

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14495600
Catalog # : 03012OT3E326T-W40

| | |
|--------------------------------------|---|
| Frame : 324/6T | Cooling method : IC01 - ODP |
| 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 : 234 kg |
| Protection degree : IP23 | Moment of inertia (J) : 0.4029 kgm ² |
| Design : B | |

| | | | | |
|--------------------------|----------------------|----------------------|----------------------|----------------------|
| Output [HP] | 30 | 25 | 25 | 25 |
| Poles | 6 | 6 | 6 | 6 |
| Frequency [Hz] | 60 | 50 | 50 | 50 |
| Rated voltage [V] | 230/460 | 380 | 400 | 415 |
| Rated current [A] | 72.0/36.0 | 36.5 | 35.5 | 34.6 |
| L. R. Amperes [A] | 454/227 | 223 | 238 | 235 |
| LRC [A] | 6.3x(Code G) | 6.1x(Code G) | 6.7x(Code H) | 6.8x(Code H) |
| No load current [A] | 29.6/14.8 | 14.6 | 15.8 | 16.8 |
| Rated speed [RPM] | 1182 | 980 | 980 | 980 |
| Slip [%] | 1.50 | 2.00 | 2.00 | 2.00 |
| Rated torque [kgfm] | 18.4 | 18.5 | 18.5 | 18.5 |
| Locked rotor torque [%] | 200 | 160 | 180 | 200 |
| Breakdown torque [%] | 240 | 229 | 260 | 280 |
| Service factor | 1.25 | 1.00 | 1.00 | 1.00 |
| Temperature rise | 80 K | 80 K | 80 K | 80 K |
| Locked rotor time | 30s (cold) 17s (hot) | 25s (cold) 14s (hot) | 23s (cold) 13s (hot) | 23s (cold) 13s (hot) |
| Noise level ² | 62.0 dB(A) | | | |
| Efficiency (%) | 25% | 91.7 | 91.2 | 91.4 |
| | 50% | 92.4 | 91.4 | 91.6 |
| | 75% | 93.0 | 91.8 | 91.8 |
| | 100% | 93.6 | 91.8 | 91.8 |
| Power Factor | 25% | 0.44 | 0.44 | 0.38 |
| | 50% | 0.70 | 0.70 | 0.63 |
| | 75% | 0.79 | 0.80 | 0.75 |
| | 100% | 0.82 | 0.84 | 0.81 |

| | | | |
|------------------------|------------------|----------------------|------------------|
| | <u>Drive end</u> | <u>Non drive end</u> | Foundation loads |
| Bearing type : | 6312 Z C3 | 6211 Z C3 | Max. traction |
| Sealing : | Without | Without | Max. compression |
| | Bearing Seal | Bearing Seal | |
| Lubrication interval : | 20000 h | 20000 h | |
| Lubricant amount : | 21 g | 11 g | |
| Lubricant type : | Mobil Polyrex EM | | |

Notes
USABLE @208V 79.6A SF 1.15 SFA 91.6A

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 |
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

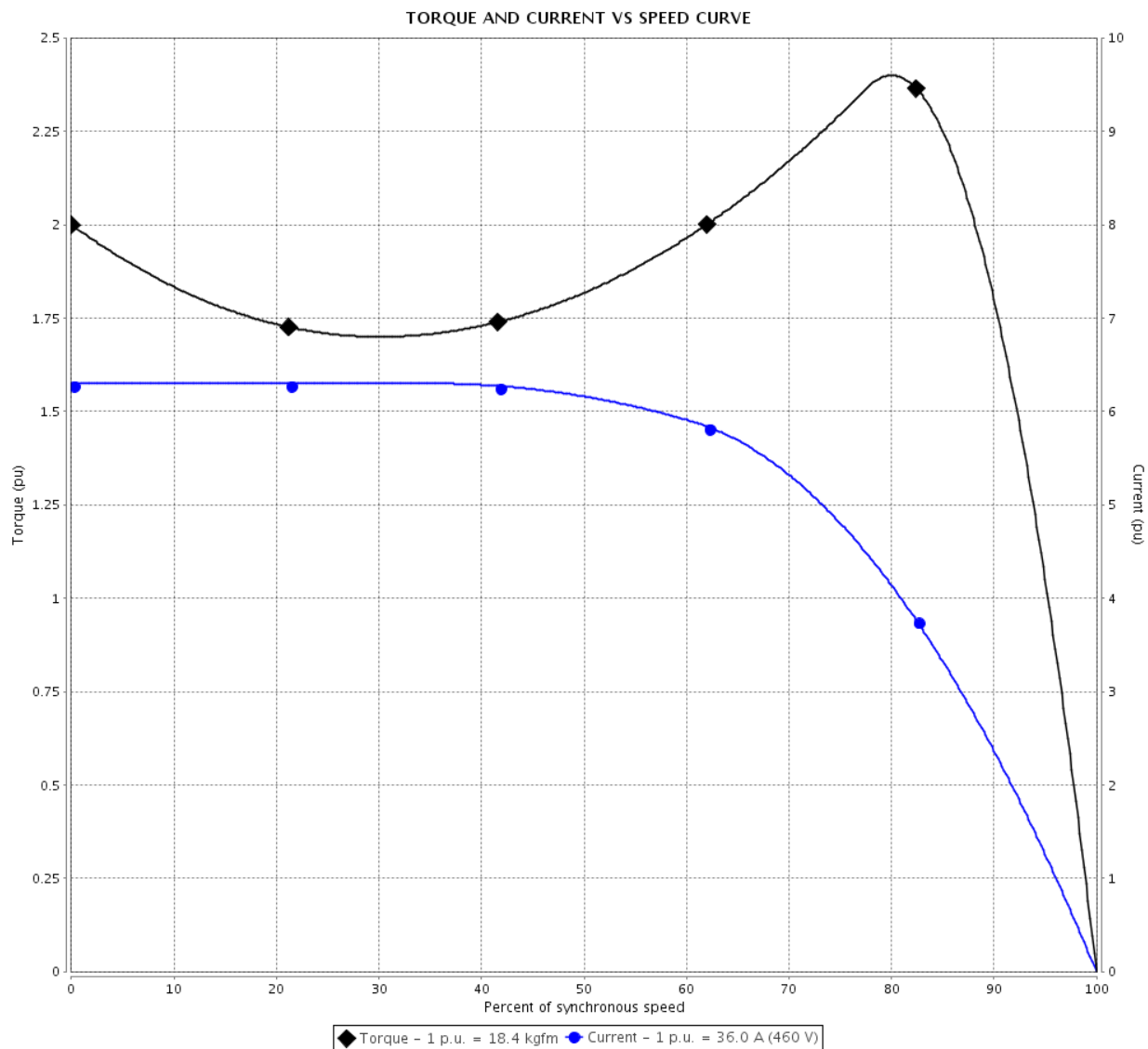


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14495600

Catalog # : 030120T3E326T-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 72.0/36.0 A
LRC : 6.3
Rated torque : 18.4 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1182 rpm

Moment of inertia (J) : 0.4029 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 30s (cold) 17s (hot)

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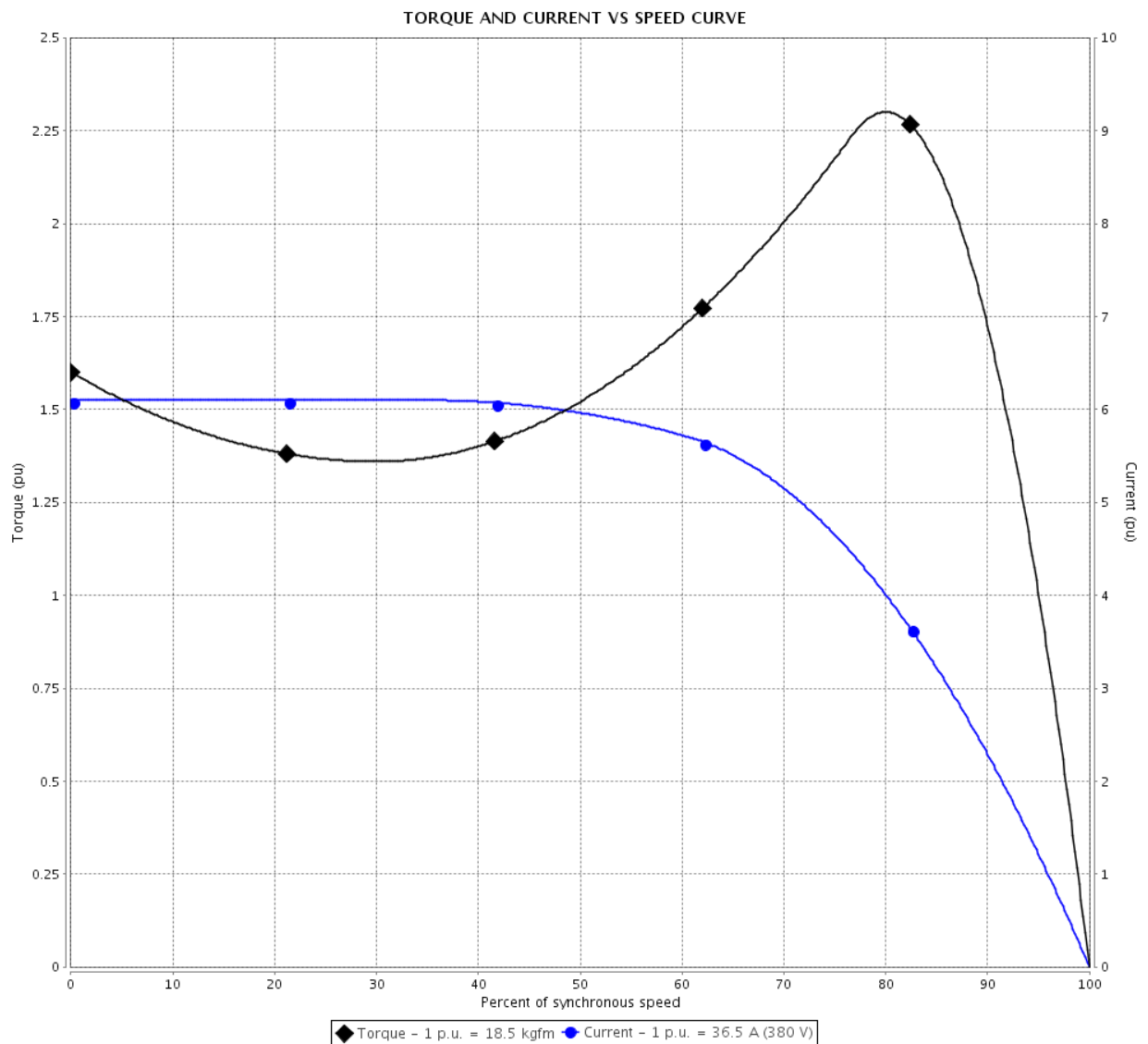


Customer :

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Product code : 14495600

Catalog # : 03012OT3E326T-W40



Performance : 380 V 50 Hz 6P IE3

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 36.5 A | Moment of inertia (J) | : 0.4029 kgm ² |
| LRC | : 6.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 18.5 kgfm | Insulation class | : F |
| Locked rotor torque | : 160 % | Service factor | : 1.00 |
| Breakdown torque | : 229 % | Temperature rise | : 80 K |
| Rated speed | : 980 rpm | Design | : B |

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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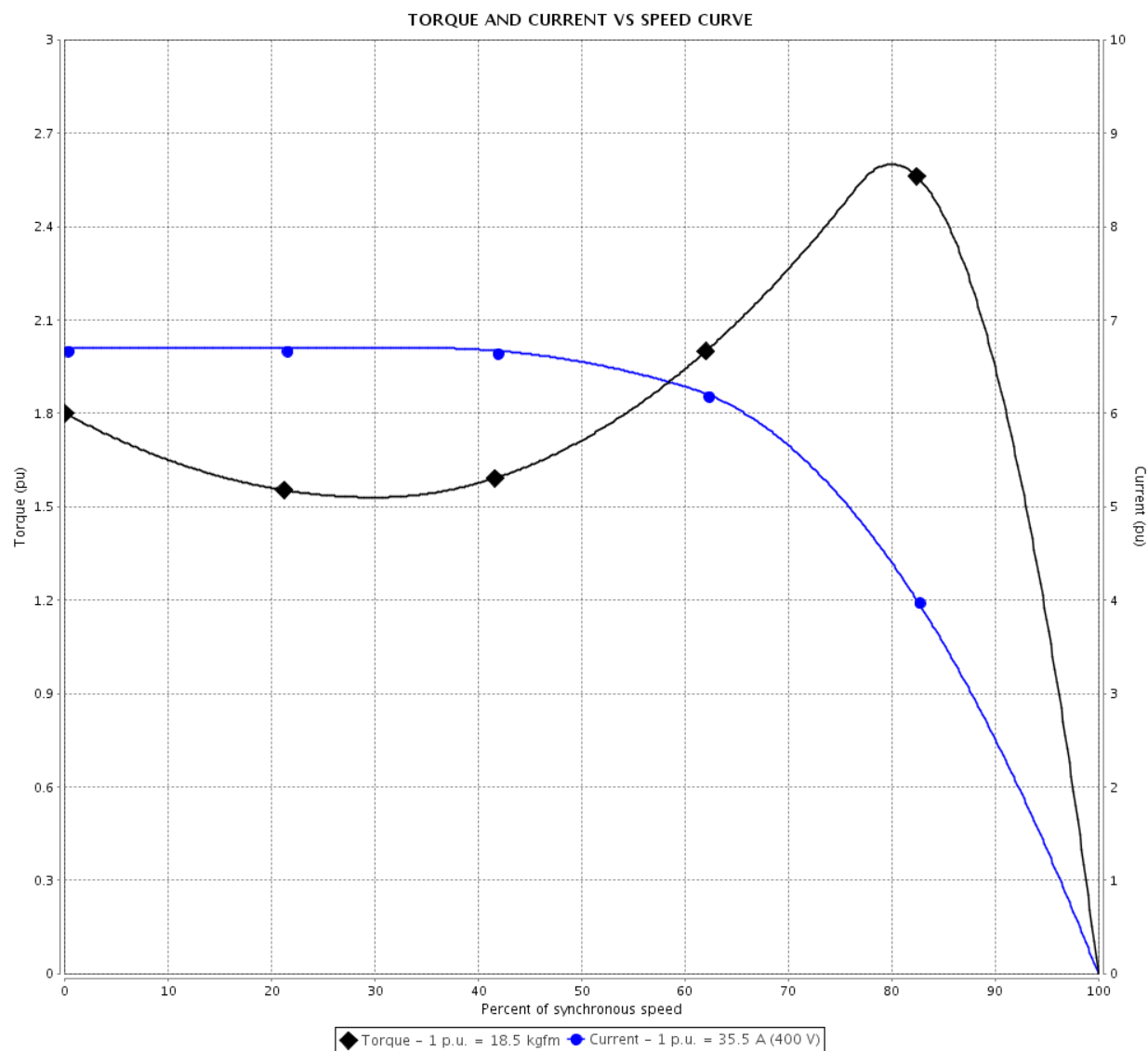


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Performance : 400 V 50 Hz 6P IE3

Rated current : 35.5 A
LRC : 6.7
Rated torque : 18.5 kgfm
Locked rotor torque : 180 %
Breakdown torque : 260 %
Rated speed : 980 rpm

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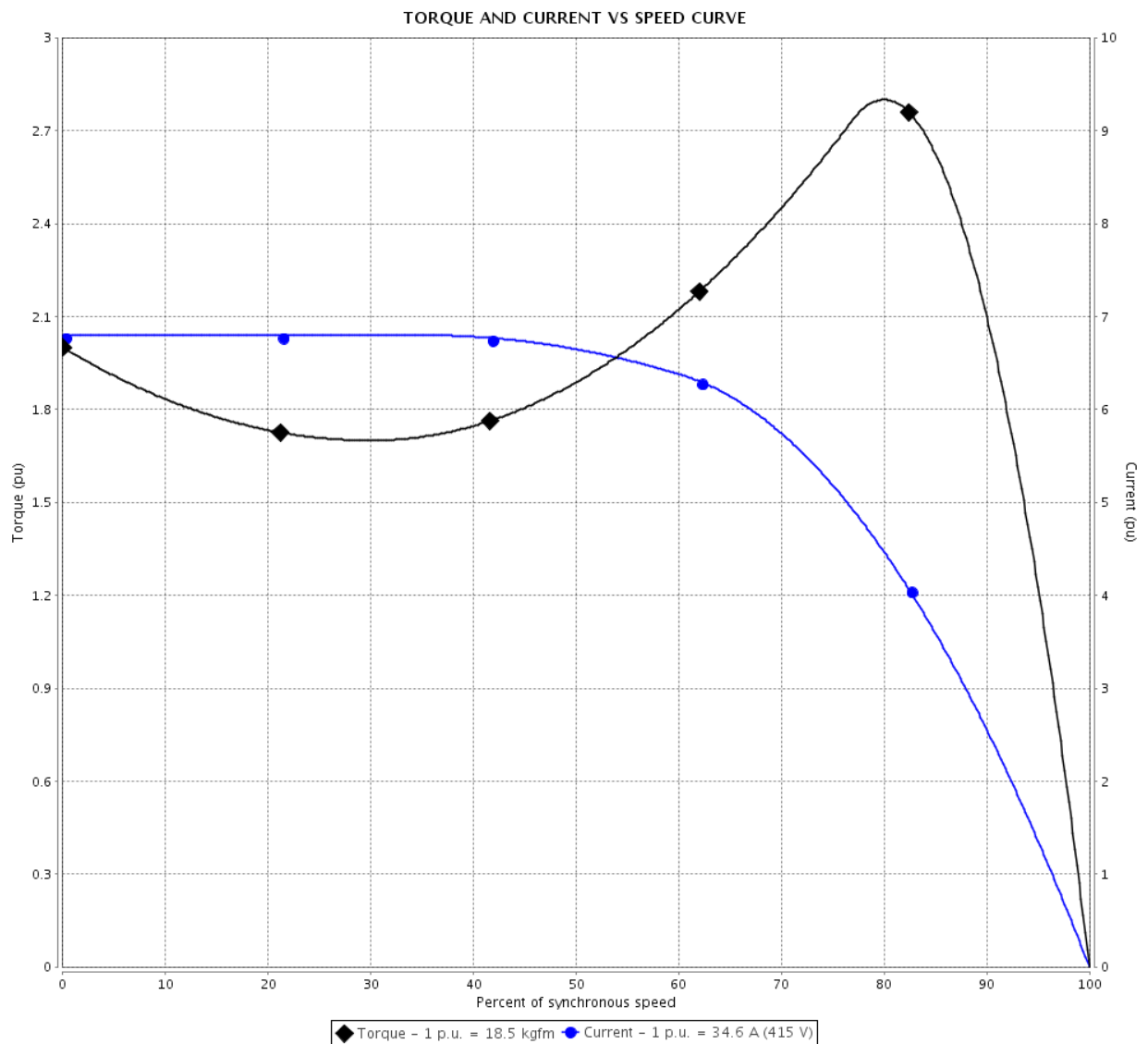


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Performance : 415 V 50 Hz 6P IE3

| | | | |
|---------------------|-------------|-----------------------|---------------------------|
| Rated current | : 34.6 A | Moment of inertia (J) | : 0.4029 kgm ² |
| LRC | : 6.8 | Duty cycle | : Cont.(S1) |
| Rated torque | : 18.5 kgfm | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.00 |
| Breakdown torque | : 280 % | Temperature rise | : 80 K |
| Rated speed | : 980 rpm | Design | : B |

Locked rotor time : 23s (cold) 13s (hot)

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LOAD PERFORMANCE CURVE

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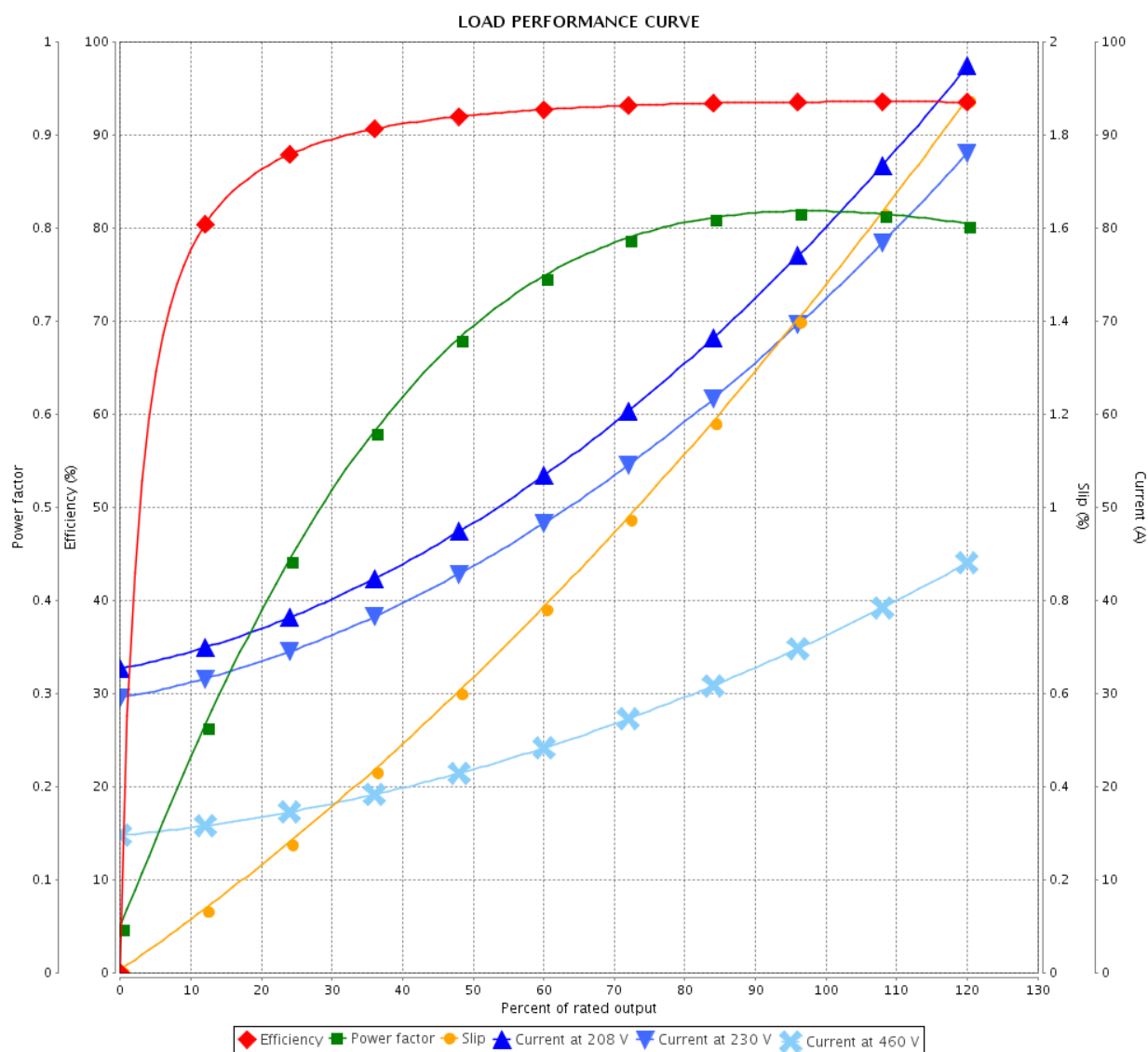


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Rated current : 72.0/36.0 A
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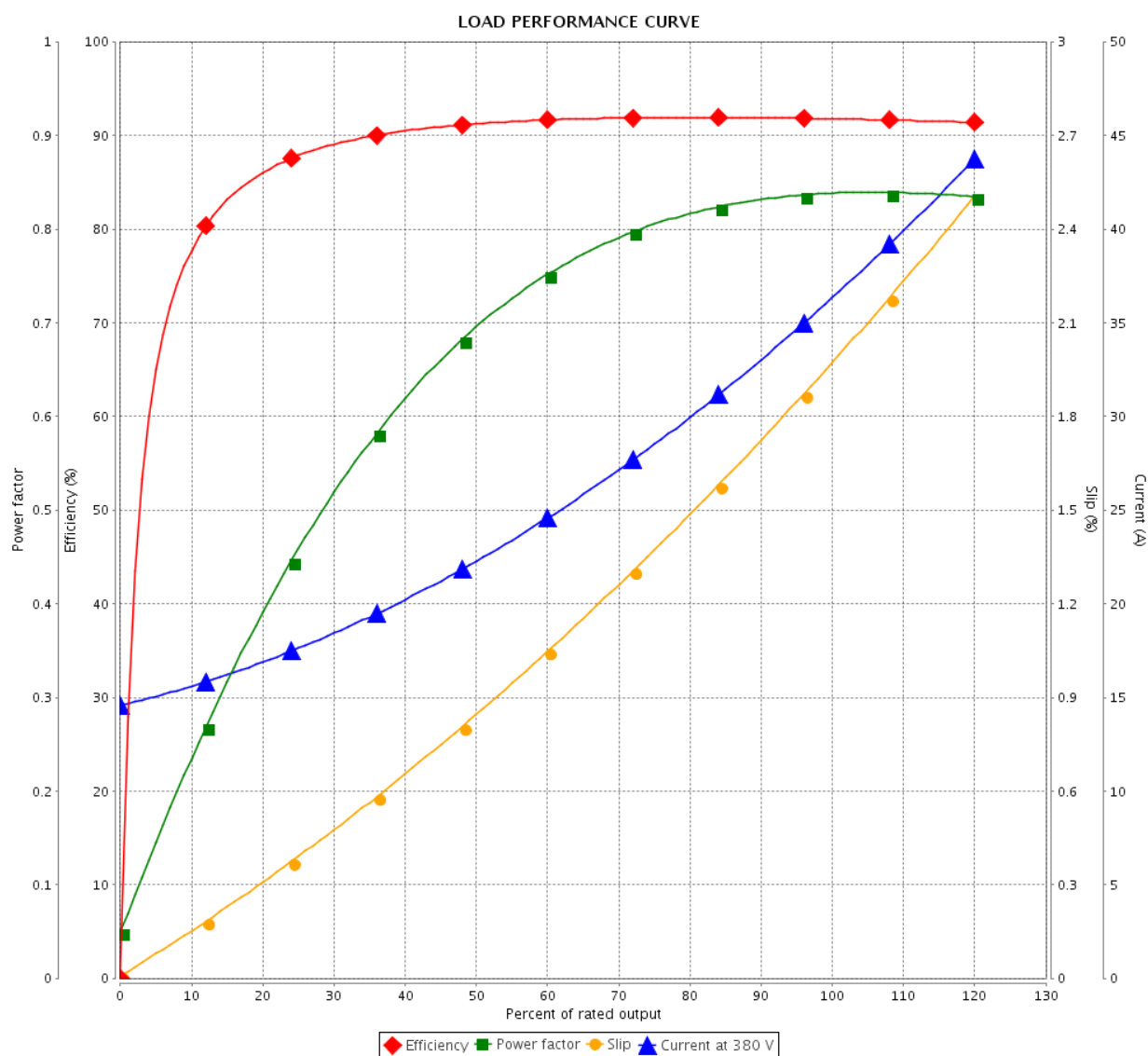


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Service factor : 1.00
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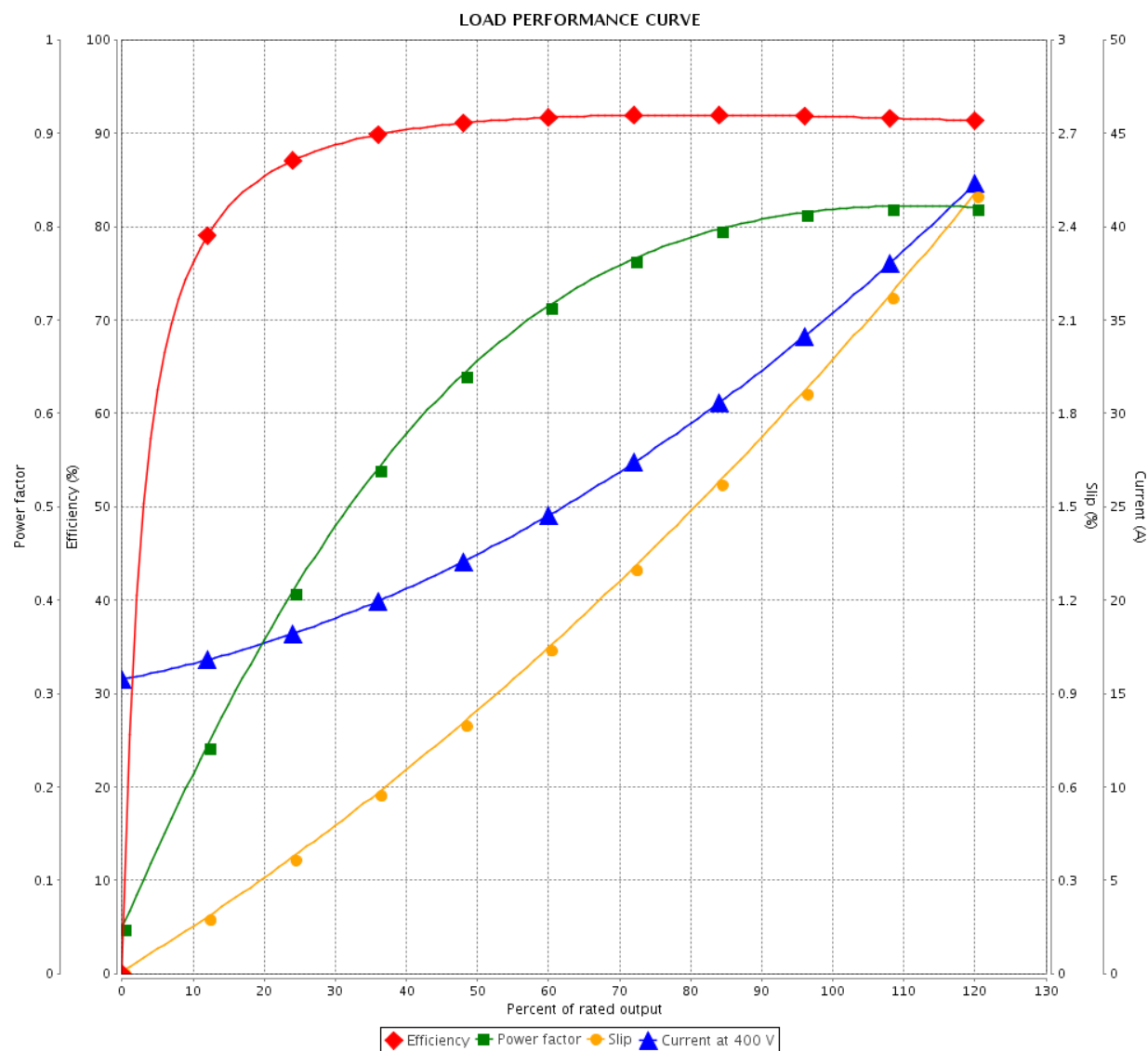


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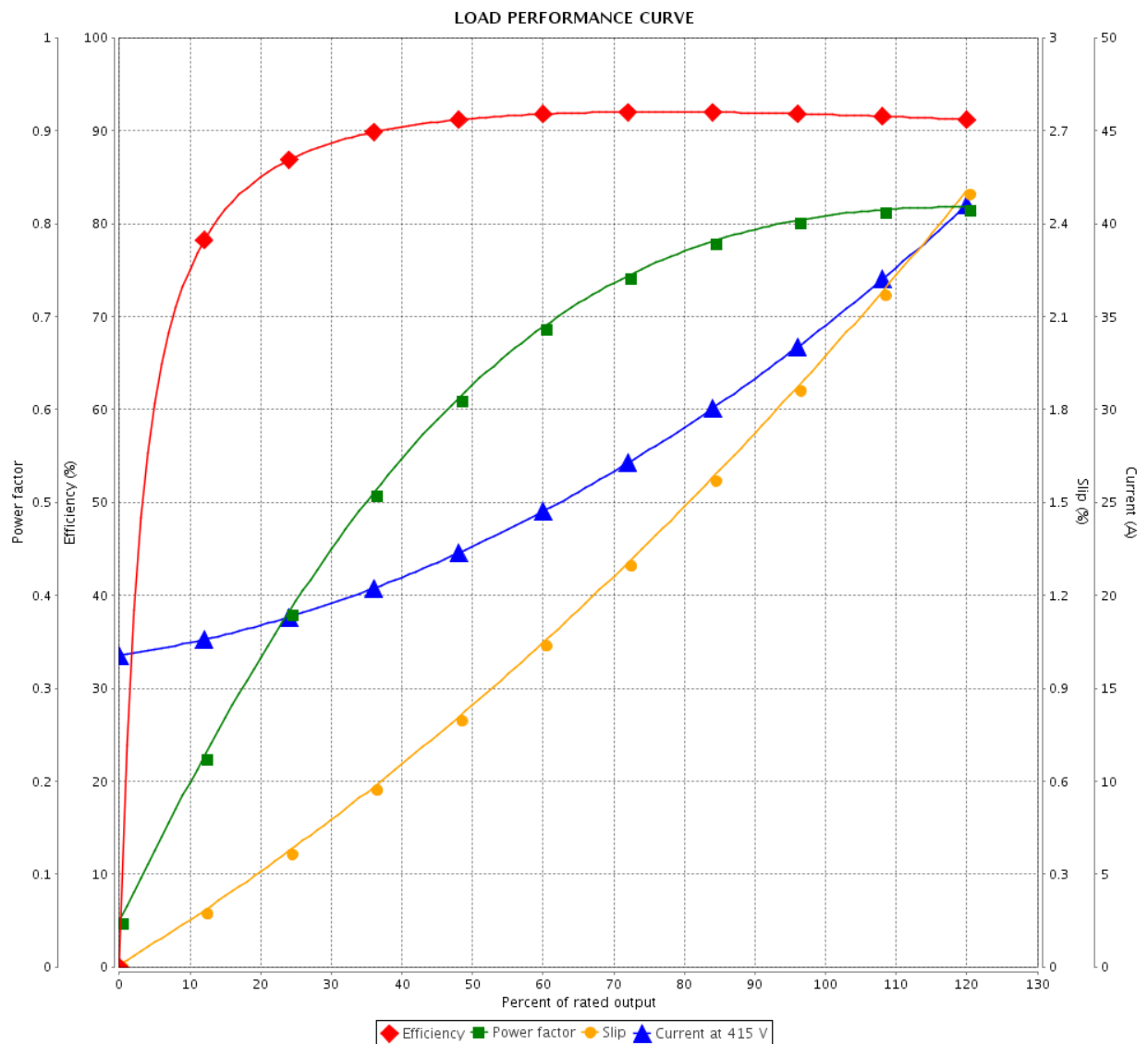


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Service factor : 1.00
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Design : B

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THERMAL LIMIT CURVE

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Rated current : 72.0/36.0 A
LRC : 6.3
Rated torque : 18.4 kgfm
Locked rotor torque : 200 %
Breakdown torque : 240 %
Rated speed : 1182 rpm

Moment of inertia (J) : 0.4029 kgm²
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

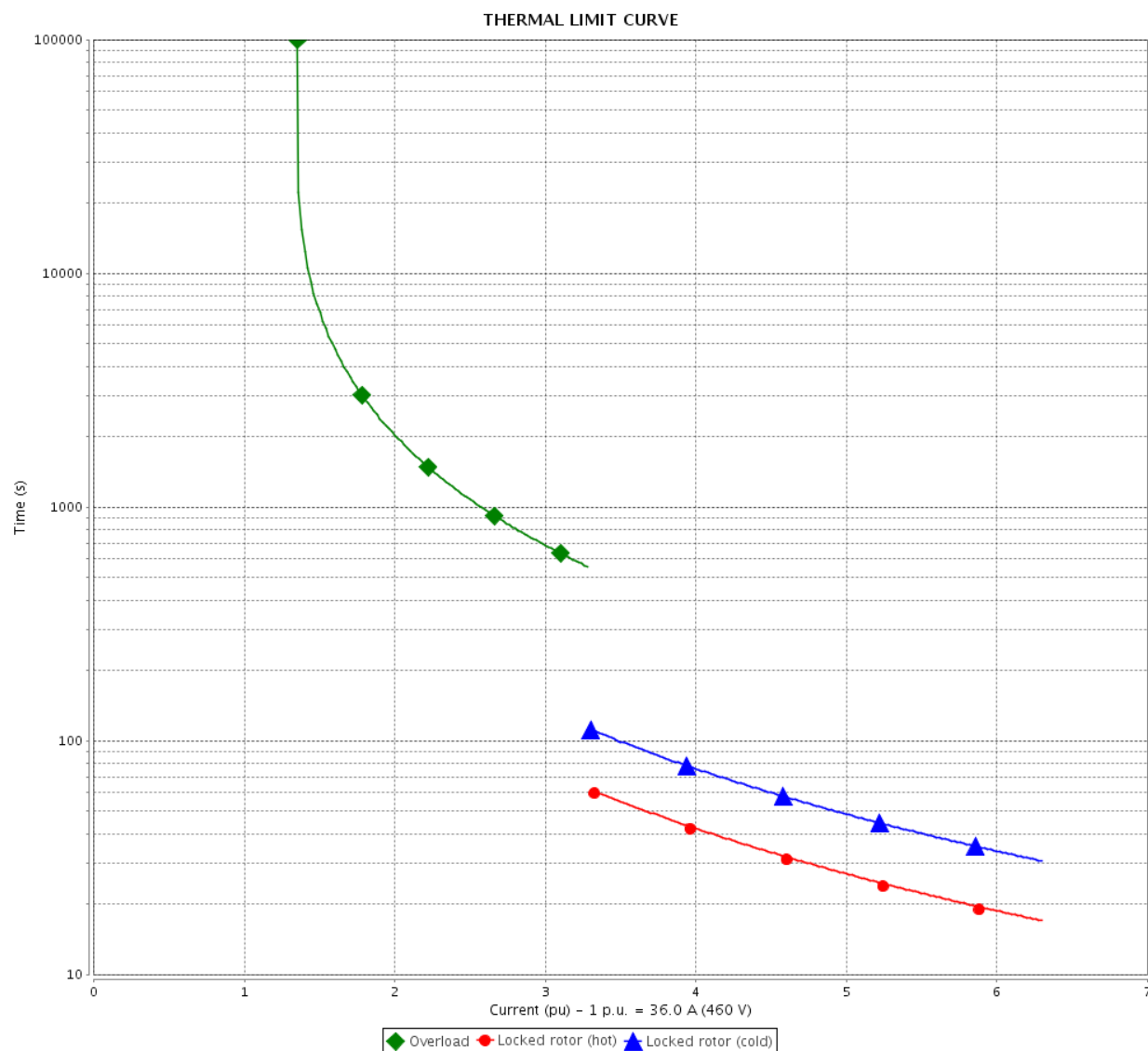
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LRC

: 6.1

Rated torque

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Locked rotor torque

: 160 %

Breakdown torque

: 229 %

Rated speed

: 980 rpm

Moment of inertia (J)

: 0.4029 kgm²

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

Design

: B

Heating constant

Cooling constant

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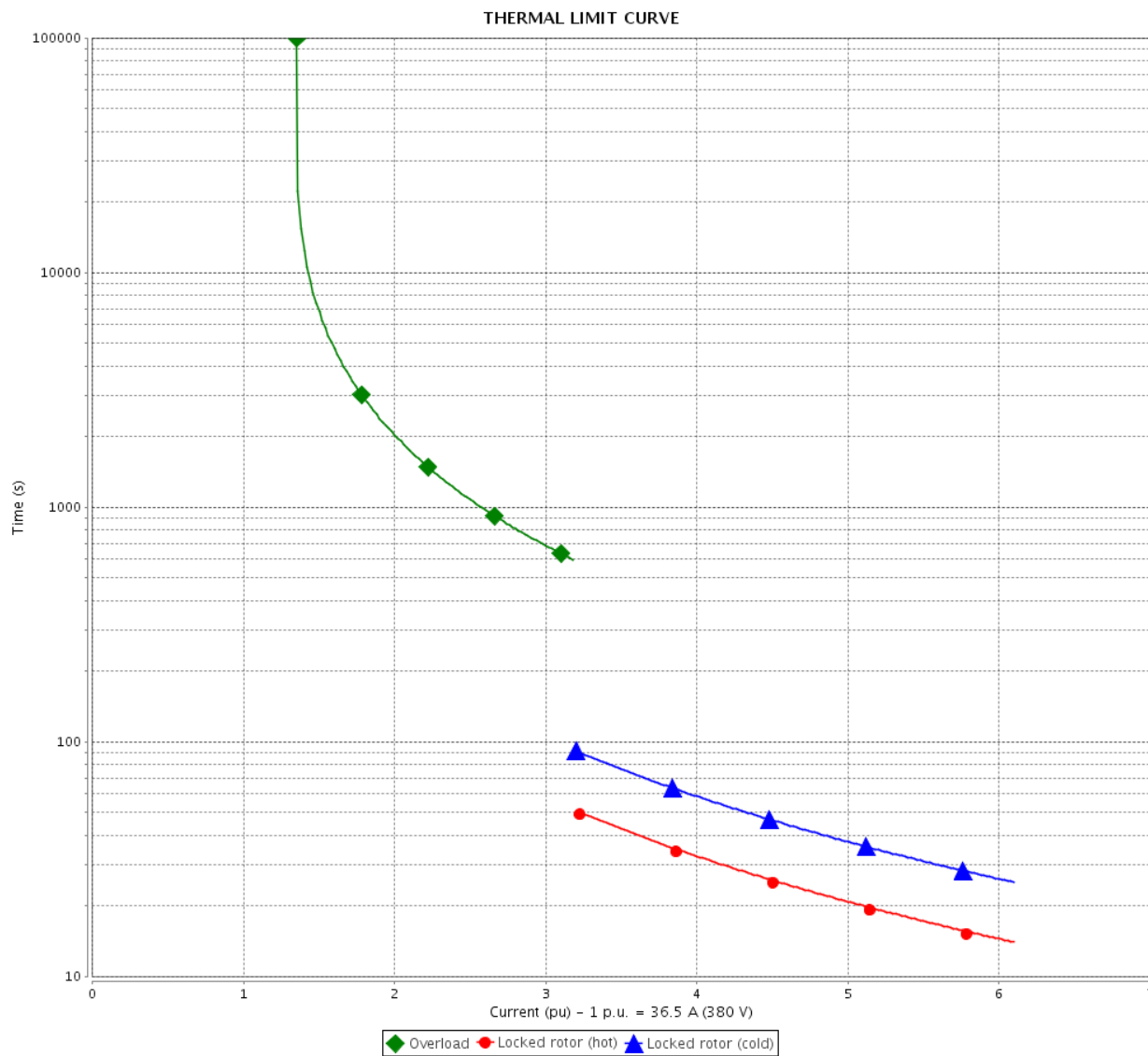
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Performance : 400 V 50 Hz 6P IE3

Rated current

: 35.5 A

LRC

: 6.7

Rated torque

: 18.5 kgfm

Locked rotor torque

: 180 %

Breakdown torque

: 260 %

Rated speed

: 980 rpm

Moment of inertia (J)

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: 80 K

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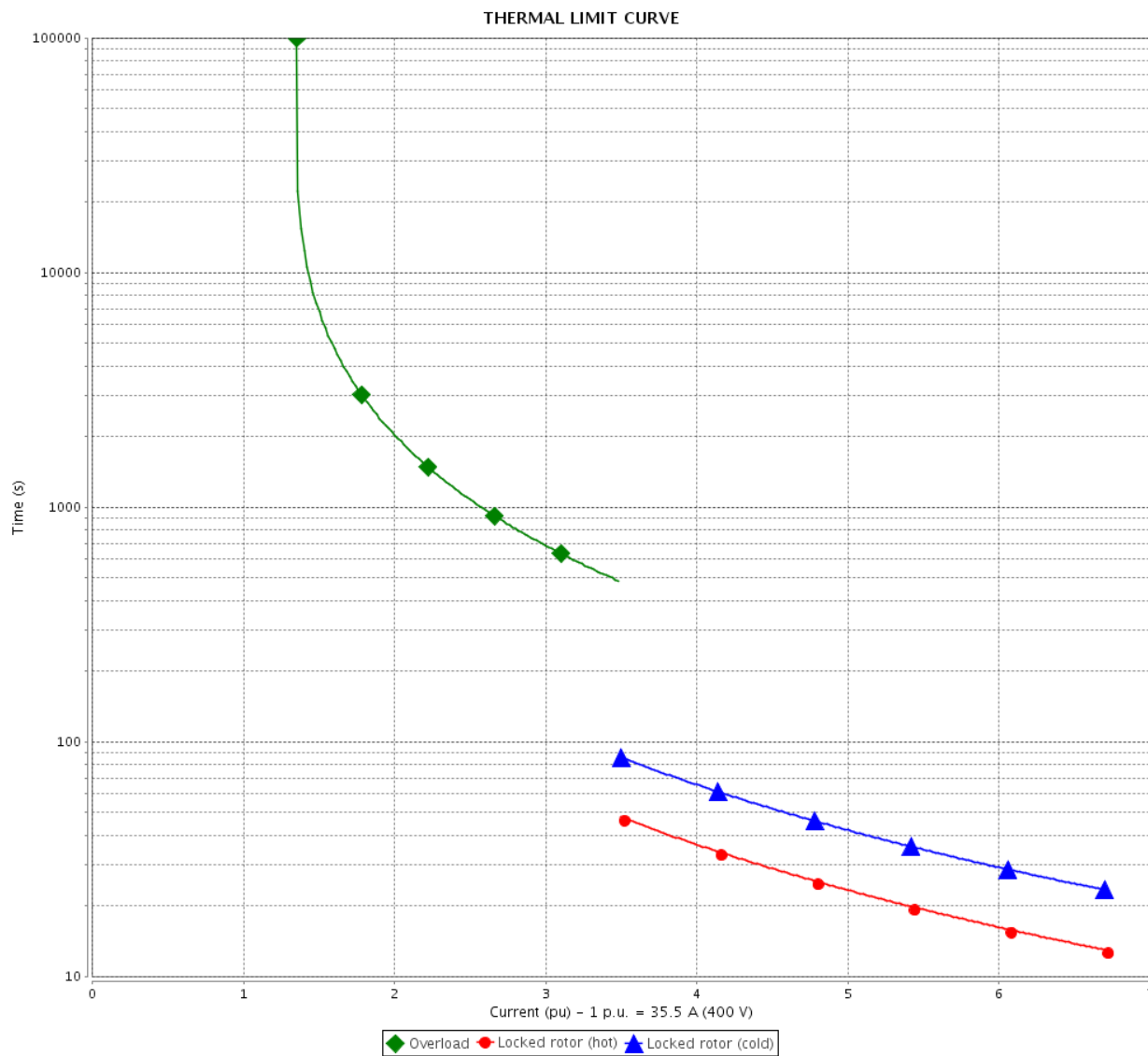
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Temperature rise

: 80 K

Design

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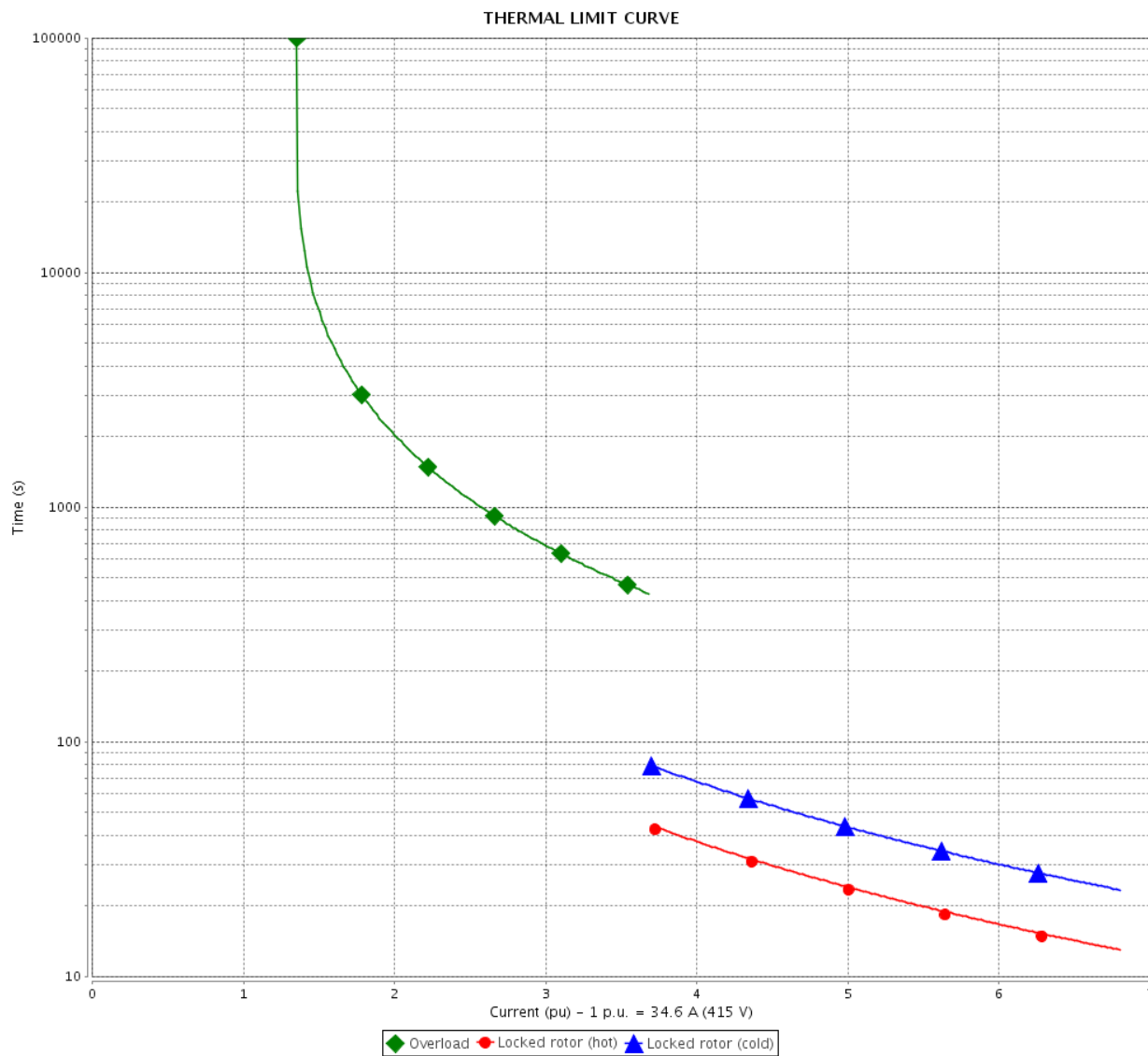
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

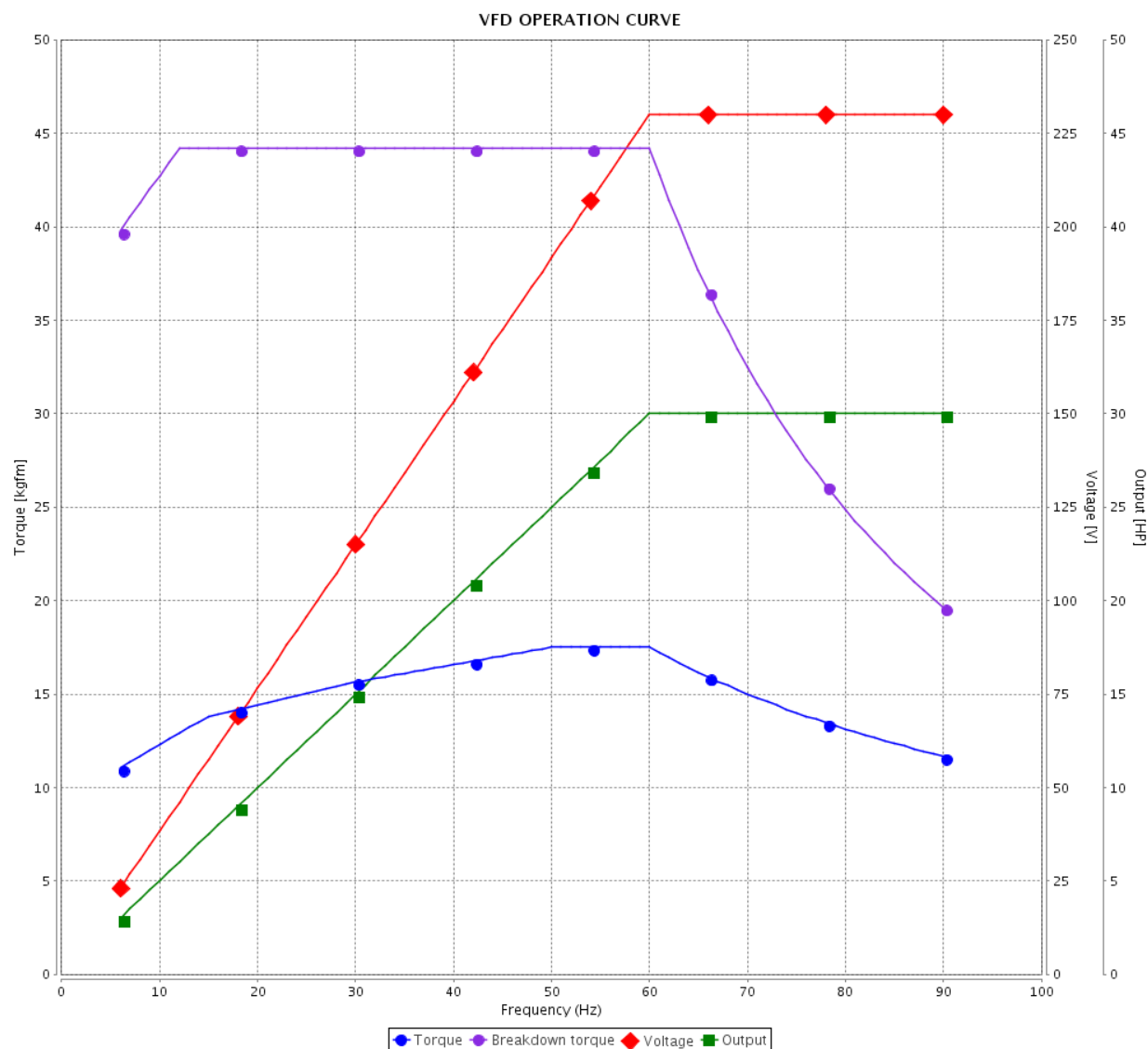


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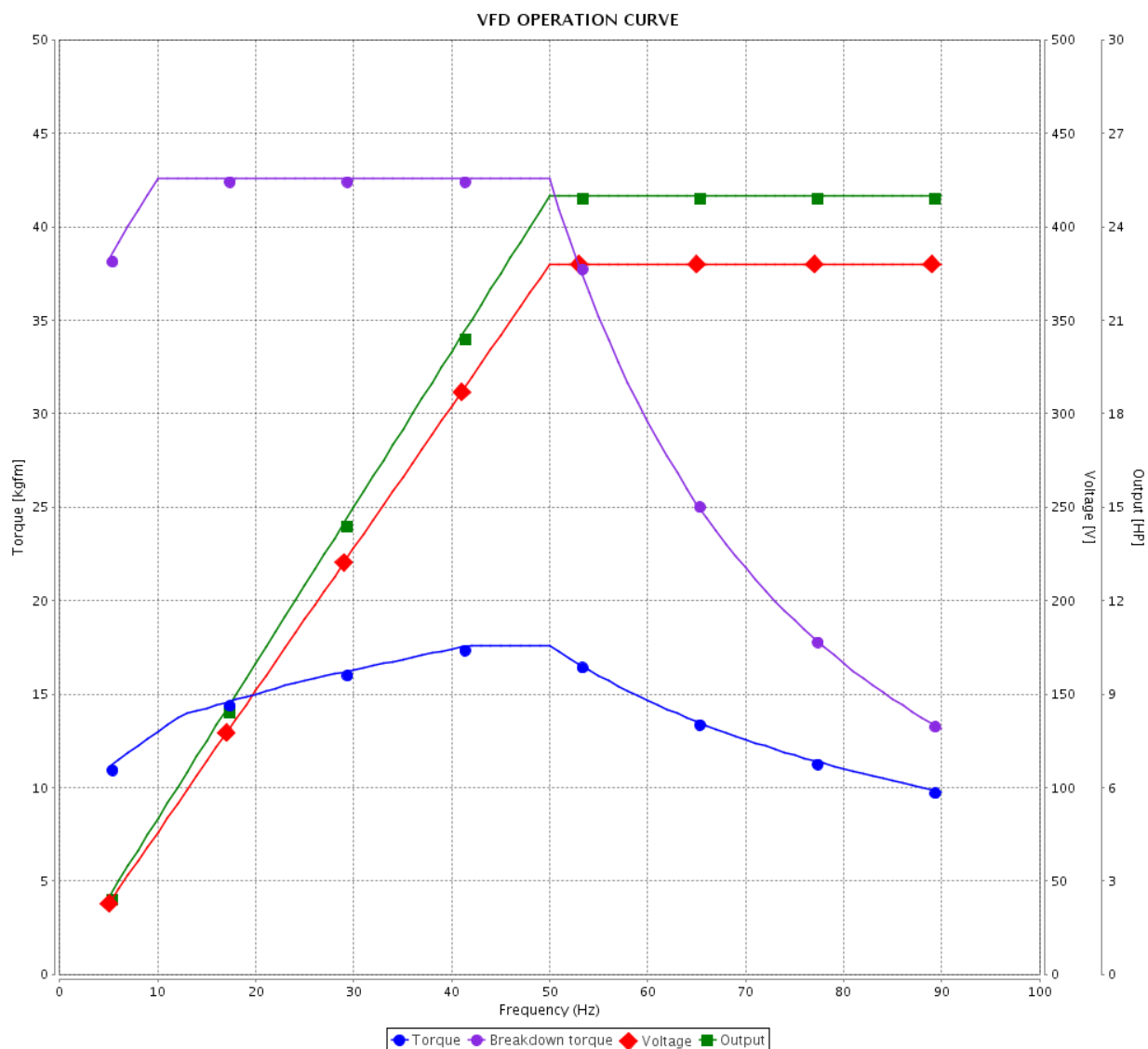


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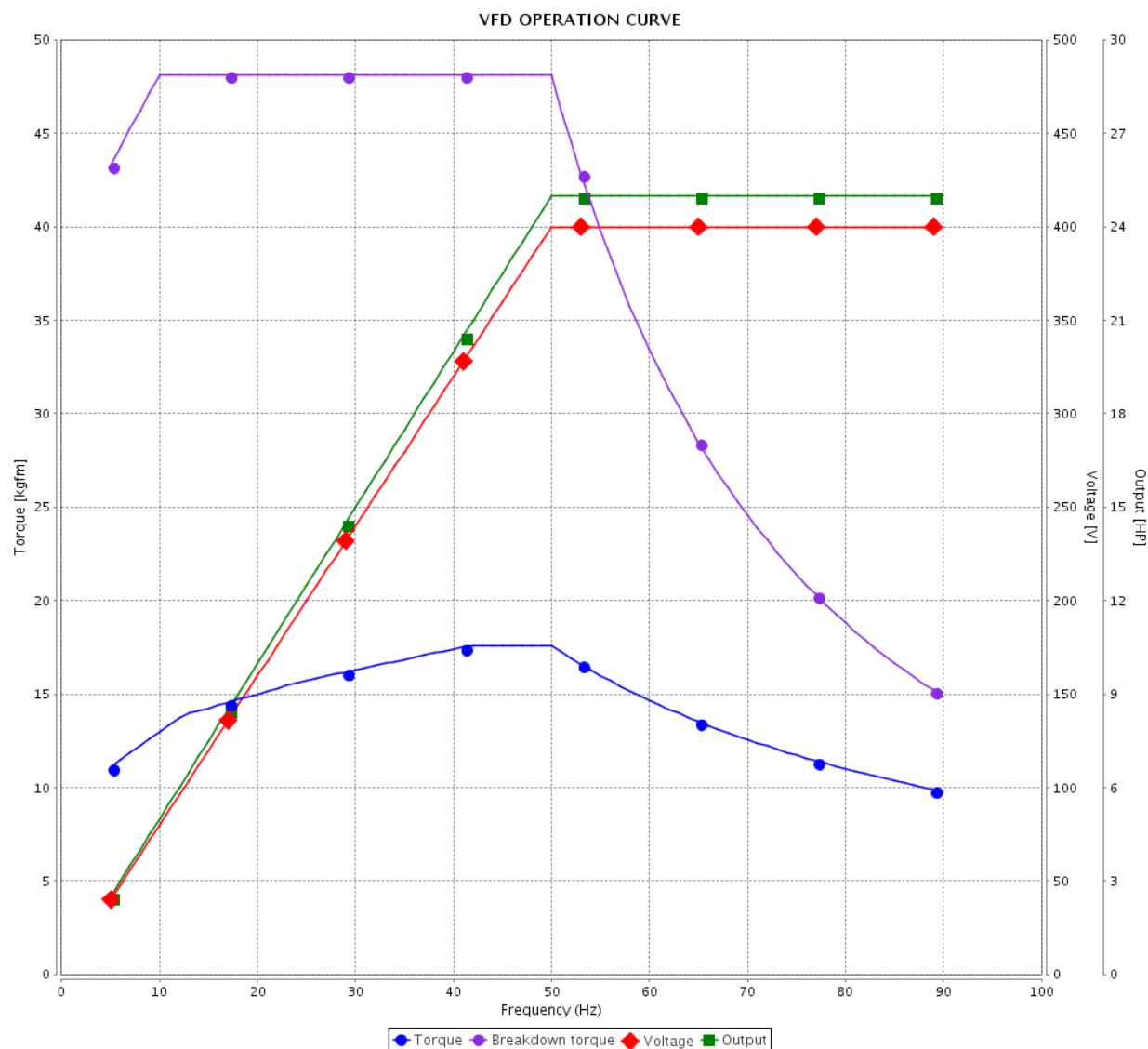


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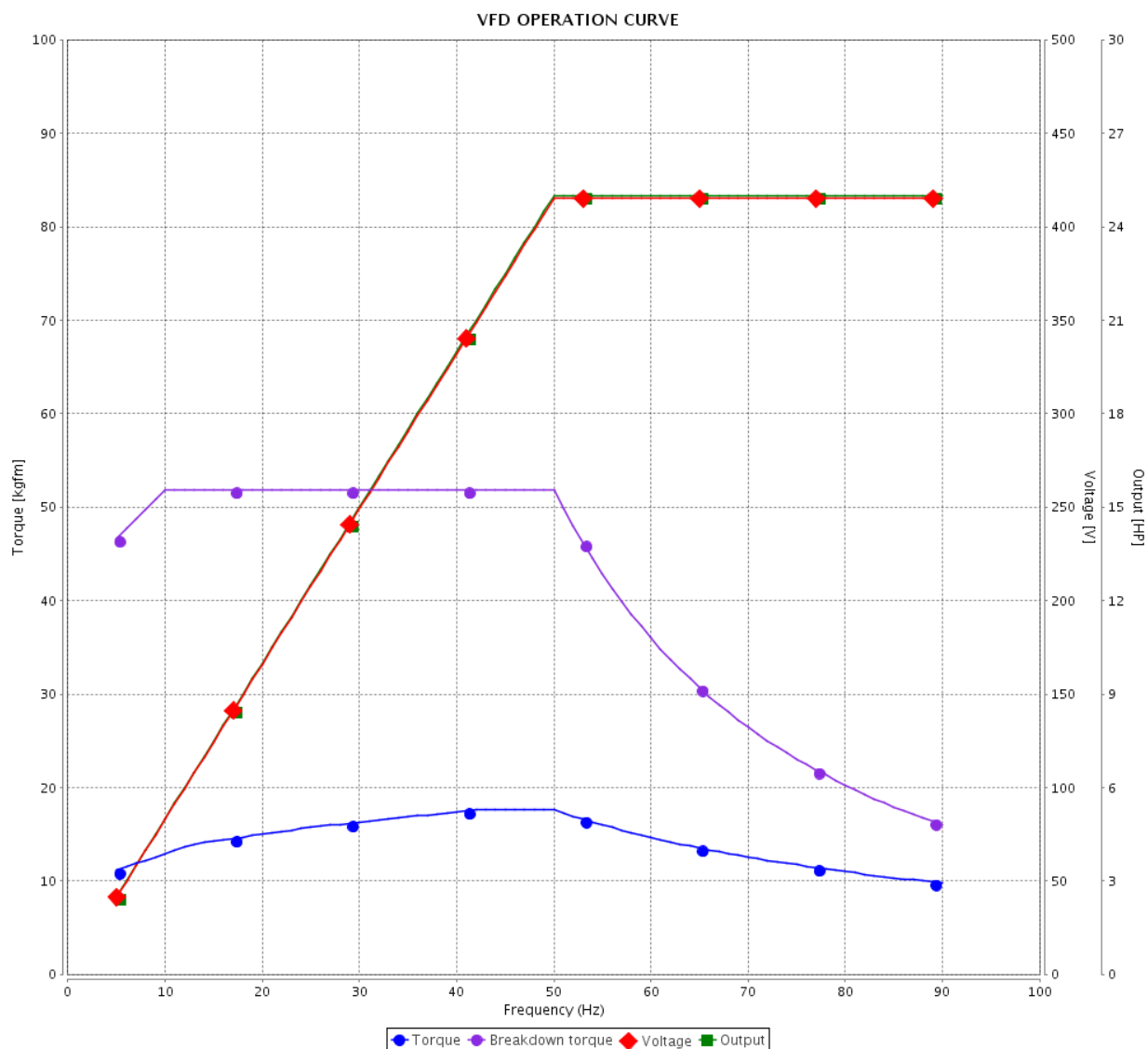


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