

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14367176
Catalog # : 04036OT3E286TS-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 ² : 345 lb
Protection degree : IP23	Moment of inertia (J) : 2.02 sq.ft.lb
Design : B	

Output [HP]	40	30	30	30
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	93.6/46.8	41.9	40.7	40.2
L. R. Amperes [A]	608/304	302	309	310
LRC [A]	6.5x(Code G)	7.2x(Code H)	7.6x(Code J)	7.7x(Code J)
No load current [A]	29.8/14.9	14.3	15.8	17.0
Rated speed [RPM]	3540	2950	2955	2960
Slip [%]	1.67	1.67	1.50	1.33
Rated torque [ft.lb]	59.3	53.4	53.3	53.2
Locked rotor torque [%]	190	210	229	250
Breakdown torque [%]	260	300	330	360
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	14s (cold) 8s (hot)	12s (cold) 7s (hot)	14s (cold) 8s (hot)	14s (cold) 8s (hot)
Noise level ²	73.0 dB(A)			
Efficiency (%)	25%	91.5	88.6	88.7
	50%	91.7	90.0	90.1
	75%	92.4	91.4	91.4
	100%	92.4	92.8	92.8
Power Factor	25%	0.51	0.49	0.45
	50%	0.76	0.73	0.70
	75%	0.84	0.82	0.79
	100%	0.87	0.86	0.84

	<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 1.15 SFA 119A

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.

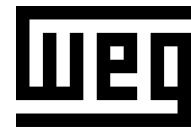
These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

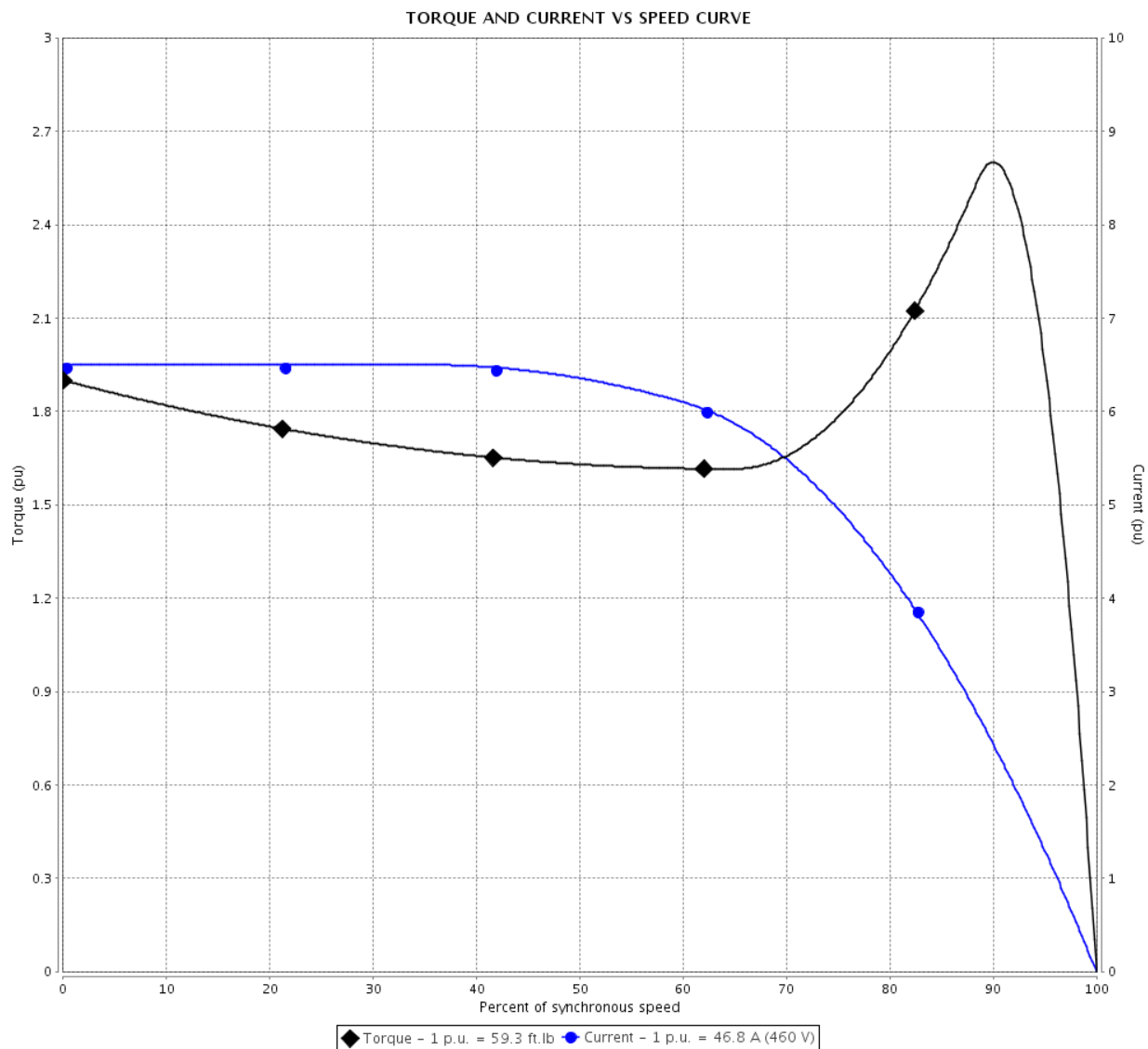


Customer :

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Product code : 14367176

Catalog # : 04036OT3E286TS-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 93.6/46.8 A
LRC : 6.5
Rated torque : 59.3 ft.lb
Locked rotor torque : 190 %
Breakdown torque : 260 %
Rated speed : 3540 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 14s (cold) 8s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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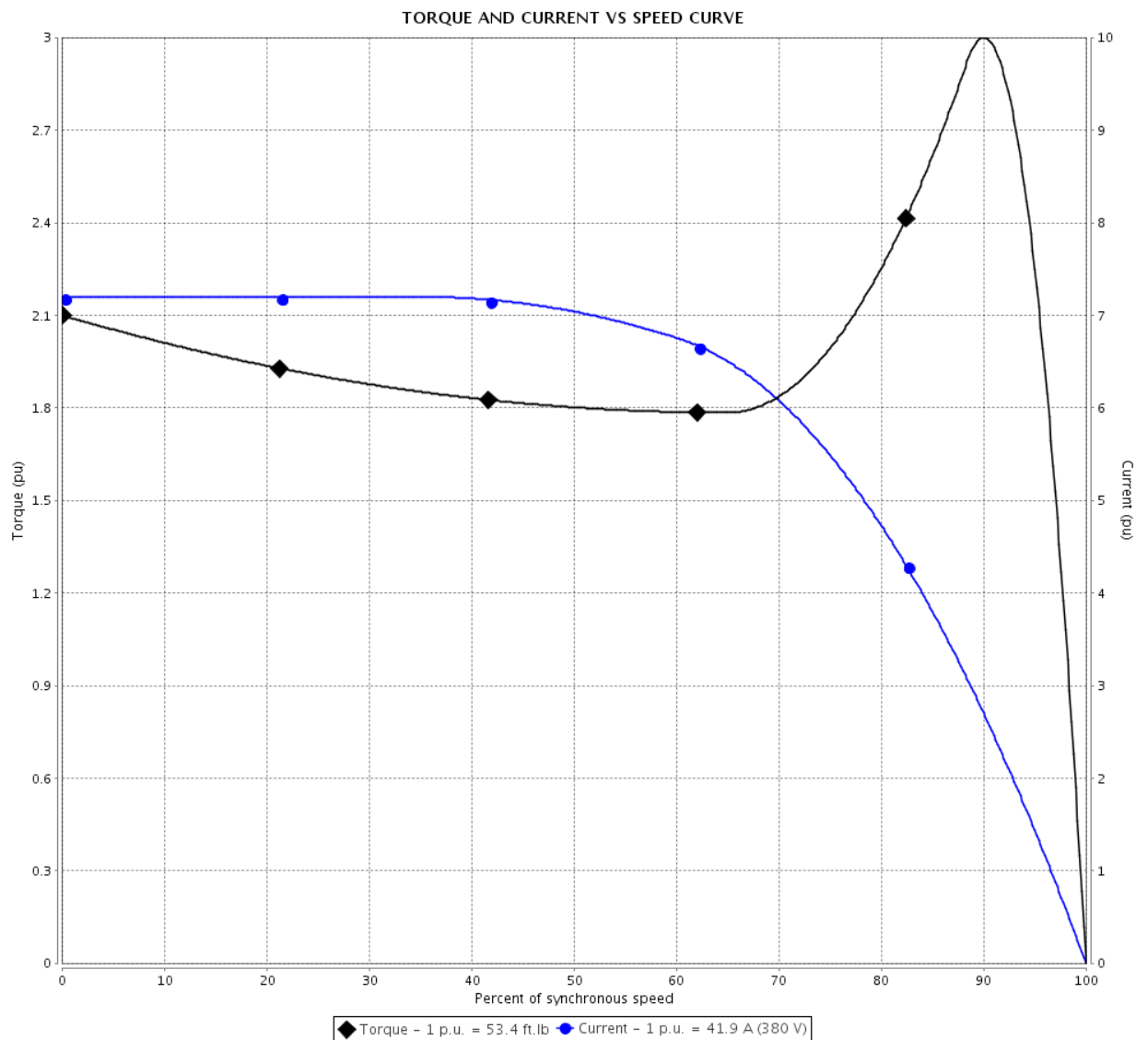


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14367176

Catalog # : 04036OT3E286TS-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 41.9 A	Moment of inertia (J)	: 2.02 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 53.4 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

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

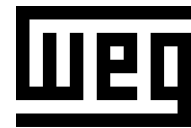
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TORQUE AND CURRENT VS SPEED CURVE

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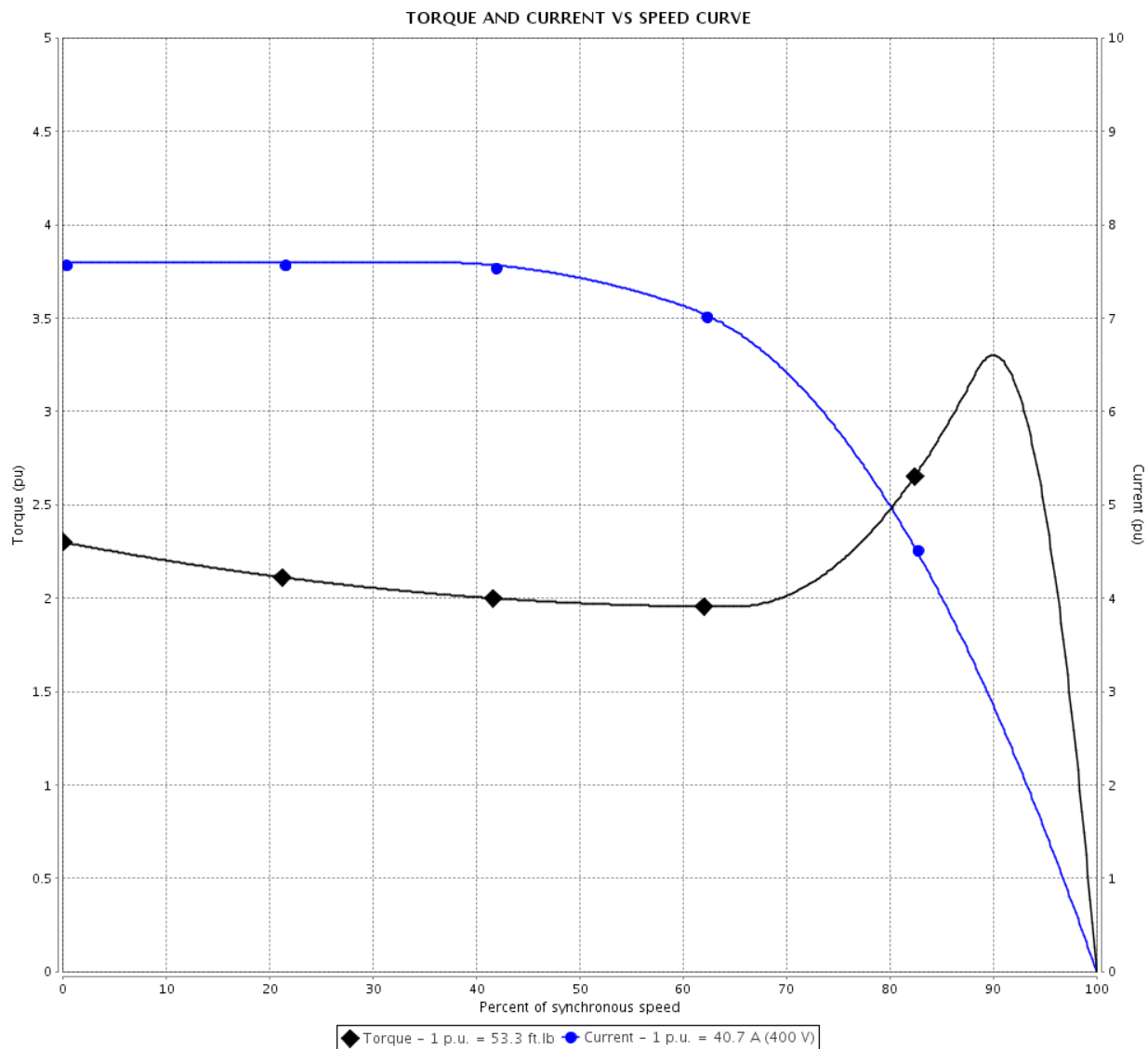


Customer :

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Product code : 14367176

Catalog # : 04036OT3E286TS-W40



Performance : 400 V 50 Hz 2P IE3

Rated current	: 40.7 A	Moment of inertia (J)	: 2.02 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 53.3 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Locked rotor time : 14s (cold) 8s (hot)

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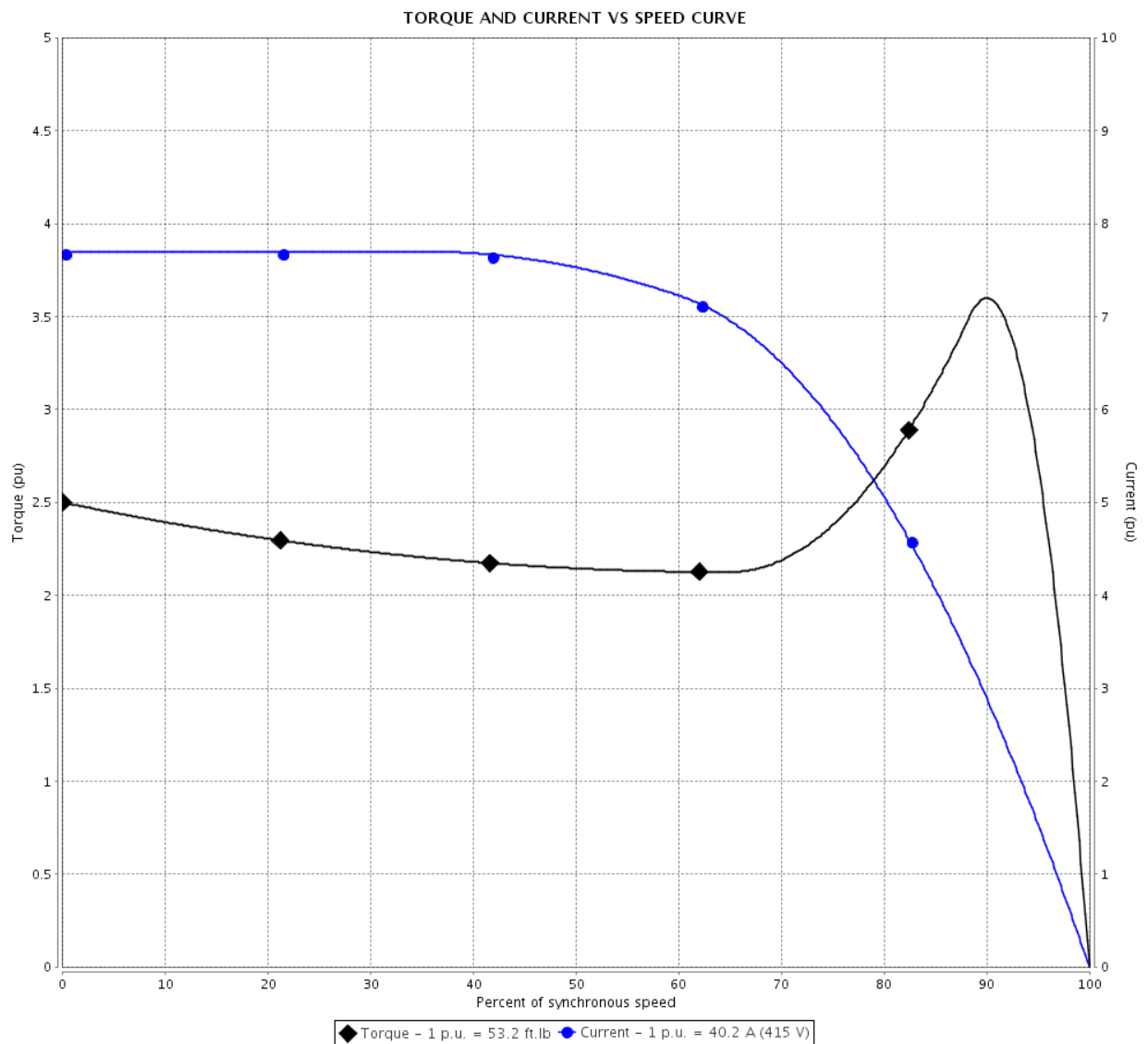


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Product code : 14367176

Catalog # : 04036OT3E286TS-W40



Performance : 415 V 50 Hz 2P IE3

Rated current	: 40.2 A	Moment of inertia (J)	: 2.02 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 53.2 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 14s (cold) 8s (hot)

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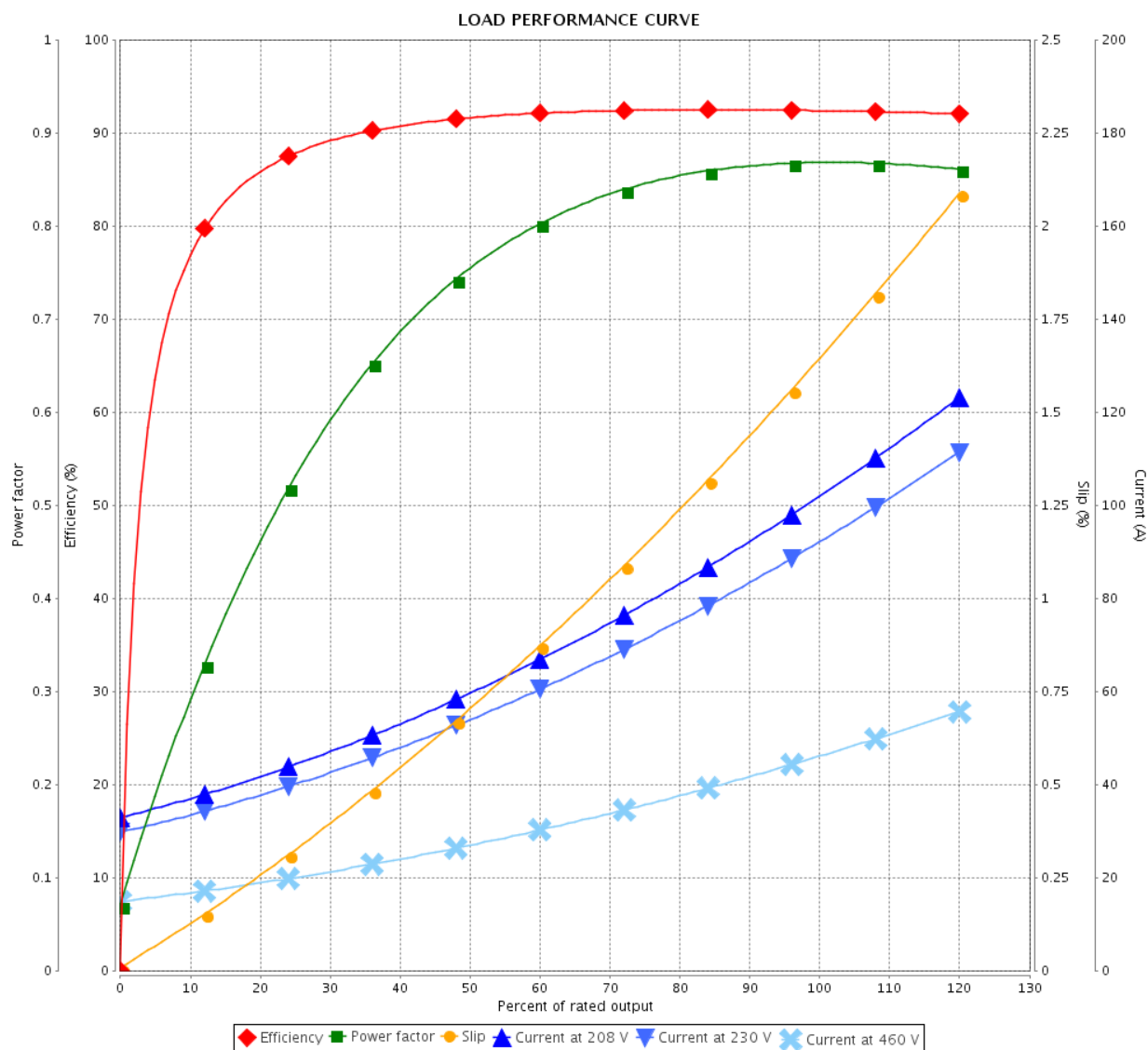


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Product code : 14367176

Catalog # : 04036OT3E286TS-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 93.6/46.8 A
LRC : 6.5
Rated torque : 59.3 ft.lb
Locked rotor torque : 190 %
Breakdown torque : 260 %
Rated speed : 3540 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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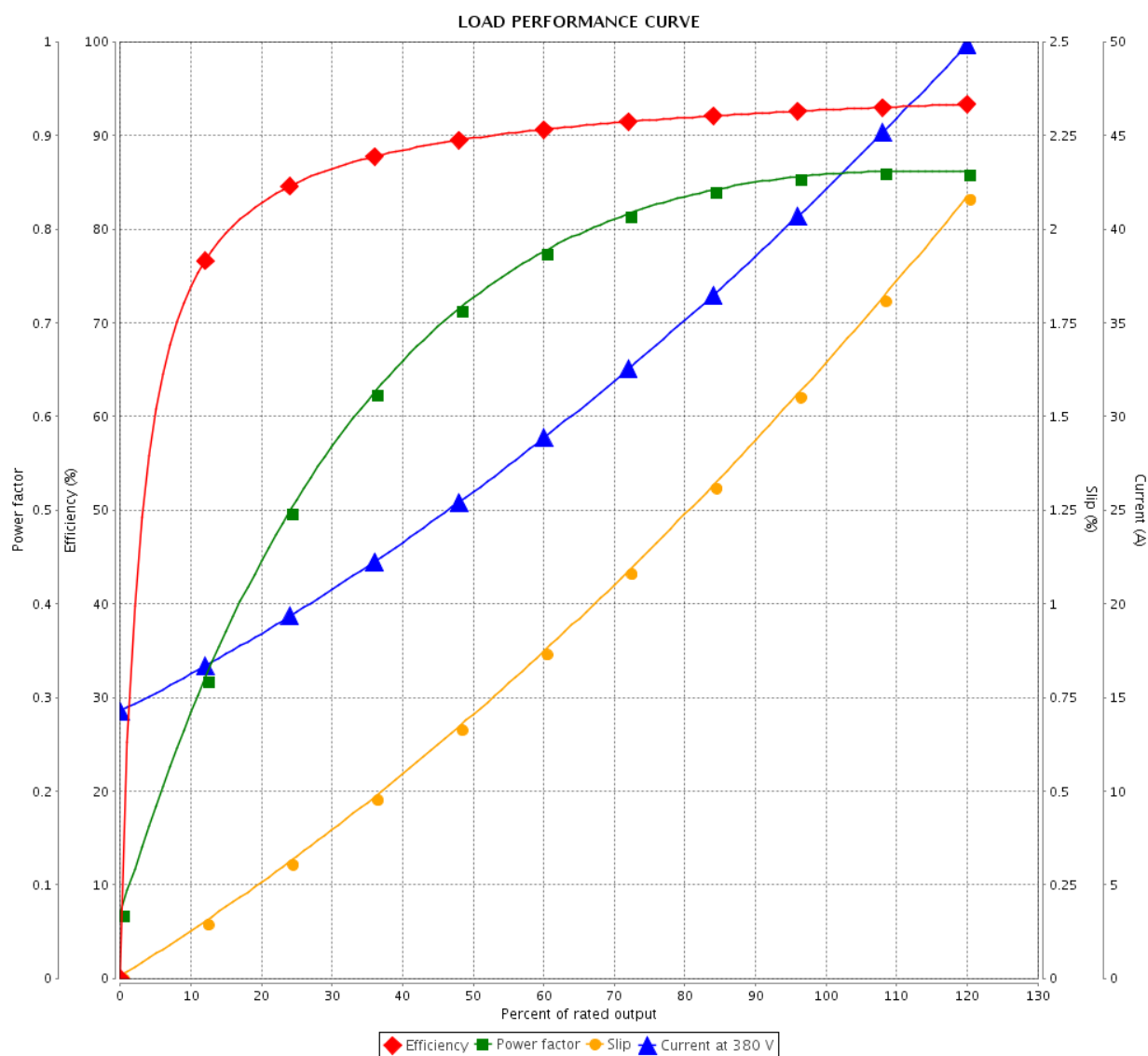


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Performance : 380 V 50 Hz 2P IE3

Rated current : 41.9 A
LRC : 7.2
Rated torque : 53.4 ft.lb
Locked rotor torque : 210 %
Breakdown torque : 300 %
Rated speed : 2950 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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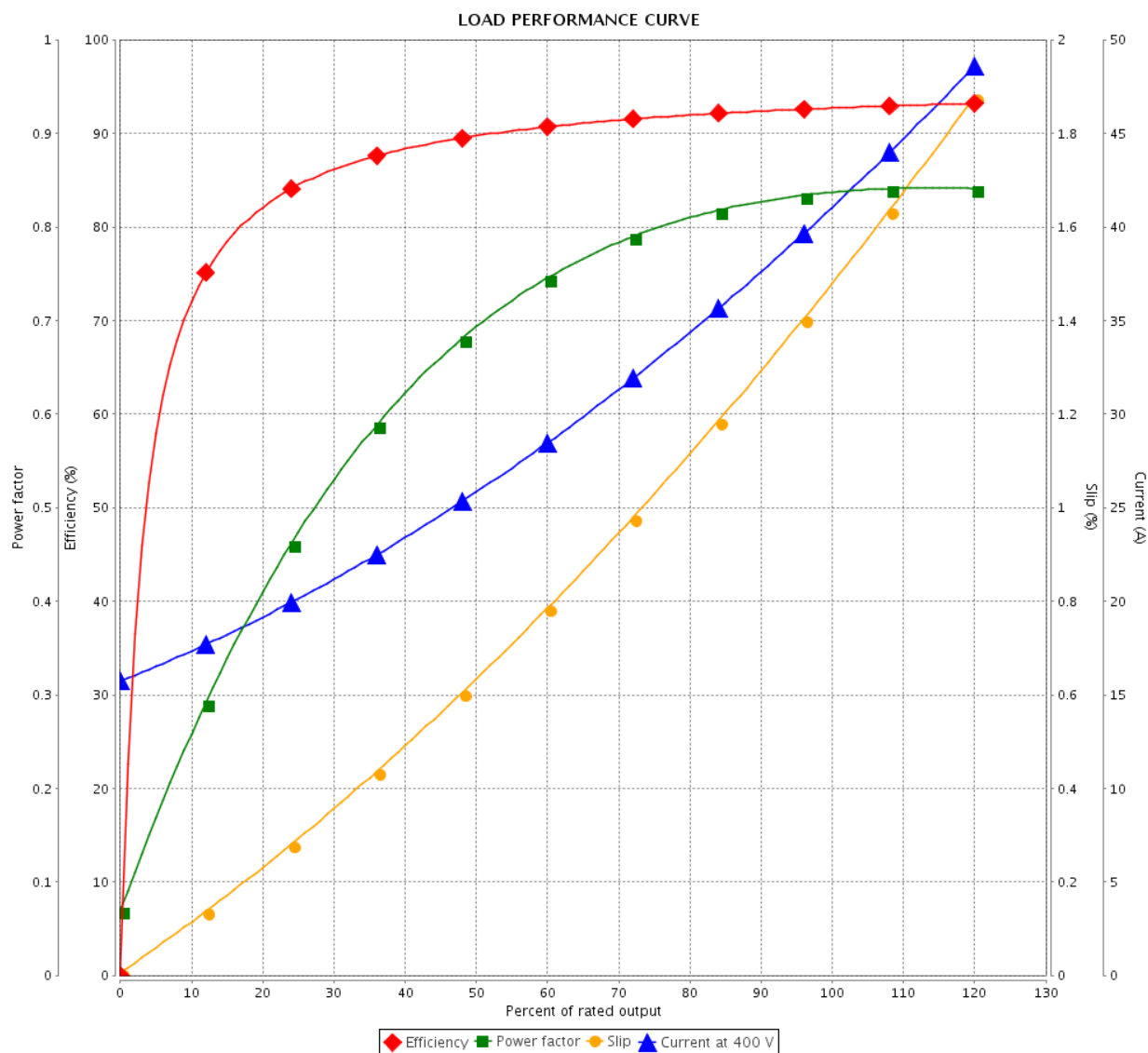


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Performance : 400 V 50 Hz 2P IE3

Rated current : 40.7 A
LRC : 7.6
Rated torque : 53.3 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 330 %
Rated speed : 2955 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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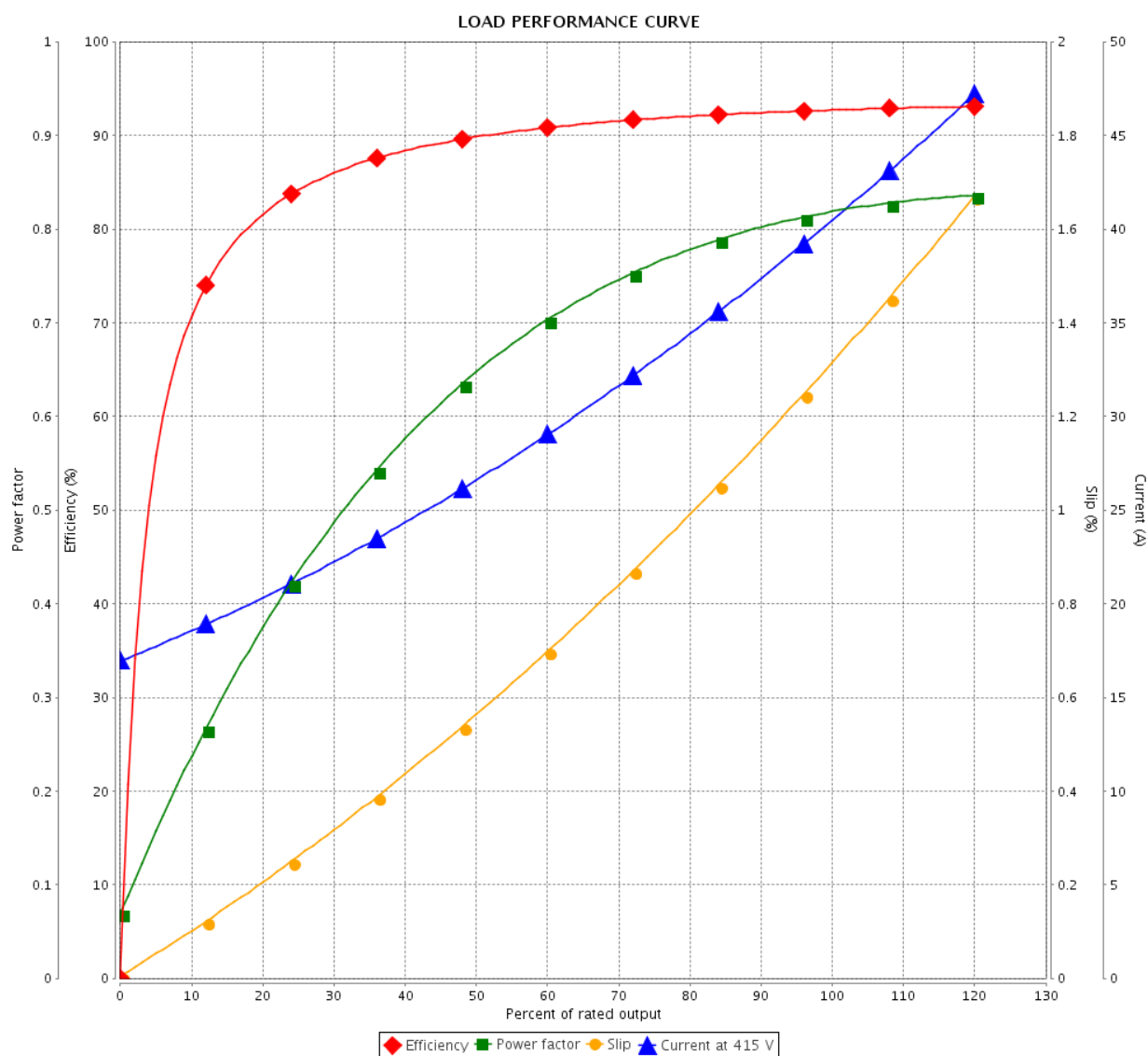


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Locked rotor torque : 250 %
Breakdown torque : 360 %
Rated speed : 2960 rpm

Moment of inertia (J) : 2.02 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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Breakdown torque : 260 %
Rated speed : 3540 rpm

Moment of inertia (J) : 2.02 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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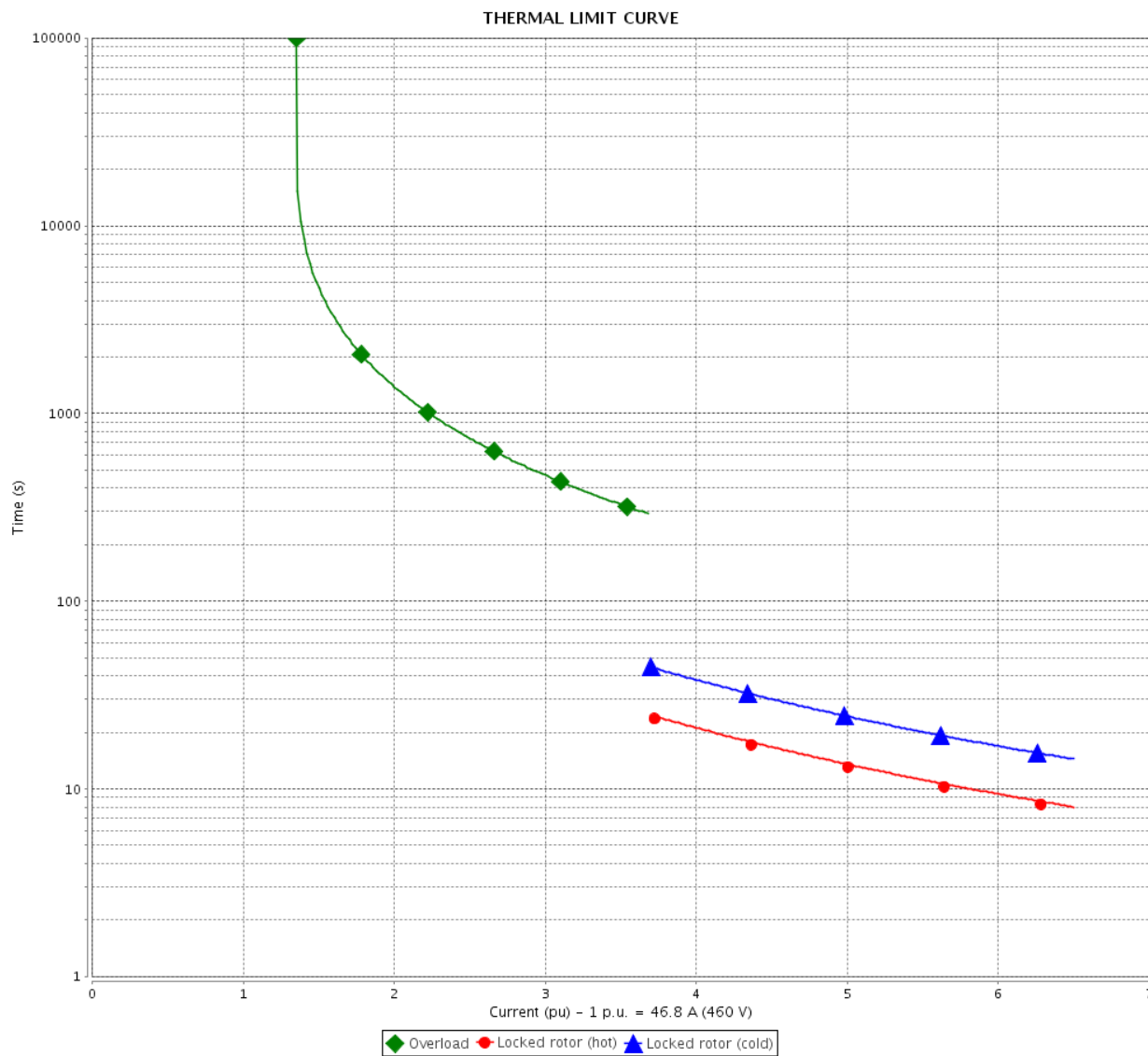
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Performance : 380 V 50 Hz 2P IE3

Rated current

: 41.9 A

LRC

: 7.2

Rated torque

: 53.4 ft.lb

Locked rotor torque

: 210 %

Breakdown torque

: 300 %

Rated speed

: 2950 rpm

Moment of inertia (J)

: 2.02 sq.ft.lb

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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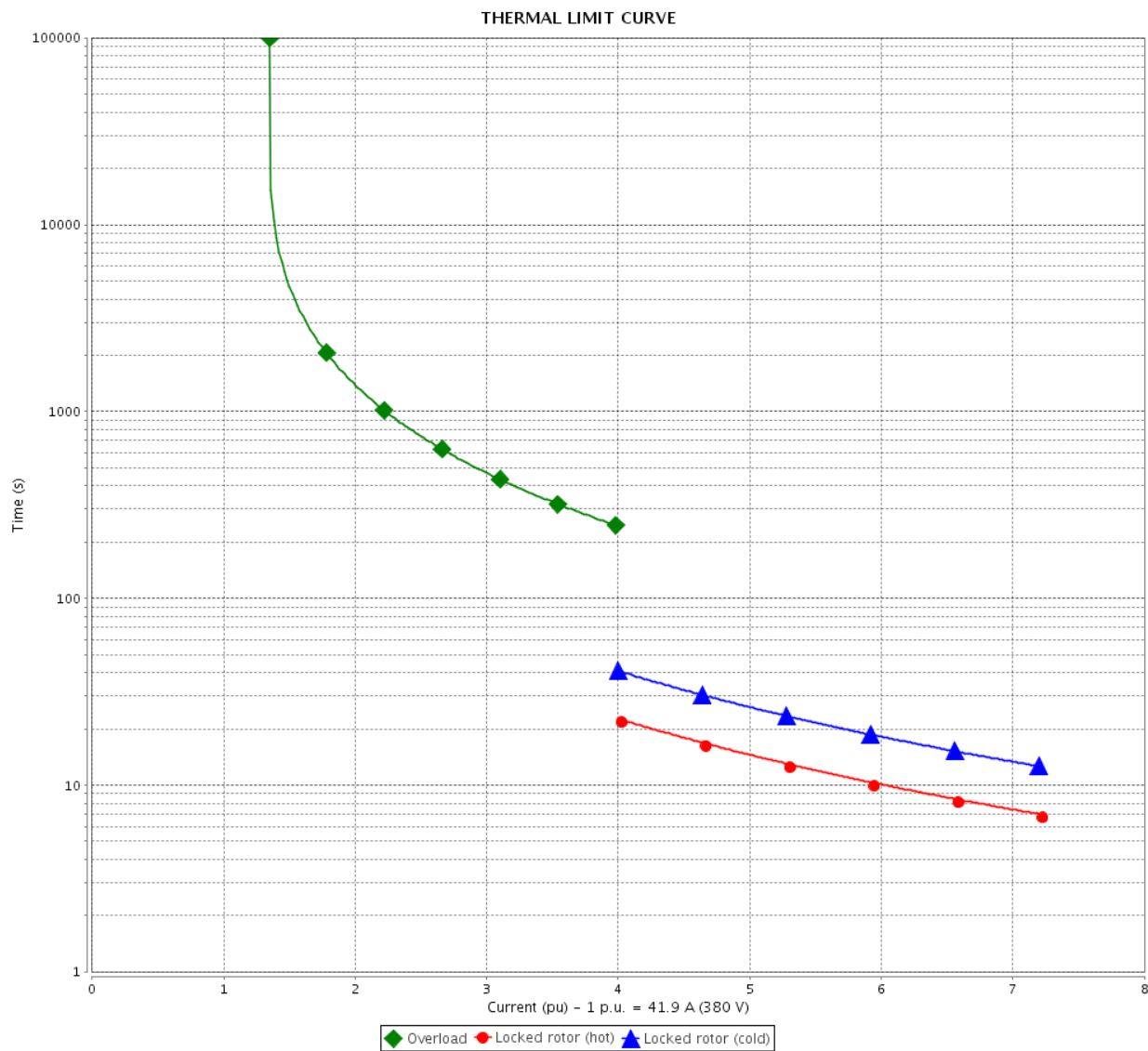
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Product code :

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Performance : 400 V 50 Hz 2P IE3

Rated current

: 40.7 A

LRC

: 7.6

Rated torque

: 53.3 ft.lb

Locked rotor torque

: 229 %

Breakdown torque

: 330 %

Rated speed

: 2955 rpm

Moment of inertia (J)

: 2.02 sq.ft.lb

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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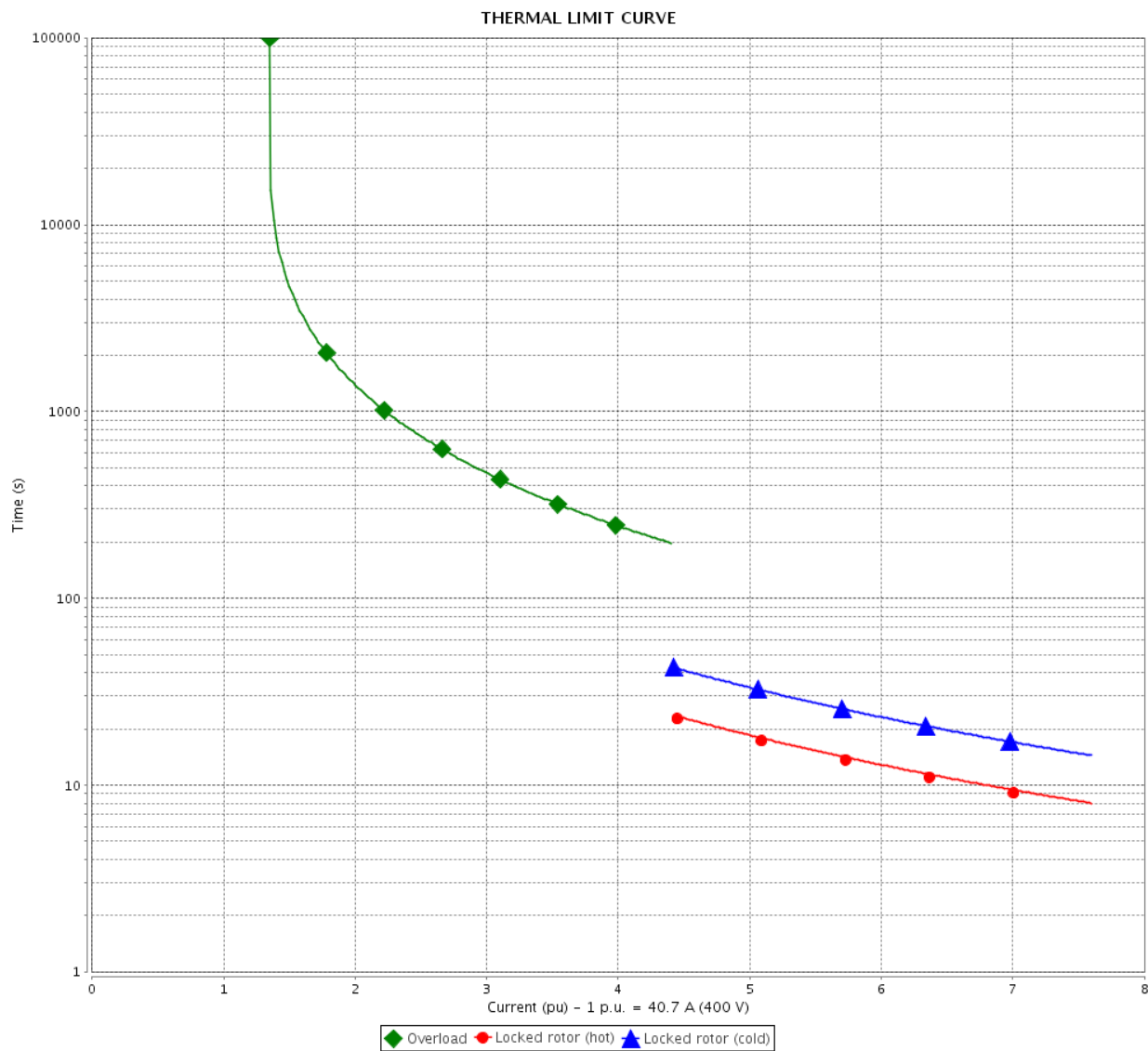
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Performance : 415 V 50 Hz 2P IE3

Rated current

: 40.2 A

LRC

: 7.7

Rated torque

: 53.2 ft.lb

Locked rotor torque

: 250 %

Breakdown torque

: 360 %

Rated speed

: 2960 rpm

Moment of inertia (J)

: 2.02 sq.ft.lb

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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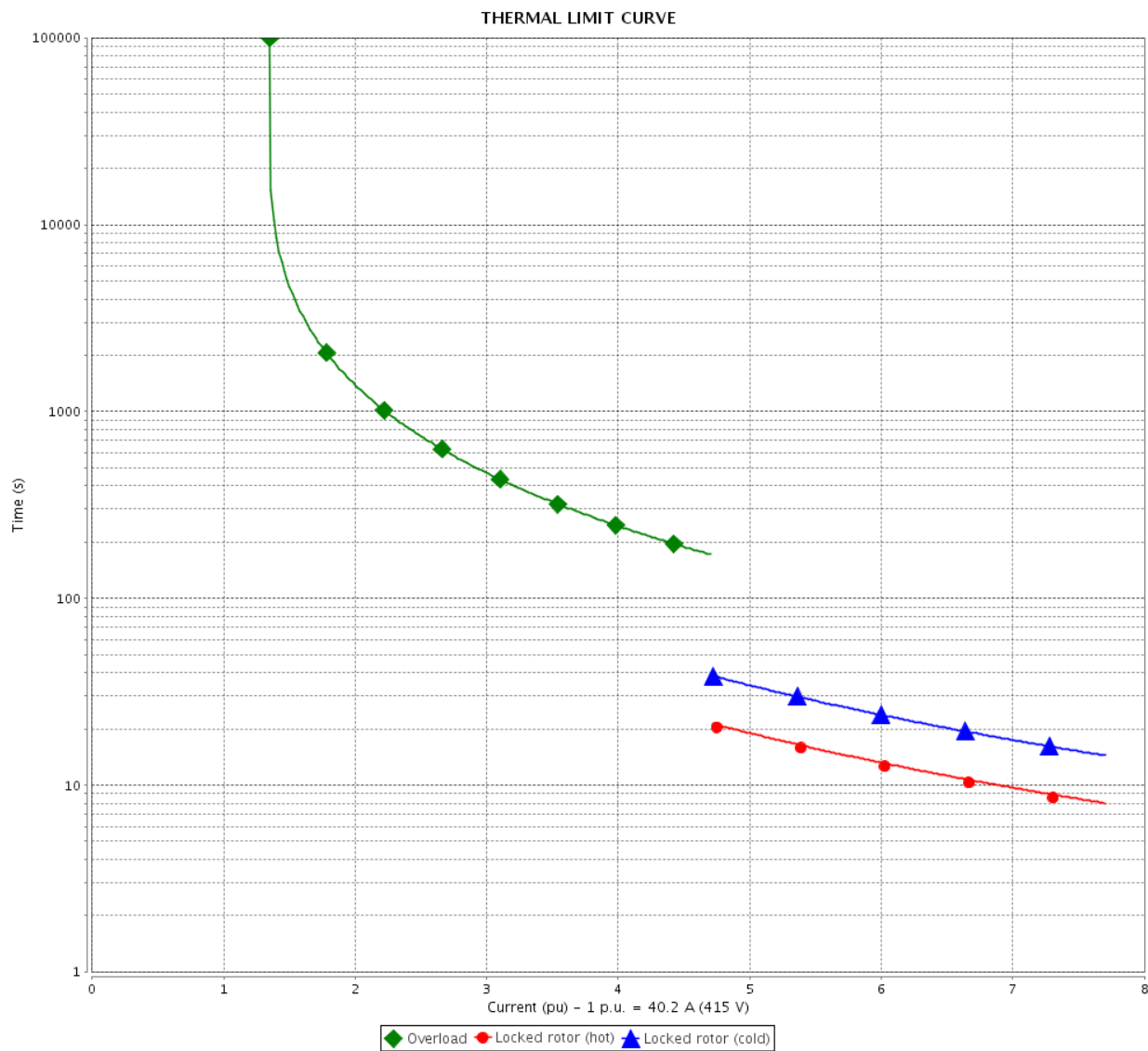
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

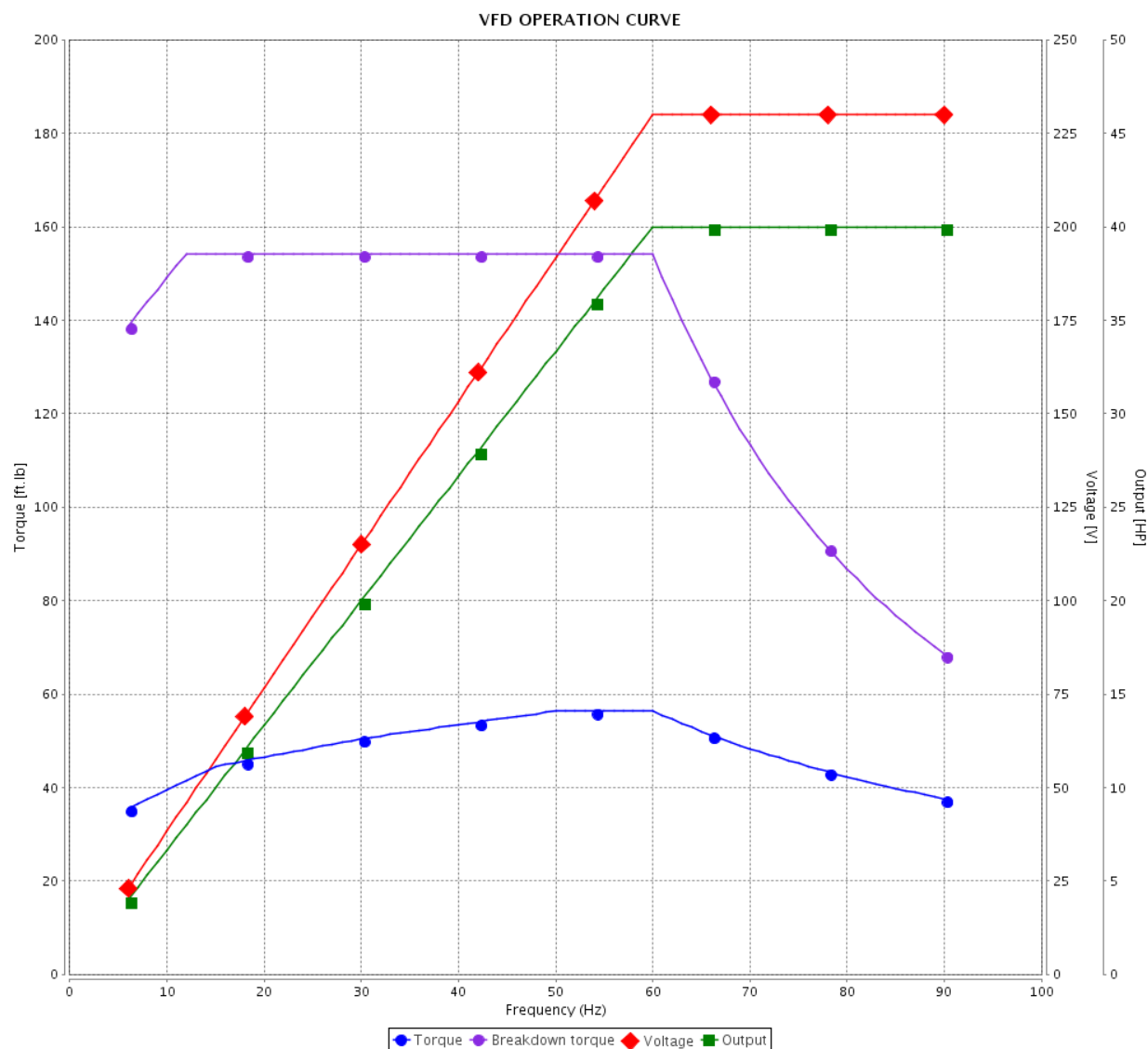


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Performance : 230/460 V 60 Hz 2P

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Locked rotor torque : 190 %
Breakdown torque : 260 %
Rated speed : 3540 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

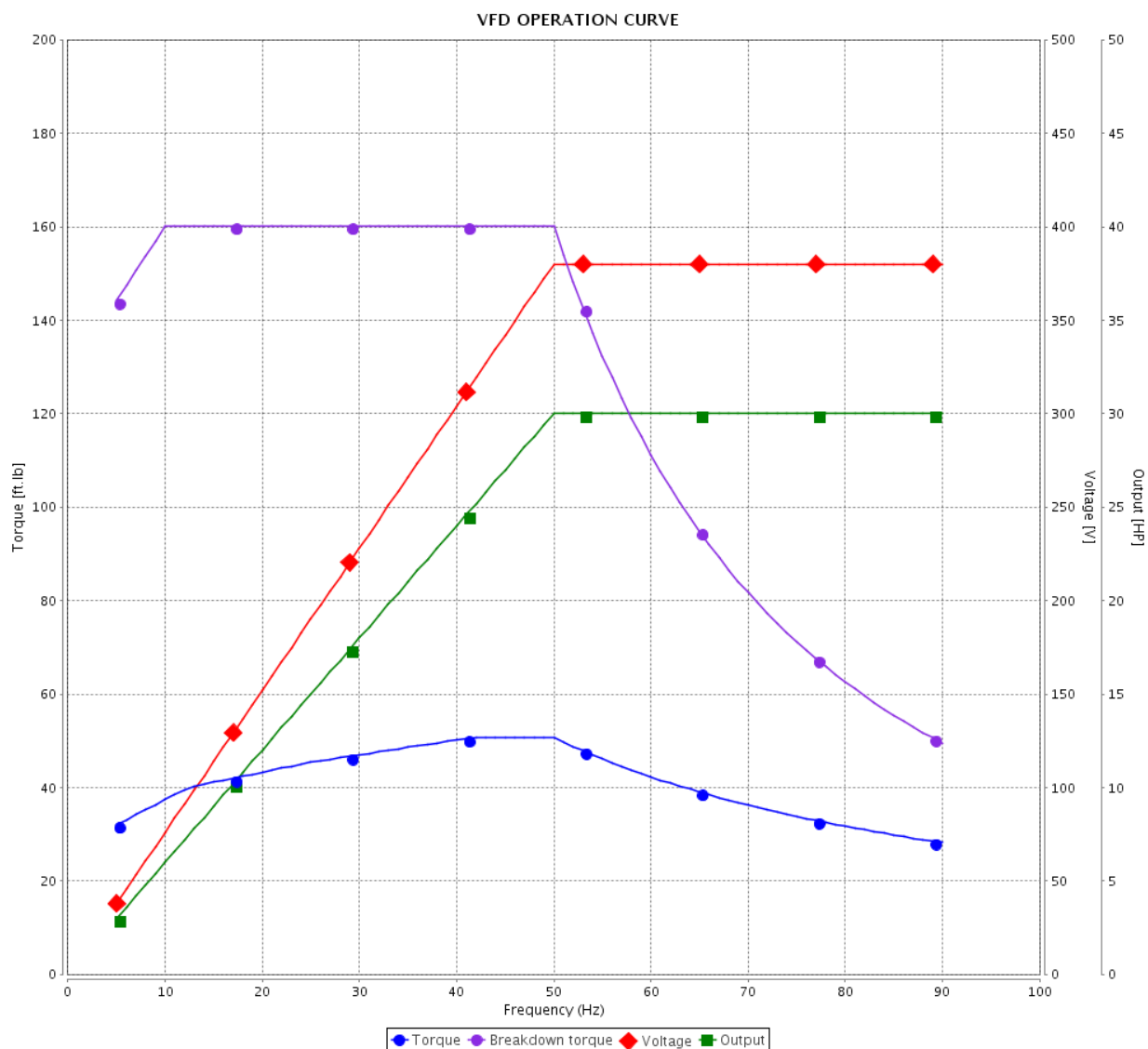


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Performance : 380 V 50 Hz 2P IE3

Rated current : 41.9 A
LRC : 7.2
Rated torque : 53.4 ft.lb
Locked rotor torque : 210 %
Breakdown torque : 300 %
Rated speed : 2950 rpm

Moment of inertia (J) : 2.02 sq.ft.lb
Duty cycle : Cont.(S1)
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Service factor : 1.00
Temperature rise : 80 K
Design : B

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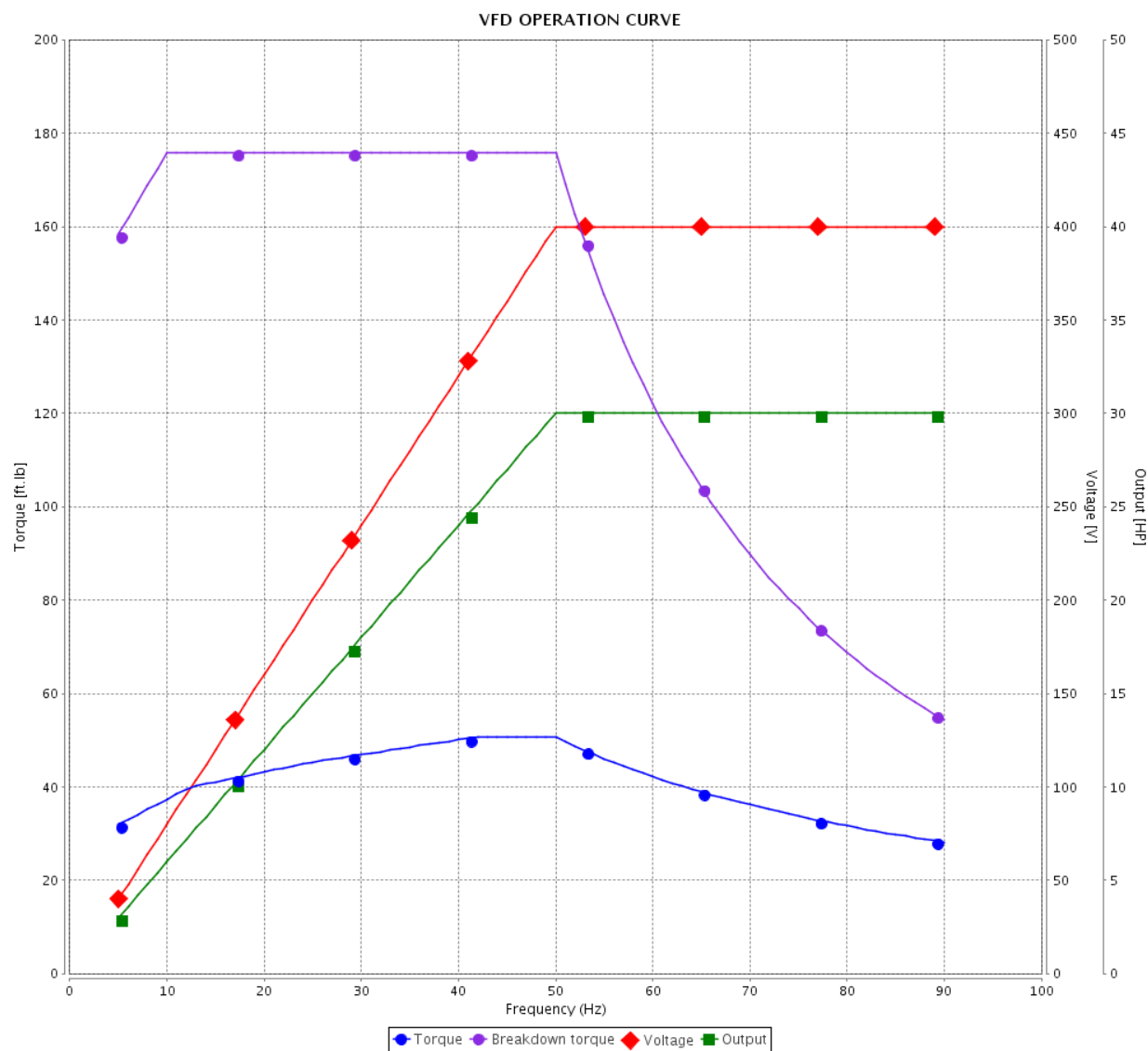


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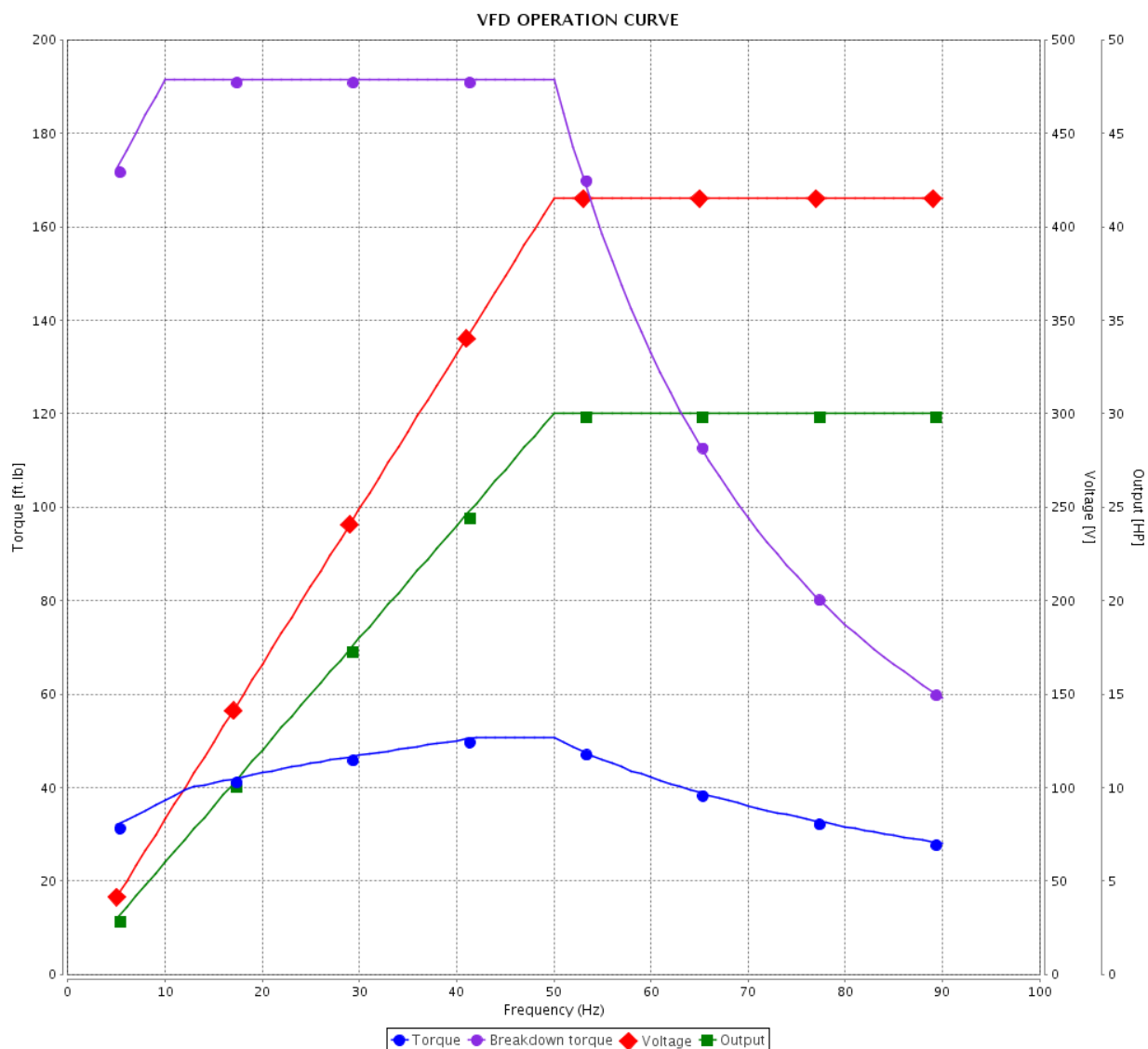


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