

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------|------------------|----------------------|--------------|-----------|-------------|---------|------------------------|------------------------|----------------------|-----------|-----------|------------------|--------|--------|----------------|--------------------|--|
| Customer : | | | | | | | | | | | | | | | | | | | | | | |
| Product line | | : W40 NEMA Premium Efficiency Three-Phase | | Product code : 14270881 | | | | | | | | | | | | | | | | | | |
| | | | | Catalog # : 04012OT3H364T-W40 | | | | | | | | | | | | | | | | | | |
| Frame | : 364/5T | | Locked rotor time | : 39s (cold) 22s (hot) | | | | | | | | | | | | | | | | | | |
| Output | : 40 HP (30 kW) | | Temperature rise | : 80 K | | | | | | | | | | | | | | | | | | |
| Poles | : 6 | | Duty cycle | : Cont.(S1) | | | | | | | | | | | | | | | | | | |
| Frequency | : 60 Hz | | Ambient temperature | : -20°C to +40°C | | | | | | | | | | | | | | | | | | |
| Rated voltage | : 575 V | | Altitude | : 1000 m.a.s.l. | | | | | | | | | | | | | | | | | | |
| Rated current | : 37.7 A | | Protection degree | : IP23 | | | | | | | | | | | | | | | | | | |
| L. R. Amperes | : 241 A | | Cooling method | : IC01 - ODP | | | | | | | | | | | | | | | | | | |
| LRC | : 6.4x(Code G) | | Mounting | : F-1 | | | | | | | | | | | | | | | | | | |
| No load current | : 12.6 A | | Rotation ¹ | : Both (CW and CCW) | | | | | | | | | | | | | | | | | | |
| Rated speed | : 1185 rpm | | Noise level ² | : 68.0 dB(A) | | | | | | | | | | | | | | | | | | |
| Slip | : 1.25 % | | Starting method | : Direct On Line | | | | | | | | | | | | | | | | | | |
| Rated torque | : 177 ft.lb | | Approx. weight ³ | : 743 lb | | | | | | | | | | | | | | | | | | |
| Locked rotor torque | : 200 % | | | | | | | | | | | | | | | | | | | | | |
| Breakdown torque | : 229 % | | | | | | | | | | | | | | | | | | | | | |
| Insulation class | : F | | | | | | | | | | | | | | | | | | | | | |
| Service factor | : 1.25 | | | | | | | | | | | | | | | | | | | | | |
| Moment of inertia (J) | : 21.8 sq.ft.lb | | | | | | | | | | | | | | | | | | | | | |
| Design | : B | | | | | | | | | | | | | | | | | | | | | |
| Output | 25% | 50% | 75% | 100% | | | | | | | | | | | | | | | | | | |
| Efficiency (%) | 93.5 | 93.6 | 94.1 | 94.1 | | | | | | | | | | | | | | | | | | |
| Power Factor | 0.49 | 0.74 | 0.82 | 0.85 | | | | | | | | | | | | | | | | | | |
| Foundation loads | | | | | | | | | | | | | | | | | | | | | | |
| Max. traction : 1026 lb | | | | | | | | | | | | | | | | | | | | | | |
| Max. compression : 1768 lb | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width:100%; border:none;"> <tr> <td></td> <td style="text-align:center;"><u>Drive end</u></td> <td style="text-align:center;"><u>Non drive end</u></td> </tr> <tr> <td>Bearing type</td> <td>: 6314 C3</td> <td>: 6212 Z C3</td> </tr> <tr> <td>Sealing</td> <td>: Without Bearing Seal</td> <td>: Without Bearing Seal</td> </tr> <tr> <td>Lubrication interval</td> <td>: 20000 h</td> <td>: 20000 h</td> </tr> <tr> <td>Lubricant amount</td> <td>: 27 g</td> <td>: 13 g</td> </tr> <tr> <td>Lubricant type</td> <td colspan="2">: Mobil Polyrex EM</td> </tr> </table> | | | | | | <u>Drive end</u> | <u>Non drive end</u> | Bearing type | : 6314 C3 | : 6212 Z C3 | Sealing | : Without Bearing Seal | : Without Bearing Seal | Lubrication interval | : 20000 h | : 20000 h | Lubricant amount | : 27 g | : 13 g | Lubricant type | : Mobil Polyrex EM | |
| | <u>Drive end</u> | <u>Non drive end</u> | | | | | | | | | | | | | | | | | | | | |
| Bearing type | : 6314 C3 | : 6212 Z C3 | | | | | | | | | | | | | | | | | | | | |
| Sealing | : Without Bearing Seal | : Without Bearing Seal | | | | | | | | | | | | | | | | | | | | |
| Lubrication interval | : 20000 h | : 20000 h | | | | | | | | | | | | | | | | | | | | |
| Lubricant amount | : 27 g | : 13 g | | | | | | | | | | | | | | | | | | | | |
| Lubricant type | : Mobil Polyrex EM | | | | | | | | | | | | | | | | | | | | | |
| Notes | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | |
| Checked by | | | | Page | Revision | | | | | | | | | | | | | | | | | |
| Date | 12/04/2022 | | | 1 / 6 | | | | | | | | | | | | | | | | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



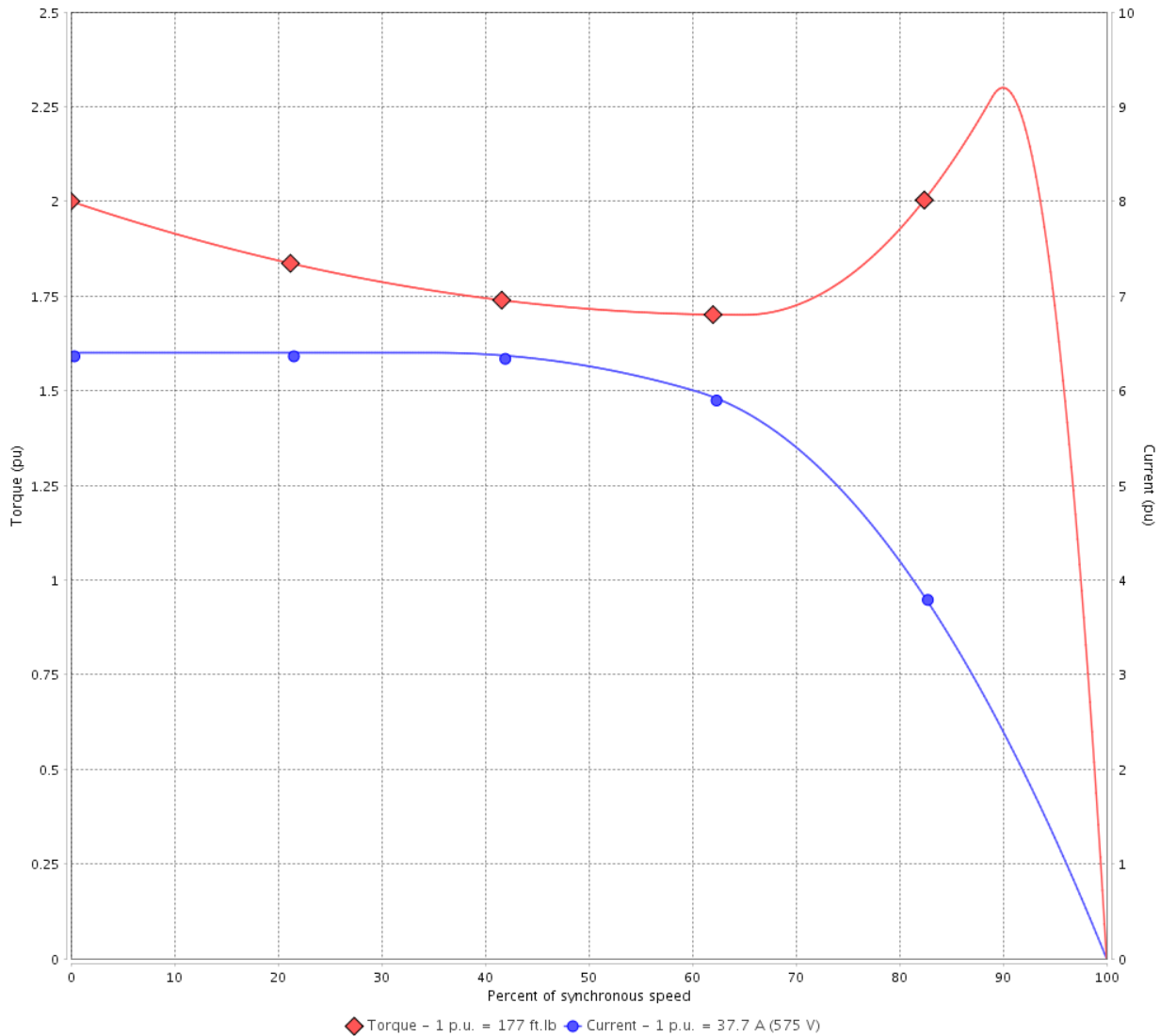
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270881

Catalog # : 04012OT3H364T-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 6P

| | | | |
|---------------------|-------------|-----------------------|-----------------|
| Rated current | : 37.7 A | Moment of inertia (J) | : 21.8 sq.ft.lb |
| LRC | : 6.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 177 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 229 % | Temperature rise | : 80 K |
| Rated speed | : 1185 rpm | Design | : B |

Locked rotor time : 39s (cold) 22s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------------|----------|
| | | | | |
| Performed by | | | Page 2 / 6 | Revision |
| Checked by | | | | |
| Date | 12/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

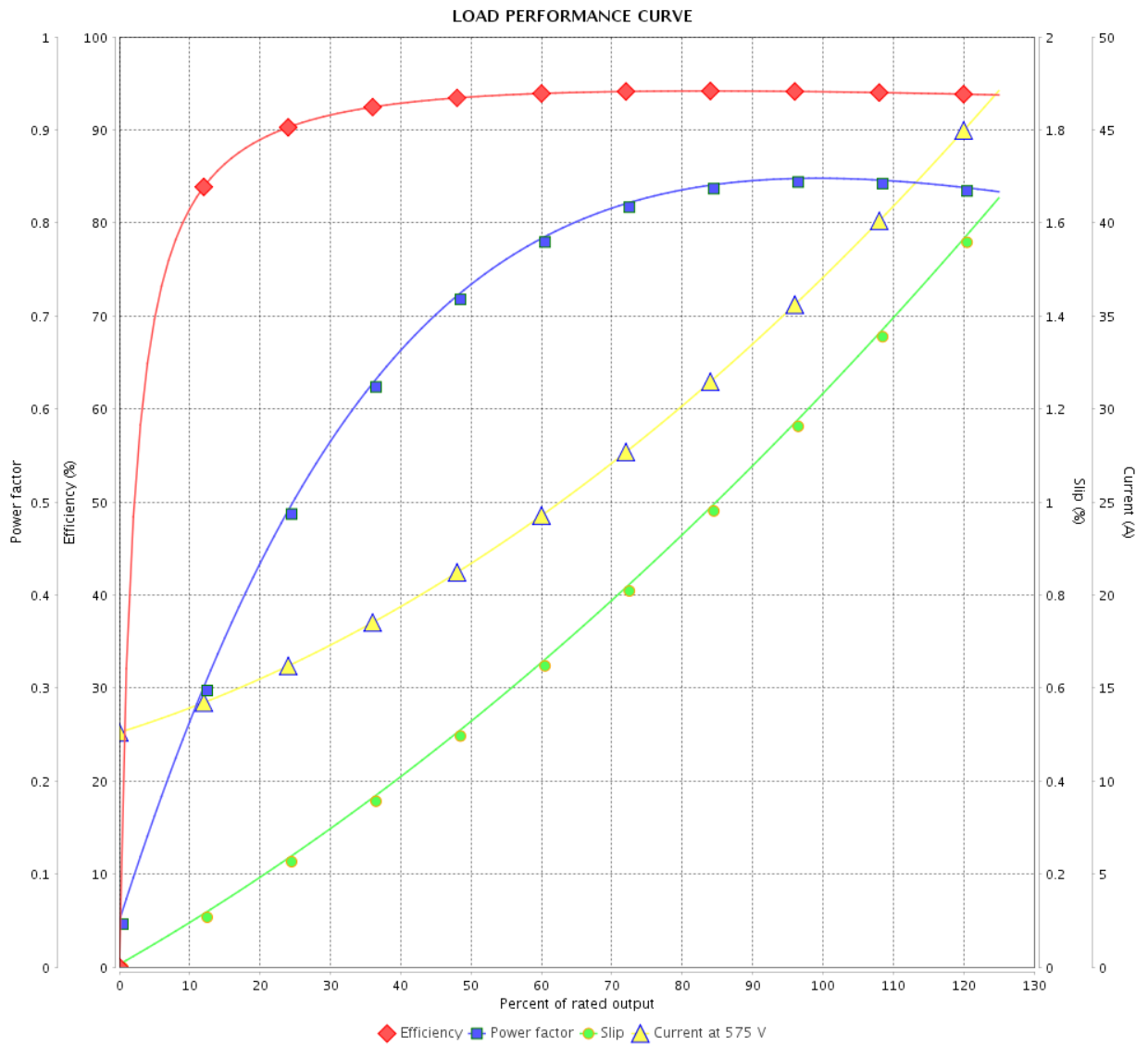


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14270881

Catalog # : 04012OT3H364T-W40



Performance : 575 V 60 Hz 6P

Rated current : 37.7 A
 LRC : 6.4
 Rated torque : 177 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 229 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 21.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
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| Performed by | | | Page | Revision |
| Checked by | | | 3 / 6 | |
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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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 Product code : 14270881
 Catalog # : 04012OT3H364T-W40

Performance : 575 V 60 Hz 6P

| | |
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| LRC : 6.4 | Duty cycle : Cont.(S1) |
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| Locked rotor torque : 200 % | Service factor : 1.25 |
| Breakdown torque : 229 % | Temperature rise : 80 K |
| Rated speed : 1185 rpm | Design : B |

Heating constant

Cooling constant

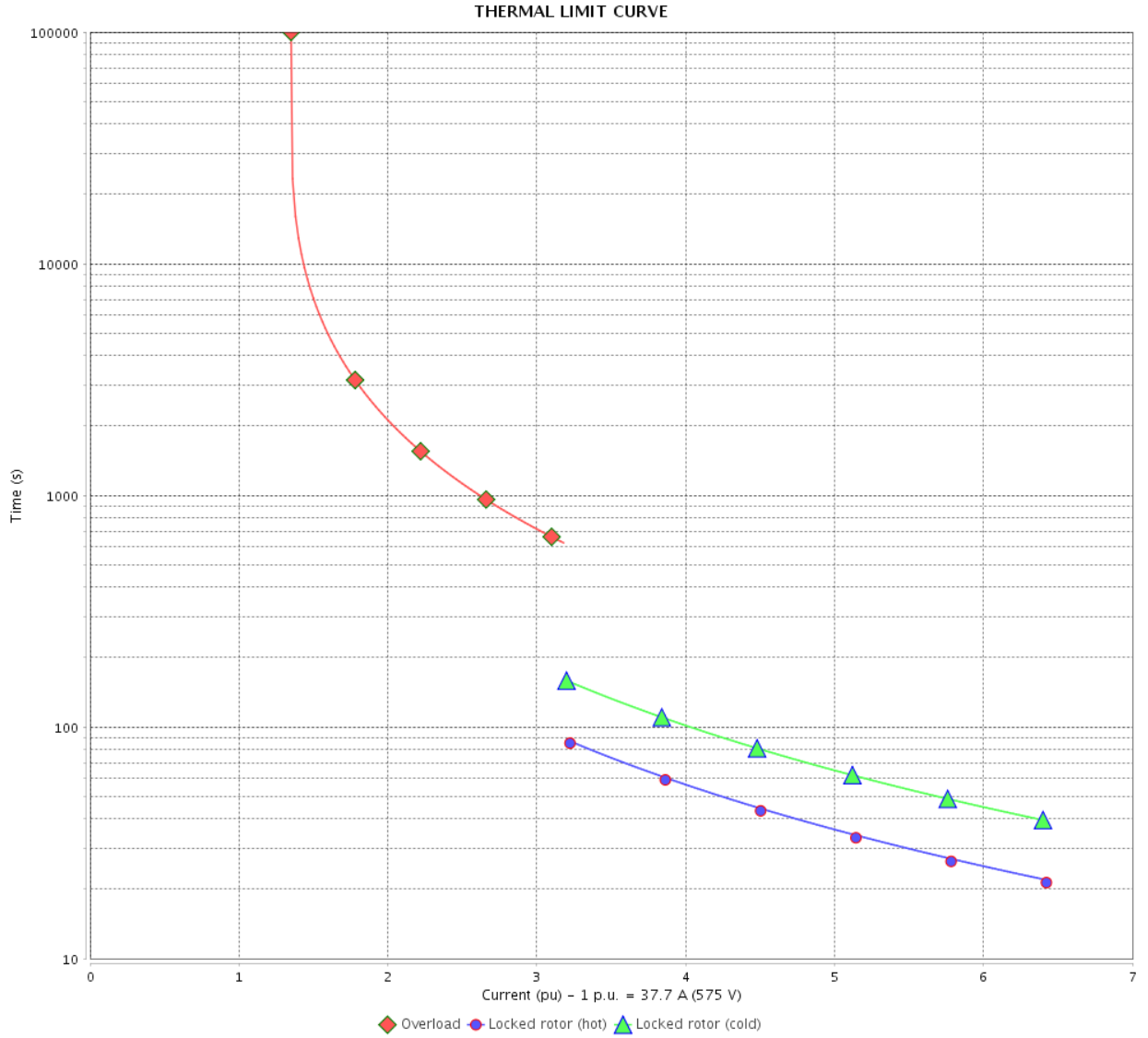
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| Performed by | | | Page | Revision |
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



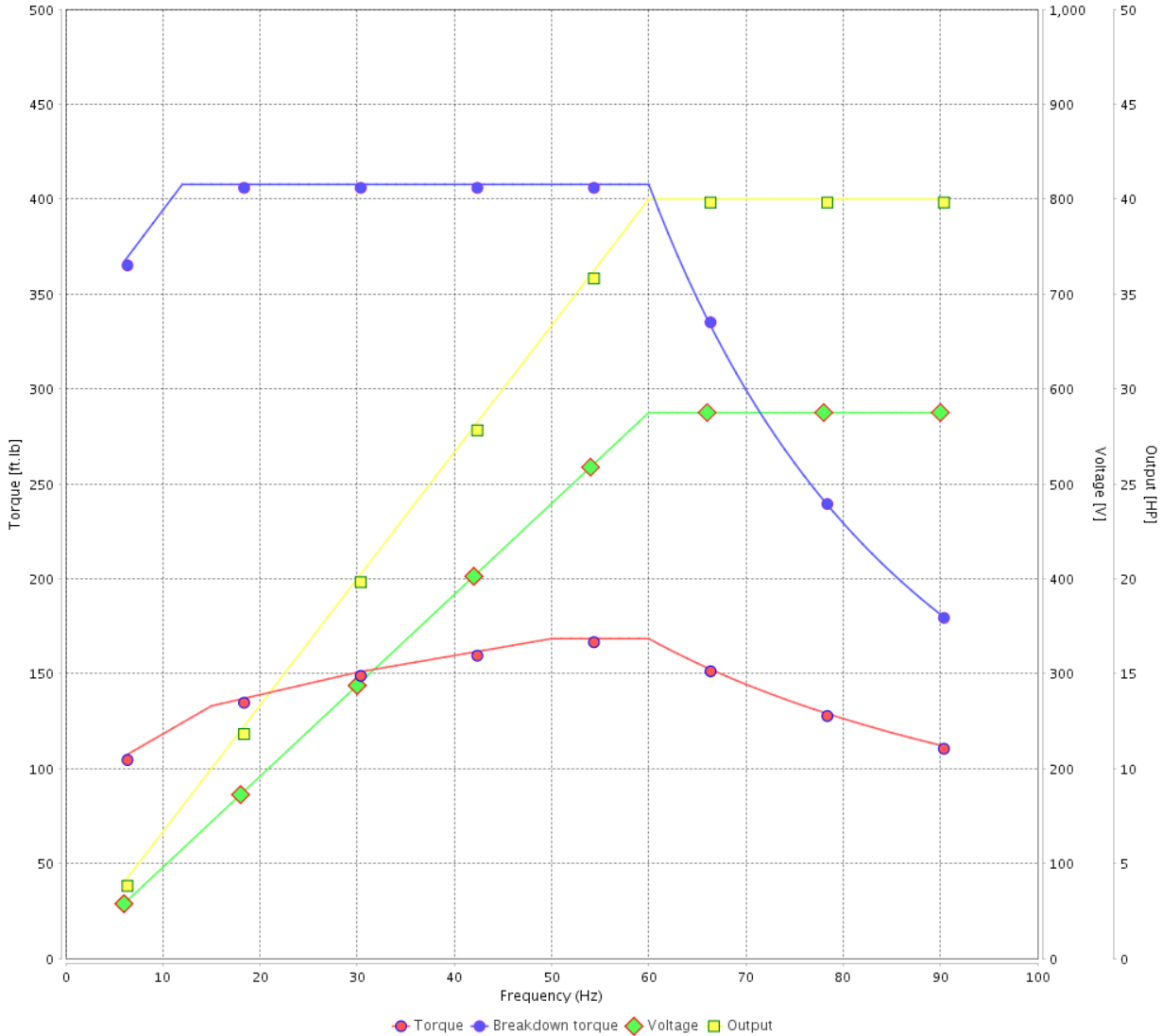
Customer :

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Three-Phase

Product code : 14270881

Catalog # : 04012OT3H364T-W40

VFD OPERATION CURVE

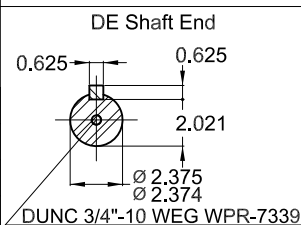
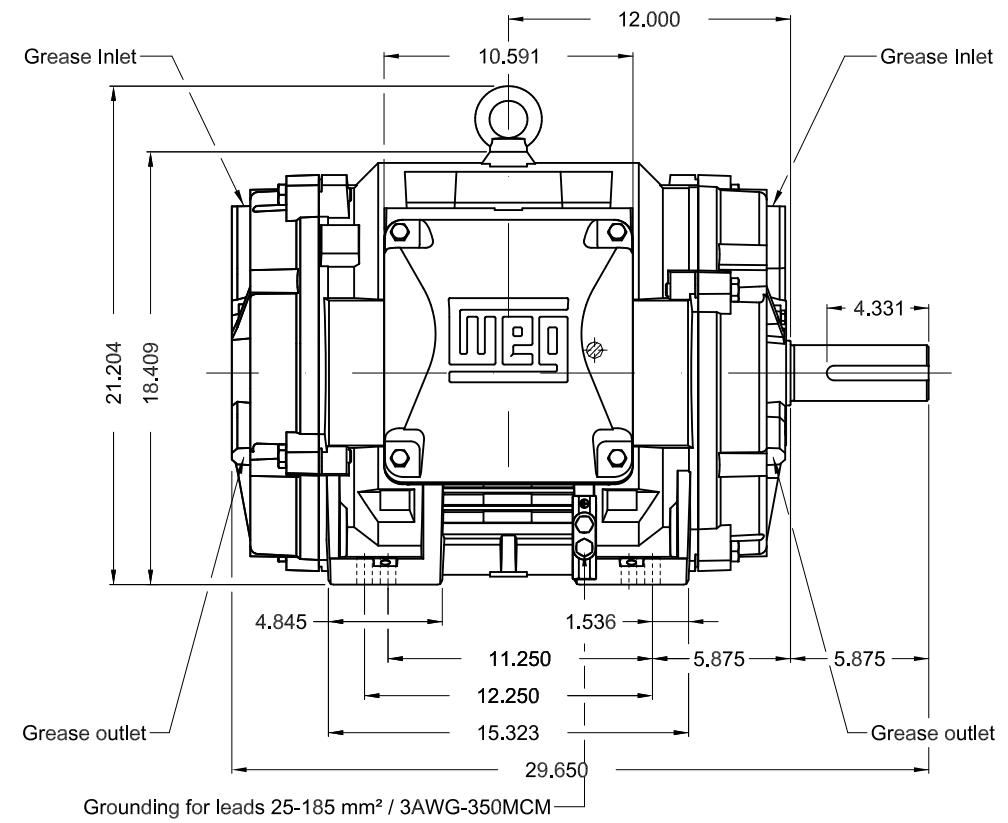
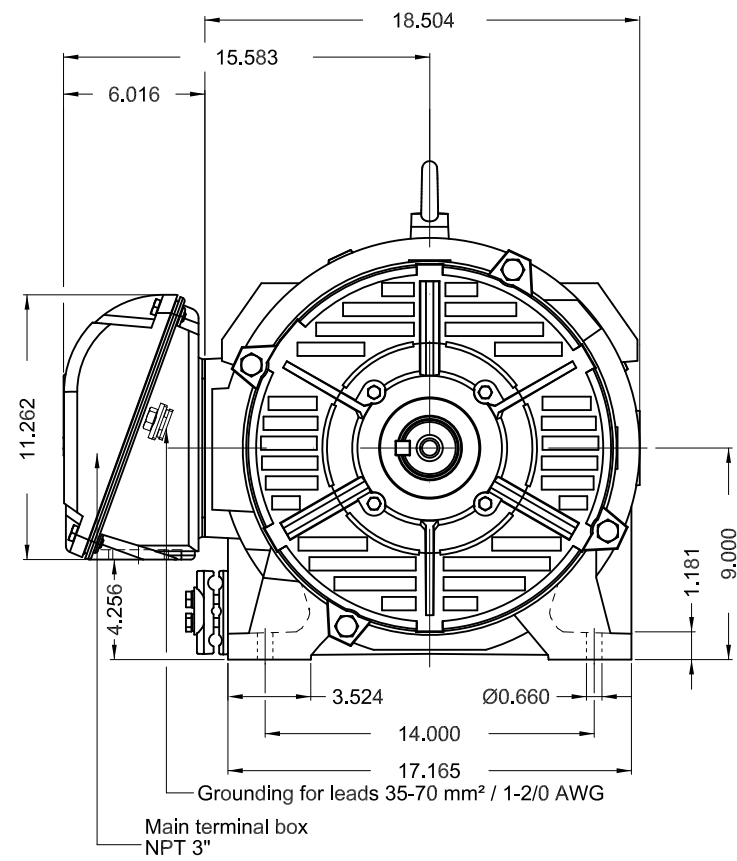


Performance : 575 V 60 Hz 6P

Rated current : 37.7 A
LRC : 6.4
Rated torque : 177 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 229 %
Rated speed : 1185 rpm

Moment of inertia (J) : 21.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
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| | | | | |
| Performed by | | | Page 6 / 6 | Revision |
| Checked by | | | | |
| Date | 12/04/2022 | | | |



Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B3R(D)

40 HP 06 Poles 60 Hz

A

1:8

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|----------|--------------------------------|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWUSER | THREE PH. MOTOR W40 PREM. EFF. | | | | | |
| CHECKED | | FRAME 364/5T IP23 ODP | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

PREVIEW
WDD



MODEL 040120T3H364T-W40
MADE IN BRAZIL
14270881

WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor

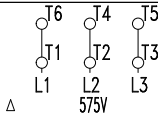


MOD.T01#FOXON



For use on PWM, VT 1000:1, CT 2:1, 1.0SF

| | | | | |
|--------------|------------|---------------|----------------------------|-----------|
| PH 3 | FR 364/5T | HP(kW) 40(30) | | Hz 60 |
| V 575 | | A 37.7 | | IP23 |
| NEMA NOM EFF | | 94.1 | % | RPM 1185 |
| ENCL ODP | DUTY CONT. | | INS. CL. F Δ T 80 K | |
| PF 0.85 | | DES B | CODE G | AMB. 40°C |
| SF 1.25 | SFA 47.1 | | ALT 1000 m.a.s.l. | |



→ 6314-C3(27g)
→ 6212-Z-C3(13g)

MOBIL POLYREX EM
20000 h

743 Lbs