

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

**Motor type:** FS: 445T - 4p - 150 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]					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		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: 445T	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:1,934		Temp. Rise Cl.: B	Amb. Temp.: + 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	250 500 1000 2000 4000 8000 Hz	Safe Stall Time Hot	20 s
SPL@3	dB(A)	Safe Stall Time Cold	30 s
Moment of inertia	45.0 Lb-ft <sup>2</sup>	Frame material	cast iron
Ext Load Inertia Capability:	640.0 Lb ft <sup>2</sup>	Color, paint shade	
<b>Bearings</b>		Coating (paint finish)	
Bearing DE   NDE	NU 318   6316 Z C3 S0	<b>Ventilation Type</b>	
Bearing_Type	Roller Bearing   Ball Bearing	Method of cooling	TEFC
AFBMA:	90RU03M0   80BC03JP30	Direction of rotation	Bidirectional
<b>Grease</b>		Fan Material	Polypropylen ESD
Capacity	14.5 oz   7.5 oz	VFD	CT: 4:1 VT: 20:1
Grease Type:	Exxon Mobile EM	Space heaters	without
		Brake:	-/-

## Terminal box

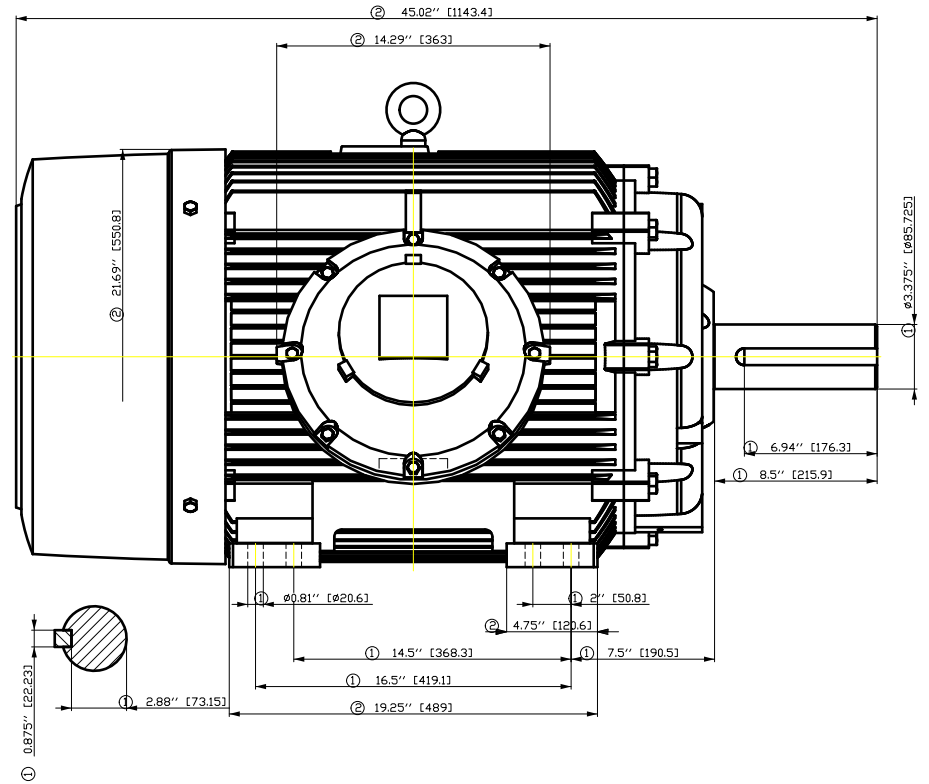
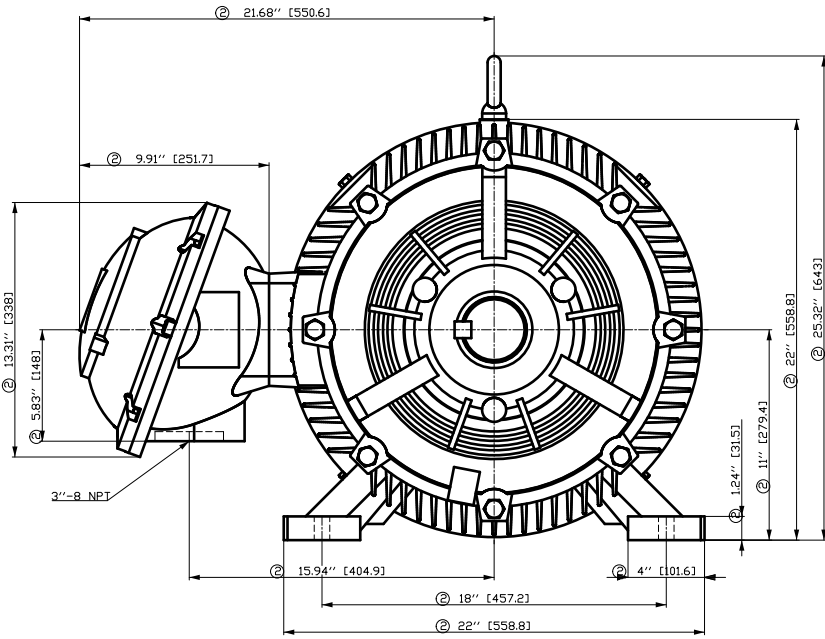
Lead Wire Connection	6 LEAD - DELTA	Terminal box position	(3) Mounting - F-1
Voltage	L1 L1 L1 Connected together	Material of terminal box	
----	----	Cable entry	-/-
----	T1 T2 T3		

Notes:

1) I<sub>r</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 2) M<sub>r</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 3) 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.	technical reference	created by	approved by	<i>Technical data are subject to change! There may be discrepancies between datasheet and customer's contract</i>
DI MC LVM		DT Configurator		

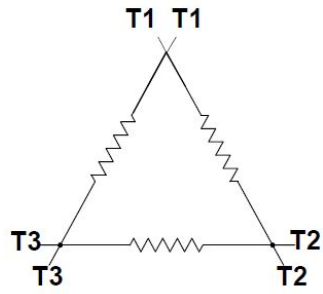
	document type	document status	customer	
	datasheet	released		
	title	document number		
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		01	2022-04-09 02:18	en 1/1




- 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 ÖGGR# ÖÖGF#ÖÖEH	Author	Öä ^)•ä}ä/äq ä*	E		
E	Creator				ÖVS
	Approval				T ä : ^ä@ }*
	Department				
	Change Order	MFB	Doc Type	/	
	Doc. State	I EGG	Item No	Paper Size	
	Revision	Index RS	Doc No	1st Language	
				2nd Language	
© Siemens AG 2018	Project No	E	Ref No	E	
				Sheet F of F	

Main terminal diagram



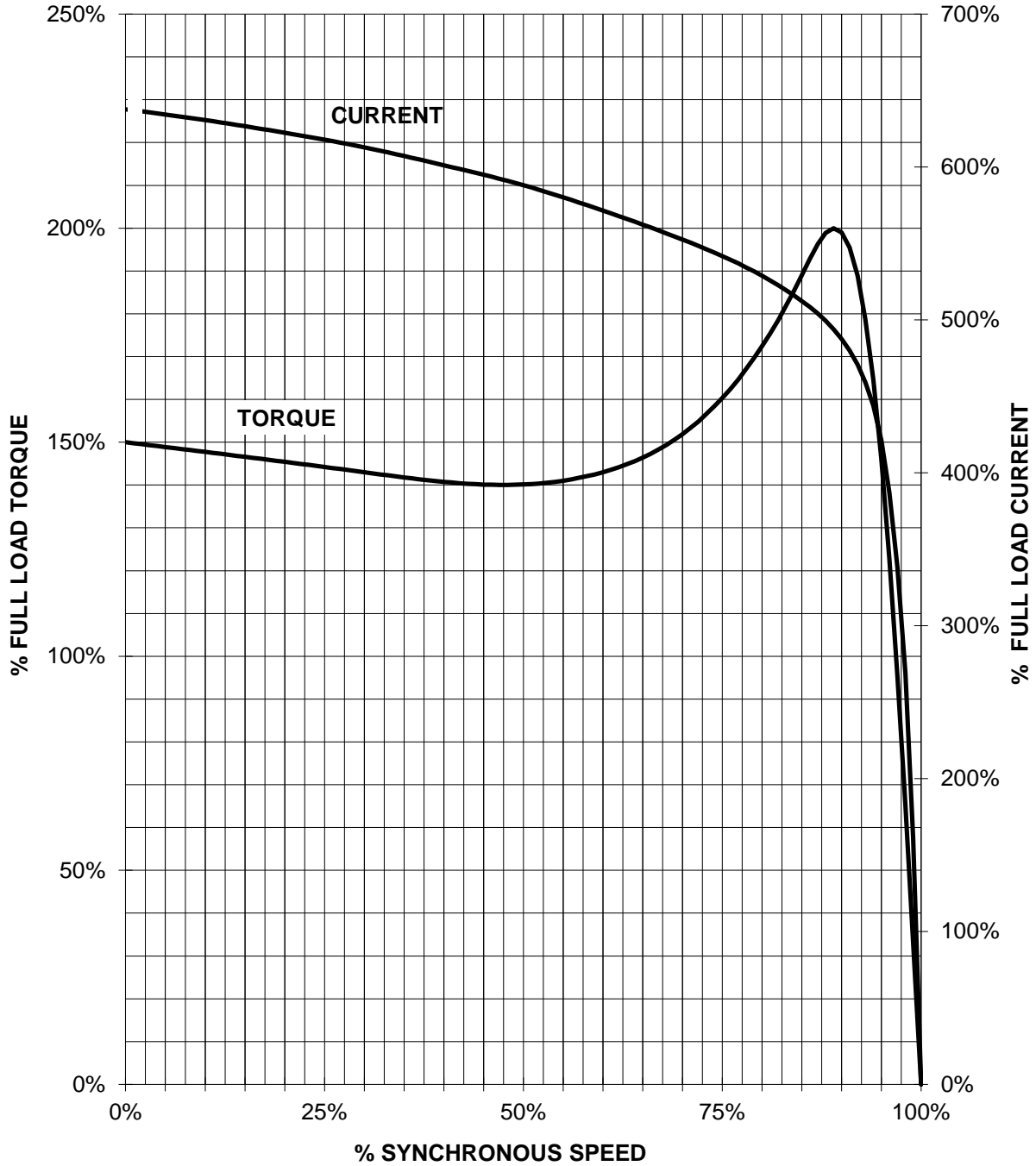
6 LEAD DELTA			
LINES			CONN.
L1	L2	L3	
T1	T2	T3	Δ

responsible dep. DI MC LVM	technical reference	created by	approved by	Project		
	document type Wiring Diagram		document status free		customer	
	title 1MB2221-4CB21-3AA3		document number			
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# SIEMENS INDUSTRY, INC.

HP 150    VOLTS <600    RPM 1800    TYPE XP100 1D1  
HZ 60    PHASE 3    FRAME 445T    NEMA B

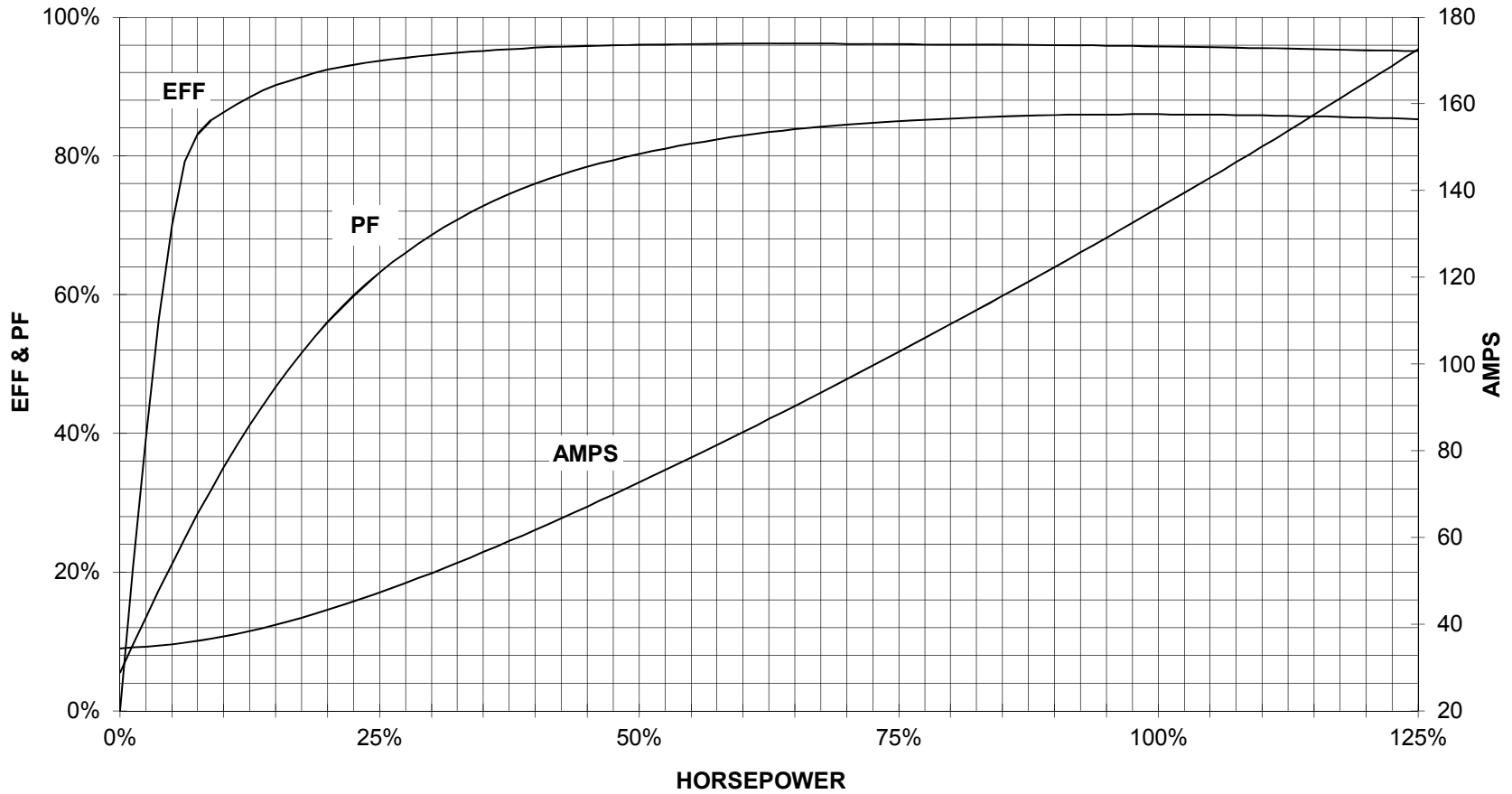
## TORQUE & CURRENT VS. SPEED



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

150 HP 1800 RPM 445T 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