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

**Motor type:** **SD100** **FS: 447T - 6p - 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**

| 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 | Δ | 60 | 150.00 | 110.00 | 1,190 | 172.00 | 133.80 | 100.60 | 59.00 | 1085.0 | 95.8 | 96.0 | 95.6 | 85.0 | 82.0 | 73.0 | 662.0 | 140 | 200 |
| | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Frame Type: 447T | 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:2,006 | | Temp. Rise Cl.: B | Amb. Temp.: + 40 to -20 °C @1000 m | kVA: G | I.P.: 55 |

## Mechanical data

| | |
|---|---|
| Sound level (SPL / SWL) at 60 Hz | 64.0 dB(A) / 75.0 dB(A) |

| Octave Band Center Frequencies Hertz | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Hz |
|---|---|---|---|---|---|---|---|
| SPL@3 | 55.0 | 59.0 | 60.0 | 57.0 | 50.0 | 42.0 | dB(A) |

| | |
|---|---|
| Moment of inertia | 68.5 Lb-ft² |
| Ext Load Inertia Capability: | 172.0 Lb ft² |

| **Bearings** | | |
|---|---|---|
| Bearing DE \| NDE | NU 320 | 6316 Z C3 S0 |
| Bearing_Type | Roller Bearing | Ball Bearing |
| AFBMA: | 100RU03M0 | 80BC03JP30 |
| **Grease** | | |
| Capacity | 14.50 oz | 7.50 oz |
| Grease Type: | Exxon Mobile EM | |

| | |
|---|---|
| Thickener | Polyurea |
| Safe Stall Time Hot | 28 s |
| Safe Stall Time Cold | 43 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: 4:1 VT: 20:1 |
| Space heaters | without |
| Brake: | without |

## Terminal box

| Lead Wire Connection | 6 LEAD - DELTA | | | |
|---|---|---|---|---|
| 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 | 3" 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* |

| | | | | |
|---|---|---|---|---|
| SIEMENS | document type: datasheet | document status: released | | customer |
| | title: 1LE2321-4CC31-2AA3-Z | document number | | |
| | B09 | rev.: 01 | creation date: 2021-04-21 21:04 | language: en / Page: 1/2 |

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**Special design**

| | |
|---|---|
| B09 | Export packing sea freight - Siemens standard |

**Notes:**

| responsible dep. | technical reference | created by | approved by | |
|---|---|---|---|---|
| DI MC LVM | | DT Configurator | | *Technical data are subject to change! There may be discrepancies between calculated and rating plate values* |

| | | | | | |
|---|---|---|---|---|---|
| SIEMENS | document type: datasheet | | document status: released | | customer |
| | title: 1LE2321-4CC31-2AA3-Z | | document number | | |
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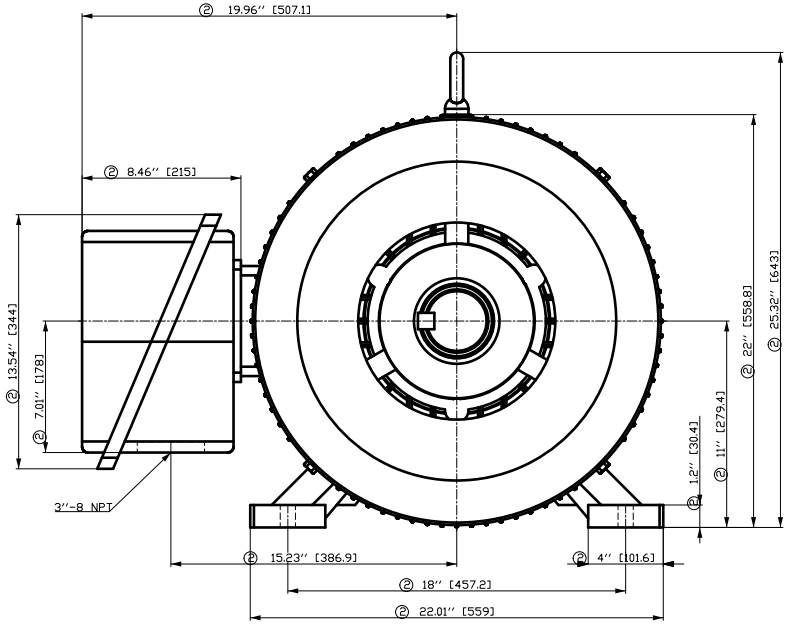


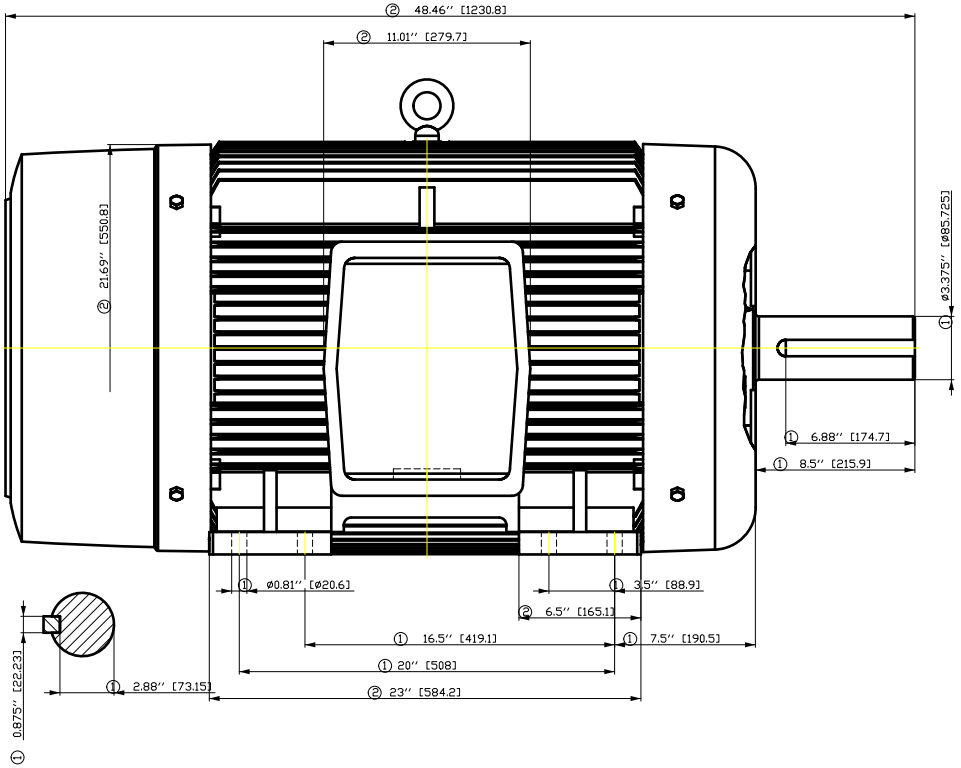


① Tolerances according to NEMA std.

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 |
| 1LE2321-4CC31-2AA3-Z<br>B09 | Author<br>Creator: DTK<br>Approval<br>Department<br>Change Order | Dimensional drawing<br>MaÇzeichnung | | |
| SIEMENS | Doc State: 4/21/21<br>Revision Index RS | MLFB | Doc Type | |
| | | Item No | Paper Size: A3 | |
| | | Doc No | 1st Language: en<br>2nd Language: de | |
| © Siemens AG 2018 | Project No - | Ref No - | Sheet: 1 of 1 | |

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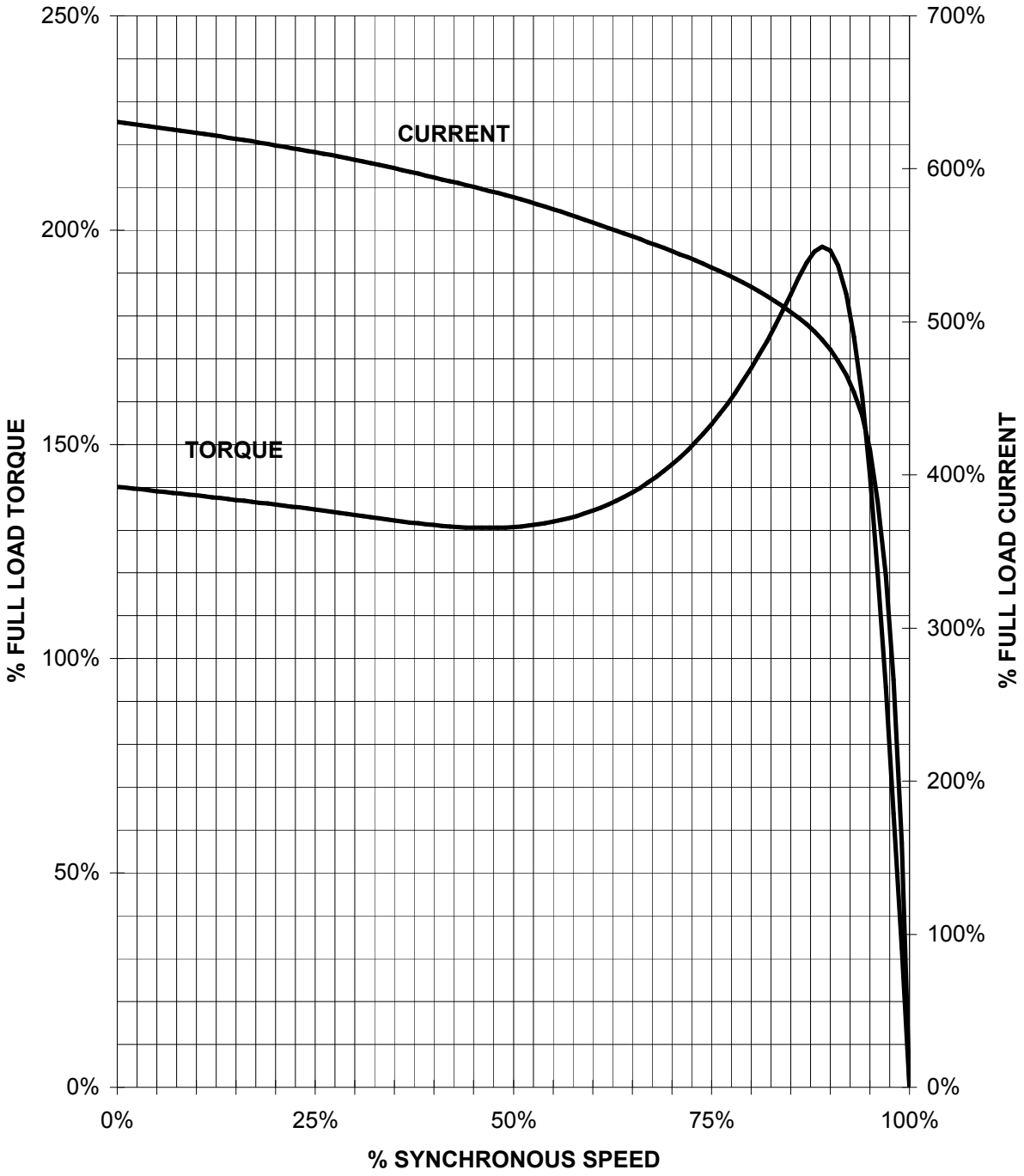
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HP | 150 | VOLTS | < 600V | RPM | 1200 | TYPE | SD100 |
| HZ | 60 | PHASE | 3 | FRAME | 447T | NEMA | B |

## TORQUE & CURRENT VS. SPEED



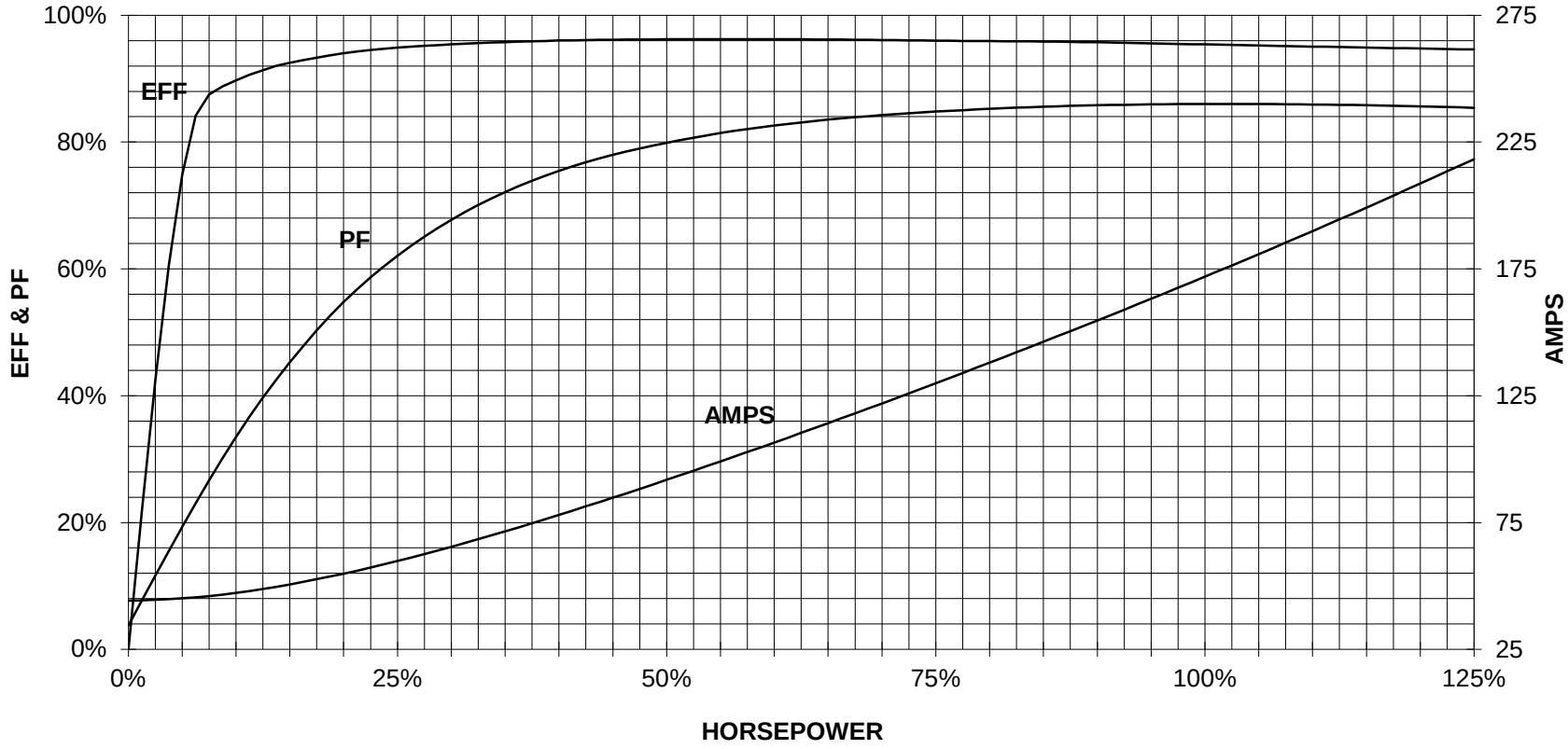

CUSTOMER: _____ ORDER#: _____

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

150 HP 1200 RPM 447T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

## SIEMENS INDUSTRY, INC.

### PERFORMANCE CURVE
### SD100

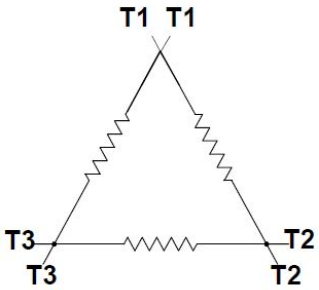



CUSTOMER_____ ORDER #_____ PO #_____

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

REV. 1

Main terminal diagram




| 6 LEAD DELTA | | | |
|---|---|---|---|
| LINES | | | CONN. |
| L1 | L2 | L3 | |
| T1 | T2 | T3 | Δ |

| responsible dep. | technical reference | created by | approved by | Project | | | |
|---|---|---|---|---|---|---|---|
| DI MC LVM | | | | | | | |
| SIEMENS | document type: Wiring Diagram | | | document status: free | | customer | |
| | title: 1LE2321-4CC31-2AA3-Z | | | document number | | | |
|  | B09 | | | rev.: 01 | creation date: 12/03/2019 | language: en | Page: 1/1 |