

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

**Motor type:** SD100 IEEE **FS: 215T - 4p - 10 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]            | $\Delta/Y$ | f [Hz]   | P [HP] | P [kW] | n [rpm] | I Load [Amps]                         |       |                                     |      |      | LRC          | 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    | 4/4  |              | 3/4               | 2/4        | 4/4  | 3/4                  | 2/4  |      |                |  |  |
| 460              | Y          | 60   | 10.00  | 7.50   | 1,800   | 12.50                                 | 10.00 | 8.00                                | 6.10 | 81.0 | 91.7         | 92.2              | 91.7       | 81.7 | 76.2                 | 63.8 | 30.0 | 270            | 410                                    |  |
| Frame Type: 215T |            | 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: 180     |            |  |        |        |         | Temp. Rise Cl.: B                     |       | Amb. Temp.: + 40 to -20 °C @1000 m  |      |      | kVA: H       |                   | IP 55      |      |                      |      |      |                |  |  |

## Mechanical data

|                                      |                         |      |                         |                              |                  |      |       |                      |           |
|--------------------------------------|-------------------------|------|-------------------------|------------------------------|------------------|------|-------|----------------------|-----------|
| Sound level (SPL / SWL) at 60 Hz     | 57.0 dB(A) / 69.0 dB(A) |      | Thickener               | Polyurea                     |                  |      |       |                      |           |
| Octave Band Center Frequencies Hertz |                         |      | Safe Stall Time Hot     | 20 s                         |                  |      |       |                      |           |
|                                      | 250                     | 500  | 1000                    | 2000                         | 4000             | 8000 | Hz    | Safe Stall Time Cold | 36 s      |
| SPL@3                                | 37.0                    | 44.0 | 54.0                    | 53.0                         | 44.0             | 35.0 | dB(A) | Frame material       | cast iron |
| Moment of inertia                    | 0.9 Lb-ft <sup>2</sup>  |      | Color, paint shade      | Standard Paint - RAL7030     |                  |      |       |                      |           |
| Ext Load Inertia Capability:         | 51.0 Lb ft <sup>2</sup> |      | Coating (paint finish)  | Standard Alkyed + Epoxy (C2) |                  |      |       |                      |           |
| <b>Bearings</b>                      |                         |      | <b>Ventilation Type</b> |                              |                  |      |       |                      |           |
| Bearing DE   NDE                     | 6208 Z C3 S0            |      | 6208 Z C3 S0            | Method of cooling            | TEFC             |      |       |                      |           |
| Bearing_Type                         | Ball Bearing            |      | Ball Bearing            | Direction of rotation        | Bidirectional    |      |       |                      |           |
| AFBMA:                               | 40BC02JP30              |      | 40BC02JP30              | Fan Material                 | Polypropylen ESD |      |       |                      |           |
| <b>Grease</b>                        |                         |      | VFD                     | CT: 20:1 VT: 20:1            |                  |      |       |                      |           |
| Capacity                             | 0.3 oz                  |      | 0.3 oz                  | Space heaters                | without          |      |       |                      |           |
| Grease Type:                         | Exxon Mobile EM         |      | Brake:                  | without                      |                  |      |       |                      |           |


## Terminal box

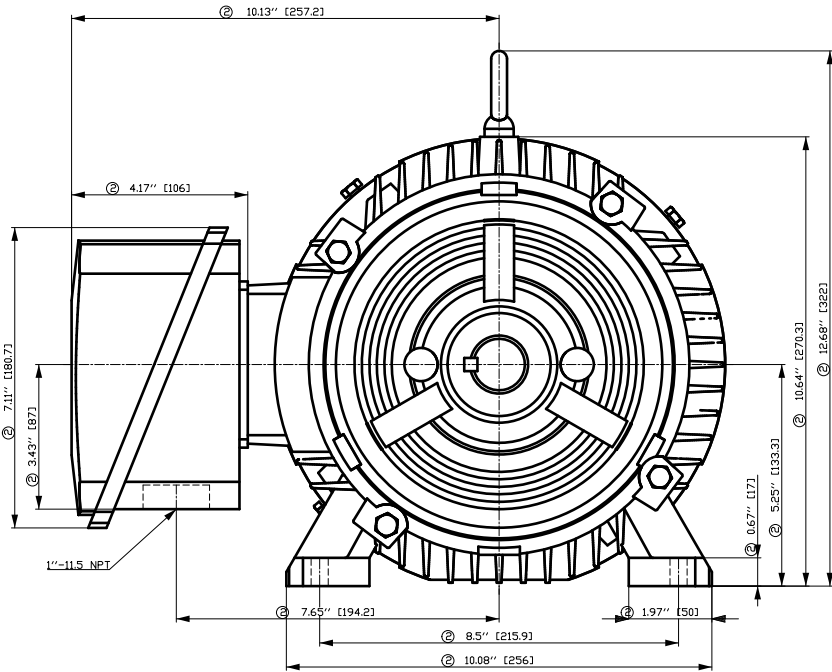
|                      |              |      |      |                    |                          |   |
|----------------------|--------------|------|------|--------------------|--------------------------|---|
| Lead Wire Connection | 3 LEAD - WYE |      |      |                    | Terminal box position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

### Notes:

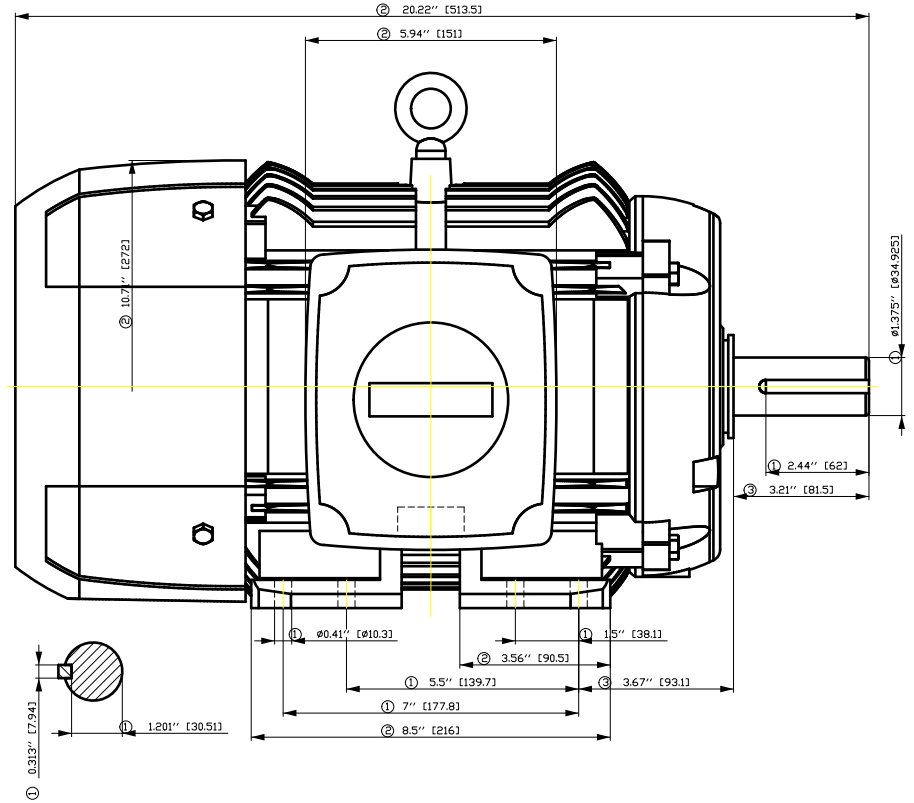
I<sub>L</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>L</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>B</sub>/M<sub>N</sub> = break down torque / nominal torque

3) Value is valid only for DOL operation with motor design IC411  
2) at rated power / at full load

|  |                             |                                   |                |  |  |
|--|-----------------------------|-----------------------------------|----------------|--|--|
| responsible dep.<br>DI MC LVM  | technical reference         | created by<br>DT Configurator     | approved by    | <i>Technical data are subject to change! There may be discrepancies between software and hardware versions</i> |  |
|  | document type<br>datasheet  | document status<br>released       | customer       |  |  |
|  | title<br>1LE2421-2AB21-2AA3 | 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.



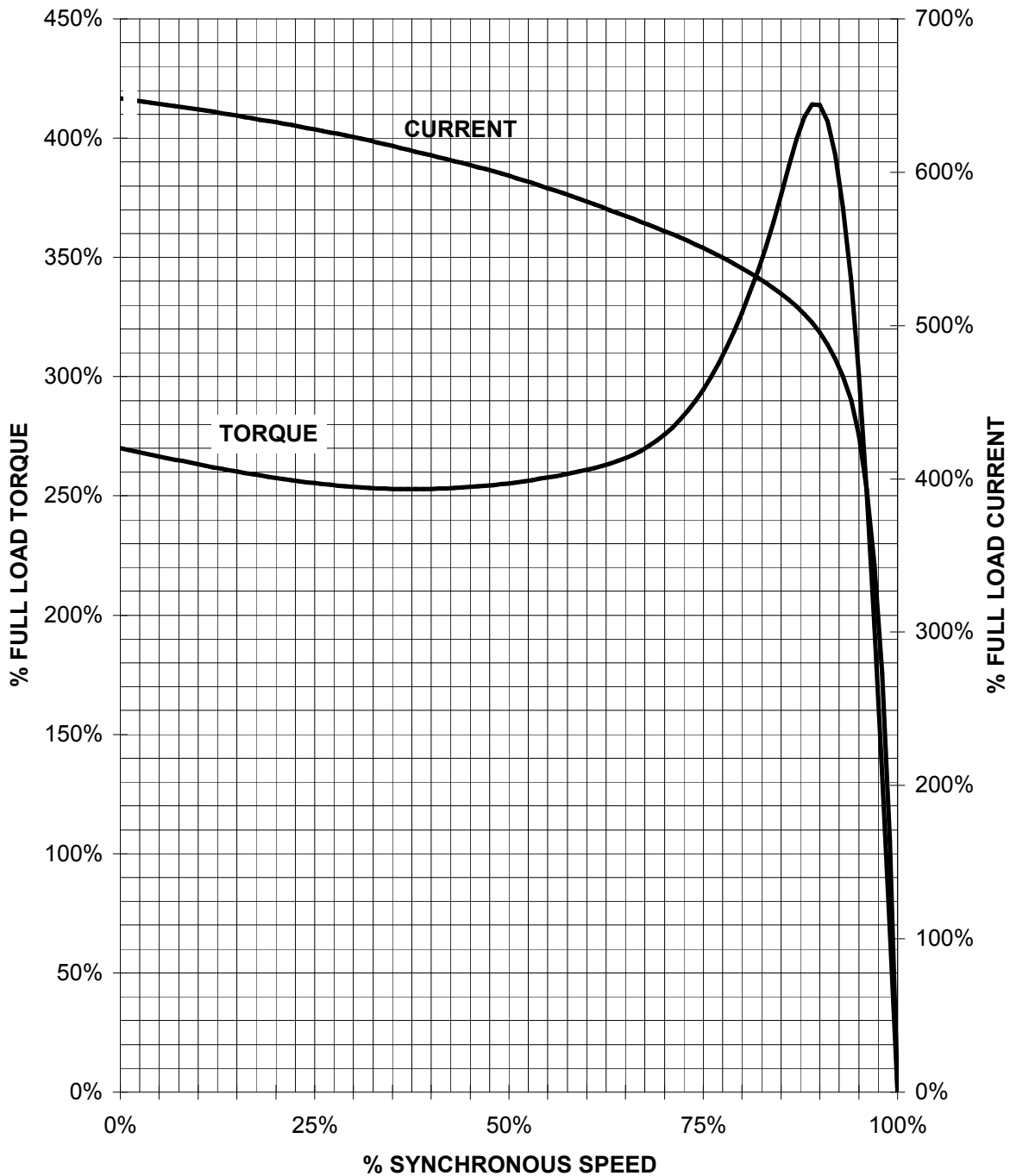
|                       |   |                               |              |  |         |
|-----------------------|---|-------------------------------|--------------|--|---------|
| Tolerance             | Surface   | Material                      | Weight<br>É  | Scale<br>1:1                                       |         |
| F50G GFC00GFC00H<br>É | Author<br>Creator<br>Approval<br>Department<br>Change Order | ÖVS<br>T æ : ^æ@` } *<br>MLFB | Doc Type /   | Paper Size CH<br>1st Language ^<br>2nd Language à^ |         |
| SIEMENS               | Doc. State  | I ð BGG                       |              |  | Item No |
|                       | Revision  | Index RS                      |              |  | Doc No  |
|                       | Project No  | É                             |              |  | Ref No  |
| © Siemens AG 2018     |   |                               | Sheet F of F |  |         |

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# SIEMENS INDUSTRY, INC.

HP 10 VOLTS < 600V RPM 1800 TYPE SD100 IEEE841  
HZ 60 PHASE 3 FRAME 215T NEMA B

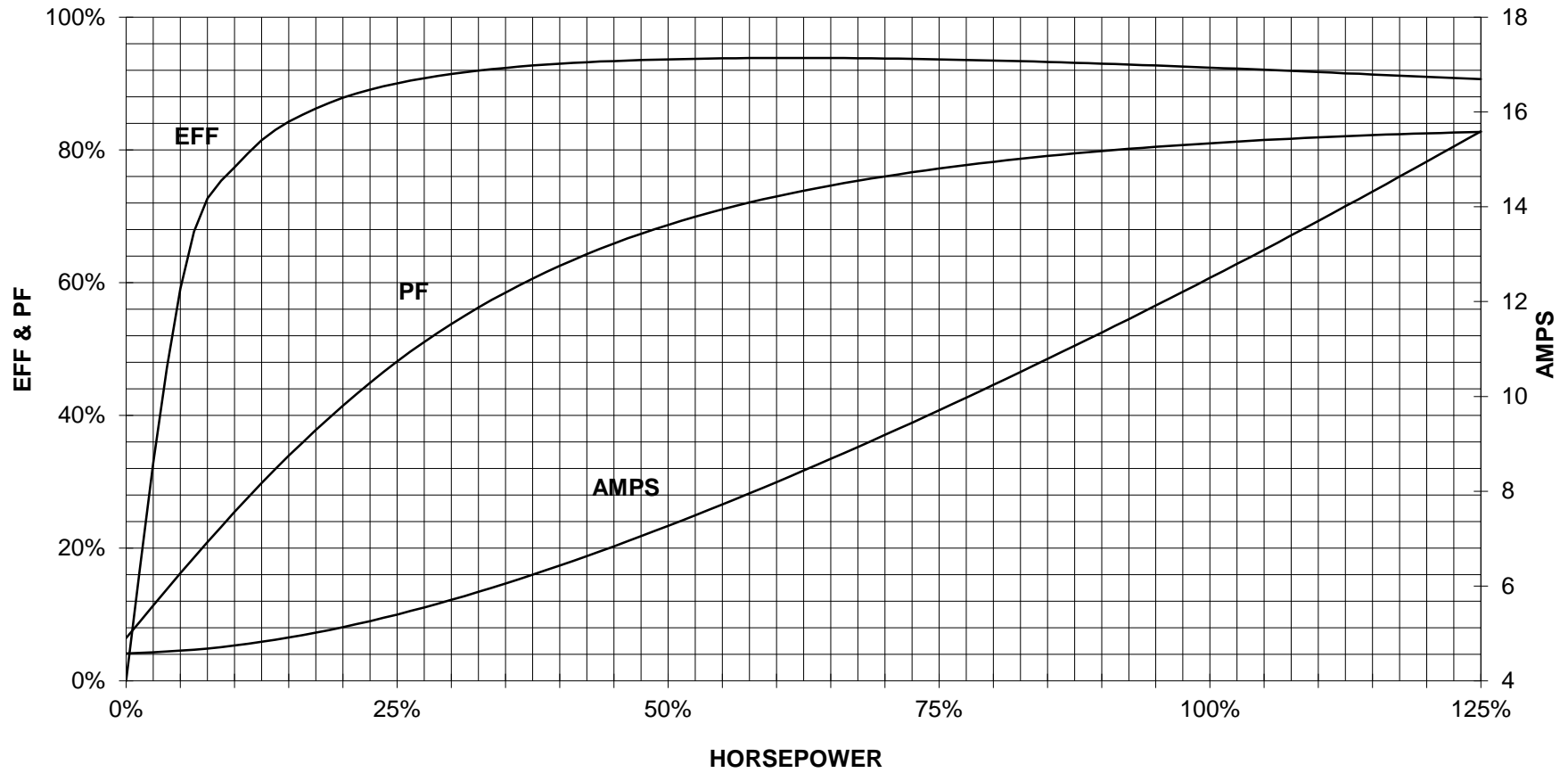
## TORQUE & CURRENT VS. SPEED



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

10 HP 1800 RPM 215T FRAME 460 VOLTS 3 PHASE NEMA DESIGN B

**SIEMENS INDUSTRY, INC.**  
**PERFORMANCE CURVE**  
**SD100 IEEE841**



CUSTOMER \_\_\_\_\_ ORDER # \_\_\_\_\_ PO # \_\_\_\_\_


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

REV. 1

Main terminal diagram



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

|  |                                 |            |             |                         |                             |                |             |
|--|---------------------------------|------------|-------------|-------------------------|-----------------------------|----------------|-------------|
| responsible dep.<br>DI MC LVM  | technical reference             | created by | approved by | Project                 |                             |                |             |
|  | document type<br>Wiring Diagram |            |             | document status<br>free |                             | customer       |             |
|  | title<br>1LE2421-2AB21-2AA3     |            |             | document number         |                             |                |             |
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