

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

Motor type: **GP100** FS: **B447T - 4p - 200 hp -**

|                  |                 |           |
|------------------|-----------------|-----------|
| Client order no. | Item-No.        | Offer no. |
| Order no.        | Consignment no. | Project   |
| Remarks          |                 |           |

## Electrical data

| 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               | $\Delta$     | 60   | 200.00 | 150.00 | 1,800   | 182.40                                | 140.30 | 103.80                              | 58.40 | 1160.0 | 96.2         | 96.5              | 96.2       | 85.0 | 83.0                 | 75.0 | 588.0 | 160            | 200                                    |  |
| Frame Type: B447T |              | 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: 2,090    |              |  |        |        |         | Temp. Rise Cl.: B                     |        | Amb. Temp.: + 40 to -20 °C @1000 m  |       |        | kVA: G       |                   | IP 54      |      |                      |      |       |                |  |  |

## Mechanical data

|                                      |                          |      |      |               |      |      |                       |                         |                              |
|--------------------------------------|--------------------------|------|------|---------------|------|------|-----------------------|-------------------------|------------------------------|
| Sound level (SPL / SWL) at 60 Hz     | 74.0 dB(A) / 85.0 dB(A)  |      |      |               |      |      |                       | Thickener               | Polyurea                     |
| Octave Band Center Frequencies Hertz |                          |      |      |               |      |      |                       | Safe Stall Time Hot     | 18 s                         |
|                                      | 250                      | 500  | 1000 | 2000          | 4000 | 8000 | Hz                    | Safe Stall Time Cold    | 25 s                         |
| SPL@3                                | 63.0                     | 70.0 | 67.0 | 68.0          | 60.0 | 50.0 | dB(A)                 | Frame material          | cast iron                    |
| Moment of inertia                    | 56.5 Lb-ft <sup>2</sup>  |      |      |               |      |      |                       | Color, paint shade      | Standard Paint - RAL7030     |
| Ext Load Inertia Capability:         | 831.0 Lb ft <sup>2</sup> |      |      |               |      |      |                       | Coating (paint finish)  | Standard Alkyed + Epoxy (C2) |
| <b>Bearings</b>                      |                          |      |      |               |      |      |                       | <b>Ventilation Type</b> |                              |
| Bearing DE   NDE                     | 6318 Z C3 S0             |      |      | 6216 ZZ C3 S0 |      |      | Method of cooling     | TEFC                    |                              |
| Bearing_Type                         | Ball Bearing             |      |      | Ball Bearing  |      |      | Direction of rotation | Bidirectional           |                              |
| AFBMA:                               | 90BC03JP30               |      |      | 80BC02JPP30   |      |      | Fan Material          | Polypropylen ESD        |                              |
| <b>Grease</b>                        |                          |      |      |               |      |      |                       | VFD                     | CT: 4:1 VT: 20:1             |
| Capacity                             | 10.4 oz                  |      |      | 7.5 oz        |      |      | Space heaters         | without                 |                              |
| Grease Type:                         | Exxon Mobile EM          |      |      |               |      |      |                       | Brake:                  | without                      |


## Terminal box

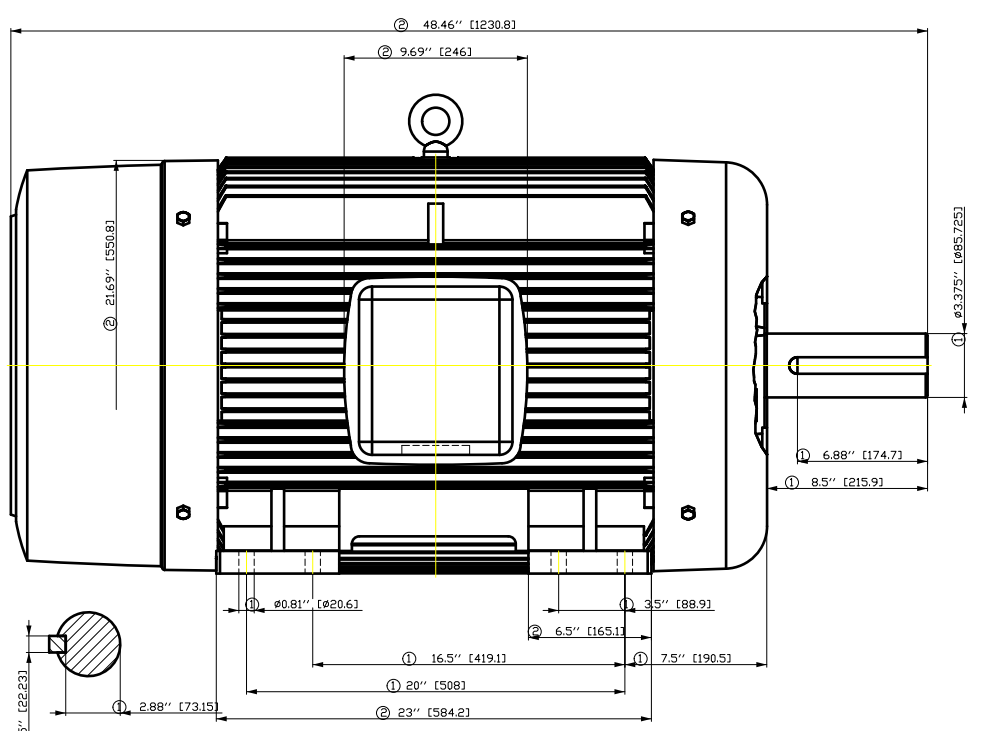
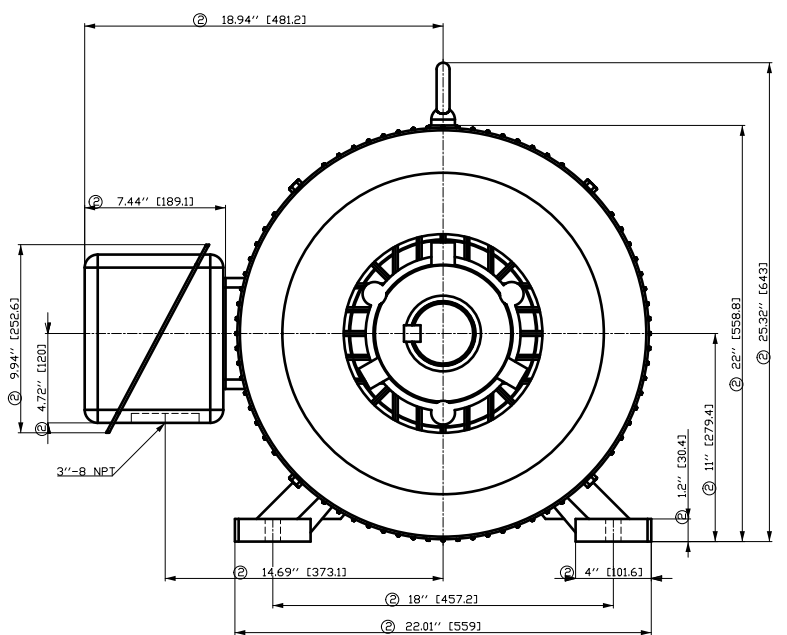
|                      |      |      |      |                    |                          |   |
|----------------------|------|------|------|--------------------|--------------------------|---|
| Lead Wire Connection |      |      |      |                    | Terminal box position    | (3) F-1, Standard 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<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>1LE2221-4EB31-3AA3 | document number                   |                |  |  |  |  |
| © Siemens AG 2022  | rev.<br>01                  | creation date<br>2022-04-08 23:09 | language<br>en | Page<br>1/1  |  |  |  |



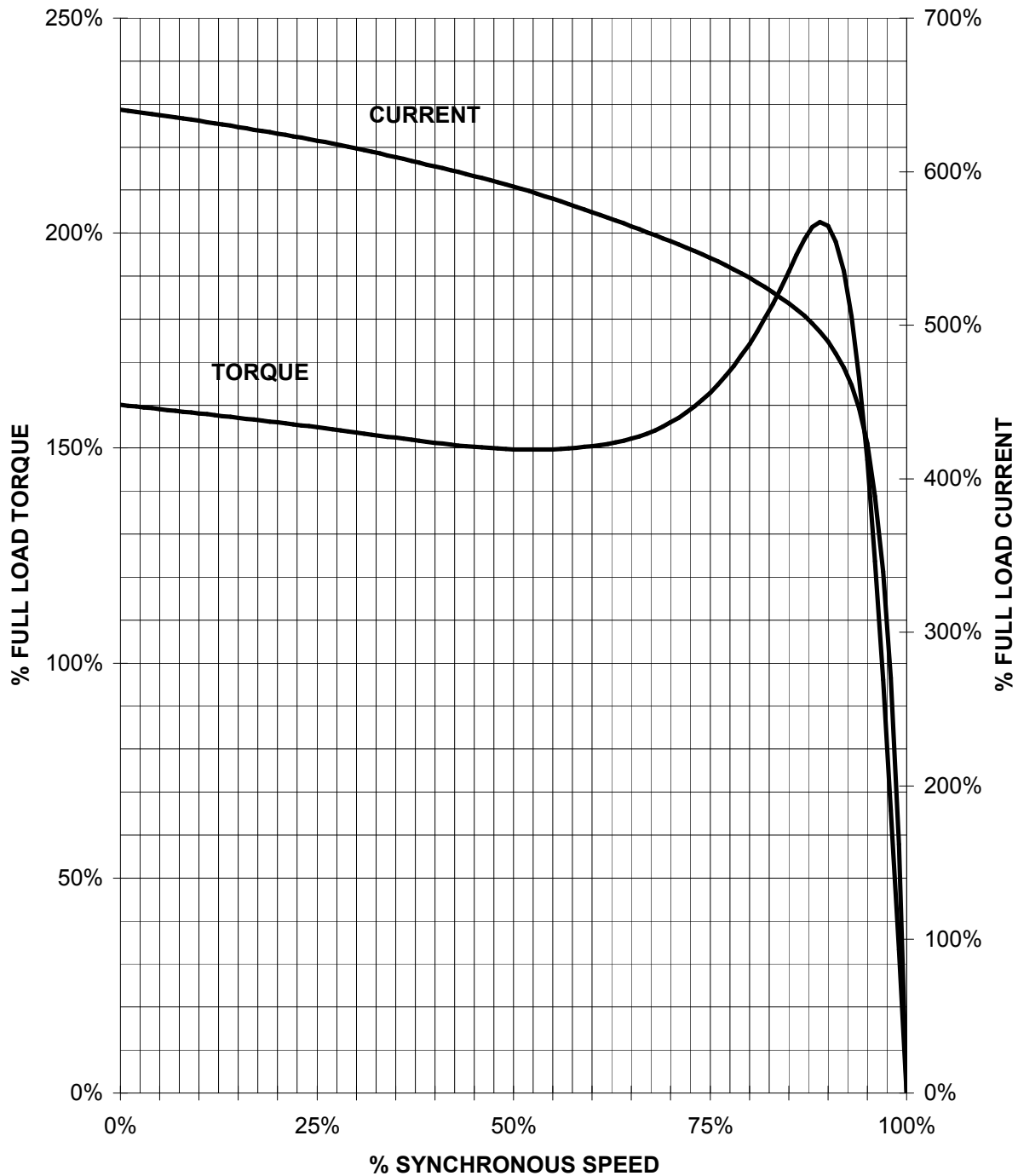
- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.

| Tolerance                           | Surface   | Material                    | Weight            | Scale                                      |
|-------------------------------------|---|-----------------------------|-------------------|--|
| F50GGF8 00FH0EH<br>E                | Author<br>Creator<br>Approval<br>Department<br>Change Order | ÖS<br>T a : ^ @ } *<br>MLFB | E                 | { {  |
| <b>SIEMENS</b><br>© Siemens AG 2018 | Doc. State<br>Revision                                      | I 00GG<br>Index RS          | Item No<br>Doc No | Paper Size<br>1st Language<br>2nd Language |
|                                     | Project No  | E                           | Ref No            | E  |
|                                     |   |                             | Doc Type          | Sheet F of F                               |

# SIEMENS INDUSTRY, INC.

HP 200    VOLTS < 600V    RPM 1800    TYPE GP100  
HZ 60    PHASE 3    FRAME B447T    NEMA B

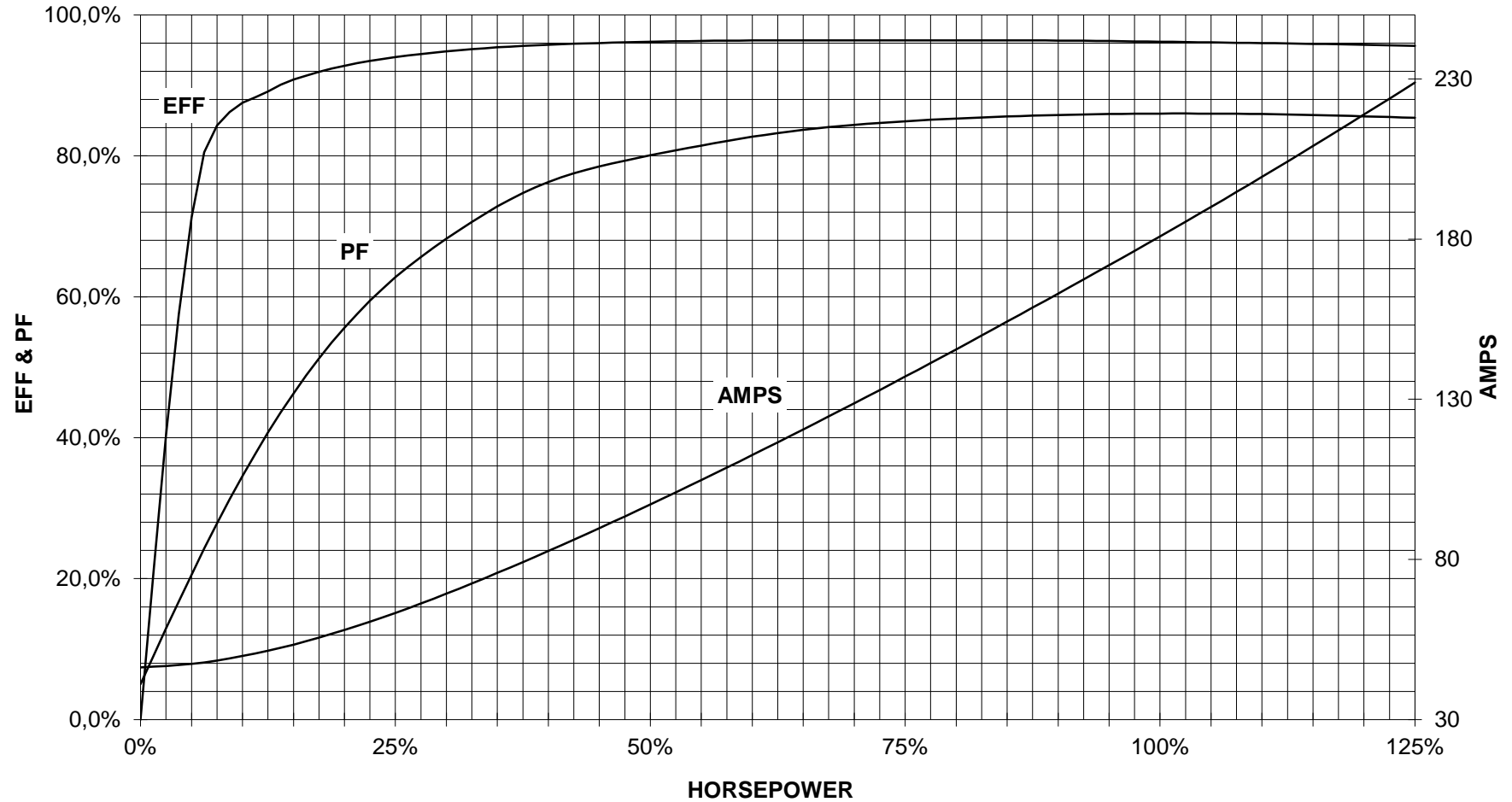
## TORQUE & CURRENT VS. SPEED



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

200 HP 1800 RPM B447T FRAME 575 VOLTS 3 PHASE NEMA DESIGN B

**SIEMENS INDUSTRY, INC.**  
**PERFORMANCE CURVE**  
**GP100**

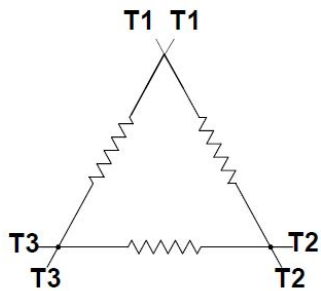


CUSTOMER: \_\_\_\_\_ ORDER #: \_\_\_\_\_


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.<br>DI MC LVM  | technical reference             | created by | approved by | Project                 |                             |                |             |
|  | document type<br>Wiring Diagram |            |             | document status<br>free |                             | customer       |             |
|  | title<br>1LE2221-4EB31-3AA3     |            |             | document number         |                             |                |             |
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