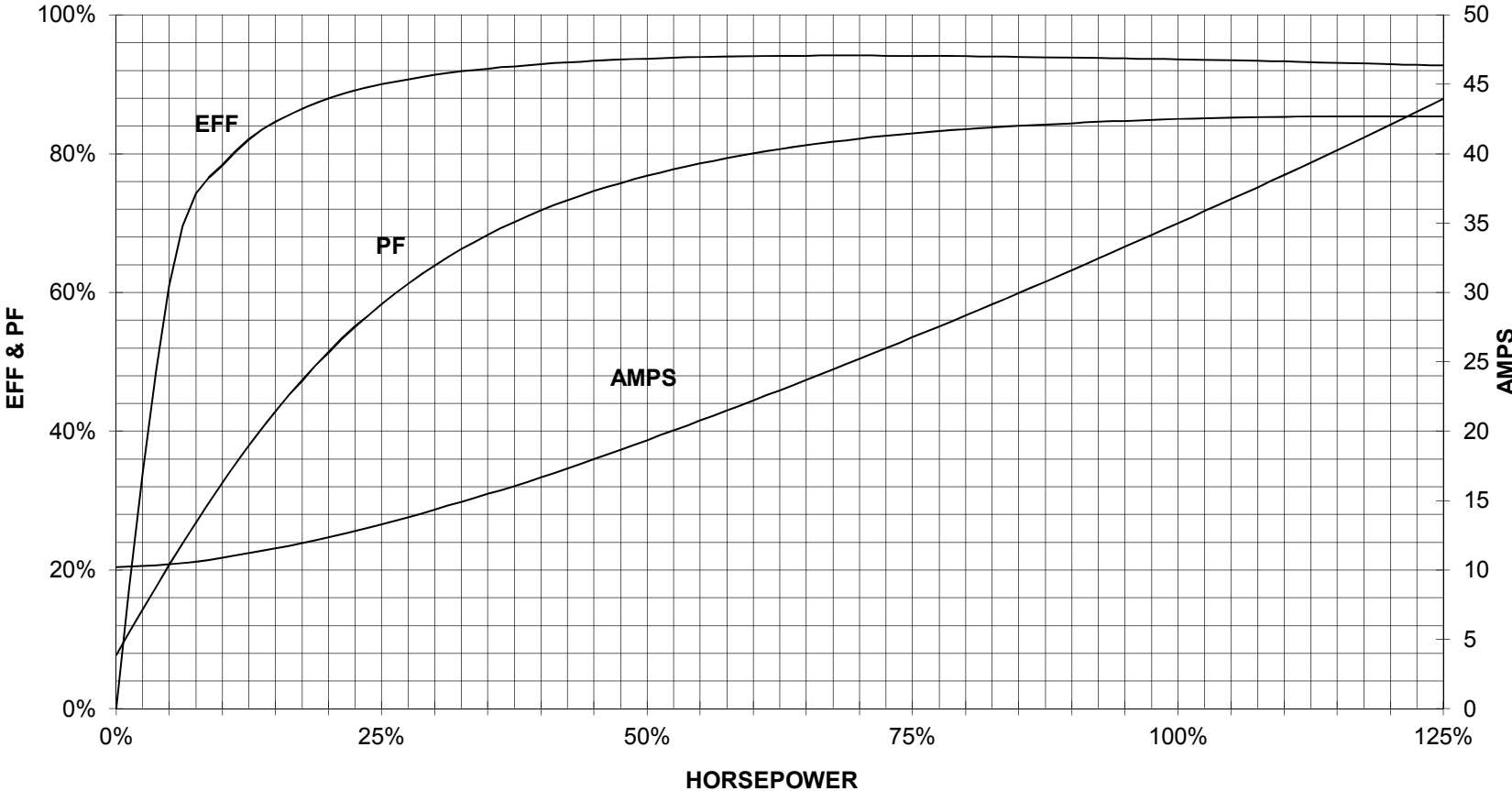
TORQUE & CURRENT VS. SPEED



CUSTOMER: _____ ORDER#: _____

30 HP 1800 RPM 286T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

SIEMENS INDUSTRY, INC.
PERFORMANCE CURVE
XP100 1D1



CUSTOMER _____ ORDER # _____ PO # _____

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

Certificate of Verification

Certificate: 2313253 (EEV101783)

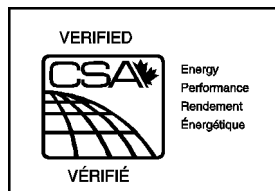
Master Contract: 153422

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.