

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 High Efficiency Three-Phase Product code : 14490726
Catalog # : 04018OP3EFP324TS-W40

Frame : 324TS	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 ³ : 435 lb
Protection degree : IP23	Moment of inertia (J) : 5.37 sq.ft.lb
Design : B	

Output [HP]	40	40	40	40
Poles	4	4	4	4
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	96.4/48.2	58.1	55.5	53.9
L. R. Amperes [A]	578/289	314	300	323
LRC [A]	6.0x(Code G)	5.4x(Code F)	5.4x(Code F)	6.0x(Code G)
No load current [A]	32.0/16.0	17.7	19.9	22.2
Rated speed [RPM]	1775	1465	1465	1470
Slip [%]	1.39	2.33	2.33	2.00
Rated torque [ft.lb]	118	143	143	143
Locked rotor torque [%]	180	140	150	160
Breakdown torque [%]	210	200	200	210
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	80 K
Locked rotor time	36s (cold) 20s (hot)	18s (cold) 10s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)
Noise level ²				
Efficiency (%)	25%	92.2	90.5	90.7
	50%	92.4	90.9	91.0
	75%	93.0	91.0	91.7
	100%	93.0	91.3	91.8
Power Factor	25%	0.48	0.52	0.48
	50%	0.72	0.77	0.73
	75%	0.81	0.84	0.82
	100%	0.84	0.86	0.85

	<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 107A SF 1.00 SFA 107A

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 :

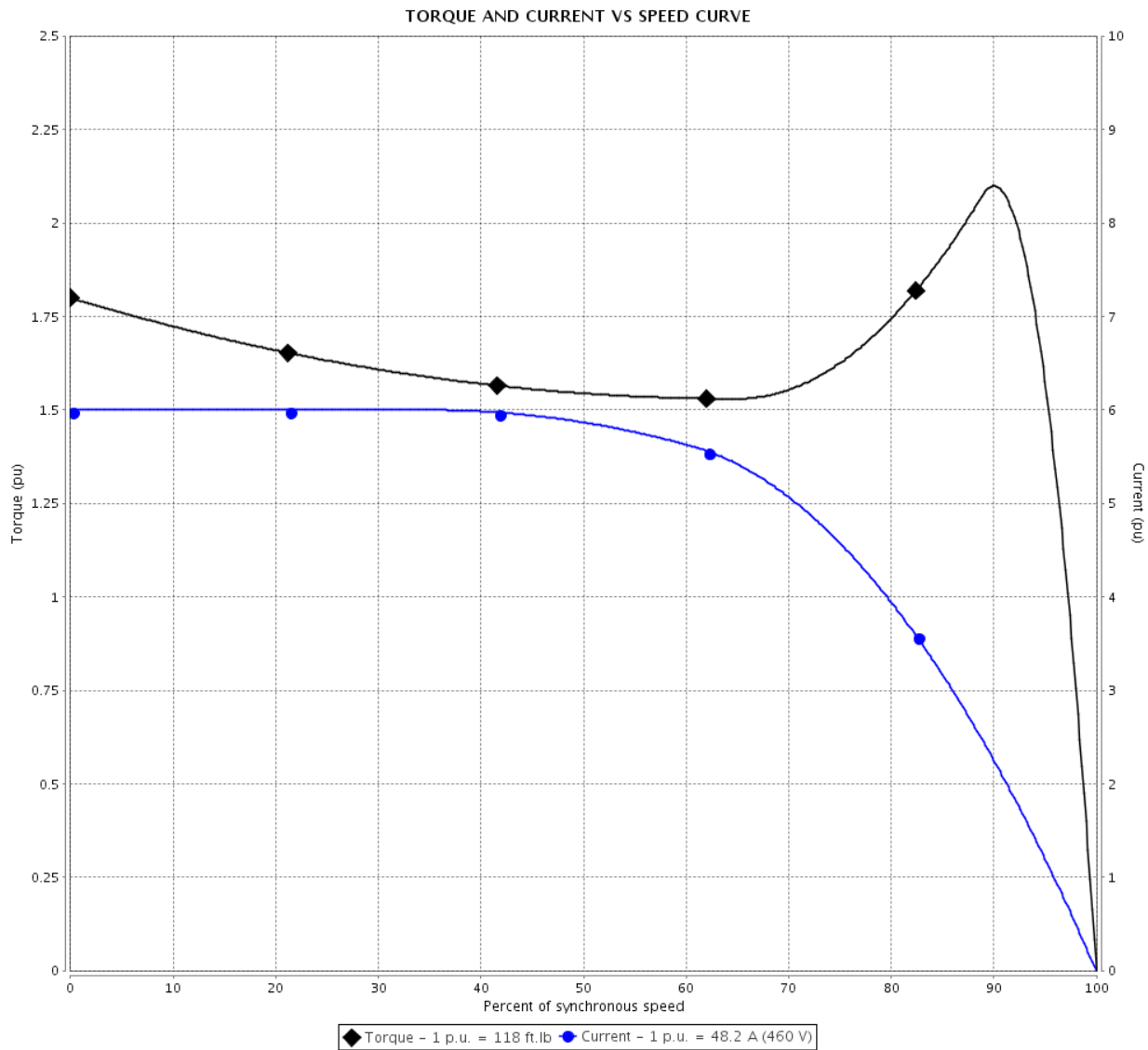
Product line : W40 High Efficiency Three-Phase

Product code :

14490726

Catalog # :

04018OP3EFP324TS-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 96.4/48.2 A
LRC : 6.0
Rated torque : 118 ft.lb
Locked rotor torque : 180 %
Breakdown torque : 210 %
Rated speed : 1775 rpm

Moment of inertia (J) : 5.37 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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

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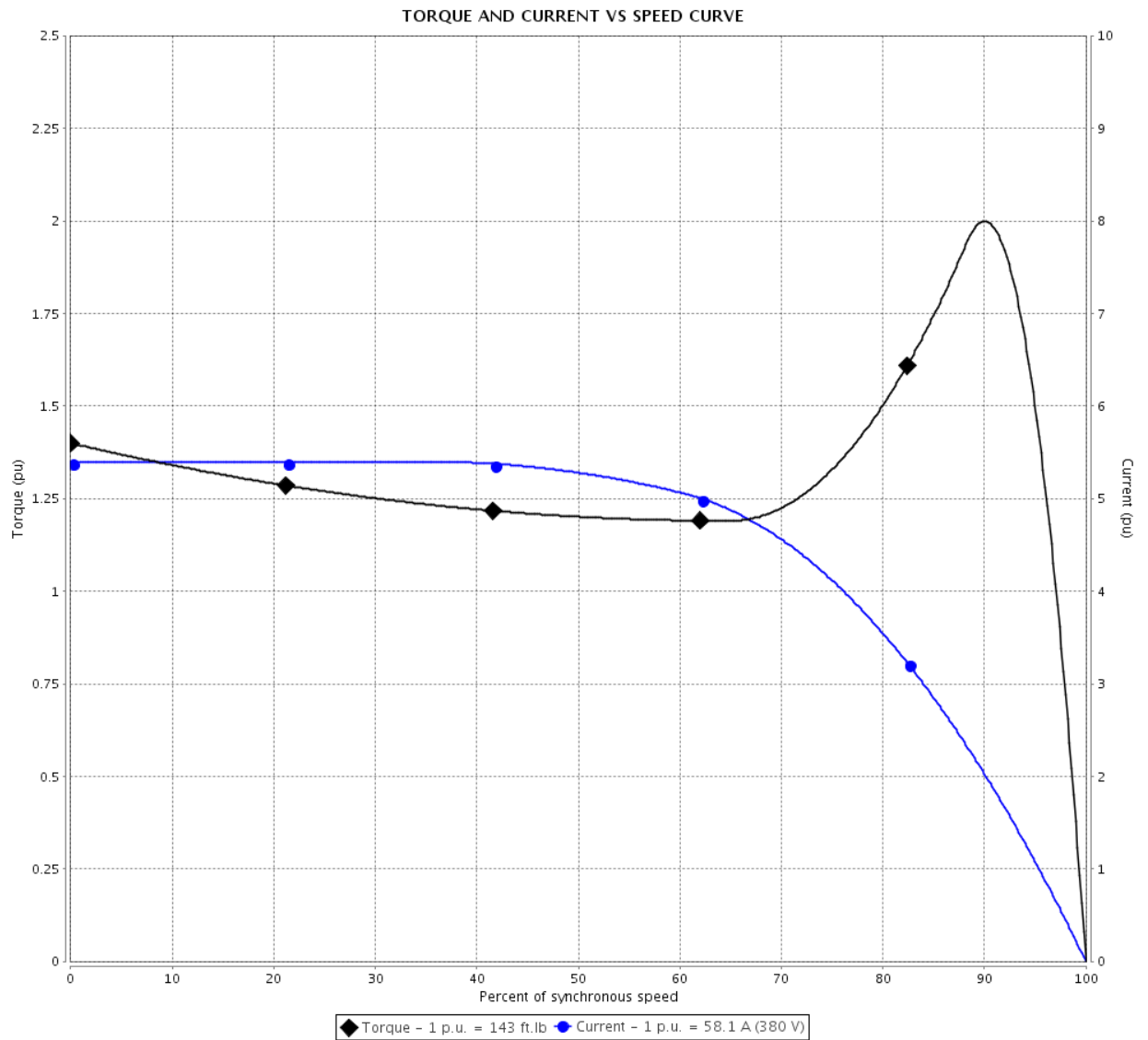
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Product code :

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Catalog # :

04018OP3EFP324TS-W40



Performance : 380 V 50 Hz 4P IE1

Rated current	: 58.1 A	Moment of inertia (J)	: 5.37 sq.ft.lb
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 143 ft.lb	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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

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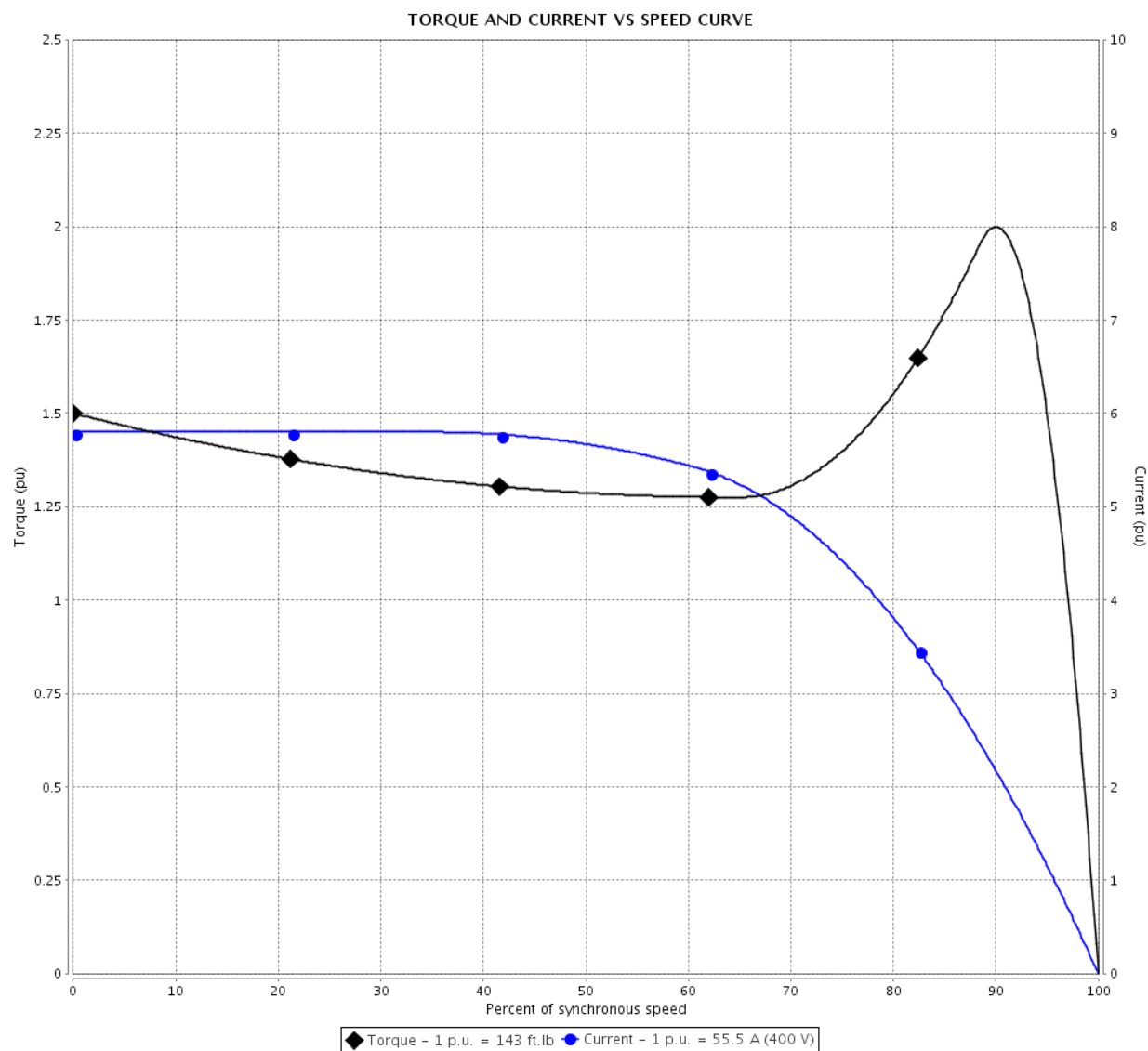
: W40 High Efficiency Three-Phase

Product code :

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Catalog # :

04018OP3EFP324TS-W40



Performance : 400 V 50 Hz 4P IE1

Rated current : 55.5 A
LRC : 5.4
Rated torque : 143 ft.lb
Locked rotor torque : 150 %
Breakdown torque : 200 %
Rated speed : 1465 rpm

Moment of inertia (J) : 5.37 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 105 K
Design : B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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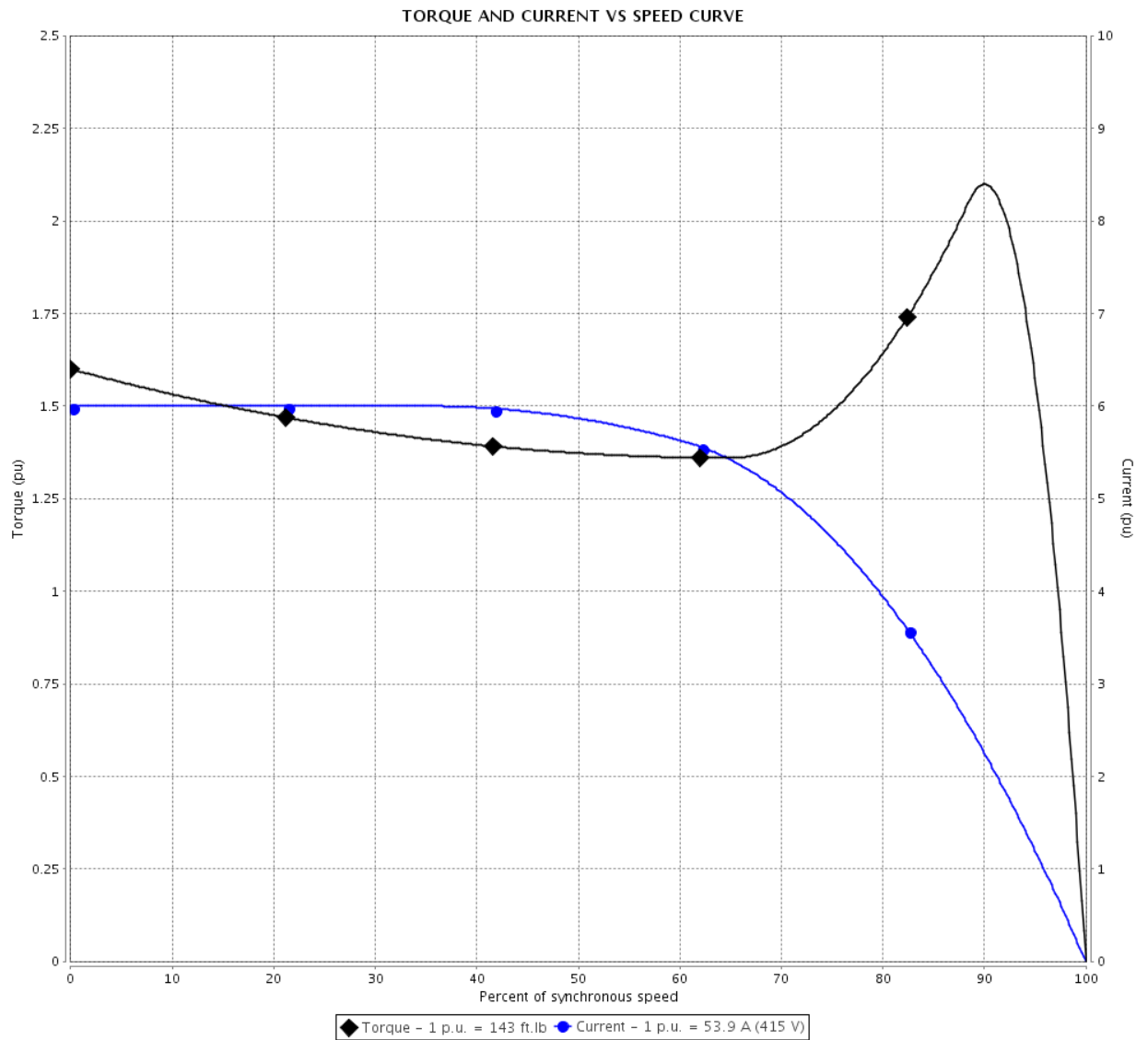
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Performance : 415 V 50 Hz 4P IE1

Rated current	: 53.9 A	Moment of inertia (J)	: 5.37 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 143 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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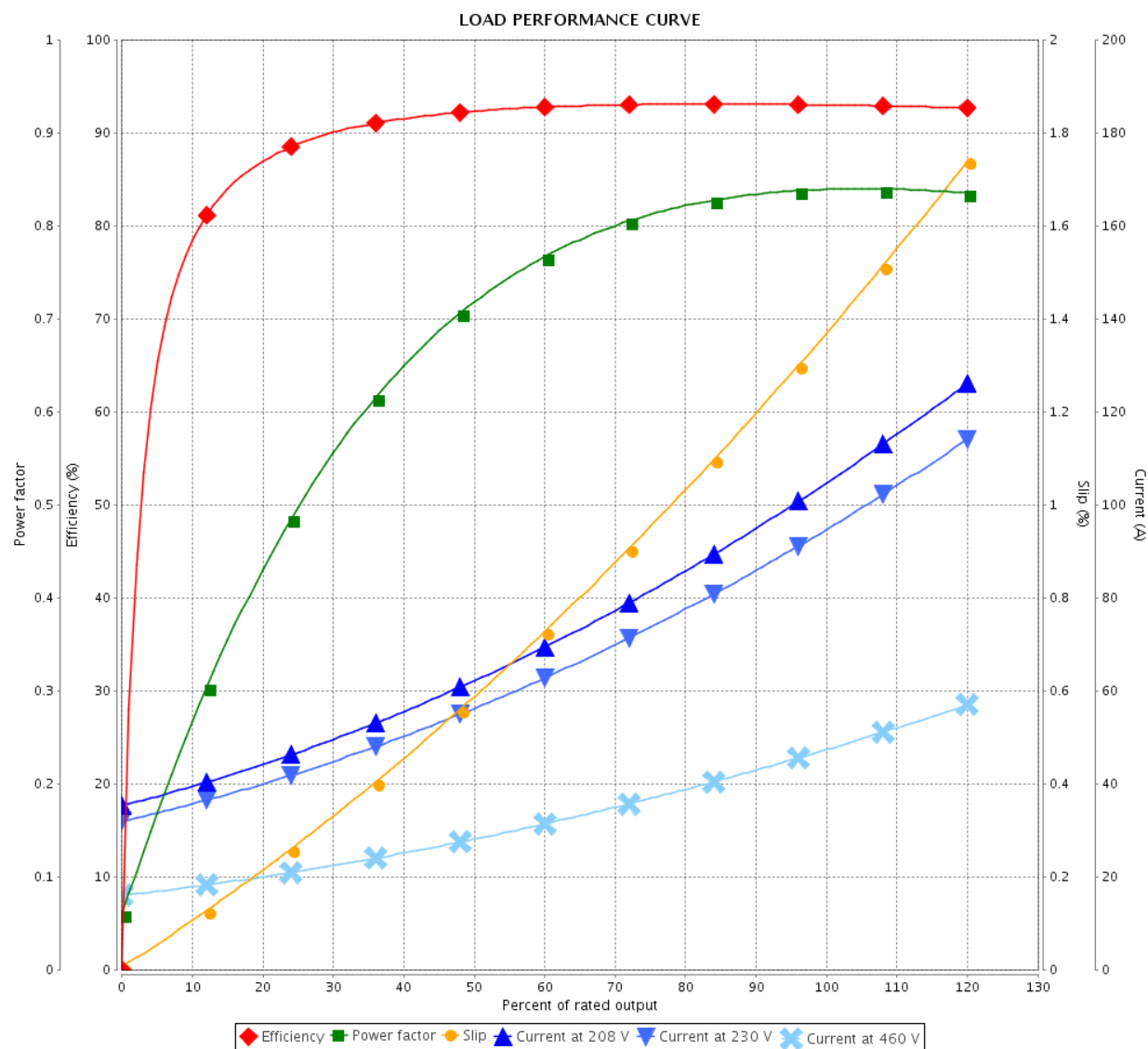
Product line : W40 High Efficiency Three-Phase

Product code :

14490726

Catalog # :

040180P3EFP324TS-W40



Performance : 230/460 V 60 Hz 4P

Rated current : 96.4/48.2 A
 LRC : 6.0
 Rated torque : 118 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 210 %
 Rated speed : 1775 rpm

Moment of inertia (J) : 5.37 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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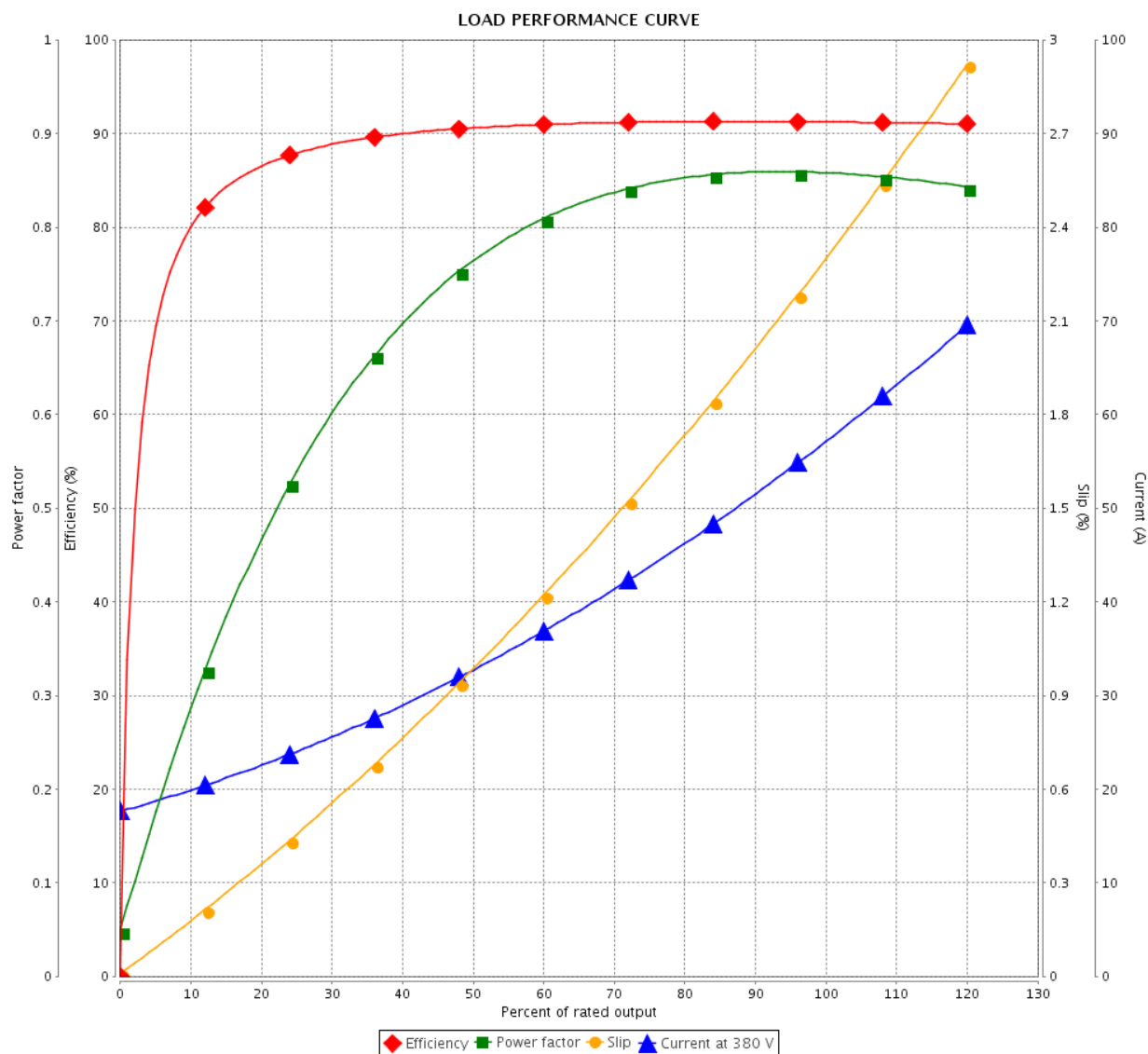
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Performance : 380 V 50 Hz 4P IE1

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 LRC : 5.4
 Rated torque : 143 ft.lb
 Locked rotor torque : 140 %
 Breakdown torque : 200 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 5.37 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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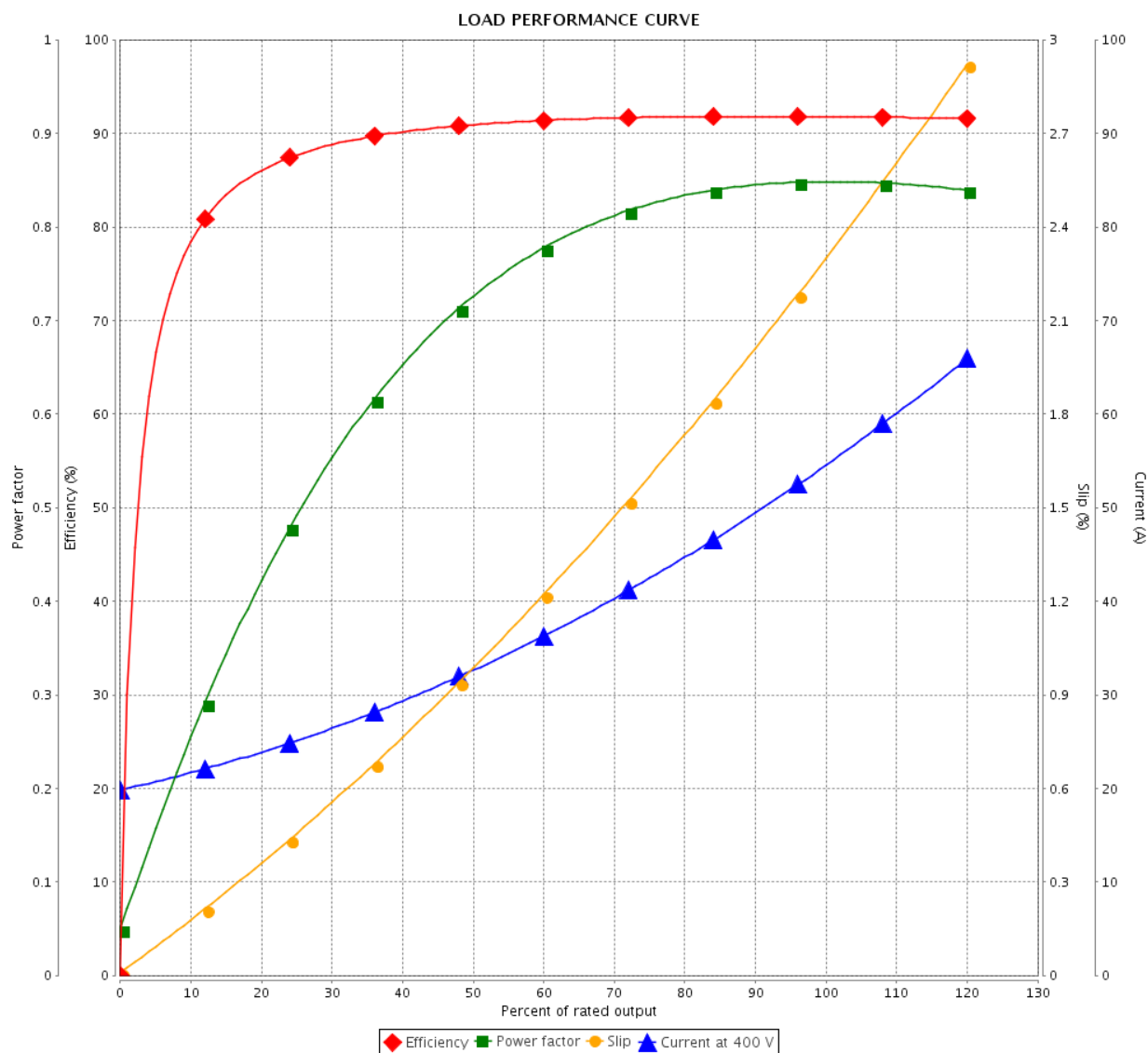
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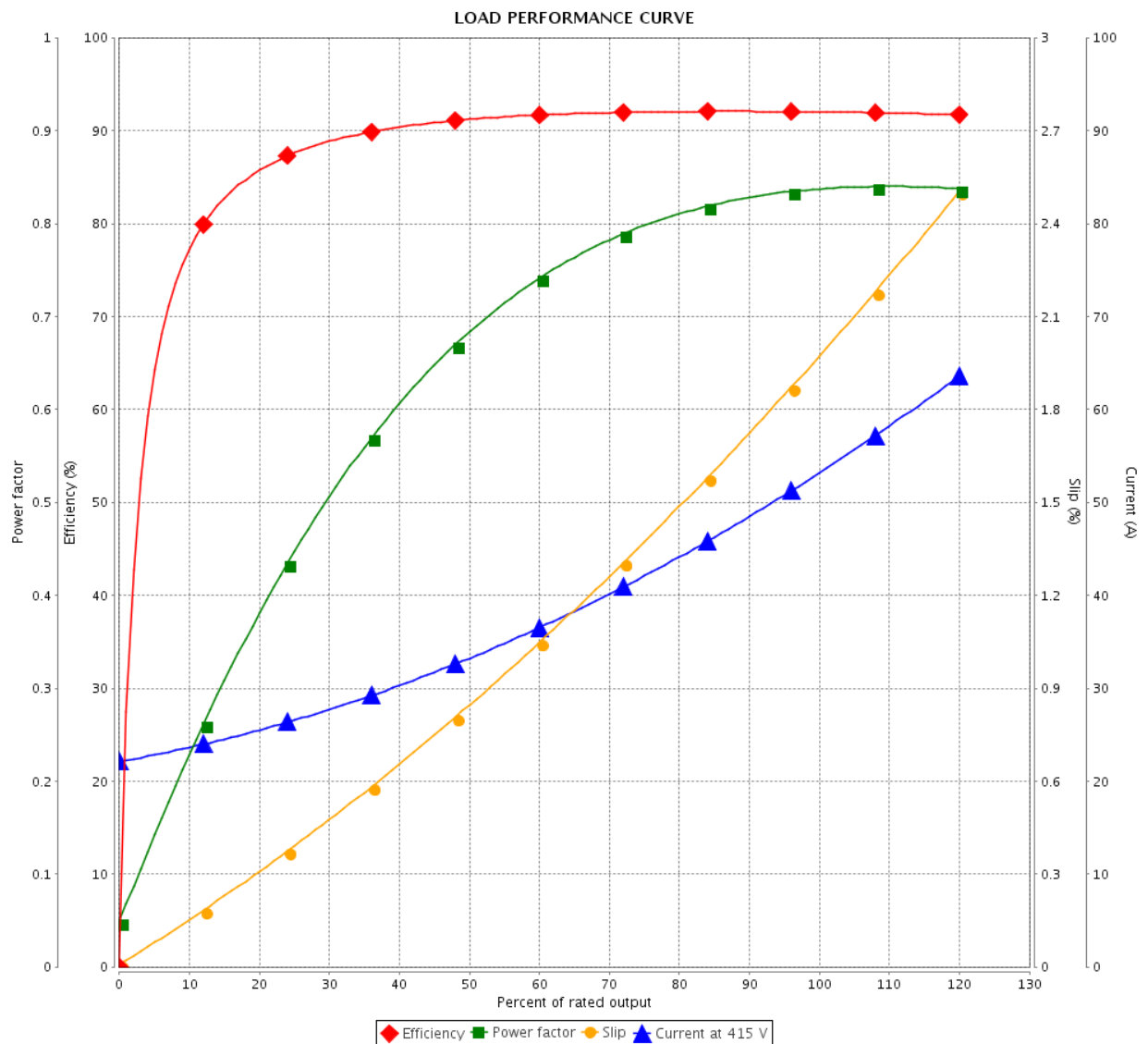
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THERMAL LIMIT CURVE

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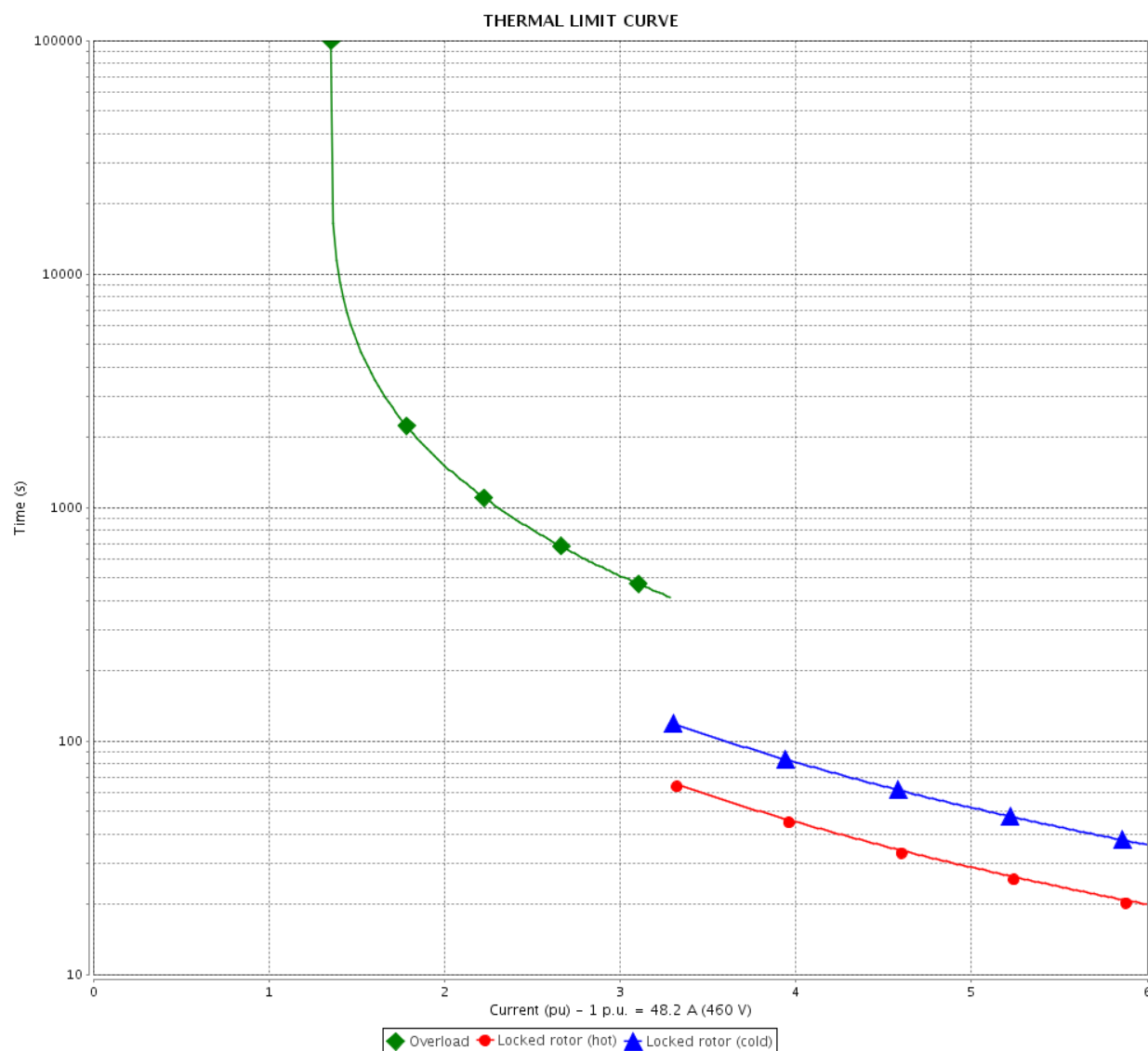
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Heating constant

Cooling constant

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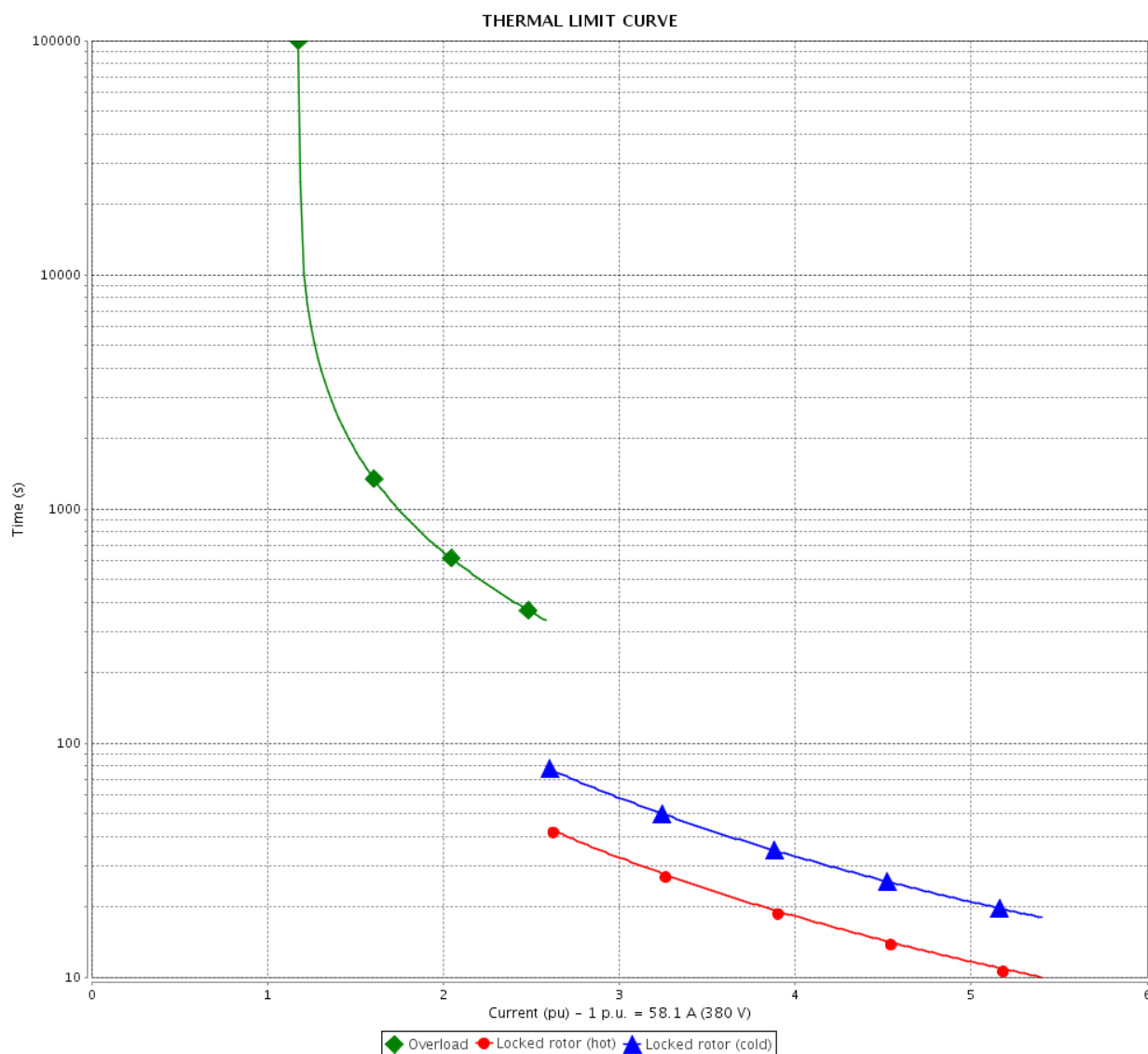
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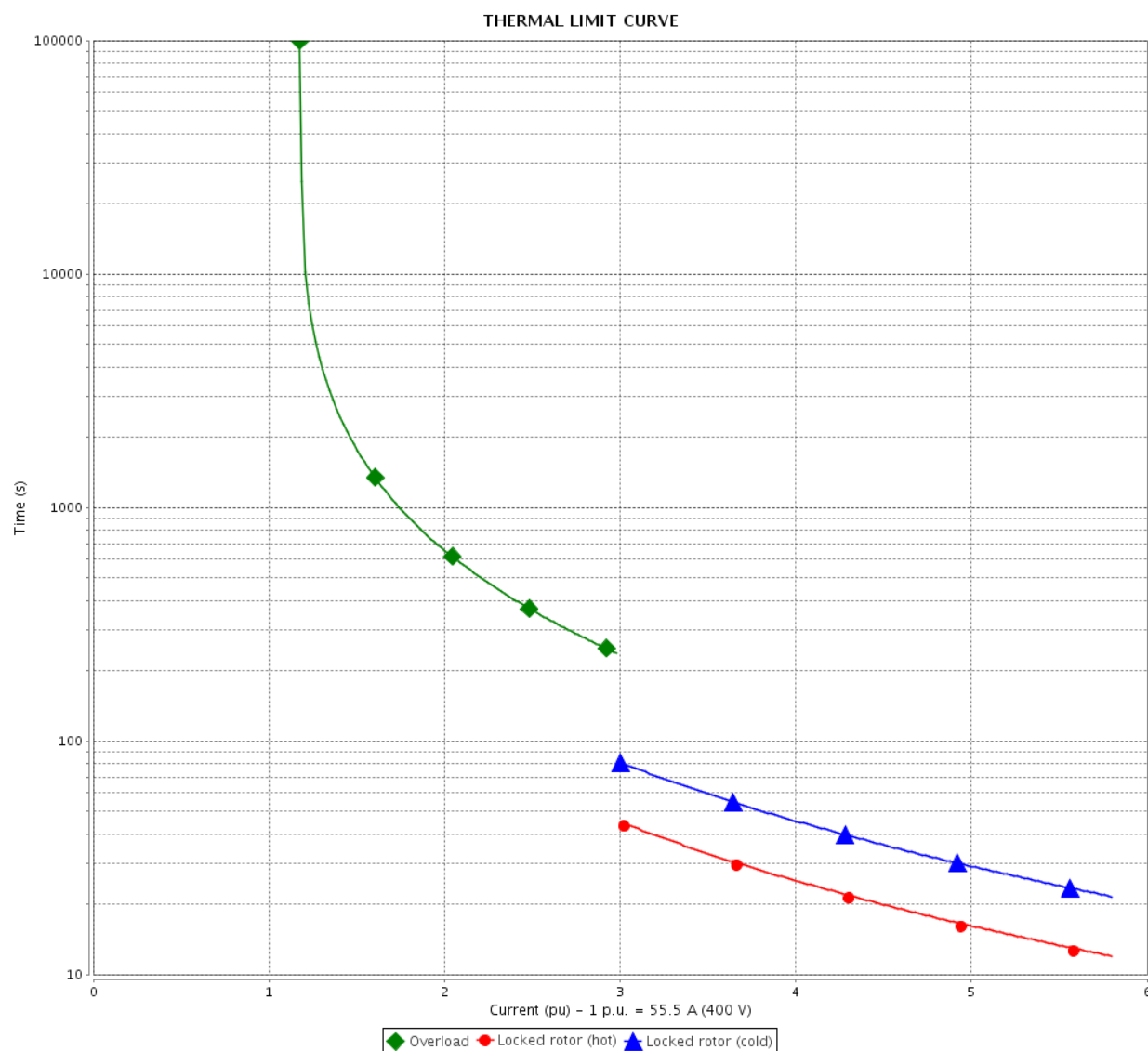
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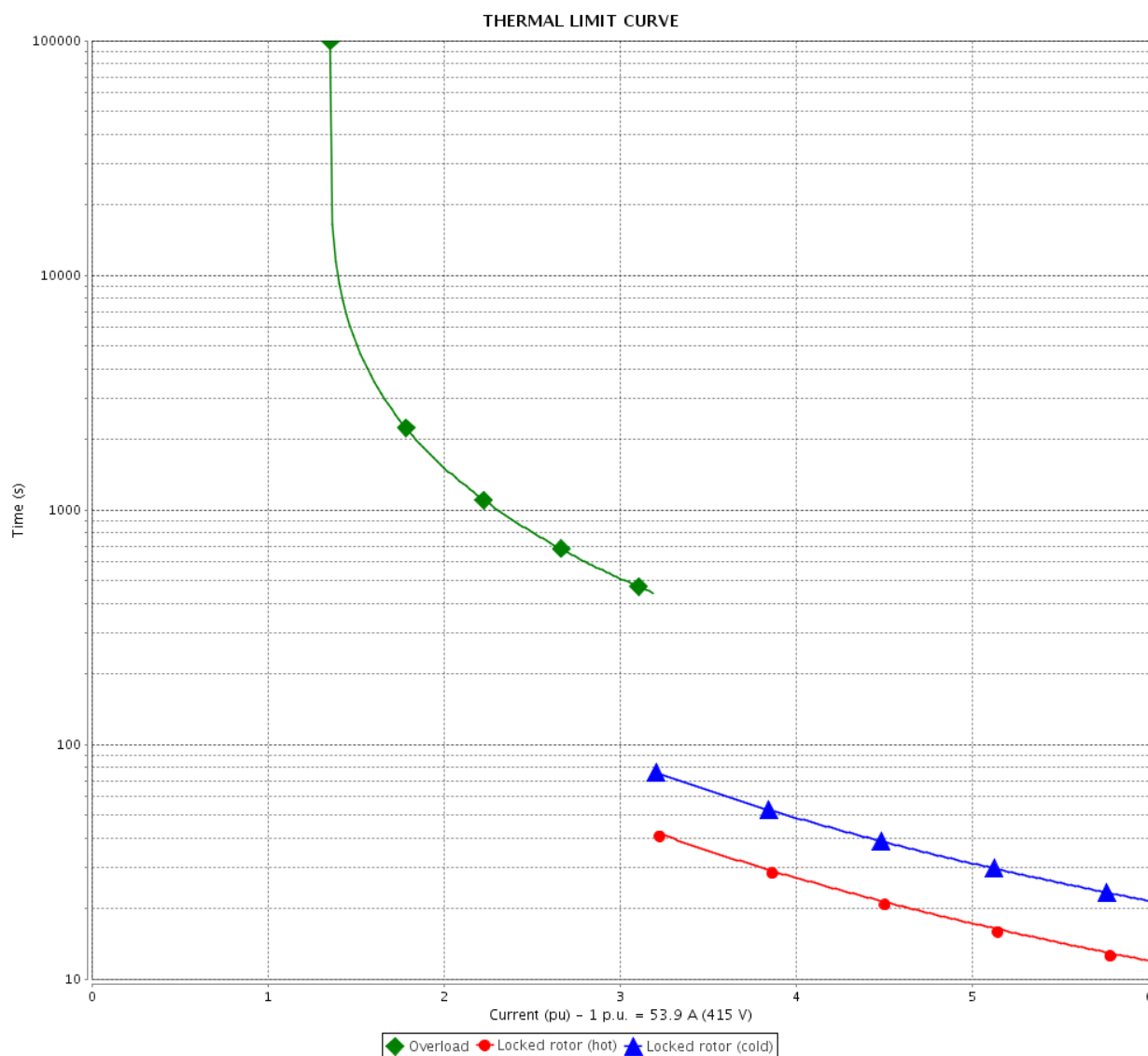
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VFD OPERATION CURVE

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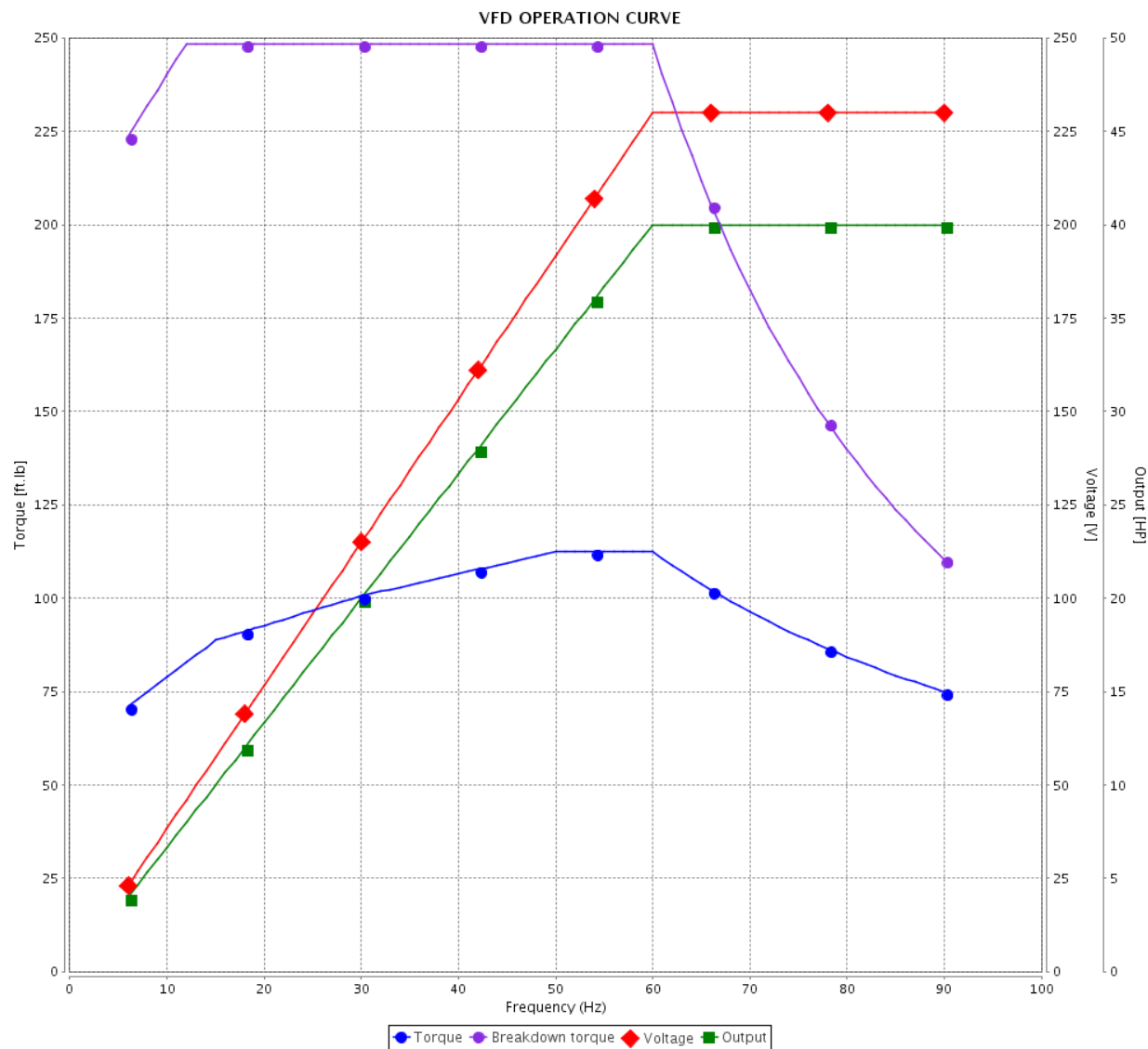
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Rated speed : 1775 rpm

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Insulation class : F

Service factor : 1.15

Temperature rise : 80 K

Design : B

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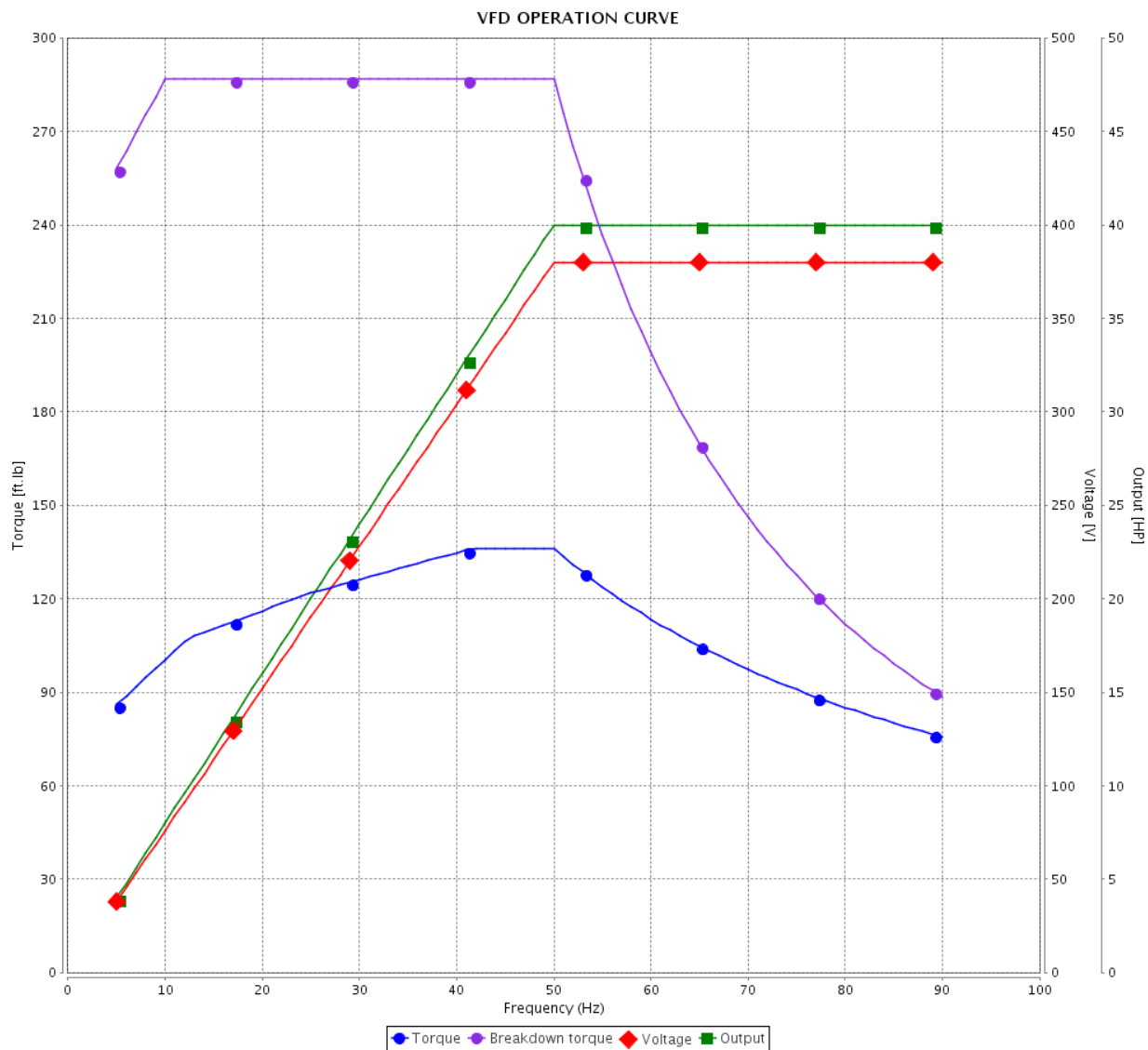
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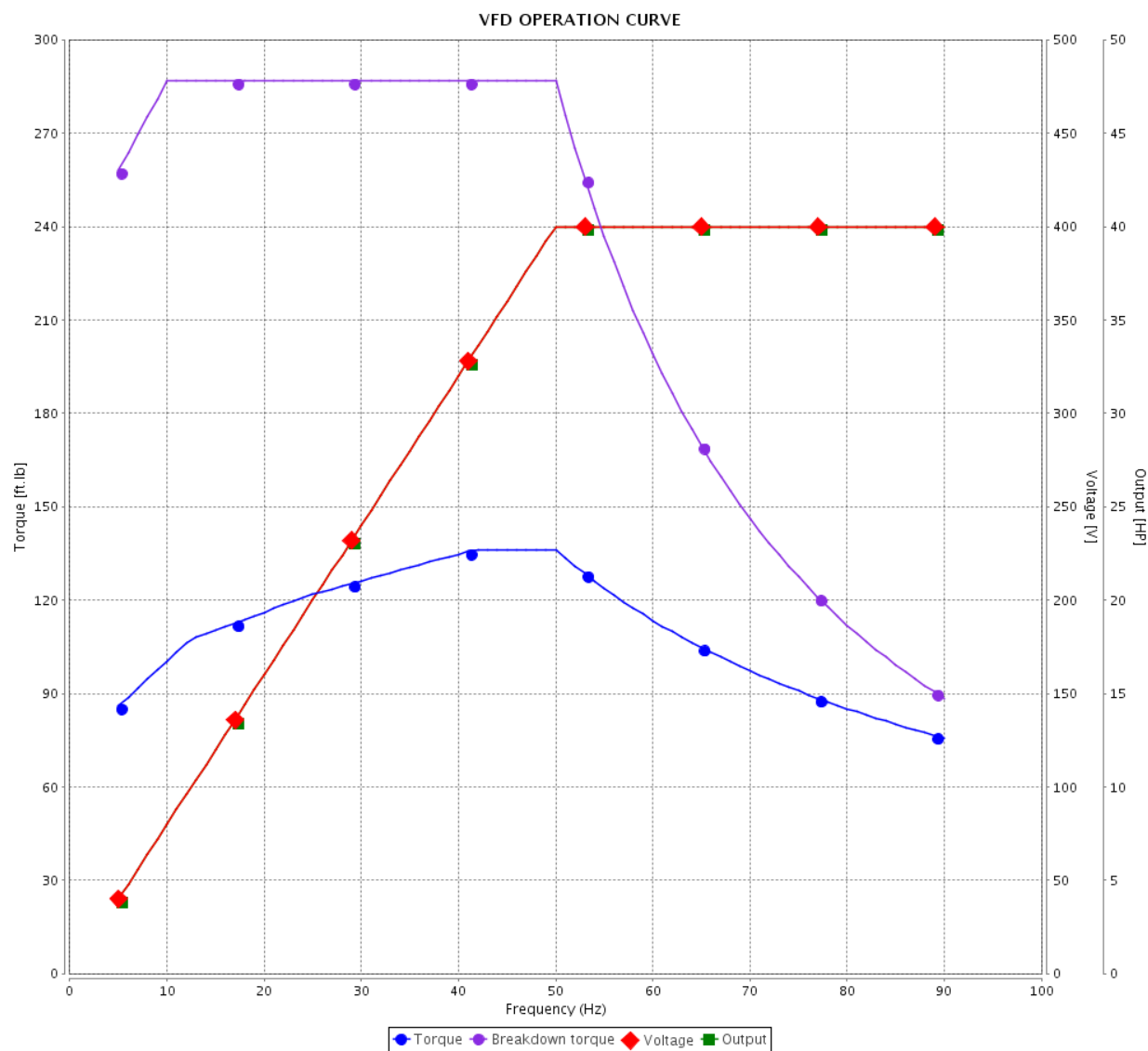
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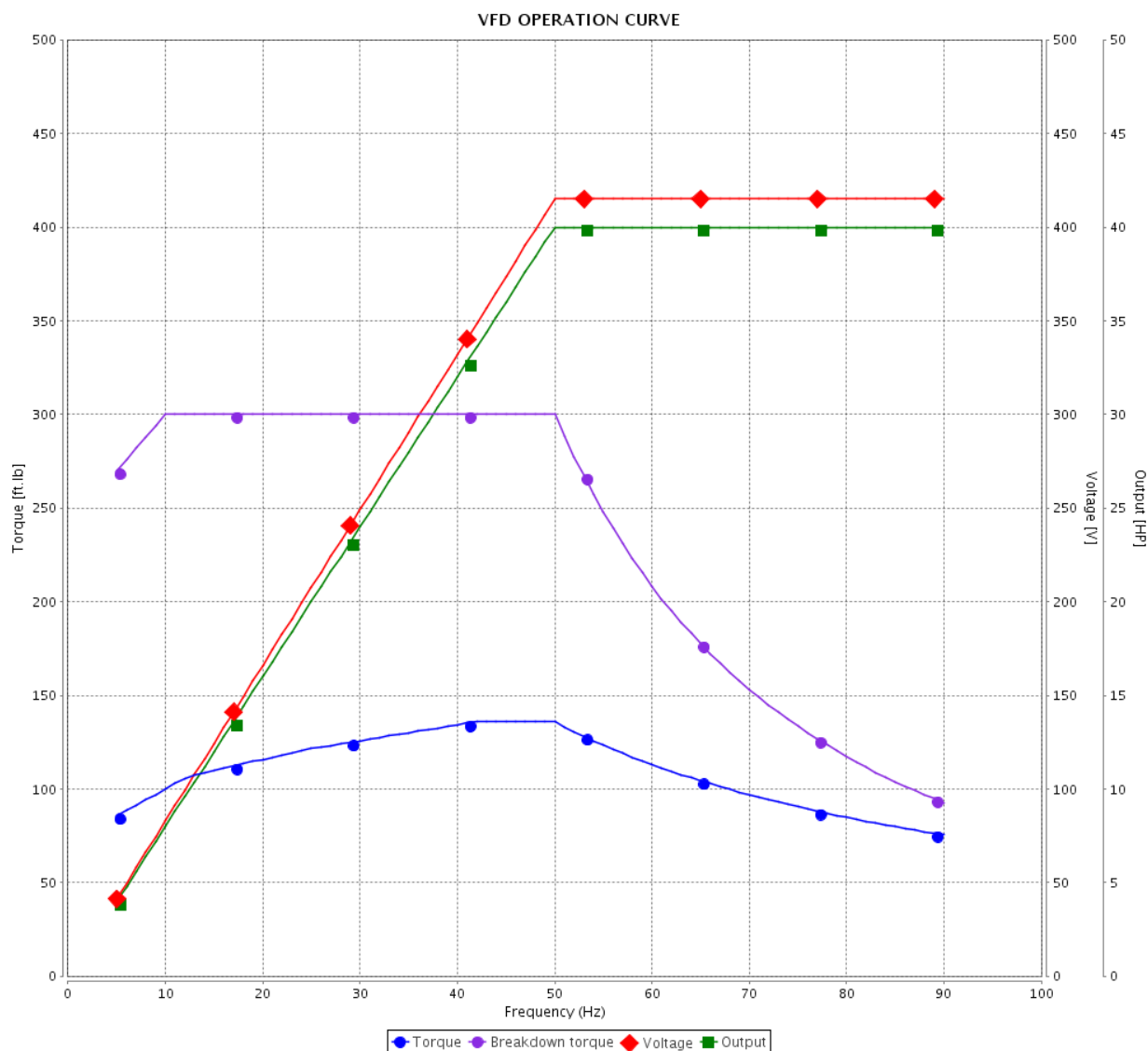
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