

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase	Product code :	14272424	
			Catalog # :	20036OT3G444TSC-W40	
Frame		: 444/5TSC	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 : 1320 lb		
Protection degree		: IP23	Moment of inertia (J) : 23.8 sq.ft.lb		
Design		: B			
Output [HP]	200	175	175	175	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	225	239	230	224	
L. R. Amperes [A]	1463	1530	1633	1658	
LRC [A]	6.5x(Code G)	6.4x(Code G)	7.1x(Code H)	7.4x(Code H)	
No load current [A]	67.0	66.4	74.0	80.5	
Rated speed [RPM]	3570	2965	2970	2970	
Slip [%]	0.83	1.17	1.00	1.00	
Rated torque [ft.lb]	294	310	309	309	
Locked rotor torque [%]	140	140	150	160	
Breakdown torque [%]	229	210	229	240	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	37s (cold) 21s (hot)	25s (cold) 14s (hot)	23s (cold) 13s (hot)	23s (cold) 13s (hot)	
Noise level ²	85.0 dB(A)				
Efficiency (%)	25%	92.4	91.3	91.4	91.5
	50%	93.0	92.8	92.8	92.9
	75%	94.5	93.9	93.9	94.0
	100%	95.0	95.4	95.4	95.4
Power Factor	25%	0.54	0.57	0.52	0.48
	50%	0.79	0.81	0.77	0.74
	75%	0.86	0.86	0.85	0.83
	100%	0.88	0.88	0.87	0.86
Bearing type		Drive end : 6314 C3	Non drive end : 6212 Z C3	Foundation loads	
Sealing		: Without	: Without	Max. traction	: 1319 lb
		Bearing Seal	Bearing Seal	Max. compression	: 2639 lb
Lubrication interval		: 14418 h	: 20000 h		
Lubricant amount		: 27 g	: 13 g		
Lubricant type		: Mobil Polyrex EM			
Notes					
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



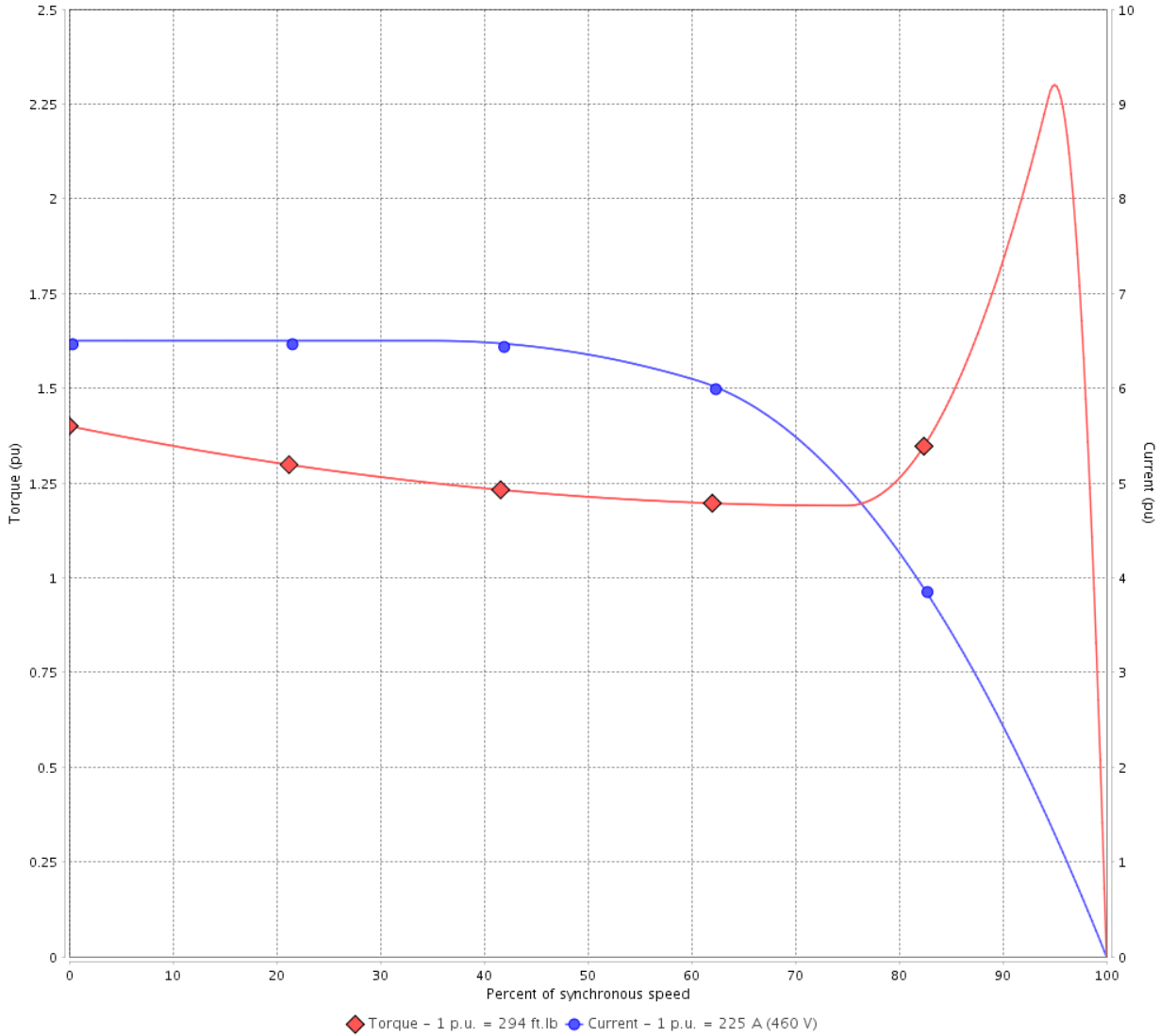
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272424

Catalog # : 200360T3G444TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 2P

Rated current	: 225 A	Moment of inertia (J)	: 23.8 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 294 ft.lb	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.15
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 3570 rpm	Design	: B

Locked rotor time : 37s (cold) 21s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



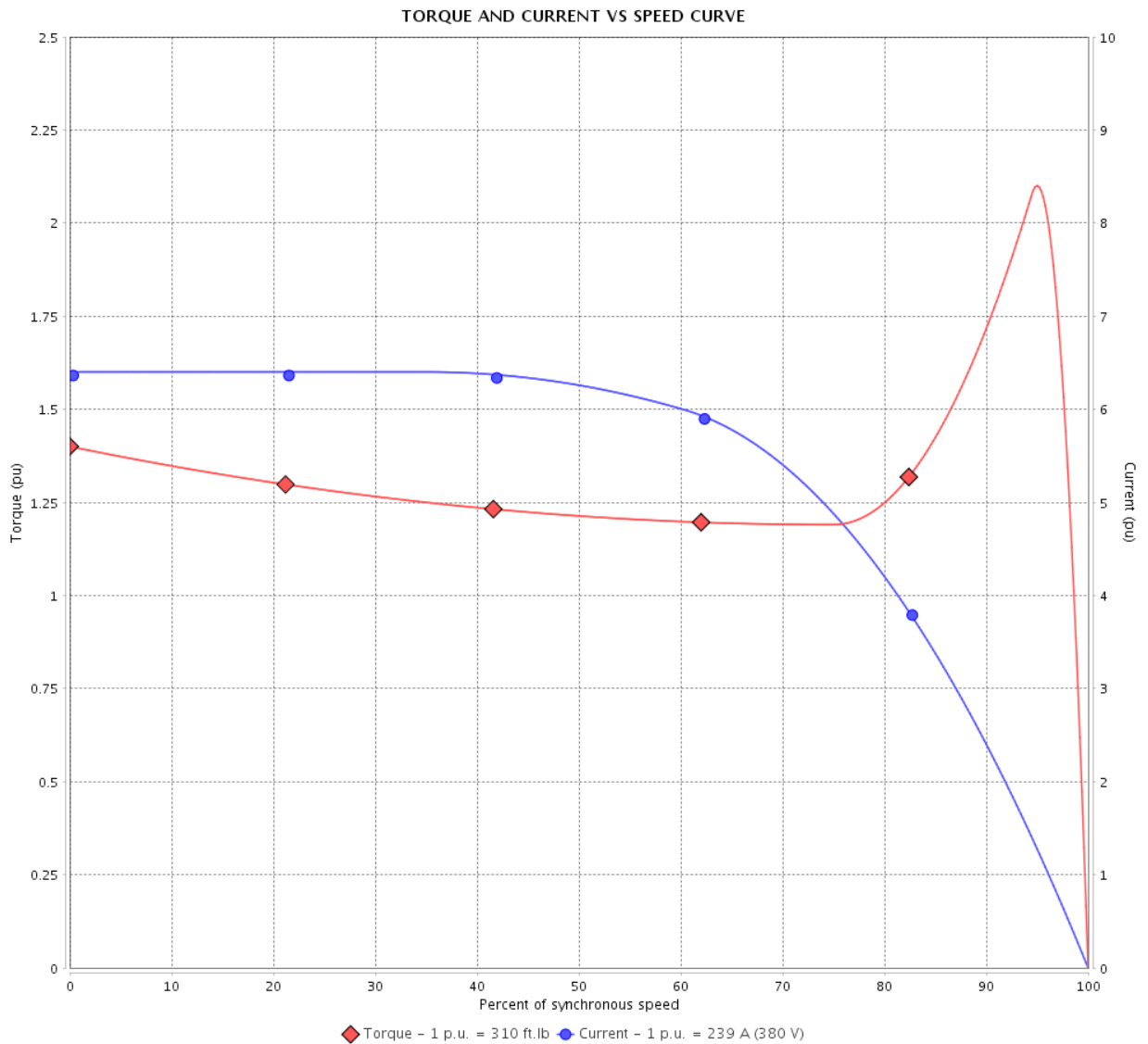
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272424

Catalog # : 20036OT3G444TSC-W40



Performance : 380 V 50 Hz 2P IE3

Rated current	: 239 A	Moment of inertia (J)	: 23.8 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 310 ft.lb	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



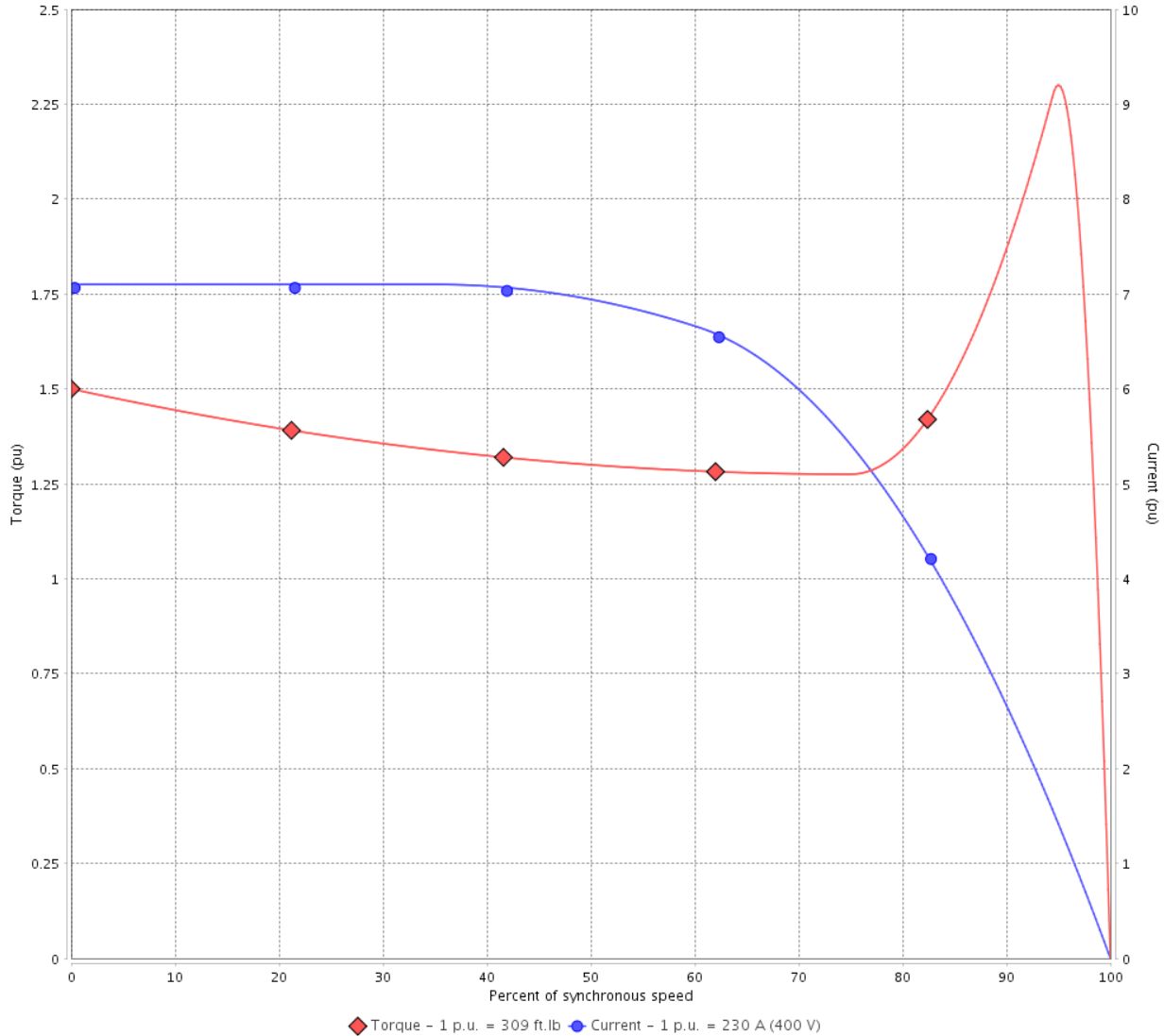
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14272424

Catalog # : 200360T3G444TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 230 A	Moment of inertia (J)	: 23.8 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 309 ft.lb	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2970 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



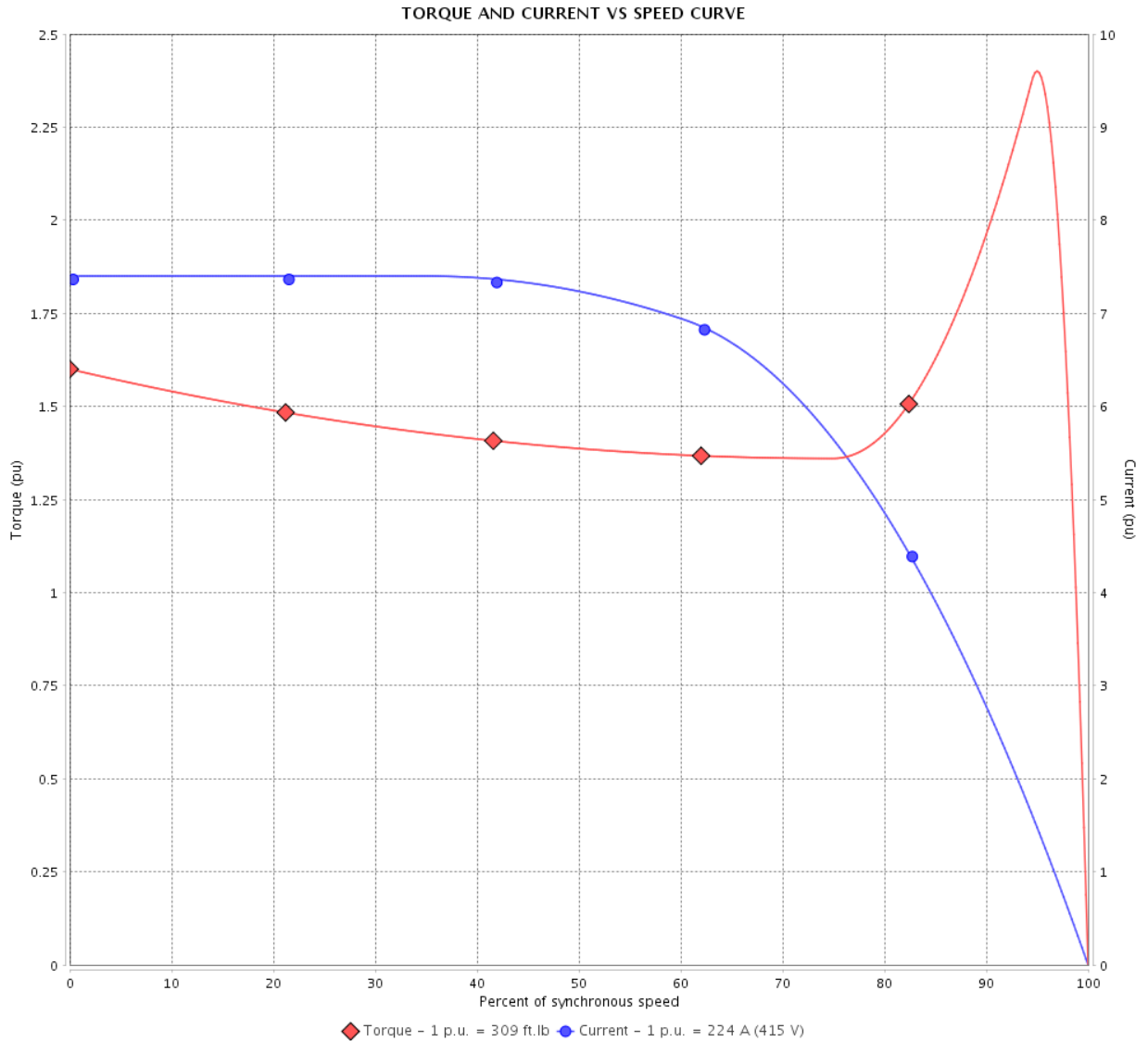
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Rated torque	: 309 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2970 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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LOAD PERFORMANCE CURVE

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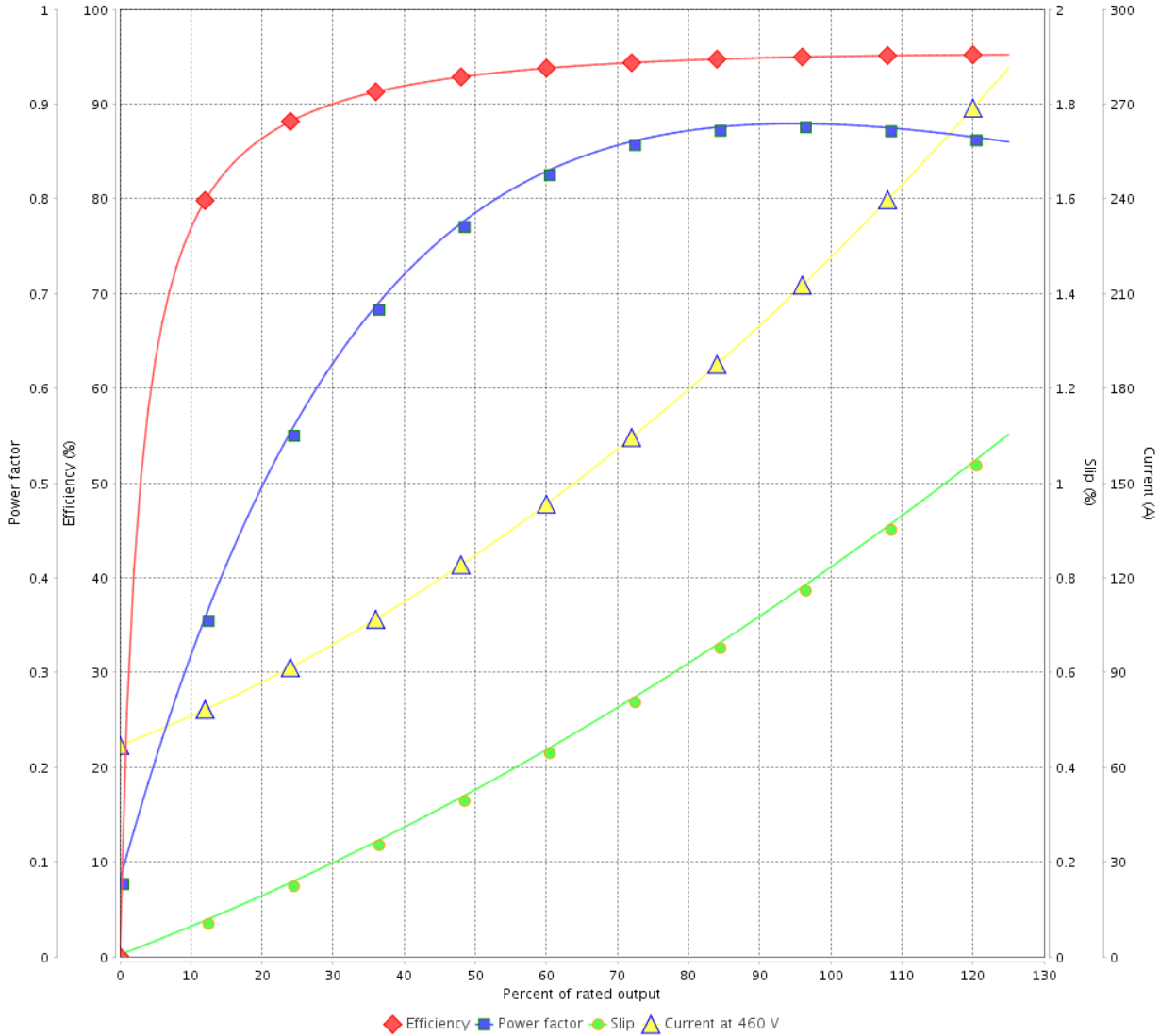
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LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 2P

Rated current : 225 A
 LRC : 6.5
 Rated torque : 294 ft.lb
 Locked rotor torque : 140 %
 Breakdown torque : 229 %
 Rated speed : 3570 rpm

Moment of inertia (J) : 23.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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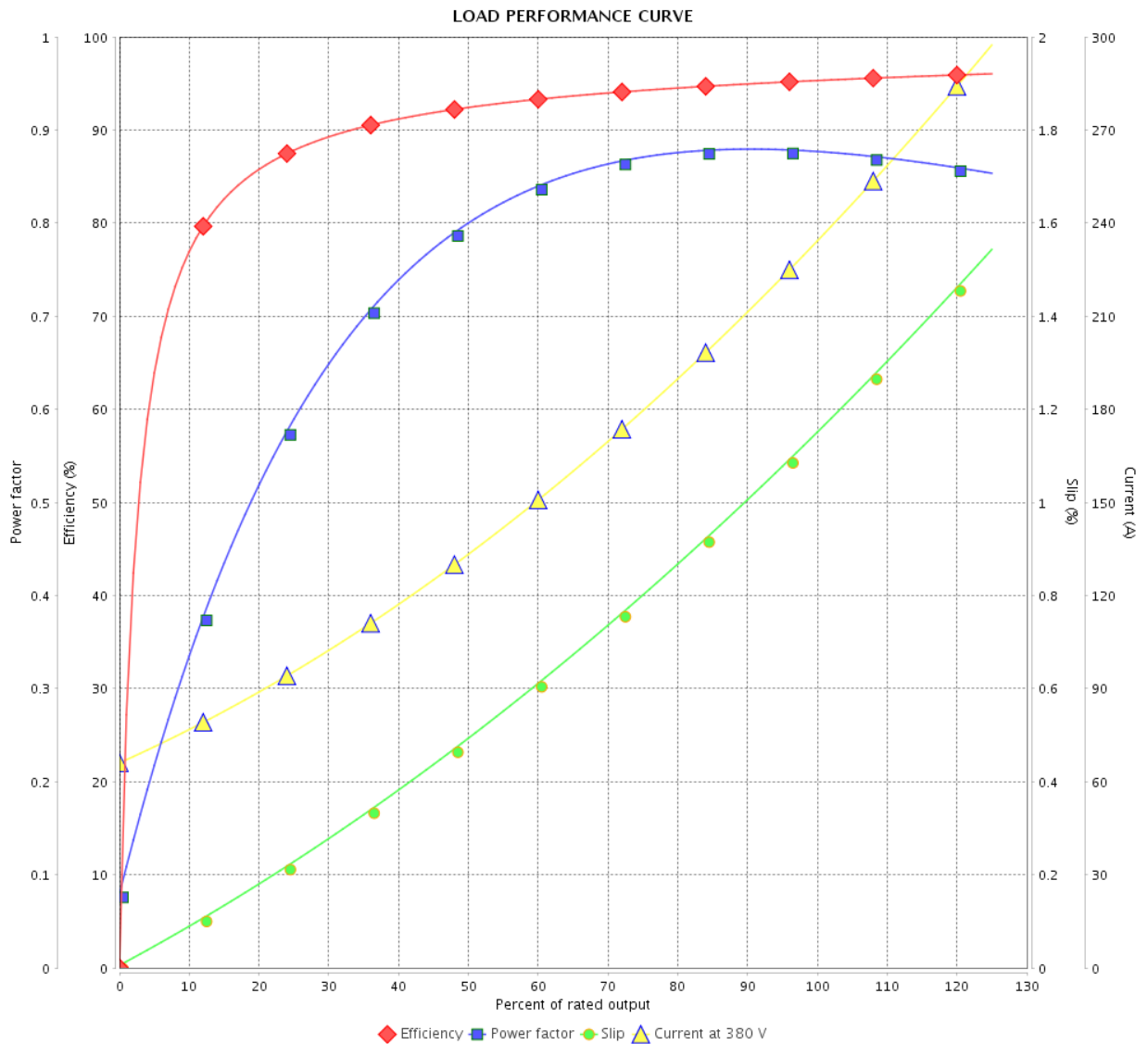


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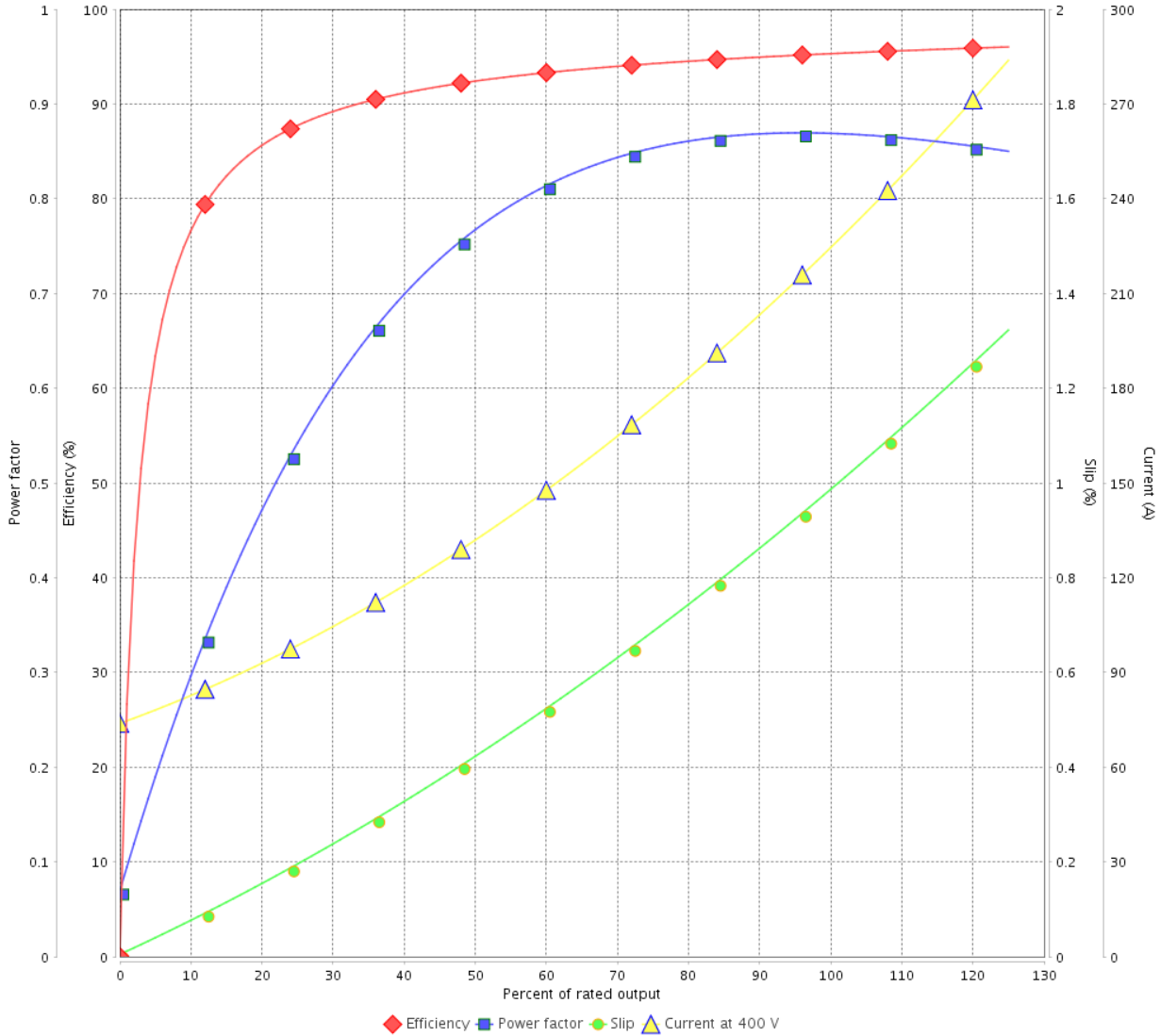
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Performance : 400 V 50 Hz 2P IE3

Rated current : 230 A
LRC : 7.1
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Breakdown torque : 229 %
Rated speed : 2970 rpm

Moment of inertia (J) : 23.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
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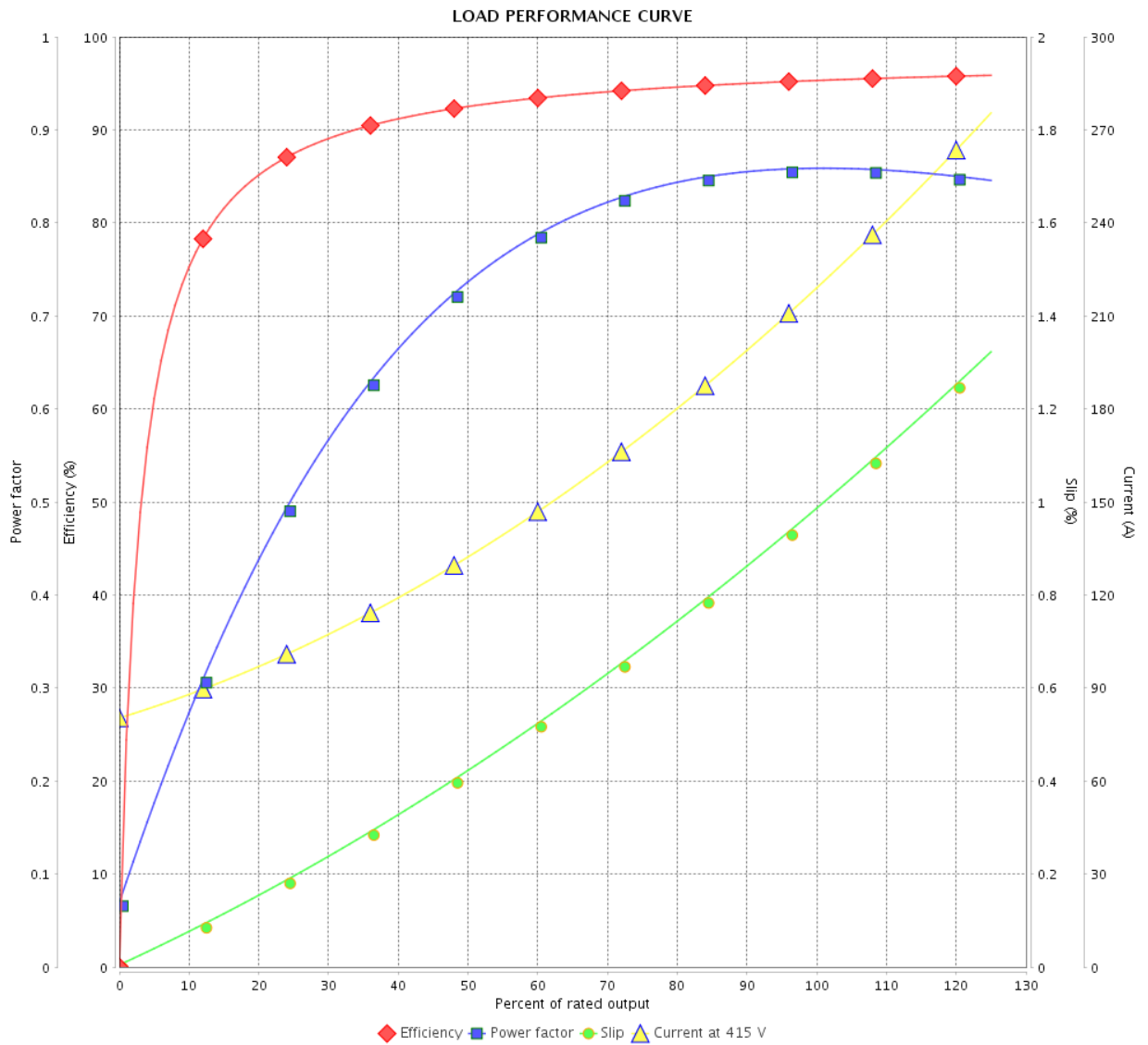


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 Service factor : 1.00
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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

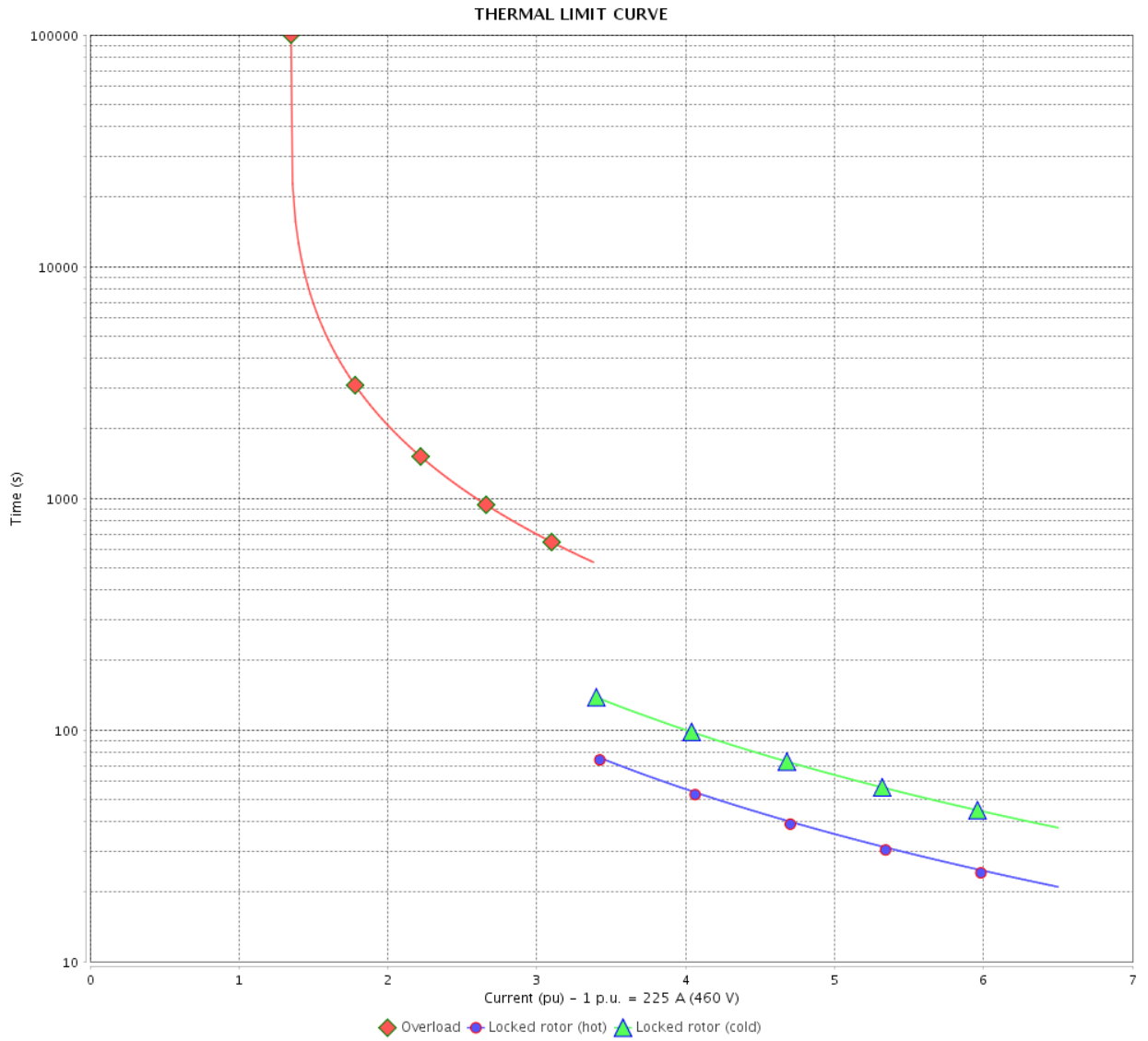
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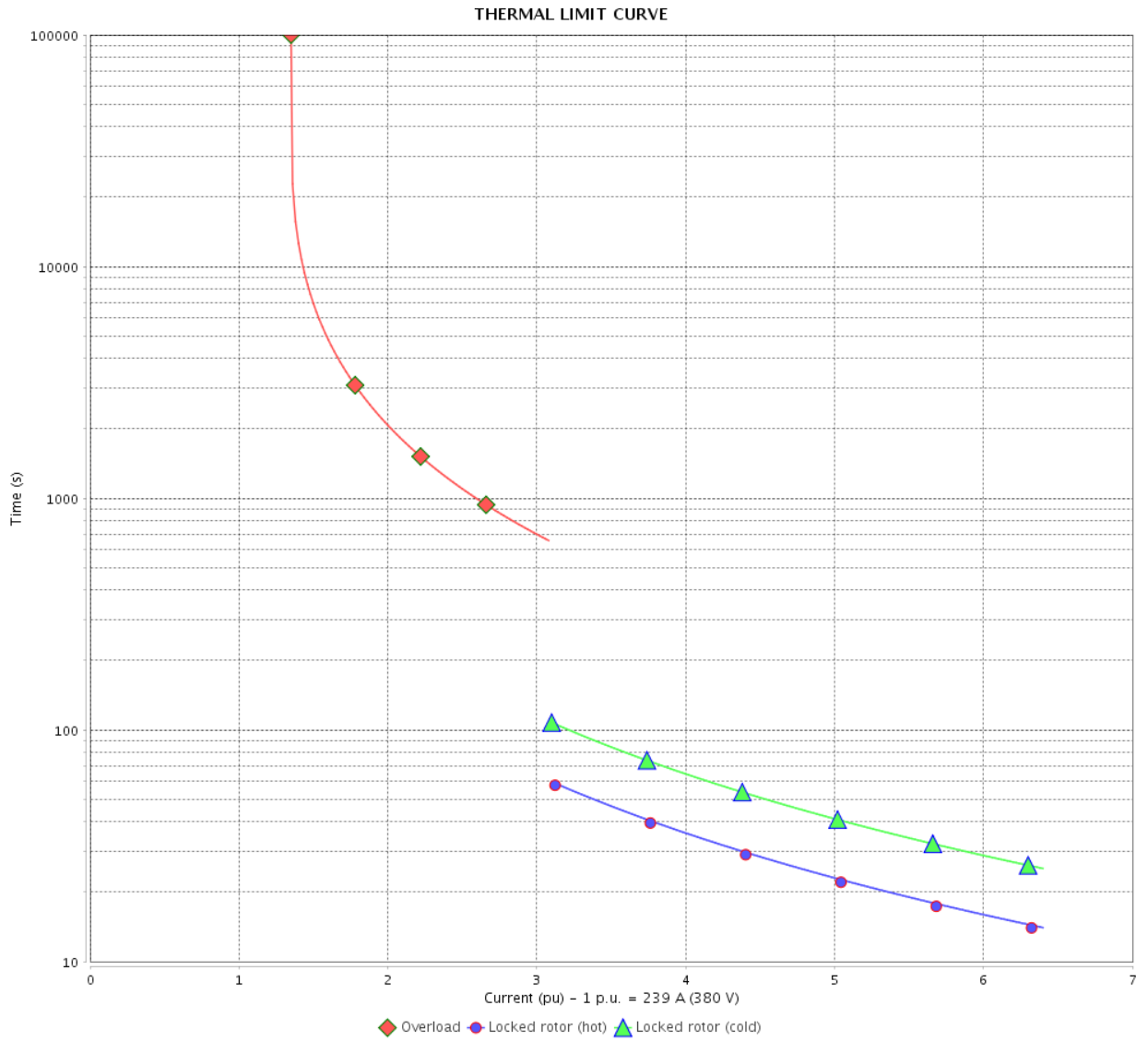
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LRC	: 7.1	Duty cycle	: Cont.(S1)
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Locked rotor torque	: 150 %	Service factor	: 1.00
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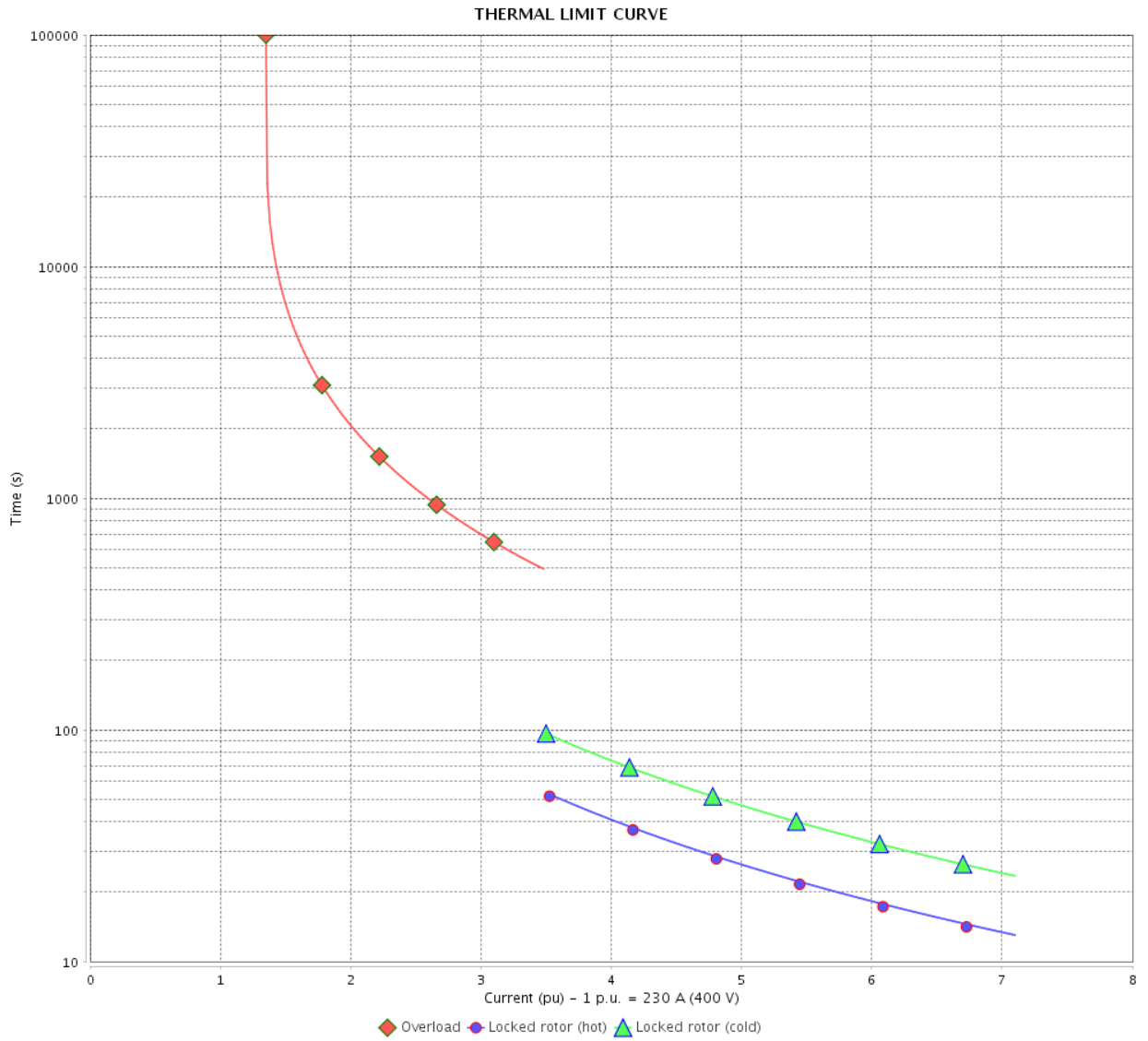
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Rated torque	: 309 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2970 rpm	Design	: B

Heating constant

Cooling constant

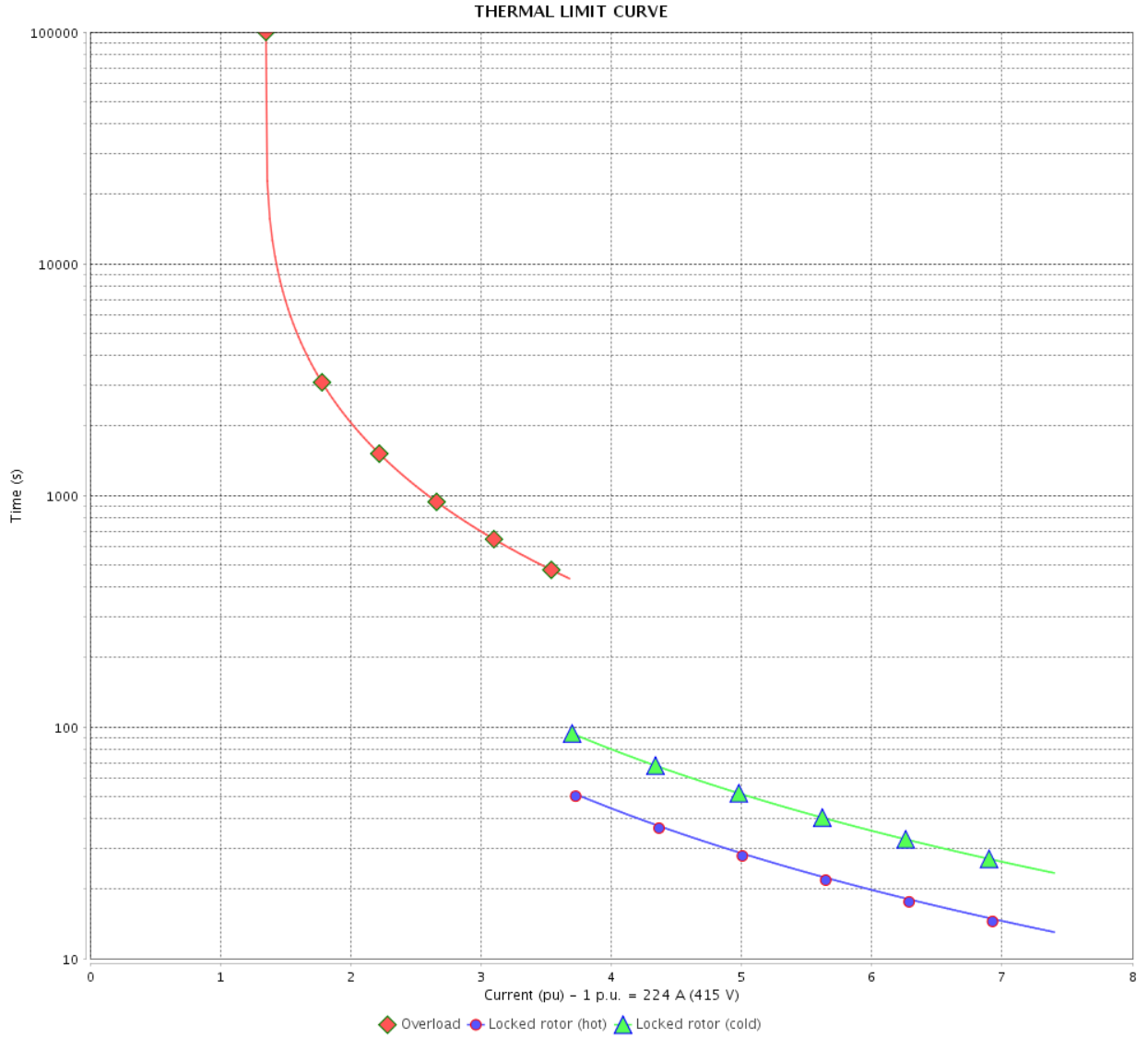
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



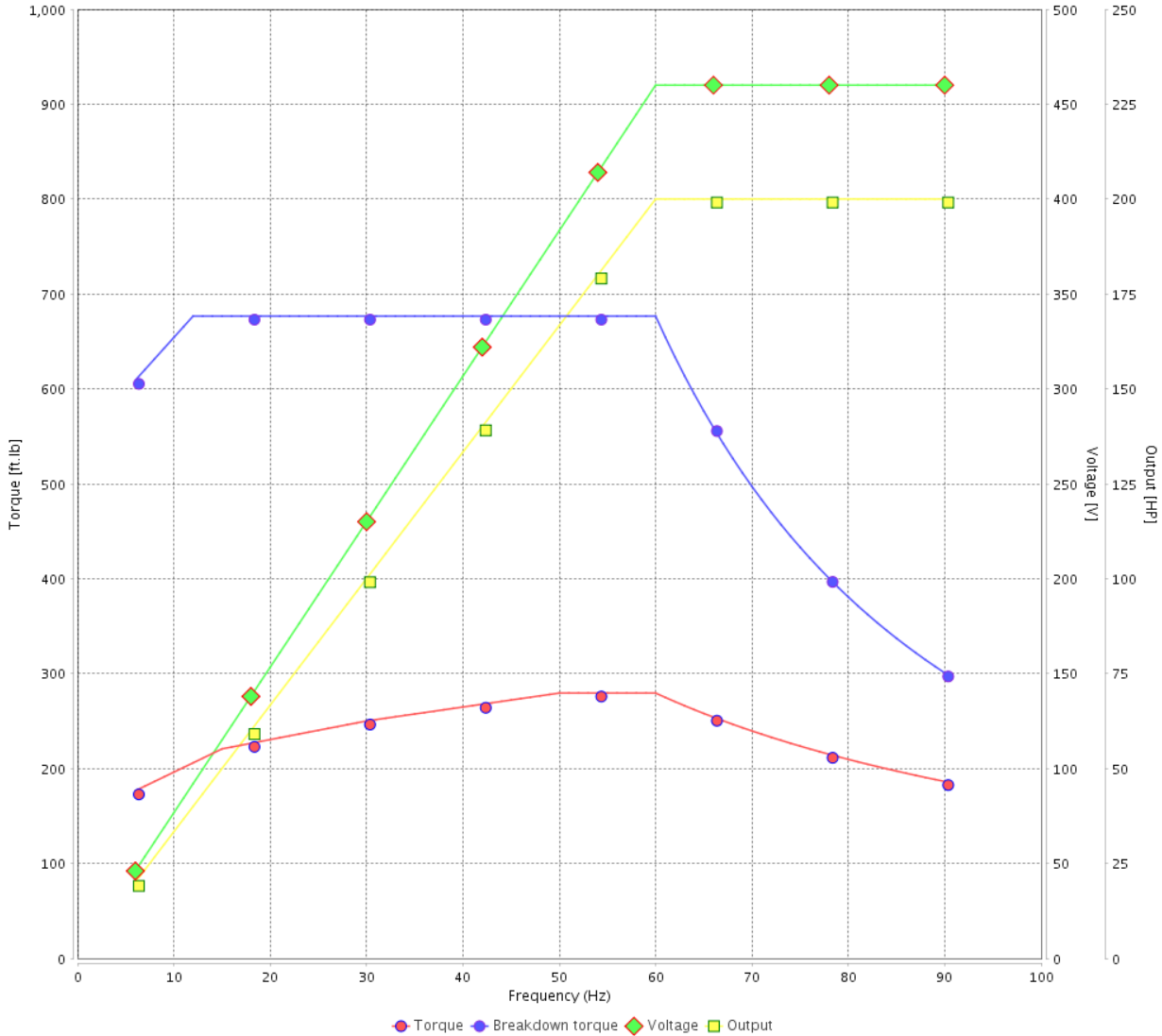
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VFD OPERATION CURVE



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

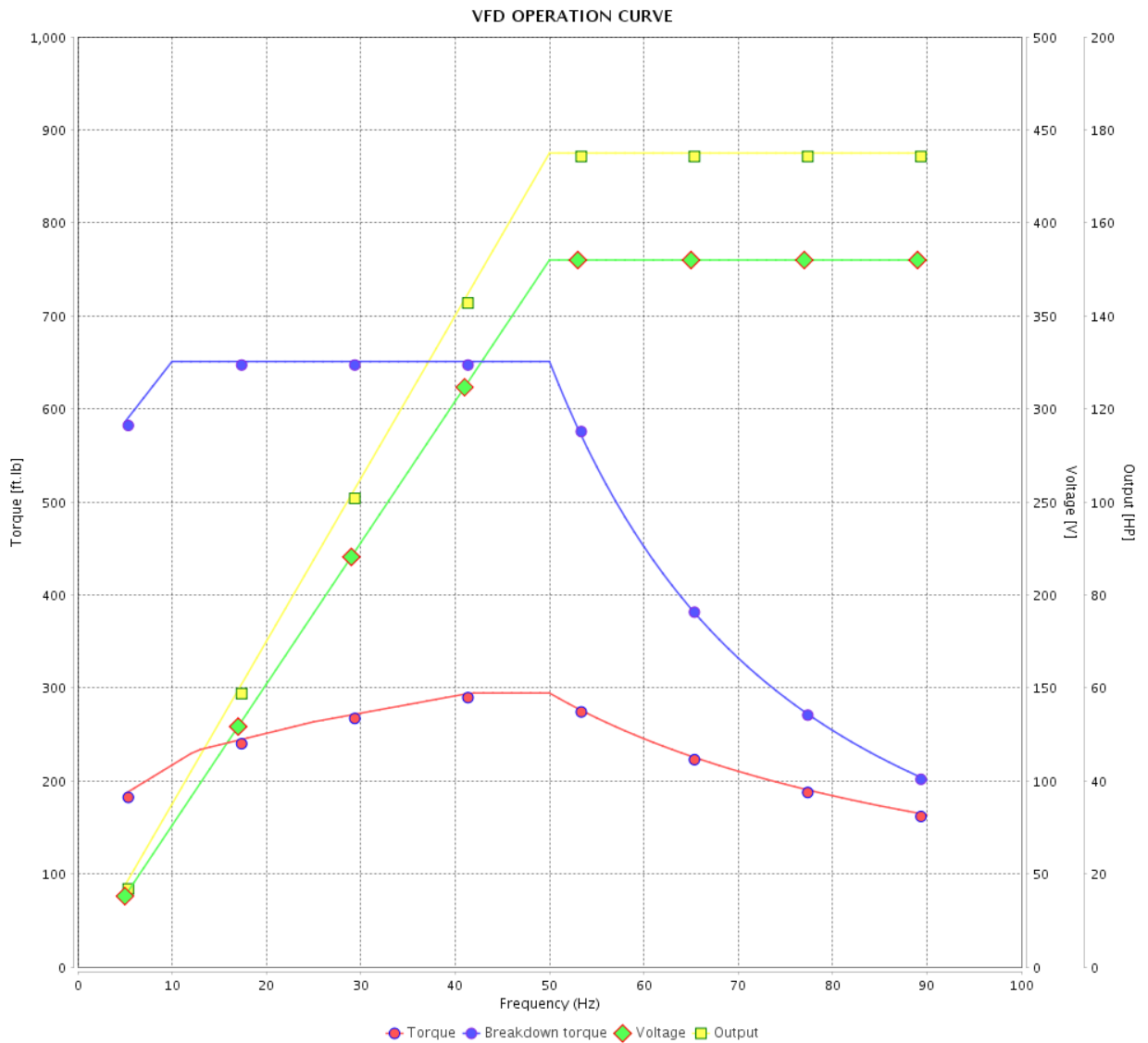


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Performance : 380 V 50 Hz 2P IE3

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

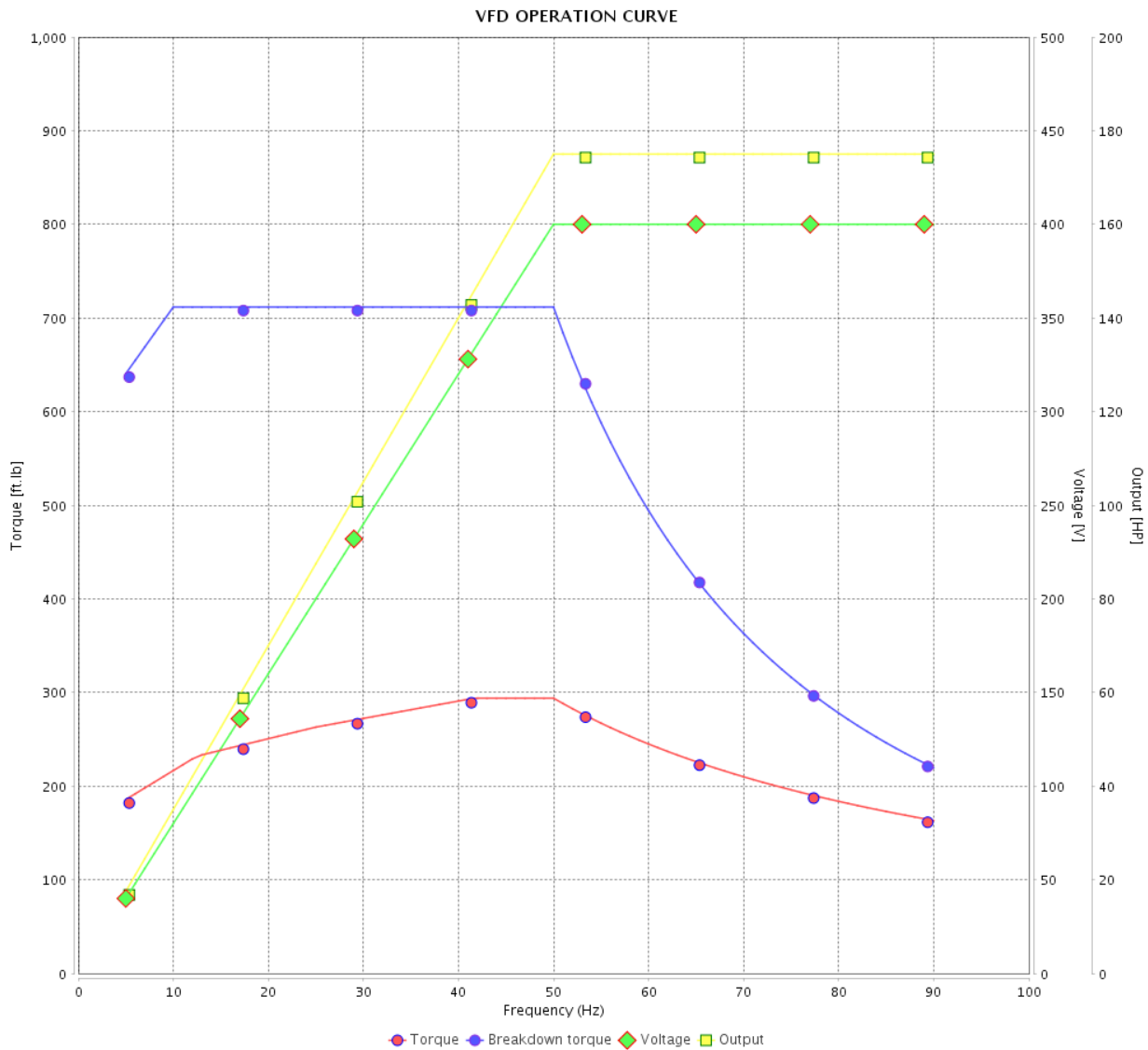


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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

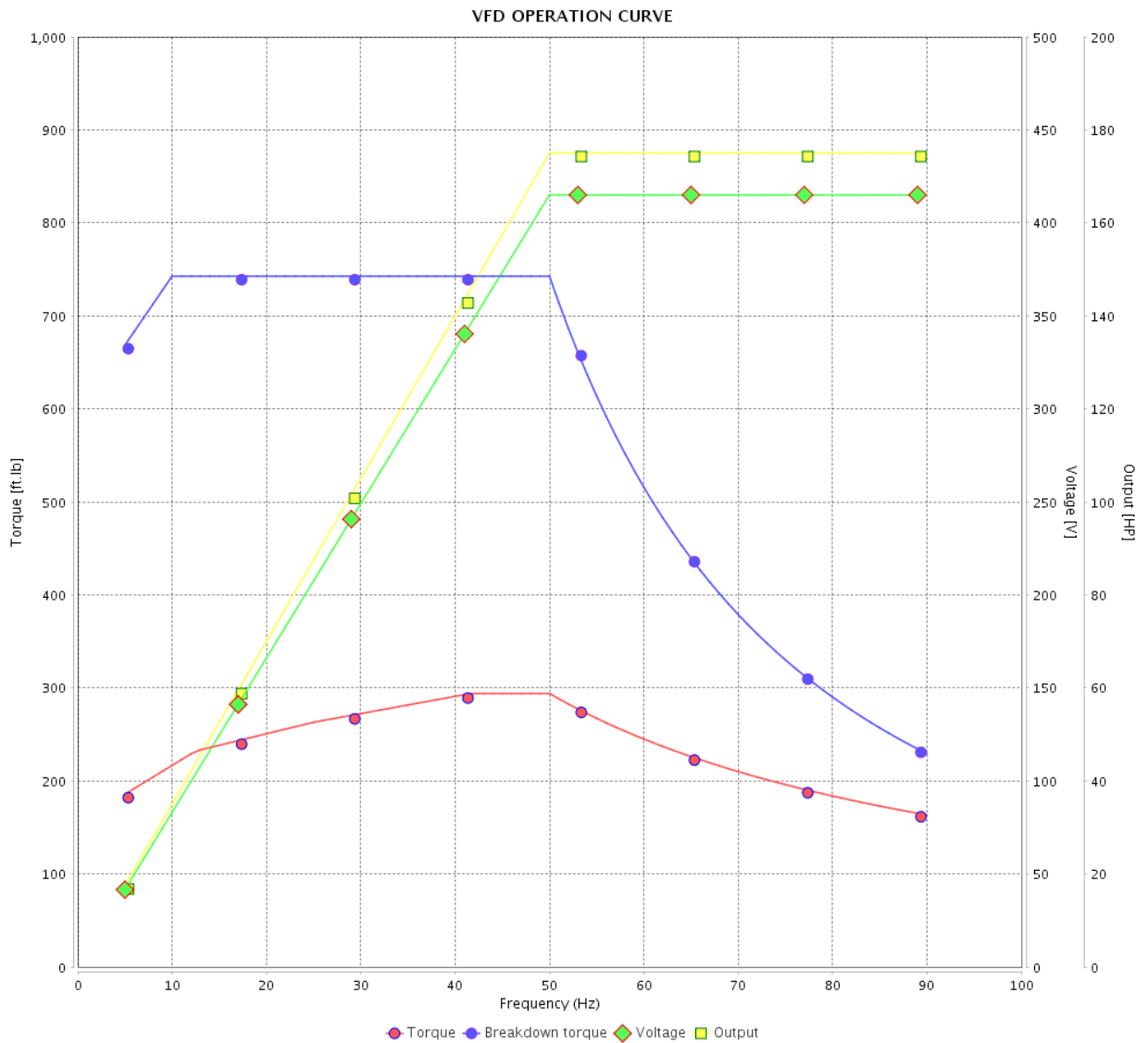


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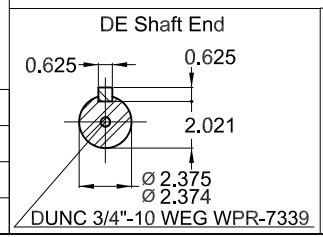
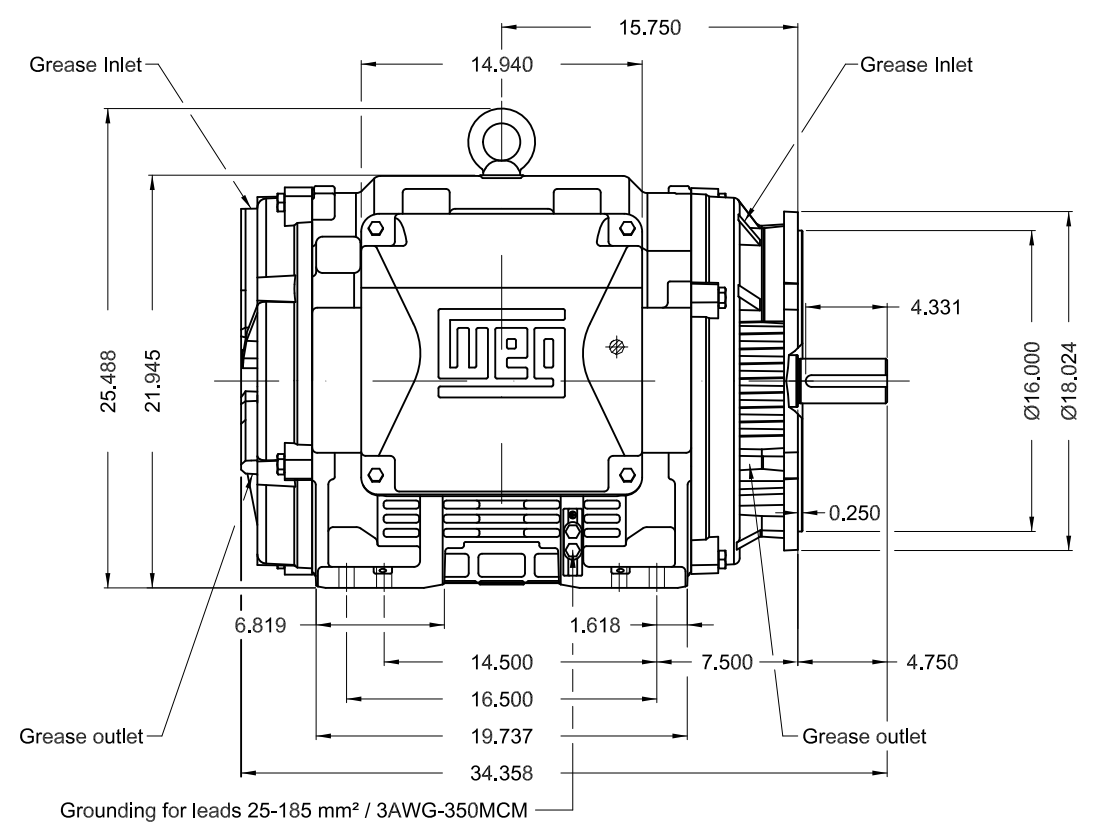
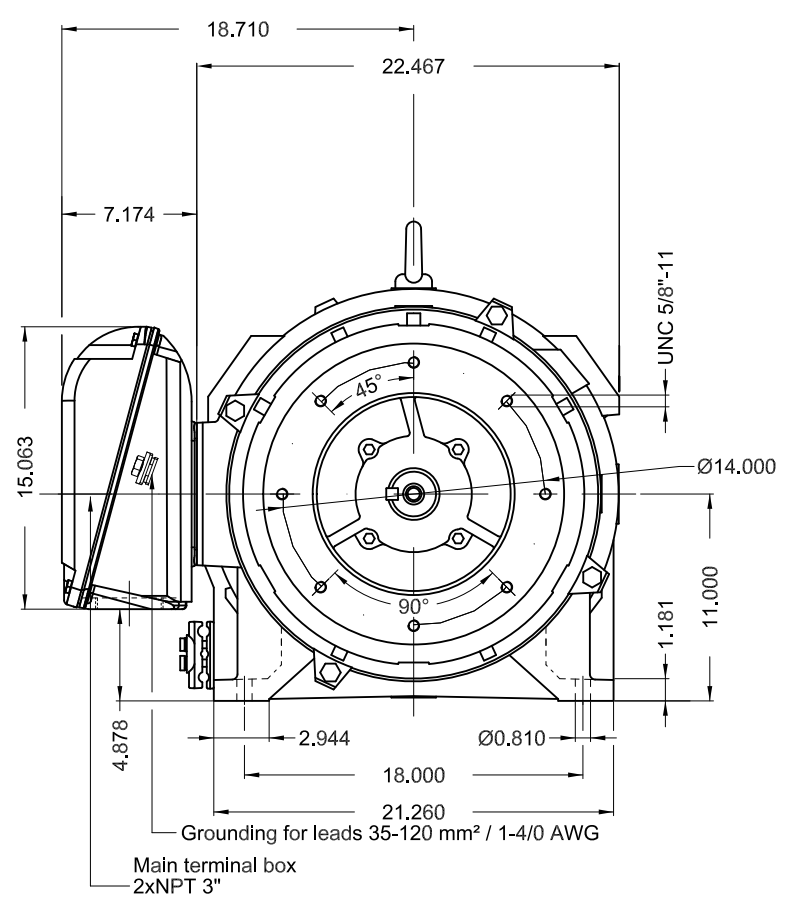


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Color RAL 5009
 Painting plan 203A
 Mounting NEMA F-1
 Mounting B34R(D)

200 HP 02 Poles 60 Hz

										1:10	
										A	
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF. FRAME 444/5TSC IP23 ODP									
CHECKED											
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1					

