

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

Motor type: SD100 IEEE **FS: 405TS - 2p - 100 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] | | | | | LRC | Nom. Eff Load [%] | | | Pwr. Factor Load [%] | | | Torque [lb-ft] | T _A /T _N LRT [%] | T _k /T _N BDT [%] |
|-------|--------------|--------|--------|--------|---------|---------------|-------|-------|-------|-------|------|-------------------|------|------|----------------------|------|-------|----------------|--|--|
| | | | | | | 4/4 | 3/4 | 1/2 | 0 | 4/4 | | 3/4 | 2/4 | 4/4 | 3/4 | 2/4 | | | | |
| 575 | Δ | 60 | 100.00 | 75.00 | 3,600 | 86.40 | 64.50 | 44.00 | 15.20 | 580.0 | 94.1 | 94.7 | 94.6 | 92.0 | 92.0 | 90.0 | 147.0 | 120 | 200 | |

| | | | | | |
|-------------------|--|---------------------------------------|-------------------------------------|--------------|------------|
| Frame Type: 405TS | Type of constr.: (A) Foot mounted - End shield | Ins. Cl.: Standard Class F Insulation | Motor Prot.: (A) Without Protection | NEMA Des.: B | S.F.: 1.15 |
| Mtr. WT: 1,149 | | 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 | 80.0 dB(A) / 91.0 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 | 45 s |
| SPL@3 | 67.0 | 72.0 | 74.0 | 74.0 | 72.0 | 61.0 | dB(A) | Frame material | cast iron |
| Moment of inertia | 12.7 Lb-ft ² | | | | | | | Color, paint shade | Standard Paint - RAL7030 |
| Ext Load Inertia Capability: | 92.0 Lb ft ² | | | | | | | Coating (paint finish) | Standard Alkyed + Epoxy (C2) |
| Bearings | | | | | | | | Ventilation Type | |
| Bearing DE NDE | 6316 Z C3 S0 | | | 6316 Z C3 S0 | | | | Method of cooling | TEFC |
| Bearing_Type | Ball Bearing | | | Ball Bearing | | | | Direction of rotation | Bidirectional |
| AFBMA: | 80BC03JP30 | | | 80BC03JP30 | | | | Fan Material | Polypropylen ESD |
| Grease | | | | | | | | VFD | CT: 4:1 VT: 20:1 |
| Capacity | 7.5 oz | | | 7.5 oz | | | | Space heaters | without |
| Grease Type: | Exxon Mobile EM | | | | | | | Brake: | without |


Terminal box

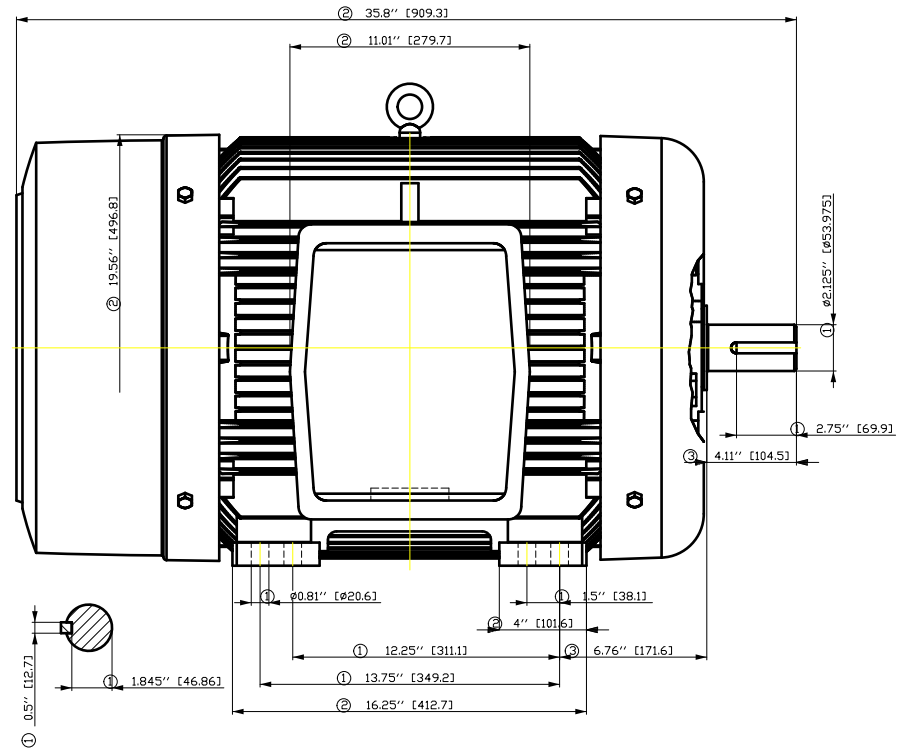
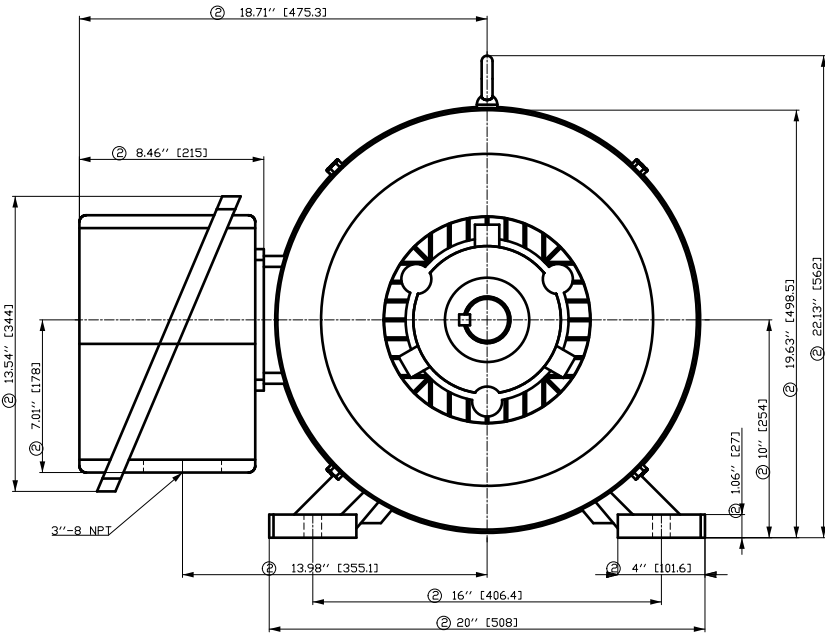
| | | | | | | |
|----------------------|----------------|------|------|--------------------|--------------------------|---|
| Lead Wire Connection | 3 LEAD - DELTA | | | | Terminal box position | (3) F-1, Standard Floor Mount, T. Box LHS |
| Voltage | L1 | L1 | L1 | Connected together | Material of terminal box | Cast Iron |
| ---- | ---- | ---- | ---- | ---- | Cable entry | 3" NPT |
| ---- | T1 | T2 | T3 | ---- | | |

Notes:

I_L/I_N = locked rotor current / current nominal
M_L/M_N = locked rotor torque / torque nominal
M_B/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. 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 1LE2421-4BA21-3AA3 | document number | | | | | |
| © Siemens AG 2022 | rev. 01 | creation date 2022-04-08 22:43 | language en | Page 1/1 | | | |



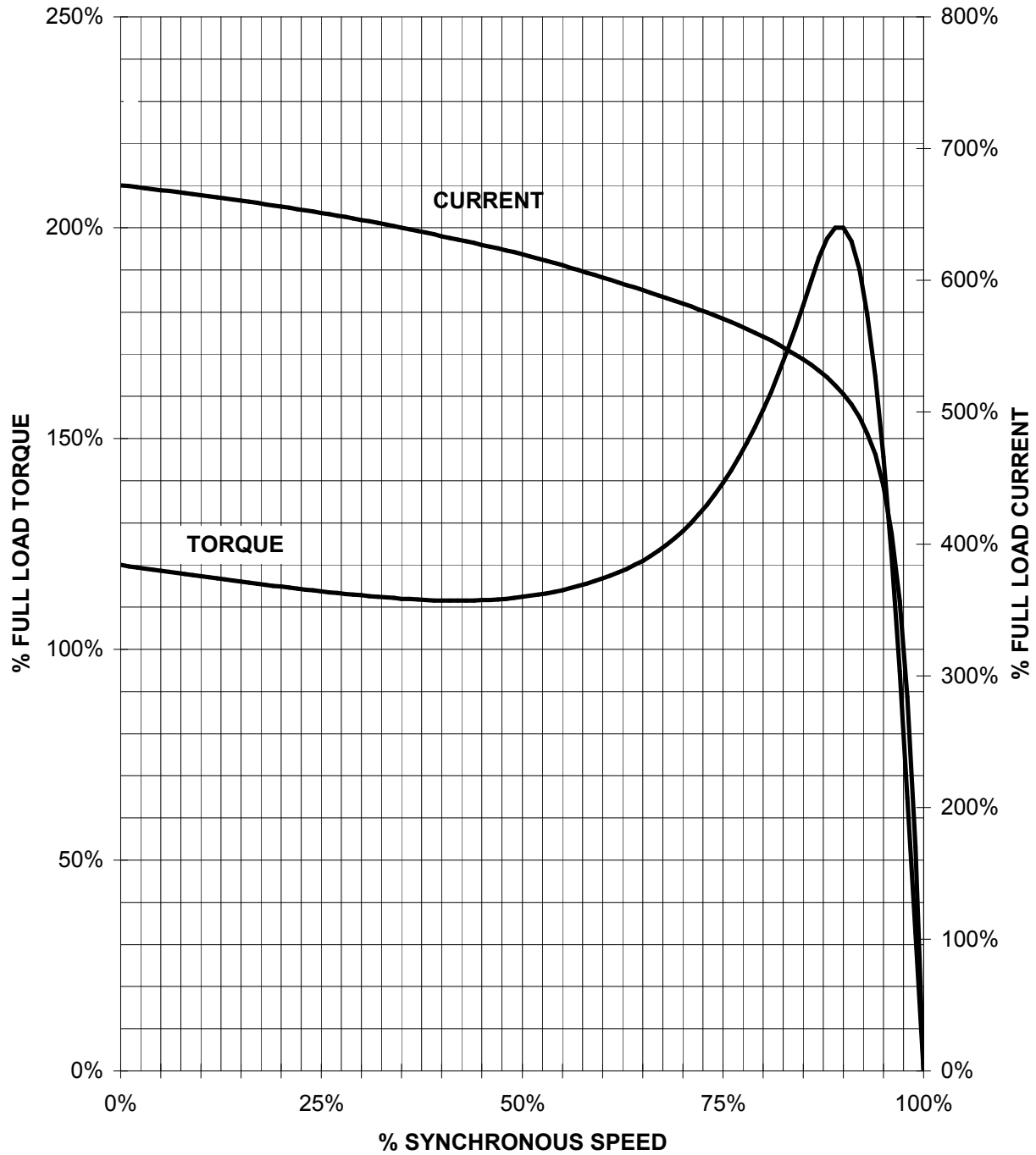
- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.

| Tolerance | Surface | Material | Weight | Scale |
|-------------------------|---|-----------------------|----------|------------------------------|
| F50G GF8 ÖSGB-H00H E | Author Creator Approval Department Change Order | ÖS T a : ^ & @ } * | E | { { |
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| | Revision | Index | RS | 1st Language 2nd Language |
| © Siemens AG 2018 | Project No | E | Ref No | E |
| | | | | Sheet F of F |

SIEMENS INDUSTRY, INC.

HP 100 VOLTS < 600V RPM 3600 TYPE SD100 IEEE841
HZ 60 PHASE 3 FRAME 405TS NEMA B

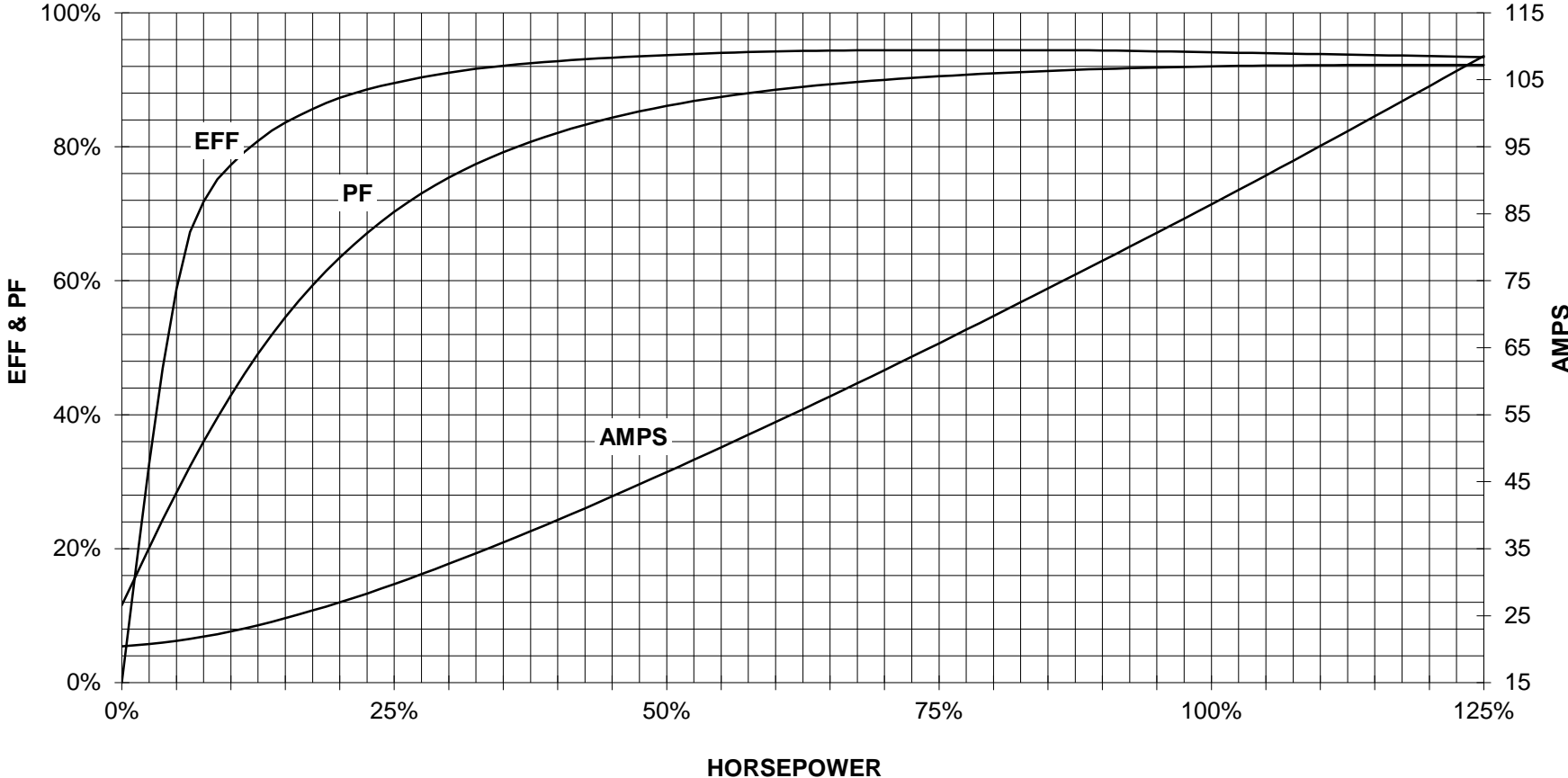
TORQUE & CURRENT VS. SPEED



CUSTOMER: _____ ORDER#: _____

100 HP 3600 RPM 405TS FRAME 575 VOLTS 3 PHASE NEMA DESIGN B

SIEMENS INDUSTRY, INC.
PERFORMANCE CURVE
SD100 IEEE841



CUSTOMER: _____ ORDER #: _____

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

Main terminal diagram



| 3 LEAD DELTA | | | |
|--------------|----|----|-------|
| LINES | | | CONN. |
| L1 | L2 | L3 | |
| T1 | T2 | T3 | Δ |

| | | | | |
|-------------------------------|---------------------------------|-------------------------|-----------------------------|-------------------------------|
| responsible dep. DI MC LVM | technical reference | created by | approved by | Project |
| SIEMENS | document type Wiring Diagram | document status free | | customer |
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