

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

**Motor type:** SD200 NEMA Premium Next Generation **FS: 5011S - 4p - 500 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	500.00	373.00	1,790	570	425.20	310.20	160.00	3625.0	96.7	96.8	96.5	84.9	85.3	78.2	1469.2	230	250

Frame Type: 5011S	Type of constr.: (A) Foot Mounted Horizontal (IMB3)	Ins. Cl.: Standard Class H Insulation	Motor Prot.: A: No Winding Protection	NEMA Des.: B	S.F.: 1.15
Mtr. WT: 4,509		Temp. Rise Cl.: B	Amb. Temp.: + 40 to °C @1000 m	kVA: G	IP 55

**Mechanical data**

Sound level (SPL / SWL) at 60 Hz	81.0 dB(A) / 94.0 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	22 s
SPL@3	77.0	75.0	72.0	67.0	62.0	58.0	dB(A)	Frame material	Cast iron
Moment of inertia	158.0 Lb-ft <sup>2</sup>							Color, paint shade	RAL 7030
Ext Load Inertia Capability:	1880.0 Lb ft <sup>2</sup>							Coating (paint finish)	Standard Alkyed + Epoxy (C2)
<b>Bearings</b>								<b>Ventilation Type</b>	
Bearing DE   NDE	6322 Z C3 S0			6322 Z C3 S0			Method of cooling	TEFC	
Bearing_Type	Ball Bearing			Ball Bearing			Direction of rotation	Bi-Directional	
AFBMA:	110BC03JP3			110BC03JP3			Fan Material	Polypropylene ESD	
<b>Grease</b>								VFD	CT: 4:1 VT: 20:1
Capacity	17 oz			17 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	----	$\Delta \Delta$		

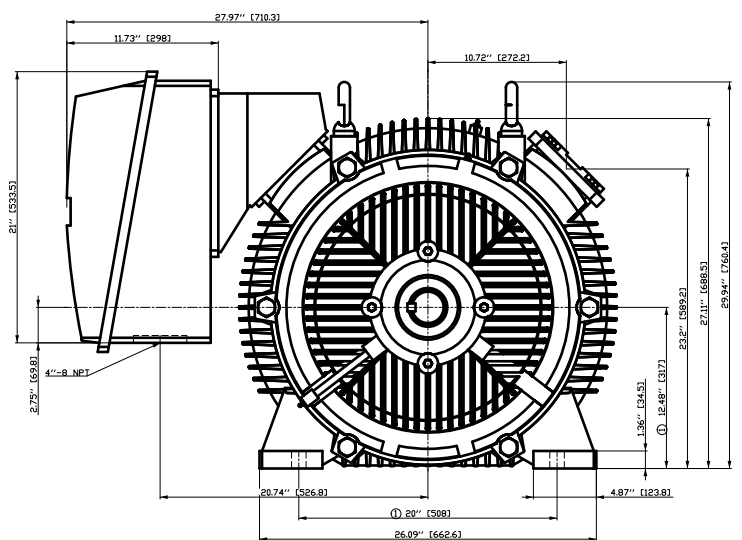
Notes:

I<sub>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

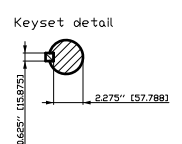
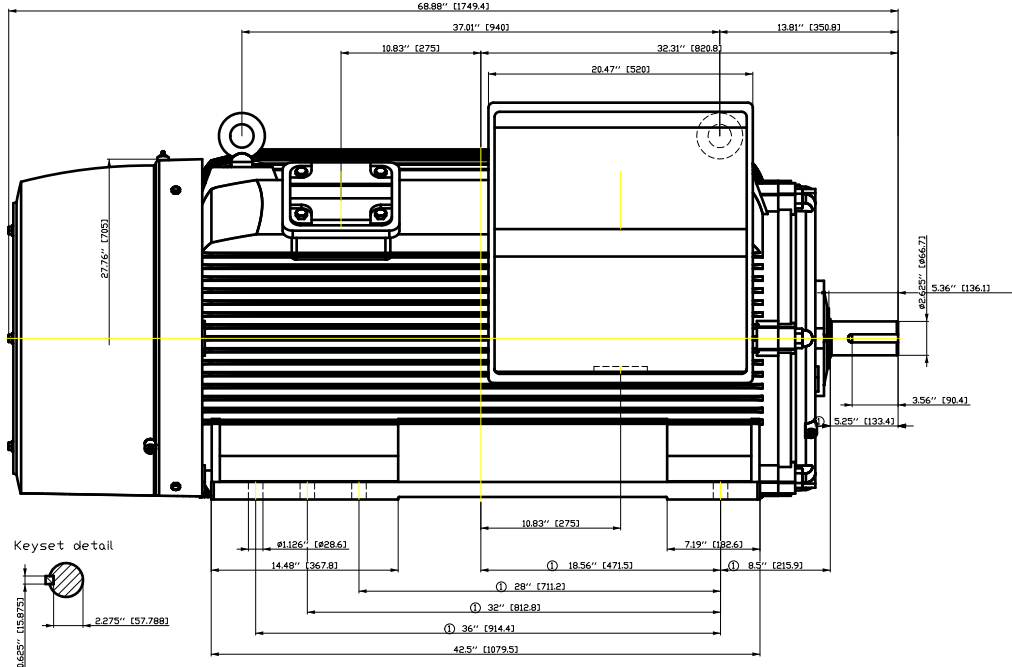
3) Value is valid only for DOL operation with motor design IC411  
2) at rated power / at full load

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

	document type	document status	customer	
	datasheet	released		
	title	document number		
	1LE6321-5EB81-2AA1			
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		01	2022-04-08 01:18	en 1/1



① Tolerances according to NEMA std.  
 All dimensions corresponding to assemblies and castings shall have a tolerance as per ISO 8062-3 DCTG 12.

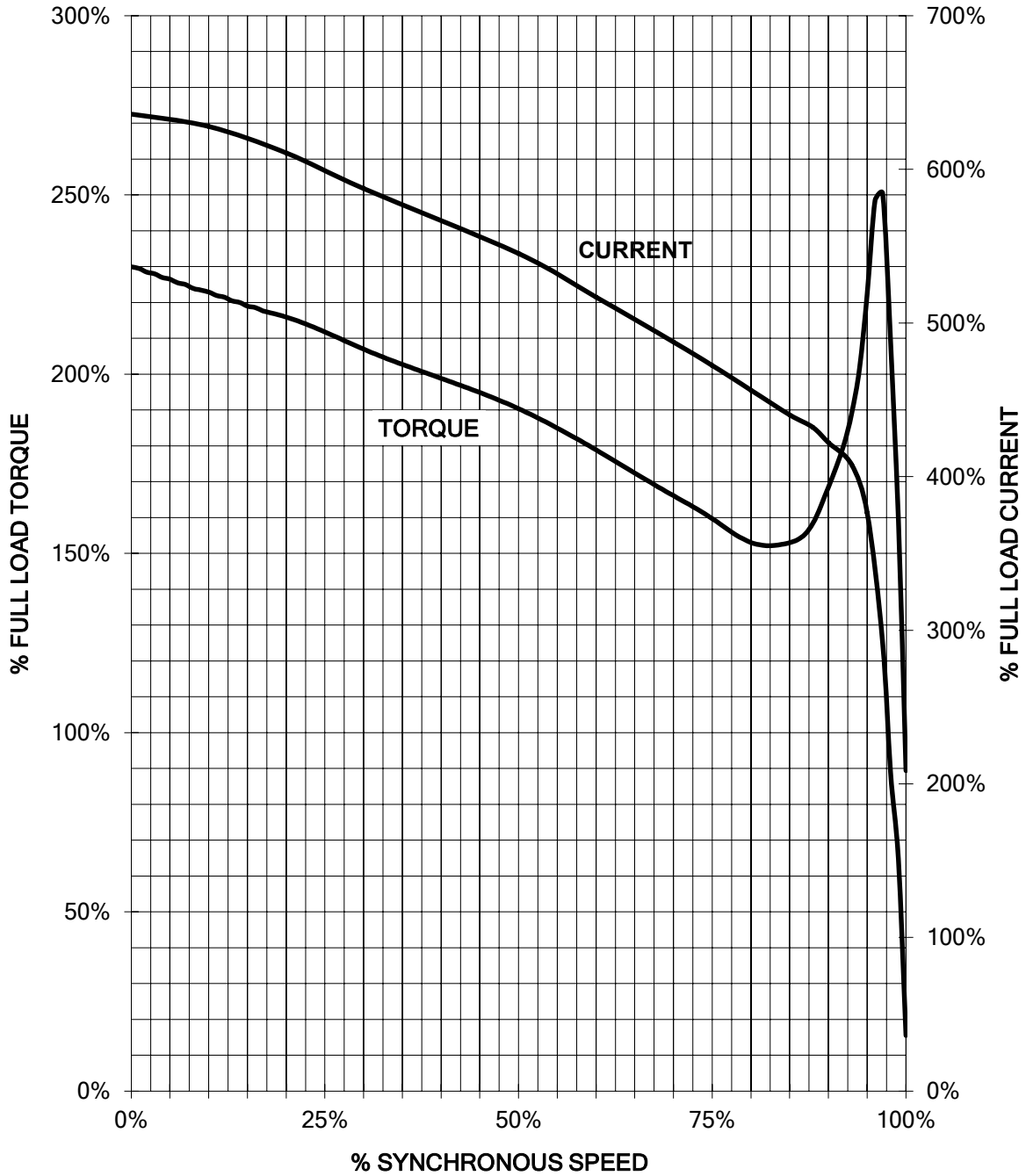


Tolerance	Surface	Material	Weight	Scale
F50I HGFE 00I FE00DF E	Author Creator Approval Department Change Order	ÖS T æ : ^æ@ } *	E	{ { }
<b>SIEMENS</b> © Siemens AG 2018	Doc. State	I DEEG	Item No.	Paper Size
	Revision	Index RS	Doc No.	1st Language 2nd Language
	Project No	E	Ref No	E
				Sheet F of F

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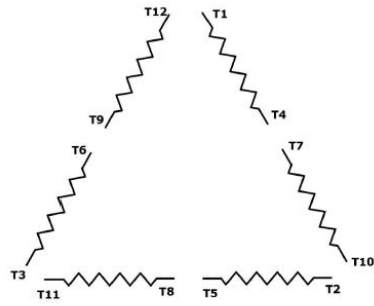
HP 500 VOLTS 460 RPM 1790 TYPE SD200  
HZ 60 PHASE 3 FRAME 5011 NEMA B

## 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	

responsible dep. DI MC LVM	technical reference	created by	approved by	Project
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