

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

**Motor type:** SD100 IE3E **FS: 256T - 2p - 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	Y	60	20.00	15.00	3,600	22.50	16.80	11.80	5.20	145.0	91.0	91.6	92.1	91.5	91.3	86.2	30.0	183	230	

Frame Type: 256T	Type of constr.: ( G ) Round body - C-Face	Ins. Cl.: Standard Class F Insulation	Motor Prot.: (A) Without Protection	NEMA Des.: B	S.F.: 1.15
Mtr. WT: 343		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	67.0 dB(A) / 79.0 dB(A)							Thickener	Polyurea
Octave Band Center Frequencies Hertz									
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Hot	20 s
SPL@3	54.0	56.0	63.0	62.0	60.0	48.0	dB(A)	Safe Stall Time Cold	45 s
Moment of inertia	1.4 Lb-ft <sup>2</sup>							Frame material	cast iron
Ext Load Inertia Capability:	21.0 Lb ft <sup>2</sup>							Color, paint shade	Standard Paint - RAL7030
<b>Bearings</b>								Coating (paint finish)	Standard Alkyed + Epoxy (C2)
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:	without


## Terminal box

Lead Wire Connection	3 LEAD - WYE				Terminal box position	(3) F-1, Standard Floor Mount, T. Box LHS
Voltage	L1	L1	L1	Connected together	Material of terminal box	Cast Iron
----	----	----	----	----	Cable entry	1.25" NPT
----	T1	T2	T3	----		

### 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

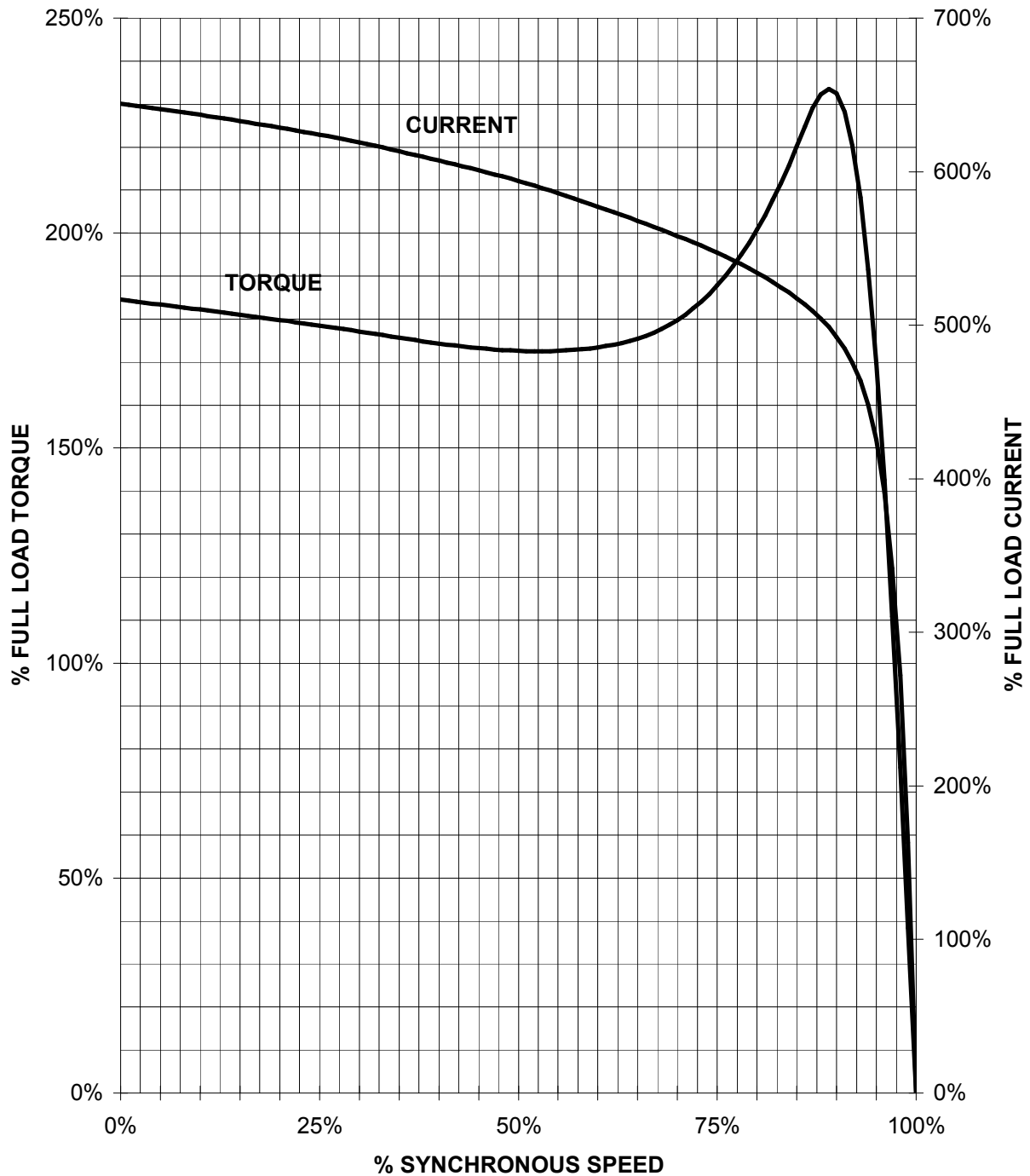
responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	<i>Technical data are subject to change! There may be discrepancies between software and hardware versions</i>	
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HP 20 VOLTS < 600V RPM 3600 TYPE SD100 IEEE841  
HZ 60 PHASE 3 FRAME 256T NEMA B

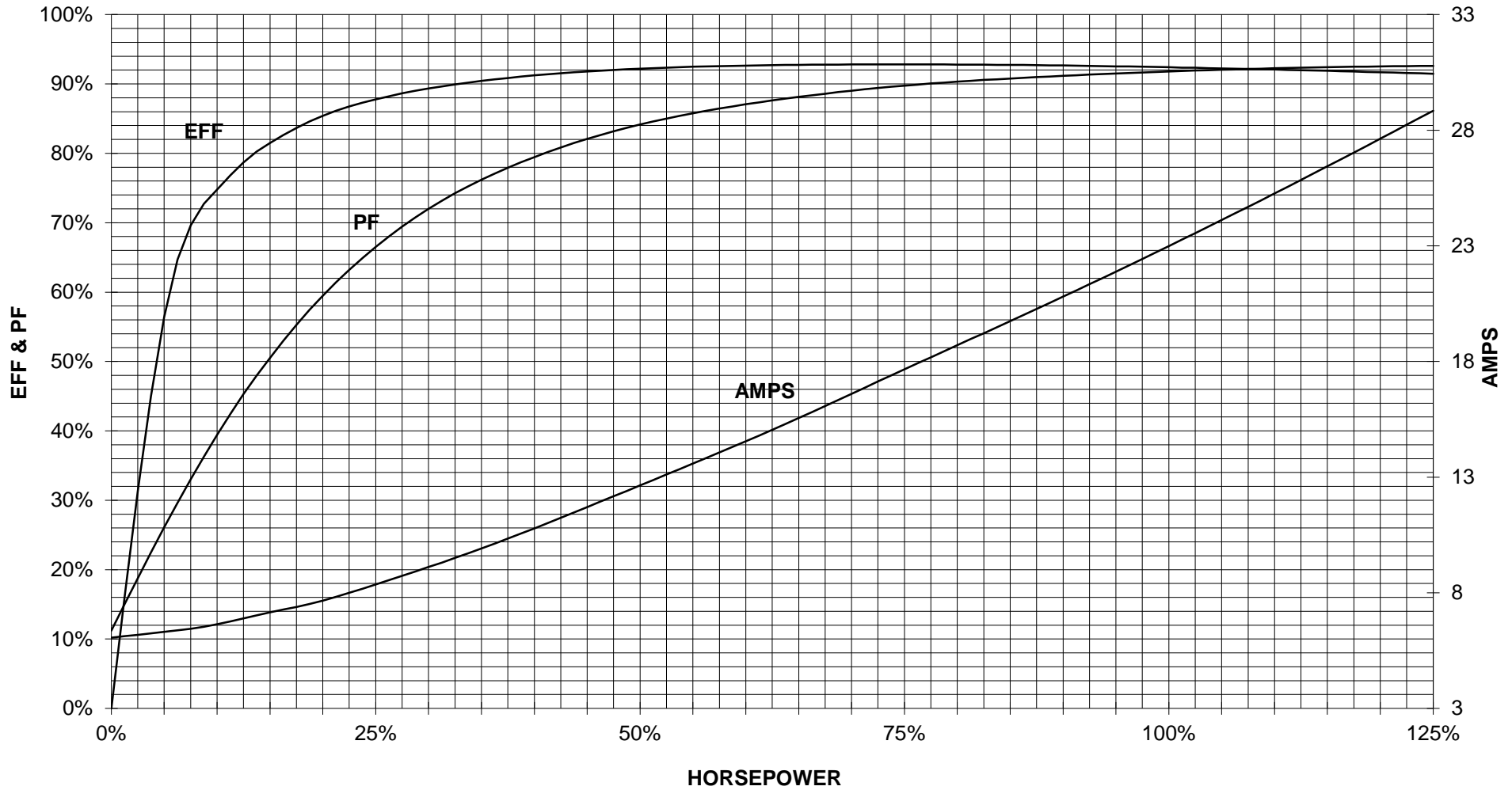
## TORQUE & CURRENT VS. SPEED



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

20 HP 3600 RPM 256T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

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



CUSTOMER \_\_\_\_\_ ORDER # \_\_\_\_\_ PO # \_\_\_\_\_

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

REV. 1

Main terminal diagram



3 LEAD WYE			
LINES			CONN.
L1	L2	L3	
T1	T2	T3	Y

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