

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

Motor type: DP200 HPS - Definite Purpose motor - NEMA Premium Efficiency

FS: 509S - 2p - 400 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]					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	$\Delta \Delta$	60	400.00	298.40	3,585	430	325.20	229.20	85.00	2900.0	96.5	96.4	96.0	90.8	89.6	85.1	585.0	190	230

Frame Type: 509S	Type of constr.: (A) Foot Mounted Horizontal (IMB3)	Ins. Cl.: Standard Class H Insulation	Motor Prot.: K: Stator RTD's, 2 Per Phase	NEMA Des.: B	S.F.: 1.15
Mtr. WT: 4,219		Temp. Rise Cl.: B	Amb. Temp.: + 40 to °C @1000 m	kVA: G	IP 55

## Mechanical data

Sound level (SPL / SWL) at 60 Hz	82.0 dB(A) / 95.0 dB(A)							Thickener	Polyurea
Octave Band Center Frequencies Hertz								Safe Stall Time Hot	23 s
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	28 s
SPL@3	79.0	74.0	73.0	72.0	72.0	67.0	dB(A)	Frame material	Cast iron
Moment of inertia	98.0 Lb-ft <sup>2</sup>							Color, paint shade	RAL 7030
Ext Load Inertia Capability:	315.0 Lb ft <sup>2</sup>							Coating (paint finish)	Standard Alkyed + Epoxy (C2)
<b>Bearings</b>								<b>Ventilation Type</b>	
Bearing DE   NDE	6316 Z C3 S0			6316 Z C3 S0 insulated				Method of cooling	TEFC
Bearing_Type	Ball Bearing			Ball Bearing				Direction of rotation	Bi-Directional
AFBMA:	80BC03JP3			80BC03JP3				Fan Material	Polypropylene ESD
<b>Grease</b>								VFD	CT: 4:1 VT: 20:1
Capacity	9 oz			9 oz				Space heaters	without
Grease Type:	Exxon Mobil EM							Brake:	-/-


## Terminal box

Lead Wire Connection	12 TERMINAL - Connection DELTA					Terminal box position	(1) LHS Mount - View From DE (F-1) - DE or Center of Motor
Voltage	L1	L1	L1	Connected together		Material of terminal box	Cast Iron
----	----	----	----	---	-	Cable entry	(1) 5" NPT
RUN	T12-T7-T6-T1	T10-T8-T4-T2	T11-T9-T5-T13	----	$\Delta \Delta$		

## 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>k</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

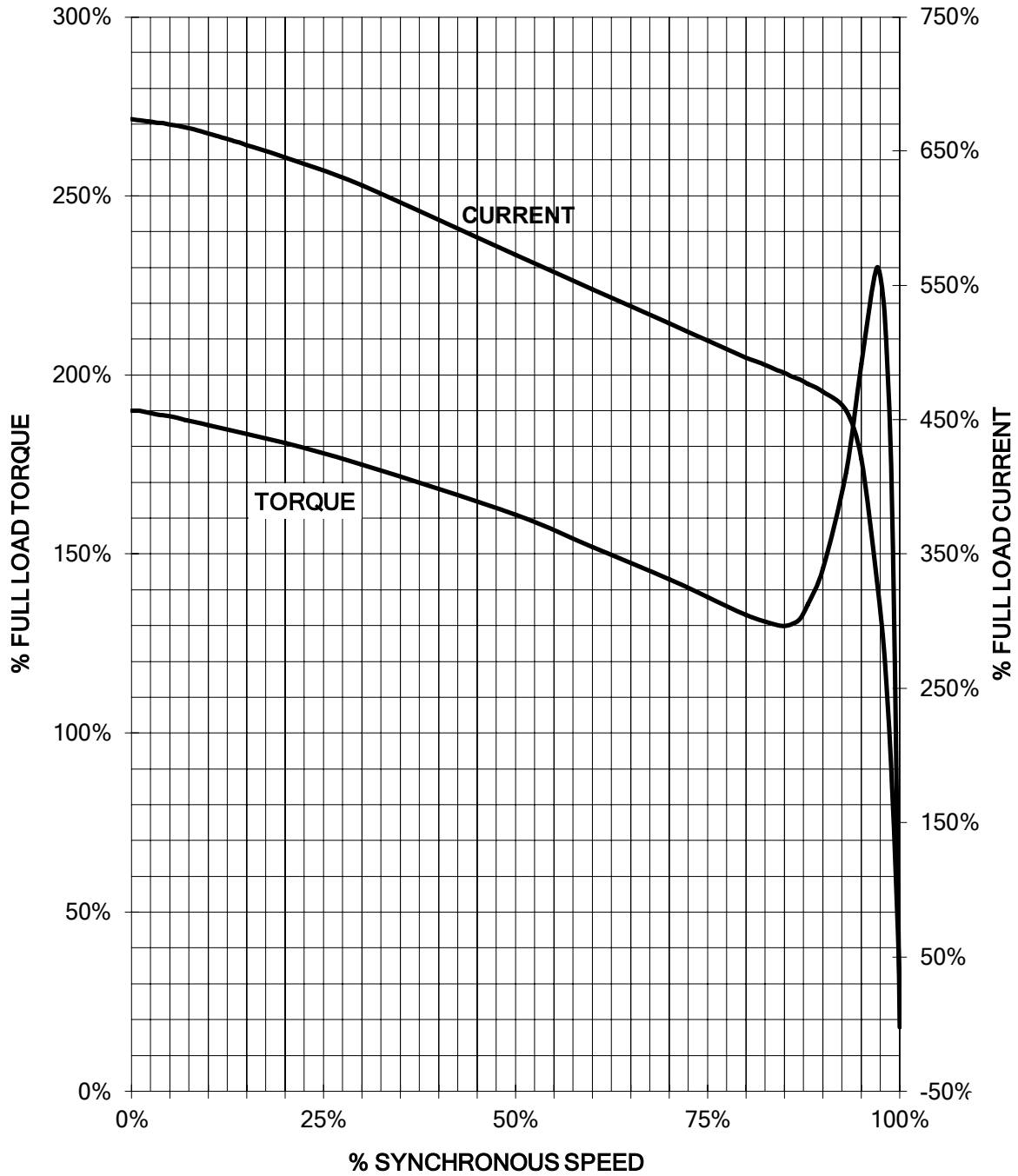
responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	<i>Technical data are subject to change! There may be discrepancies between software and hardware versions</i>	
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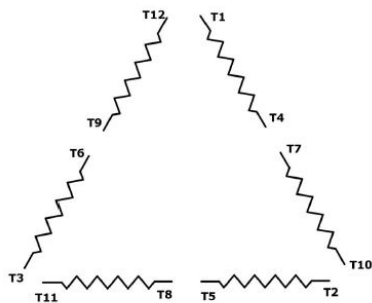
HP 400 VOLTS 460 RPM 3585 TYPE SD200  
HZ 60 PHASE 3 FRAME 509S NEMA B

## TORQUE & CURRENT VS. SPEED



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

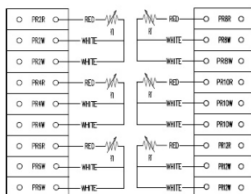
Main terminal diagram



12 LEAD DELTA		
LINES	CONNECT TOGETHER	CONN.
L1	T12 - T7 - T6 - T1	ΔΔ
L2	T10 - T8 - T4 - T2	
L2	T11 - T9 - T5 - T3	

Motor protection

3 WIRE STATOR RTDs



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