

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 11164522  
Catalog # : HT075504NPW22

|                       |                 |                             |                        |
|-----------------------|-----------------|-----------------------------|------------------------|
| Frame                 | : 364/5T        | Locked rotor time           | : 25s (cold) 14s (hot) |
| Output                | : 75 HP (55 kW) | Temperature rise            | : 80 K                 |
| Poles                 | : 4             | Duty cycle                  | : Cont.(S1)            |
| Frequency             | : 60 Hz         | Ambient temperature         | : -20°C to +40°C       |
| Rated voltage         | : 575 V         | Altitude                    | : 1000 m.a.s.l.        |
| Rated current         | : 69.8 A        | Protection degree           | : IP55                 |
| L. R. Amperes         | : 446 A         | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.4x(Code G)  | Mounting                    | : F-1                  |
| No load current       | : 26.4 A        | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1780 rpm      | Noise level <sup>2</sup>    | : 67.0 dB(A)           |
| Slip                  | : 1.11 %        | Starting method             | : Direct On Line       |
| Rated torque          | : 221 ft.lb     | Approx. weight <sup>3</sup> | : 919 lb               |
| Locked rotor torque   | : 240 %         |                             |                        |
| Breakdown torque      | : 260 %         |                             |                        |
| Insulation class      | : F             |                             |                        |
| Service factor        | : 1.25          |                             |                        |
| Moment of inertia (J) | : 23.3 sq.ft.lb |                             |                        |
| Design                | : B             |                             |                        |

|                |       |      |      |      |                  |           |
|----------------|-------|------|------|------|------------------|-----------|
| Output         | 25%   | 50%  | 75%  | 100% | Foundation loads |           |
| Efficiency (%) | 0.000 | 94.5 | 95.0 | 95.4 | Max. traction    | : 1526 lb |
| Power Factor   | 0.00  | 0.68 | 0.78 | 0.83 | Max. compression | : 2412 lb |

Losses at normative operating points (speed;torque), in percentage of rated output power

| P1 (0,9;1,0) | P2 (0,5;1,0) | P3 (0,25;1,0) | P4 (0,9;0,5) | P5 (0,5;0,5) | P6 (0,5;0,25) | P7 (0,25;0,25) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 4.7          | 3.8          | 3.5           | 2.4          | 1.6          | 1.1           | 0.7            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6314 C3          | 6314 C3              |
| Sealing              | : | WSeal            | WSeal                |
| Lubrication interval | : | 12000 h          | 12000 h              |
| Lubricant amount     | : | 27 g             | 27 g                 |
| Lubricant type       | : | Mobil Polyrex EM |                      |

Notes

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

| Rev.         | Changes Summary | Performed                 | Checked | Date |
|--------------|-----------------|---------------------------|---------|------|
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| Checked by   |                 |                           |         |      |
| Date         | 07/08/2026      |                           |         |      |

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

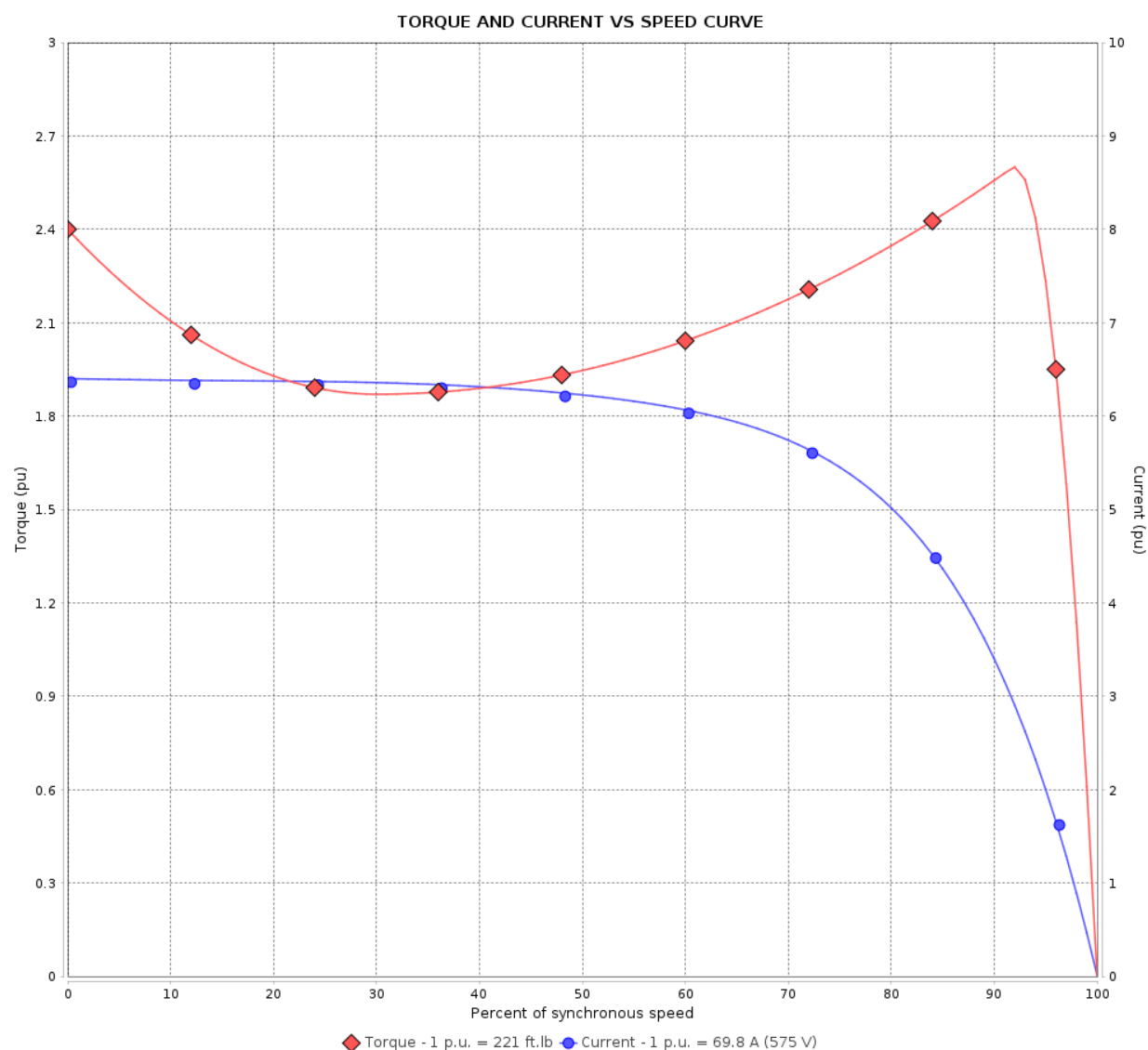


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LRC : 6.4  
Rated torque : 221 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 260 %  
Rated speed : 1780 rpm

Moment of inertia (J) : 23.3 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Locked rotor time : 25s (cold) 14s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

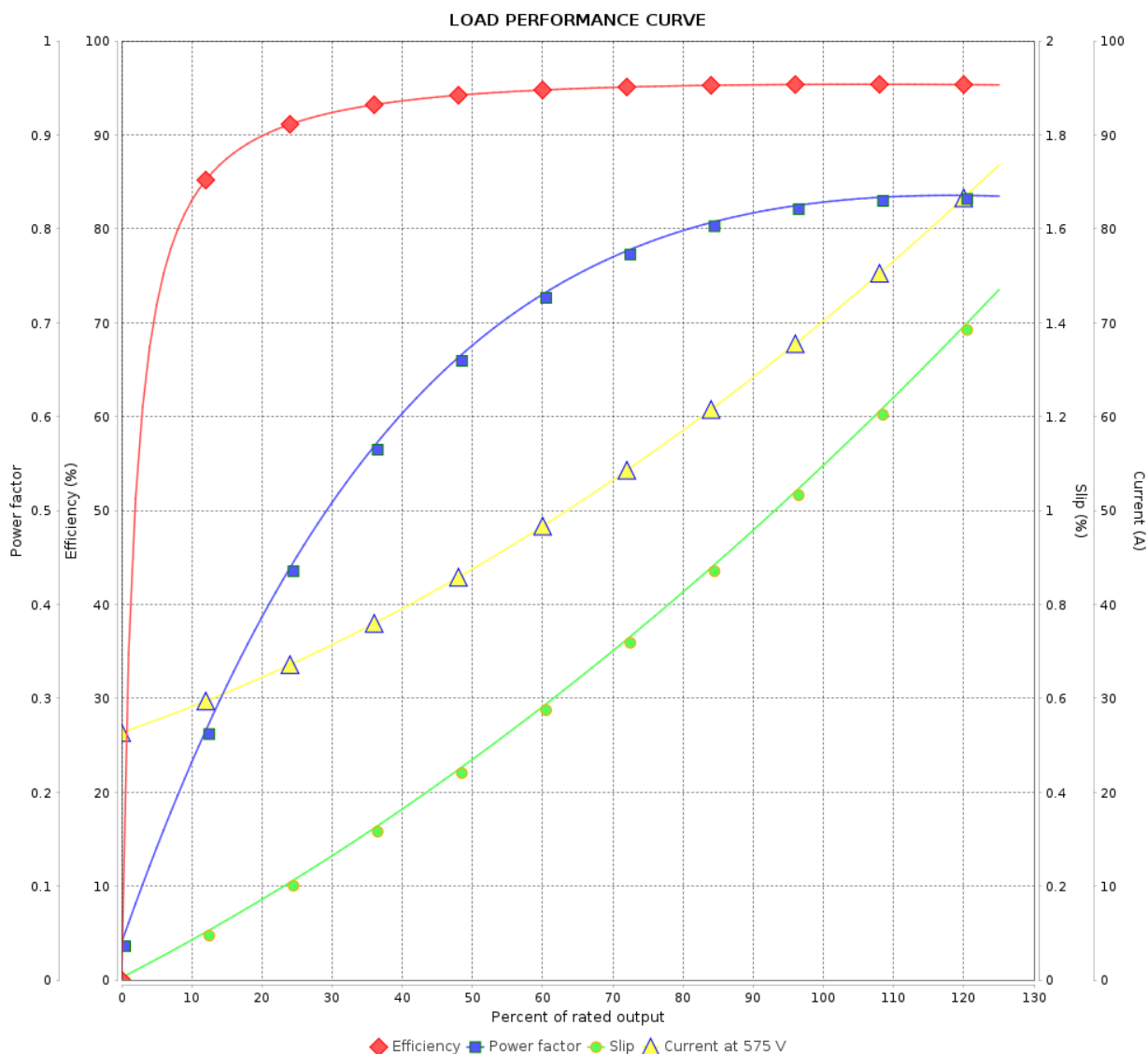


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# THERMAL LIMIT CURVE

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| LRC                 | : 6.4       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 221 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 240 %     | Service factor        | : 1.25          |
| Breakdown torque    | : 260 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1780 rpm  | Design                | : B             |

Heating constant

Cooling constant

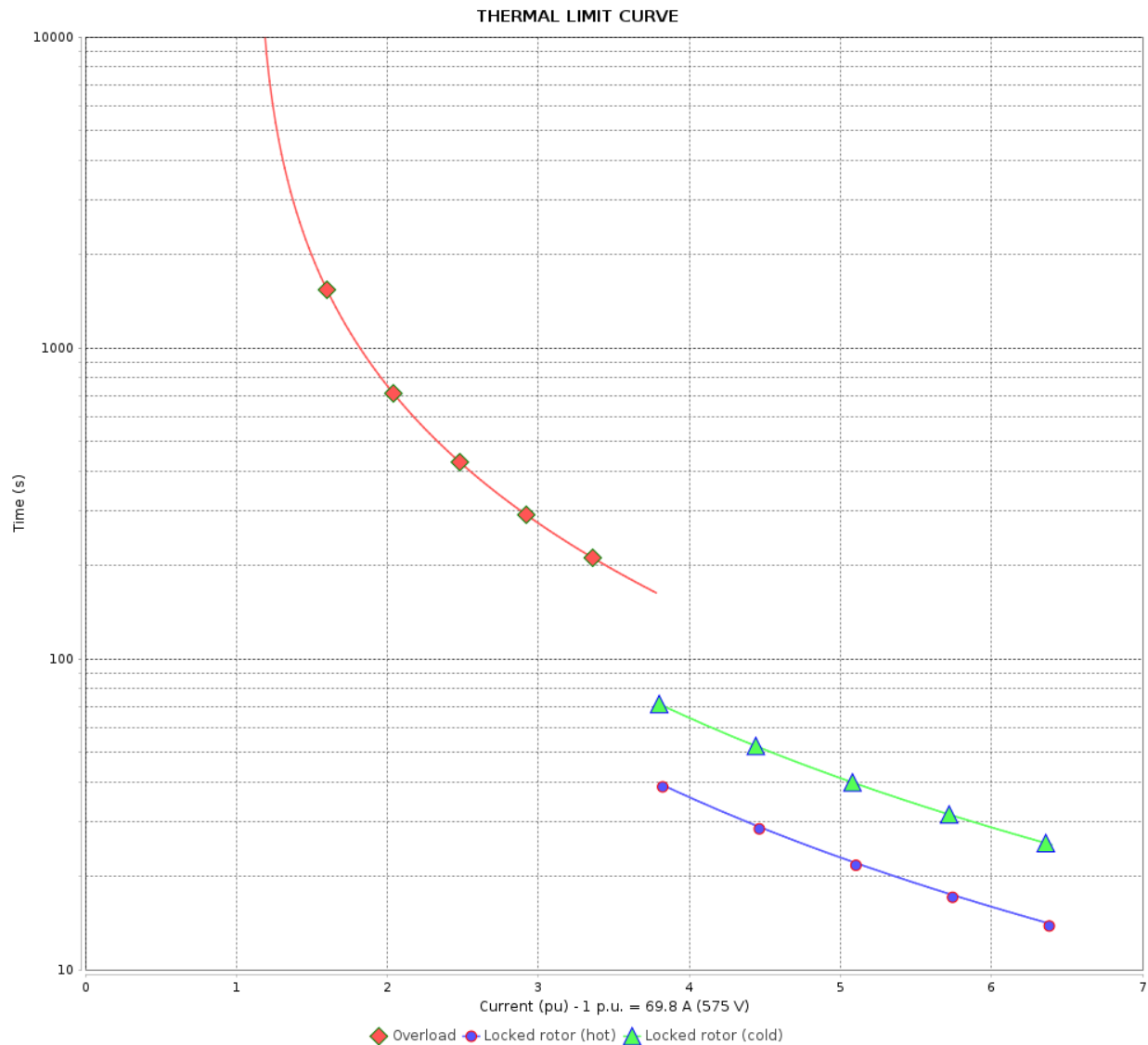
| Rev.         | Changes Summary |  | Performed | Checked | Date     |
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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|              |                 | Revision |           |         |               |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

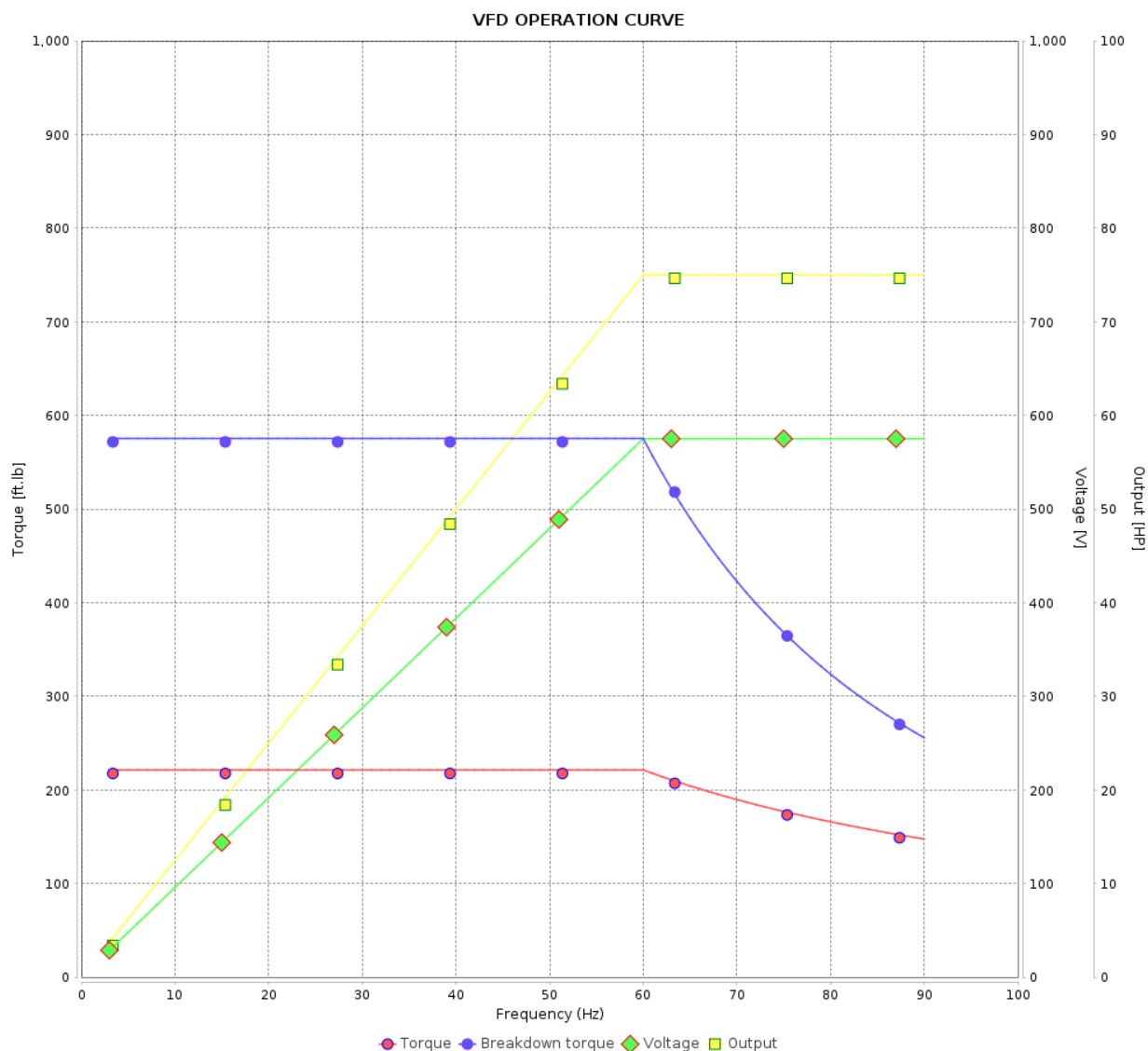


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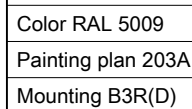
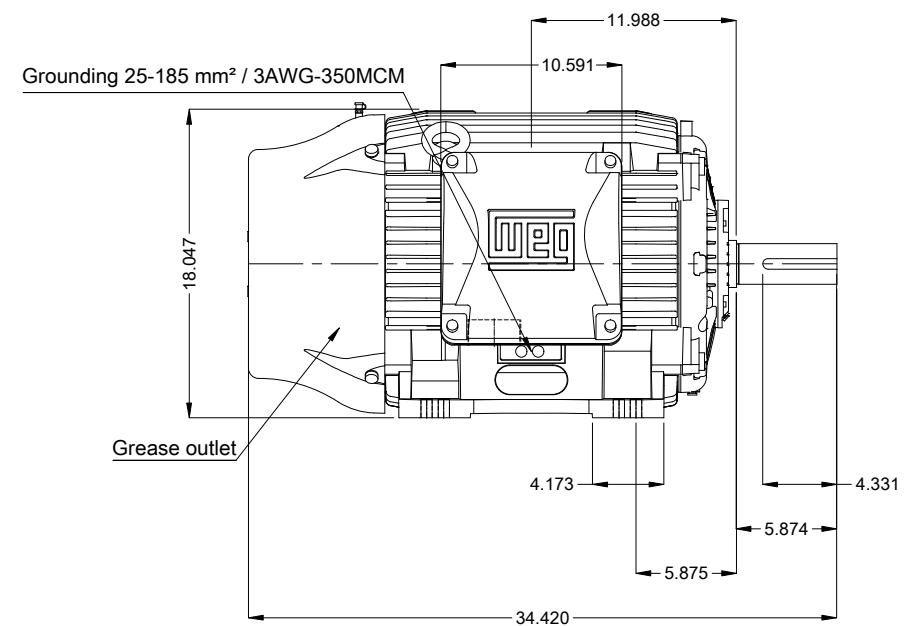


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