

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase		Product code : 14356574	
				Catalog # : 30012XT3G449T	
Frame : 449T		Cooling method : IC411 - TEFC			
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 : 3198 lb			
Protection degree : IP55		Moment of inertia (J) : 145 sq.ft.lb			
Design : A					
Output [HP]	300	250	250	250	250
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	351	358	347	349	349
L. R. Amperes [A]	2773	2828	2741	2757	2757
LRC [A]	7.9x(Code J)	7.9x(Code J)	7.9x(Code J)	7.9x(Code J)	7.9x(Code J)
No load current [A]	152	150	165	178	178
Rated speed [RPM]	1190	985	990	990	990
Slip [%]	0.83	1.50	1.00	1.00	1.00
Rated torque [ft.lb]	1320	1330	1330	1330	1330
Locked rotor torque [%]	280	250	300	330	330
Breakdown torque [%]	300	280	330	360	360
Service factor	1.00	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)	12s (cold) 7s (hot)
Noise level ²	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)
Efficiency (%)	25%	94.5	94.0	93.9	94.0
	50%	95.0	94.1	94.1	94.1
	75%	95.4	94.5	95.0	94.5
	100%	95.8	94.5	95.0	94.5
Power Factor	25%	0.41	0.42	0.37	0.34
	50%	0.66	0.67	0.62	0.58
	75%	0.77	0.78	0.74	0.71
	100%	0.82	0.83	0.81	0.78
Bearing type		Drive end : 6322 C3	Non drive end : 6319 C3	Foundation loads	
Sealing		Oil Seal		Max. traction : 11128 lb	
Lubrication interval		9212 h		Max. compression : 14326 lb	
Lubricant amount		60 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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Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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TORQUE AND CURRENT VS SPEED CURVE



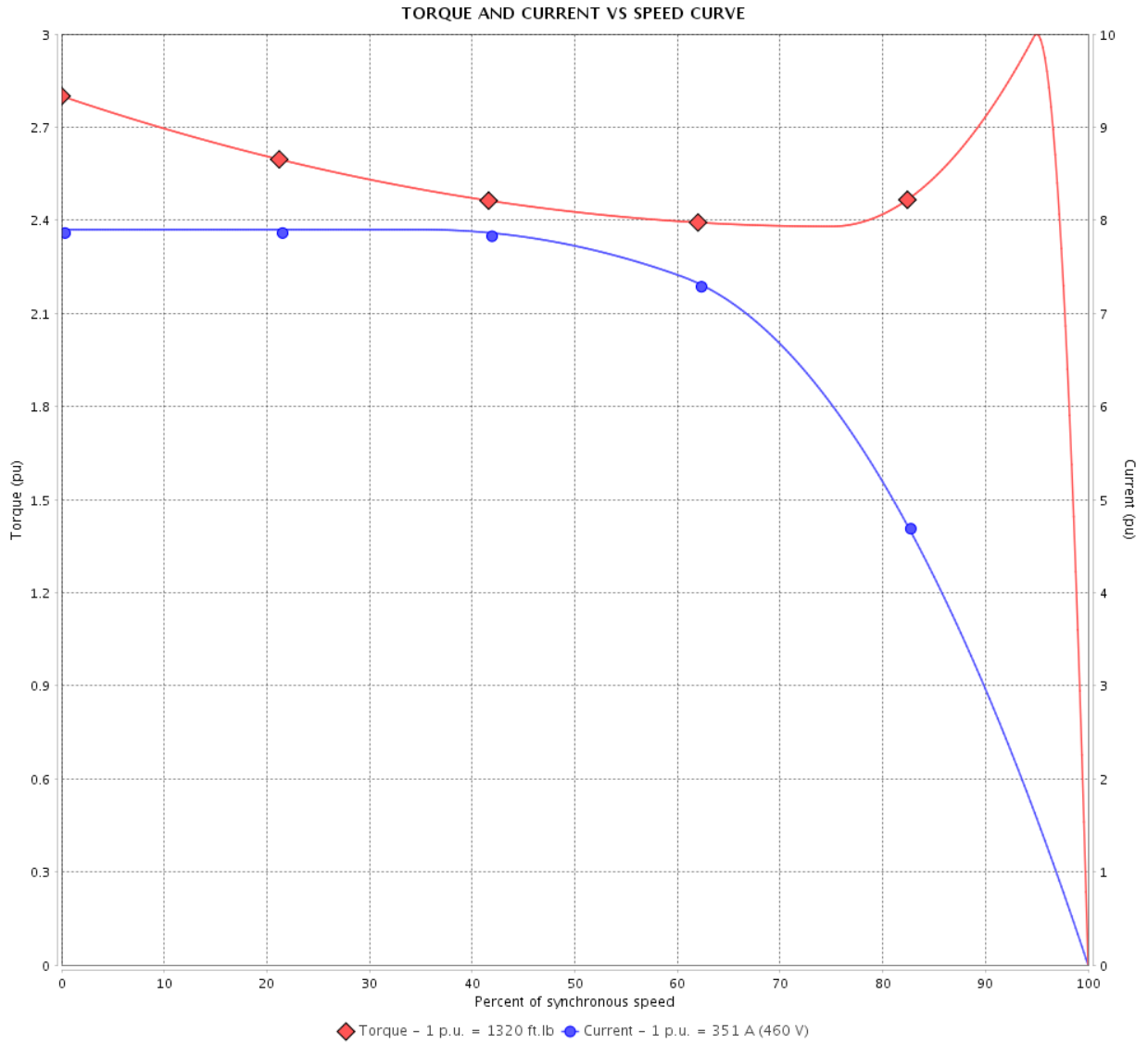
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14356574

Catalog # : 30012XT3G449T



Performance : 460 V 60 Hz 6P

Rated current	: 351 A	Moment of inertia (J)	: 145 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 1320 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1190 rpm	Design	: A

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



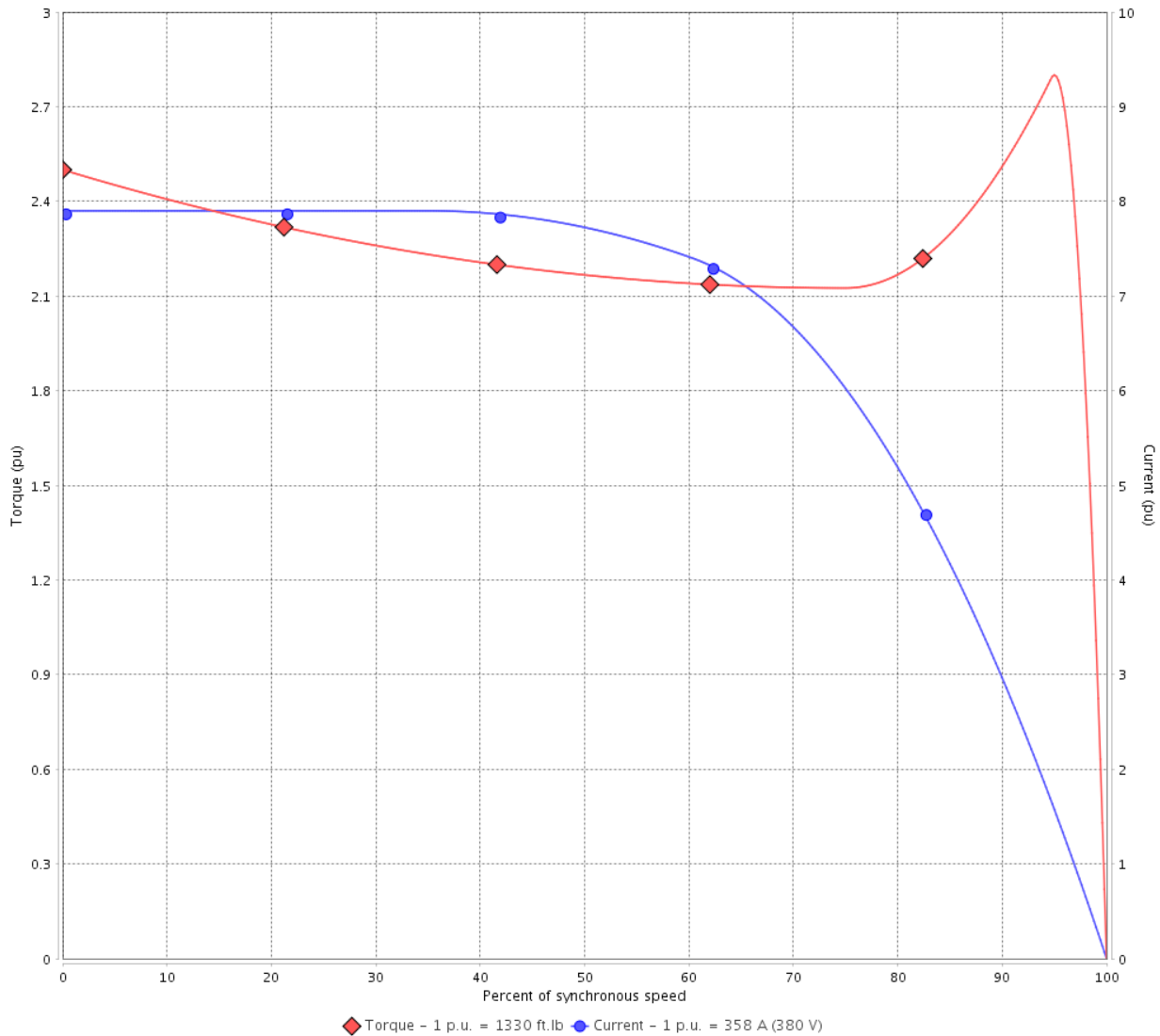
Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14356574

Catalog # : 30012XT3G449T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 6P IE1

Rated current	: 358 A	Moment of inertia (J)	: 145 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 1330 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: A

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

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TORQUE AND CURRENT VS SPEED CURVE



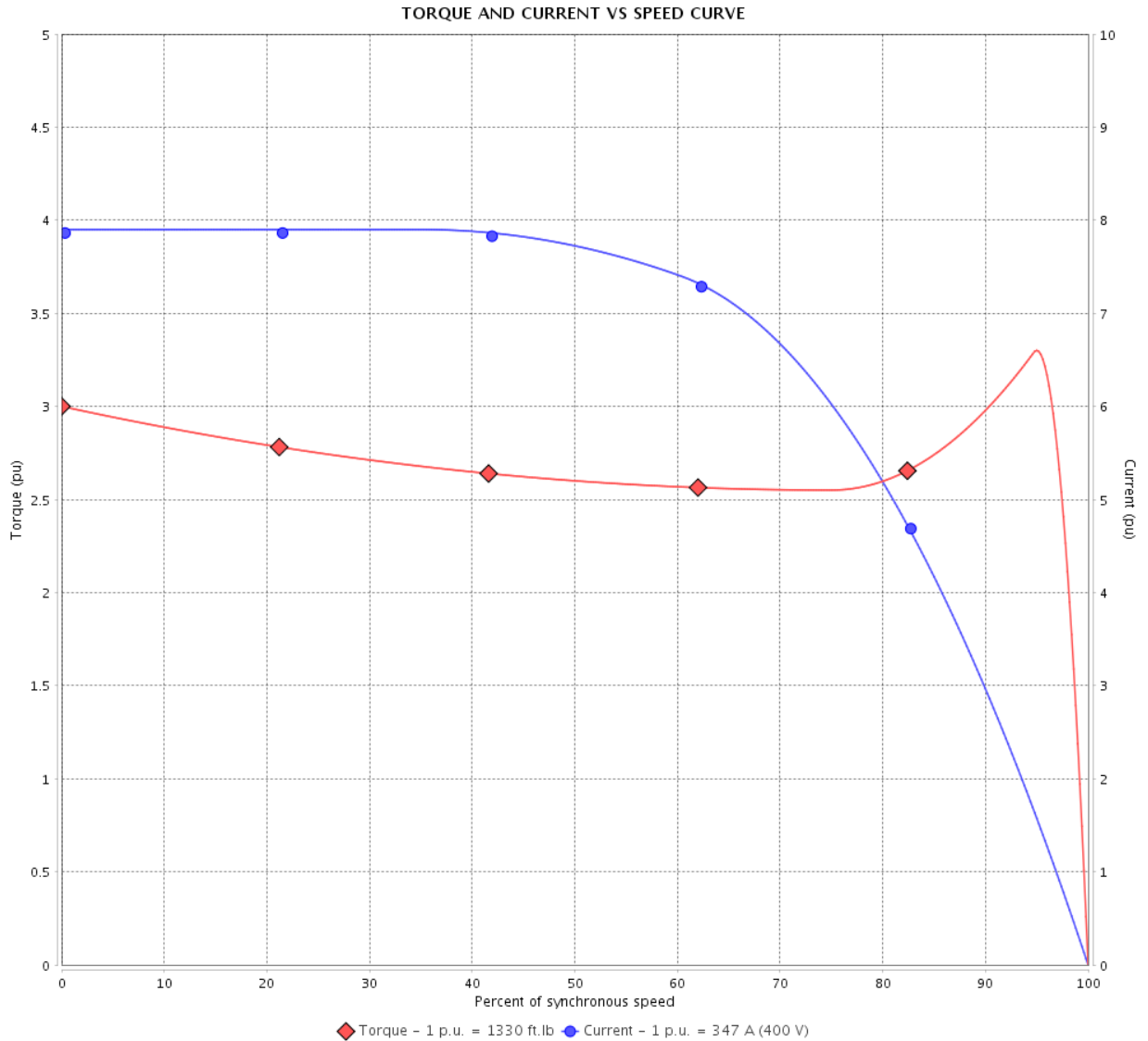
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14356574

Catalog # : 30012XT3G449T



Performance : 400 V 50 Hz 6P IE2

Rated current : 347 A
 LRC : 7.9
 Rated torque : 1330 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 990 rpm

Moment of inertia (J) : 145 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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

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TORQUE AND CURRENT VS SPEED CURVE

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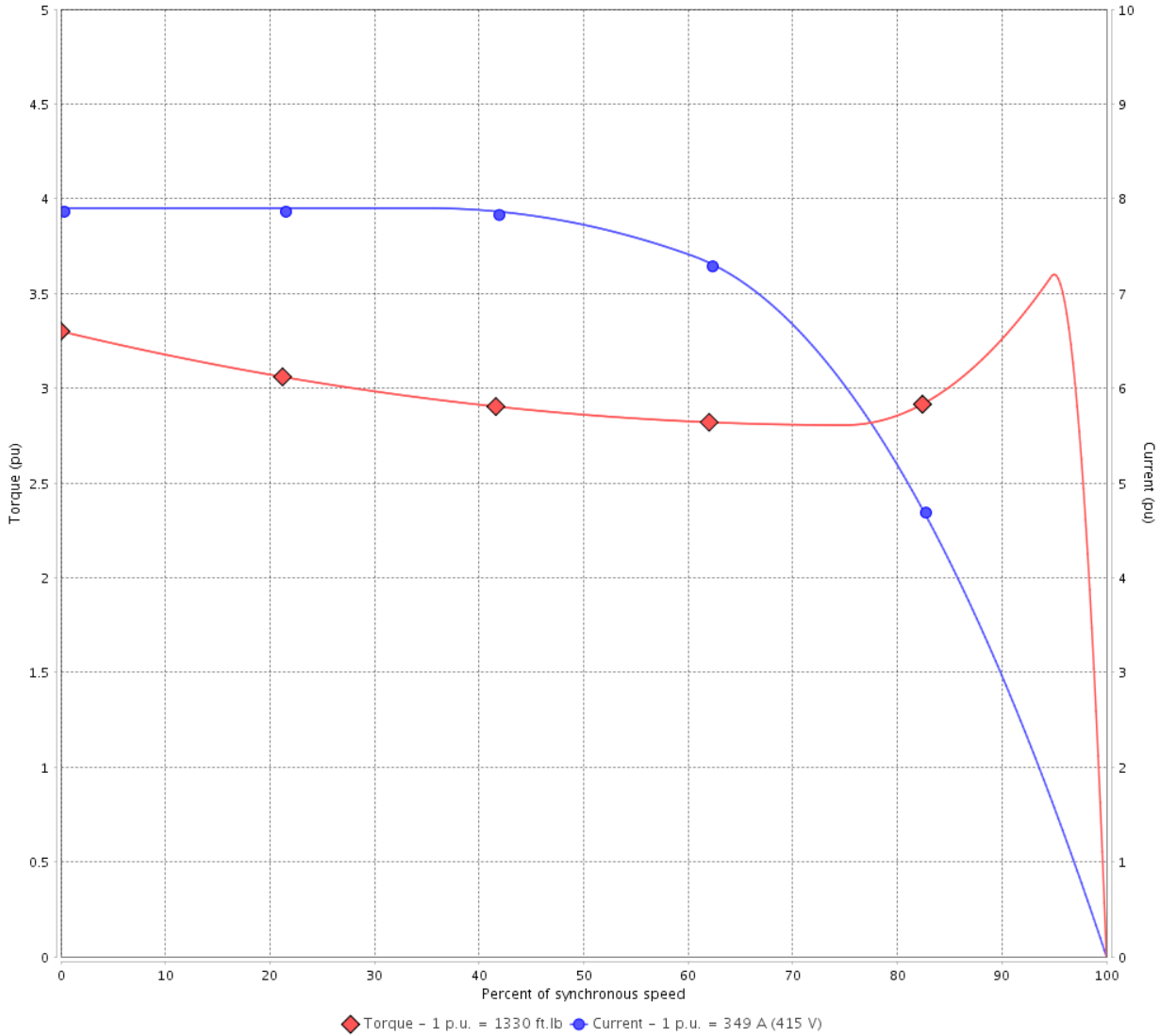
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14356574

Catalog # : 30012XT3G449T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 6P IE1

Rated current	: 349 A	Moment of inertia (J)	: 145 sq.ft.lb
LRC	: 7.9	Duty cycle	: Cont.(S1)
Rated torque	: 1330 ft.lb	Insulation class	: F
Locked rotor torque	: 330 %	Service factor	: 1.00
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 990 rpm	Design	: A

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

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LOAD PERFORMANCE CURVE

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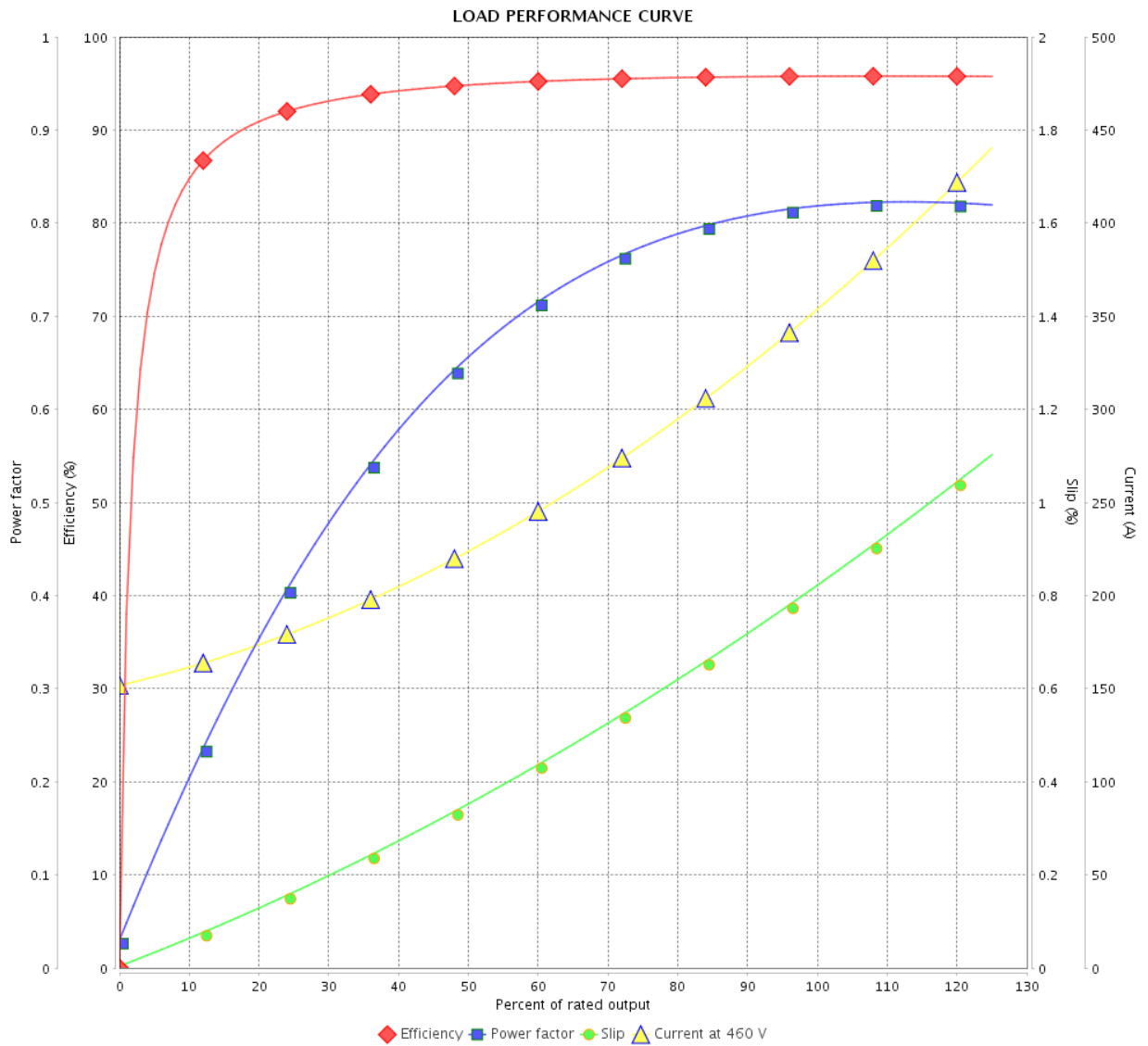


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14356574

Catalog # : 30012XT3G449T



Performance : 460 V 60 Hz 6P

Rated current : 351 A
 LRC : 7.9
 Rated torque : 1320 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1190 rpm

Moment of inertia (J) : 145 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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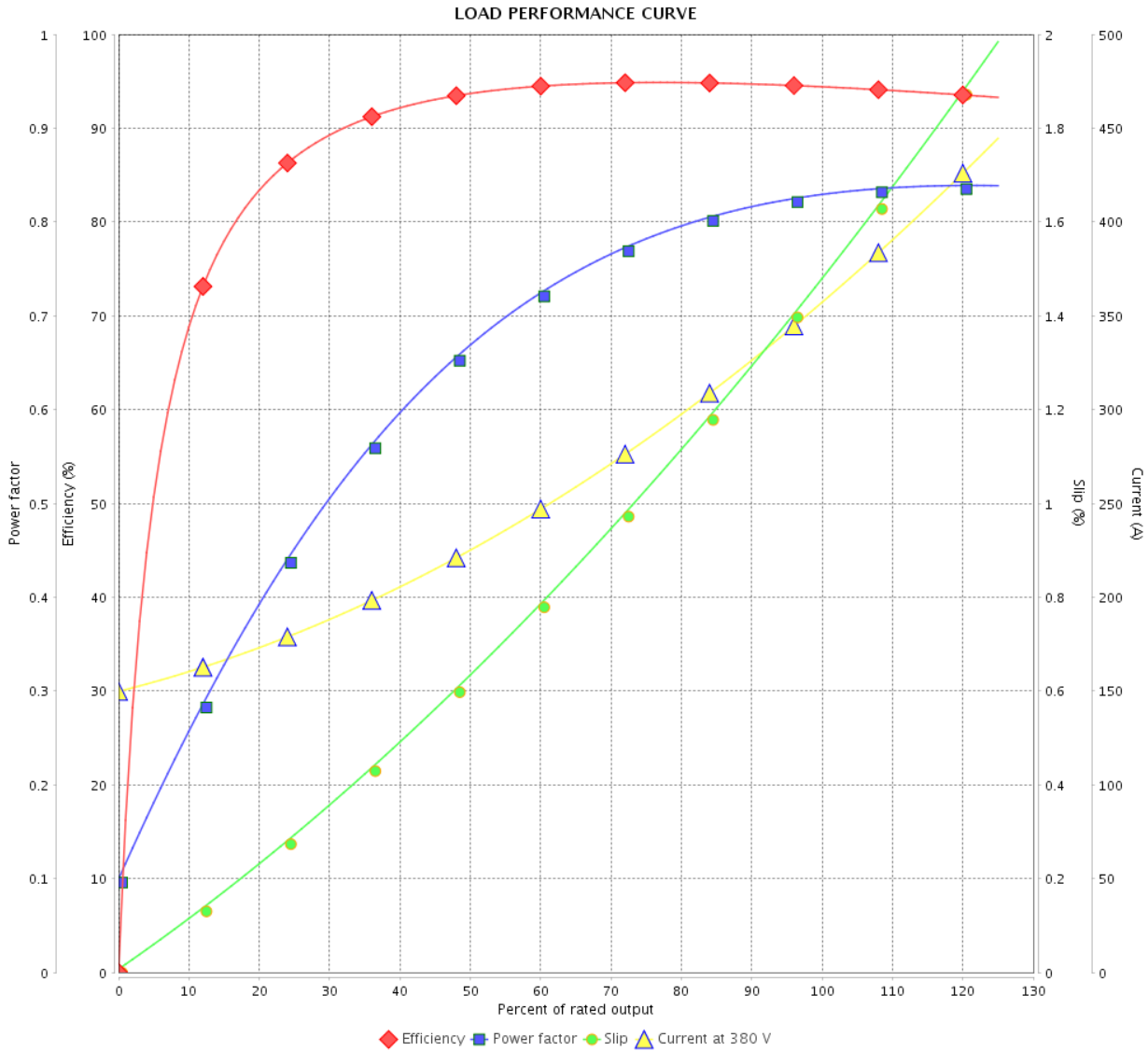


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Performance : 380 V 50 Hz 6P IE1

Rated current	: 358 A	Moment of inertia (J)	: 145 sq.ft.lb
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Rated torque	: 1330 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: A

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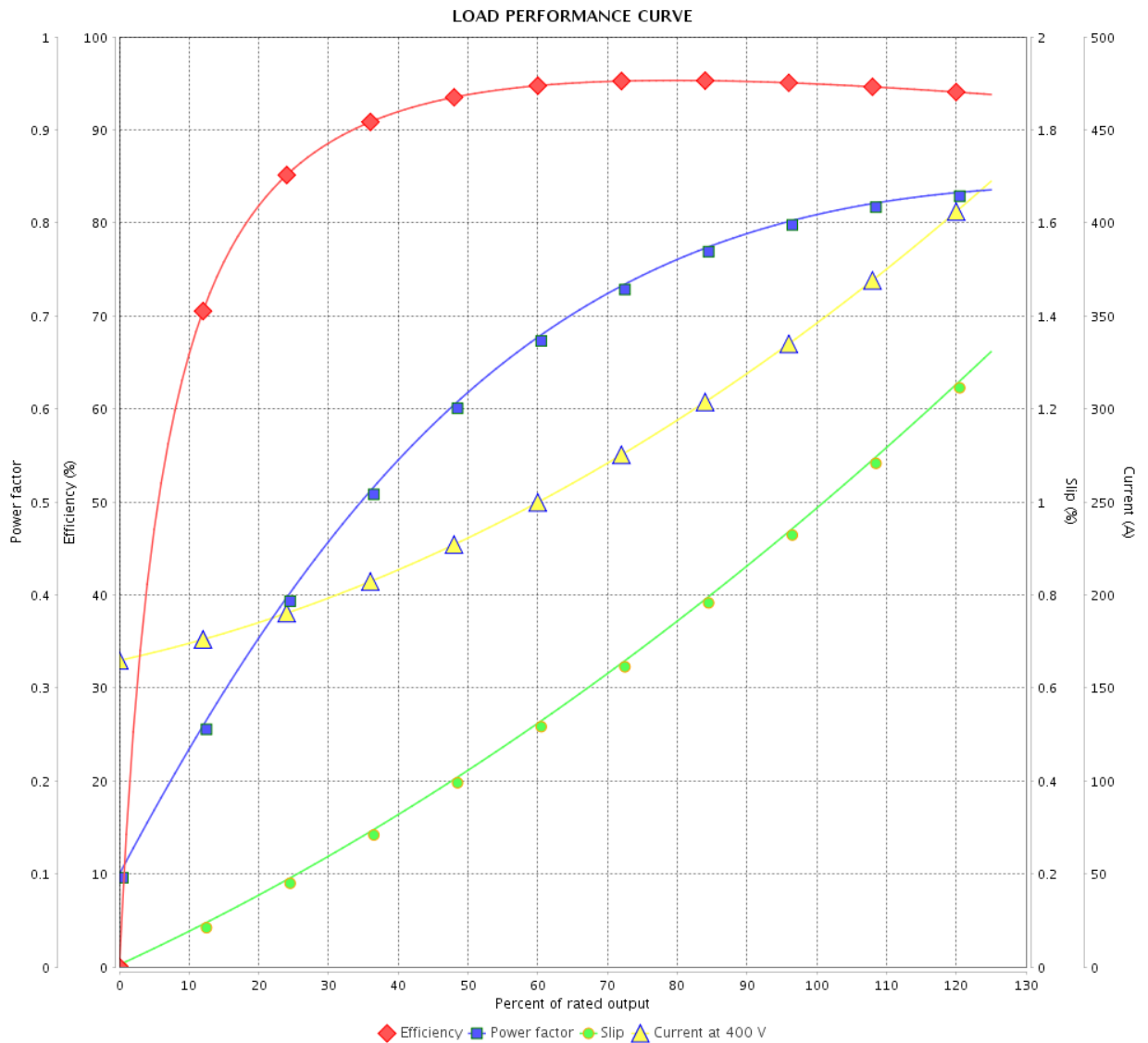


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Performance : 400 V 50 Hz 6P IE2

Rated current : 347 A
 LRC : 7.9
 Rated torque : 1330 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 990 rpm

Moment of inertia (J) : 145 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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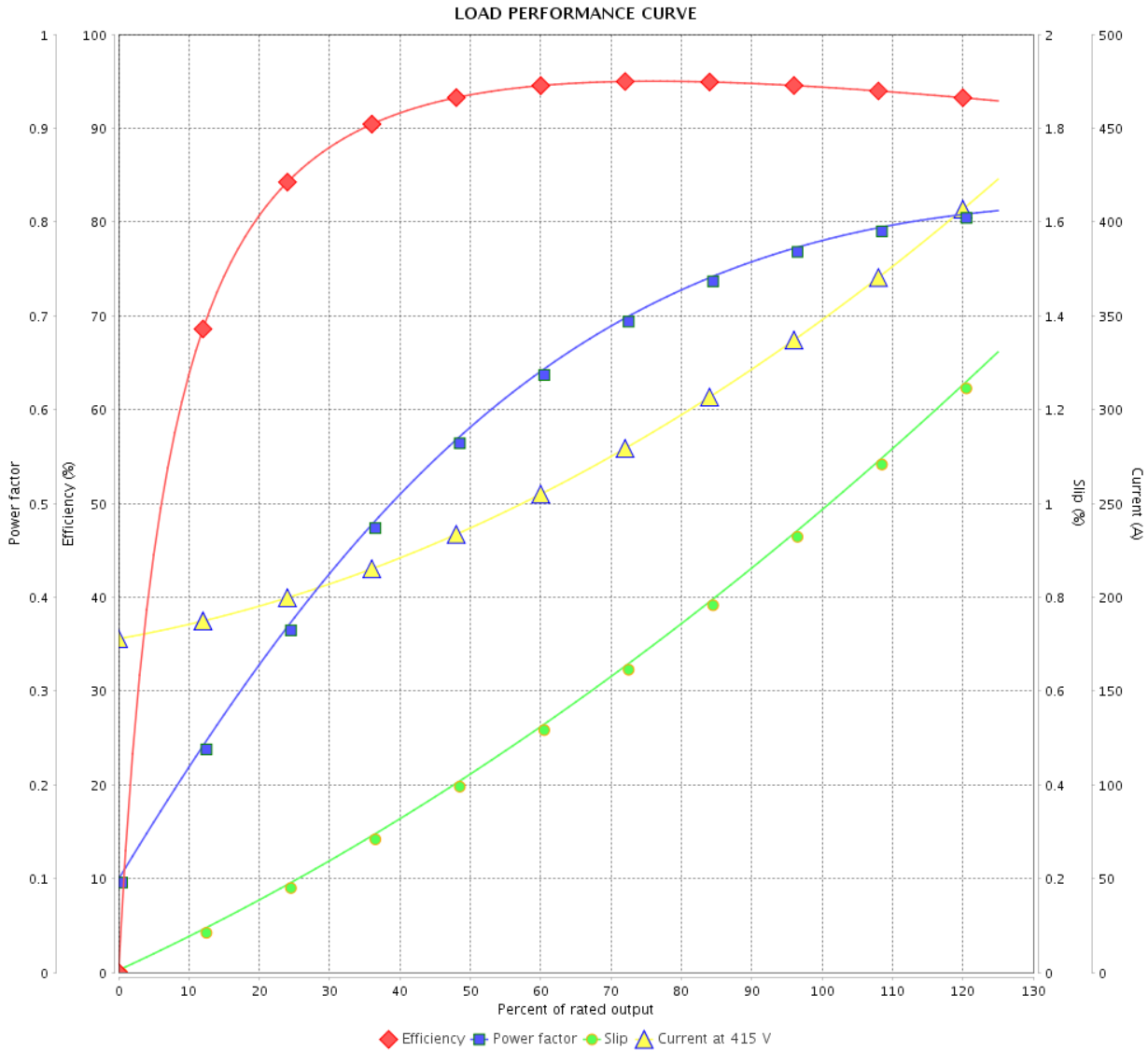


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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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THERMAL LIMIT CURVE



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Rated speed : 1190 rpm	Design : A

Heating constant

Cooling constant

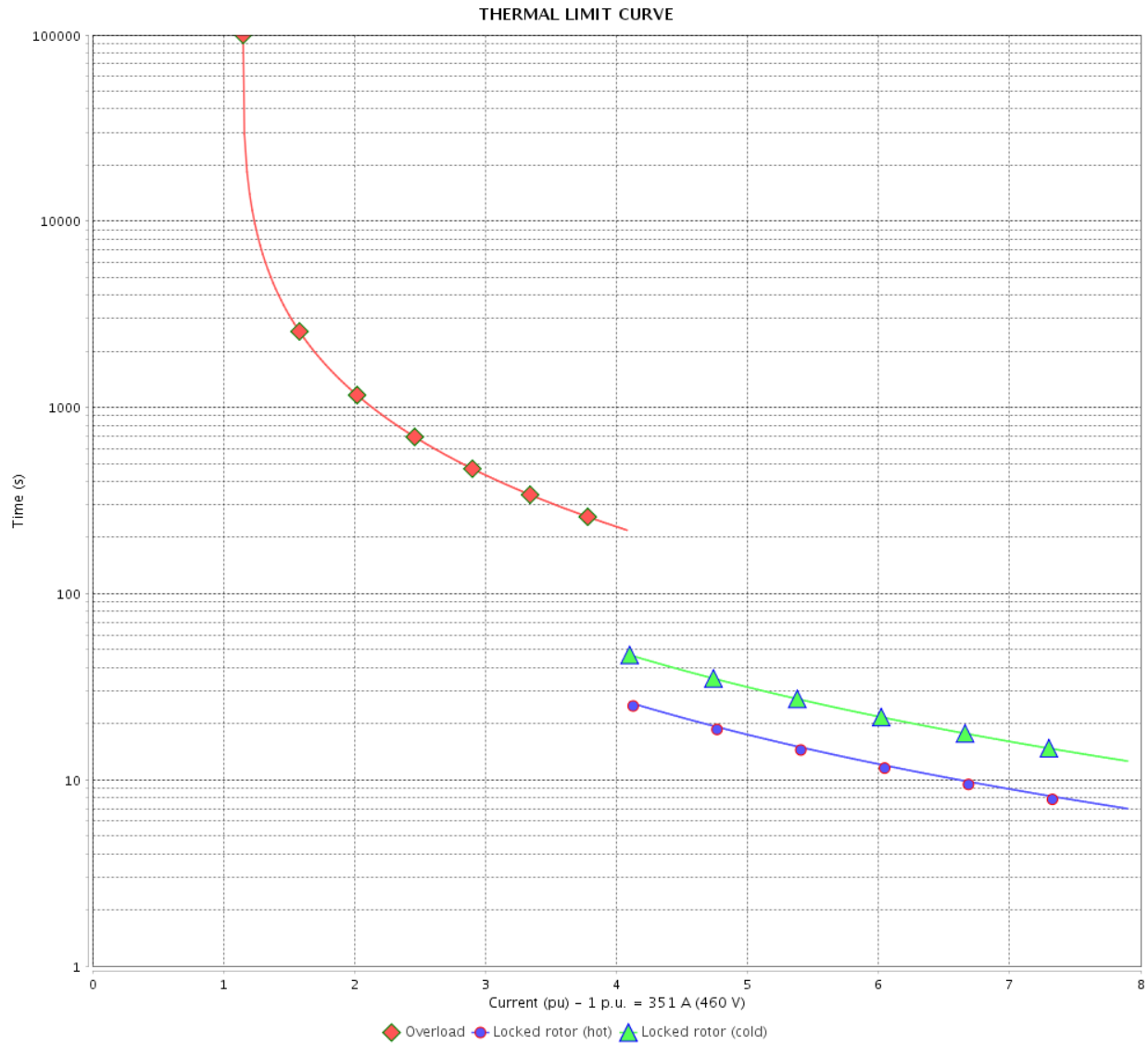
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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

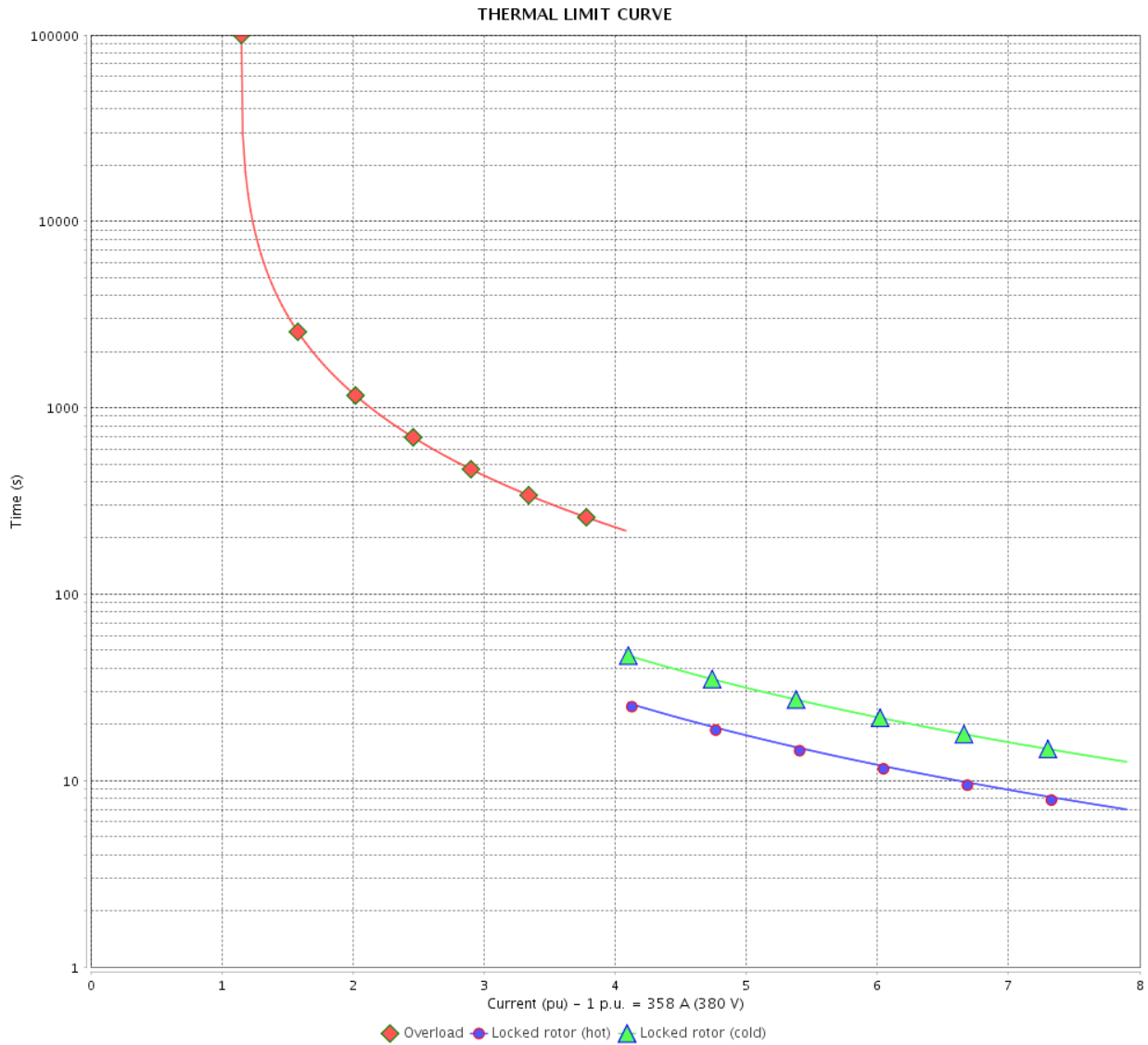
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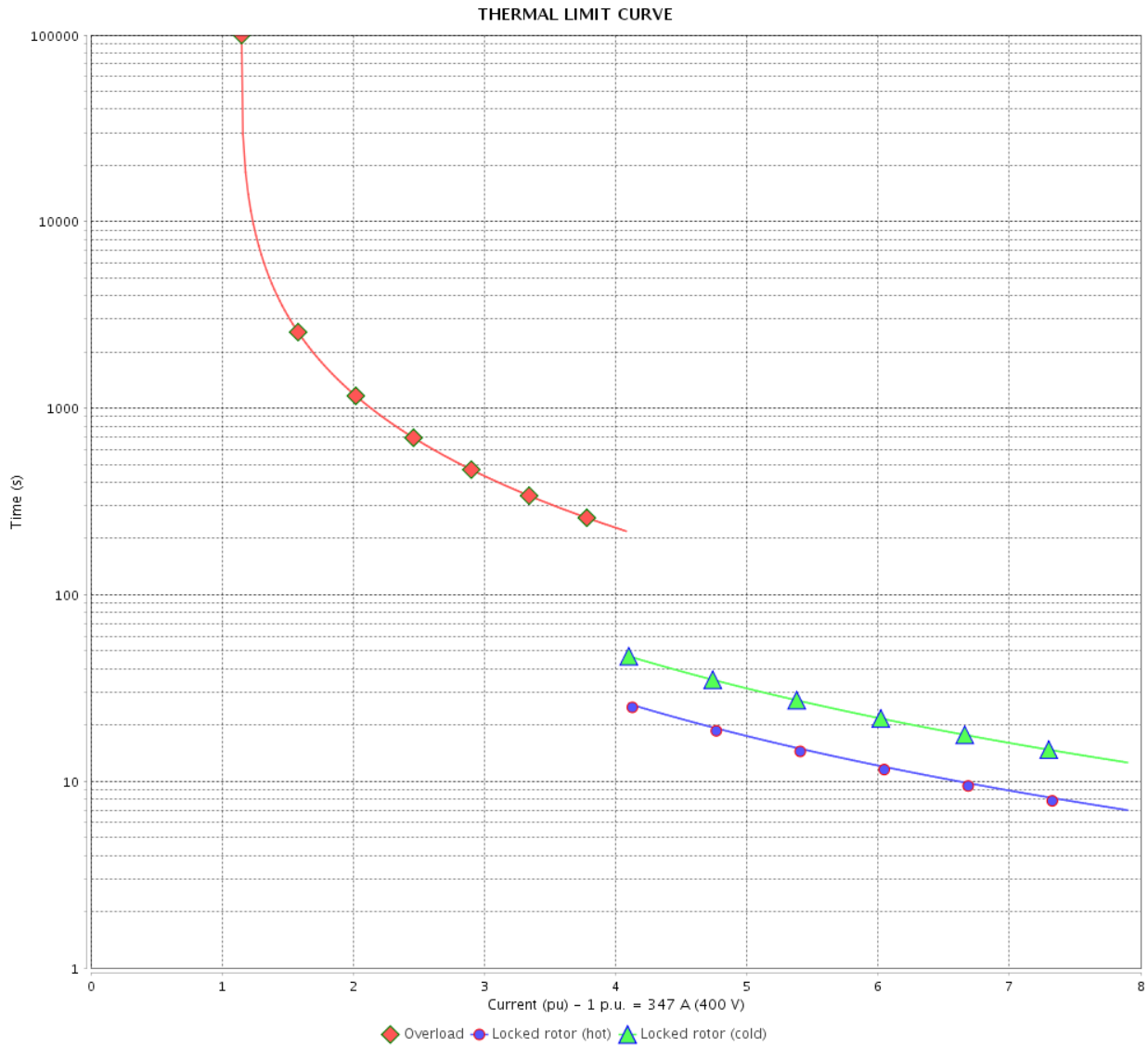
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Locked rotor torque : 330 %	Service factor : 1.00
Breakdown torque : 360 %	Temperature rise : 80 K
Rated speed : 990 rpm	Design : A

Heating constant

Cooling constant

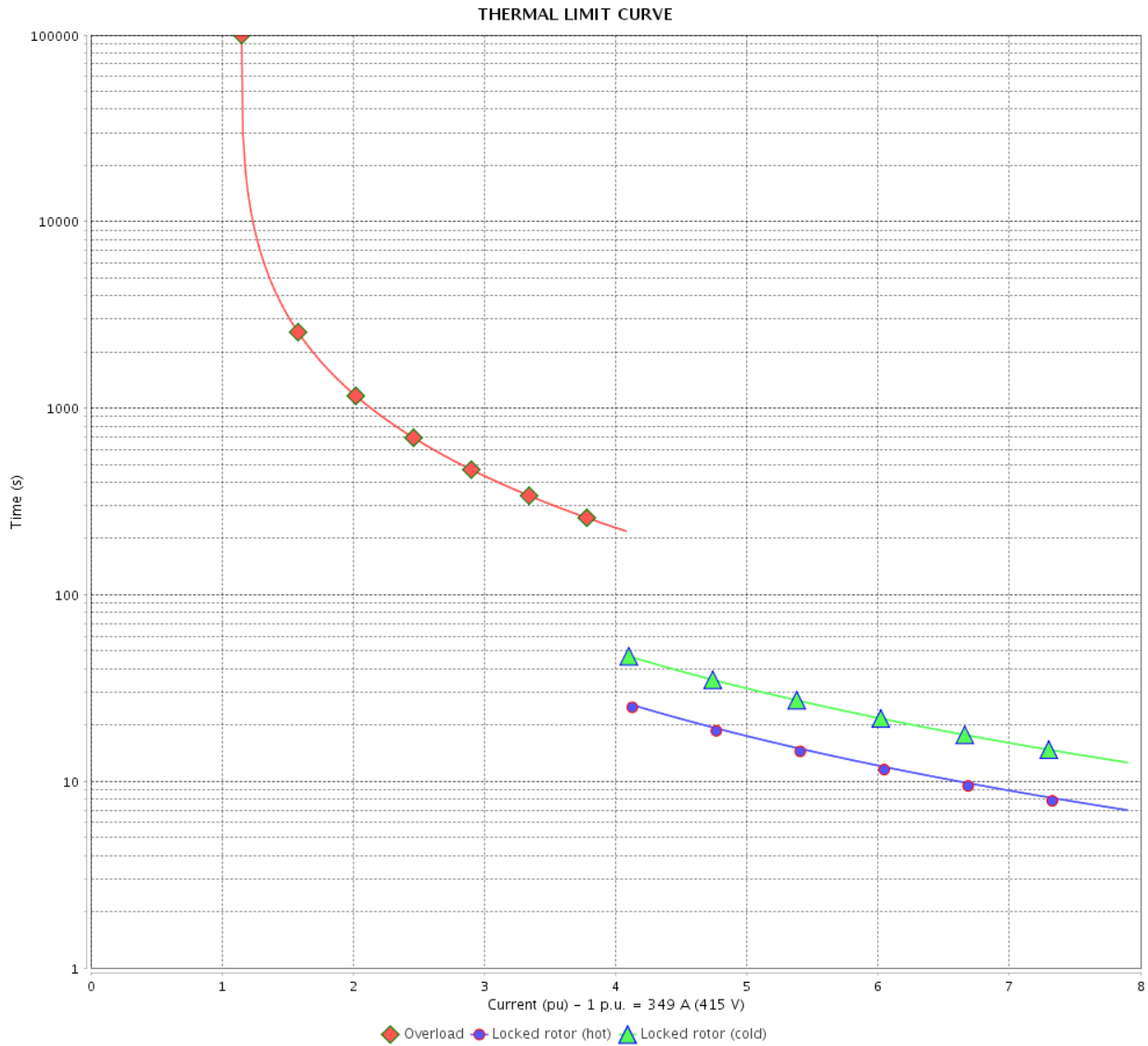
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

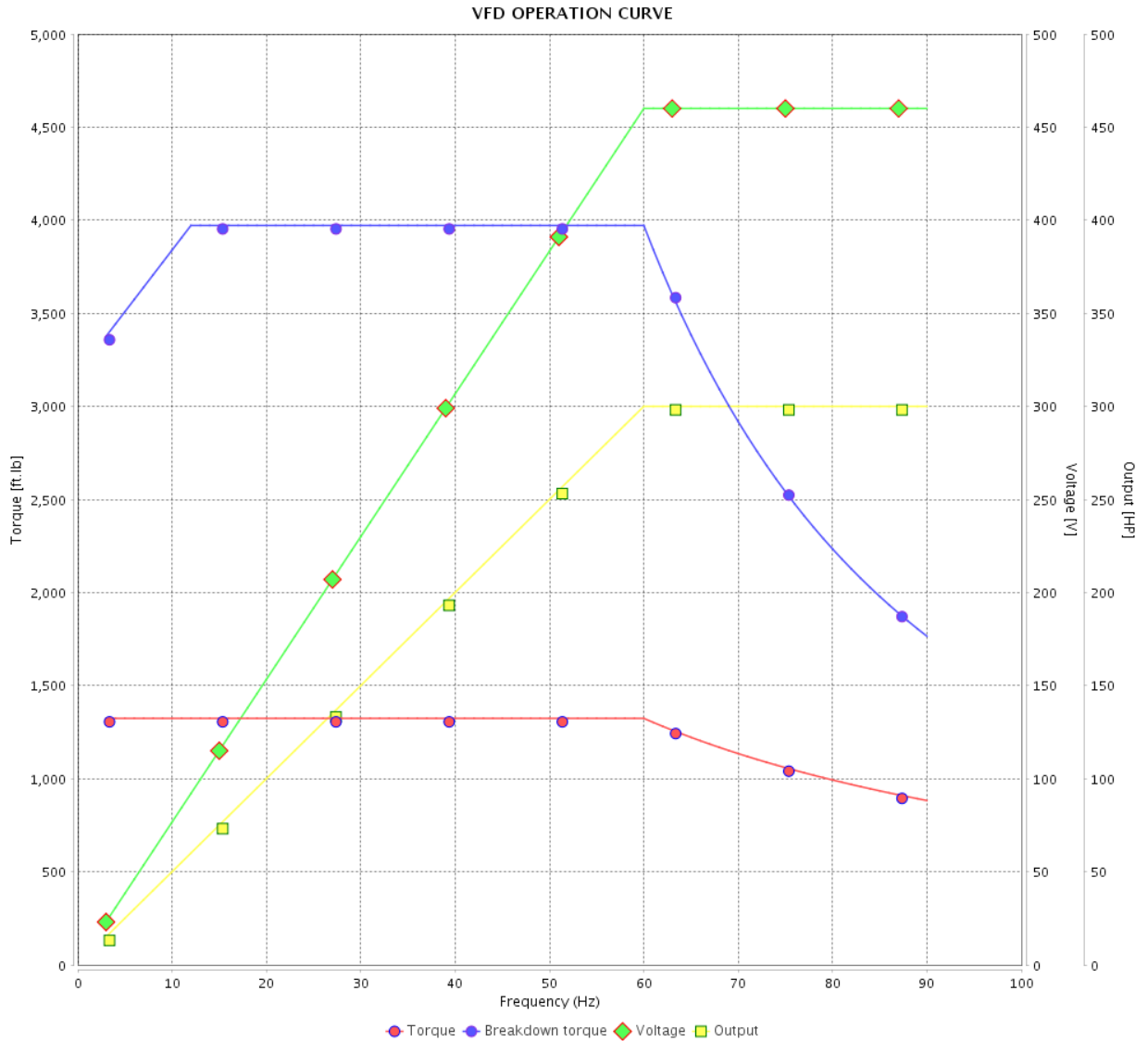


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 Breakdown torque : 300 %
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 Insulation class : F
 Service factor : 1.00
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



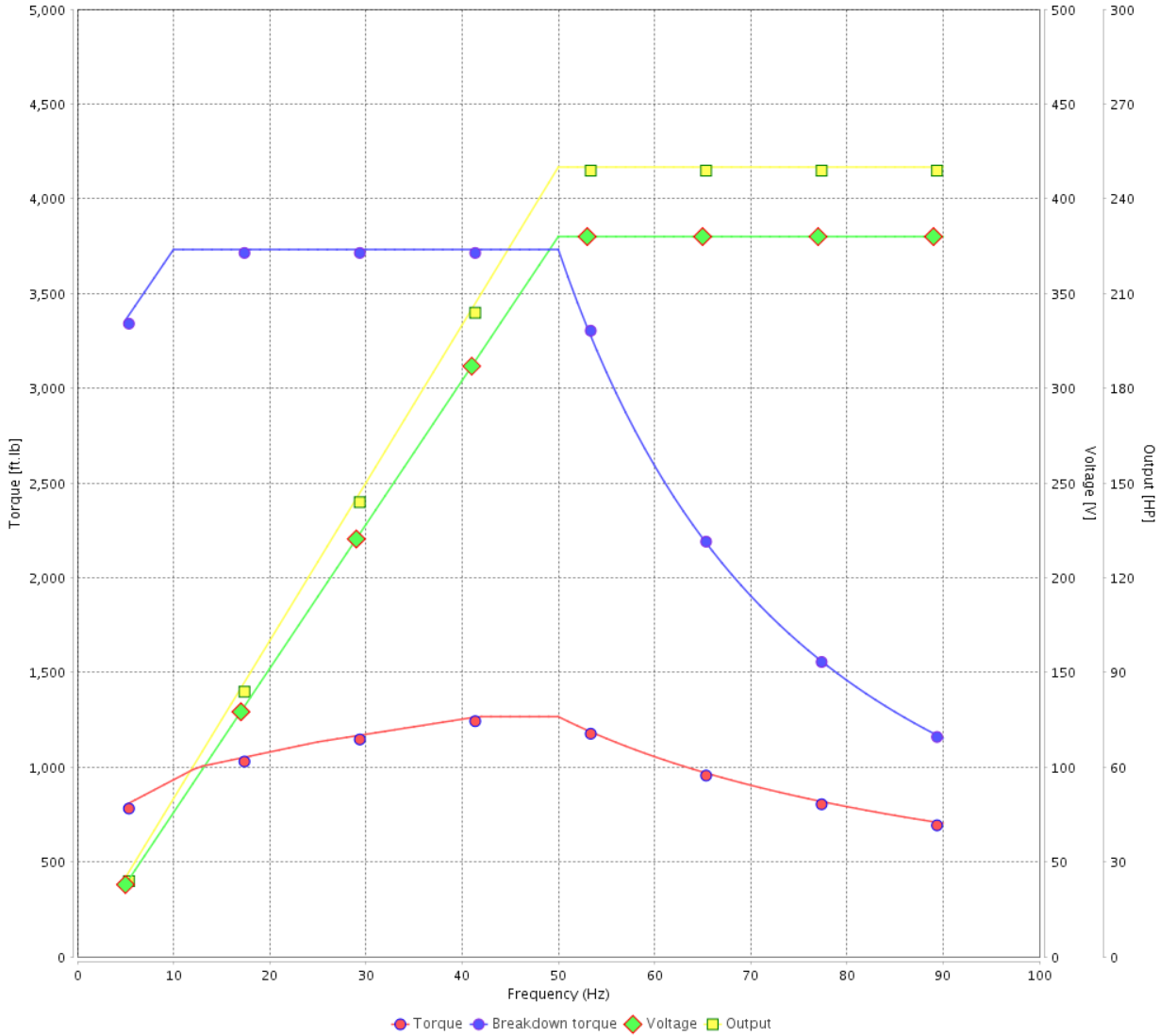
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 6P IE1

Rated current	: 358 A	Moment of inertia (J)	: 145 sq.ft.lb
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

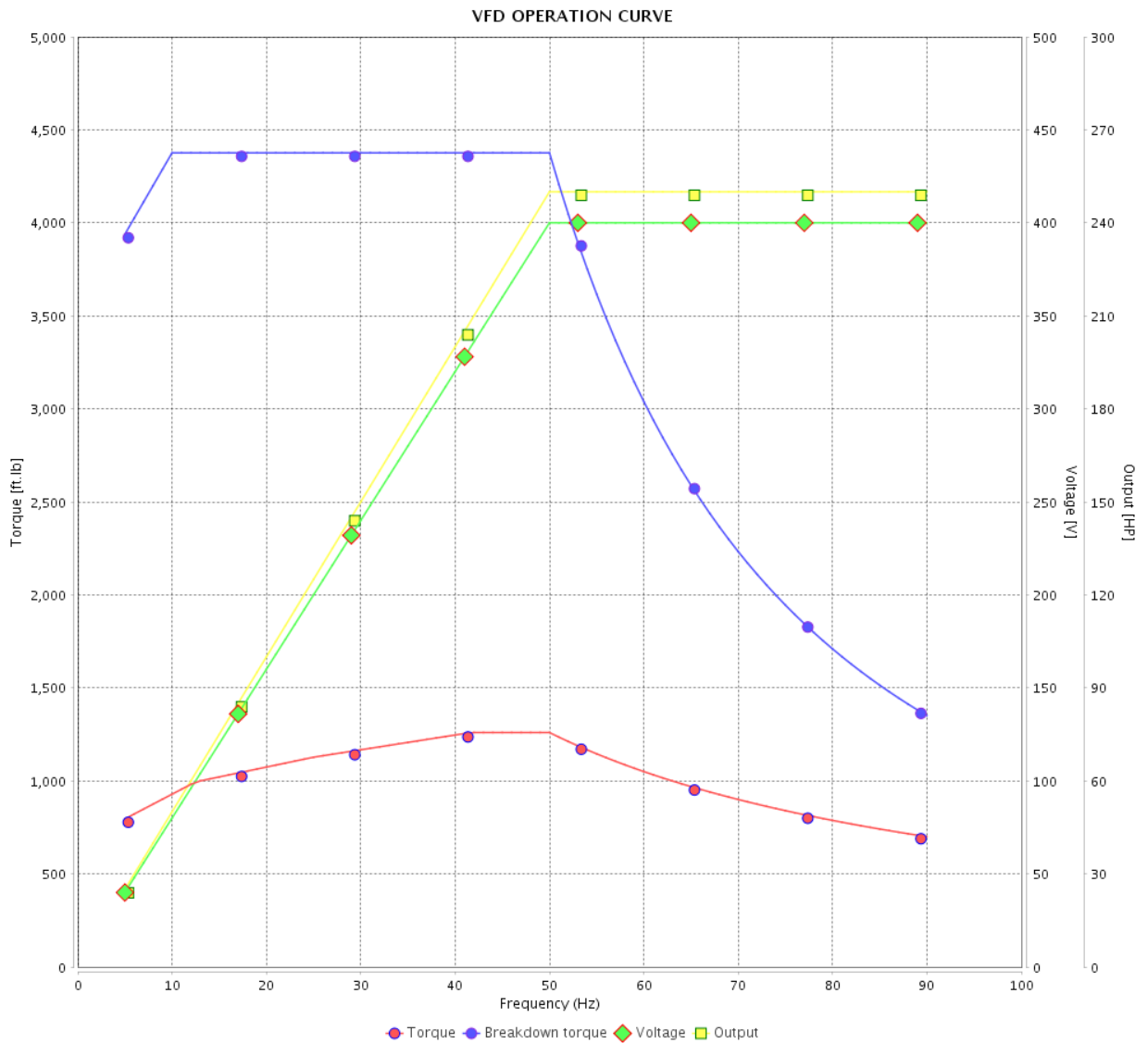


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 Rated speed : 990 rpm

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

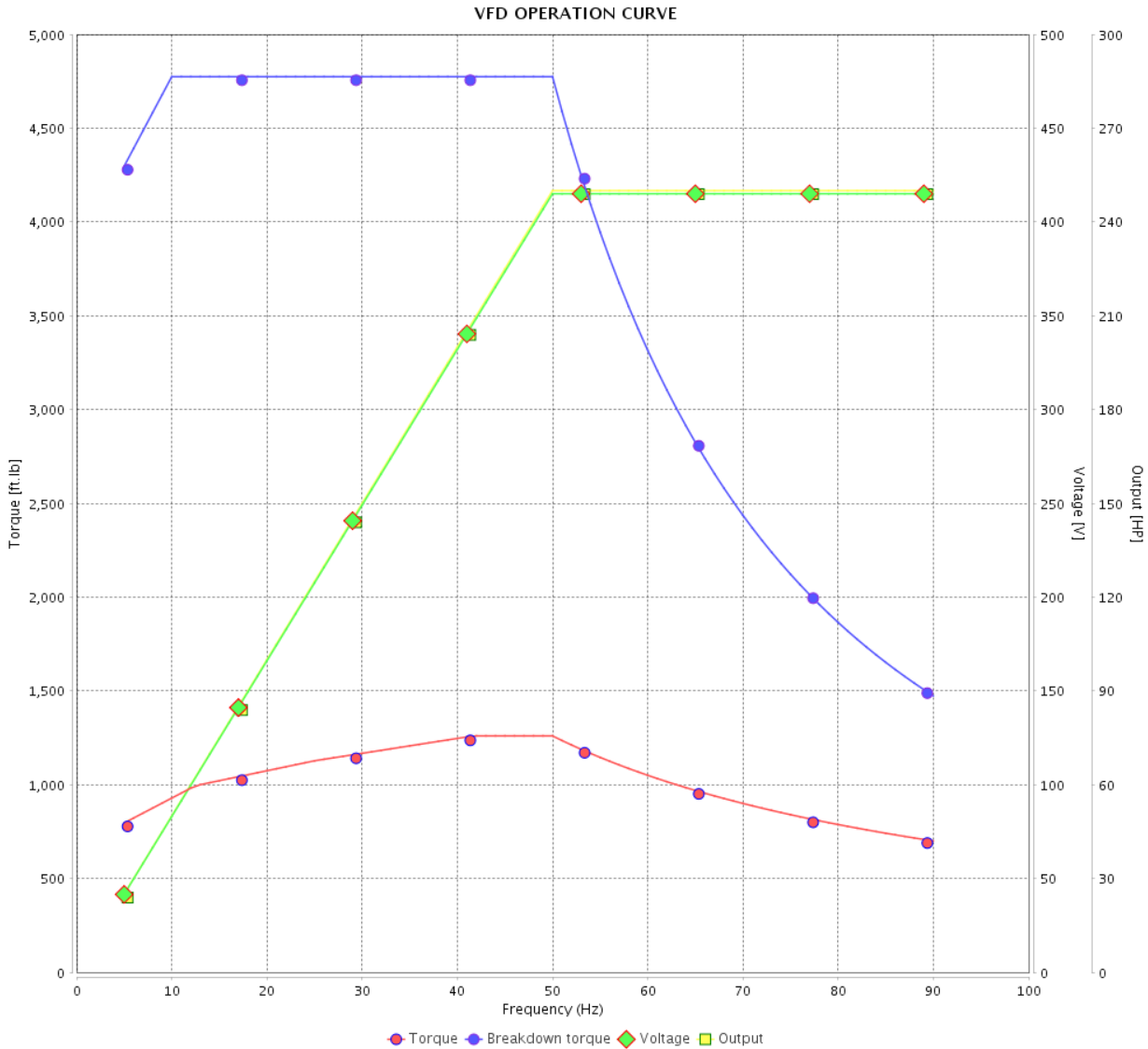


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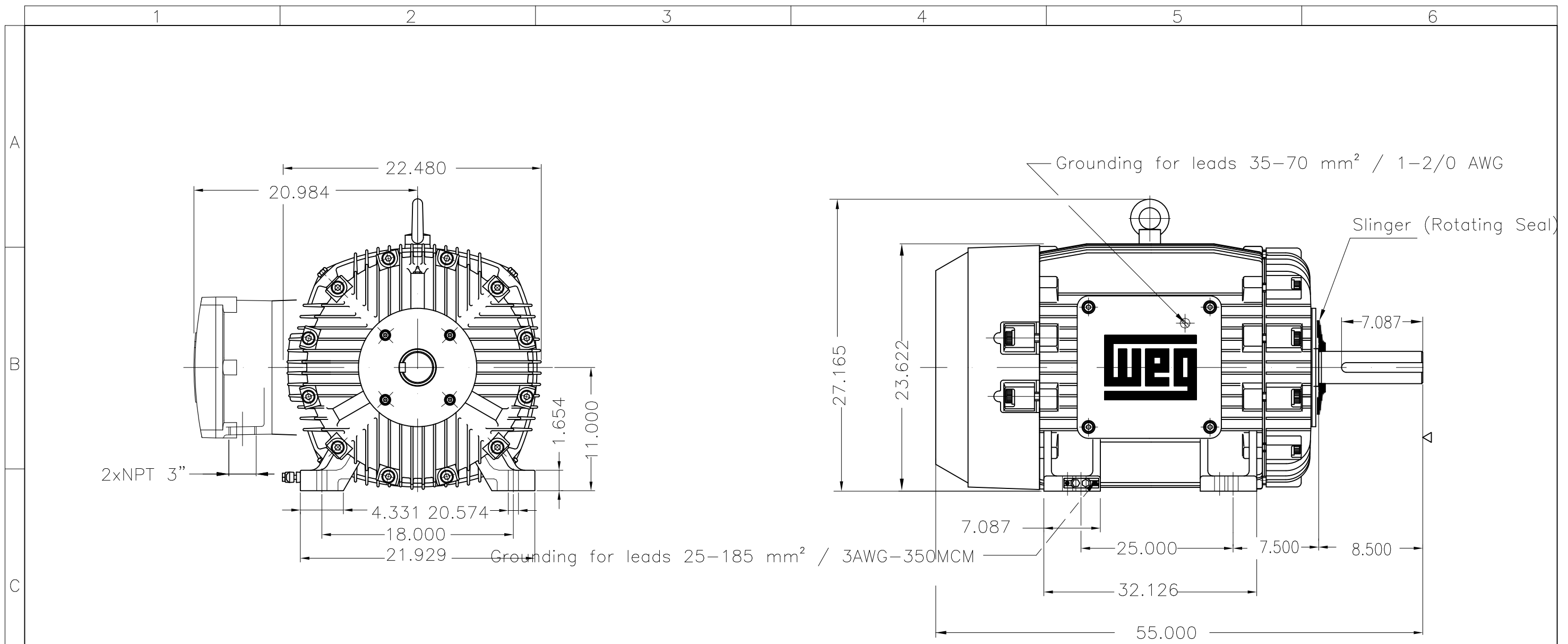


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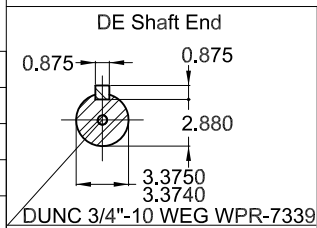
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Color RAL 5009
 Painting plan 202P
 Service factor 1.0
 Mounting NEMA F-1
 Mounting B3R(D)



300 HP 06 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 449T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
 WDD



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