

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11441355

|                                      |                                                 |
|--------------------------------------|-------------------------------------------------|
| Frame : 182/4TC                      | Cooling method : IC411 - TEFC                   |
| Insulation class : F                 | Mounting : F-1                                  |
| Duty cycle : Cont.(S1)               | Rotation <sup>1</sup> : Both (CW and CCW)       |
| Ambient temperature : -20°C to +40°C | Starting method : Direct On Line                |
| Altitude : 1000 m.a.s.l.             | Approx. weight <sup>3</sup> : 44.9 kg           |
| Protection degree : IP55             | Moment of inertia (J) : 0.0169 kgm <sup>2</sup> |
| Design : B                           |                                                 |

|                          |                         |                         |                         |                         |                         |                         |                         |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Output [HP]              | 5                       | 4                       | 4                       | 4                       | 5                       | 5                       | 5                       |
| Poles                    | 4                       | 4                       | 4                       | 4                       | 4                       | 4                       | 4                       |
| Frequency [Hz]           | 60                      | 50                      | 50                      | 50                      | 50                      | 50                      | 50                      |
| Rated voltage [V]        | 230/460                 | 380                     | 400                     | 415                     | 380                     | 400                     | 415                     |
| Rated current [A]        | 13.0/6.49               | 6.42                    | 6.21                    | 6.23                    | 7.74                    | 7.44                    | 7.35                    |
| L. R. Amperes [A]        | 97.4/48.7               | 44.9                    | 47.8                    | 51.1                    | 44.9                    | 47.6                    | 50.7                    |
| LRC [A]                  | 7.5x(Code J)            | 7.0x(Code J)            | 7.7x(Code K)            | 8.2x(Code L)            | 5.8x(Code G)            | 6.4x(Code H)            | 6.9x(Code J)            |
| No load current [A]      | 6.00/3.00               | 3.00                    | 3.40                    | 3.70                    | 3.00                    | 3.40                    | 3.70                    |
| Rated speed [RPM]        | 1750                    | 1450                    | 1455                    | 1460                    | 1430                    | 1440                    | 1445                    |
| Slip [%]                 | 2.78                    | 3.33                    | 3.00                    | 2.67                    | 4.67                    | 4.00                    | 3.67                    |
| Rated torque [kgfm]      | 2.07                    | 2.00                    | 2.00                    | 1.99                    | 2.54                    | 2.52                    | 2.51                    |
| Locked rotor torque [%]  | 229                     | 229                     | 260                     | 290                     | 185                     | 210                     | 229                     |
| Breakdown torque [%]     | 300                     | 300                     | 320                     | 350                     | 225                     | 250                     | 270                     |
| Service factor           | 1.25                    | 1.15                    | 1.15                    | 1.15                    | 1.15                    | 1.15                    | 1.15                    |
| Temperature rise         | 80 K                    | 80 K                    | 80 K                    | 80 K                    | 80 K                    | 80 K                    | 80 K                    |
| Locked rotor time        | 27s (cold)<br>15s (hot) | 21s (cold)<br>12s (hot) | 21s (cold)<br>12s (hot) | 21s (cold)<br>12s (hot) | 21s (cold)<br>12s (hot) | 21s (cold)<br>12s (hot) | 21s (cold)<br>12s (hot) |
| Noise level <sup>2</sup> | 56.0 dB(A)              | 56.0 dB(A)              | 56.0 dB(A)              | 56.0 dB(A)              | 56.0 dB(A)              | 56.0 dB(A)              | 56.0 dB(A)              |
| Efficiency (%)           | 25%                     | 0.000                   |                         |                         | 0.000                   |                         |                         |
|                          | 50%                     | 88.5                    | 87.5                    | 86.7                    | 86.5                    | 88.5                    | 87.5                    |
|                          | 75%                     | 89.5                    | 88.2                    | 88.2                    | 88.2                    | 87.5                    | 88.5                    |
|                          | 100%                    | 89.5                    | 87.7                    | 88.2                    | 88.2                    | 86.5                    | 87.5                    |
| Power Factor             | 25%                     | 0.00                    |                         |                         | 0.00                    |                         |                         |
|                          | 50%                     | 0.60                    | 0.61                    | 0.57                    | 0.53                    | 0.69                    | 0.61                    |
|                          | 75%                     | 0.72                    | 0.75                    | 0.71                    | 0.67                    | 0.80                    | 0.77                    |
|                          | 100%                    | 0.80                    | 0.81                    | 0.79                    | 0.76                    | 0.84                    | 0.80                    |

Losses at normative operating points (speed;torque), in percentage of rated output power

|            |                |      |      |      |      |      |      |      |
|------------|----------------|------|------|------|------|------|------|------|
| Losses (%) | P1 (0,9;1,0)   | 11.1 | 13.3 | 12.6 | 12.6 | 14.8 | 13.5 | 13.5 |
|            | P2 (0,5;1,0)   | 9.3  | 11.2 | 10.7 | 10.7 | 12.4 | 11.4 | 11.4 |
|            | P3 (0,25;1,0)  | 9.4  | 11.3 | 10.8 | 10.8 | 12.5 | 11.5 | 11.5 |
|            | P4 (0,9;0,5)   | 5.6  | 6.6  | 6.3  | 6.3  | 7.4  | 6.8  | 6.8  |
|            | P5 (0,5;0,5)   | 3.9  | 4.6  | 4.4  | 4.4  | 5.1  | 4.7  | 4.7  |
|            | P6 (0,5;0,25)  | 2.7  | 3.2  | 3.0  | 3.0  | 3.6  | 3.3  | 3.3  |
|            | P7 (0,25;0,25) | 1.9  | 2.3  | 2.2  | 2.2  | 2.6  | 2.3  | 2.3  |

|                                   |                         |                            |
|-----------------------------------|-------------------------|----------------------------|
| Bearing type : 6207 ZZ            | Non drive end : 6206 ZZ | Foundation loads           |
| Sealing : V'Ring                  | V'Ring                  | Max. traction : 119 kgf    |
| Lubrication interval : -          | -                       | Max. compression : 164 kgf |
| Lubricant amount : -              | -                       |                            |
| Lubricant type : Mobil Polyrex EM |                         |                            |

This revision replaces and cancel the previous one, which must be eliminated.  
(1) Looking the motor from the shaft end.

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 |                 |           |         |      |
| Checked by   |                 |           |         |      |
| Date         | 13/07/2025      |           |         |      |

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

Notes  
USABLE @208V 14.3A SF 1.15 SFA 16.4A

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# LOAD PERFORMANCE CURVE

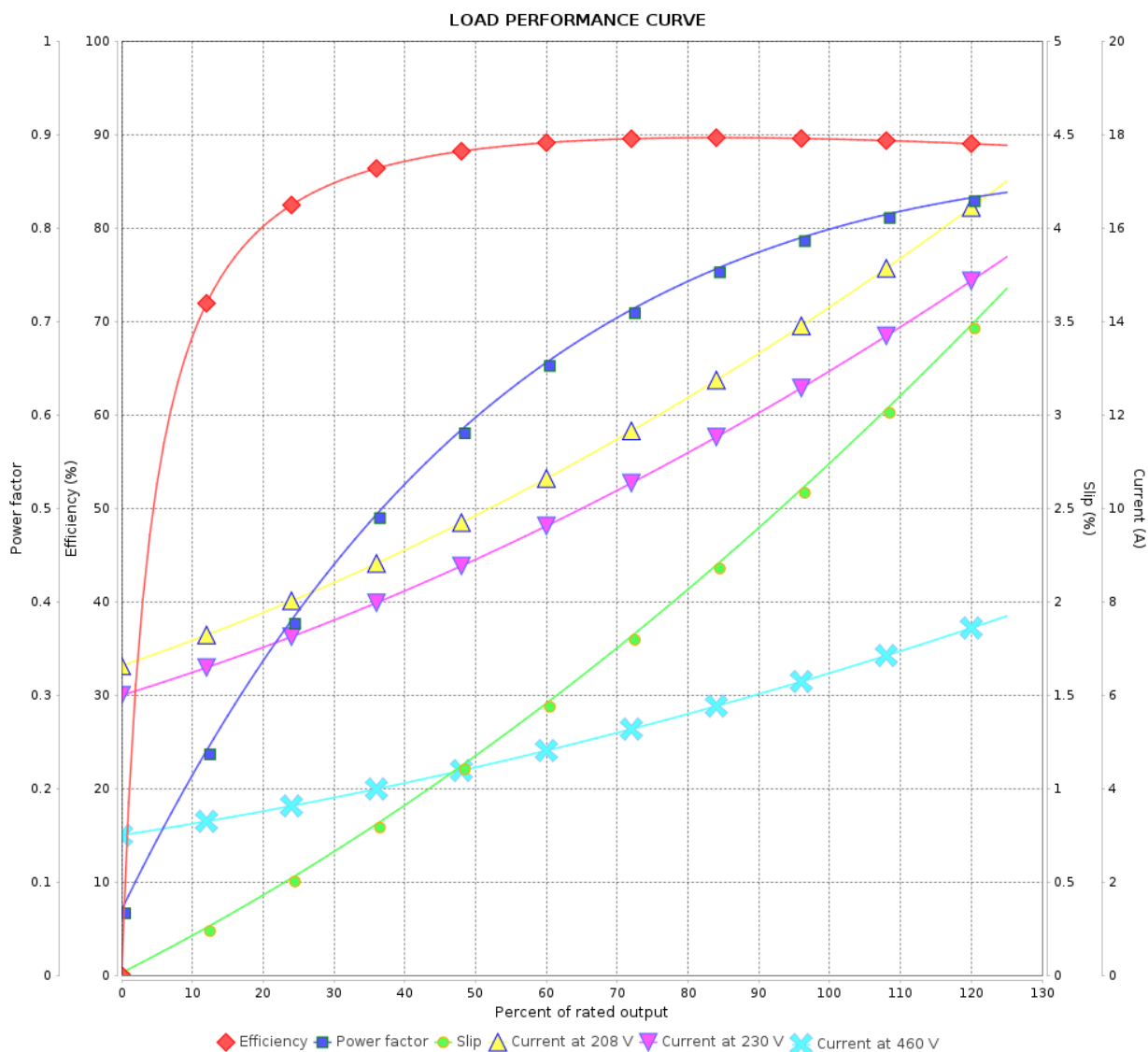
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11441355



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A  
LRC : 7.5  
Rated torque : 2.07 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 300 %  
Rated speed : 1750 rpm

Moment of inertia (J) : 0.0169 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K  
Design : B

| Rev.         | Changes Summary |                       | Performed | Checked | Date |
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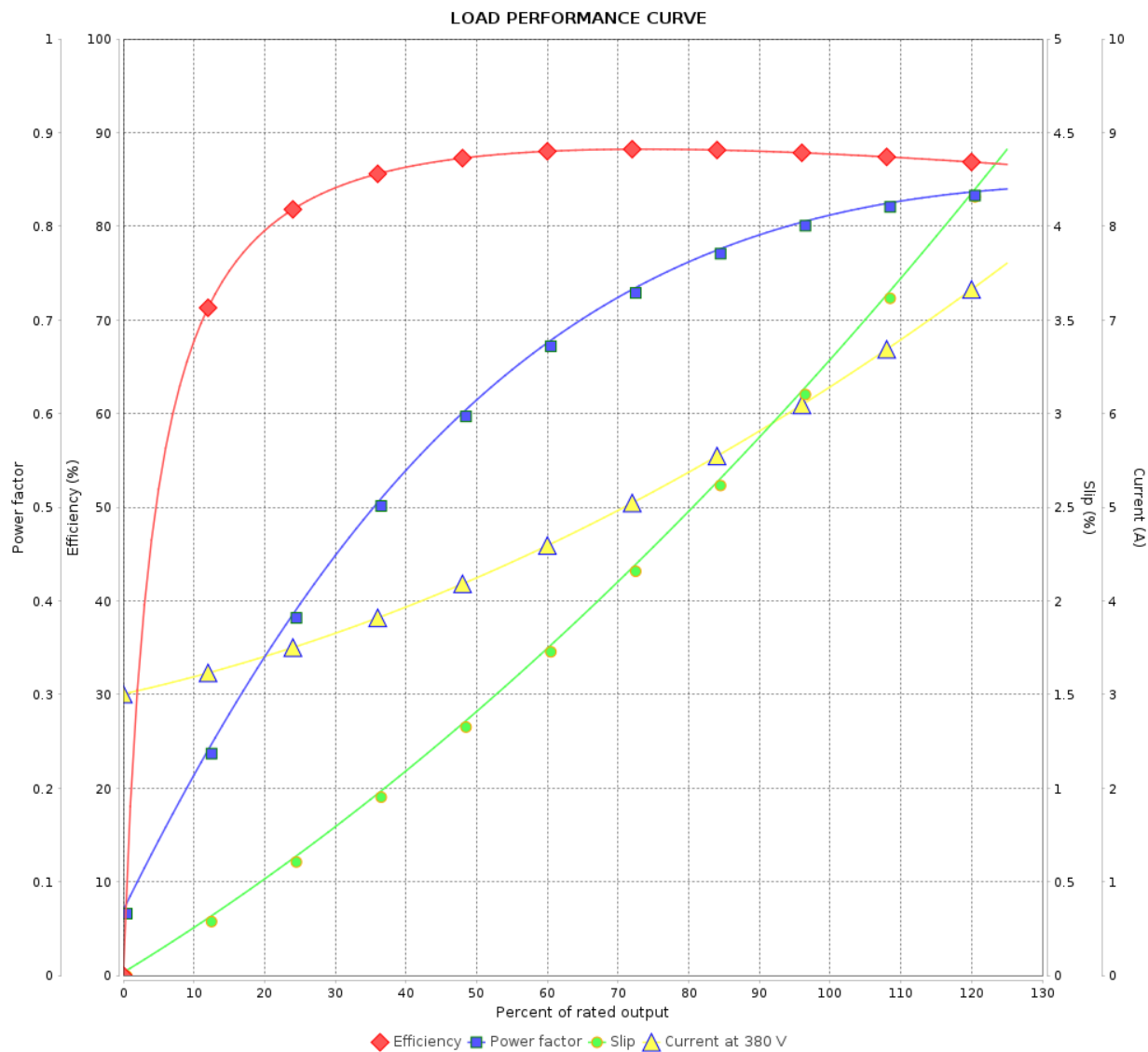
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11441355



Performance : 380 V 50 Hz 4P IE3

Rated current : 6.42 A  
LRC : 7.0  
Rated torque : 2.00 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 300 %  
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0169 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

| Rev.         | Changes Summary |  | Performed | Checked       | Date     |
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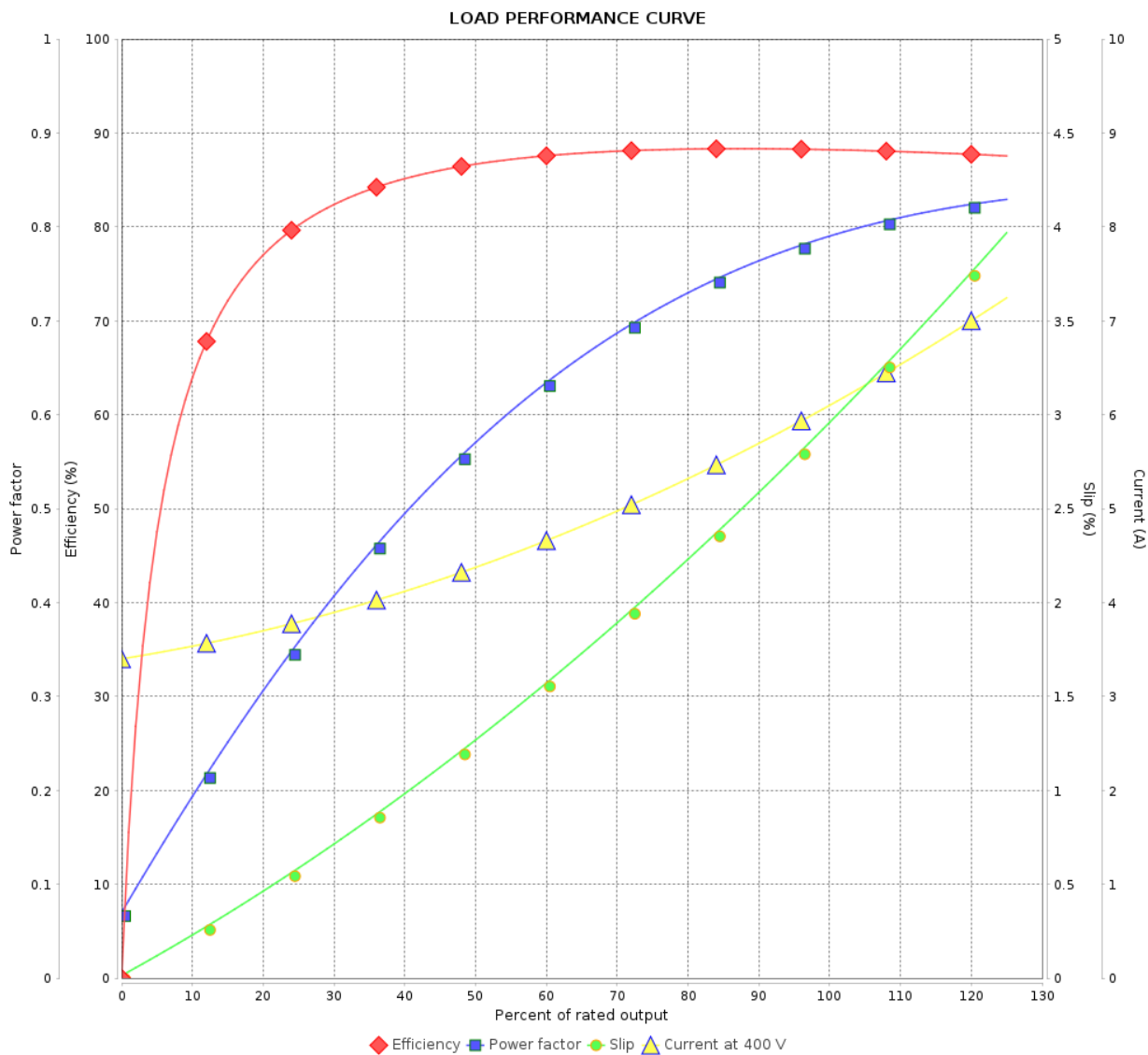
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11441355



Performance : 400 V 50 Hz 4P IE3

Rated current : 6.21 A  
LRC : 7.7  
Rated torque : 2.00 kgfm  
Locked rotor torque : 260 %  
Breakdown torque : 320 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0169 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

|              |                 |  |           |               |          |
|--------------|-----------------|--|-----------|---------------|----------|
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# LOAD PERFORMANCE CURVE

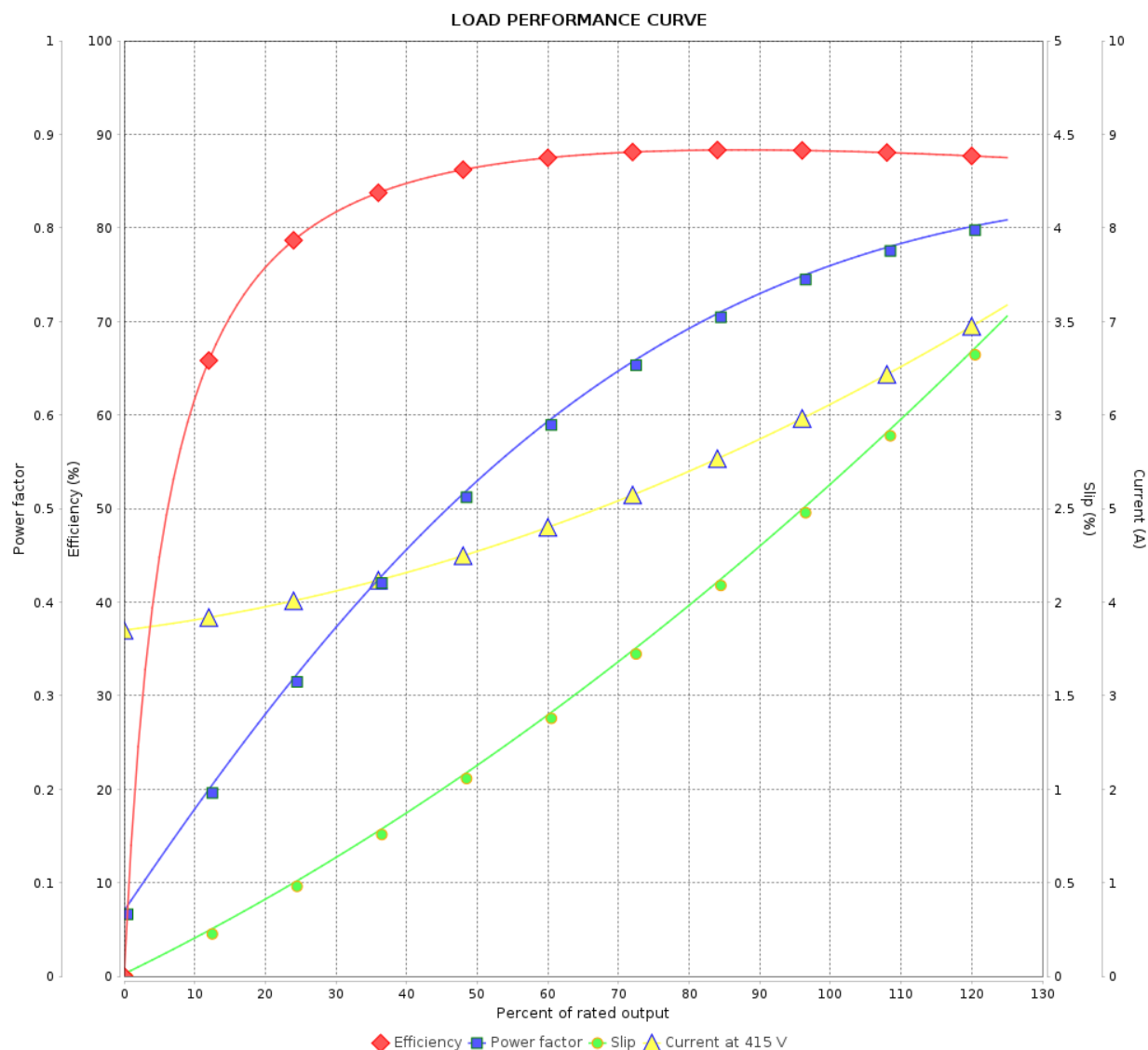
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11441355



Performance : 415 V 50 Hz 4P IE3

Rated current : 6.23 A  
LRC : 8.2  
Rated torque : 1.99 kgfm  
Locked rotor torque : 290 %  
Breakdown torque : 350 %  
Rated speed : 1460 rpm

Moment of inertia (J) : 0.0169 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
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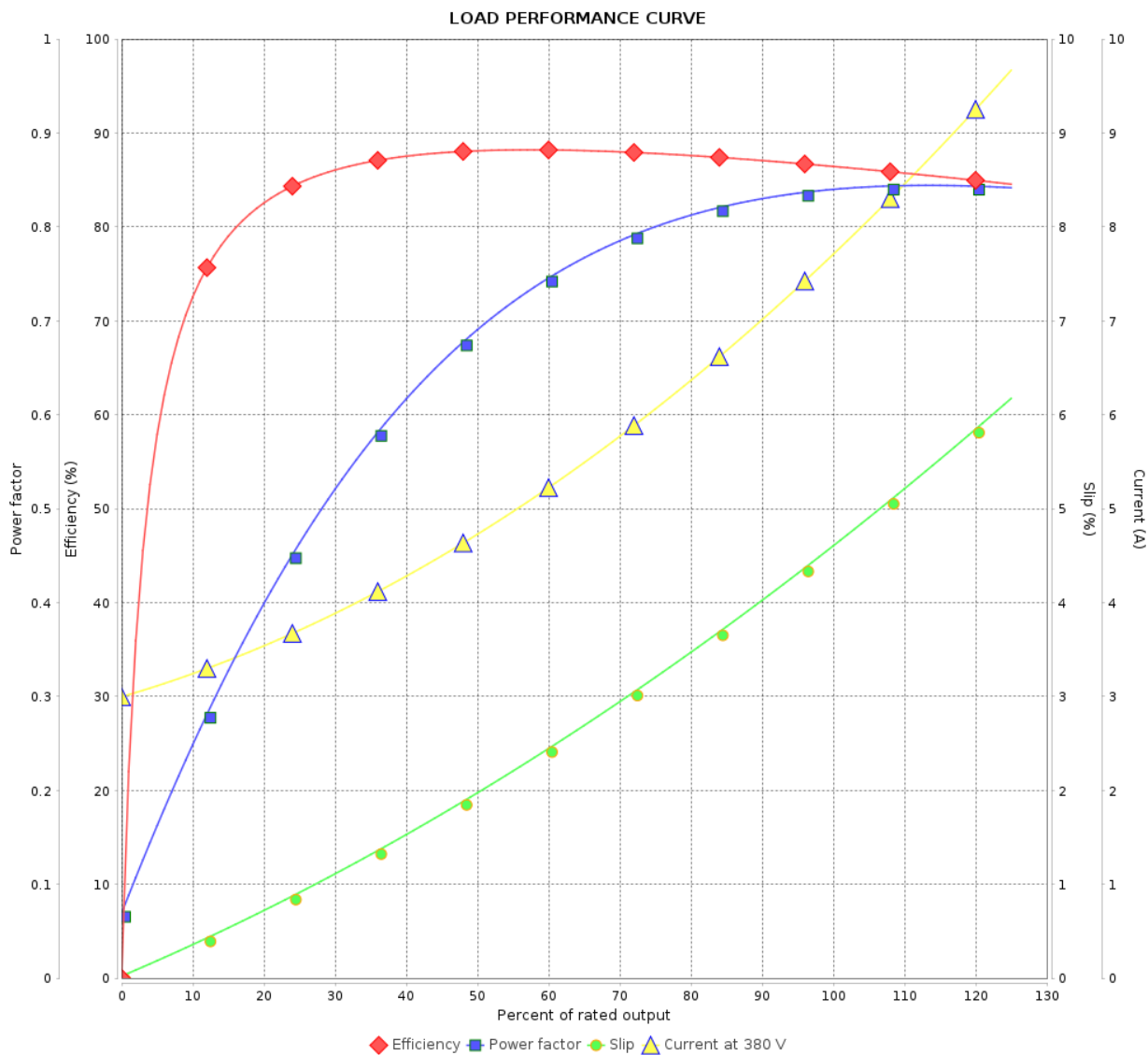
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11441355



Performance : 380 V 50 Hz 4P IE2

Rated current : 7.74 A  
LRC : 5.8  
Rated torque : 2.54 kgfm  
Locked rotor torque : 185 %  
Breakdown torque : 225 %  
Rated speed : 1430 rpm

Moment of inertia (J) : 0.0169 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

| Rev.         | Changes Summary | Performed             | Checked | Date |
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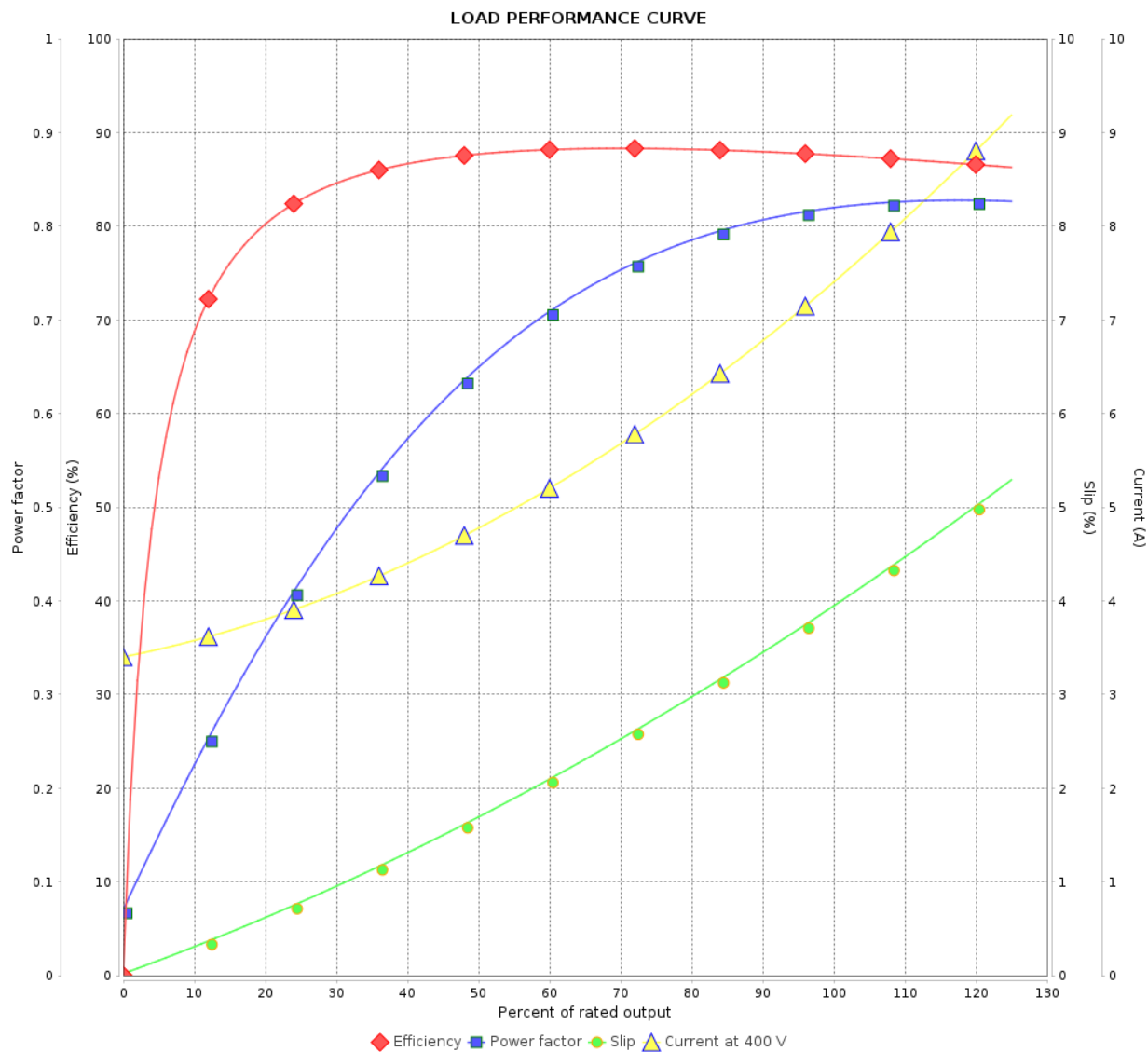
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11441355



Performance : 400 V 50 Hz 4P IE2

Rated current : 7.44 A  
LRC : 6.4  
Rated torque : 2.52 kgfm  
Locked rotor torque : 210 %  
Breakdown torque : 250 %  
Rated speed : 1440 rpm

Moment of inertia (J) : 0.0169 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

| Rev.         | Changes Summary |  | Performed | Checked | Date     |
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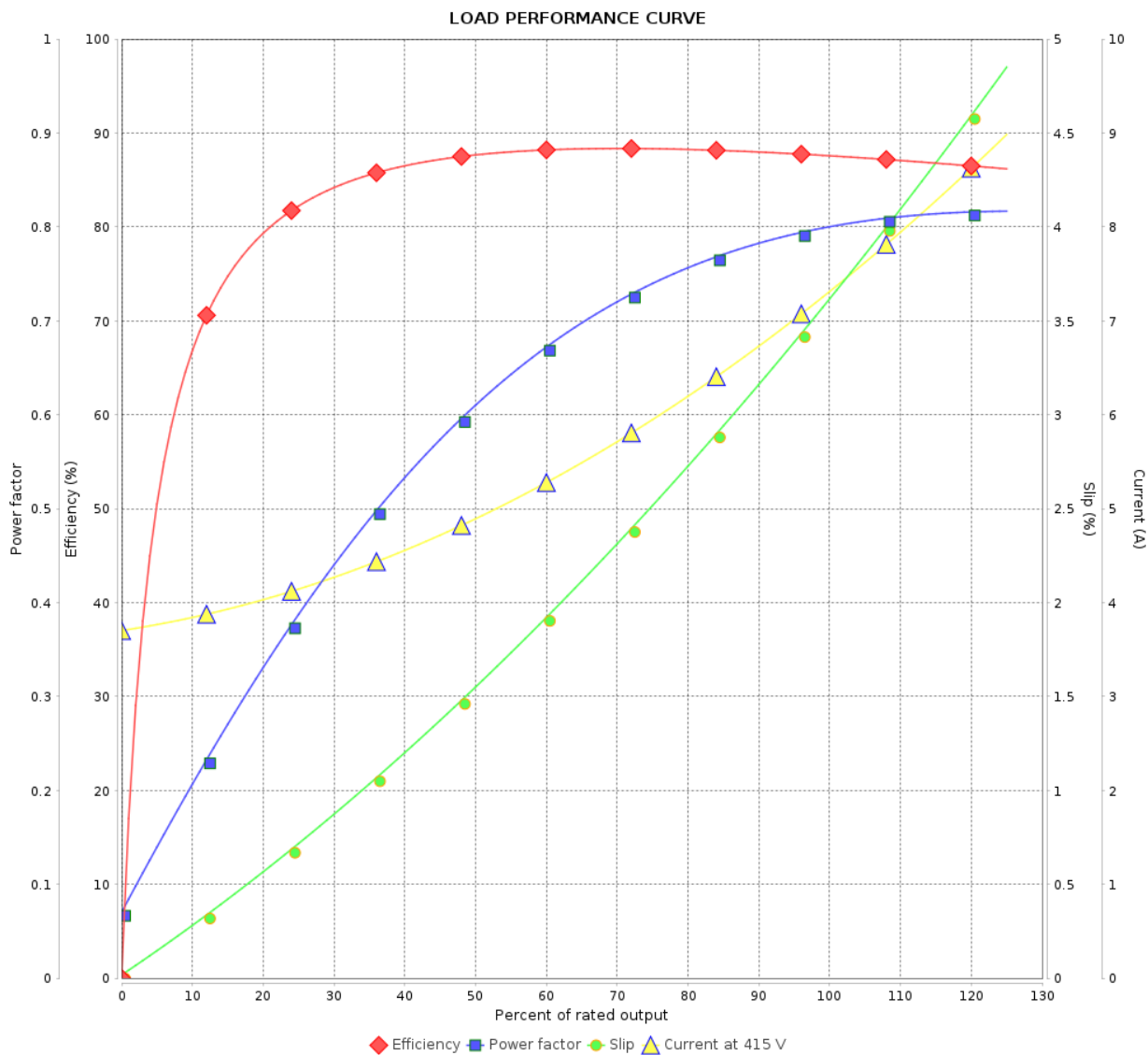
## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 11441355



Performance : 415 V 50 Hz 4P IE2

Rated current : 7.35 A  
LRC : 6.9  
Rated torque : 2.51 kgfm  
Locked rotor torque : 229 %  
Breakdown torque : 270 %  
Rated speed : 1445 rpm

Moment of inertia (J) : 0.0169 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

| Rev.         | Changes Summary | Performed             | Checked | Date |
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