

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11953402  
Catalog # : CT003402NPW22145T

|                       |                   |                             |                        |
|-----------------------|-------------------|-----------------------------|------------------------|
| Frame                 | : 143/5TC         | Locked rotor time           | : 25s (cold) 14s (hot) |
| Output                | : 3 HP (2.2 kW)   | Temperature rise            | : 80 K                 |
| Poles                 | : 2               | Duty cycle                  | : Cont.(S1)            |
| Frequency             | : 60 Hz           | Ambient temperature         | : -20°C to +40°C       |
| Rated voltage         | : 230/460 V       | Altitude                    | : 1000 m.a.s.l.        |
| Rated current         | : 7.42/3.71 A     | Protection degree           | : IP55                 |
| L. R. Amperes         | : 60.1/30.1 A     | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 8.1x(Code J)    | Mounting                    | : F-1                  |
| No load current       | : 2.60/1.30 A     | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 3460 rpm        | Noise level <sup>2</sup>    | : 68.0 dB(A)           |
| Slip                  | : 3.89 %          | Starting method             | : Direct On Line       |
| Rated torque          | : 4.55 ft.lb      | Approx. weight <sup>3</sup> | : 51.8 lb              |
| Locked rotor torque   | : 330 %           |                             |                        |
| Breakdown torque      | : 360 %           |                             |                        |
| Insulation class      | : F               |                             |                        |
| Service factor        | : 1.25            |                             |                        |
| Moment of inertia (J) | : 0.0605 sq.ft.lb |                             |                        |
| Design                | : B               |                             |                        |

|                |      |      |      |                  |          |
|----------------|------|------|------|------------------|----------|
| Output         | 50%  | 75%  | 100% | Foundation loads |          |
| Efficiency (%) | 85.5 | 86.5 | 86.5 | Max. traction    | : 131 lb |
| Power Factor   | 0.70 | 0.81 | 0.86 | Max. compression | : 186 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 14.8         | 12.3         | 11.7          | 6.8          | 4.3          | 2.6           | 1.7            |

|                      |                  |                      |
|----------------------|------------------|----------------------|
|                      | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : 6205 ZZ        | : 6204 ZZ            |
| Sealing              | : V'Ring         | : V'Ring             |
| Lubrication interval | : -              | : -                  |
| Lubricant amount     | : -              | : -                  |
| Lubricant type       | : 00088          |                      |

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     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           |         |          |
| Checked by   |                 |           |         |          |
| Date         | 06/07/2026      |           |         |          |
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

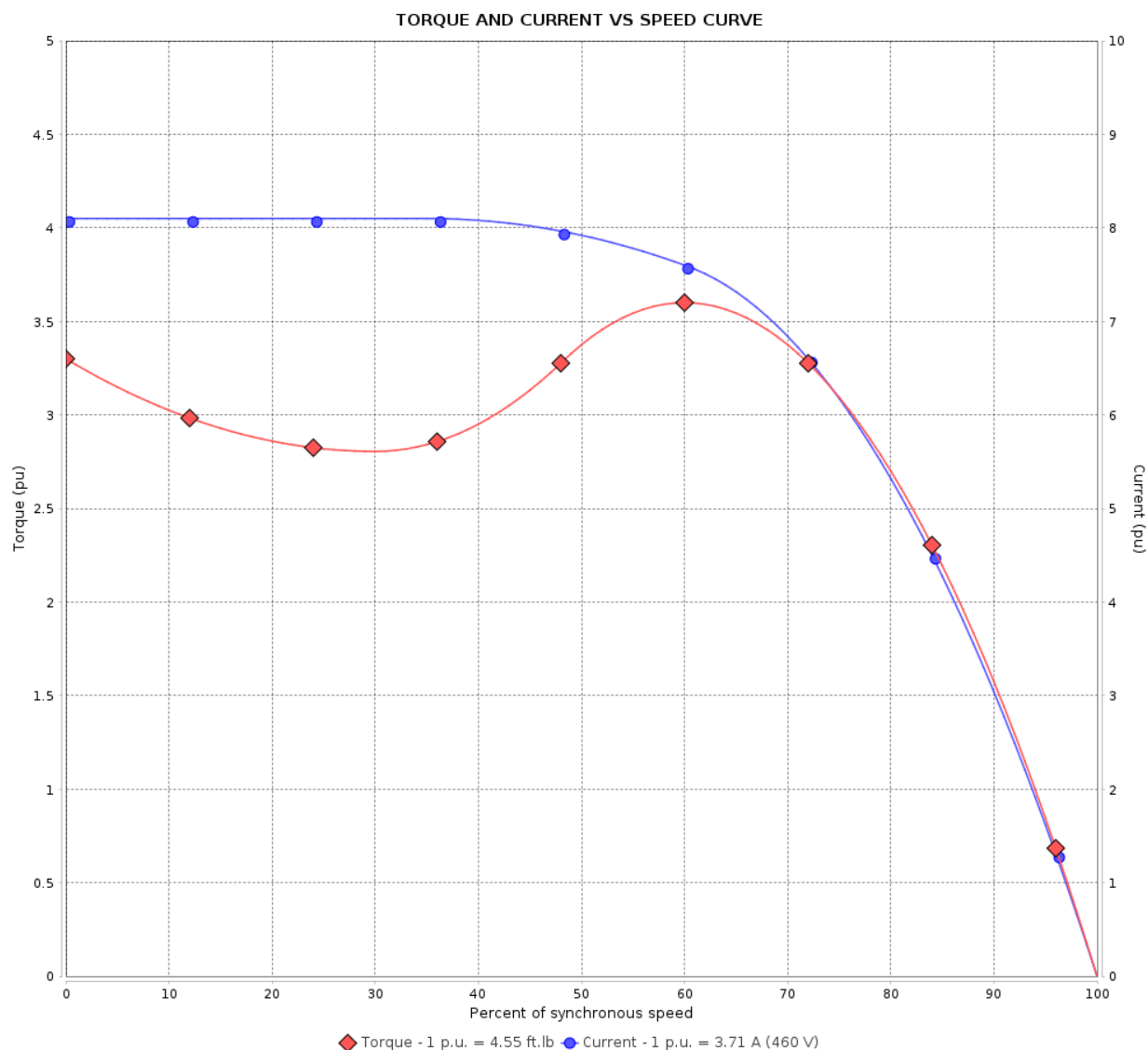


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Performance : 230/460 V 60 Hz 2P

Rated current : 7.42/3.71 A  
LRC : 8.1  
Rated torque : 4.55 ft.lb  
Locked rotor torque : 330 %  
Breakdown torque : 360 %  
Rated speed : 3460 rpm

Moment of inertia (J) : 0.0605 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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|--------------|-----------------|---------------------|---------|------|
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| Checked by   |                 |                     |         |      |
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

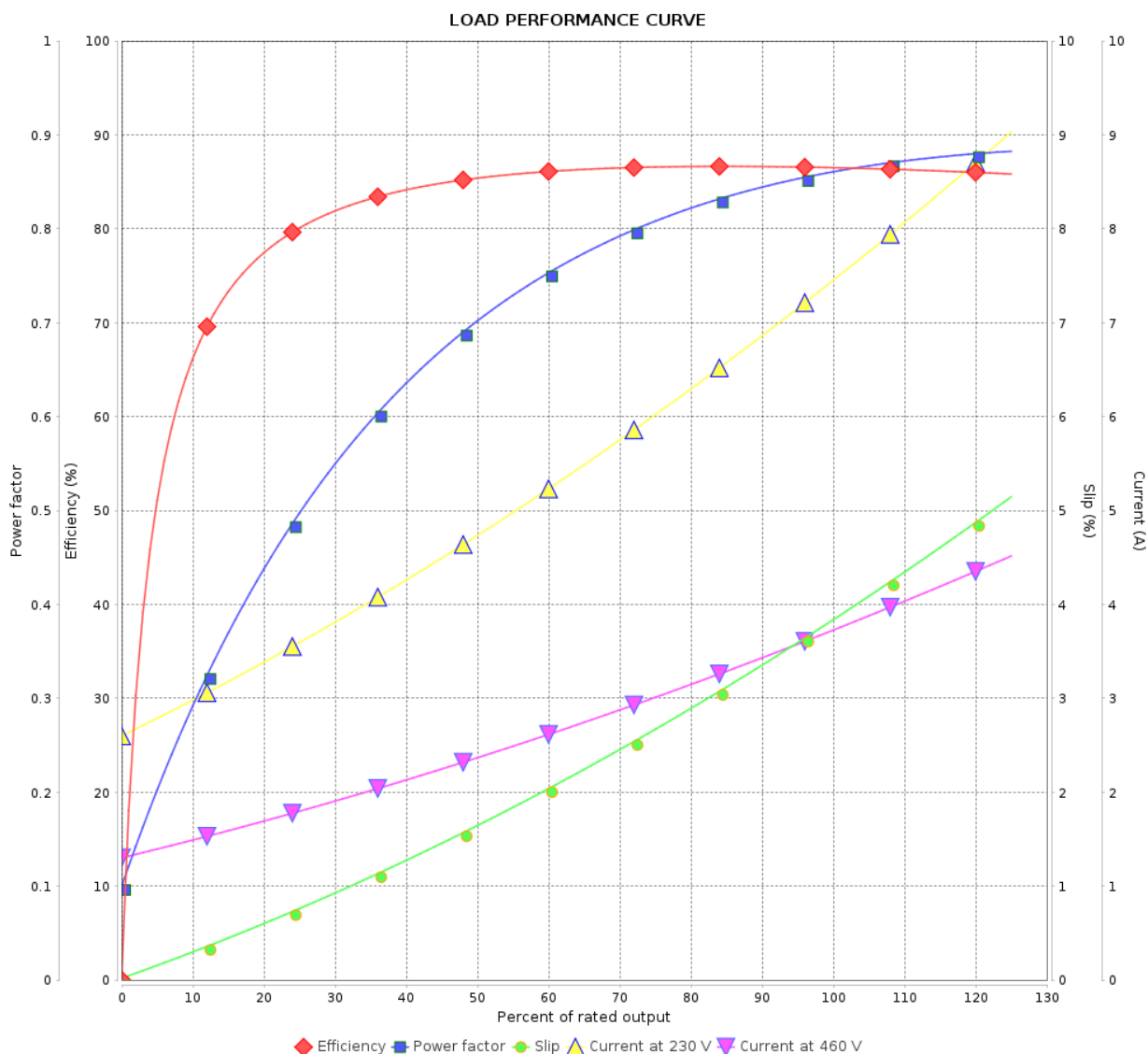


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Design : B

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# THERMAL LIMIT CURVE

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Breakdown torque : 360 %  
Rated speed : 3460 rpm

Moment of inertia (J) : 0.0605 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

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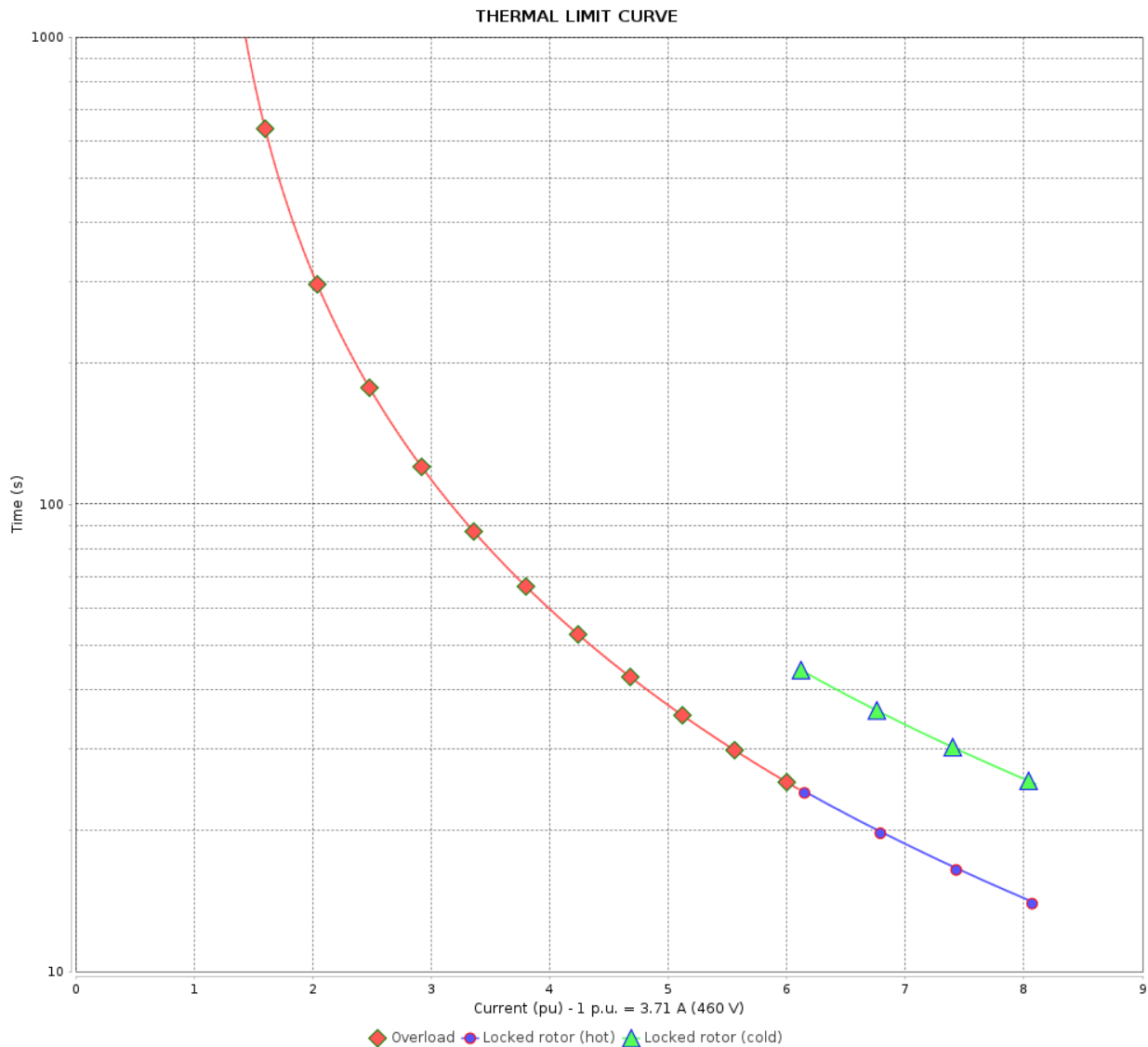
Revision

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

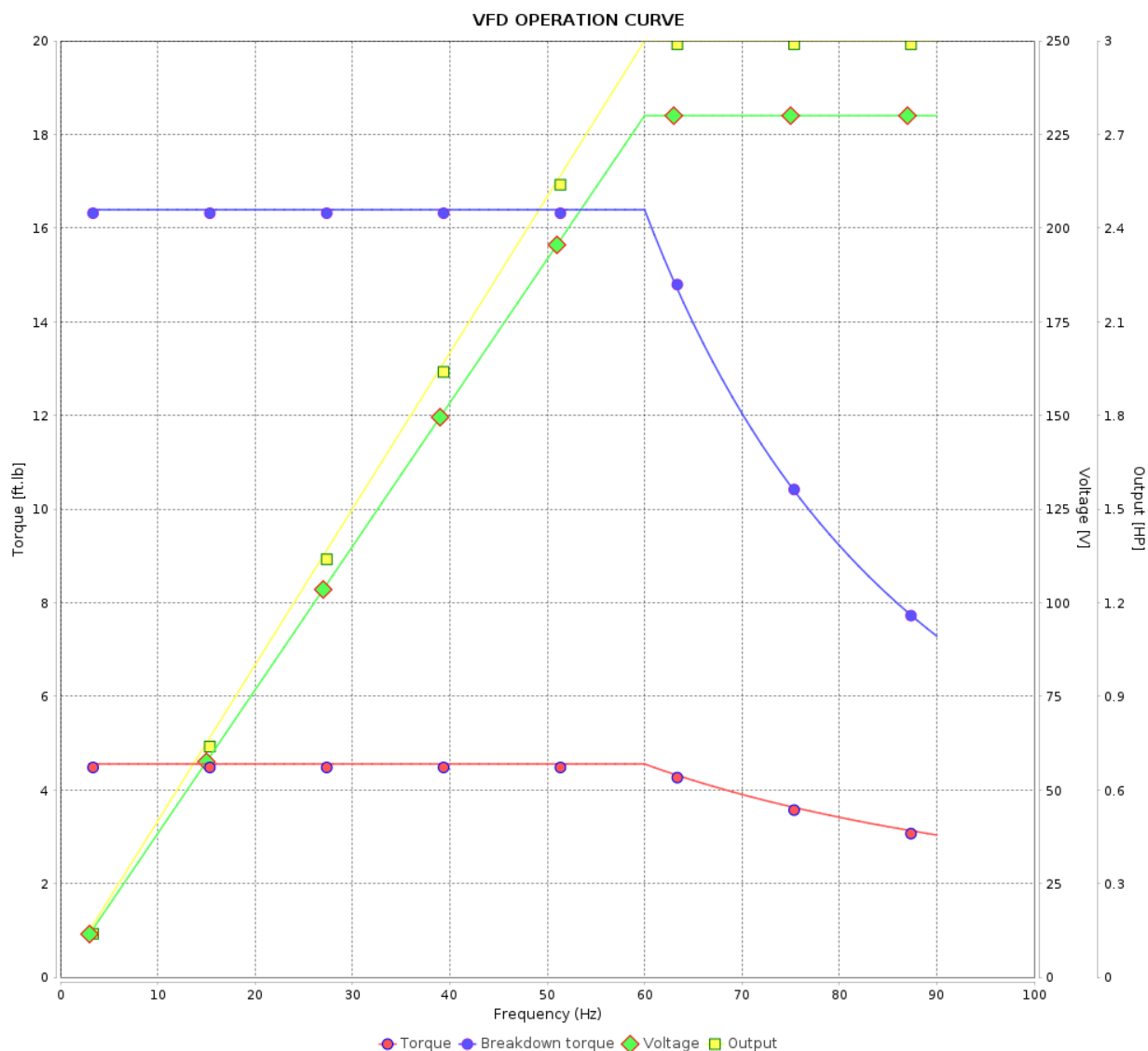


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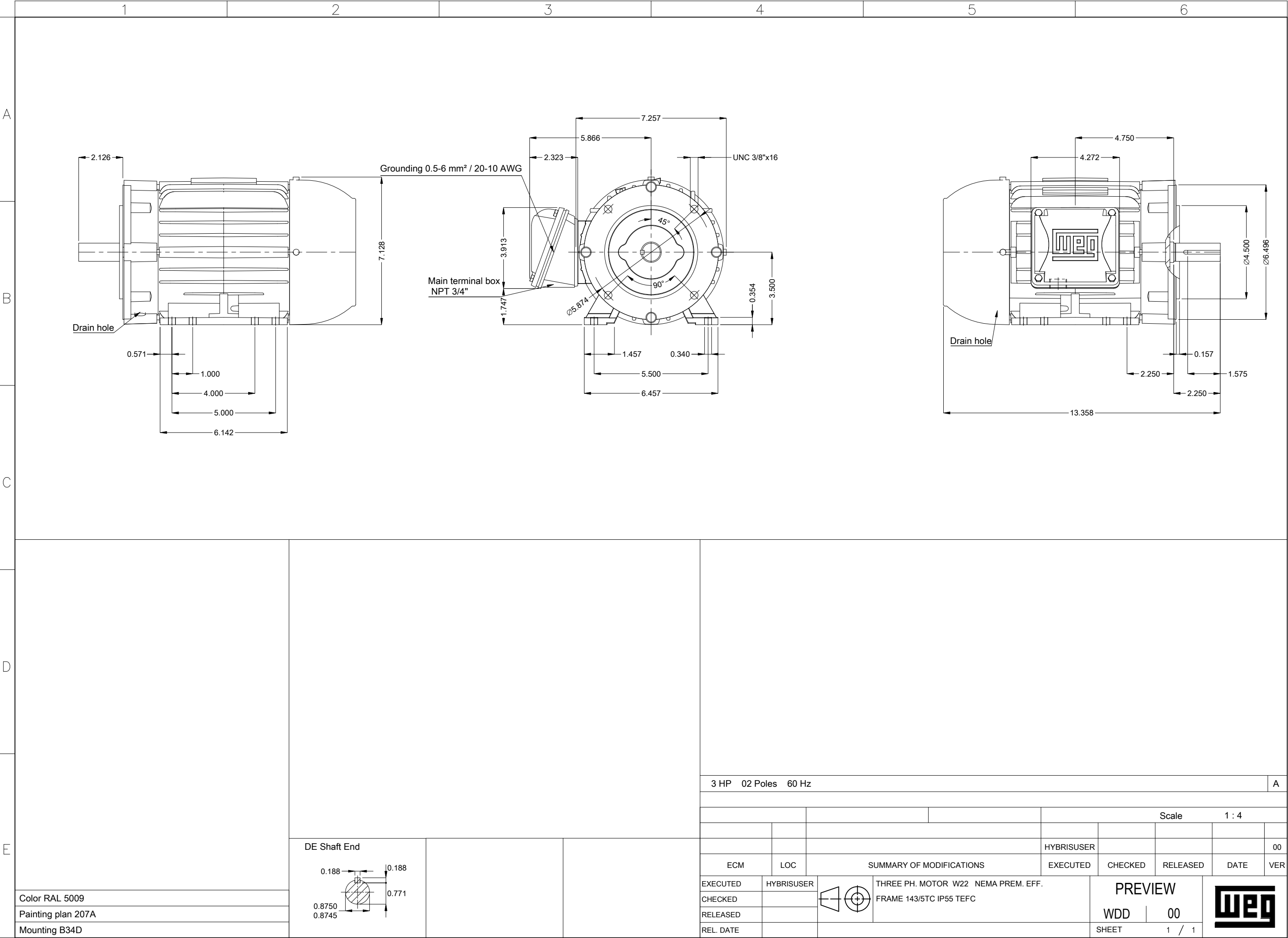


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Rated current : 7.42/3.71 A  
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Rated torque : 4.55 ft.lb  
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Dimensions in inches

A3