

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|---|--|--|---------------------------|----------------------|------|
| Customer : | | | | | |
| Product line | | : W22 IEEE 841 NEMA Premium Efficiency Three-Phase | Product code : | 13060964 | |
| Frame | : 143/5T | 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 | : 21.6 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] | 460 | 380 | 400 | 415 | |
| Rated current [A] | 1.47 | 1.71 | 1.65 | 1.63 | |
| L. R. Amperes [A] | 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] | 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% | | | | |
| | 50% | 80.0 | 80.0 | 80.0 | |
| | 75% | 84.0 | 82.5 | 82.5 | |
| | 100% | 85.5 | 82.5 | 84.0 | |
| Power Factor | 25% | | | | |
| | 50% | 0.55 | 0.62 | 0.58 | |
| | 75% | 0.68 | 0.74 | 0.71 | |
| | 100% | 0.75 | 0.81 | 0.78 | |
| 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 : 6205 C3 Non drive end : 6204 C3 | Foundation loads | | | |
| Sealing | : Taconite Labyrinth | Max. traction : 33 kgf Max. compression : 55 kgf | | | |
| Lubrication interval | : 20000 h | | | | |
| Lubricant amount | : 4 g | | | | |
| 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). | | 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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Notes

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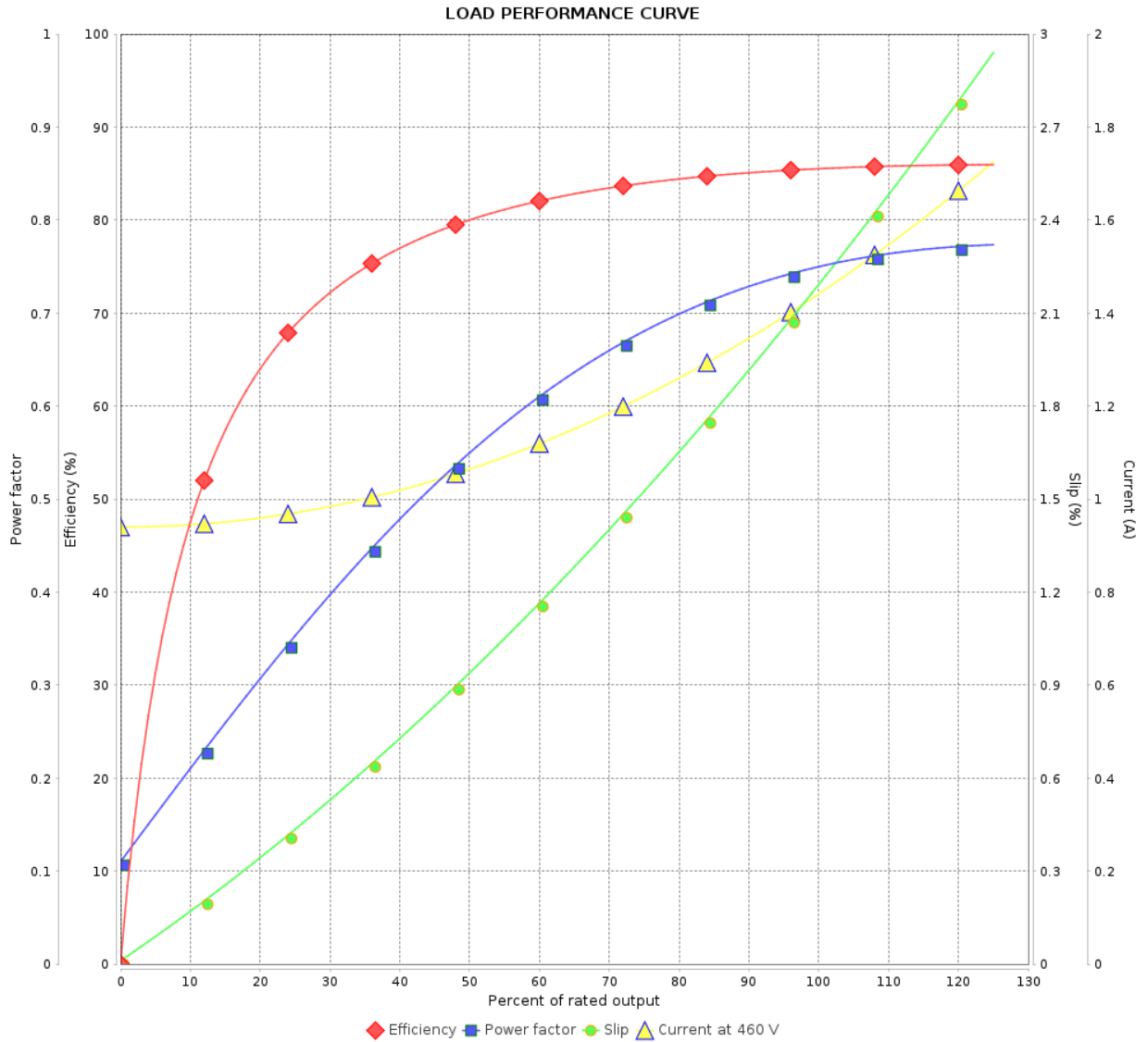
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13060964



Performance : 460 V 60 Hz 4P

| | | | |
|---------------------|--------------|-----------------------|---------------------------|
| Rated current | : 1.47 A | Moment of inertia (J) | : 0.0049 kgm ² |
| LRC | : 8.6 | Duty cycle | : Cont.(S1) |
| Rated torque | : 0.412 kgfm | Insulation class | : F |
| Locked rotor torque | : 290 % | Service factor | : 1.25 |
| Breakdown torque | : 350 % | Temperature rise | : 80 K |
| Rated speed | : 1760 rpm | Design | : B |

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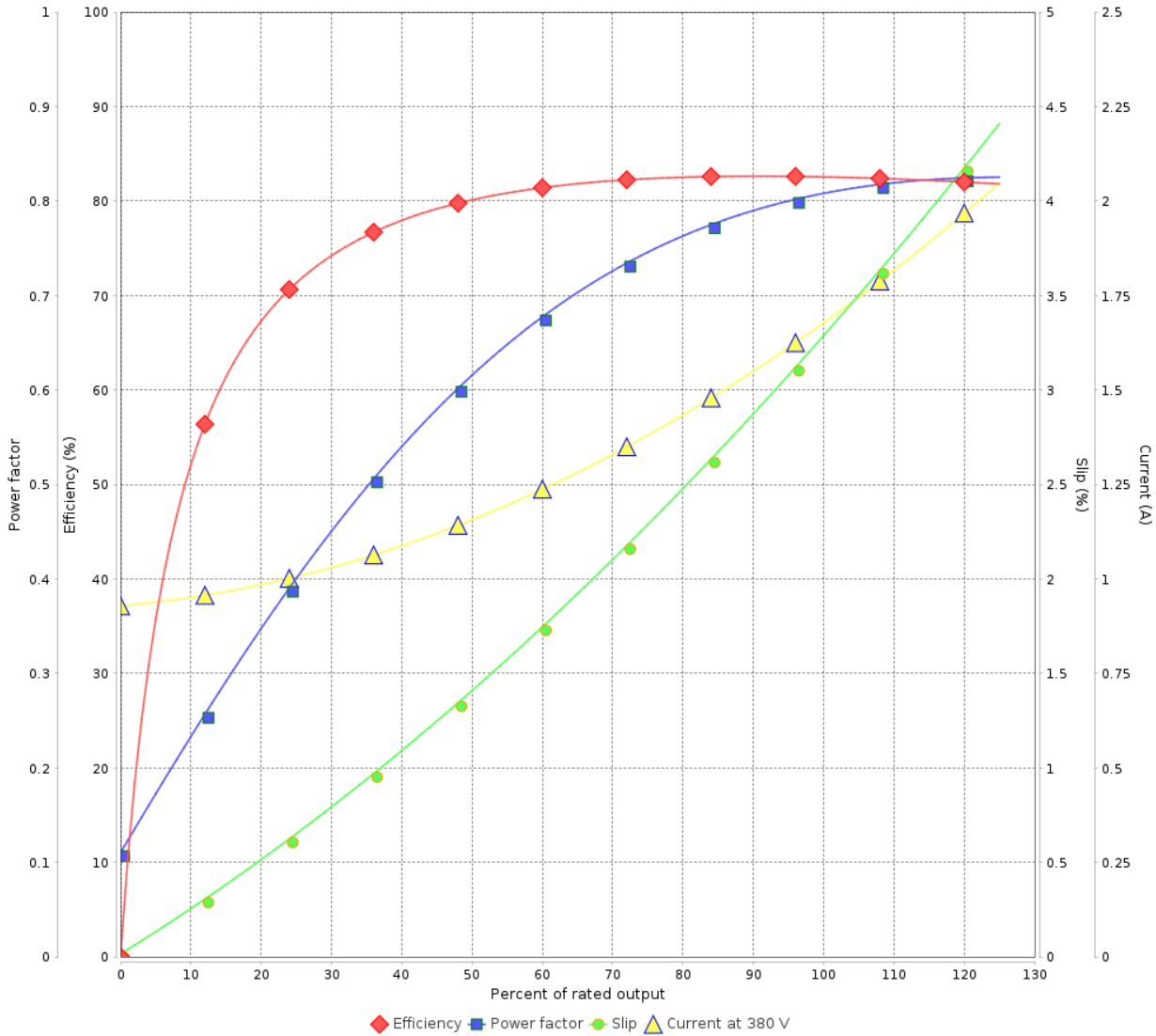
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13060964

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Performance : 380 V 50 Hz 4P IE3

| | | | |
|---------------------|--------------|-----------------------|---------------------------|
| Rated current | : 1.71 A | Moment of inertia (J) | : 0.0049 kgm ² |
| LRC | : 6.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 0.501 kgfm | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 250 % | Temperature rise | : 80 K |
| Rated speed | : 1450 rpm | Design | : B |

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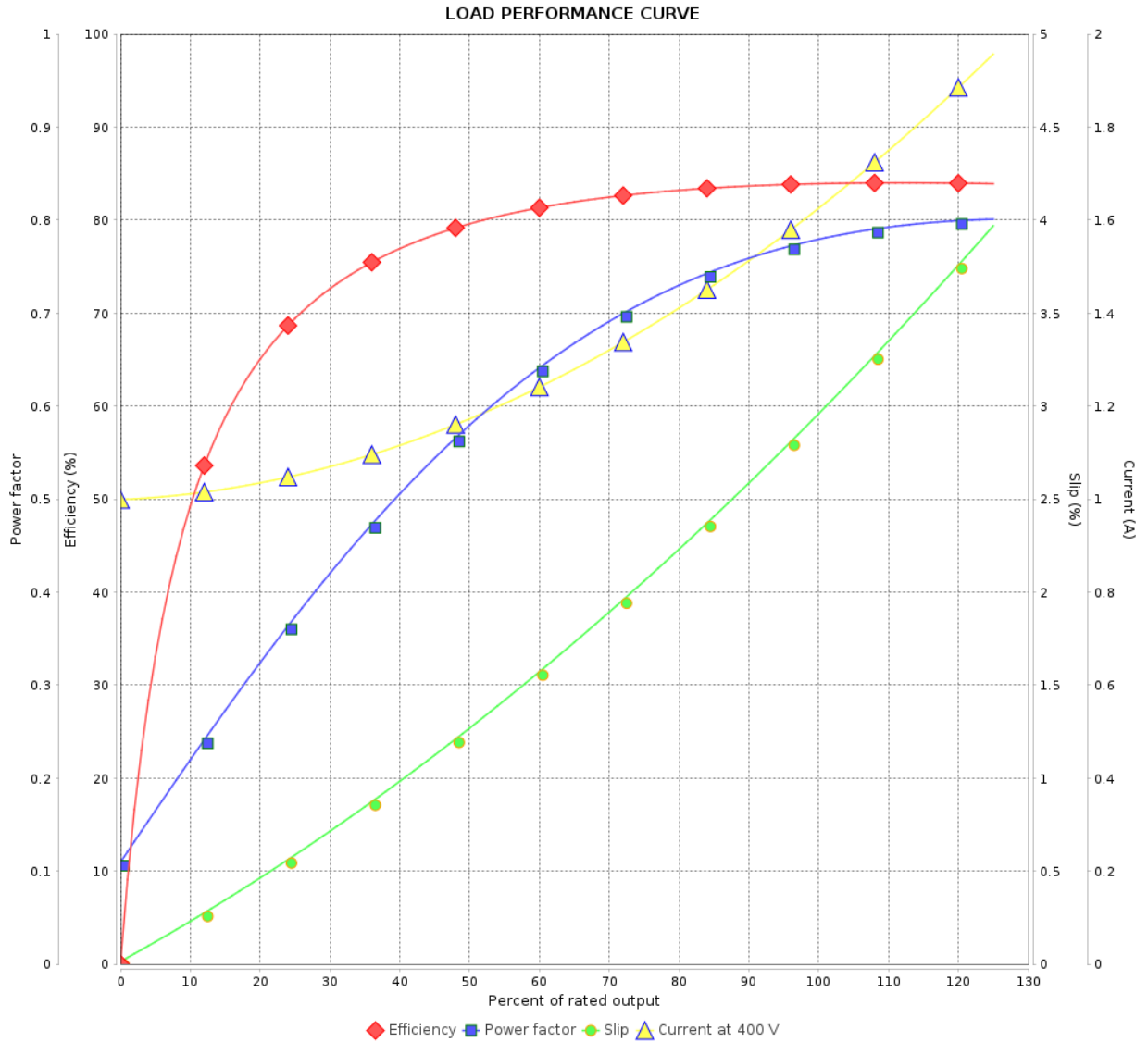
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Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13060964



Performance : 400 V 50 Hz 4P IE3

| | |
|-----------------------------|---|
| Rated current : 1.65 A | Moment of inertia (J) : 0.0049 kgm ² |
| LRC : 7.0 | Duty cycle : Cont.(S1) |
| Rated torque : 0.499 kgfm | Insulation class : F |
| Locked rotor torque : 240 % | Service factor : 1.25 |
| Breakdown torque : 290 % | Temperature rise : 80 K |
| Rated speed : 1455 rpm | Design : B |

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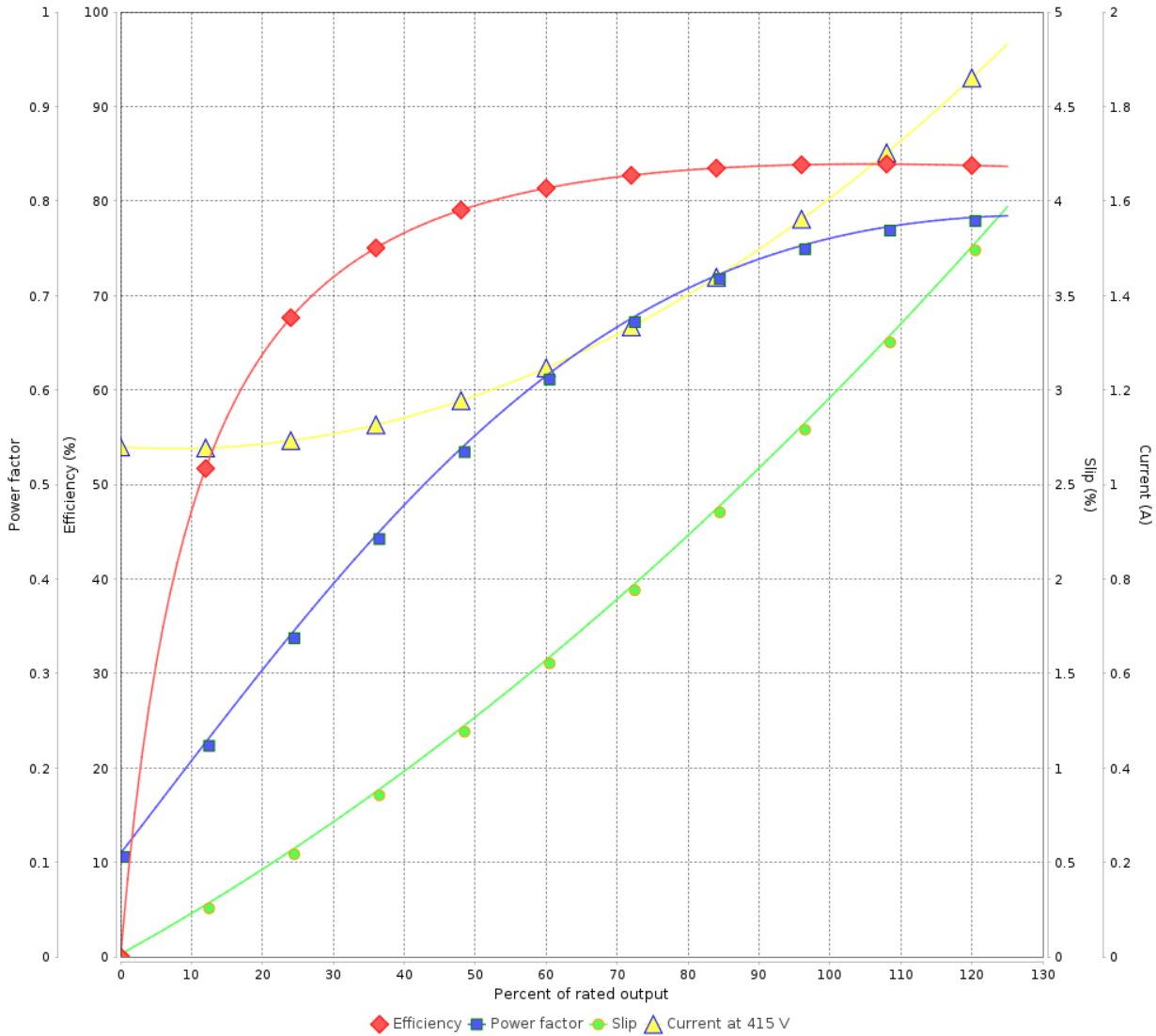
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13060964

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Performance : 415 V 50 Hz 4P IE3

| | | | |
|---------------------|--------------|-----------------------|---------------------------|
| Rated current | : 1.63 A | Moment of inertia (J) | : 0.0049 kgm ² |
| LRC | : 7.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 0.499 kgfm | Insulation class | : F |
| Locked rotor torque | : 260 % | Service factor | : 1.25 |
| Breakdown torque | : 310 % | Temperature rise | : 80 K |
| Rated speed | : 1455 rpm | Design | : B |

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