

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | |
|--|---|--|---------------------------|----------|
| Customer : | | | | |
| Product line | : W22 Tru-Metric IE3 Three-Phase | Product code : | 14042035 | |
| Frame | : 90S | Cooling method | : IC411 - TEFC | |
| Insulation class | : F | Mounting | : B34L(E) | |
| Duty cycle | : 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 | : 20.6 kg | |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.0020 kgm ² | |
| Design | : N | | | |
| Output [HP] | 2 | 2 | 2 | |
| Poles | 2 | 2 | 2 | |
| Frequency [Hz] | 50 | 50 | 60 | |
| Rated voltage [V] | 380 | 415 | 230/460 | |
| Rated current [A] | 3.22 | 3.18 | 5.50/2.75 | |
| L. R. Amperes [A] | 24.5 | 25.4 | 51.7/25.9 | |
| LRC [A] | 7.6 | 8.0 | 9.4 | |
| No load current [A] | 1.43 | 1.80 | 3.00/1.50 | |
| Rated speed [RPM] | 2870 | 2895 | 3505 | |
| Slip [%] | 4.33 | 3.50 | 2.64 | |
| Rated torque [kgfm] | 0.506 | 0.501 | 0.414 | |
| Locked rotor torque [%] | 220 | 260 | 290 | |
| Breakdown torque [%] | 250 | 300 | 360 | |
| Service factor | 1.25 | 1.25 | 1.25 | |
| Temperature rise | 80 K | 80 K | 80 K | |
| Locked rotor time | 27s (cold) 15s (hot) | 27s (cold) 15s (hot) | 28s (cold) 16s (hot) | |
| Noise level ² | 62.0 dB(A) | 62.0 dB(A) | 68.0 dB(A) | |
| Efficiency (%) | 25% | | | |
| | 50% | 82.0 | 81.5 | |
| | 75% | 83.5 | 83.5 | |
| | 100% | 84.2 | 84.2 | |
| Power Factor | 25% | | | |
| | 50% | 0.67 | 0.57 | |
| | 75% | 0.78 | 0.70 | |
| | 100% | 0.84 | 0.78 | |
| Losses at normative operating points (speed;torque), in percentage of rated output power | | | | |
| Losses (%) | P1 (0,9;1,0) | 17.1 | 17.1 | 15.5 |
| | P2 (0,5;1,0) | 13.1 | 13.1 | 11.9 |
| | P3 (0,25;1,0) | 13.4 | 13.4 | 12.1 |
| | P4 (0,9;0,5) | 10.4 | 10.4 | 9.4 |
| | P5 (0,5;0,5) | 6.4 | 6.4 | 5.8 |
| | P6 (0,5;0,25) | 5.0 | 5.0 | 4.5 |
| | P7 (0,25;0,25) | 3.4 | 3.4 | 3.1 |
| Bearing type | : Drive end : 6205 ZZ Non drive end : 6204 ZZ | Foundation loads | | |
| Sealing | : V'Ring V'Ring | Max. traction | : 32 kgf | |
| Lubrication interval | : - - | Max. compression | : 52 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. (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 | Date |
| Performed by | | | | |
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Customer : _____

Notes

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LOAD PERFORMANCE CURVE

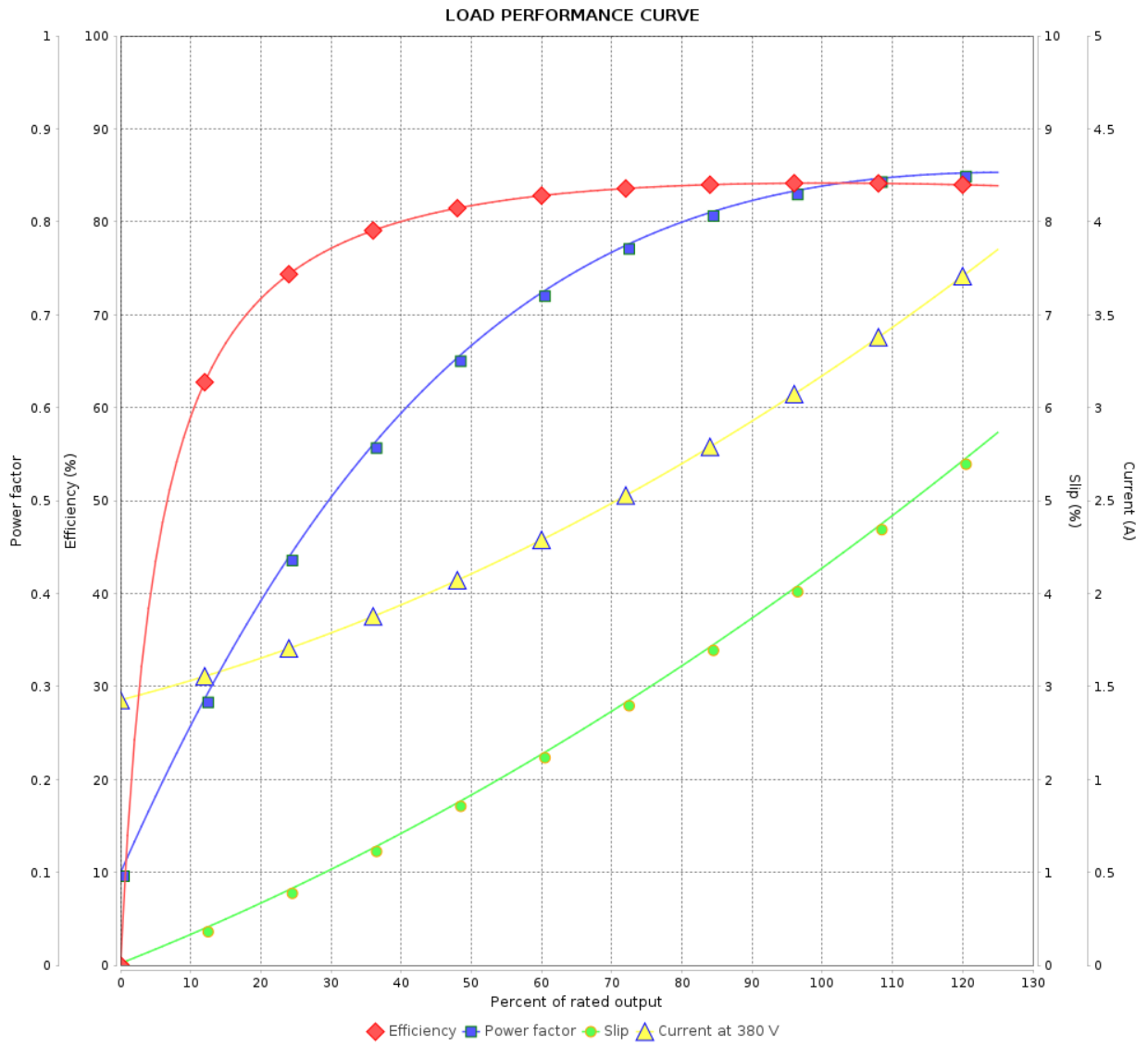
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 14042035



Performance : 380 V 50 Hz 2P

Rated current : 3.22 A
 LRC : 7.6
 Rated torque : 0.506 kgfm
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.0020 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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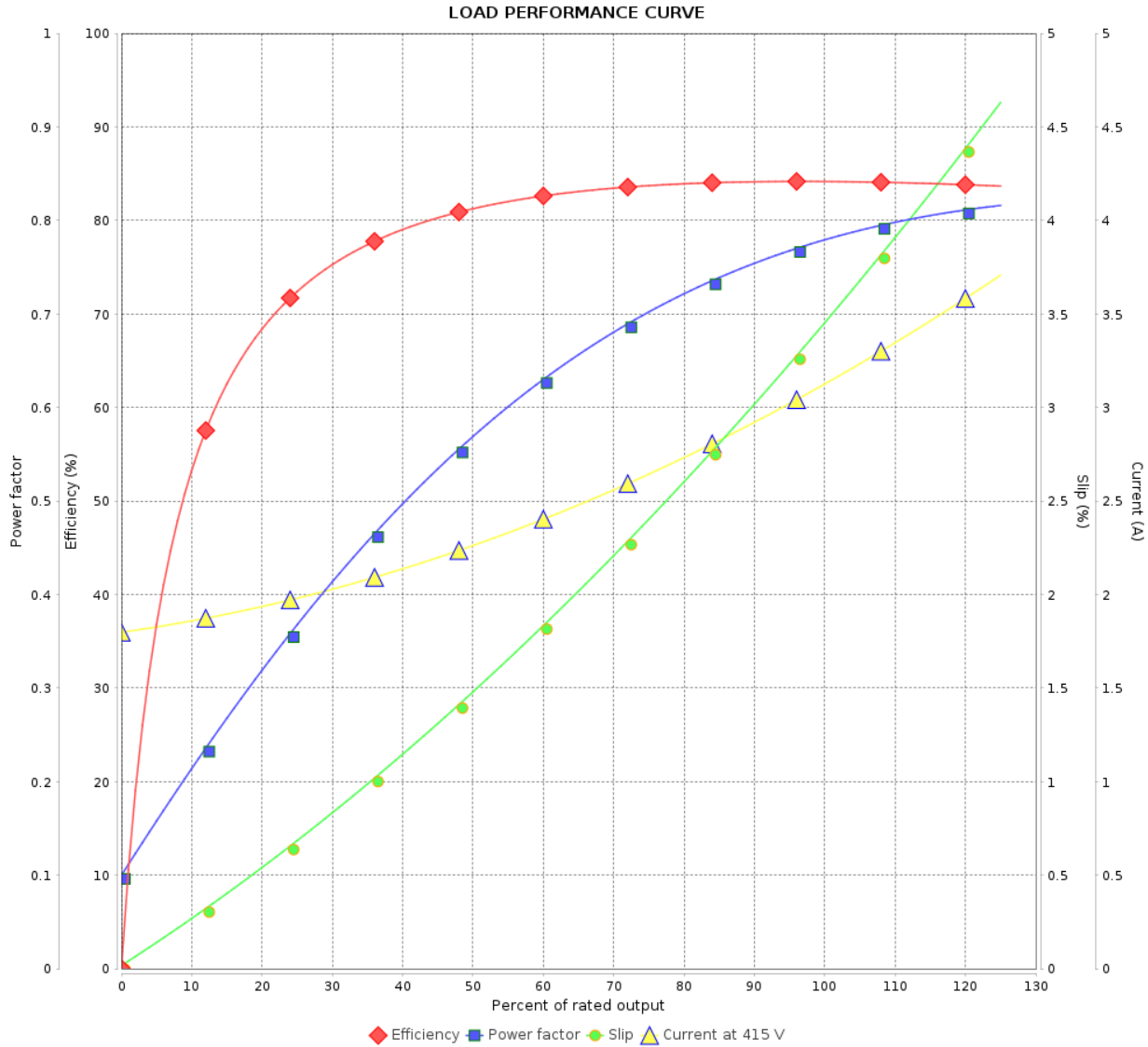
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 Tru-Metric IE3 Three-Phase

Product code : 14042035



Performance : 415 V 50 Hz 2P

Rated current : 3.18 A
 LRC : 8.0
 Rated torque : 0.501 kgfm
 Locked rotor torque : 260 %
 Breakdown torque : 300 %
 Rated speed : 2895 rpm

Moment of inertia (J) : 0.0020 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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Three Phase Induction Motor - Squirrel Cage

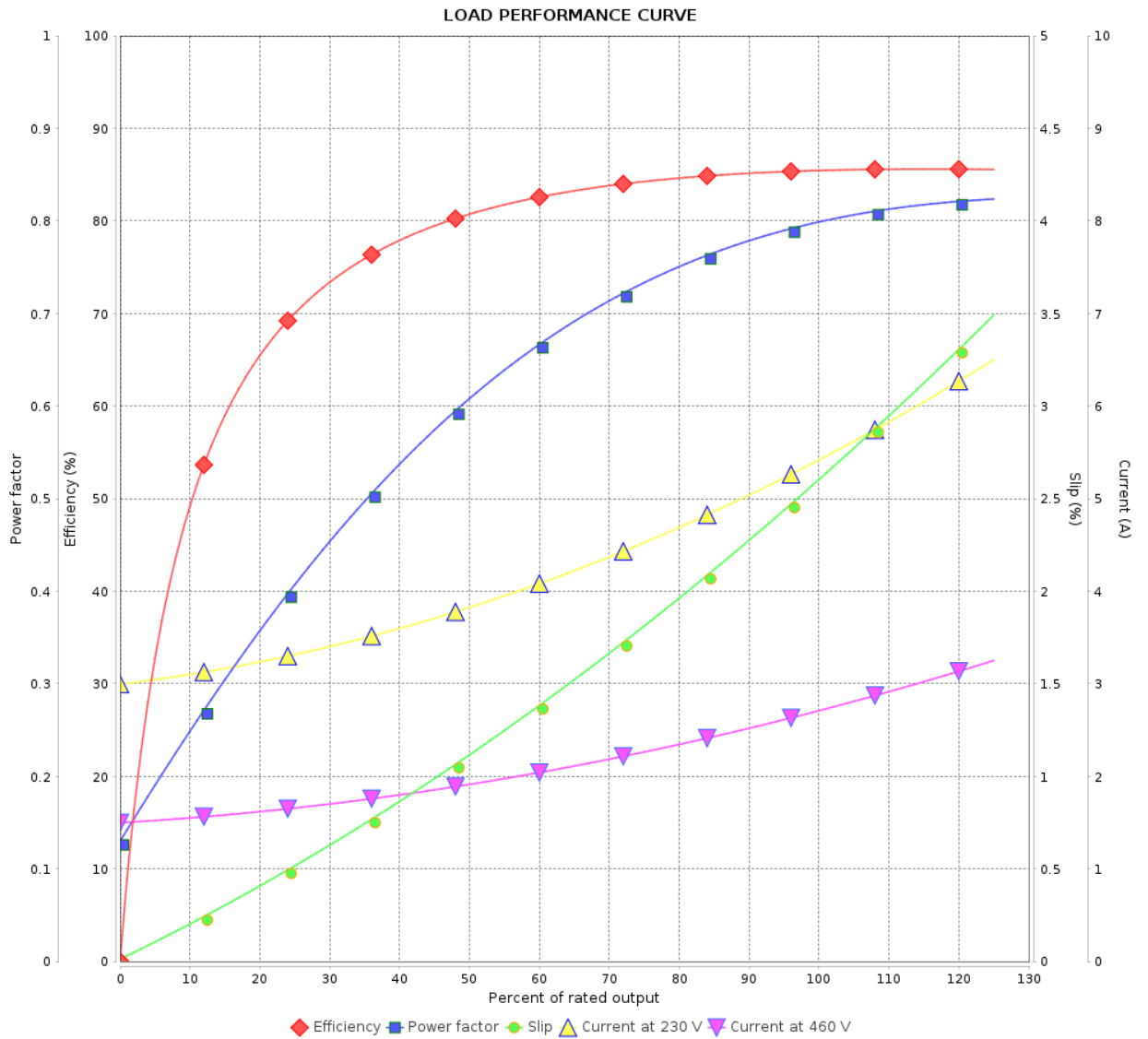


Customer : _____

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

14042035



Performance : 230/460 V 60 Hz 2P

Rated current : 5.50/2.75 A
 LRC : 9.4
 Rated torque : 0.414 kgfm
 Locked rotor torque : 290 %
 Breakdown torque : 360 %
 Rated speed : 3505 rpm

Moment of inertia (J) : 0.0020 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : N

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