

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase Product code : 14485010
Catalog # : 01512OT3E284JP-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 : 334 lb
Protection degree : IP23	Moment of inertia (J) : 4.80 sq.ft.lb
Design : B	

Output [HP]	15	10	10	10
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	36.8/18.4	15.8	15.4	15.4
L. R. Amperes [A]	232/116	115	116	122
LRC [A]	6.3x(Code G)	7.3x(Code J)	7.5x(Code K)	7.9x(Code K)
No load current [A]	15.6/7.80	7.80	8.40	8.90
Rated speed [RPM]	1180	980	985	985
Slip [%]	1.67	2.00	1.50	1.50
Rated torque [ft.lb]	66.8	53.6	53.3	53.3
Locked rotor torque [%]	260	290	330	360
Breakdown torque [%]	260	320	350	380
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	28s (cold) 16s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (hot)
Noise level ²	59.0 dB(A)			
Efficiency (%)	25%	90.8	88.3	88.4
	50%	91.0	88.6	88.6
	75%	91.7	89.0	89.0
	100%	91.7	89.1	89.1
Power Factor	25%	0.42	0.37	0.33
	50%	0.67	0.62	0.58
	75%	0.77	0.75	0.71
	100%	0.82	0.81	0.79

	<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 40.7A SF 1.15 SFA 46.8A

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

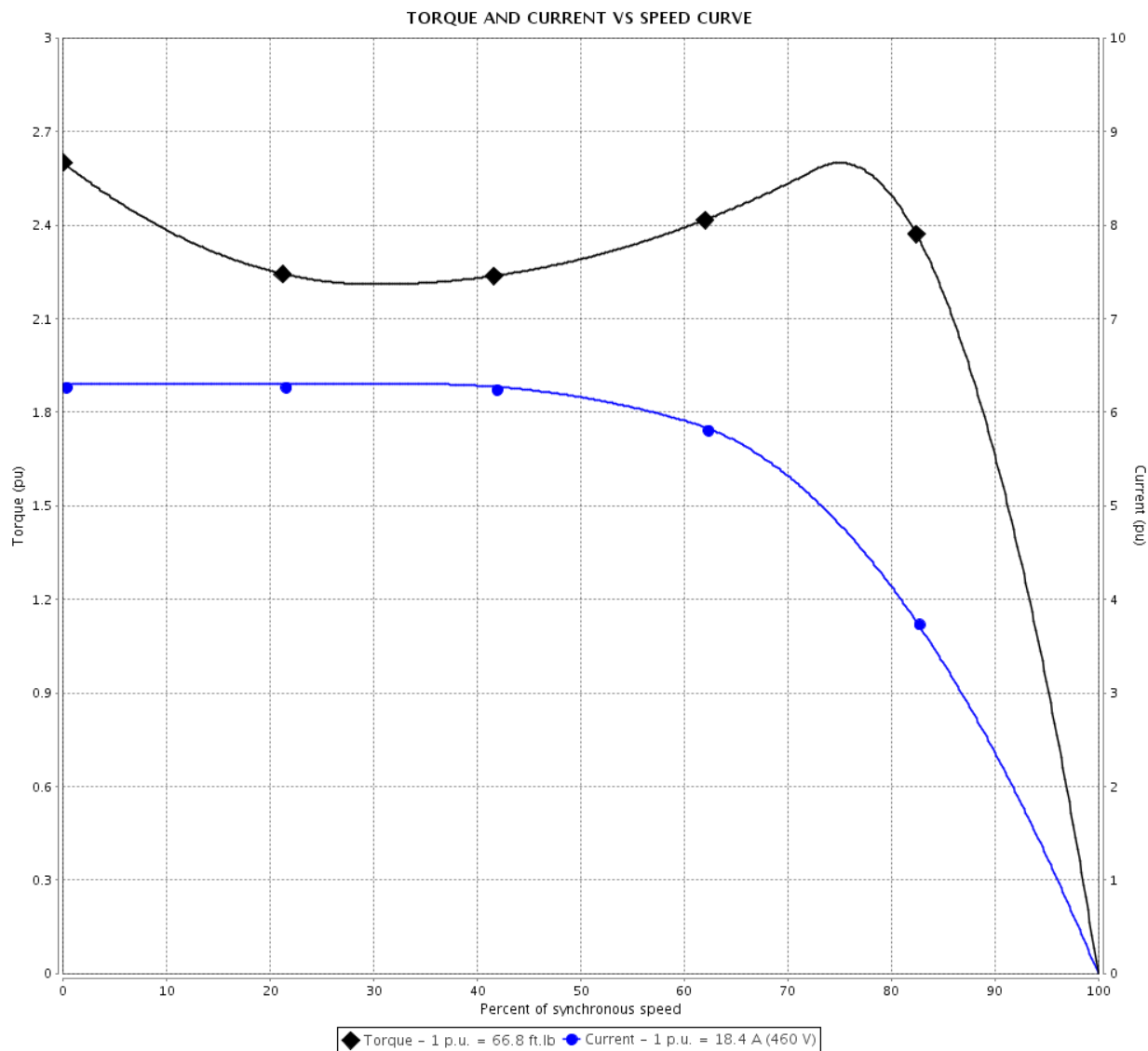


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14485010

Catalog # : 015120T3E284JP-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 36.8/18.4 A
LRC : 6.3
Rated torque : 66.8 ft.lb
Locked rotor torque : 260 %
Breakdown torque : 260 %
Rated speed : 1180 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 28s (cold) 16s (hot)

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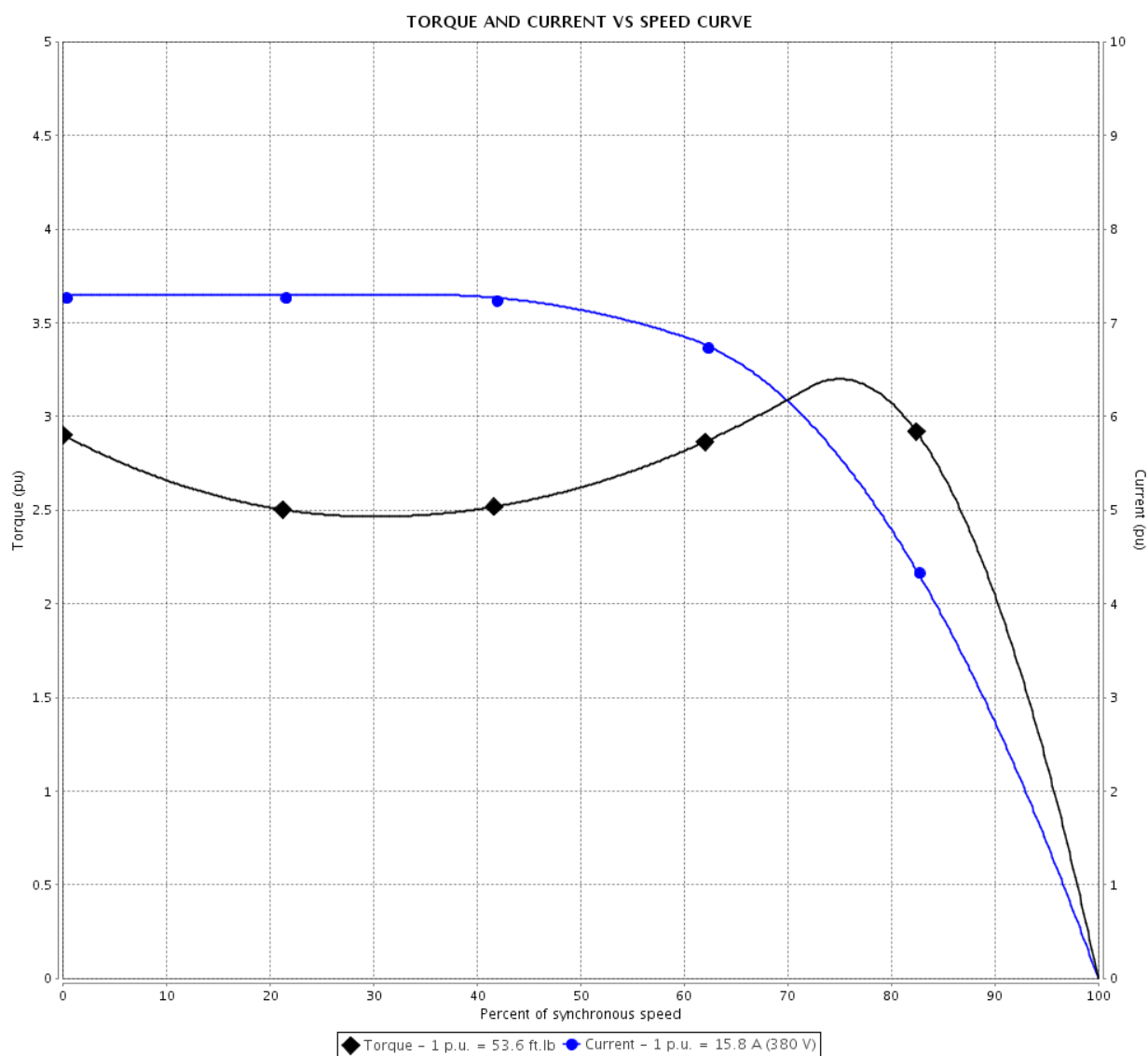


Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14485010

Catalog # : 01512OT3E284JP-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 15.8 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 53.6 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

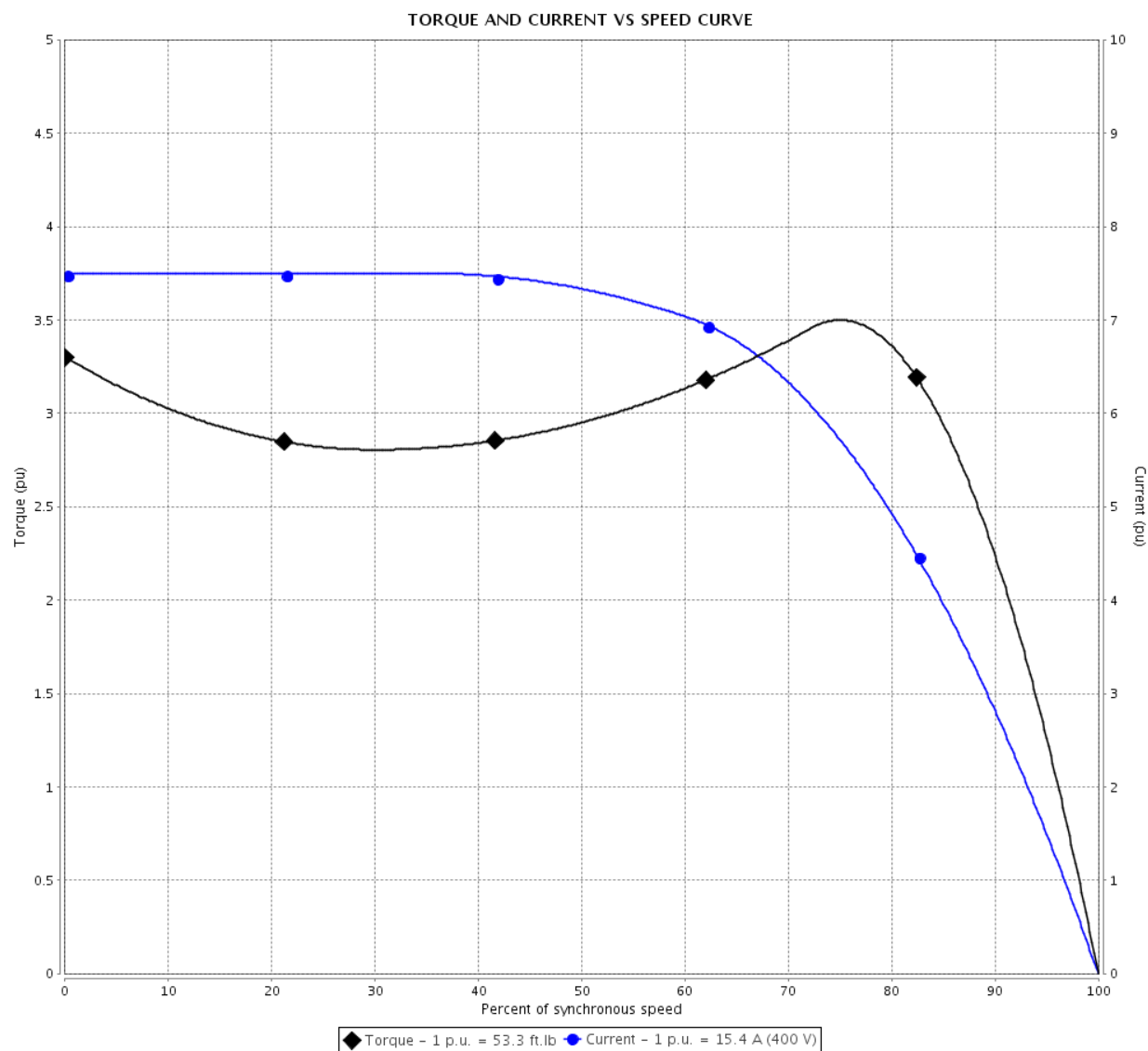


Customer :

Product line : W40 JP Pump NEMA Premium
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Product code : 14485010

Catalog # : 015120T3E284JP-W40



Performance : 400 V 50 Hz 6P IE3

Rated current	: 15.4 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 53.3 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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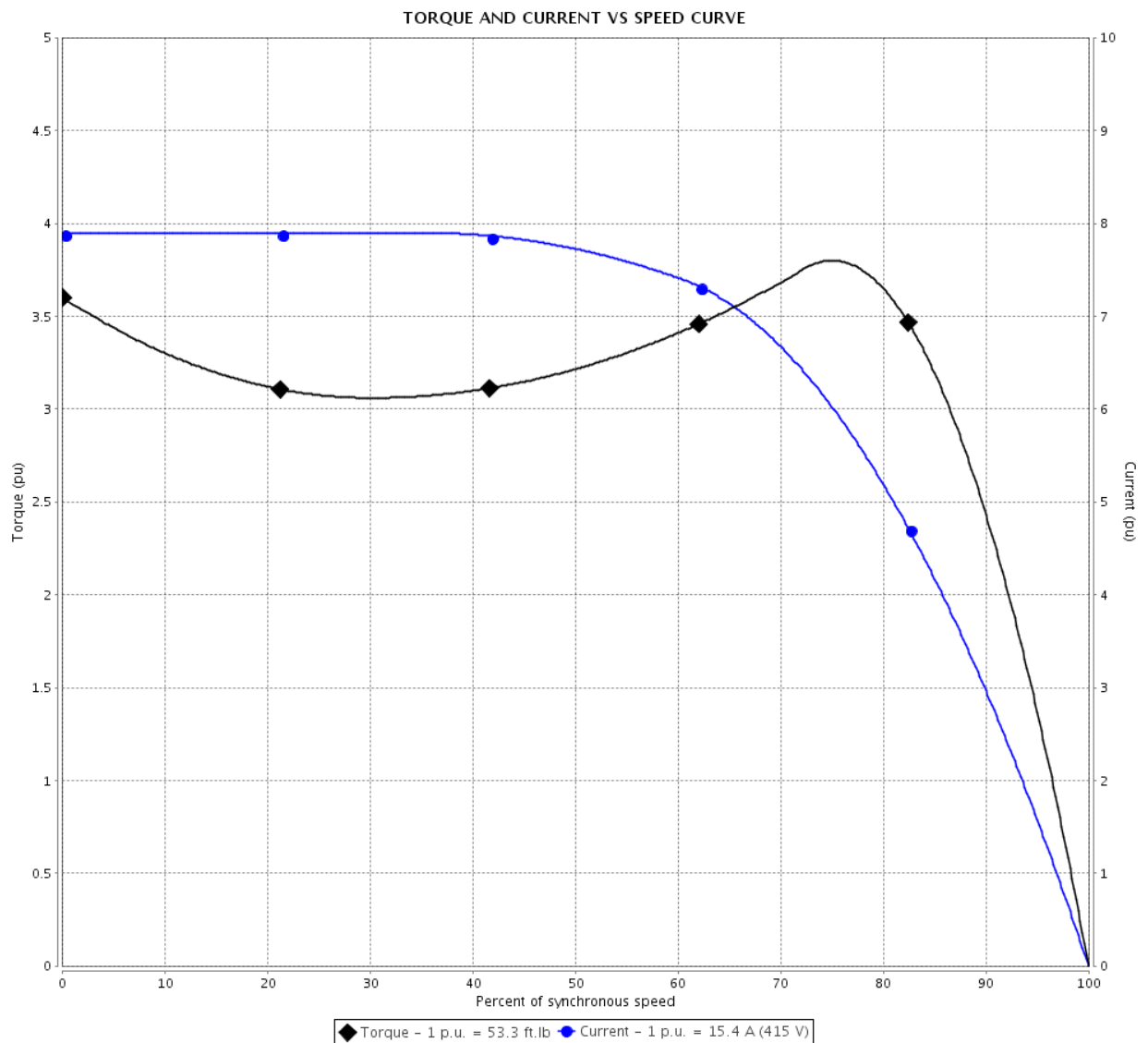


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Performance : 415 V 50 Hz 6P IE3

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LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 53.3 ft.lb	Insulation class	: F
Locked rotor torque	: 360 %	Service factor	: 1.00
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (hot)

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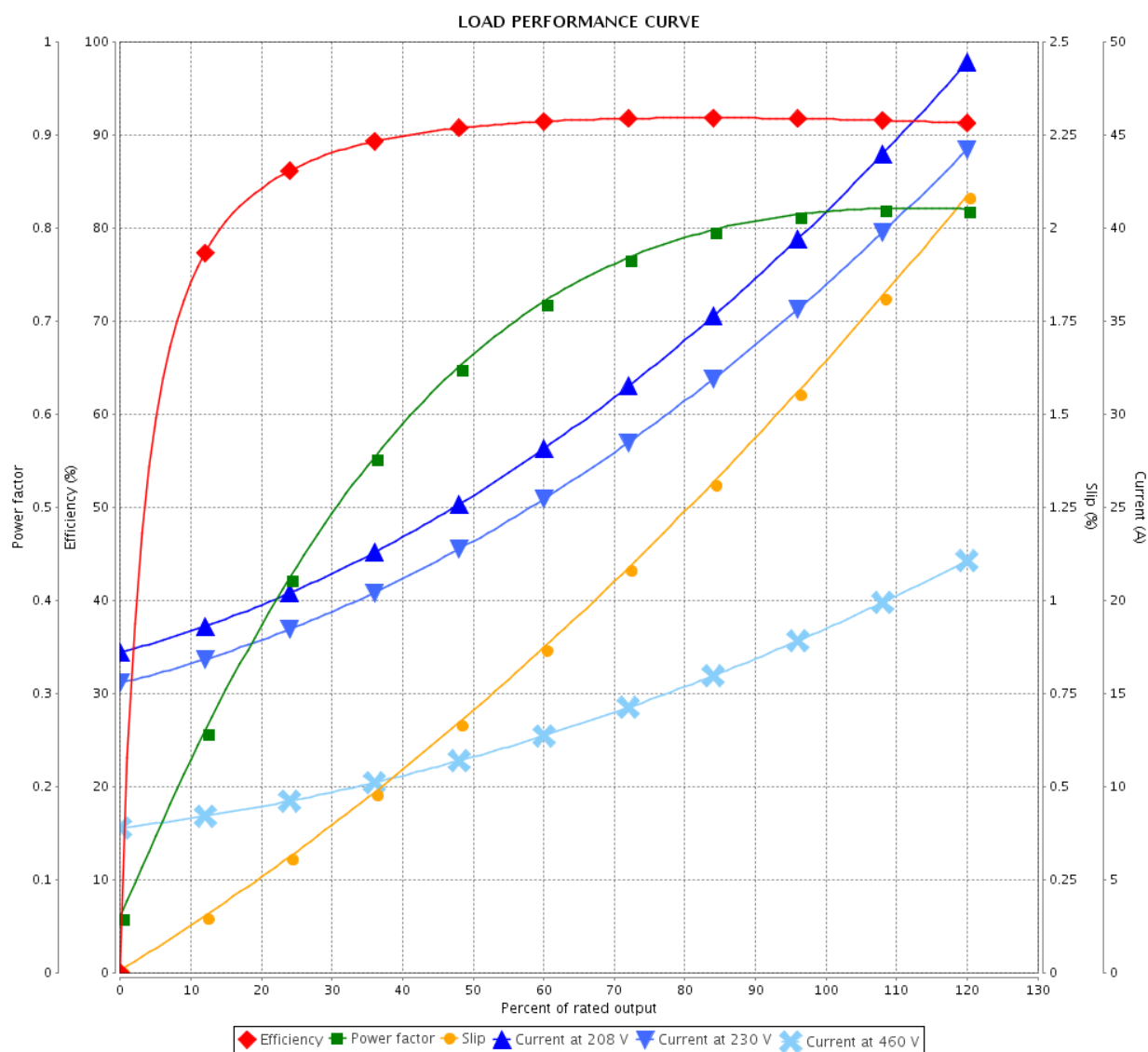


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Product code : 14485010

Catalog # : 015120T3E284JP-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 36.8/18.4 A
LRC : 6.3
Rated torque : 66.8 ft.lb
Locked rotor torque : 260 %
Breakdown torque : 260 %
Rated speed : 1180 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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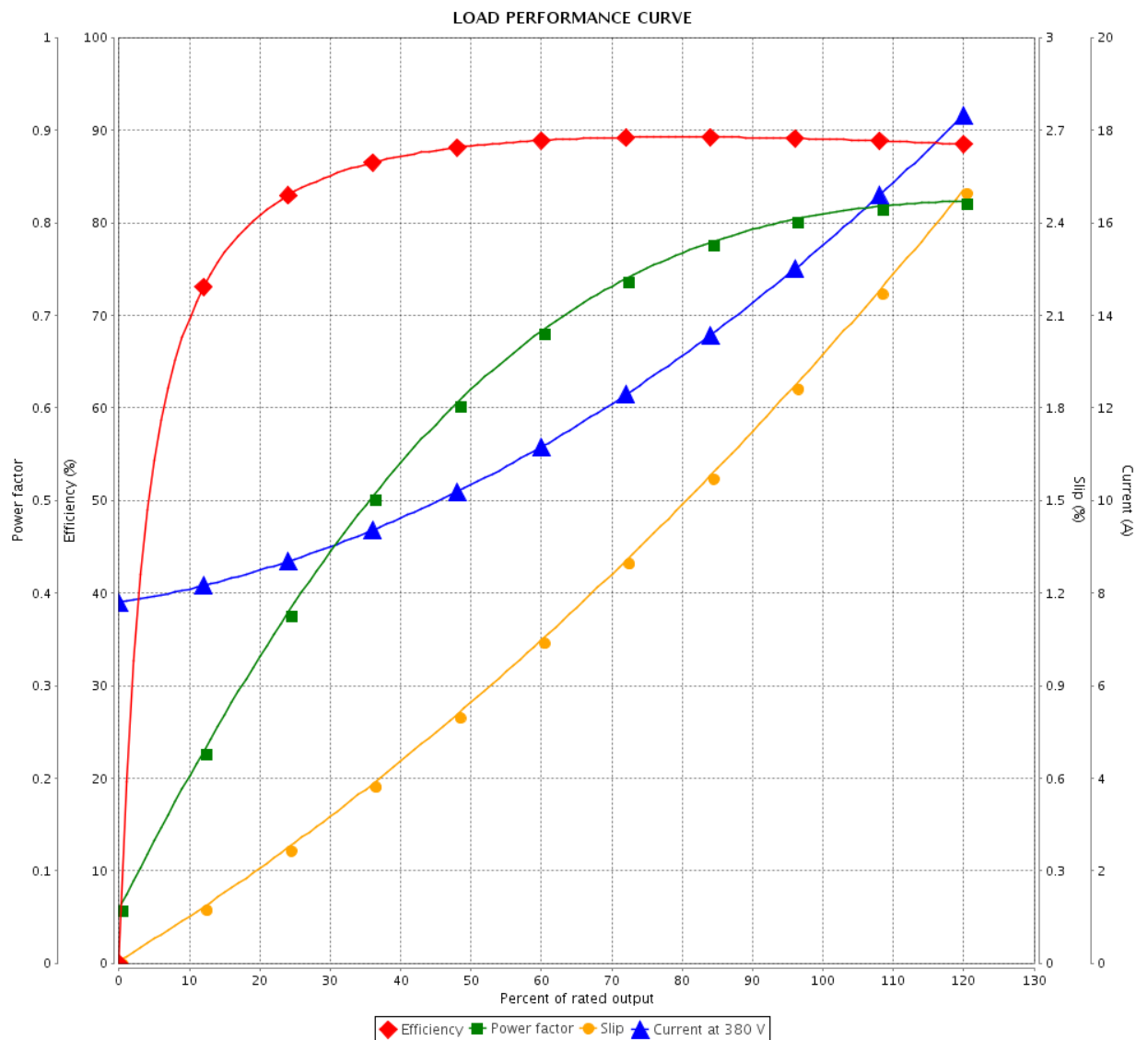


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Performance : 380 V 50 Hz 6P IE3

Rated current	: 15.8 A	Moment of inertia (J)	: 4.80 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 53.6 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

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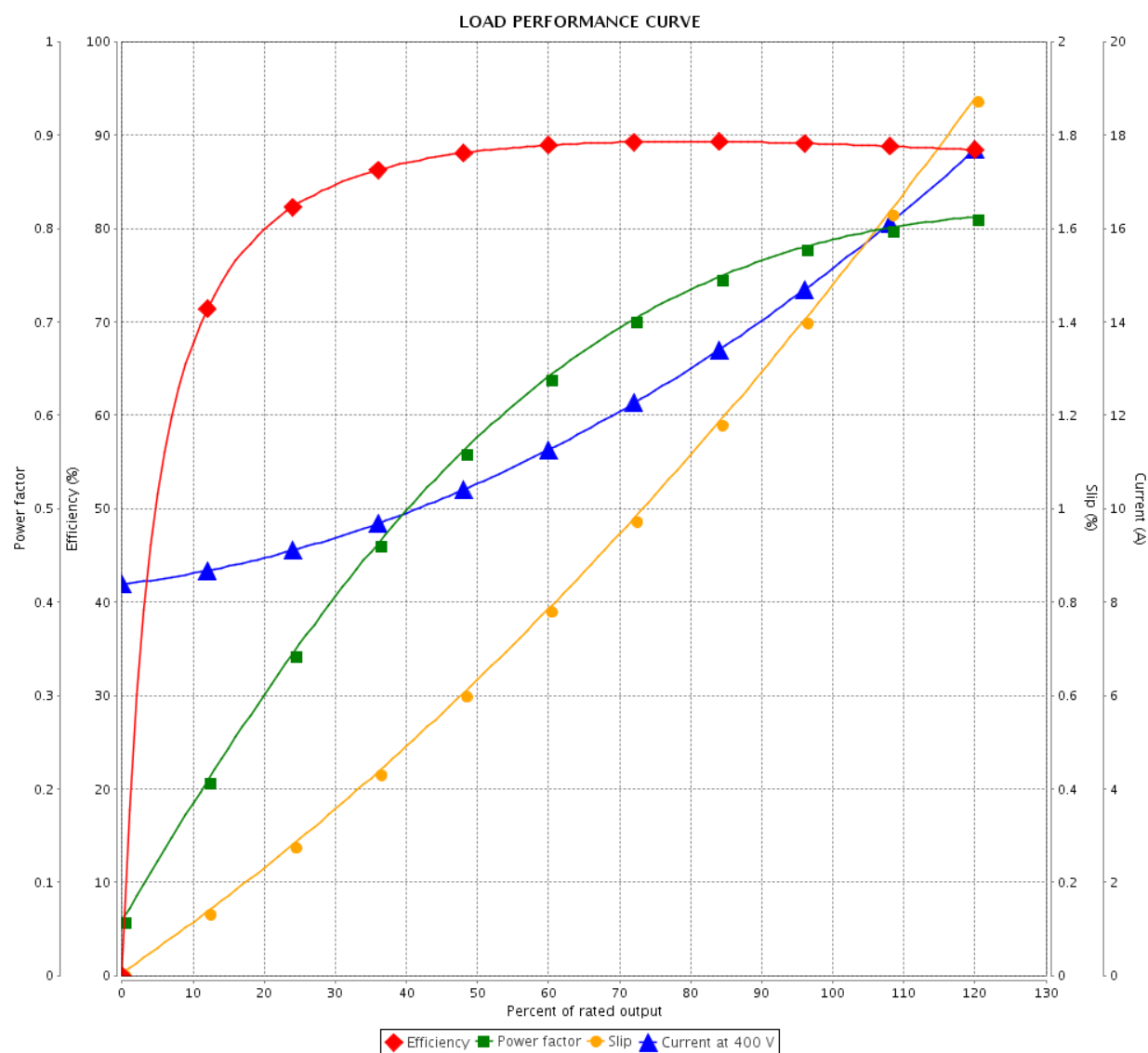


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Catalog # : 015120T3E284JP-W40



Performance : 400 V 50 Hz 6P IE3

Rated current : 15.4 A
LRC : 7.5
Rated torque : 53.3 ft.lb
Locked rotor torque : 330 %
Breakdown torque : 350 %
Rated speed : 985 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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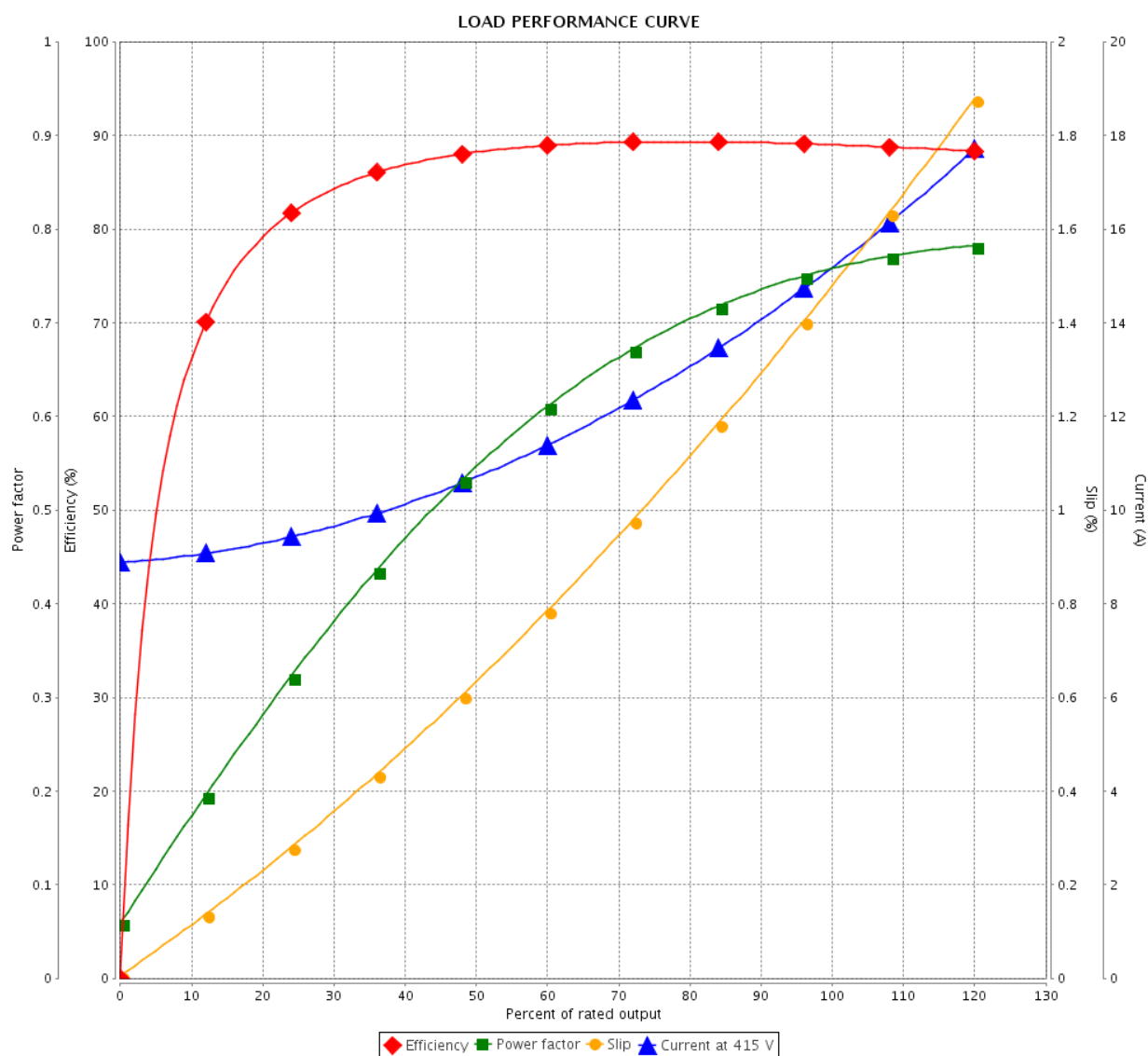


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Product line : W40 JP Pump NEMA Premium
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Performance : 415 V 50 Hz 6P IE3

Rated current : 15.4 A
LRC : 7.9
Rated torque : 53.3 ft.lb
Locked rotor torque : 360 %
Breakdown torque : 380 %
Rated speed : 985 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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THERMAL LIMIT CURVE

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LRC : 6.3

Rated torque : 66.8 ft.lb

Locked rotor torque : 260 %

Breakdown torque : 260 %

Rated speed : 1180 rpm

Moment of inertia (J) : 4.80 sq.ft.lb

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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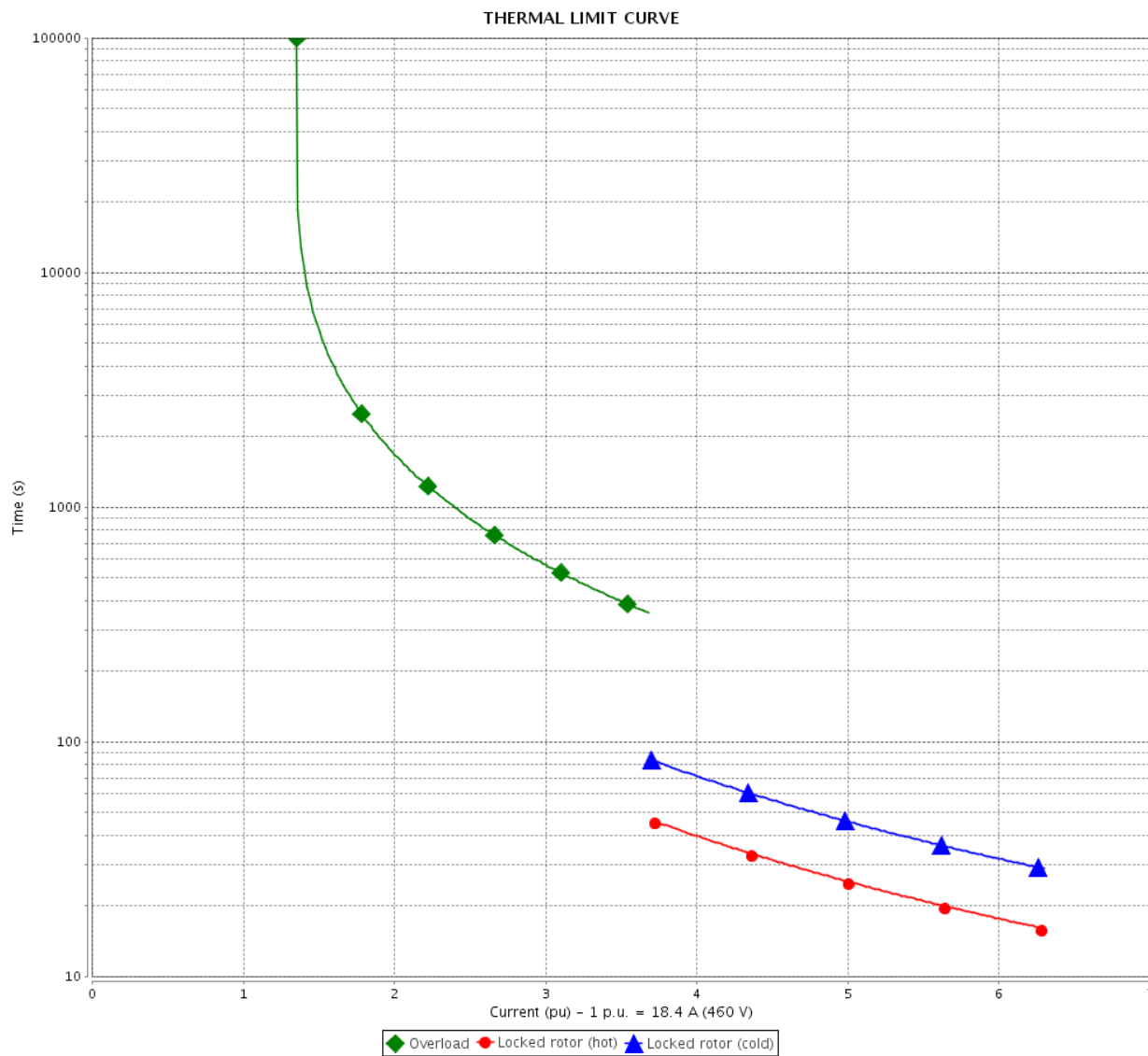
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Performance : 380 V 50 Hz 6P IE3

Rated current

: 15.8 A

LRC

: 7.3

Rated torque

: 53.6 ft.lb

Locked rotor torque

: 290 %

Breakdown torque

: 320 %

Rated speed

: 980 rpm

Moment of inertia (J)

: 4.80 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

Design

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Heating constant

Cooling constant

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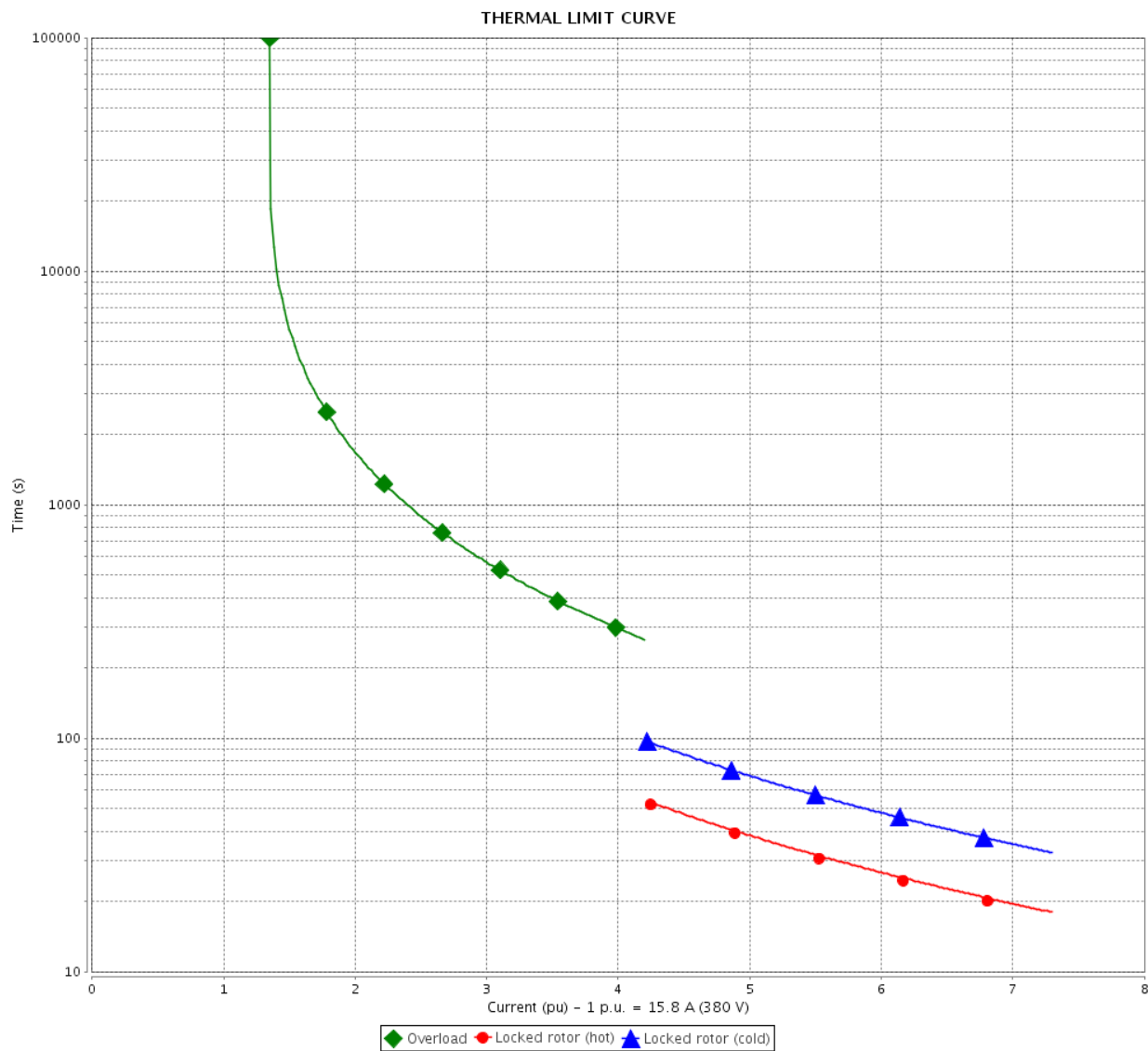
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Performance : 400 V 50 Hz 6P IE3

Rated current

: 15.4 A

LRC

: 7.5

Rated torque

: 53.3 ft.lb

Locked rotor torque

: 330 %

Breakdown torque

: 350 %

Rated speed

: 985 rpm

Moment of inertia (J)

: 4.80 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

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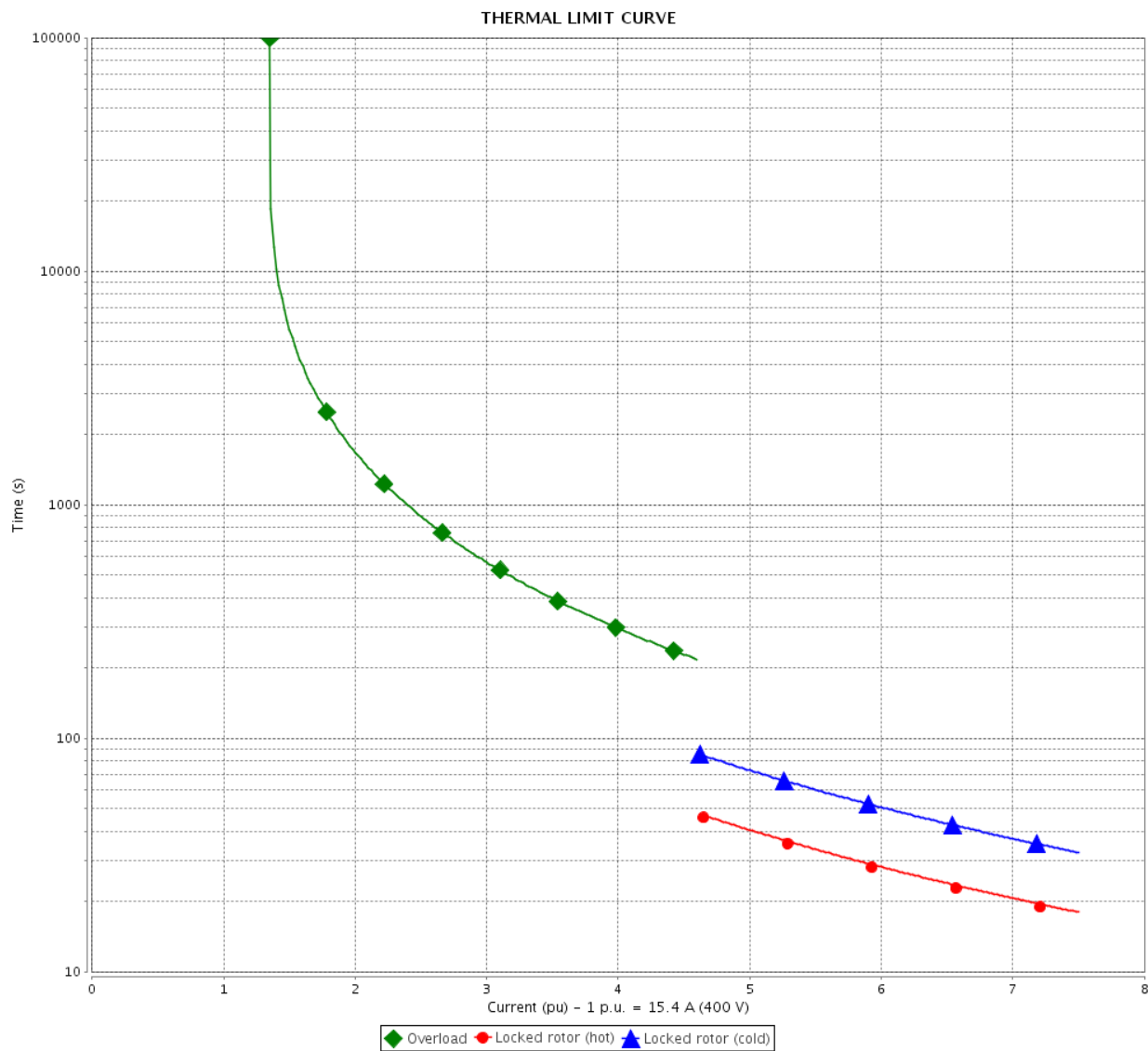
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Performance : 415 V 50 Hz 6P IE3

Rated current

: 15.4 A

LRC

: 7.9

Rated torque

: 53.3 ft.lb

Locked rotor torque

: 360 %

Breakdown torque

: 380 %

Rated speed

: 985 rpm

Moment of inertia (J)

: 4.80 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

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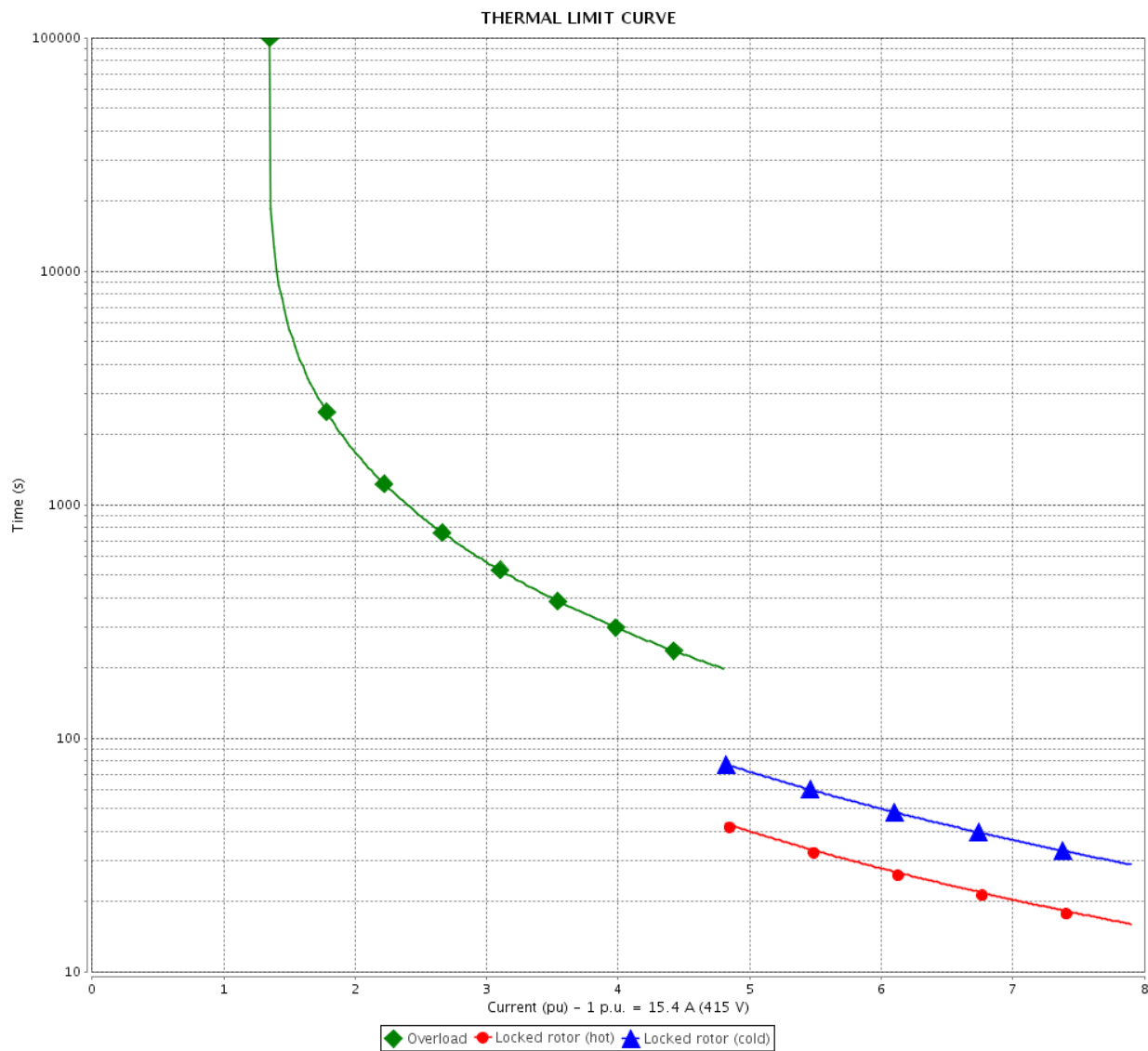
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VFD OPERATION CURVE

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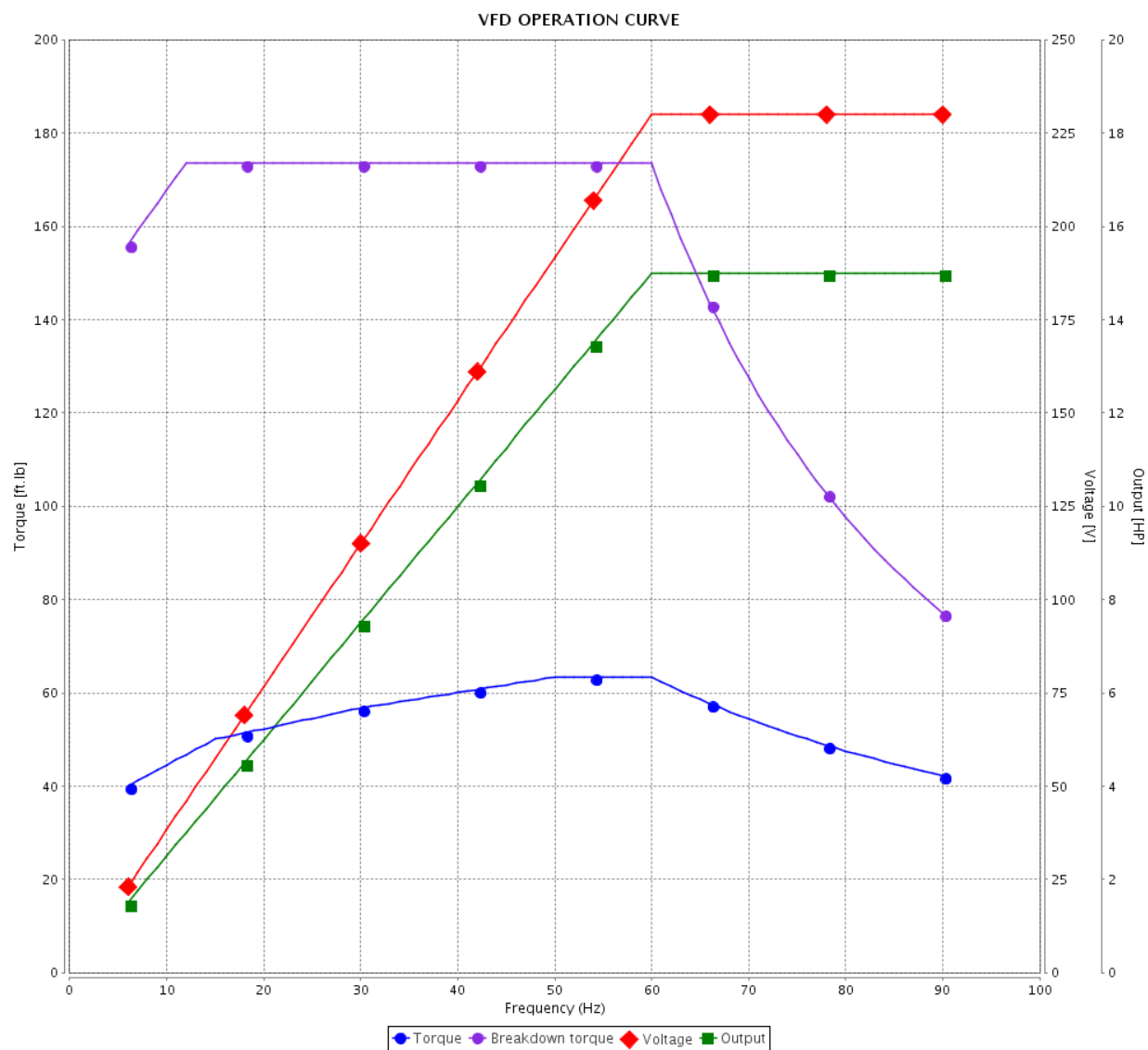


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Locked rotor torque : 260 %
Breakdown torque : 260 %
Rated speed : 1180 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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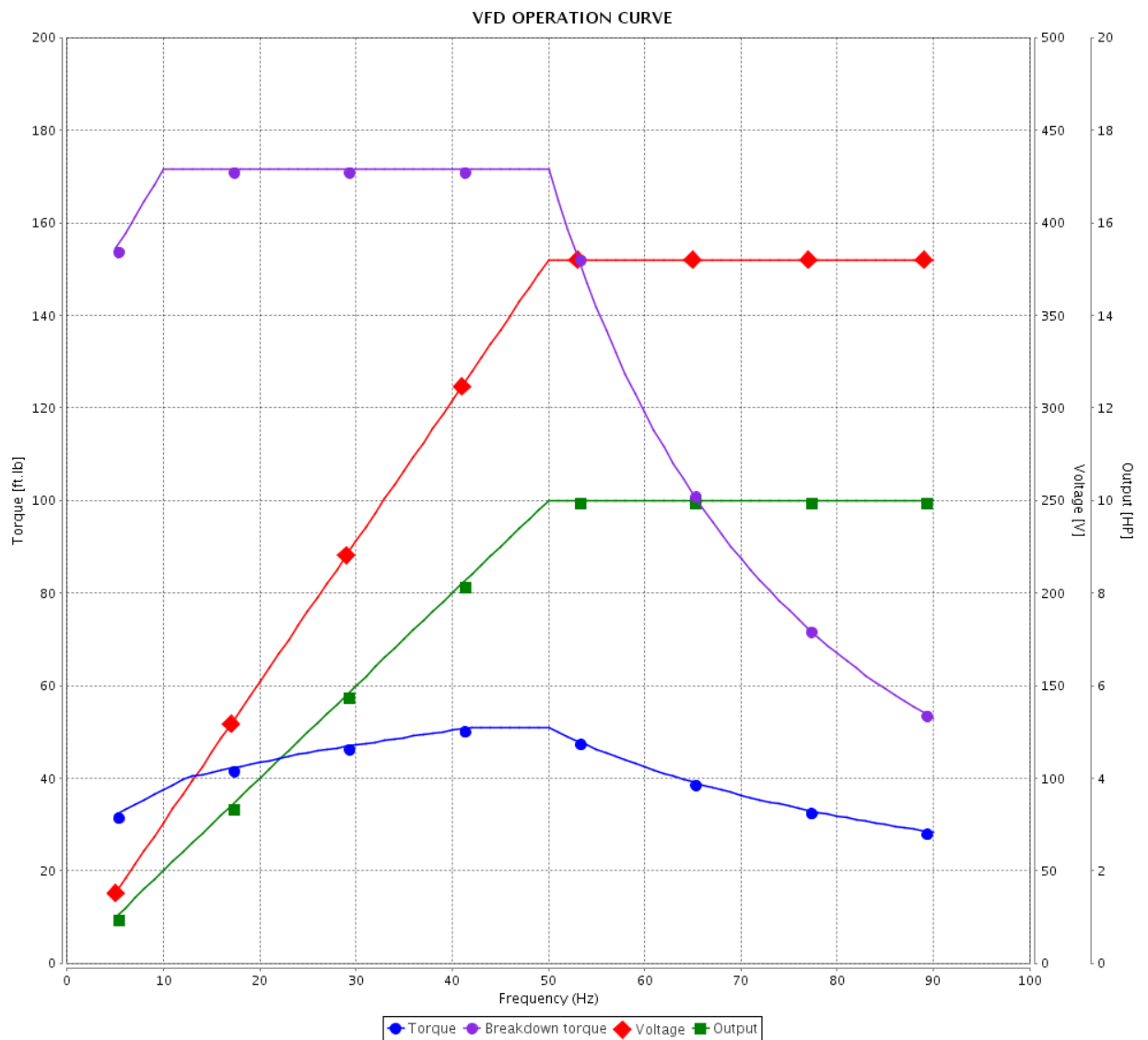


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Rated speed : 980 rpm

Moment of inertia (J) : 4.80 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
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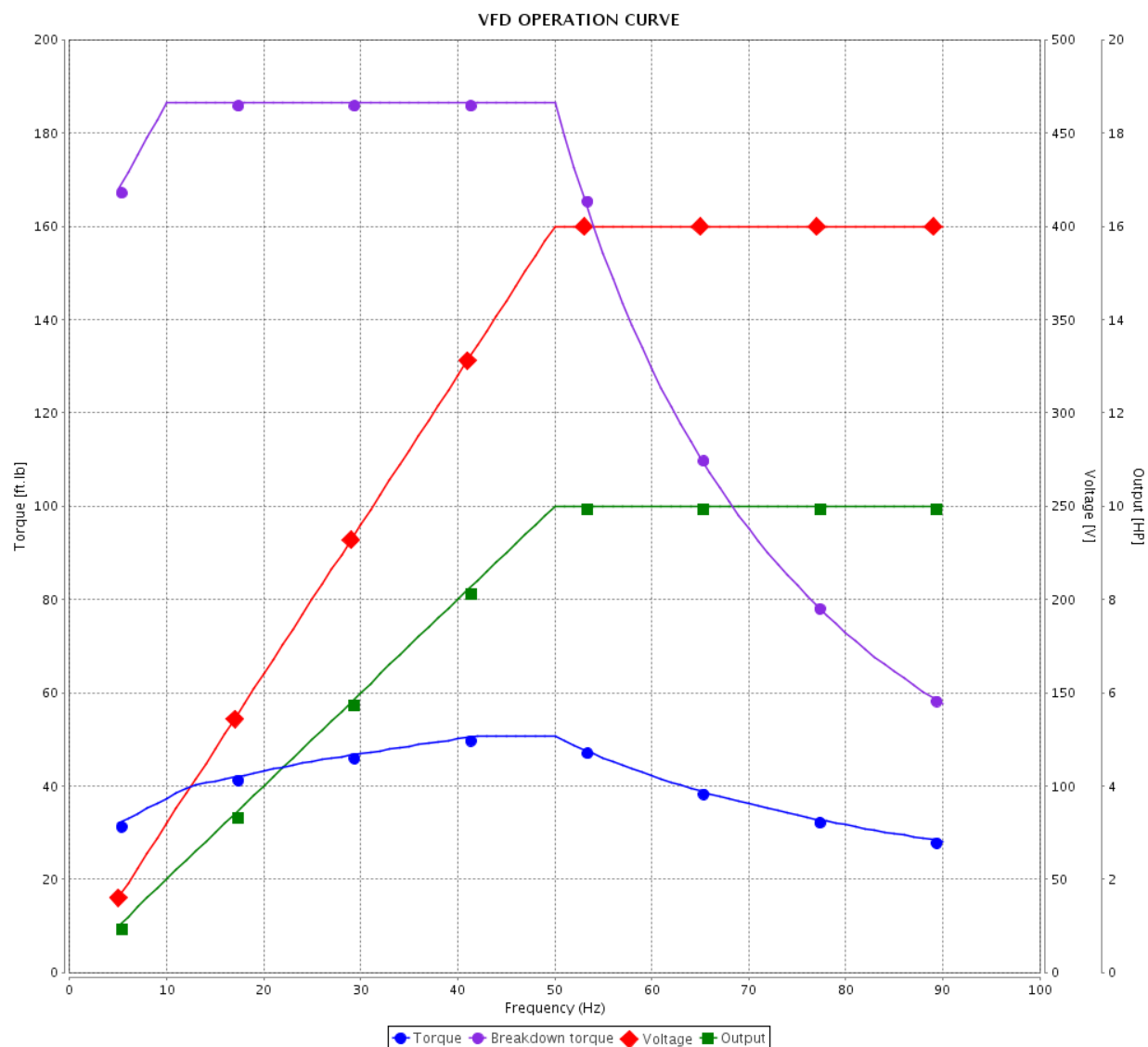


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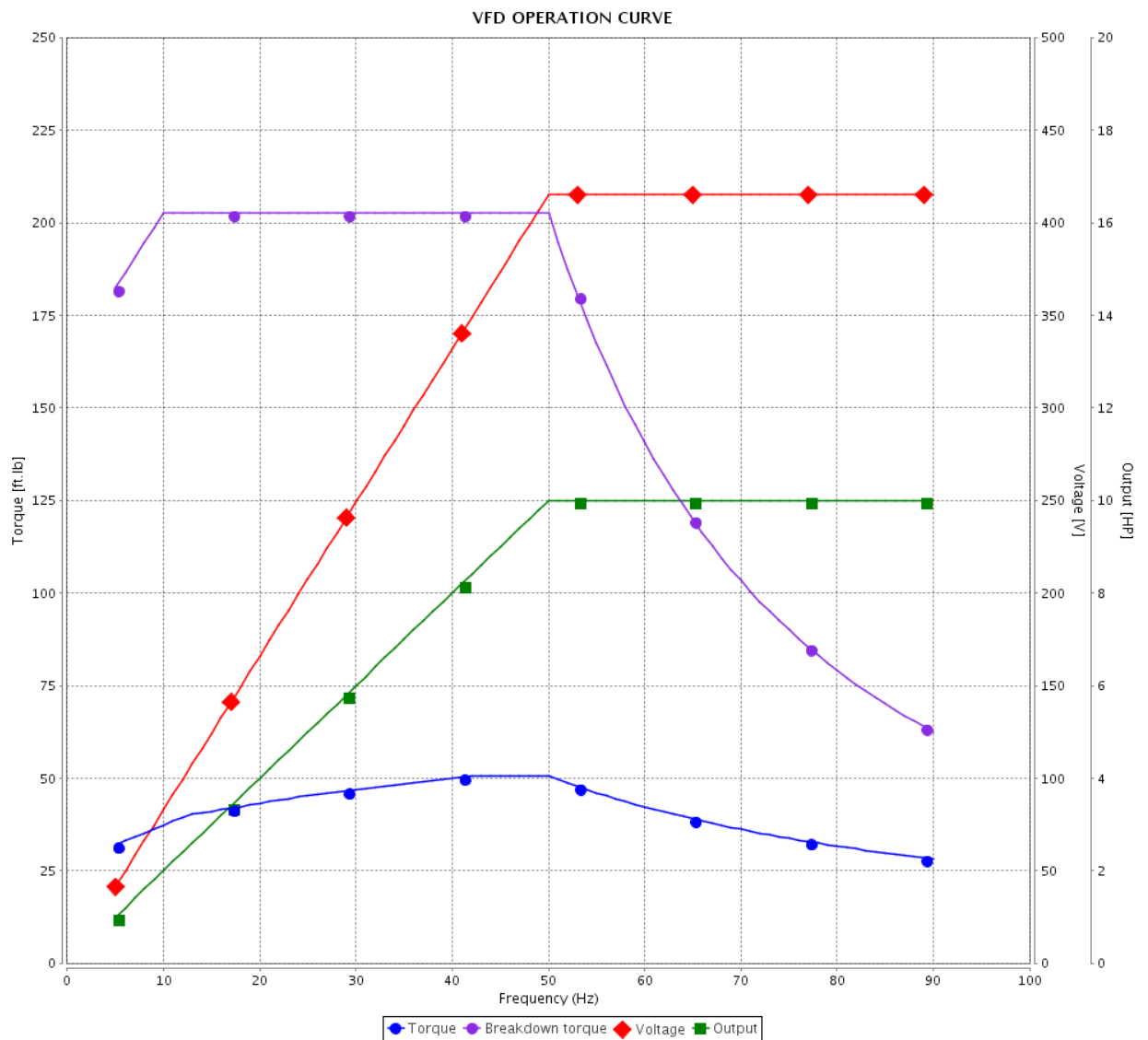


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Rated speed	: 985 rpm	Design	: B

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