

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase Product code : 14367488
Catalog # : 03036OT3E284JP-W40

Frame : 284JP	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 : 322 lb
Protection degree : IP23	Moment of inertia (J) : 1.59 sq.ft.lb
Design : B	

Output [HP]	30	25	25	25
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	70.0/35.0	35.0	34.0	33.6
L. R. Amperes [A]	441/221	231	238	225
LRC [A]	6.3x(Code G)	6.6x(Code G)	7.0x(Code H)	6.7x(Code H)
No load current [A]	25.8/12.9	12.3	14.0	15.4
Rated speed [RPM]	3545	2940	2950	2950
Slip [%]	1.53	2.00	1.67	1.67
Rated torque [ft.lb]	44.4	44.7	44.5	44.5
Locked rotor torque [%]	180	170	190	200
Breakdown torque [%]	280	260	290	300
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	16s (cold) 9s (hot)
Noise level ²	73.0 dB(A)			
Efficiency (%)	25%	90.0	88.0	88.2
	50%	90.2	89.7	89.8
	75%	91.7	90.7	90.8
	100%	91.7	92.4	92.4
Power Factor	25%	0.47	0.50	0.44
	50%	0.73	0.75	0.70
	75%	0.82	0.83	0.80
	100%	0.86	0.87	0.85

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6311 Z C3	6211 Z C3	Max. traction
Sealing :	Without	Without	Max. compression
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	18 g	11 g	
Lubricant type :	Mobil Polyrex EM		

Notes

USABLE @208V 77.4A SF 1.15 SFA 89.0A

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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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

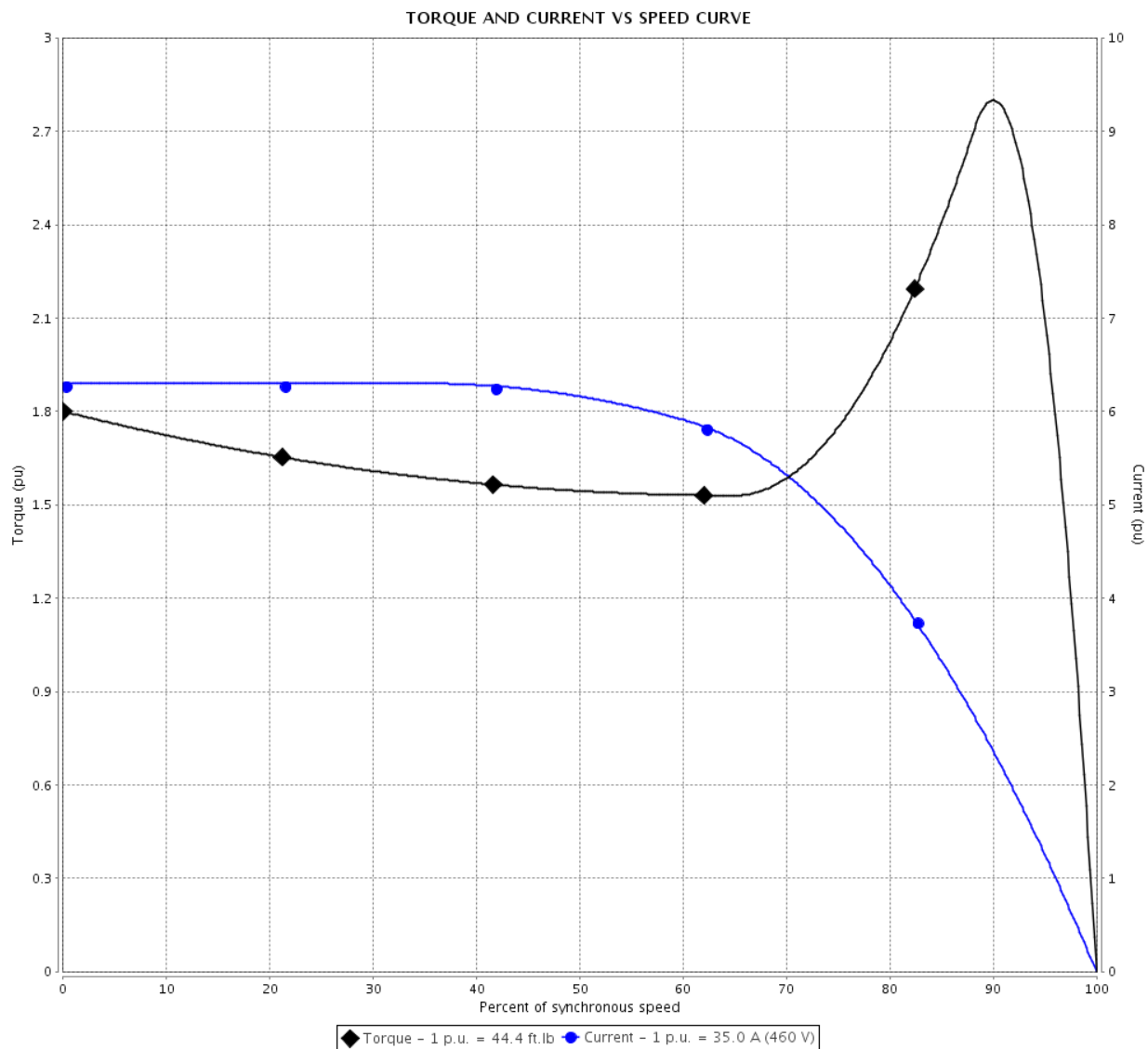


Customer :

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Efficiency Three-Phase

Product code : 14367488

Catalog # : 03036OT3E284JP-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 70.0/35.0 A
LRC : 6.3
Rated torque : 44.4 ft.lb
Locked rotor torque : 180 %
Breakdown torque : 280 %
Rated speed : 3545 rpm

Moment of inertia (J) : 1.59 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 18s (cold) 10s (hot)

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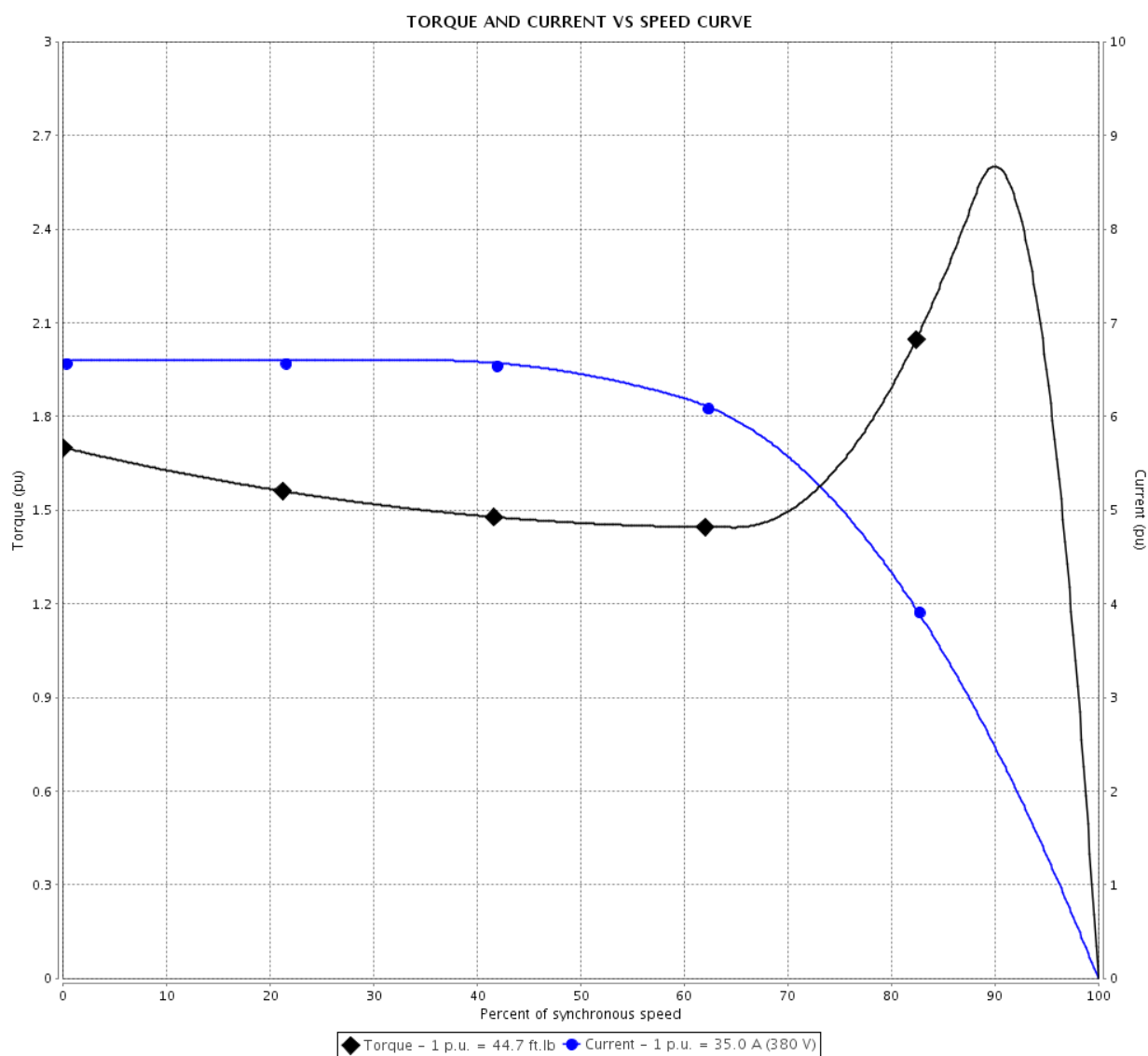


Customer :

Product line : W40 JP Pump NEMA Premium
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Product code : 14367488

Catalog # : 03036OT3E284JP-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 35.0 A	Moment of inertia (J)	: 1.59 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 44.7 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

Locked rotor time : 12s (cold) 7s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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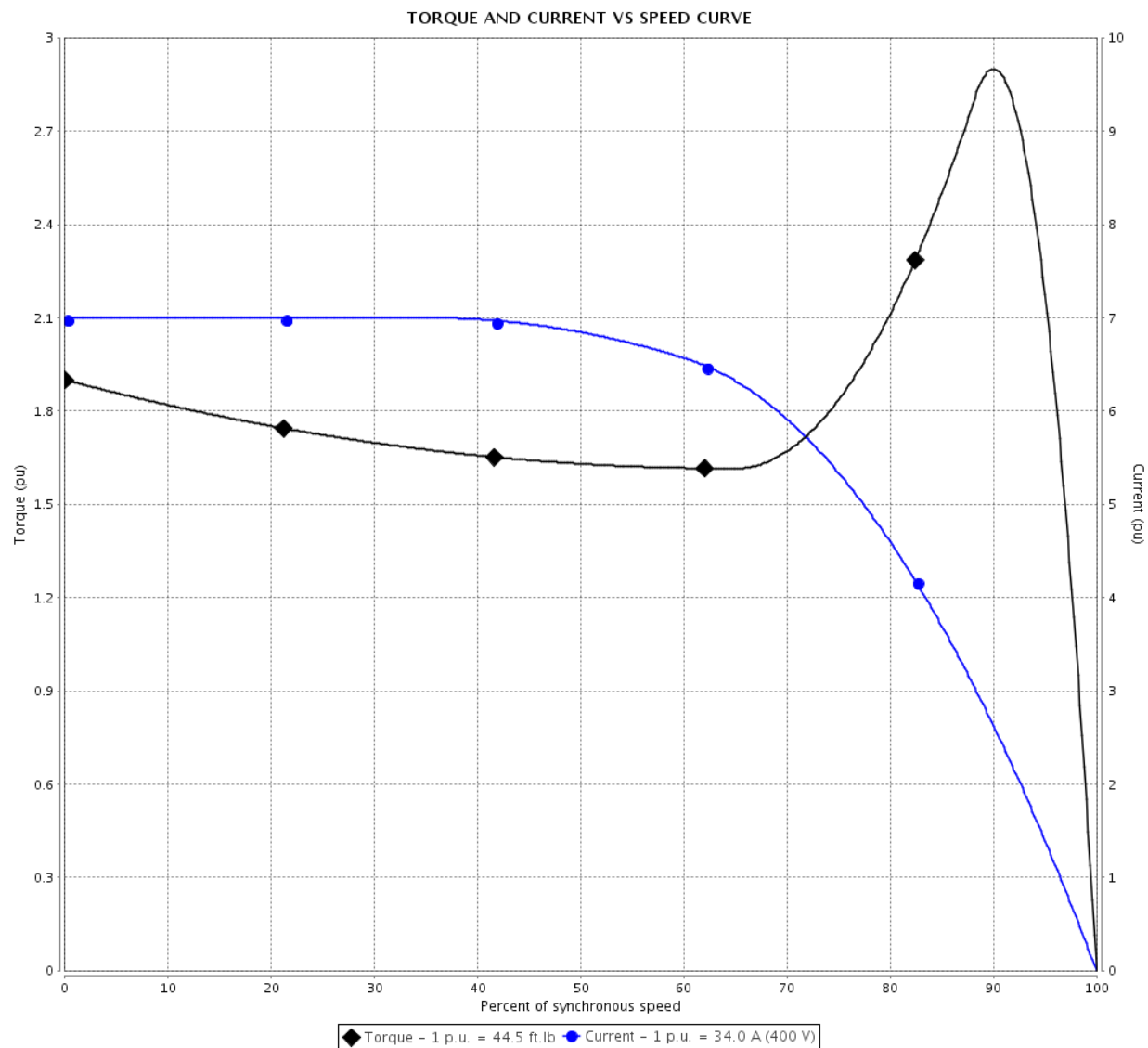


Customer :

Product line : W40 JP Pump NEMA Premium
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Product code : 14367488

Catalog # : 03036OT3E284JP-W40



Performance : 400 V 50 Hz 2P IE3

Rated current	: 34.0 A	Moment of inertia (J)	: 1.59 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Locked rotor time : 12s (cold) 7s (hot)

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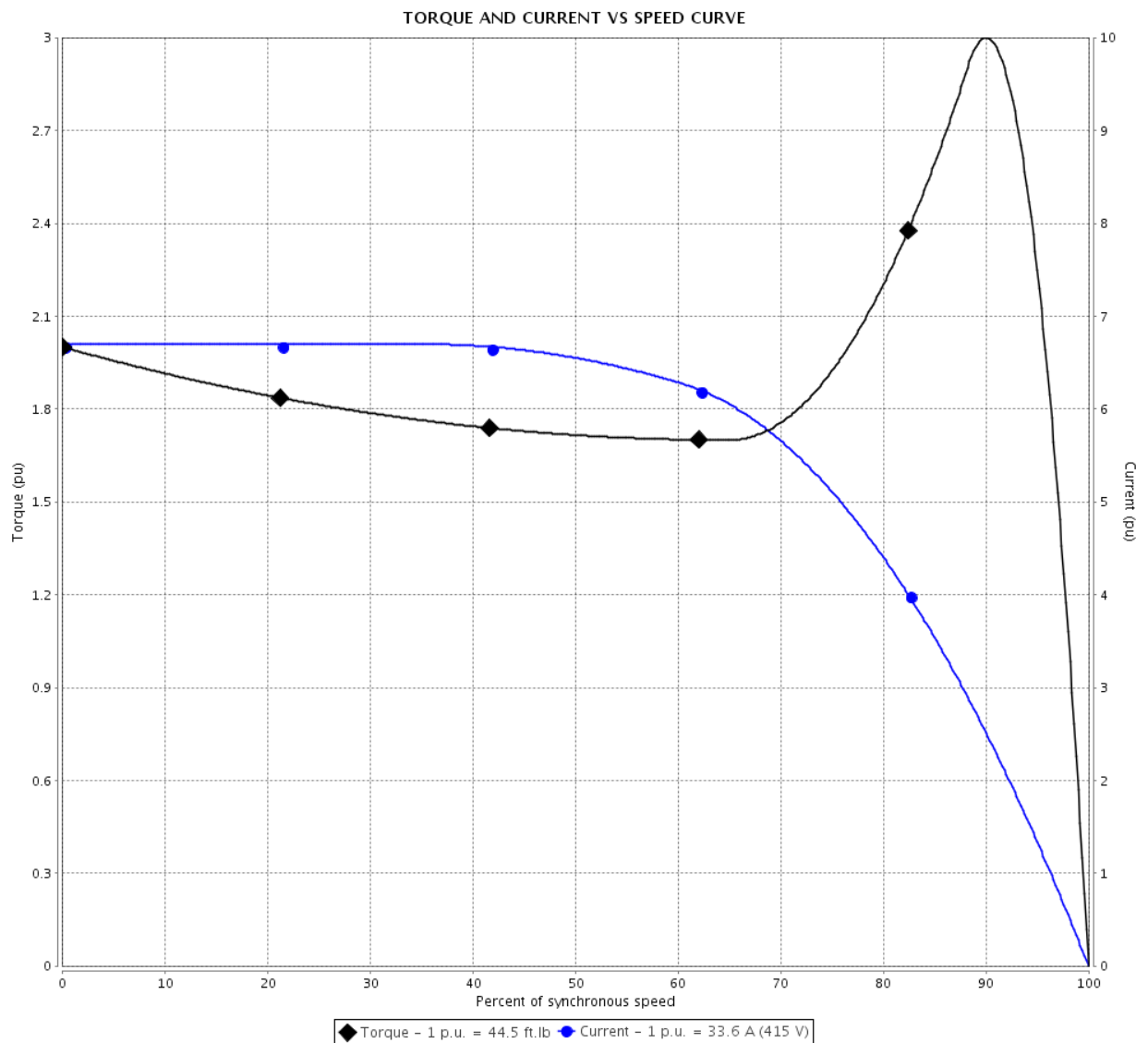


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LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Locked rotor time : 16s (cold) 9s (hot)

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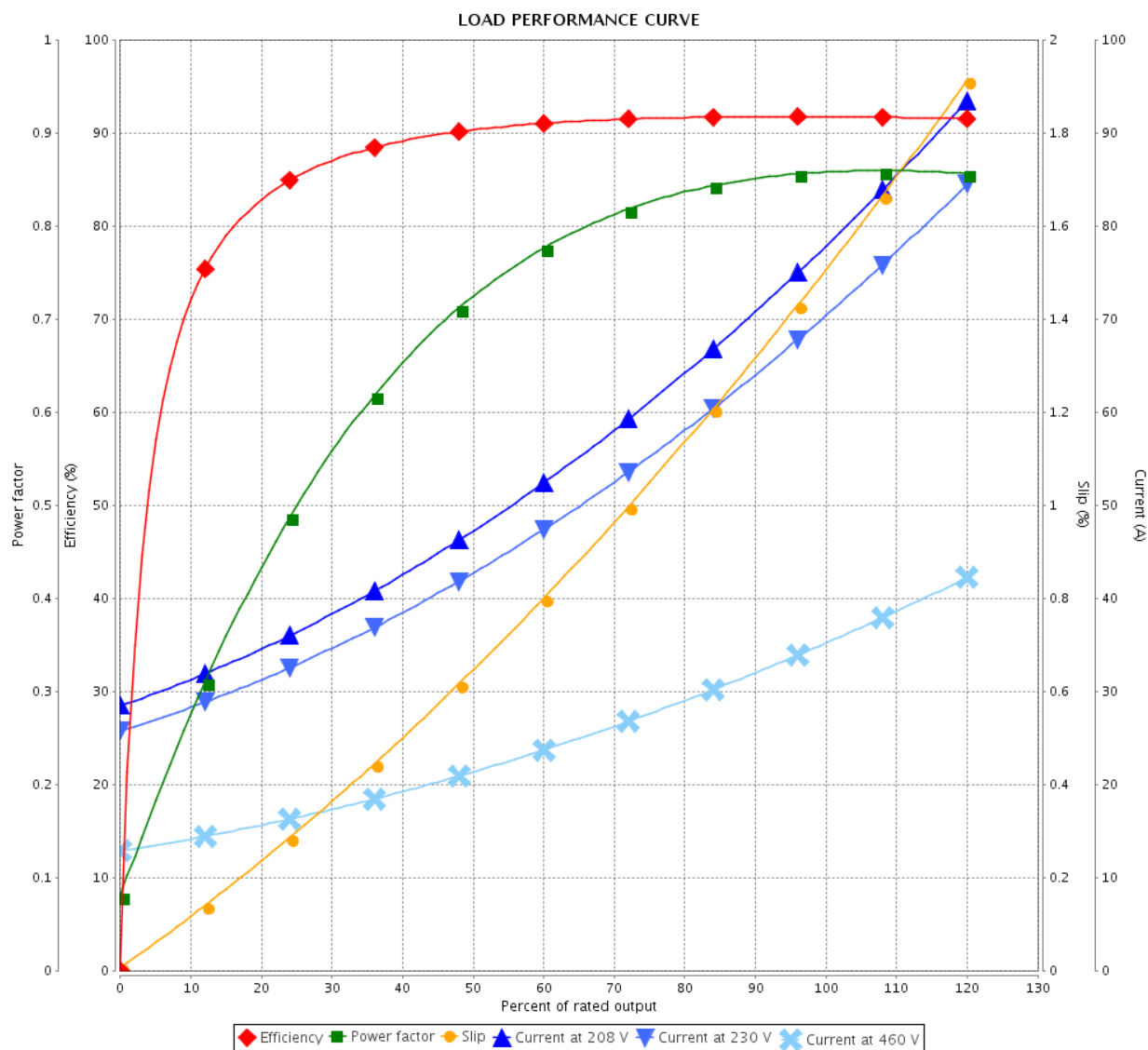


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Performance : 230/460 V 60 Hz 2P

Rated current : 70.0/35.0 A
LRC : 6.3
Rated torque : 44.4 ft.lb
Locked rotor torque : 180 %
Breakdown torque : 280 %
Rated speed : 3545 rpm

Moment of inertia (J) : 1.59 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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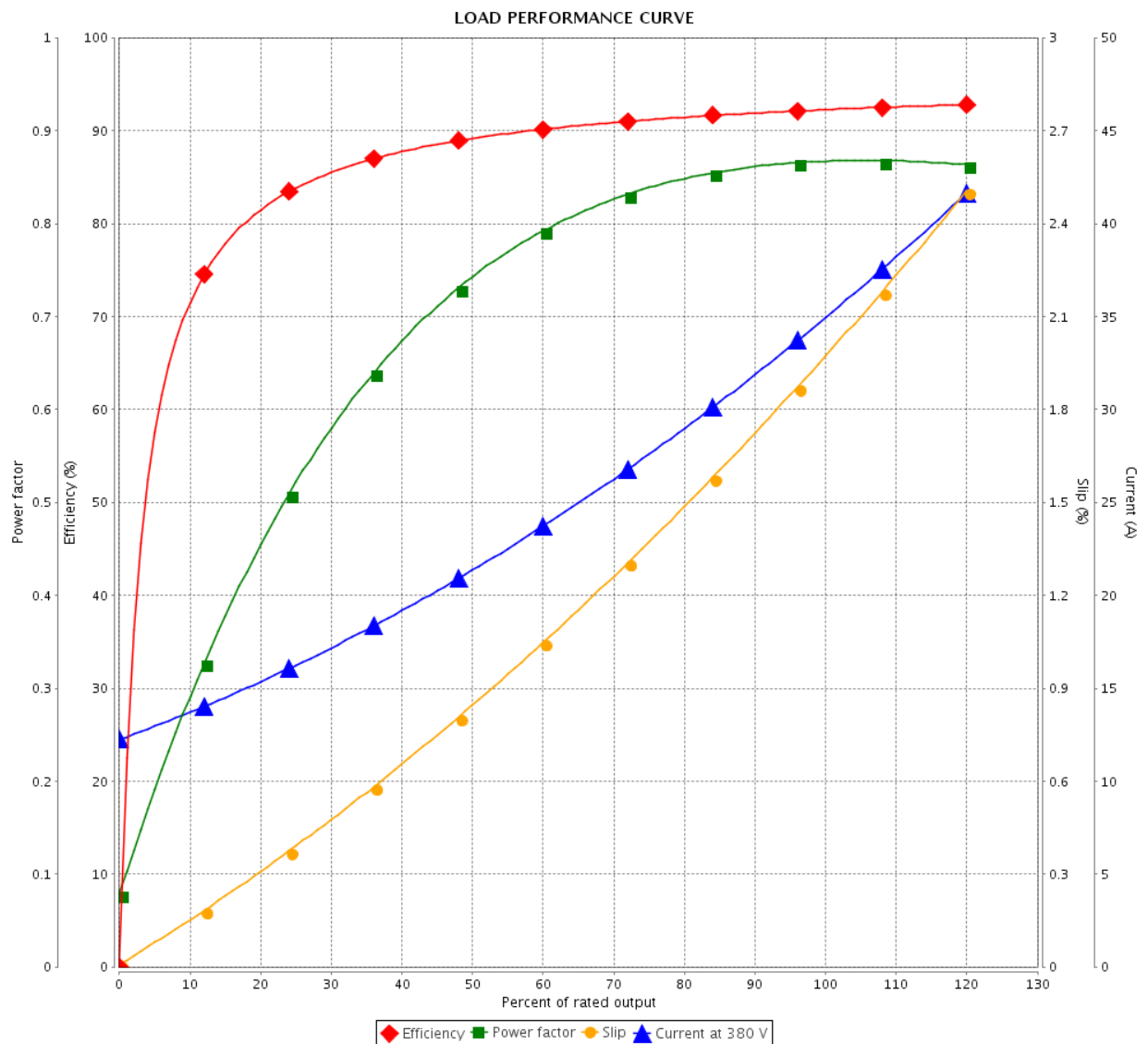


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Performance : 380 V 50 Hz 2P IE3

Rated current : 35.0 A
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Locked rotor torque : 170 %
Breakdown torque : 260 %
Rated speed : 2940 rpm

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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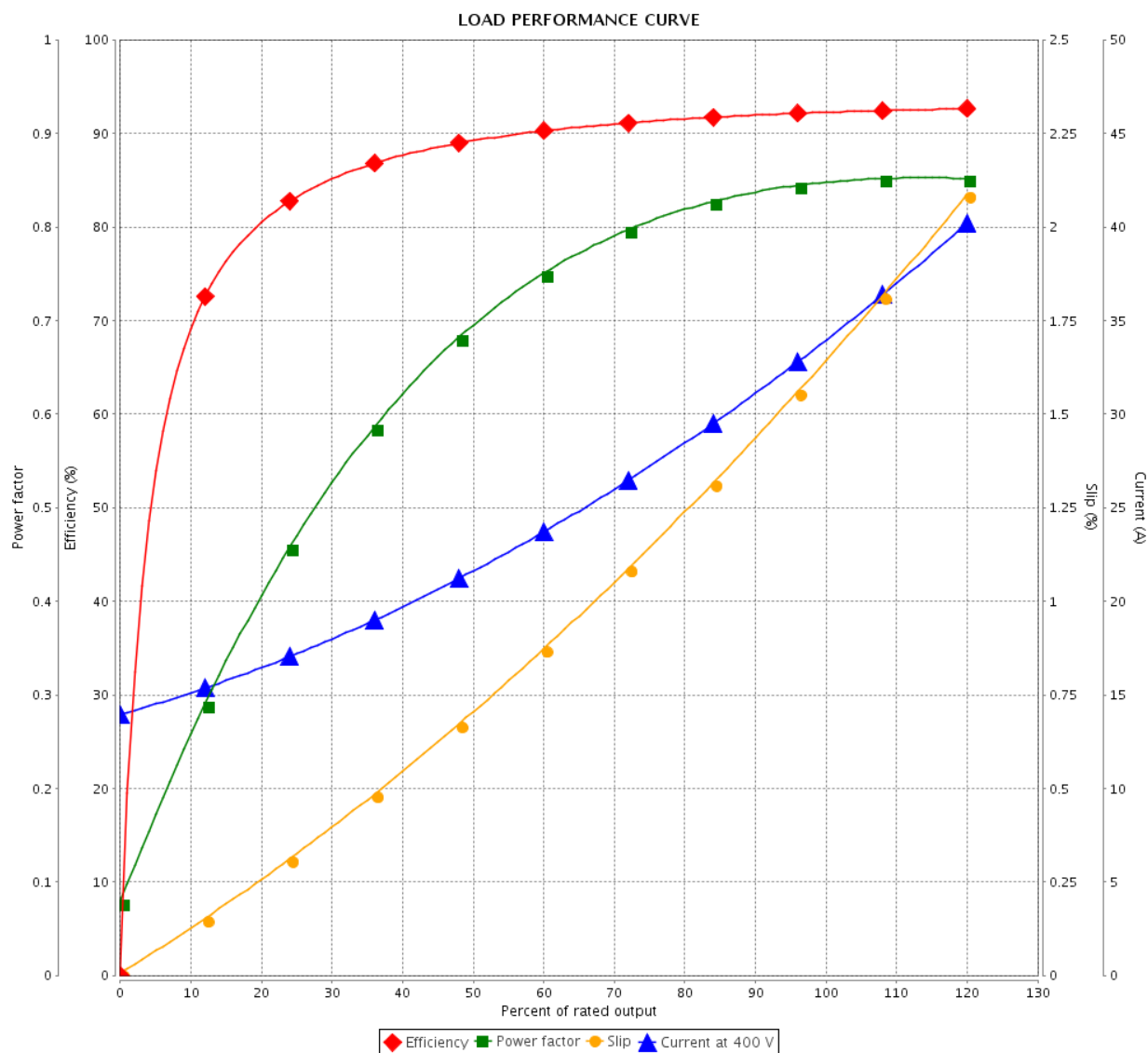


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Breakdown torque : 290 %
Rated speed : 2950 rpm

Moment of inertia (J) : 1.59 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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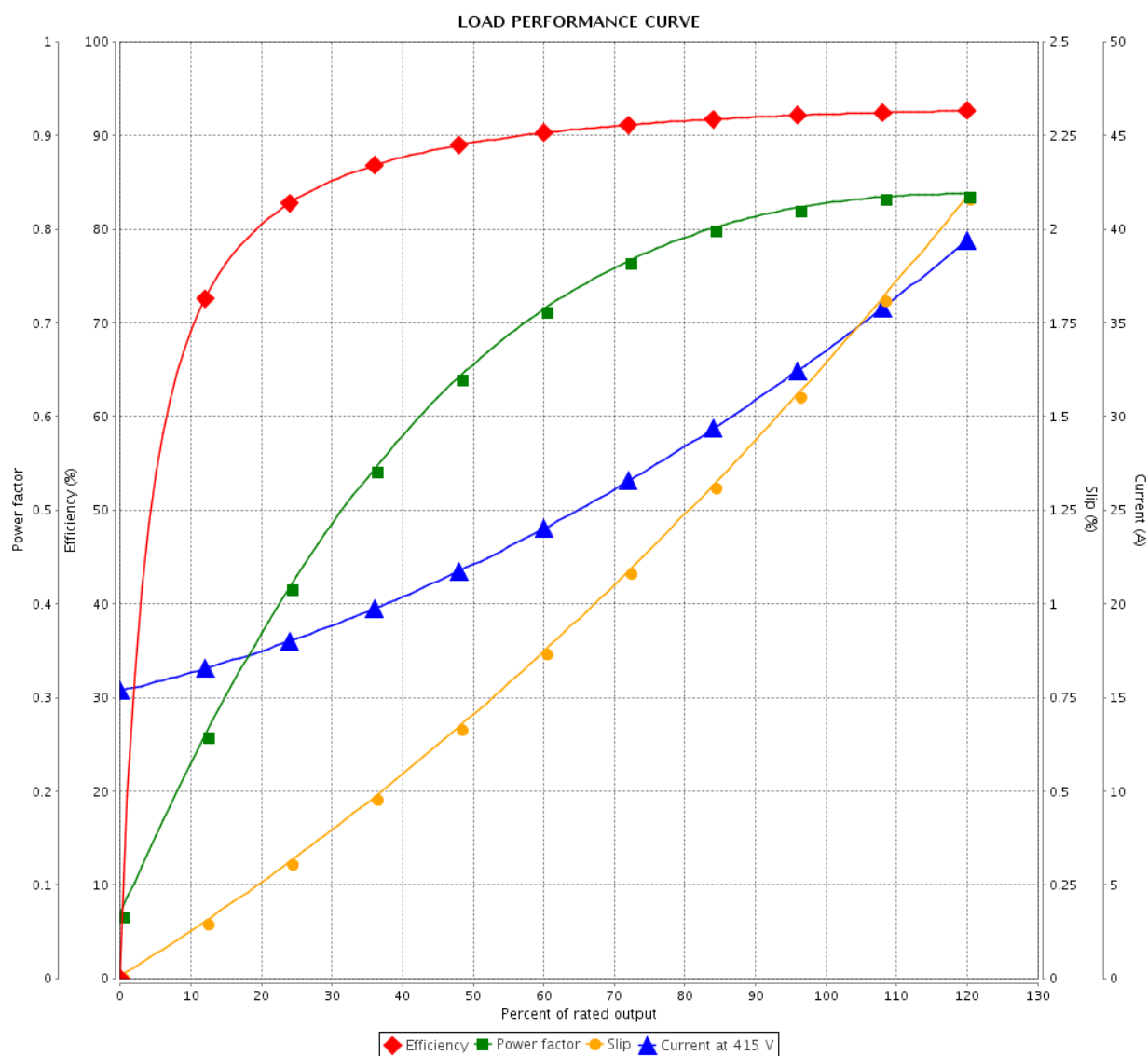


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THERMAL LIMIT CURVE

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Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

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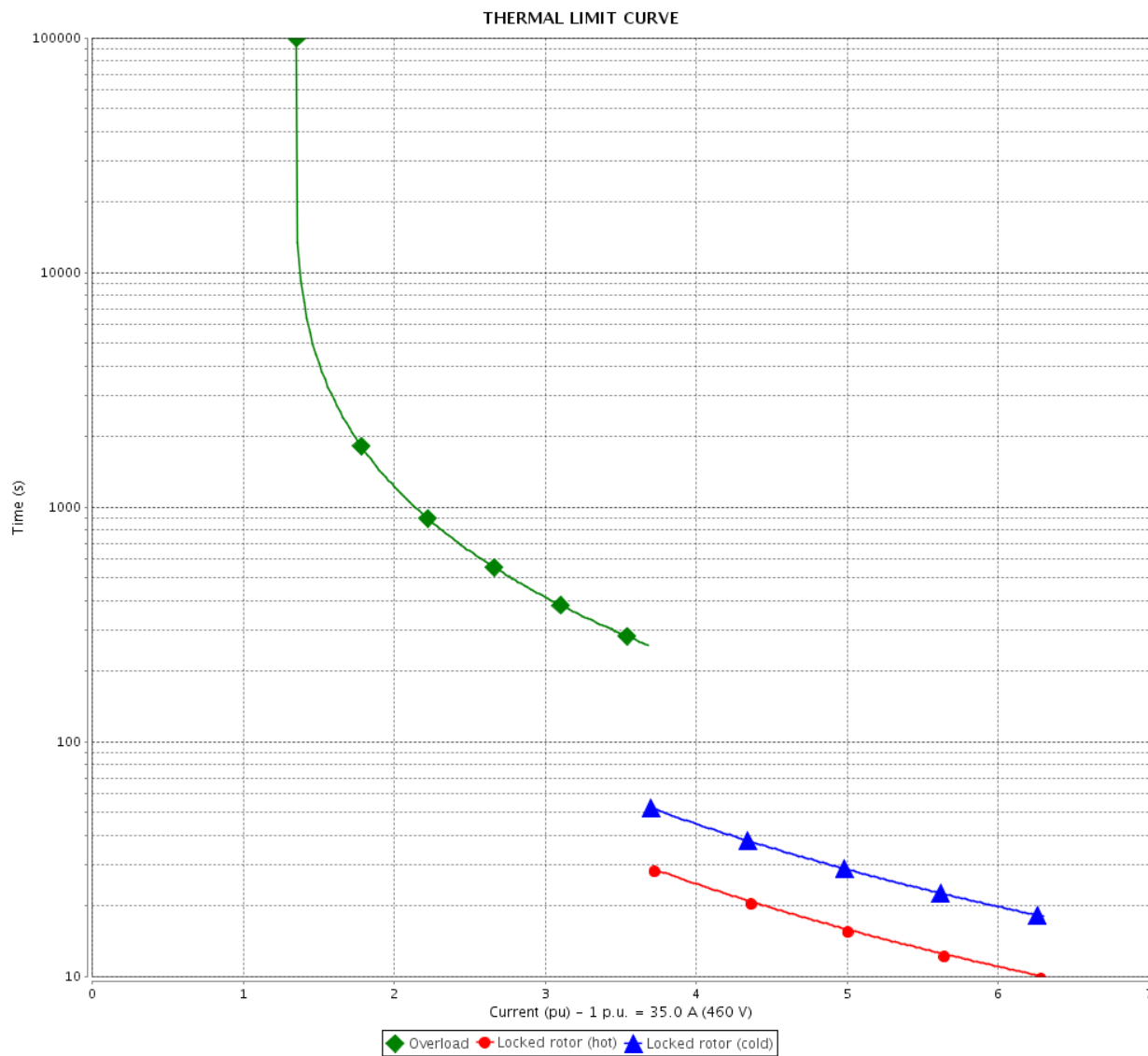
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Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2940 rpm	Design	: B

Heating constant

Cooling constant

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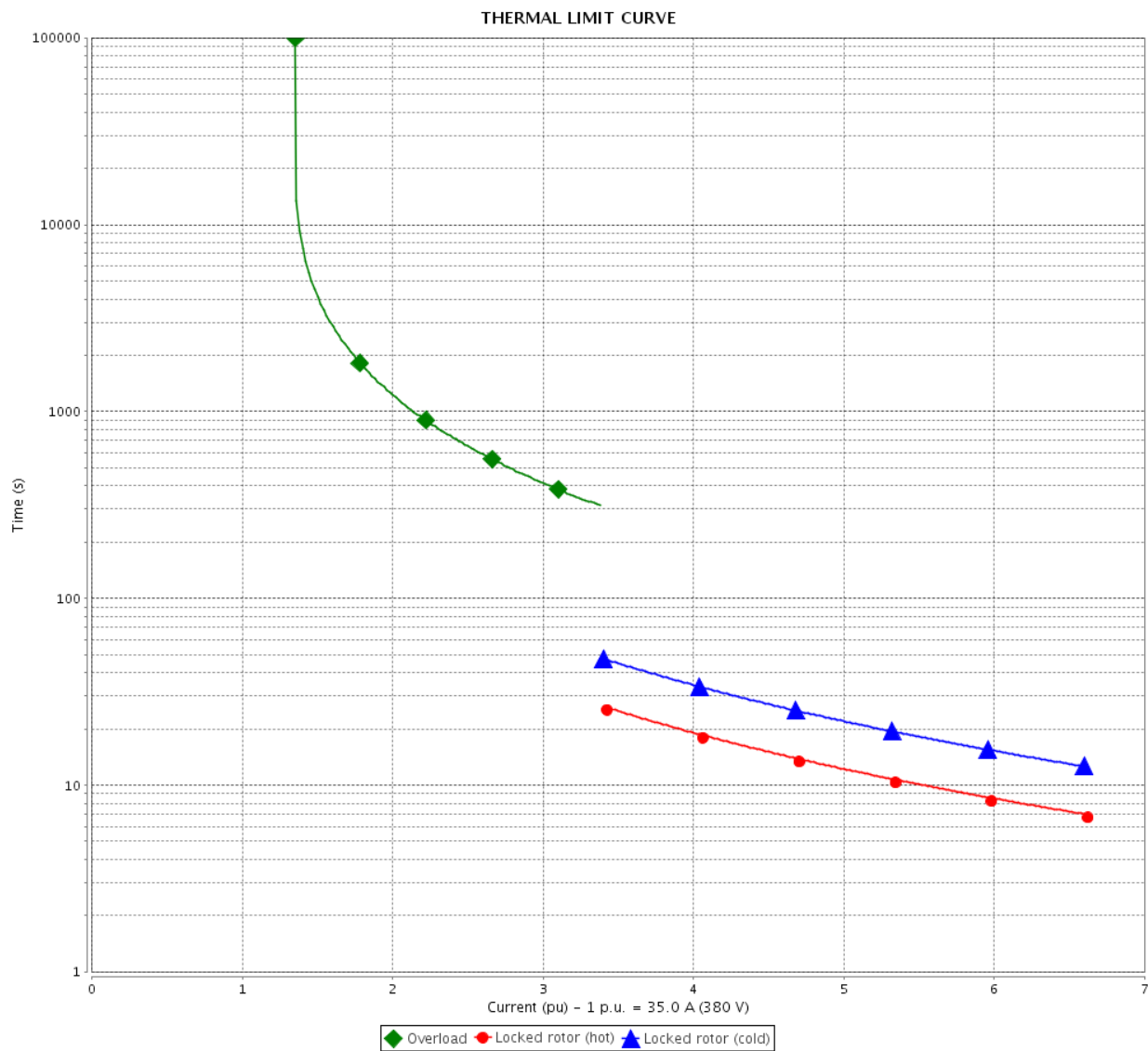
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Performance : 400 V 50 Hz 2P IE3

Rated current

: 34.0 A

LRC

: 7.0

Rated torque

: 44.5 ft.lb

Locked rotor torque

: 190 %

Breakdown torque

: 290 %

Rated speed

: 2950 rpm

Moment of inertia (J)

: 1.59 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

Design

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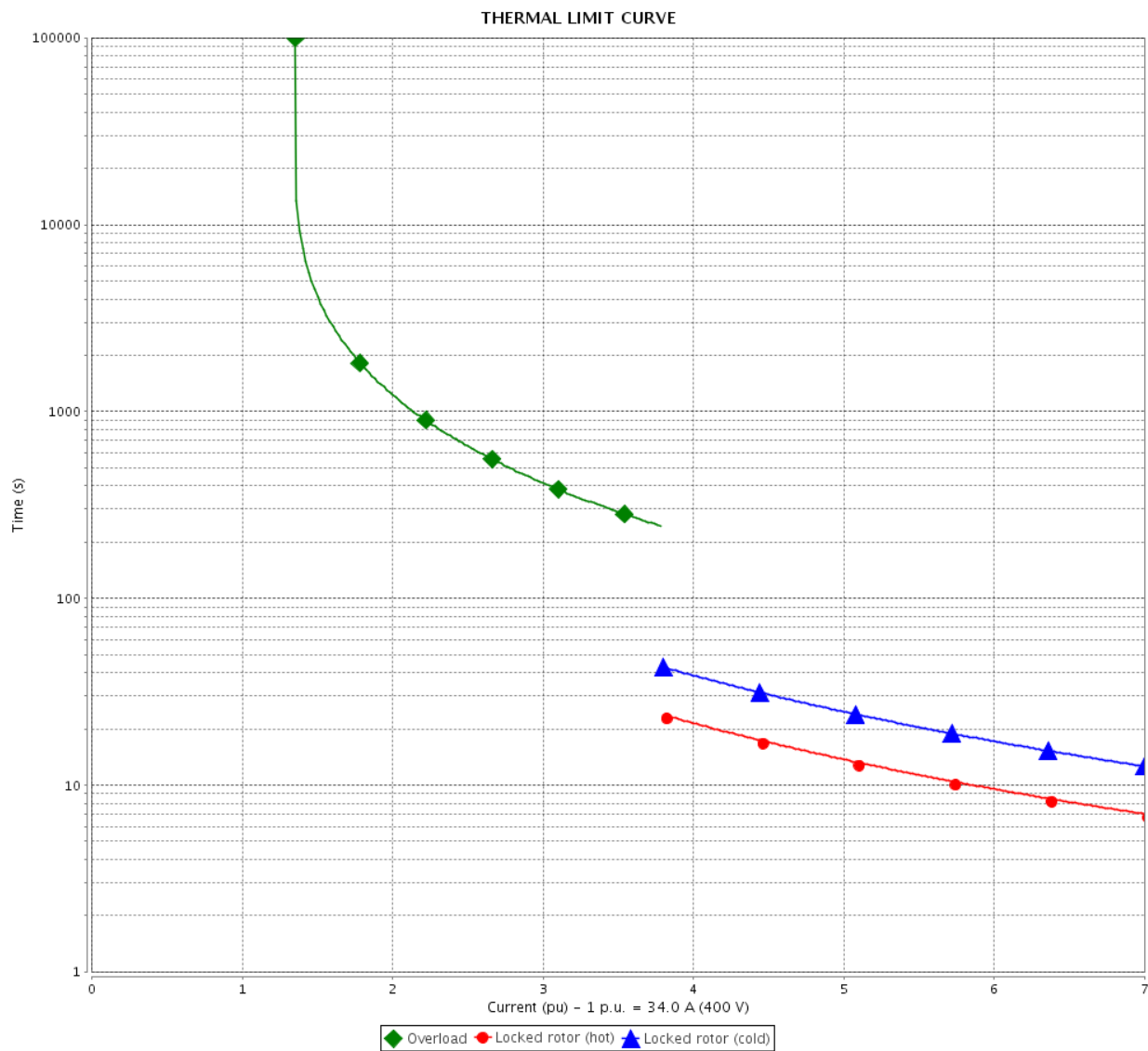
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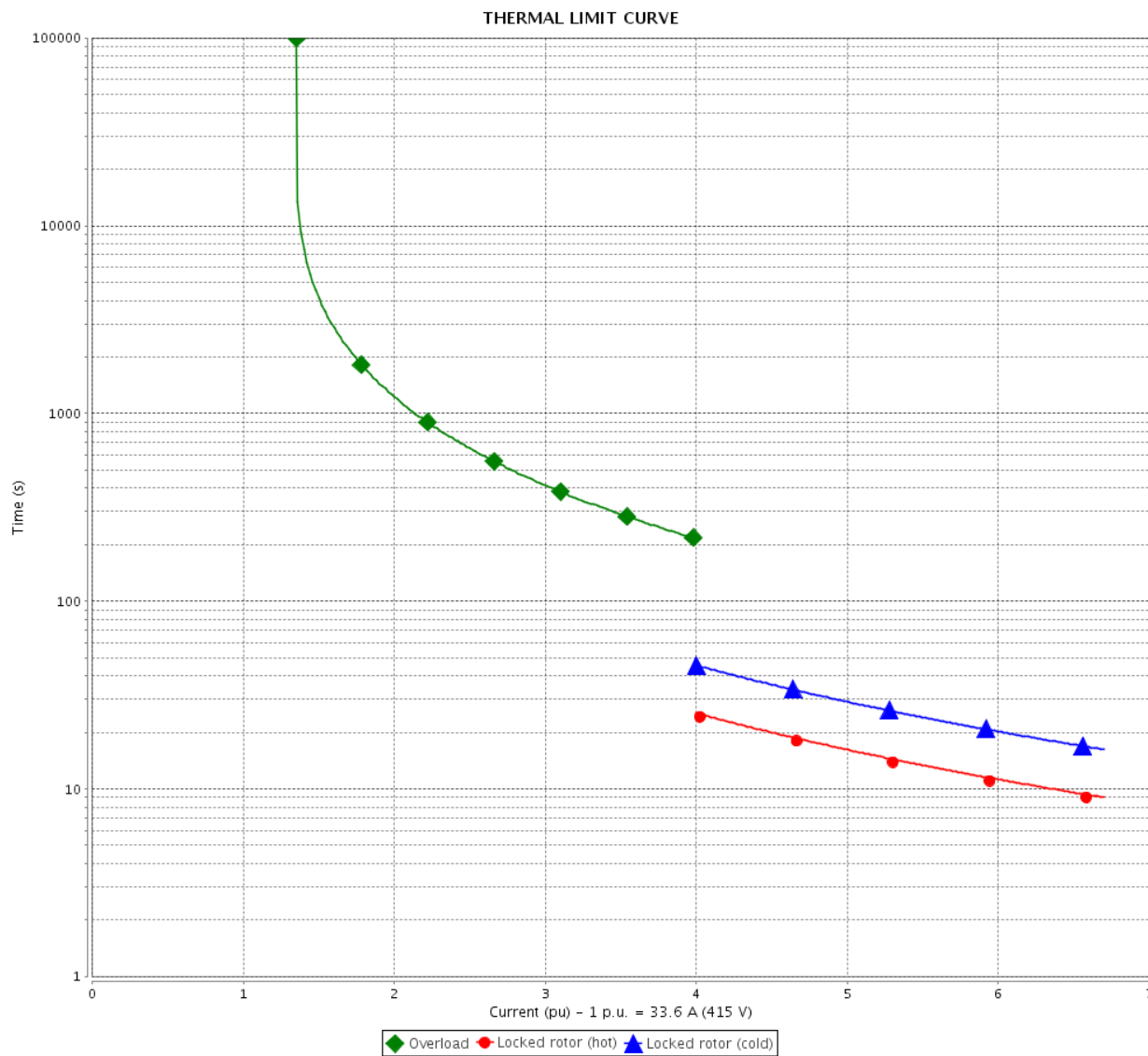
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VFD OPERATION CURVE

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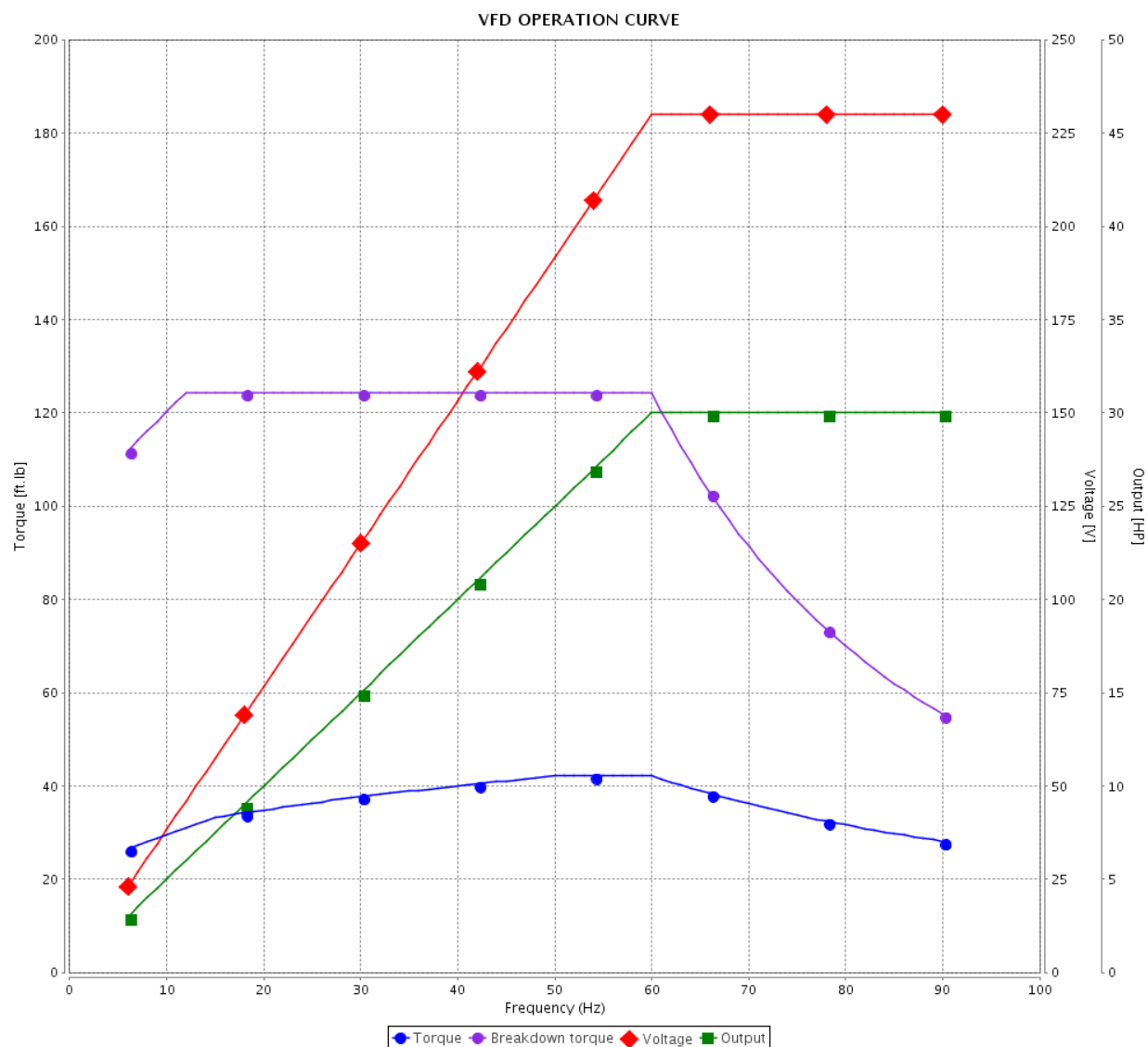


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VFD OPERATION CURVE

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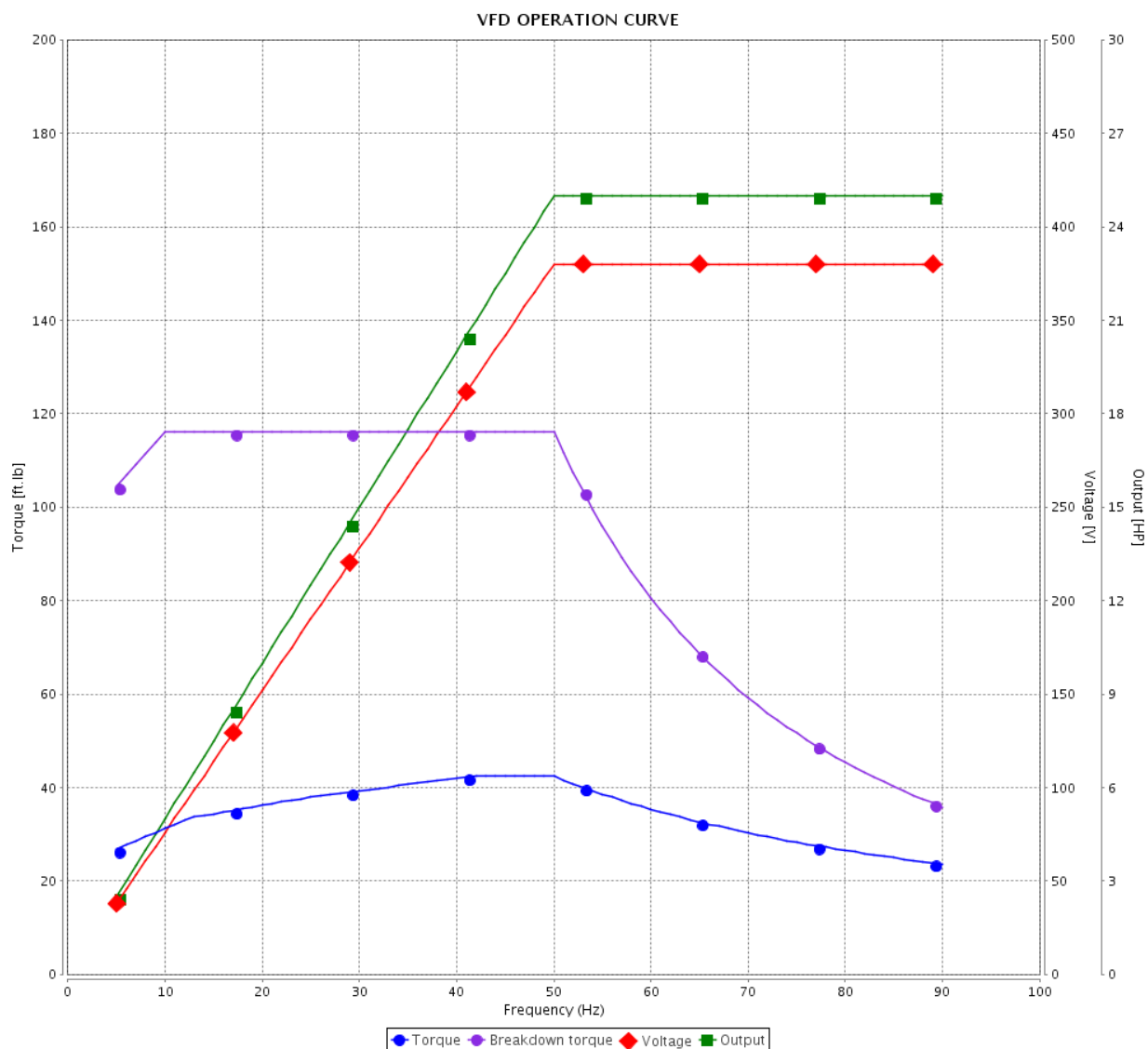


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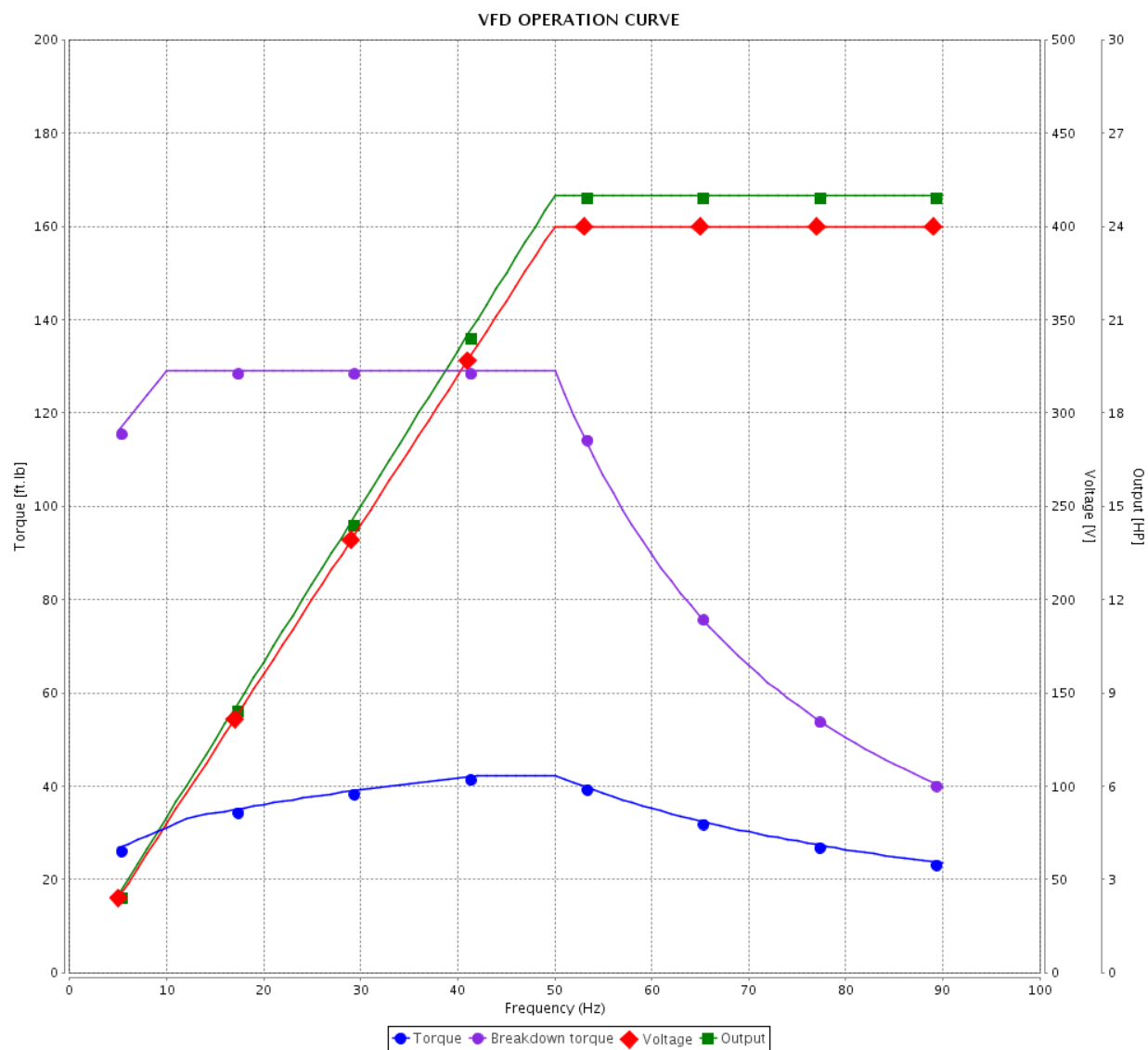


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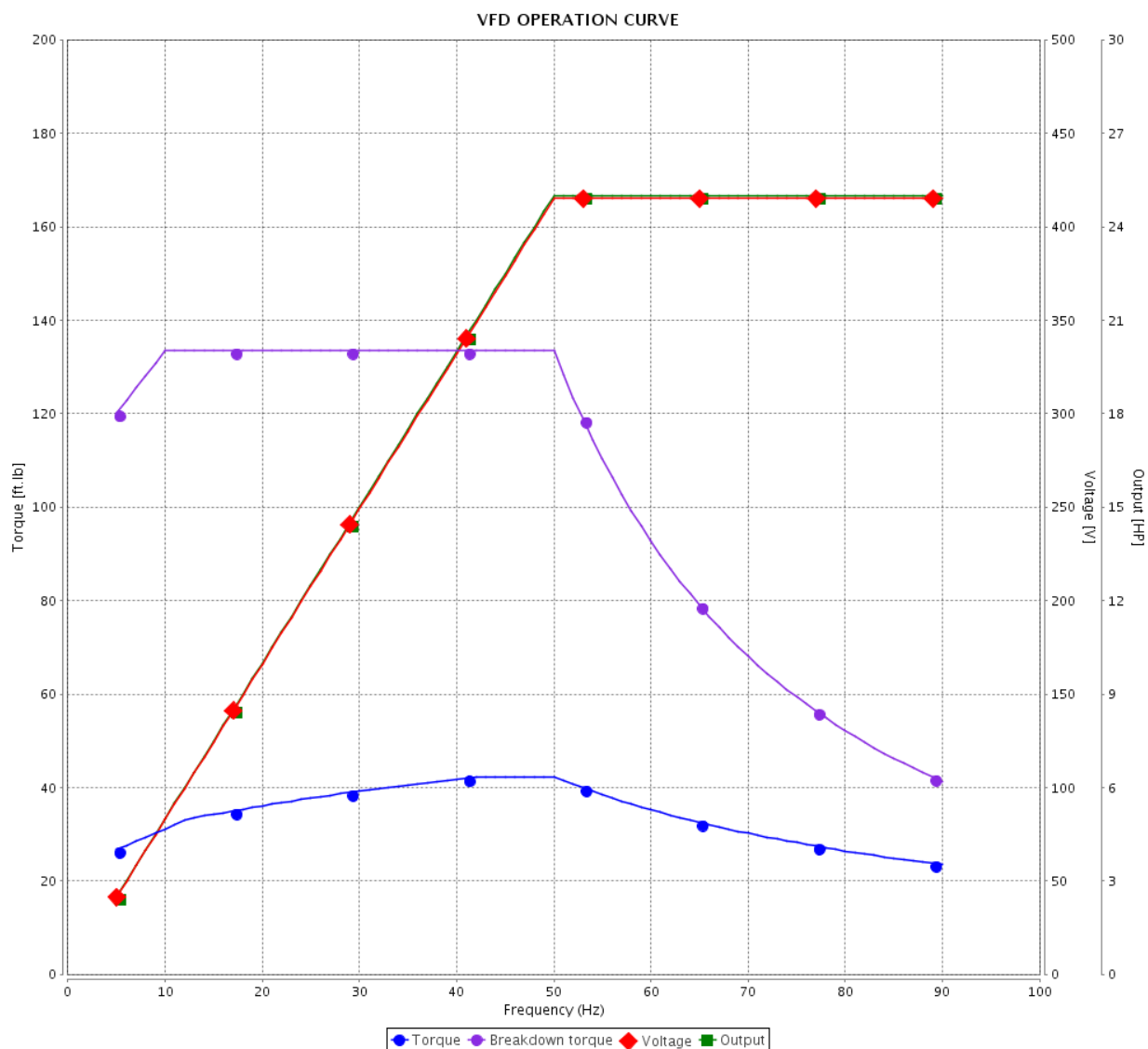


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