

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11456703  
Catalog # : CT005502NPW22

|                       |                   |                             |                        |
|-----------------------|-------------------|-----------------------------|------------------------|
| Frame                 | : 182/4TC         | Locked rotor time           | : 30s (cold) 17s (hot) |
| Output                | : 5 HP (3.7 kW)   | Temperature rise            | : 80 K                 |
| Poles                 | : 2               | 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         | : 4.72 A          | Protection degree           | : IP55                 |
| L. R. Amperes         | : 35.9 A          | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 7.6x(Code J)    | Mounting                    | : F-1                  |
| No load current       | : 1.60 A          | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 3500 rpm        | Noise level <sup>2</sup>    | : 66.0 dB(A)           |
| Slip                  | : 2.78 %          | Starting method             | : Direct On Line       |
| Rated torque          | : 7.50 ft.lb      | Approx. weight <sup>3</sup> | : 88.2 lb              |
| Locked rotor torque   | : 229 %           |                             |                        |
| Breakdown torque      | : 350 %           |                             |                        |
| Insulation class      | : F               |                             |                        |
| Service factor        | : 1.25            |                             |                        |
| Moment of inertia (J) | : 0.2233 sq.ft.lb |                             |                        |
| Design                | : B               |                             |                        |

|                |      |      |      |      |                  |          |
|----------------|------|------|------|------|------------------|----------|
| Output         | 25%  | 50%  | 75%  | 100% | Foundation loads |          |
| Efficiency (%) | 83.7 | 86.5 | 88.3 | 88.5 | Max. traction    | : 120 lb |
| Power Factor   | 0.56 | 0.76 | 0.85 | 0.89 | Max. compression | : 215 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 12.4         | 10.3         | 9.8           | 6.2          | 3.9          | 2.5           | 1.6            |

|                      |                  |                      |
|----------------------|------------------|----------------------|
|                      | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : 6207 ZZ        | : 6206 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         | 09/07/2026      |           |         |      |

Page 1 / 6  
Revision

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

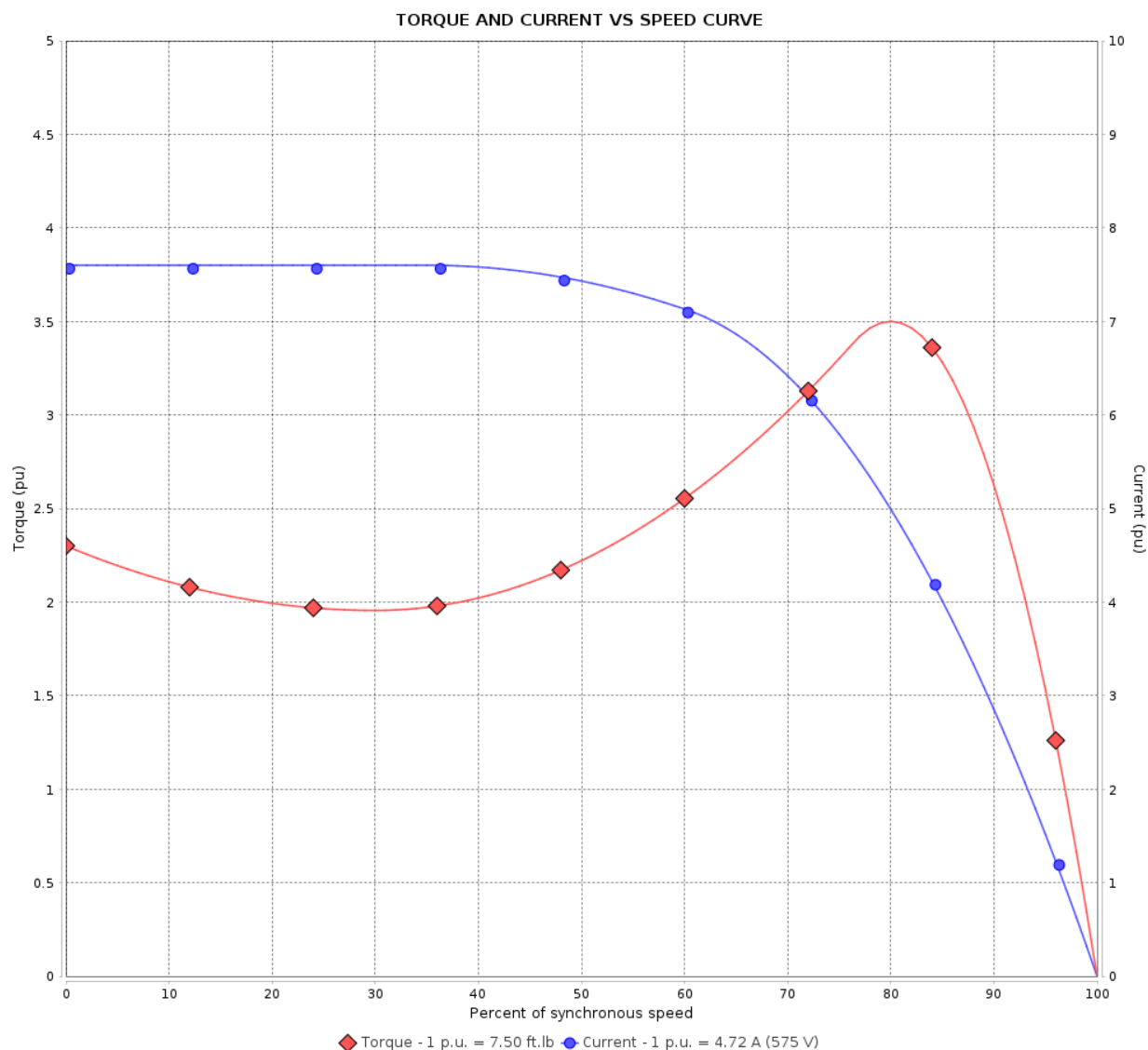


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Performance : 575 V 60 Hz 2P

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 4.72 A     | Moment of inertia (J) | : 0.2233 sq.ft.lb |
| LRC                 | : 7.6        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 7.50 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 229 %      | Service factor        | : 1.25            |
| Breakdown torque    | : 350 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 3500 rpm   | Design                | : B               |

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

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|--------------|-----------------|--------------------------|---------|------|
|              |                 |                          |         |      |
| Performed by |                 | Page 2 / 6      Revision |         |      |
| Checked by   |                 |                          |         |      |
| Date         | 09/07/2026      |                          |         |      |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

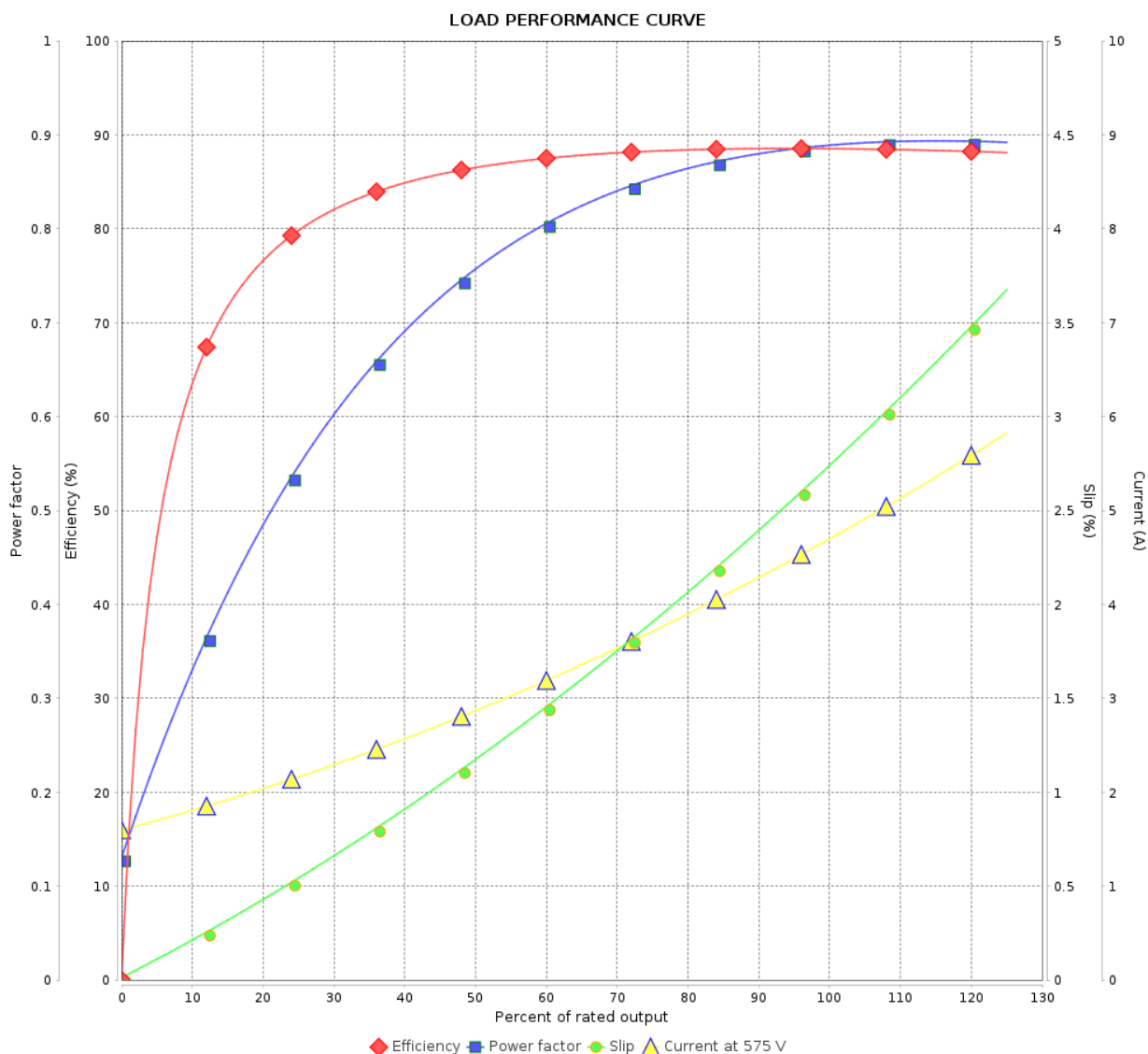


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Three-Phase

Product code : 11456703

Catalog # : CT005502NPW22



Performance : 575 V 60 Hz 2P

Rated current : 4.72 A  
LRC : 7.6  
Rated torque : 7.50 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 350 %  
Rated speed : 3500 rpm

Moment of inertia (J) : 0.2233 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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|--------------|-----------------|-----------------------|---------|------|
|              |                 |                       |         |      |
| Performed by |                 | Page<br>3 / 6Revision |         |      |
| Checked by   |                 |                       |         |      |
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# THERMAL LIMIT CURVE

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Moment of inertia (J) : 0.2233 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

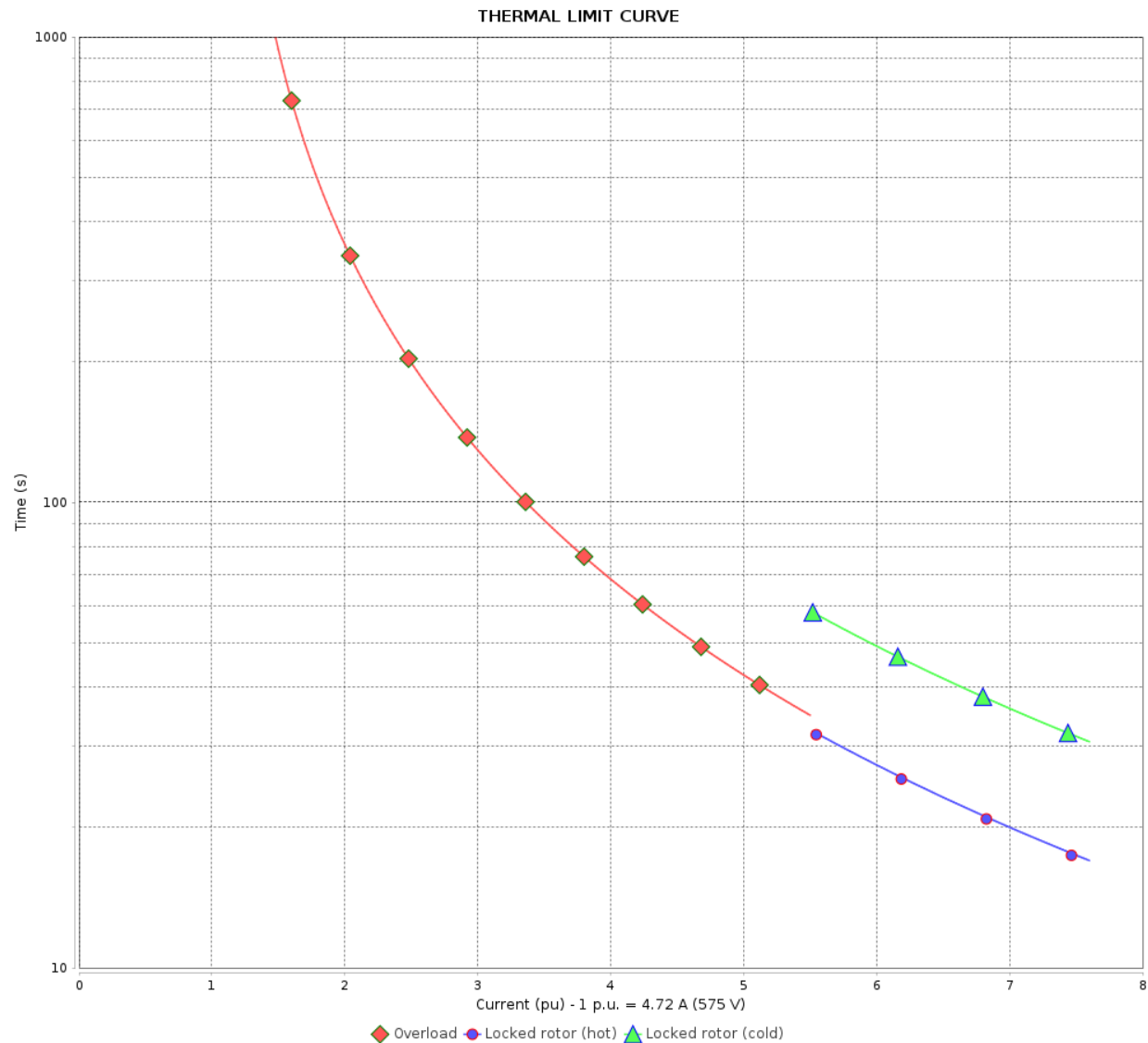
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|--------------|-----------------|--|-----------|---------|----------|
|              |                 |  |           |         |          |
| Performed by |                 |  |           | Page    | Revision |
| Checked by   |                 |  |           |         |          |
| Date         | 09/07/2026      |  |           | 4 / 6   |          |

# THERMAL LIMIT CURVE

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| Rev.         | Changes Summary |  | Performed | Checked       | Date     |
|--------------|-----------------|--|-----------|---------------|----------|
|              |                 |  |           |               |          |
| Performed by |                 |  |           |               |          |
| Checked by   |                 |  |           |               |          |
| Date         | 09/07/2026      |  |           |               |          |
|              |                 |  |           | Page<br>5 / 6 | Revision |

# VFD OPERATION CURVE

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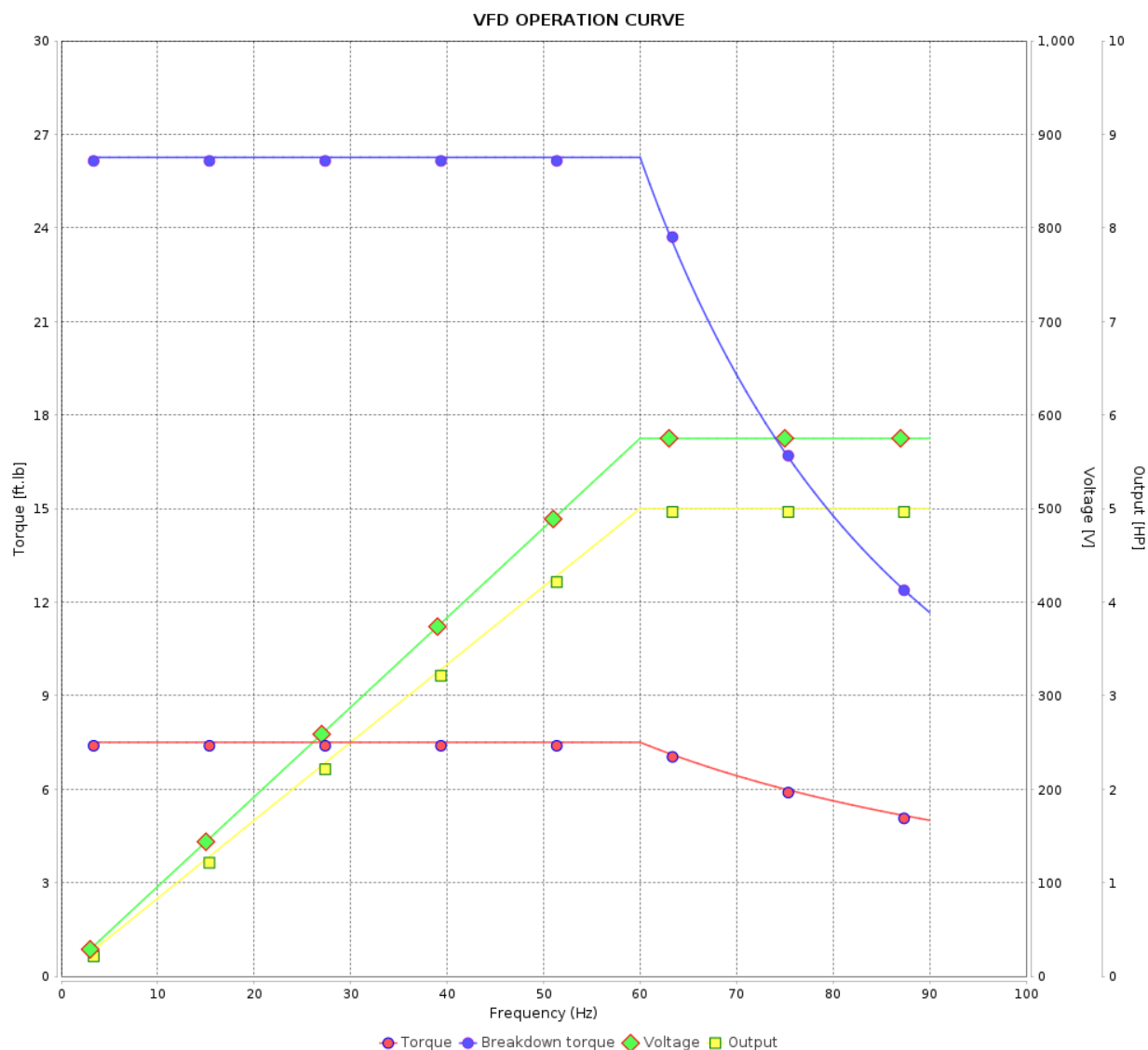


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Rated torque : 7.50 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 350 %  
Rated speed : 3500 rpm

Moment of inertia (J) : 0.2233 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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|              |                 |  |           |         |          |
| Performed by |                 |  |           | Page    | Revision |
| Checked by   |                 |  |           | 6 / 6   |          |
| Date         |                 |  |           |         |          |

