

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

**Motor type:** FS: 256T - 4p - 20 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			
460		60	20.00	-/-	1,770	25.00	19.80	15.40	10.50	145.0	93.0	93.4	93.1	80.5	75.9	65.3	60.0	183	240
230		60	20.00	-/-	1,770	50.00					93.0	93.4	93.1	80.5	75.9	65.3	60.0	183	240

Frame Type: 256T	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:350		Temp. Rise Cl.: B	Amb. Temp.: + to -20 °C @1000 m	kVA: G	IP IP65

**Mechanical data**

Sound level (SPL / SWL) at 60 Hz	61.0 dB(A) / 73.0 dB(A)	Thickener	Polyurea
Octave Band Center Frequencies Hertz	250 500 1000 2000 4000 8000 Hz	Safe Stall Time Hot	15 s
SPL@3		Safe Stall Time Cold	33 s
Moment of inertia	2.1 Lb-ft <sup>2</sup>	Frame material	cast iron
Ext Load Inertia Capability:	99.0 Lb ft <sup>2</sup>	Color, paint shade	
<b>Bearings</b>		Coating (paint finish)	
Bearing DE   NDE	6309 Z C3 S0   6309 Z C3 S0	<b>Ventilation Type</b>	
Bearing_Type	Ball Bearing   Ball Bearing	Method of cooling	TEFC
AFBMA:	45BC03JP30   45BC03JP30	Direction of rotation	Bidirectional
<b>Grease</b>		Fan Material	Polypropylen ESD
Capacity	0.5 oz   0.5 oz	VFD	CT: 4:1 VT: 20:1
Grease Type:	Exxon Mobile EM	Space heaters	without
		Brake:	-/-


**Terminal box**

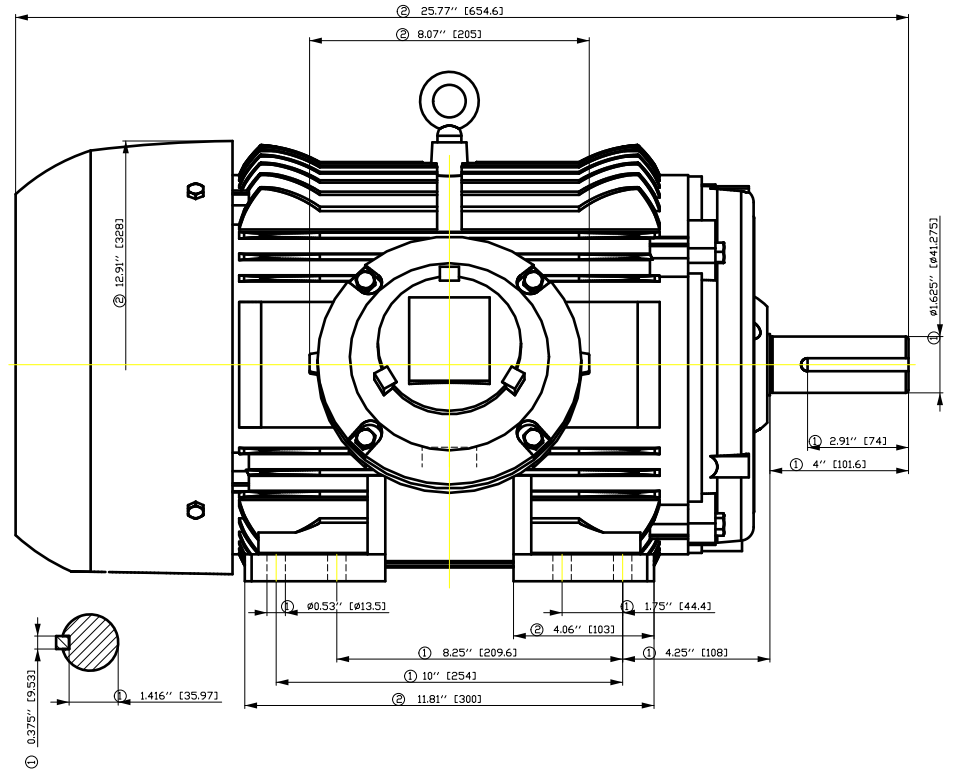
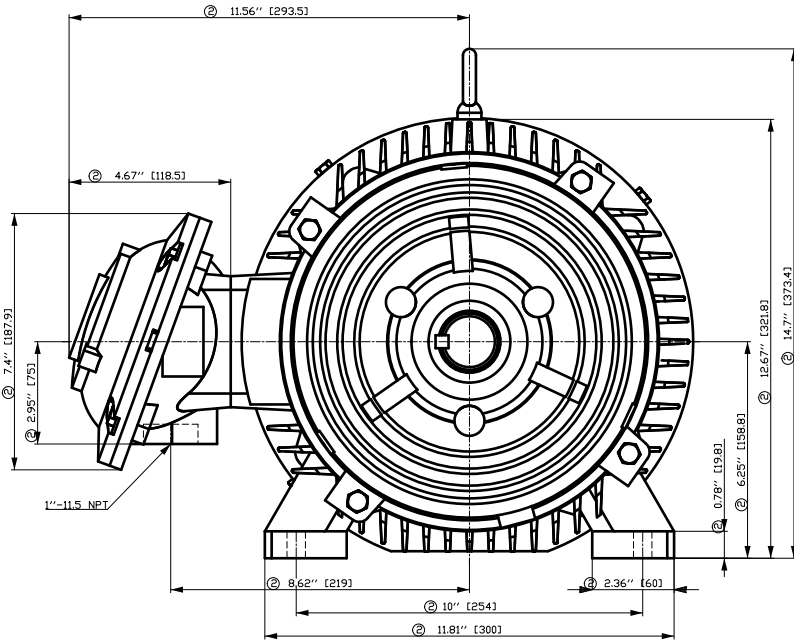
Lead Wire Connection	9 LEAD - WYE	Terminal box position	(3) Mounting - F-1
Voltage	L1 L1 L1 Connected together	Material of terminal box	
LOW	T1 T7 T2 T8 T3 T9 T4 T5 T6	Cable entry	-/-
HIGH	T1 T2 T3 T4 T7-T5 T8-T6 T9		

**Notes:**

I<sub>r</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>r</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

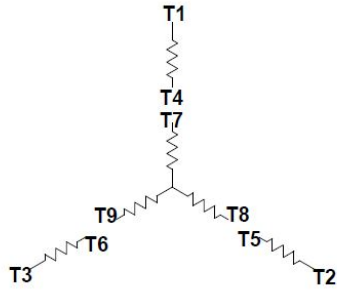
responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	<i>Technical data are subject to change! There may be discrepancies between software and hardware versions</i>	
	document type datasheet	document status released	customer		
	title 1MB2221-2BB21-4AA3	document number	rev. 01	creation date 2022-04-08 20:25	language en
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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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E	Creator				ÖVS
	Approval				T ä : ^ä@ }*
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	Doc. State	I ð ÖG	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



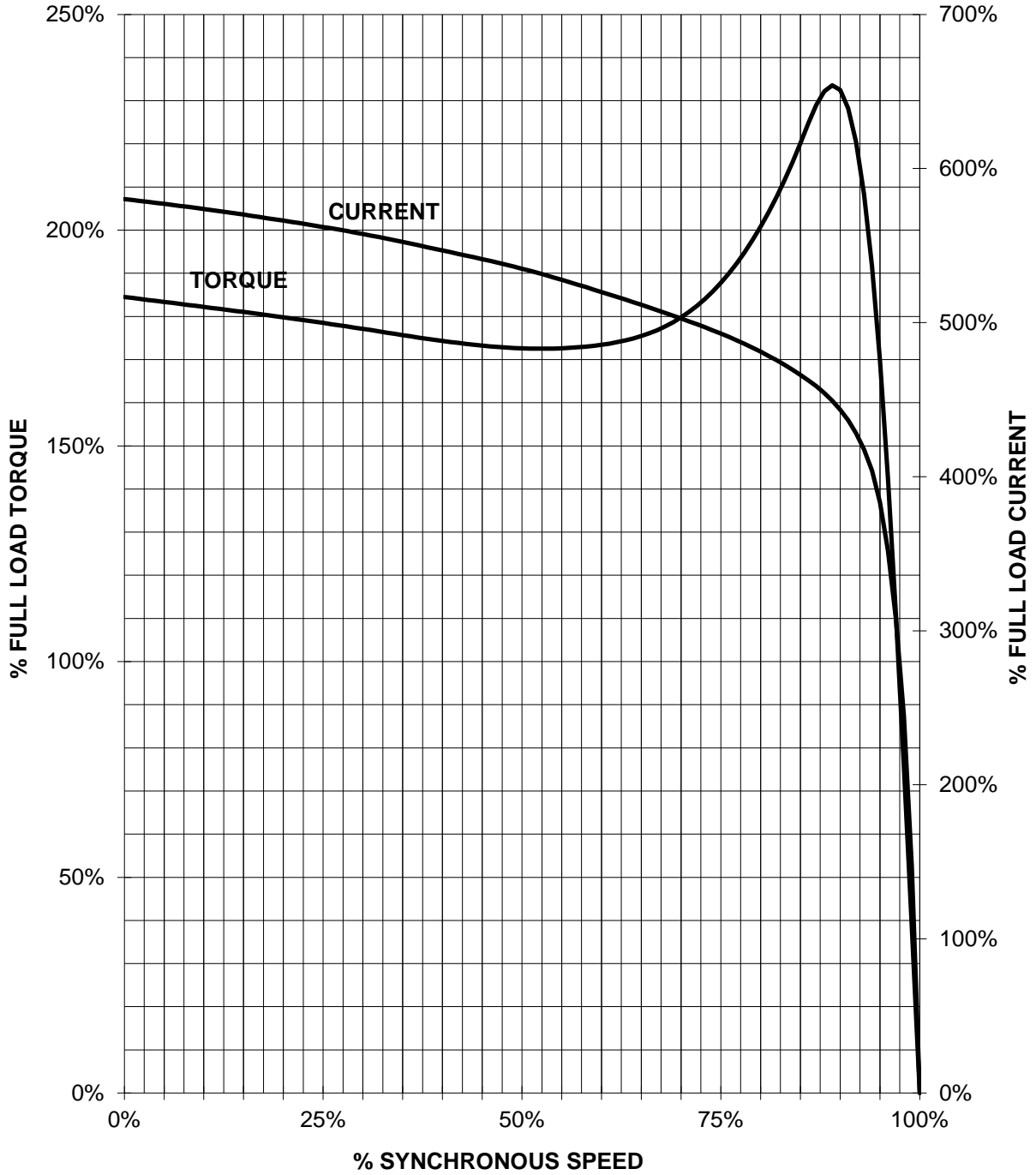
9 LEAD WYE						
Volts	LINES			CONNECTED TOGETHER	CONN.	
	L1	L2	L3			
LOW	T1 T7	T2 T6	T3 T9	T4 T5 T6	YY	
HIGH	T1	T2	T3	T4 T7-T5 T8-T6 T9	Y	

responsible dep. DI MC LVM	technical reference	created by	approved by	Project
<b>SIEMENS</b>	document type Wiring Diagram	document status free		customer
	title 1MB2221-2BB21-4AA3	document number		
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# SIEMENS INDUSTRY, INC.

HP 20 VOLTS <600 RPM 1800 TYPE XP100 1D1  
HZ 60 PHASE 3 FRAME 256T NEMA B

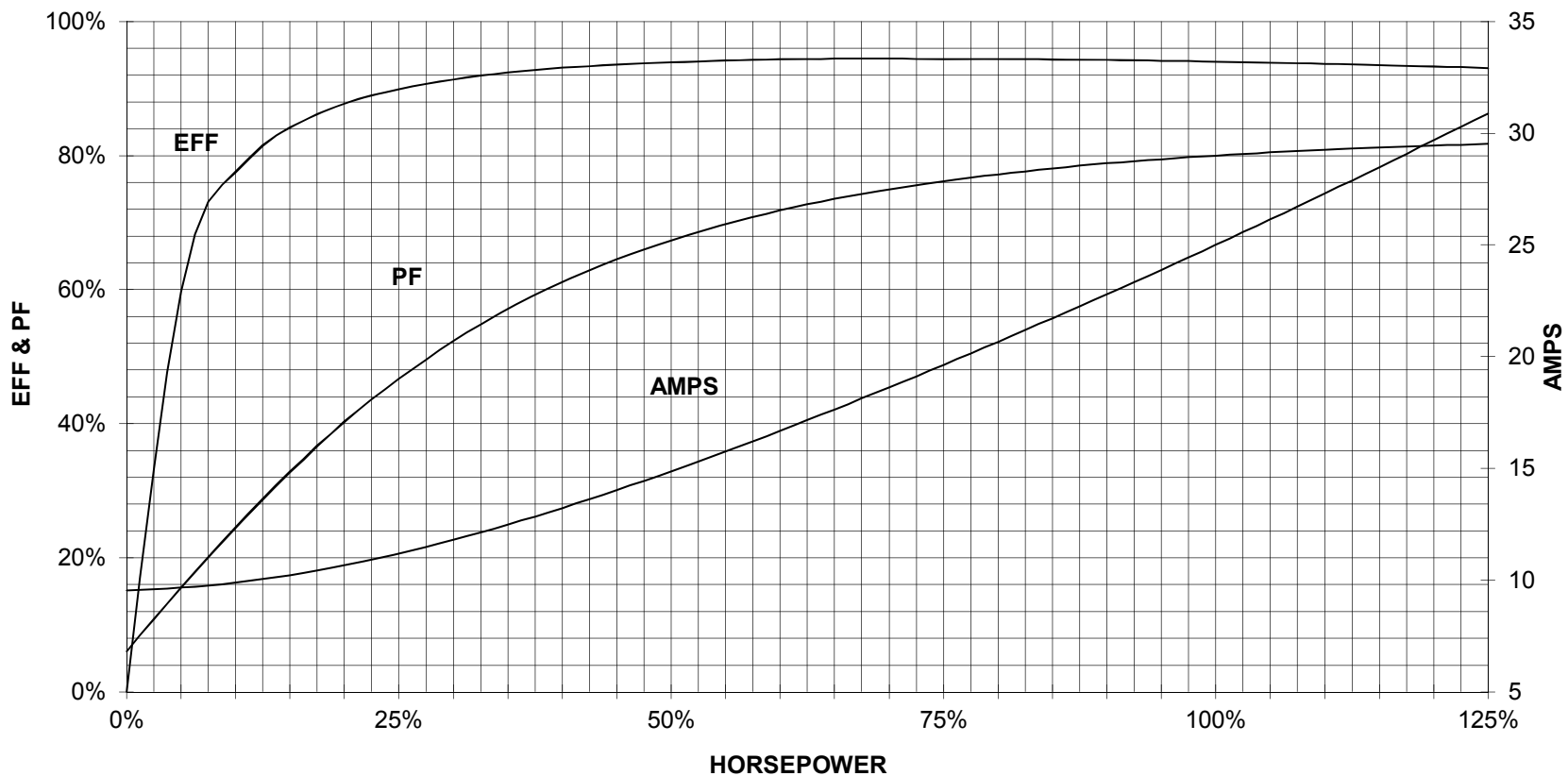
## TORQUE & CURRENT VS. SPEED



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

20 HP 1800 RPM 256T 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