

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------|----------|
| Customer : | | | | | |
| Product line | : W22 IEEE 841 NEMA Premium Efficiency Three-Phase | Product code : | 13166478 | | |
| 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 ² | : 24.1 kg | | |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.0060 kgm ² | | |
| Design | : B | | | | |
| Output [HP] | 1.5 | 1.5 | 1.5 | 1.5 | |
| Poles | 4 | 4 | 4 | 4 | |
| Frequency [Hz] | 60 | 50 | 50 | 50 | |
| Rated voltage [V] | 460 | 380 | 400 | 415 | |
| Rated current [A] | 2.02 | 2.42 | 2.33 | 2.30 | |
| L. R. Amperes [A] | 17.0 | 15.5 | 16.3 | 17.0 | |
| LRC [A] | 8.4x(Code L) | 6.4x(Code H) | 7.0x(Code J) | 7.4x(Code K) | |
| No load current [A] | 1.10 | 1.10 | 1.20 | 1.30 | |
| Rated speed [RPM] | 1755 | 1440 | 1445 | 1450 | |
| Slip [%] | 2.50 | 4.00 | 3.67 | 3.33 | |
| Rated torque [kgfm] | 0.620 | 0.756 | 0.753 | 0.751 | |
| Locked rotor torque [%] | 290 | 220 | 250 | 280 | |
| Breakdown torque [%] | 350 | 250 | 290 | 320 | |
| Service factor | 1.25 | 1.25 | 1.25 | 1.25 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | |
| Locked rotor time | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) | 25s (cold) 14s (hot) | |
| Noise level ² | 51.0 dB(A) | 49.0 dB(A) | 49.0 dB(A) | 49.0 dB(A) | |
| Efficiency (%) | 25% | | | | |
| | 50% | 82.5 | 82.5 | 81.0 | |
| | 75% | 85.5 | 84.0 | 84.0 | |
| | 100% | 86.5 | 84.1 | 84.1 | |
| Power Factor | 25% | | | | |
| | 50% | 0.60 | 0.67 | 0.60 | |
| | 75% | 0.70 | 0.76 | 0.70 | |
| | 100% | 0.79 | 0.82 | 0.79 | |
| Losses at normative operating points (speed;torque), in percentage of rated output power | | | | | |
| Losses (%) | P1 (0,9;1,0) | 14.6 | 14.6 | 14.6 | 14.6 |
| | P2 (0,5;1,0) | 12.1 | 12.1 | 12.1 | 12.1 |
| | P3 (0,25;1,0) | 12.2 | 12.2 | 12.2 | 12.2 |
| | P4 (0,9;0,5) | 8.2 | 8.2 | 8.2 | 8.2 |
| | P5 (0,5;0,5) | 5.7 | 5.7 | 5.7 | 5.7 |
| | P6 (0,5;0,25) | 4.3 | 4.3 | 4.3 | 4.3 |
| | P7 (0,25;0,25) | 3.2 | 3.2 | 3.2 | 3.2 |
| Bearing type | : Drive end : 6205 C3 | Non drive end : 6204 C3 | Foundation loads | | |
| Sealing | : Taconite | Taconite | Max. traction | : 56 kgf | |
| | Labyrinth | Labyrinth | Max. compression | : 80 kgf | |
| Lubrication interval | : 20000 h | 20000 h | | | |
| Lubricant amount | : 4 g | 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 |
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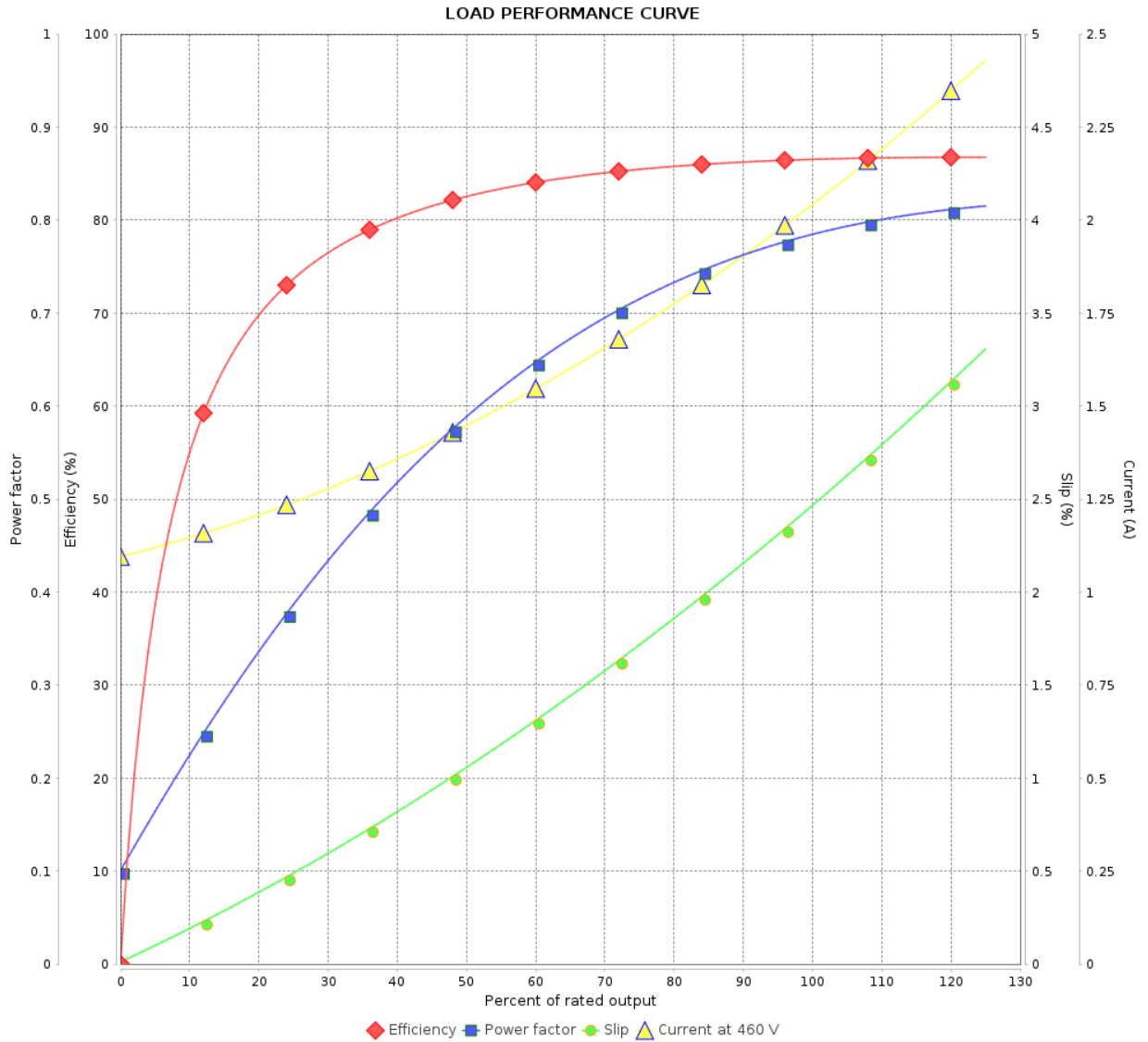
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13166478



Performance : 460 V 60 Hz 4P

Rated current : 2.02 A
 LRC : 8.4
 Rated torque : 0.620 kgfm
 Locked rotor torque : 290 %
 Breakdown torque : 350 %
 Rated speed : 1755 rpm

Moment of inertia (J) : 0.0060 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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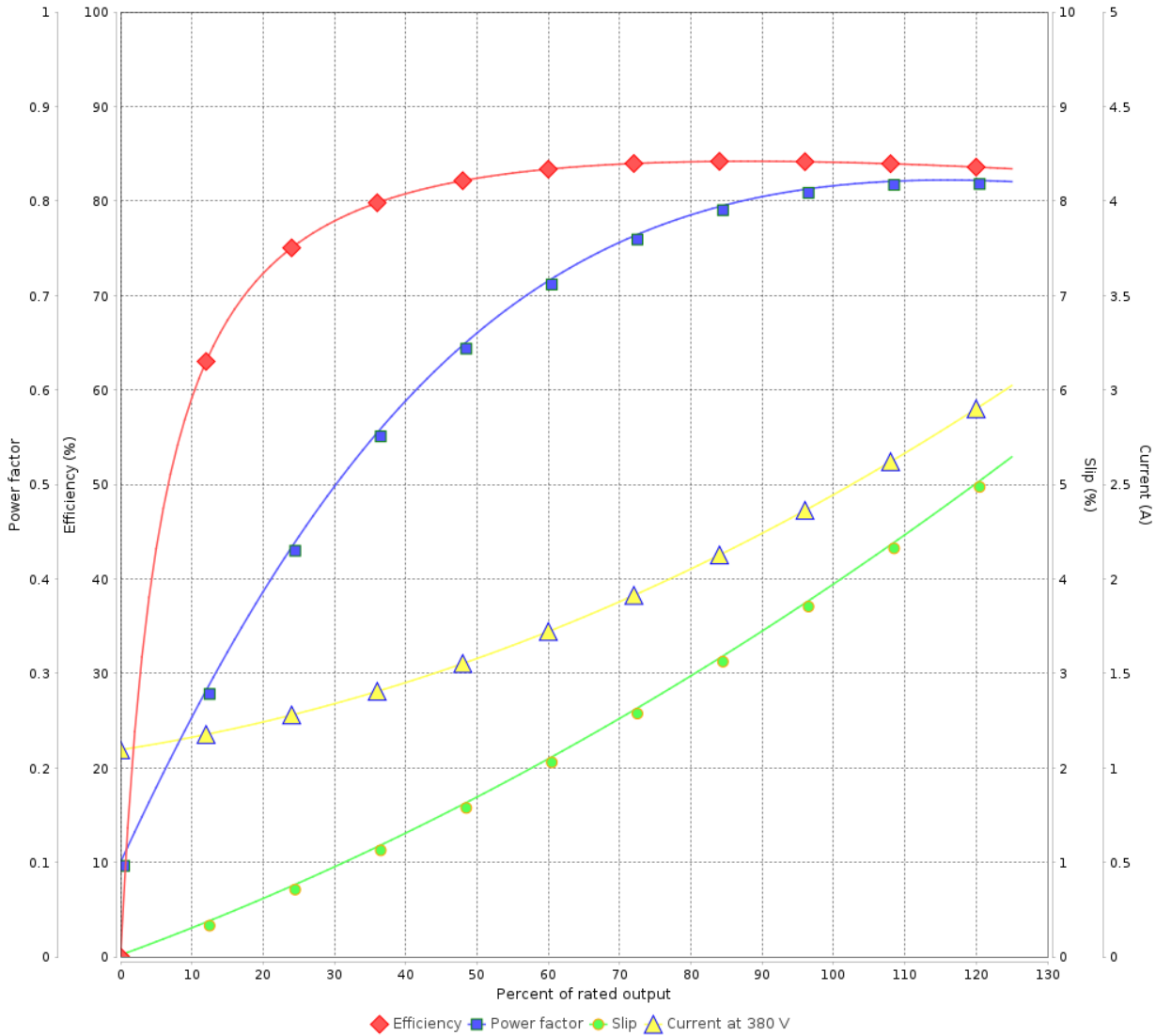
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13166478

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE3

| | |
|-----------------------------|-------------------------------------------------|
| Rated current : 2.42 A | Moment of inertia (J) : 0.0060 kgm ² |
| LRC : 6.4 | Duty cycle : Cont.(S1) |
| Rated torque : 0.756 kgfm | Insulation class : F |
| Locked rotor torque : 220 % | Service factor : 1.25 |
| Breakdown torque : 250 % | Temperature rise : 80 K |
| Rated speed : 1440 rpm | Design : B |

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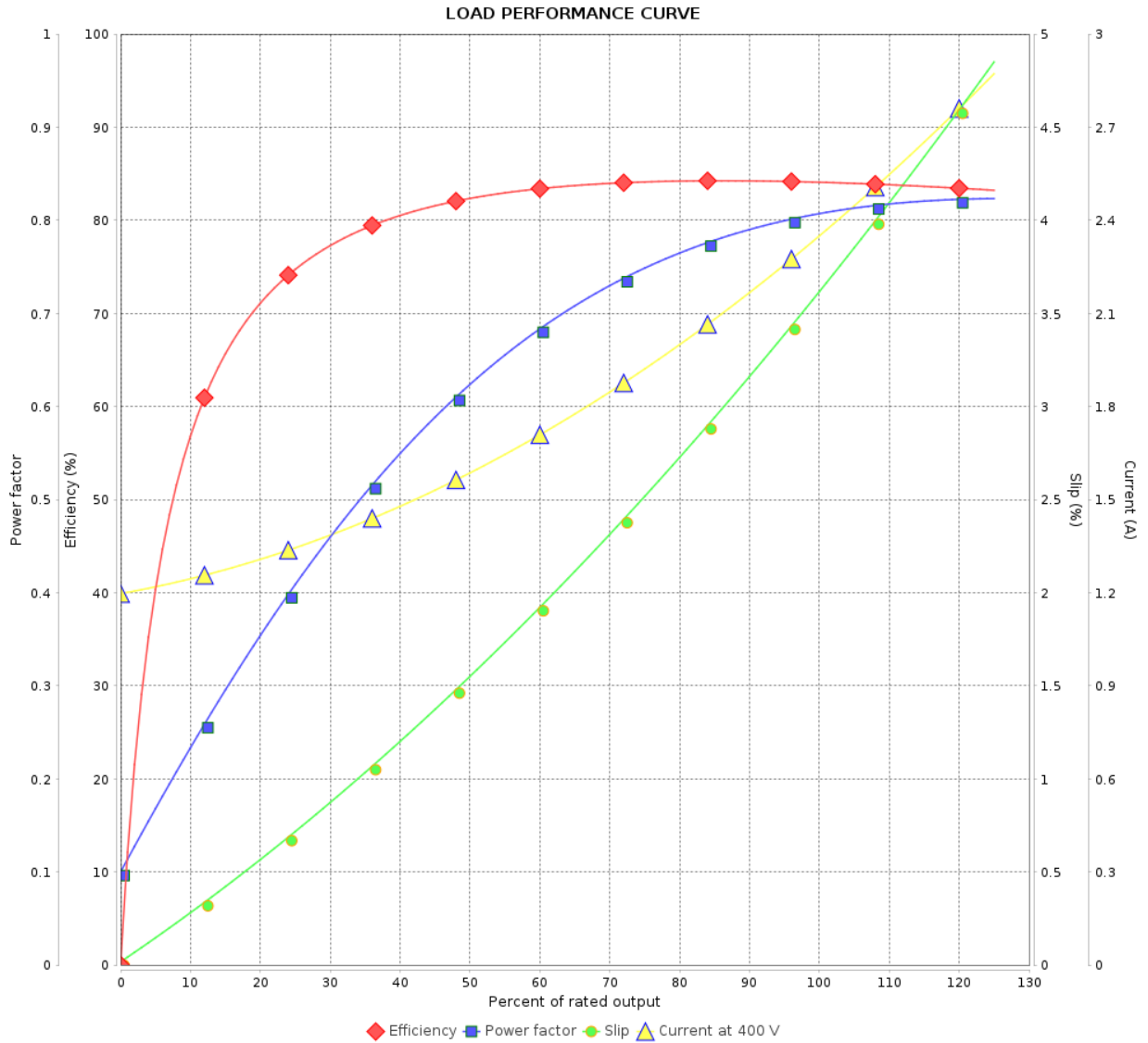
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 13166478



Performance : 400 V 50 Hz 4P IE3

Rated current : 2.33 A
 LRC : 7.0
 Rated torque : 0.753 kgfm
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.0060 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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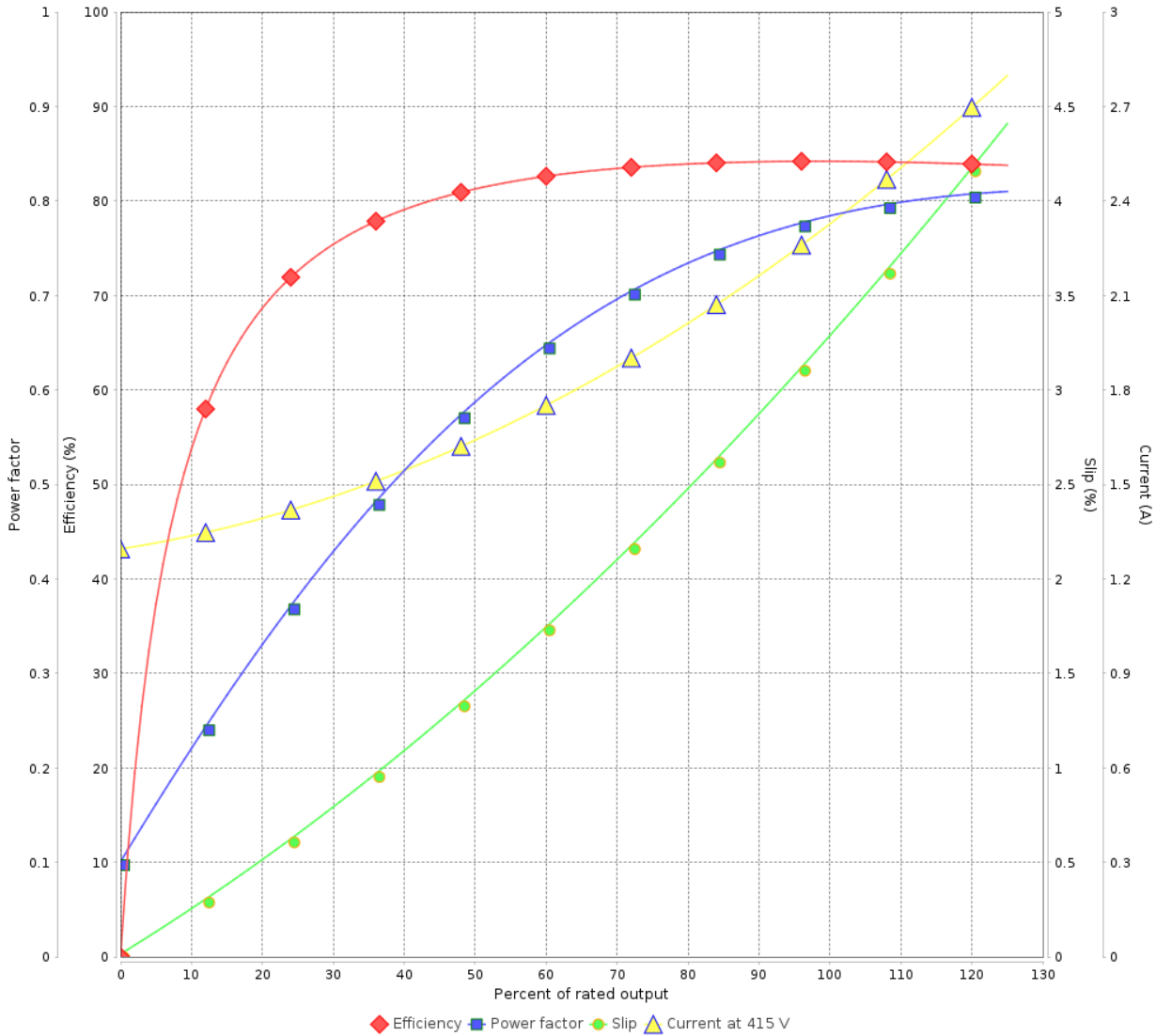
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 13166478

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 4P IE3

| | |
|-----------------------------|-------------------------------------------------|
| Rated current : 2.30 A | Moment of inertia (J) : 0.0060 kgm ² |
| LRC : 7.4 | Duty cycle : Cont.(S1) |
| Rated torque : 0.751 kgfm | Insulation class : F |
| Locked rotor torque : 280 % | Service factor : 1.25 |
| Breakdown torque : 320 % | Temperature rise : 80 K |
| Rated speed : 1450 rpm | Design : B |

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| Date | 12/07/2023 | | | |