

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

Motor type: **SD100** FS: **143T - 4p - 1 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	1.00	0.75	1,800	1.40	1.20	1.00	0.80	13.0	85.5	85.4	83.4	78.2	71.5	58.4	3.0	300	383	
230	YY	60	1.00	0.75	1,800	2.80	2.30	1.92	1.60	26.0	85.5	85.4	83.4	78.2	71.5	58.4	3.0	300	383	
400	Y	50	0.75		1,463	1.25	1.08	0.94	0.81	11.9	80.8	80.3	77.8	74.7	65.2	51.3	2.7	378	543	
200	YY	50	0.75		1,463	2.50	2.16	1.88	1.62	23.8	80.8	80.3	77.8	74.7	65.2	51.3	2.7	378	543	

Frame Type: 143T	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: 72		Temp. Rise Cl.: B	Amb. Temp.: + 40 to -20 °C @1000 m	kVA: M	IP 55

## Mechanical data

Sound level (SPL / SWL) at 60 Hz	50.0 dB(A) / 62.0 dB(A)		Thickener	Polyurea					
Octave Band Center Frequencies Hertz			Safe Stall Time Hot	18 s					
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	26 s
SPL@3	37.0	40.0	49.0	45.0	37.0	31.0	dB(A)	Frame material	cast iron
Moment of inertia	0.2 Lb-ft <sup>2</sup>		Color, paint shade	Standard Paint - RAL7030					
Ext Load Inertia Capability:	58.0 Lb ft <sup>2</sup>		Coating (paint finish)	Standard Alkyed + Epoxy (C2)					
<b>Bearings</b>			<b>Ventilation Type</b>						
Bearing DE   NDE	6205 Z C3 S0		6205 Z C3 S0	Method of cooling	TEFC				
Bearing_Type	Ball Bearing		Ball Bearing	Direction of rotation	Bidirectional				
AFBMA:	25BC02JP30		25BC02JP30	Fan Material	Polypropylen ESD				
<b>Grease</b>			VFD	CT: 20:1 VT: 20:1					
Capacity	0.1 oz		0.1 oz	Space heaters	without				
Grease Type:	Exxon Mobile EM		Brake:	without					


## Terminal box

Lead Wire Connection	9 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
LOW	T1 T7	T2 T8	T3 T9	T4 T5 T6	Cable entry	.75" NPT
HIGH	T1	T2	T3	T4 T7-T5 T8-T6 T9		

### 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

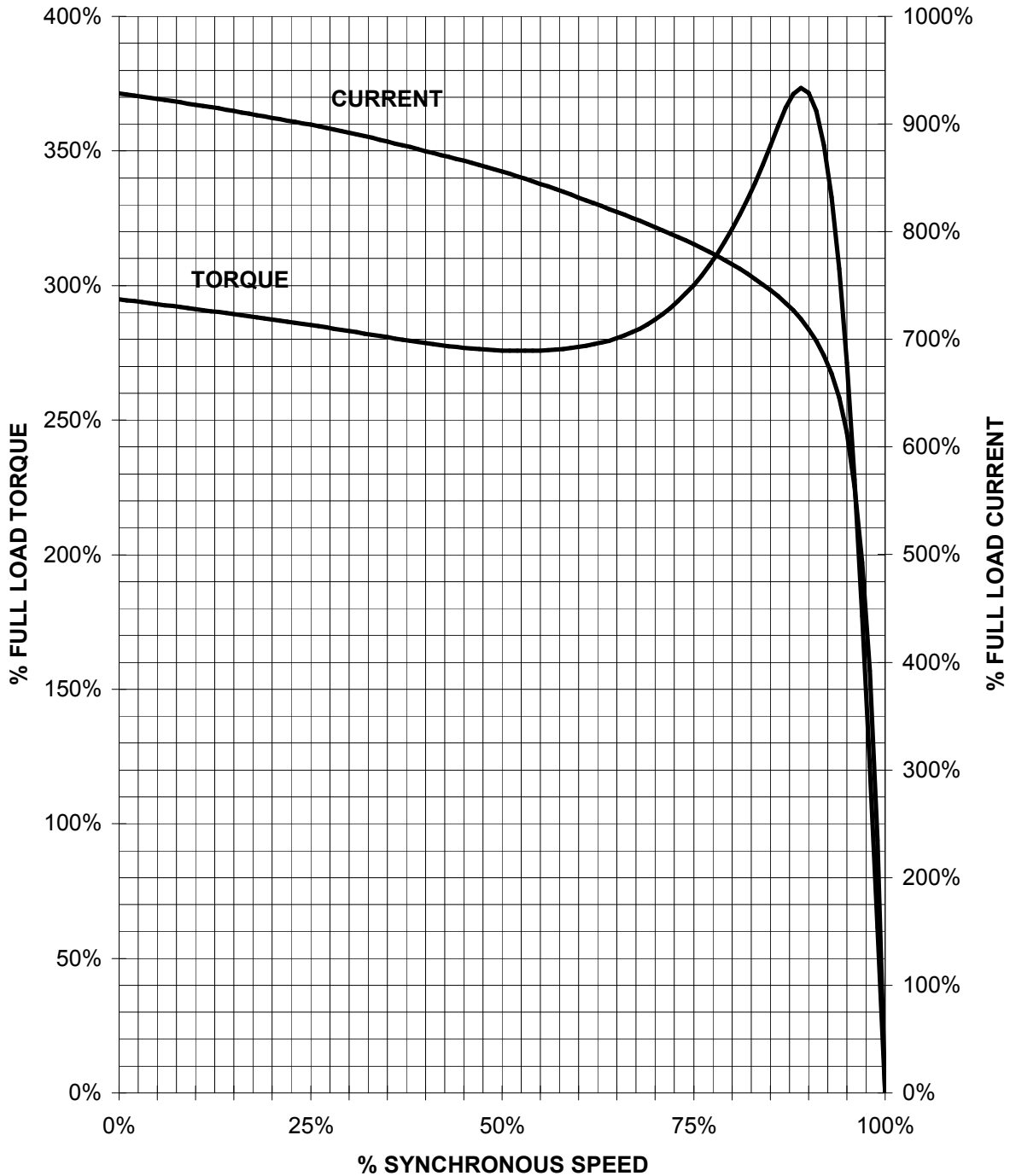
responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	<i>Technical data are subject to change! There may be discrepancies between software and hardware versions</i>	
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# SIEMENS INDUSTRY, INC.

HP 1 VOLTS < 600V RPM 1800 TYPE SD100  
HZ 60 PHASE 3 FRAME 143T NEMA B

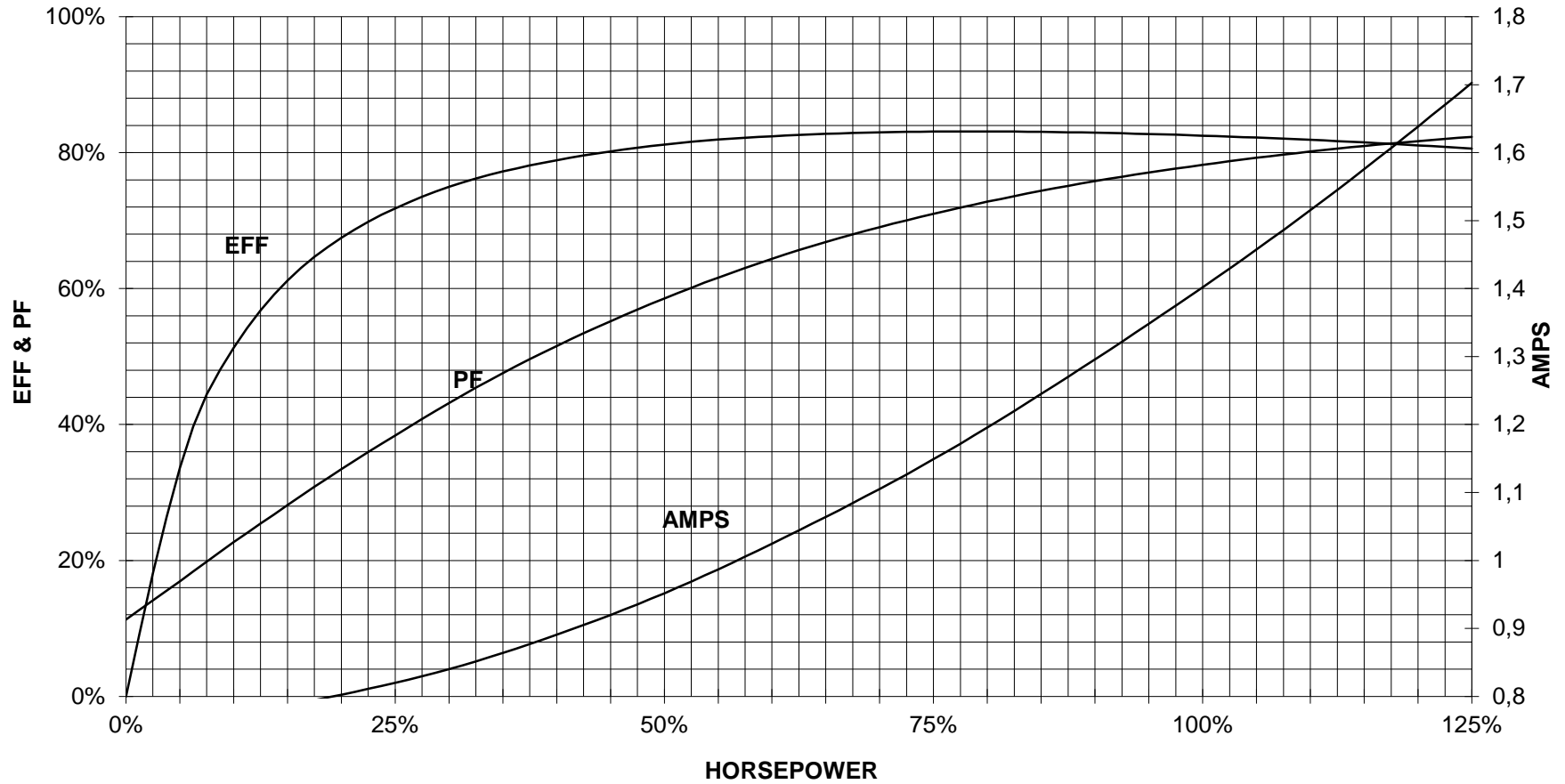
## TORQUE & CURRENT VS. SPEED



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

1 HP 1800 RPM 143T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

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



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

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

REV. 1

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
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