

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

**Motor type:** FS: 145T - 2p - 2 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				
460		60	2.00	-/-	3,515	2.50	2.00	1.60	1.20	23.0	85.5	85.7	84.0	87.6	81.3	69.0	2.9	255	431	
230		60	2.00	-/-	3,515	5.00					85.5	85.7	84.0	87.6	81.3	69.0	2.9	255	431	

Frame Type: 145T	Type of constr.: (A) Foot mounted - End shield	Ins. Cl.:Insulation class F	Motor Prot.:(A) No winding protection	NEMA Des.: B	S.F.: 1.15
Mtr. WT:65		Temp. Rise Cl.: B	Amb. Temp.: + to -20 °C @1000 m	kVA: L	IP IP65

**Mechanical data**


Sound level (SPL / SWL) at 60 Hz	64.0 dB(A) / 76.0 dB(A)	Thickener	Polyurea
Octave Band Center Frequencies Hertz	250 500 1000 2000 4000 8000 Hz	Safe Stall Time Hot	13 s
SPL@3	dB(A)	Safe Stall Time Cold	18 s
Moment of inertia	0.6 Lb-ft <sup>2</sup>	Frame material	cast iron
Ext Load Inertia Capability:	2.0 Lb ft <sup>2</sup>	Color, paint shade	
<b>Bearings</b>		Coating (paint finish)	
Bearing DE   NDE	6205 Z C3 S0   6205 Z C3 S0	<b>Ventilation Type</b>	
Bearing_Type	Ball Bearing   Ball Bearing	Method of cooling	TEFC
AFBMA:	25BC02JP30   25BC02JP30	Direction of rotation	Bidirectional
<b>Grease</b>		Fan Material	Polypropylen ESD
Capacity	0.1 oz   0.1 oz	VFD	CT: 4:1 VT: 20:1
Grease Type:	Exxon Mobile EM	Space heaters	without
		Brake:	-/-

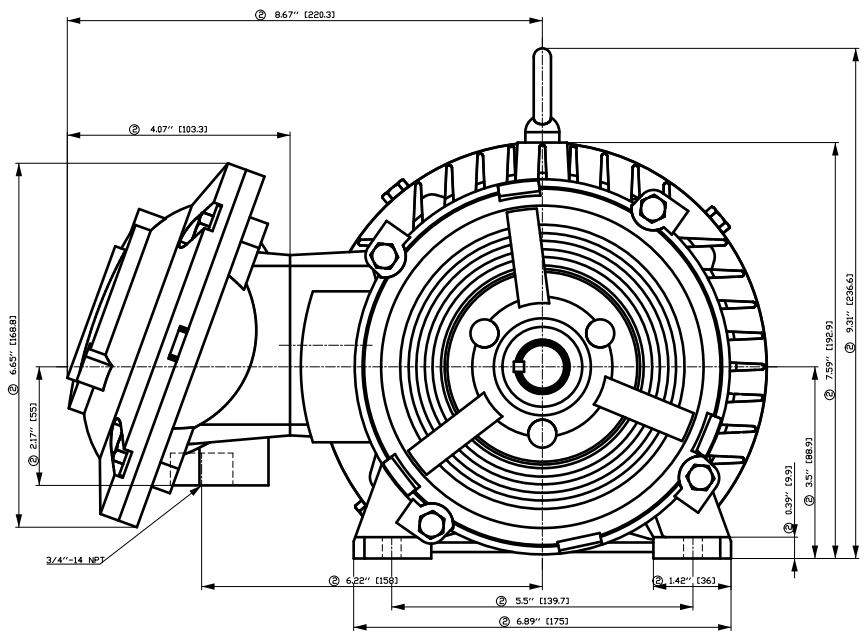
**Terminal box**

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

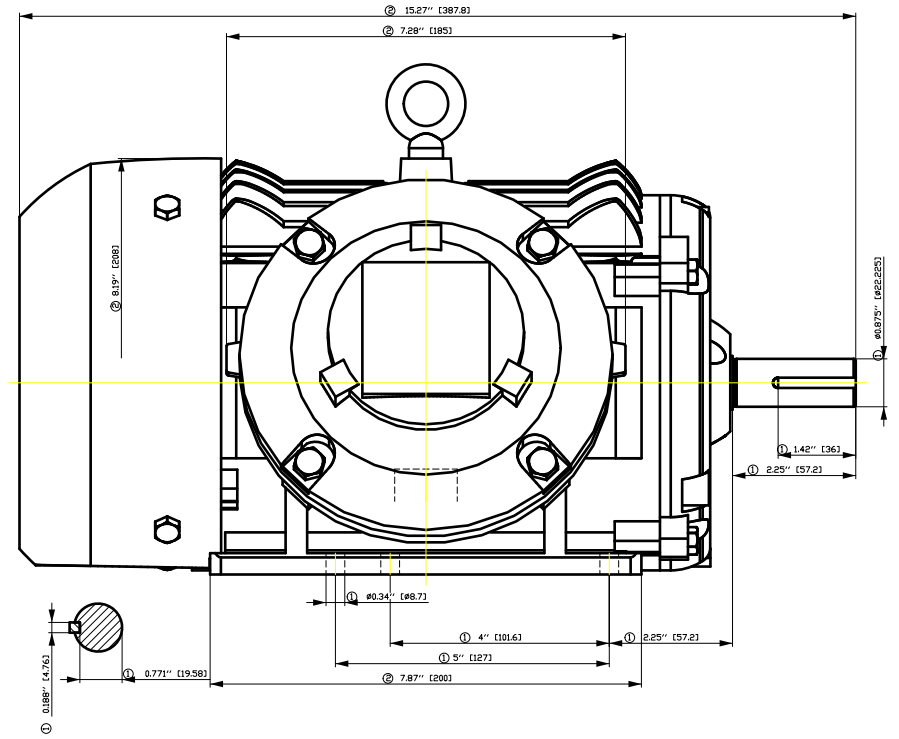
**Notes:**  
 I<sub>L</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>L</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 M<sub>d</sub>/M<sub>N</sub> = break down torque / nominal torque  
 3) Value is valid only for DOL operation with motor design IC411  
 2) at rated power / at full load

responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	<i>Technical data are subject to change! There may be discrepancies between software and hardware versions</i>
-------------------------------	---------------------	-------------------------------	-------------	----------------------------------------------------------------------------------------------------------------

	document type datasheet	document status released	customer	
	title 1MB2221-1AA31-4AA3	document number		
© Siemens AG 2022	rev. 01	creation date 2022-04-08 16:23	language en	Page 1/1

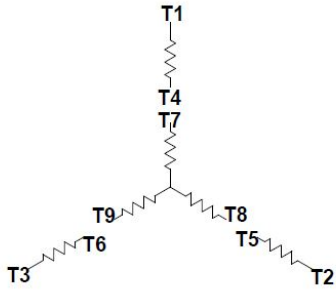


- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.



Tolerance	Surface	Material	Weight	Scale	
FT ÖGGGF-E-ÖEIE-F-E ÖEIE	Author	ÖEIE ^)•E)EÖEIEE E*	E		
E	Creator				ÖVS
	Approval				T E : ^E@~}*
	Department				
	Change Order	MFB	Doc Type		
SIEMENS	Doc. State	I E ÖGG	Item No	Paper Size	
	Revision	Index RS	Doc No	1st Language ^)	
© Siemens AG 2018	Project No	E	Ref No	E	
				2nd Language E^)	
				Sheet F of F	

Main terminal diagram



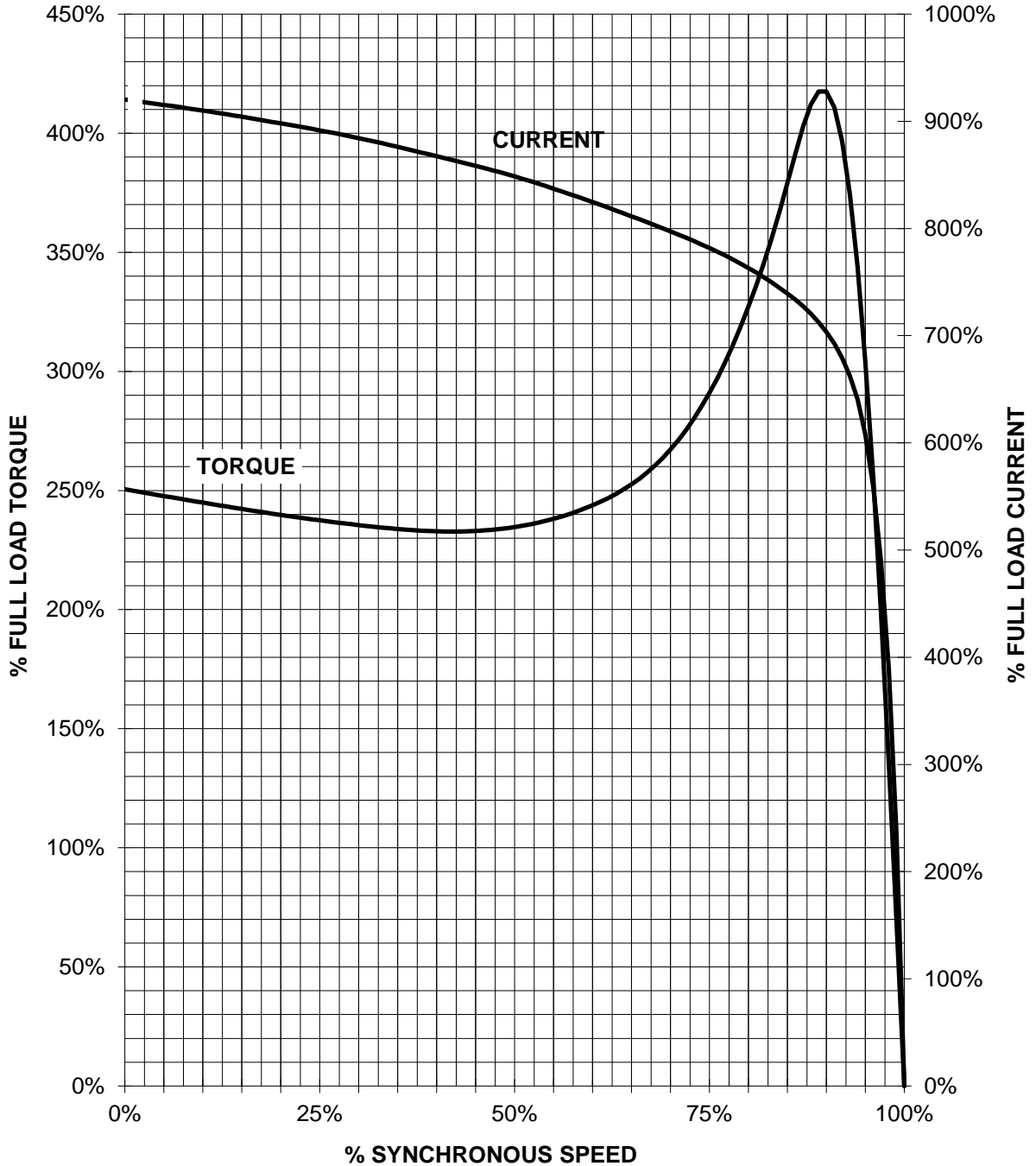
9 LEAD WYE						
Volts	LINES			CONNECTED TOGETHER	CONN.	
	L1	L2	L3			
LOW	T1 T7	T2 T6	T3 T9	T4 T5 T6	YY	
HIGH	T1	T2	T3	T4 T7-T5 T8-T6 T9	Y	

responsible dep. DI MC LVM	technical reference	created by	approved by	Project
<b>SIEMENS</b>	document type Wiring Diagram	document status free		customer
	title 1MB2221-1AA31-4AA3	document number		
© Siemens AG 2019	rev. 01	creation date 12/03/2019	language en	Page 1/1

# SIEMENS INDUSTRY, INC.

HP 2 VOLTS <600 RPM 3600 TYPE XP100 1D1  
HZ 60 PHASE 3 FRAME 145T NEMA B

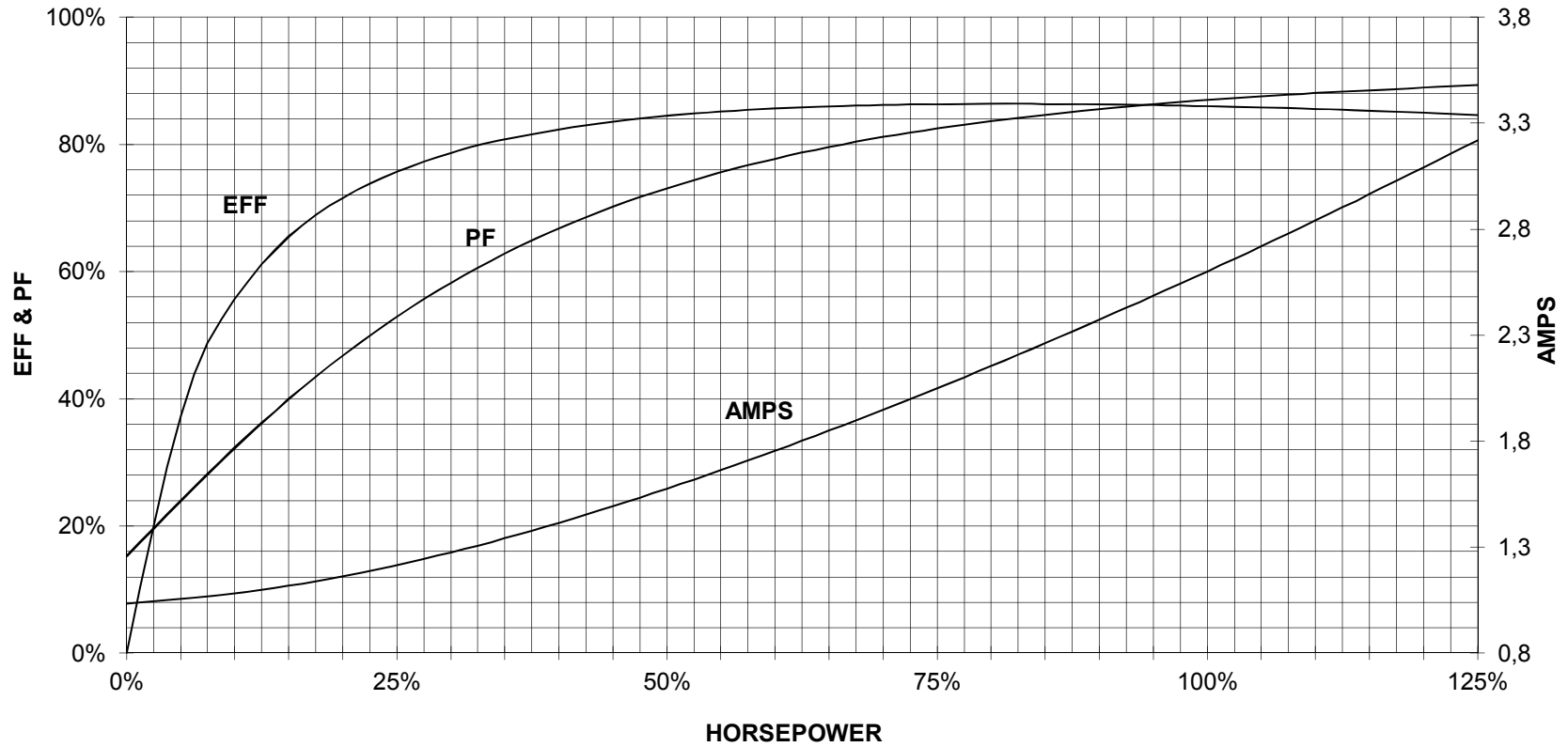
## TORQUE & CURRENT VS. SPEED



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

2 HP 3600 RPM 145T 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.

REV. 1