

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12447129  
Catalog # : CT040404NPW22

|                       |                 |                             |                        |
|-----------------------|-----------------|-----------------------------|------------------------|
| Frame                 | : 324/6TC       | Locked rotor time           | : 36s (cold) 20s (hot) |
| Output                | : 40 HP (30 kW) | Temperature rise            | : 80 K                 |
| Poles                 | : 4             | 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         | : 94.2/47.1 A   | Protection degree           | : IP55                 |
| L. R. Amperes         | : 574/287 A     | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.1x(Code G)  | Mounting                    | : F-1                  |
| No load current       | : 34.6/17.3 A   | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1775 rpm      | Noise level <sup>2</sup>    | : 66.0 dB(A)           |
| Slip                  | : 1.39 %        | Starting method             | : Direct On Line       |
| Rated torque          | : 118 ft.lb     | Approx. weight <sup>3</sup> | : 492 lb               |
| Locked rotor torque   | : 229 %         |                             |                        |
| Breakdown torque      | : 240 %         |                             |                        |
| Insulation class      | : F             |                             |                        |
| Service factor        | : 1.25          |                             |                        |
| Moment of inertia (J) | : 9.16 sq.ft.lb |                             |                        |
| Design                | : B             |                             |                        |

|                |       |      |      |      |                  |           |
|----------------|-------|------|------|------|------------------|-----------|
| Output         | 25%   | 50%  | 75%  | 100% | Foundation loads |           |
| Efficiency (%) | 0.000 | 93.6 | 94.1 | 94.1 | Max. traction    | : 984 lb  |
| Power Factor   | 0.00  | 0.72 | 0.80 | 0.85 | Max. compression | : 1538 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 6.2          | 5.4          | 4.9           | 2.8          | 2.0          | 1.3           | 0.9            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6312 C3          | 6212 C3              |
| Sealing              | : | V'Ring           | V'Ring               |
| Lubrication interval | : | 20000 h          | 20000 h              |
| Lubricant amount     | : | 21 g             | 13 g                 |
| Lubricant type       | : | Mobil Polyrex EM |                      |

### Notes

USABLE @208V 104A SF 1.15 SFA 120A

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         | 13/07/2026      |                        |         |      |

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

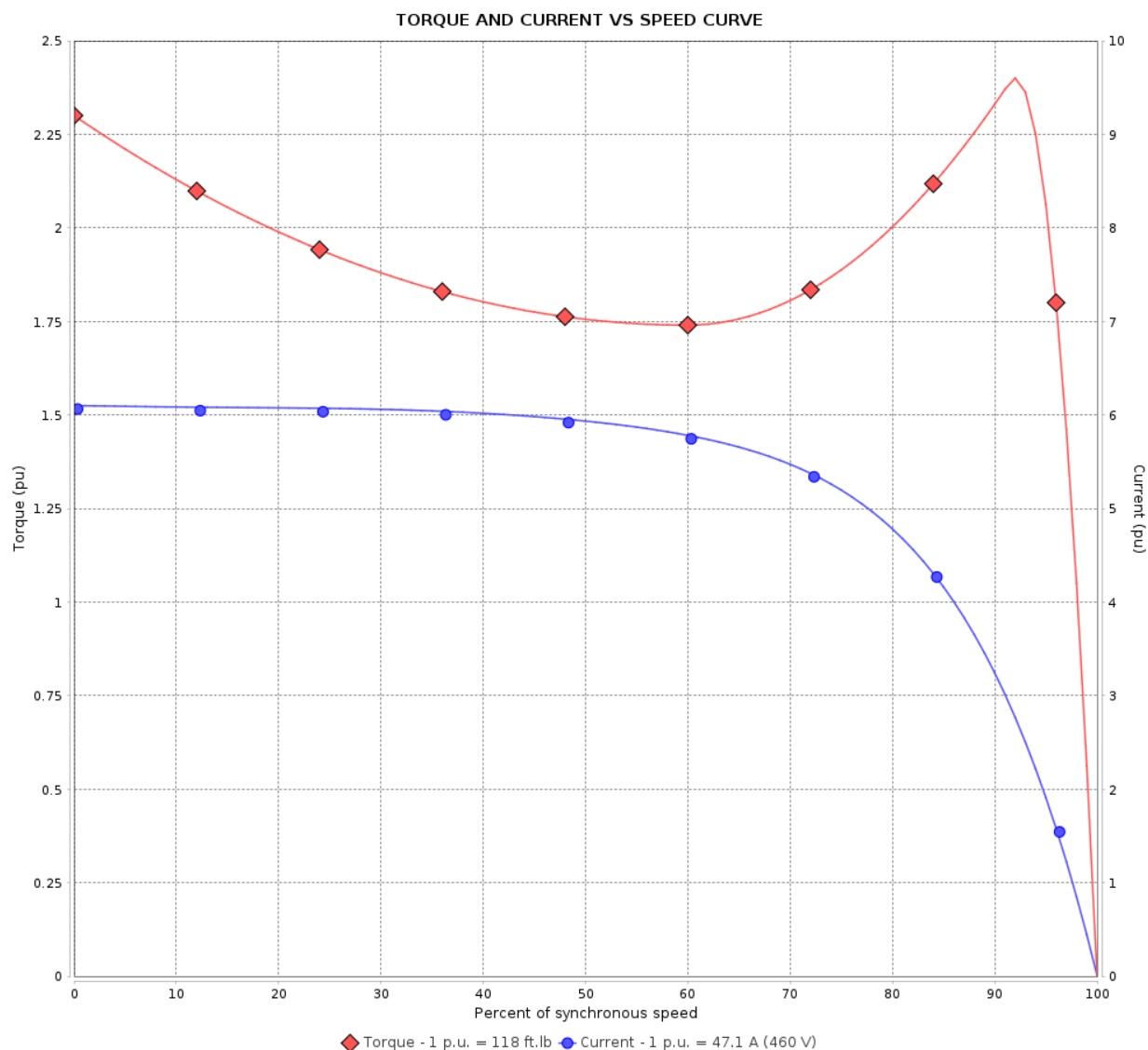


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Locked rotor torque : 229 %  
Breakdown torque : 240 %  
Rated speed : 1775 rpm

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Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

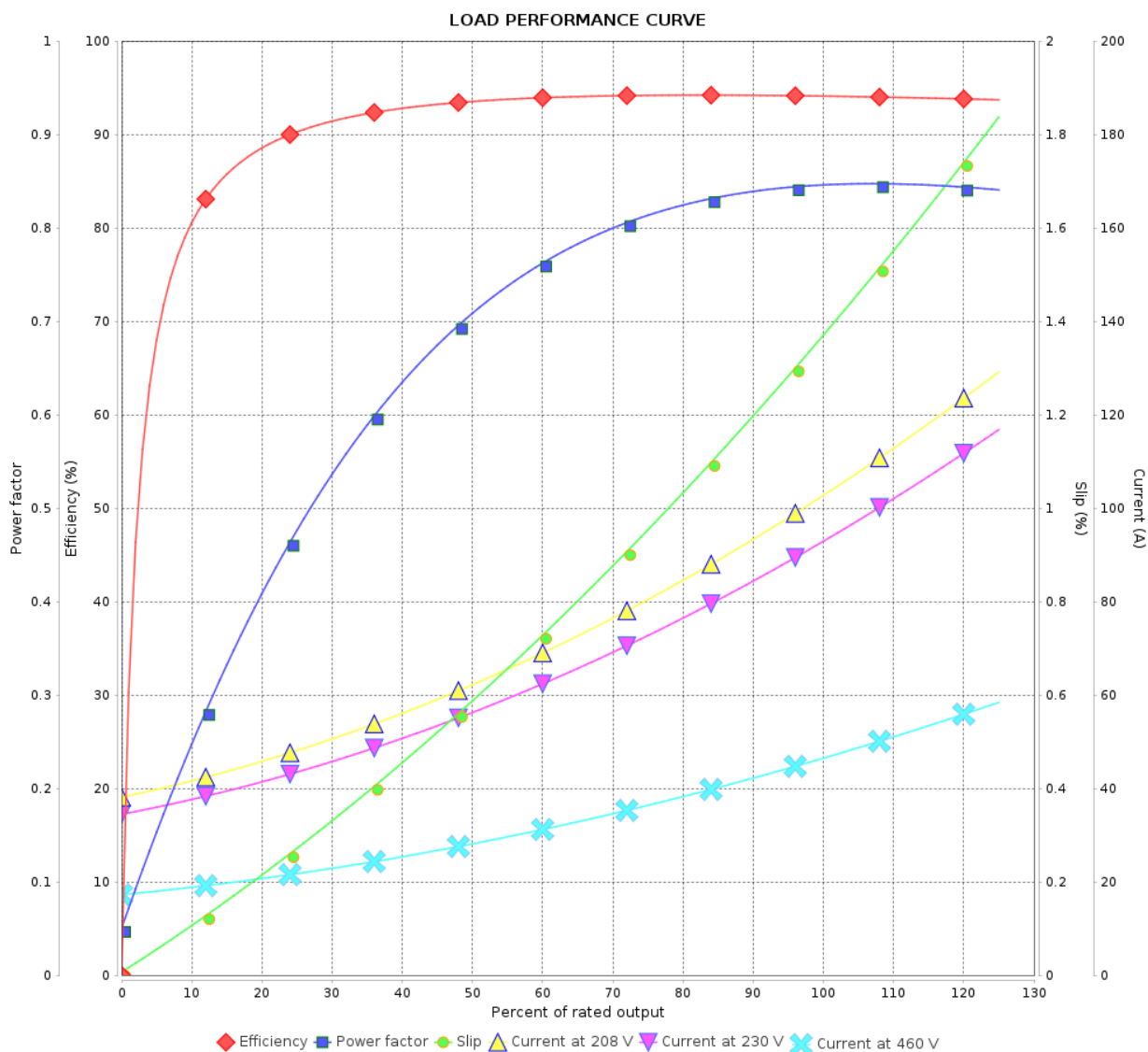


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# THERMAL LIMIT CURVE

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Heating constant

Cooling constant

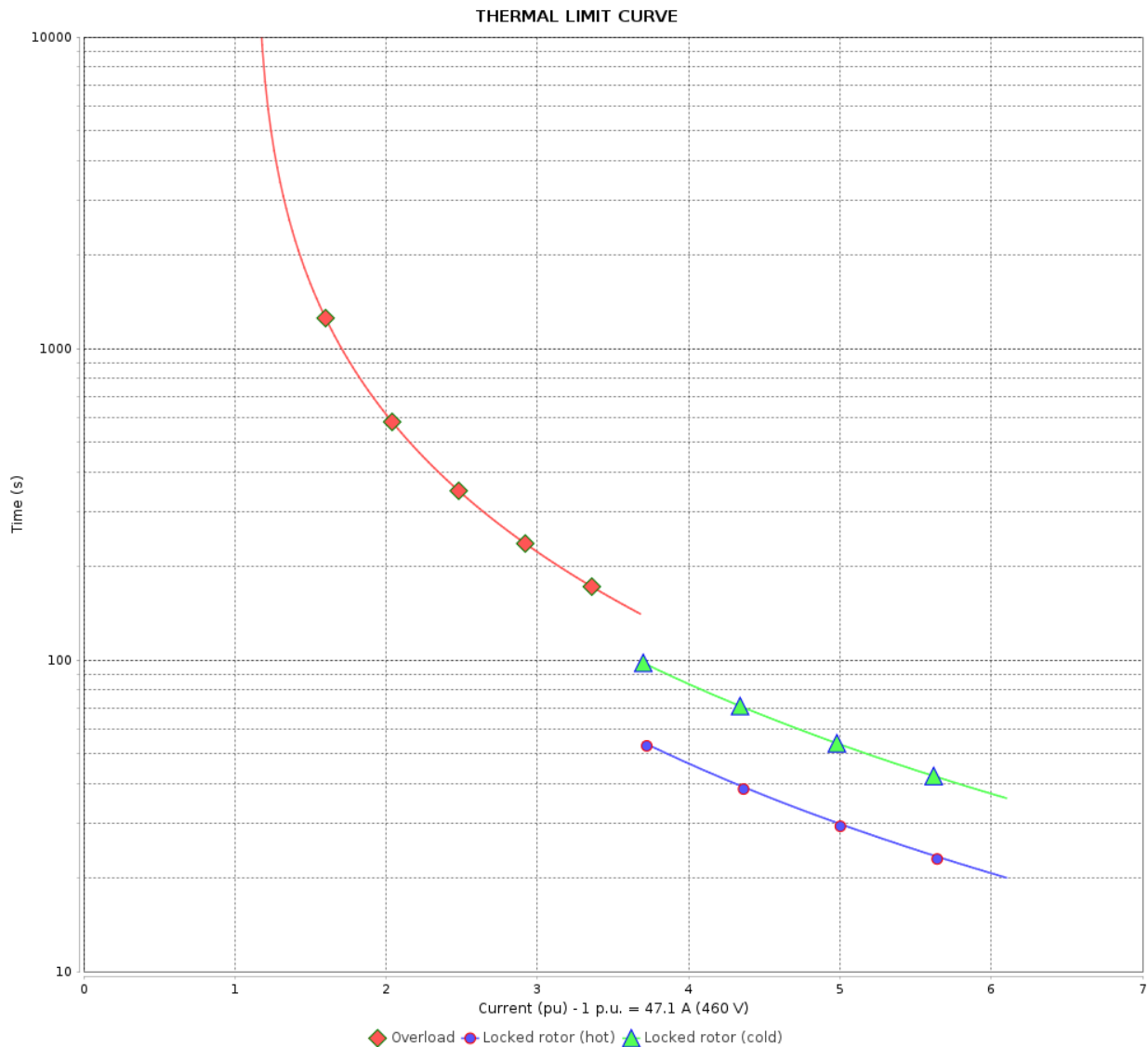
| Rev.         | Changes Summary |  | Performed     | Checked | Date     |
|--------------|-----------------|--|---------------|---------|----------|
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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|              |                 | Revision |           |         |               |

# VFD OPERATION CURVE

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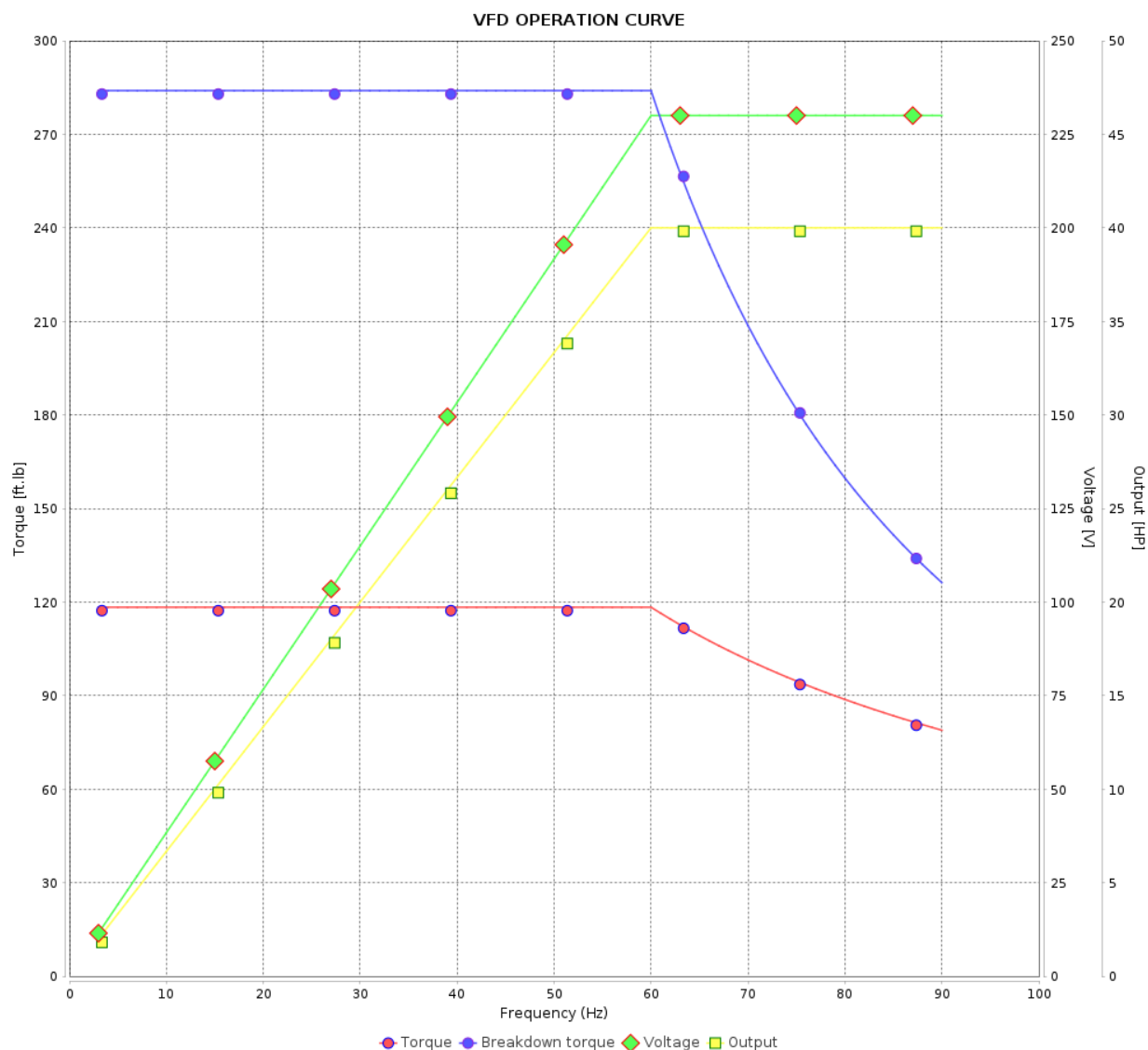


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