

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943462

| | | | |
|---------------------|------------------|-----------------------------|-------------------------|
| Frame | : 404/5T | 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 ² | : 0.0 kg |
| Protection degree | : IP55 | Moment of inertia (J) | : 1.69 kgm ² |
| Design | : B | | |

| | | | | | | | |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Output [HP] | 75 | 50 | 50 | 50 | 75 | 75 | 75 |
| Poles | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Frequency [Hz] | 60 | 50 | 50 | 50 | 50 | 50 | 50 |
| Rated voltage [V] | 460 | 380 | 400 | 415 | 380 | 400 | 415 |
| Rated current [A] | 84.9 | 70.9 | 69.0 | 68.1 | 104 | 98.1 | 95.7 |
| L. R. Amperes [A] | 543 | 510 | 545 | 579 | 510 | 540 | 574 |
| LRC [A] | 6.4x(Code G) | 7.2x(Code H) | 7.9x(Code J) | 8.5x(Code K) | 4.9x(Code D) | 5.5x(Code E) | 6.0x(Code F) |
| No load current [A] | 30.0 | 29.7 | 31.8 | 33.5 | 29.7 | 31.8 | 33.5 |
| Rated speed [RPM] | 1184 | 988 | 990 | 991 | 978 | 981 | 983 |
| Slip [%] | 1.33 | 1.20 | 1.00 | 0.90 | 2.20 | 1.90 | 1.70 |
| Rated torque [kgfm] | 46.0 | 36.7 | 36.7 | 36.6 | 55.7 | 55.5 | 55.4 |
| Locked rotor torque [%] | 200 | 229 | 260 | 290 | 150 | 170 | 190 |
| Breakdown torque [%] | 229 | 270 | 300 | 330 | 180 | 200 | 220 |
| Service factor | 1.25 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | 105 K | 105 K | 105 K |
| Locked rotor time | 30s (cold) 17s (hot) | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) |
| Noise level ² | 68.0 dB(A) | 64.0 dB(A) | 64.0 dB(A) | 64.0 dB(A) | 64.0 dB(A) | 64.0 dB(A) | 64.0 dB(A) |
| Efficiency (%) | 25% | | | | | | |
| | 50% | 94.1 | 90.6 | 91.1 | 91.0 | 91.8 | 92.4 |
| | 75% | 94.5 | 91.7 | 92.3 | 92.3 | 92.2 | 92.8 |
| | 100% | 94.5 | 93.3 | 93.3 | 93.3 | 92.4 | 93.0 |
| Power Factor | 25% | | | | | | |
| | 50% | 0.74 | 0.66 | 0.62 | 0.60 | 0.79 | 0.76 |
| | 75% | 0.83 | 0.79 | 0.75 | 0.74 | 0.86 | 0.84 |
| | 100% | 0.86 | 0.85 | 0.83 | 0.81 | 0.87 | 0.86 |

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

| | | | | | | | |
|------------|----------------|-----|-----|-----|-----|-----|-----|
| Losses (%) | P1 (0,9;1,0) | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 |
| | P2 (0,5;1,0) | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |
| | P3 (0,25;1,0) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| | P4 (0,9;0,5) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| | P5 (0,5;0,5) | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| | P6 (0,5;0,25) | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| | P7 (0,25;0,25) | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |

| | | | | | |
|----------------------|--------------------|---------------|-----------|------------------|------------|
| Bearing type | : 6316 C3 | Non drive end | 6314 C3 | Foundation loads | |
| Sealing | : Taconite | | Taconite | Max. traction | : 1200 kgf |
| | : Labyrinth | | Labyrinth | Max. compression | : 1200 kgf |
| Lubrication interval | : 16000 h | | 17000 h | | |
| Lubricant amount | : 34 g | | 27 g | | |
| Lubricant type | : Mobil Polyrex EM | | | | |

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Customer :

Notes

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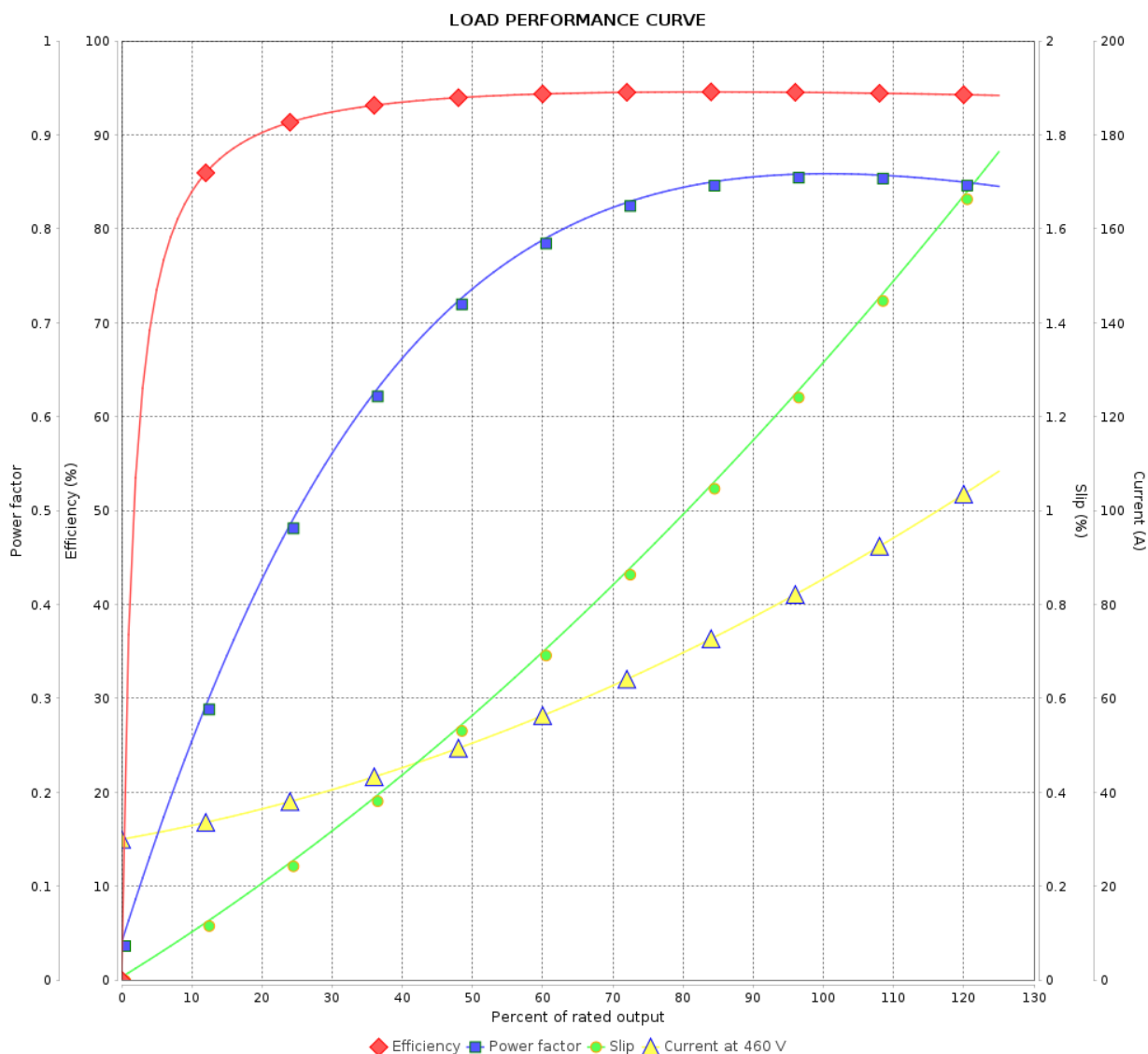
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 11943462



Performance : 460 V 60 Hz 6P

Rated current : 84.9 A
LRC : 6.4
Rated torque : 46.0 kgfm
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1184 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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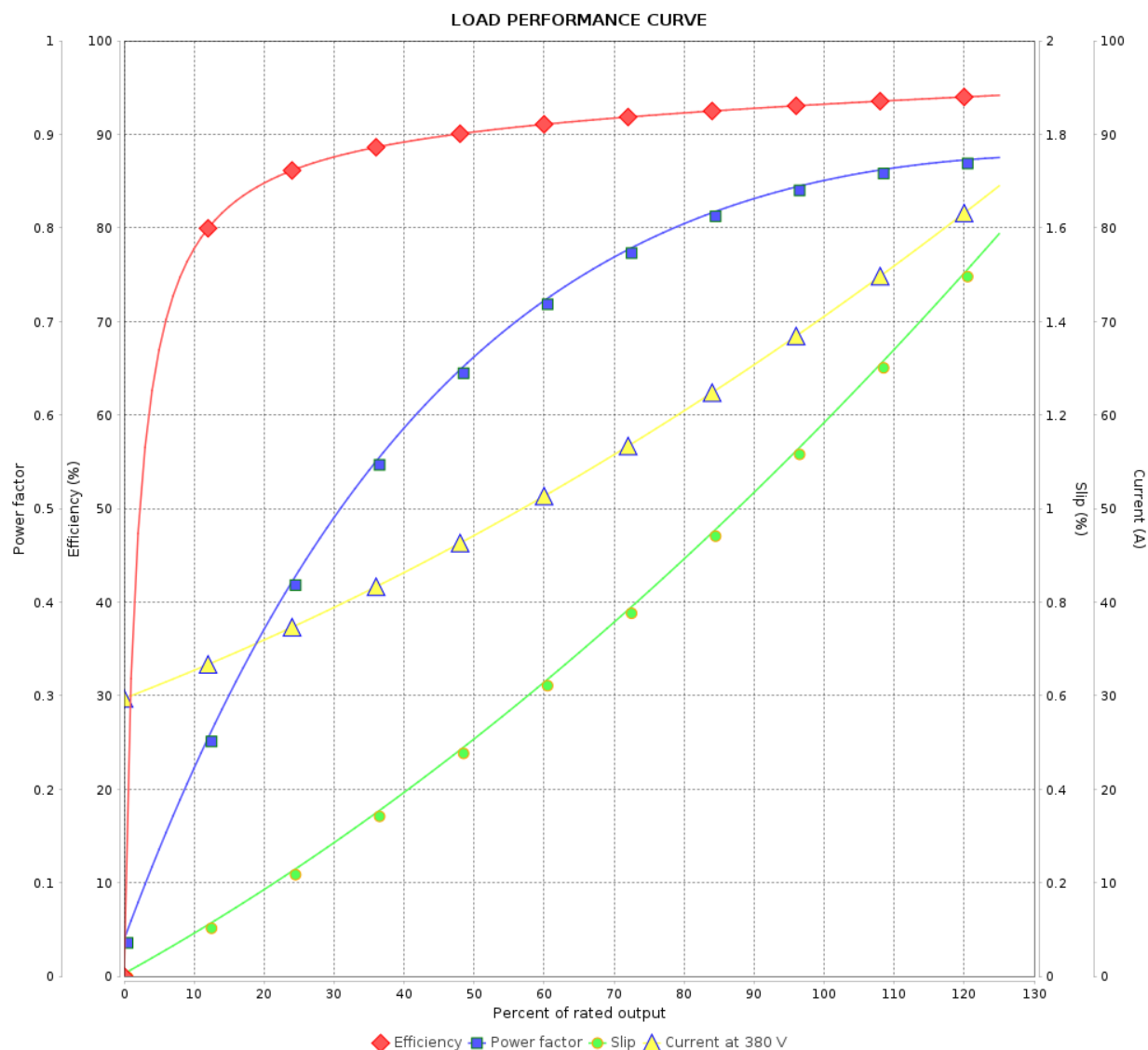
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 11943462



Performance : 380 V 50 Hz 6P IE3

Rated current : 70.9 A
LRC : 7.2
Rated torque : 36.7 kgfm
Locked rotor torque : 229 %
Breakdown torque : 270 %
Rated speed : 988 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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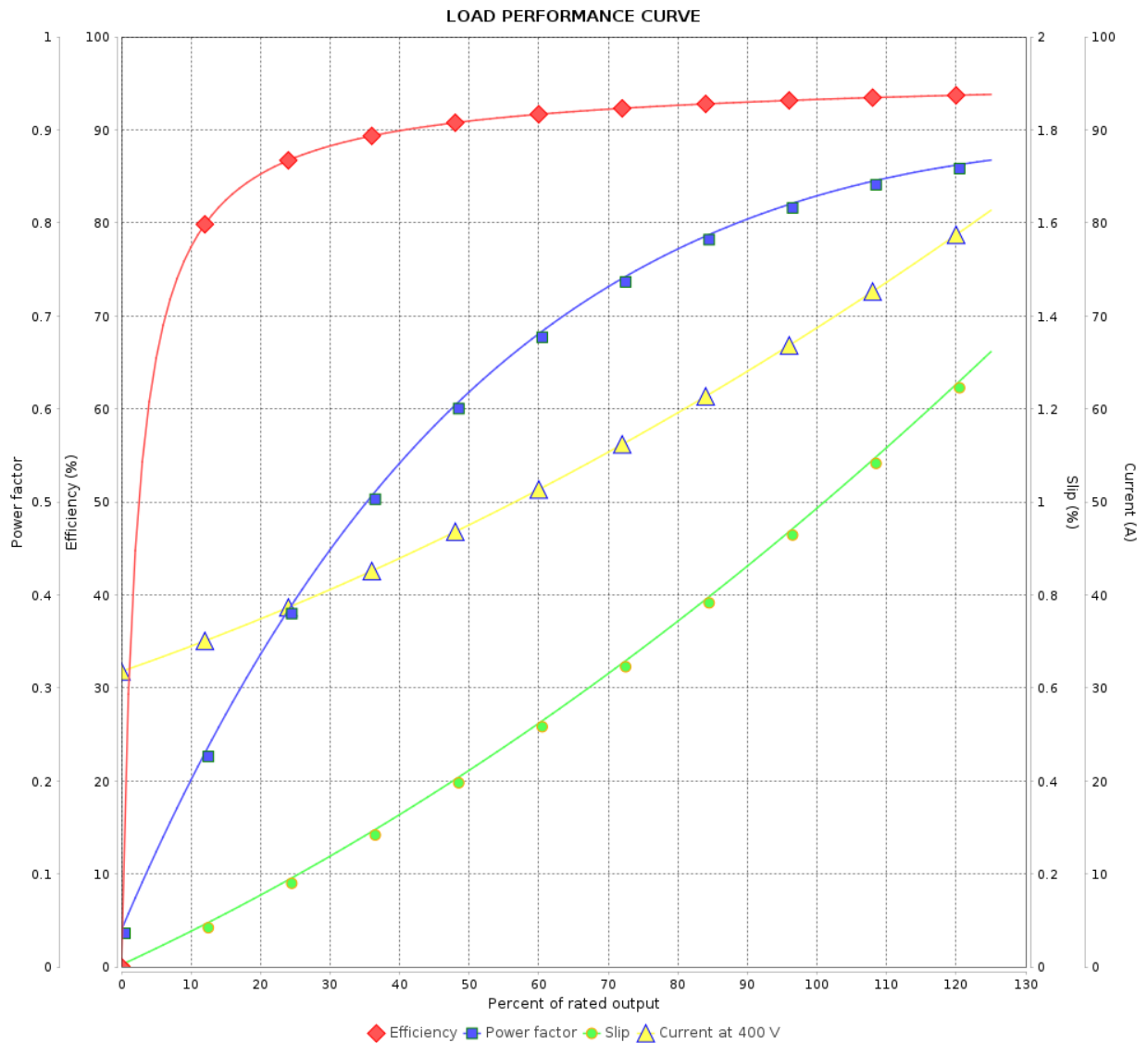
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 11943462



Performance : 400 V 50 Hz 6P IE3

Rated current : 69.0 A
LRC : 7.9
Rated torque : 36.7 kgfm
Locked rotor torque : 260 %
Breakdown torque : 300 %
Rated speed : 990 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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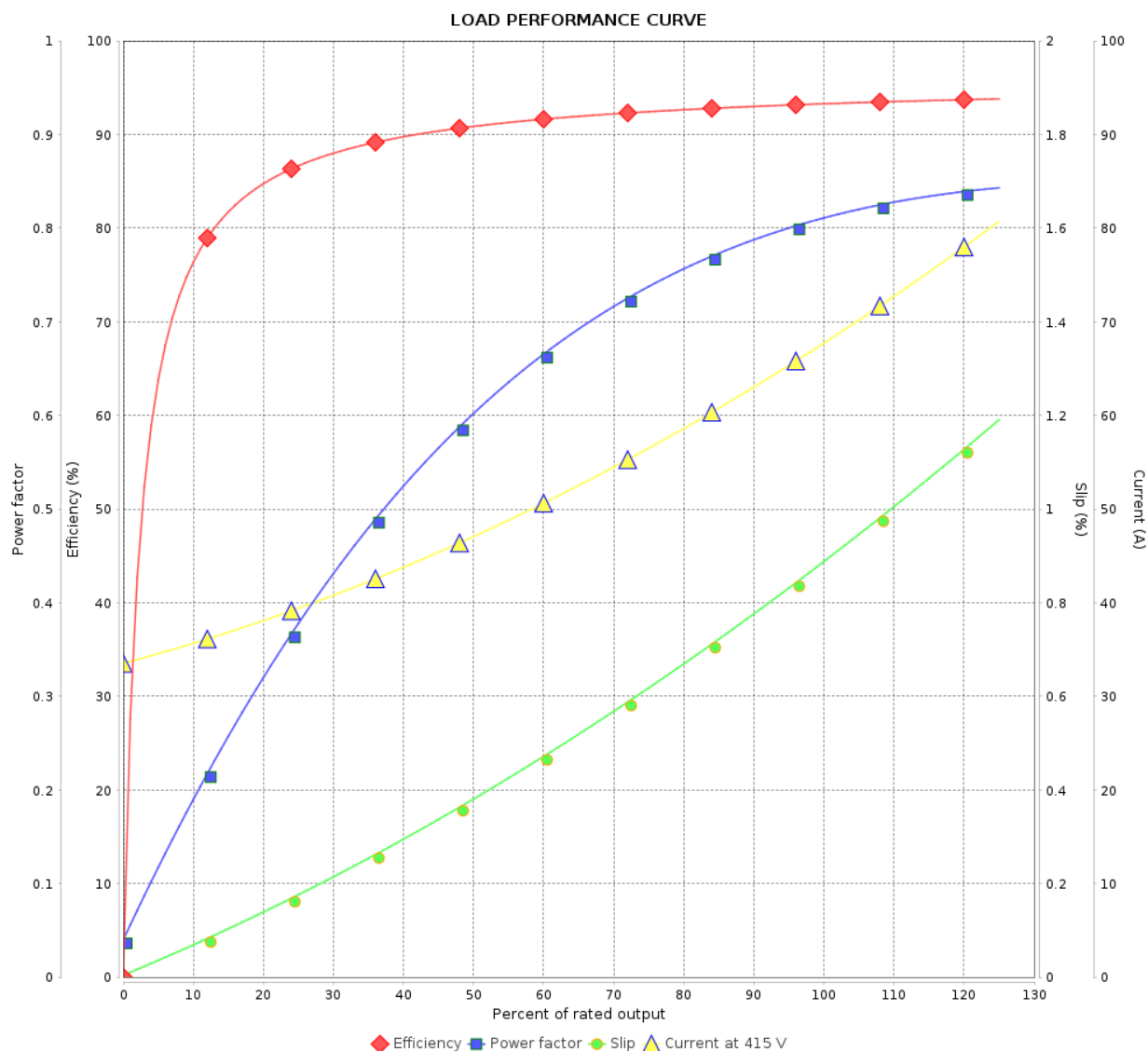
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11943462



Performance : 415 V 50 Hz 6P IE3

| | | | |
|---------------------|-------------|-----------------------|-------------------------|
| Rated current | : 68.1 A | Moment of inertia (J) | : 1.69 kgm ² |
| LRC | : 8.5 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.6 kgfm | Insulation class | : F |
| Locked rotor torque | : 290 % | Service factor | : 1.00 |
| Breakdown torque | : 330 % | Temperature rise | : 80 K |
| Rated speed | : 991 rpm | Design | : B |

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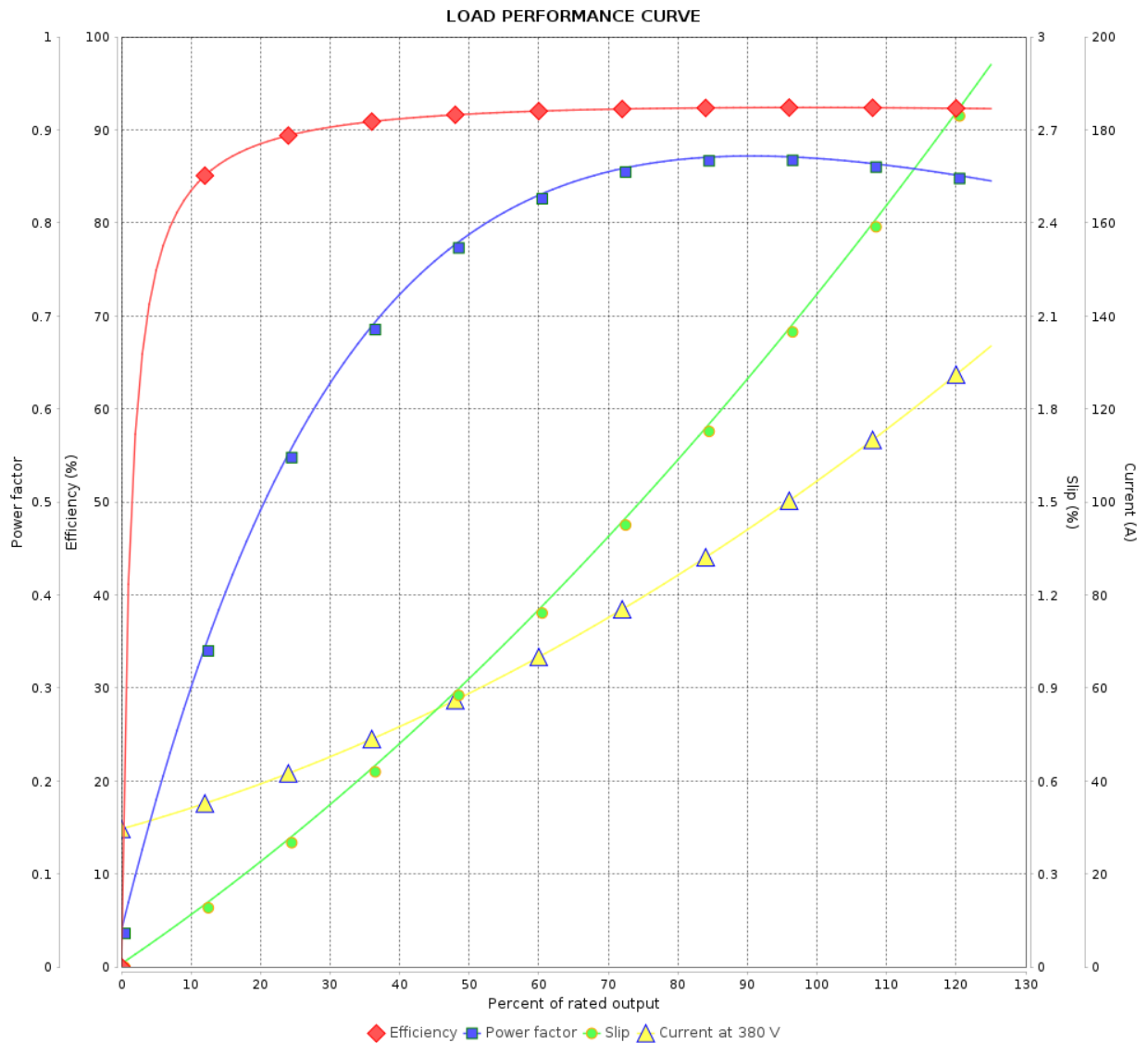
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 11943462



Performance : 380 V 50 Hz 6P IE1

Rated current : 104 A
LRC : 4.9
Rated torque : 55.7 kgfm
Locked rotor torque : 150 %
Breakdown torque : 180 %
Rated speed : 978 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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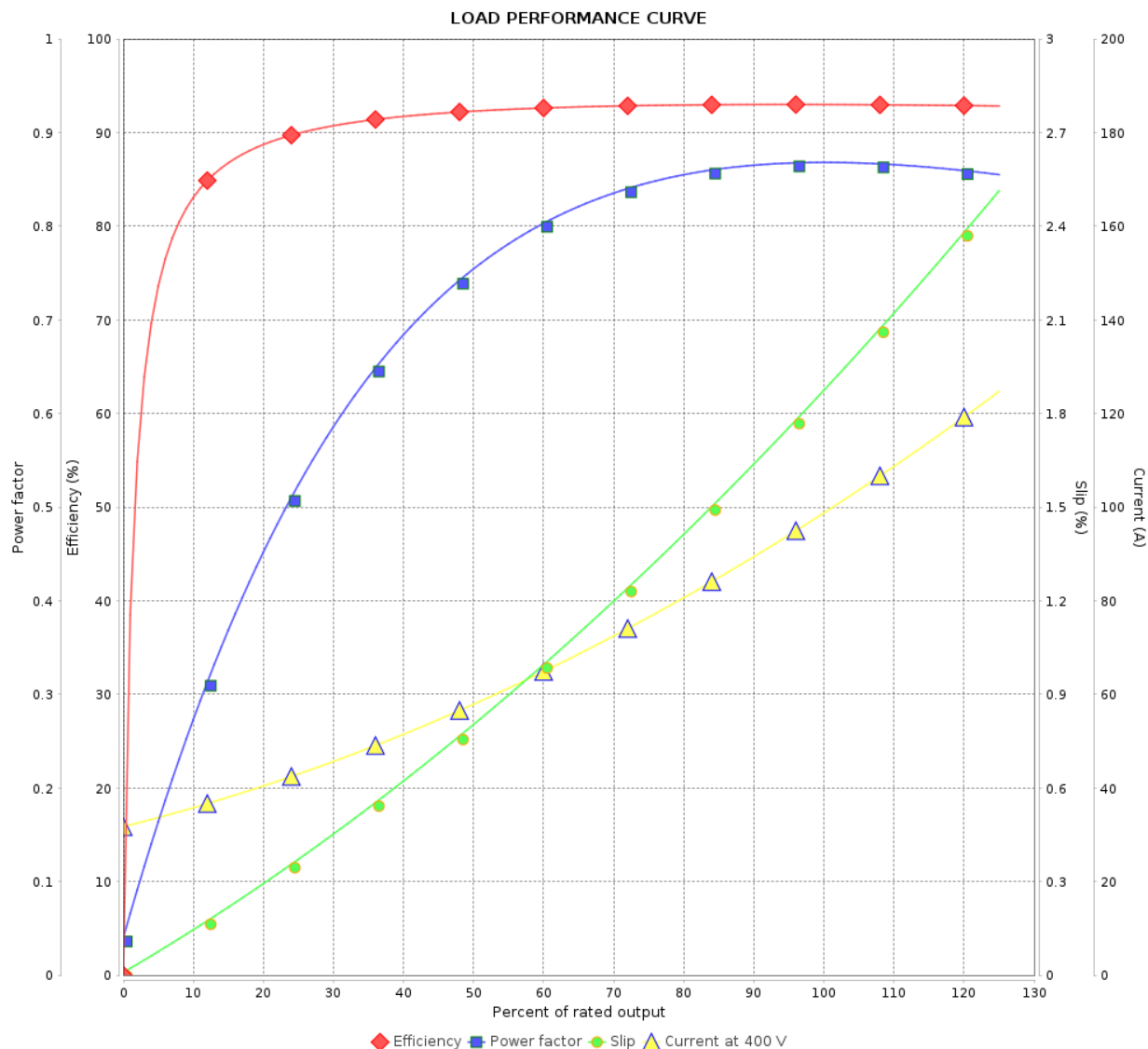
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 11943462



Performance : 400 V 50 Hz 6P IE1

Rated current : 98.1 A
LRC : 5.5
Rated torque : 55.5 kgfm
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 981 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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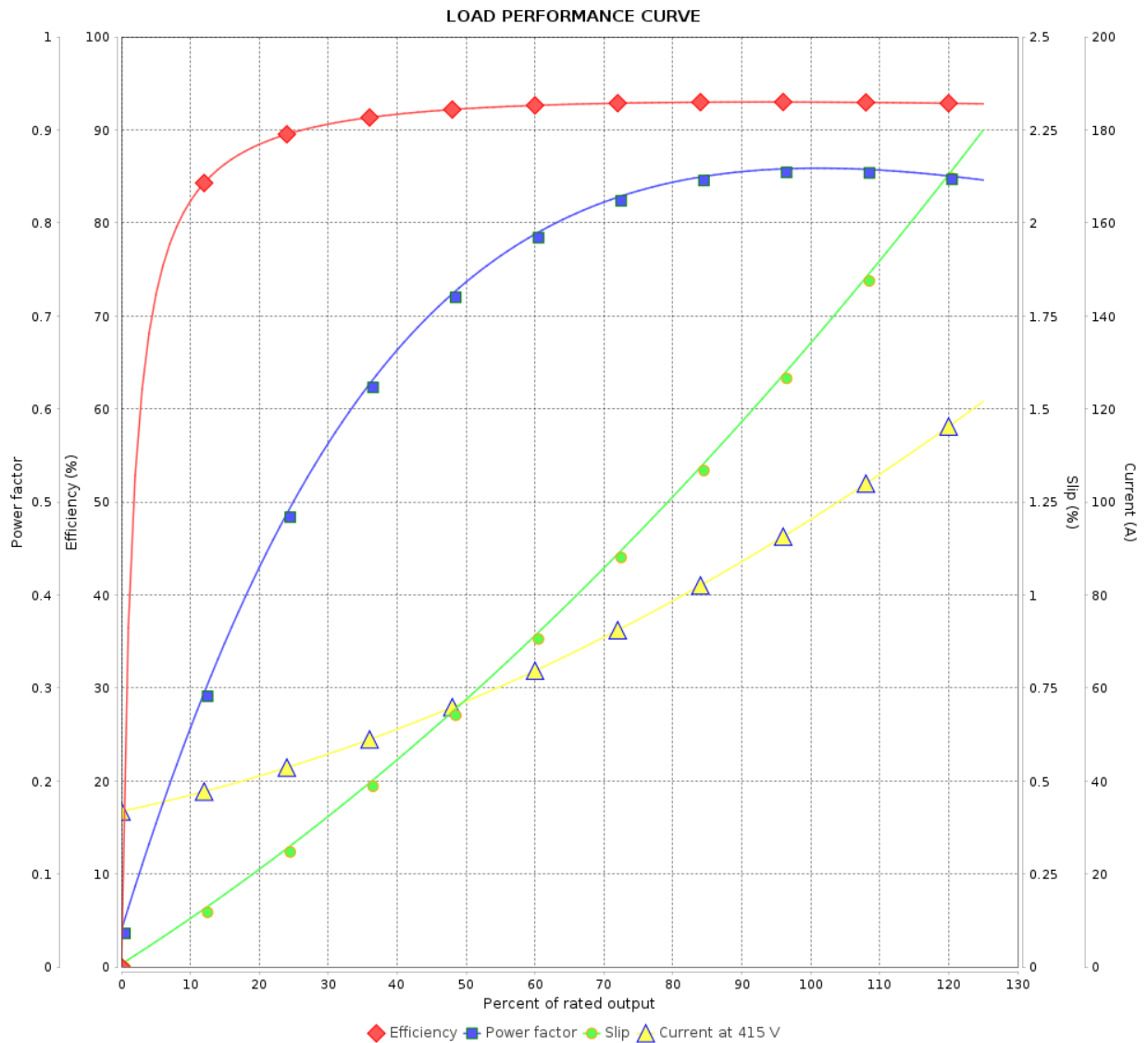
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 11943462



Performance : 415 V 50 Hz 6P IE1

Rated current : 95.7 A
LRC : 6.0
Rated torque : 55.4 kgfm
Locked rotor torque : 190 %
Breakdown torque : 220 %
Rated speed : 983 rpm

Moment of inertia (J) : 1.69 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

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