

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

**Motor type:** SD200 NEMA Premium Next Generation **FS: R445T - 4p - 150 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 Class II**  
**Division 2 Gr. F or G T3C**

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	150.00	111.90	1,785	187	148.60	115.60	79.00	1085.0	96.2	96.3	96.3	78.0	73.6	63.1	440.0	230	290

Frame Type: R445T	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: 1,588		Temp. Rise Cl.: B	Amb. Temp.: + 40 to °C @1000 m	kVA: G	IP 55


**Mechanical data**

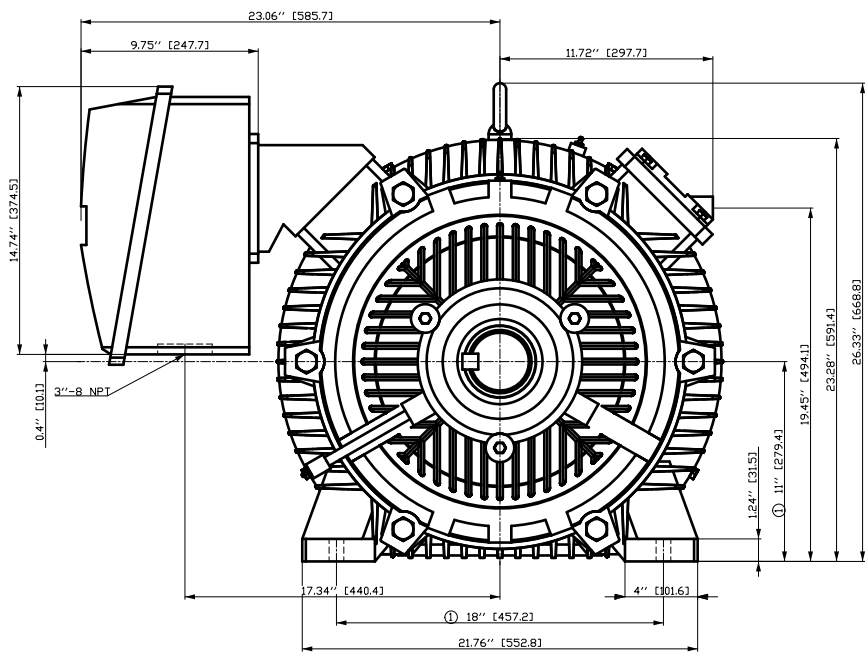
Sound level (SPL / SWL) at 60 Hz	77.0 dB(A) / 88.0 dB(A)		Thickener	Polyurea					
Octave Band Center Frequencies Hertz			Safe Stall Time Hot	25 s					
	250	500	1000	2000	4000	8000	Hz	Safe Stall Time Cold	30 s
SPL@3	63.0	70.0	73.0	70.0	62.0	55.0	dB(A)	Frame material	Cast iron
Moment of inertia	41.2 Lb-ft <sup>2</sup>		Color, paint shade	RAL 7030					
Ext Load Inertia Capability:	640.0 Lb ft <sup>2</sup>		Coating (paint finish)	Standard Alkyed + Epoxy (C2)					
<b>Bearings</b>			<b>Ventilation Type</b>						
Bearing DE   NDE	NU320		6315 Z C3 S0	Method of cooling	TEFC				
Bearing_Type	Roller Bearing		Ball Bearing	Direction of rotation	Bi-Directional				
AFBMA:	100RU03M0		75BC03JP3	Fan Material	Polypropylene ESD				
<b>Grease</b>			VFD	CT: 4:1 VT: 20:1					
Capacity	23 oz		15 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) 3" NPT
RUN	T12-T7-T6-T1	T10-T8-T4-T2	T11-T9-T5-T13	----		$\Delta \Delta$

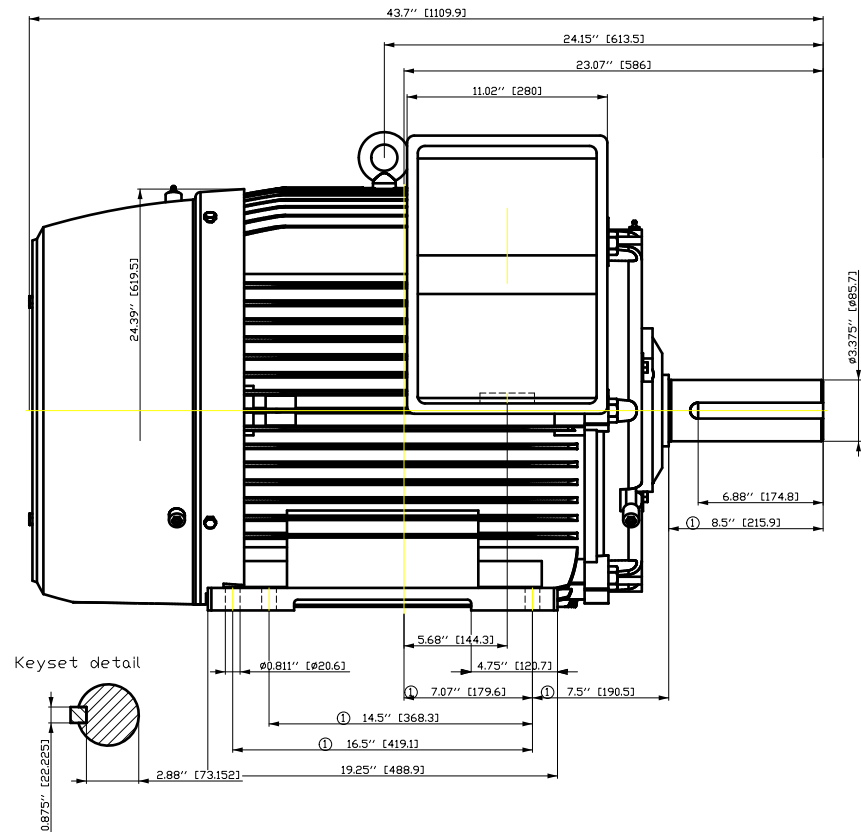
**Notes:**  
 I<sub>L</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>L</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 M<sub>L</sub>/M<sub>N</sub> = break down torque / nominal torque  
 3) Value is valid only for DOL operation with motor design IC411  
 2) at rated 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>	
	document type datasheet	document status released	customer		
	title 1LE6321-4SB21-2AA1	document number	rev. 01	creation date 2022-04-09 01:19	language en
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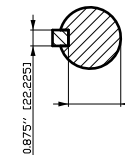


① Tolerances according to NEMA std.

All dimensions corresponding to assemblies and castings shall have a tolerance as per ISD 8062-3 DCTG 12.



Keyset detail

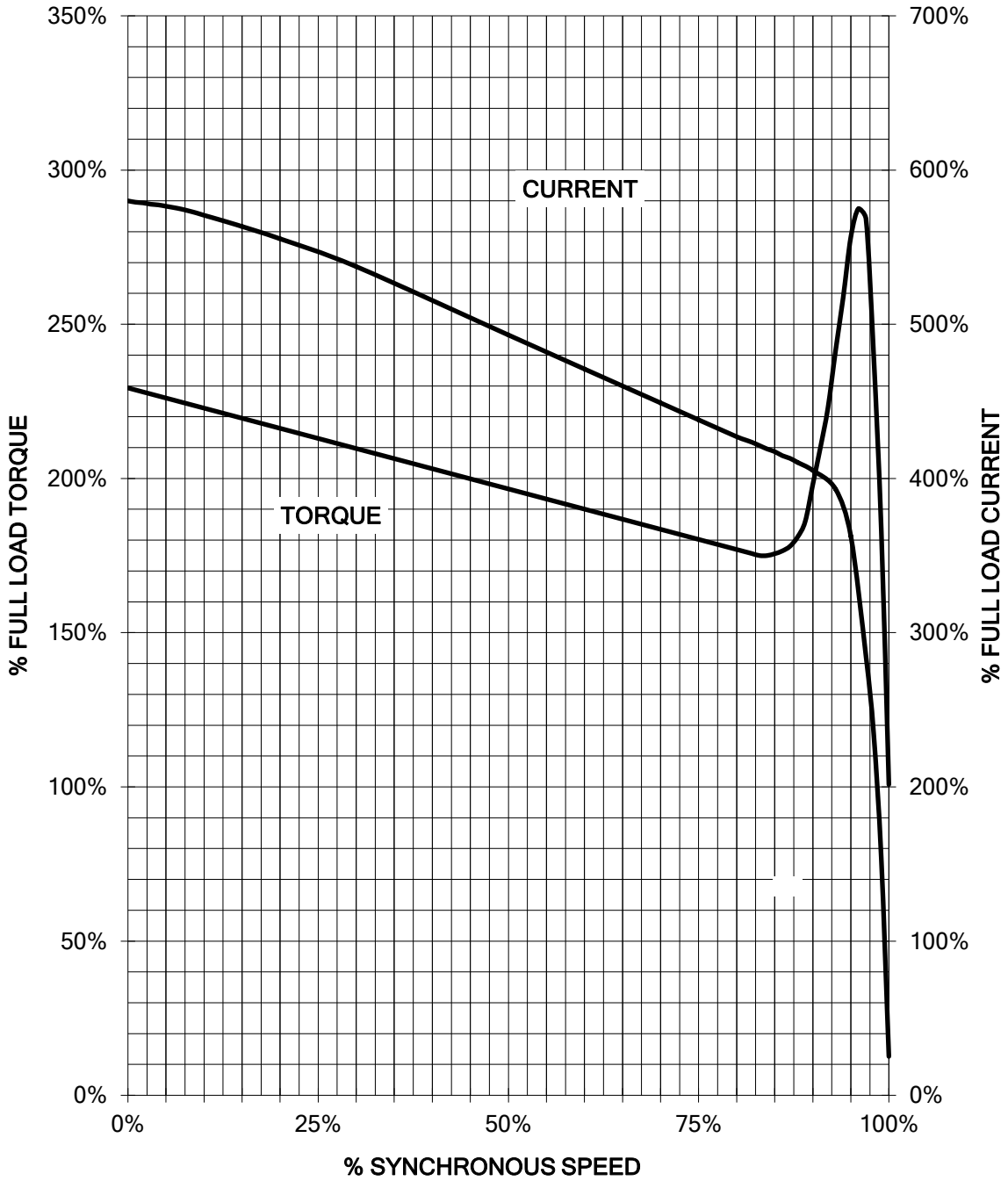


Tolerance	Surface	Material	Weight	Scale
F50I HGF E UOG E300F E	Author Creator Approval Department Change Order	ÖVS T æ : ^æ@` } *	E	{ {
SIEMENS	Doc. State	Item No	Doc Type	
	Revision	Index	Paper Size	OH
	Project No	RS	1st Language	^
© Siemens AG 2018	E	E	2nd Language	â^
			Sheet	F of F

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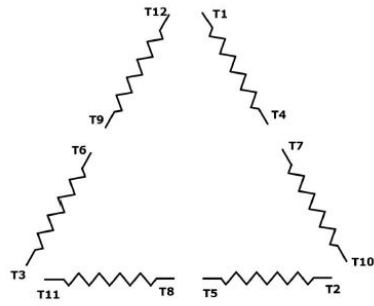
HP 150    VOLTS 460    RPM 1785    TYPE SD200  
HZ 60    PHASE 3    FRAME 445T    NEMA B

## TORQUE & CURRENT VS. SPEED



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Main terminal diagram

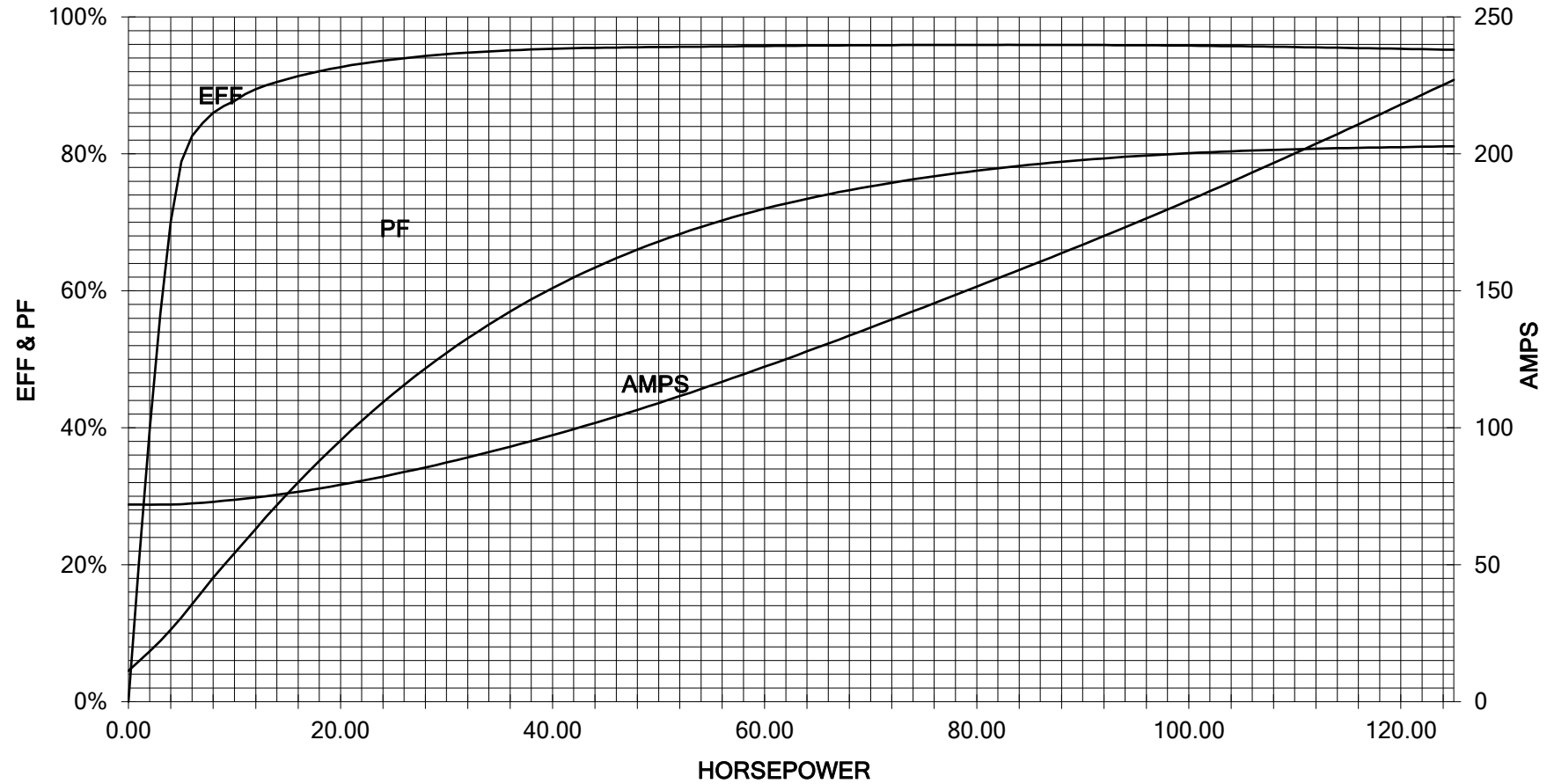


12 LEAD DELTA		
LINES	CONNECT TOGETHER	CONN.
L1	T12 - T7 - T6 - T1	ΔΔ
L2	T10 - T8 - T4 - T2	
L2	T11 - T9 - T5 - T3	

responsible dep. DI MC LVM	technical reference	created by	approved by	Project
<b>SIEMENS</b>	document type Wiring Diagram	document status free		customer
	title 1LE6321-4SB21-2AA1	document number		
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150 HP 1800 RPM 445T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

SIEMENS INDUSTRY, INC.  
PERFORMANCE CURVE  
SD200



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

REV. 1