

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase Product code : 14270883
Catalog # : 06012OT3E404T-W40

Frame : 404/5T	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 : 935 lb
Protection degree : IP23	Moment of inertia (J) : 29.4 sq.ft.lb
Design : B	

Output [HP]	60	50	50	50
Poles	6	6	6	6
Frequency [Hz]	60	50	50	50
Rated voltage [V]	230/460	380	400	415
Rated current [A]	141/70.3	70.0	67.3	65.6
L. R. Amperes [A]	942/471	490	478	499
LRC [A]	6.7x(Code G)	7.0x(Code H)	7.1x(Code H)	7.6x(Code J)
No load current [A]	50.0/25.0	24.8	26.8	28.3
Rated speed [RPM]	1185	985	985	985
Slip [%]	1.25	1.50	1.50	1.50
Rated torque [ft.lb]	266	267	267	267
Locked rotor torque [%]	240	220	250	280
Breakdown torque [%]	250	250	290	310
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)	27s (cold) 15s (hot)	30s (cold) 17s (hot)	28s (cold) 16s (hot)
Noise level ²	68.0 dB(A)			
Efficiency (%)	25%	91.4	92.9	92.9
	50%	91.7	93.0	93.0
	75%	94.5	93.4	93.4
	100%	94.5	93.4	93.4
Power Factor	25%	0.48	0.48	0.44
	50%	0.73	0.74	0.70
	75%	0.82	0.83	0.80
	100%	0.85	0.86	0.85

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type :	6316 C3	6212 Z C3	Max. traction : 2011 lb
Sealing :	Without	Without	Max. compression : 2945 lb
	<u>Bearing Seal</u>	<u>Bearing Seal</u>	
Lubrication interval :	20000 h	20000 h	
Lubricant amount :	34 g	13 g	
Lubricant type :	Mobil Polyrex EM		

Notes
USABLE @208V 155A SF 1.15 SFA 179A

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

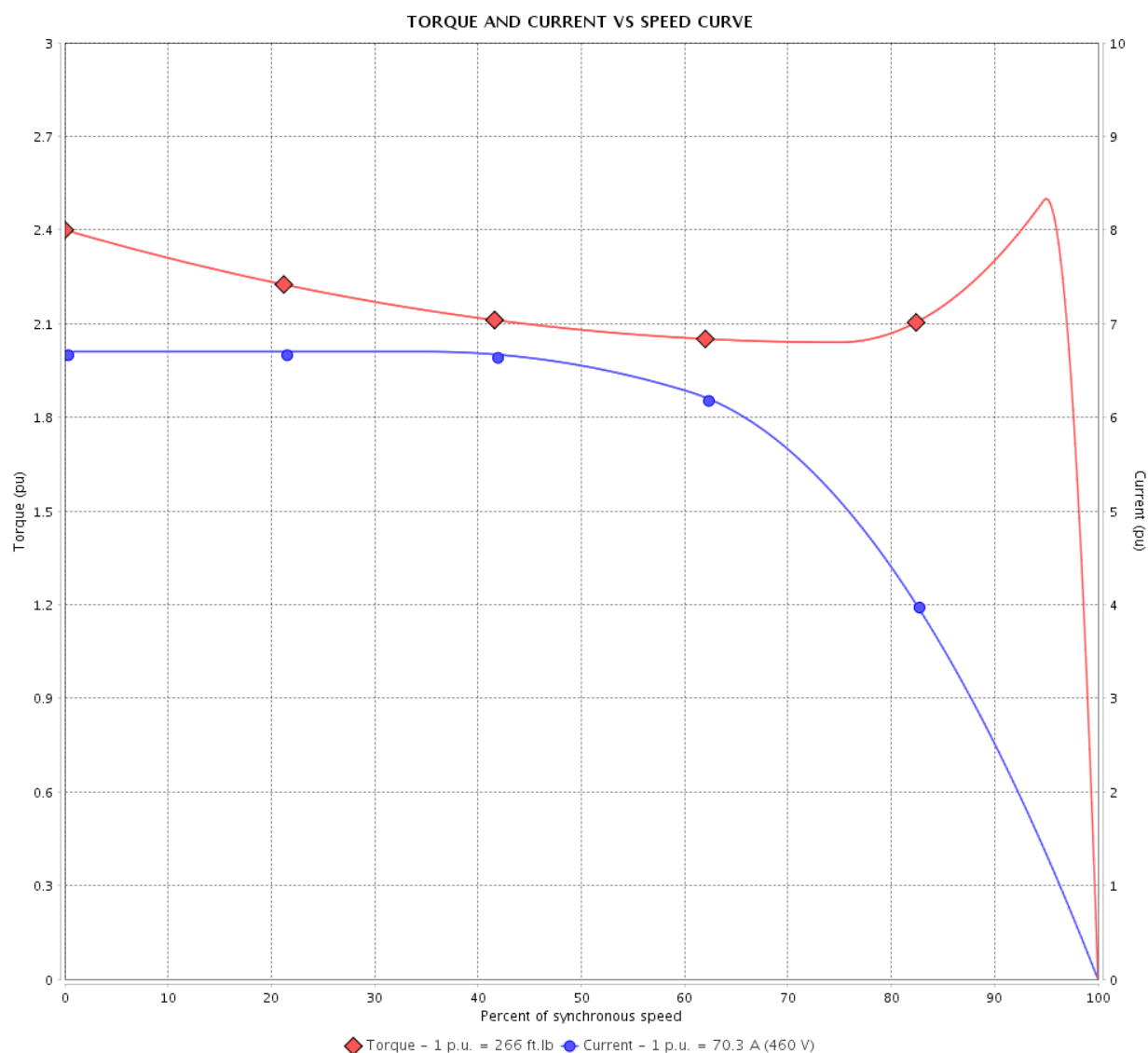


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270883

Catalog # : 060120T3E404T-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
LRC : 6.7
Rated torque : 266 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 250 %
Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 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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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

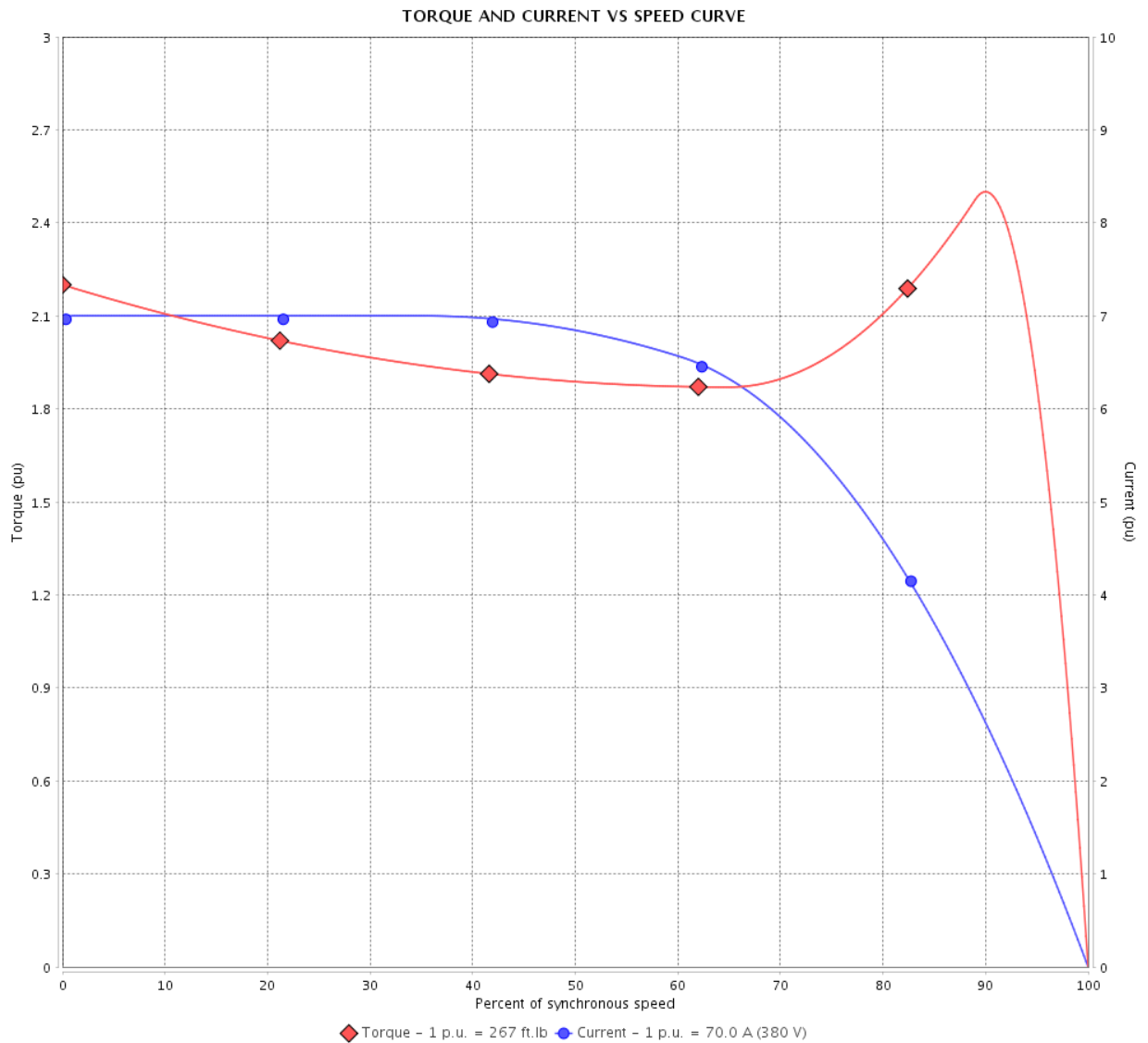


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270883

Catalog # : 06012OT3E404T-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 70.0 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

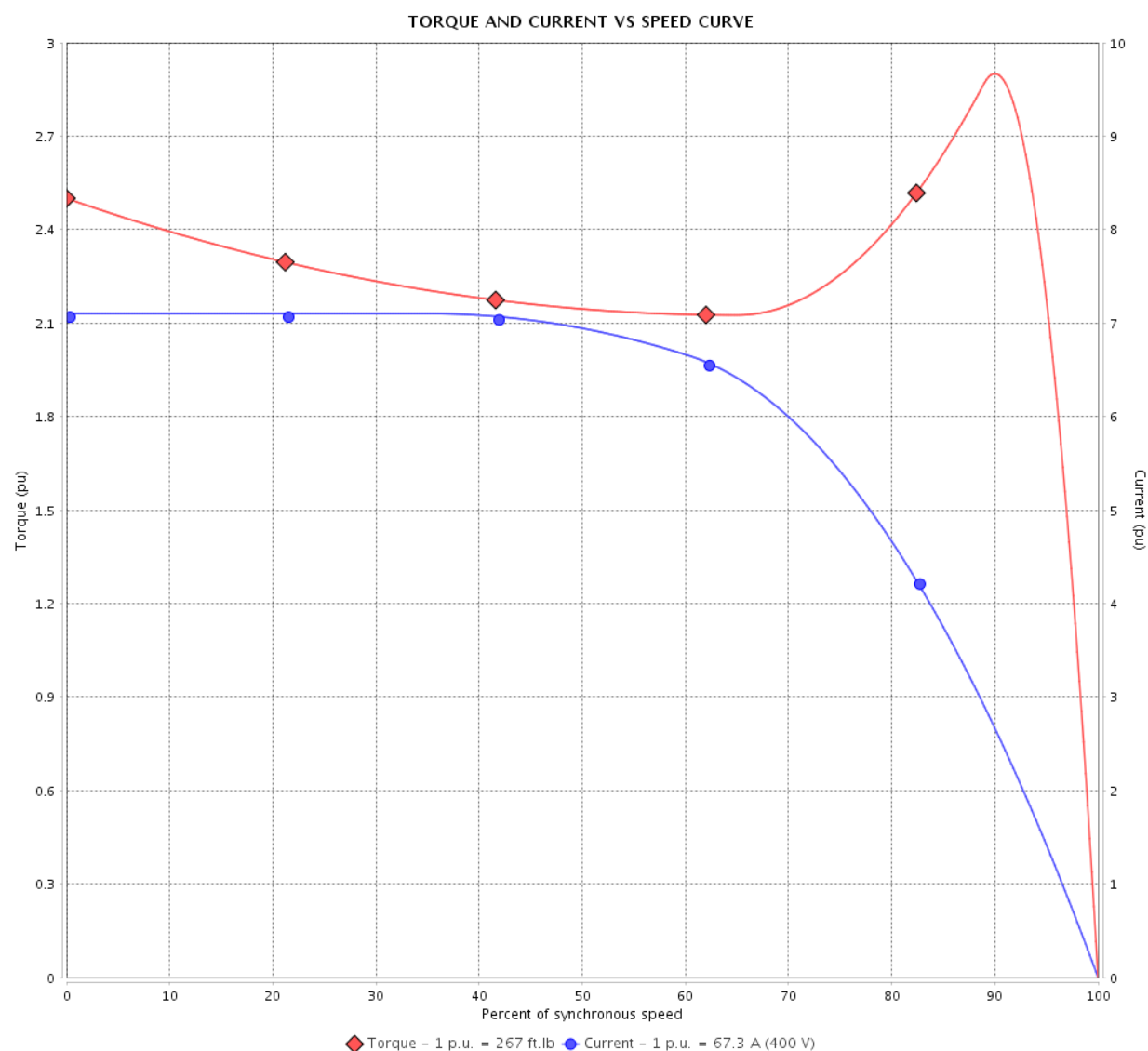


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270883

Catalog # : 060120T3E404T-W40



Performance : 400 V 50 Hz 6P IE3

Rated current	: 67.3 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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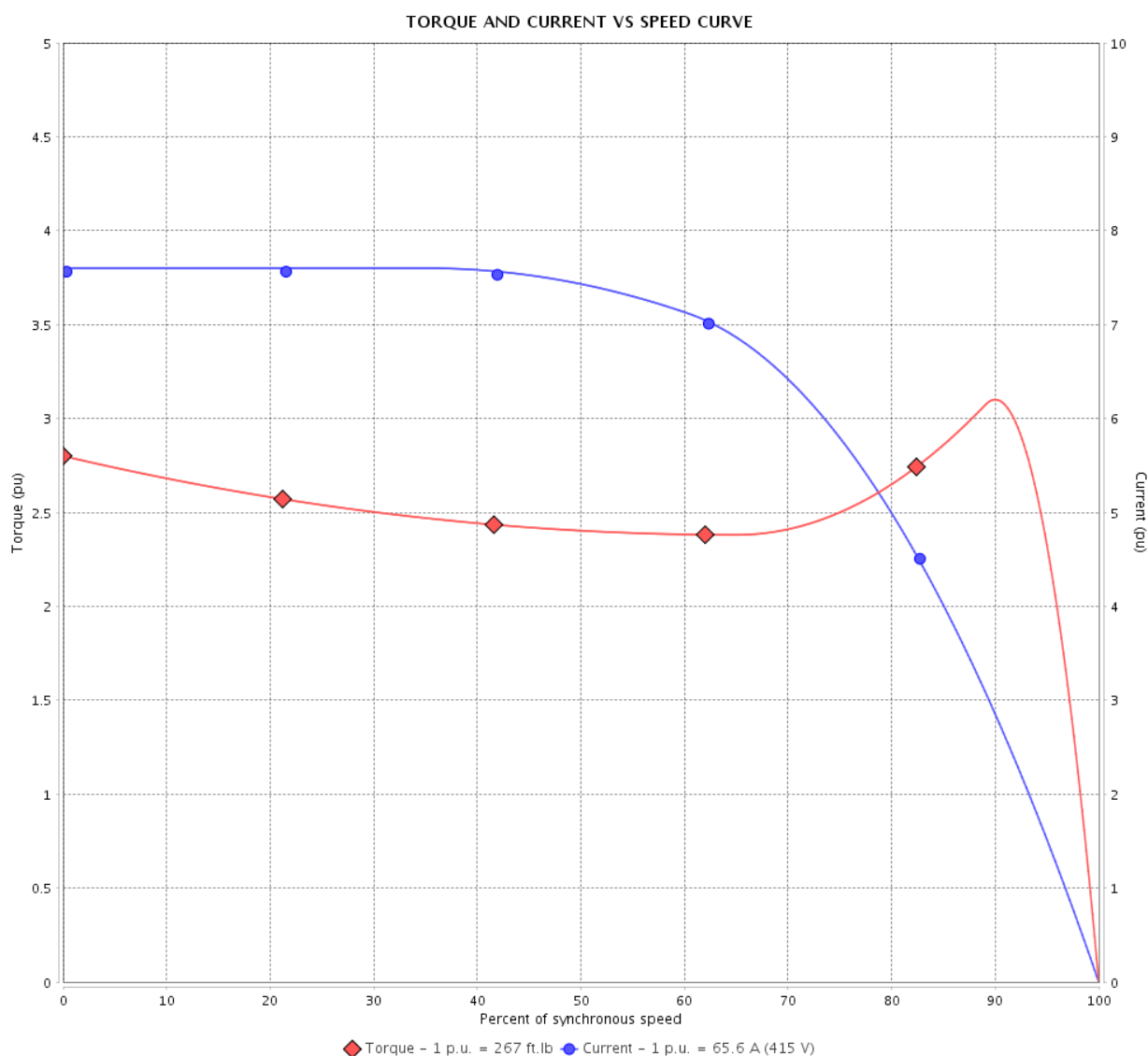


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Rated current	: 65.6 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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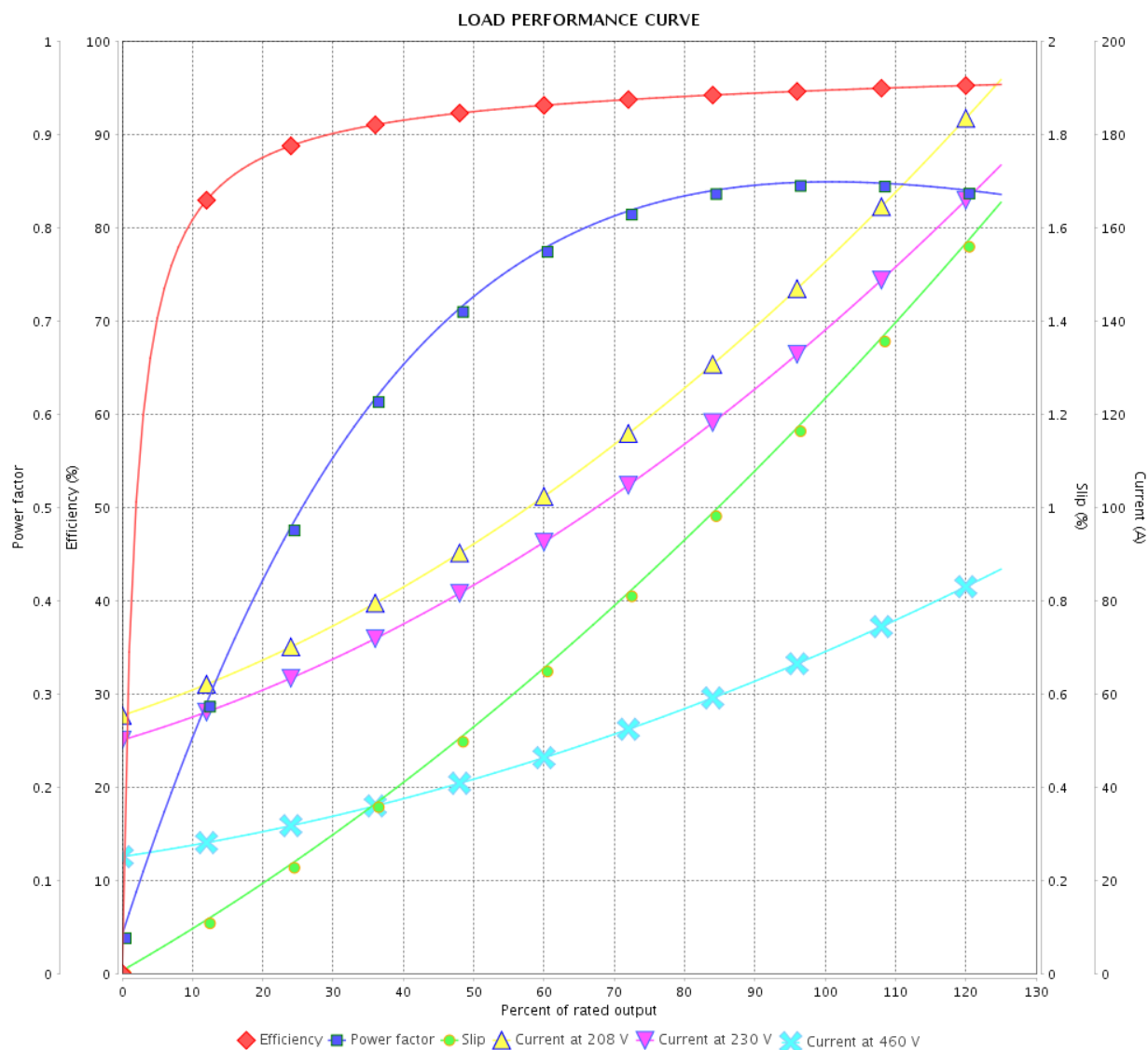


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14270883

Catalog # : 060120T3E404T-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
 LRC : 6.7
 Rated torque : 266 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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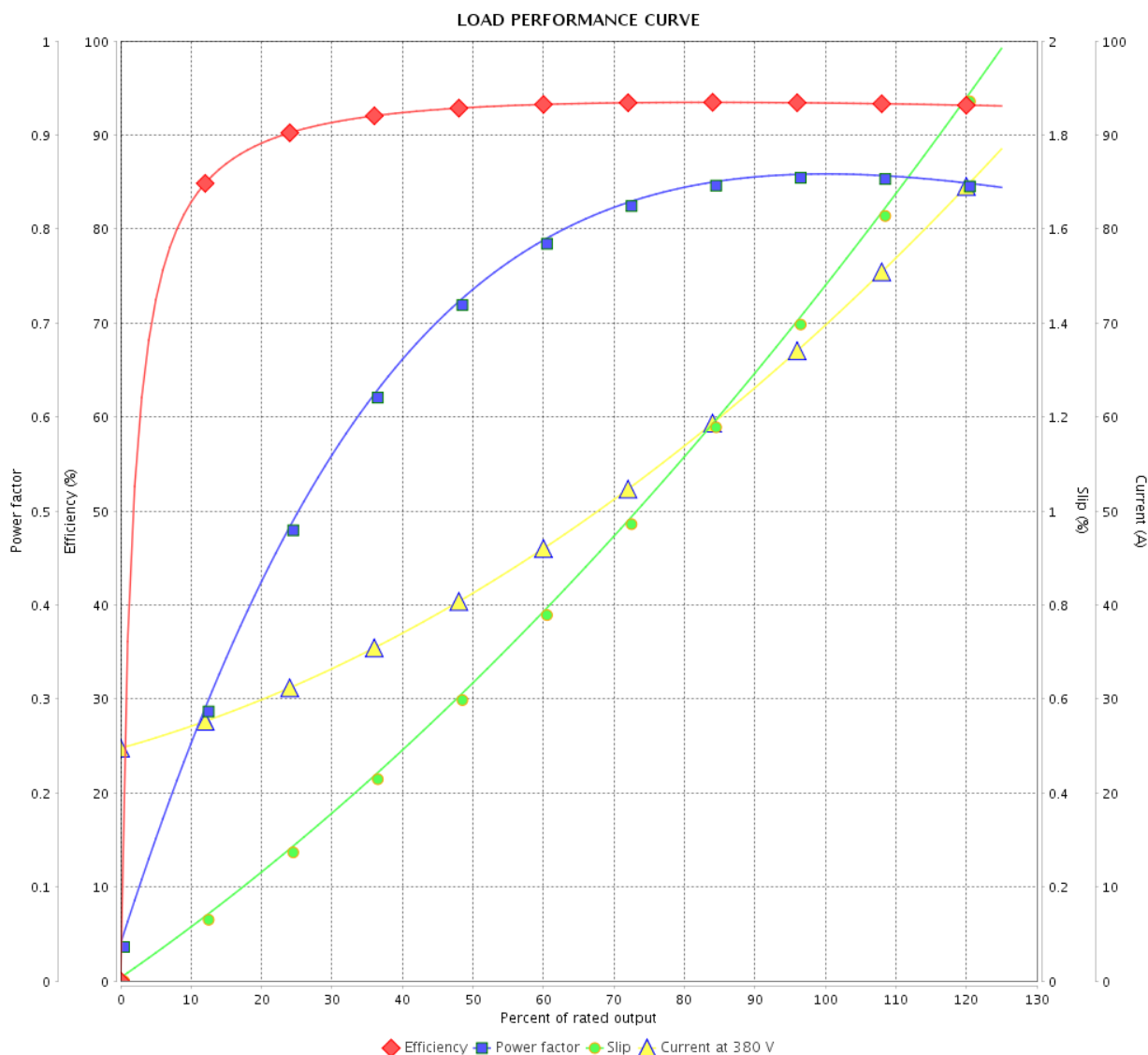


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Product line : W40 NEMA Premium Efficiency
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Product code : 14270883

Catalog # : 06012OT3E404T-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 70.0 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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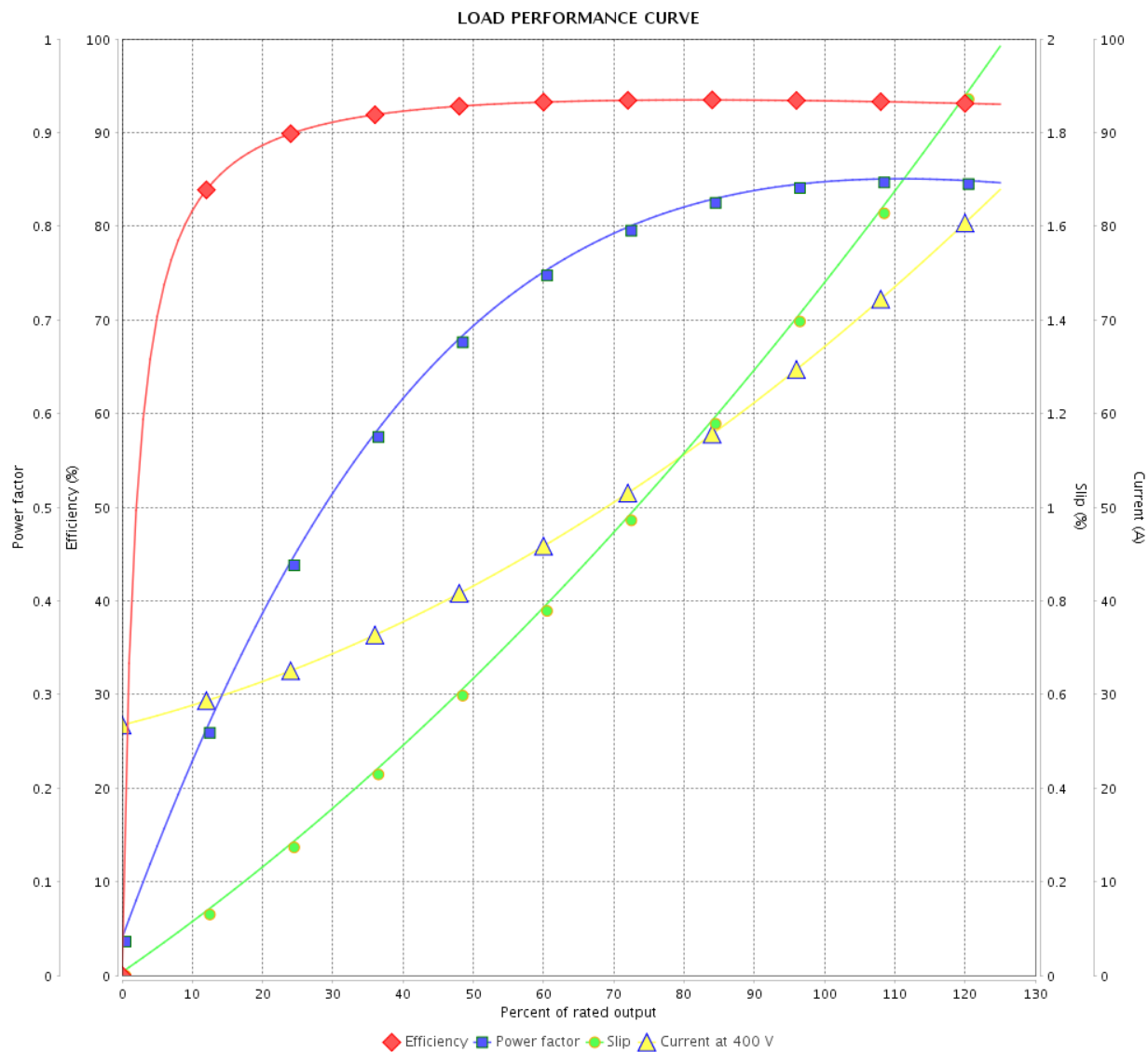


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Performance : 400 V 50 Hz 6P IE3

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LRC : 7.1
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Locked rotor torque : 250 %
Breakdown torque : 290 %
Rated speed : 985 rpm

Moment of inertia (J) : 29.4 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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LOAD PERFORMANCE CURVE

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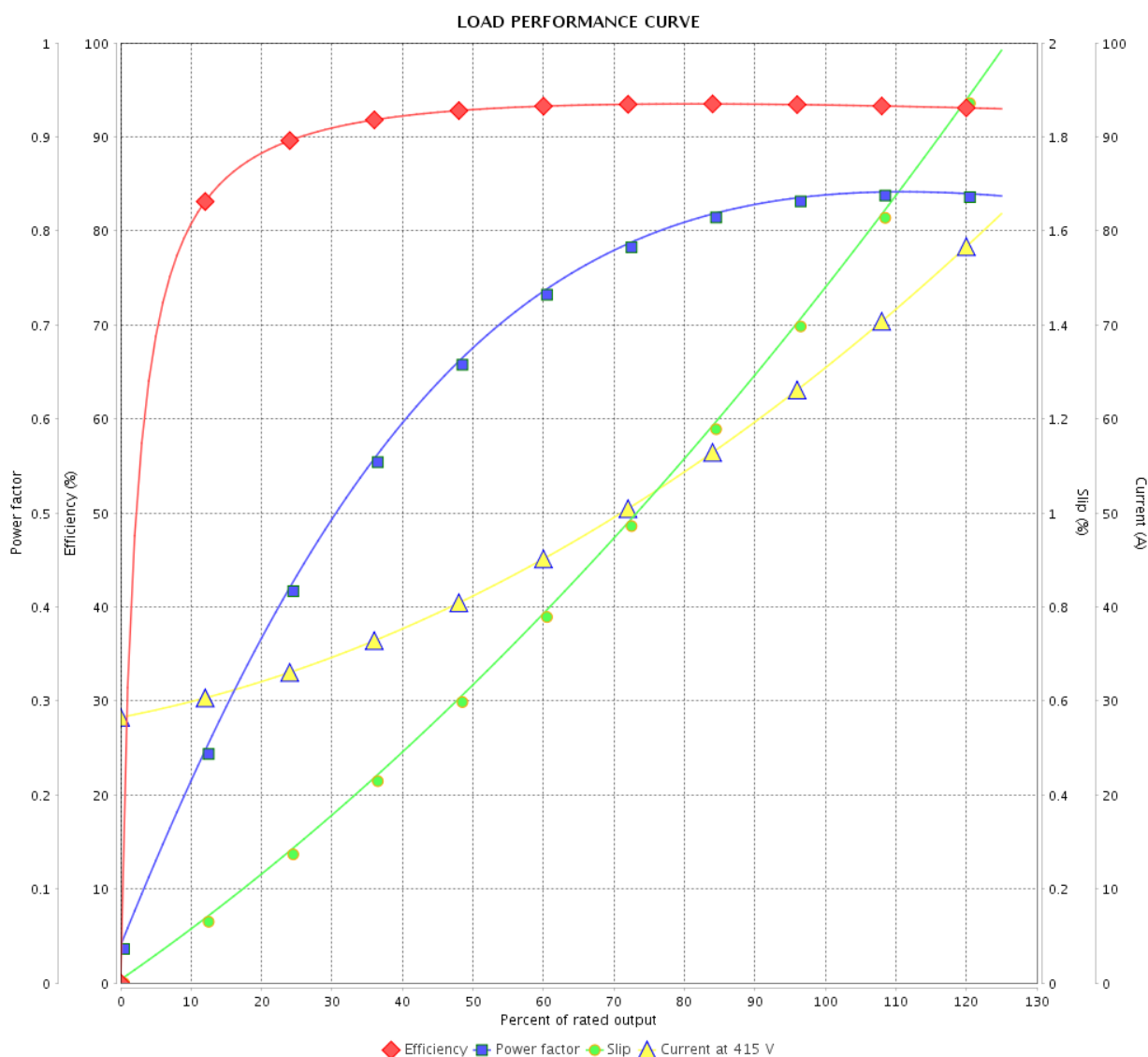


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Performance : 415 V 50 Hz 6P IE3

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LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Breakdown torque : 250 %

Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 sq.ft.lb

Duty cycle : Cont.(S1)

Insulation class : F

Service factor : 1.25

Temperature rise : 80 K

Design : B

Heating constant

Cooling constant

Rev.

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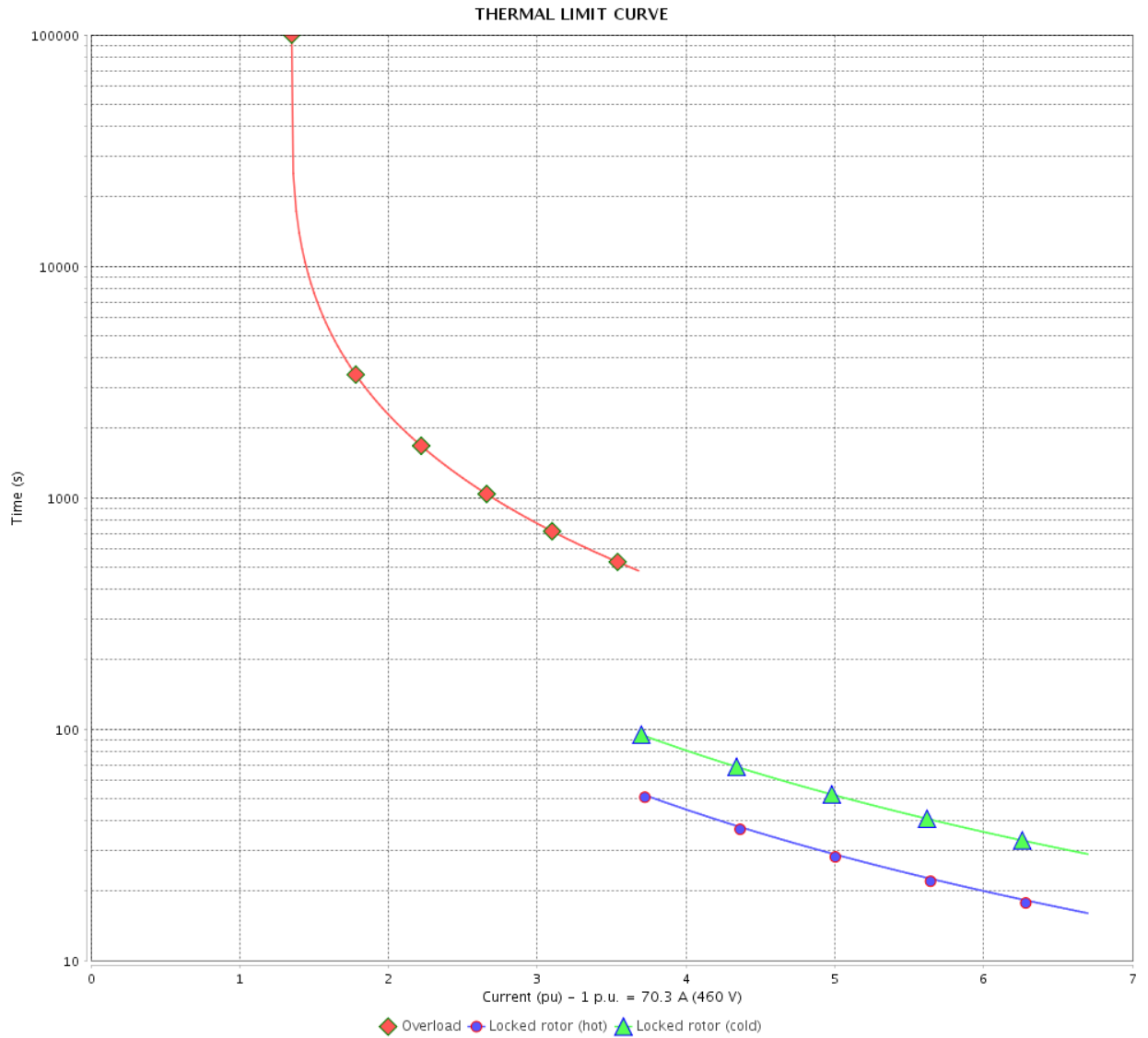
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Three-Phase

Product code :

14270883

Catalog # :

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Performance : 380 V 50 Hz 6P IE3

Rated current

: 70.0 A

LRC

: 7.0

Rated torque

: 267 ft.lb

Locked rotor torque

: 220 %

Breakdown torque

: 250 %

Rated speed

: 985 rpm

Moment of inertia (J)

: 29.4 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

Design

: B

Heating constant

Cooling constant

Rev.

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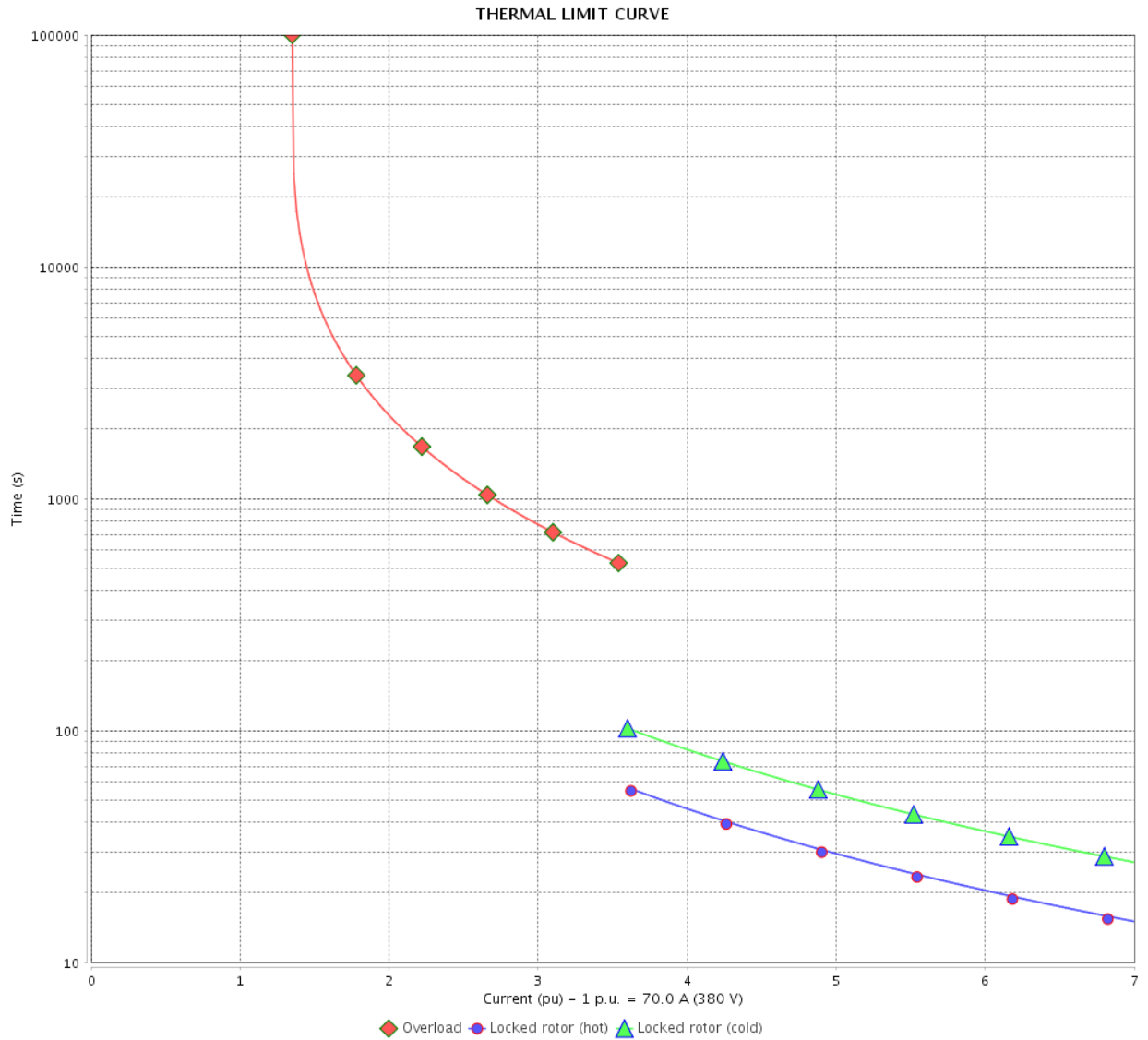
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: 267 ft.lb

Locked rotor torque

: 250 %

Breakdown torque

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Duty cycle

: Cont.(S1)

Insulation class

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Service factor

: 1.00

Temperature rise

: 80 K

Design

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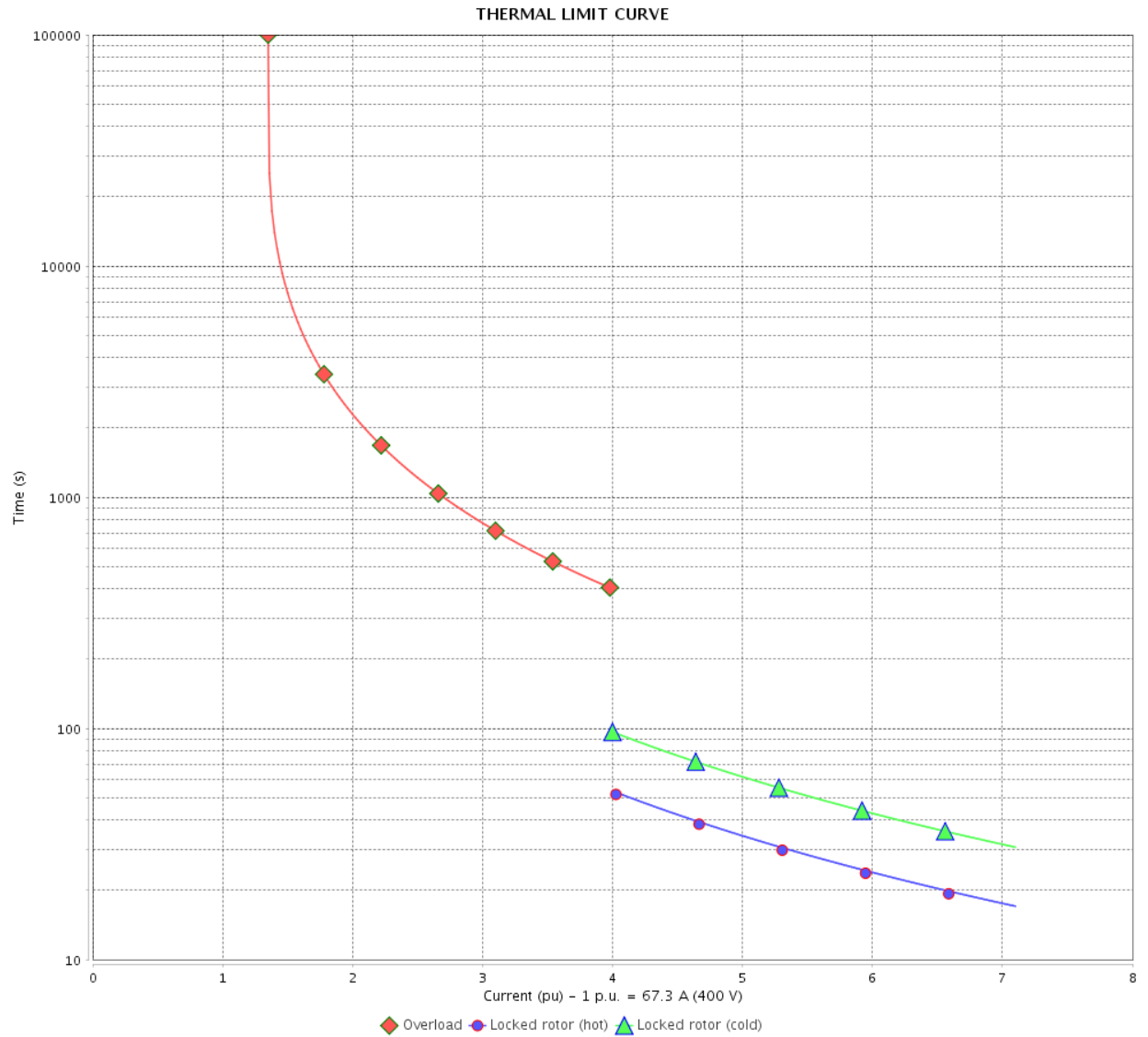
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Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer

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Product line

: W40 NEMA Premium Efficiency
Three-Phase

Product code :

14270883

Catalog # :

06012OT3E404T-W40

Performance : 415 V 50 Hz 6P IE3

Rated current

: 65.6 A

LRC

: 7.6

Rated torque

: 267 ft.lb

Locked rotor torque

: 280 %

Breakdown torque

: 310 %

Rated speed

: 985 rpm

Moment of inertia (J)

: 29.4 sq.ft.lb

Duty cycle

: Cont.(S1)

Insulation class

: F

Service factor

: 1.00

Temperature rise

: 80 K

Design

: B

Heating constant

Cooling constant

Rev.

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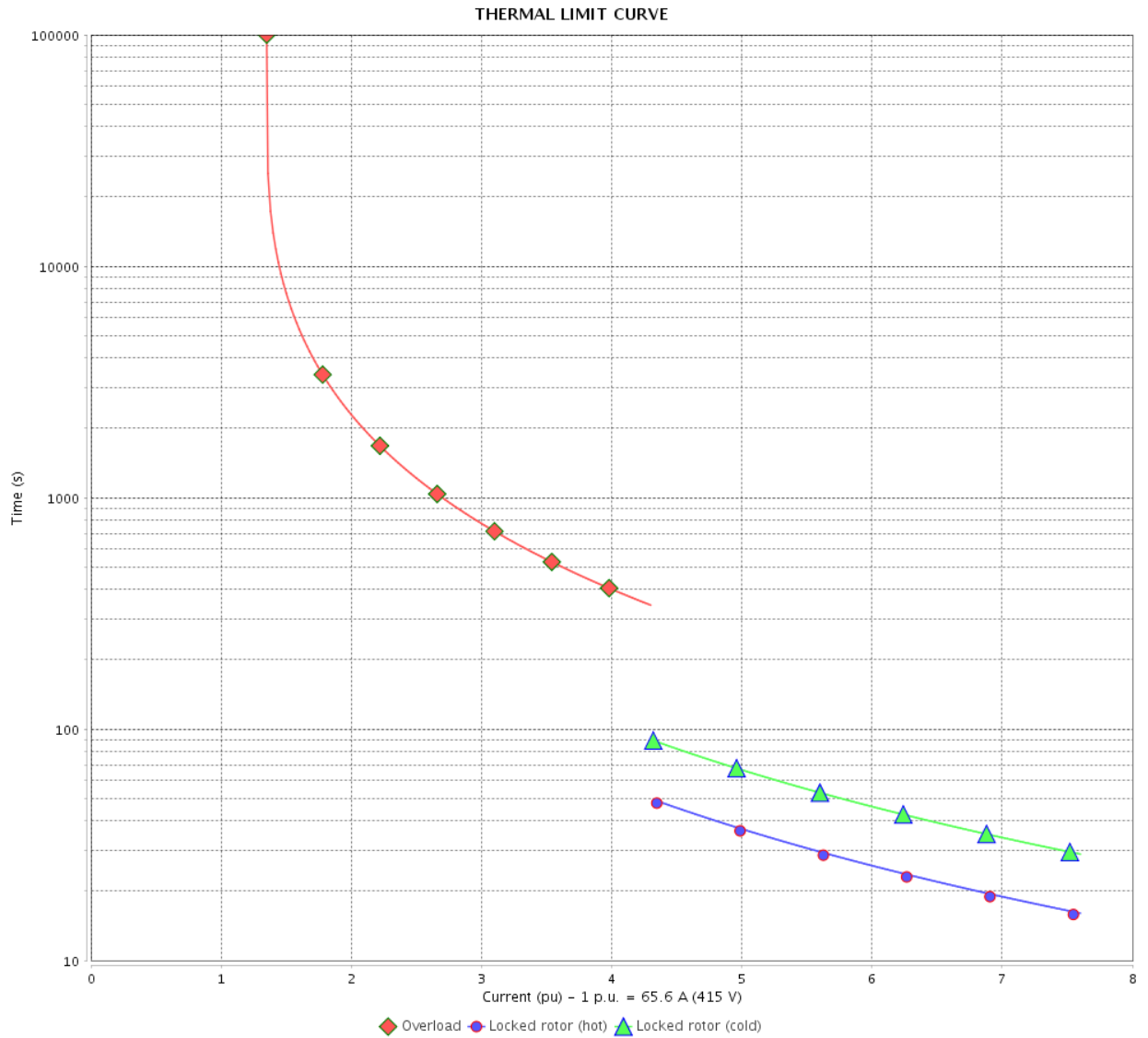
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

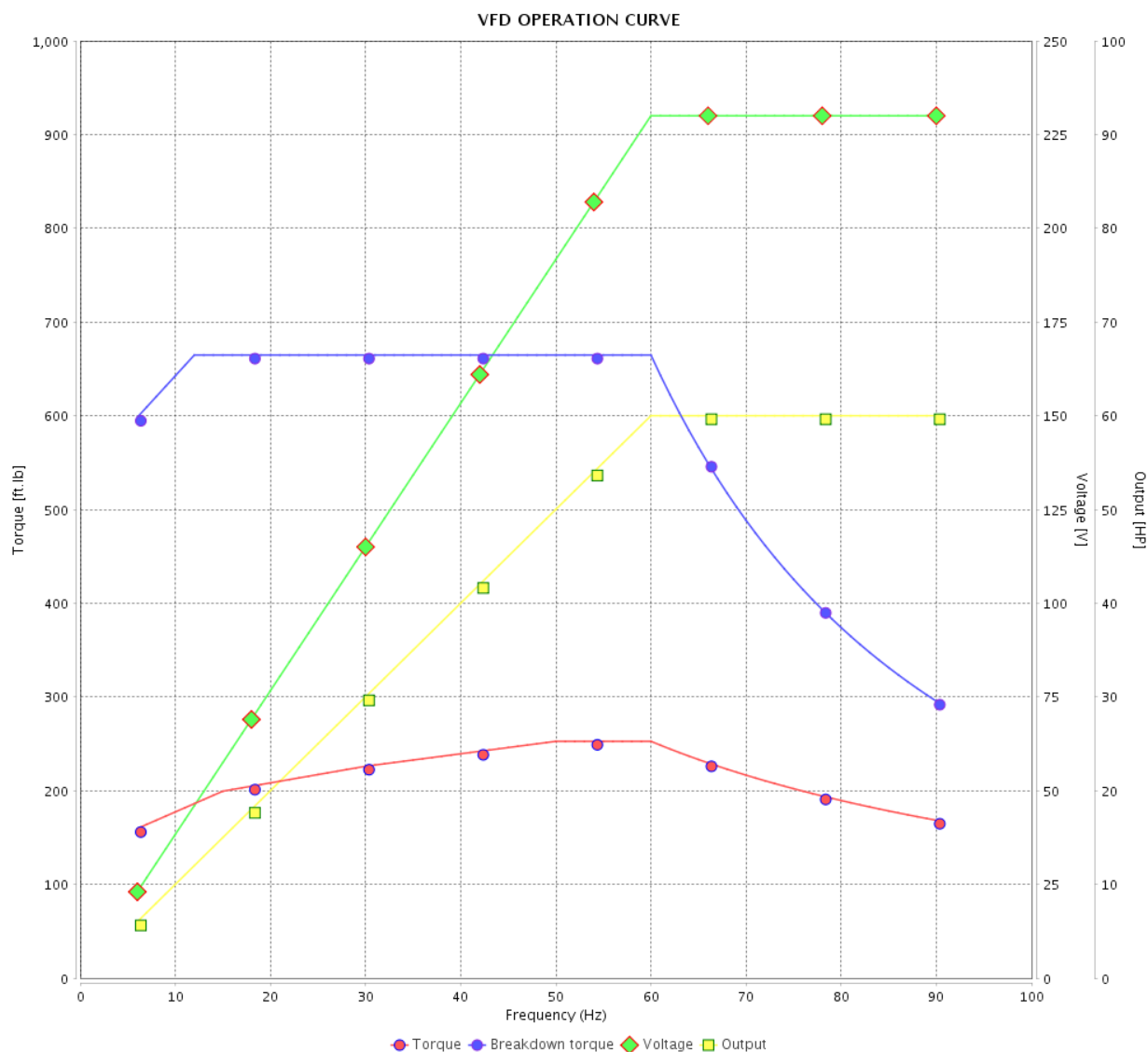


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Catalog # : 060120T3E404T-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 141/70.3 A
LRC : 6.7
Rated torque : 266 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 250 %
Rated speed : 1185 rpm

Moment of inertia (J) : 29.4 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

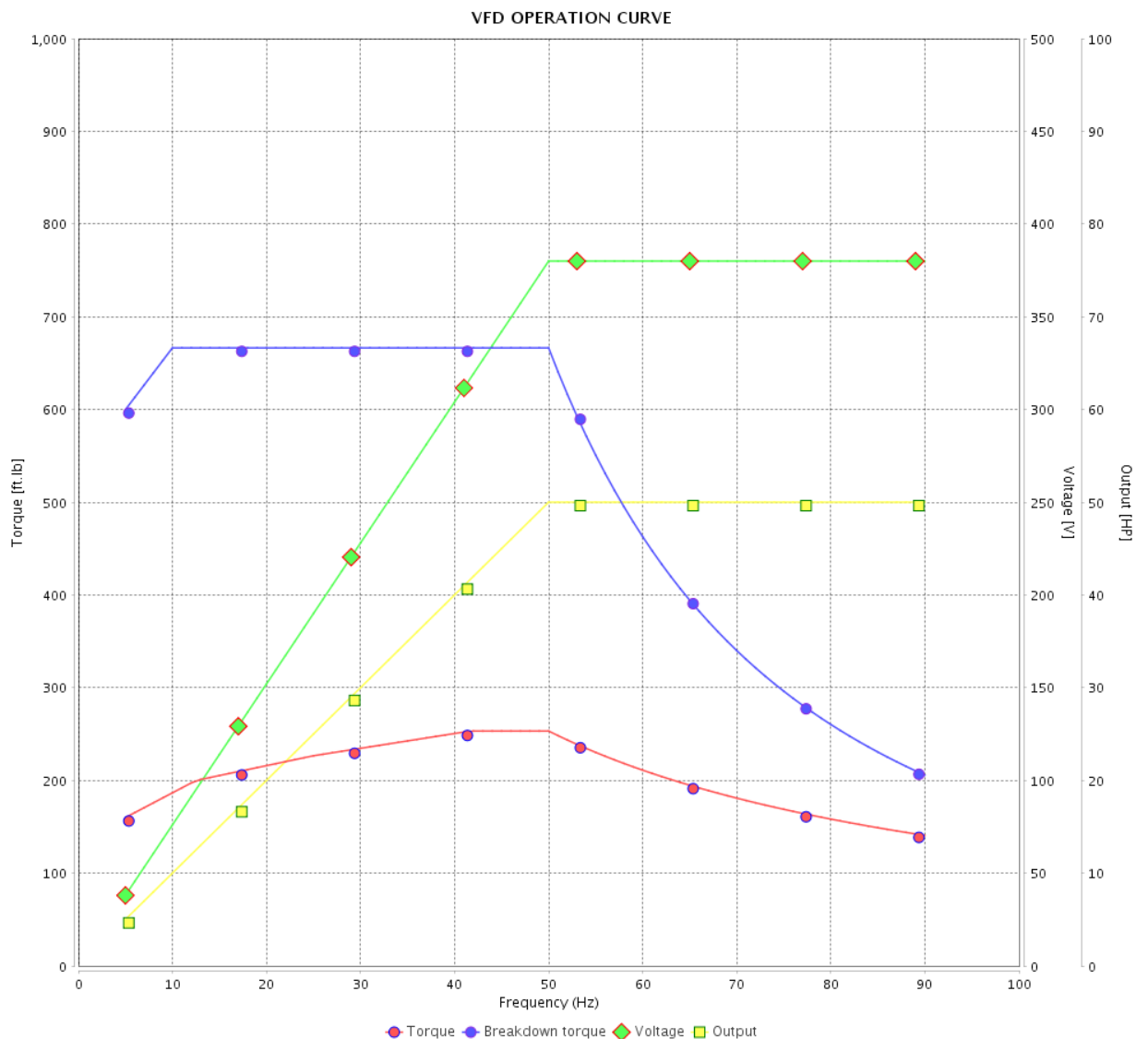


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Performance : 380 V 50 Hz 6P IE3

Rated current	: 70.0 A	Moment of inertia (J)	: 29.4 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

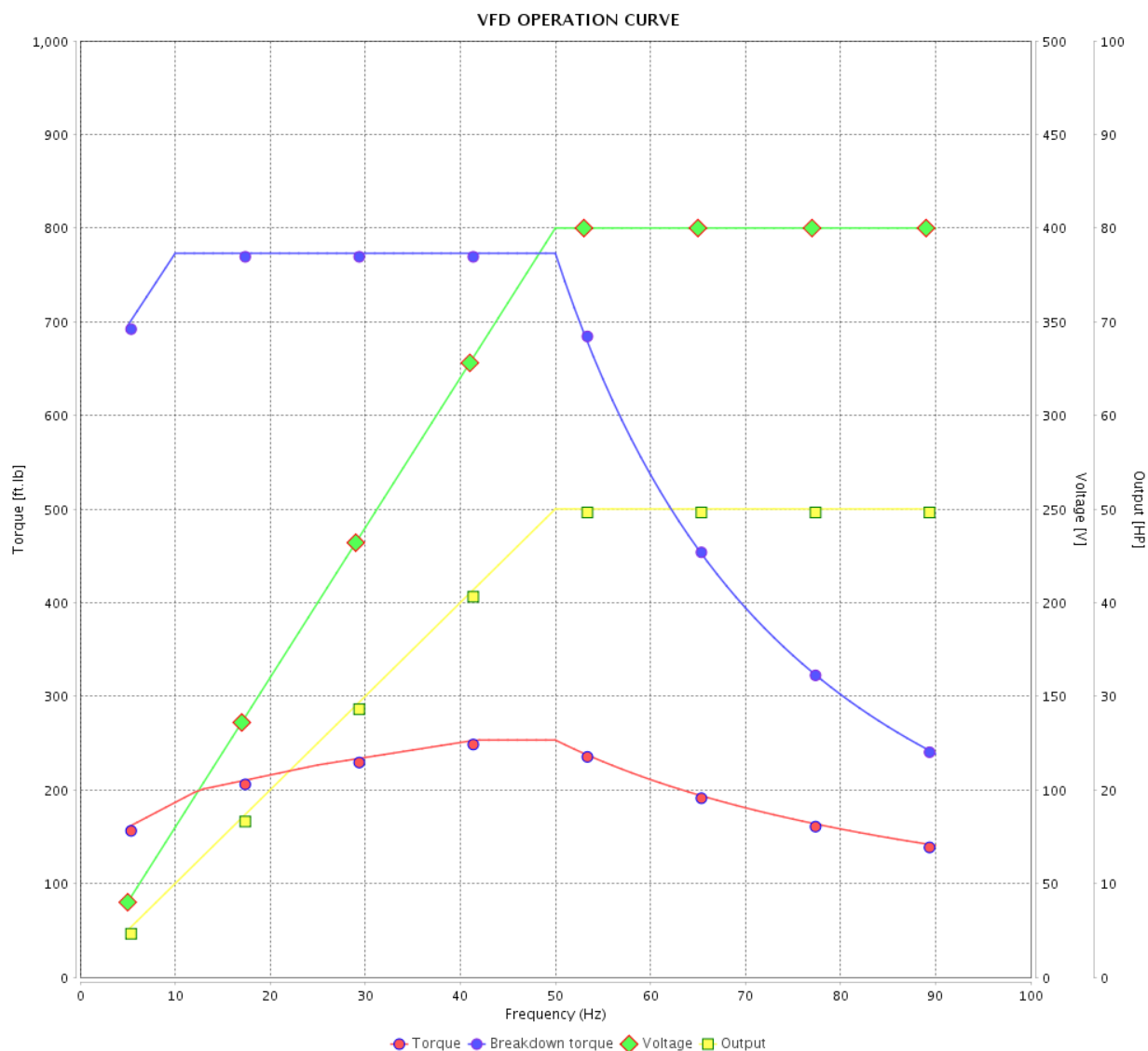


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Catalog # : 060120T3E404T-W40



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

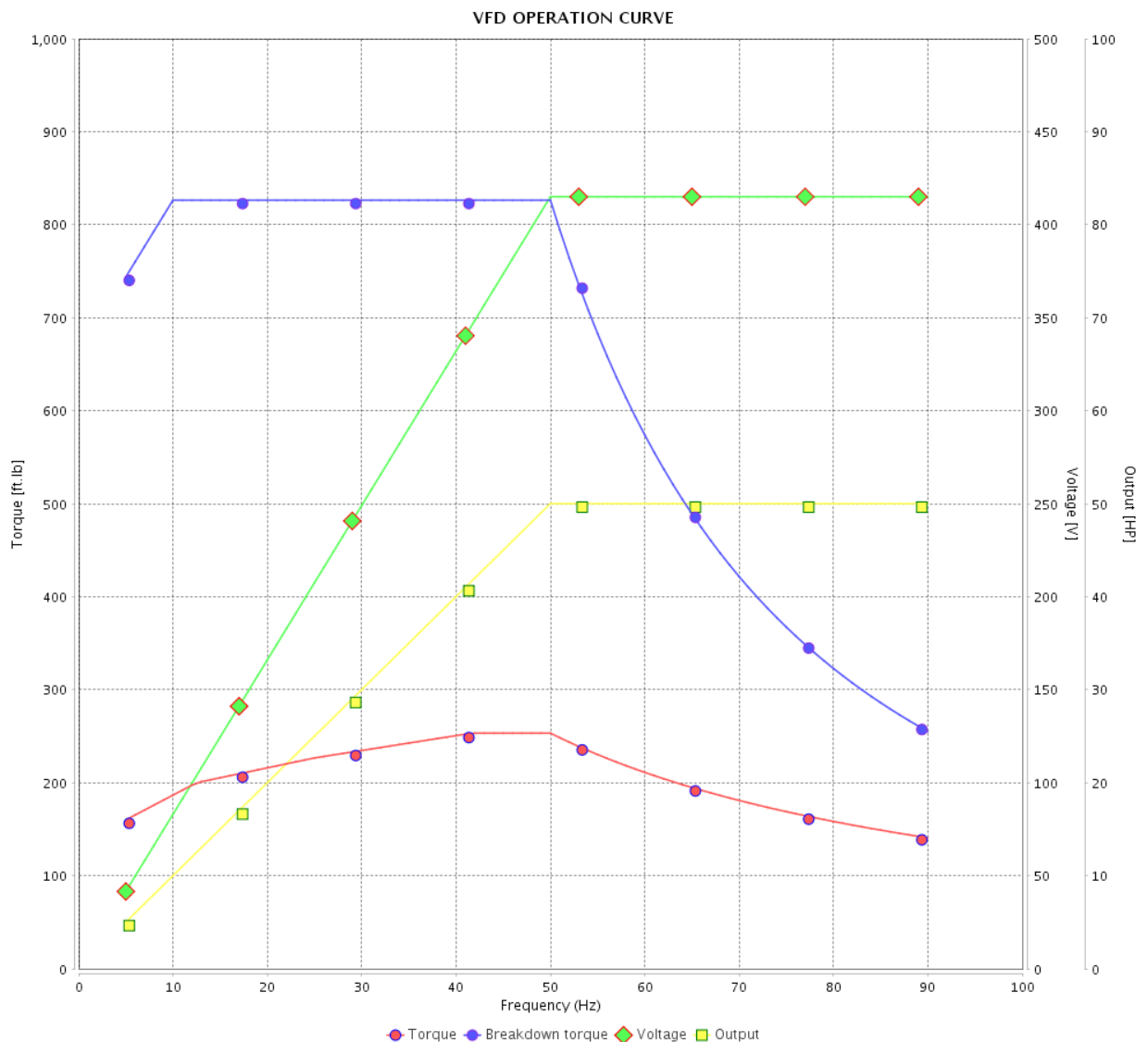


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Rated torque	: 267 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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MODEL 060120T3E404T-W40
MADE IN BRAZIL
14270883

WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor

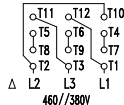
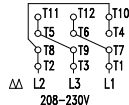


IEC 60034-1
MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 2:1, 1.0SF

PH 3	FR 404/5T	HP(kW) 60.0(45.0)	Hz 60
V 230/460	A 141/70.3	RPM 1185	DES B
NEMA NOM EFF 94.5 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.85	SF 1.25	SFA 176/87.9
USABLE @208V 155 A	SF 1.15	SFA 178	
50HP 37kW 50Hz 380V 70.0A 985RPM SF1.00 EFF 93.4% (IE3)			



→ 6316-C3(34g)
→ 6212-Z-C3(13g)

MOBIL POLYREX EM
20000 h

ALT 1000 m.a.s.l. 935 Lbs