

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|---|---|-----------------------------|--|----------------------|----------|
| Customer : | | | | | |
| Product line | : W22 Close Coupled Pump JM NEMA Premium Efficiency Three-Phase | Product code : | 12598383 | | |
| Frame | : 143/5JM | 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 | : 22.1 kg | | |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.0049 kgm ² | | |
| Design | : B | | | | |
| Output [HP] | 1 | 1 | 1 | 1 | |
| Poles | 4 | 4 | 4 | 4 | |
| Frequency [Hz] | 60 | 50 | 50 | 50 | |
| Rated voltage [V] | 230/460 | 380 | 400 | 415 | |
| Rated current [A] | 2.94/1.47 | 1.71 | 1.65 | 1.63 | |
| L. R. Amperes [A] | 25.3/12.6 | 10.9 | 11.5 | 12.1 | |
| LRC [A] | 8.6x(Code M) | 6.4x(Code J) | 7.0x(Code K) | 7.4x(Code K) | |
| No load current [A] | 1.88/0.940 | 0.930 | 1.00 | 1.08 | |
| Rated speed [RPM] | 1760 | 1450 | 1455 | 1455 | |
| Slip [%] | 2.22 | 3.33 | 3.00 | 3.00 | |
| Rated torque [kgfm] | 0.412 | 0.501 | 0.499 | 0.499 | |
| Locked rotor torque [%] | 290 | 220 | 240 | 260 | |
| Breakdown torque [%] | 350 | 250 | 290 | 310 | |
| Service factor | 1.25 | 1.25 | 1.25 | 1.25 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | |
| Locked rotor time | 32s (cold) 18s (hot) | 32s (cold) 18s (hot) | 32s (cold) 18s (hot) | 32s (cold) 18s (hot) | |
| Noise level ² | 51.0 dB(A) | 49.0 dB(A) | 49.0 dB(A) | 49.0 dB(A) | |
| Efficiency (%) | 25% | 78.4 | 79.6 | 78.4 | 78.4 |
| | 50% | 80.0 | 80.0 | 80.0 | 80.0 |
| | 75% | 84.0 | 82.5 | 82.5 | 82.5 |
| | 100% | 85.5 | 82.5 | 84.0 | 84.0 |
| Power Factor | 25% | 0.31 | 0.36 | 0.33 | 0.31 |
| | 50% | 0.55 | 0.62 | 0.58 | 0.55 |
| | 75% | 0.68 | 0.74 | 0.71 | 0.69 |
| | 100% | 0.75 | 0.81 | 0.78 | 0.76 |
| Losses at normative operating points (speed;torque), in percentage of rated output power | | | | | |
| Losses (%) | P1 (0,9;1,0) | 15.9 | 15.9 | 15.9 | 15.9 |
| | P2 (0,5;1,0) | 12.8 | 12.8 | 12.8 | 12.8 |
| | P3 (0,25;1,0) | 12.5 | 12.5 | 12.5 | 12.5 |
| | P4 (0,9;0,5) | 10.1 | 10.1 | 10.1 | 10.1 |
| | P5 (0,5;0,5) | 7.0 | 7.0 | 7.0 | 7.0 |
| | P6 (0,5;0,25) | 5.8 | 5.8 | 5.8 | 5.8 |
| | P7 (0,25;0,25) | 4.3 | 4.3 | 4.3 | 4.3 |
| Bearing type | : Drive end : 6206 ZZ Non drive end : 6204 ZZ | Foundation loads | | | |
| Sealing | : V'Ring V'Ring | Max. traction : 33 kgf | | | |
| Lubrication interval | : - - | Max. compression : 55 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 | 13/01/2024 | | | 1 / 6 | |

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes
USABLE @208V 3.07A SF 1.15 SFA 3.54A

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 13/01/2024 | | 2 / 6 | |

LOAD PERFORMANCE CURVE

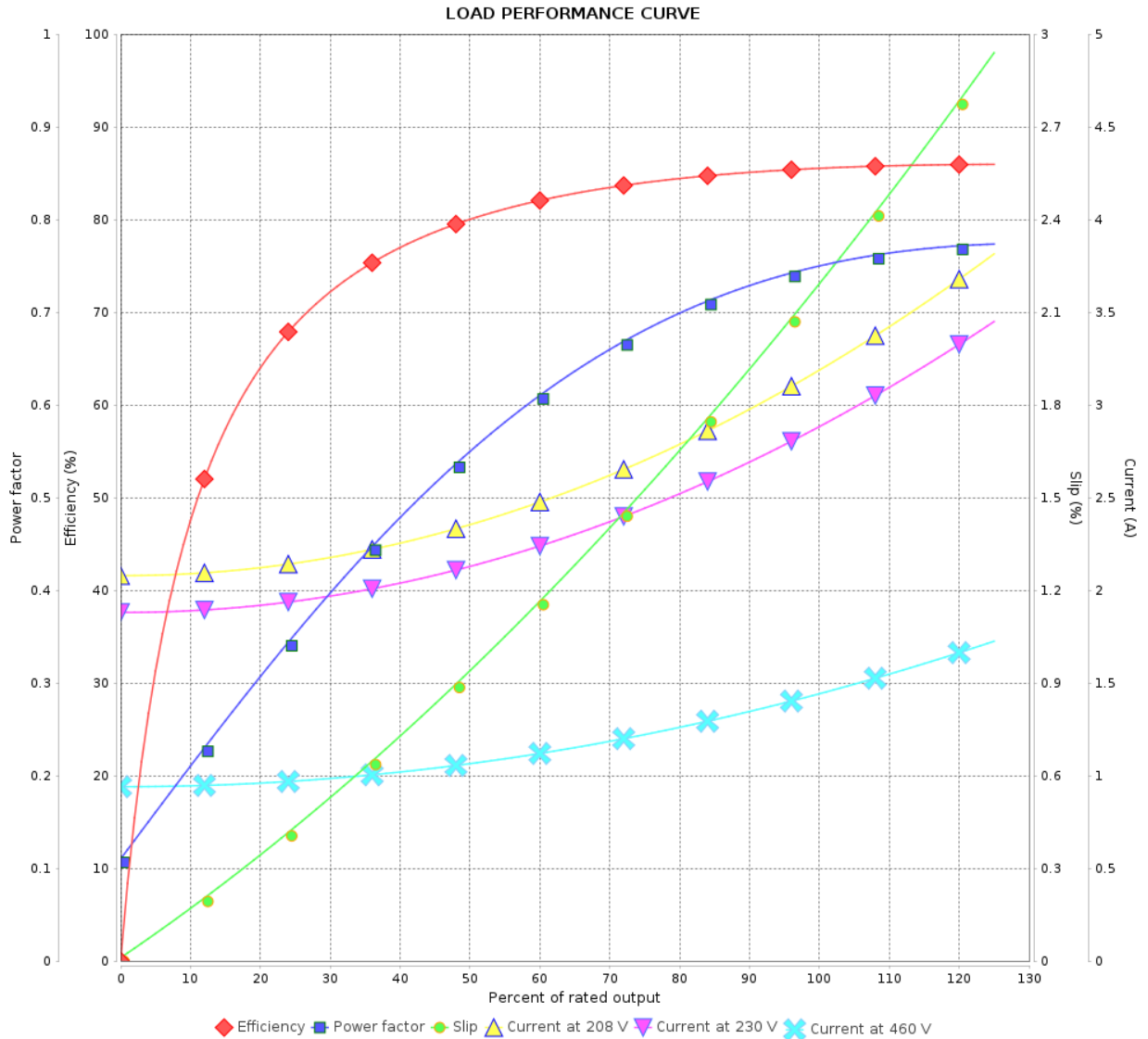
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

Product code : 12598383



Performance : 230/460 V 60 Hz 4P

Rated current : 2.94/1.47 A
 LRC : 8.6
 Rated torque : 0.412 kgfm
 Locked rotor torque : 290 %
 Breakdown torque : 350 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0049 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 | | 3 / 6 | | |
| Date | | 13/01/2024 | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

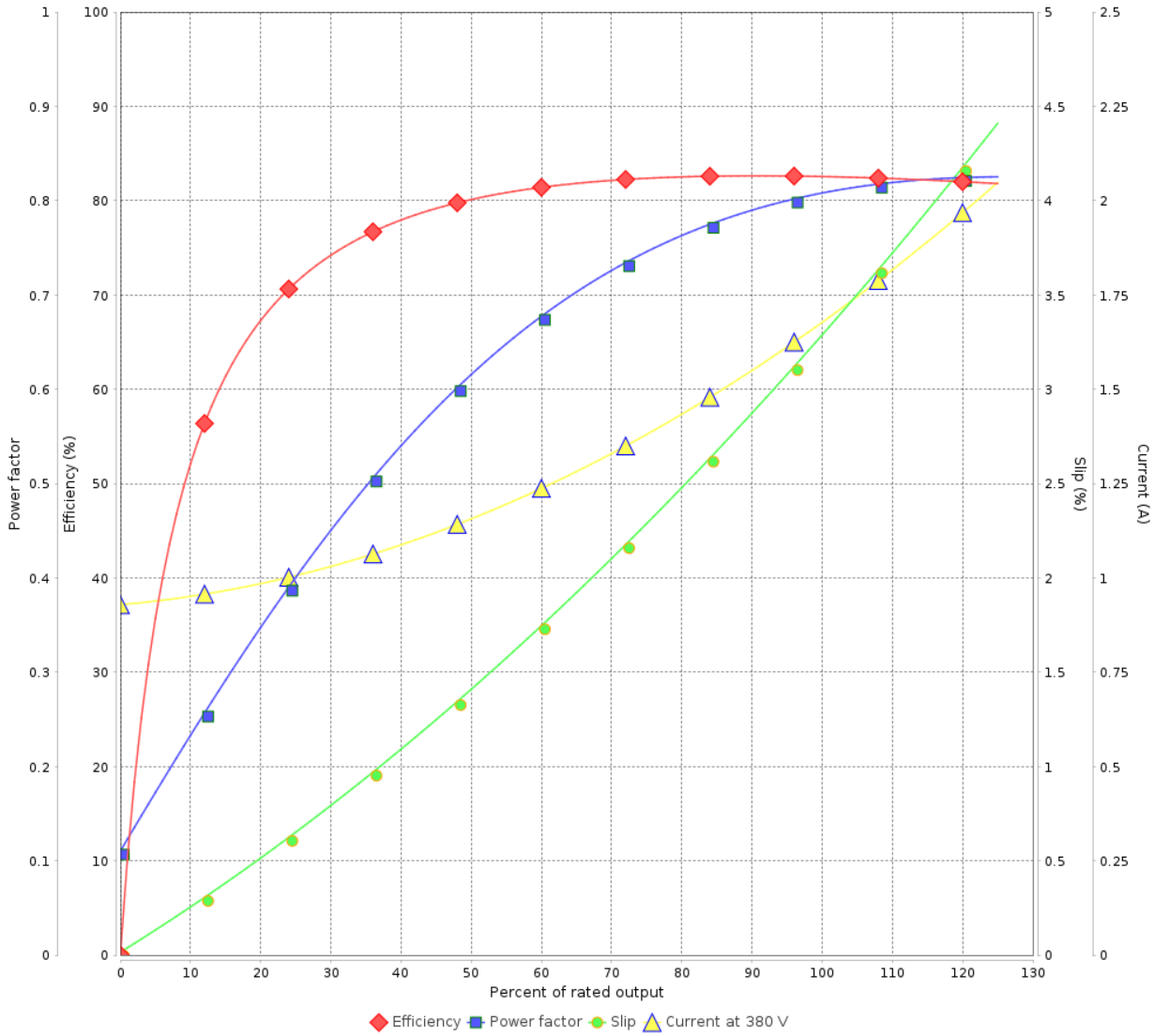


Customer :

Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

Product code : 12598383

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current : 1.71 A
LRC : 6.4
Rated torque : 0.501 kgfm
Locked rotor torque : 220 %
Breakdown torque : 250 %
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0049 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 4 / 6 | Revision |
| Checked by | | | | |
| Date | 13/01/2024 | | | |

LOAD PERFORMANCE CURVE

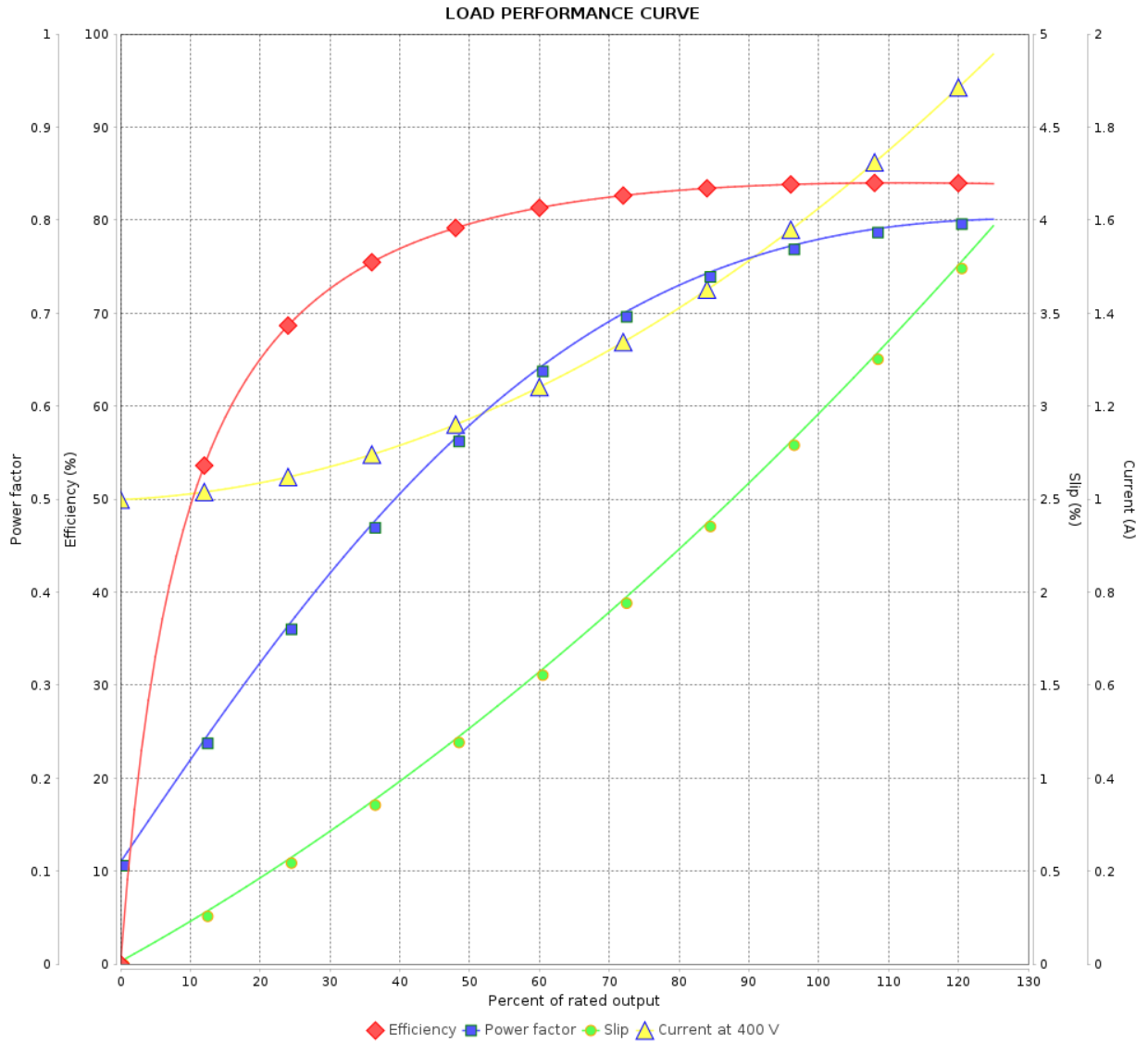
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

Product code : 12598383



Performance : 400 V 50 Hz 4P IE3

Rated current : 1.65 A
 LRC : 7.0
 Rated torque : 0.499 kgfm
 Locked rotor torque : 240 %
 Breakdown torque : 290 %
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.0049 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 | | | | |
| Checked by | | | | |
| Date | | | | |
| | | | Page | Revision |
| | | | 5 / 6 | |

LOAD PERFORMANCE CURVE

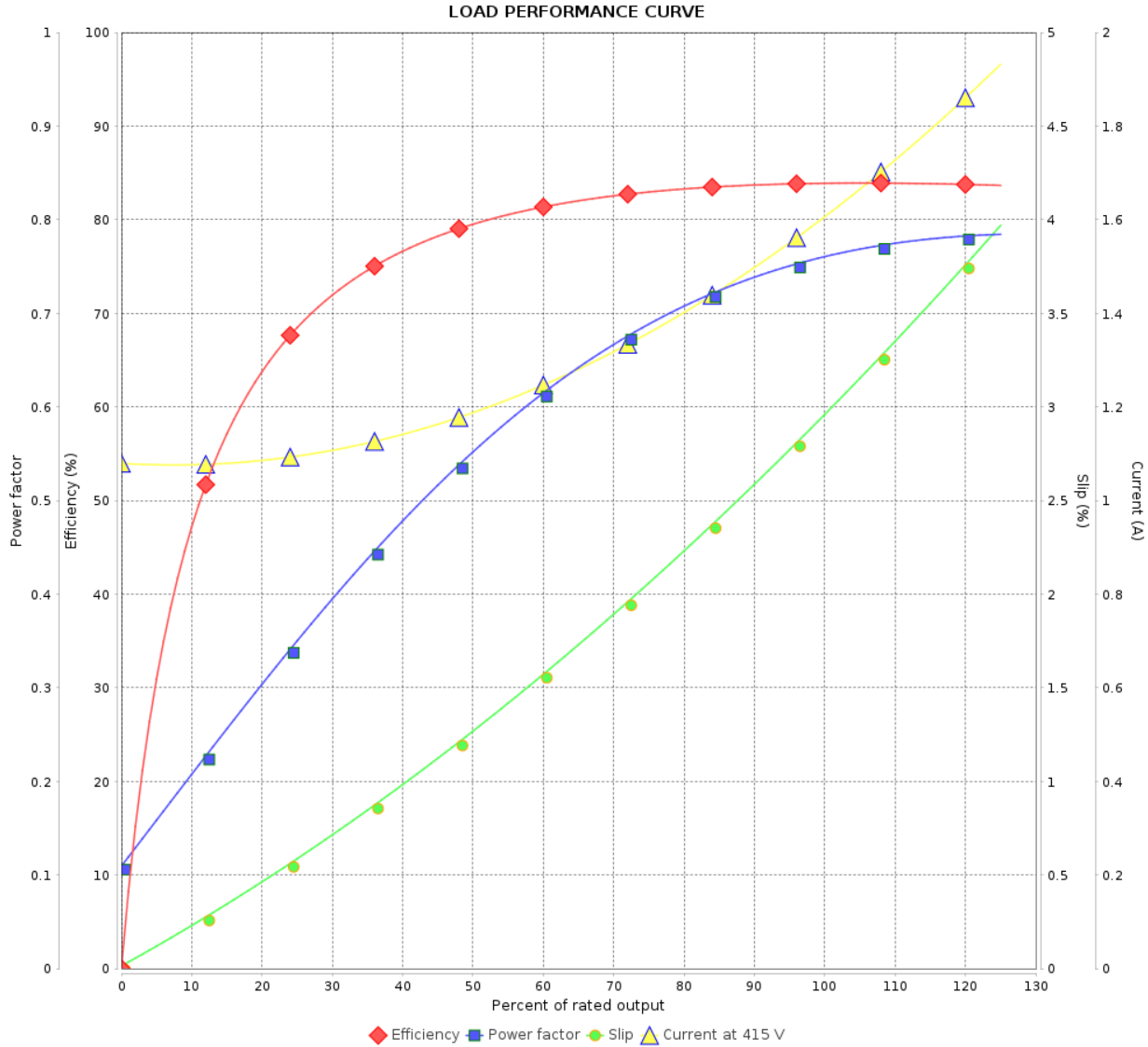
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM NEMA
Premium Efficiency Three-Phase

Product code : 12598383



Performance : 415 V 50 Hz 4P IE3

Rated current : 1.63 A
LRC : 7.4
Rated torque : 0.499 kgfm
Locked rotor torque : 260 %
Breakdown torque : 310 %
Rated speed : 1455 rpm

Moment of inertia (J) : 0.0049 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 6 / 6 | Revision |
| Checked by | | | | |
| Date | 13/01/2024 | | | |