

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|--|---------------------------------------|------------------------------|--|----------------------|----------|
| Customer : | | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | Product code : | 14157409 | | |
| | | Catalog # : | 75018ET3G588/9-W22 | | |
| Frame | : 588/9T | 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 | : 5770 lb | | |
| Protection degree | : IP55 | Moment of inertia (J) | : 347 sq.ft.lb | | |
| Output [HP] | 750 | 640 | 640 | 640 | |
| Poles | 4 | 4 | 4 | 4 | |
| Frequency [Hz] | 60 | 50 | 50 | 50 | |
| Rated voltage [V] | 460 | 380 | 400 | 415 | |
| Rated current [A] | 855 | 871 | 837 | 826 | |
| L. R. Amperes [A] | 6156 | 6271 | 6780 | 7186 | |
| LRC [A] | 7.2x(Code H) | 7.2x(Code H) | 8.1x(Code J) | 8.7x(Code K) | |
| No load current [A] | 320 | 315 | 343 | 366 | |
| Rated speed [RPM] | 1790 | 1490 | 1490 | 1490 | |
| Slip [%] | 0.56 | 0.67 | 0.67 | 0.67 | |
| Rated torque [ft.lb] | 2200 | 2260 | 2260 | 2260 | |
| Locked rotor torque [%] | 240 | 220 | 250 | 270 | |
| Breakdown torque [%] | 250 | 240 | 260 | 290 | |
| Service factor | 1.00 | 1.00 | 1.00 | 1.00 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | |
| Locked rotor time | 52s (cold) 29s (hot) | 39s (cold) 22s (hot) | 39s (cold) 22s (hot) | 39s (cold) 22s (hot) | |
| Noise level ² | 81.0 dB(A) | 76.0 dB(A) | 76.0 dB(A) | 76.0 dB(A) | |
| Efficiency (%) | 25% | 96.1 | 96.1 | 95.4 | |
| | 50% | 96.3 | 96.2 | 95.8 | |
| | 75% | 96.6 | 96.5 | 96.2 | |
| | 100% | 96.7 | 96.5 | 96.5 | |
| Power Factor | 25% | 0.45 | 0.46 | 0.39 | |
| | 50% | 0.70 | 0.71 | 0.64 | |
| | 75% | 0.80 | 0.81 | 0.76 | |
| | 100% | 0.85 | 0.85 | 0.82 | |
| Bearing type | : <u>Drive end</u> 6322 C3 | <u>Non drive end</u> 6319 C3 | Foundation loads | | |
| Sealing | : Taconite | Taconite | Max. traction | : 10762 lb | |
| | Labyrinth | Labyrinth | Max. compression | : 16533 lb | |
| Lubrication interval | : 6000 h | 8000 h | | | |
| Lubricant amount | : 60 g | 45 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. | | |
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DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Space heater information

Voltage: 200 - 240 V

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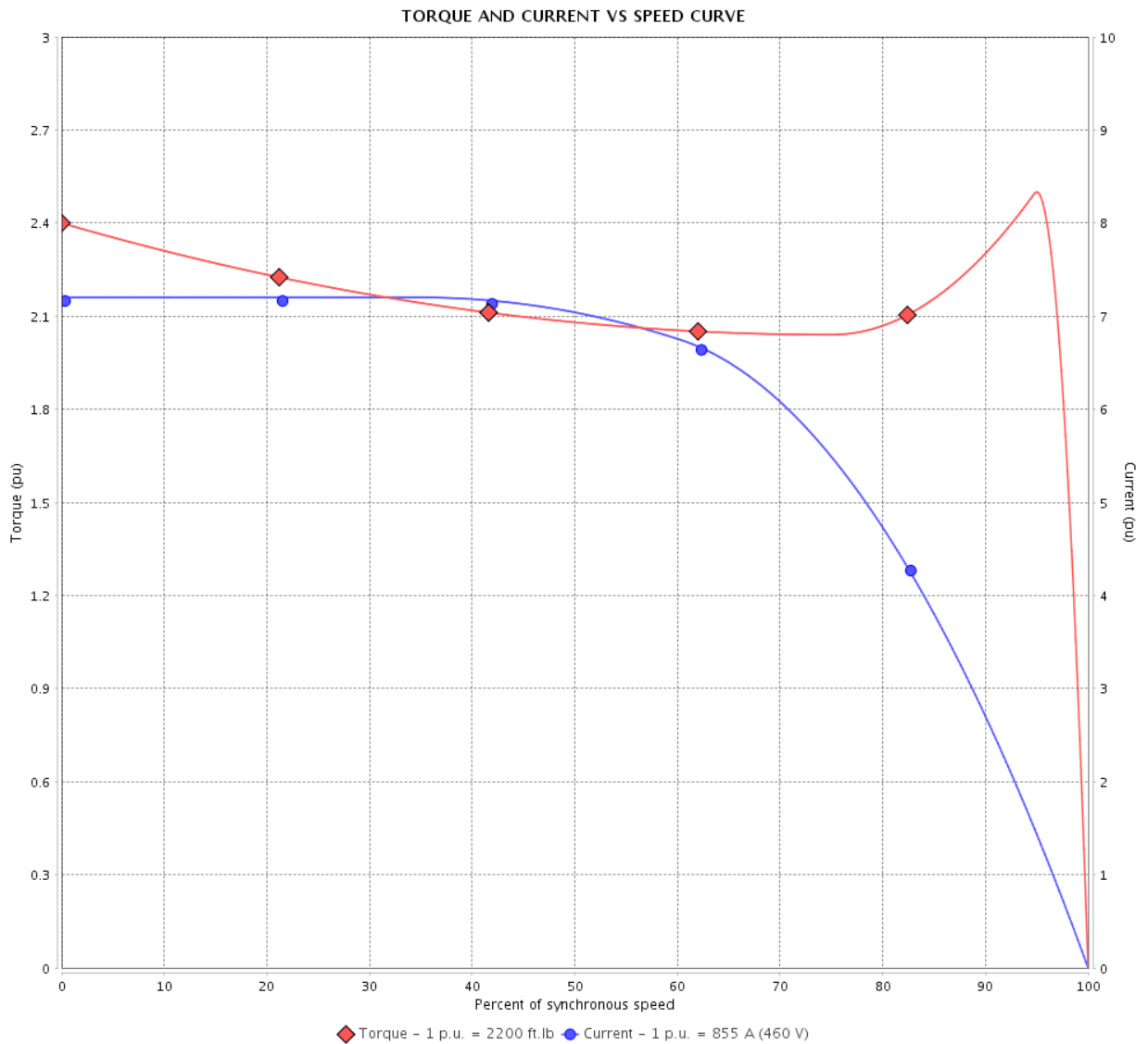
TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14157409
 Catalog # : 75018ET3G588/9-W22



Performance : 460 V 60 Hz 4P

| | |
|-----------------------------|--------------------------------------|
| Rated current : 855 A | Moment of inertia (J) : 347 sq.ft.lb |
| LRC : 7.2 | Duty cycle : Cont.(S1) |
| Rated torque : 2200 ft.lb | Insulation class : F |
| Locked rotor torque : 240 % | Service factor : 1.00 |
| Breakdown torque : 250 % | Temperature rise : 80 K |
| Rated speed : 1790 rpm | |

Locked rotor time : 52s (cold) 29s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



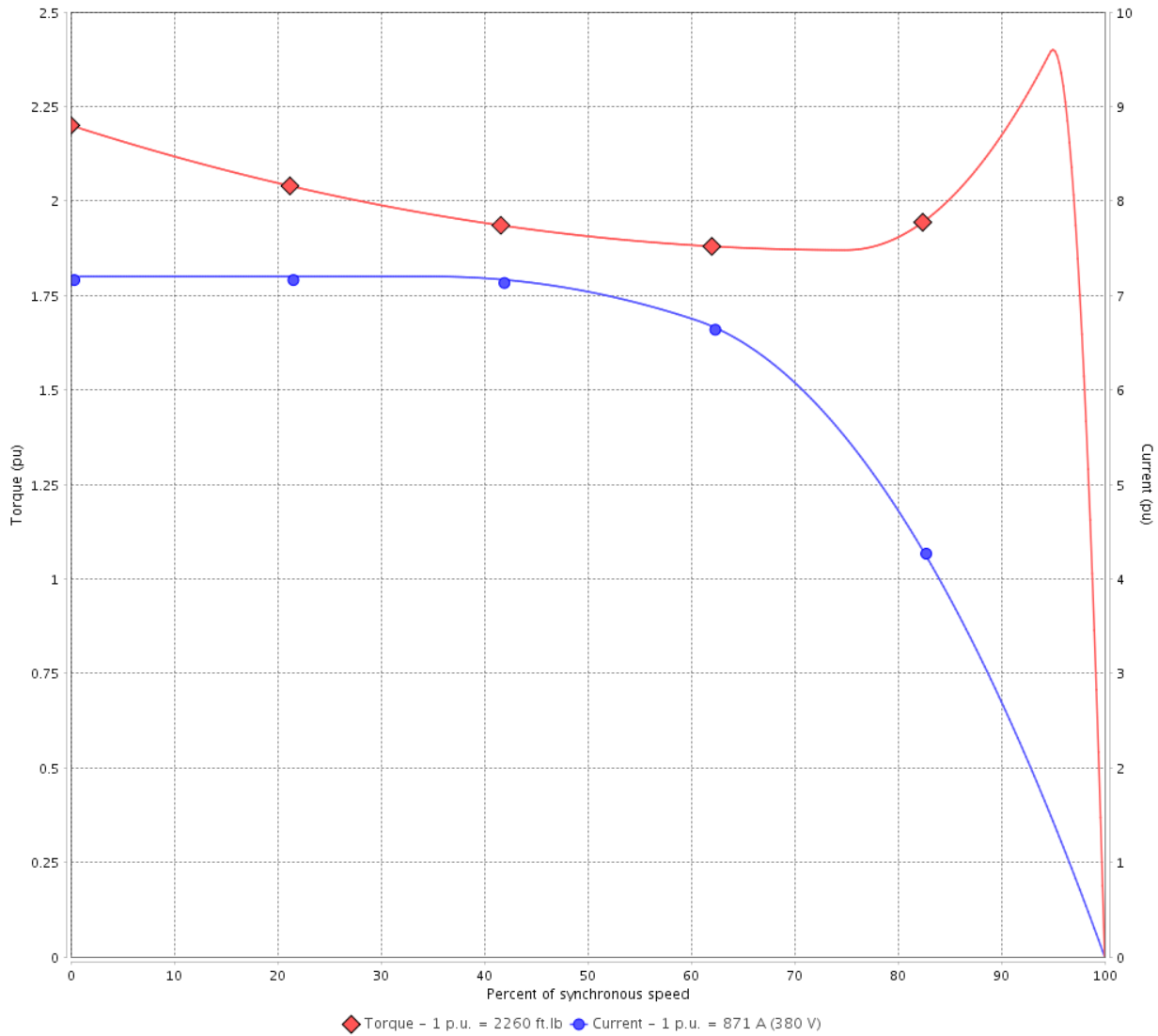
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14157409

Catalog # : 75018ET3G588/9-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE3

| | | | |
|---------------------|--------------|-----------------------|----------------|
| Rated current | : 871 A | Moment of inertia (J) | : 347 sq.ft.lb |
| LRC | : 7.2 | Duty cycle | : Cont.(S1) |
| Rated torque | : 2260 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.00 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 1490 rpm | | |

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

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TORQUE AND CURRENT VS SPEED CURVE



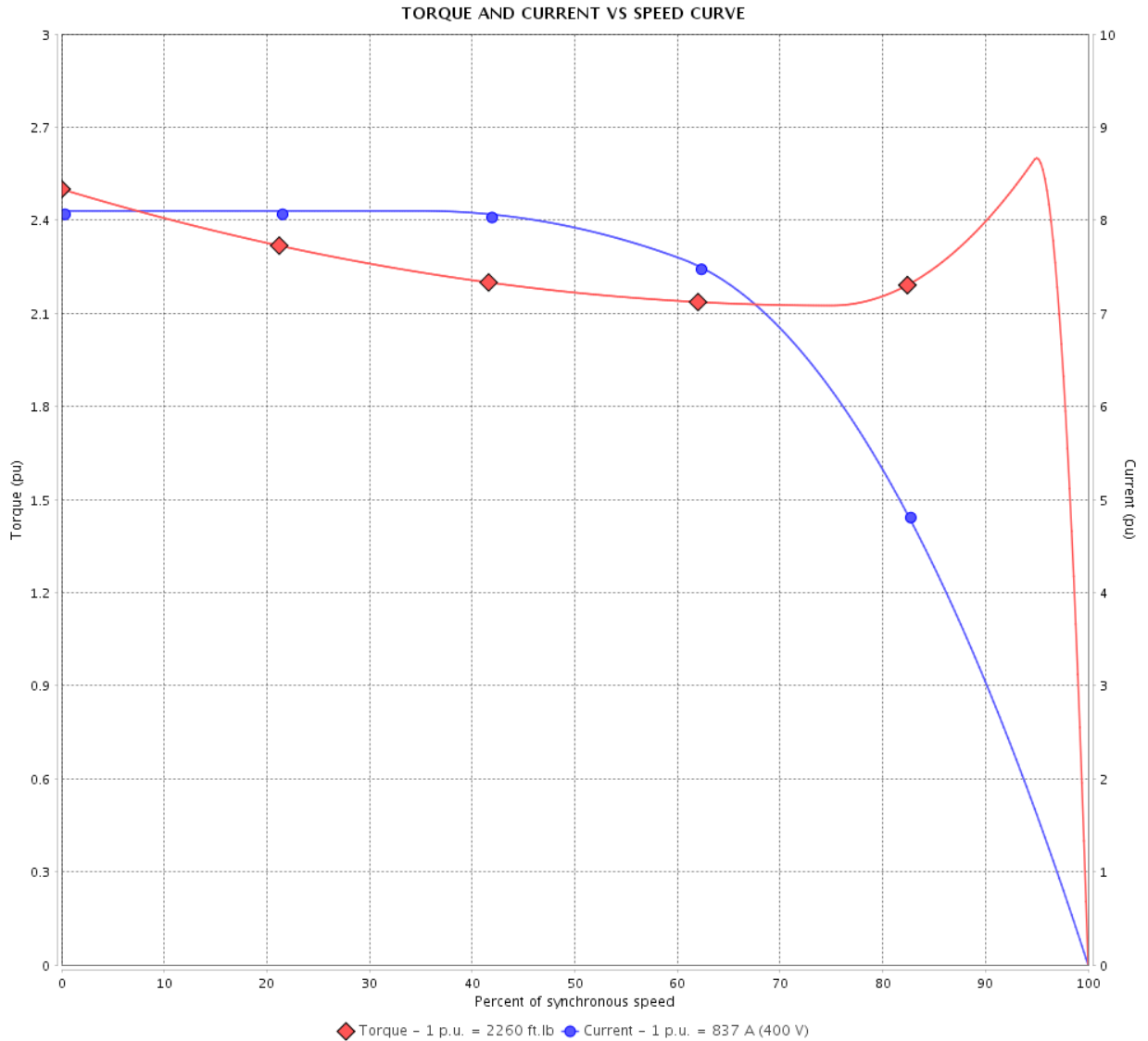
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14157409

Catalog # : 75018ET3G588/9-W22



Performance : 400 V 50 Hz 4P IE3

Rated current : 837 A
 LRC : 8.1
 Rated torque : 2260 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 1490 rpm

Moment of inertia (J) : 347 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



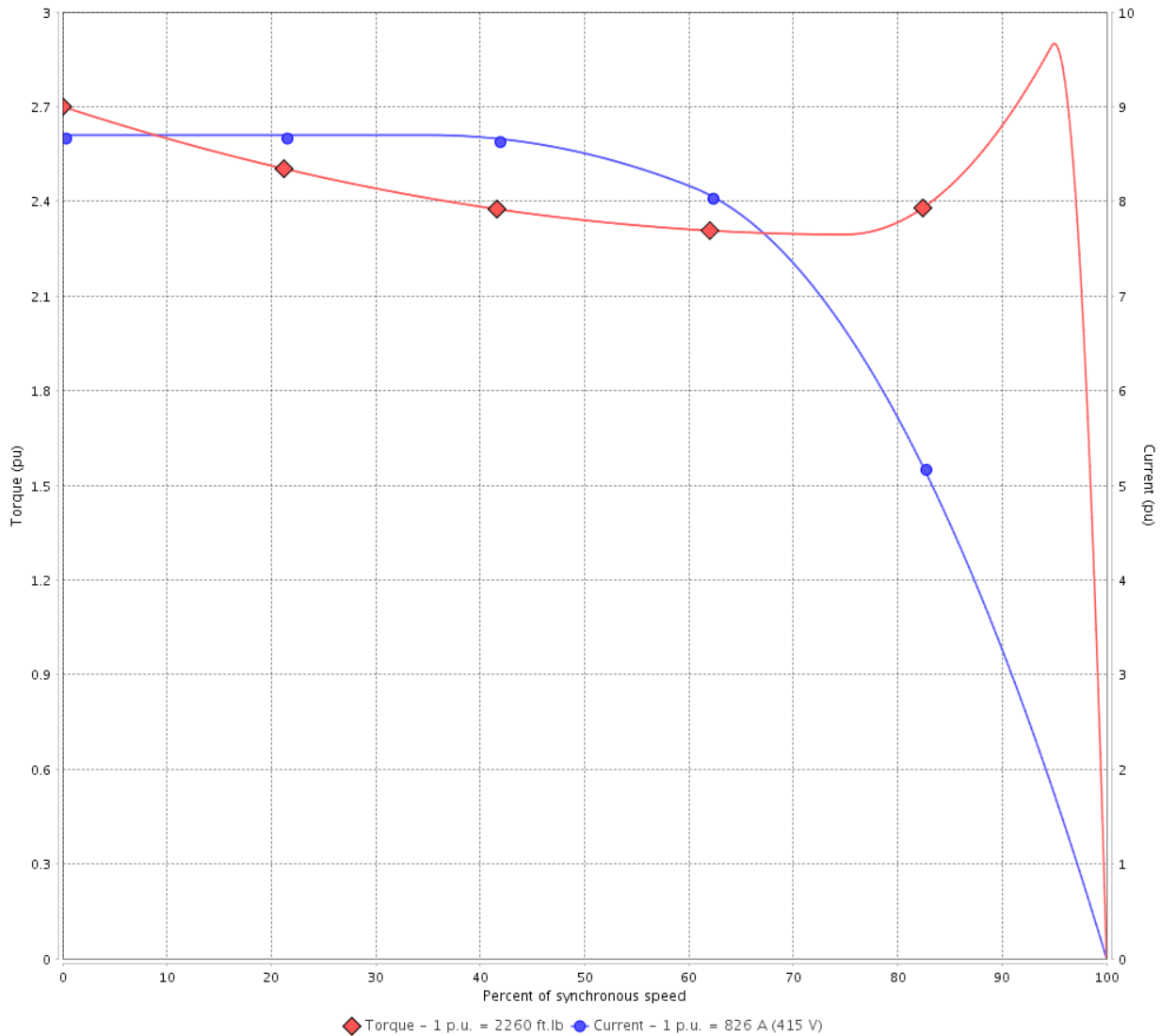
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE3

| | | | |
|---------------------|--------------|-----------------------|----------------|
| Rated current | : 826 A | Moment of inertia (J) | : 347 sq.ft.lb |
| LRC | : 8.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 2260 ft.lb | Insulation class | : F |
| Locked rotor torque | : 270 % | Service factor | : 1.00 |
| Breakdown torque | : 290 % | Temperature rise | : 80 K |
| Rated speed | : 1490 rpm | | |

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

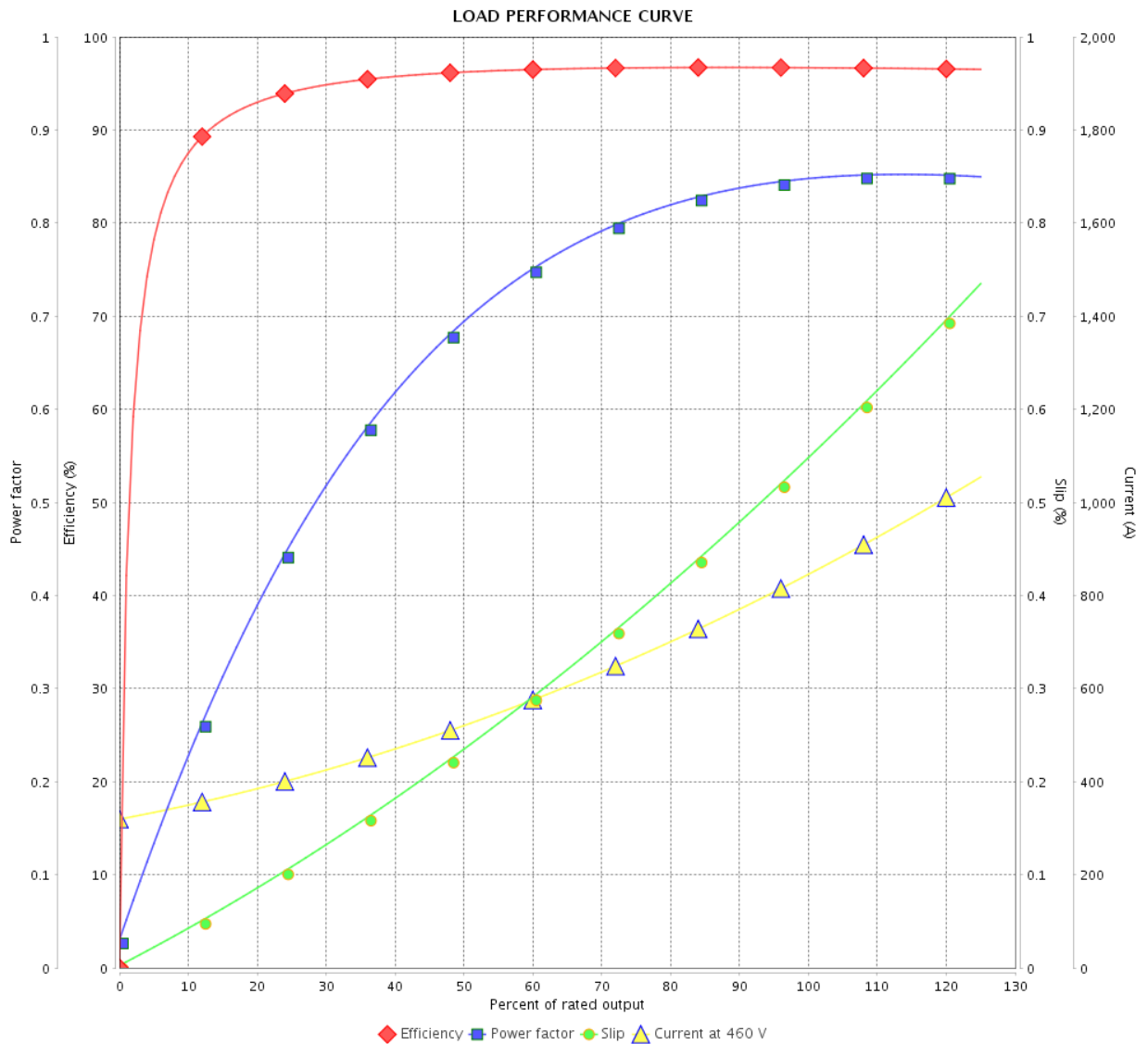


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 14157409

Catalog # : 75018ET3G588/9-W22



Performance : 460 V 60 Hz 4P

Rated current : 855 A
 LRC : 7.2
 Rated torque : 2200 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1790 rpm

Moment of inertia (J) : 347 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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Three Phase Induction Motor - Squirrel Cage



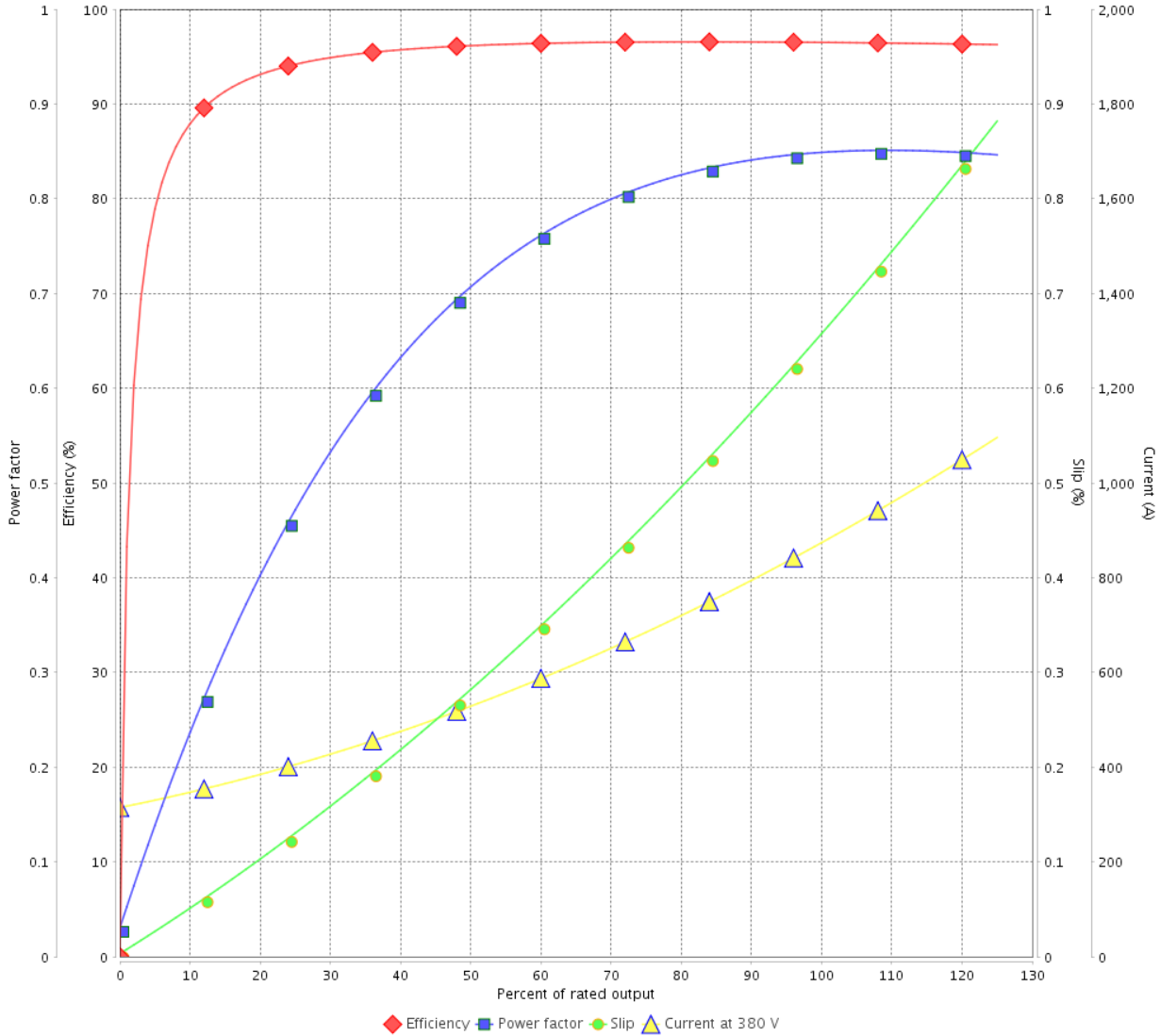
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LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current : 871 A
 LRC : 7.2
 Rated torque : 2260 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 1490 rpm

Moment of inertia (J) : 347 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

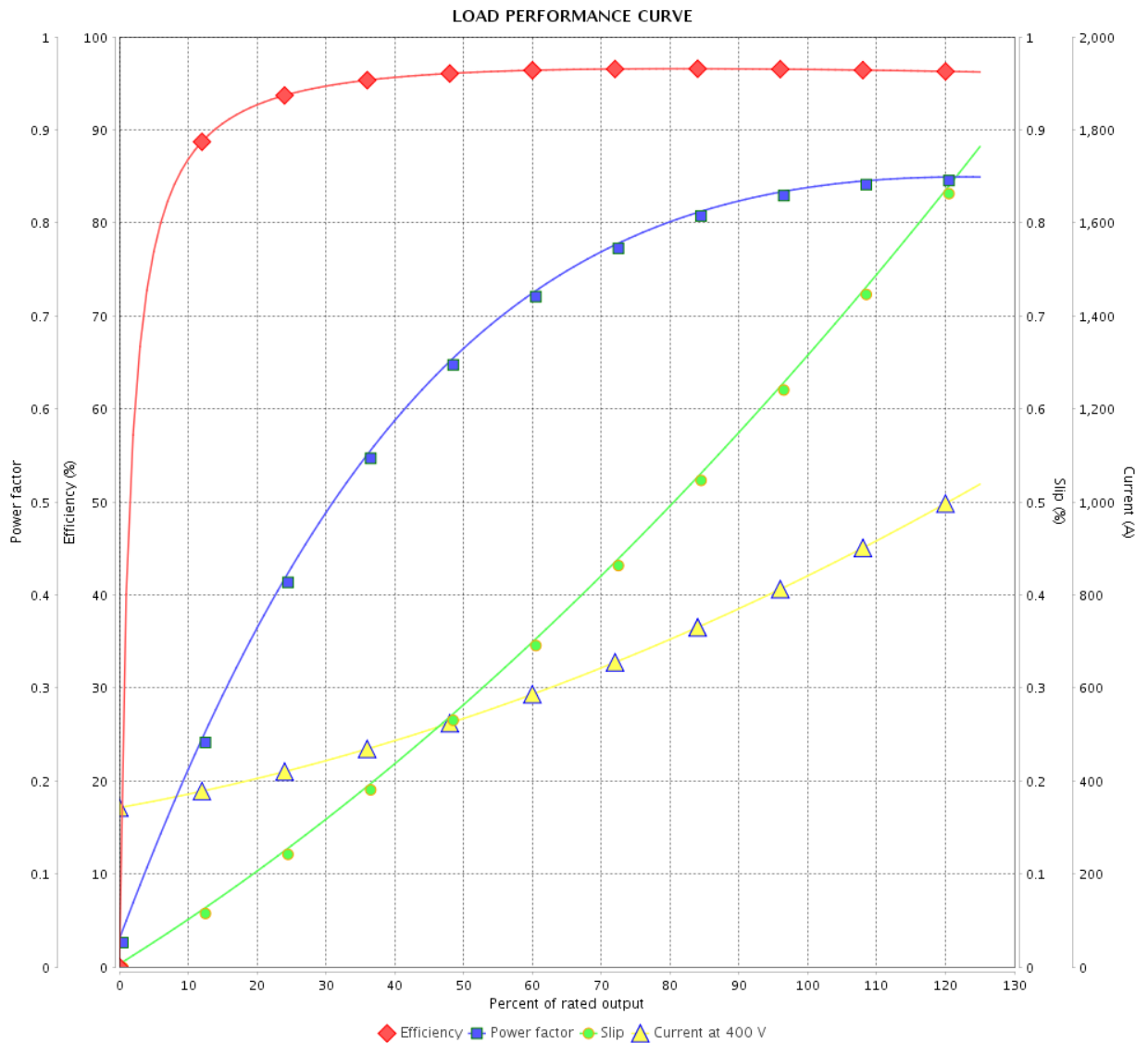


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Catalog # : 75018ET3G588/9-W22



Performance : 400 V 50 Hz 4P IE3

Rated current : 837 A
 LRC : 8.1
 Rated torque : 2260 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 260 %
 Rated speed : 1490 rpm

Moment of inertia (J) : 347 sq.ft.lb
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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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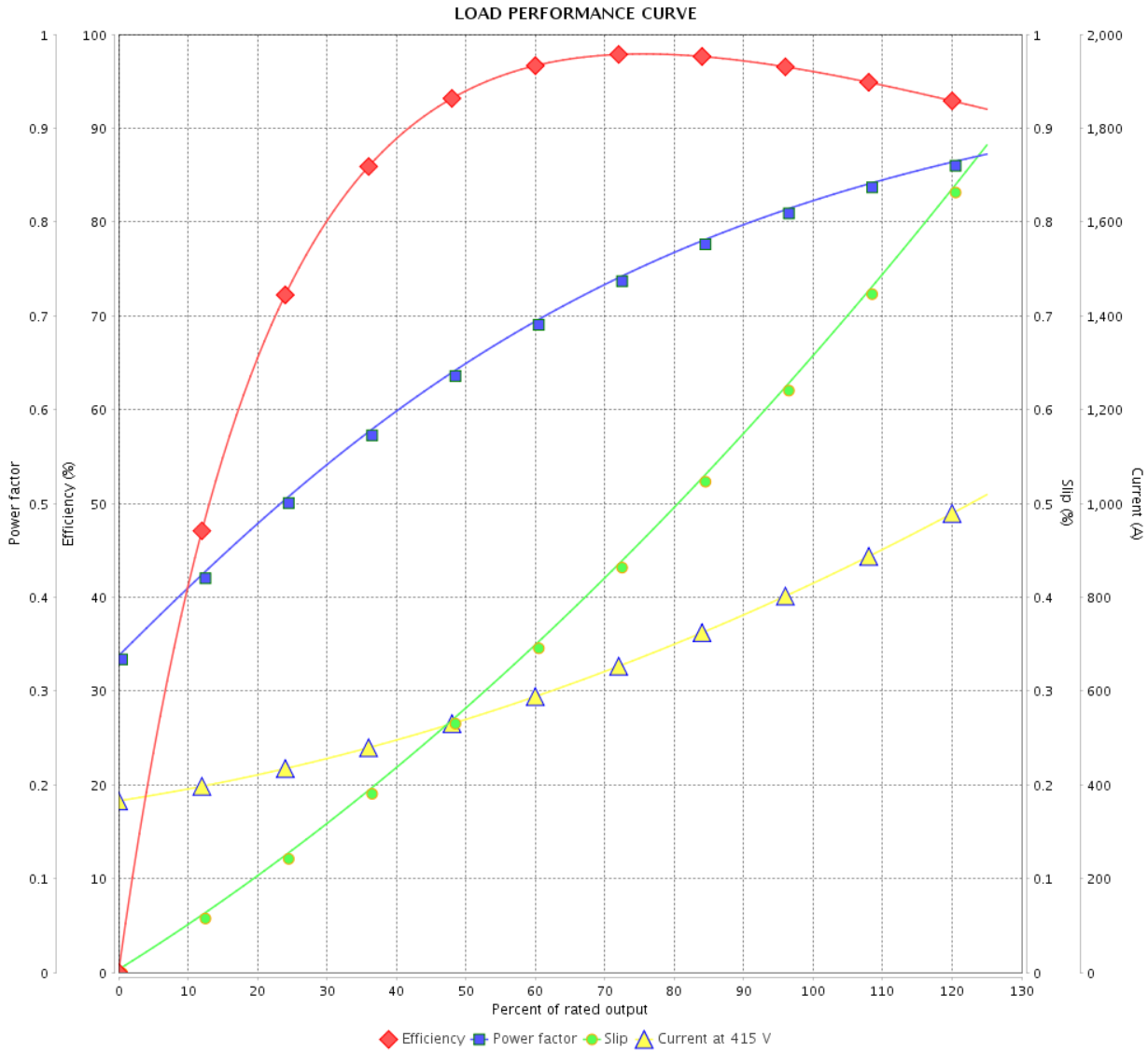


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Performance : 415 V 50 Hz 4P IE3

Rated current : 826 A
 LRC : 8.7
 Rated torque : 2260 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 290 %
 Rated speed : 1490 rpm

Moment of inertia (J) : 347 sq.ft.lb
 Duty cycle : Cont.(S1)
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 Temperature rise : 80 K

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THERMAL LIMIT CURVE



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Customer :

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Performance : 460 V 60 Hz 4P

| | |
|-----------------------------|--------------------------------------|
| Rated current : 855 A | Moment of inertia (J) : 347 sq.ft.lb |
| LRC : 7.2 | Duty cycle : Cont.(S1) |
| Rated torque : 2200 ft.lb | Insulation class : F |
| Locked rotor torque : 240 % | Service factor : 1.00 |
| Breakdown torque : 250 % | Temperature rise : 80 K |
| Rated speed : 1790 rpm | |

Heating constant

Cooling constant

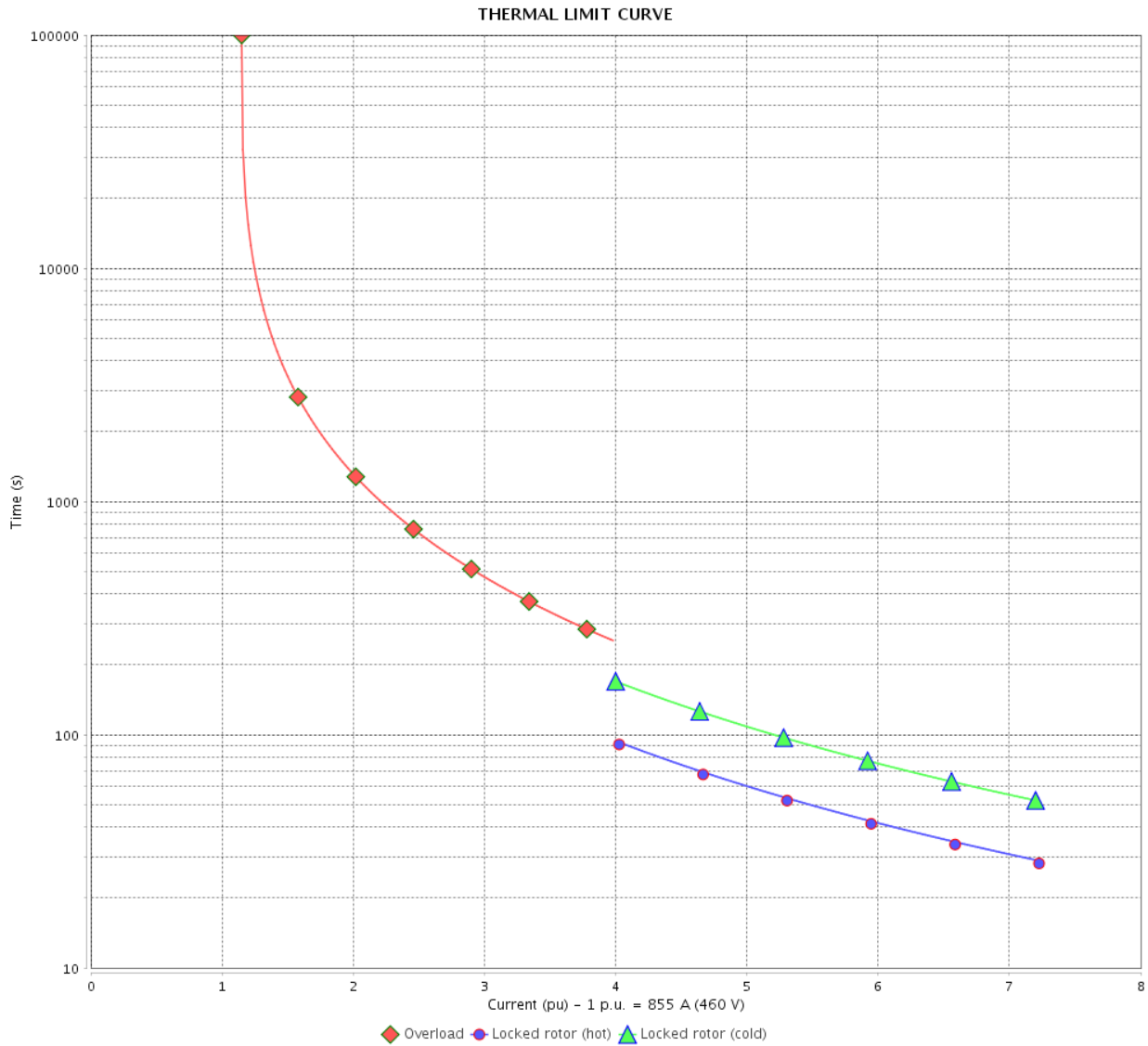
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| Locked rotor torque : 220 % | Service factor : 1.00 |
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Heating constant

Cooling constant

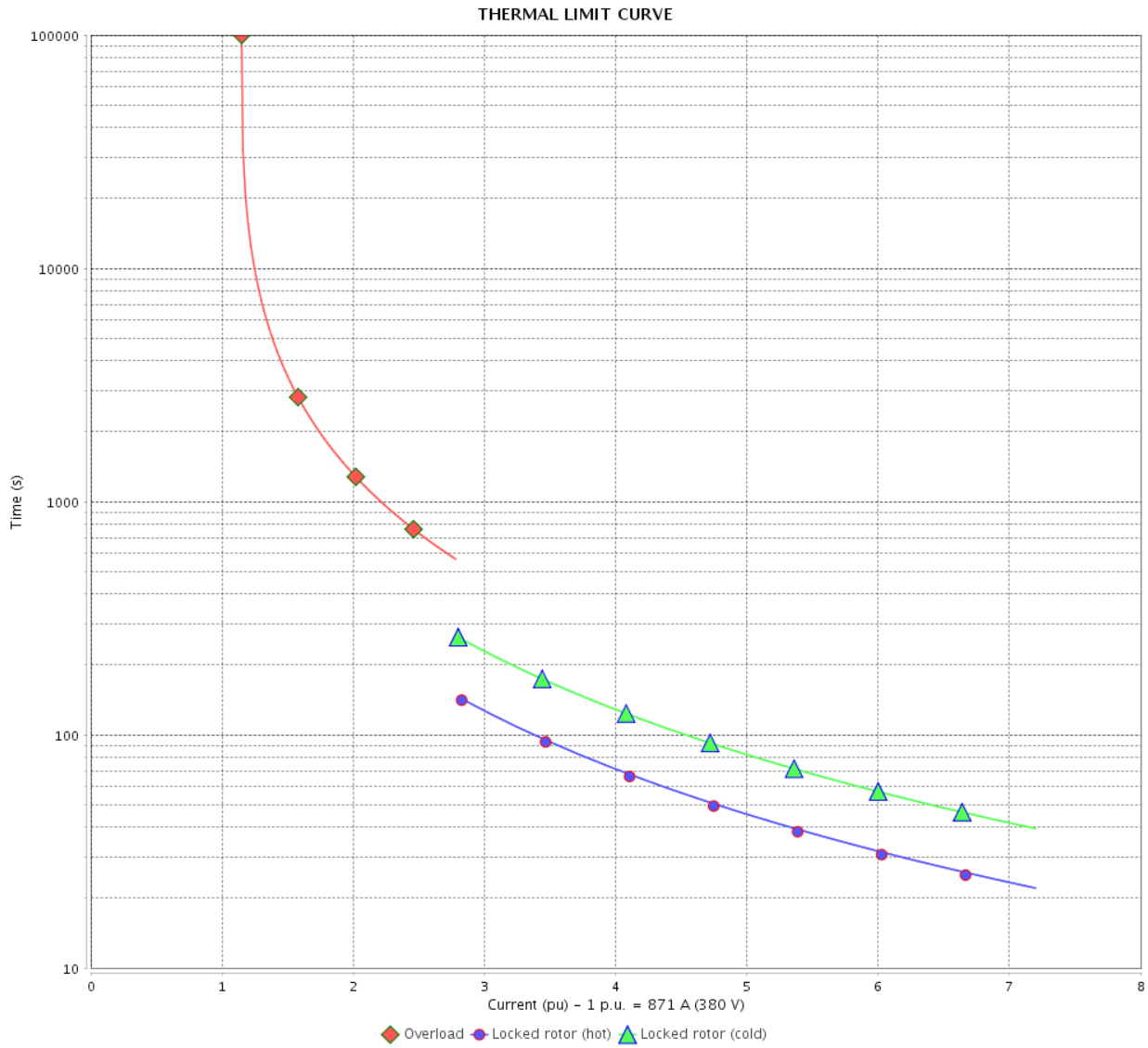
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Performance : 400 V 50 Hz 4P IE3

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|-----------------------------|--------------------------------------|
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| LRC : 8.1 | Duty cycle : Cont.(S1) |
| Rated torque : 2260 ft.lb | Insulation class : F |
| Locked rotor torque : 250 % | Service factor : 1.00 |
| Breakdown torque : 260 % | Temperature rise : 80 K |
| Rated speed : 1490 rpm | |

Heating constant

Cooling constant

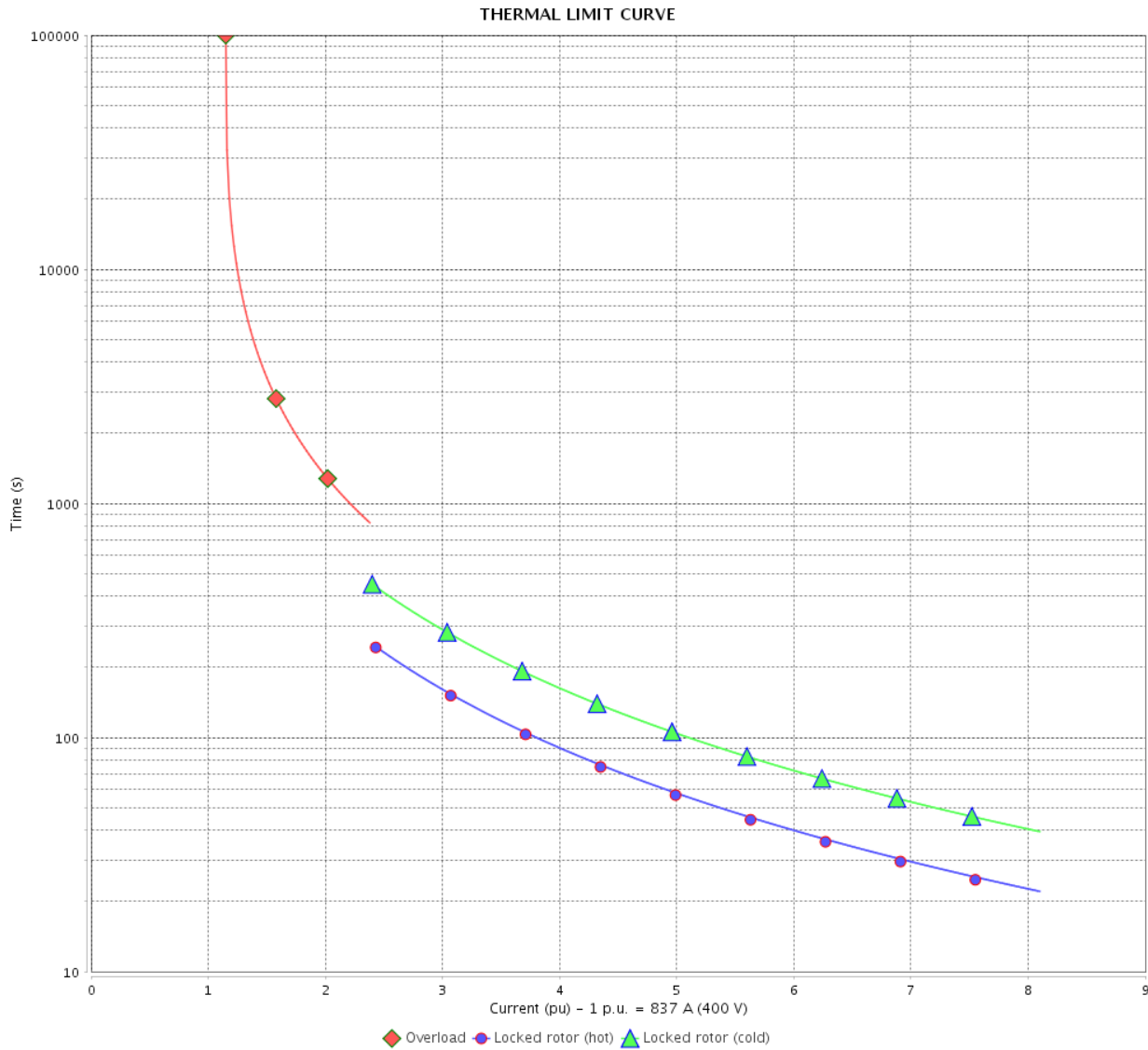
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THERMAL LIMIT CURVE

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| LRC : 8.7 | Duty cycle : Cont.(S1) |
| Rated torque : 2260 ft.lb | Insulation class : F |
| Locked rotor torque : 270 % | Service factor : 1.00 |
| Breakdown torque : 290 % | Temperature rise : 80 K |
| Rated speed : 1490 rpm | |

Heating constant

Cooling constant

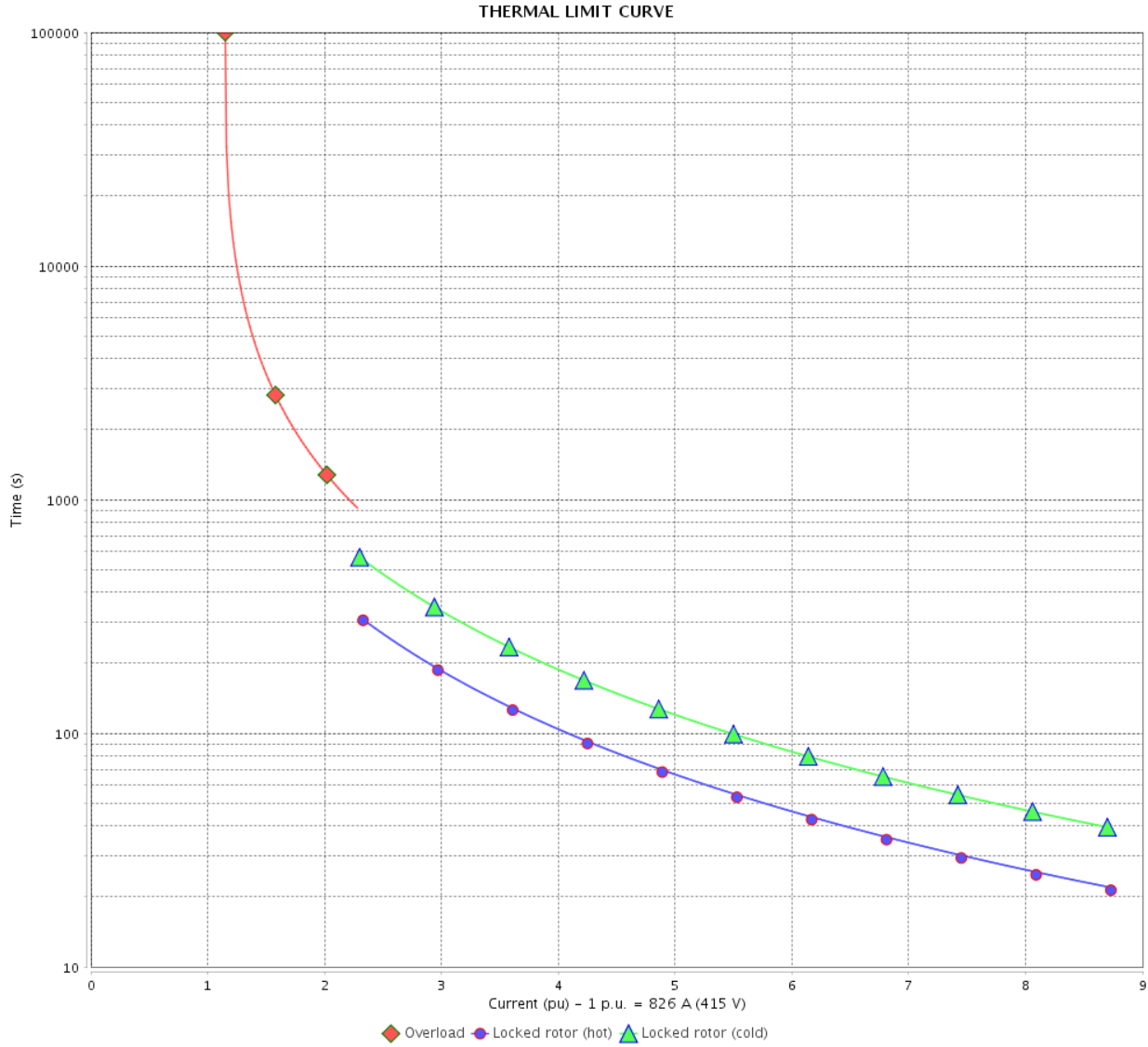
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

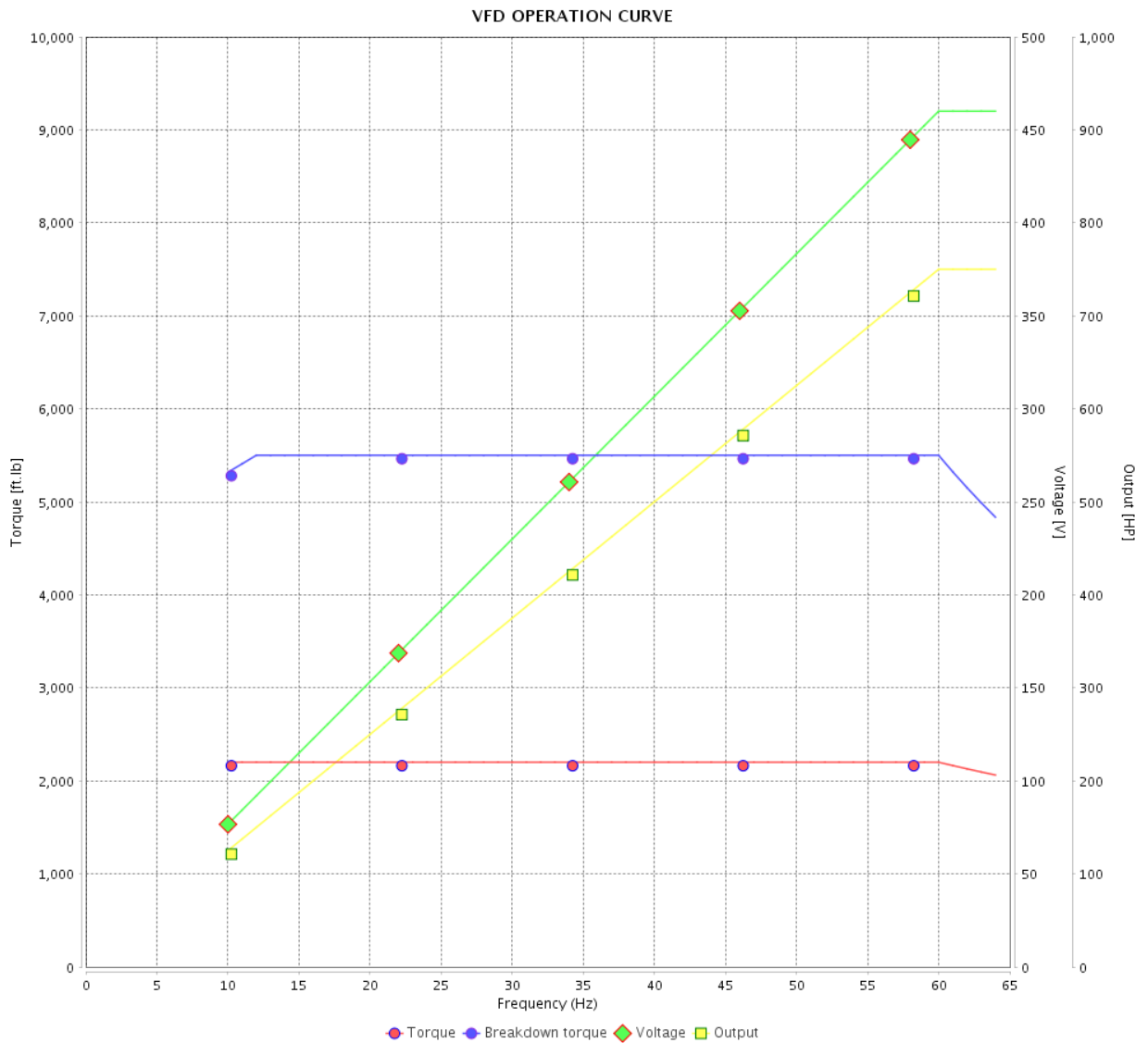


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Product code : 14157409

Catalog # : 75018ET3G588/9-W22



Performance : 460 V 60 Hz 4P

Rated current : 855 A
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 Locked rotor torque : 240 %
 Breakdown torque : 250 %
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



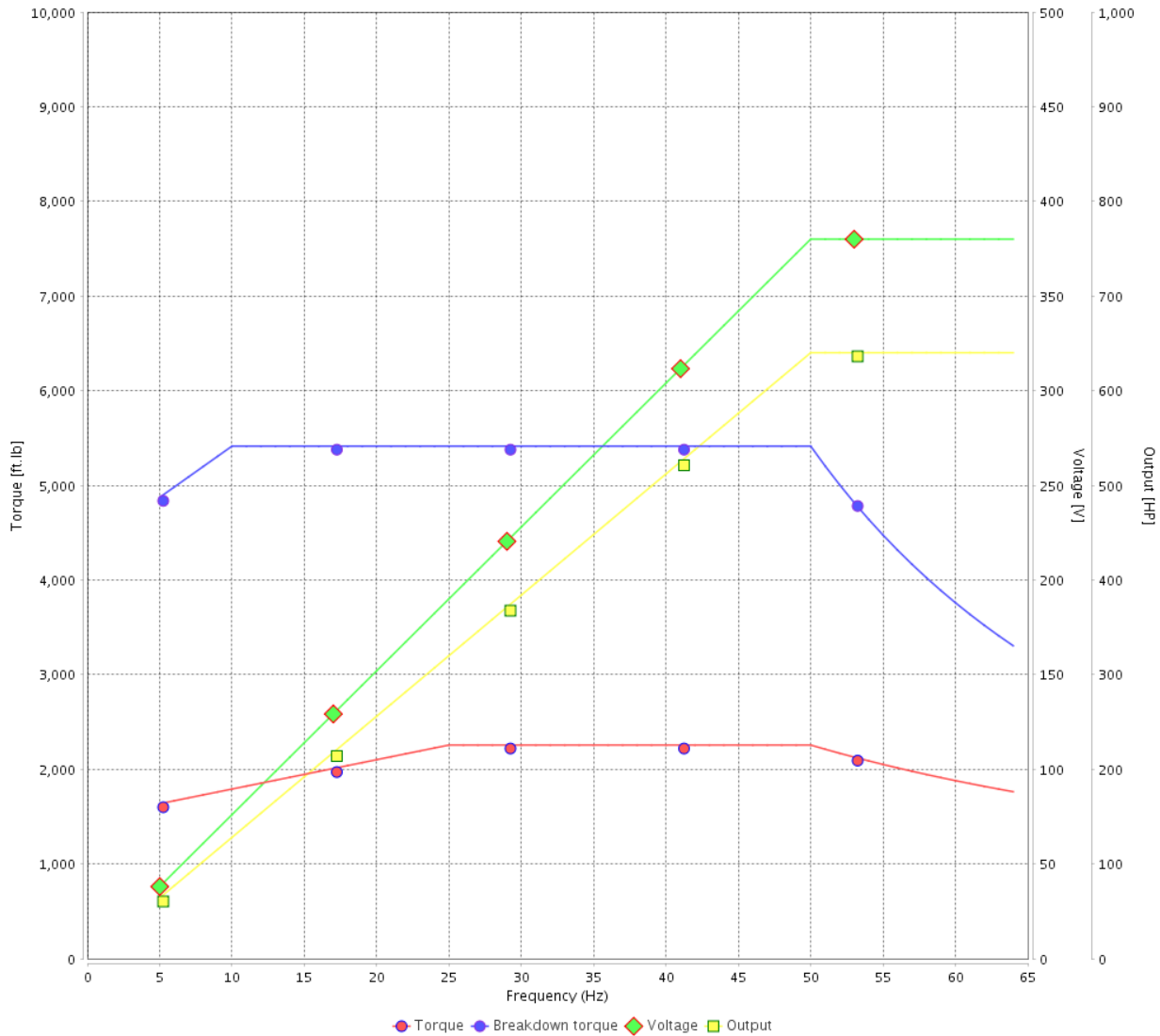
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current : 871 A
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 Locked rotor torque : 220 %
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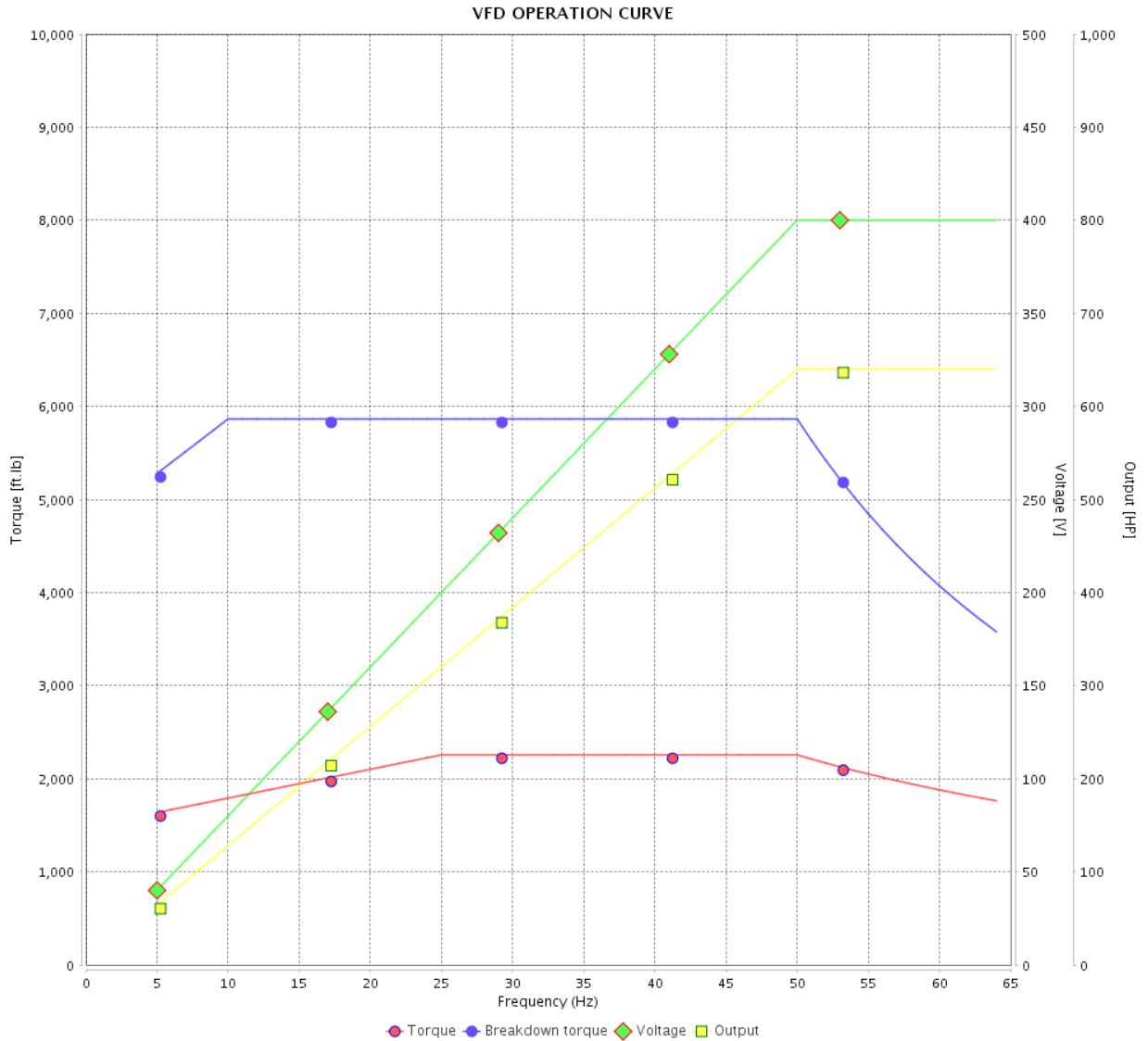
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



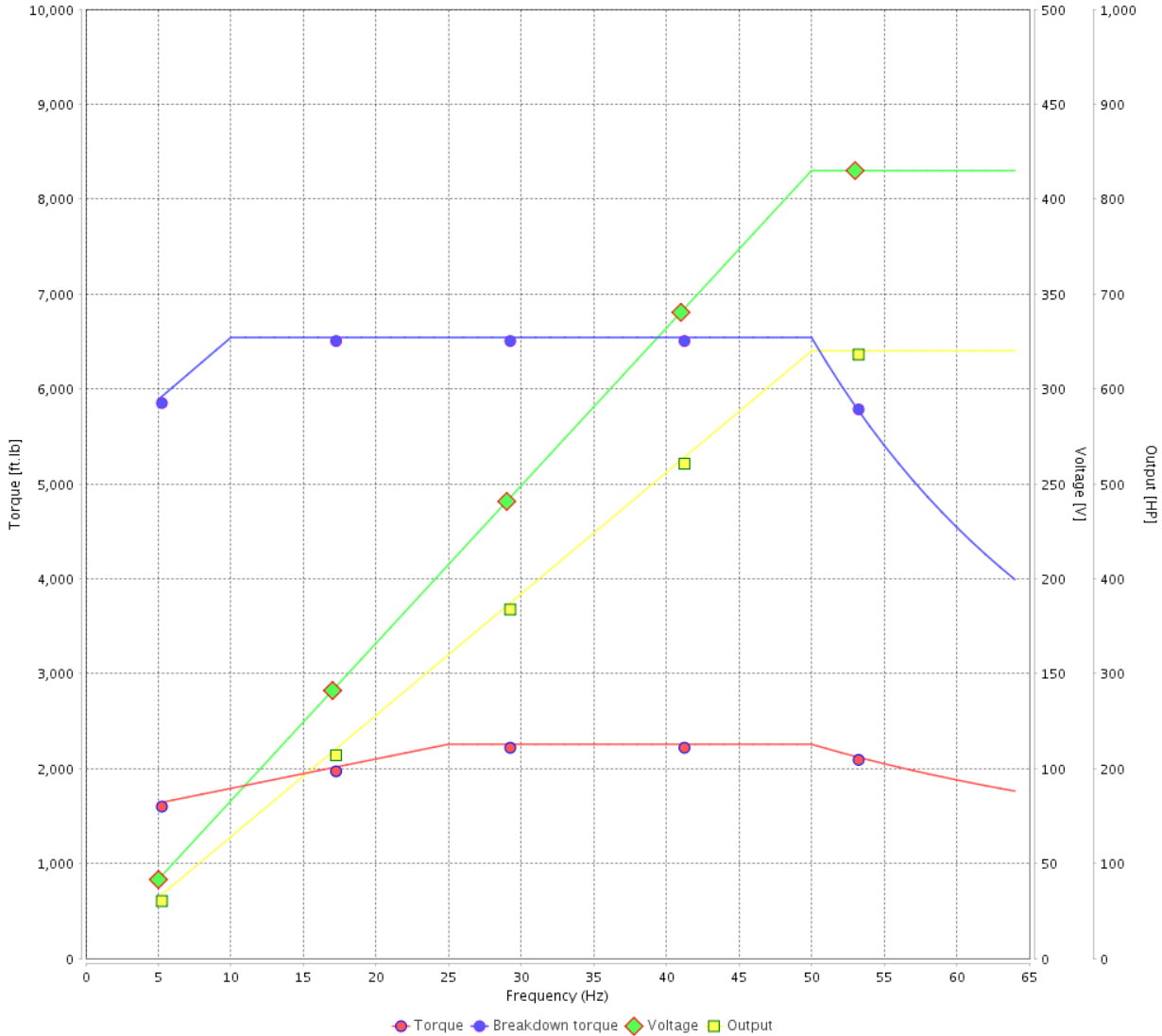
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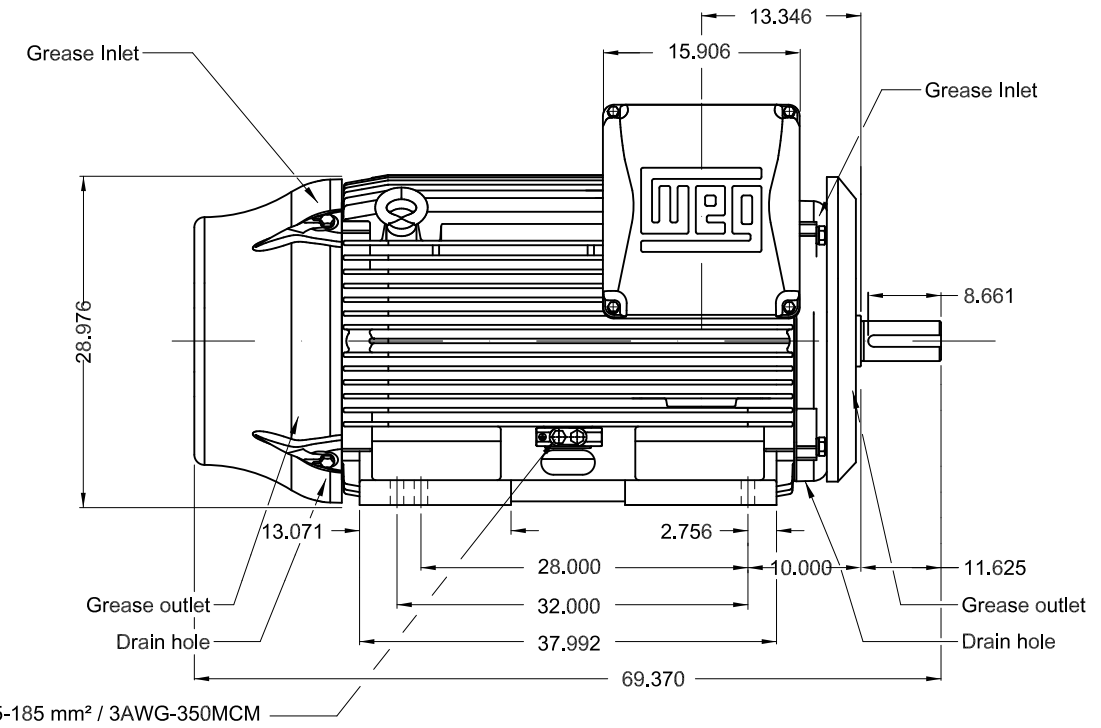
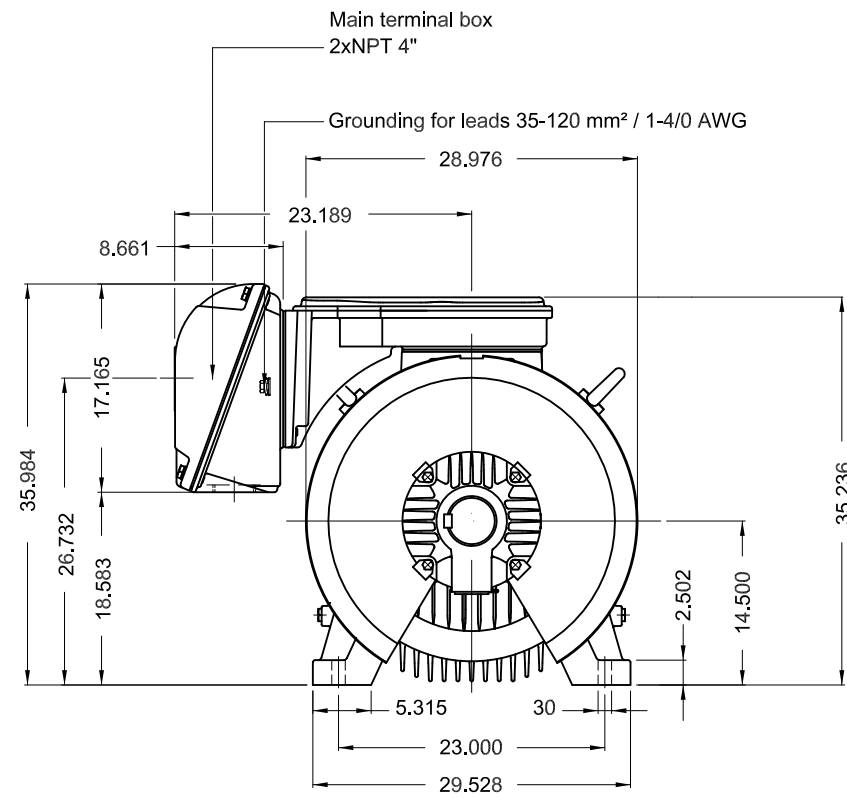


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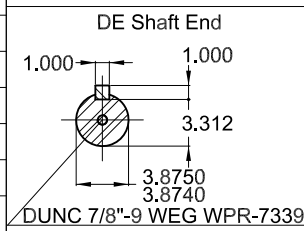
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| Date | | | | |



750 HP 04 Poles 60 Hz

A

- Without vertical jackscrews
- NDE endshield with electrically insulated bearing hub
- Drive-End Air Deflector
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--|----------------|---------------------|----------|-------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR W22 PREM. EFF. FRAME 588/9T IP55 TEFC | | | | | |
| CHECKED | | | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | |

PREVIEW
WDD





Mod.TE1BFOXON

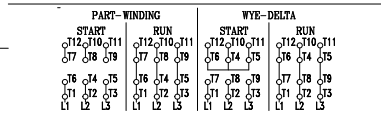
MODEL 75018ET3G588/9-W22

Inverter Duty Motor
Severe Duty

For use on PWM: VT 1000:1, CT 6:1,
1.00SF

MADE IN BRAZIL
14157409

| | | | | | | | | |
|------|-------|------------|--------------|------|-------------|--------------|-------|--|
| PH3 | 60Hz | Fr. 588/9T | 1000m.a.s.l. | IP55 | TEFC | 5768lb | | |
| V | 460 | | | A | 855 | | | |
| HP | 750 | | | kW | 560 | | | |
| SF | 1.00 | | | SFA | - | | | |
| RPM | 1790 | | | PF | 0.85 | | | |
| AMB | 40°C | | | INS | cl. F DT80K | NEMA NOM EFF | 96.7% | |
| DUTY | CONT. | | | DES | - Code H | | | |



→ 6322-C3 (60g)
 → 6319-C3 (45g)

MOBIL POLYREX EM (6000h)