

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 11514036

| | | | |
|---------------------|------------------|-----------------------------|---------------------------|
| Frame | : 254/6T | 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 | : 131 kg |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.1867 kgm ² |
| Design | : B | | |

| | | | | |
|--------------------------|----------------------|----------------------|----------------------|----------------------|
| Output [HP] | 10 | 10 | 10 | 10 |
| Poles | 6 | 6 | 6 | 6 |
| Frequency [Hz] | 60 | 50 | 50 | 50 |
| Rated voltage [V] | 460 | 380 | 400 | 415 |
| Rated current [A] | 12.9 | 15.4 | 14.8 | 14.4 |
| L. R. Amperes [A] | 80.0 | 73.9 | 79.9 | 83.5 |
| LRC [A] | 6.2x(Code H) | 4.8x(Code F) | 5.4x(Code G) | 5.8x(Code H) |
| No load current [A] | 6.00 | 4.90 | 6.30 | 6.60 |
| Rated speed [RPM] | 1175 | 965 | 970 | 975 |
| Slip [%] | 2.08 | 3.50 | 3.00 | 2.50 |
| Rated torque [kgfm] | 6.17 | 7.50 | 7.47 | 7.44 |
| Locked rotor torque [%] | 220 | 160 | 190 | 210 |
| Breakdown torque [%] | 270 | 210 | 229 | 250 |
| Service factor | 1.25 | 1.00 | 1.15 | 1.15 |
| Temperature rise | 80 K | 105 K | 105 K | 80 K |
| Locked rotor time | 46s (cold) 26s (hot) | 39s (cold) 22s (hot) | 39s (cold) 22s (hot) | 39s (cold) 22s (hot) |
| Noise level ² | 59.0 dB(A) | 57.0 dB(A) | 57.0 dB(A) | 57.0 dB(A) |
| Efficiency (%) | 25% | | | |
| | 50% | 90.2 | 90.2 | 89.5 |
| | 75% | 91.0 | 89.5 | 90.2 |
| | 100% | 91.0 | 89.1 | 89.5 |
| Power Factor | 25% | | | |
| | 50% | 0.63 | 0.70 | 0.66 |
| | 75% | 0.74 | 0.79 | 0.75 |
| | 100% | 0.80 | 0.83 | 0.82 |

Losses at normative operating points (speed;torque), in percentage of rated output power

| | | | | | |
|------------|----------------|------|------|------|------|
| Losses (%) | P1 (0,9;1,0) | 10.9 | 13.6 | 13.0 | 13.0 |
| | P2 (0,5;1,0) | 9.4 | 12.1 | 11.5 | 11.5 |
| | P3 (0,25;1,0) | 8.9 | 11.6 | 11.0 | 11.0 |
| | P4 (0,9;0,5) | 5.6 | 6.8 | 6.5 | 6.5 |
| | P5 (0,5;0,5) | 4.0 | 5.0 | 4.8 | 4.8 |
| | P6 (0,5;0,25) | 2.9 | 3.6 | 3.4 | 3.4 |
| | P7 (0,25;0,25) | 2.0 | 2.7 | 2.5 | 2.5 |

| | | | | |
|----------------------|--------------------|----------------------|------------------|-----------|
| | <u>Drive end</u> | <u>Non drive end</u> | Foundation loads | |
| Bearing type | : 6309 C3 | 6209 C3 | Max. traction | : 227 kgf |
| Sealing | : Taconite | Taconite | Max. compression | : 358 kgf |
| | Labyrinth | Labyrinth | | |
| Lubrication interval | : 20000 h | 20000 h | | |
| Lubricant amount | : 13 g | 9 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 | | | | |
| Checked by | | | | |
| Date | 22/10/2024 | | Page 1 / 6 | Revision |

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Notes

| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------|----------|
| | | | | | |
| Performed by | | | | Page | Revision |
| Checked by | | | | | |
| Date | 22/10/2024 | | | | |

LOAD PERFORMANCE CURVE

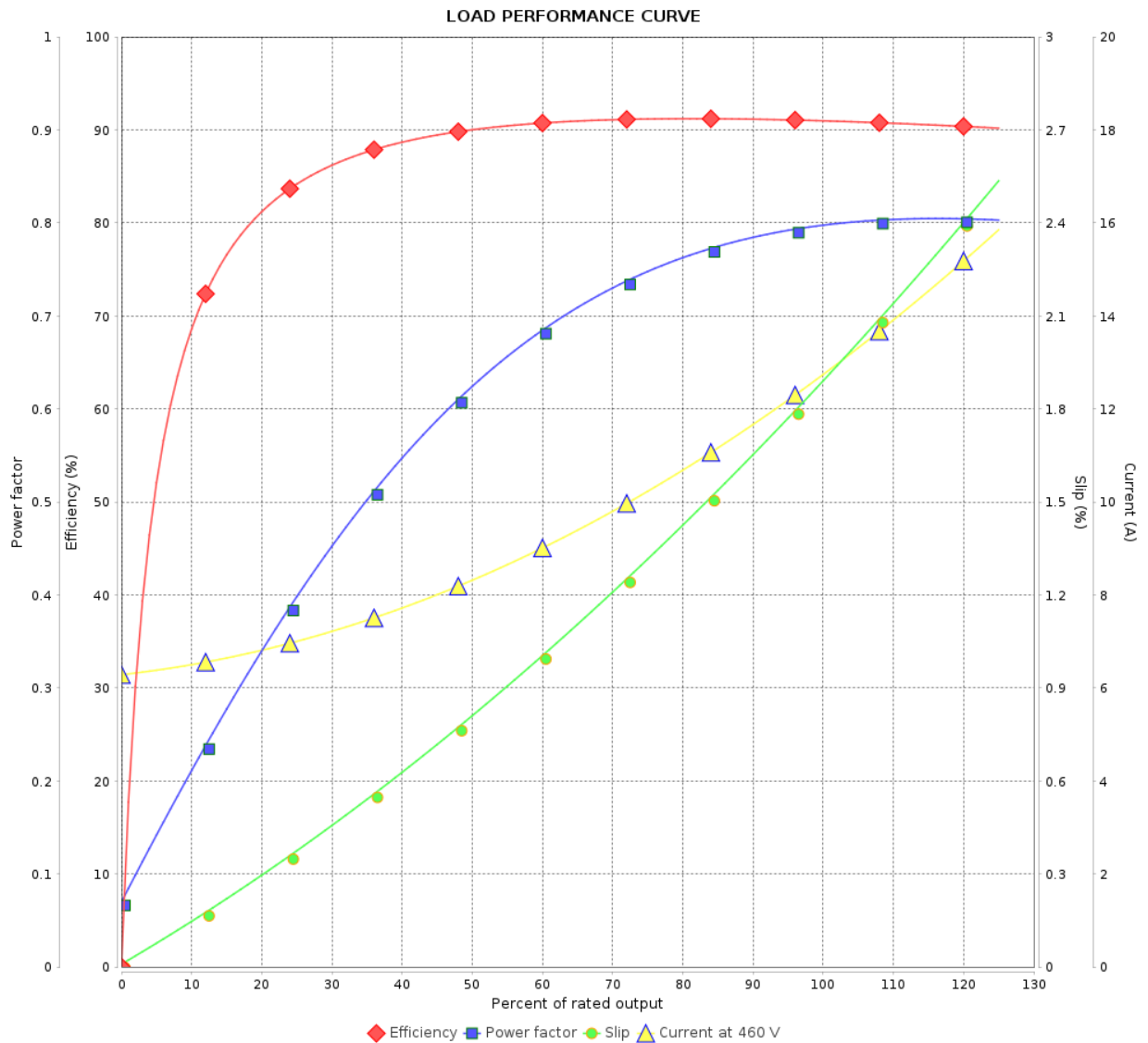
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11514036



Performance : 460 V 60 Hz 6P

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 12.9 A | Moment of inertia (J) | : 0.1867 kgm ² |
| LRC | : 6.2 | Duty cycle | : Cont.(S1) |
| Rated torque | : 6.17 kgfm | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 1175 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------------------|---------|------|
| | | | | |
| Performed by | | Page 3 / 6Revision | | |
| Checked by | | | | |
| Date | 22/10/2024 | | | |

LOAD PERFORMANCE CURVE

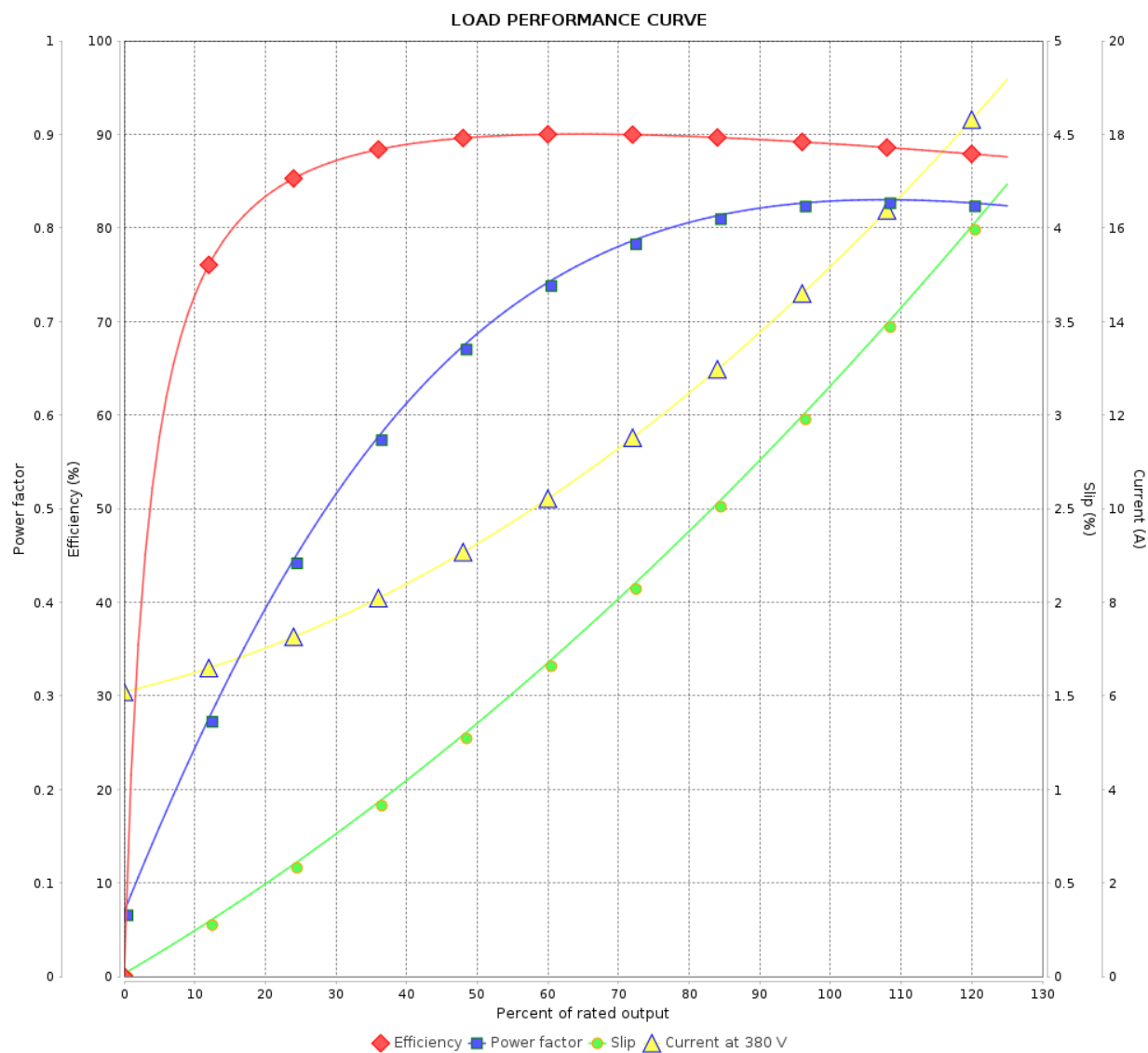
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11514036



Performance : 380 V 50 Hz 6P IE3

Rated current : 15.4 A
LRC : 4.8
Rated torque : 7.50 kgfm
Locked rotor torque : 160 %
Breakdown torque : 210 %
Rated speed : 965 rpm

Moment of inertia (J) : 0.1867 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------------|----------|
| | | | | | |
| Performed by | | | | Page 4 / 6 | Revision |
| Checked by | | | | | |
| Date | 22/10/2024 | | | | |

LOAD PERFORMANCE CURVE

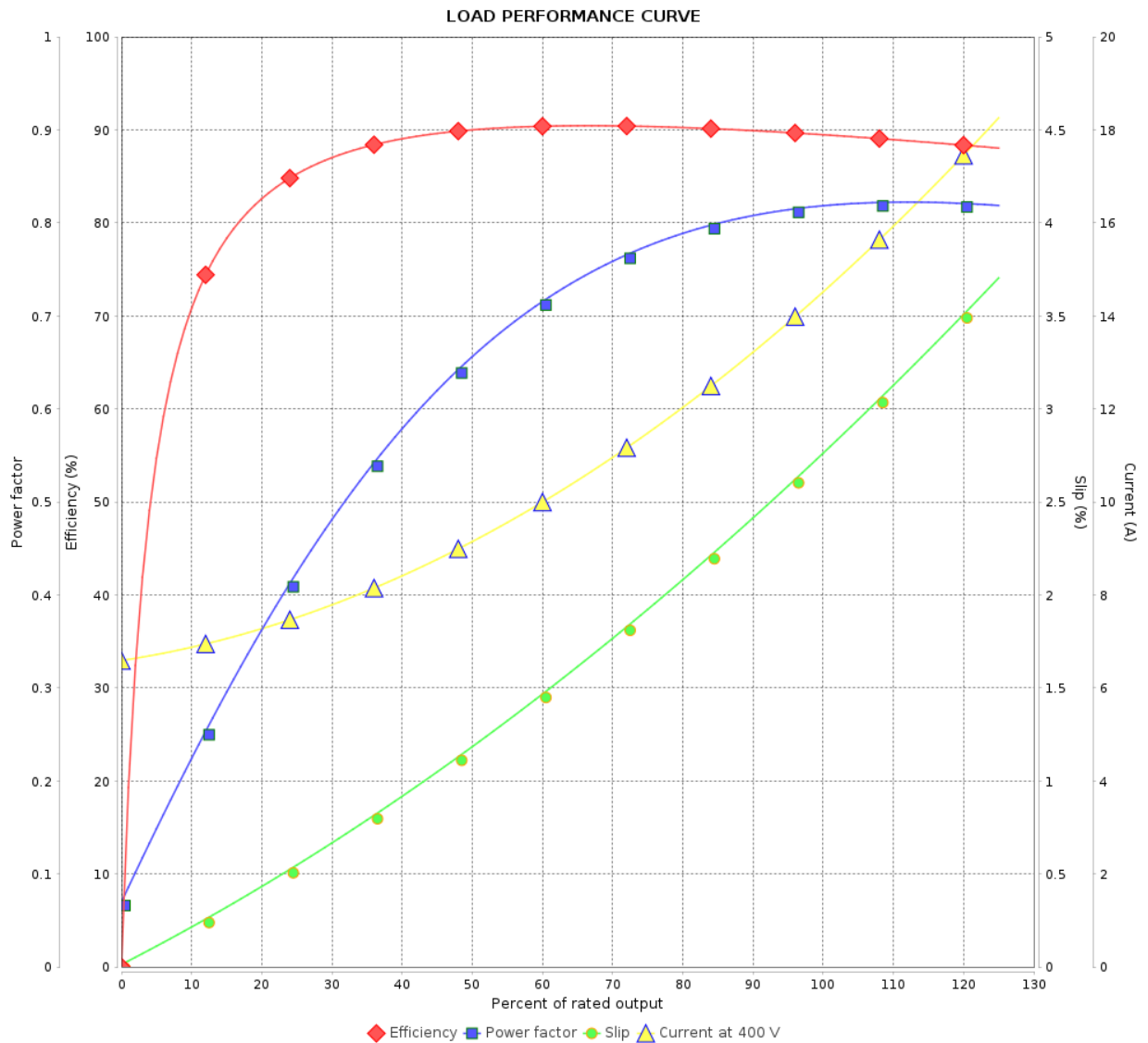
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11514036



Performance : 400 V 50 Hz 6P IE3

Rated current : 14.8 A
LRC : 5.4
Rated torque : 7.47 kgfm
Locked rotor torque : 190 %
Breakdown torque : 229 %
Rated speed : 970 rpm

Moment of inertia (J) : 0.1867 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 105 K
Design : B

| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------------|----------|
| | | | | | |
| Performed by | | | | Page 5 / 6 | Revision |
| Checked by | | | | | |
| Date | 22/10/2024 | | | | |

LOAD PERFORMANCE CURVE

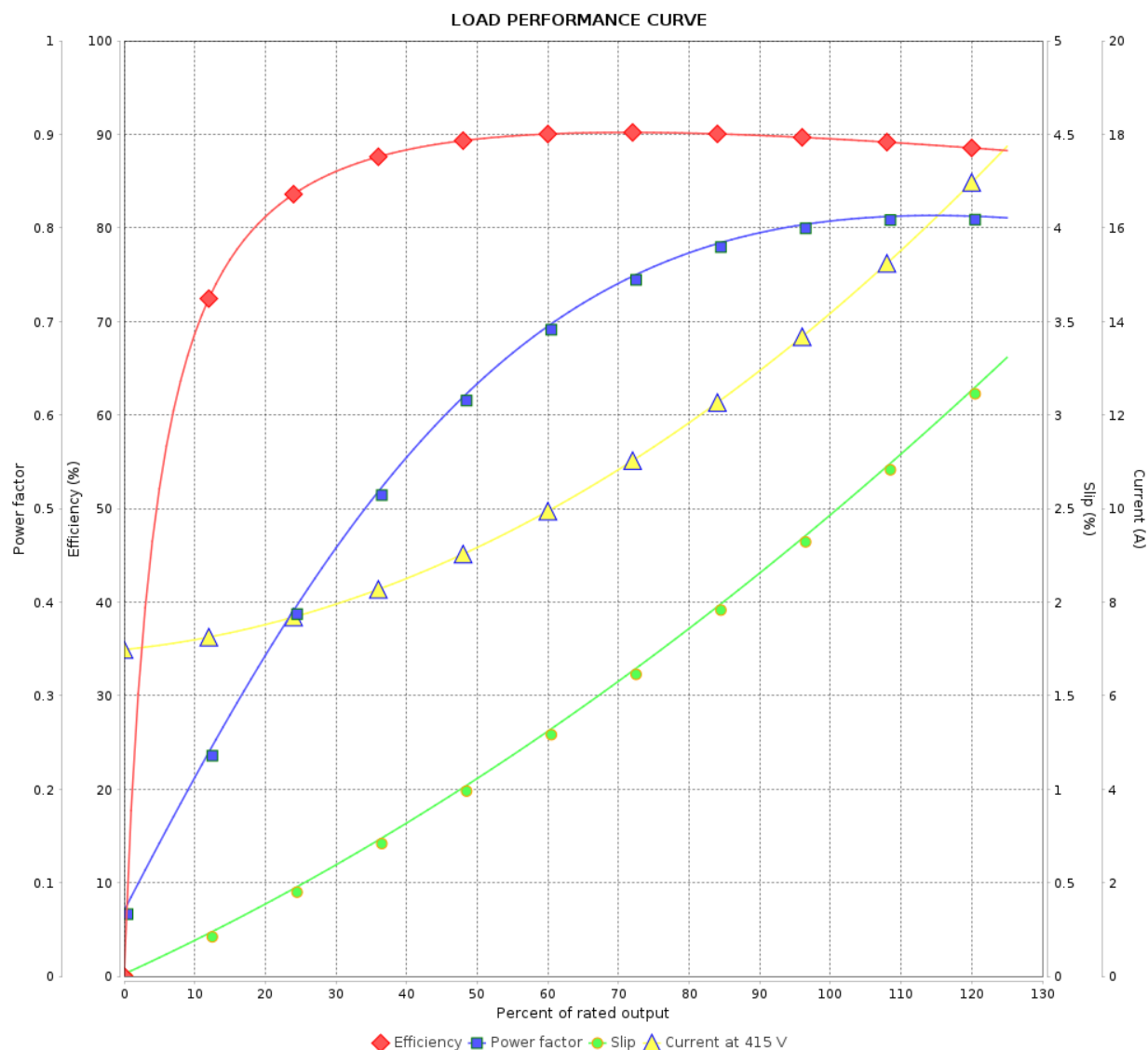
Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11514036

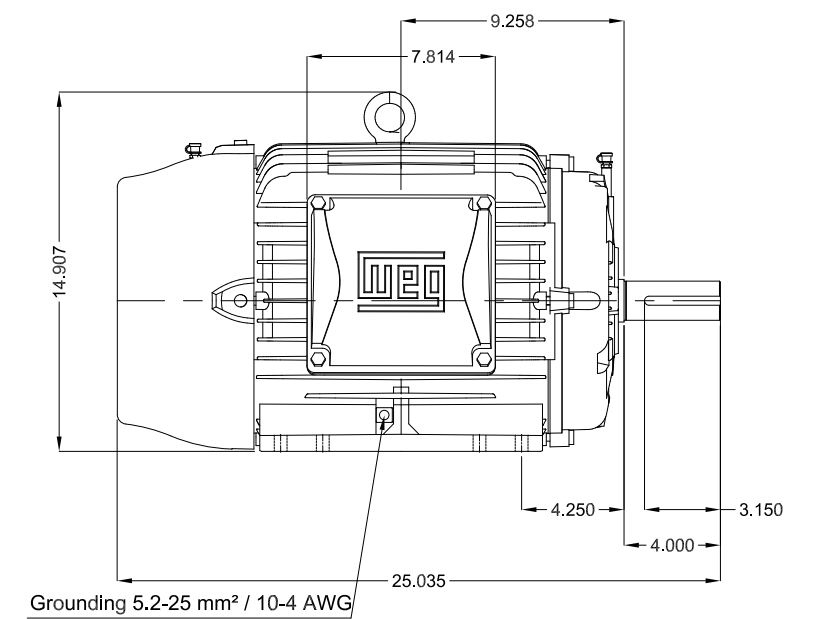
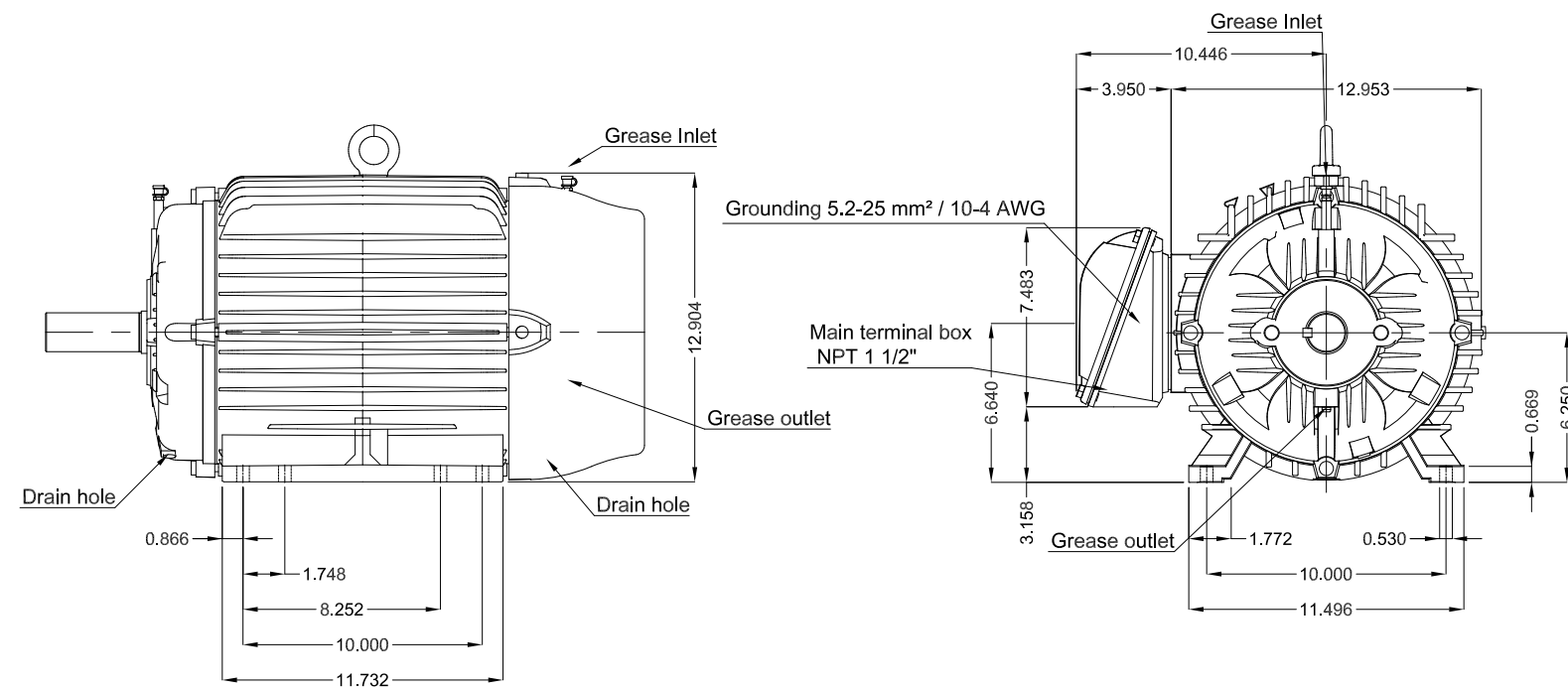




Performance : 415 V 50 Hz 6P IE3

Rated current : 14.4 A
LRC : 5.8
Rated torque : 7.44 kgfm
Locked rotor torque : 210 %
Breakdown torque : 250 %
Rated speed : 975 rpm

Moment of inertia (J) : 0.1867 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------|----------|
| | | | | | |
| Performed by | | | | Page | Revision |
| Checked by | | | | 6 / 6 | |
| Date | | | | | |



| | | | | | | | | | | | | | |
|----------------------------|--|------------|--|---|--|--|----------|---|---------------------|---|---|------|-----|
| 10 HP 06 Poles 60 Hz | | | | | | | | | | A | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | HYBRISUSER | | | | | 00 | | | | |
| ECM | | LOC | | SUMMARY OF MODIFICATIONS | | | EXECUTED | | CHECKED | | RELEASED | DATE | VER |
| EXECUTED | | HYBRISUSER | |  | | THREE PH. MOTOR IEEE 841 W22 NEMA PREM. EFF. FRAME 254/6T IP55 TEFC | | | PREVIEW WDD 00 | |  | | |
| CHECKED | | | | | | | | | | | | | |
| RELEASED | | | | | | | | | | | | | |
| REL. DATE | | | | | | | | | | | | | |
| | | | | | | SHEET | | / | | | | | |