

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14495157
Catalog # : 02536OT3E256TC-W40

Frame : 254/6TC	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 : 243 lb
Protection degree : IP23	Moment of inertia (J) : 1.13 sq.ft.lb
Design : B	

Output [HP]	25	20	20	20
Poles	2	2	2	2
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	57.6/28.8	28.2	27.4	27.0
L. R. Amperes [A]	374/187	192	186	200
LRC [A]	6.5x(Code G)	6.8x(Code H)	6.8x(Code H)	7.4x(Code J)
No load current [A]	17.0/8.50	8.20	9.10	10.0
Rated speed [RPM]	3535	2935	2945	2950
Slip [%]	1.81	2.17	1.83	1.67
Rated torque [ft.lb]	37.1	35.8	35.7	35.6
Locked rotor torque [%]	200	200	220	229
Breakdown torque [%]	280	260	300	320
Service factor	1.25	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K
Locked rotor time	19s (cold) 11s (hot)	14s (cold) 8s (hot)	18s (cold) 10s (hot)	14s (cold) 8s (hot)
Noise level ²				
Efficiency (%)	25%	90.8	87.6	87.9
	50%	91.0	89.5	89.6
	75%	91.7	89.9	90.1
	100%	91.7	91.9	91.9
Power Factor	25%	0.53	0.54	0.49
	50%	0.77	0.77	0.73
	75%	0.85	0.85	0.82
	100%	0.88	0.88	0.86

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6309 Z C3	6209 Z C3	Max. traction
Sealing :	Without	Without	Max. compression
	Bearing Seal	Bearing Seal	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	13 g	9 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 63.7A SF 1.15 SFA 73.2A

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

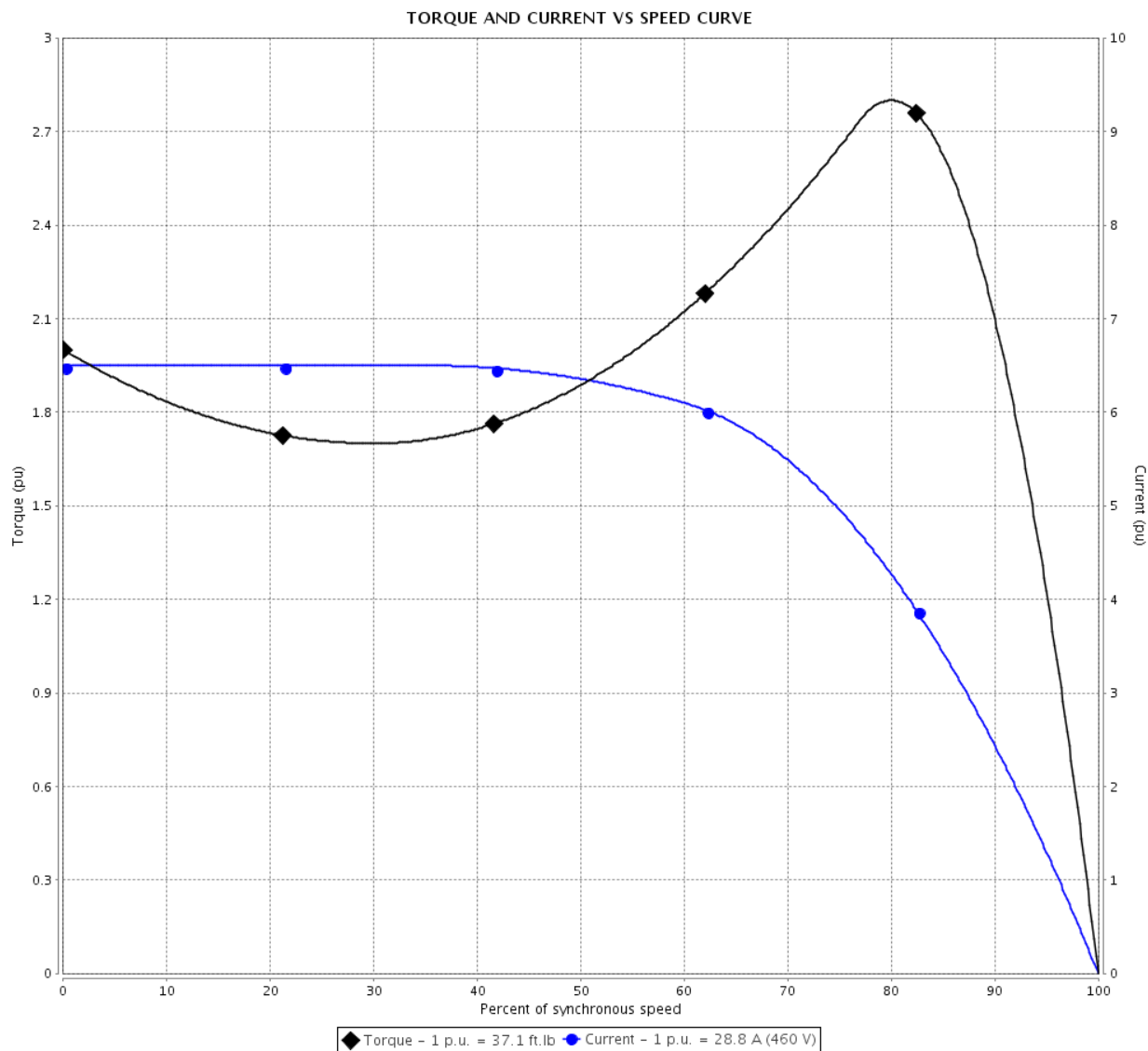


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14495157

Catalog # : 02536OT3E256TC-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 57.6/28.8 A
LRC : 6.5
Rated torque : 37.1 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 280 %
Rated speed : 3535 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Locked rotor time : 19s (cold) 11s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

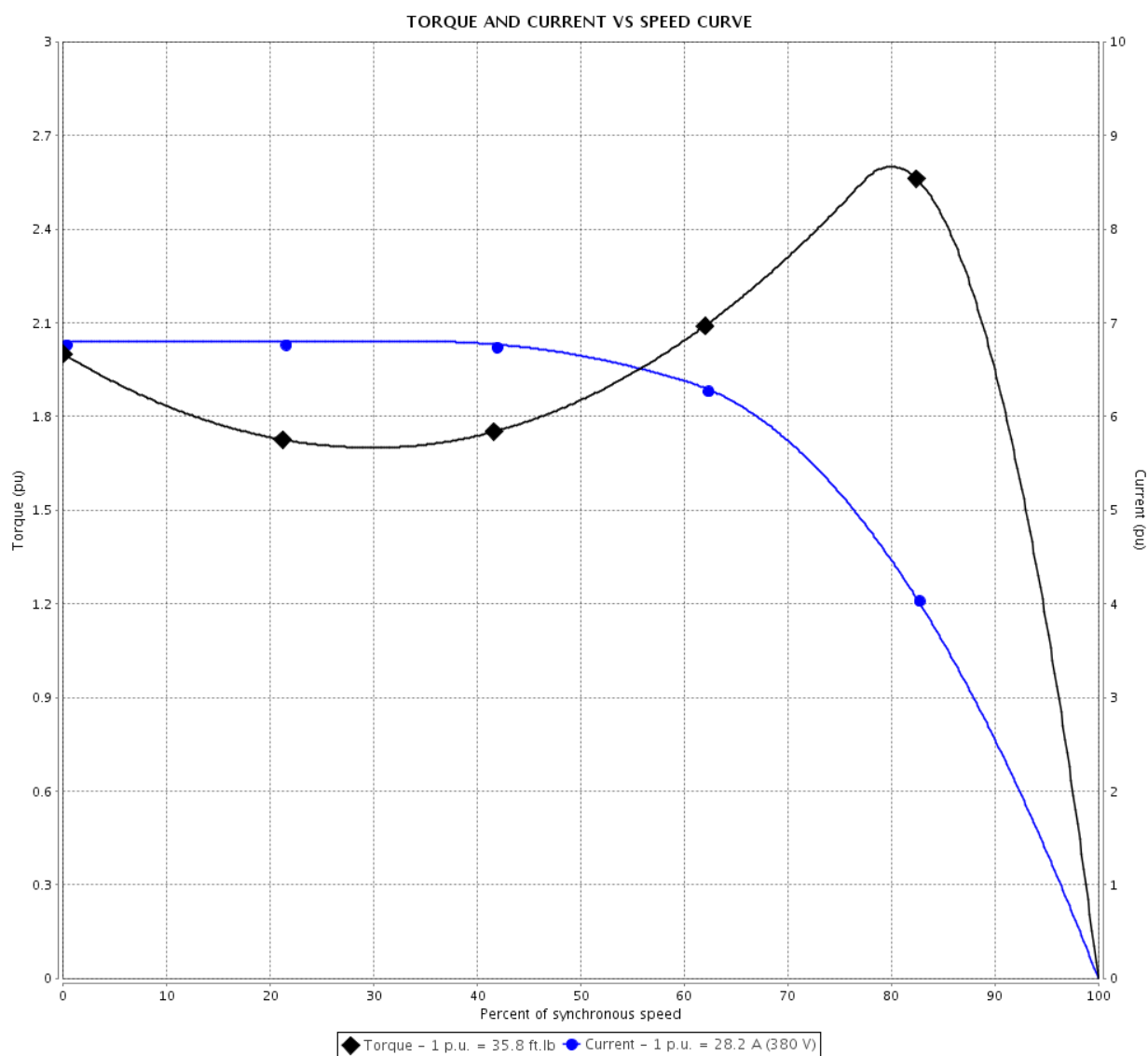


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14495157

Catalog # : 02536OT3E256TC-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 28.2 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 35.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

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

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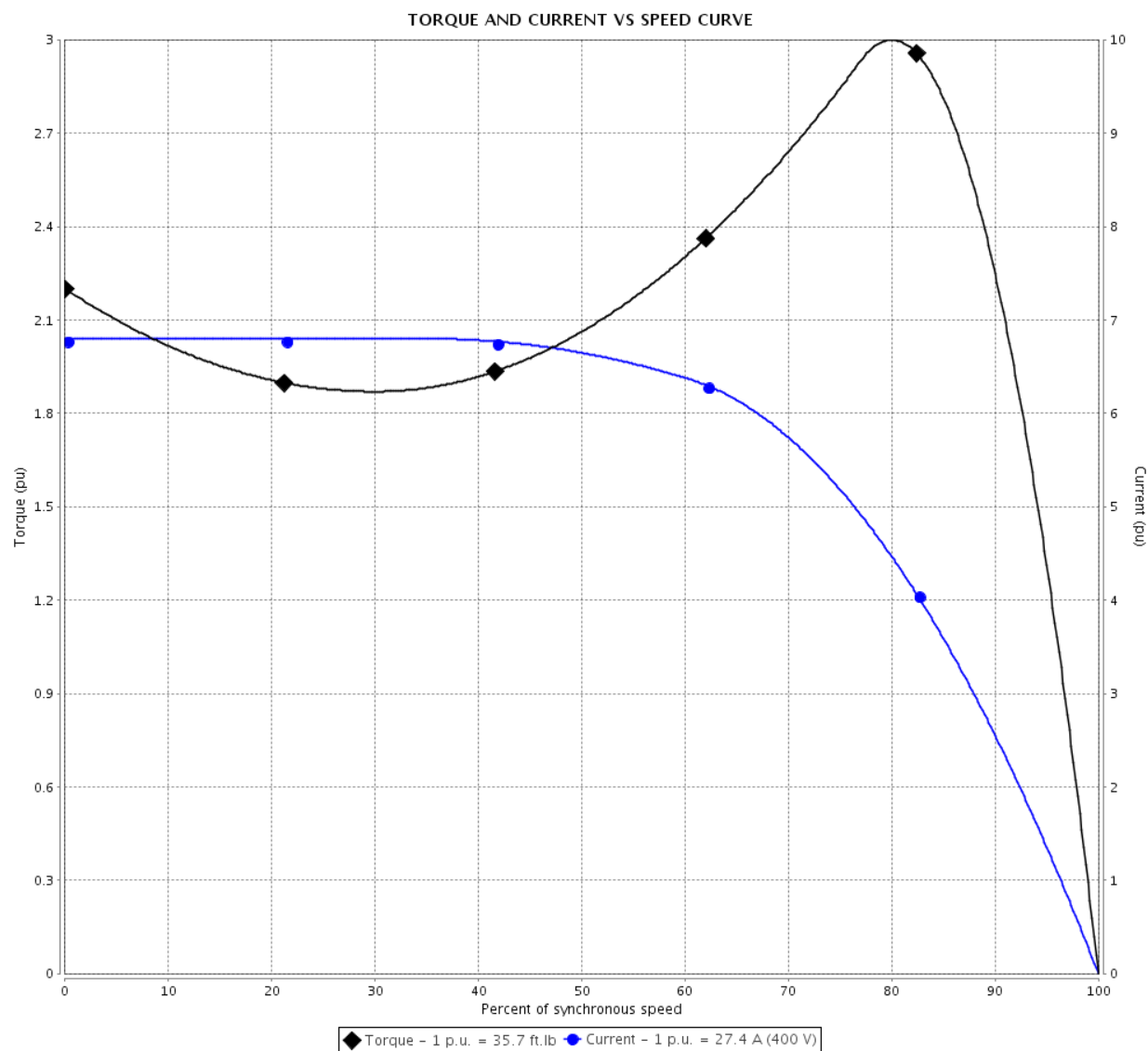


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14495157

Catalog # : 02536OT3E256TC-W40



Performance : 400 V 50 Hz 2P IE3

Rated current	: 27.4 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 35.7 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2945 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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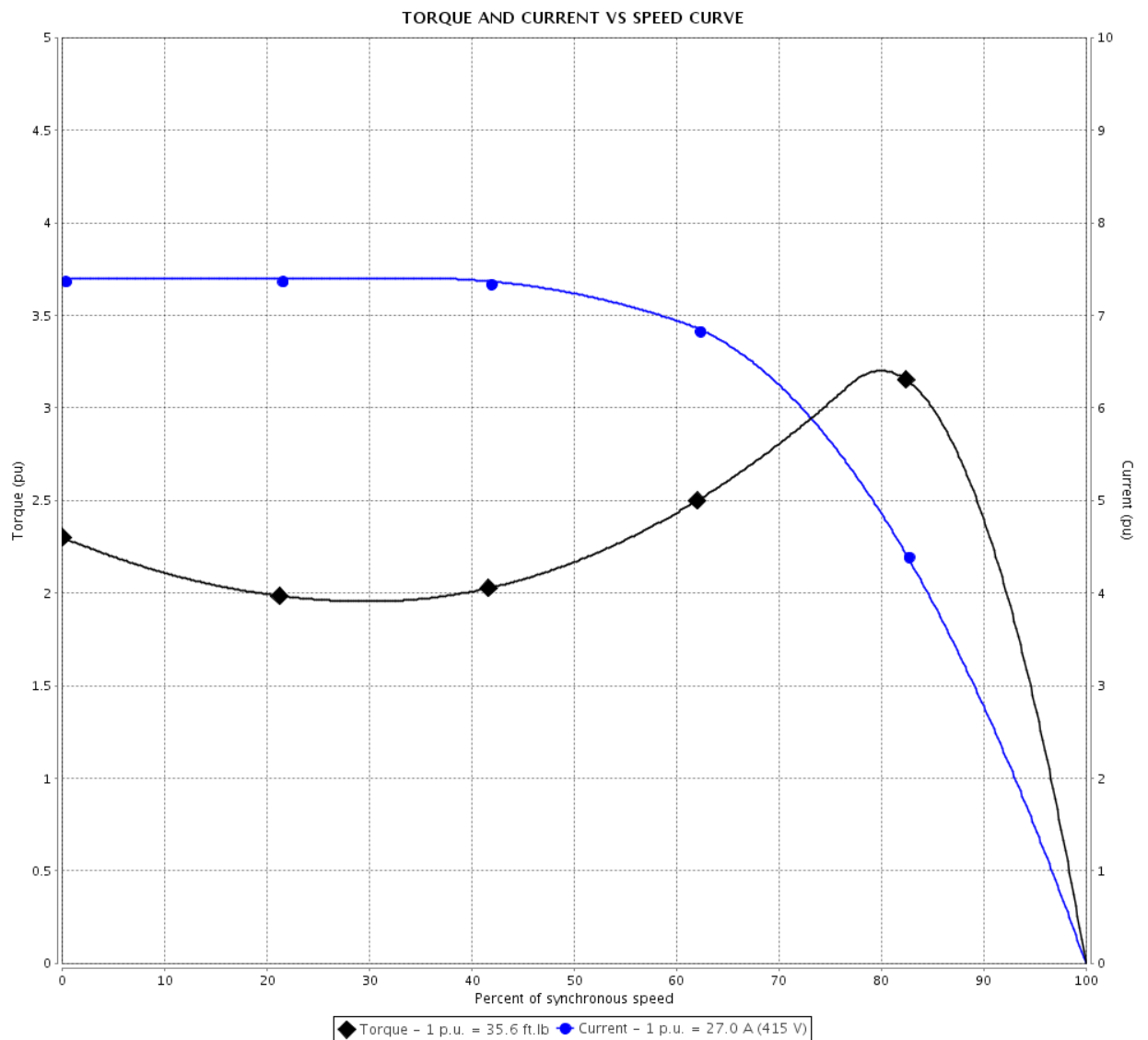


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Catalog # : 02536OT3E256TC-W40



Performance : 415 V 50 Hz 2P IE3

Rated current	: 27.0 A	Moment of inertia (J)	: 1.13 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 35.6 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

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

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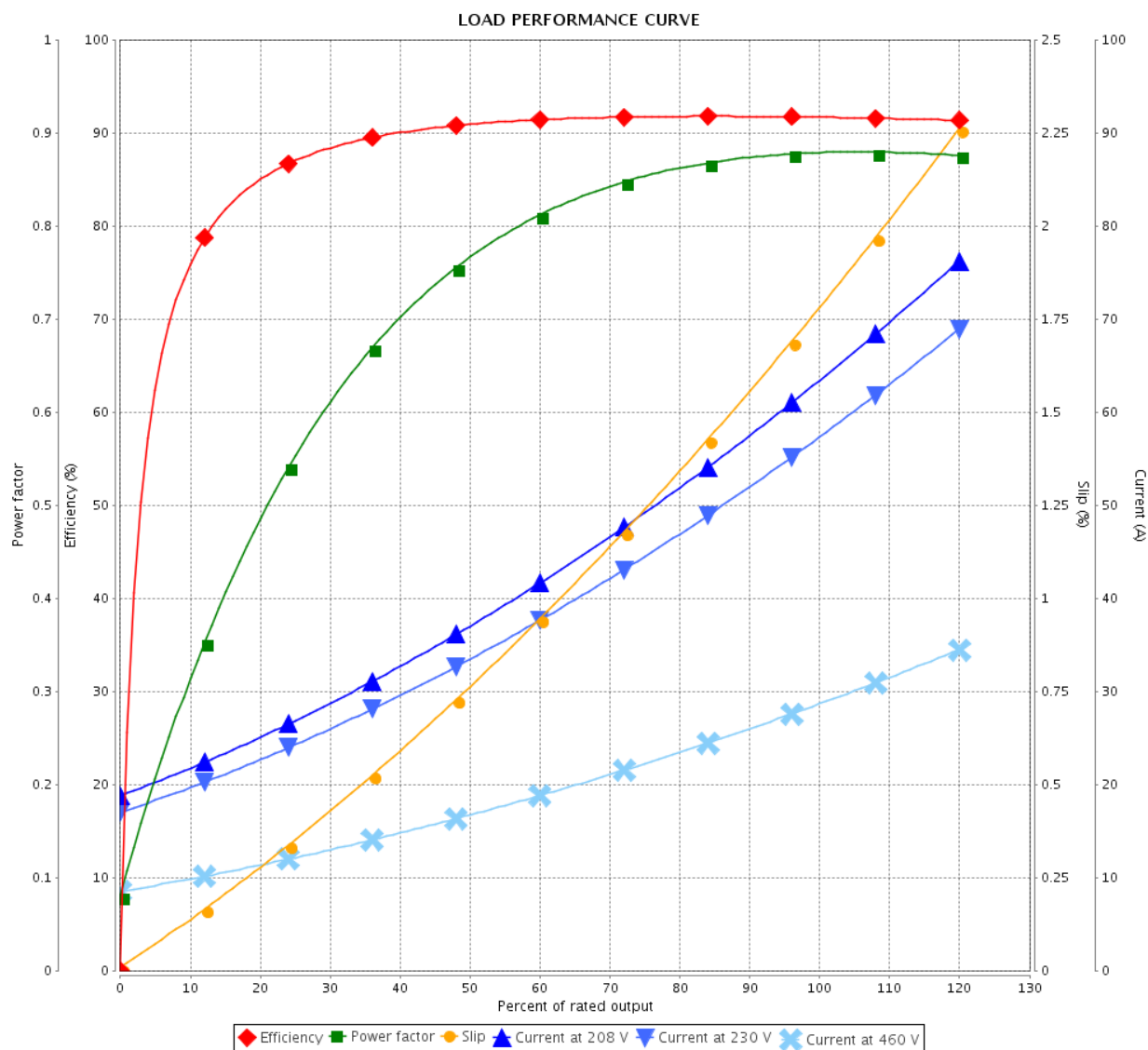


Customer :

Product line : W40 NEMA Premium Efficiency
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Product code : 14495157

Catalog # : 02536OT3E256TC-W40



Performance : 230/460 V 60 Hz 2P

Rated current : 57.6/28.8 A
LRC : 6.5
Rated torque : 37.1 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 280 %
Rated speed : 3535 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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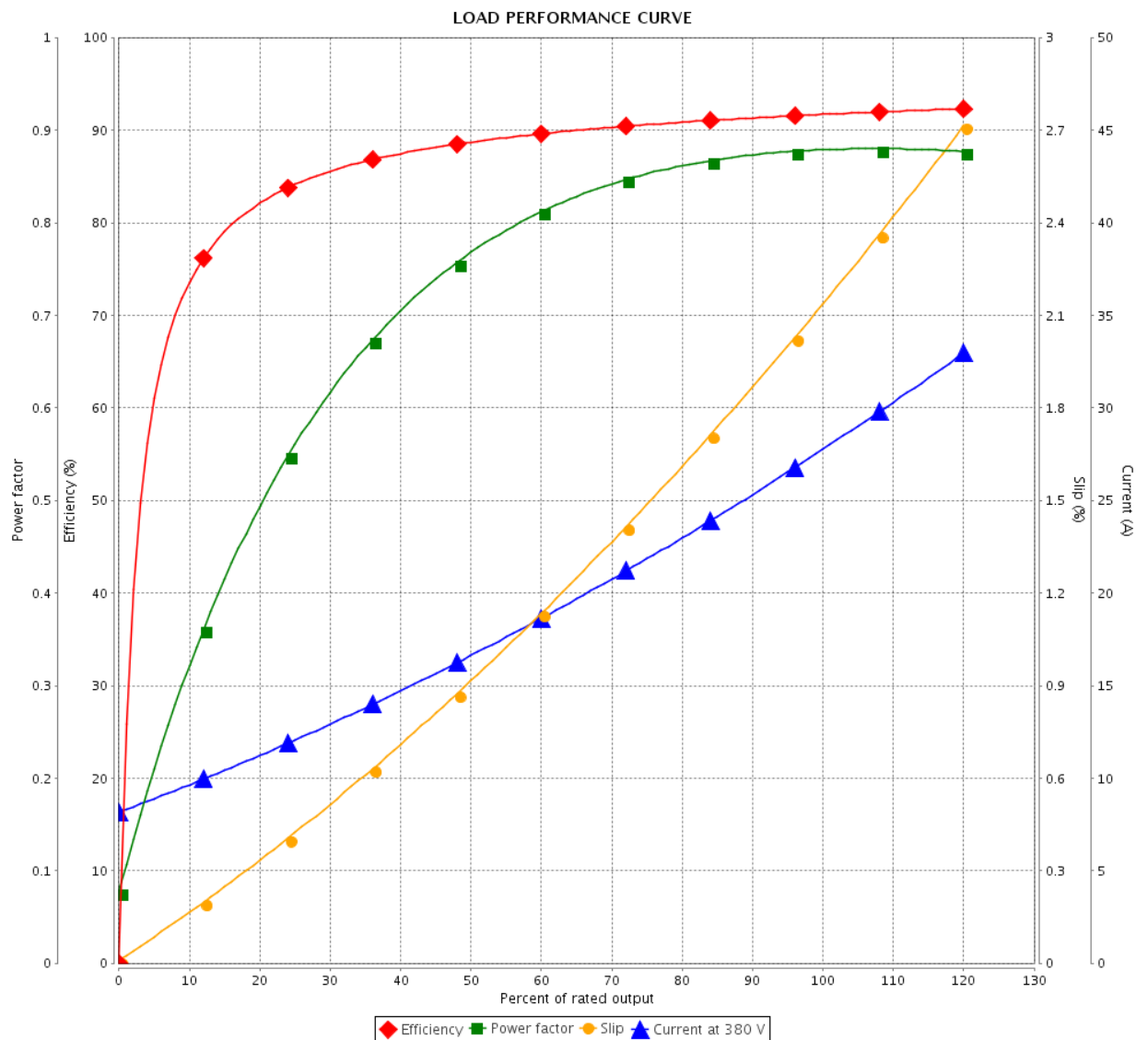


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Catalog # : 02536OT3E256TC-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
LRC : 6.8
Rated torque : 35.8 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 2935 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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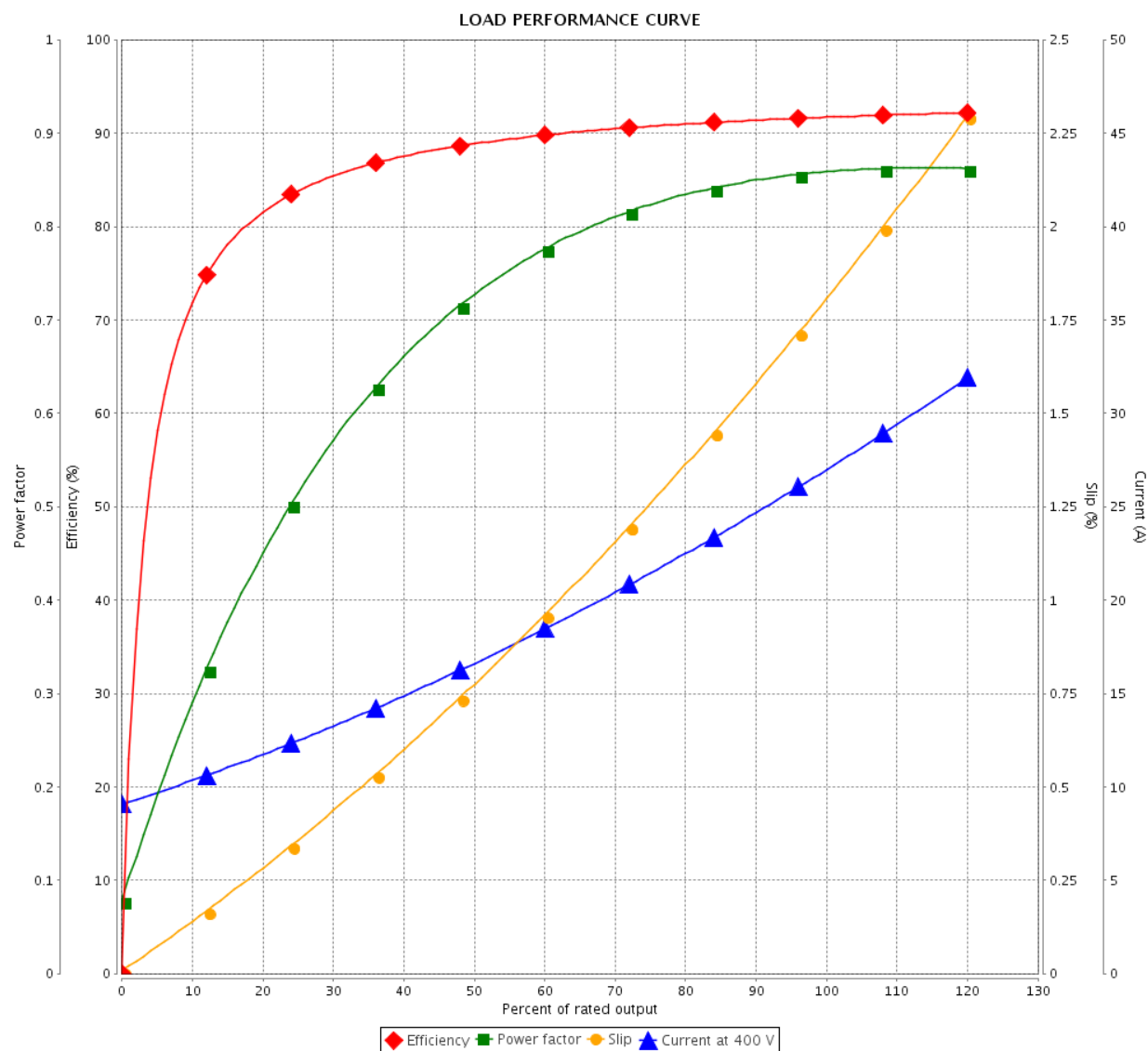


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Product code : 14495157

Catalog # : 02536OT3E256TC-W40



Performance : 400 V 50 Hz 2P IE3

Rated current : 27.4 A
LRC : 6.8
Rated torque : 35.7 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 300 %
Rated speed : 2945 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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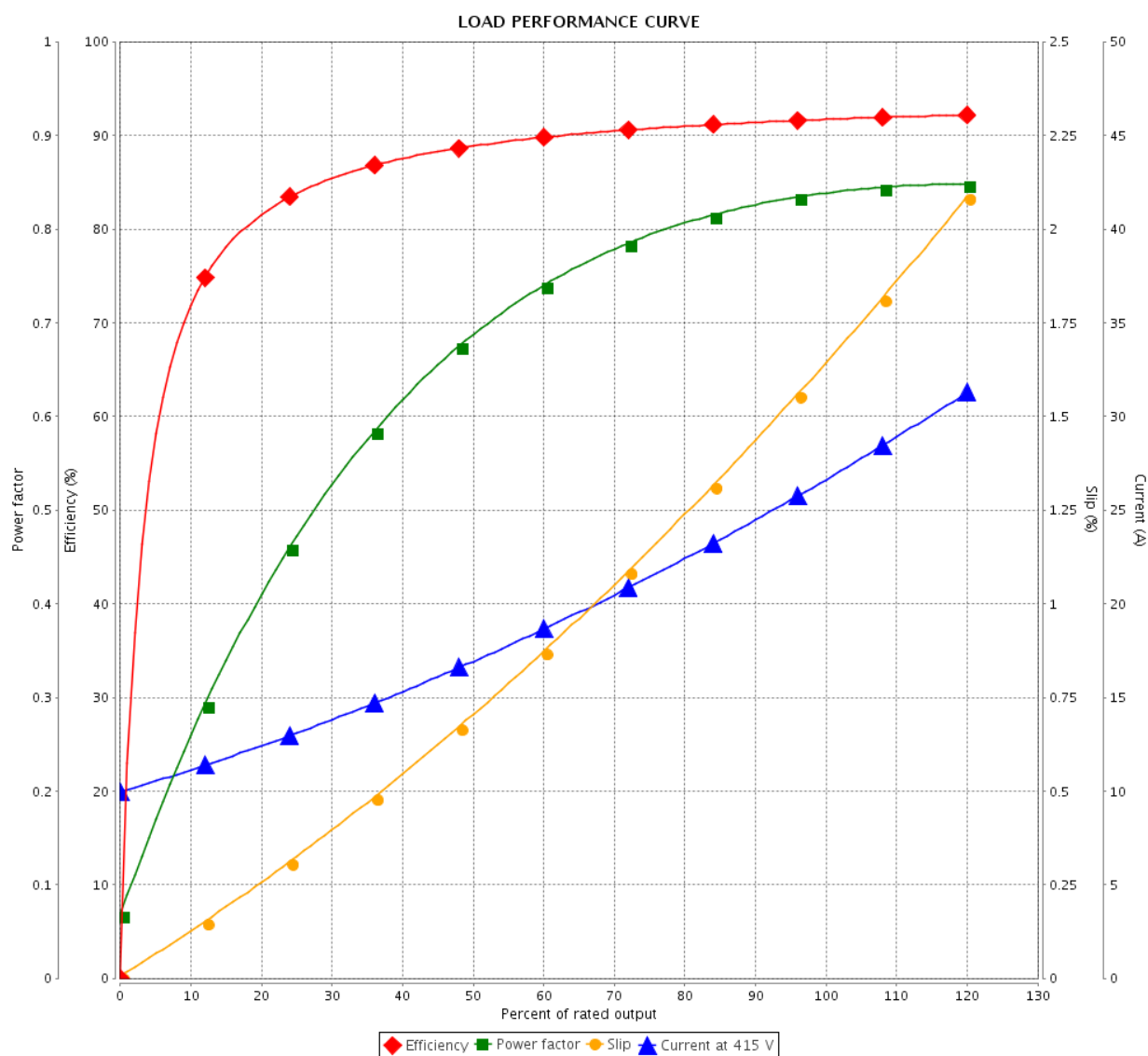


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Performance : 415 V 50 Hz 2P IE3

Rated current : 27.0 A
LRC : 7.4
Rated torque : 35.6 ft.lb
Locked rotor torque : 229 %
Breakdown torque : 320 %
Rated speed : 2950 rpm

Moment of inertia (J) : 1.13 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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Duty cycle : Cont.(S1)
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Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

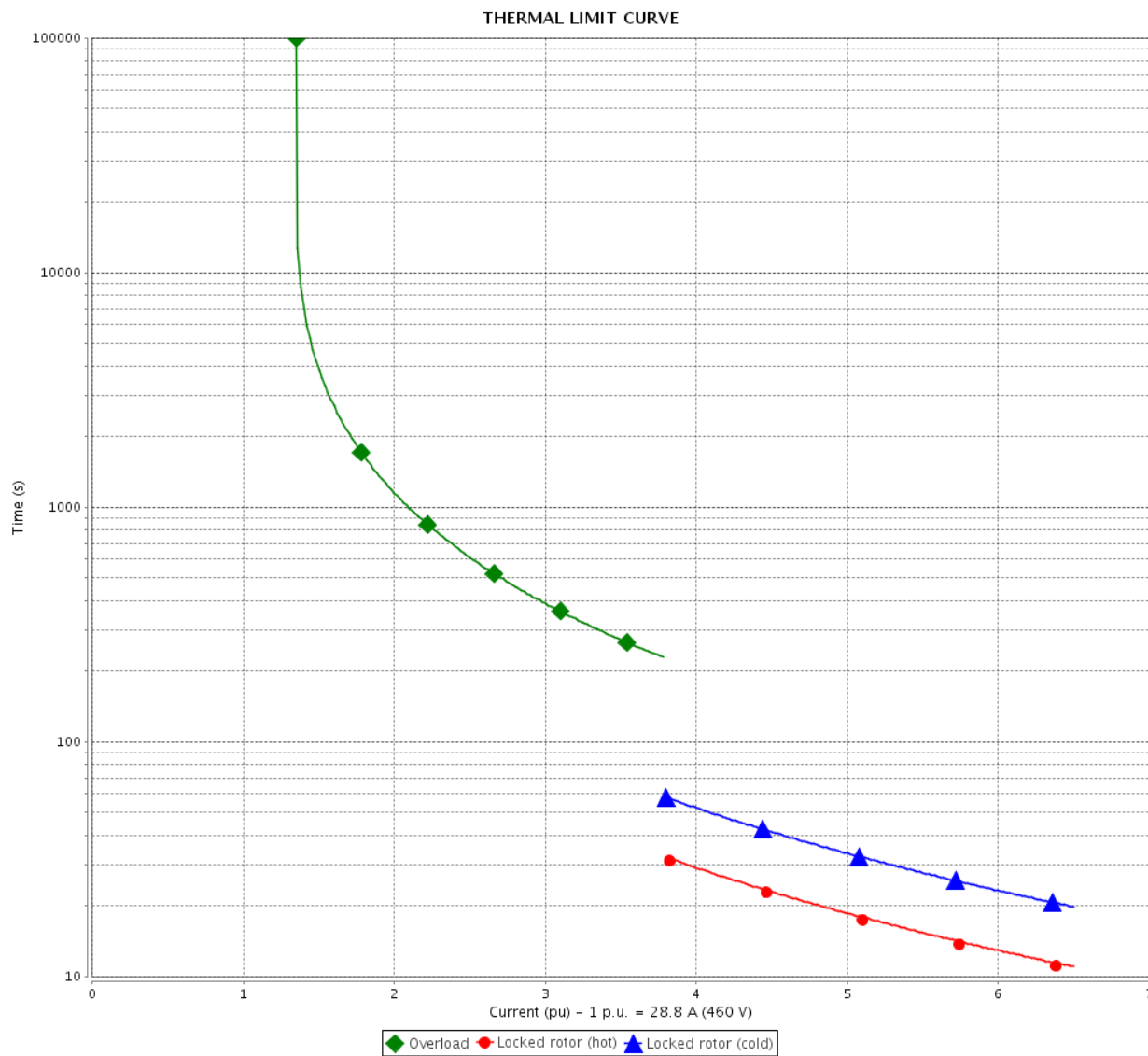
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THERMAL LIMIT CURVE

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Customer

:

Product line

: W40 NEMA Premium Efficiency
Three-Phase

Product code :

14495157

Catalog # :

02536OT3E256TC-W40

Performance : 380 V 50 Hz 2P IE3

Rated current

: 28.2 A

LRC

: 6.8

Rated torque

: 35.8 ft.lb

Locked rotor torque

: 200 %

Breakdown torque

: 260 %

Rated speed

: 2935 rpm

Moment of inertia (J)

: 1.13 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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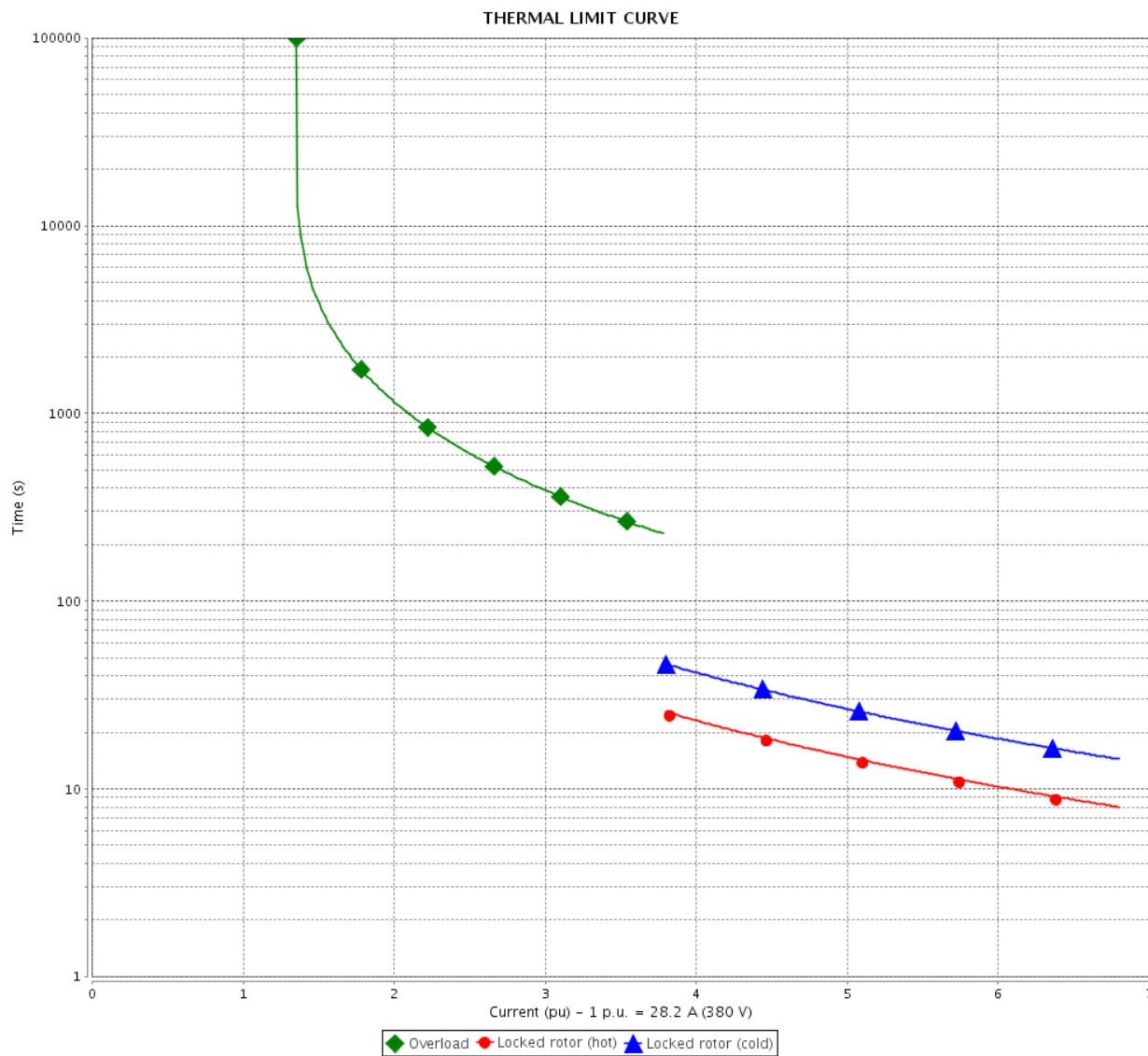
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Performance : 400 V 50 Hz 2P IE3

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LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 35.7 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2945 rpm	Design	: B

Heating constant

Cooling constant

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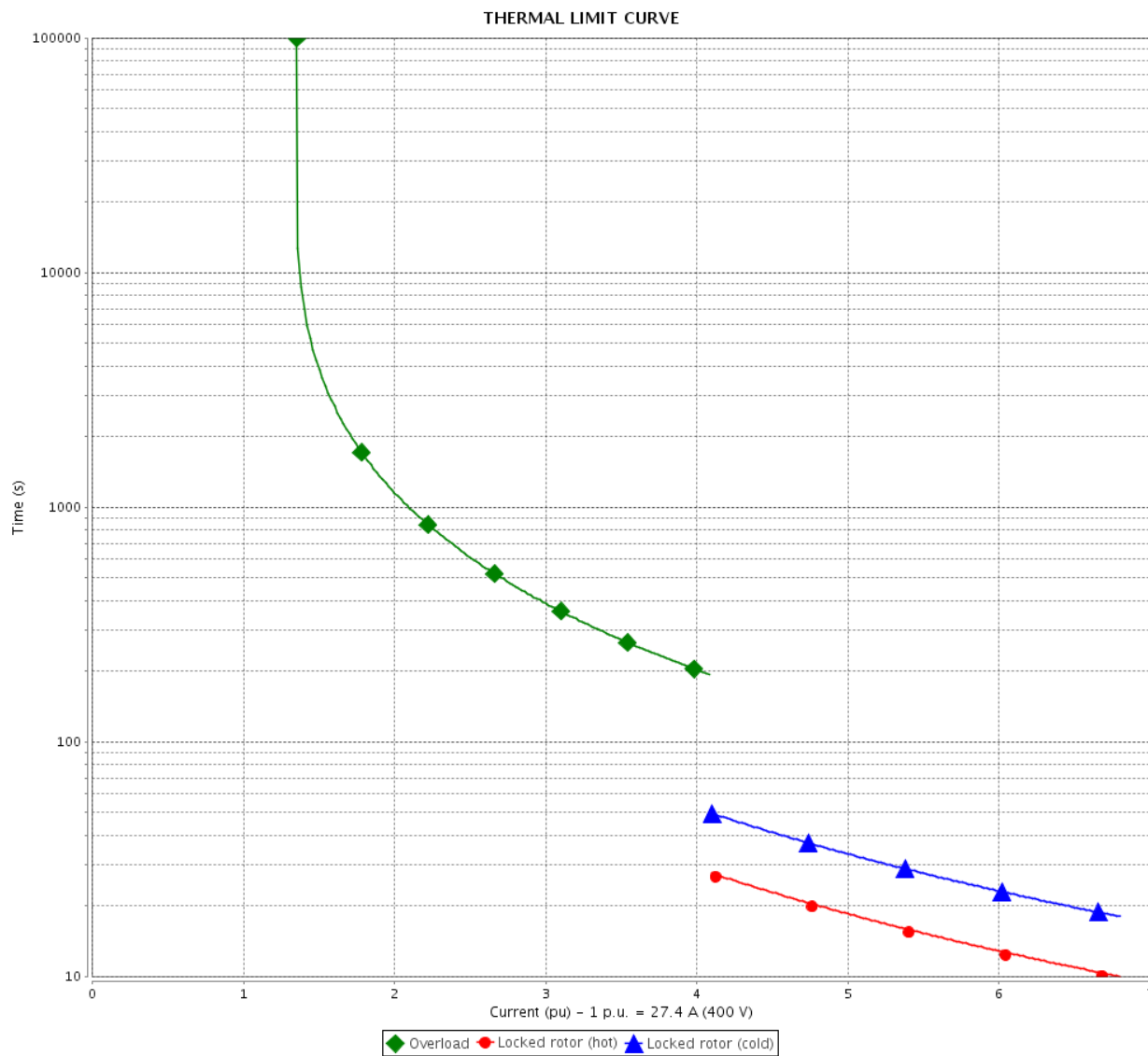
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LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 35.6 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Heating constant

Cooling constant

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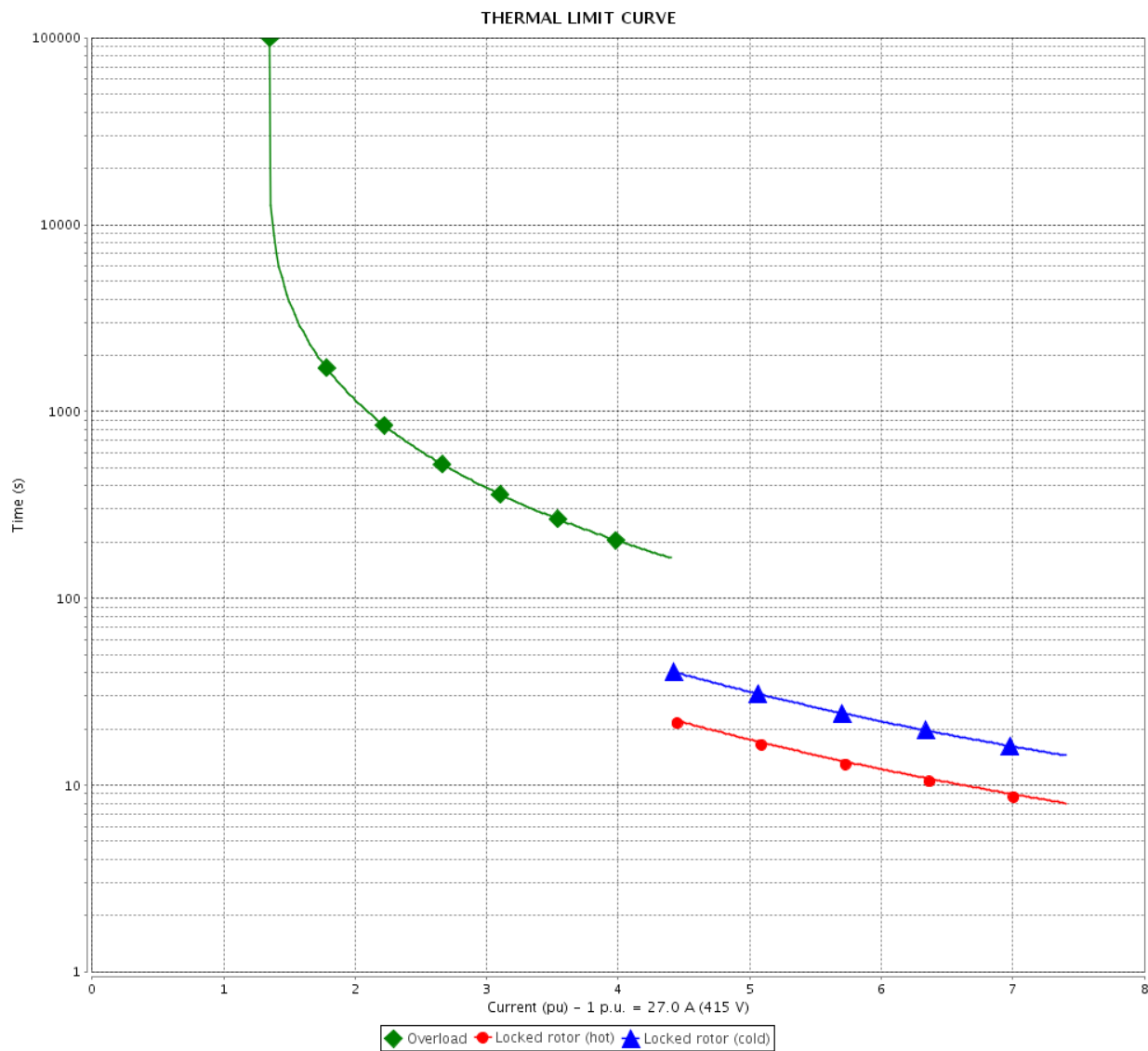
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VFD OPERATION CURVE

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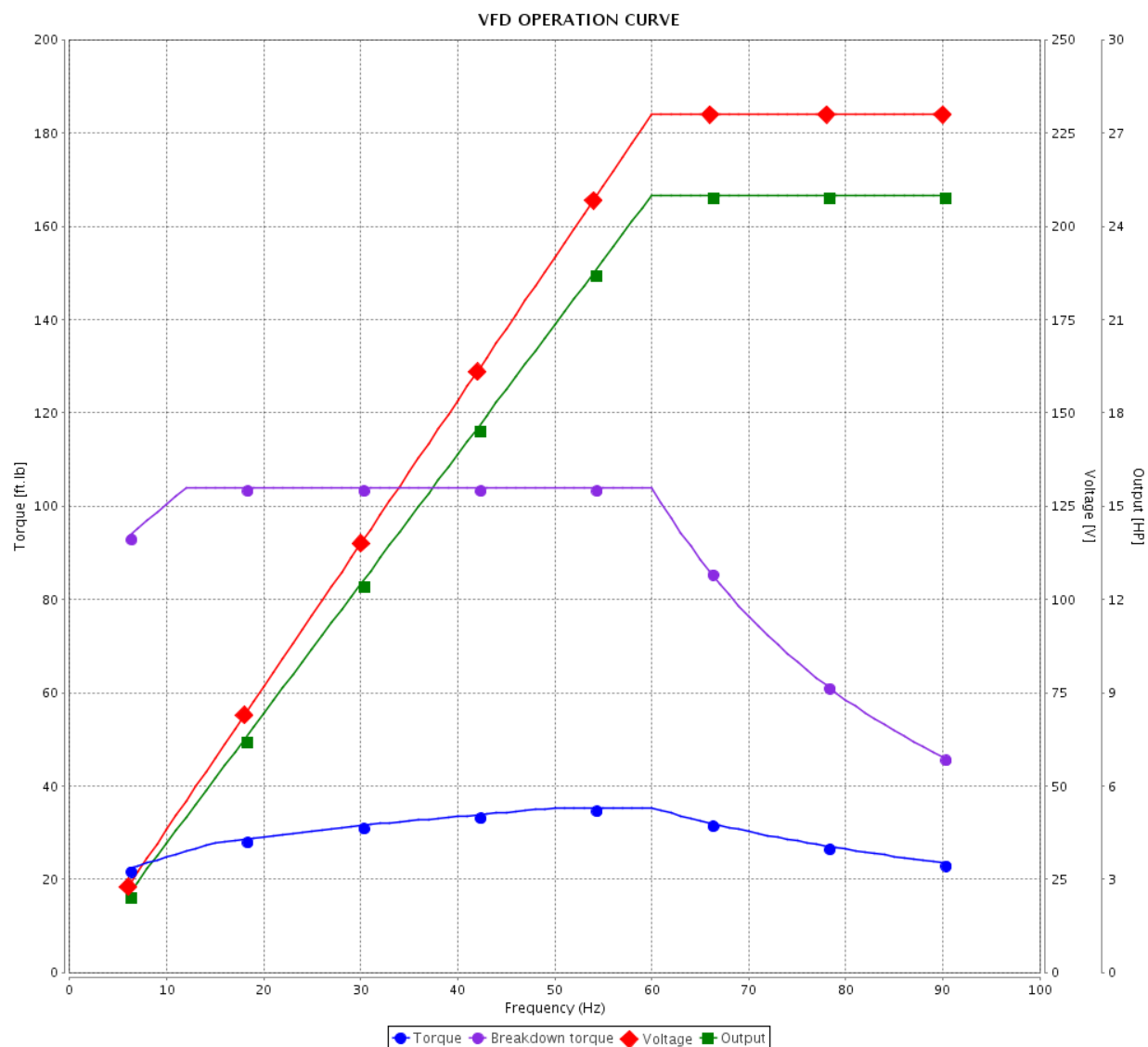


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Breakdown torque : 280 %
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Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

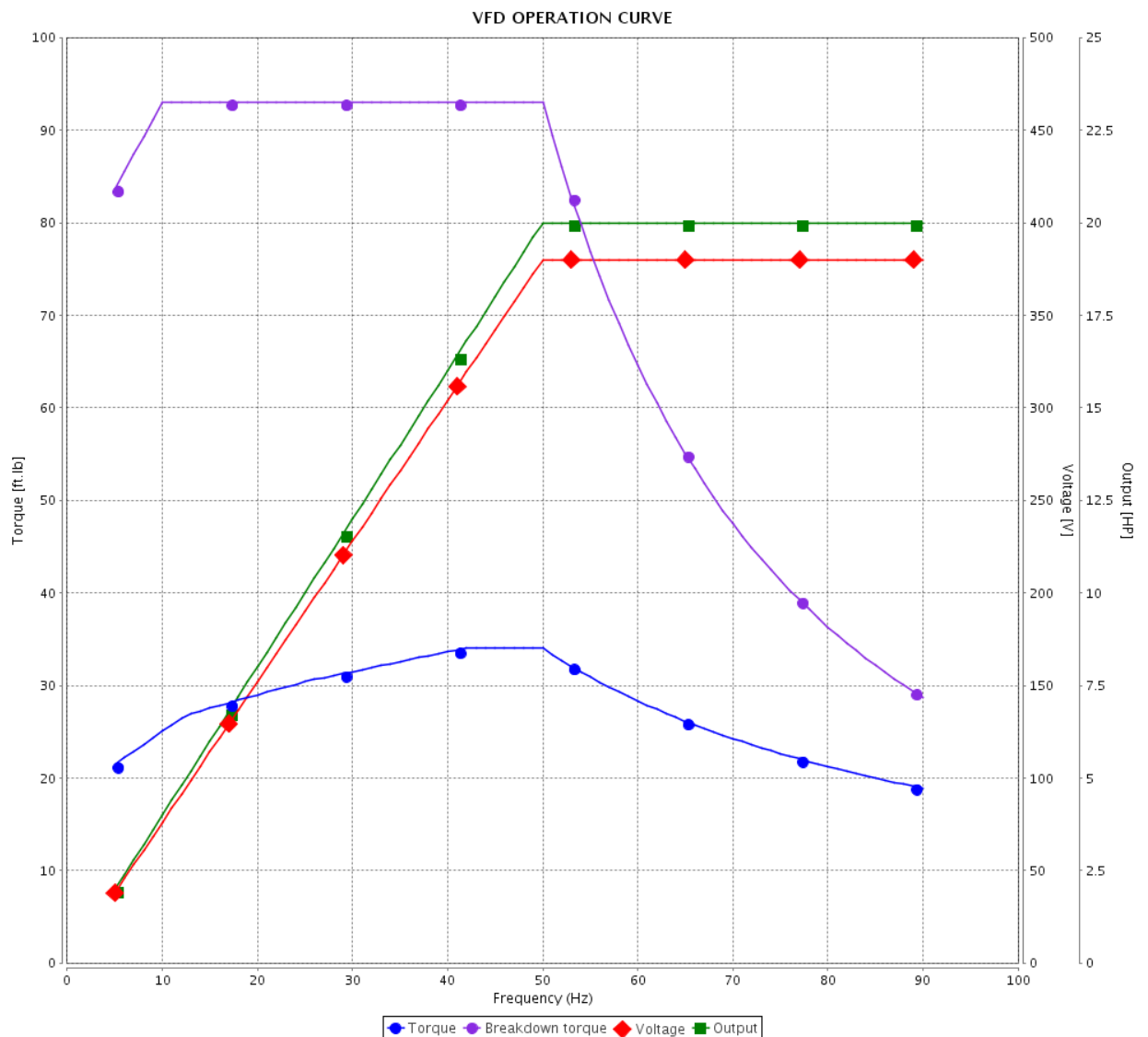


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Performance : 380 V 50 Hz 2P IE3

Rated current : 28.2 A
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Rated torque : 35.8 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 260 %
Rated speed : 2935 rpm

Moment of inertia (J) : 1.13 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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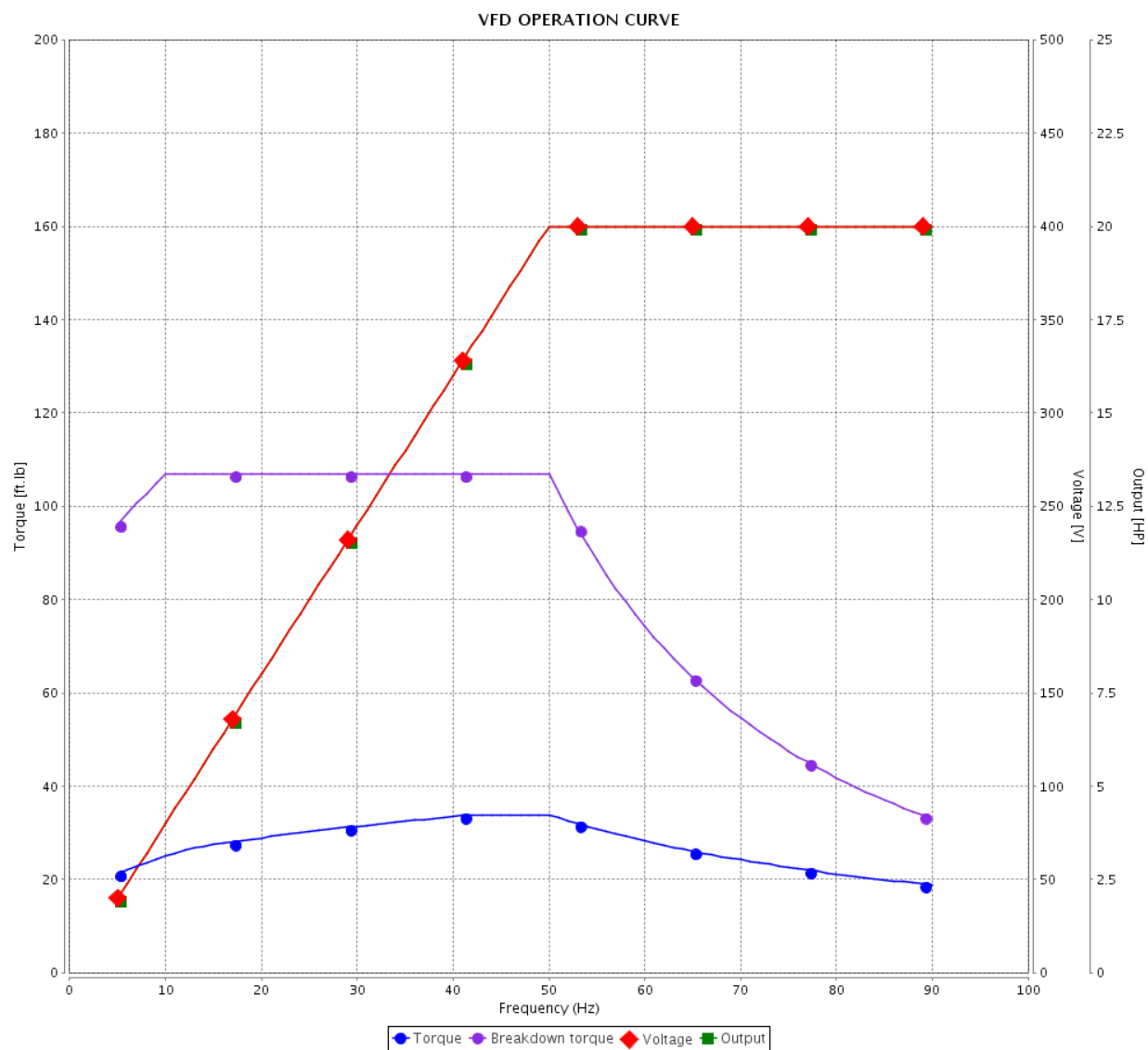


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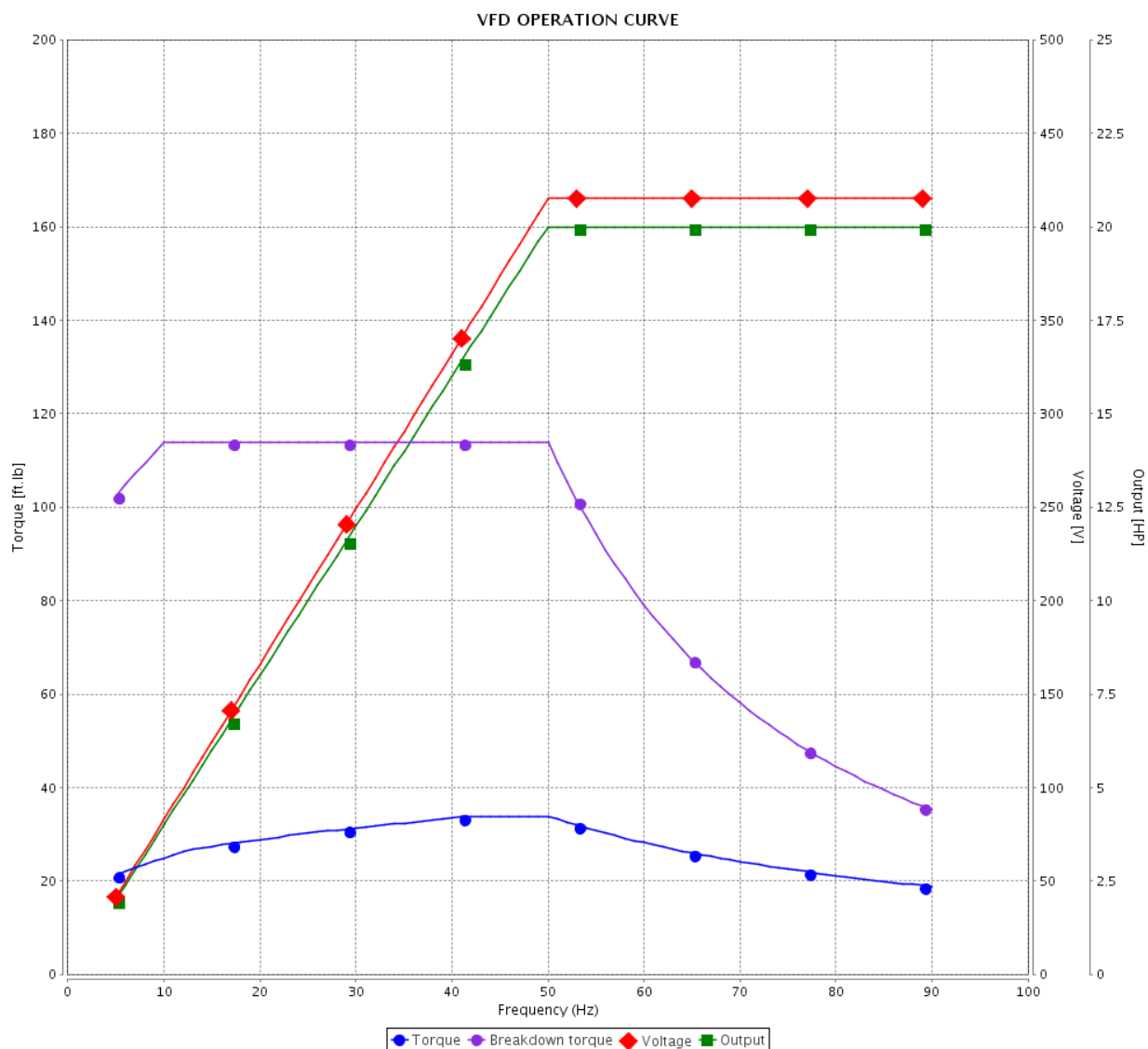


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Performance : 415 V 50 Hz 2P IE3

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Locked rotor torque : 229 %
Breakdown torque : 320 %
Rated speed : 2950 rpm

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Service factor : 1.00
Temperature rise : 80 K
Design : B

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