

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

Motor type: **SD200 NEMA Premium Next Generation** FS: **R5012 - 4p - 600 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]	Δ/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	Δ Δ	60	600.00	447.60	1,790	686	520.10	375.20	190.00	4400.0	96.7	96.9	96.6	84.7	83.6	77.5	1767.6	230	250

Frame Type: R5012	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.: -/-	S.F.: 1.15
Mtr. WT: 4,993		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	19 s					
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	23 s
SPL@3	77.0	75.0	72.0	67.0	62.0	58.0	dB(A)	Frame material	Cast iron
Moment of inertia	172.0 Lb-ft <sup>2</sup>		Color, paint shade	RAL 7030					
Ext Load Inertia Capability:	2202.0 Lb ft <sup>2</sup>		Coating (paint finish)	Standard Alkyed + Epoxy (C2)					
<b>Bearings</b>			<b>Ventilation Type</b>						
Bearing DE   NDE	NU 322		6322 Z C3 S0	Method of cooling	TEFC				
Bearing_Type	Roller Bearing		Ball Bearing	Direction of rotation	Bi-Directional				
AFBMA:	110RU03M0		110BC03JP3	Fan Material	Polypropylene ESD				
<b>Grease</b>			VFD	CT: 4:1 VT: 20:1					
Capacity	18 oz		17 oz	Space heaters	without				
Grease Type:	Exxon Mobil EM		Brake:	-/-					

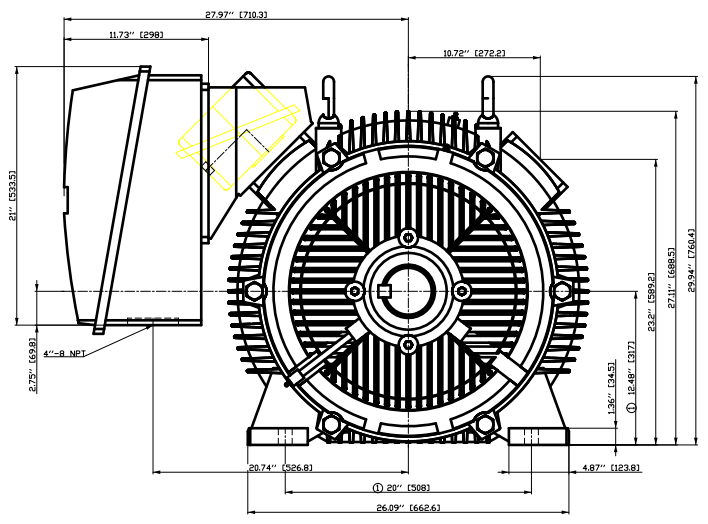
**Terminal box**

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	Δ Δ		

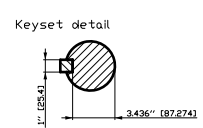
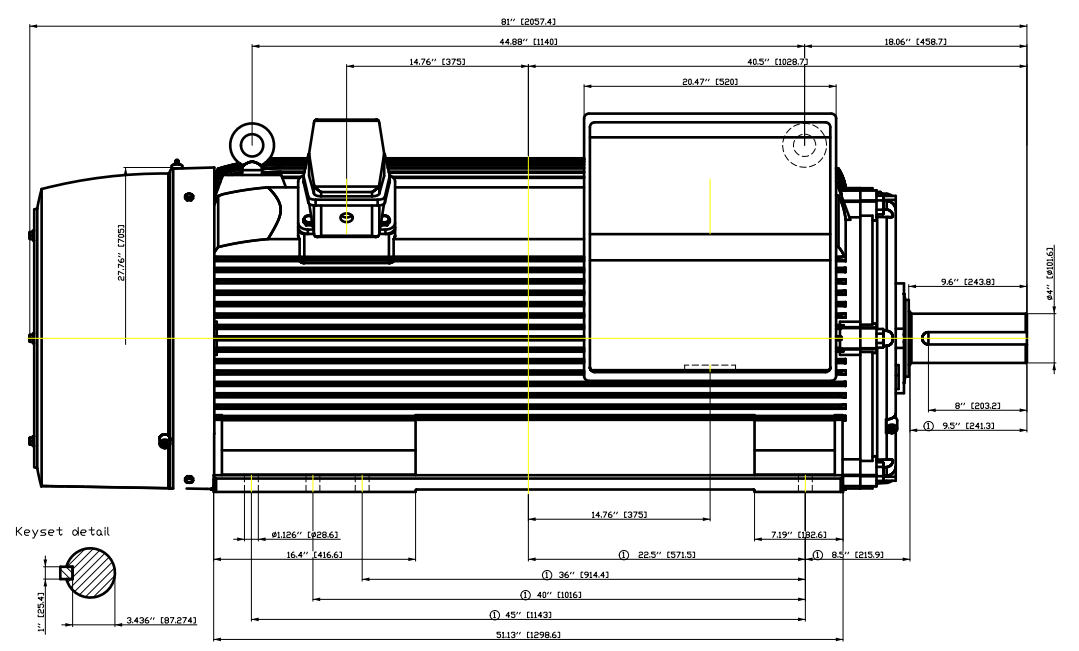


**Notes:**  
 I<sub>r</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>r</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 M<sub>b</sub>/M<sub>N</sub> = break down torque / nominal torque  
 3) Value is valid only for DOL operation with motor design IC411  
 2) at rated 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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① Tolerances according to NEMA std.  
 All dimensions corresponding to assemblies and castings shall have a tolerance as per ISD 8062-3 DCTG 12.

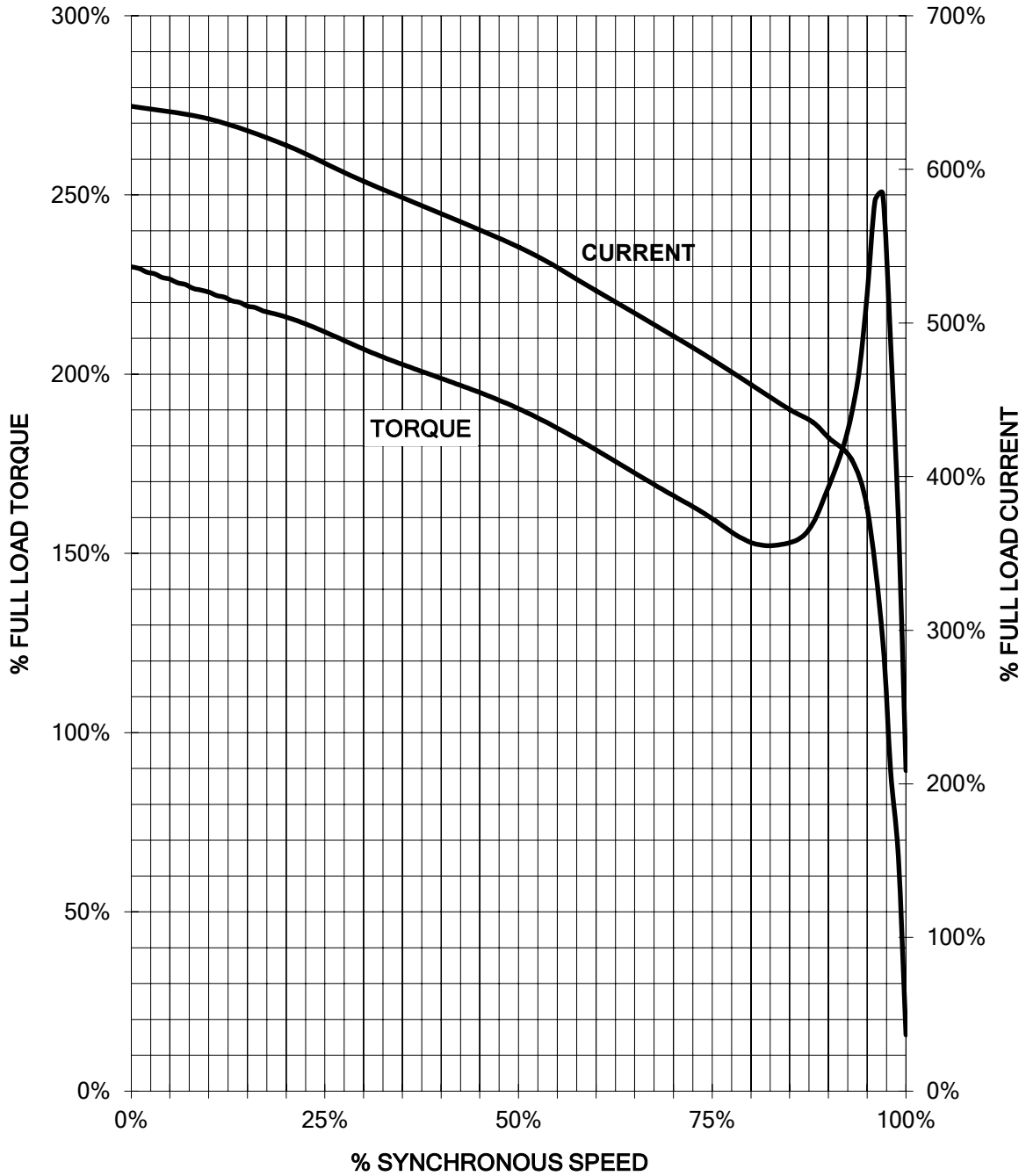


Tolerance	Surface	Material	Weight E	Scale 1:1
FŠÖI HGFÉ ÚÓI FÉÖSF E	Author Creator Approval Department Change Order	ÖVS T aš : ^š@` } *		
SIEMENS © Siemens AG 2018	Doc. State Revision	I Đ BGG Index RS	MFB Item No Doc No	Doc Type Paper Size 1st Language 2nd Language
	Project No	E	Ref No	E
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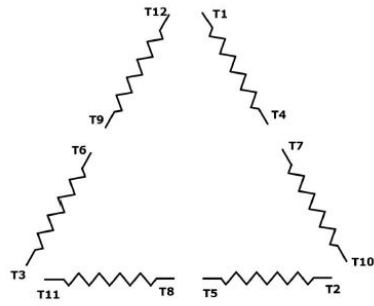
HP 600 VOLTS 460 RPM 1790 TYPE SD200  
HZ 60 PHASE 3 FRAME 5012 NEMA \_\_\_\_\_

## TORQUE & CURRENT VS. SPEED



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

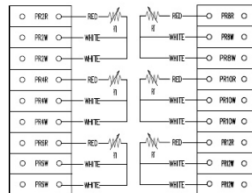
### Main terminal diagram



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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