

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : W40 NEMA Premium Efficiency Three-Phase		Product code : 14272919			
		Catalog # : 07536OT3E364TSC-W40G			
Frame : 364/5TSC		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 : 736 lb			
Protection degree : IP23		Moment of inertia (J) : 6.40 sq.ft.lb			
Design : B					
Output [HP]	75	60	60	60	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	170/84.8	82.7	79.4	78.4	
L. R. Amperes [A]	1119/560	579	588	588	
LRC [A]	6.6x(Code G)	7.0x(Code H)	7.4x(Code H)	7.5x(Code H)	
No load current [A]	43.0/21.5	20.7	22.7	25.0	
Rated speed [RPM]	3555	2955	2963	2965	
Slip [%]	1.25	1.50	1.23	1.17	
Rated torque [ft.lb]	111	107	106	106	
Locked rotor torque [%]	200	190	220	220	
Breakdown torque [%]	250	229	250	280	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	34s (cold) 19s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	
Noise level ²	84.0 dB(A)				
Efficiency (%)	25%	91.0	90.5	90.2	89.7
	50%	91.7	91.7	91.4	91.0
	75%	93.0	92.9	92.8	92.7
	100%	93.6	94.0	94.0	94.0
Power Factor	25%	0.56	0.56	0.51	0.47
	50%	0.77	0.78	0.73	0.69
	75%	0.84	0.85	0.83	0.80
	100%	0.87	0.88	0.87	0.85
Bearing type : <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6212 Z C3		Foundation loads			
Sealing : Without Without		Max. traction : 651 lb			
Lubrication interval : 14418 h 20000 h		Max. compression : 1387 lb			
Lubricant amount : 27 g 13 g					
Lubricant type : Mobil Polyrex EM					
Notes USABLE @208V 188A SF 1.15 SFA 216A					
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



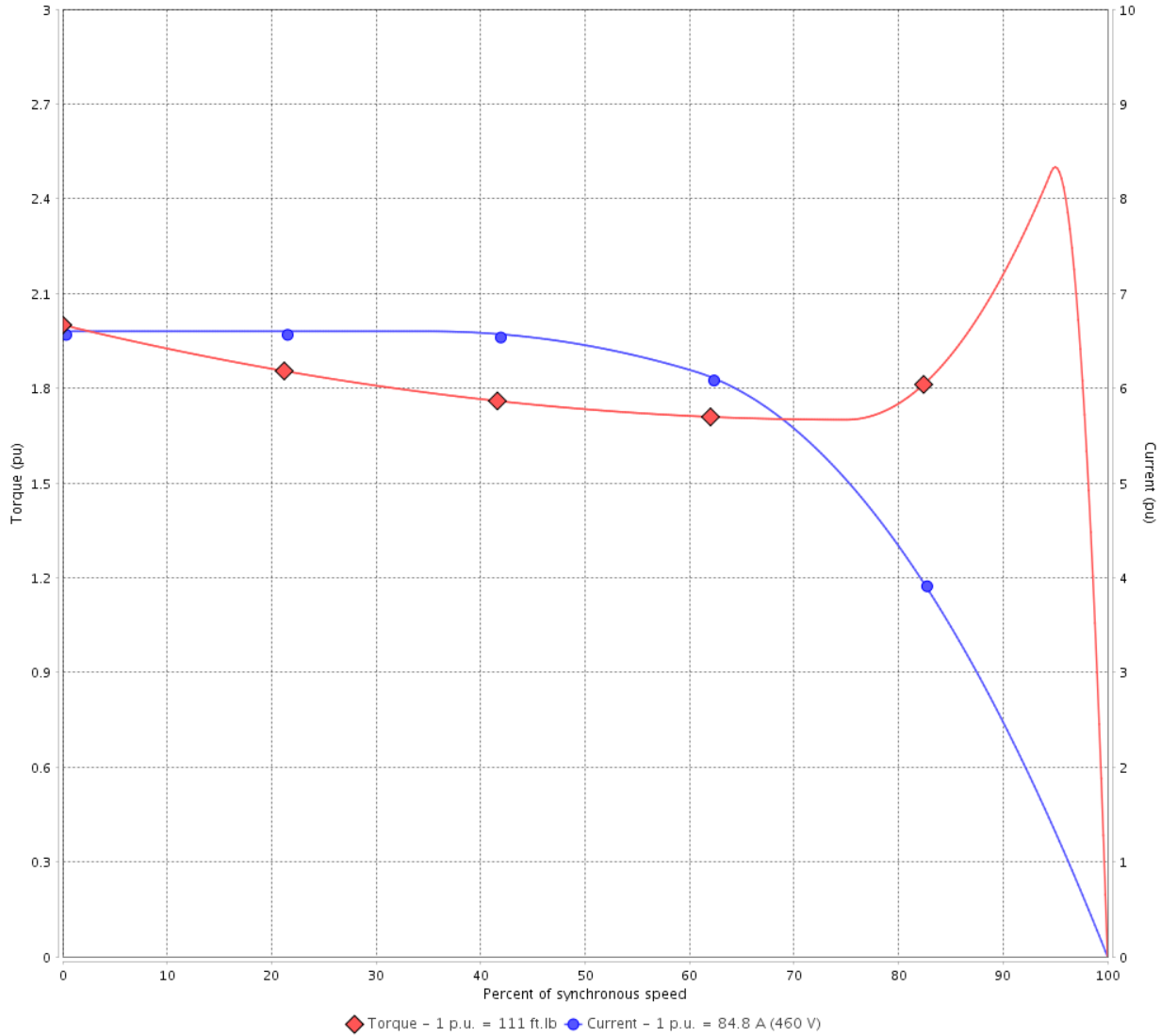
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272919

Catalog # : 07536OT3E364TSC-
W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 170/84.8 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 111 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3555 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



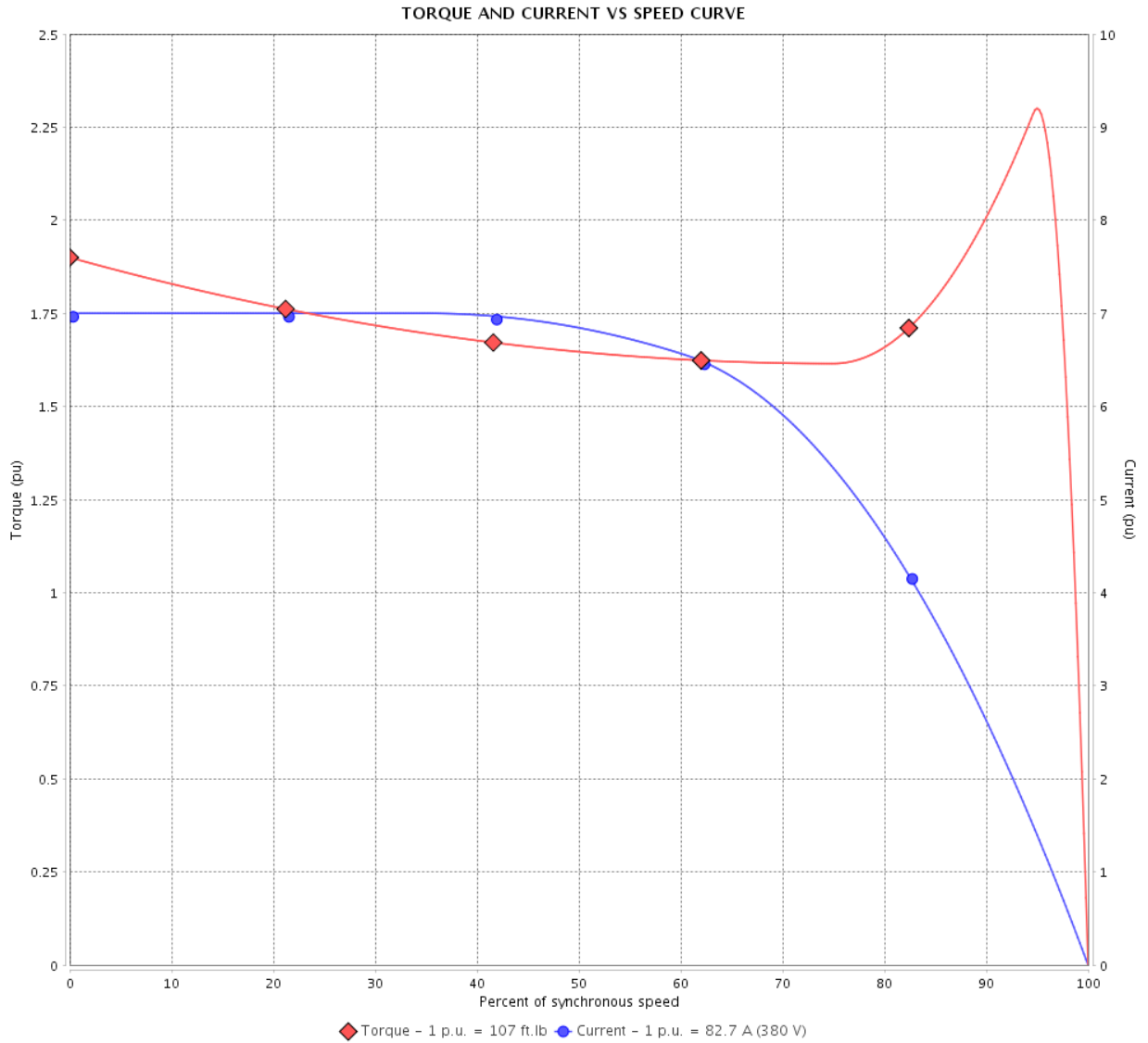
Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 14272919

Catalog # : 07536OT3E364TSC-W40G



Performance : 380 V 50 Hz 2P IE3

Rated current	: 82.7 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2955 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



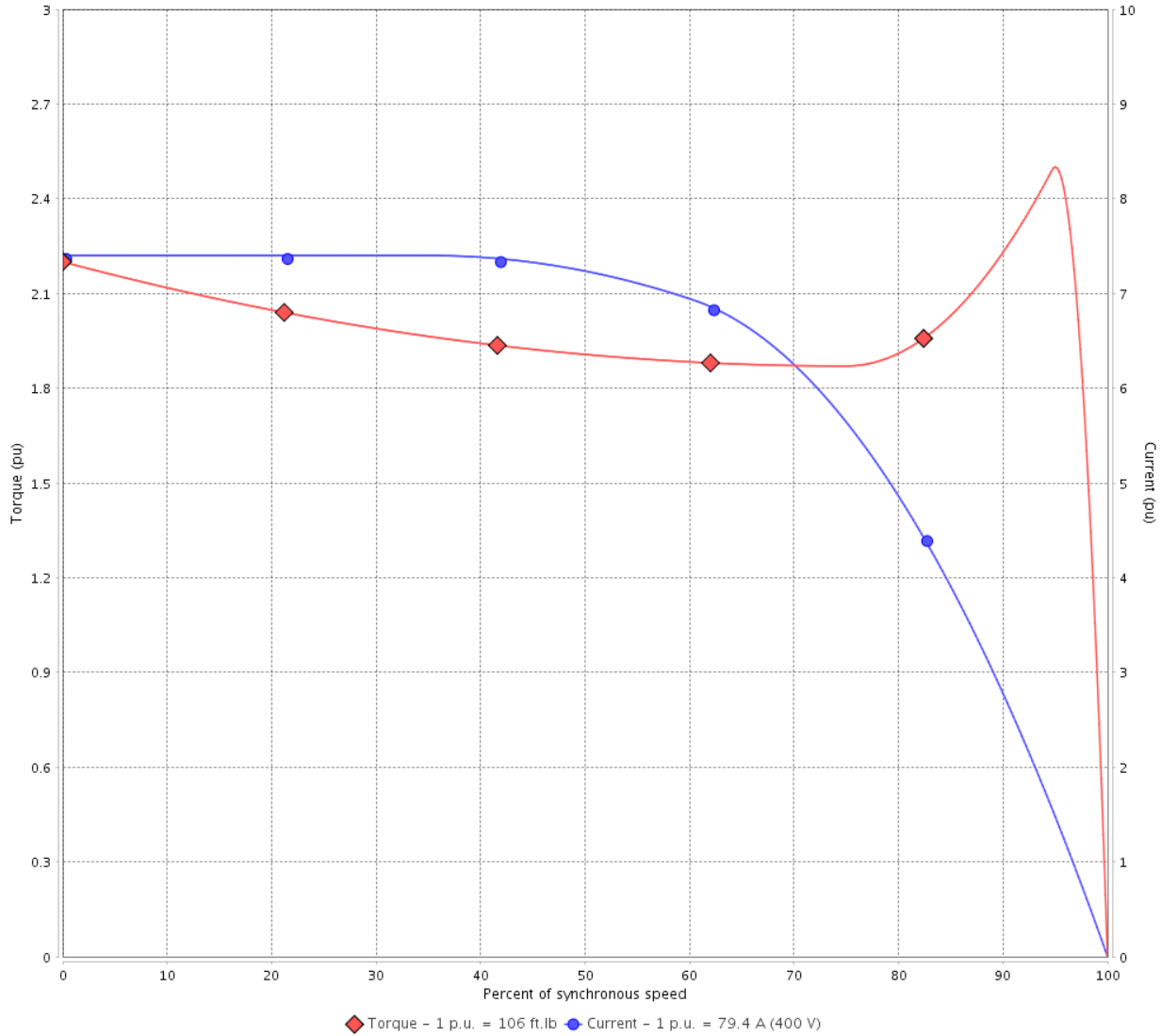
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Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272919

Catalog # : 07536OT3E364TSC-
W40G

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 79.4 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2963 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



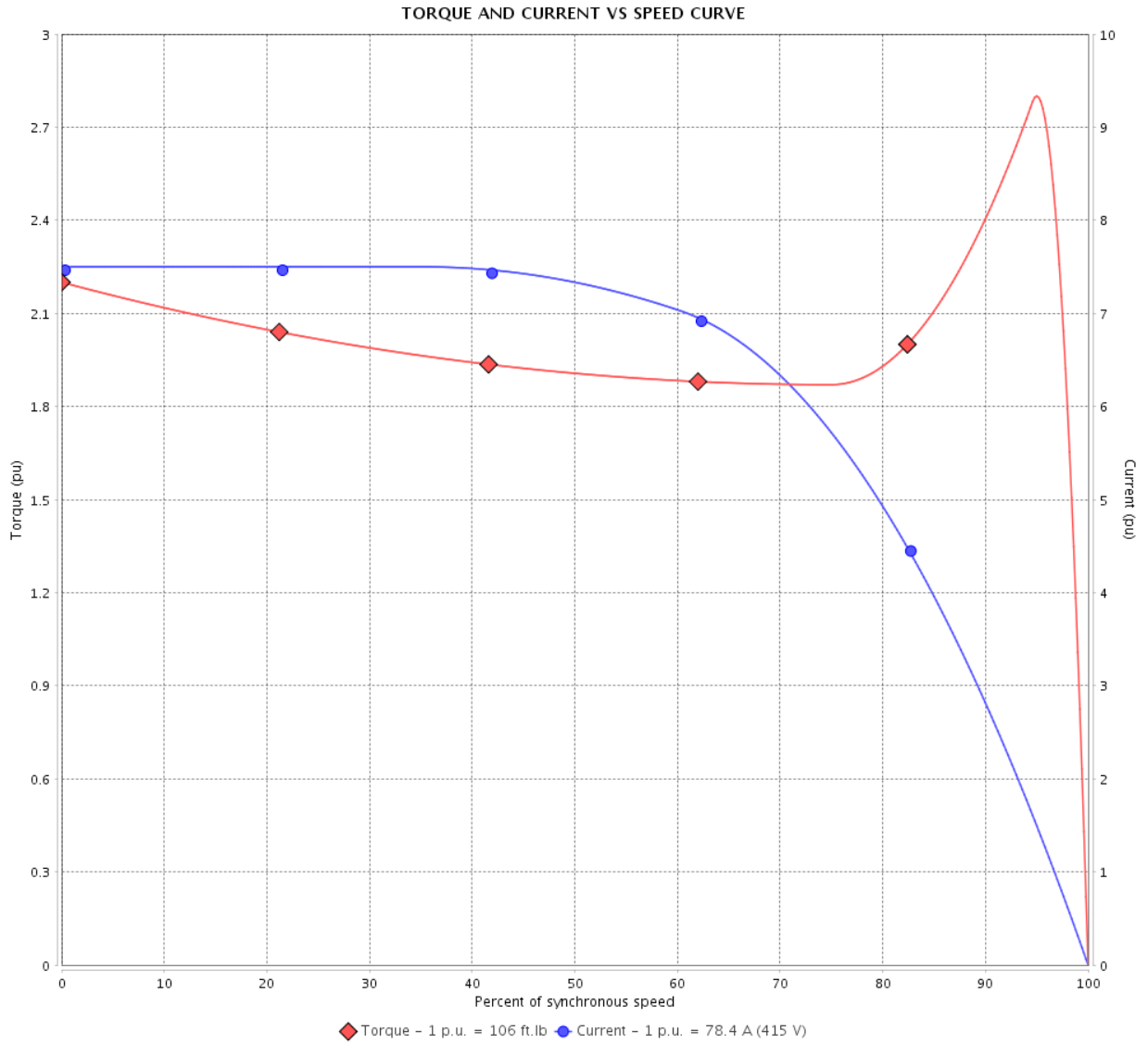
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Performance : 415 V 50 Hz 2P IE3

Rated current	: 78.4 A	Moment of inertia (J)	: 6.40 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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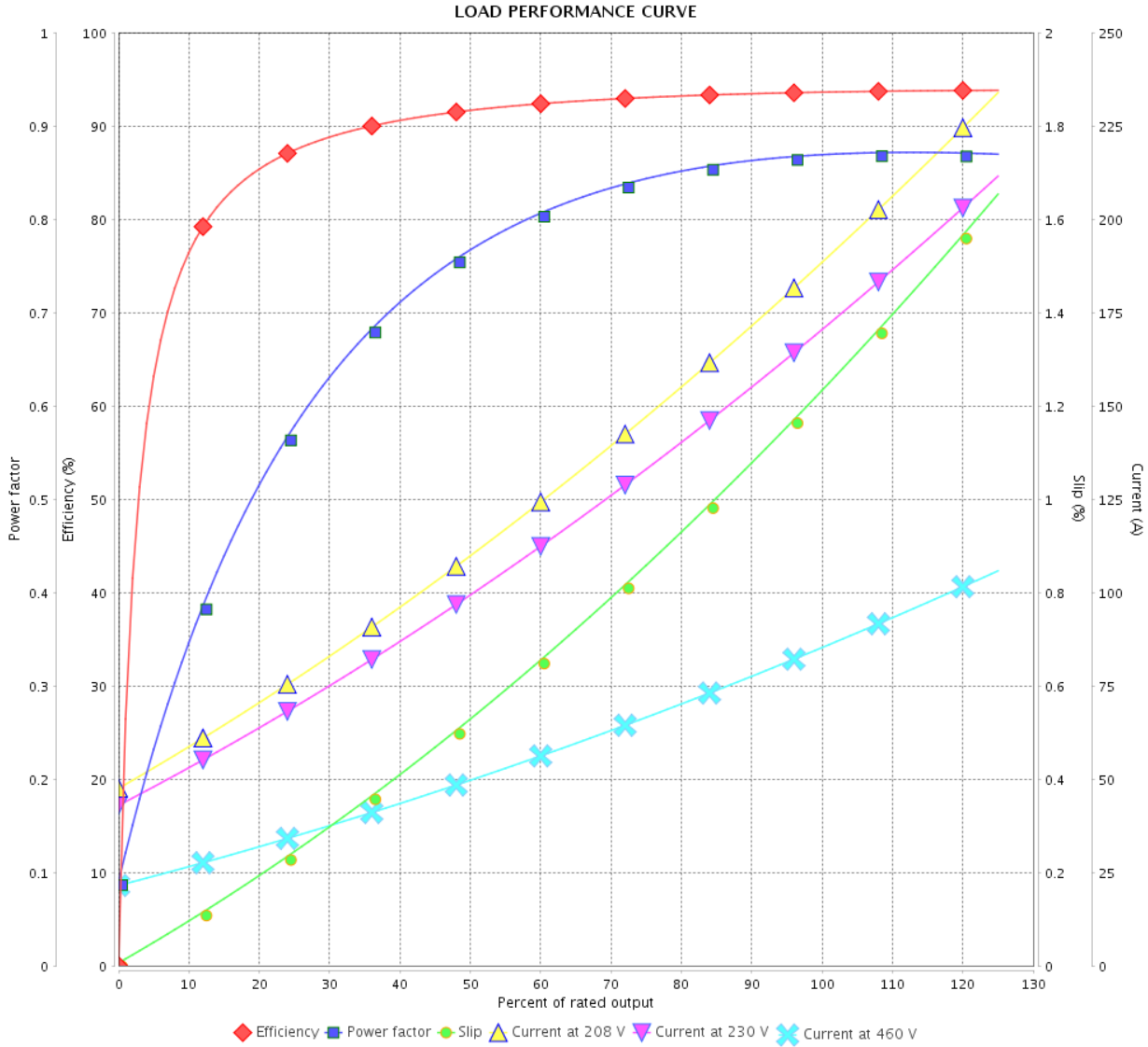


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Catalog # : 07536OT3E364TSC-W40G



Performance : 230/460 V 60 Hz 2P

Rated current : 170/84.8 A
 LRC : 6.6
 Rated torque : 111 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 3555 rpm

Moment of inertia (J) : 6.40 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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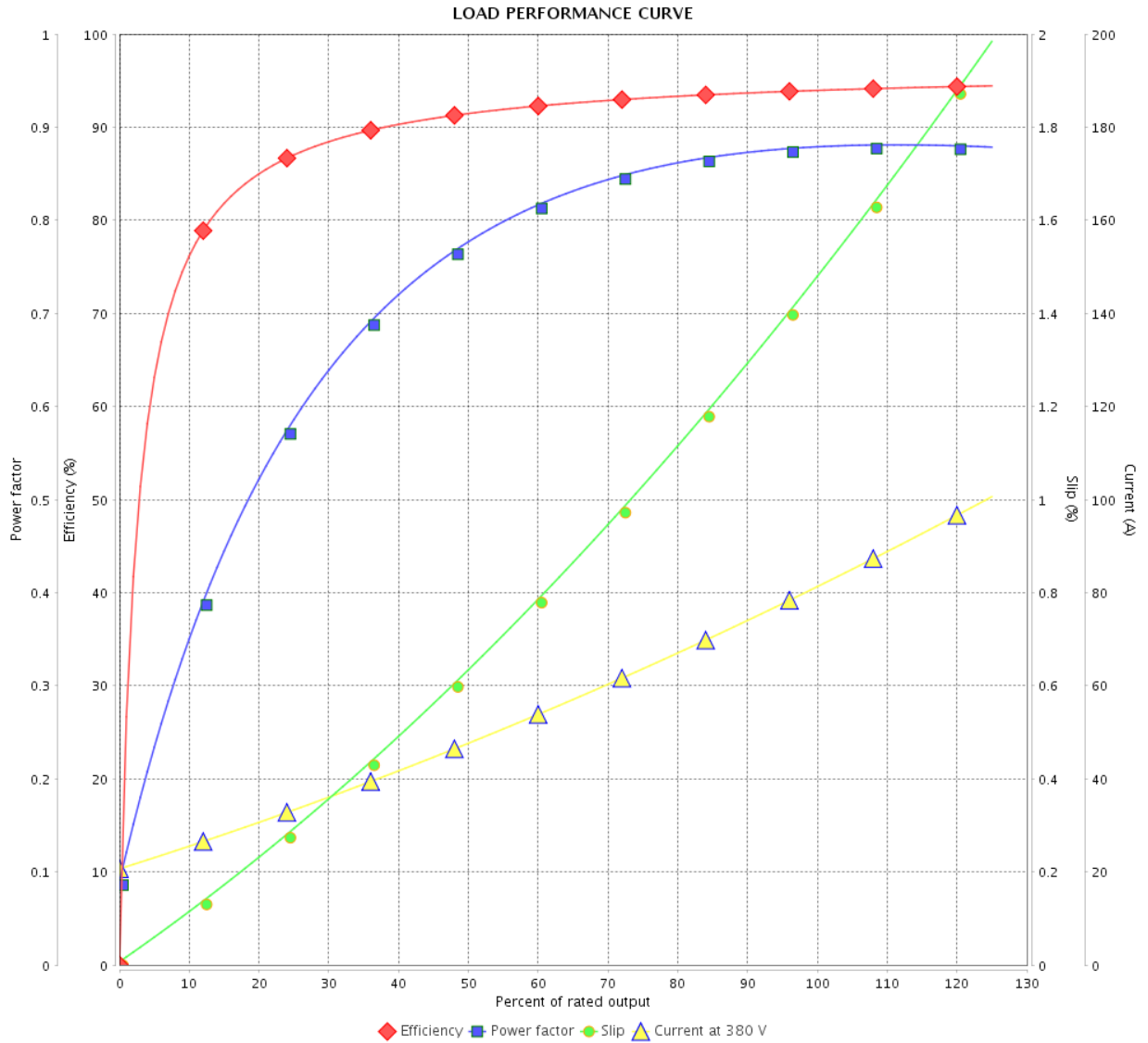


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Performance : 380 V 50 Hz 2P IE3

Rated current : 82.7 A
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 Rated torque : 107 ft.lb
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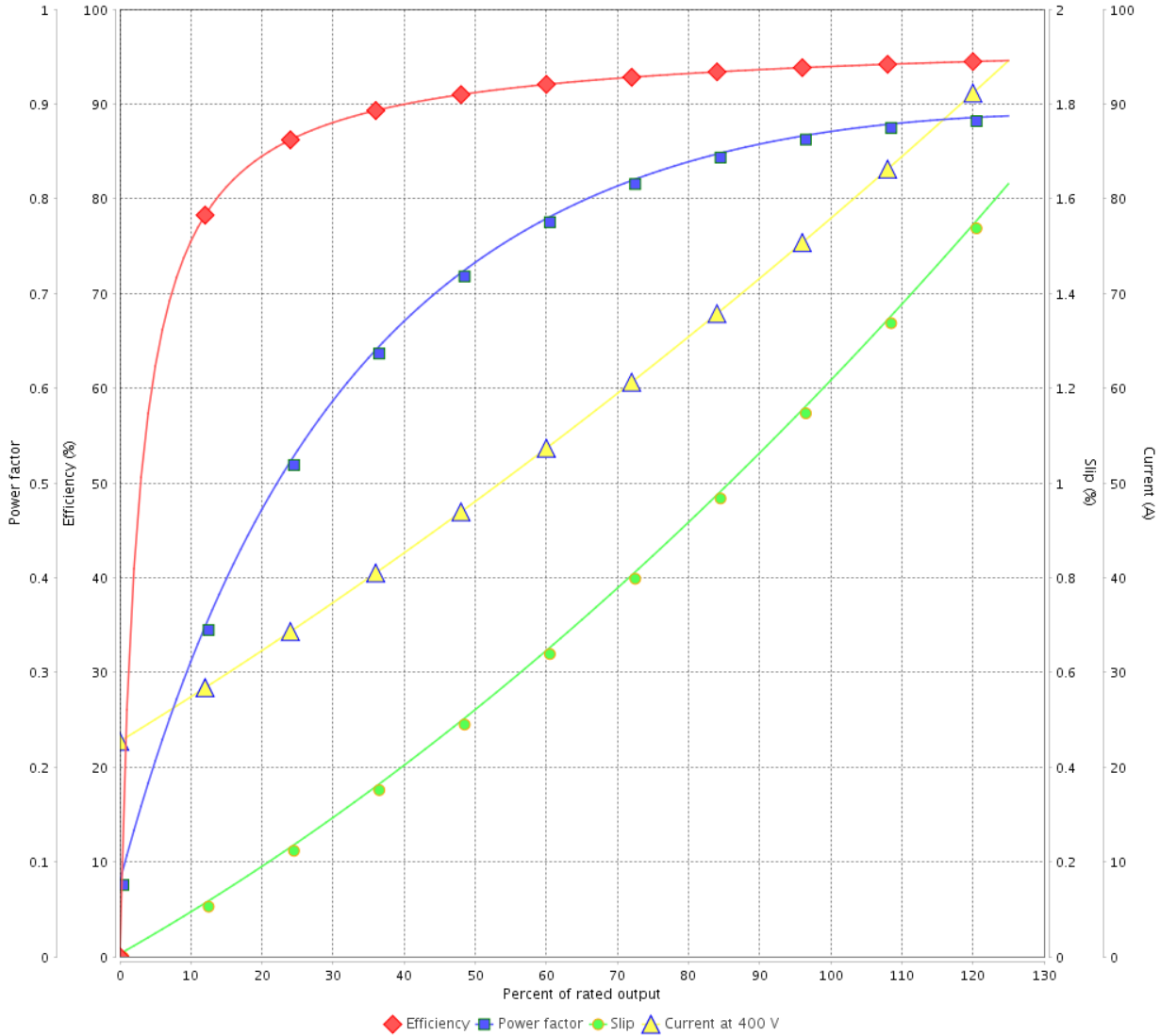
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Performance : 400 V 50 Hz 2P IE3

Rated current : 79.4 A
 LRC : 7.4
 Rated torque : 106 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 2963 rpm

Moment of inertia (J) : 6.40 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

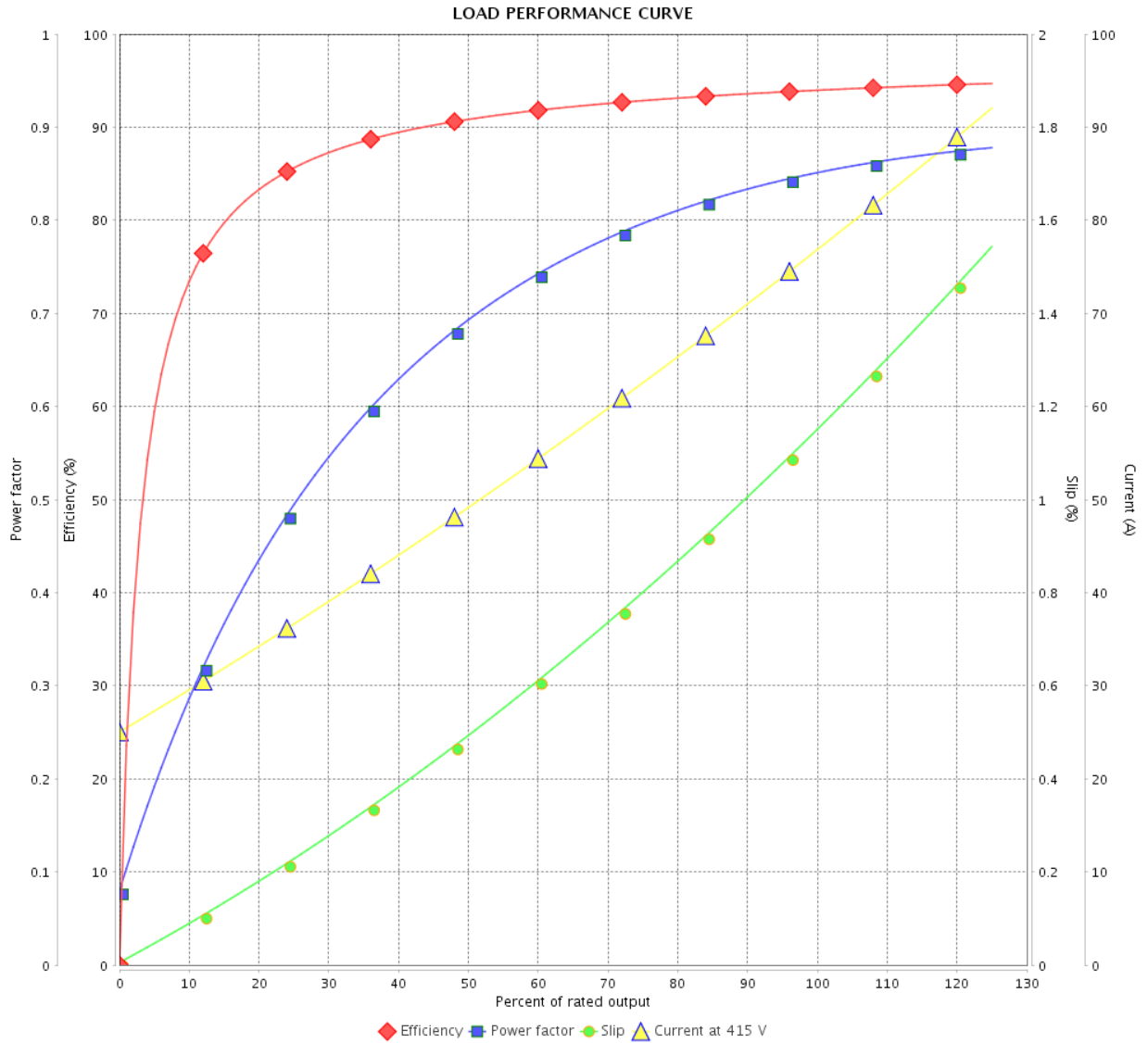


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Performance : 415 V 50 Hz 2P IE3

Rated current : 78.4 A
 LRC : 7.5
 Rated torque : 106 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 6.40 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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THERMAL LIMIT CURVE

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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

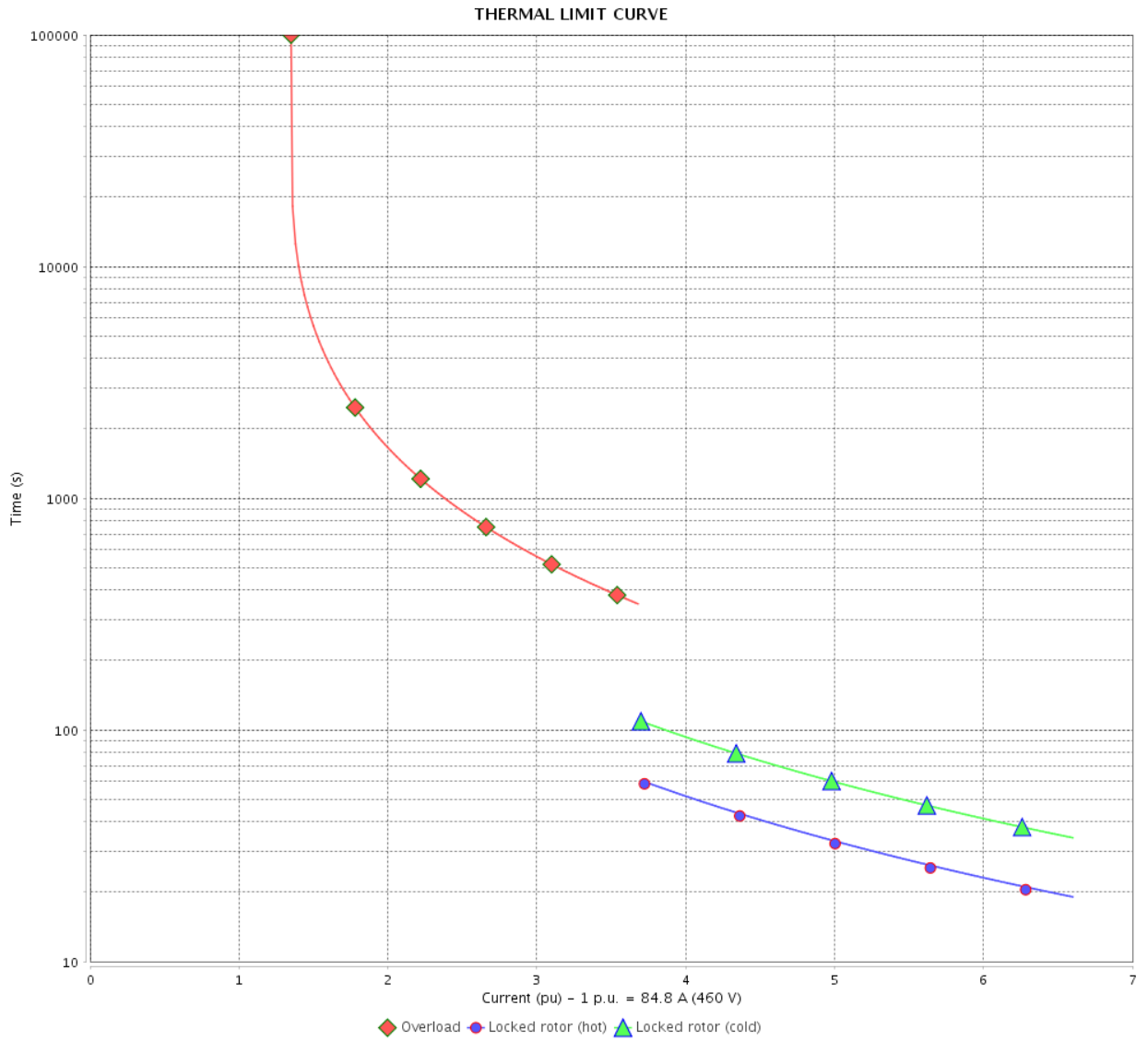
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Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Heating constant

Cooling constant

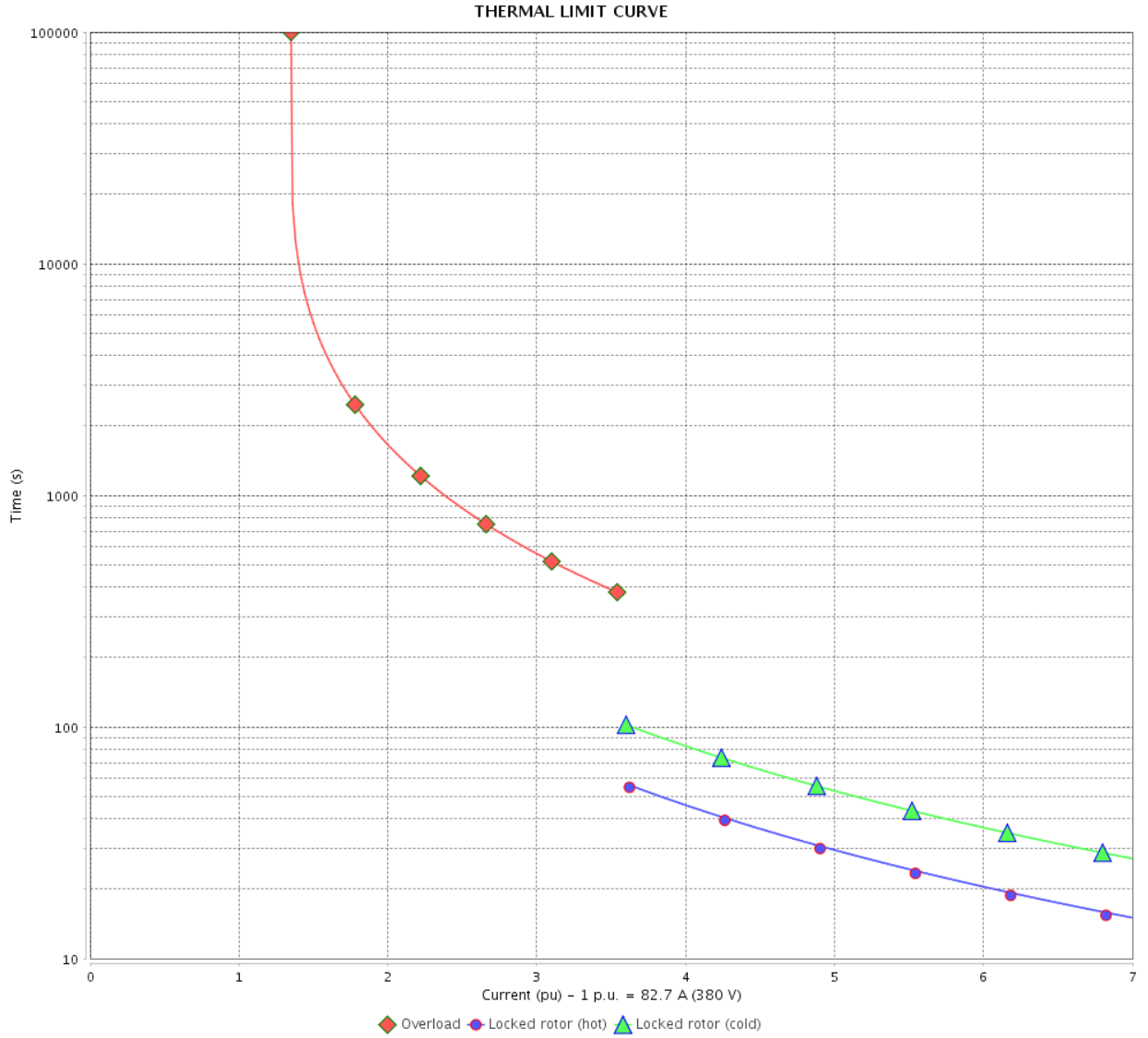
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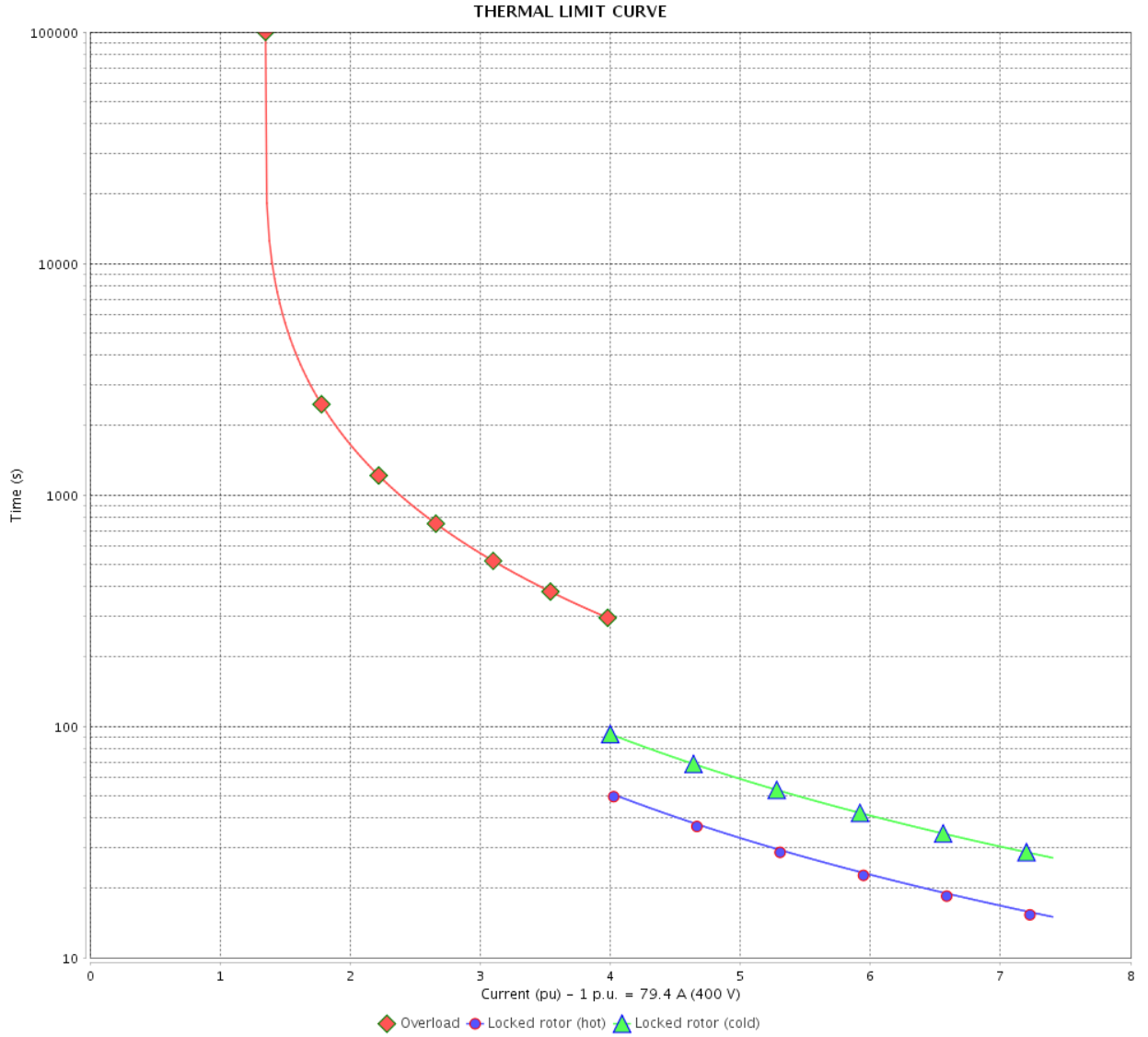
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Rated torque	: 106 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Heating constant

Cooling constant

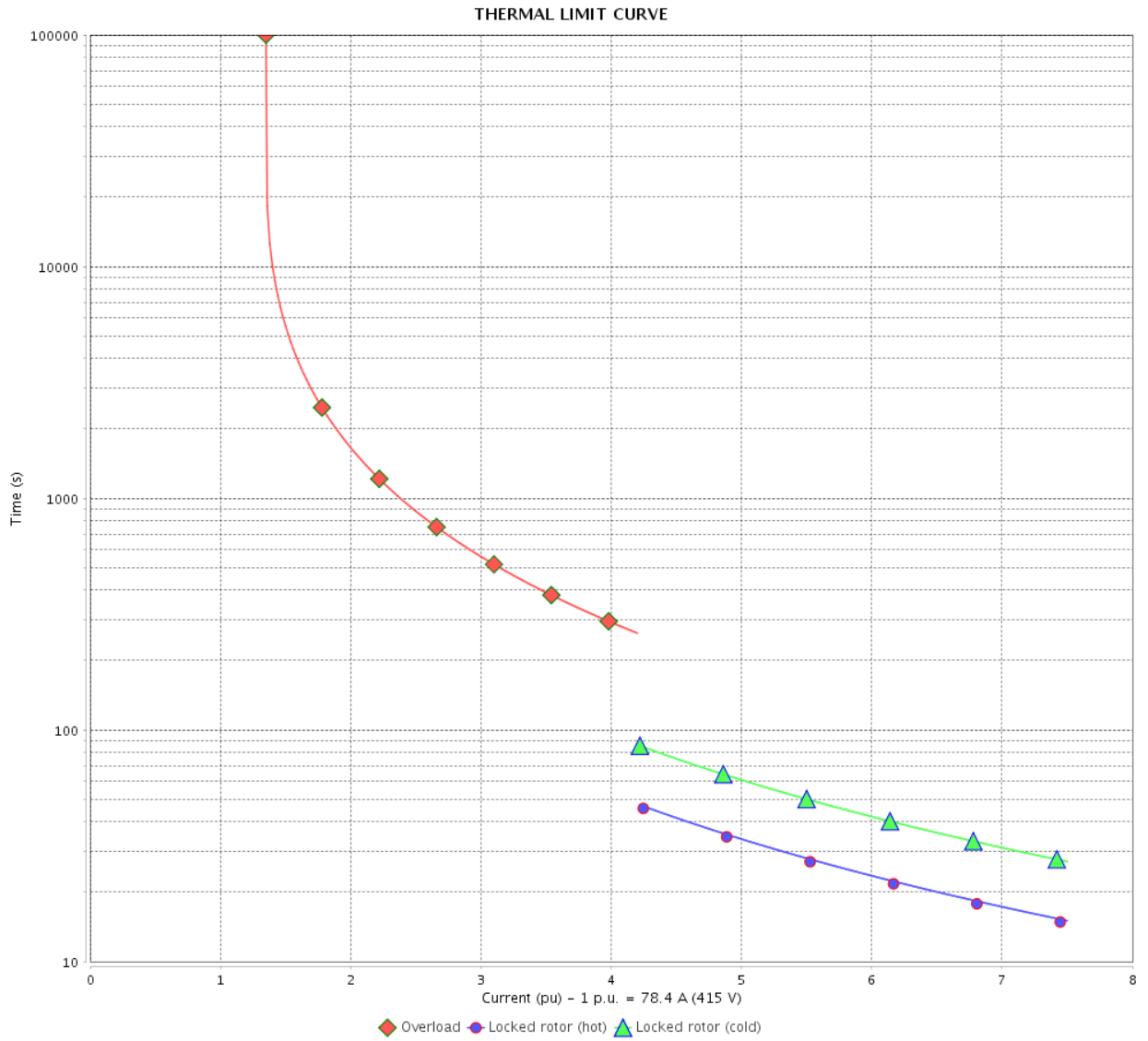
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

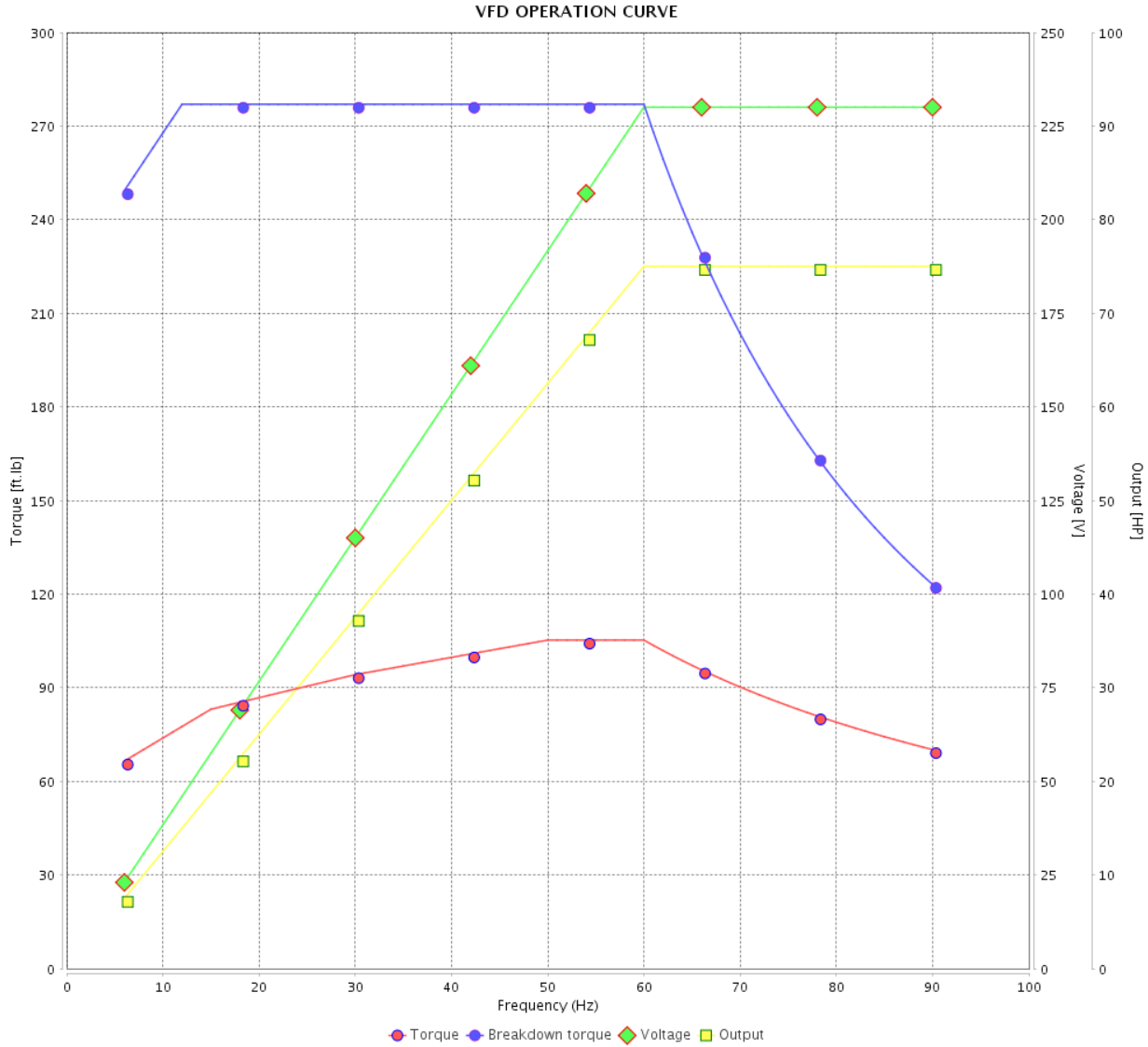


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Moment of inertia (J) : 6.40 sq.ft.lb
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 Insulation class : F
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

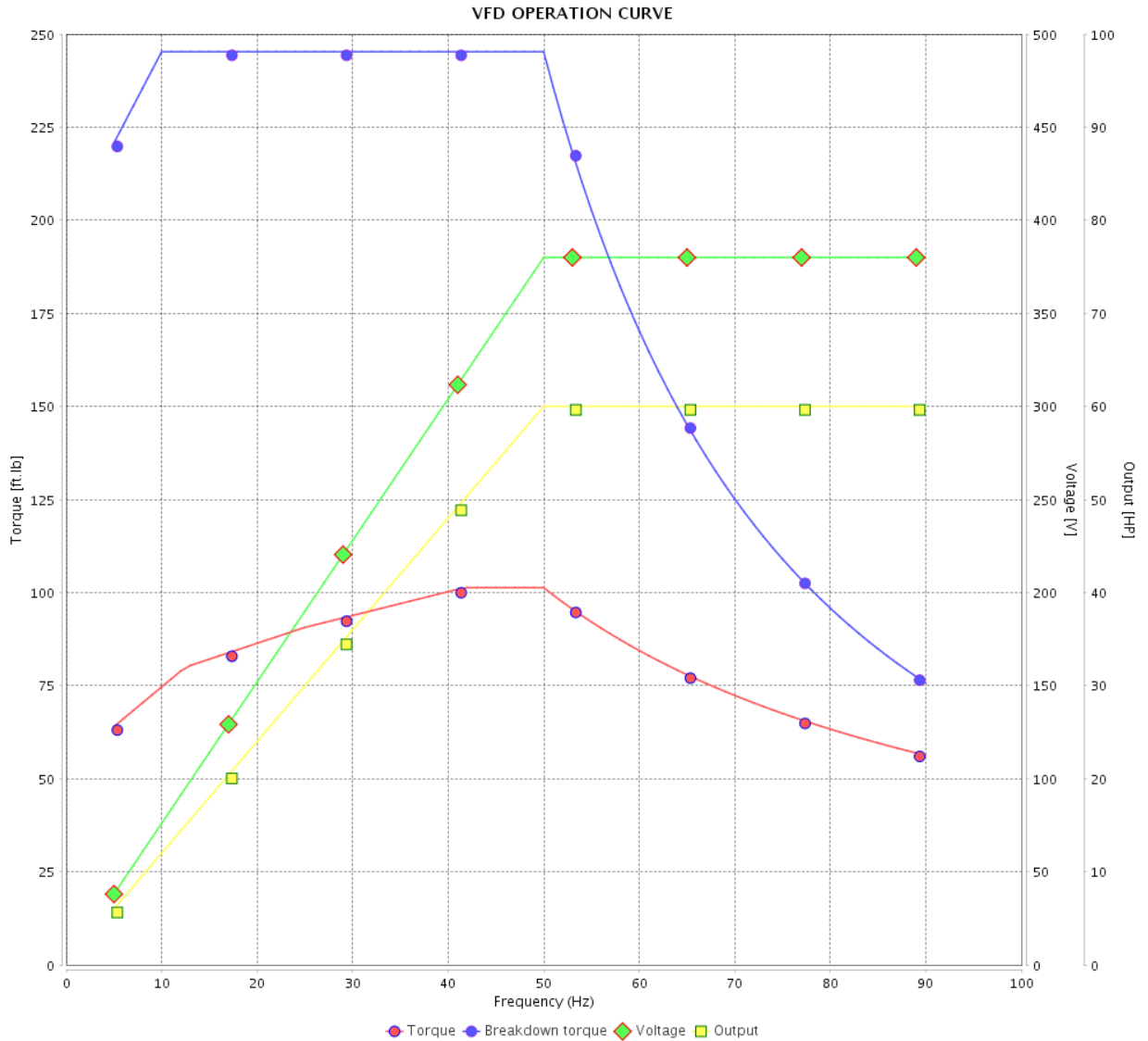


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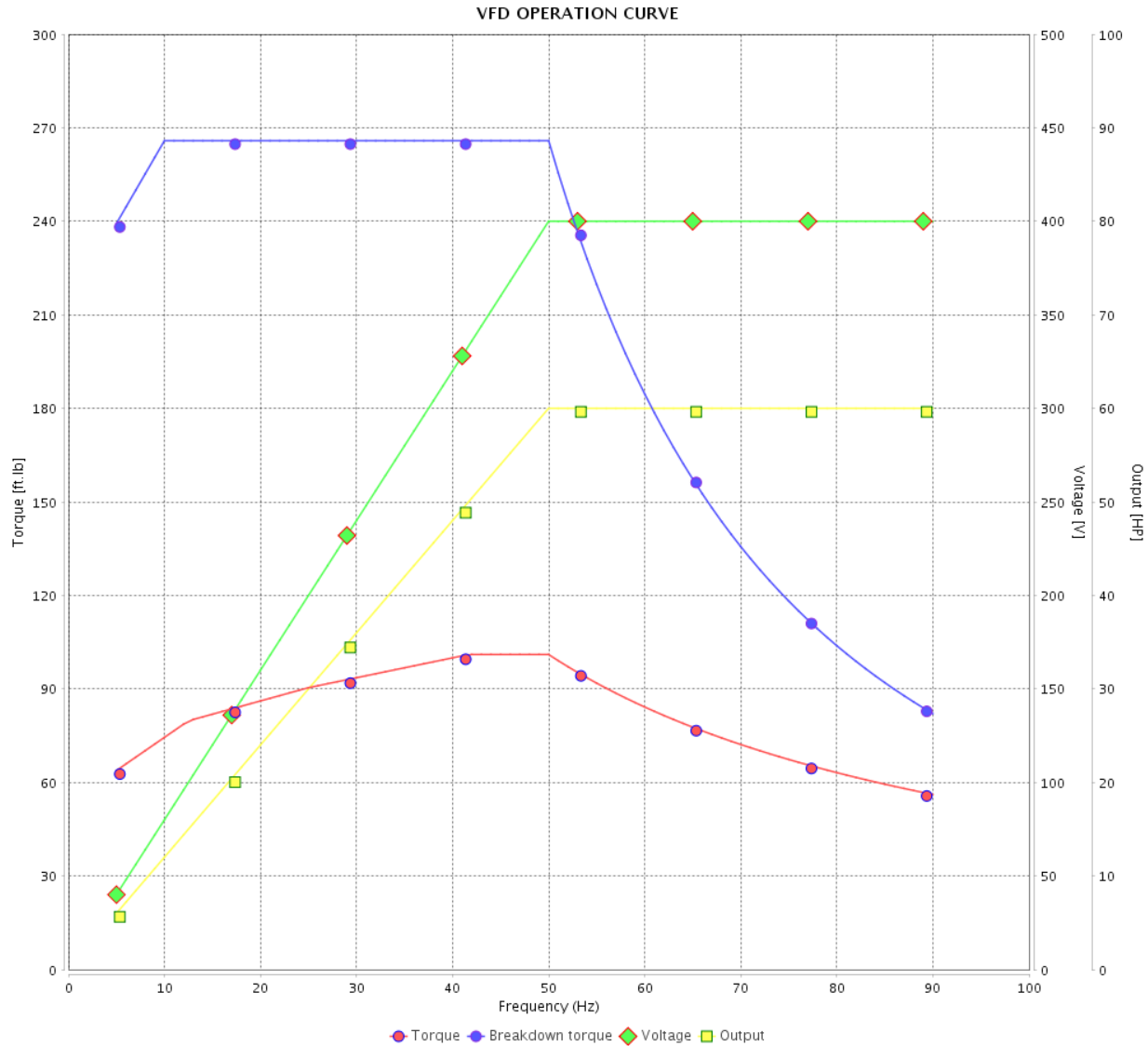


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VFD OPERATION CURVE

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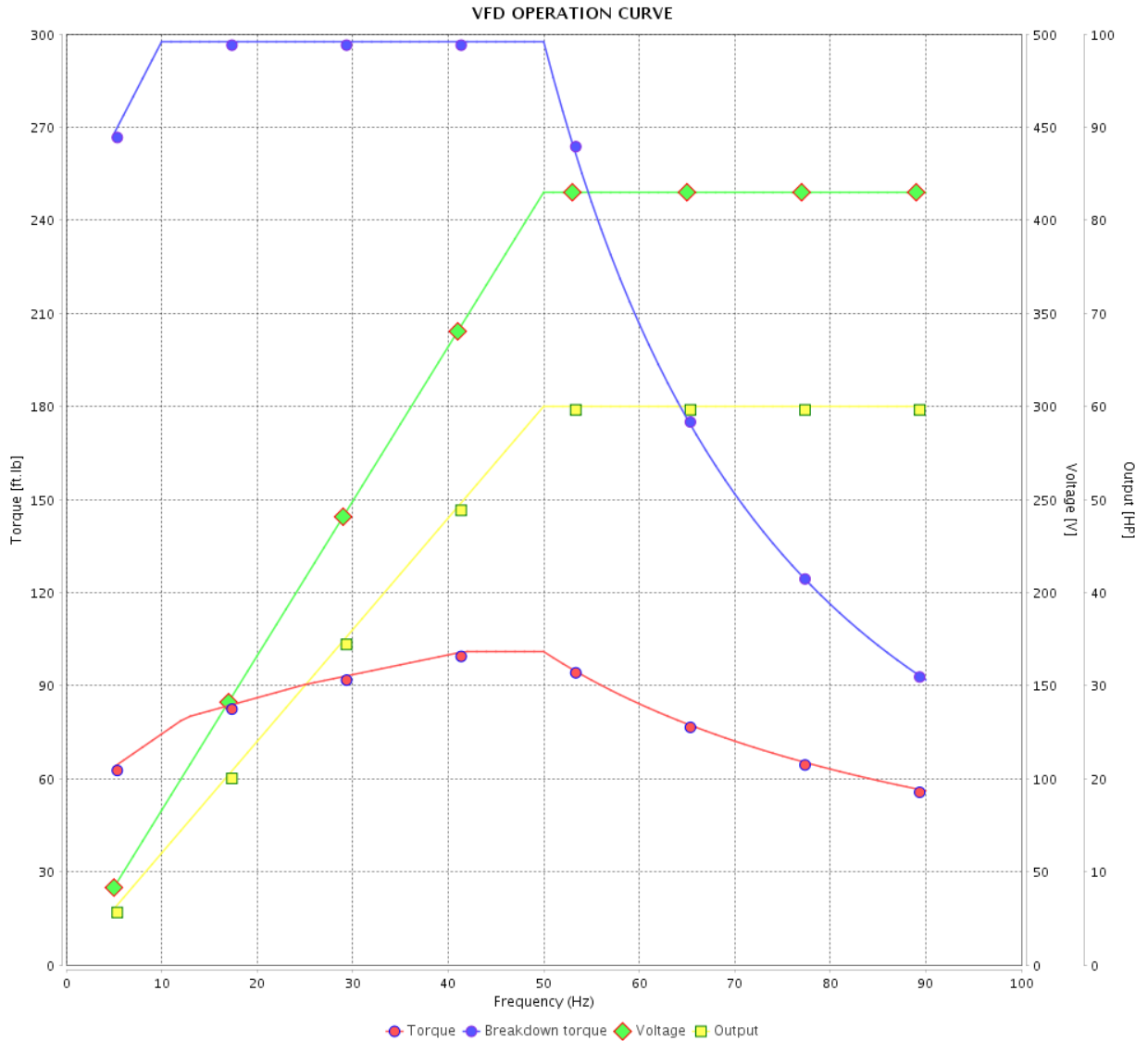


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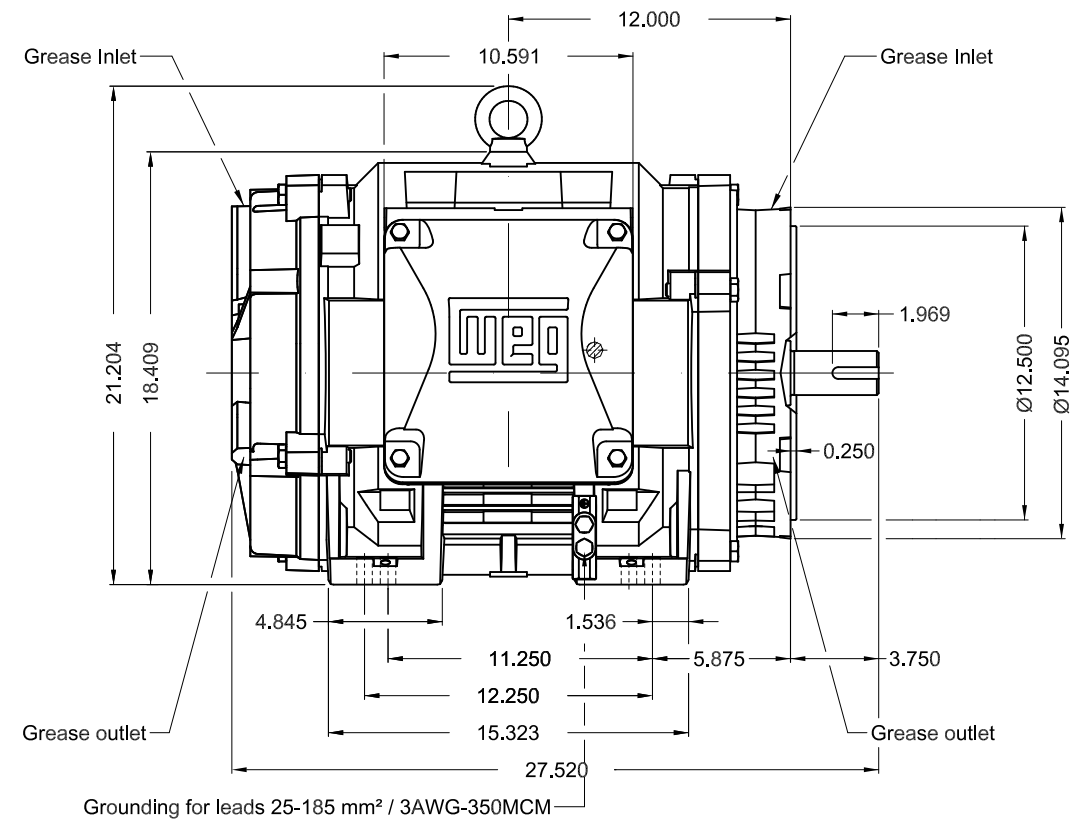
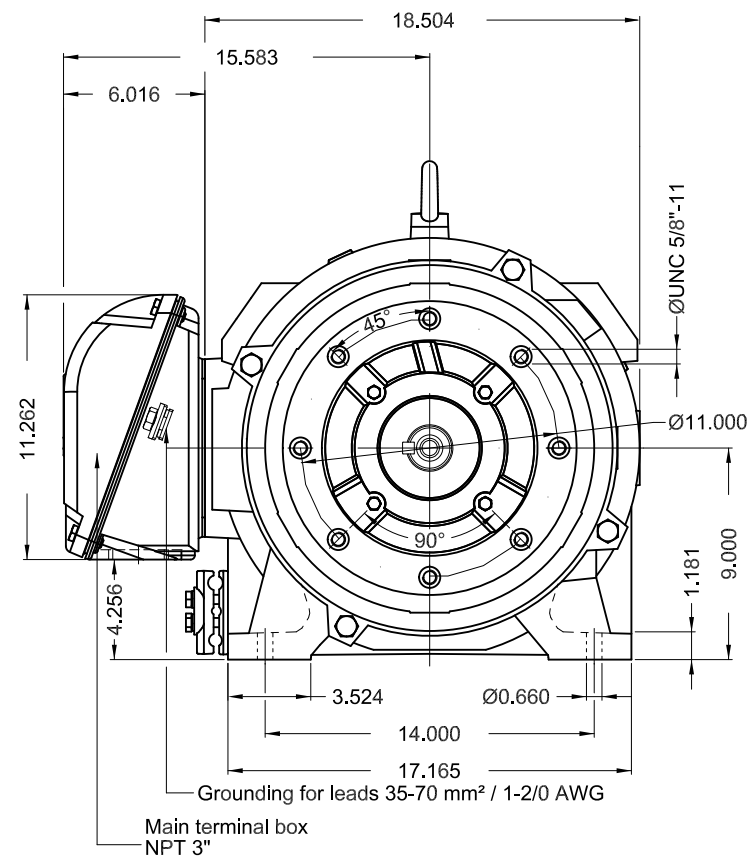


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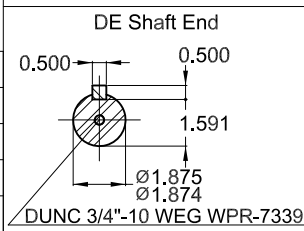
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- Internal AEGIS ground ring on the DE
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B34R(D)



75 HP 02 Poles 60 Hz

A

1:8

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 364/5TSC IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD

