

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|--|--|-------------------------|--|----------------------|----------|
| Customer : | | | | | |
| Product line : MULTIMOUNTING | Product code : 12928521 | | | | |
| Frame : 100L Insulation class : F Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : N | Cooling method : IC411 - TEFC Mounting : B3T Rotation ¹ : Both (CW and CCW) Starting method : Direct On Line Approx. weight ² : 27.2 kg Moment of inertia (J) : 0.0090 kgm ² | | | | |
| Output [kW] | 2.2 | 2.2 | 2.2 | 2.2 | |
| Poles | 4 | 4 | 4 | 4 | |
| Frequency [Hz] | 50 | 50 | 50 | 60 | |
| Rated voltage [V] | 220/380 | 230/400 | 240/415 | 460 | |
| Rated current [A] | 8.22/4.76 | 8.03/4.62 | 7.89/4.56 | 4.01 | |
| L. R. Amperes [A] | 60.8/35.2 | 64.3/37.0 | 67.8/39.2 | 38.1 | |
| LRC [A] | 7.4 | 8.0 | 8.6 | 9.5 | |
| No load current [A] | 3.63/2.10 | 4.00/2.30 | 4.32/2.50 | 2.10 | |
| Rated speed [RPM] | 1430 | 1435 | 1440 | 1745 | |
| Slip [%] | 4.67 | 4.33 | 4.00 | 3.06 | |
| Rated torque [kgfm] | 1.50 | 1.49 | 1.49 | 1.23 | |
| Locked rotor torque [%] | 280 | 330 | 360 | 409 | |
| Breakdown torque [%] | 300 | 350 | 380 | 440 | |
| Service factor | 1.00 | 1.00 | 1.00 | 1.00 | |
| 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) | 36s (cold) 20s (hot) | |
| Noise level ² | 53.0 dB(A) | 53.0 dB(A) | 53.0 dB(A) | 54.0 dB(A) | |
| Efficiency (%) | 25% | | | | |
| | 50% | 86.5 | 86.5 | 86.0 | |
| | 75% | 86.5 | 87.0 | 86.8 | |
| | 100% | 86.7 | 87.0 | 87.2 | |
| Power Factor | 25% | | | | |
| | 50% | 0.64 | 0.60 | 0.56 | |
| | 75% | 0.76 | 0.73 | 0.70 | |
| | 100% | 0.81 | 0.79 | 0.77 | |
| Losses at normative operating points (speed;torque), in percentage of rated output power | | | | | |
| Losses (%) | P1 (0,9;1,0) | 14.8 | 14.5 | 14.2 | 11.3 |
| | P2 (0,5;1,0) | 13.2 | 12.8 | 12.6 | 10.1 |
| | P3 (0,25;1,0) | 12.8 | 12.5 | 12.3 | 9.8 |
| | P4 (0,9;0,5) | 6.5 | 6.4 | 6.3 | 5.0 |
| | P5 (0,5;0,5) | 4.8 | 4.6 | 4.6 | 3.6 |
| | P6 (0,5;0,25) | 3.0 | 2.9 | 2.8 | 2.3 |
| | P7 (0,25;0,25) | 2.2 | 2.1 | 2.1 | 1.7 |
| Bearing type | Drive end : 6206 ZZ | Non drive end : 6205 ZZ | Foundation loads | | |
| Sealing | : V'Ring | : V'Ring | Max. traction | : 121 kgf | |
| Lubrication interval | : - | : - | Max. compression | : 148 kgf | |
| Lubricant amount | : - | : - | | | |
| 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). (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 IEC 60034-1. | | |
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DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Notes

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DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Thermal protection

| ID | Application | Type | Quantity | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1 | Winding | Thermistor - 2 wires | 1 x Phase | 155 °C |

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TORQUE AND CURRENT VS SPEED CURVE

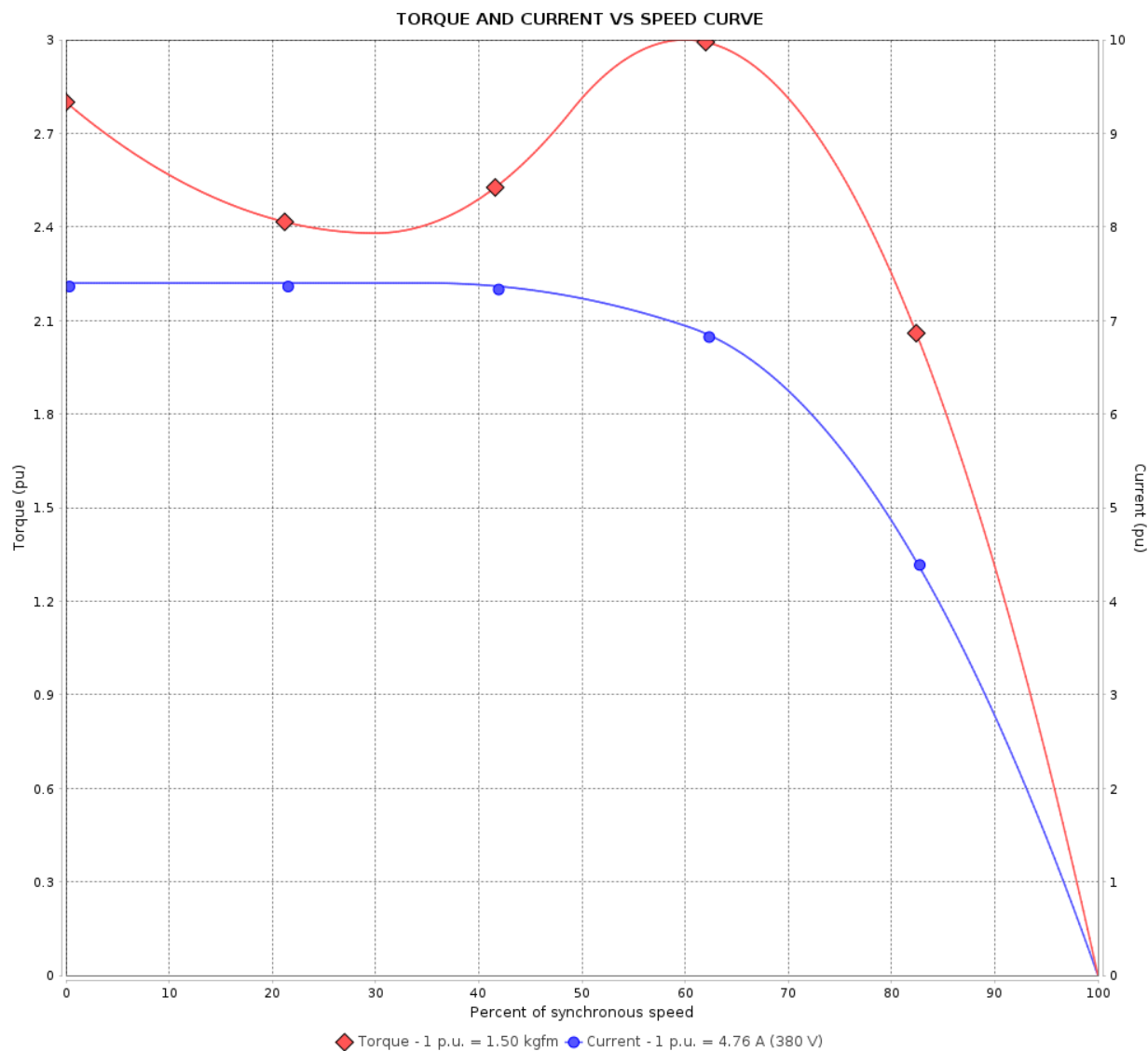
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 220/380 V 50 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|---------------------------|
| Rated current | : 8.22/4.76 A | Moment of inertia (J) | : 0.0090 kgm ² |
| LRC | : 7.4 | Duty cycle | : S1 |
| Rated torque | : 1.50 kgfm | Insulation class | : F |
| Locked rotor torque | : 280 % | Service factor | : 1.00 |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 1430 rpm | Design | : N |

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

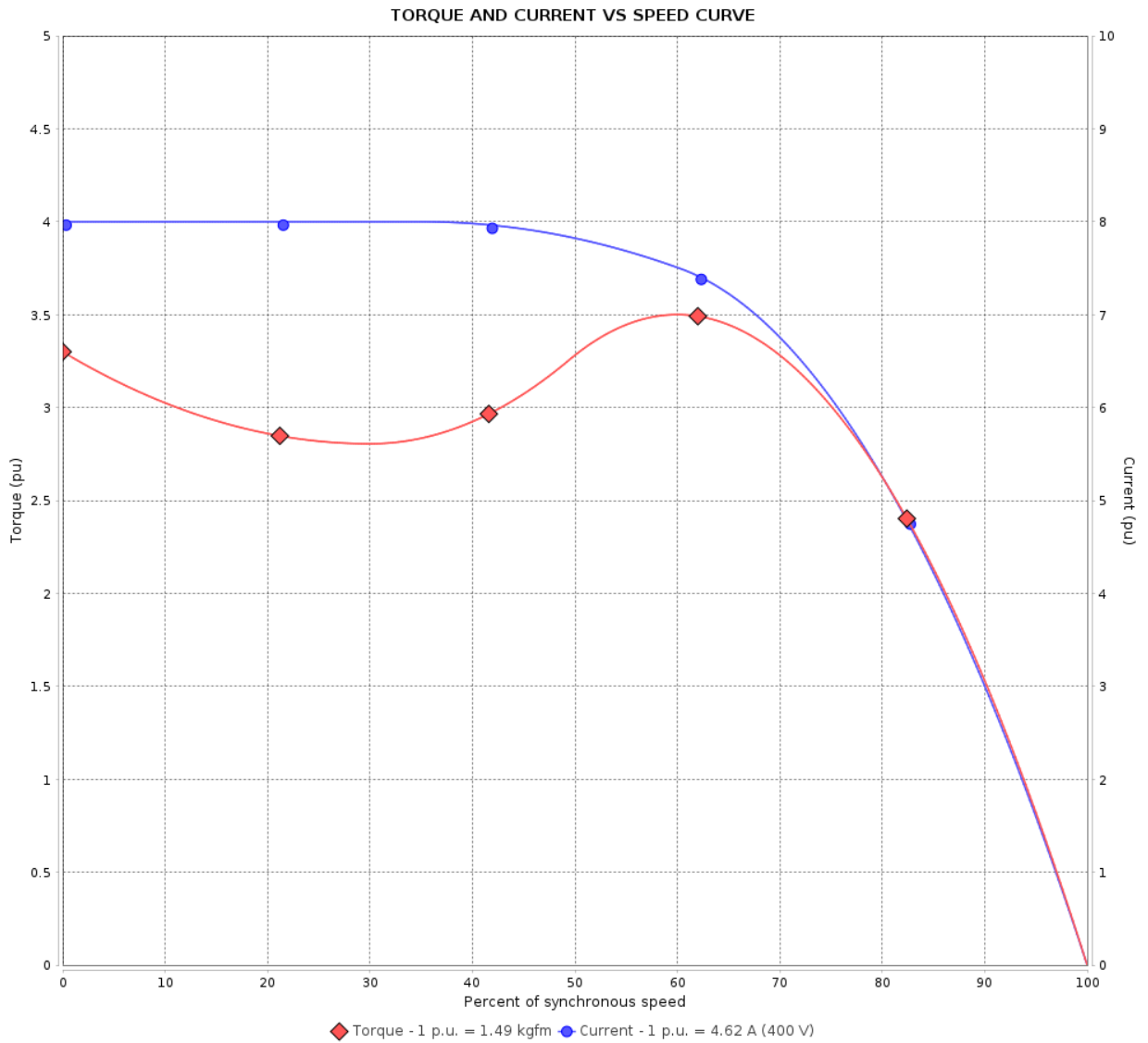
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 230/400 V 50 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|---------------------------|
| Rated current | : 8.03/4.62 A | Moment of inertia (J) | : 0.0090 kgm ² |
| LRC | : 8.0 | Duty cycle | : S1 |
| Rated torque | : 1.49 kgfm | Insulation class | : F |
| Locked rotor torque | : 330 % | Service factor | : 1.00 |
| Breakdown torque | : 350 % | Temperature rise | : 80 K |
| Rated speed | : 1435 rpm | Design | : N |

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

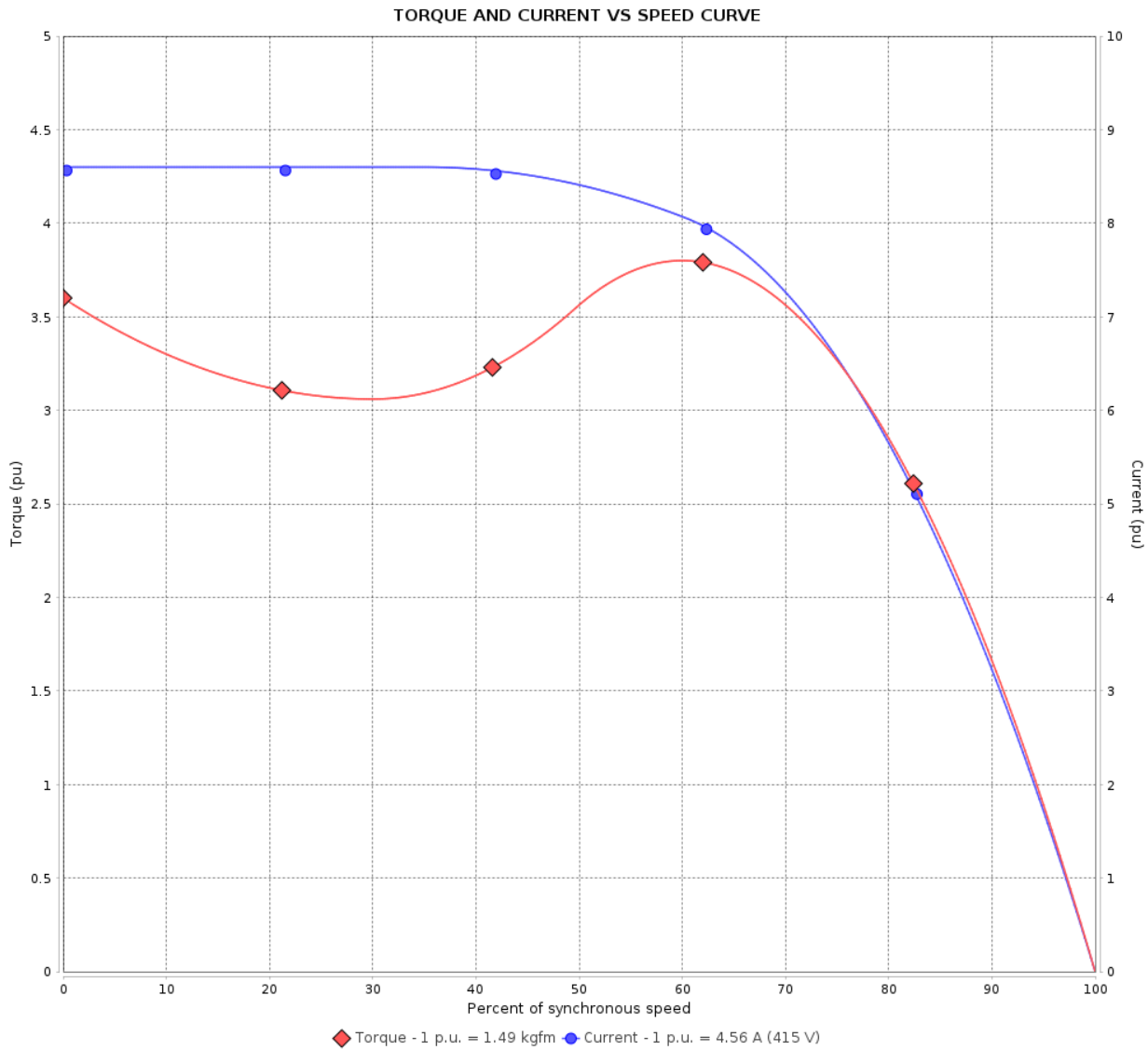
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 240/415 V 50 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|---------------------------|
| Rated current | : 7.89/4.56 A | Moment of inertia (J) | : 0.0090 kgm ² |
| LRC | : 8.6 | Duty cycle | : S1 |
| Rated torque | : 1.49 kgfm | Insulation class | : F |
| Locked rotor torque | : 360 % | Service factor | : 1.00 |
| Breakdown torque | : 380 % | Temperature rise | : 80 K |
| Rated speed | : 1440 rpm | Design | : N |

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

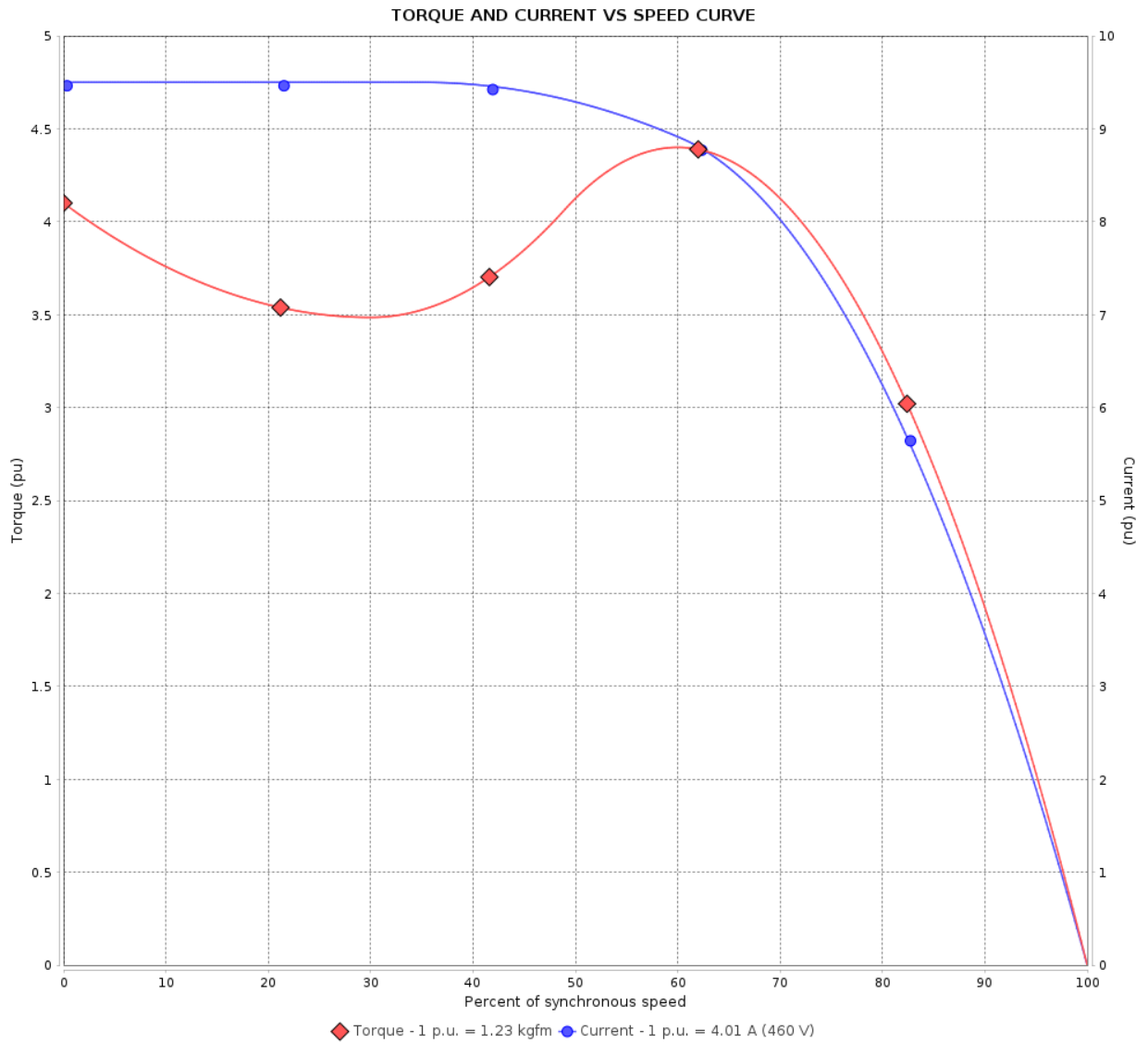
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 460 V 60 Hz 4P

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 4.01 A | Moment of inertia (J) | : 0.0090 kgm ² |
| LRC | : 9.5 | Duty cycle | : S1 |
| Rated torque | : 1.23 kgfm | Insulation class | : F |
| Locked rotor torque | : 409 % | Service factor | : 1.00 |
| Breakdown torque | : 440 % | Temperature rise | : 80 K |
| Rated speed | : 1745 rpm | Design | : N |

Locked rotor time : 36s (cold) 20s (hot)

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LOAD PERFORMANCE CURVE

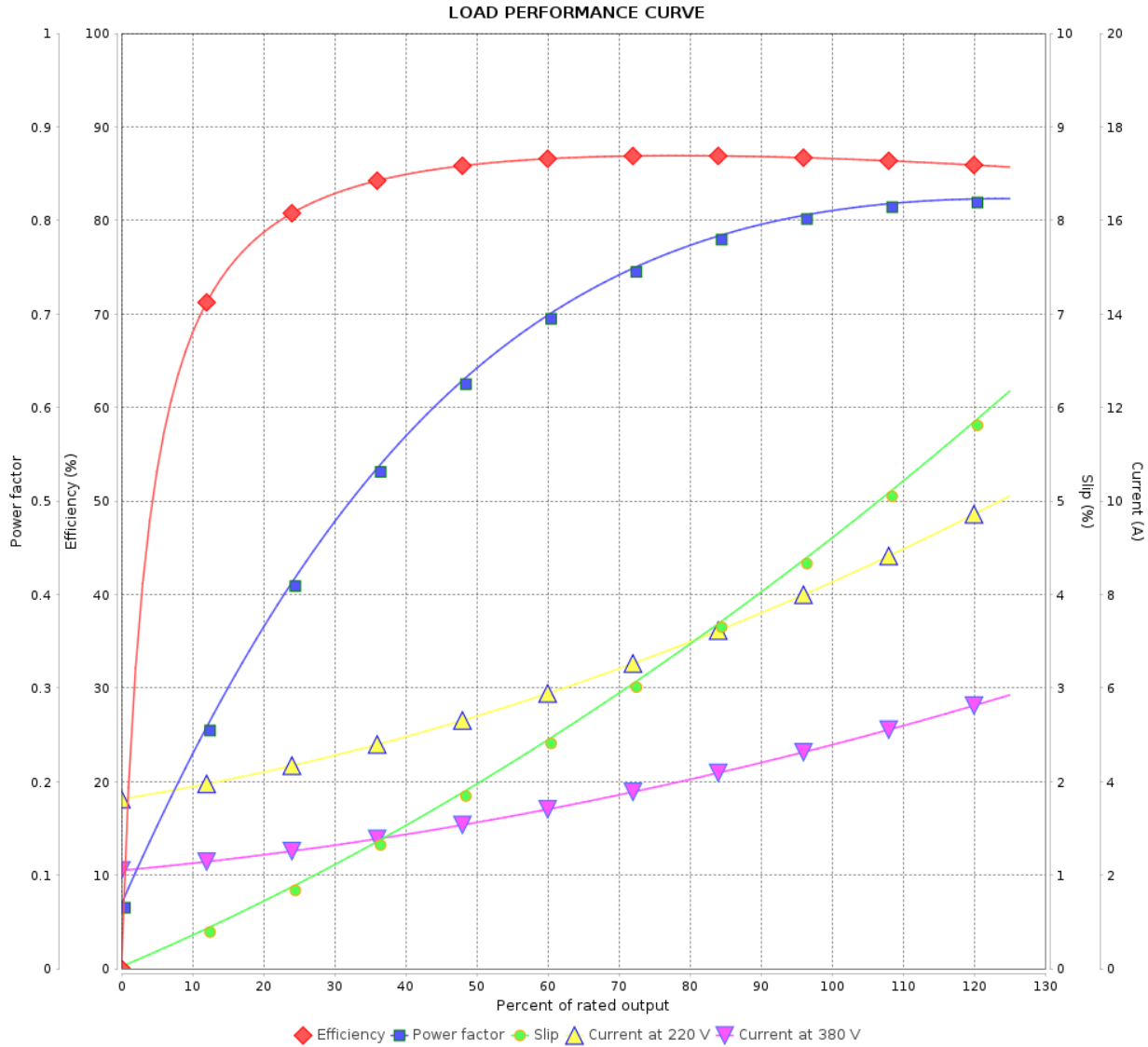
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 220/380 V 50 Hz 4P

Rated current : 8.22/4.76 A
 LRC : 7.4
 Rated torque : 1.50 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1430 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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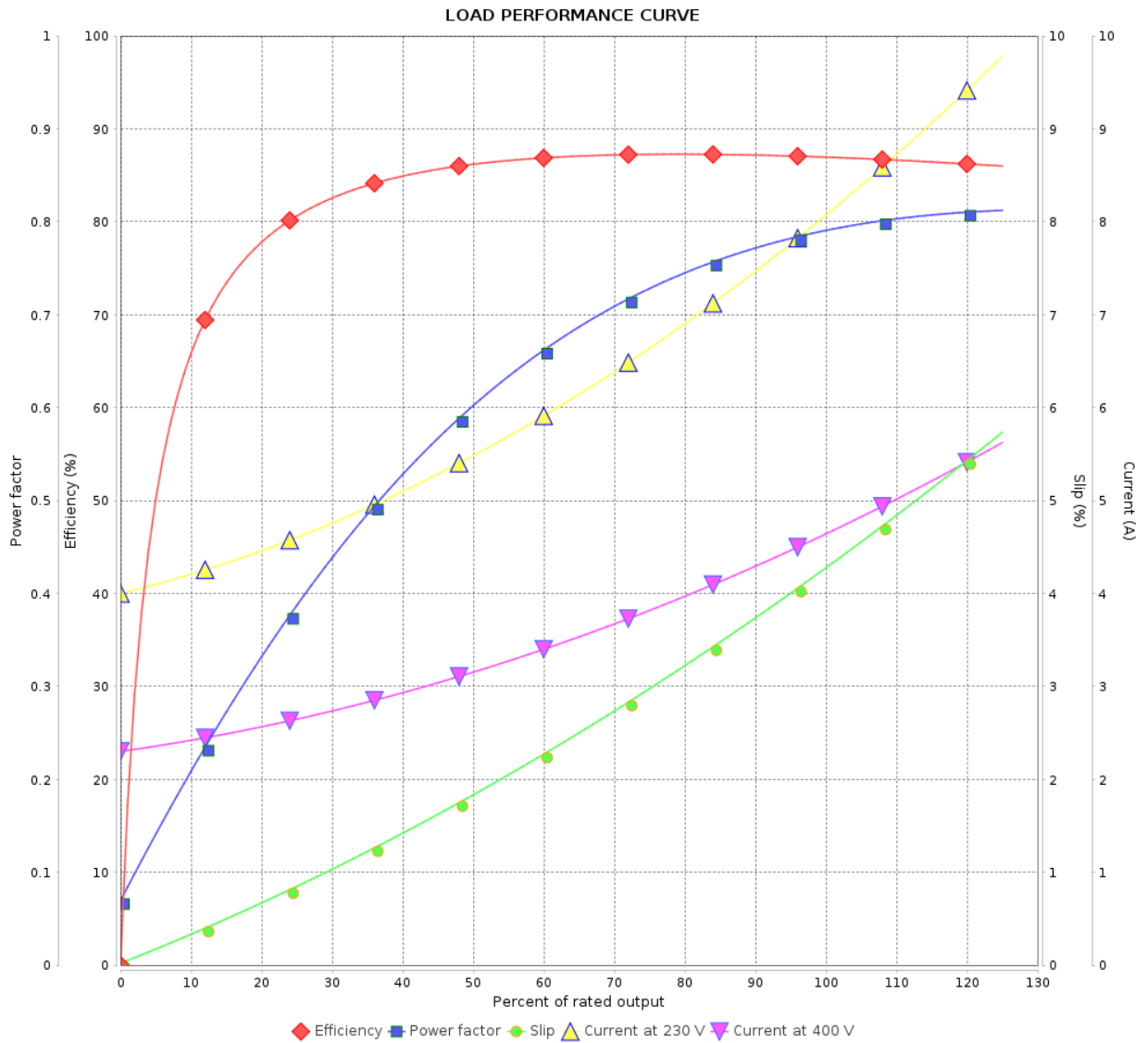
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 230/400 V 50 Hz 4P

Rated current : 8.03/4.62 A
 LRC : 8.0
 Rated torque : 1.49 kgfm
 Locked rotor torque : 330 %
 Breakdown torque : 350 %
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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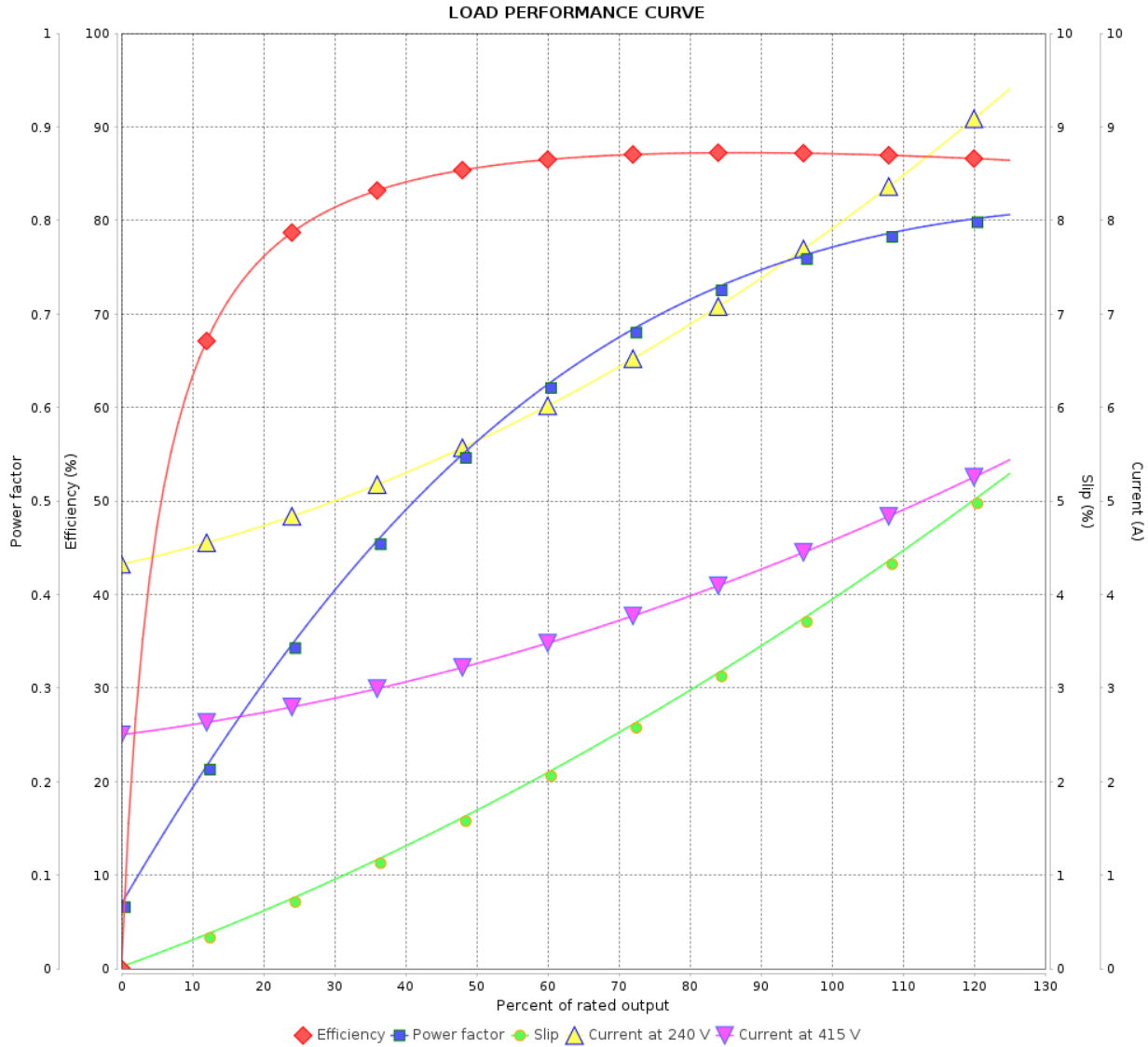
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 240/415 V 50 Hz 4P

Rated current : 7.89/4.56 A
 LRC : 8.6
 Rated torque : 1.49 kgfm
 Locked rotor torque : 360 %
 Breakdown torque : 380 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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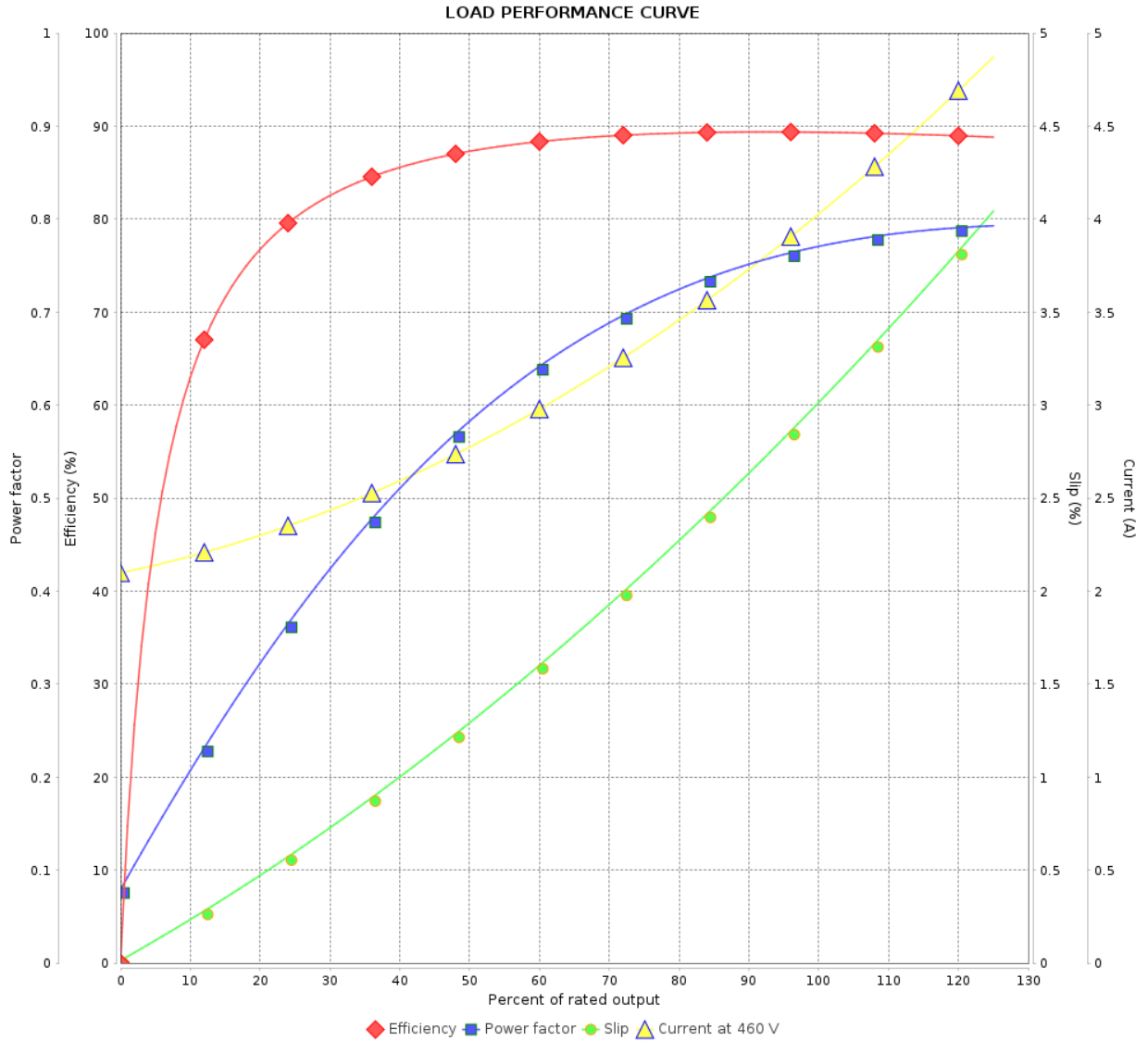
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 460 V 60 Hz 4P

Rated current : 4.01 A
 LRC : 9.5
 Rated torque : 1.23 kgfm
 Locked rotor torque : 409 %
 Breakdown torque : 440 %
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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THERMAL LIMIT CURVE

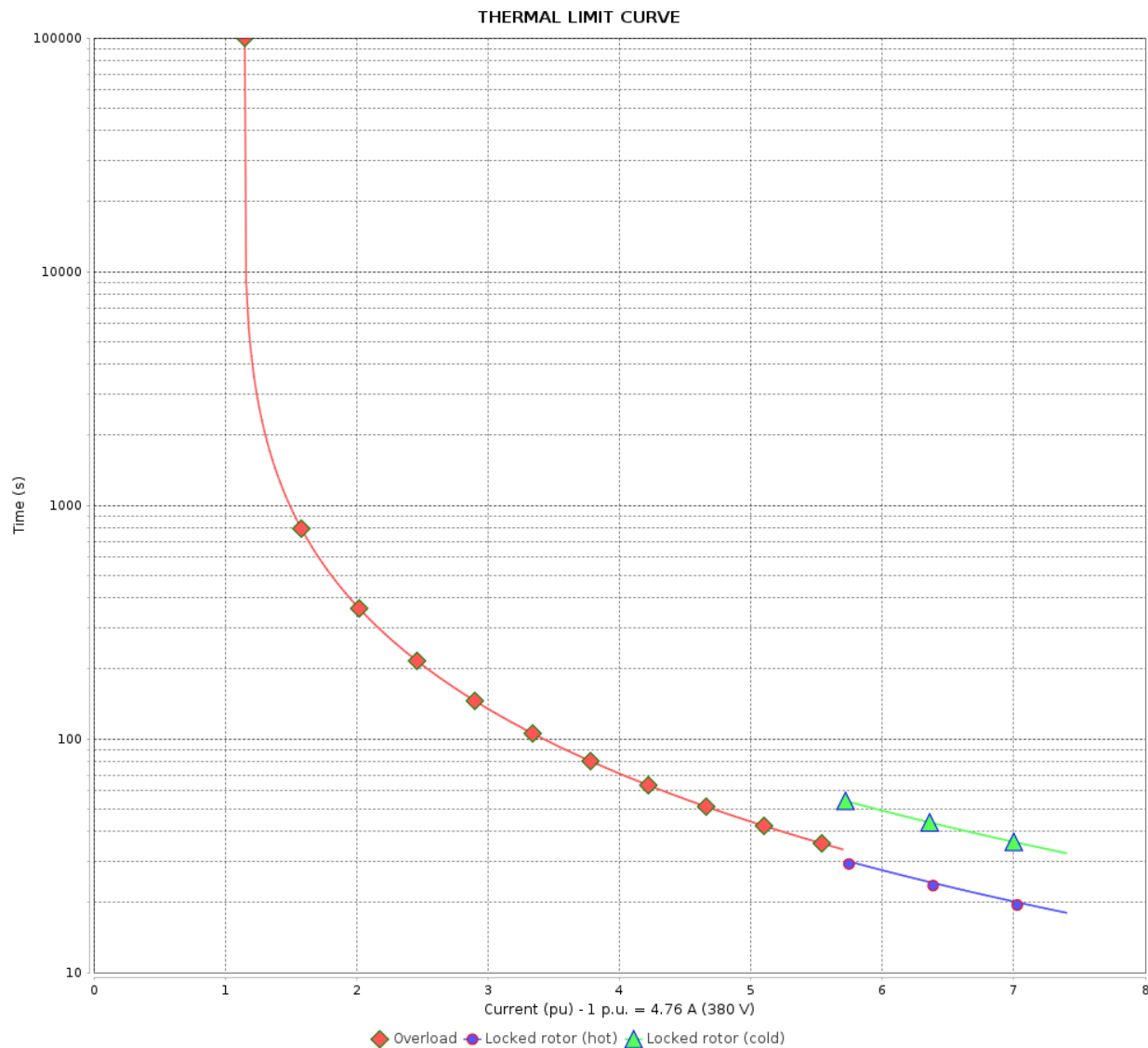
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Customer :

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 220/380 V 50 Hz 4P

Rated current : 8.22/4.76 A
 LRC : 7.4
 Rated torque : 1.50 kgfm
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1430 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant
 Cooling constant

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THERMAL LIMIT CURVE

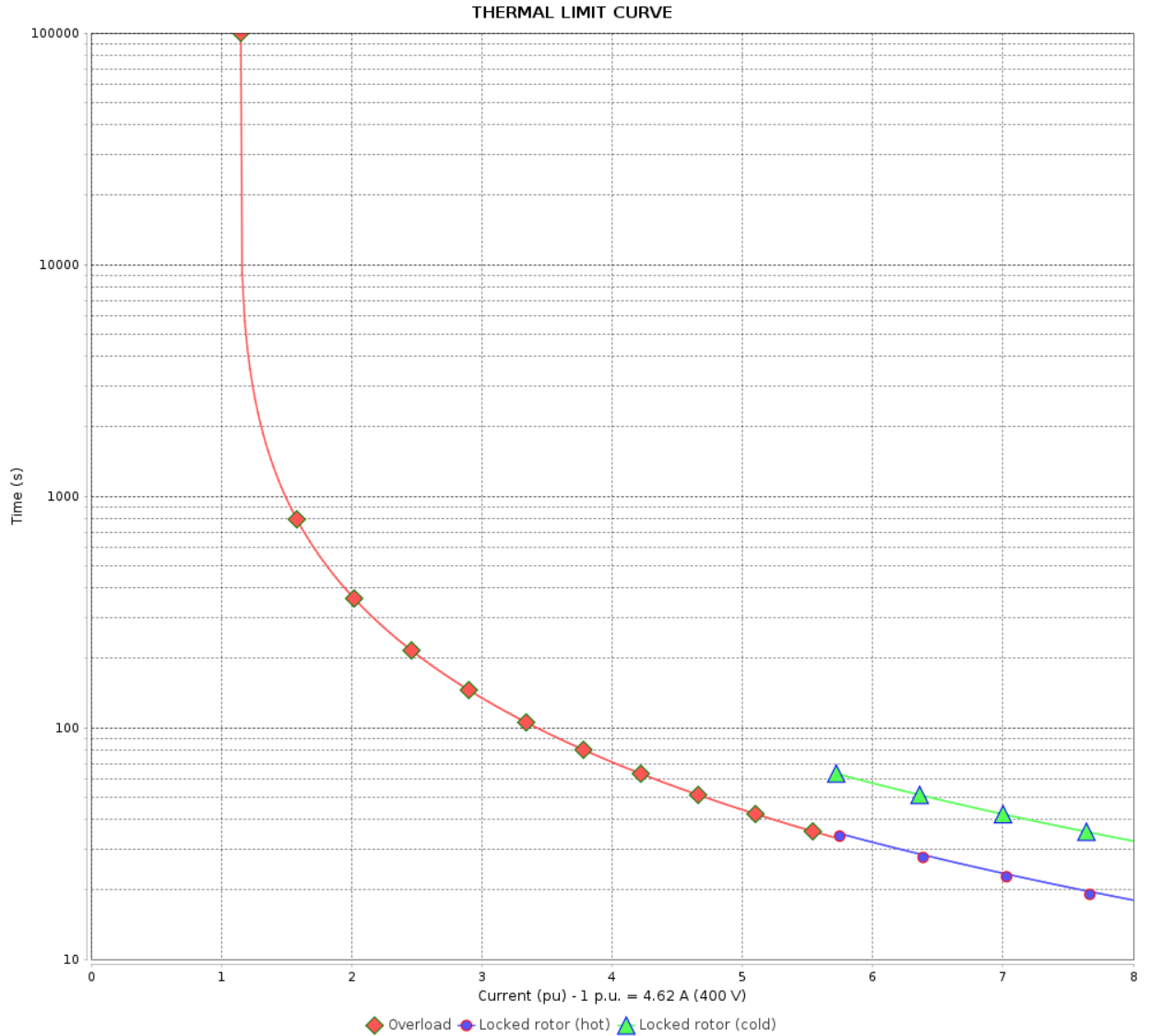
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 230/400 V 50 Hz 4P

Rated current : 8.03/4.62 A
 LRC : 8.0
 Rated torque : 1.49 kgfm
 Locked rotor torque : 330 %
 Breakdown torque : 350 %
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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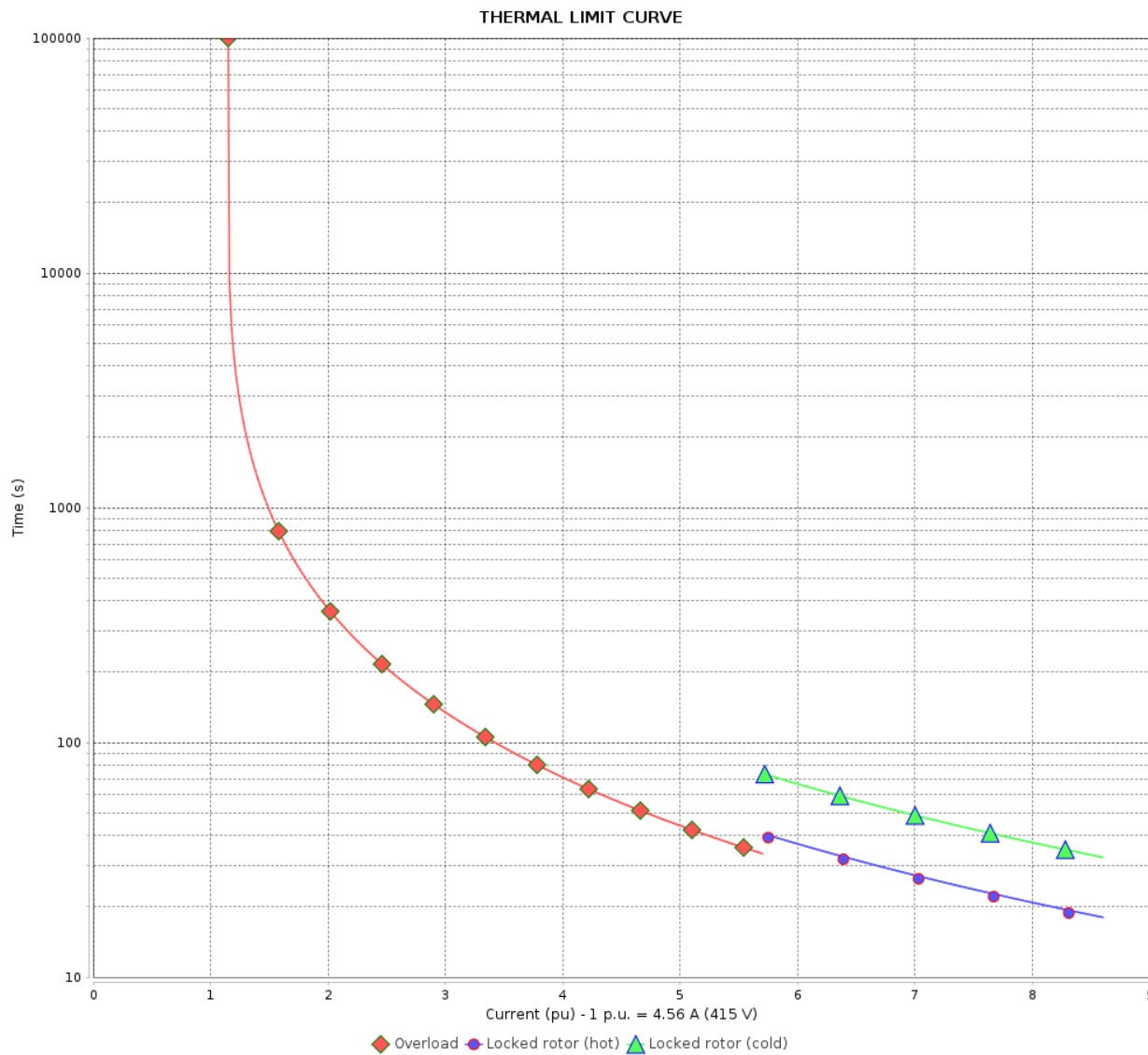
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 240/415 V 50 Hz 4P

Rated current : 7.89/4.56 A
 LRC : 8.6
 Rated torque : 1.49 kgfm
 Locked rotor torque : 360 %
 Breakdown torque : 380 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant
 Cooling constant

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THERMAL LIMIT CURVE

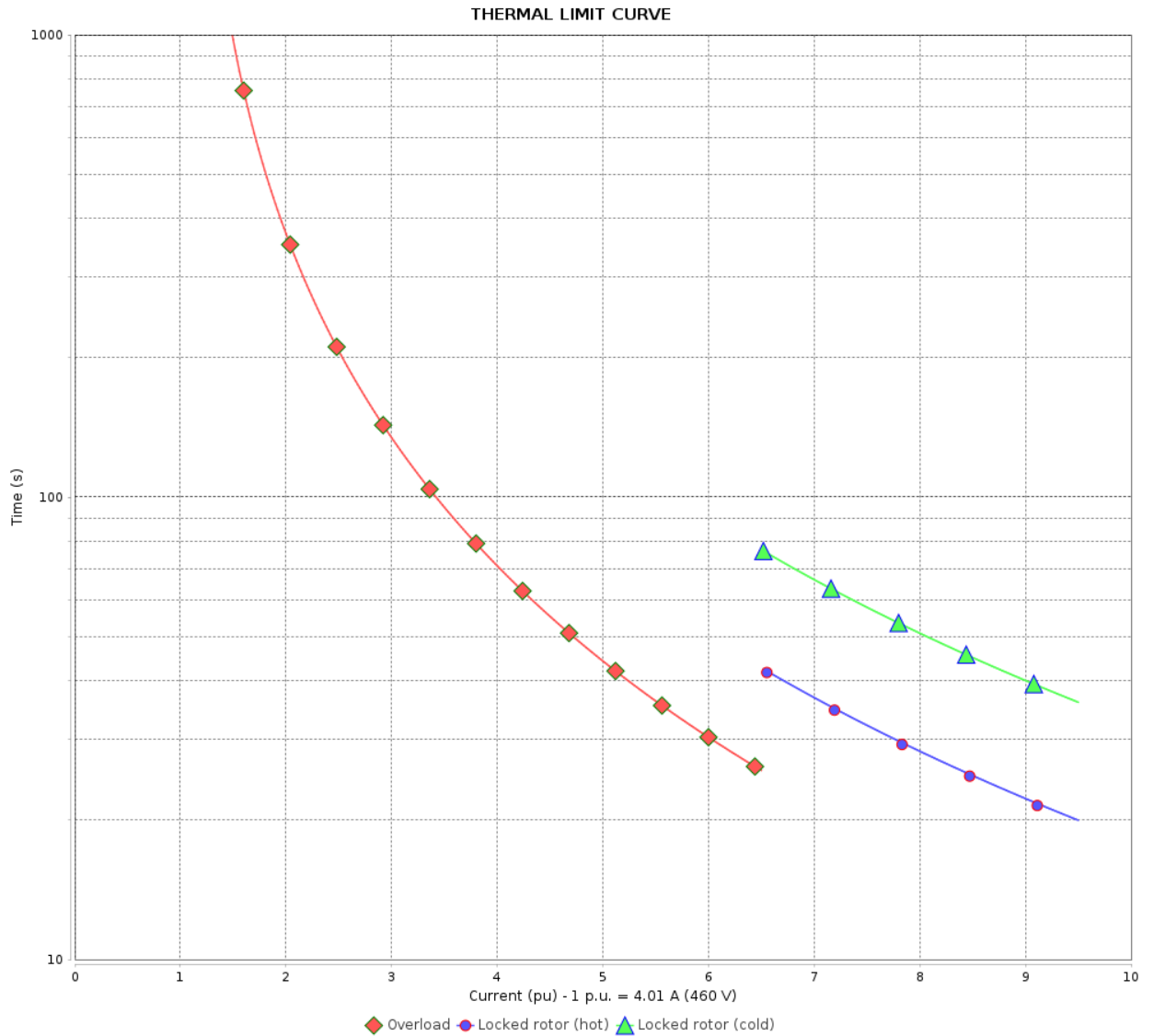
Three Phase Induction Motor - Squirrel Cage



Customer : _____

Product line : MULTIMOUNTING

Product code : 12928521



Performance : 460 V 60 Hz 4P

Rated current : 4.01 A
 LRC : 9.5
 Rated torque : 1.23 kgfm
 Locked rotor torque : 409 %
 Breakdown torque : 440 %
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

Heating constant

Cooling constant

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VFD OPERATION CURVE

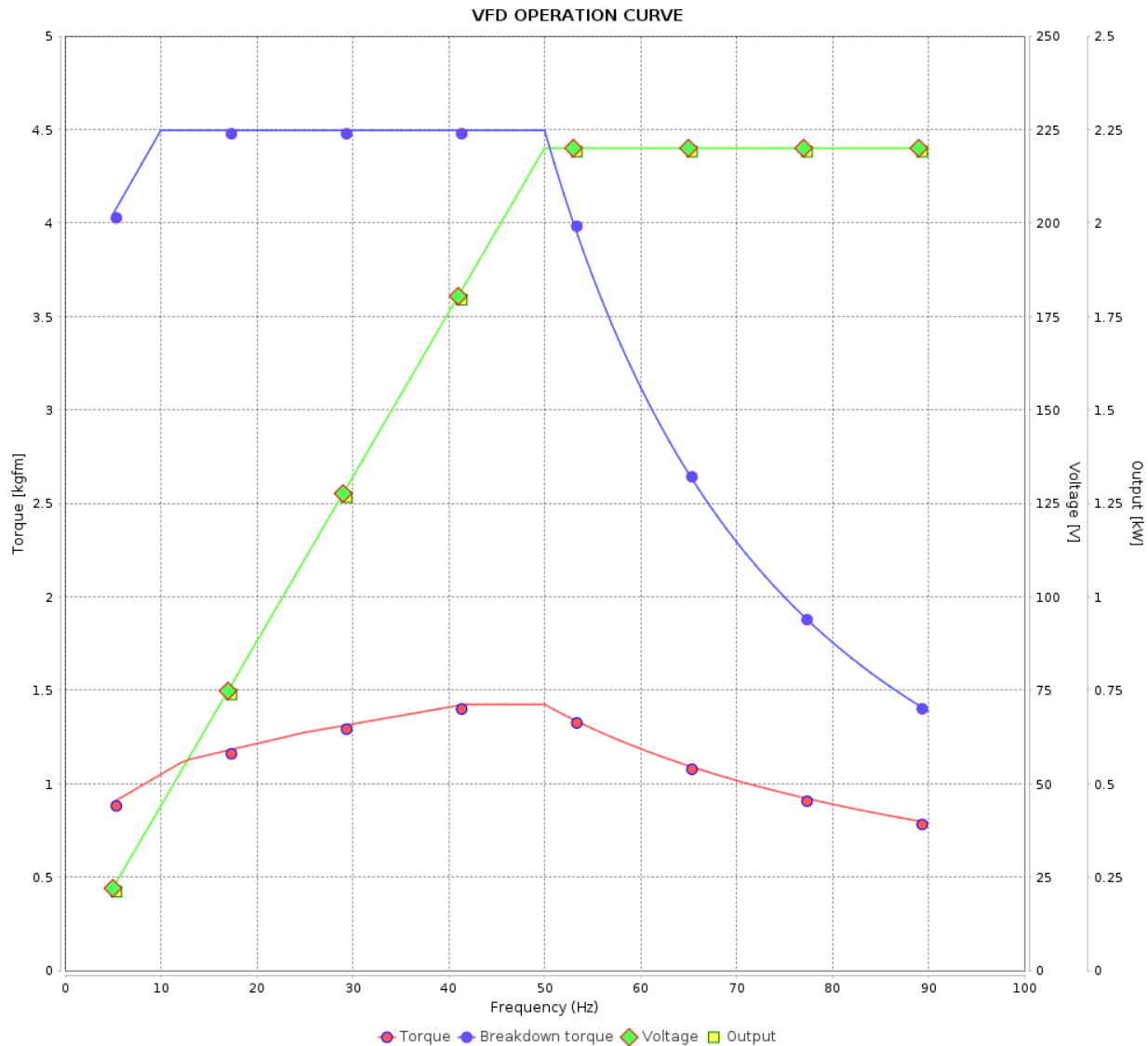
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Customer :

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Performance : 220/380 V 50 Hz 4P

Rated current : 8.22/4.76 A
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 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1430 rpm

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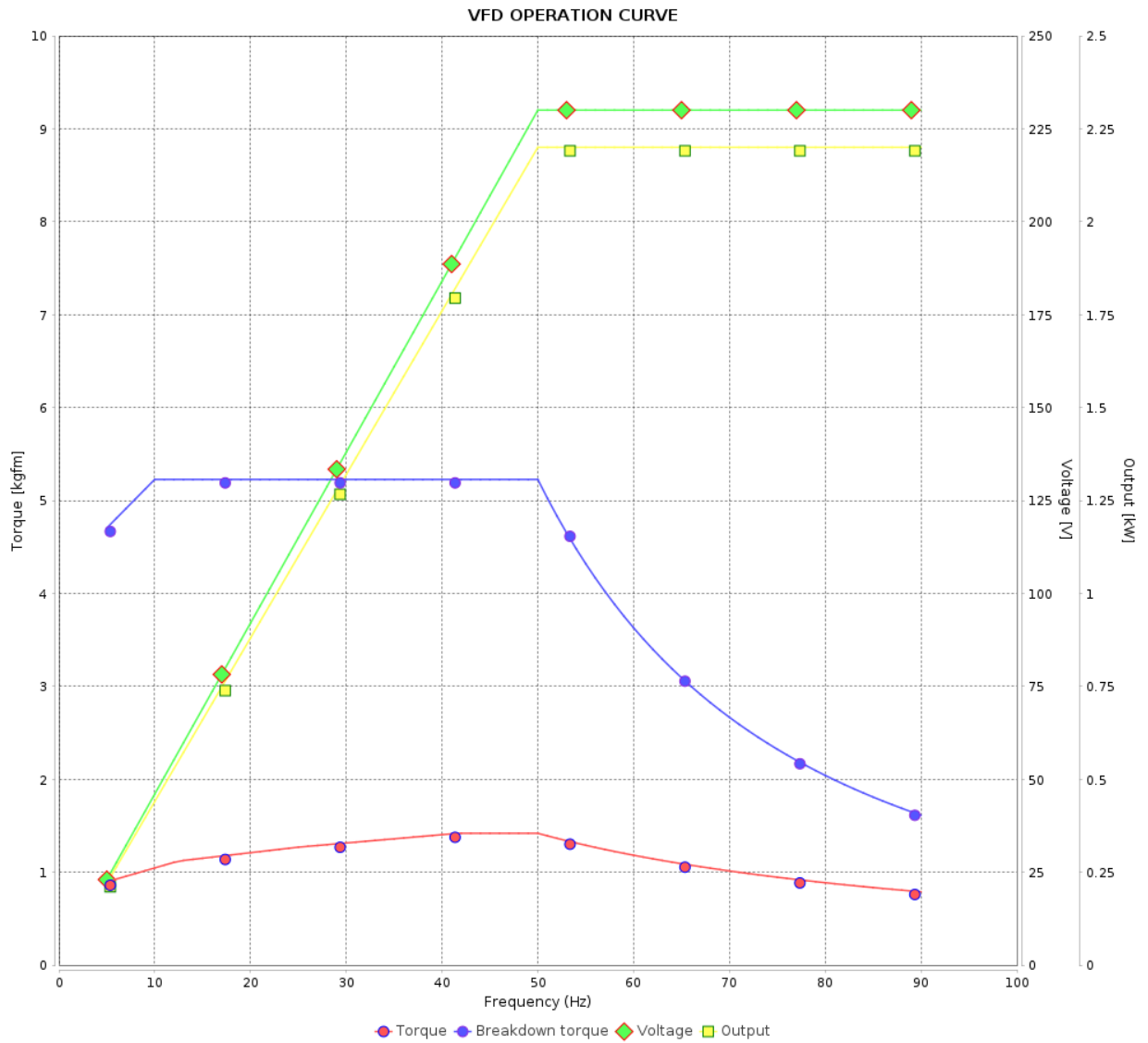
Three Phase Induction Motor - Squirrel Cage



Customer :

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Product code : 12928521



Performance : 230/400 V 50 Hz 4P

Rated current : 8.03/4.62 A
 LRC : 8.0
 Rated torque : 1.49 kgfm
 Locked rotor torque : 330 %
 Breakdown torque : 350 %
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.0090 kgm²
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : N

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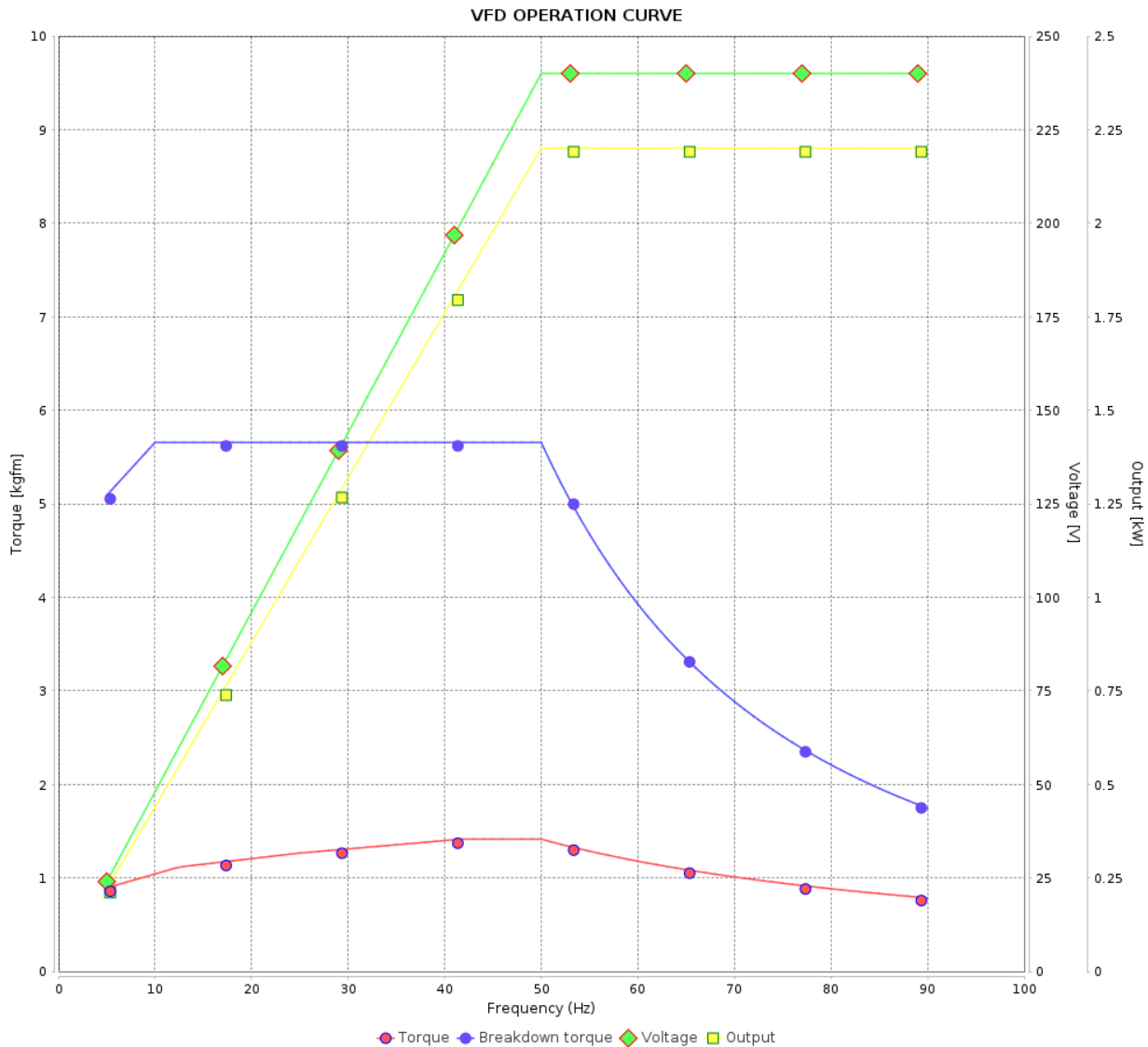
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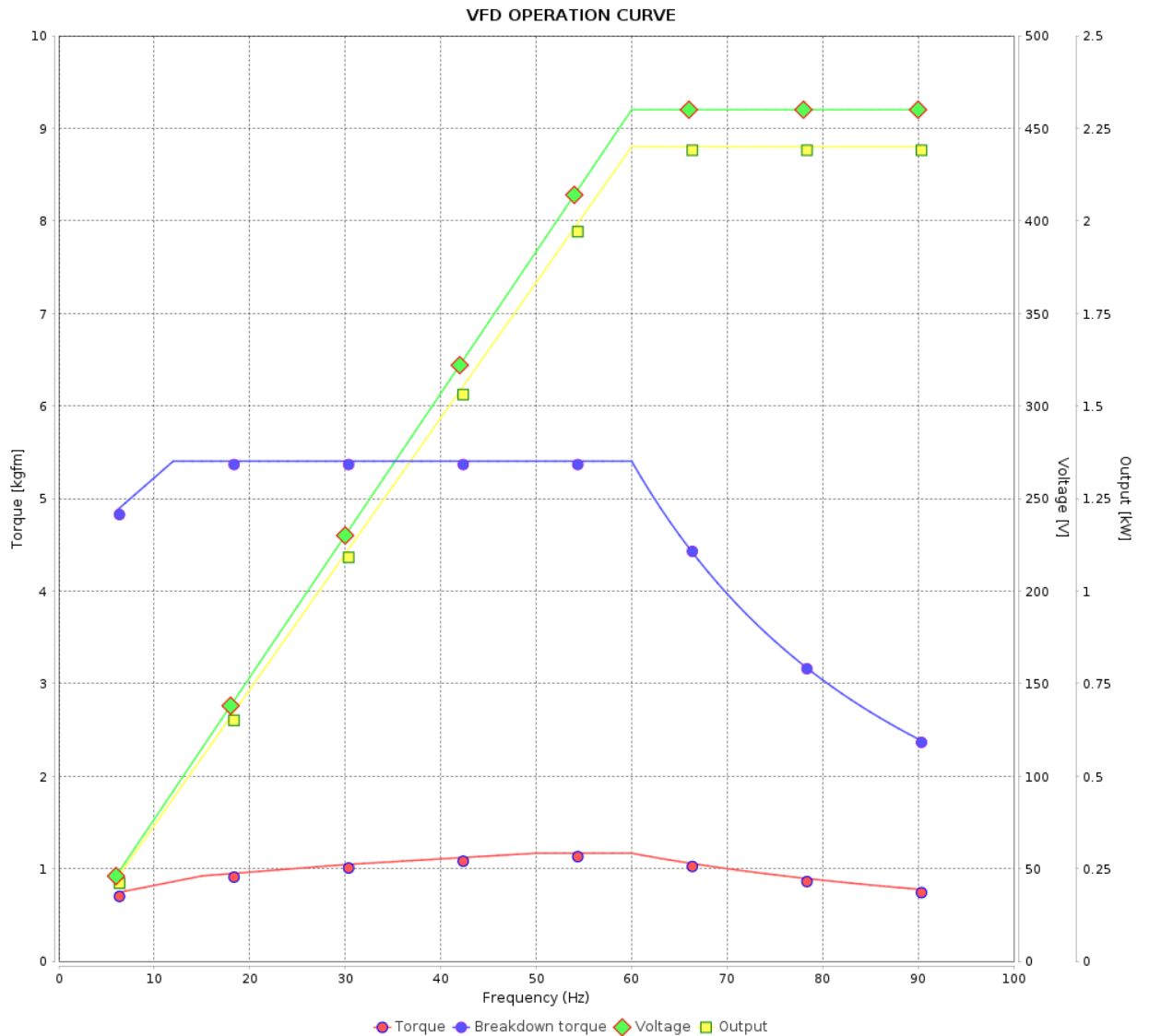
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