

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase		Product code : 12408376	
				Catalog # : 12512XT3G445T	
Frame : 444/5T		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 : 2263 lb			
Protection degree : IP55		Moment of inertia (J) : 104 sq.ft.lb			
Design : B					
Output [HP]	125	100	100	100	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	150	147	141	140	
L. R. Amperes [A]	1110	1014	1086	1162	
LRC [A]	7.4x(Code H)	6.9x(Code H)	7.7x(Code J)	8.3x(Code K)	
No load current [A]	65.0	65.0	69.0	72.3	
Rated speed [RPM]	1185	985	985	985	
Slip [%]	1.25	1.50	1.50	1.50	
Rated torque [ft.lb]	554	533	533	533	
Locked rotor torque [%]	229	210	229	250	
Breakdown torque [%]	240	229	260	280	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	73s (cold) 41s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	
Noise level ²	70.0 dB(A)	66.0 dB(A)	66.0 dB(A)	66.0 dB(A)	
Efficiency (%)	25%	94.4	94.4	93.8	94.0
	50%	94.5	94.5	94.0	94.1
	75%	95.0	94.5	94.5	94.5
	100%	95.0	94.5	94.5	94.5
Power Factor	25%	0.41	0.41	0.37	0.35
	50%	0.67	0.68	0.64	0.61
	75%	0.76	0.77	0.74	0.72
	100%	0.82	0.82	0.81	0.79
Bearing type		Drive end : 6219 C3	Non drive end : 6316 C3	Foundation loads	
Sealing		: Viton Viton Seal		Max. traction : 2848 lb	
		Oil Seal		Max. compression : 5111 lb	
Lubrication interval		: 12202 h	12823 h		
Lubricant amount		: 28 g	34 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



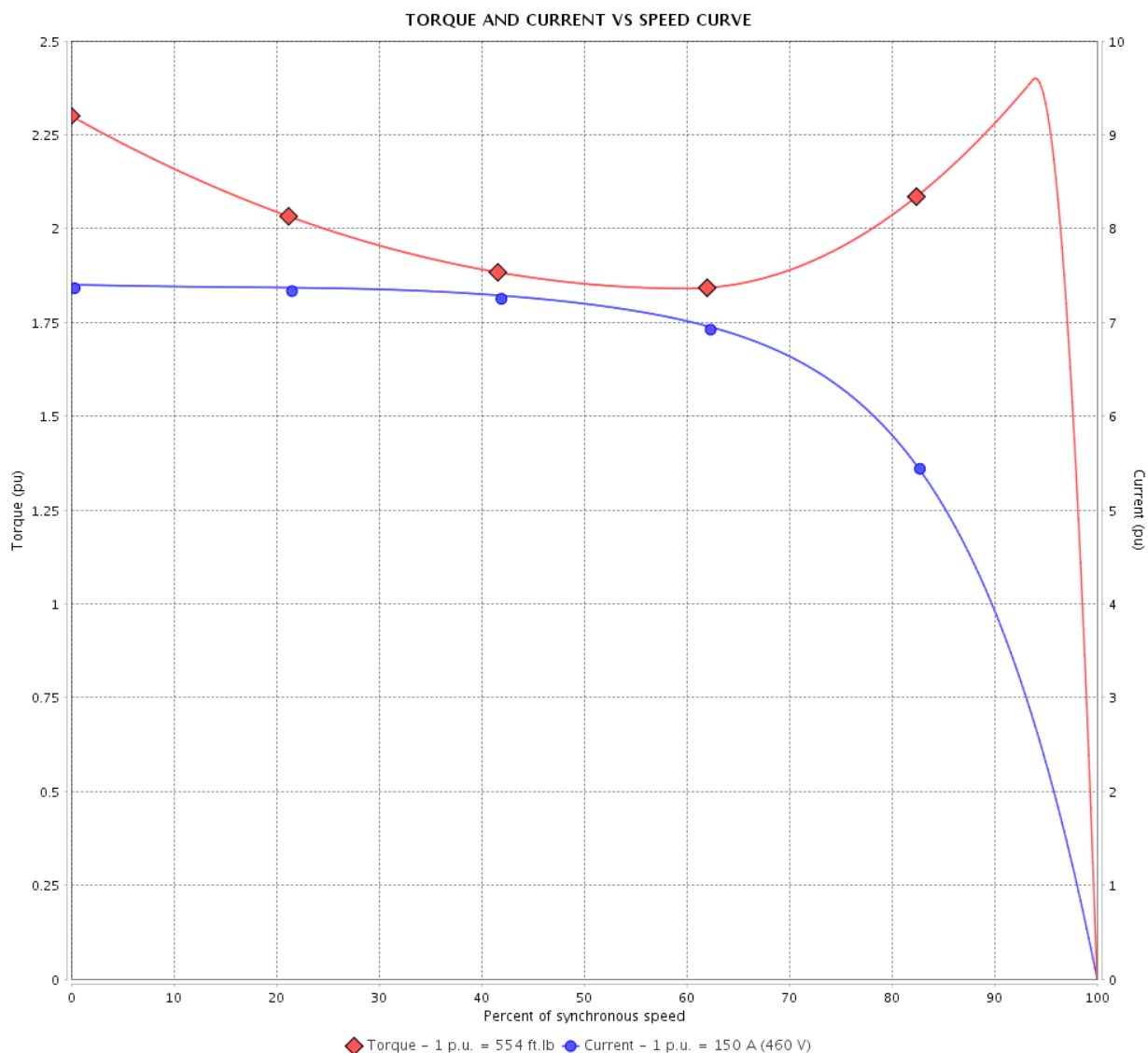
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408376

Catalog # : 12512XT3G445T



Performance : 460 V 60 Hz 6P

Rated current	: 150 A	Moment of inertia (J)	: 104 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 554 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

Locked rotor time : 73s (cold) 41s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



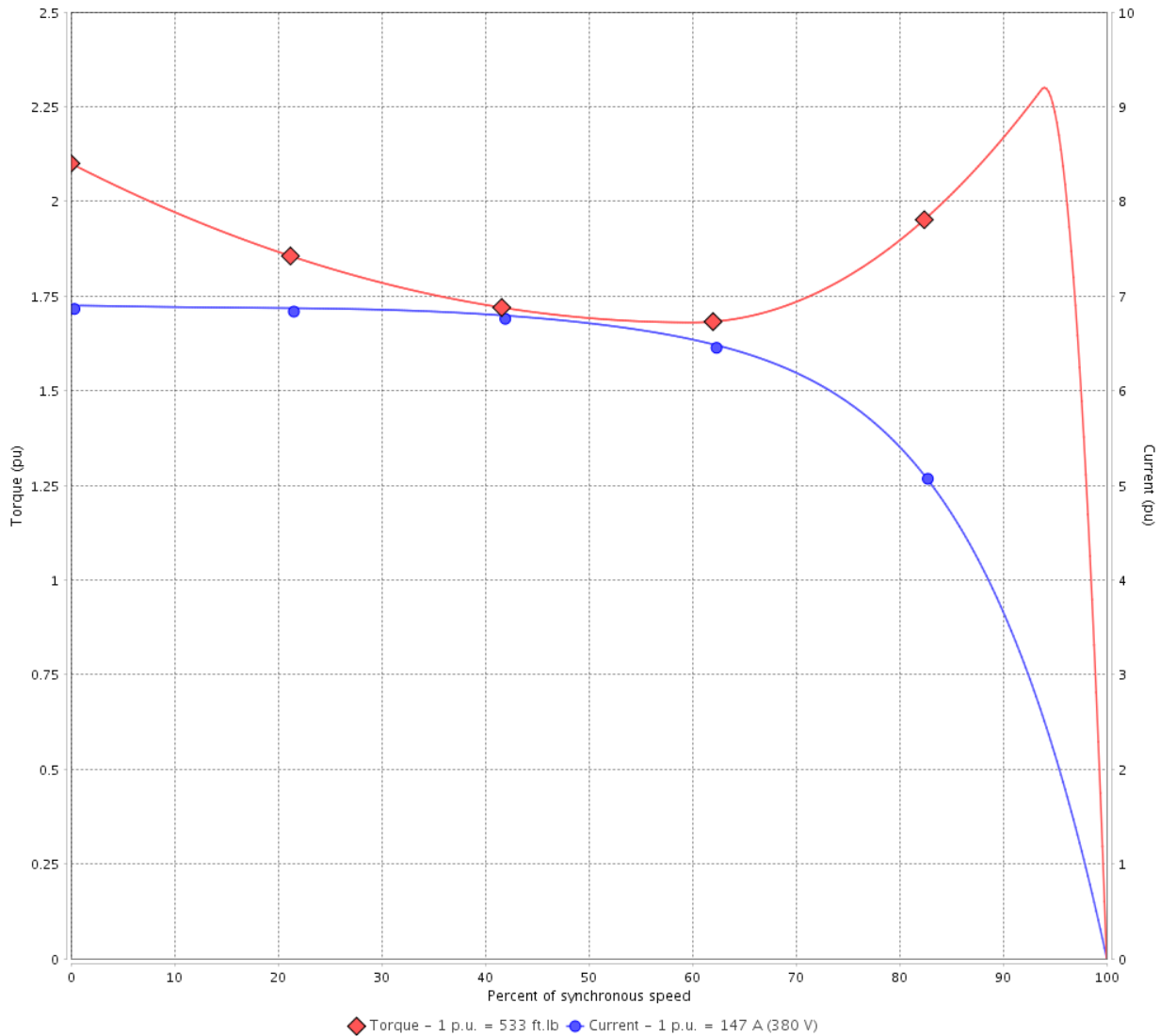
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408376

Catalog # : 12512XT3G445T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 6P IE2

Rated current	: 147 A	Moment of inertia (J)	: 104 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 533 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



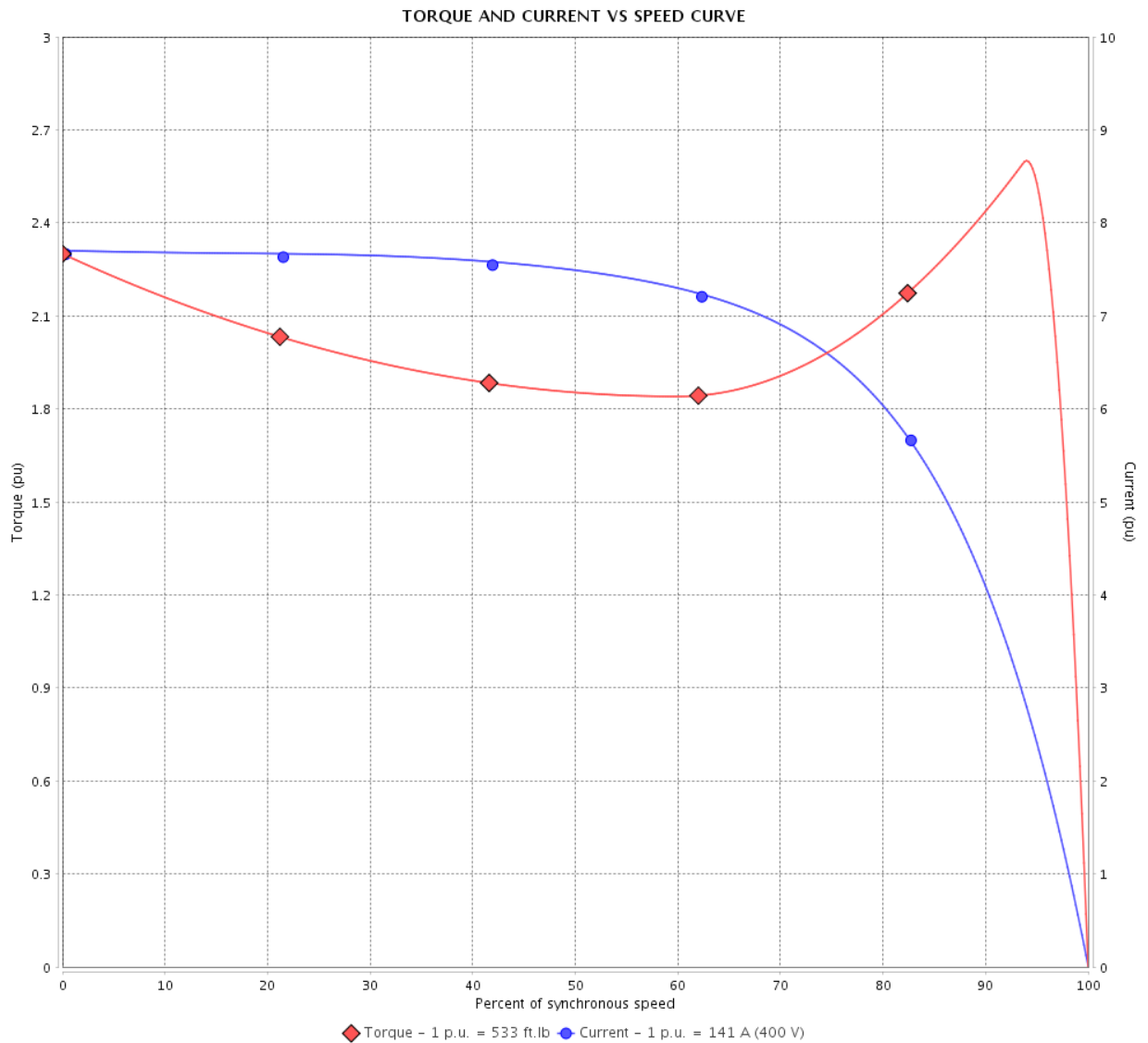
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408376

Catalog # : 12512XT3G445T



Performance : 400 V 50 Hz 6P IE2

Rated current	: 141 A	Moment of inertia (J)	: 104 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 533 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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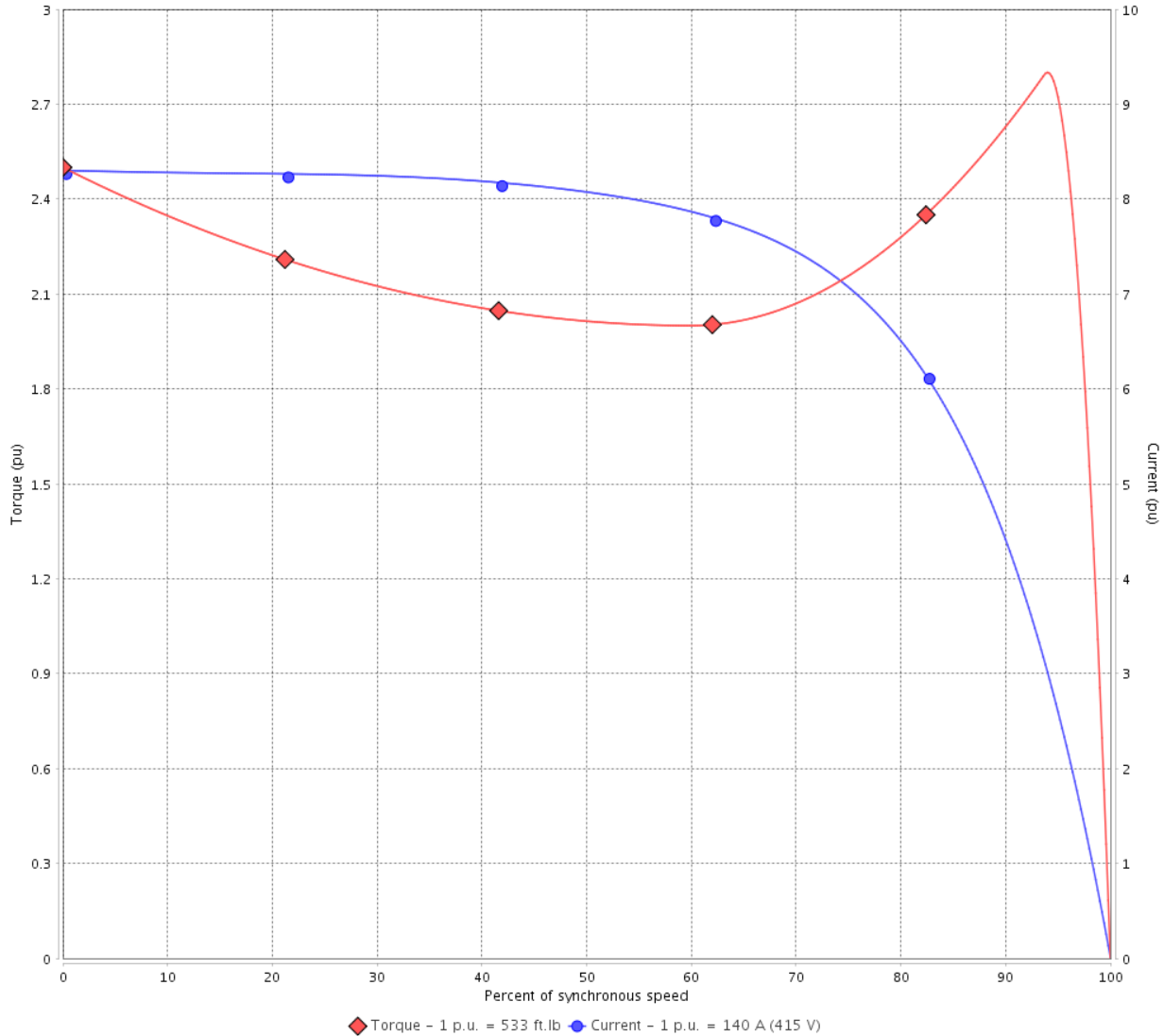
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408376

Catalog # : 12512XT3G445T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 6P IE2

Rated current	: 140 A	Moment of inertia (J)	: 104 sq.ft.lb
LRC	: 8.3	Duty cycle	: Cont.(S1)
Rated torque	: 533 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	: B

Locked rotor time : 36s (cold) 20s (hot)

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LOAD PERFORMANCE CURVE

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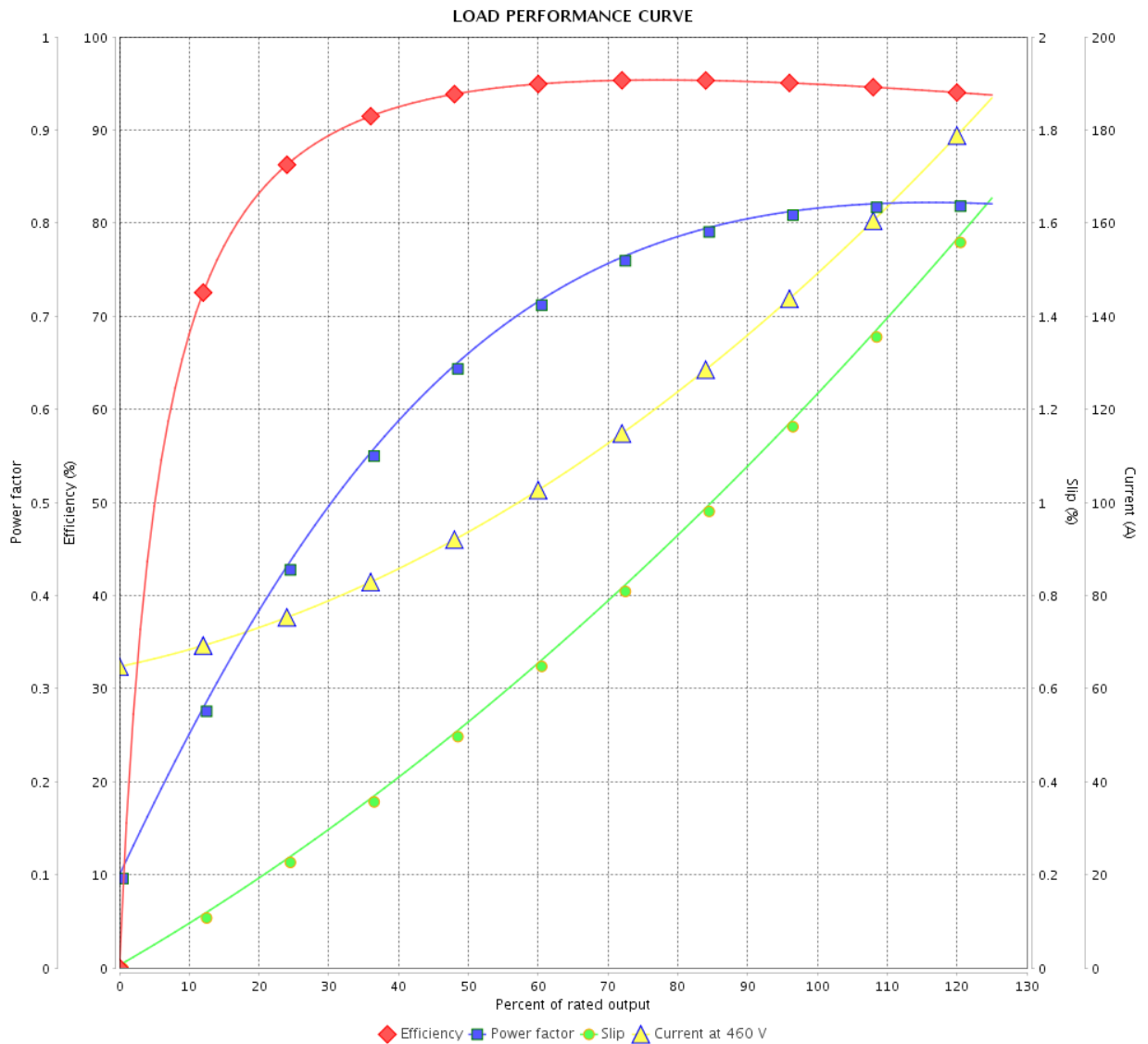


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

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Performance : 460 V 60 Hz 6P

Rated current : 150 A
 LRC : 7.4
 Rated torque : 554 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 104 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
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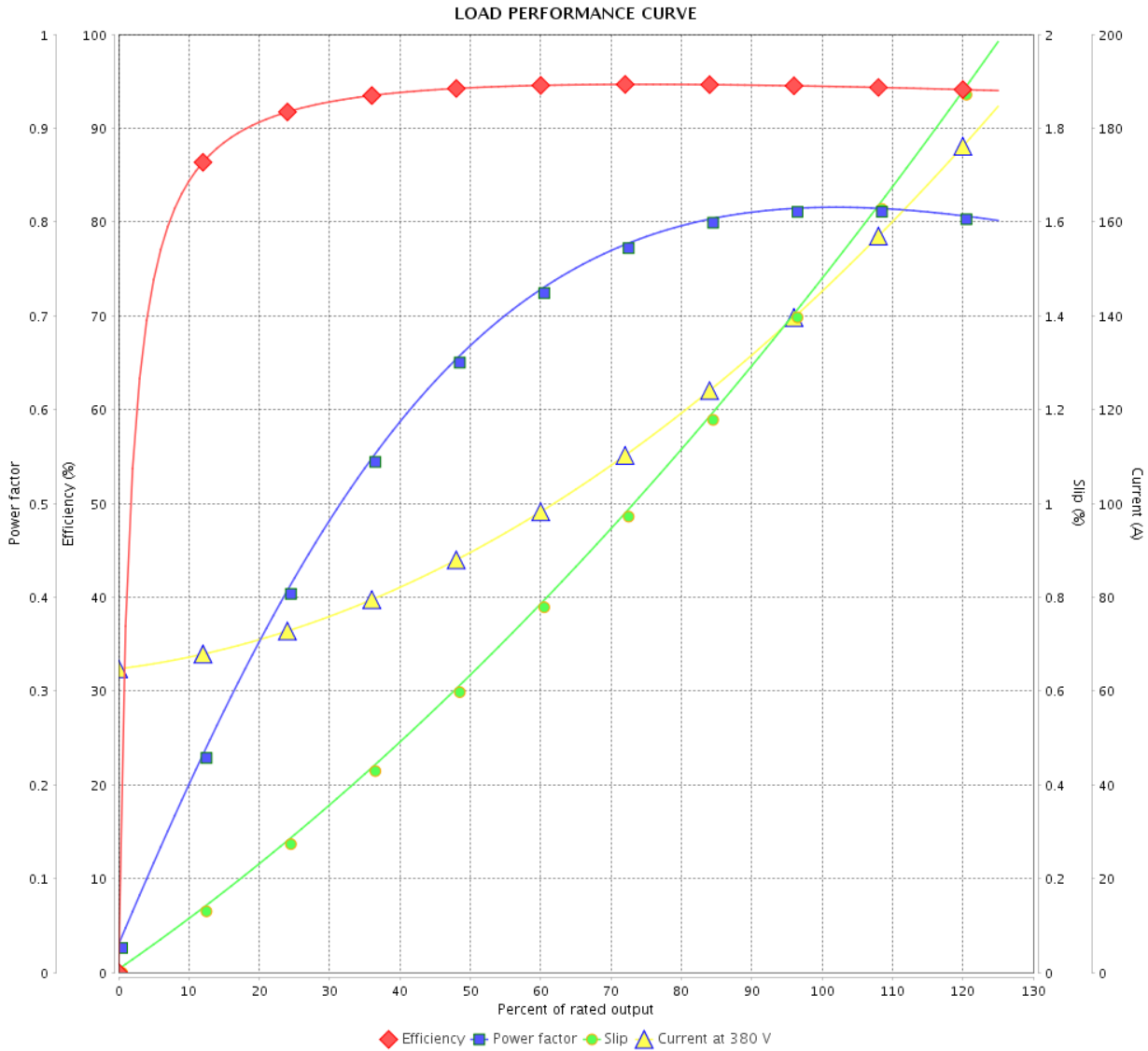


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Performance : 380 V 50 Hz 6P IE2

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 Rated torque : 533 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 229 %
 Rated speed : 985 rpm

Moment of inertia (J) : 104 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

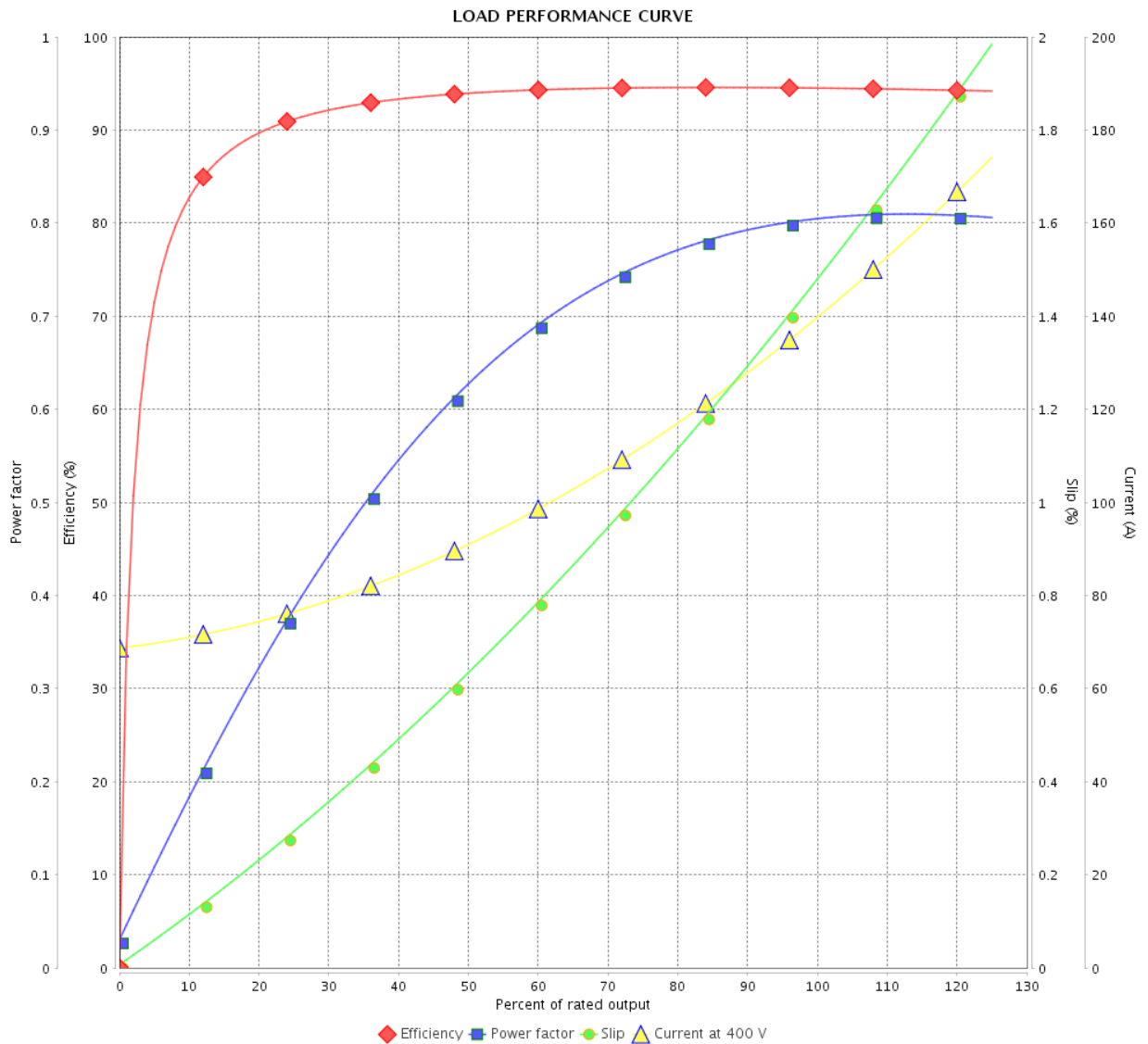


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Performance : 400 V 50 Hz 6P IE2

Rated current : 141 A
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 Rated torque : 533 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 260 %
 Rated speed : 985 rpm

Moment of inertia (J) : 104 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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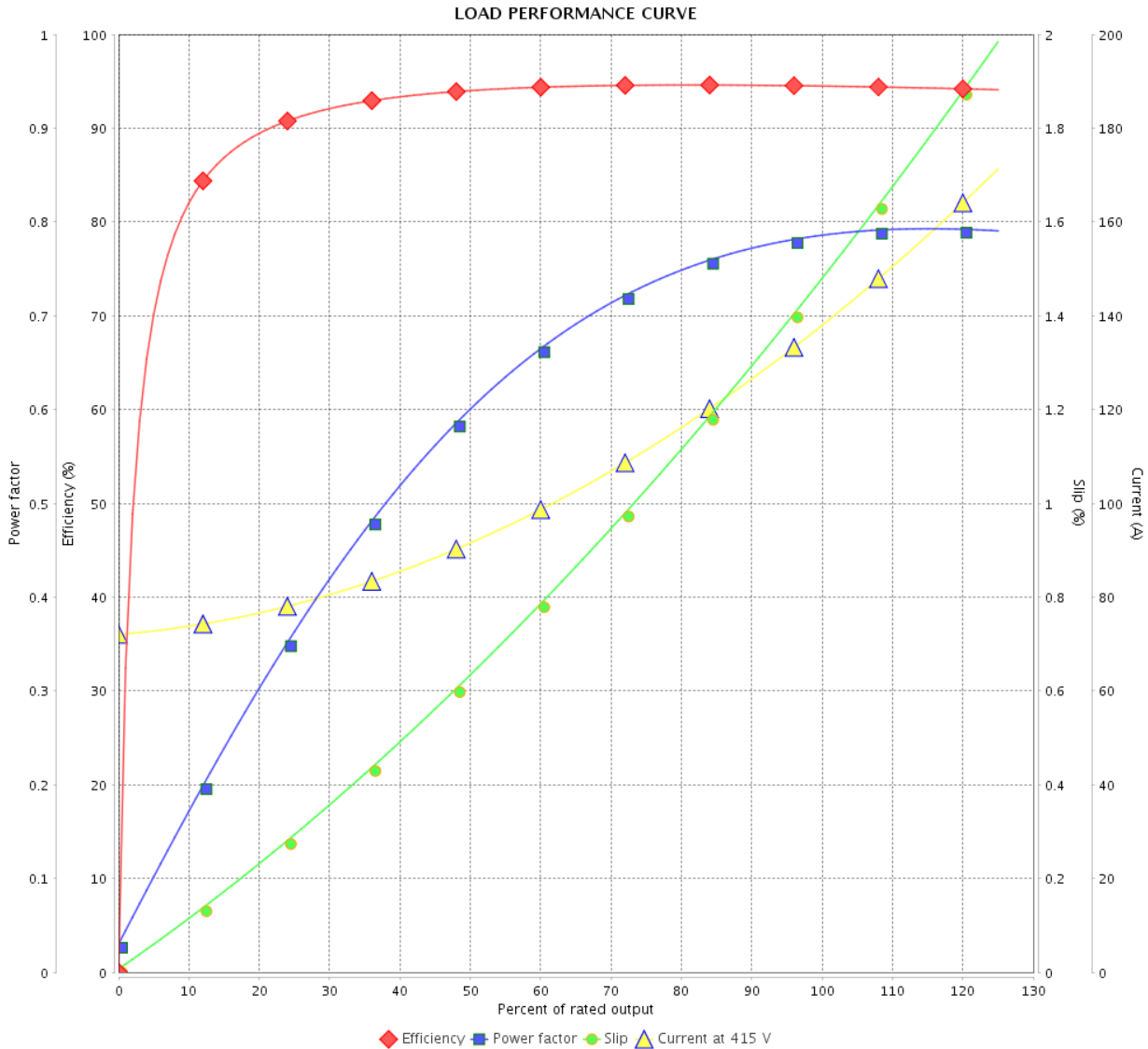


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Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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THERMAL LIMIT CURVE

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Rated speed : 1185 rpm	Design : B

Heating constant

Cooling constant

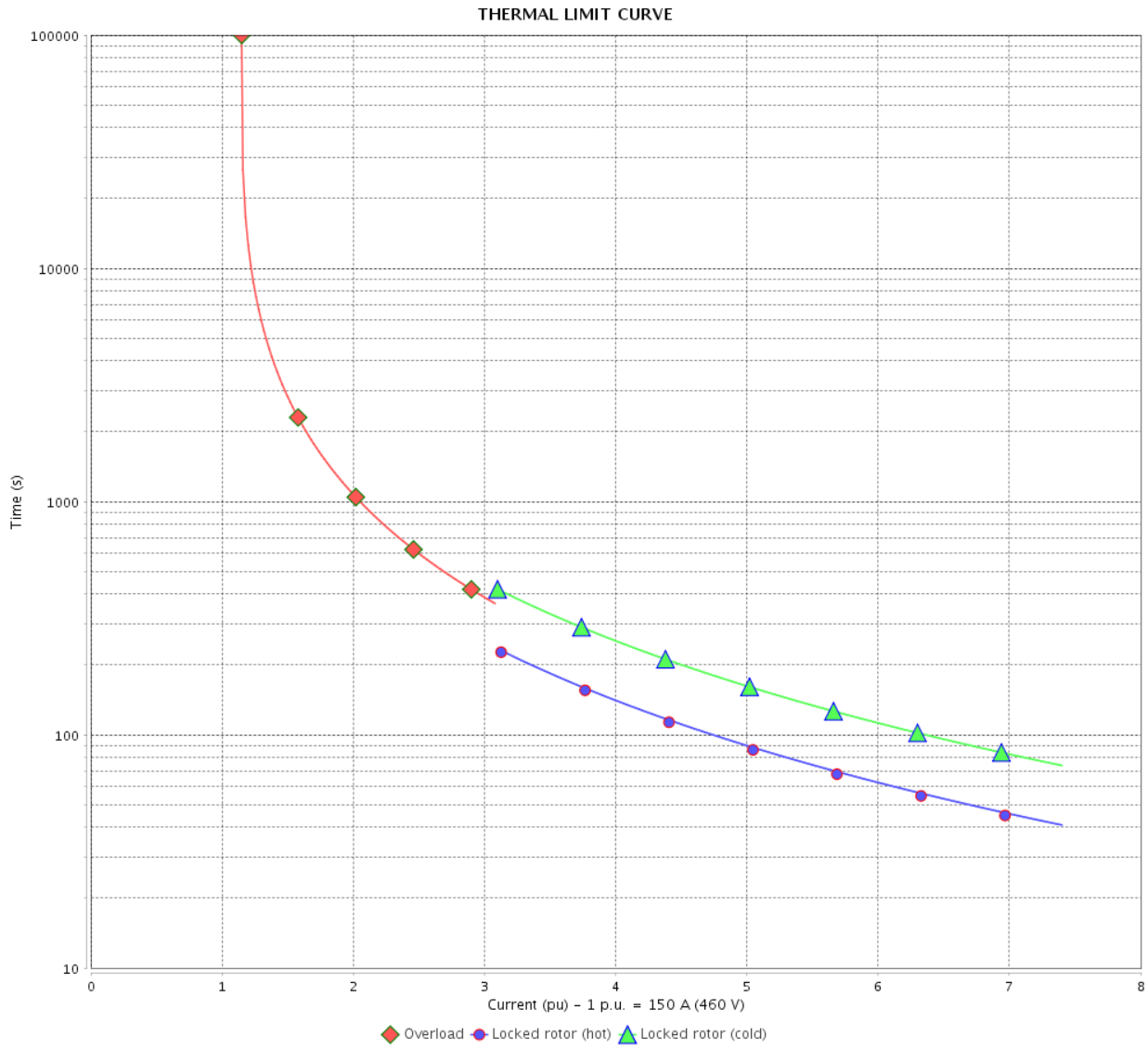
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Three Phase Induction Motor - Squirrel Cage



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Heating constant

Cooling constant

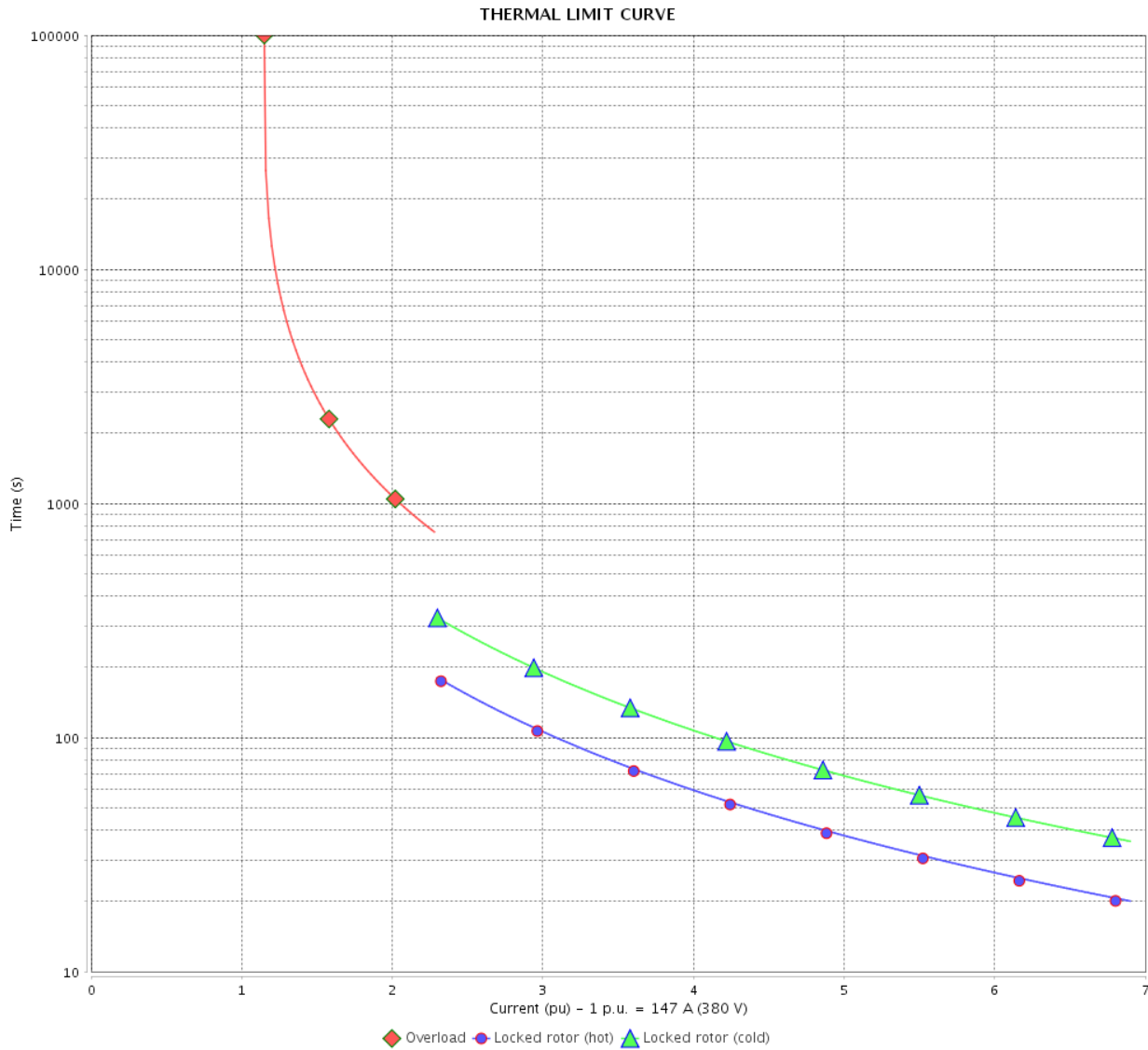
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Cooling constant

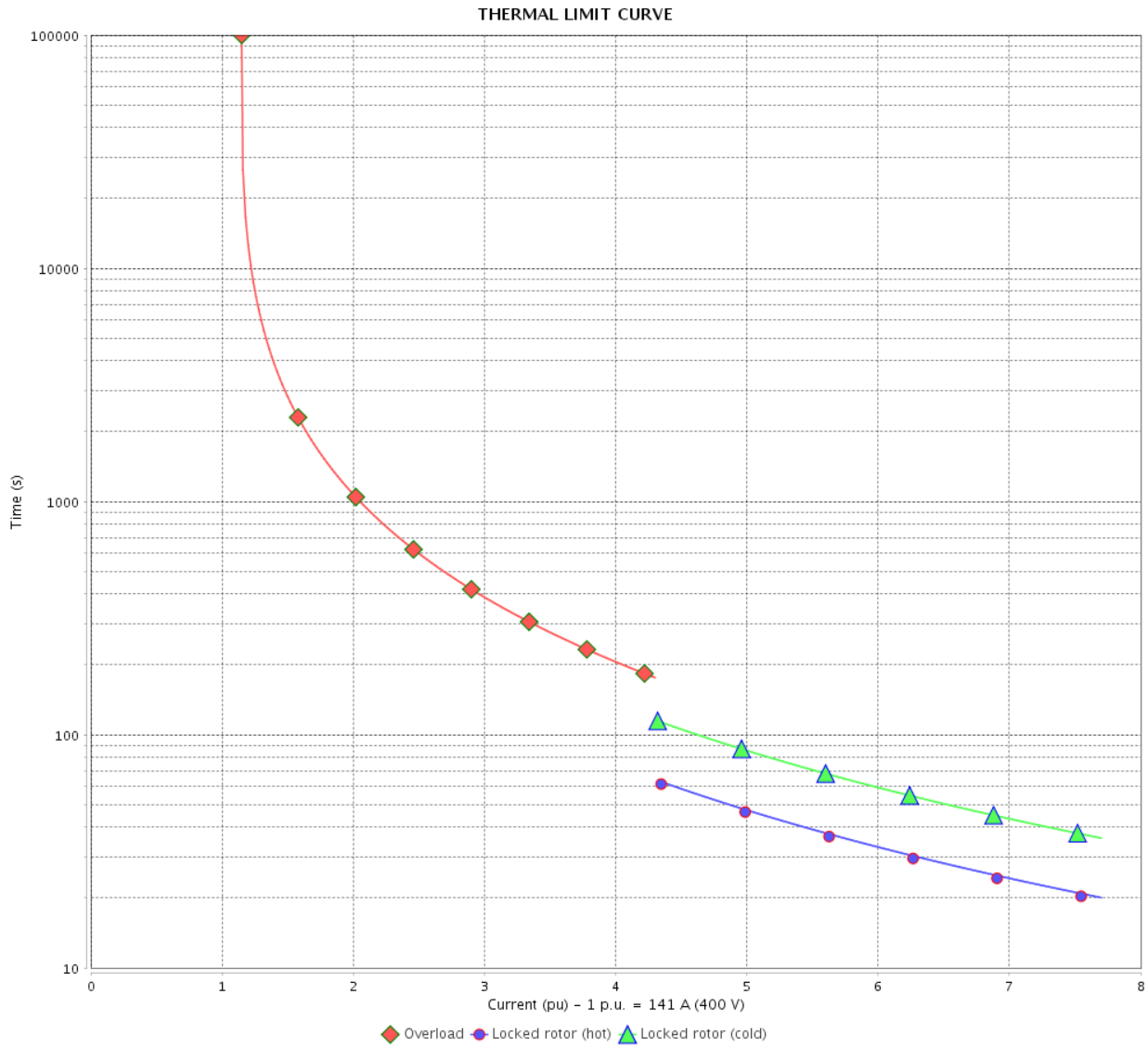
Rev.	Changes Summary	Performed	Checked	Date
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Customer : _____



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Rated current : 140 A	Moment of inertia (J) : 104 sq.ft.lb
LRC : 8.3	Duty cycle : Cont.(S1)
Rated torque : 533 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 : B

Heating constant

Cooling constant

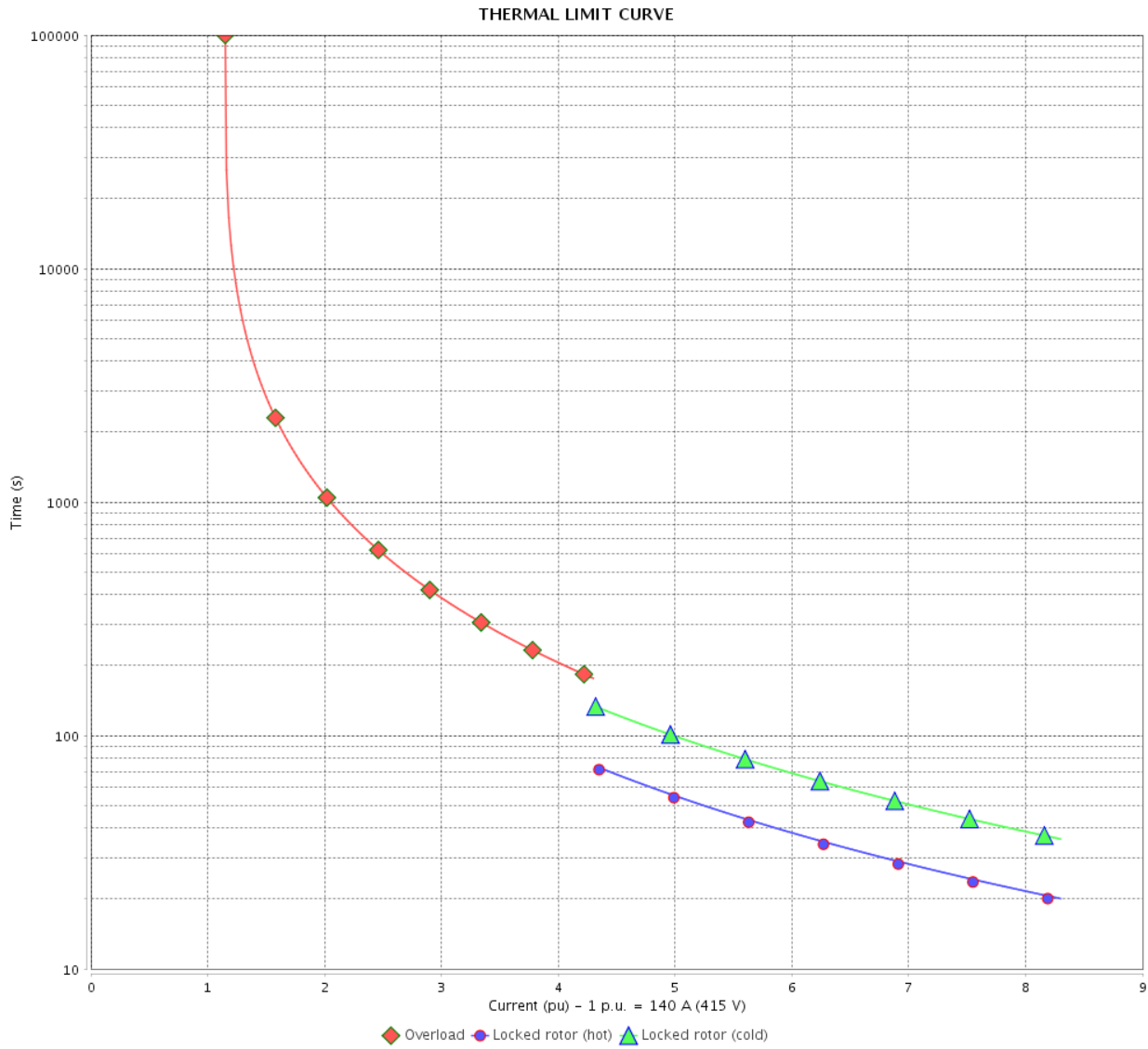
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

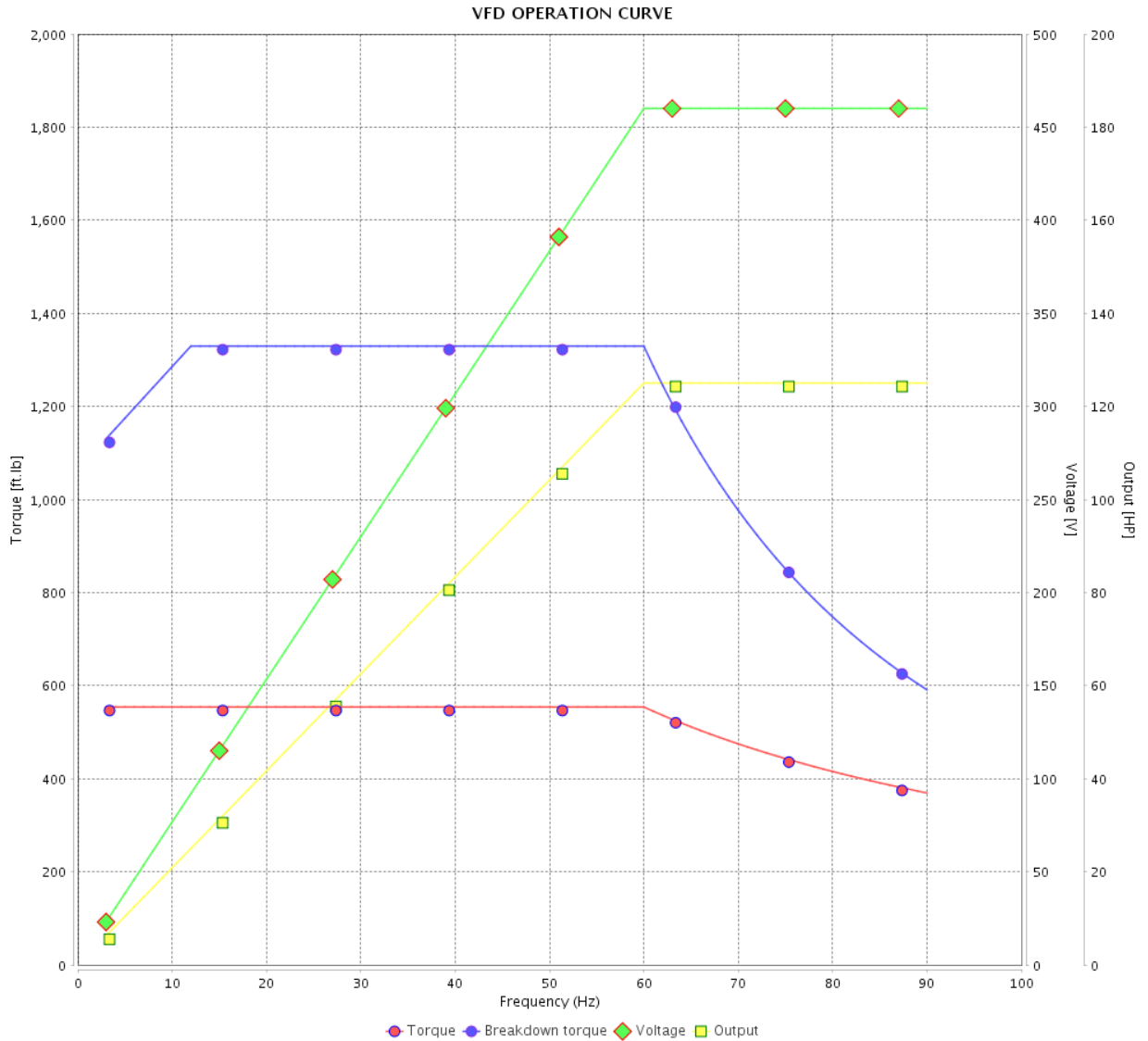


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Catalog # : 12512XT3G445T



Performance : 460 V 60 Hz 6P

Rated current : 150 A
 LRC : 7.4
 Rated torque : 554 ft.lb
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 Breakdown torque : 240 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 104 sq.ft.lb
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 Insulation class : F
 Service factor : 1.15
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



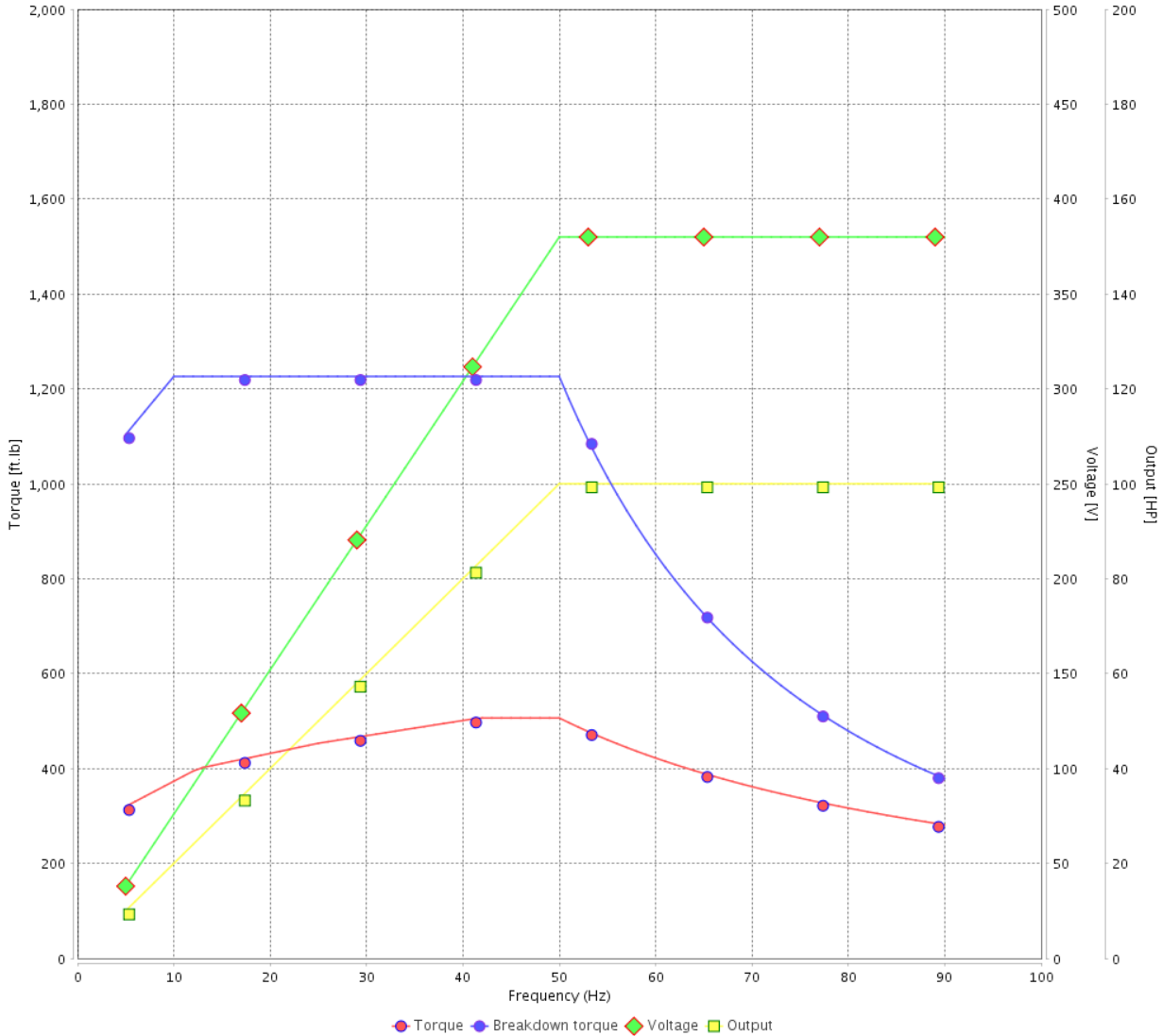
Customer :

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VFD OPERATION CURVE



Performance : 380 V 50 Hz 6P IE2

Rated current : 147 A
 LRC : 6.9
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 Locked rotor torque : 210 %
 Breakdown torque : 229 %
 Rated speed : 985 rpm

Moment of inertia (J) : 104 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

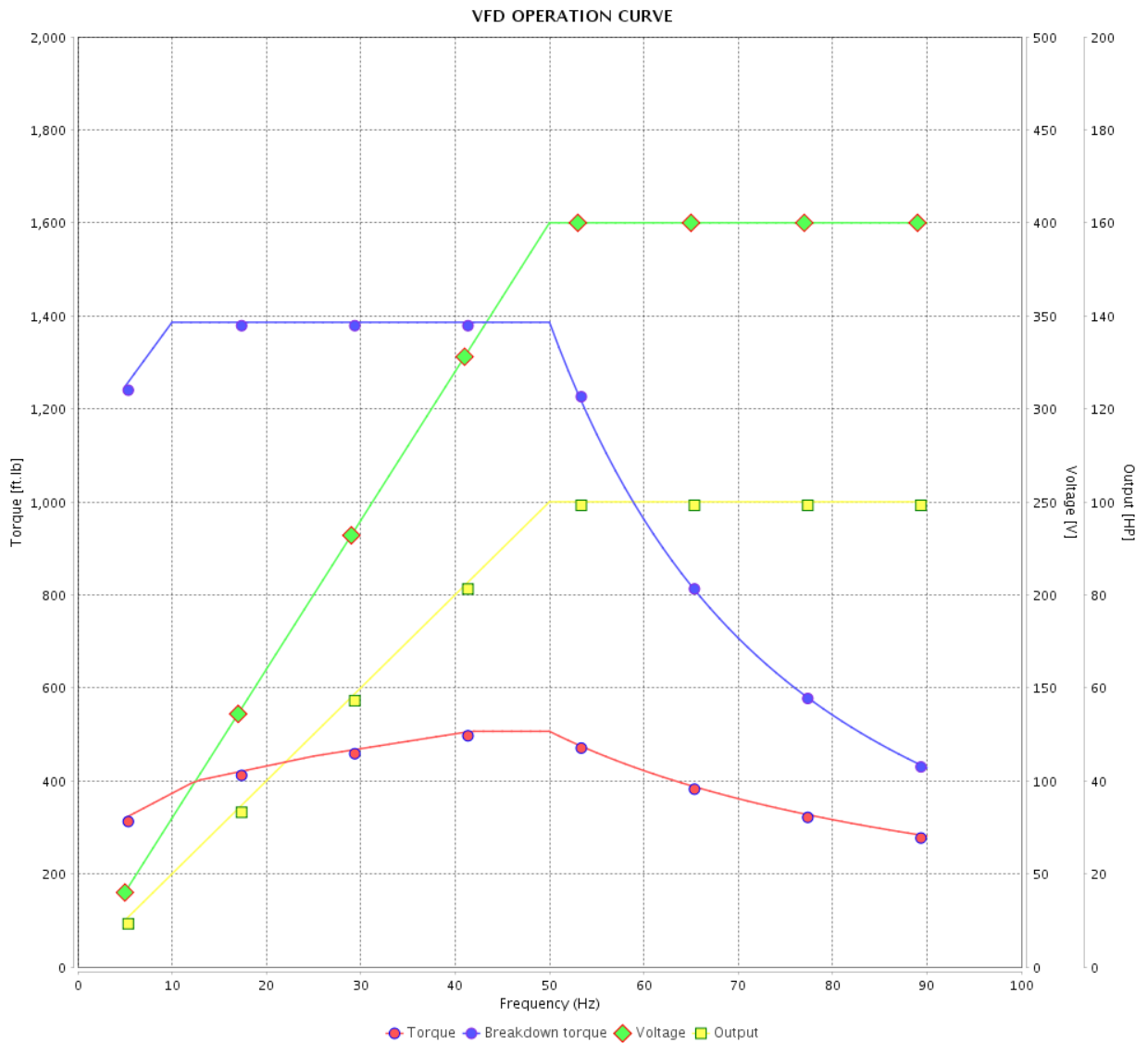


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Product line : NEMA Premium Efficiency Three-Phase

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Performance : 400 V 50 Hz 6P IE2

Rated current : 141 A
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



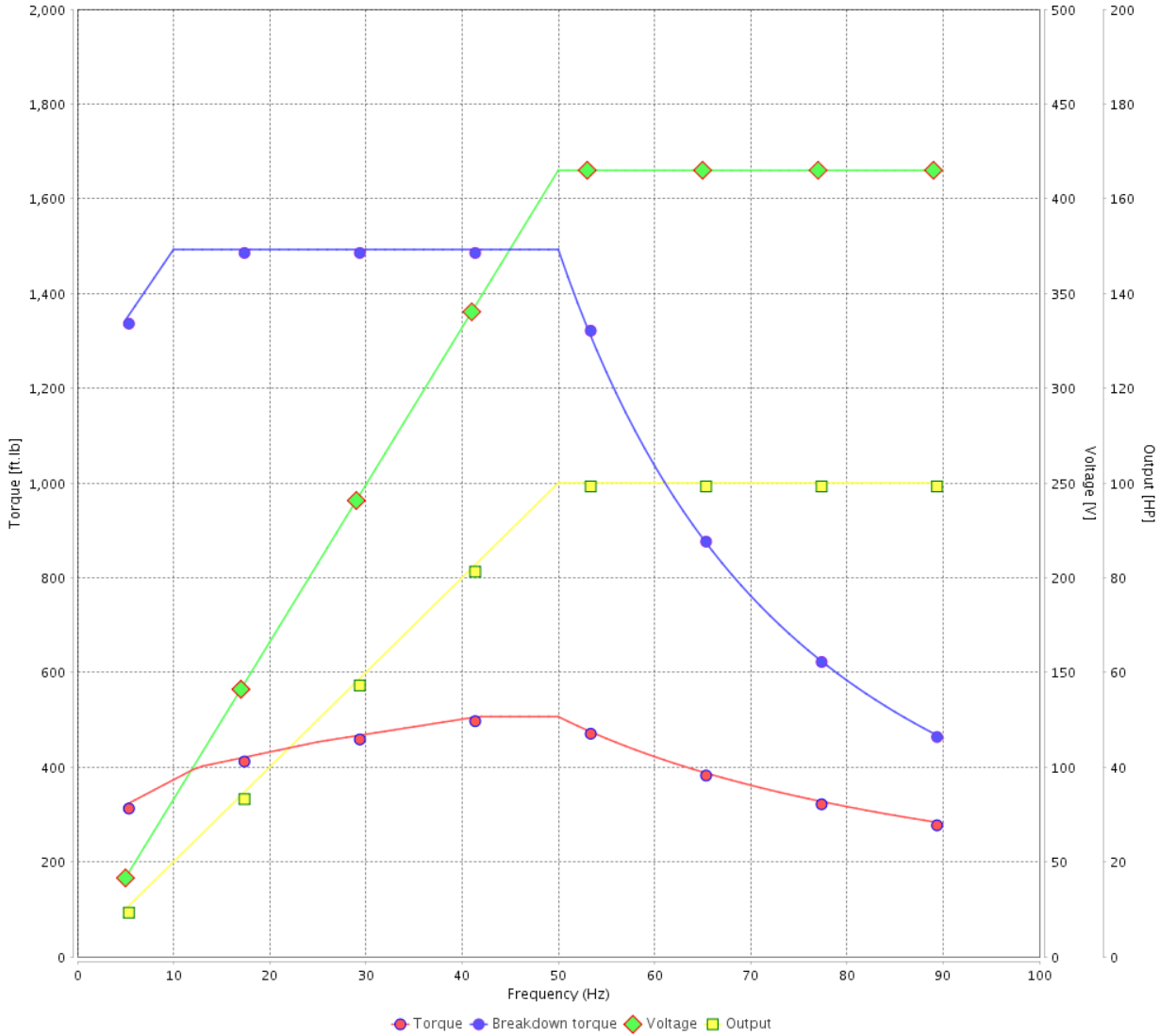
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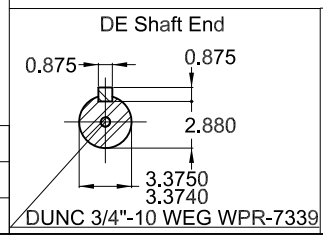
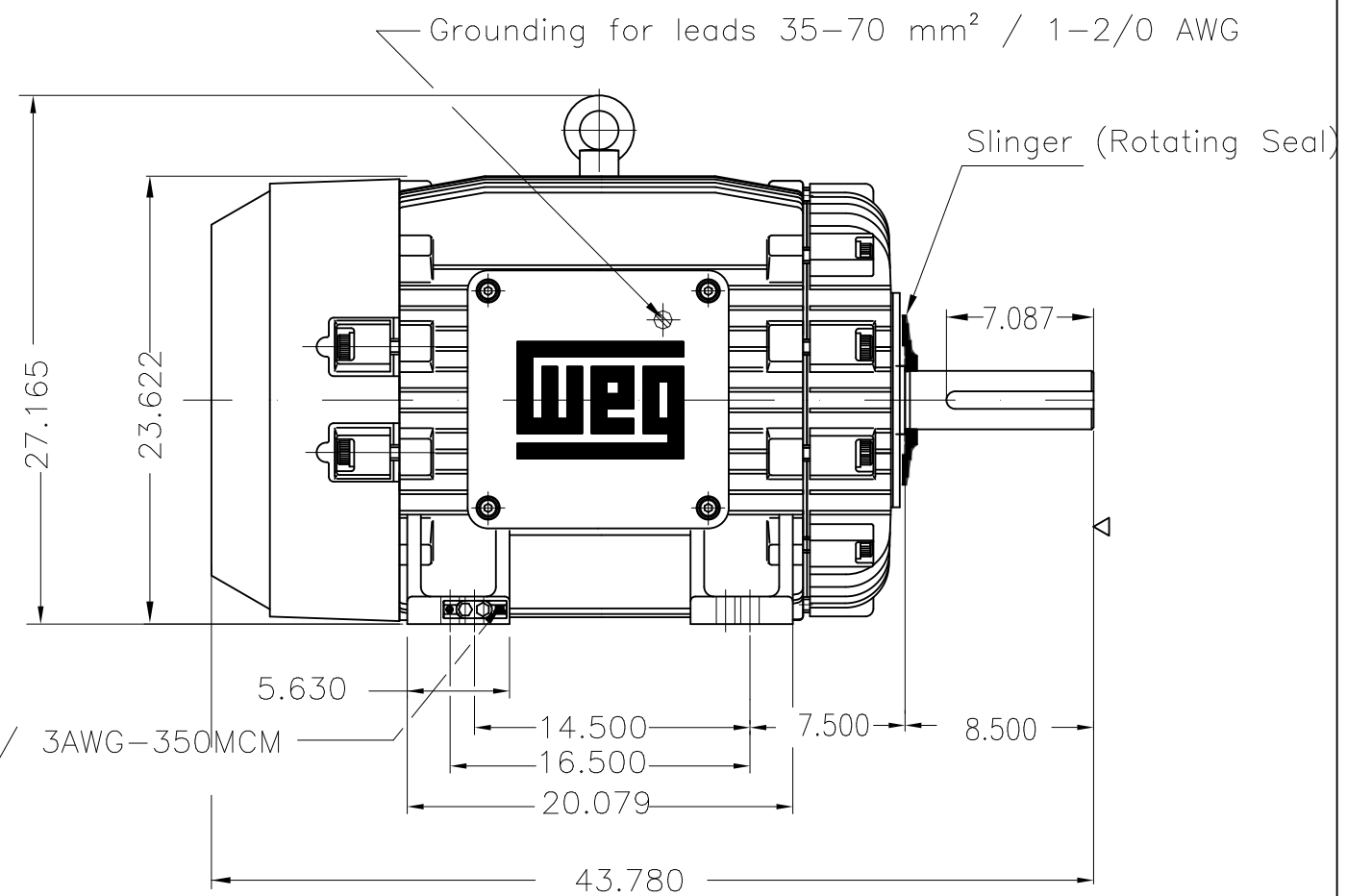
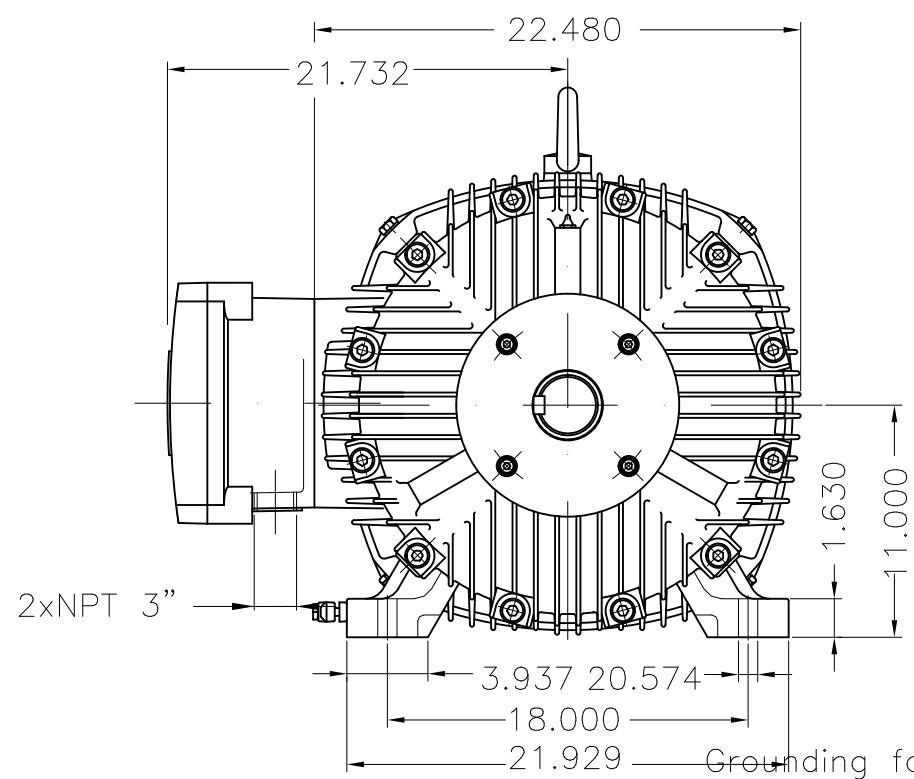
VFD OPERATION CURVE



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Color RAL 5009
 Painting plan 202P
 Mounting B3R(D)

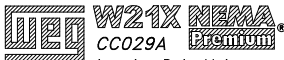
125 HP 06 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 444/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW

WDD

SHEET 1 / 1



W21X NEMA
CC029A Premium

*Inverter Duty Motor
 Severe Duty*



TEMP CODE T3C
 CSA/UL: Class I - Div. 1 - Groups C and D
 CSA: Class II - Div. 1 - Groups F and G
 CSA: Class I - Zone 1 - IIB
EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 2:1CT, 1.0SF, T3C, AMB 40°C.

MODEL 12512XT3G445T
 MADE IN BRAZIL
 12408376

PH 3	FR 444/5T	HP(kW) 125(90)	Hz 60
V 460	A 150	RPM 1185	
NEMA NOM. EFF. 95.0%		INS CL F Δ T 80 K	IP55
PF 0.82	DUTY CONT.		CODE H
ENCL. TEFC	SF 1.15	SFA 173	
AMB 40°C	DES B		
AMB 55°C SF1.0	-bearings lub interval reduced by a factor of 50%		

PART-WINDING						WYE-DELTA					
START			RUN			START			RUN		
○T12	○T10	○T11	○T12	○T10	○T11	○T12	○T10	○T11	○T12	○T10	○T11
○T7	○T8	○T9	○T7	○T8	○T9	○T6	○T4	○T5	○T6	○T4	○T5
○T6	○T4	○T5	○T6	○T4	○T5	○T7	○T8	○T9	○T7	○T8	○T9
○T1	○T2	○T3	○T1	○T2	○T3	○T1	○T2	○T3	○T1	○T2	○T3
L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
→ 6219-C3(28g)						MOBIL POLYREX EM					
→ 6316-C3(34g)						12202 h					
ALT 1000 m.a.s.l						2262 Lbs					