

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase Product code : 11997391

| | |
|--------------------------------------|---|
| Frame : 324TC | Cooling method : IC01 - ODP |
| 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 : 218 kg |
| Protection degree : IP23 | Moment of inertia (J) : 0.2551 kgm ² |
| Design : B | |

| | | | | | | | |
|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Output [HP] | 40 | 30 | 30 | 30 | 40 | 40 | 40 |
| 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] | 96.4/48.2 | 42.8 | 41.6 | 41.1 | 58.1 | 55.8 | 54.4 |
| L. R. Amperes [A] | 598/299 | 270 | 291 | 312 | 279 | 301 | 321 |
| LRC [A] | 6.2x(Code G) | 6.3x(Code G) | 7.0x(Code H) | 7.6x(Code J) | 4.8x(Code E) | 5.4x(Code F) | 5.9x(Code G) |
| No load current [A] | 37.0/18.5 | 15.4 | 16.8 | 18.1 | 15.4 | 16.8 | 18.1 |
| Rated speed [RPM] | 1775 | 1475 | 1475 | 1480 | 1465 | 1470 | 1475 |
| Slip [%] | 1.39 | 1.67 | 1.67 | 1.33 | 2.33 | 2.00 | 1.67 |
| Rated torque [kgfm] | 16.4 | 14.8 | 14.8 | 14.7 | 19.8 | 19.7 | 19.7 |
| Locked rotor torque [%] | 220 | 240 | 270 | 290 | 180 | 200 | 220 |
| Breakdown torque [%] | 229 | 340 | 370 | 400 | 250 | 280 | 300 |
| Service factor | 1.15 | 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 | 50s (cold) 28s (hot) | 36s (cold) 20s (hot) | 32s (cold) 18s (hot) | 30s (cold) 17s (hot) | 36s (cold) 20s (hot) | 32s (cold) 18s (hot) | 30s (cold) 17s (hot) |
| Noise level ² | 64.0 dB(A) | | | | | | |
| Efficiency (%) | 25% | | | | | | |
| | 50% | 93.6 | 90.1 | 89.9 | 89.8 | 91.7 | 91.7 |
| | 75% | 94.1 | 91.7 | 91.7 | 92.0 | 91.7 | 91.7 |
| | 100% | 94.1 | 93.0 | 93.0 | 93.0 | 92.3 | 92.3 |
| Power Factor | 25% | | | | | | |
| | 50% | 0.68 | 0.70 | 0.66 | 0.63 | 0.77 | 0.74 |
| | 75% | 0.78 | 0.80 | 0.77 | 0.74 | 0.84 | 0.82 |
| | 100% | 0.83 | 0.84 | 0.82 | 0.80 | 0.85 | 0.84 |

| | | | |
|------------------------|------------------|----------------------|----------------------------|
| | <u>Drive end</u> | <u>Non drive end</u> | Foundation loads |
| Bearing type : | 6312 Z C3 | 6212 Z C3 | Max. traction : 634 kgf |
| Sealing : | Without | Without | Max. compression : 852 kgf |
| | Bearing Seal | Bearing Seal | |
| Lubrication interval : | 20000 h | 20000 h | |
| Lubricant amount : | 21 g | 13 g | |
| Lubricant type : | Mobil Polyrex EM | | |

Notes
USABLE @208V 107A SF 1.15 SFA 123A

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.

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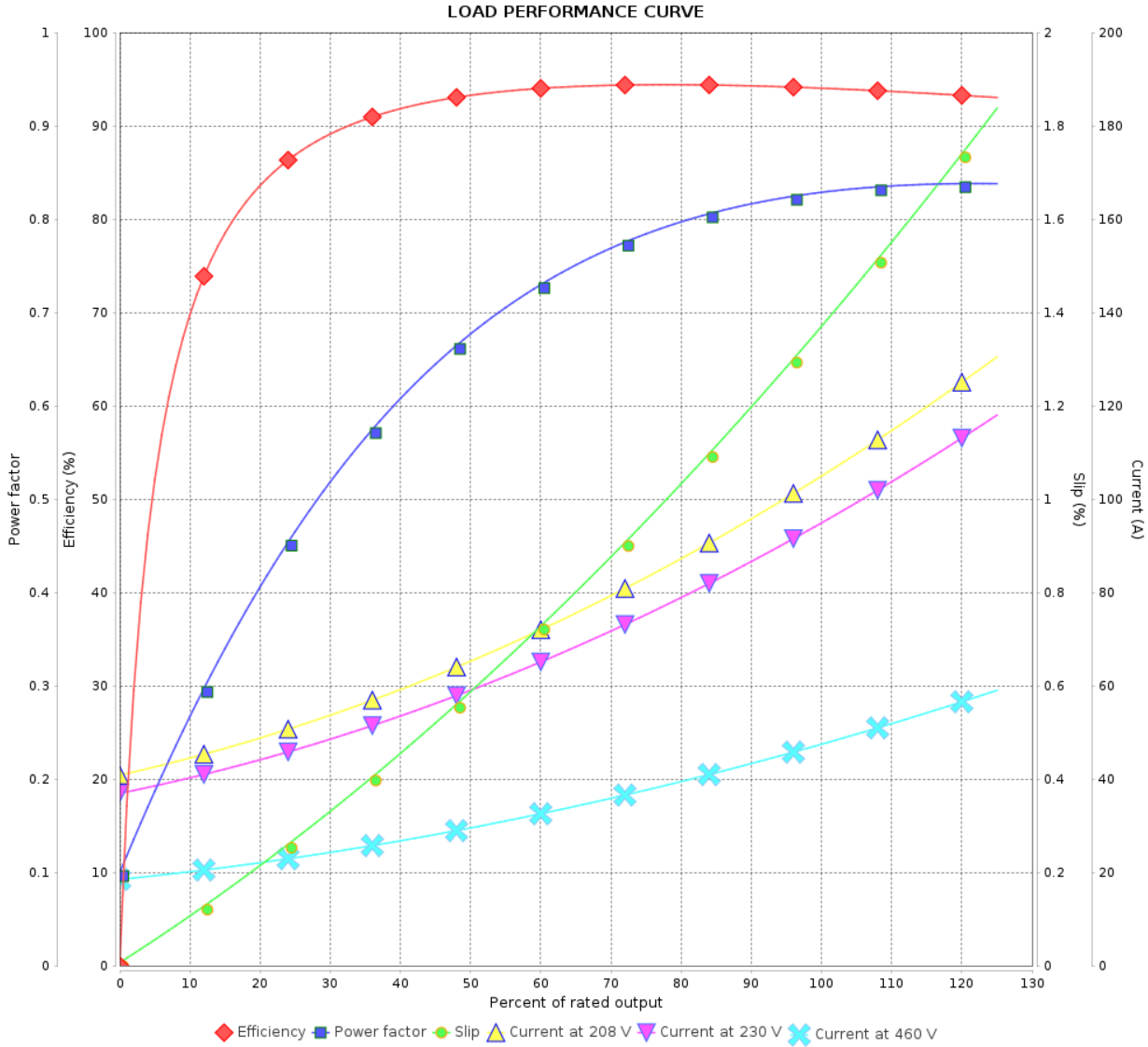
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase Product code : 11997391



Performance : 230/460 V 60 Hz 4P

Rated current : 96.4/48.2 A
 LRC : 6.2
 Rated torque : 16.4 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 229 %
 Rated speed : 1775 rpm

Moment of inertia (J) : 0.2551 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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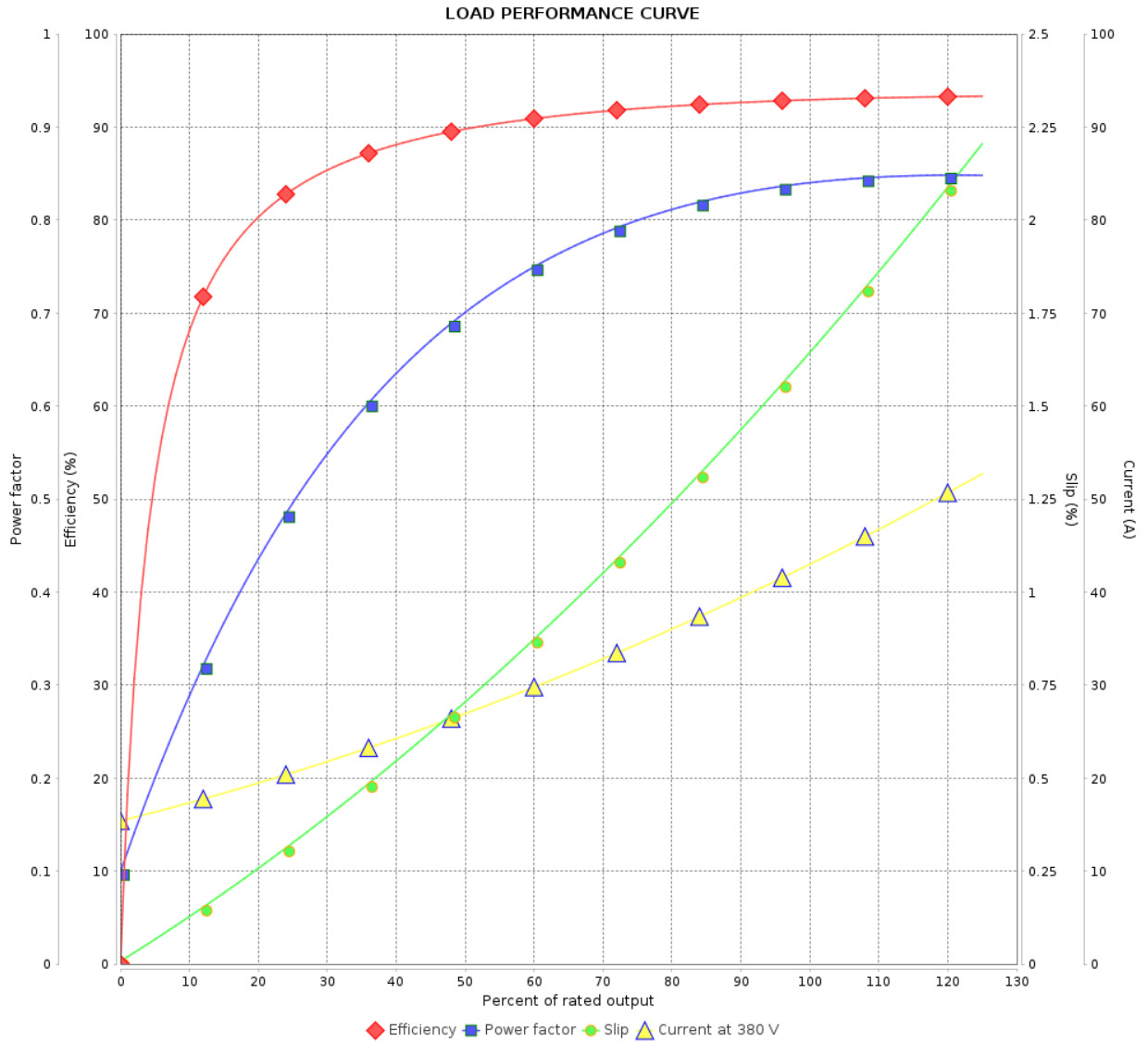
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase Product code : 11997391



Performance : 380 V 50 Hz 4P IE3

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 42.8 A | Moment of inertia (J) | : 0.2551 kgm ² |
| LRC | : 6.3 | Duty cycle | : Cont.(S1) |
| Rated torque | : 14.8 kgfm | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.15 |
| Breakdown torque | : 340 % | Temperature rise | : 80 K |
| Rated speed | : 1475 rpm | Design | : B |

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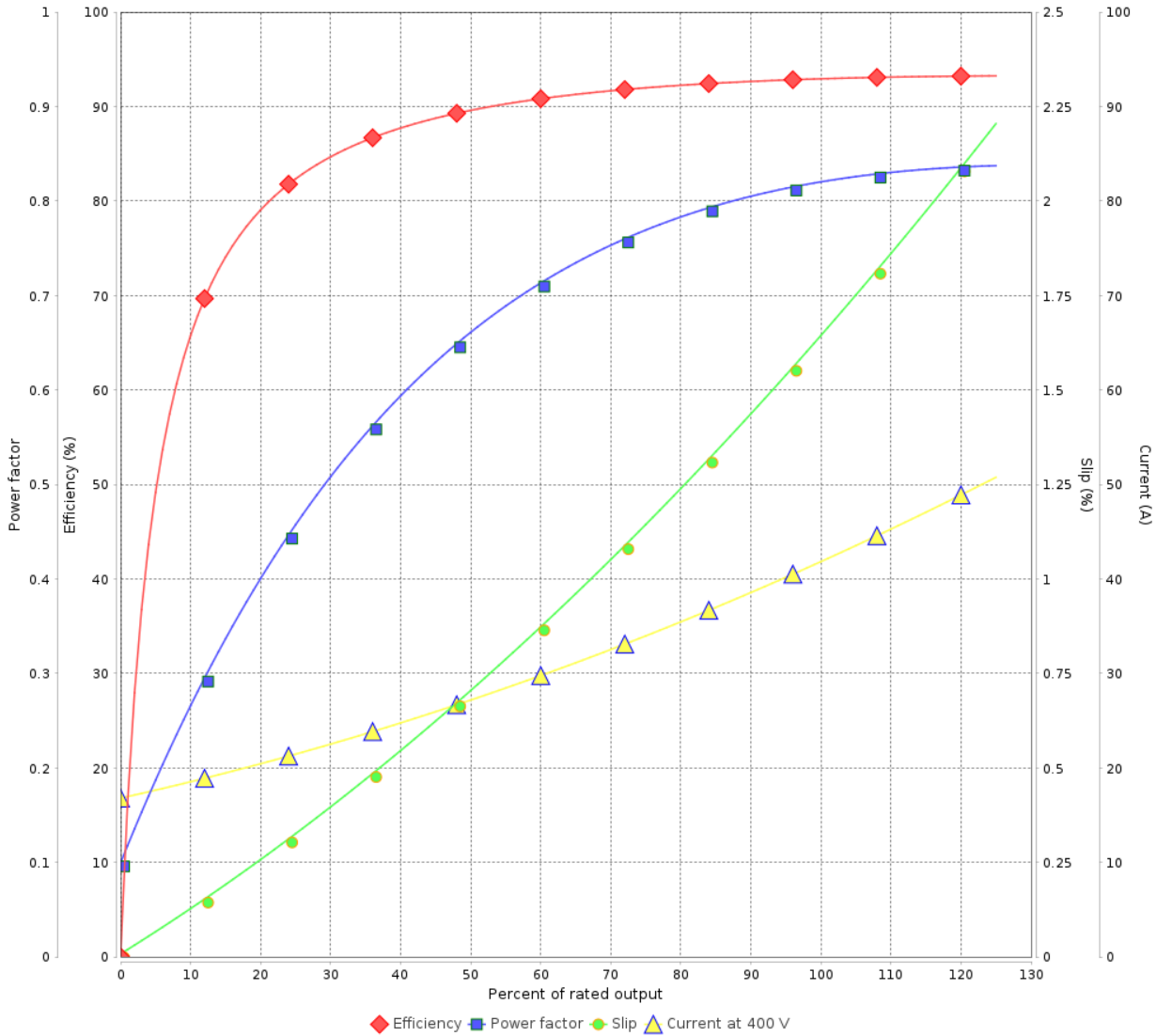
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase Product code : 11997391

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Performance : 400 V 50 Hz 4P IE3

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 41.6 A | Moment of inertia (J) | : 0.2551 kgm ² |
| LRC | : 7.0 | Duty cycle | : Cont.(S1) |
| Rated torque | : 14.8 kgfm | Insulation class | : F |
| Locked rotor torque | : 270 % | Service factor | : 1.15 |
| Breakdown torque | : 370 % | Temperature rise | : 80 K |
| Rated speed | : 1475 rpm | Design | : B |

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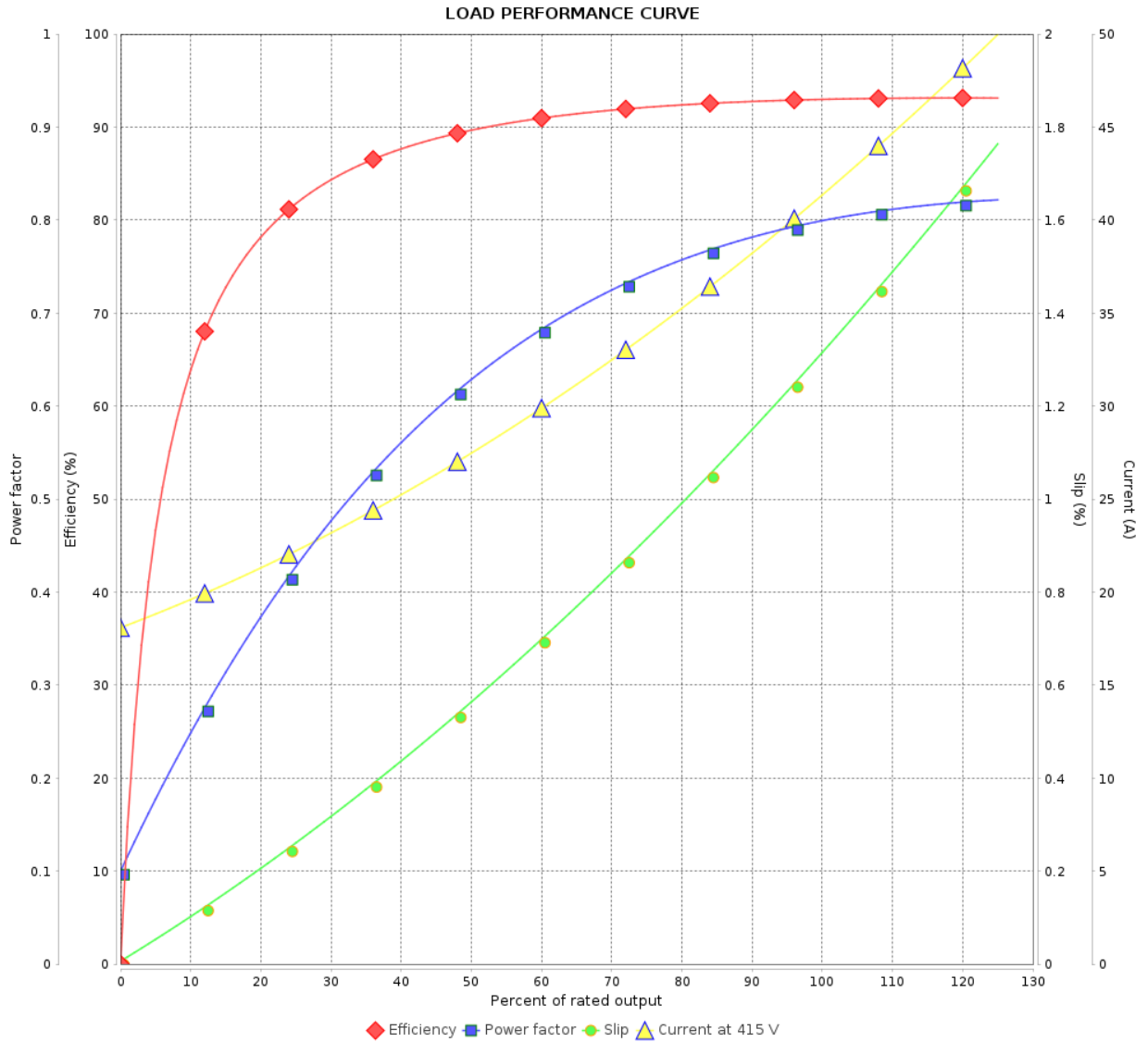
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency
Three-Phase

Product code : 11997391



Performance : 415 V 50 Hz 4P IE3

Rated current : 41.1 A
 LRC : 7.6
 Rated torque : 14.7 kgfm
 Locked rotor torque : 290 %
 Breakdown torque : 400 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 0.2551 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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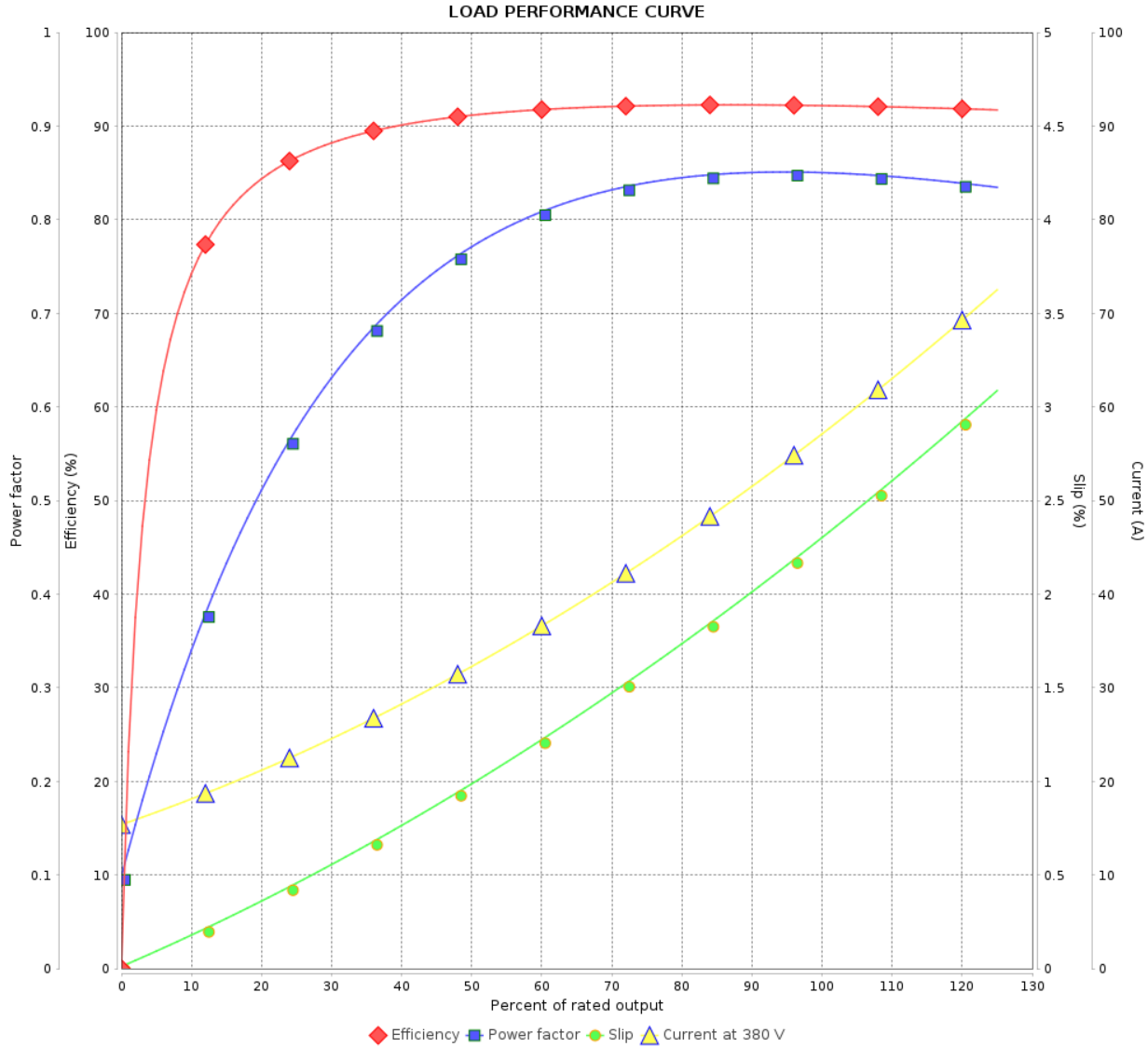
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Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 380 V 50 Hz 4P IE2

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 58.1 A | Moment of inertia (J) | : 0.2551 kgm ² |
| LRC | : 4.8 | Duty cycle | : Cont.(S1) |
| Rated torque | : 19.8 kgfm | Insulation class | : F |
| Locked rotor torque | : 180 % | Service factor | : 1.15 |
| Breakdown torque | : 250 % | Temperature rise | : 80 K |
| Rated speed | : 1465 rpm | Design | : B |

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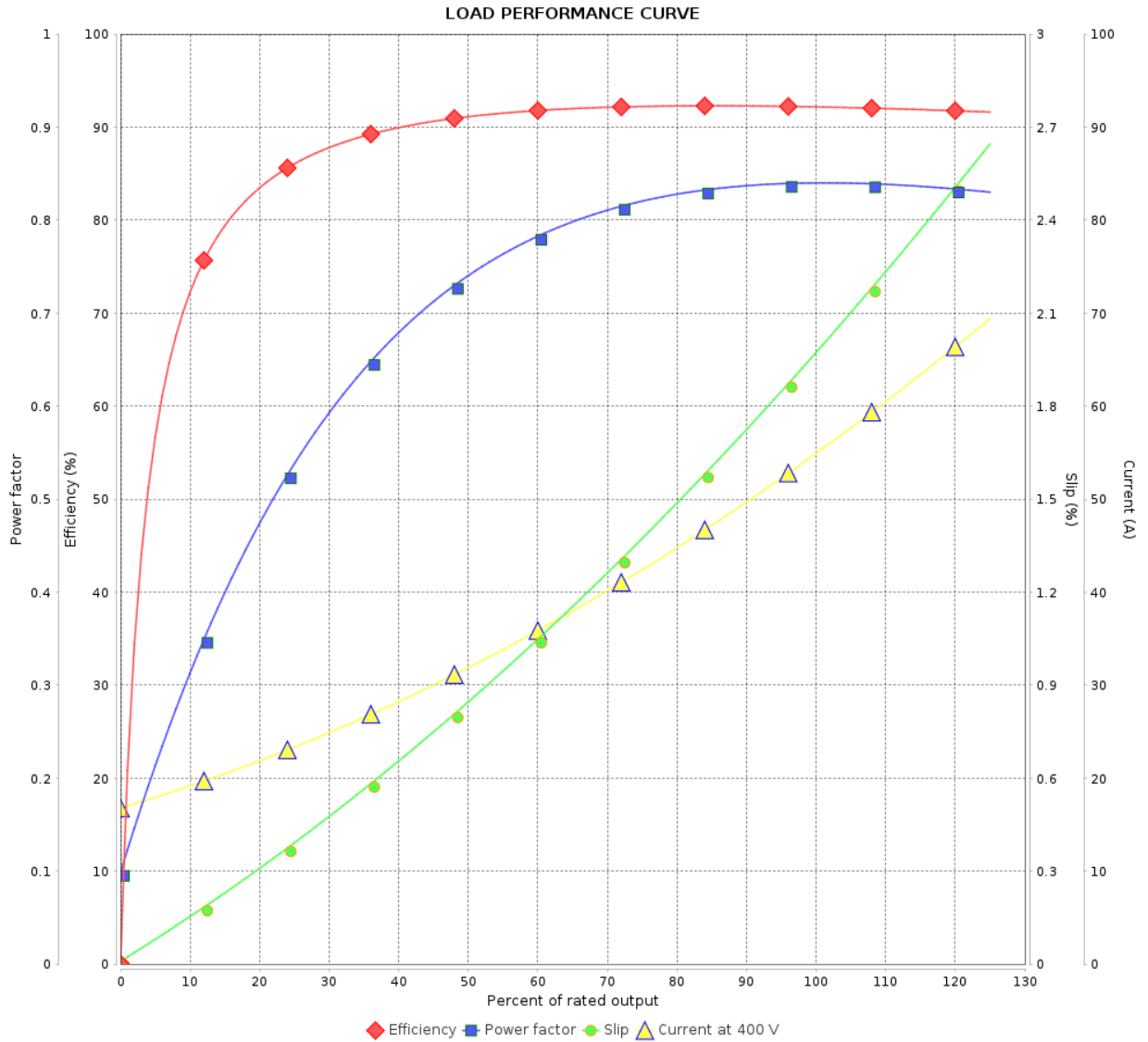
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : ODP NEMA Premium Efficiency
Three-Phase

Product code : 11997391



Performance : 400 V 50 Hz 4P IE2

Rated current : 55.8 A
 LRC : 5.4
 Rated torque : 19.7 kgfm
 Locked rotor torque : 200 %
 Breakdown torque : 280 %
 Rated speed : 1470 rpm

Moment of inertia (J) : 0.2551 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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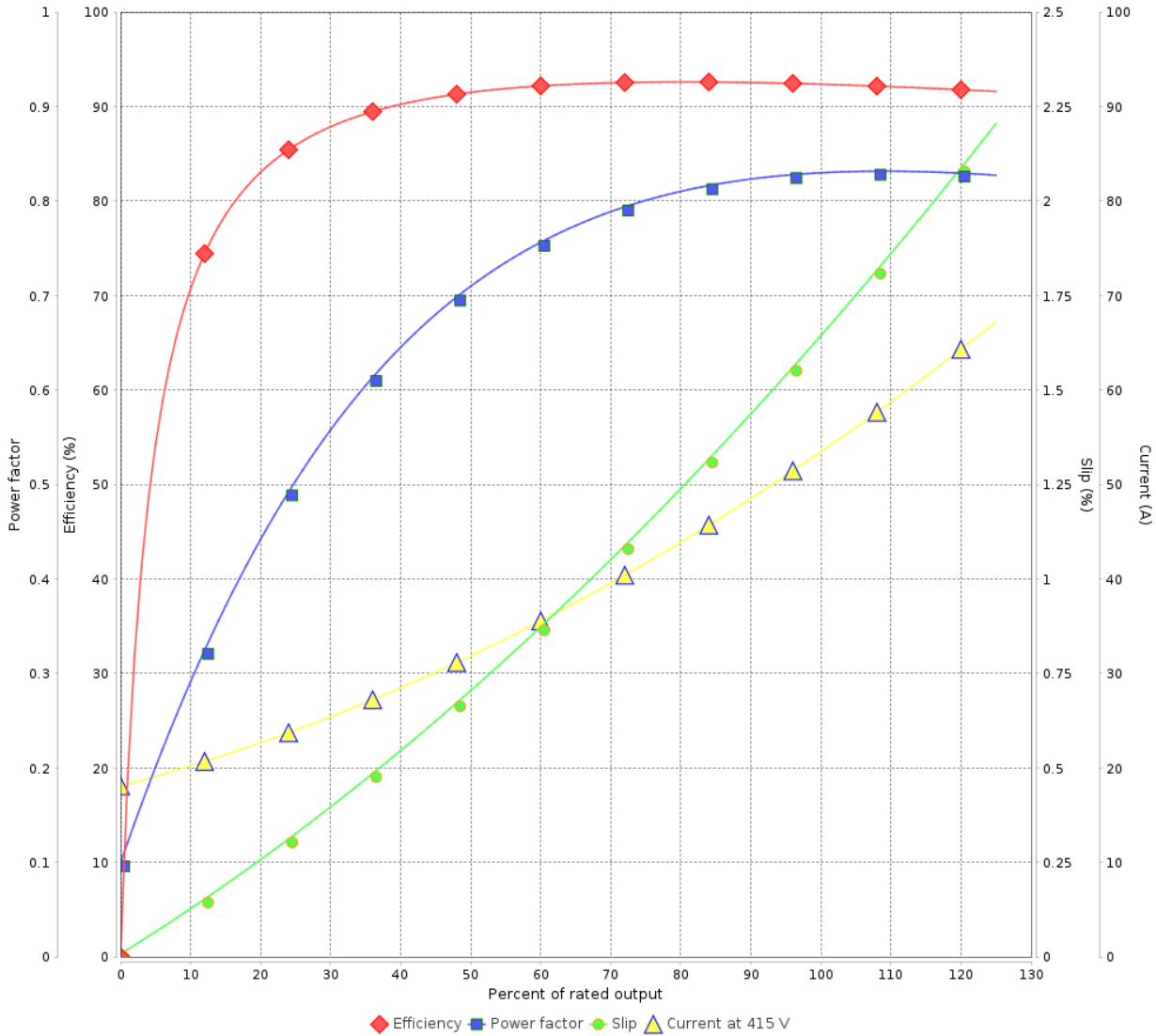
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Performance : 415 V 50 Hz 4P IE2

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 54.4 A | Moment of inertia (J) | : 0.2551 kgm ² |
| LRC | : 5.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 19.7 kgfm | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.15 |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 1475 rpm | Design | : B |

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