

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

Motor type: **SD100 IEEE** FS: **286T - 6p - 20 hp -**

Client order no.	Item-No.	Offer no.
Order no.	Consignment no.	Project

Remarks

## Electrical data

Class I Division 2 Gr. A, B, C or D, T3

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	$\Delta$	60	20.00	15.00	1,200	27.00	22.10	18.00	13.00	145.0	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.: Standard Class F Insulation	Motor Prot.: (A) Without Protection	NEMA Des.: B	S.F.: 1.15
Mtr. WT: 462		Temp. Rise Cl.: B	Amb. Temp.: + 40 to -20 °C @1000 m	kVA: G	IP 55

## Mechanical data

Sound level (SPL / SWL) at 60 Hz	61.0 dB(A) / 72.0 dB(A)							Thickener	Polyurea
Octave Band Center Frequencies Hertz								Safe Stall Time Hot	20 s
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	45 s
SPL@3	49.0	55.0	52.0	54.0	56.0	50.0	dB(A)	Frame material	cast iron
Moment of inertia	4.5 Lb-ft <sup>2</sup>							Color, paint shade	Standard Paint - RAL7030
Ext Load Inertia Capability:	262.0 Lb ft <sup>2</sup>							Coating (paint finish)	Standard Alkyed + Epoxy (C2)
<b>Bearings</b>								<b>Ventilation Type</b>	
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
<b>Grease</b>								VFD	CT: 4:1 VT: 20:1
Capacity	2.6 oz			2.6 oz				Space heaters	without
Grease Type:	Exxon Mobile EM							Brake:	without

## Terminal box


Lead Wire Connection	3 LEAD - DELTA				Terminal box position	(3) F-1, Standard Floor Mount, T. Box LHS
Voltage	L1	L1	L1	Connected together	Material of terminal box	Cast Iron
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----	T1	T2	T3	----		

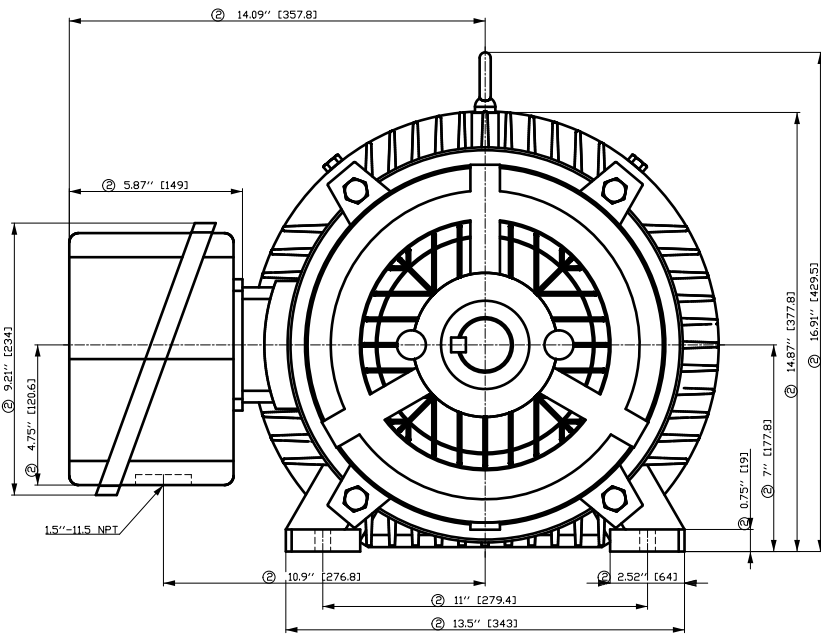
## Notes:

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>B</sub>/M<sub>N</sub> = break down torque / nominal torque

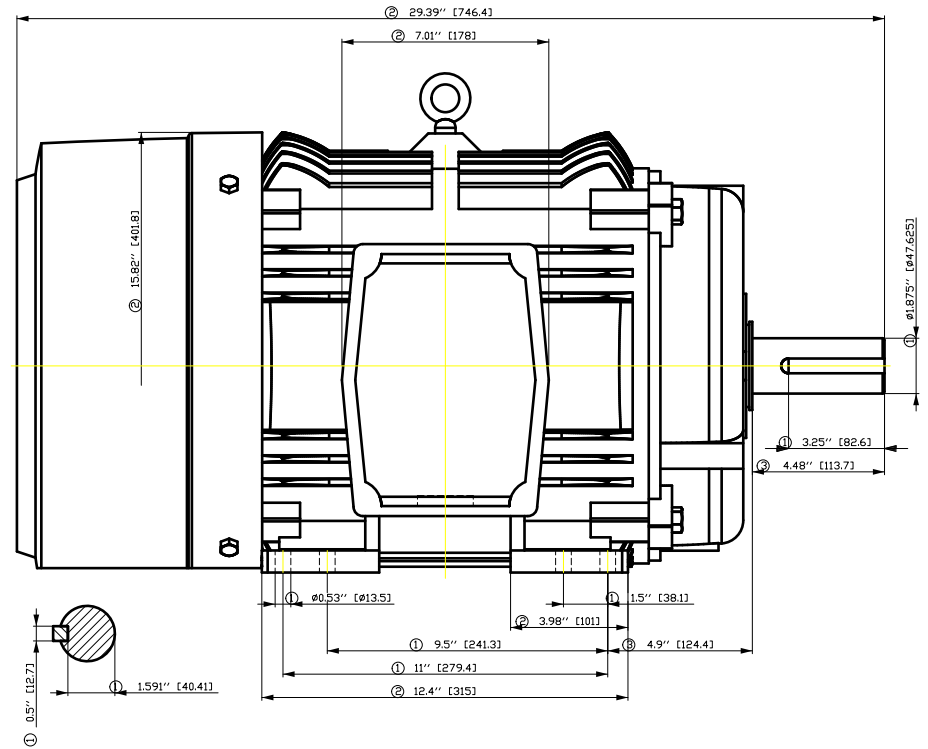
3) Value is valid only for DOL operation with motor design IC411  
2) at rated power / at full load

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>
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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.

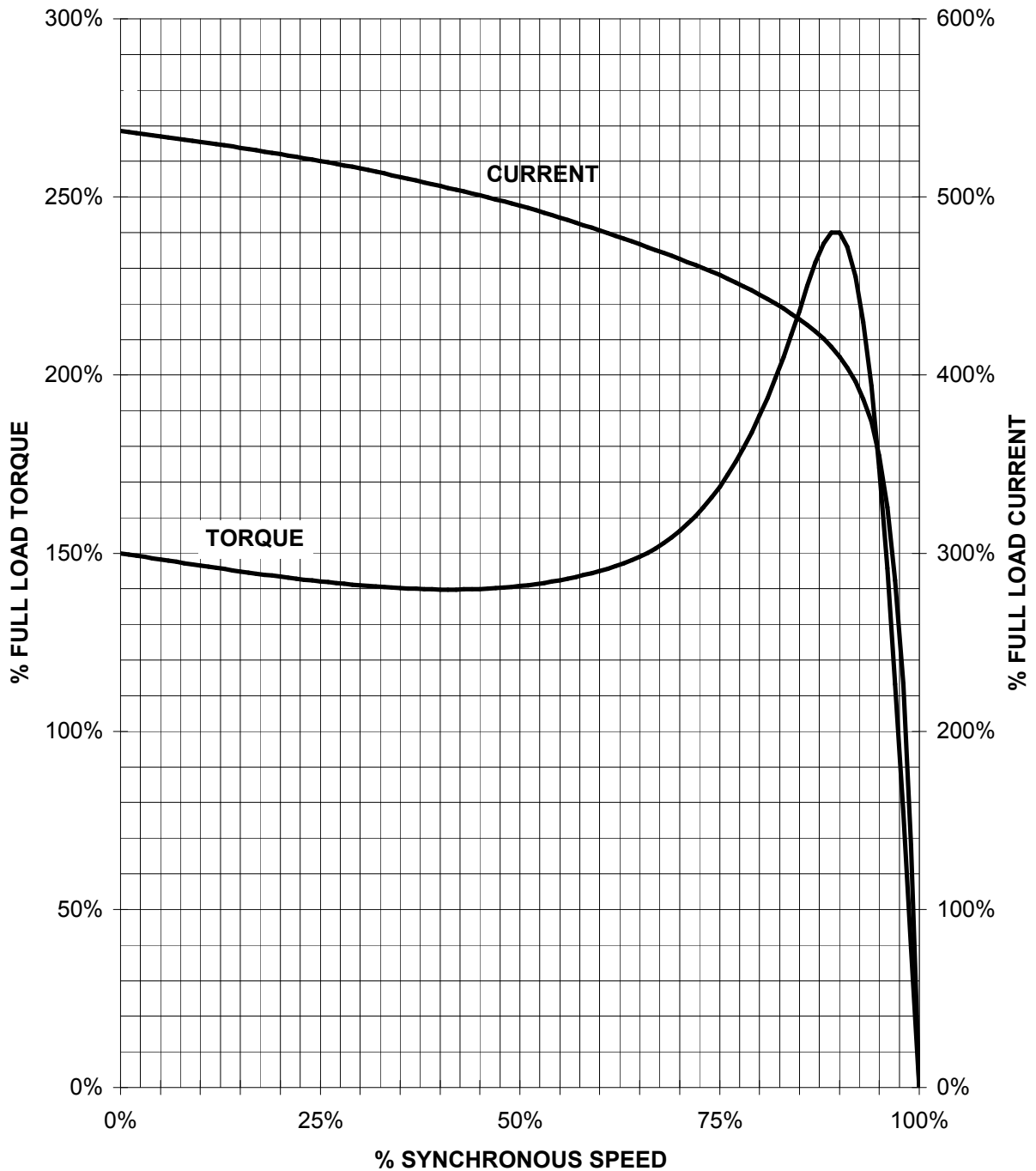


Tolerance	Surface	Material	Weight	Scale
F50G GF E00GF E00H E	Author Creator Approval Department Change Order	ÖVS T æ : ^ æ @ } *	E	{ {
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# SIEMENS INDUSTRY, INC.

HP 20 VOLTS < 600V RPM 1200 TYPE SD100 IEEE841  
HZ 60 PHASE 3 FRAME 286T NEMA B

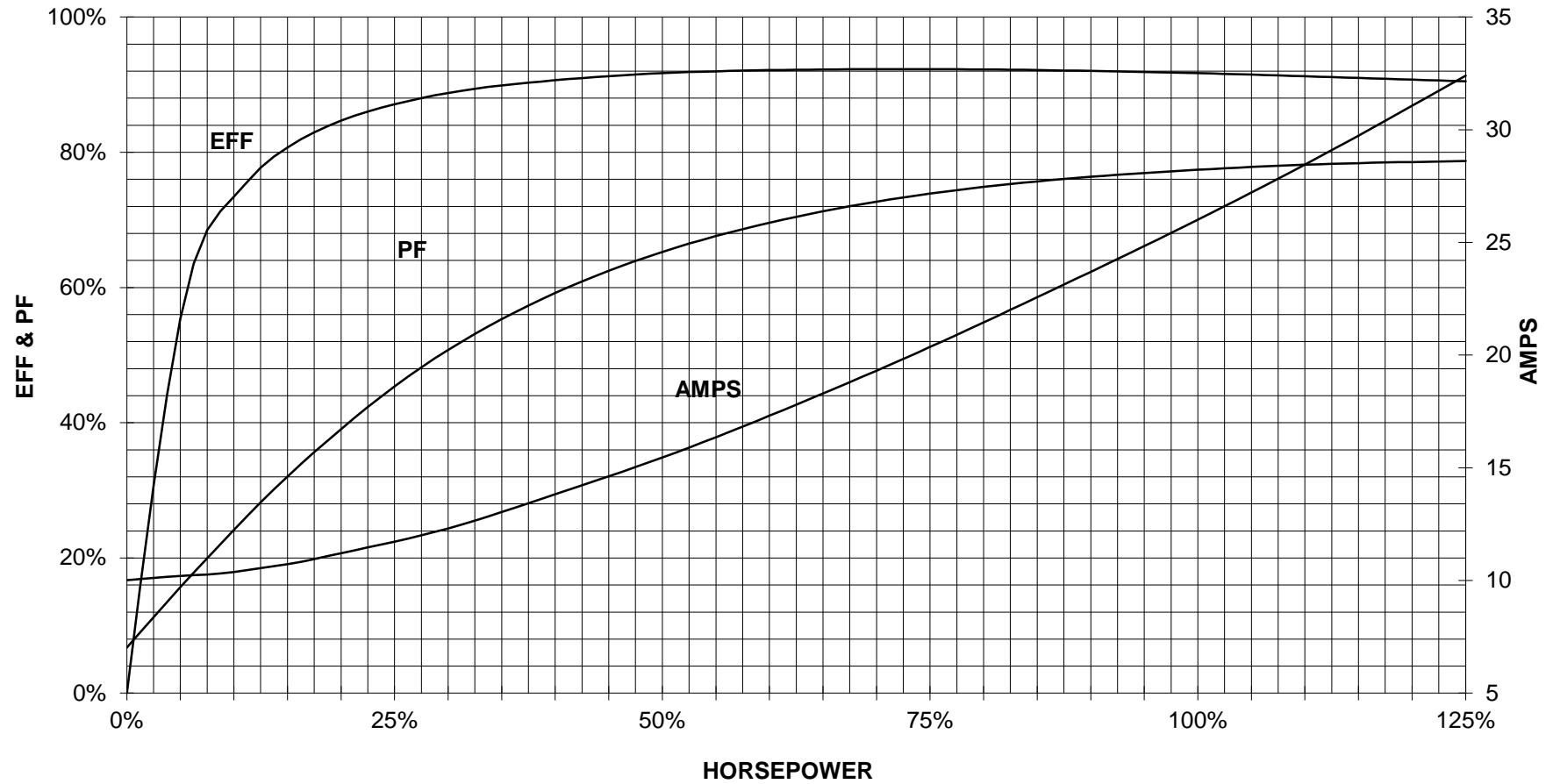
## TORQUE & CURRENT VS. SPEED



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

20 HP 1200 RPM 286T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

**SIEMENS INDUSTRY, INC.**  
**PERFORMANCE CURVE**  
**SD100 IEEE841**



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

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

REV. 1

Main terminal diagram



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

responsible dep.  
DI MC LVM

technical reference

created by

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Project

**SIEMENS**

document type  
Wiring Diagram

title  
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document status  
free

document number

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