

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11611672  
Catalog # : CT030502NPW22

|                       |                 |                             |                        |
|-----------------------|-----------------|-----------------------------|------------------------|
| Frame                 | : 284/6TSC      | Locked rotor time           | : 27s (cold) 15s (hot) |
| Output                | : 30 HP (22 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         | : 27.4 A        | Protection degree           | : IP55                 |
| L. R. Amperes         | : 172 A         | Cooling method              | : IC411 - TEFC         |
| LRC                   | : 6.3x(Code G)  | Mounting                    | : F-1                  |
| No load current       | : 7.28 A        | Rotation <sup>1</sup>       | : Both (CW and CCW)    |
| Rated speed           | : 3545 rpm      | Noise level <sup>2</sup>    | : 72.0 dB(A)           |
| Slip                  | : 1.53 %        | Starting method             | : Direct On Line       |
| Rated torque          | : 44.4 ft.lb    | Approx. weight <sup>3</sup> | : 392 lb               |
| Locked rotor torque   | : 200 %         |                             |                        |
| Breakdown torque      | : 250 %         |                             |                        |
| Insulation class      | : F             |                             |                        |
| Service factor        | : 1.25          |                             |                        |
| Moment of inertia (J) | : 3.37 sq.ft.lb |                             |                        |
| Design                | : B             |                             |                        |

|                |       |      |      |      |                  |          |
|----------------|-------|------|------|------|------------------|----------|
| Output         | 25%   | 50%  | 75%  | 100% | Foundation loads |          |
| Efficiency (%) | 0.000 | 91.7 | 91.7 | 91.7 | Max. traction    | : 289 lb |
| Power Factor   | 0.00  | 0.80 | 0.86 | 0.88 | Max. compression | : 680 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) |
|--------------|--------------|---------------|--------------|--------------|---------------|----------------|
| 8.6          | 6.7          | 5.9           | 4.2          | 2.5          | 1.5           | 0.9            |

|                      |   |                  |                      |
|----------------------|---|------------------|----------------------|
|                      |   | <u>Drive end</u> | <u>Non drive end</u> |
| Bearing type         | : | 6311 C3          | 6211 C3              |
| Sealing              | : | V'Ring           | V'Ring               |
| Lubrication interval | : | 14000 h          | 17000 h              |
| Lubricant amount     | : | 18 g             | 11 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         | 13/07/2026      |                           |         |      |

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

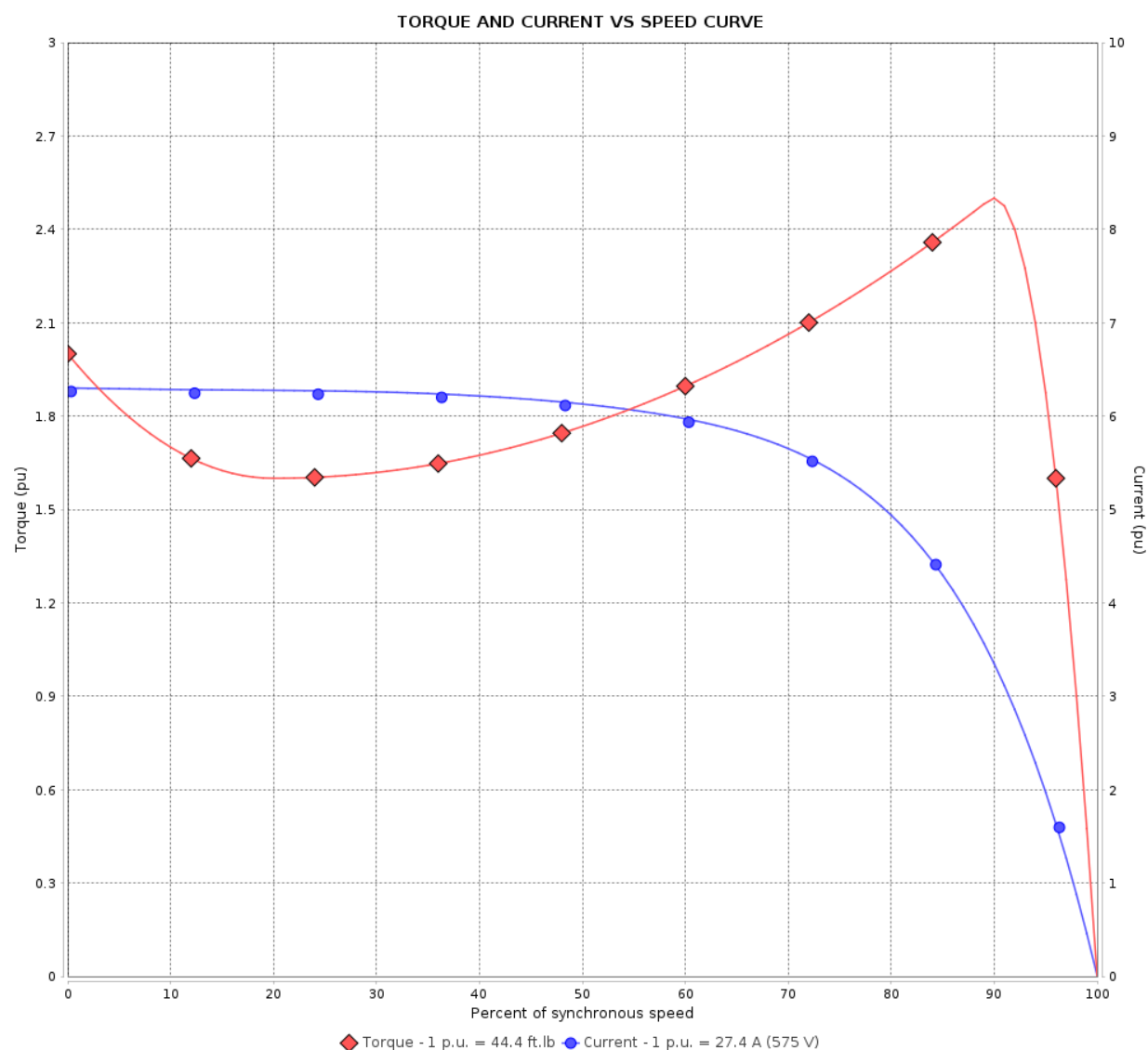


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11611672

Catalog # : CT030502NPW22



Performance : 575 V 60 Hz 2P

|                     |              |                       |                 |
|---------------------|--------------|-----------------------|-----------------|
| Rated current       | : 27.4 A     | Moment of inertia (J) | : 3.37 sq.ft.lb |
| LRC                 | : 6.3        | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 44.4 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 200 %      | Service factor        | : 1.25          |
| Breakdown torque    | : 250 %      | Temperature rise      | : 80 K          |
| Rated speed         | : 3545 rpm   | Design                | : B             |

Locked rotor time : 27s (cold) 15s (hot)

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| Date         | 13/07/2026      |                          |         |      |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

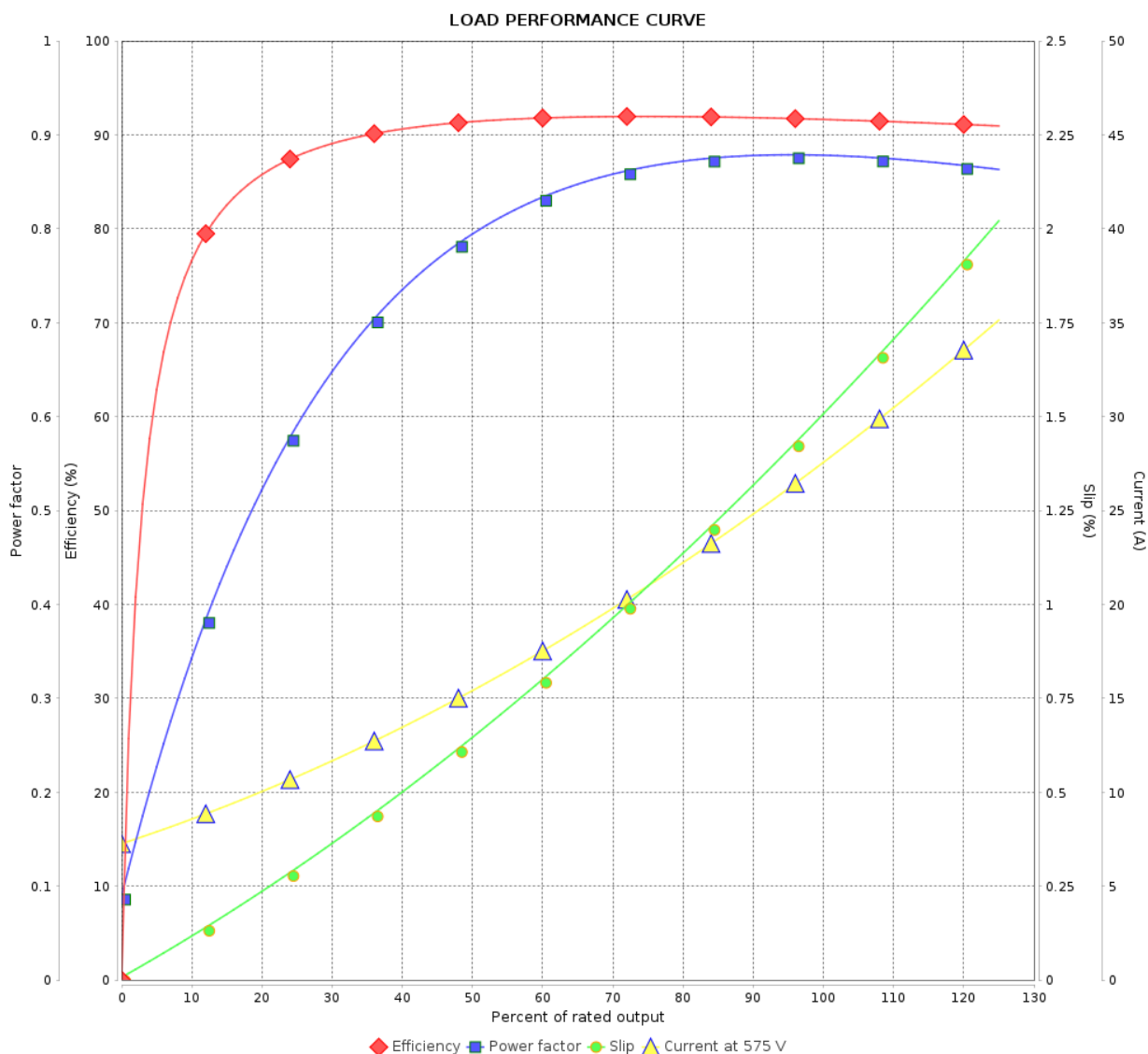


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11611672

Catalog # : CT030502NPW22



Performance : 575 V 60 Hz 2P

Rated current : 27.4 A  
LRC : 6.3  
Rated torque : 44.4 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 250 %  
Rated speed : 3545 rpm

Moment of inertia (J) : 3.37 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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| Locked rotor torque | : 200 %      | Service factor        | : 1.25          |
| Breakdown torque    | : 250 %      | Temperature rise      | : 80 K          |
| Rated speed         | : 3545 rpm   | Design                | : B             |

Heating constant

Cooling constant

Rev.

Changes Summary

Performed

Checked

Date

Performed by

Checked by

Date

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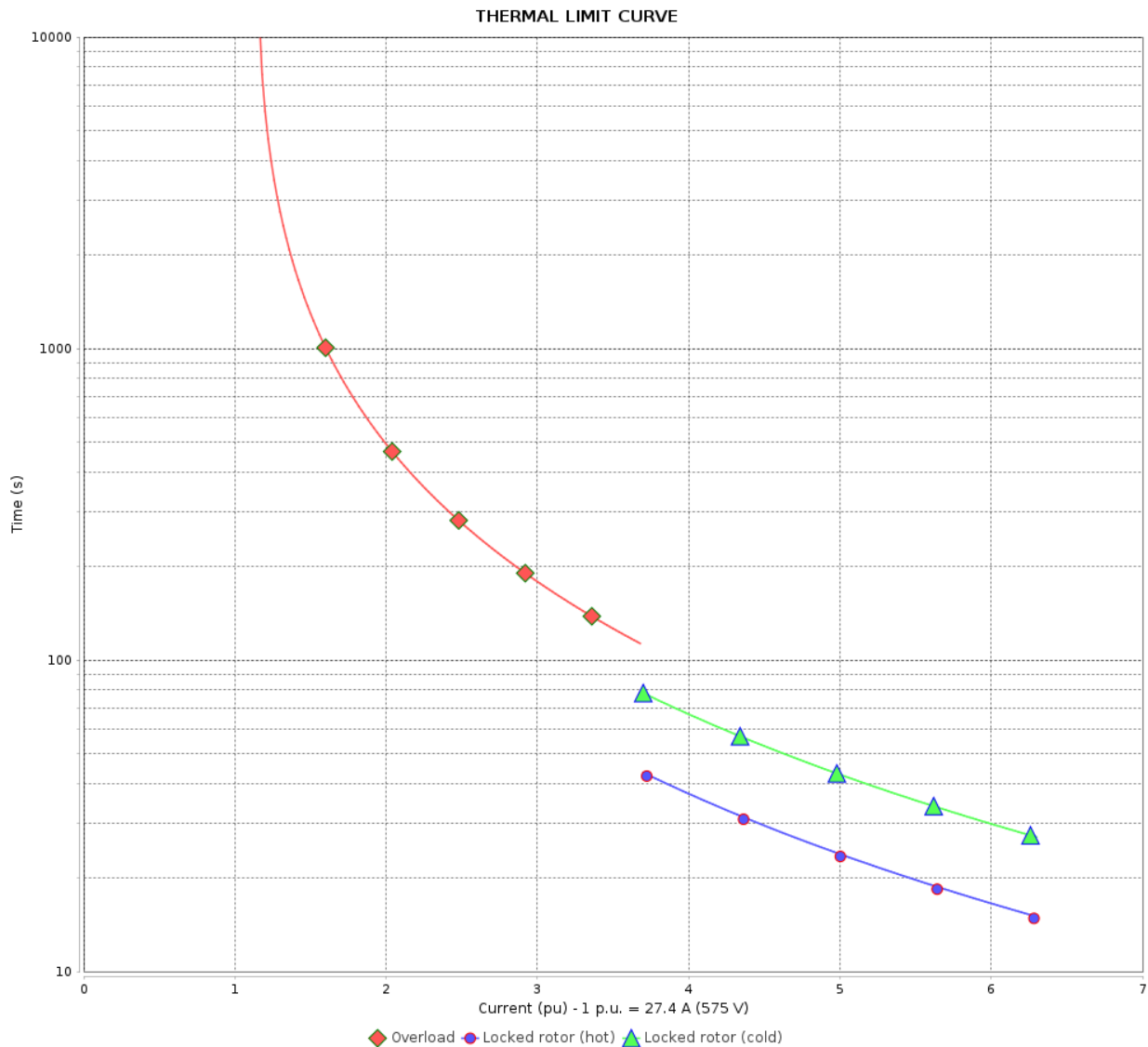
Revision

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary |  | Performed | Checked       | Date     |
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

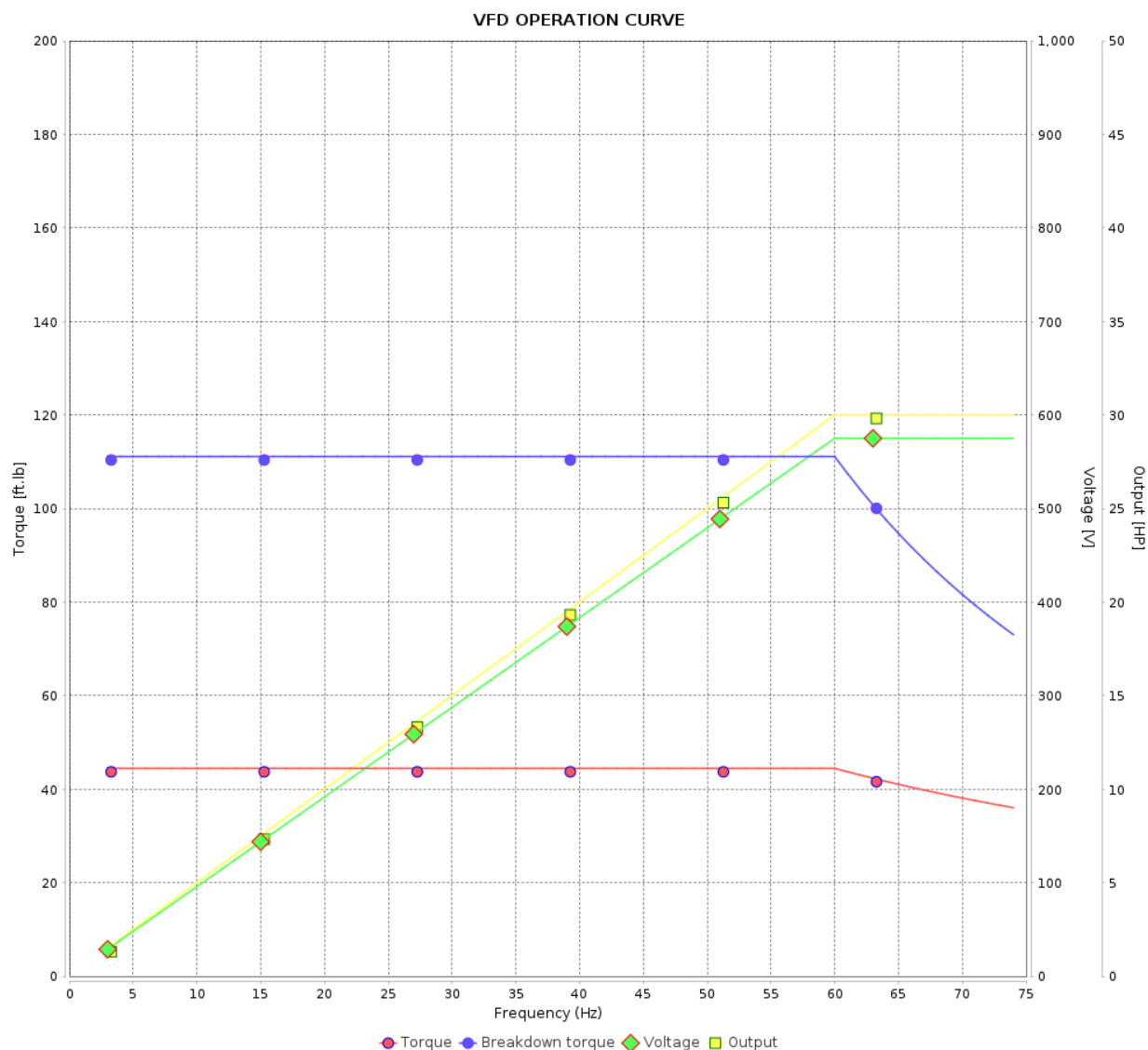


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Three-Phase

Product code : 11611672

Catalog # : CT030502NPW22



Performance : 575 V 60 Hz 2P

Rated current : 27.4 A  
LRC : 6.3  
Rated torque : 44.4 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 250 %  
Rated speed : 3545 rpm

Moment of inertia (J) : 3.37 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

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