

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12447060

| | |
|--------------------------------------|---|
| Frame : 254/6TC | Cooling method : IC411 - TEFC |
| Insulation class : F | Mounting : F-1 |
| Duty cycle : Cont.(S1) | Rotation ¹ : Both (CW and CCW) |
| Ambient temperature : -20°C to +40°C | Starting method : Direct On Line |
| Altitude : 1000 m.a.s.l. | Approx. weight ³ : 120 kg |
| Protection degree : IP55 | Moment of inertia (J) : 0.0530 kgm ² |
| Design : B | |

| | | | | | | | |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Output [HP] | 15 | 10 | 10 | 10 | 15 | 15 | 15 |
| Poles | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Frequency [Hz] | 60 | 50 | 50 | 50 | 50 | 50 | 50 |
| Rated voltage [V] | 230/460 | 380 | 400 | 415 | 380 | 400 | 415 |
| Rated current [A] | 34.5/17.2 | 14.5 | 14.0 | 13.7 | 21.0 | 19.9 | 19.3 |
| L. R. Amperes [A] | 231/116 | 109 | 117 | 116 | 107 | 112 | 118 |
| LRC [A] | 6.7x(Code G) | 7.5x(Code J) | 8.3x(Code K) | 8.5x(Code K) | 5.1x(Code E) | 5.6x(Code F) | 6.1x(Code G) |
| No load current [A] | 10.0/5.00 | 4.90 | 5.30 | 5.50 | 4.90 | 5.30 | 5.50 |
| Rated speed [RPM] | 3535 | 2950 | 2955 | 2960 | 2900 | 2915 | 2925 |
| Slip [%] | 1.81 | 1.67 | 1.50 | 1.33 | 3.33 | 2.83 | 2.50 |
| Rated torque [kgfm] | 3.08 | 2.46 | 2.46 | 2.45 | 3.75 | 3.73 | 3.72 |
| Locked rotor torque [%] | 200 | 200 | 229 | 250 | 160 | 180 | 200 |
| Breakdown torque [%] | 260 | 310 | 350 | 380 | 200 | 229 | 240 |
| Service factor | 1.25 | 1.25 | 1.25 | 1.25 | 1.00 | 1.00 | 1.15 |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | 105 K | 105 K | 105 K |
| Locked rotor time | 36s (cold) 20s (hot) | 50s (cold) 28s (hot) | 45s (cold) 25s (hot) | 41s (cold) 23s (hot) | 25s (cold) 14s (hot) | 27s (cold) 15s (hot) | 27s (cold) 15s (hot) |
| Noise level ² | 72.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) |
| Efficiency (%) | 25% | 0.000 | | | | | |
| | 50% | 89.5 | 90.3 | 90.1 | 89.9 | 89.5 | 90.2 |
| | 75% | 91.0 | 90.5 | 90.7 | 90.8 | 90.2 | 90.2 |
| | 100% | 91.0 | 90.5 | 90.7 | 90.8 | 88.5 | 89.5 |
| Power Factor | 25% | 0.00 | | | | | |
| | 50% | 0.77 | 0.73 | 0.69 | 0.67 | 0.82 | 0.80 |
| | 75% | 0.85 | 0.83 | 0.80 | 0.78 | 0.88 | 0.87 |
| | 100% | 0.88 | 0.87 | 0.85 | 0.84 | 0.90 | 0.89 |

| | | | |
|------------------------|------------------|----------------------|----------------------------|
| | <u>Drive end</u> | <u>Non drive end</u> | Foundation loads |
| Bearing type : | 6309 C3 | 6209 C3 | Max. traction : 80 kgf |
| Sealing : | V'Ring | V'Ring | Max. compression : 200 kgf |
| Lubrication interval : | 19000 h | 20000 h | |
| Lubricant amount : | 13 g | 9 g | |
| Lubricant type : | Mobil Polyrex EM | | |

Notes
USABLE @208V 38.0A SF 1.15 SFA 43.7A

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 | 14/07/2025 | | | |

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Revision

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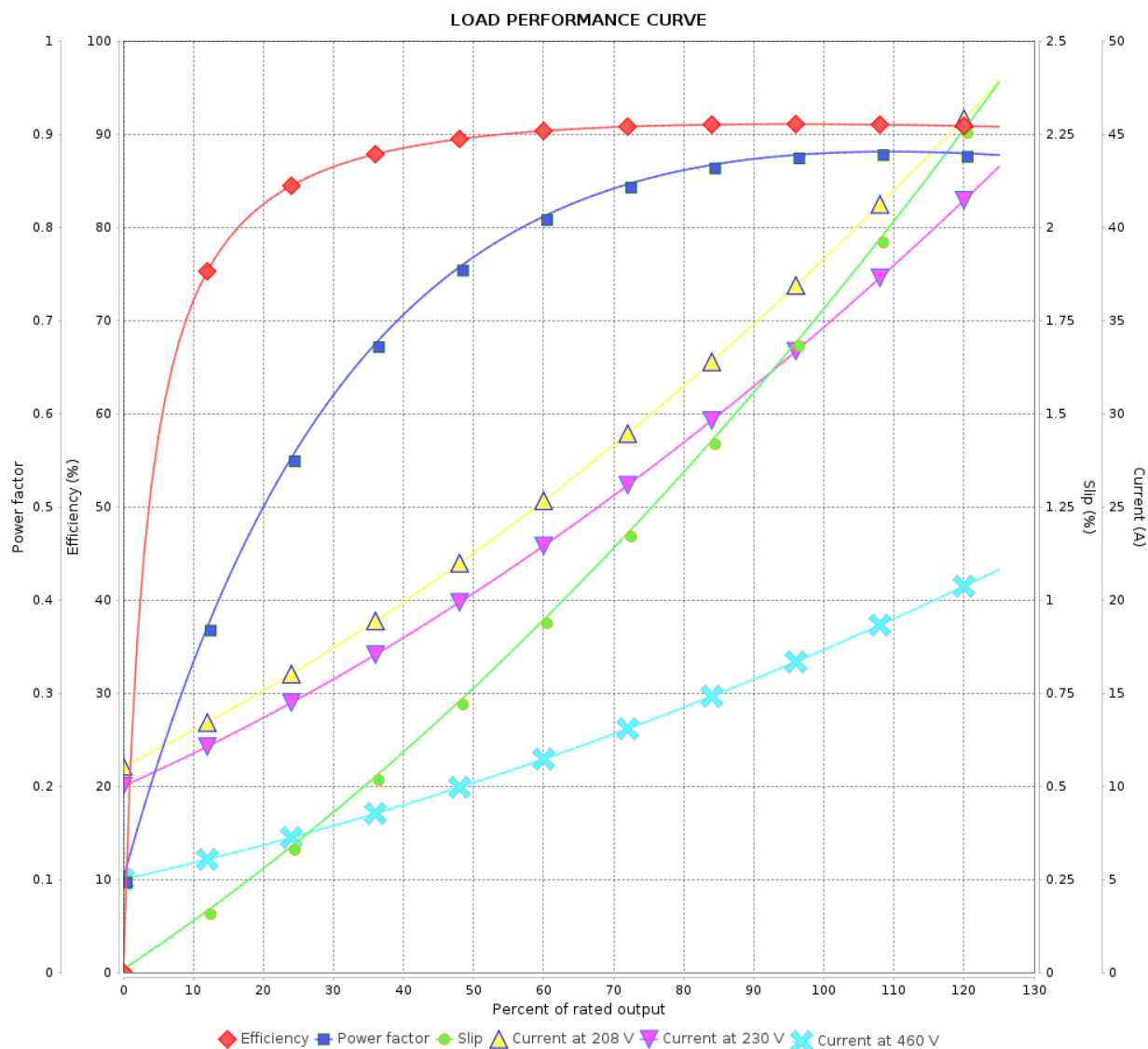
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447060



Performance : 230/460 V 60 Hz 2P

Rated current : 34.5/17.2 A
LRC : 6.7
Rated torque : 3.08 kgfm
Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 3535 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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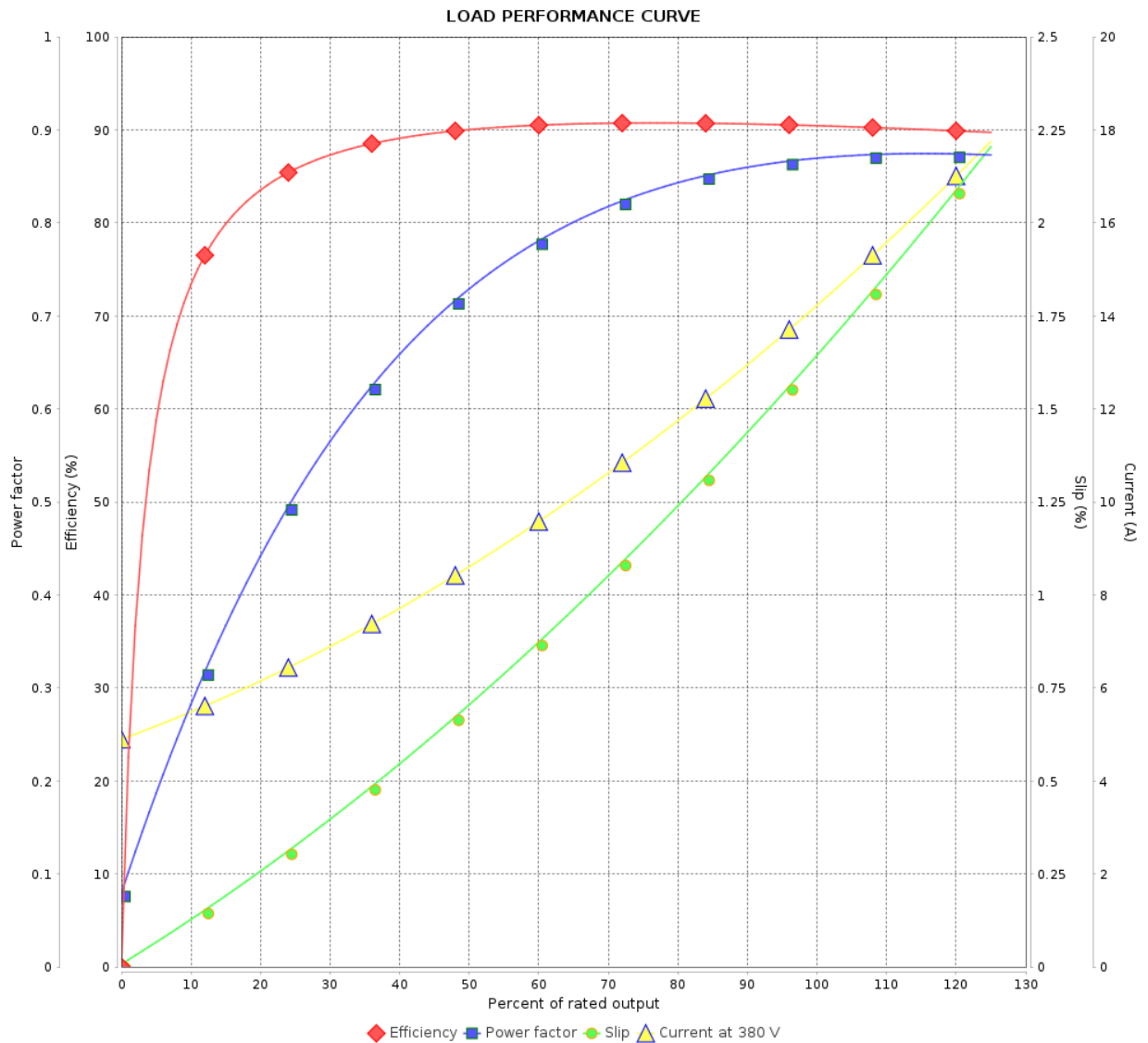
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447060



Performance : 380 V 50 Hz 2P IE3

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 14.5 A | Moment of inertia (J) | : 0.0530 kgm ² |
| LRC | : 7.5 | Duty cycle | : Cont.(S1) |
| Rated torque | : 2.46 kgfm | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 310 % | Temperature rise | : 80 K |
| Rated speed | : 2950 rpm | Design | : B |

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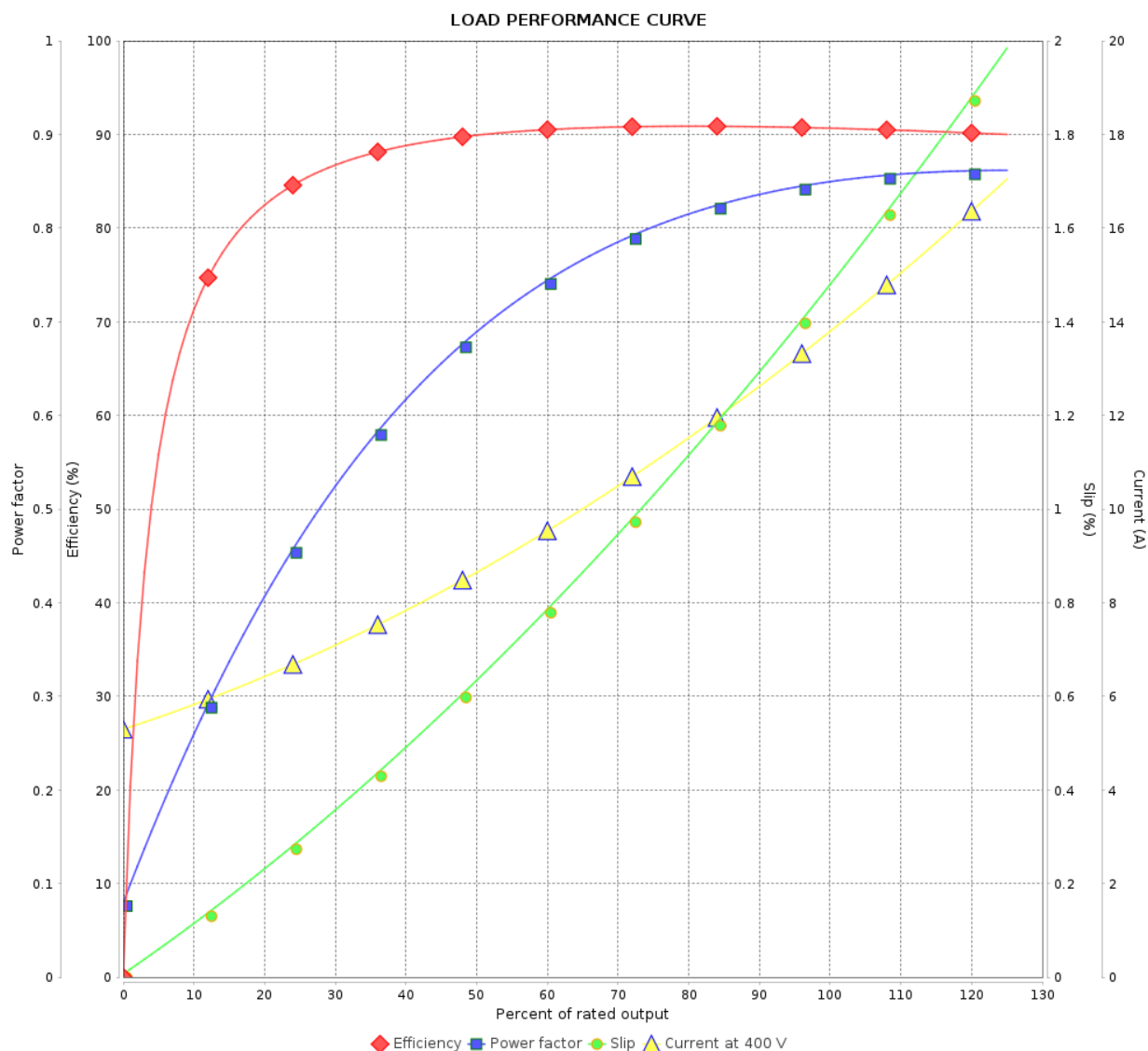
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447060



Performance : 400 V 50 Hz 2P IE3

Rated current : 14.0 A
LRC : 8.3
Rated torque : 2.46 kgfm
Locked rotor torque : 229 %
Breakdown torque : 350 %
Rated speed : 2955 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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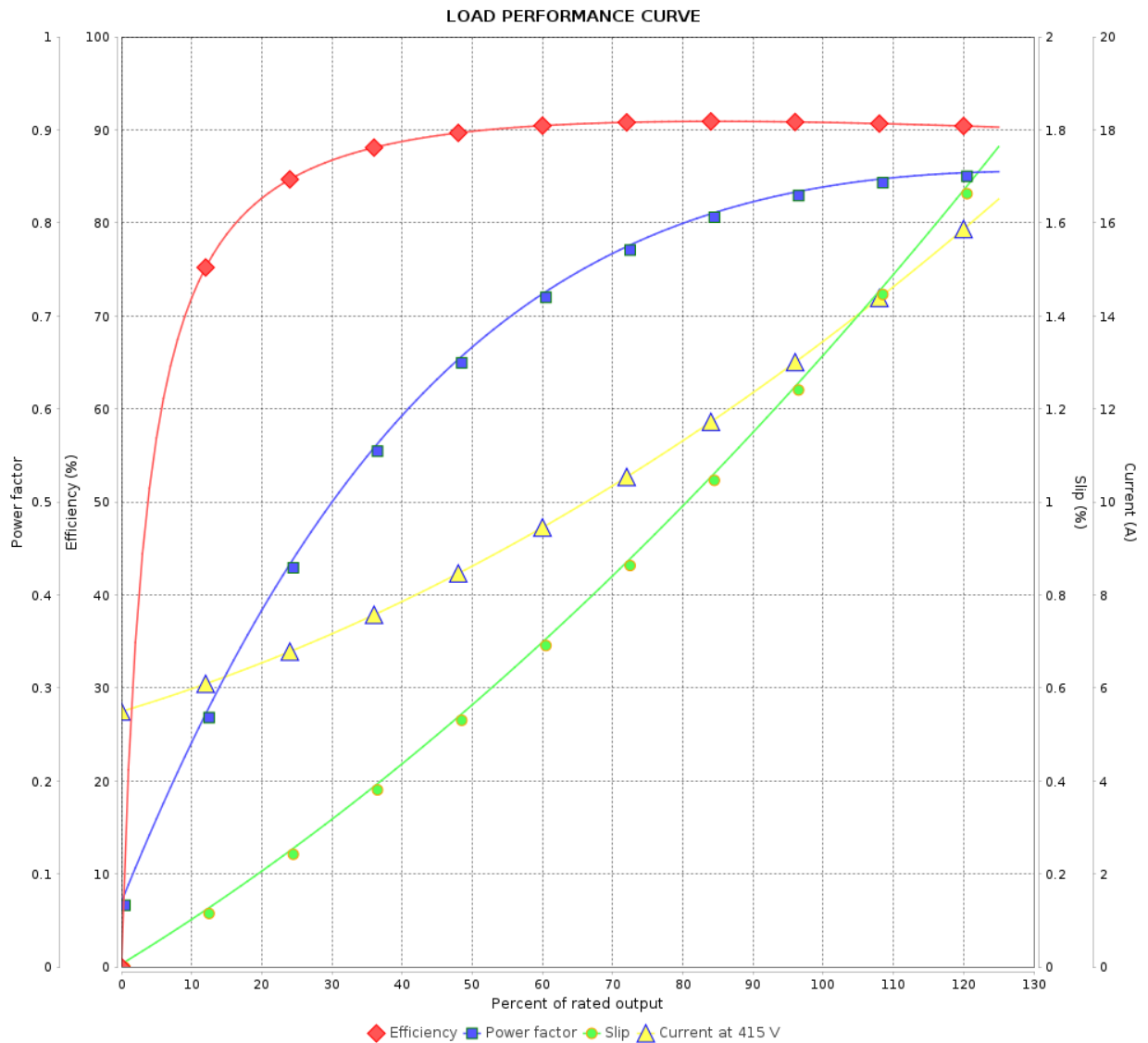
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447060



Performance : 415 V 50 Hz 2P IE3

Rated current : 13.7 A
LRC : 8.5
Rated torque : 2.45 kgfm
Locked rotor torque : 250 %
Breakdown torque : 380 %
Rated speed : 2960 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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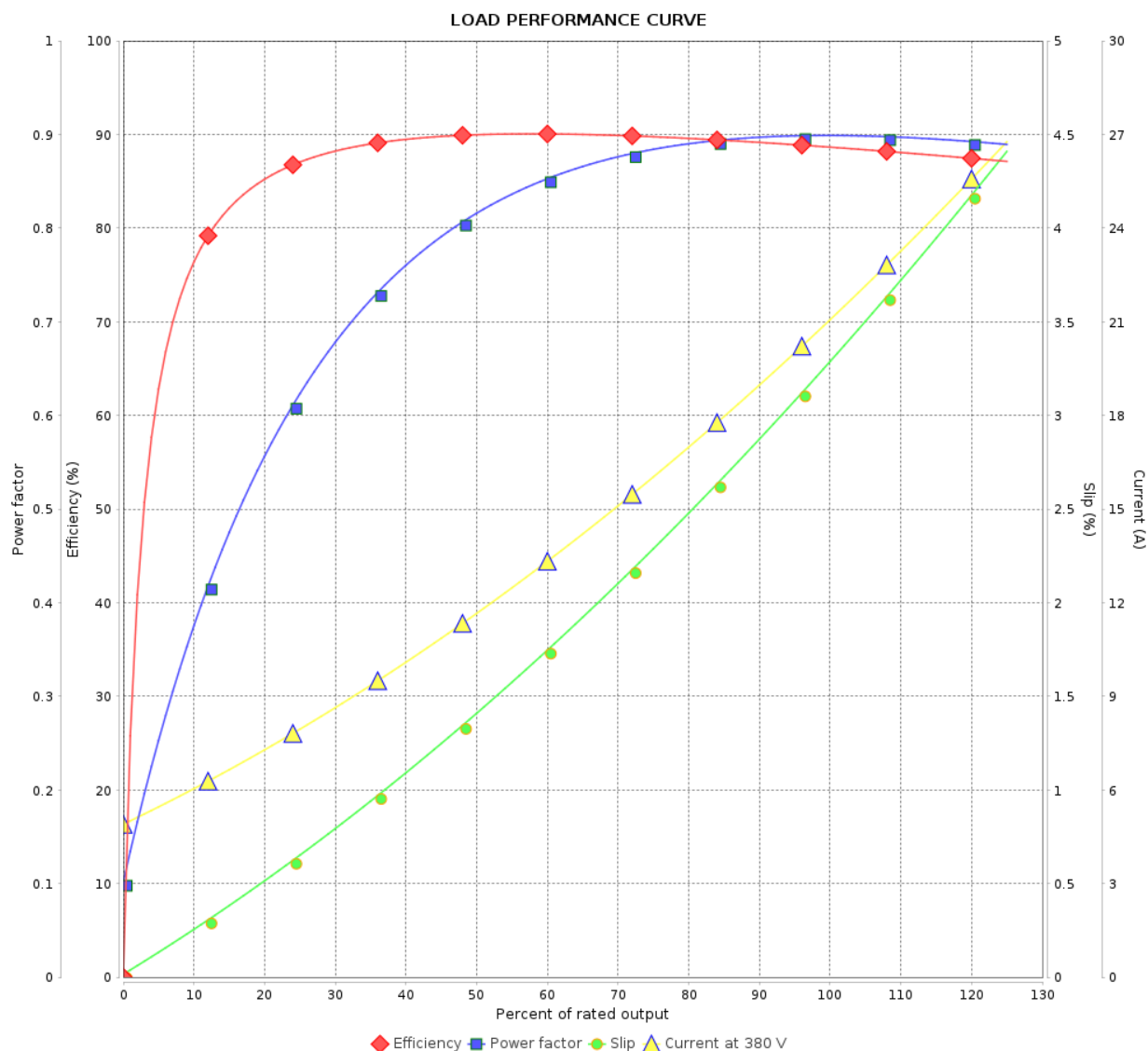
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447060



Performance : 380 V 50 Hz 2P IE1

Rated current : 21.0 A
LRC : 5.1
Rated torque : 3.75 kgfm
Locked rotor torque : 160 %
Breakdown torque : 200 %
Rated speed : 2900 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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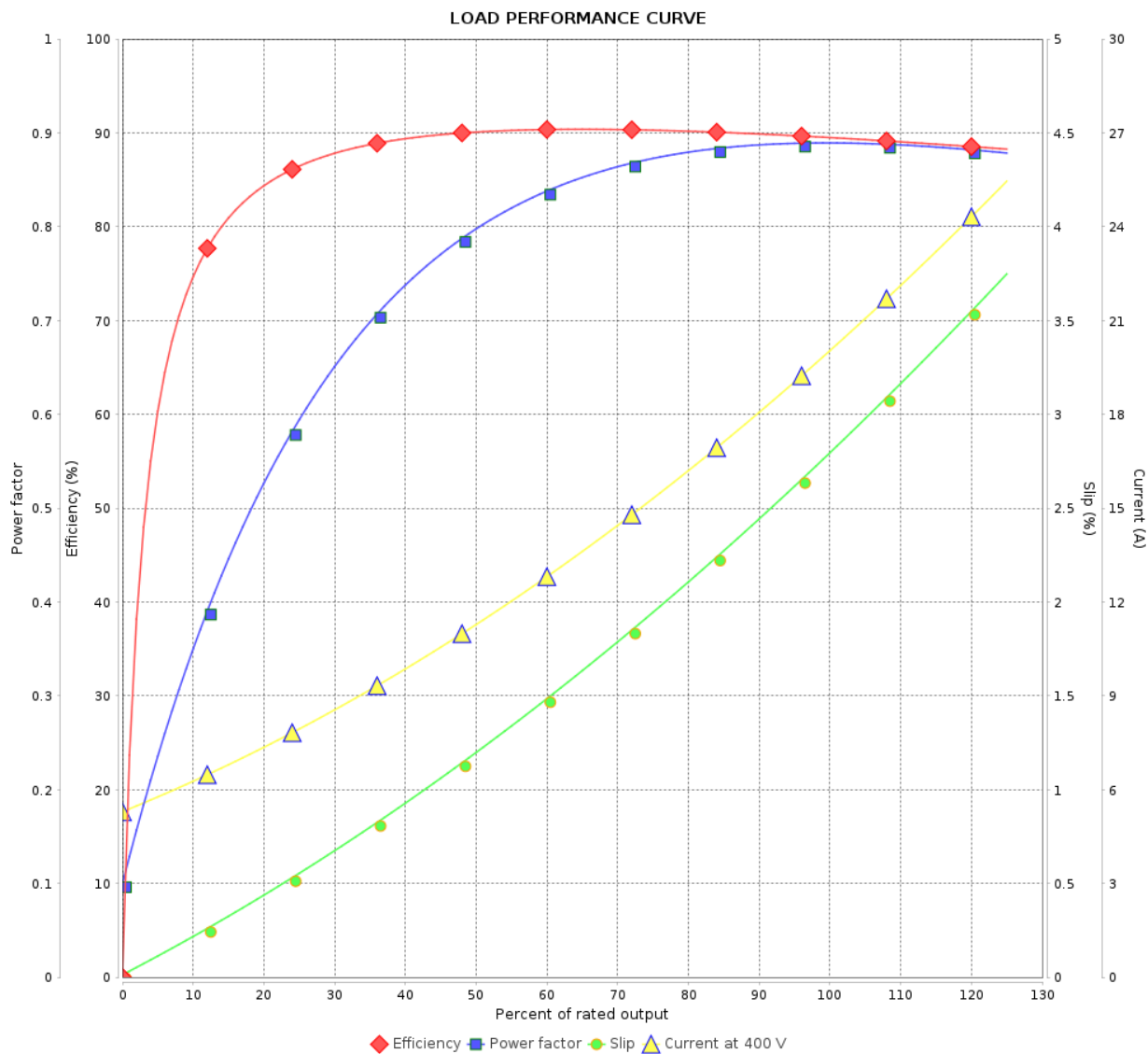
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447060



Performance : 400 V 50 Hz 2P IE2

Rated current : 19.9 A
LRC : 5.6
Rated torque : 3.73 kgfm
Locked rotor torque : 180 %
Breakdown torque : 229 %
Rated speed : 2915 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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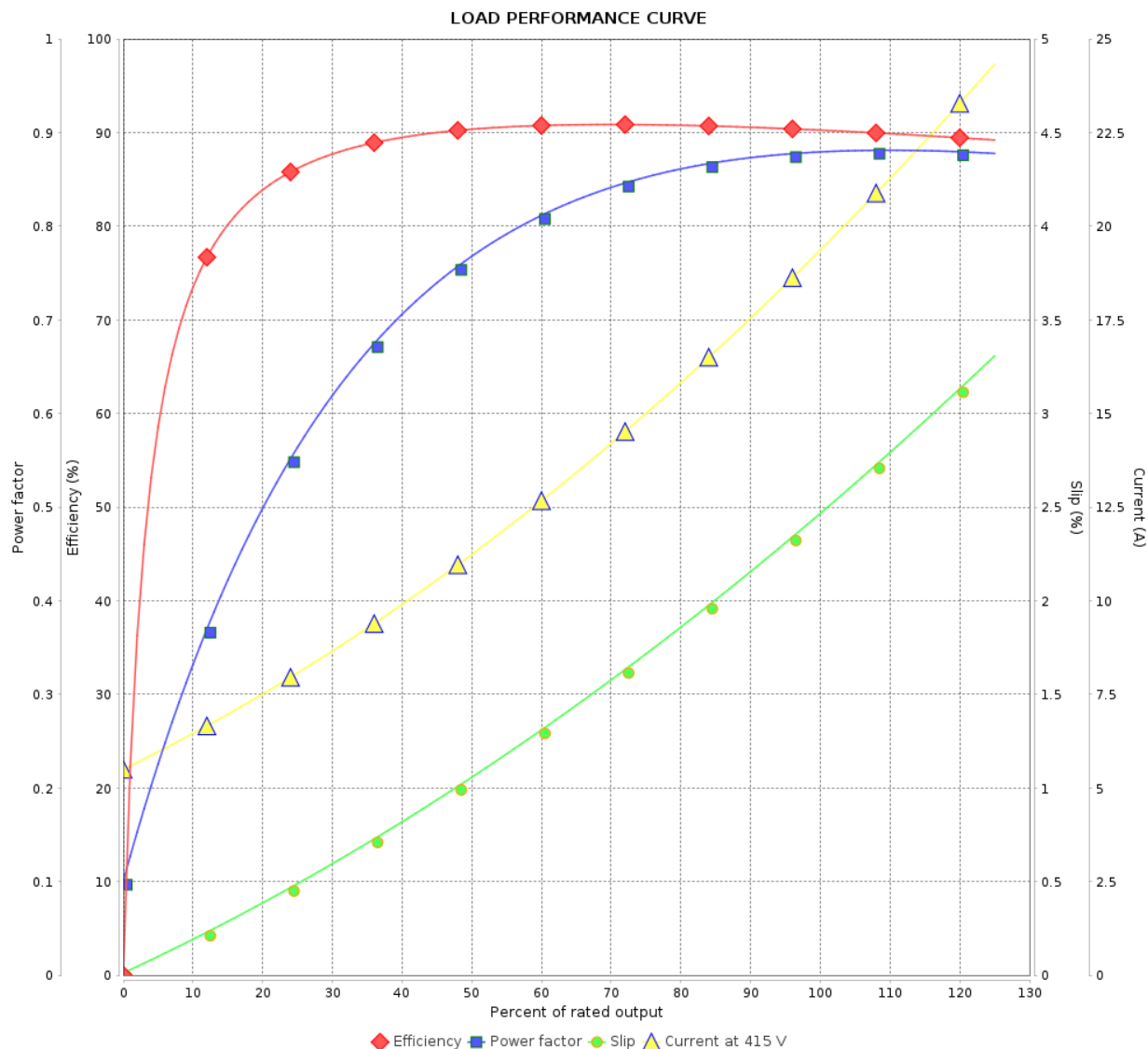
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12447060



Performance : 415 V 50 Hz 2P IE2

Rated current : 19.3 A
LRC : 6.1
Rated torque : 3.72 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 2925 rpm

Moment of inertia (J) : 0.0530 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

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