

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 High Efficiency Three-Phase Product code : 14490859
Catalog # : 04036OP3EFP286TS-W40

Frame : 284/6TS	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 : 335 lb
Protection degree : IP23	Moment of inertia (J) : 1.91 sq.ft.lb
Design : B	

Output [HP]	40	40	40	40
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	94.4/47.2	57.1	53.8	52.2
L. R. Amperes [A]	576/288	308	339	350
LRC [A]	6.1x(Code G)	5.4x(Code F)	6.3x(Code G)	6.7x(Code G)
No load current [A]	28.0/14.0	12.0	13.0	15.0
Rated speed [RPM]	3535	2920	2930	2935
Slip [%]	1.81	2.67	2.33	2.17
Rated torque [ft.lb]	59.4	71.9	71.7	71.6
Locked rotor torque [%]	170	130	150	160
Breakdown torque [%]	250	200	200	220
Service factor	1.15	1.00	1.00	1.00
Temperature rise	80 K	105 K	105 K	105 K
Locked rotor time	18s (cold) 10s (hot)	9s (cold) 5s (hot)	9s (cold) 5s (hot)	9s (cold) 5s (hot)
Noise level ²				
Efficiency (%)	25%	90.8	89.1	89.9
	50%	91.0	89.5	90.2
	75%	91.7	89.5	90.2
	100%	91.7	89.7	90.4
Power Factor	25%	0.54	0.62	0.57
	50%	0.78	0.83	0.79
	75%	0.86	0.88	0.86
	100%	0.87	0.89	0.89

	<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 104A SF 1.00 SFA 104A

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

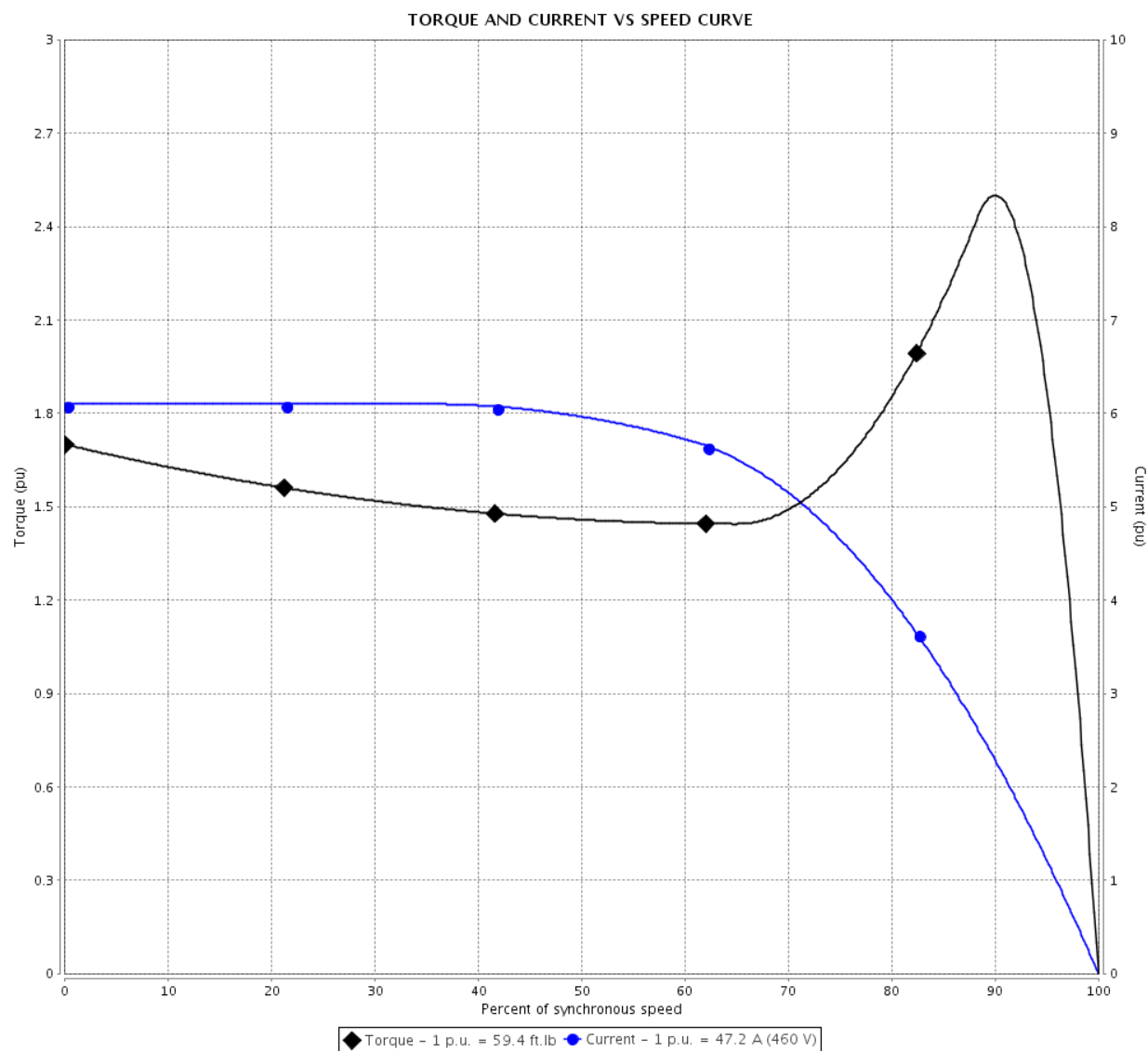
: W40 High Efficiency Three-Phase

Product code :

14490859

Catalog # :

04036OP3EFP286TS-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 94.4/47.2 A
LRC : 6.1
Rated torque : 59.4 ft.lb
Locked rotor torque : 170 %
Breakdown torque : 250 %
Rated speed : 3535 rpm

Moment of inertia (J) : 1.91 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

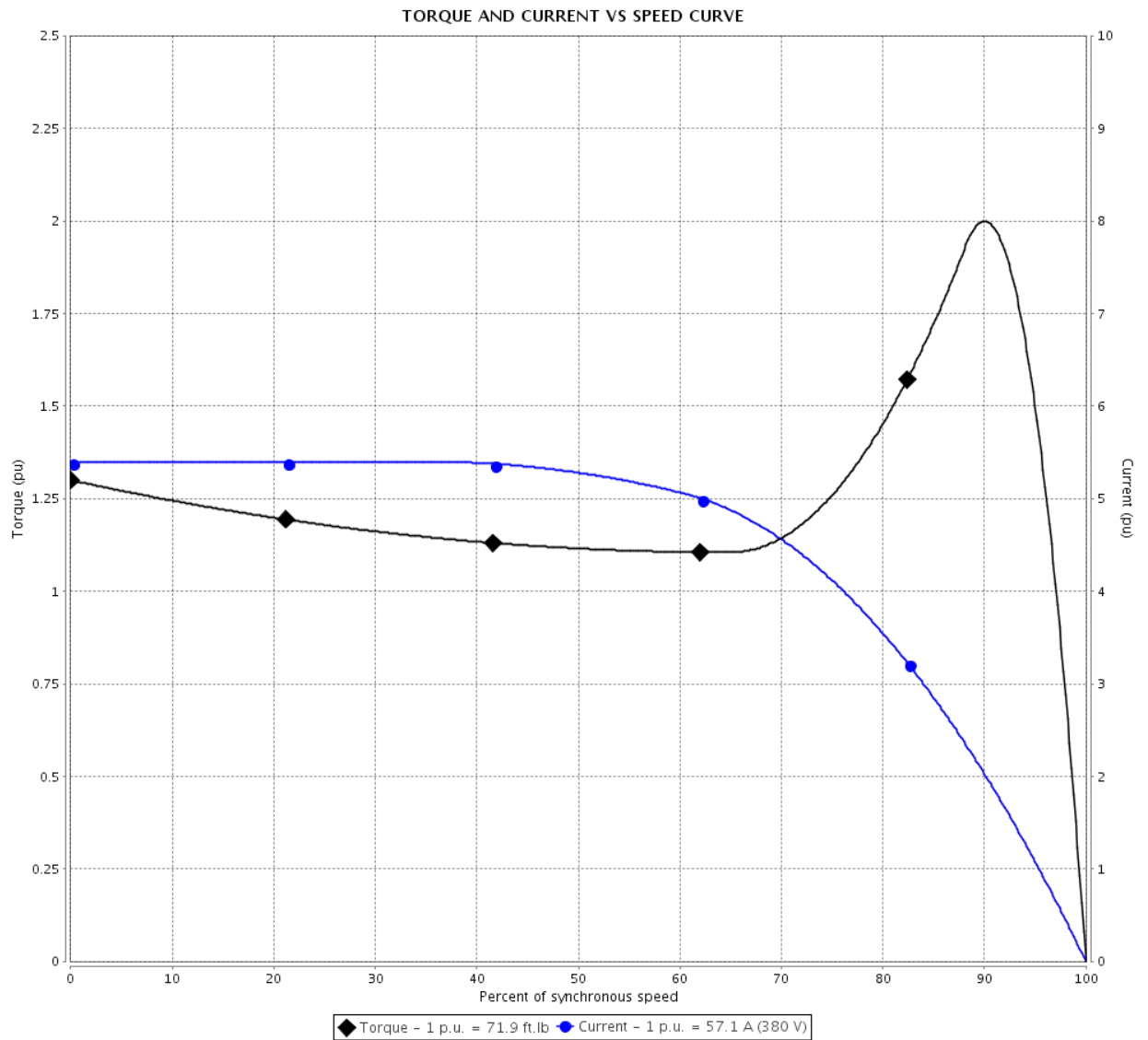
Product line : W40 High Efficiency Three-Phase

Product code :

14490859

Catalog # :

04036OP3EFP286TS-W40



Performance : 380 V 50 Hz 2P

Rated current	: 57.1 A	Moment of inertia (J)	: 1.91 sq.ft.lb
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 71.9 ft.lb	Insulation class	: F
Locked rotor torque	: 130 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 2920 rpm	Design	: B

Locked rotor time : 9s (cold) 5s (hot)

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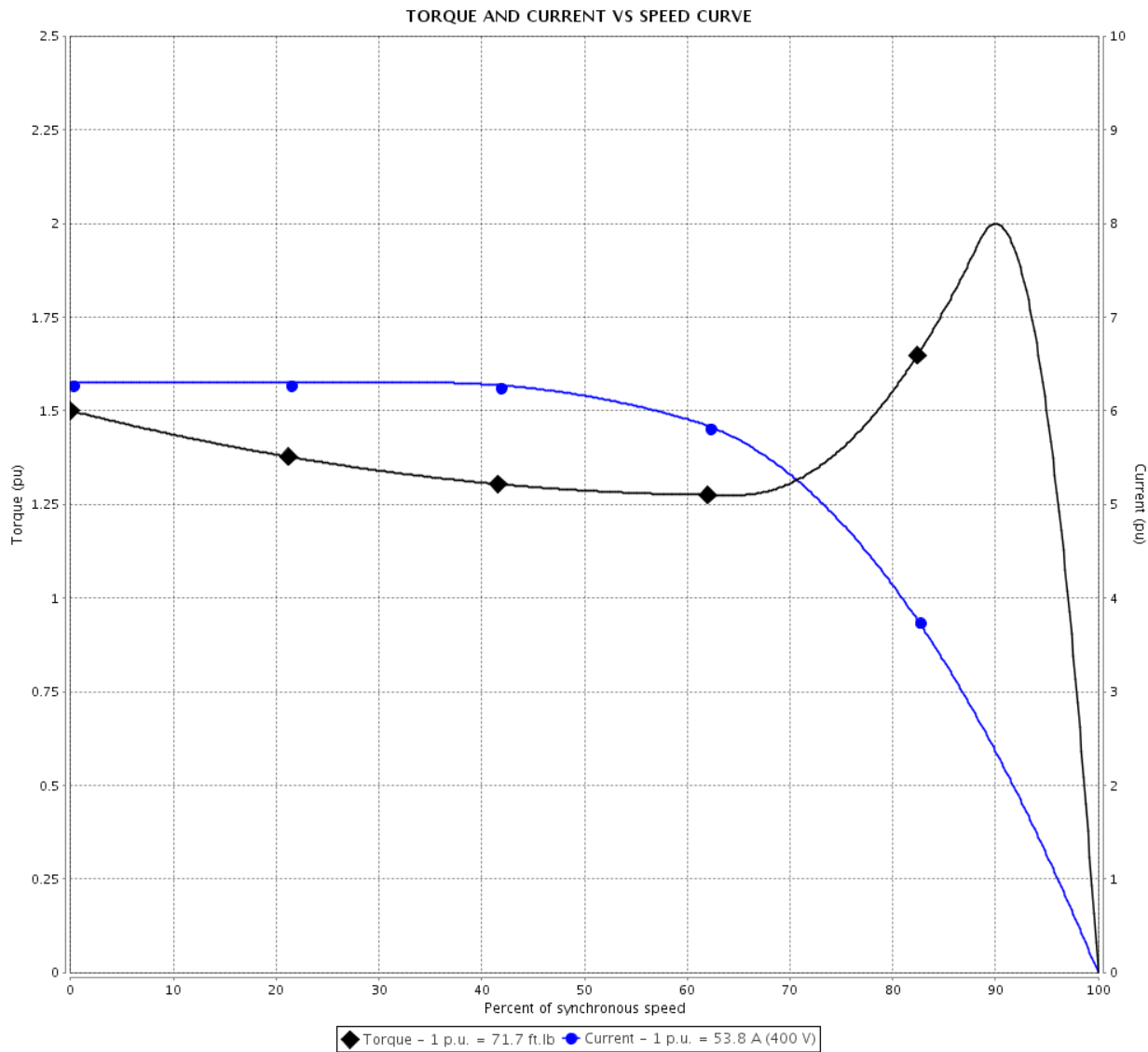
Product line : W40 High Efficiency Three-Phase

Product code :

14490859

Catalog # :

04036OP3EFP286TS-W40



Performance : 400 V 50 Hz 2P

Rated current	: 53.8 A	Moment of inertia (J)	: 1.91 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 71.7 ft.lb	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 2930 rpm	Design	: B

Locked rotor time : 9s (cold) 5s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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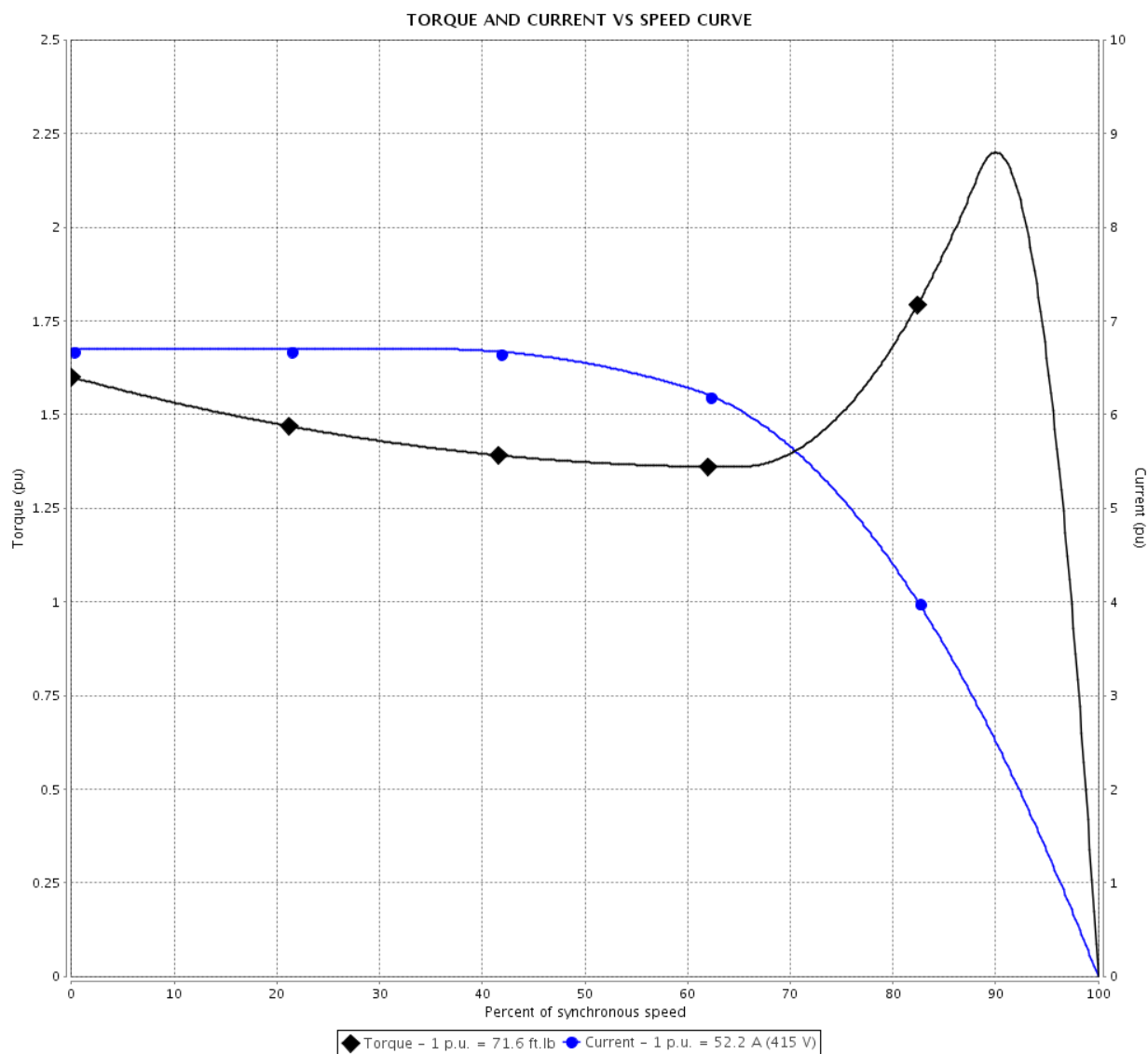
Product line : W40 High Efficiency Three-Phase

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Performance : 415 V 50 Hz 2P IE1

Rated current	: 52.2 A	Moment of inertia (J)	: 1.91 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 71.6 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2935 rpm	Design	: B

Locked rotor time : 9s (cold) 5s (hot)

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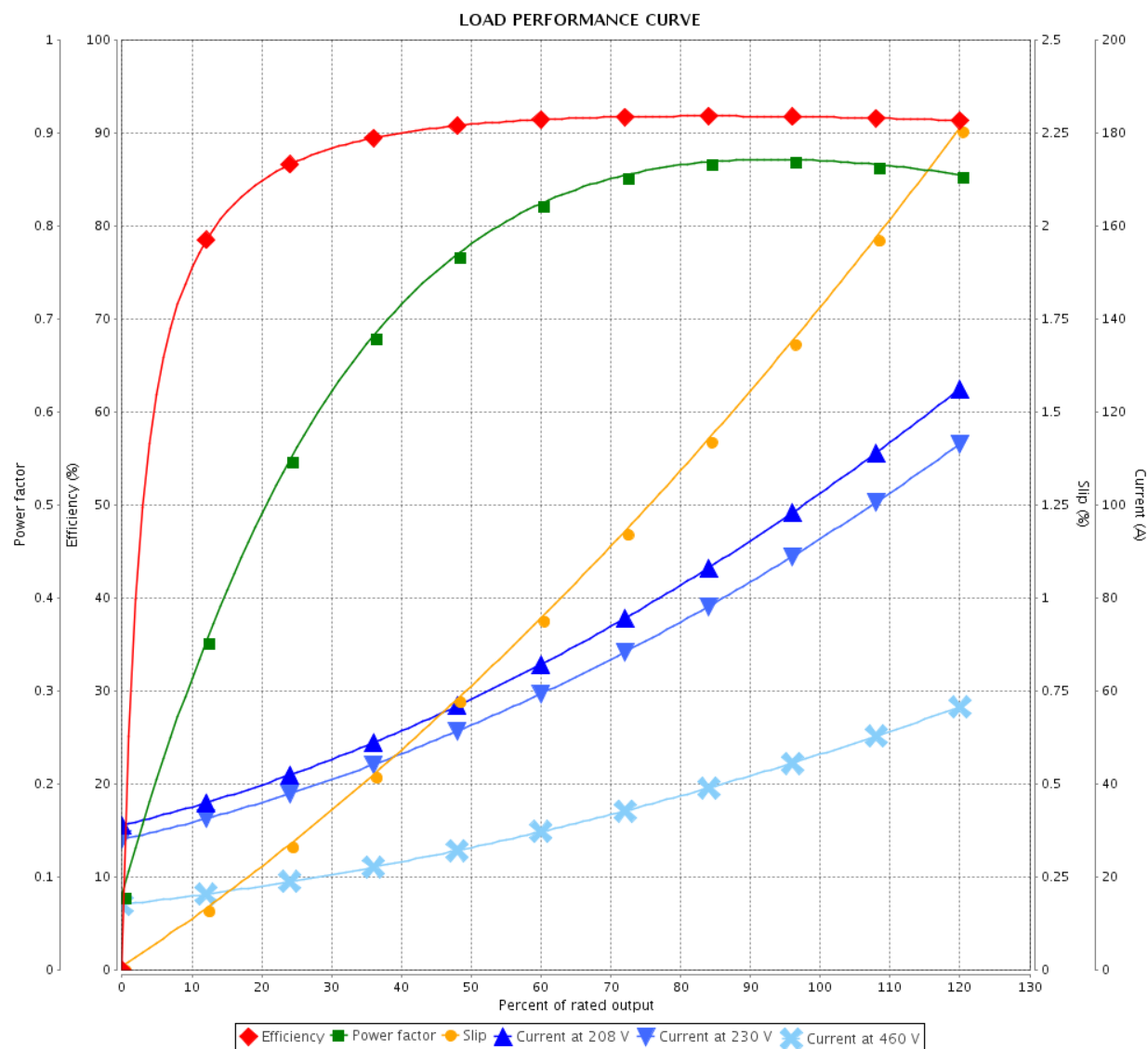
Product line : W40 High Efficiency Three-Phase

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Catalog # :

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Performance : 230/460 V 60 Hz 2P

Rated current : 94.4/47.2 A
 LRC : 6.1
 Rated torque : 59.4 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 250 %
 Rated speed : 3535 rpm

Moment of inertia (J) : 1.91 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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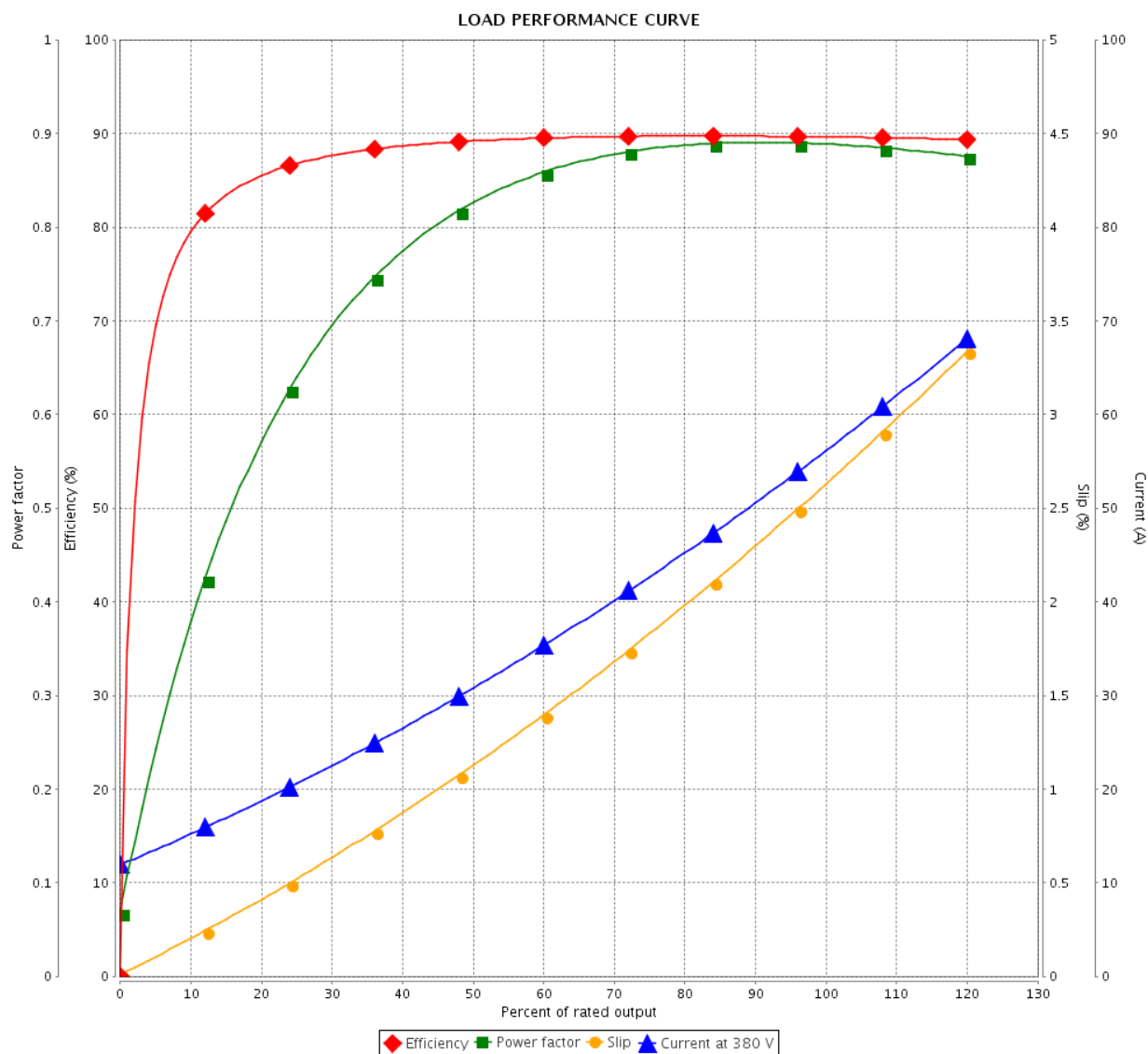
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Performance : 380 V 50 Hz 2P

Rated current : 57.1 A
 LRC : 5.4
 Rated torque : 71.9 ft.lb
 Locked rotor torque : 130 %
 Breakdown torque : 200 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 1.91 sq.ft.lb
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 Service factor : 1.00
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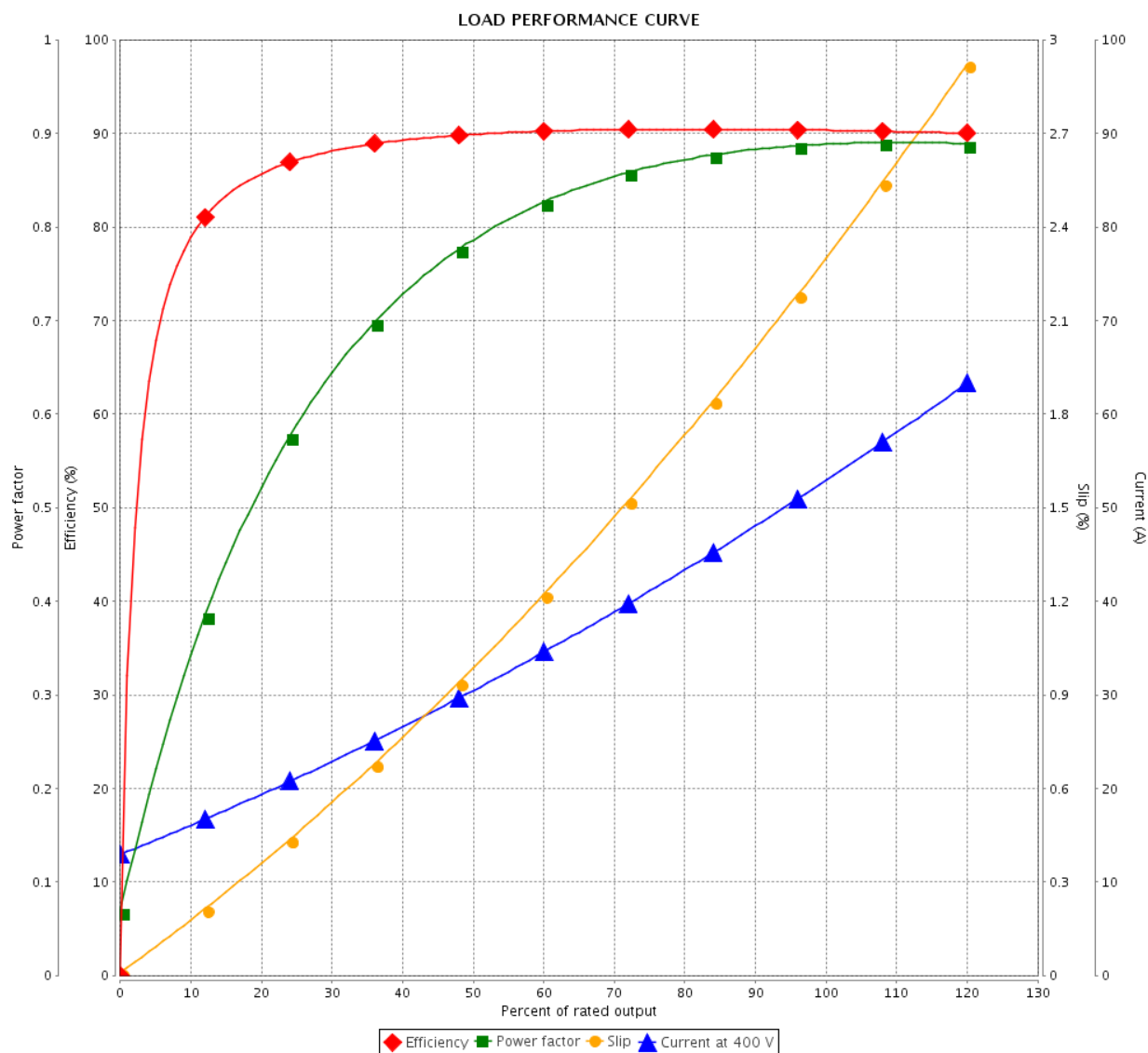
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Catalog # : 04036OP3EFP286TS-W40



Performance : 400 V 50 Hz 2P

Rated current	: 53.8 A	Moment of inertia (J)	: 1.91 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 71.7 ft.lb	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 2930 rpm	Design	: B

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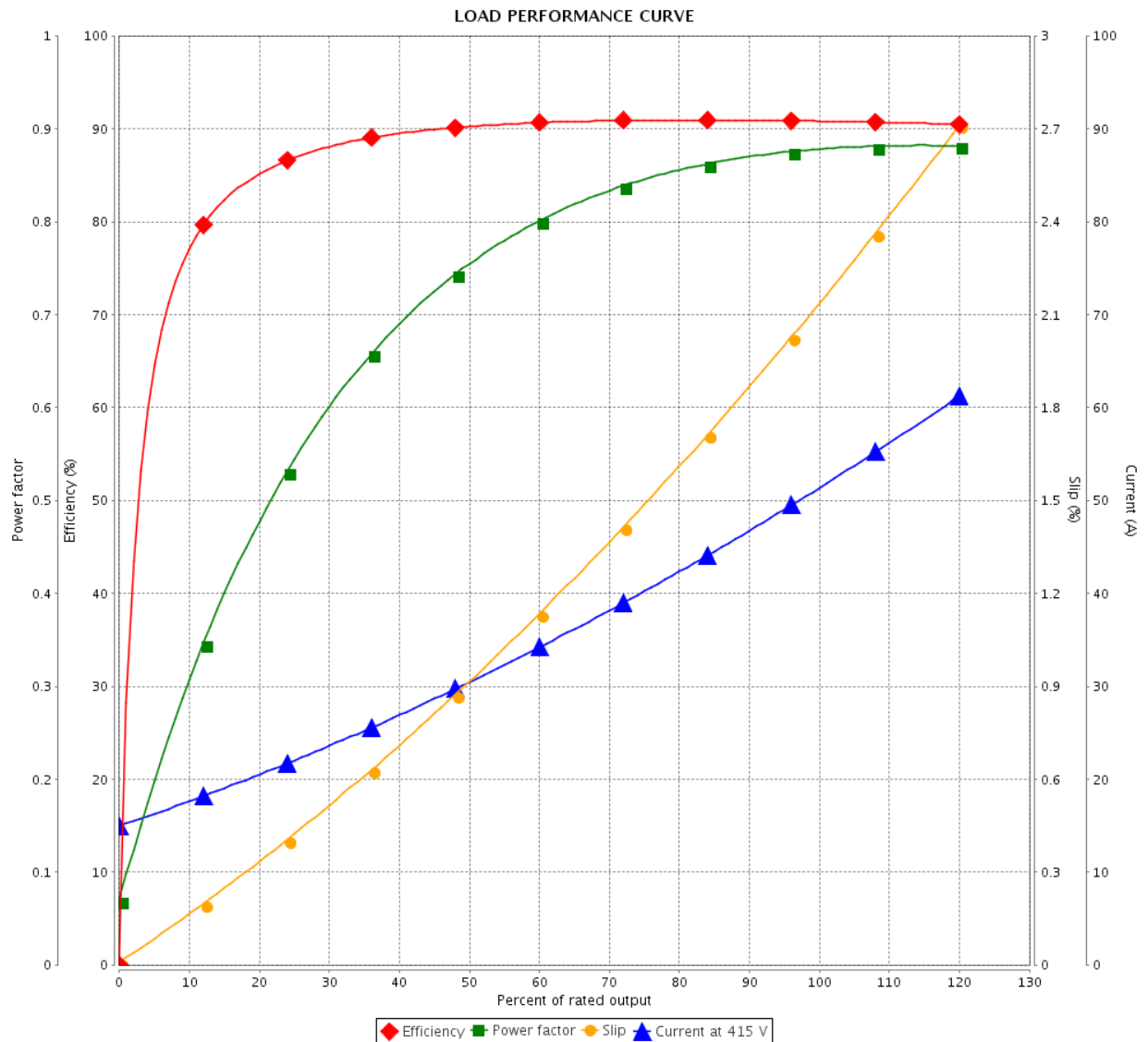
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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THERMAL LIMIT CURVE

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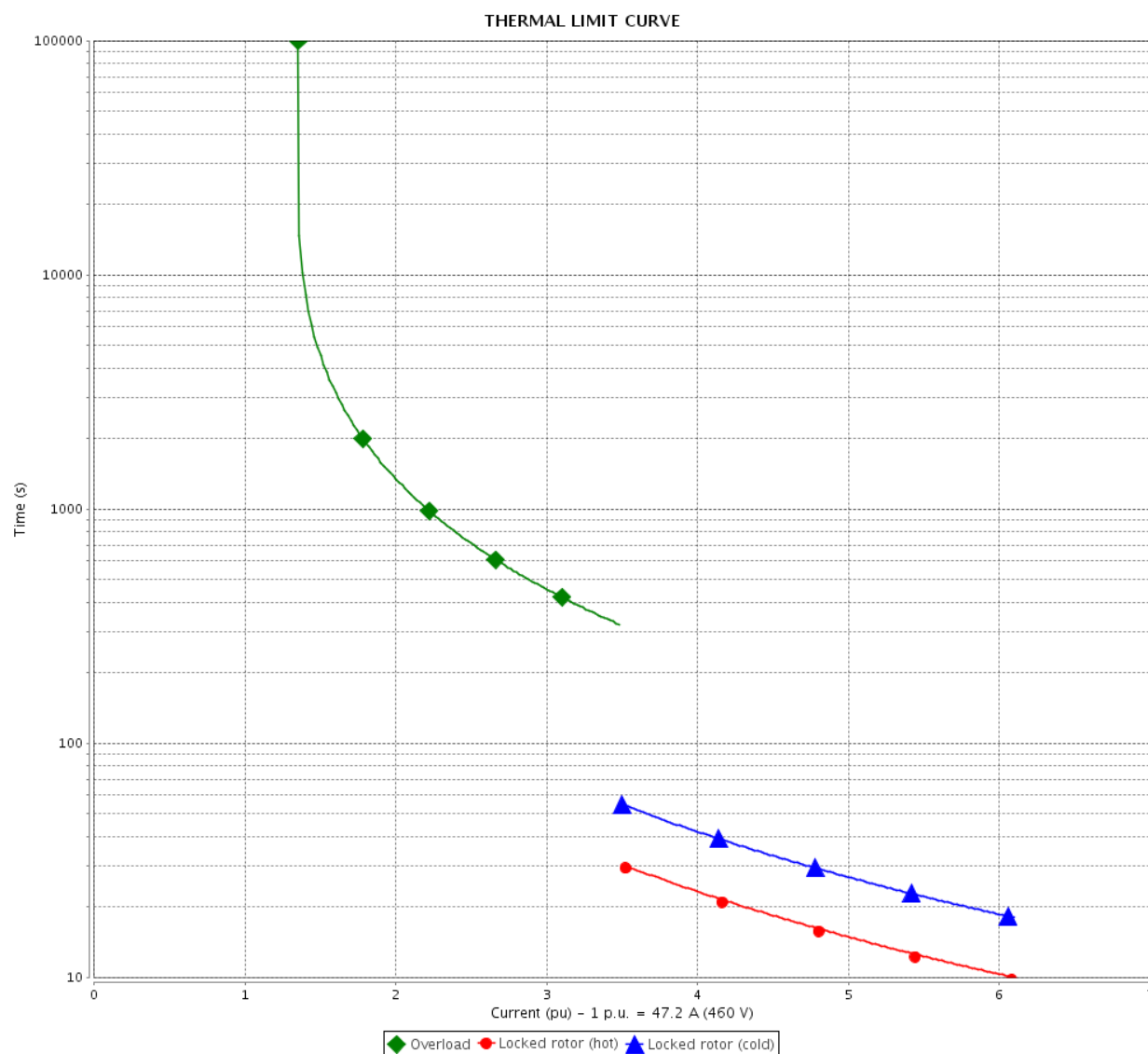
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Performance : 230/460 V 60 Hz 2P

Rated current : 94.4/47.2 A
 LRC : 6.1
 Rated torque : 59.4 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 250 %
 Rated speed : 3535 rpm

Moment of inertia (J) : 1.91 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

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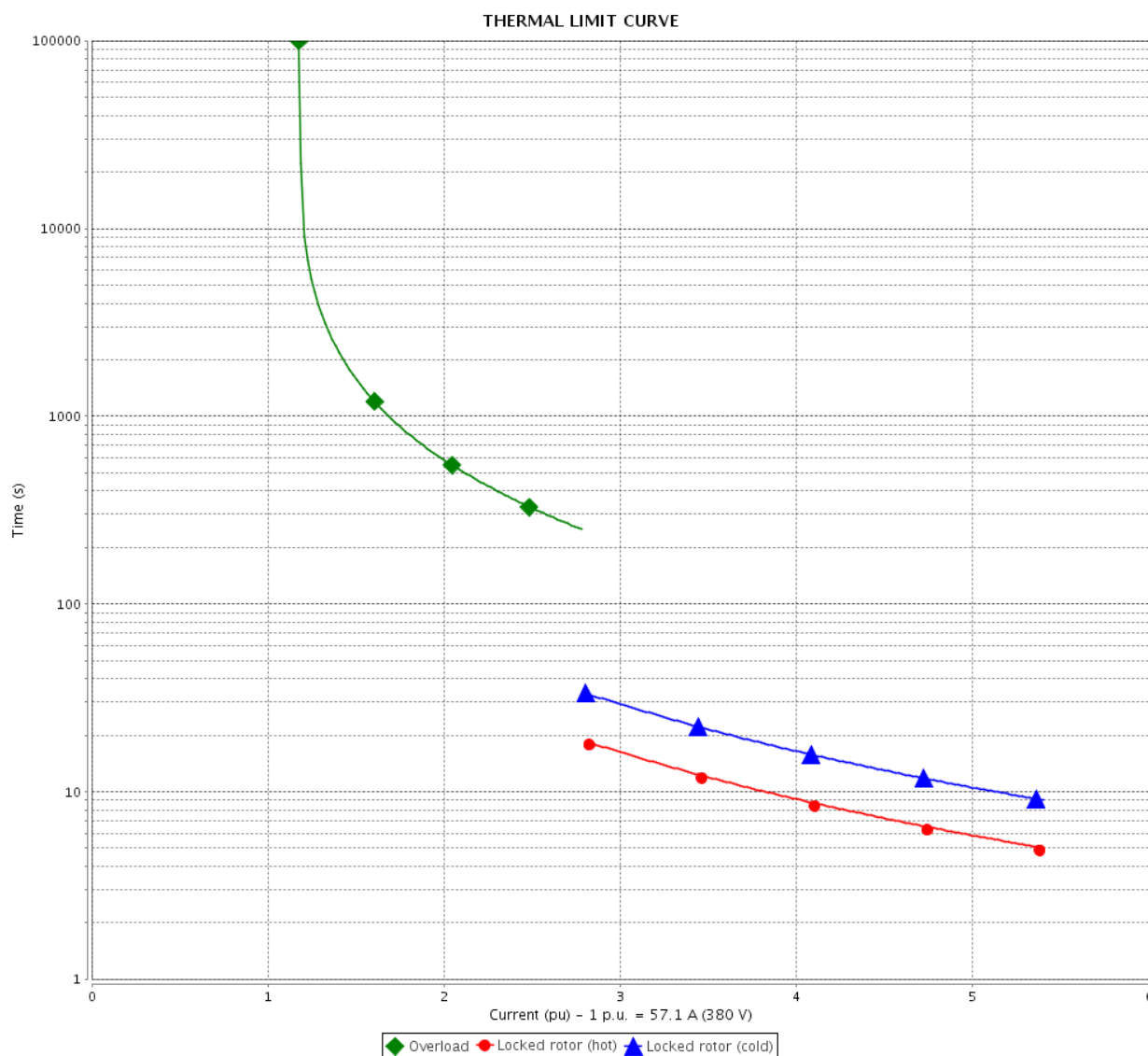
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Moment of inertia (J) : 1.91 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Heating constant

Cooling constant

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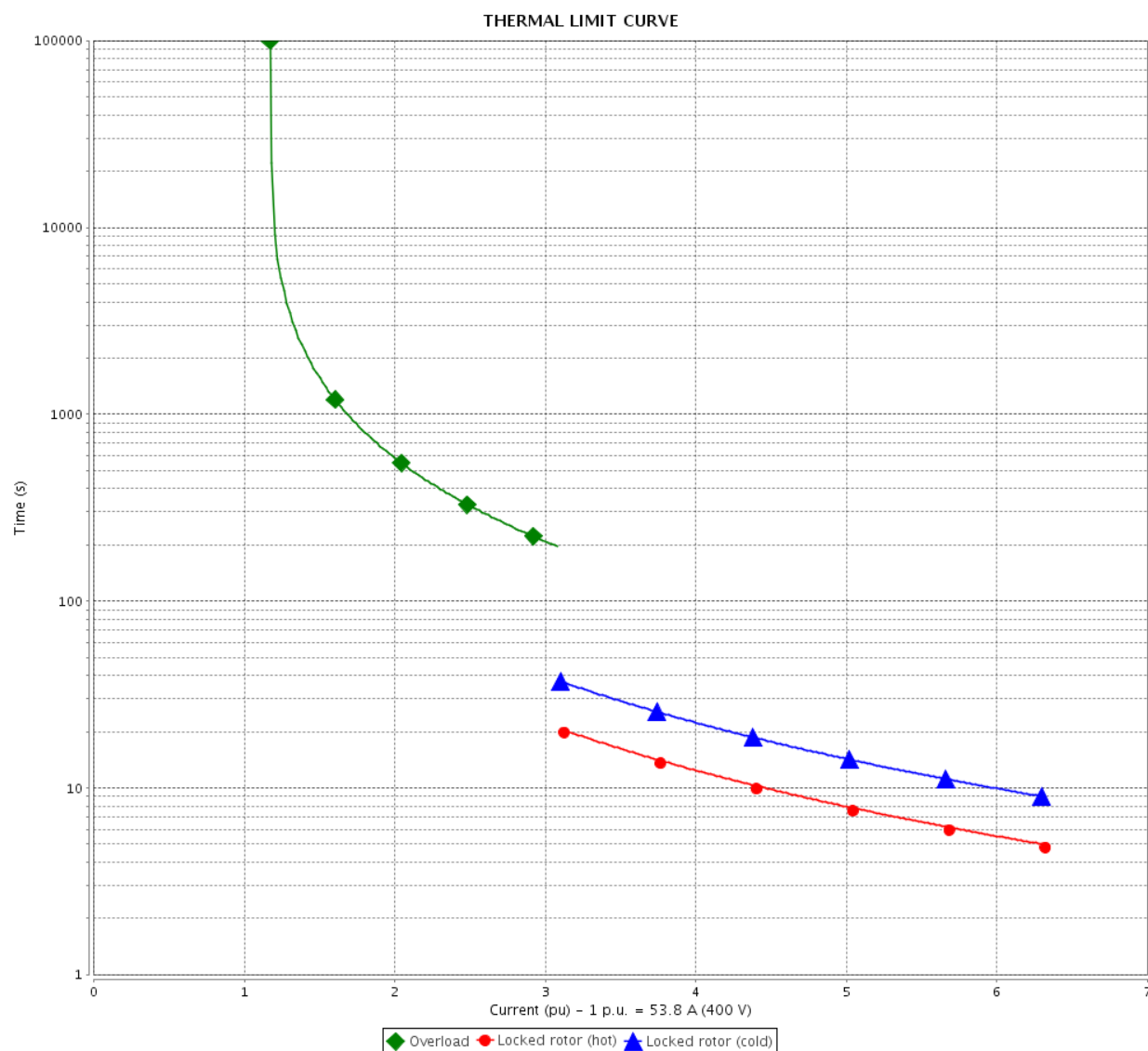
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Performance : 400 V 50 Hz 2P

Rated current

: 53.8 A

LRC

: 6.3

Rated torque

: 71.7 ft.lb

Locked rotor torque

: 150 %

Breakdown torque

: 200 %

Rated speed

: 2930 rpm

Moment of inertia (J)

: 1.91 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 105 K

Design

: B

Heating constant

Cooling constant

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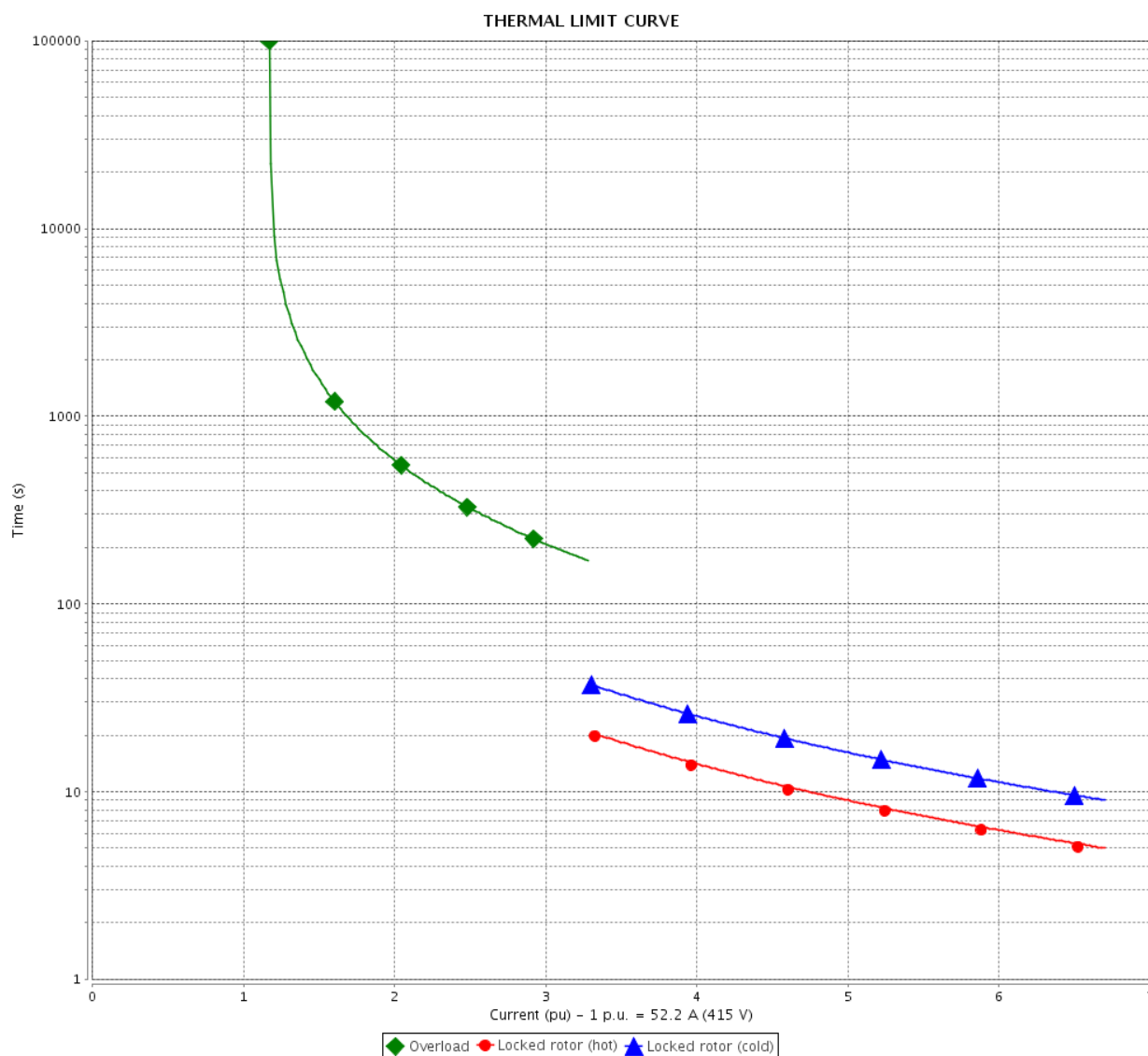
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Performance : 415 V 50 Hz 2P IE1

Rated current : 52.2 A
 LRC : 6.7
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 Locked rotor torque : 160 %
 Breakdown torque : 220 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 1.91 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Heating constant

Cooling constant

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VFD OPERATION CURVE

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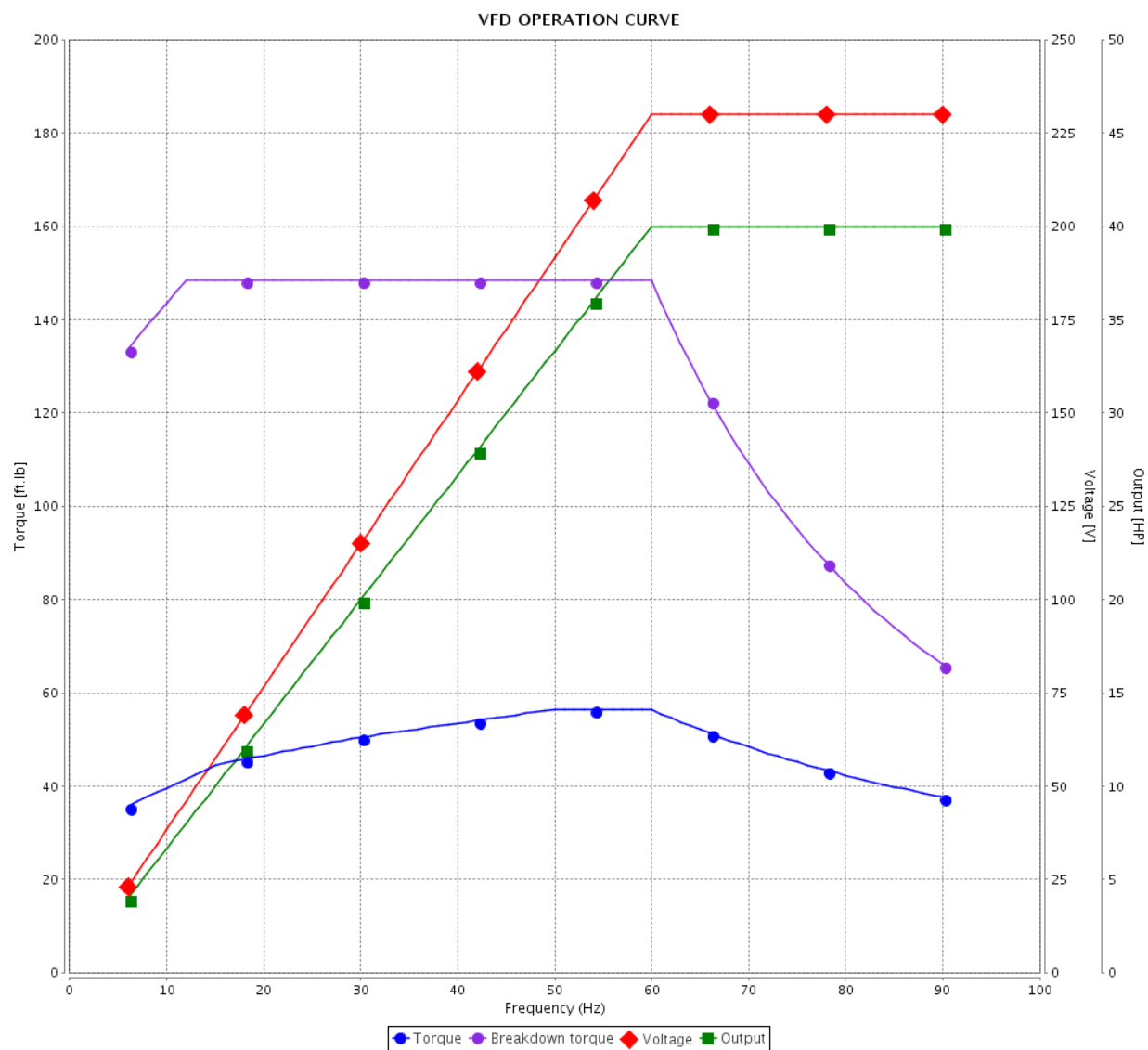
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LRC : 6.1

Rated torque : 59.4 ft.lb

Locked rotor torque : 170 %

Breakdown torque : 250 %

Rated speed : 3535 rpm

Moment of inertia (J) : 1.91 sq.ft.lb

Duty cycle : Cont.(S1)

Insulation class : F

Service factor : 1.15

Temperature rise : 80 K

Design : B

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VFD OPERATION CURVE

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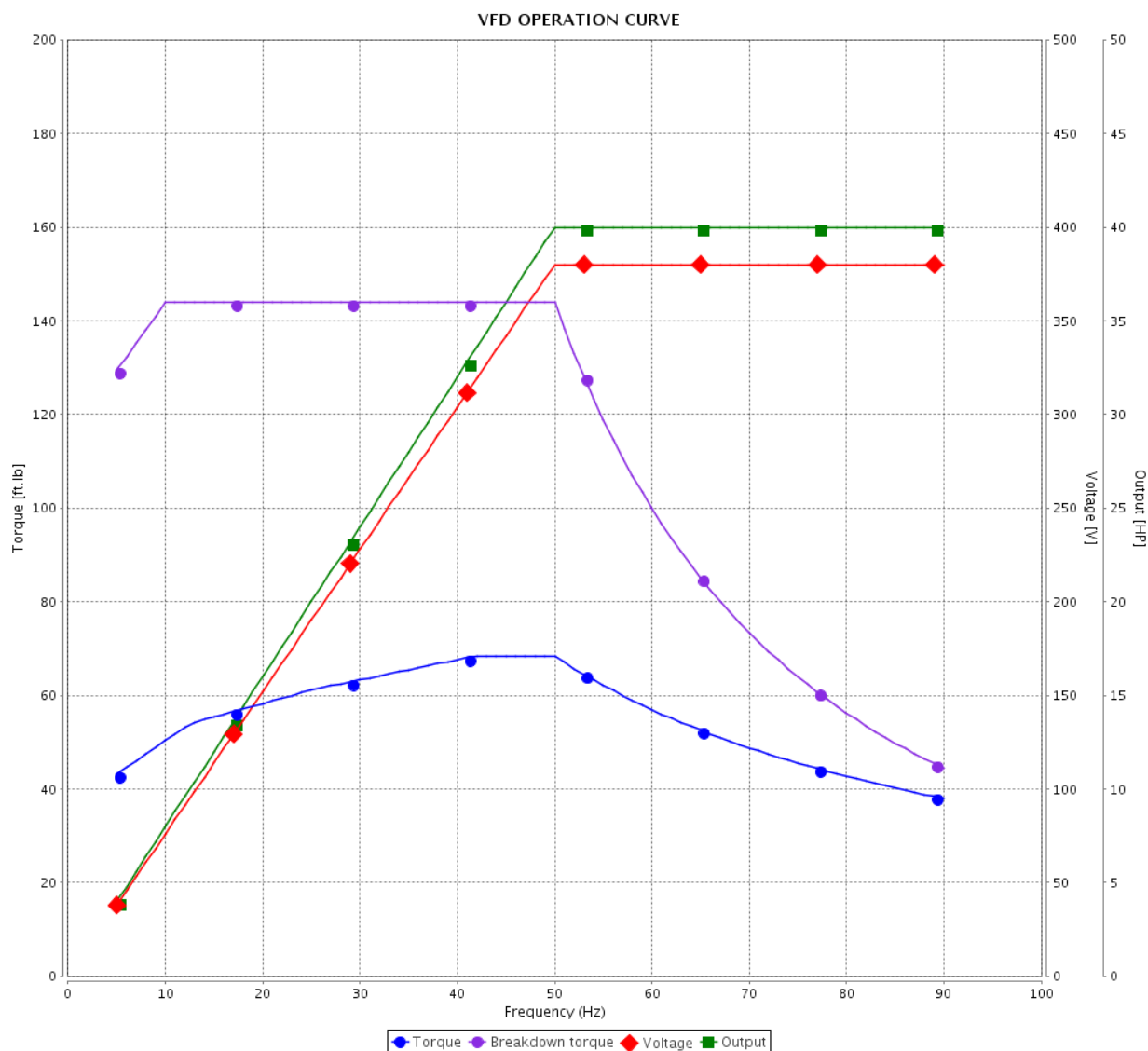
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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VFD OPERATION CURVE

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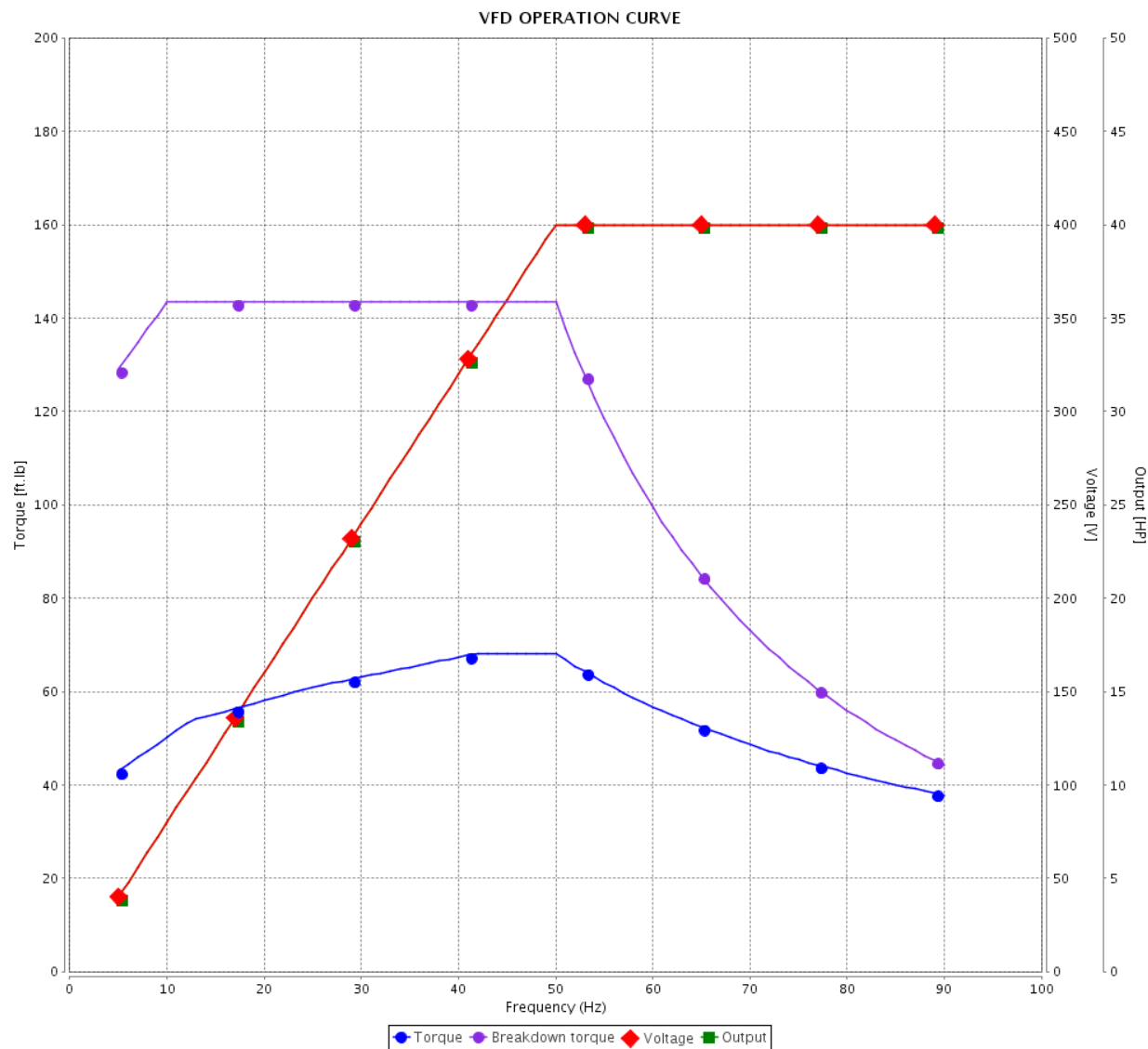
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Performance : 400 V 50 Hz 2P

Rated current : 53.8 A
 LRC : 6.3
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 Locked rotor torque : 150 %
 Breakdown torque : 200 %
 Rated speed : 2930 rpm

Moment of inertia (J) : 1.91 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
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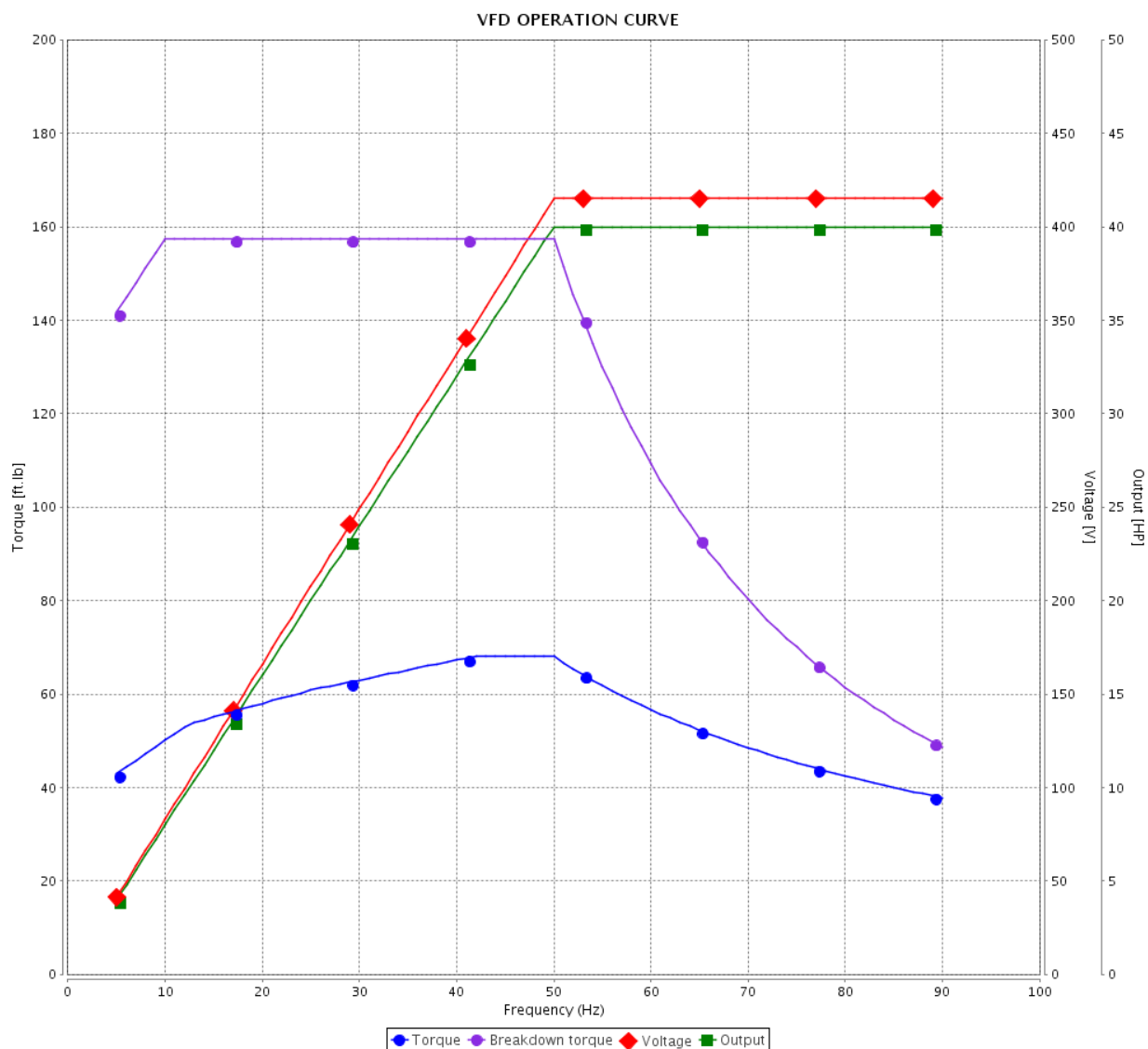
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