

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

Motor type: **SD100** FS: **143T - 2p - 1 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  |     |                |  |  |
| 575              | Y          | 60   | 1.00   | 0.75   | 3,600   | 1.10                                  | 0.90 | 0.70                                | 0.60 | 9.6 | 82.5         | 82.1              | 79.3       | 81.1 | 77.4                 | 65.2 | 1.5 | 173            | 380                                    |  |
| Frame Type: 143T |            | Type of constr.: ( G ) Round body - C-Face |        |        |         | Ins. Cl.: Standard Class F Insulation |      | Motor Prot.: (A) Without Protection |      |     | NEMA Des.: B |                   | S.F.: 1.15 |      |                      |      |     |                |  |  |
| Mtr. WT: 85      |            |  |        |        |         | Temp. Rise Cl.: B                     |      | Amb. Temp.: + 40 to -20 °C @1000 m  |      |     | kVA: L       |                   | IP 55      |      |                      |      |     |                |  |  |

## Mechanical data

|                                      |                         |      |      |              |      |      |                         |                        |                              |
|--------------------------------------|-------------------------|------|------|--------------|------|------|-------------------------|------------------------|------------------------------|
| Sound level (SPL / SWL) at 60 Hz     | 64.0 dB(A) / 76.0 dB(A) |      |      |              |      |      |                         | Thickener              | Polyurea                     |
| Octave Band Center Frequencies Hertz |                         |      |      |              |      |      |                         |                        |                              |
|                                      | 250                     | 500  | 1000 | 2000         | 4000 | 8000 | Hz                      | Safe Stall Time Hot    | 12 s                         |
| SPL@3                                | 44.0                    | 52.0 | 62.0 | 59.0         | 54.0 | 46.0 | dB(A)                   | Safe Stall Time Cold   | 16 s                         |
| Moment of inertia                    | 0.0 Lb-ft <sup>2</sup>  |      |      |              |      |      |                         | Frame material         | cast iron                    |
| Ext Load Inertia Capability:         | 0.0 Lb ft <sup>2</sup>  |      |      |              |      |      |                         | Color, paint shade     | Standard Paint - RAL7030     |
| <b>Bearings</b>                      |                         |      |      |              |      |      |                         | Coating (paint finish) | Standard Alkyed + Epoxy (C2) |
| Bearing DE   NDE                     | 6205 Z C3 S0            |      |      | 6205 Z C3 S0 |      |      | <b>Ventilation Type</b> |                        |                              |
| Bearing_Type                         | Ball Bearing            |      |      | Ball Bearing |      |      | Method of cooling       | TEFC                   |                              |
| AFBMA:                               | 25BC02JP30              |      |      | 25BC02JP30   |      |      | Direction of rotation   | Bidirectional          |                              |
| <b>Grease</b>                        |                         |      |      |              |      |      |                         | Fan Material           | Polypropylen ESD             |
| Capacity                             | 0.1 oz                  |      |      | 0.1 oz       |      |      | VFD                     | CT: 4:1 VT: 20:1       |                              |
| Grease Type:                         | Exxon Mobile EM         |      |      |              |      |      |                         | Space heaters          | without                      |
|                                      |                         |      |      |              |      |      |                         | Brake:                 | without                      |


## Terminal box

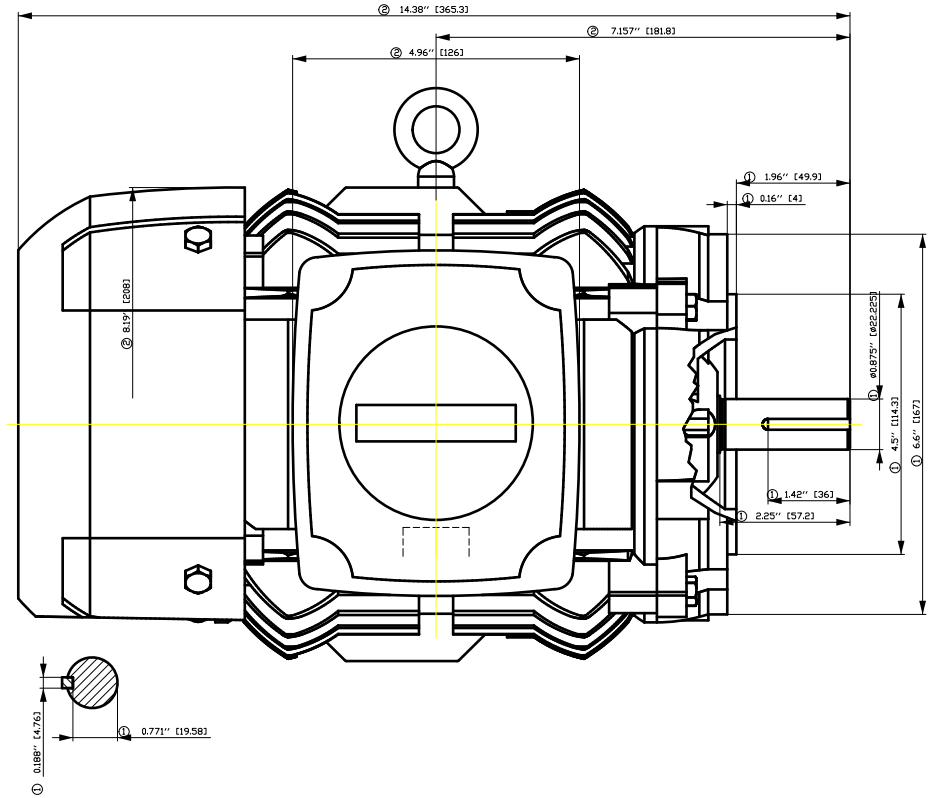
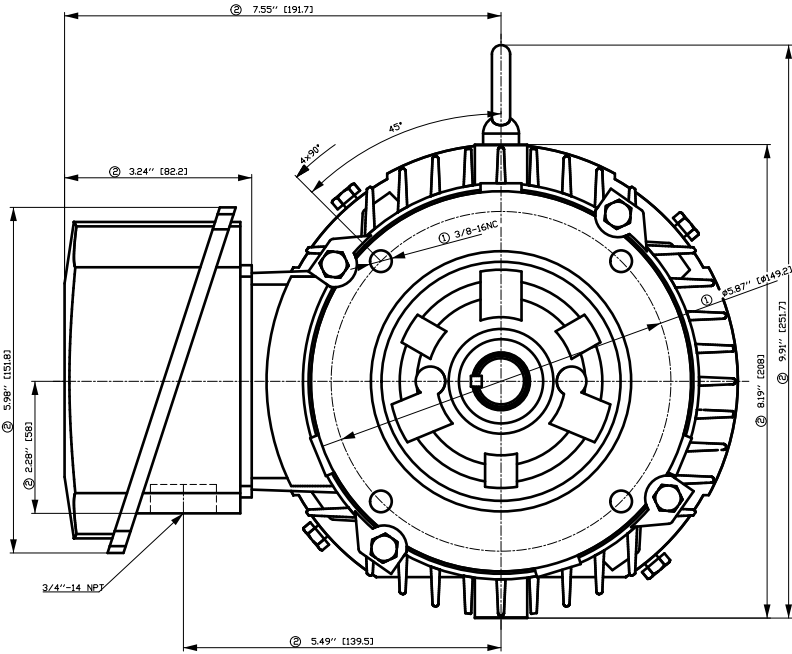
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|----------------------|--------------|------|------|--------------------|--------------------------|---|
| Lead Wire Connection | 3 LEAD - WYE |      |      |                    | Terminal box position    | (3) F-1, Standard Floor Mount, T. Box LHS |
| Voltage              | L1           | L1   | L1   | Connected together | Material of terminal box | Cast Iron                                 |
| ----                 | ----         | ---- | ---- | ----               | Cable entry              | .75" 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>1LE2321-1AA11-3GA3 | 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        |              |
|-------------------|--------------|--------------------|---------|--------------|--------------|
| F50G-GF-E-ÖFF-ÖCH | Author       | ÖS<br>Tae: ^æ@` }* | E       |              |              |
| E                 | Creator      |                    |         |              | ÖVS          |
|                   | Approval     |                    |         |              |              |
|                   | Department   |                    |         |              |              |
|                   | Change Order | MFB                |         | Doc Type     |              |
|                   | Doc. State   | I ð BGG            | Item No | Paper Size   |              |
|                   | Revision     | Index RS           | Doc No  | 1st Language |              |
|                   | Project No   | E                  | Ref No  | E            | 2nd Language |
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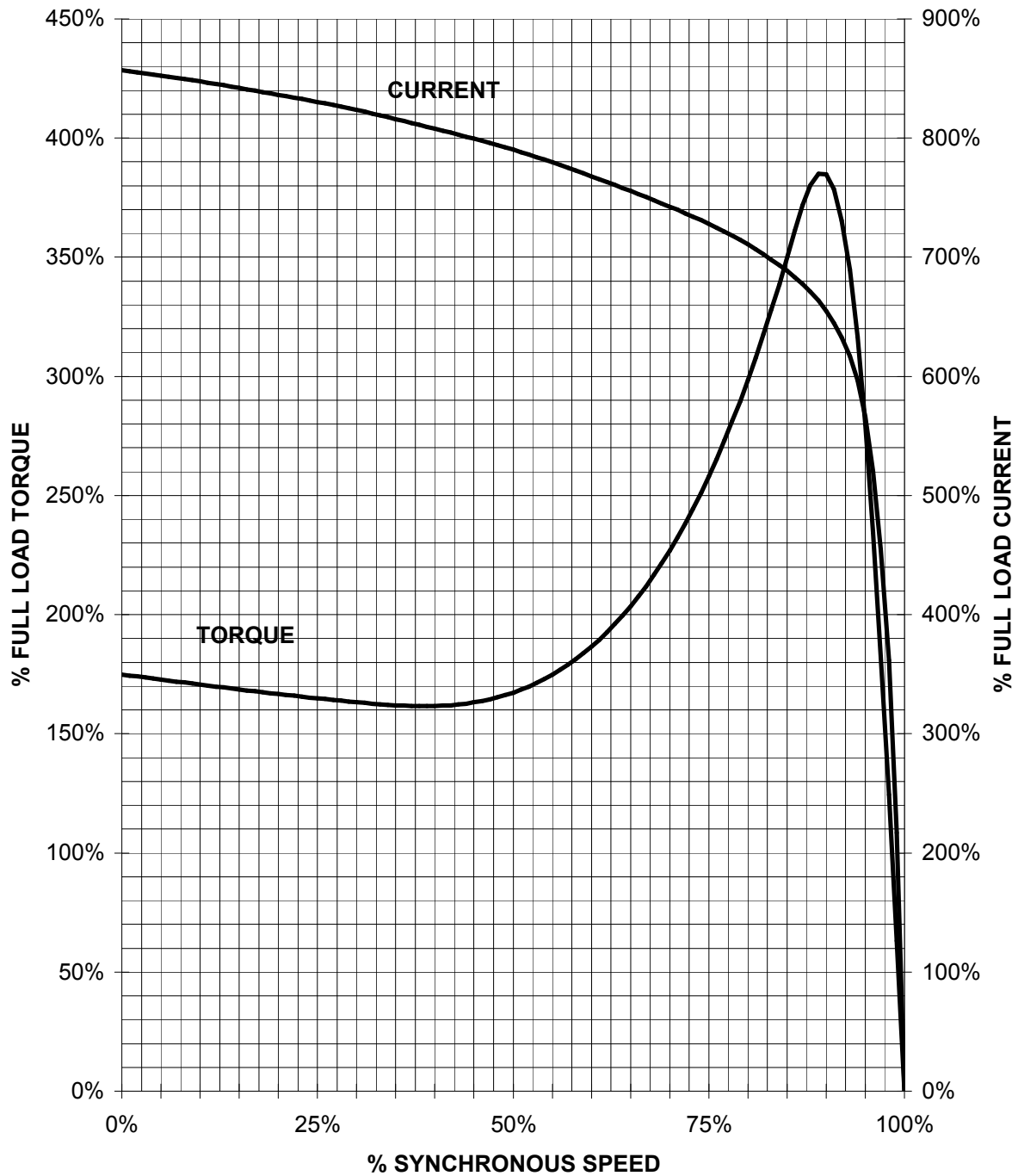
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# SIEMENS INDUSTRY, INC.

HP 1 VOLTS < 600V RPM 3600 TYPE SD100  
HZ 60 PHASE 3 FRAME 143T NEMA B

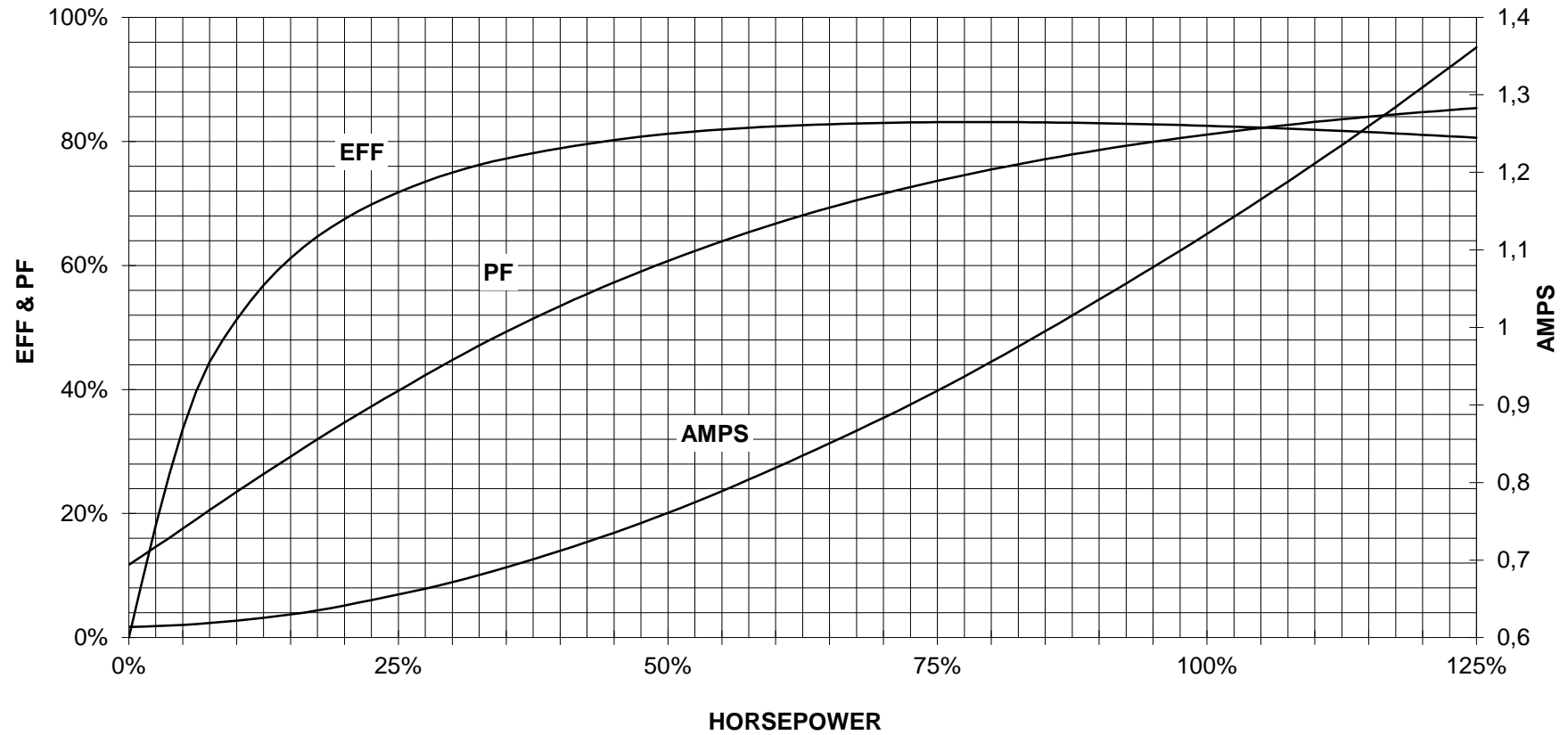
## TORQUE & CURRENT VS. SPEED



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

1 HP 3600 RPM 143T FRAME 575 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



| 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     |
| <b>SIEMENS</b>                | document type<br>Wiring Diagram | document status<br>free     |                | customer    |
|                               | title<br>1LE2321-1AA11-3GA3     | document number             |                |             |
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