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

Motor type: **SD100 IEEE** **FS: 256T - 4p - 20 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] 4/4	3/4	1/2	0	LRC	Nom. Eff Load [%] 4/4	3/4	2/4	Pwr. Factor Load [%] 4/4	3/4	2/4	Torque [lb-ft]	T_A/T_N LRT [%]	T_k/T_N BDT [%]
460	Y	60	20.00	15.00	1,800	25.00	19.80	15.40	10.50	145.0	93.0	93.4	93.1	80.5	75.9	65.3	60.0	183	240

Frame Type: 256T	Type of constr.: (E) Foot mounted - C-Face	Ins. Cl.:Standard Class F Insulation	Motor Prot.:(A) Without Protection	NEMA Des.: B	S.F.: 1.15
Mtr. WT:319		Temp. Rise Cl.: B	Amb. Temp.: + 40 to -20 °C @1000 m	kVA: G	IP 55

Mechanical data

Sound level (SPL / SWL) at 60 Hz	61.0 dB(A) / 73.0 dB(A)

Octave Band Center Frequencies Hertz	250	500	1000	2000	4000	8000	Hz
SPL@3	47.0	53.0	59.0	56.0	47.0	38.0	dB(A)

Moment of inertia	2.1 Lb-ft²
Ext Load Inertia Capability:	99.0 Lb ft²

Bearings

Bearing DE | NDE	6309 Z C3 S0	6309 Z C3 S0
Bearing_Type	Ball Bearing	Ball Bearing
AFBMA:	45BC03JP30	45BC03JP30

Grease

Capacity	0.5 oz	0.5 oz
Grease Type:	Exxon Mobile EM	

Thickener	Polyurea
Safe Stall Time Hot	15 s
Safe Stall Time Cold	33 s
Frame material	cast iron
Color, paint shade	Standard Paint - RAL7030
Coating (paint finish)	Standard Alkyed + Epoxy (C2)

Ventilation Type

Method of cooling	TEFC
Direction of rotation	Bidirectional
Fan Material	Polypropylen ESD
VFD	CT: 20:1 VT: 20:1
Space heaters	without
Brake:	without

Terminal box

Lead Wire Connection	3 LEAD - WYE			
Voltage	L1	L1	L1	Connected together
-- -- --	-- -- --	-- -- --	-- -- --	-- -- --
-- -- --	T1	T2	T3	-- -- --

Terminal box position	(3) F-1, Standard Floor Mount, T. Box LHS
Material of terminal box	Cast Iron
Cable entry	1.25" NPT

Notes:

I_A/I_N = locked rotor current / current nominal
M_A/M_N = locked rotor torque / torque nominal
M_K/M_N = 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	
DI MC LVM		DT Configurator		*Technical data are subject to change! There may be discrepancies*

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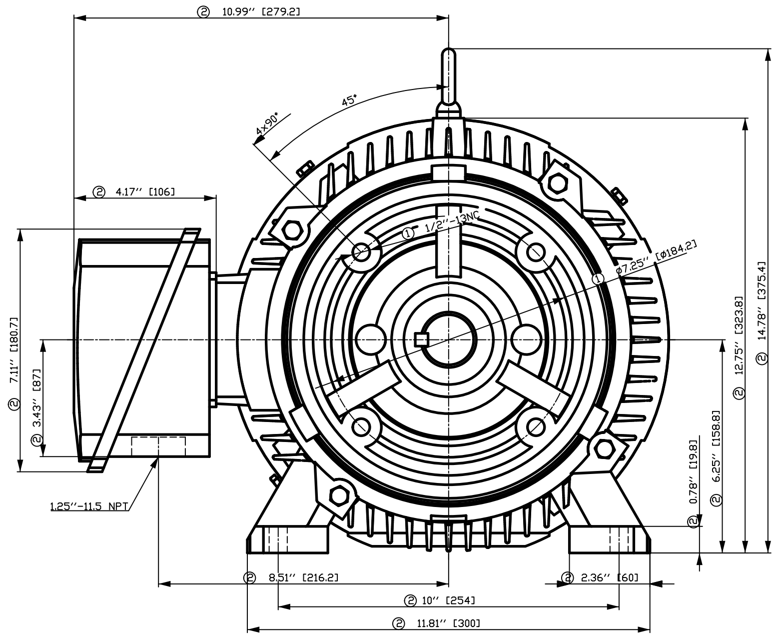

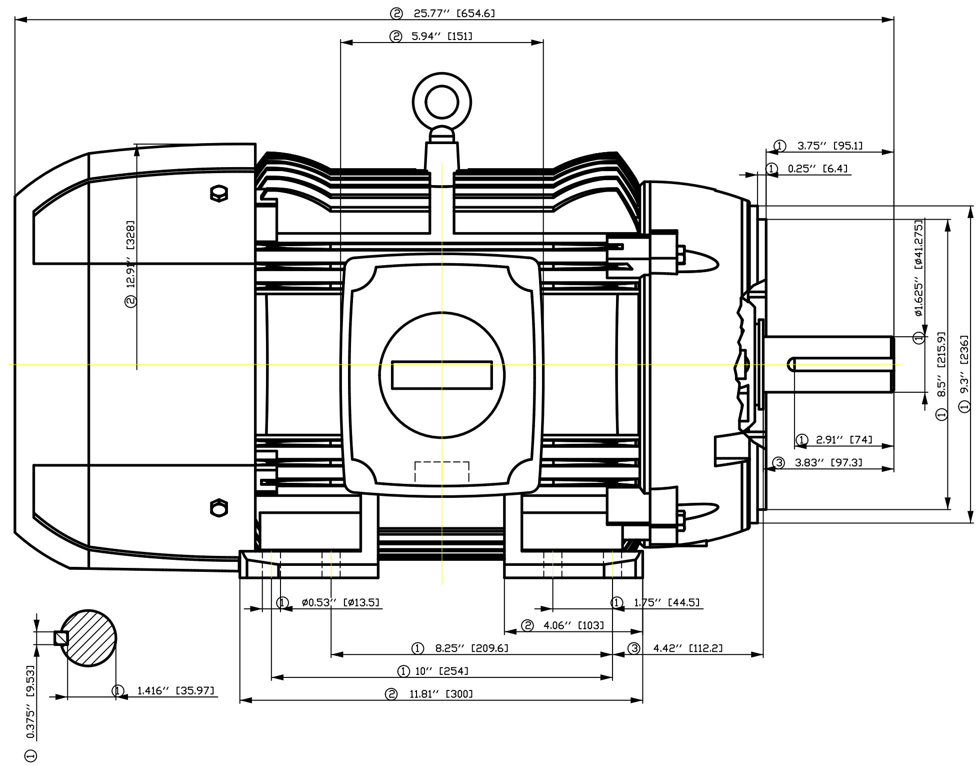

① Tolerances according to NEMA std.

② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.

③ Not according to NEMA std.

Tolerance	Surface	Material	Weight	Scale
			-	mm
1LE2421-2BB21-2EA3 -	Author	Dimensional drawing MaÇzeichnung		
	Creator DTK			
	Approval			
	Department			
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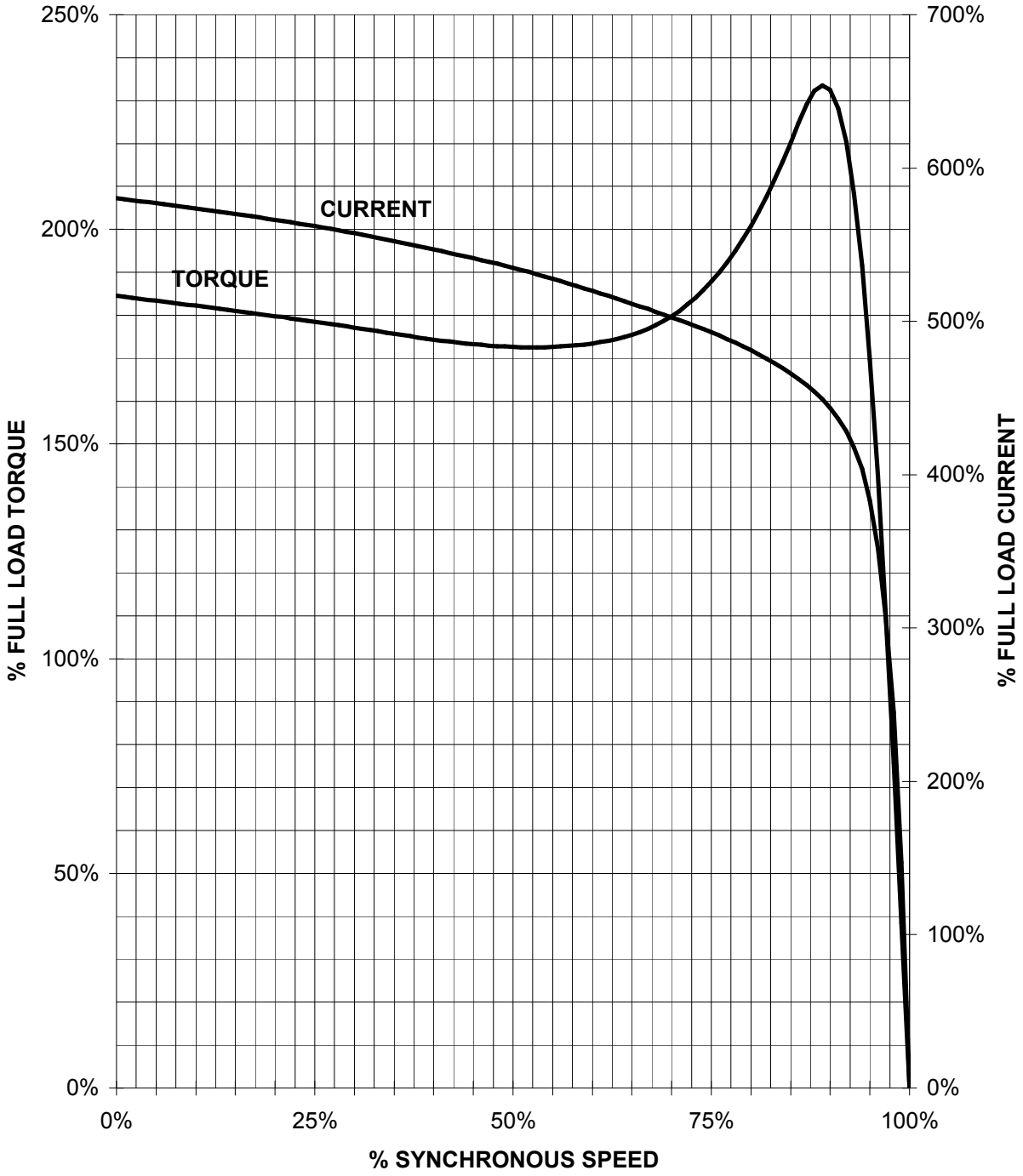
HP	20	VOLTS	< 600V	RPM	1800	TYPE	SD100 IEEE841
HZ	60	PHASE	3	FRAME	256T	NEMA	B

TORQUE & CURRENT VS. SPEED



CUSTOMER: _____ ORDER#: _____

PERFORMANCE BASED ON DESIGN CALCULATIONS. SUBJECT TO CHANGE WITHOUT NOTICE.
REV. 1

20 HP 1800 RPM 256T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

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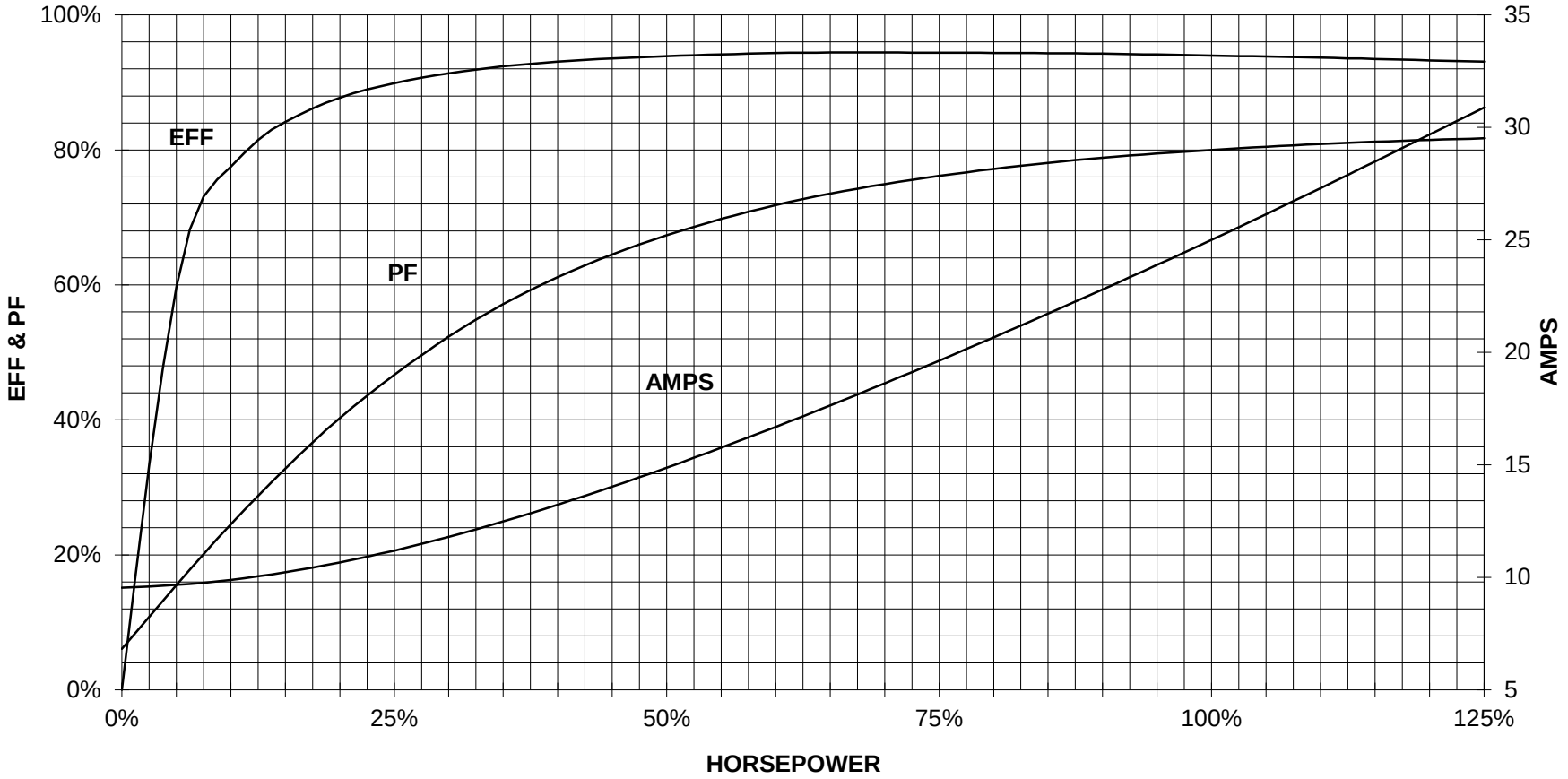
PERFORMANCE CURVE

SD100 IEEE841



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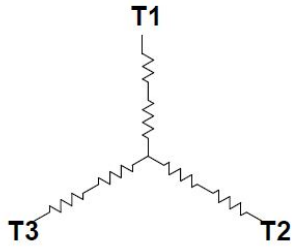
REV. 1

Main terminal diagram



3 LEAD WYE			
LINES			CONN.
L1	L2	L3	
T1	T2	T3	Y

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