

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

**Motor type:** SD200 NEMA Premium 841 **FS: L449TS - 2p - 400 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 T2D 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   | $\Delta$   | 60     | 400.00 | 298.40 | 3,570   | 432           | 328.50 | 233.20 | 111.00 | 2900.0 | 96.2              | 96.2 | 95.7 | 90.0                 | 88.9 | 83.9 | 586.0          | 170                                    | 300                                    |

|                    |   |                                       |                                       |              |            |
|--------------------|---|---------------------------------------|---------------------------------------|--------------|------------|
| Frame Type: L449TS | 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: 2,863     |   | Temp. Rise Cl.: B                     | Amb. Temp.: + 40 to °C @1000 m        | kVA: G       | IP 55      |

**Mechanical data**


|                                      |                          |      |      |              |      |      |                       |                         |                              |
|--------------------------------------|--------------------------|------|------|--------------|------|------|-----------------------|-------------------------|------------------------------|
| Sound level (SPL / SWL) at 60 Hz     | 79.0 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    | 24 s                         |
| SPL@3                                | 58.0                     | 62.0 | 78.0 | 74.0         | 57.0 | 50.0 | dB(A)                 | Frame material          | Cast iron                    |
| Moment of inertia                    | 49.0 Lb-ft <sup>2</sup>  |      |      |              |      |      |                       | Color, paint shade      | RAL 7030                     |
| Ext Load Inertia Capability:         | 315.0 Lb ft <sup>2</sup> |      |      |              |      |      |                       | Coating (paint finish)  | Standard Alkyed + Epoxy (C2) |
| <b>Bearings</b>                      |                          |      |      |              |      |      |                       | <b>Ventilation Type</b> |                              |
| Bearing DE   NDE                     | 6315 Z C3 S0             |      |      | 6315 Z C3 S0 |      |      | Method of cooling     | TEFC                    |                              |
| Bearing_Type                         | Ball Bearing             |      |      | Ball Bearing |      |      | Direction of rotation | Bi-Directional          |                              |
| AFBMA:                               | 75BC03JP3                |      |      | 75BC03JP3    |      |      | Fan Material          | Polypropylene ESD       |                              |
| <b>Grease</b>                        |                          |      |      |              |      |      |                       | VFD                     | CT: 4:1 VT: 20:1             |
| Capacity                             | 15 oz                    |      |      | 15 oz        |      |      | Space heaters         | without                 |                              |
| Grease Type:                         | Exxon Mobil EM           |      |      |              |      |      |                       | Brake:                  | -/-                          |

**Terminal box**

|                      |                               |     |     |                    |          |                          |  |
|----------------------|-------------------------------|-----|-----|--------------------|----------|--------------------------|--|
| Lead Wire Connection | 3 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) 4" NPT   |
| RUN                  | T1                            | T2  | T3  | ---                | $\Delta$ |                          |  |

|   |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| <b>Notes:</b>   |  |  |  |  |  |  |  |
| I <sub>L</sub> /I <sub>N</sub> = locked rotor current / current nominal |  |  |  | 3) Value is valid only for DOL operation with motor design IC411 |  |  |  |
| M <sub>L</sub> /M <sub>N</sub> = locked rotor torque / torque nominal   |  |  |  | 2) at rated power / at full load                                 |  |  |  |
| M <sub>k</sub> /M <sub>N</sub> = break down torque / nominal torque     |  |  |  |  |  |  |  |

|                  |                     |                 |             |   |  |  |  |
|------------------|---------------------|-----------------|-------------|---|--|--|--|
| responsible dep. | technical reference | created by      | approved by | <i>Technical data are subject to change! There may be discrepancies between software and customer interface</i> |  |  |  |
| DI MC LVM        |                     | DT Configurator |             |   |  |  |  |

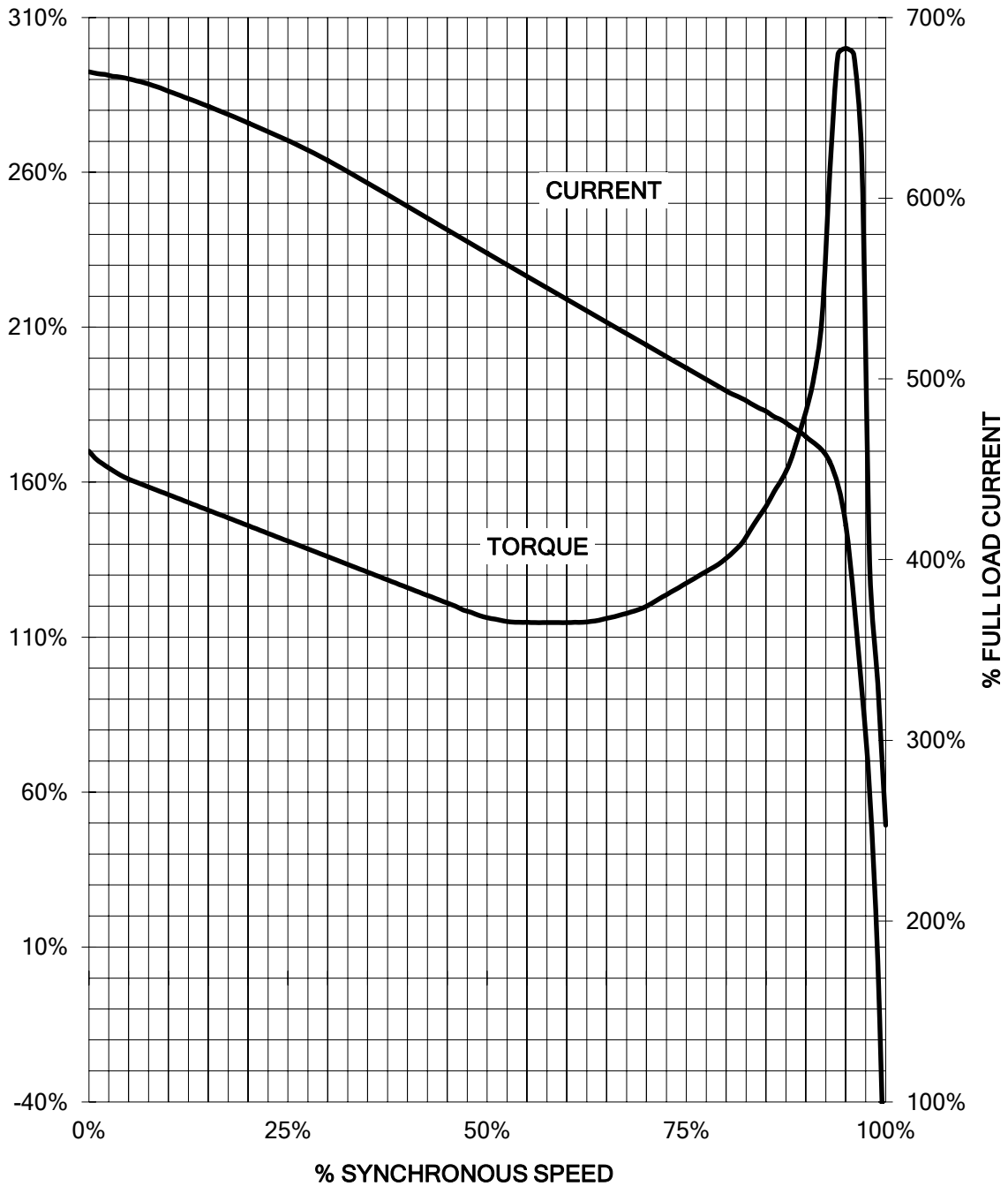
|  |                    |                  |          |          |  |
|--|--------------------|------------------|----------|----------|--|
|  | document type      | document status  |          | customer |  |
|  | datasheet          | released         |          |          |  |
|  | title              | document number  |          |          |  |
|  | 1LE6322-4HA21-2AA1 |                  |          |          |  |
| © Siemens AG 2022  | rev.               | creation date    | language | Page     |  |
|  | 01                 | 2022-04-09 01:44 | en       | 1/1      |  |



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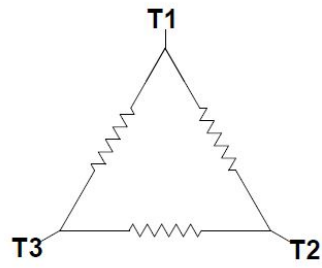
HP 400 VOLTS 460 RPM 3570 TYPE SD200  
HZ 60 PHASE 3 FRAME 449T NEMA B

## TORQUE & CURRENT VS. SPEED



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

Main terminal diagram

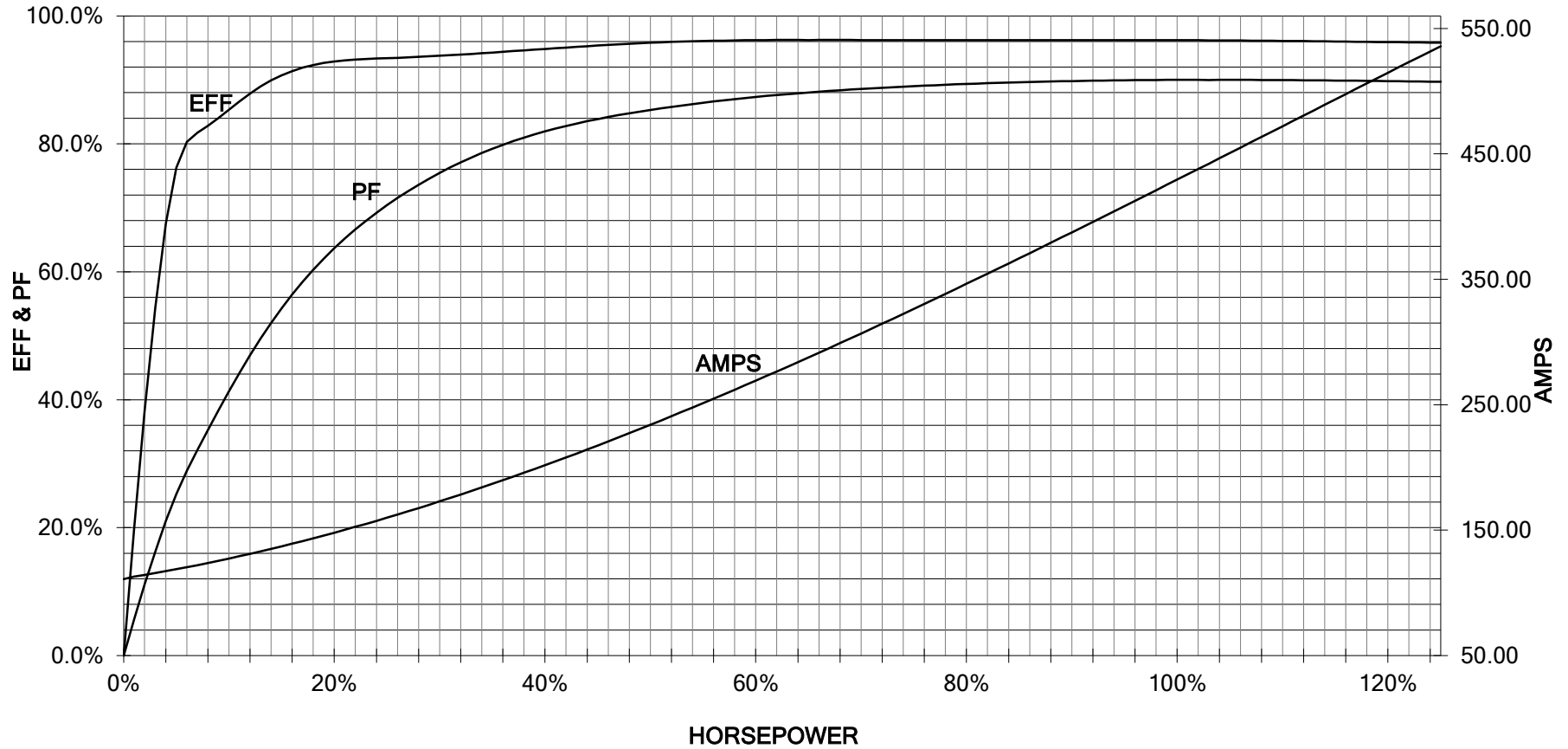


| 3 LEAD DELTA |    |    |       |
|--------------|----|----|-------|
| LINES        |    |    | CONN. |
| L1           | L2 | L3 |       |
| T1           | T2 | T3 | Δ     |

|                               |                                 |                         |                             |                               |
|-------------------------------|---------------------------------|-------------------------|-----------------------------|-------------------------------|
| responsible dep.<br>DI MC LVM | technical reference             | created by              | approved by                 | Project                       |
| <b>SIEMENS</b>                | document type<br>Wiring Diagram | document status<br>free |                             | customer                      |
|                               | title<br>1LE6322-4HA21-2AA1     | document number         |                             |                               |
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400 HP 3600 RPM 449T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

SIEMENS INDUSTRY, INC.  
PERFORMANCE CURVE  
SD200



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

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

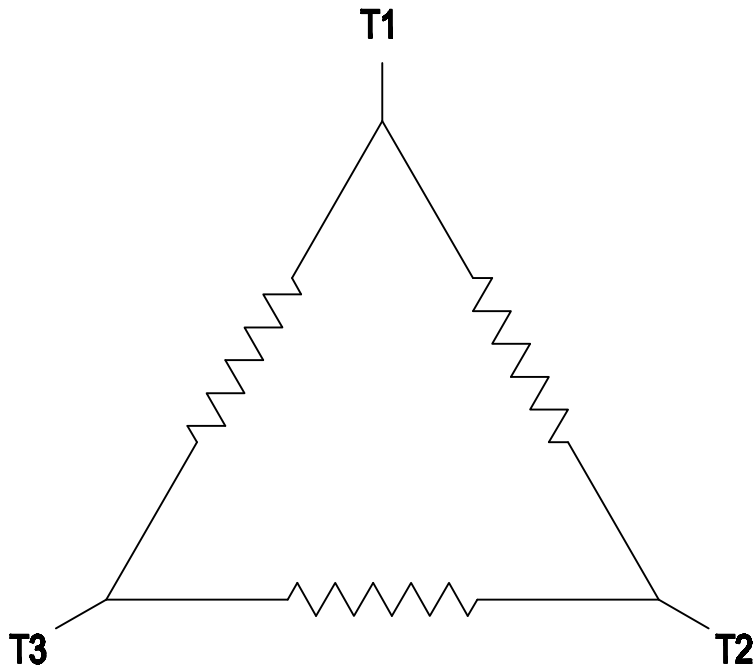
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### 3 PHASE - 3 LEADS - DELTA

|    |    |    |       |
|----|----|----|-------|
| L1 | L2 | L3 | CONN. |
| T1 | T2 | T3 | △     |



B

B

A

A

THIS IS A CAD DRAWING  
DO NOT MAKE MANUAL CHANGES

01 | 09-27-07

TYPE

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Siemens Energy & Automation, Inc.  
Industrial Motor Division - Little Rock, AR

FRAME

HP

NAME

WIRING DIAGRAM

VOLTS

RPM

HZ

PH

3

Customer

DRAWN 9.24.07

DATE JRH

CHECKED

DATE

APP

DATE

SHEET

1 OF 1

Sim. To

PART NO.

51-382-114-504

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