

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

Totally Enclosed Fan Cooled (TEFC)



MLFB-Ordering data: 1LE2121-1AA21-4GA3

Motor type: GP100A - NEMA Premium Efficiency

Client order no.:

Order no.:

Offer no.:

Remarks:

Item no.:

Consignment no.:

Project:

| U<br>[V] | Δ / Y | f<br>[Hz] | P<br>[HP] | P<br>[kW] | n<br>[rpm] | I Load [Amps] |      |      |      |      |  | Nom. Eff Load [%] |      |      | Pwr. Factor Load [%] |      |      | Torque<br>[lb-ft] | T <sub>A</sub> /T <sub>N</sub><br>LRT [%] | T <sub>k</sub> /T <sub>N</sub><br>BDT [%] |
|----------|-------|-----------|-----------|-----------|------------|---------------|------|------|------|------|--|-------------------|------|------|----------------------|------|------|-------------------|-------------------------------------------|-------------------------------------------|
|          |       |           |           |           |            | 4/4           | 3/4  | 1/2  | 0    | LRC  |  | 4/4               | 3/4  | 1/2  | 4/4                  | 3/4  | 1/2  |                   |                                           |                                           |
| 460      | Y     | 60        | 1.50      | 1.00      | 3,525      | 2.00          | 1.60 | 1.40 | 1.10 | 19.0 |  | 84.0              | 83.2 | 80.0 | 83.6                 | 77.0 | 64.2 | 2.2               | 273                                       | 455                                       |
| 230      | YY    | 60        | 1.50      | 1.00      | 3,525      | 4.00          | 3.29 | 2.73 | 2.20 | 38.0 |  | 84.0              | 83.2 | 80.0 | 83.6                 | 77.0 | 64.2 | 2.2               | 273                                       | 455                                       |
|          |       |           |           |           |            |               |      |      |      |      |  |                   |      |      |                      |      |      |                   |                                           |                                           |

|                  |                                                     |                   |                                     |              |            |
|------------------|-----------------------------------------------------|-------------------|-------------------------------------|--------------|------------|
| Frame Type 143TC | Type of constr.: ( G ) Round body - C-Face          | Ins. Cl.: F       | Motor Prot.: (A) Without Protection | NEMA Des.: B | S.F.: 1.15 |
| Mtr WT: 55 lbs   | Mounting: (3) F-1, Standard Floor Mount, T. Box LHS | Temp. Rise Cl.: B | Amb. Temp.: +40 to -20 °C @1000 m   | kVA: M       | IP55       |

### Mechanical data

#### WK2

Rotor Moment of Inertia: 0 Lb-ft<sup>2</sup>

Ext Load Inertia Capability: 1.8 Lb-ft<sup>2</sup>

#### Safe Stall Time

Hot: 14.0 s

Cold: 19.0 s

#### Typical Noise Data

A-weighted Sound

Sound Pressure: 76.0 dB(A)

Sound Power: 64.0 dB(A)

#### Octave Band Center Frequencies Hertz

|            | 250  | 500  | 1000 | 2000 | 4000 | 8000 | Hz    |
|------------|------|------|------|------|------|------|-------|
| SPL@3 feet | 44.0 | 52.0 | 62.0 | 59.0 | 54.0 | 46.0 | dB(A) |

#### Bearings

|               | DE            | NDE           |
|---------------|---------------|---------------|
| Bearing size: | 6205 ZZ C3 S0 | 6205 ZZ C3 S0 |
| Bearing Type: | Ball Bearing  | Ball Bearing  |
| AFBMA:        | 25BC02JPP30   | 25BC02JPP30   |

#### Grease

|            |                 |         |
|------------|-----------------|---------|
| Capacity:  | 0.10 oz         | 0.10 oz |
| Type:      | Exxon Mobile EM |         |
| Thickener: | Polyurea        |         |

#### Frame

|                         |                |
|-------------------------|----------------|
| Frame material:         | aluminum       |
| Coating (paint finish): | Standard Paint |
| Color, paint shade:     | RAL 7030       |

#### Terminal box

Terminal box position: (3) F-1, Standard Floor Mount, T. Box LHS

#### Lead Wire Connection

| Description: | 9 LEAD - WYE |       |       |                    |     |  |
|--------------|--------------|-------|-------|--------------------|-----|--|
| Voltage      | L1           | L2    | L3    | Connected together |     |  |
| LOW          | T1 T7        | T2 T8 | T3 T9 | T4 T5 T6           | Y Y |  |
| HIGH         | T1           | T2    | T3    | T4 T7-T5 T8-T6 T9  | Y   |  |

#### Ventilation Type

|                  |               |
|------------------|---------------|
| Type of Cooling: | TEFC          |
| Fan Material:    | Polypropylen  |
| Fan Rotation:    | Bidirectional |

#### Additional information

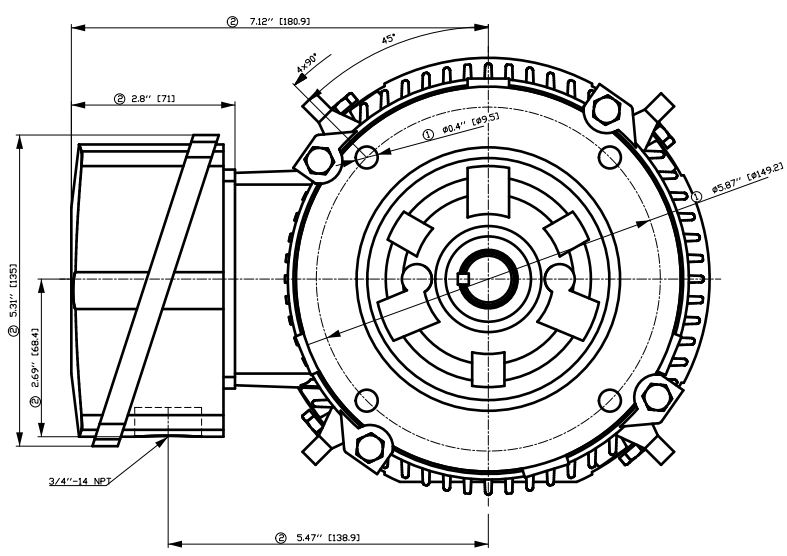
|                       |         |          |
|-----------------------|---------|----------|
| VFD Operation:        | CT: 4:1 | VT: 20:1 |
| Area: classification: | without |          |

#### Notes

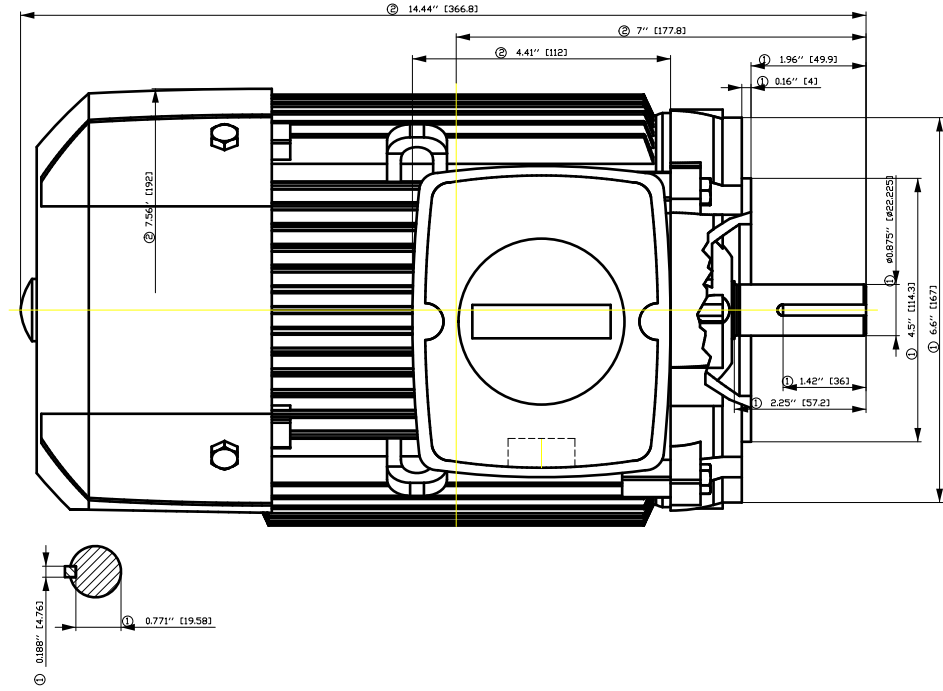
$I_L/I_N$  = locked rotor current / current nominal  $T_k/T_N$  = break down torque / nominal torque  
 $T_A/T_N$  = locked rotor torque / torque nominal <sup>1)</sup> Value is valid only for DOL operation with motor design IC411

Technical data are subject to change! There may be discrepancies between calculated and rating plate values.

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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.

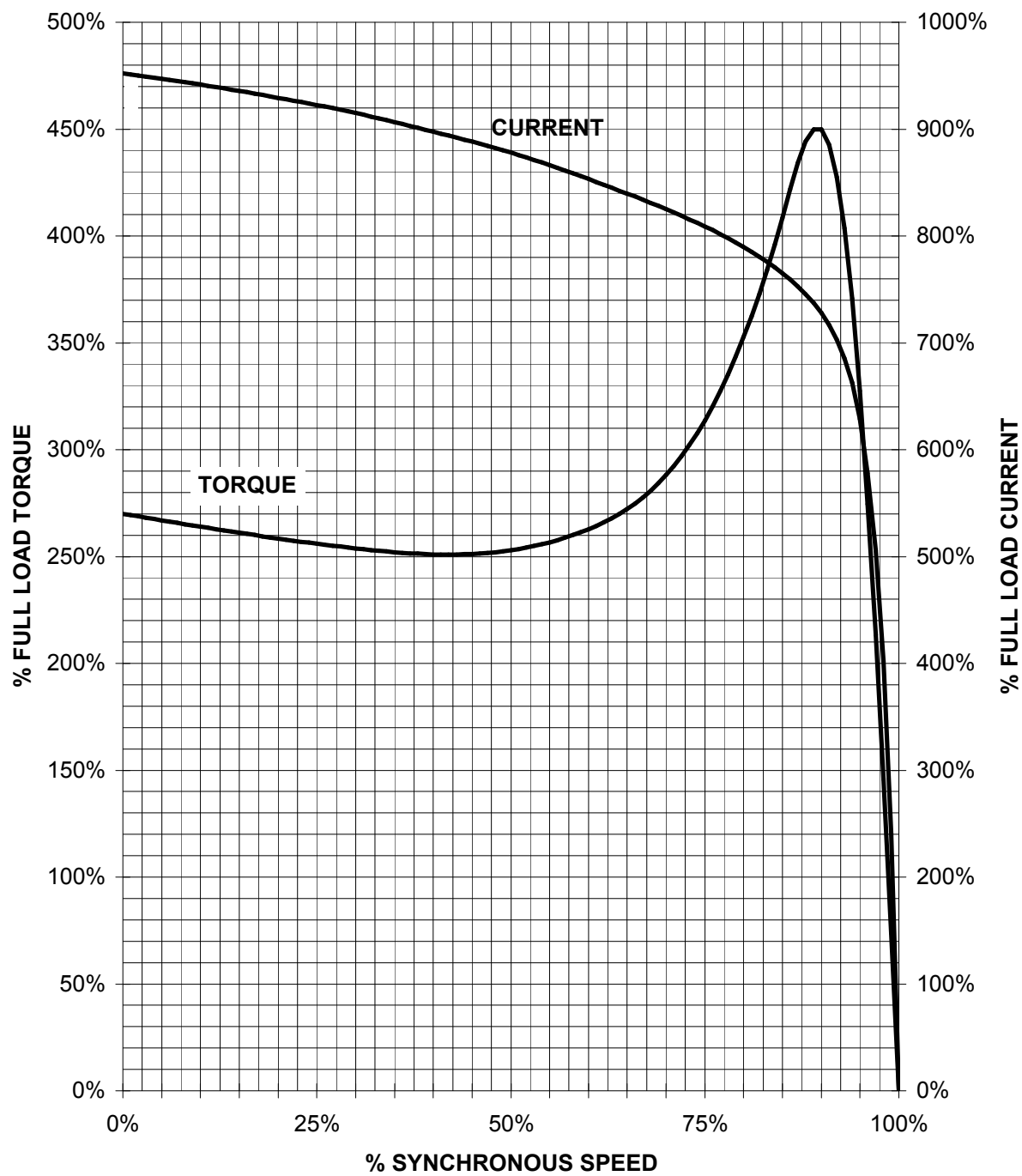


|                    |                    |                                     |        |                 |
|--------------------|--------------------|-------------------------------------|--------|-----------------|
| Tolerance          | Surface            | Material                            | Weight | Scale           |
| 1LE2121-1AA21-4GA3 | Author             | Dimensional drawing<br>Maßzeichnung |        |                 |
| -                  | Creator DTK        |                                     |        |                 |
|                    | Approval           |                                     |        |                 |
|                    | Department         |                                     |        |                 |
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|                    |                    |                                     |        | 2nd Language de |
| © Siemens AG 2018  | Project No -       | Ref No -                            |        | Sheet 1 of 1    |

SIEMENS INDUSTRY, INC.

HP 1,5 VOLTS < 600V RPM 3600 TYPE GP100A  
HZ 60 PHASE 3 FRAME 143T NEMA B

TORQUE & CURRENT VS. SPEED

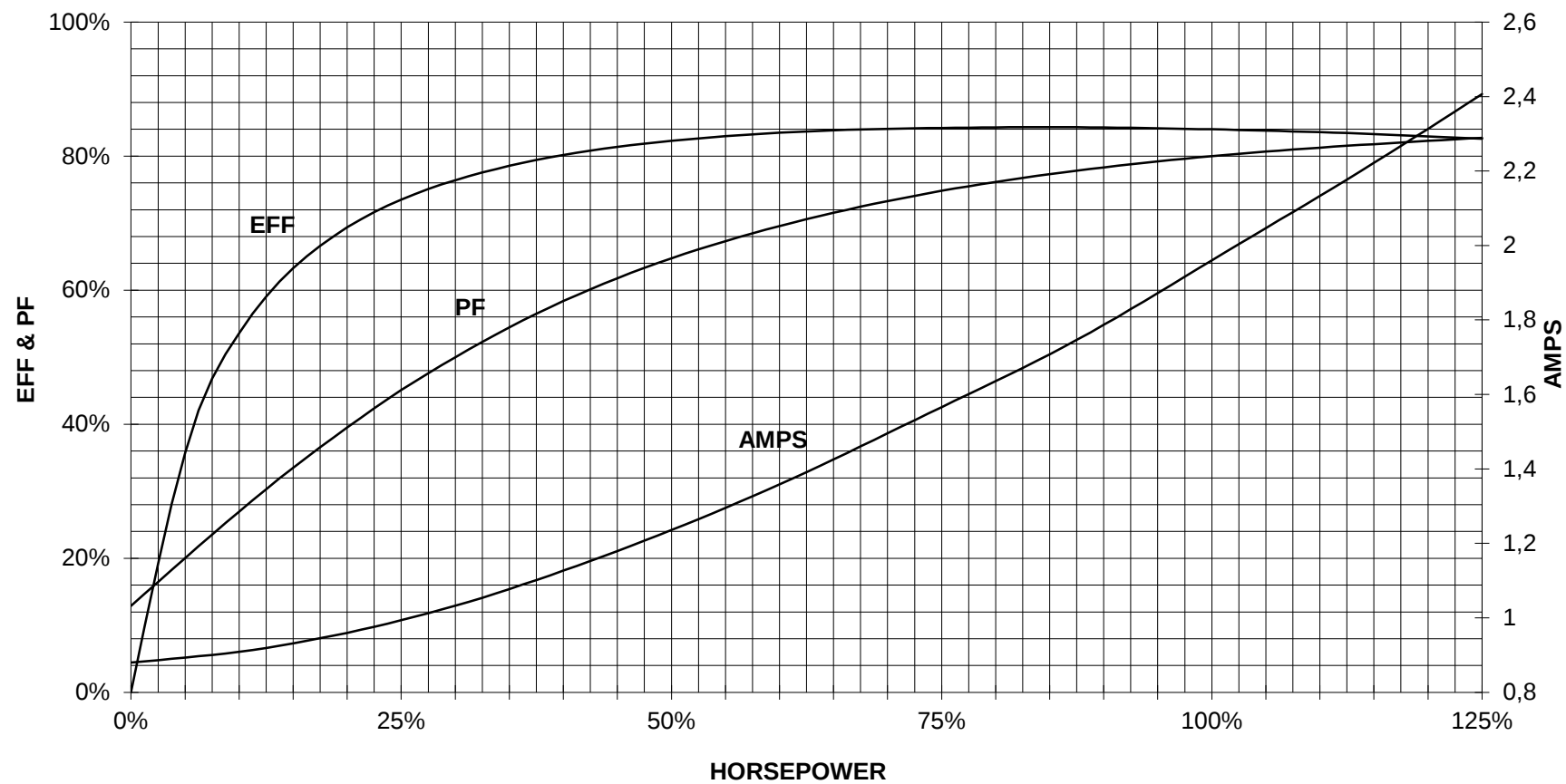


CUSTOMER: \_\_\_\_\_ ORDER#: \_\_\_\_\_

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

1.5 HP    3600 RPM    143 FRAME    460 VOLTS    3 PHASE    NEMA DESIGN B

SIEMENS INDUSTRY, INC.  
PERFORMANCE CURVE  
GP100A NP



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

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

REV. 1

Main terminal diagram



| 9 LEAD WYE |          |          |          |                       |       |  |
|------------|----------|----------|----------|-----------------------|-------|--|
| Volts      | LINES    |          |          | CONNECTED<br>TOGETHER | CONN. |  |
|            | L1       | L2       | L3       |                       |       |  |
| LOW        | T1<br>T7 | T2<br>T6 | T3<br>T9 | T4 T5 T6              | Y Y   |  |
| HIGH       | T1       | T2       | T3       | T4 T7-T5 T8-T6 T9     | 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>1LE2121-1AA21-4GA3     |            |             | document number         |                             |                |             |
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