

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11165760  
Catalog # : HT075506NPRBW22

|                       |                 |                             |                        |
|-----------------------|-----------------|-----------------------------|------------------------|
| Frame                 | : 404/5T        | Locked rotor time           | : 30s (cold) 17s (hot) |
| Output                | : 75 HP (55 kW) | Temperature rise            | : 80 K                 |
| Poles                 | : 6             | 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         | : 67.9 A        | Protection degree           | : IP55                 |
| L. R. Amperes         | : 435 A         | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.4x(Code G)  | Mounting                    | : F-1                  |
| No load current       | : 24.0 A        | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 1184 rpm      | Noise level <sup>2</sup>    | : 68.0 dB(A)           |
| Slip                  | : 1.33 %        | Starting method             | : Direct On Line       |
| Rated torque          | : 333 ft.lb     | Approx. weight <sup>3</sup> | : 1089 lb              |
| Locked rotor torque   | : 229 %         |                             |                        |
| Breakdown torque      | : 229 %         |                             |                        |
| Insulation class      | : F             |                             |                        |
| Service factor        | : 1.25          |                             |                        |
| Moment of inertia (J) | : 40.2 sq.ft.lb |                             |                        |
| Design                | : B             |                             |                        |

|                |      |      |      |                  |           |
|----------------|------|------|------|------------------|-----------|
| Output         | 50%  | 75%  | 100% | Foundation loads |           |
| Efficiency (%) | 94.1 | 94.5 | 94.5 | Max. traction    | : 1708 lb |
| Power Factor   | 0.74 | 0.83 | 0.86 | Max. compression | : 2885 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 6.3          | 5.0          | 4.5           | 3.5          | 2.3          | 1.7           | 1.1            |

|                      |                    |                      |
|----------------------|--------------------|----------------------|
|                      | <u>Drive end</u>   | <u>Non drive end</u> |
| Bearing type         | : NU-316 C3        | : 6314 C3            |
| Sealing              | : WSeal            | : WSeal              |
| Lubrication interval | : 12000 h          | : 17000 h            |
| Lubricant amount     | : 34 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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| Performed by |                 |           |         |          |
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

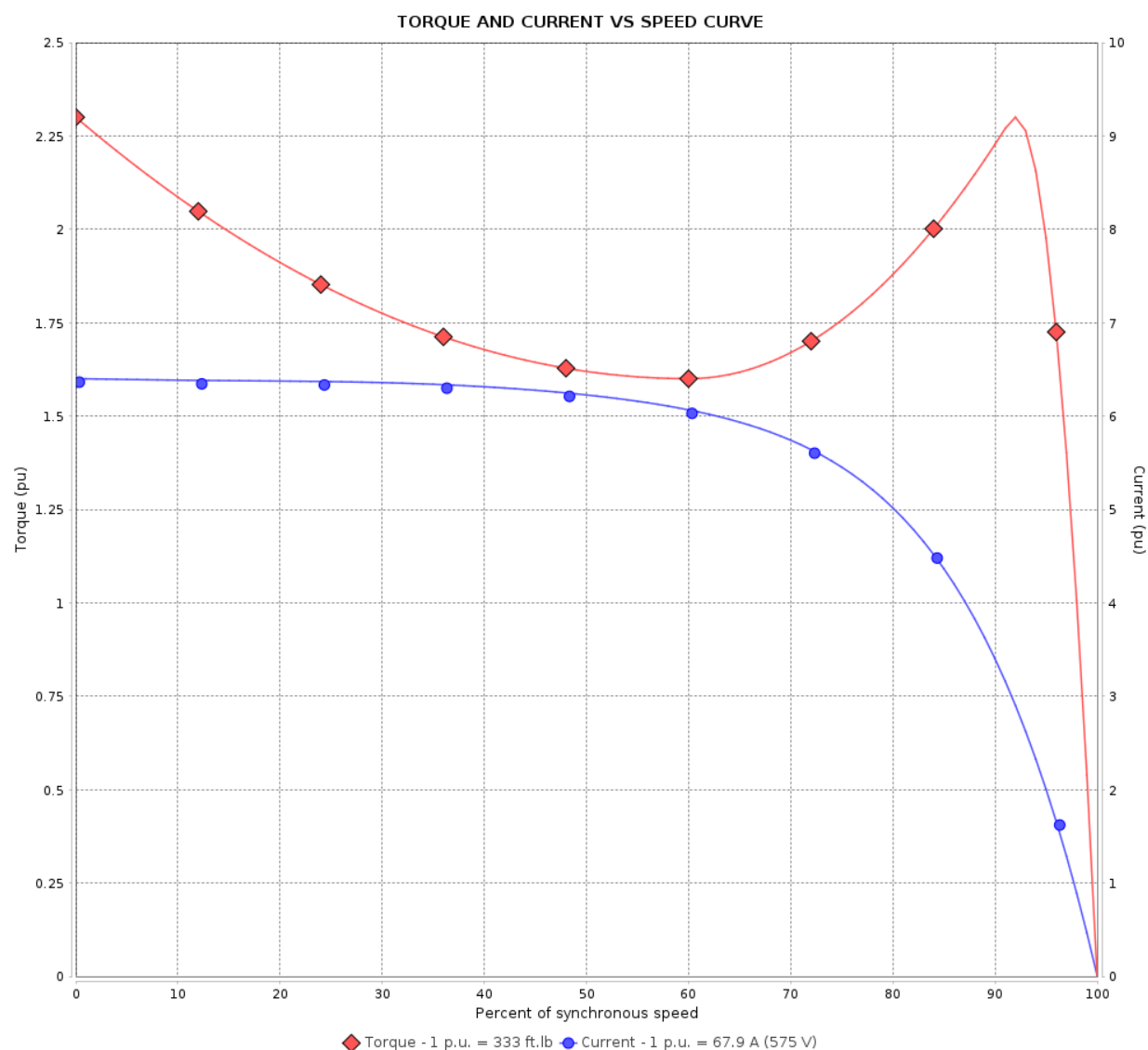


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Performance : 575 V 60 Hz 6P

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 67.9 A    | Moment of inertia (J) | : 40.2 sq.ft.lb |
| LRC                 | : 6.4       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 333 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 229 %     | Service factor        | : 1.25          |
| Breakdown torque    | : 229 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1184 rpm  | Design                | : B             |

Locked rotor time : 30s (cold) 17s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

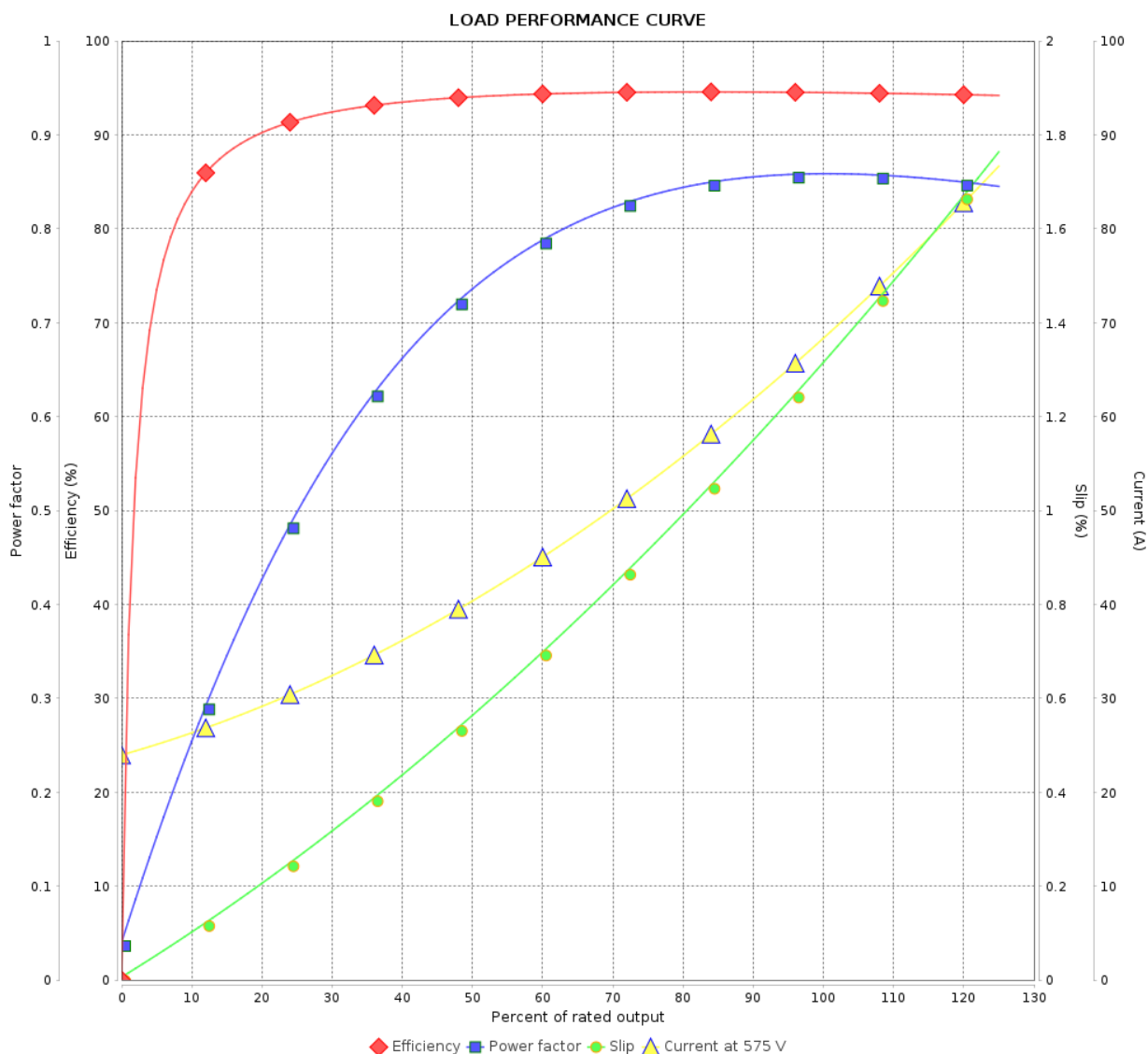


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Product code : 11165760

Catalog # : HT075506NPRBW22



Performance : 575 V 60 Hz 6P

Rated current : 67.9 A  
LRC : 6.4  
Rated torque : 333 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 229 %  
Rated speed : 1184 rpm

Moment of inertia (J) : 40.2 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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# THERMAL LIMIT CURVE

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Heating constant

Cooling constant

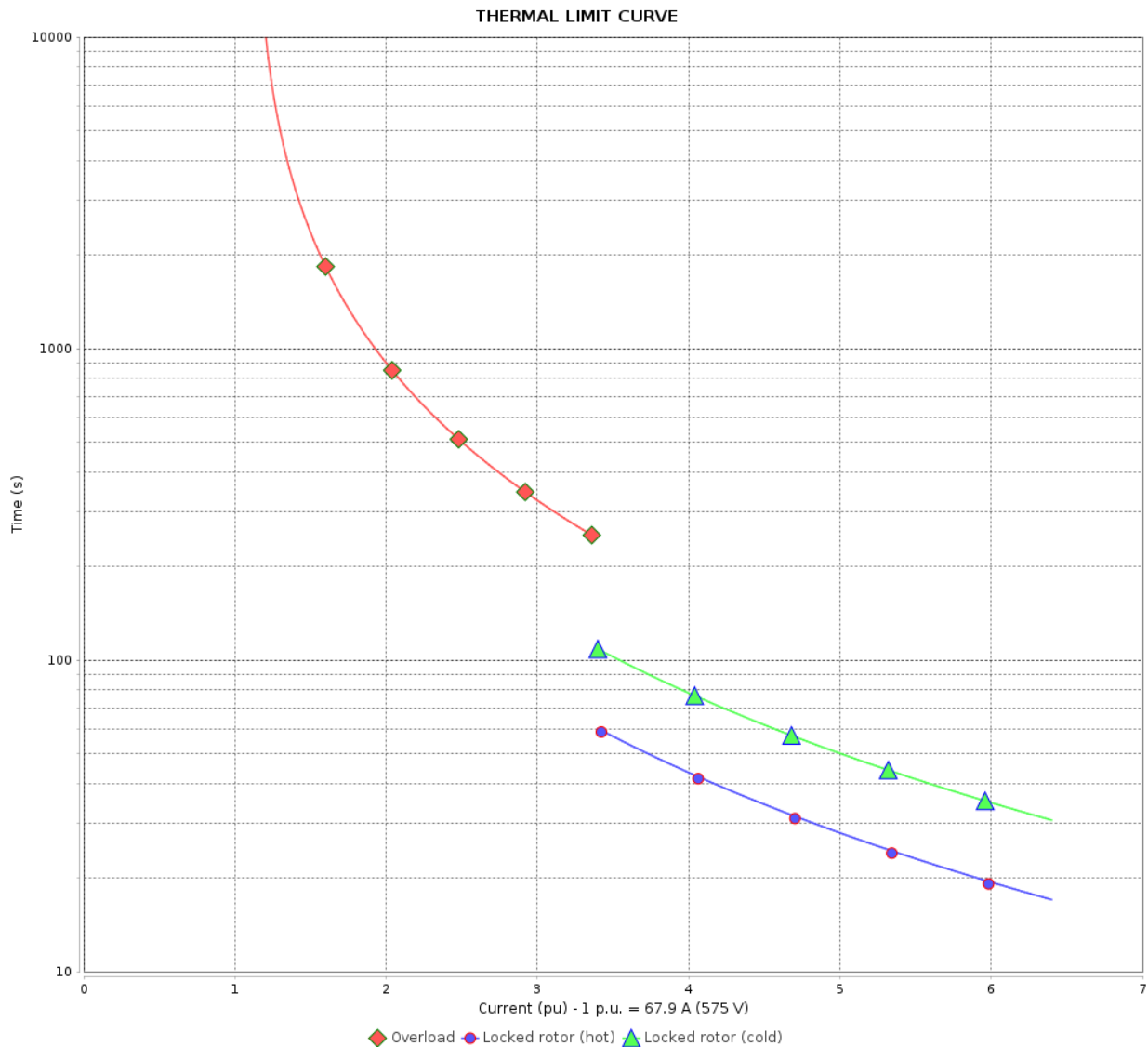
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

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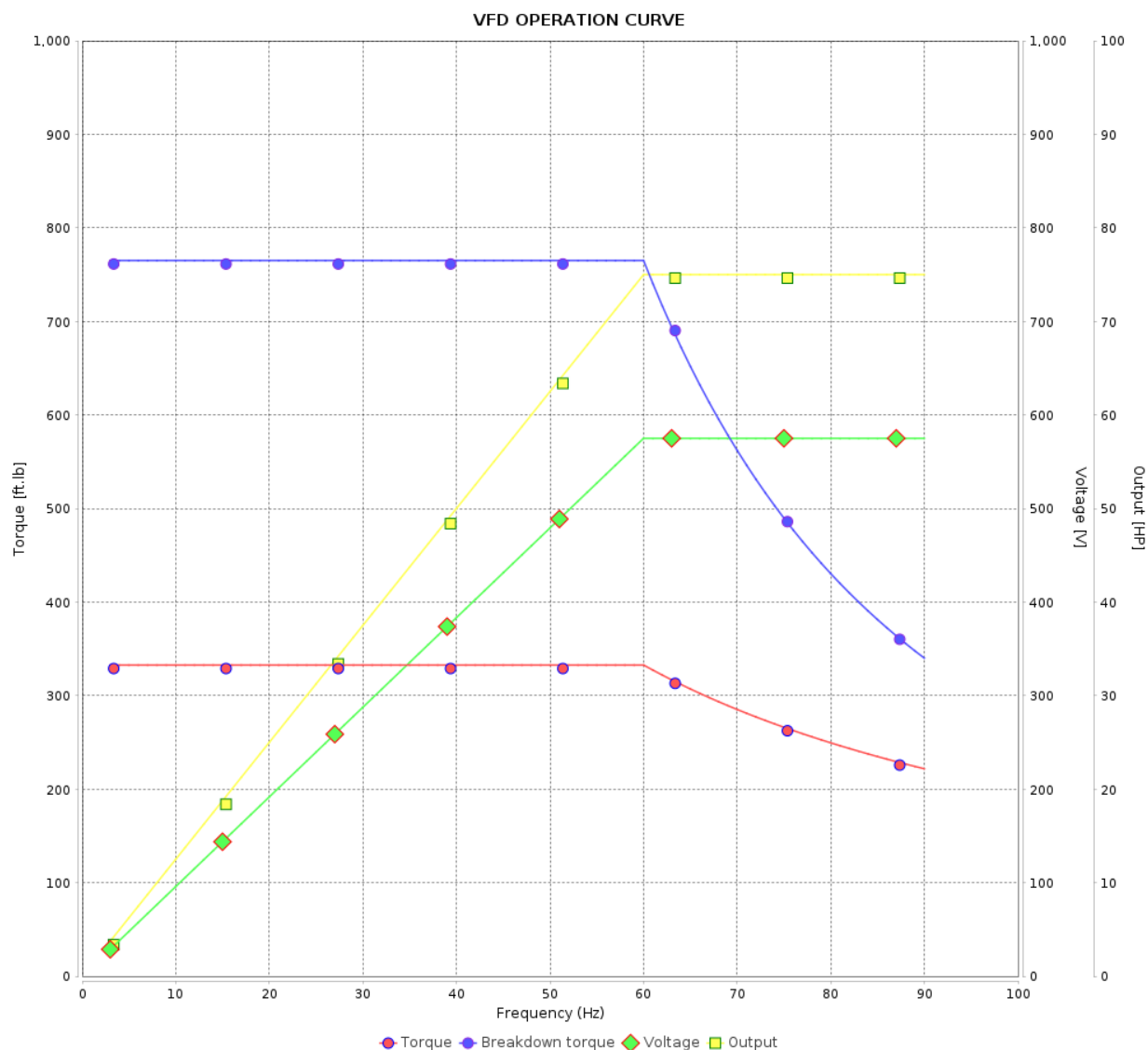


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Rated speed : 1184 rpm

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Insulation class : F  
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