

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|---|---|-----------------------------|--|----------------------|----------|
| Customer : | | | | | |
| Product line | : W22 NEMA Premium Efficiency Three-Phase | Product code : | 11456700 | | |
| Frame | : 213/5TC | 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 | : 78.1 kg | | |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.0620 kgm ² | | |
| Design | : B | | | | |
| Output [HP] | 5 | 5 | 5 | 5 | |
| Poles | 6 | 6 | 6 | 6 | |
| Frequency [Hz] | 60 | 50 | 50 | 50 | |
| Rated voltage [V] | 230/460 | 380 | 400 | 415 | |
| Rated current [A] | 13.7/6.83 | 8.20 | 7.82 | 7.65 | |
| L. R. Amperes [A] | 92.9/46.4 | 45.1 | 47.7 | 49.7 | |
| LRC [A] | 6.8x(Code J) | 5.5x(Code G) | 6.1x(Code H) | 6.5x(Code J) | |
| No load current [A] | 6.90/3.45 | 3.41 | 3.68 | 3.90 | |
| Rated speed [RPM] | 1170 | 960 | 965 | 970 | |
| Slip [%] | 2.50 | 4.00 | 3.50 | 3.00 | |
| Rated torque [kgfm] | 3.10 | 3.78 | 3.76 | 3.74 | |
| Locked rotor torque [%] | 170 | 150 | 160 | 190 | |
| Breakdown torque [%] | 260 | 215 | 220 | 250 | |
| Service factor | 1.25 | 1.00 | 1.00 | 1.00 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | |
| Locked rotor time | 102s (cold) 57s (hot) | 54s (cold) 30s (hot) | 54s (cold) 30s (hot) | 54s (cold) 30s (hot) | |
| Noise level ² | 55.0 dB(A) | 53.0 dB(A) | 53.0 dB(A) | 53.0 dB(A) | |
| Efficiency (%) | 25% | | | | |
| | 50% | 88.5 | 88.5 | 88.5 | |
| | 75% | 89.5 | 88.5 | 88.5 | |
| | 100% | 89.5 | 86.8 | 87.5 | |
| Power Factor | 25% | | | | |
| | 50% | 0.58 | 0.65 | 0.61 | |
| | 75% | 0.70 | 0.75 | 0.73 | |
| | 100% | 0.76 | 0.79 | 0.78 | |
| Losses at normative operating points (speed;torque), in percentage of rated output power | | | | | |
| Losses (%) | P1 (0,9;1,0) | 11.1 | 14.4 | 13.5 | 12.3 |
| | P2 (0,5;1,0) | 9.1 | 11.8 | 11.1 | 10.1 |
| | P3 (0,25;1,0) | 8.8 | 11.4 | 10.8 | 9.8 |
| | P4 (0,9;0,5) | 5.8 | 7.5 | 7.1 | 6.4 |
| | P5 (0,5;0,5) | 4.0 | 5.2 | 4.9 | 4.5 |
| | P6 (0,5;0,25) | 2.9 | 3.7 | 3.5 | 3.2 |
| | P7 (0,25;0,25) | 2.1 | 2.7 | 2.6 | 2.3 |
| Bearing type | : Drive end : 6308 ZZ | Non drive end : 6207 ZZ | Foundation loads | | |
| Sealing | : V'Ring | V'Ring | Max. traction | : 134 kgf | |
| Lubrication interval | : - | - | Max. compression | : 212 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. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process. | | | 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 |
| Performed by | | | | | |
| Checked by | | | | Page | Revision |
| Date | 19/05/2024 | | | 1 / 6 | |

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes
USABLE @208V 15.1A SF 1.15 SFA 17.4A

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 19/05/2024 | | 2 / 6 | |

LOAD PERFORMANCE CURVE

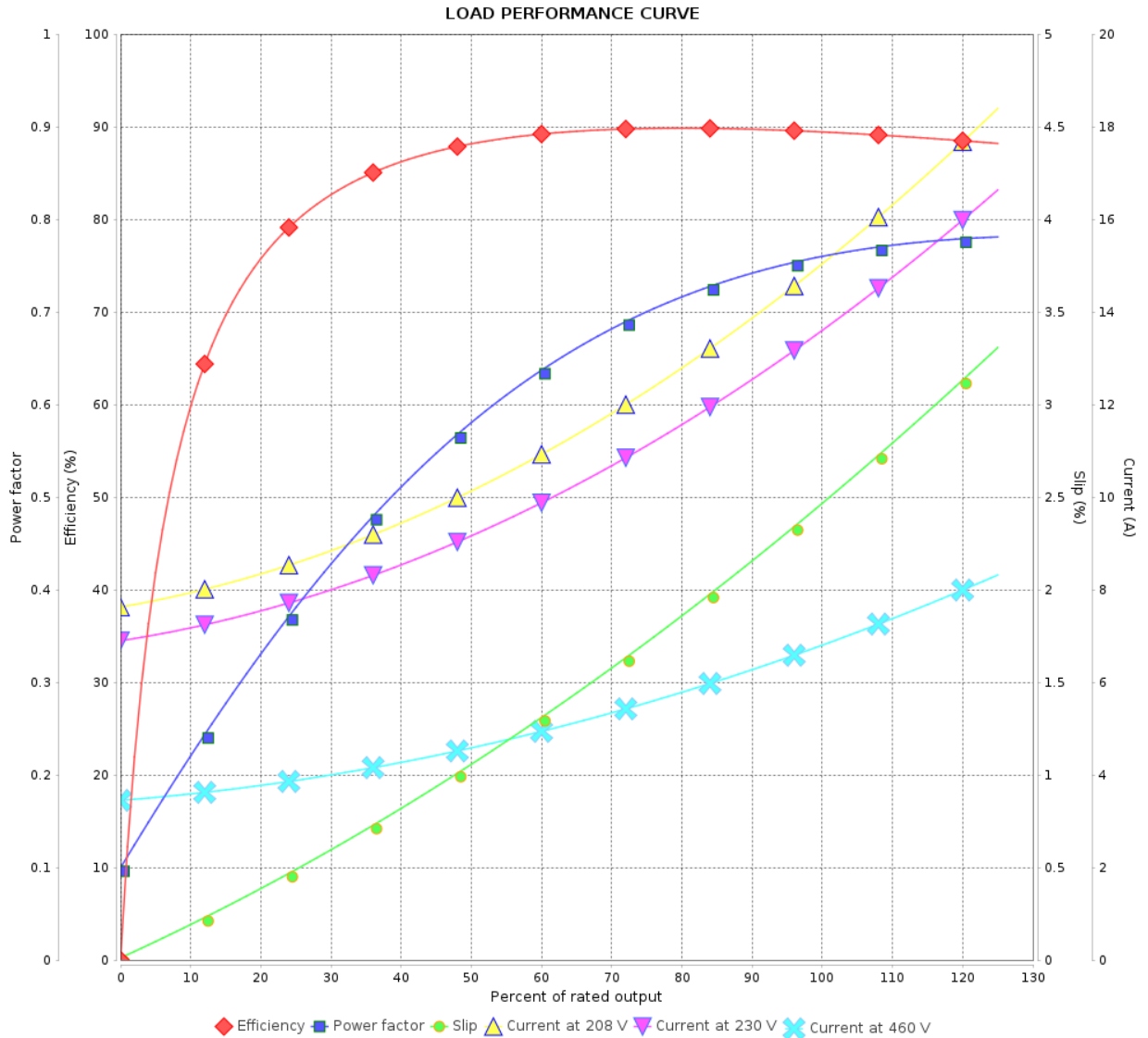
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456700



Performance : 230/460 V 60 Hz 6P

Rated current : 13.7/6.83 A
 LRC : 6.8
 Rated torque : 3.10 kgfm
 Locked rotor torque : 170 %
 Breakdown torque : 260 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.0620 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | Page | Revision |
| Checked by | | | | |
| Date | | | | |

LOAD PERFORMANCE CURVE

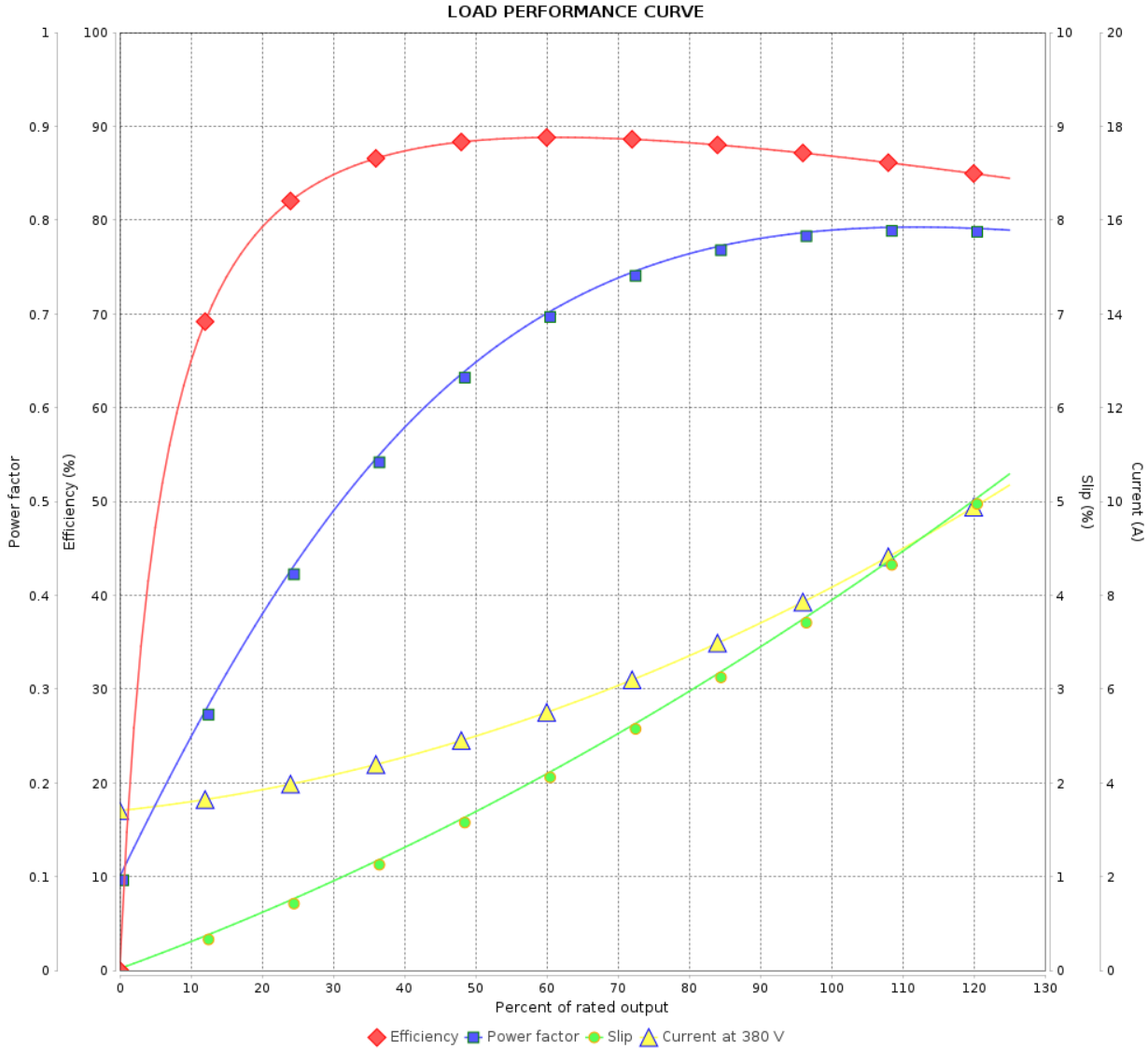
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456700



Performance : 380 V 50 Hz 6P IE3

Rated current : 8.20 A
 LRC : 5.5
 Rated torque : 3.78 kgfm
 Locked rotor torque : 150 %
 Breakdown torque : 215 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.0620 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 4 / 6 | Revision |
| Checked by | | | | |
| Date | 19/05/2024 | | | |

LOAD PERFORMANCE CURVE

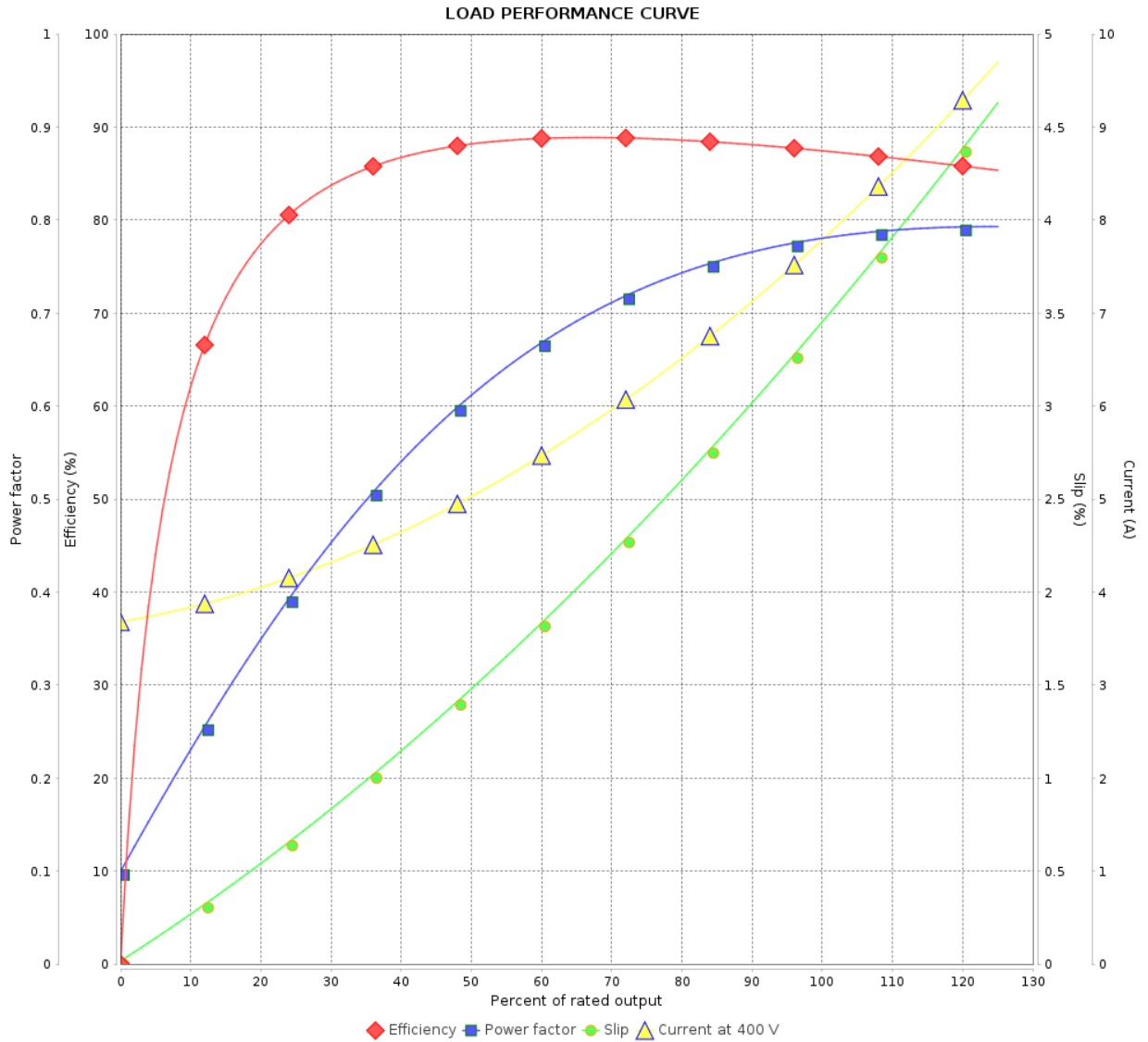
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456700



Performance : 400 V 50 Hz 6P IE3

Rated current : 7.82 A
 LRC : 6.1
 Rated torque : 3.76 kgfm
 Locked rotor torque : 160 %
 Breakdown torque : 220 %
 Rated speed : 965 rpm

Moment of inertia (J) : 0.0620 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | Page | Revision |
| Checked by | | | | |
| Date | | | | |

LOAD PERFORMANCE CURVE

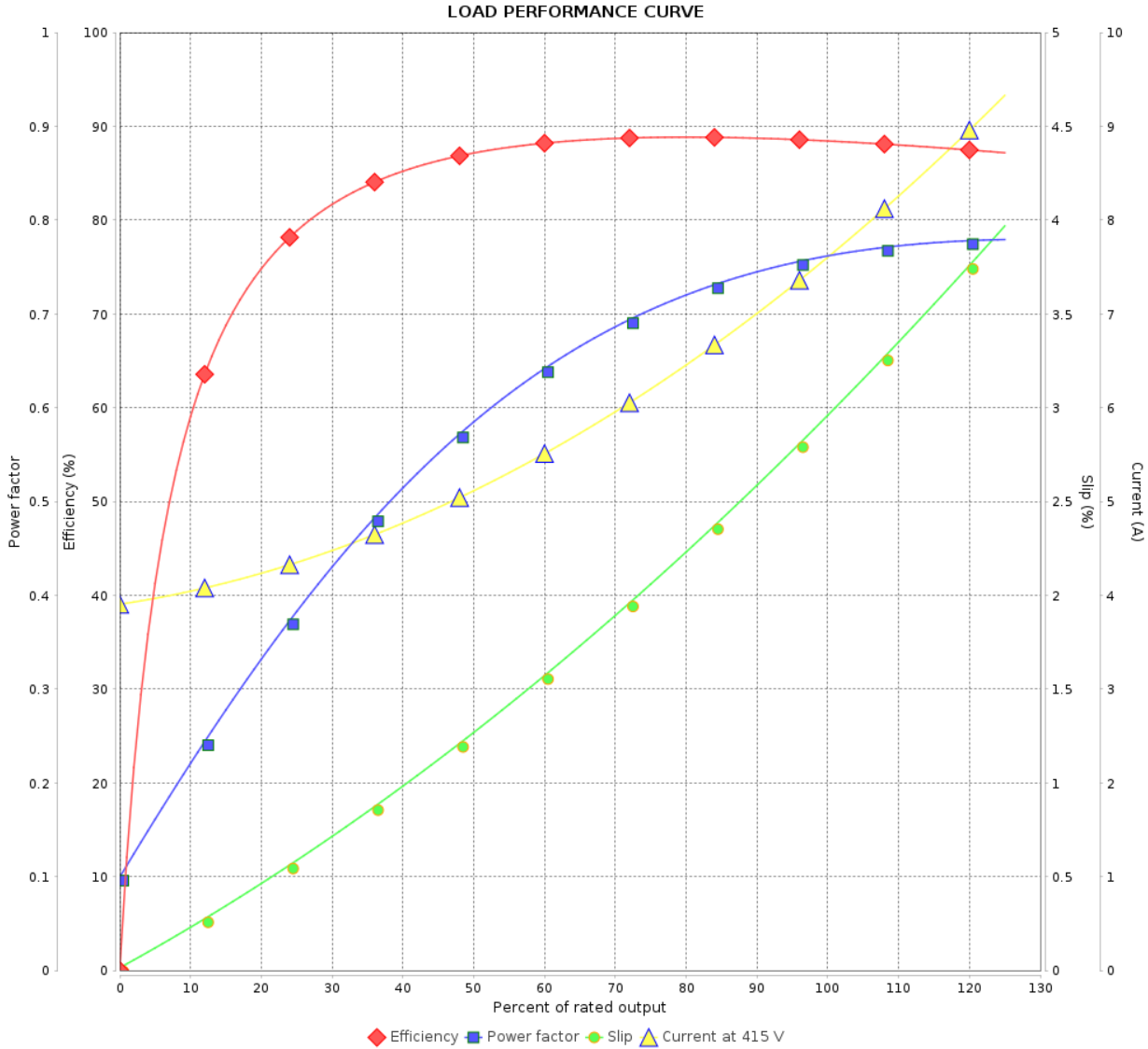
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11456700



Performance : 415 V 50 Hz 6P IE3

Rated current : 7.65 A
 LRC : 6.5
 Rated torque : 3.74 kgfm
 Locked rotor torque : 190 %
 Breakdown torque : 250 %
 Rated speed : 970 rpm

Moment of inertia (J) : 0.0620 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 6 / 6 | Revision |
| Checked by | | | | |
| Date | 19/05/2024 | | | |