

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14578495		
		Catalog # :	00718XT3E213TC		
Frame	: 213/5TC	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	: 217 lb		
Protection degree	: IP55	Moment of inertia (J)	: 1.38 sq.ft.lb		
Design	: B				
Output [HP]	7.5	7.5	7.5	7.5	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	18.8/9.41	11.2	10.7	10.6	
L. R. Amperes [A]	126/63.0	61.6	68.5	72.1	
LRC [A]	6.7x(Code H)	5.5x(Code F)	6.4x(Code H)	6.8x(Code H)	
No load current [A]	8.00/4.00	4.10	4.40	4.60	
Rated speed [RPM]	1765	1460	1460	1465	
Slip [%]	1.94	2.67	2.67	2.33	
Rated torque [ft.lb]	22.3	27.0	27.0	26.9	
Locked rotor torque [%]	240	170	180	210	
Breakdown torque [%]	280	200	280	270	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	21s (cold) 12s (hot)	
Noise level ²	58.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	
Efficiency (%)	25%	89.4	88.2	87.6	87.7
	50%	90.2	88.5	88.5	88.5
	75%	91.0	89.5	89.5	89.5
	100%	91.7	89.5	90.2	90.2
Power Factor	25%	0.38	0.43	0.40	0.38
	50%	0.60	0.66	0.63	0.61
	75%	0.73	0.77	0.75	0.73
	100%	0.80	0.83	0.82	0.80
Bearing type	: <u>Drive end</u> 6308 2RS <u>Non drive end</u> 6207 2RS	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 301 lb		
Lubrication interval	: - -	Max. compression	: 518 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 20.8A SF 1.15 SFA 23.9A					
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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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



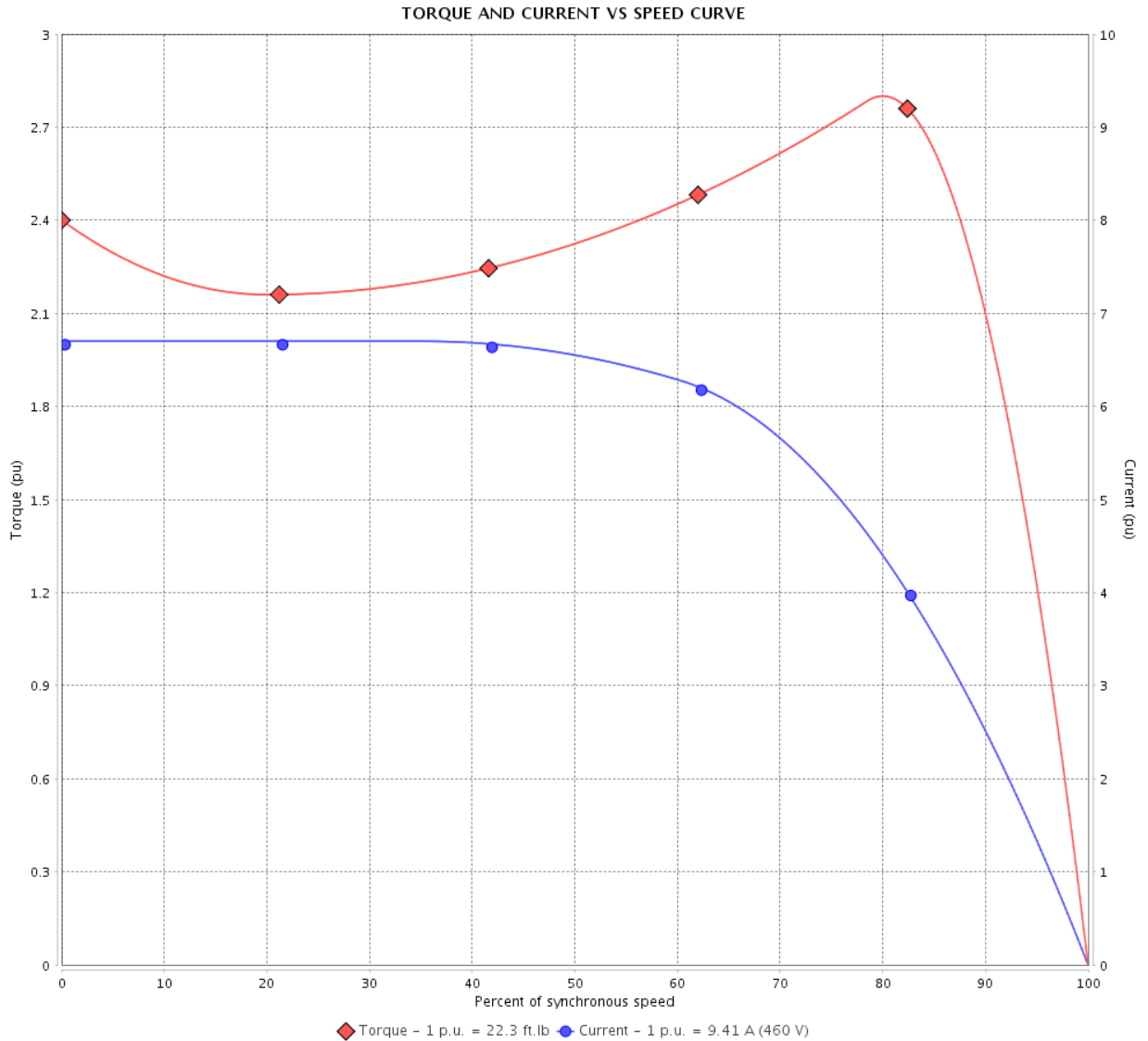
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14578495

Catalog # : 00718XT3E213TC



Performance : 230/460 V 60 Hz 4P

Rated current : 18.8/9.41 A
 LRC : 6.7
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 280 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 1.38 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



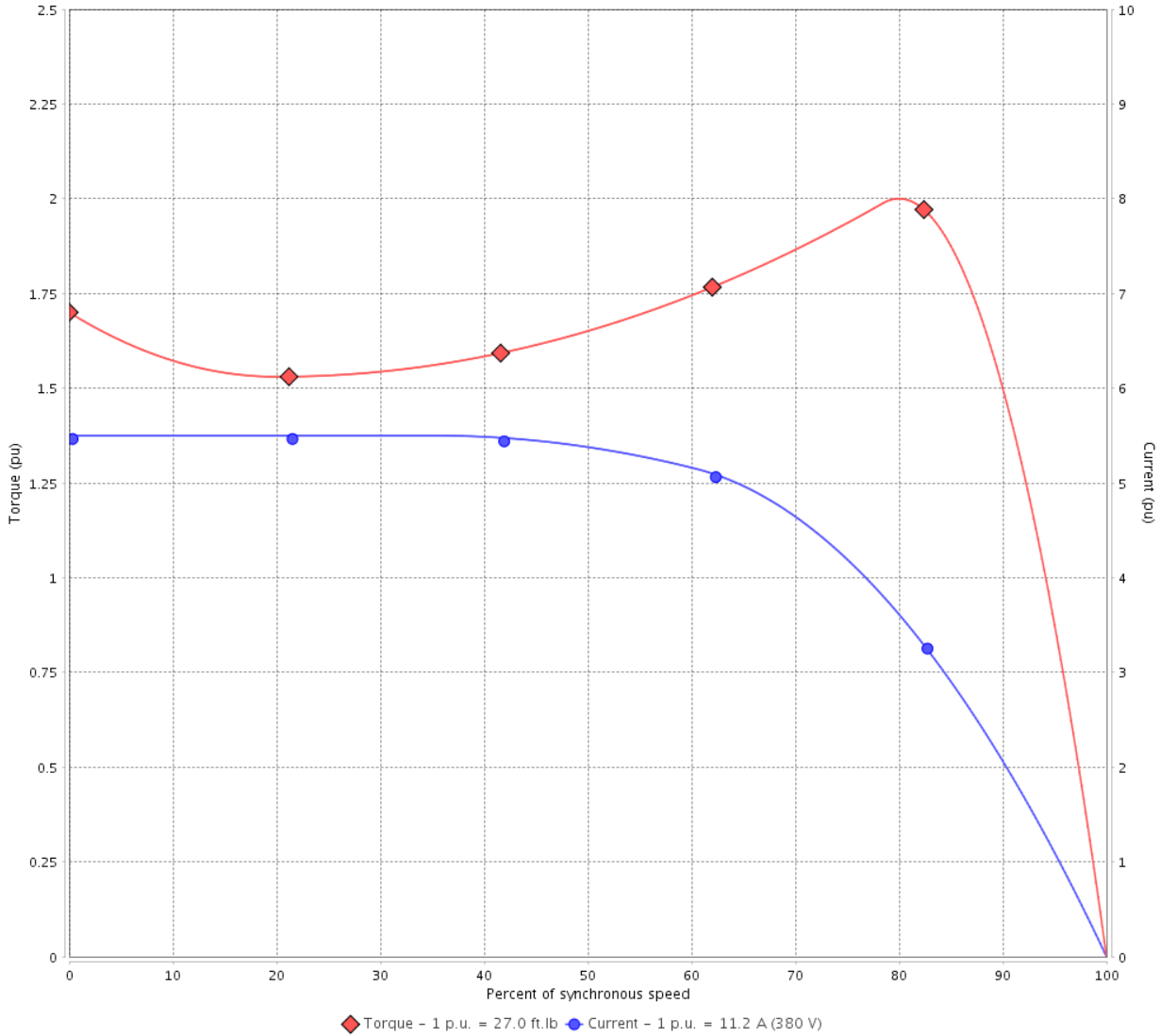
Customer :

Product line : NEMA Premium Efficiency Three-Phase

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current	: 11.2 A	Moment of inertia (J)	: 1.38 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 27.0 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



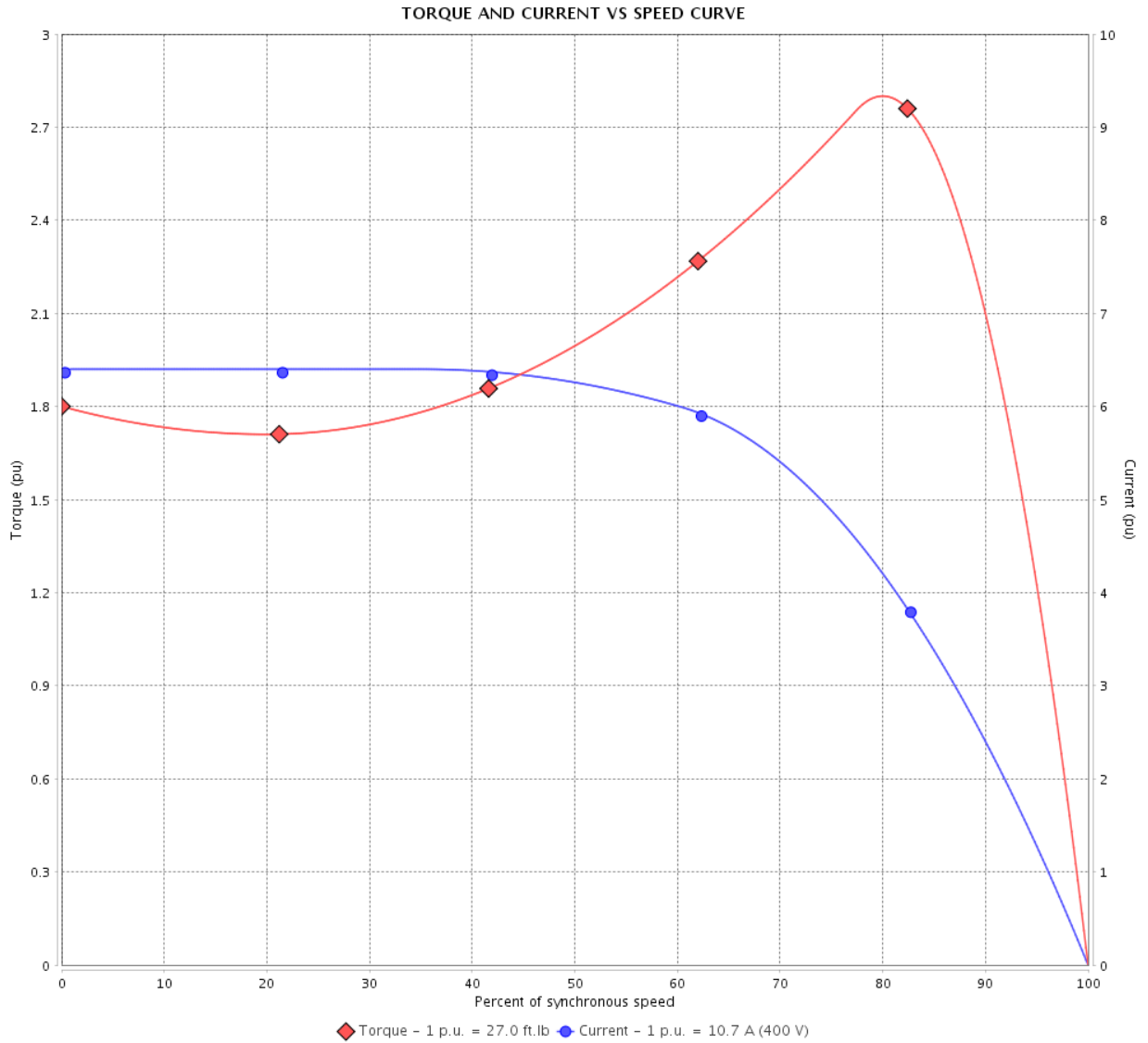
Three Phase Induction Motor - Squirrel Cage

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Performance : 400 V 50 Hz 4P IE3

Rated current	: 10.7 A	Moment of inertia (J)	: 1.38 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 27.0 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



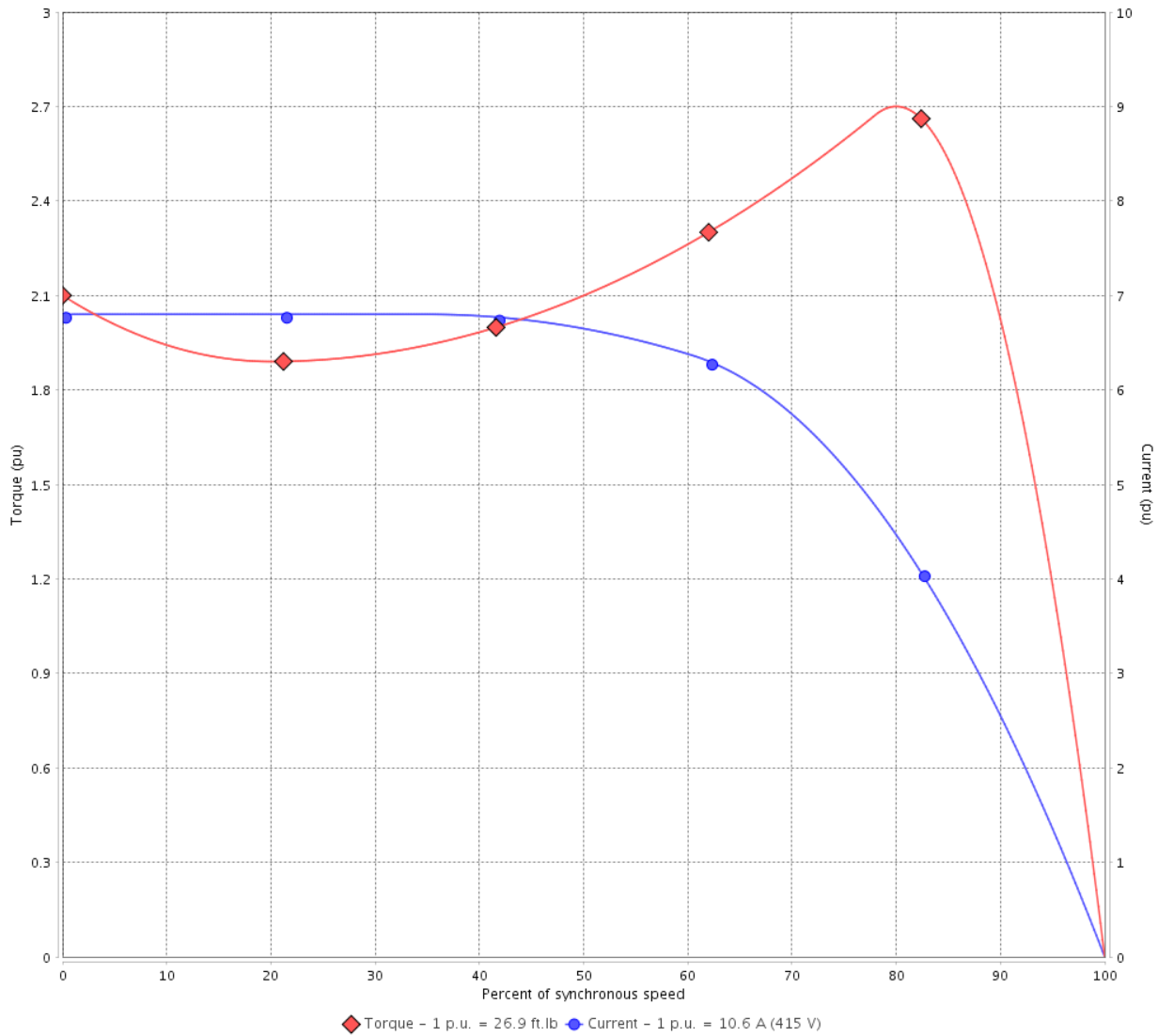
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Rated torque	: 26.9 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

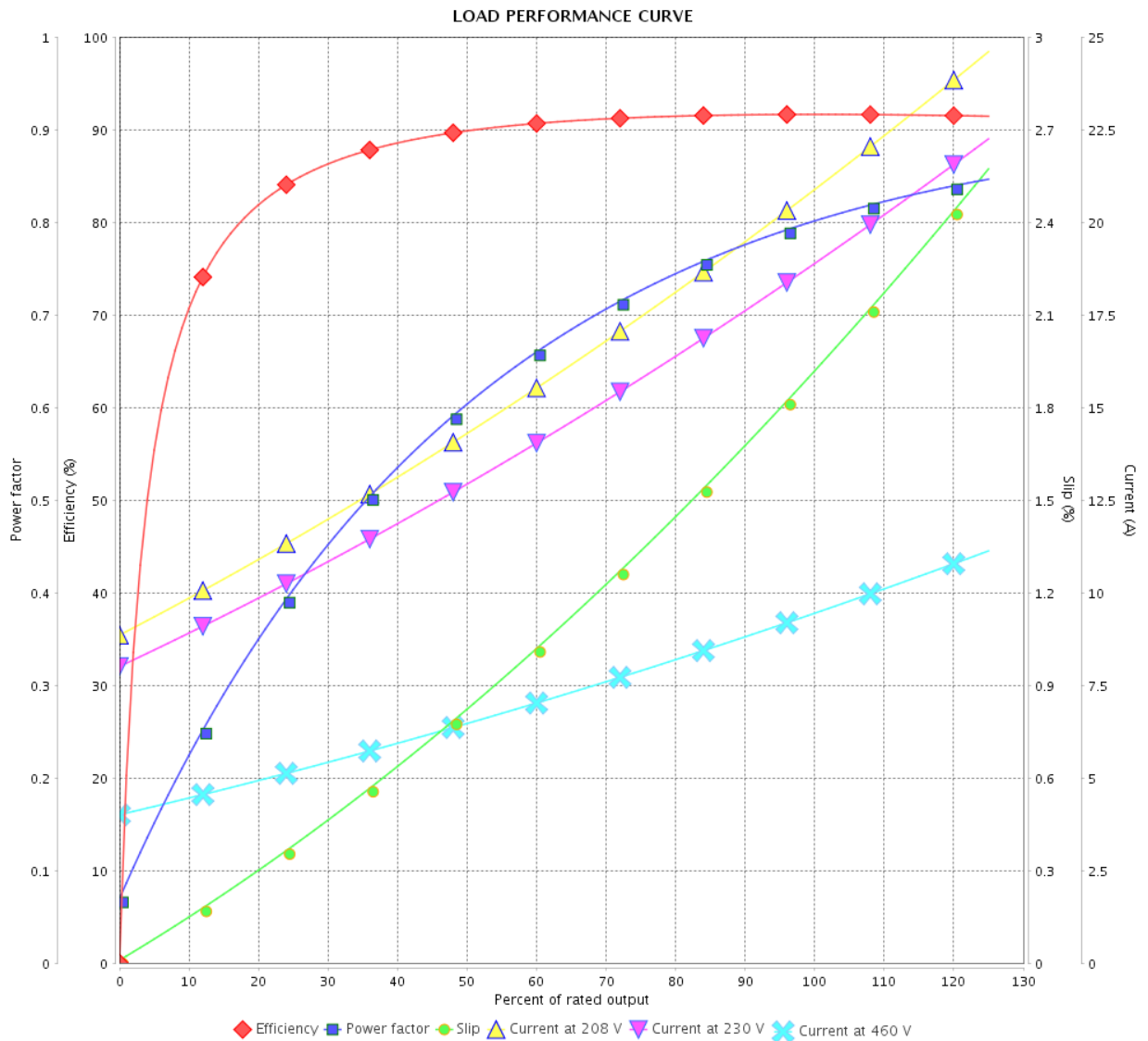


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Performance : 230/460 V 60 Hz 4P

Rated current : 18.8/9.41 A
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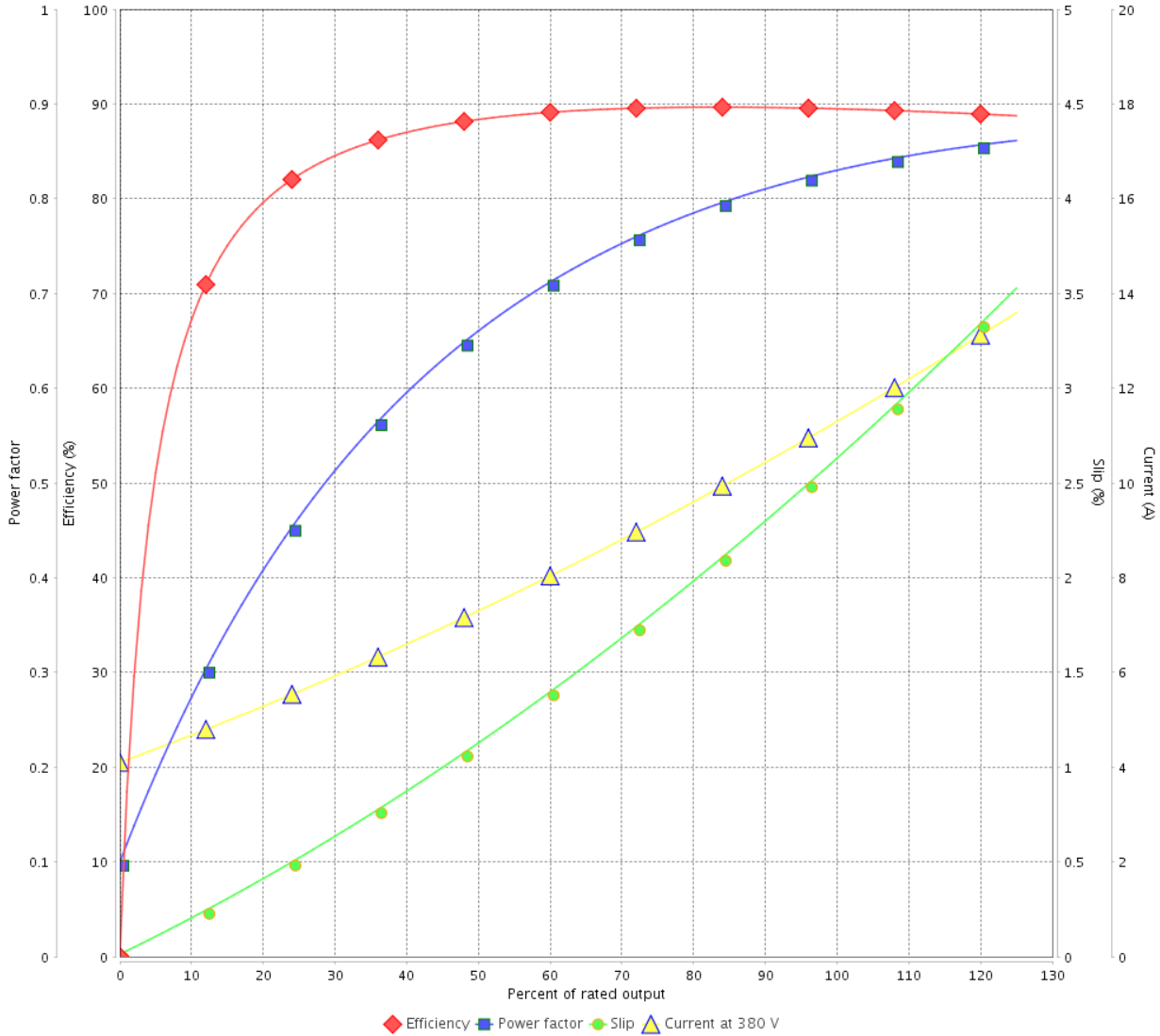
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Performance : 380 V 50 Hz 4P IE2

Rated current : 11.2 A
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 Locked rotor torque : 170 %
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Three Phase Induction Motor - Squirrel Cage

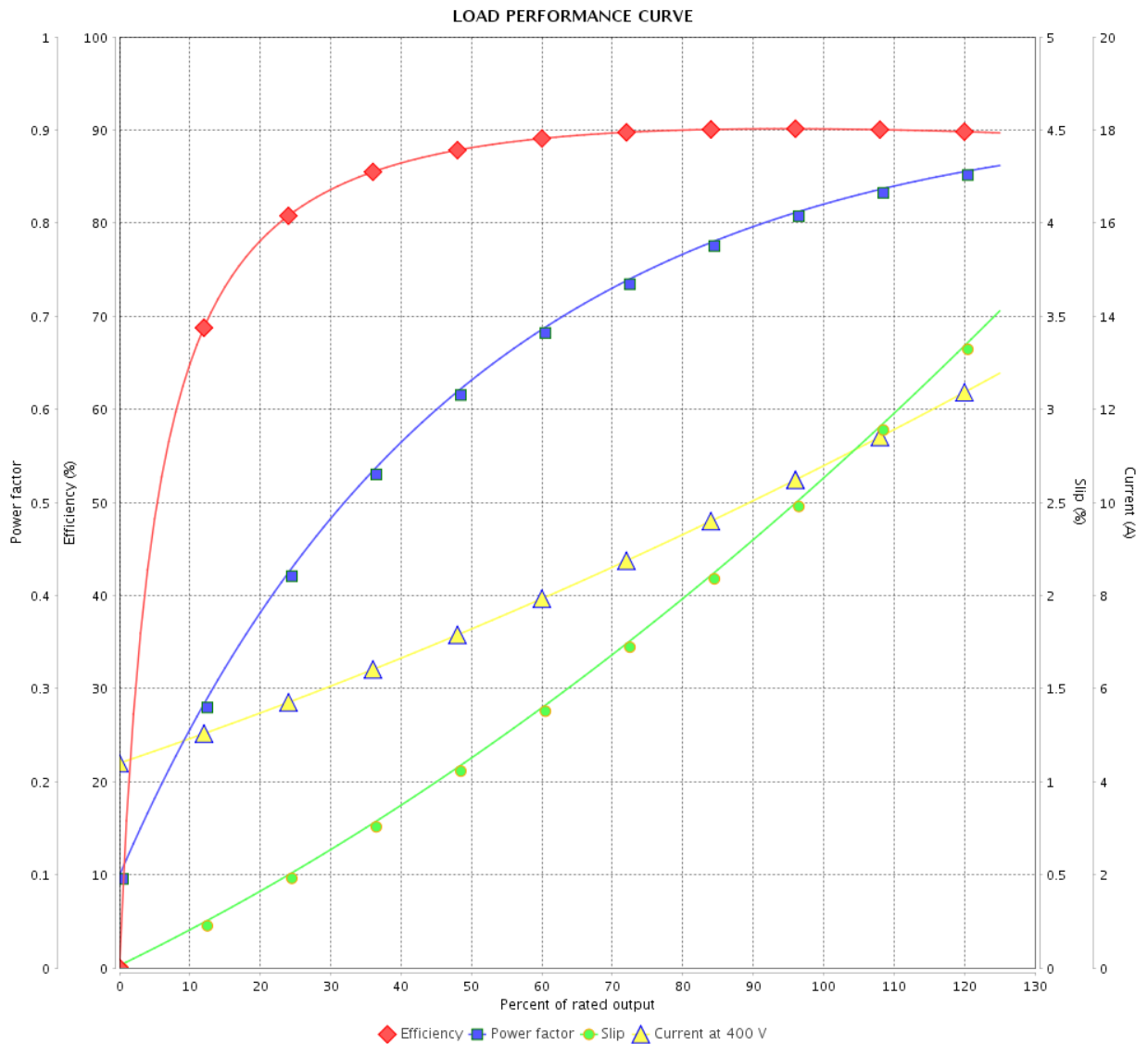


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Three Phase Induction Motor - Squirrel Cage



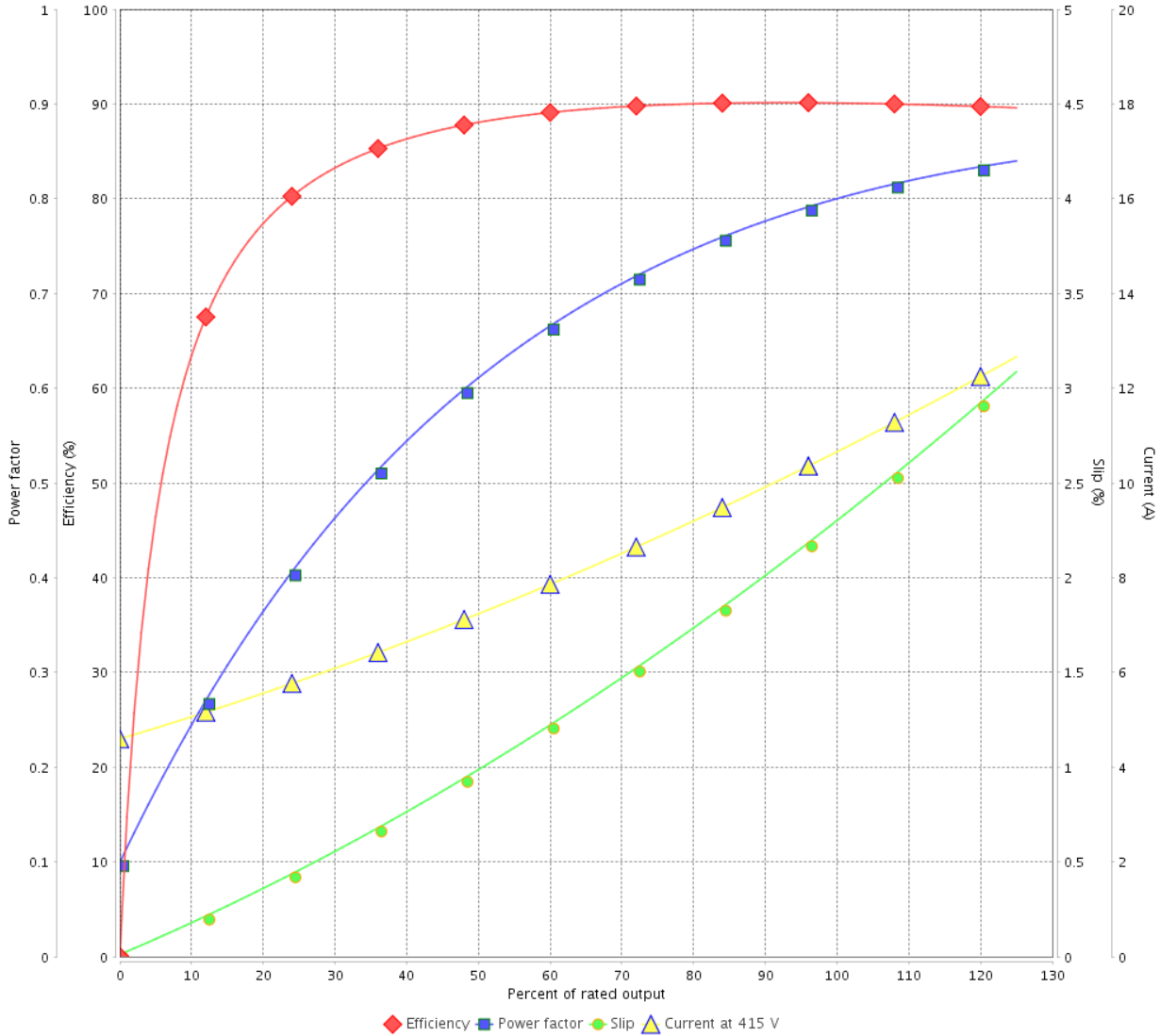
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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

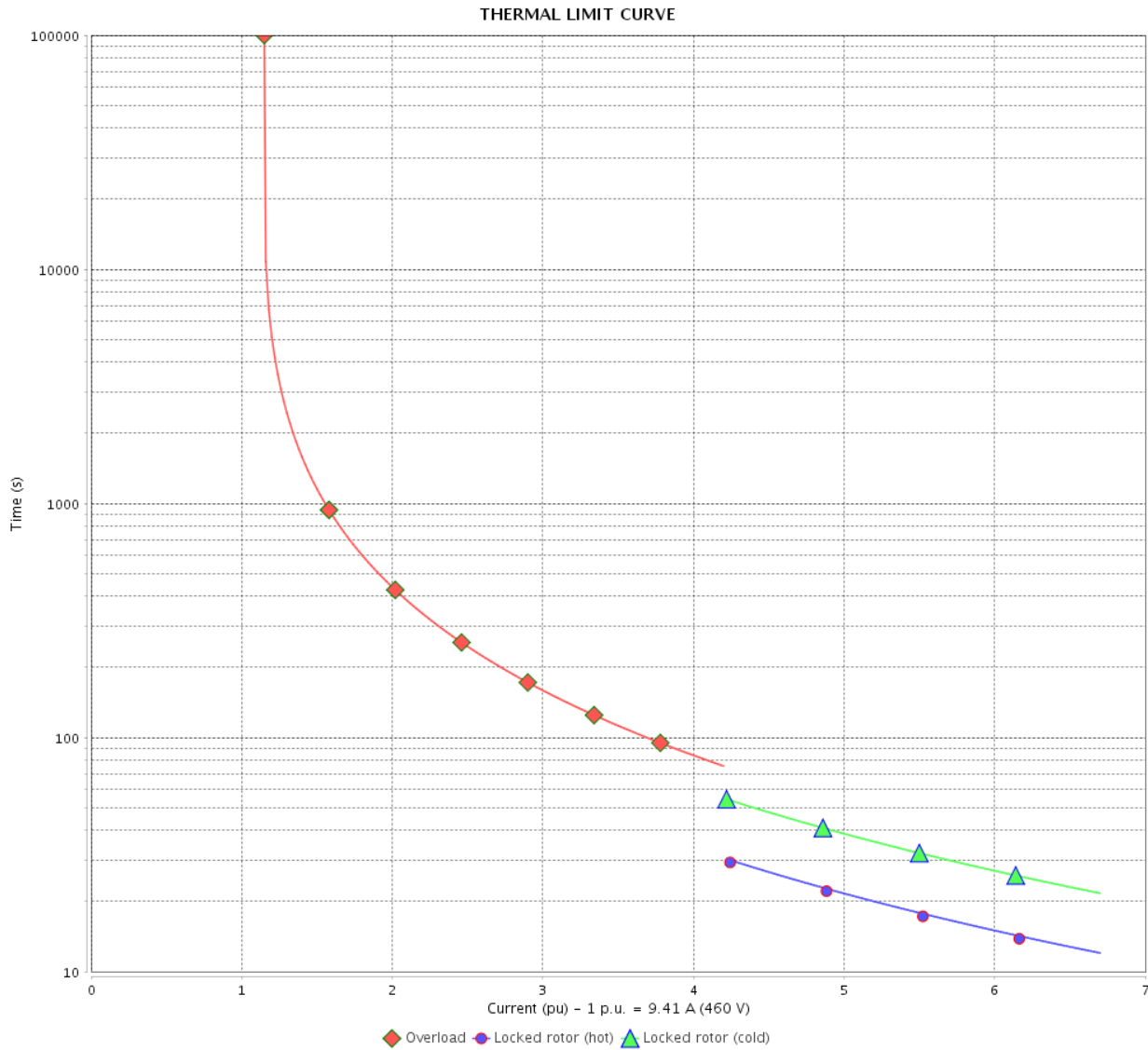
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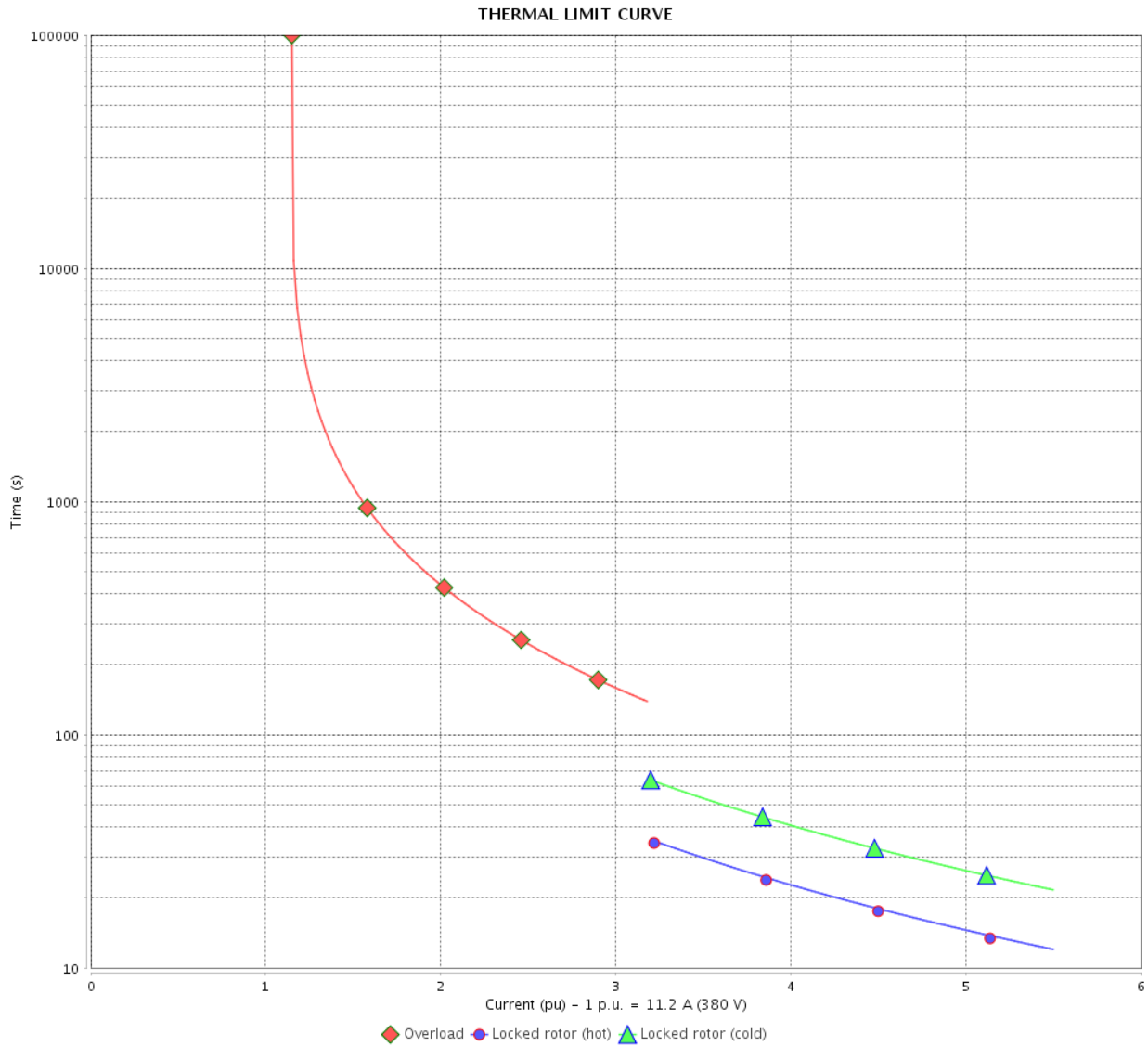
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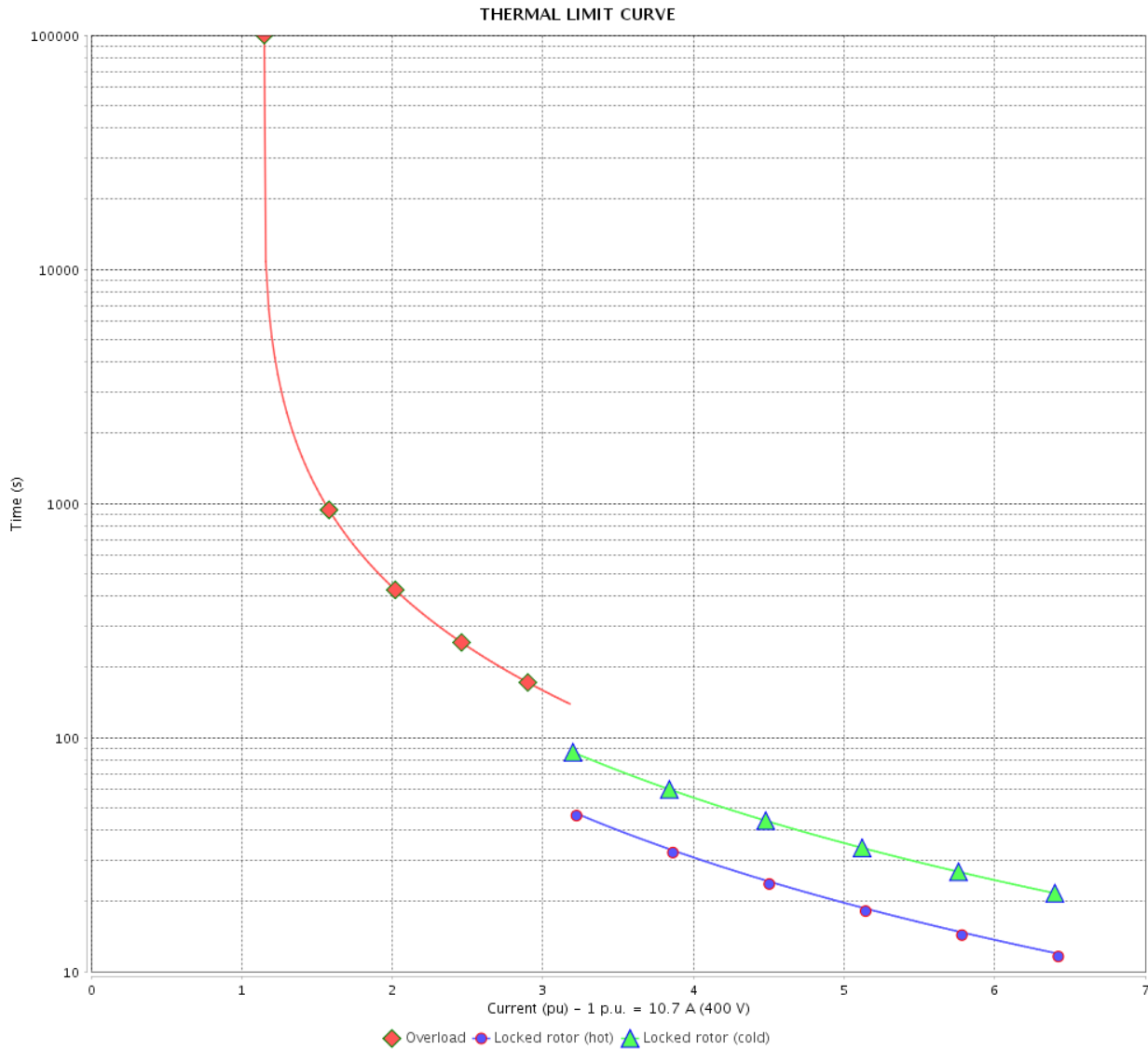
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



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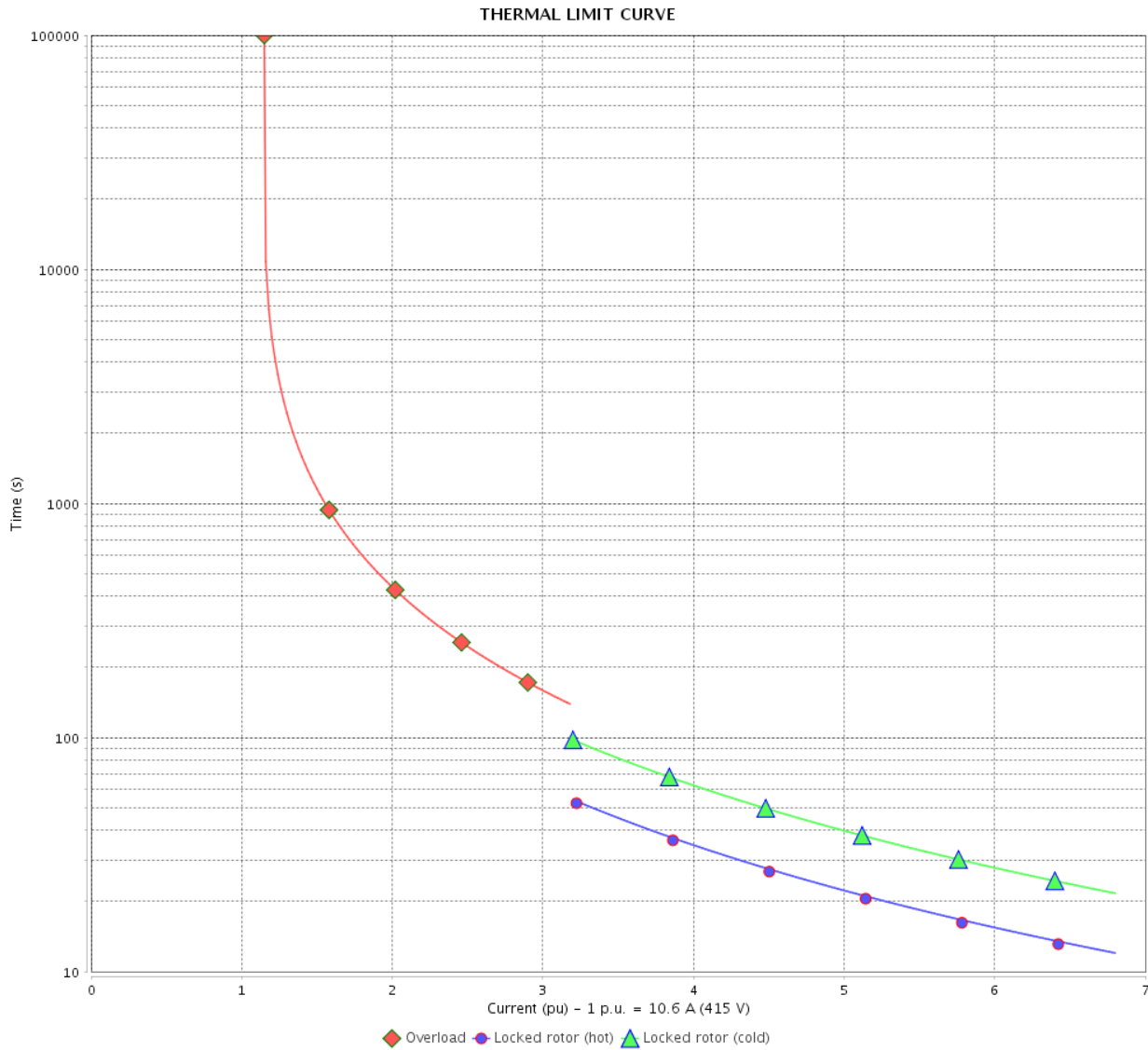
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

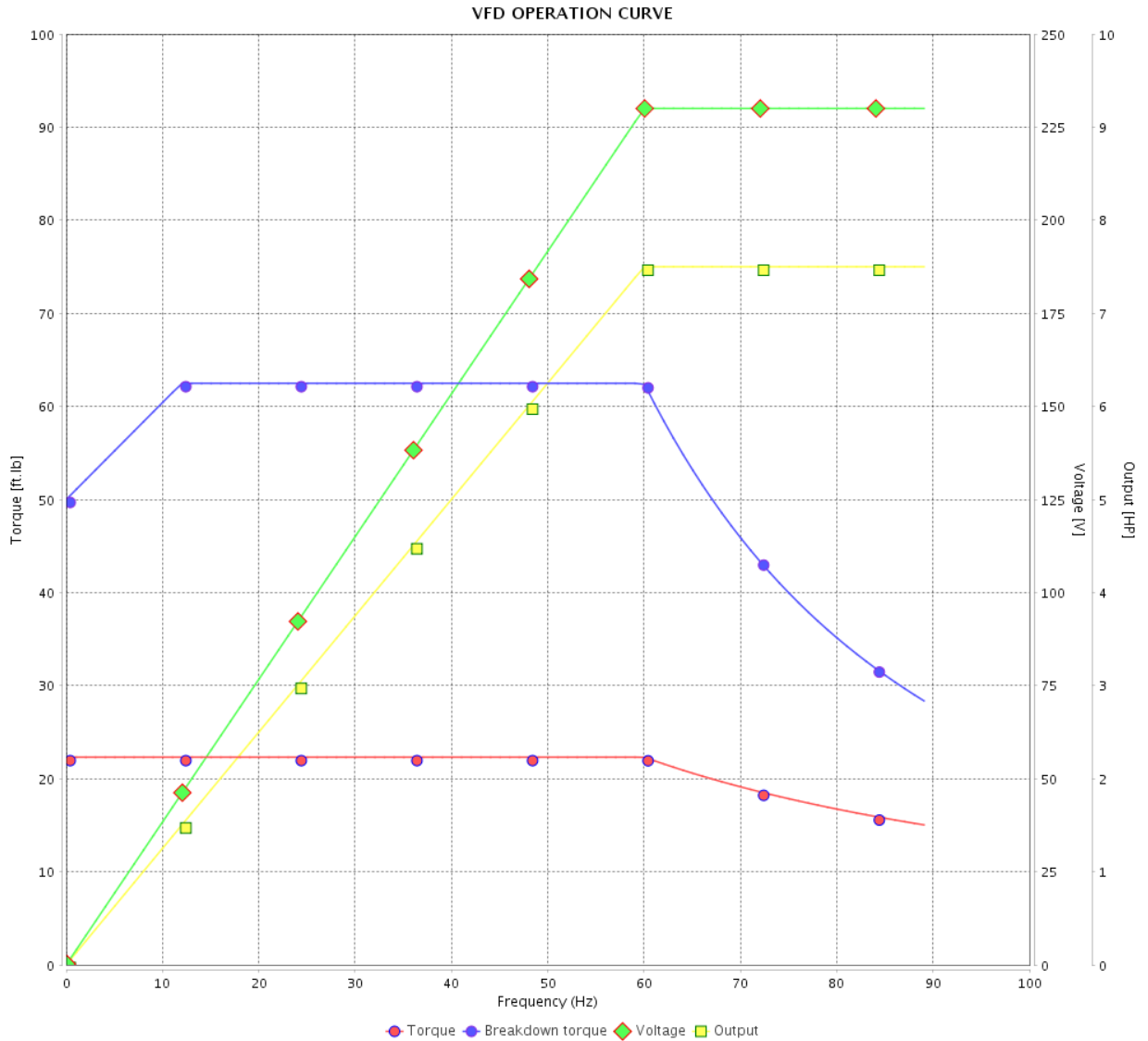


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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



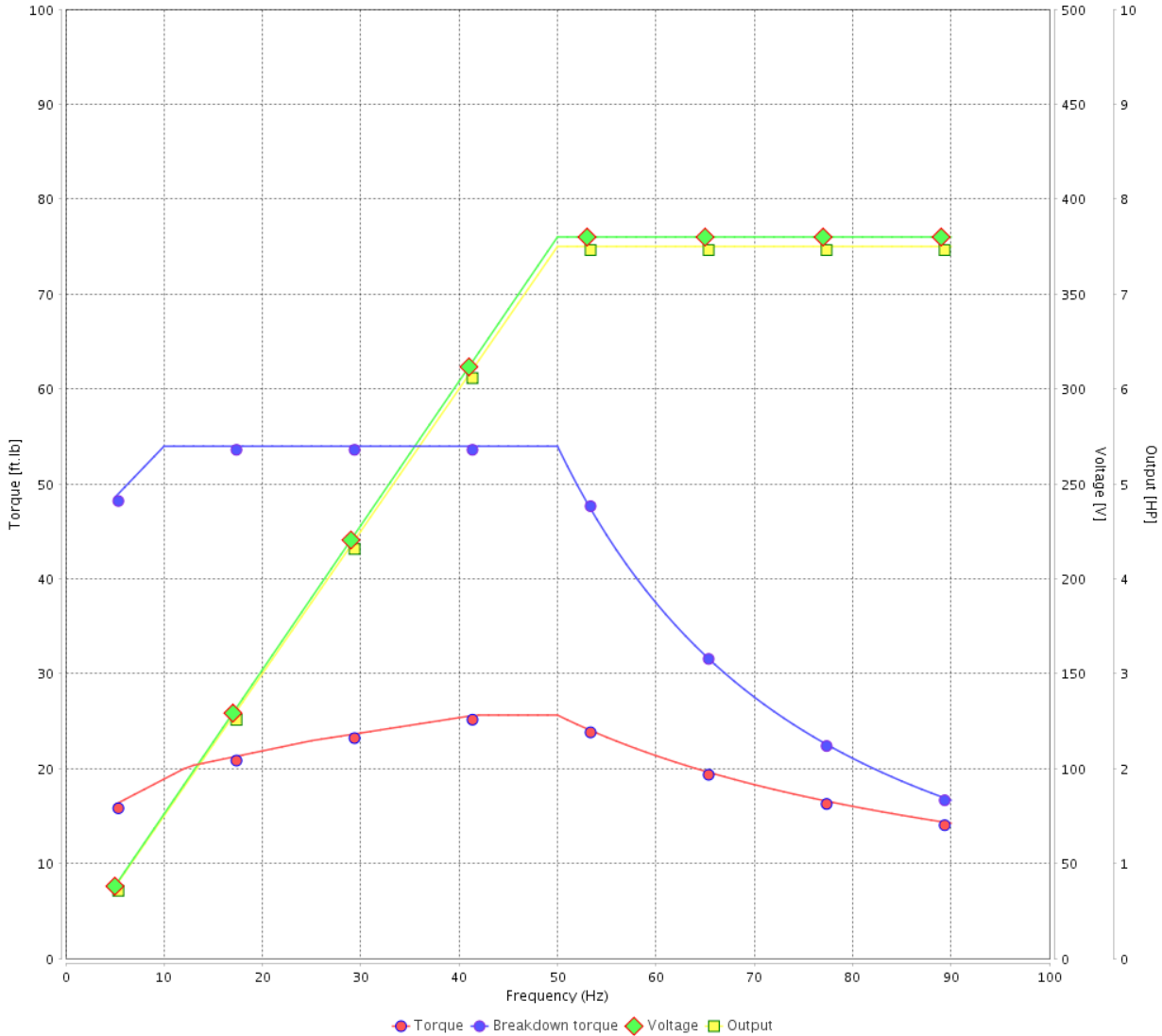
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VFD OPERATION CURVE



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

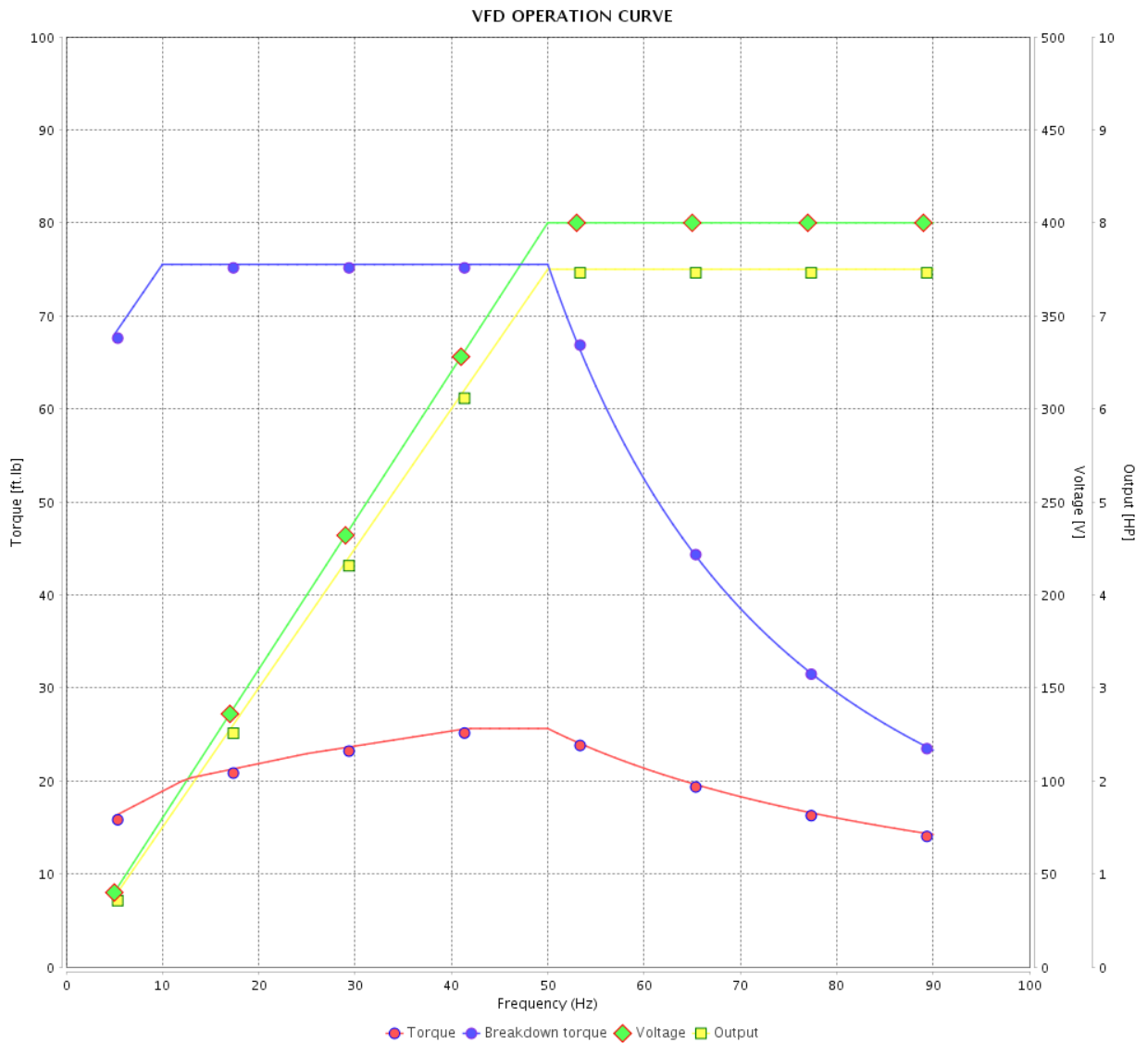


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VFD OPERATION CURVE

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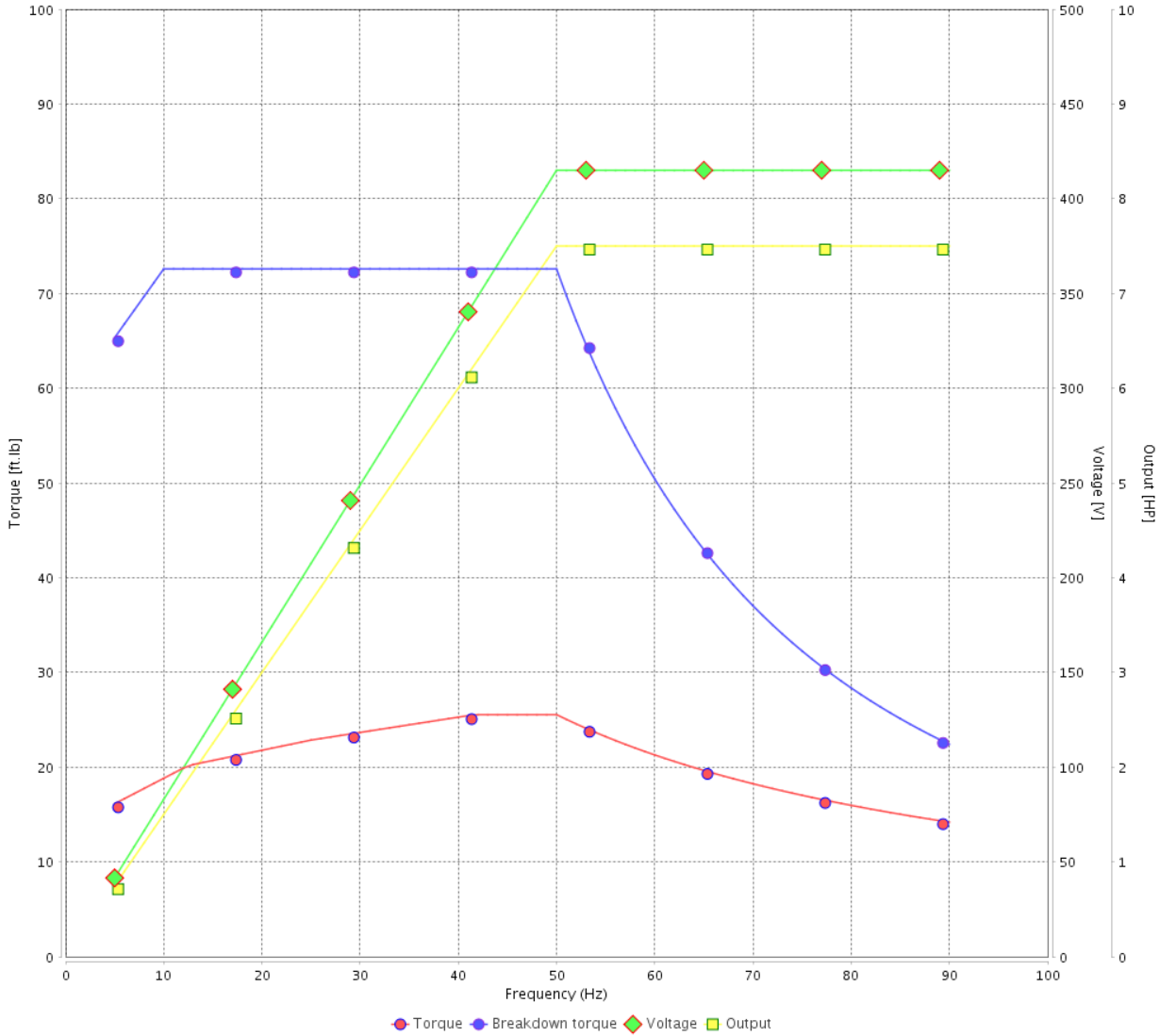
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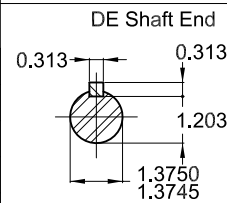
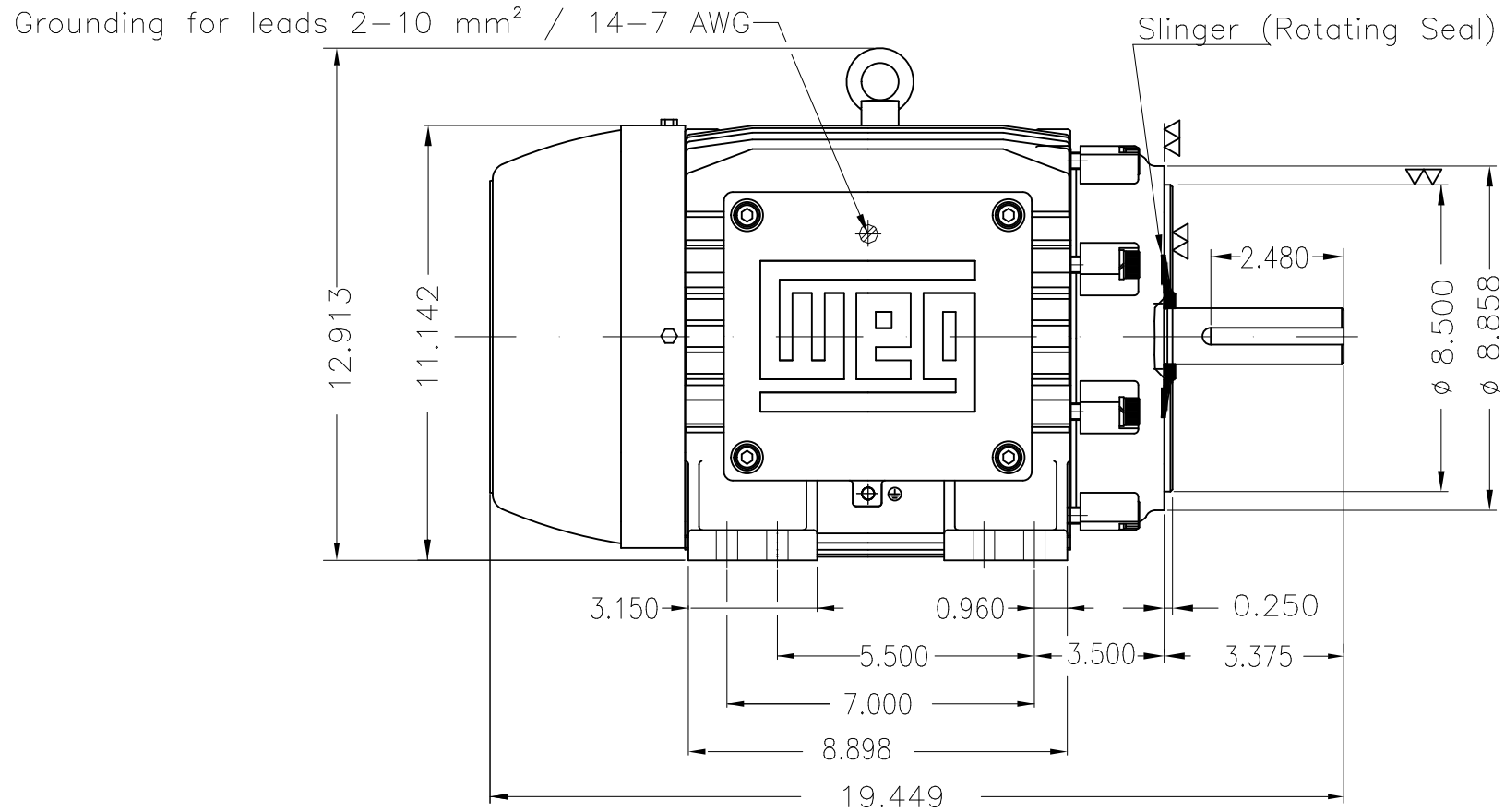
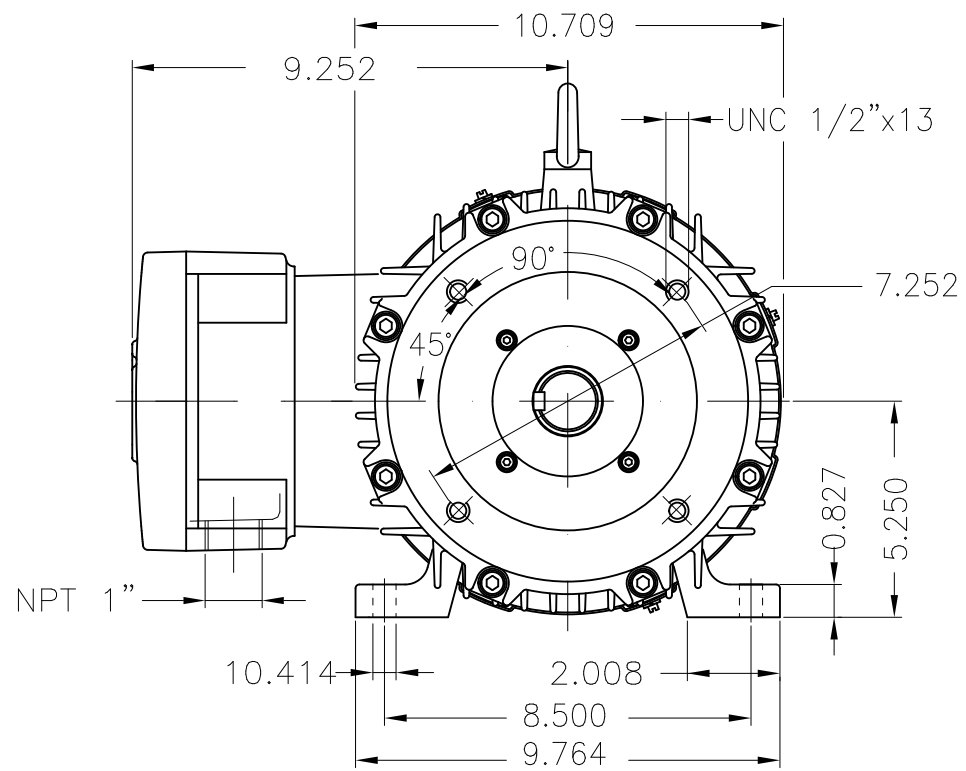
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Packing - crate
 Color RAL 5009
 Painting plan 202P
 Mounting NEMA F-1
 Mounting B34R(D)

7.5 HP 04 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 213/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
 WDD



SHEET 1 / 1

MADE IN BRAZIL


W21X NEMA
Premium

14578495

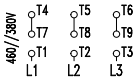
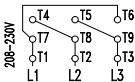
CC029A

Inverter Duty Motor
Severe Duty


LISTED

MODEL 00718XT3E213TC

PH 3	FR 213/5TC		
HP(kW) 7.5(5.5)		HZ 60	IP55
V 230/460		A 18.8/9.41	
RPM 1765		NEMA NOM EFF 91.7%	
PF 0.80		SFA 21.6/10.8	DES B
INS CL F Δ T 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE H	ALT 1000 m.a.s.l.
AMB 40°C	USABLE @208V	20.8 A	SF 1.15 SFA 23.9
AMB 55°C SF1.0			
7.5HP 5.5kW 50Hz 380V 11.2A 1460RPM SF1.00 EFF 89.5% (IE2)			



→ 6308-2RS MOBIL POLYREX EM
 → 6207-2RS

212 Lbs


 C US
 Energy Verified

 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, 20:1CT, 1.0SF, T3C, AMB 40°C.