

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | |
|--|---------------------------------------|--|----------------------------|
| Customer | | : | |
| Product line | : NEMA Premium Efficiency Three-Phase | Product code : | 12675365 |
| Frame | : 182/4TC | 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 | : 38.9 kg |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.0130 kgm ² |
| Design | : B | | |
| Output [HP] | 5 | 5 | 5 |
| Poles | 4 | 4 | 4 |
| Frequency [Hz] | 60 | 50 | 50 |
| Rated voltage [V] | 230/460 | 190/380 | 220/415 |
| Rated current [A] | 13.0/6.49 | 15.8/7.88 | 14.3/7.59 |
| L. R. Amperes [A] | 90.9/45.4 | 91.4/45.7 | 91.6/48.6 |
| LRC [A] | 7.0x(Code J) | 5.8x(Code G) | 6.4x(Code H) |
| No load current [A] | 6.89/3.44 | 6.74/3.37 | 7.10/3.77 |
| Rated speed [RPM] | 1750 | 1425 | 1435 |
| Slip [%] | 2.78 | 5.00 | 4.33 |
| Rated torque [kgfm] | 2.07 | 2.55 | 2.53 |
| Locked rotor torque [%] | 220 | 170 | 200 |
| Breakdown torque [%] | 300 | 229 | 260 |
| Service factor | 1.15 | 1.00 | 1.00 |
| Temperature rise | 80 K | 105 K | 105 K |
| Locked rotor time | 28s (cold) 16s (hot) | 0s (cold) 0s (hot) | 0s (cold) 0s (hot) |
| Noise level ² | 56.0 dB(A) | 53.0 dB(A) | 53.0 dB(A) |
| Efficiency (%) | 25% | 88.2 | 88.2 |
| | 50% | 88.5 | 87.2 |
| | 75% | 89.5 | 87.3 |
| | 100% | 89.5 | 85.8 |
| Power Factor | 25% | 0.35 | 0.37 |
| | 50% | 0.60 | 0.63 |
| | 75% | 0.73 | 0.76 |
| | 100% | 0.80 | 0.82 |
| Bearing type | : <u>Drive end</u> 6206 ZZ | <u>Non drive end</u> 6205 ZZ | Foundation loads |
| Sealing | : V'Ring | Without Bearing Seal | Max. traction : 118 kgf |
| Lubrication interval | : - | - | Max. compression : 157 kgf |
| Lubricant amount | : - | - | |
| Lubricant type | : Mobil Polyrex EM | | |
| Notes USABLE @208V 14.4A SF 1.00 SFA 14.4A | | | |
| 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 |
| | | | |
| Performed by | | | |
| Checked by | | | |
| Date | 13/05/2022 | | |
| | | Page | Revision |
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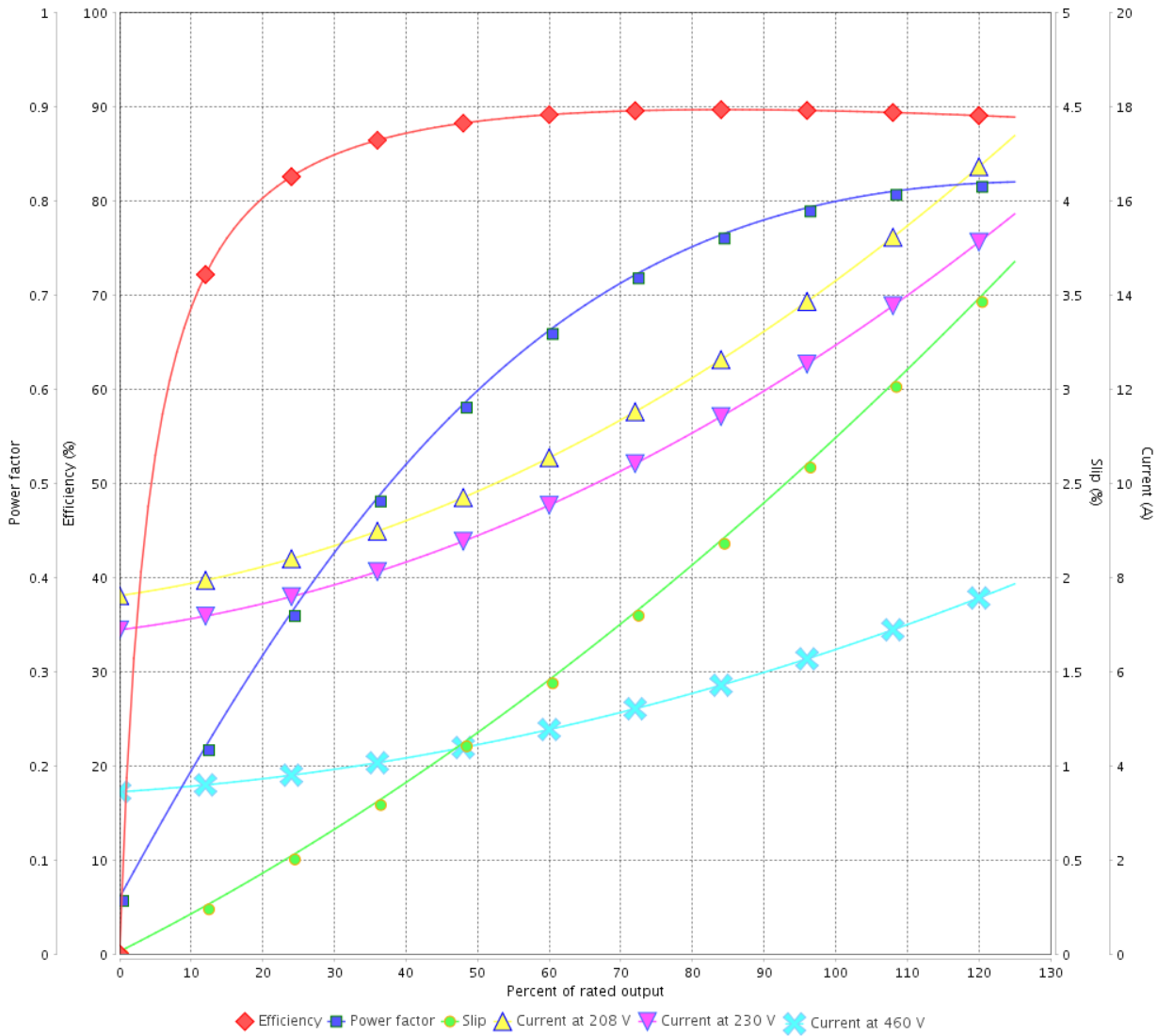
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675365

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A
 LRC : 7.0
 Rated torque : 2.07 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 300 %
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.0130 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
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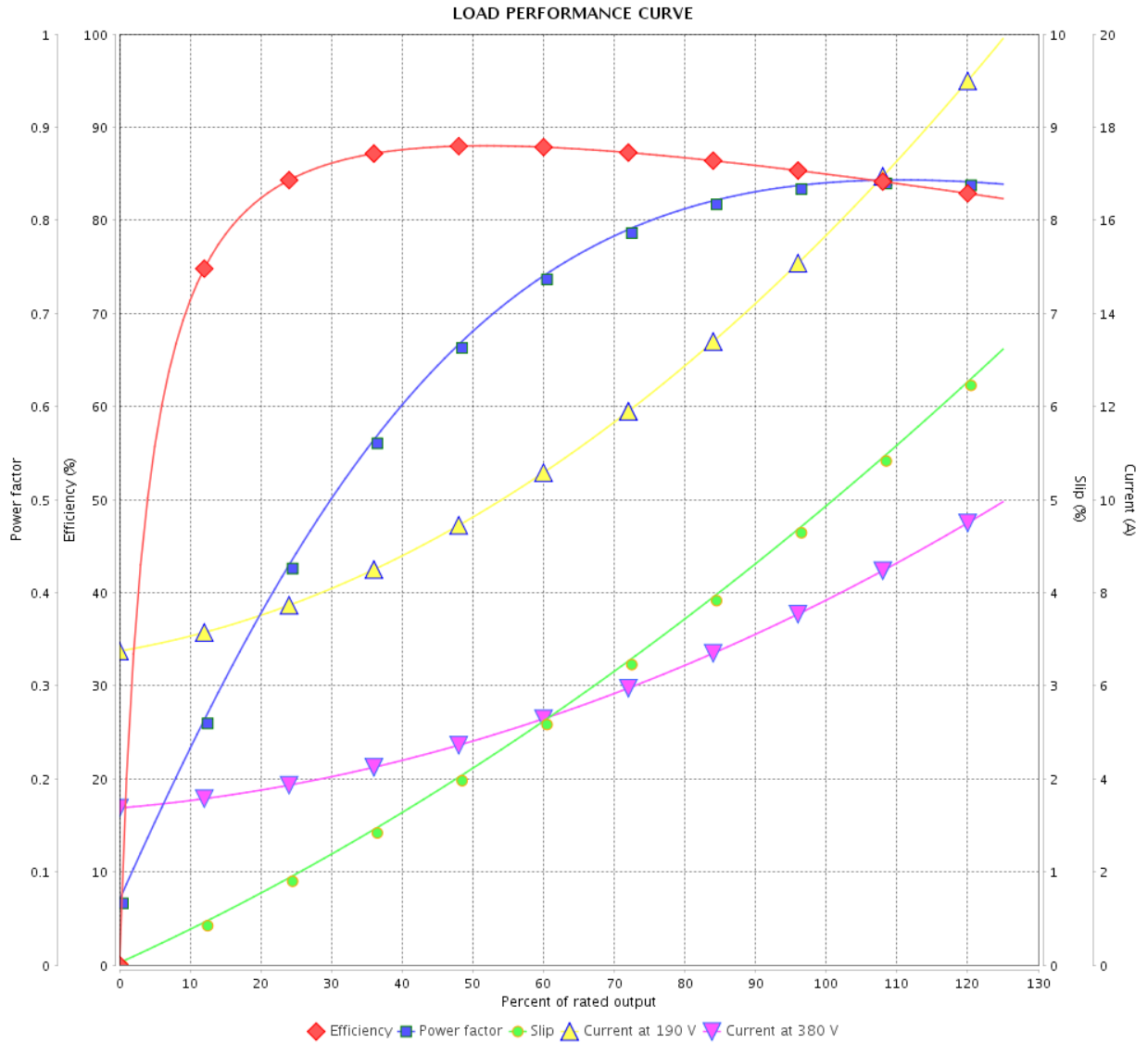
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Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675365



Performance : 190/380 V 50 Hz 4P

Rated current : 15.8/7.88 A
 LRC : 5.8
 Rated torque : 2.55 kgfm
 Locked rotor torque : 170 %
 Breakdown torque : 229 %
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.0130 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
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| Date | | 13/05/2022 | | |

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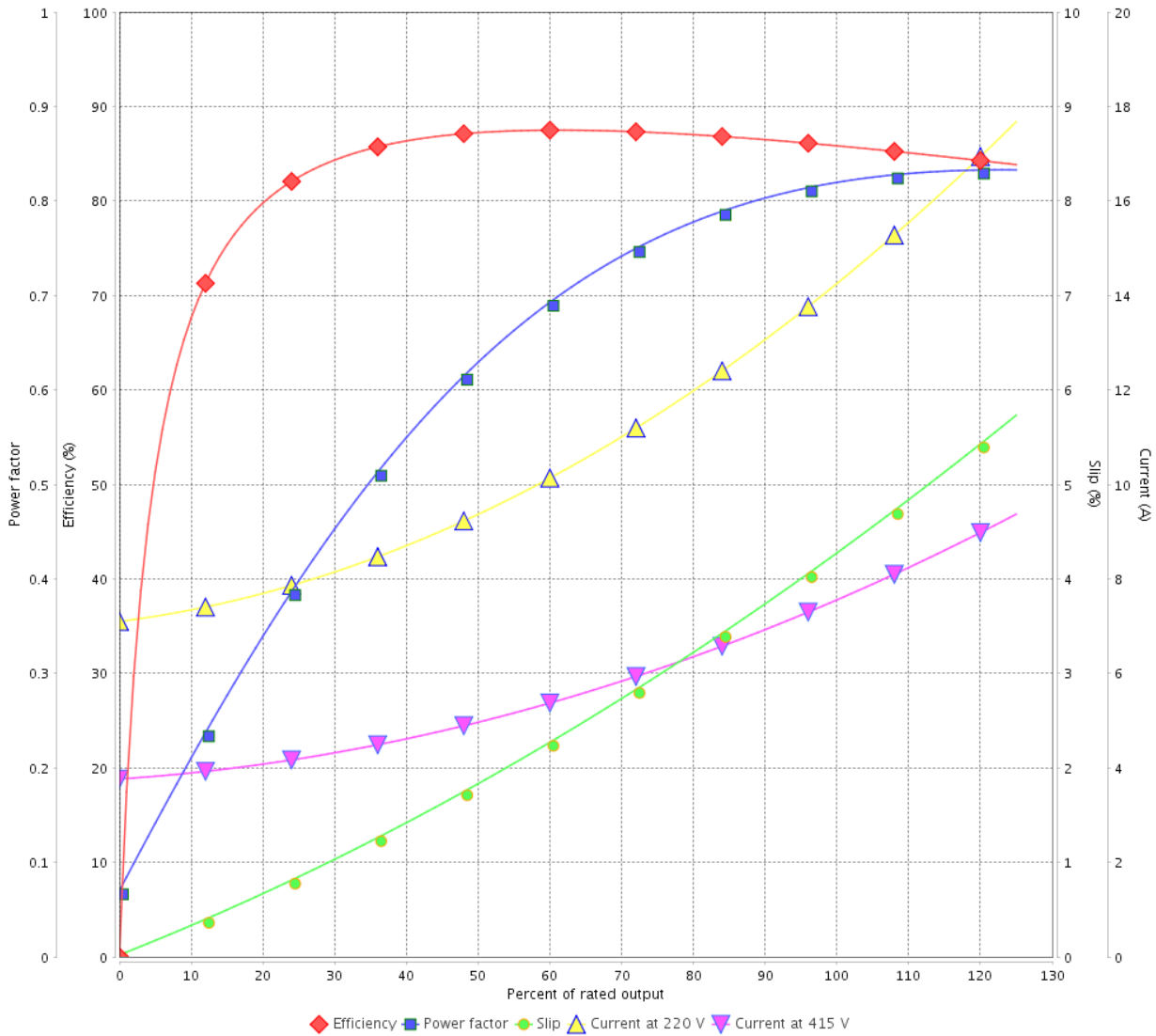
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 12675365

LOAD PERFORMANCE CURVE



Performance : 220/415 V 50 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|---------------------------|
| Rated current | : 14.3/7.59 A | Moment of inertia (J) | : 0.0130 kgm ² |
| LRC | : 6.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 2.53 kgfm | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.00 |
| Breakdown torque | : 260 % | Temperature rise | : 105 K |
| Rated speed | : 1435 rpm | Design | : B |

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| Date | | | | |