

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

**Motor type:** FS: 286T - 6p - 20 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

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				
575		60	20.00	-/-	1,180	21.60	17.70	14.40	10.40	116.0	91.7	92.0	91.2	76.0	69.0	57.0	89.0	149	240	

Frame Type: 286T	Type of constr.: (A) Foot mounted - End shield	Ins. Cl.:Insulation class F	Motor Prot.:(G) Thermostats, Klixon type, normally closed	NEMA Des.: B	S.F.: 1.15
Mtr. WT:509		Temp. Rise Cl.: B	Amb. Temp.: + to -20 °C @1000 m	kVA: G	IP IP65


**Mechanical data**

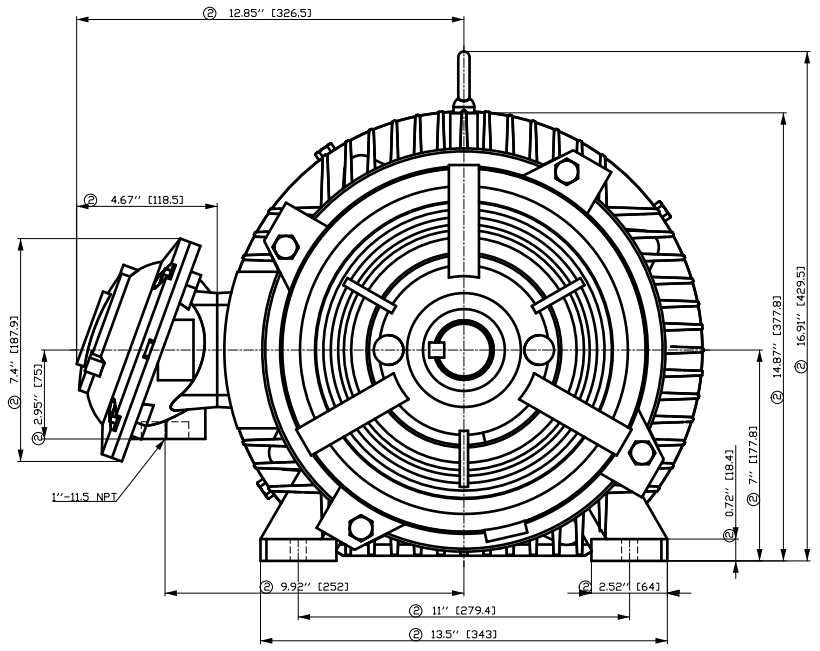
Sound level (SPL / SWL) at 60 Hz	61.0 dB(A) / 72.0 dB(A)	Thickener	Polyurea
Octave Band Center Frequencies Hertz	250 500 1000 2000 4000 8000 Hz	Safe Stall Time Hot	20 s
SPL@3	dB(A)	Safe Stall Time Cold	45 s
Moment of inertia	4.5 Lb-ft <sup>2</sup>	Frame material	cast iron
Ext Load Inertia Capability:	262.0 Lb ft <sup>2</sup>	Color, paint shade	
<b>Bearings</b>		Coating (paint finish)	
Bearing DE   NDE	6310 Z C3 S0   6310 Z C3 S0	<b>Ventilation Type</b>	
Bearing_Type	Ball Bearing   Ball Bearing	Method of cooling	TEFC
AFBMA:	50BC03JP30   50BC03JP30	Direction of rotation	Bidirectional
<b>Grease</b>		Fan Material	Polypropylen ESD
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**

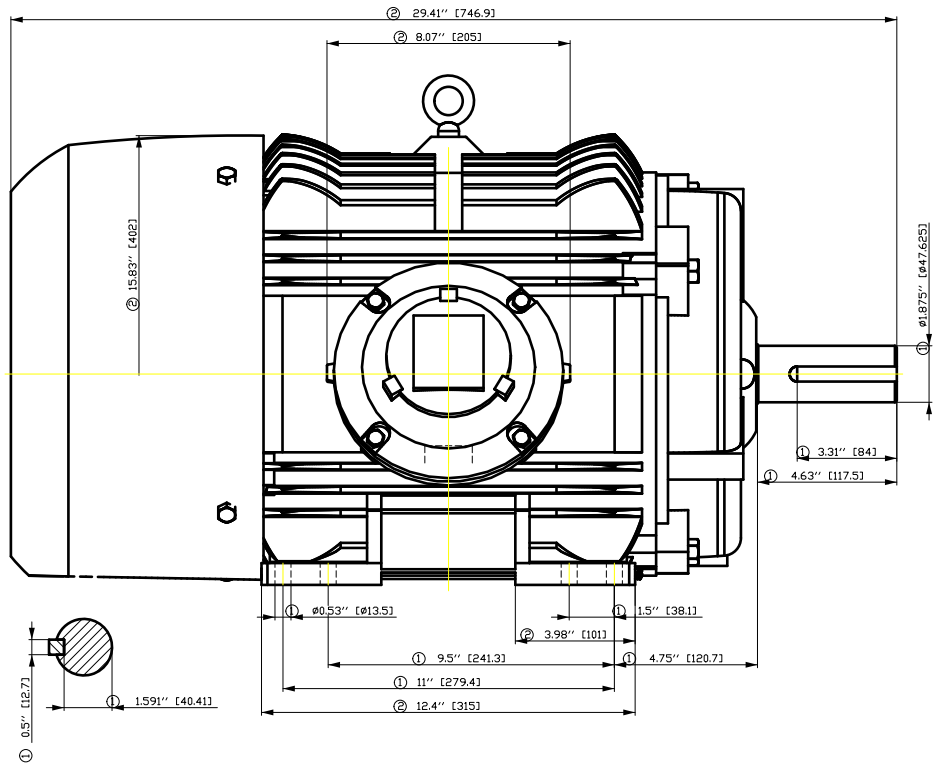
Lead Wire Connection	3 LEAD - DELTA	Terminal box position	(3) Mounting - F-1
Voltage	L1 L1 L1 Connected together	Material of terminal box	
----	----	Cable entry	-/-
----	T1 T2 T3		

**Notes:**  
 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		document number		
	title 1MB2121-2CC21-3AG3	rev. 01	creation date 2022-04-08 20:59	language en	Page 1/1		
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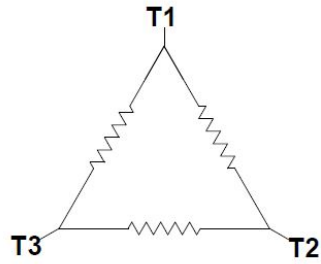


- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.



Tolerance	Surface	Material	Weight	Scale
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<b>SIEMENS</b>	Doc. State Revision Index RS	MFB Item No Doc No	Doc Type Paper Size CH	1st Language ^ } 2nd Language a ^
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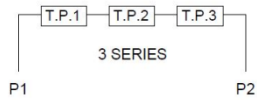
Main terminal diagram



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

Motor protection

THERMOSTATS



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technical reference

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Project

**SIEMENS**

document type  
Wiring Diagram

title  
1MB2121-2CC21-3AG3

document status  
free

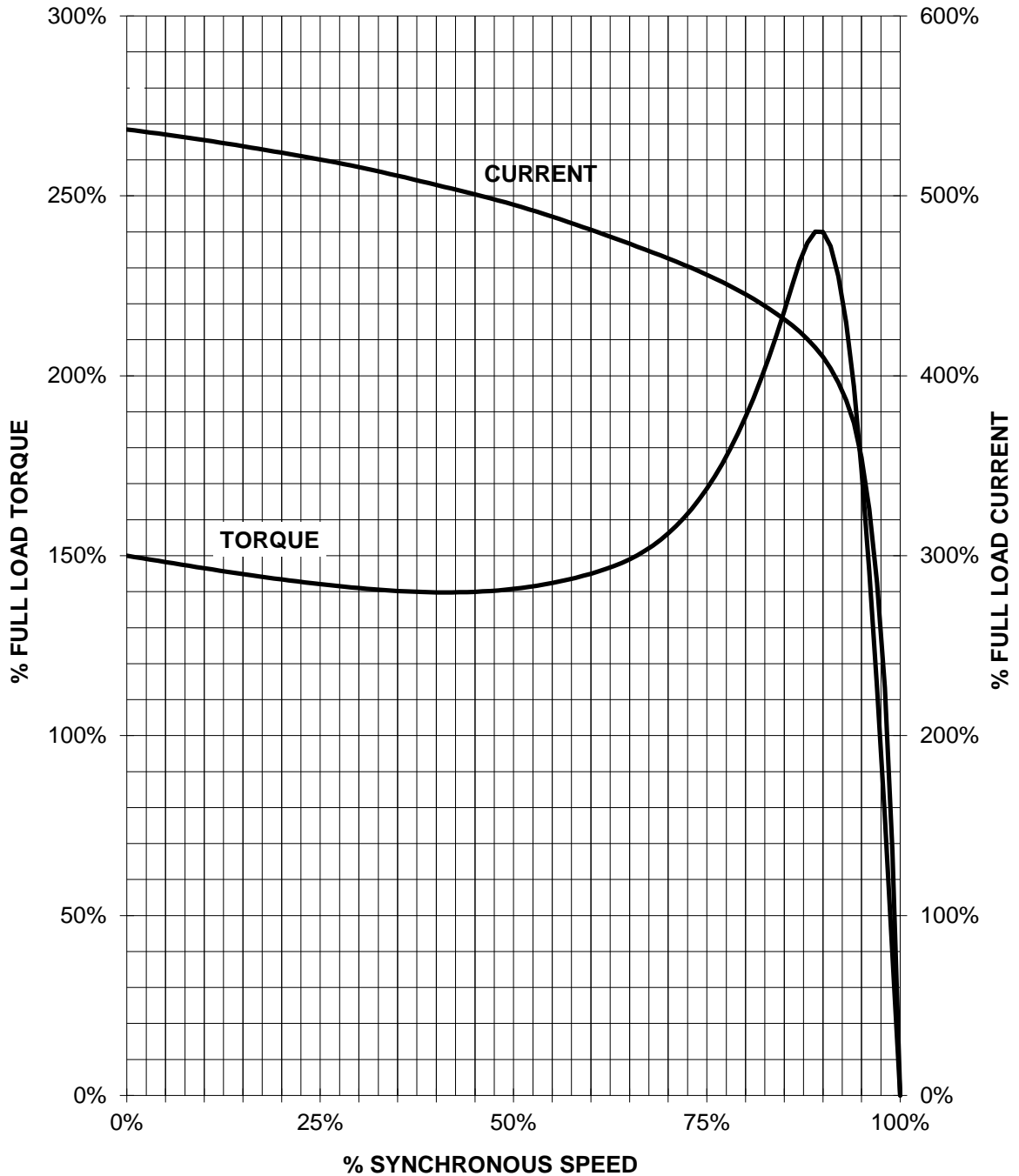
document number

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# SIEMENS INDUSTRY, INC.

HP 20 VOLTS <600 RPM 1200 TYPE XP100  
HZ 60 PHASE 3 FRAME 286T NEMA B

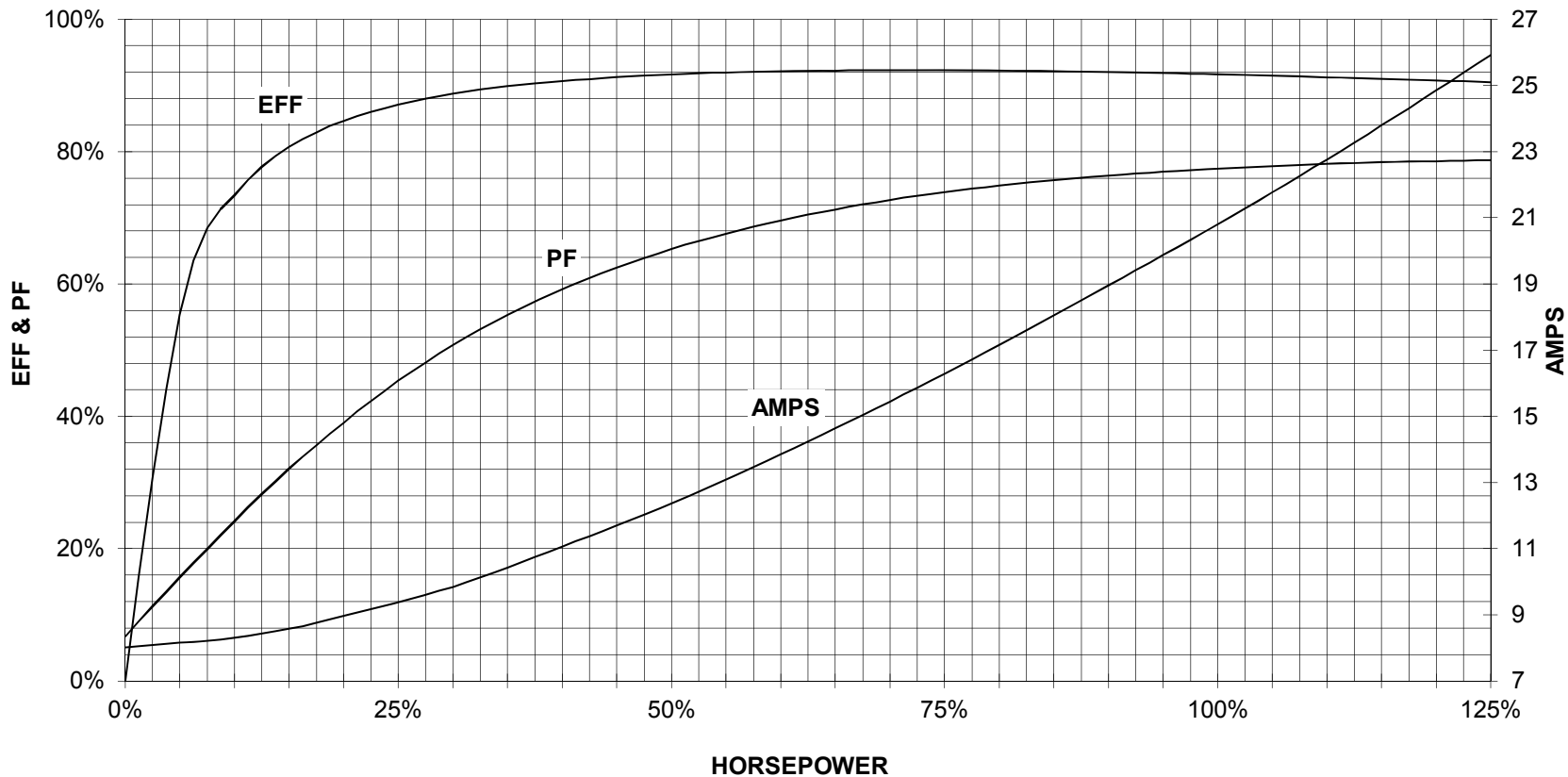
## TORQUE & CURRENT VS. SPEED



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

20 HP 1200 RPM 286T 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