

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :	14407460	
			Catalog # :	01009XT3E284T	
Frame	: 284T	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	: 464 lb		
Protection degree	: IP55	Moment of inertia (J)	: 7.20 sq.ft.lb		
Design	: B				
Output [HP]	10	10	10	10	
Poles	8	8	8	8	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	26.8/13.4	16.1	15.3	14.8	
L. R. Amperes [A]	161/80.4	96.6	91.8	88.8	
LRC [A]	6.0x(Code H)	6.0x(Code H)	6.0x(Code H)	6.0x(Code H)	
No load current [A]	12.0/6.00	5.93	6.35	6.71	
Rated speed [RPM]	884	730	730	735	
Slip [%]	1.78	2.67	2.67	2.00	
Rated torque [ft.lb]	59.4	71.9	71.9	71.4	
Locked rotor torque [%]	250	190	210	240	
Breakdown torque [%]	240	180	210	229	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	
Noise level ²	54.0 dB(A)	51.0 dB(A)	51.0 dB(A)	51.0 dB(A)	
Efficiency (%)	25%				
	50%	91.0	91.0	91.0	
	75%	91.7	90.2	91.0	
	100%	91.0	88.5	89.5	
Power Factor	25%				
	50%	0.62	0.67	0.65	
	75%	0.72	0.76	0.74	
	100%	0.77	0.80	0.79	
		<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6311 C3	6211 C3		Max. traction : 484 lb	
Sealing	: Oil Seal	Lip Seal		Max. compression : 948 lb	
Lubrication interval	: 20000 h	20000 h			
Lubricant amount	: 18 g	11 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 29.4A SF 1.15 SFA 33.8A					
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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Three Phase Induction Motor - Squirrel Cage



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



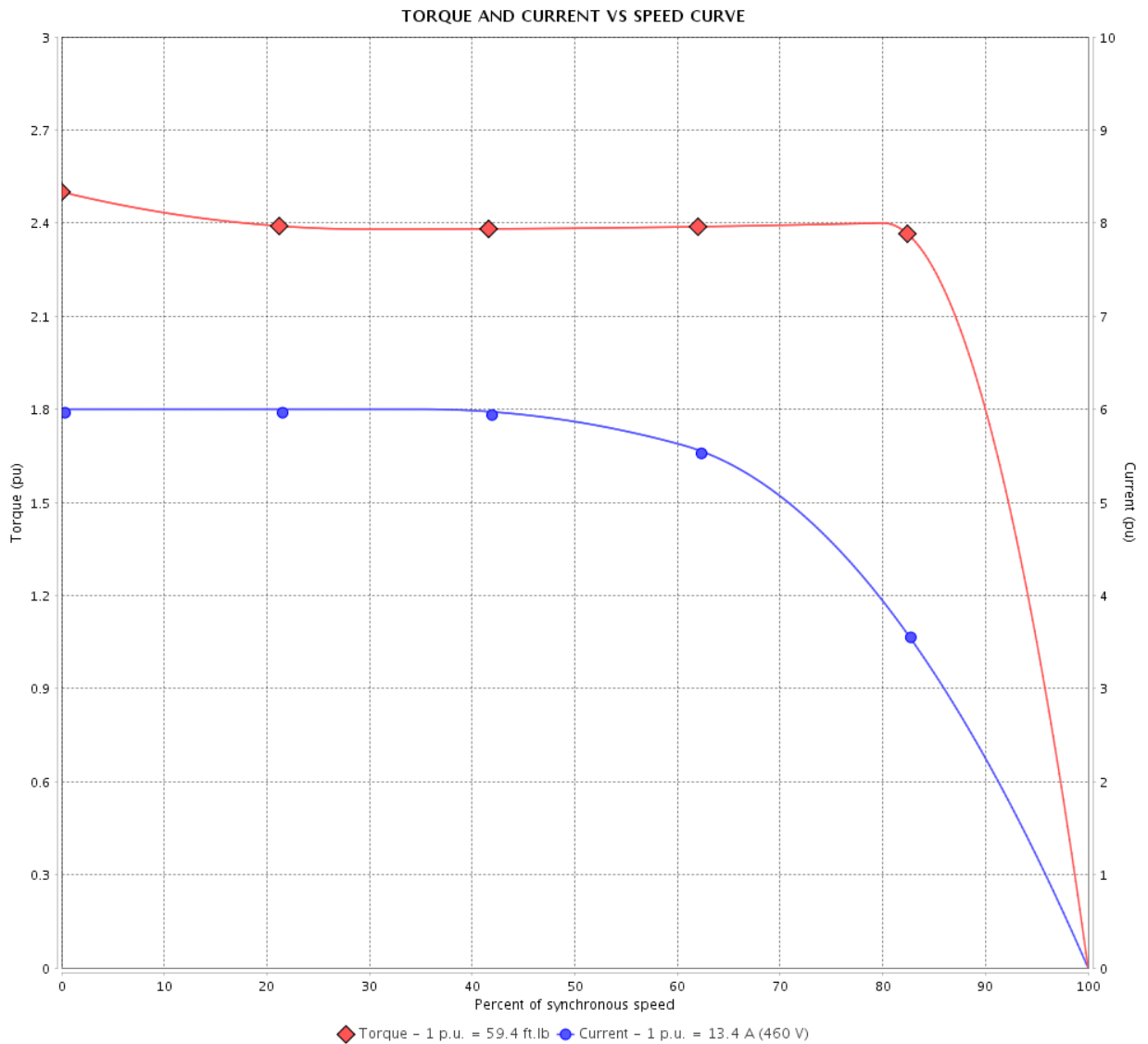
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407460

Catalog # : 01009XT3E284T



Performance : 230/460 V 60 Hz 8P

Rated current : 26.8/13.4 A
 LRC : 6.0
 Rated torque : 59.4 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 240 %
 Rated speed : 884 rpm

Moment of inertia (J) : 7.20 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



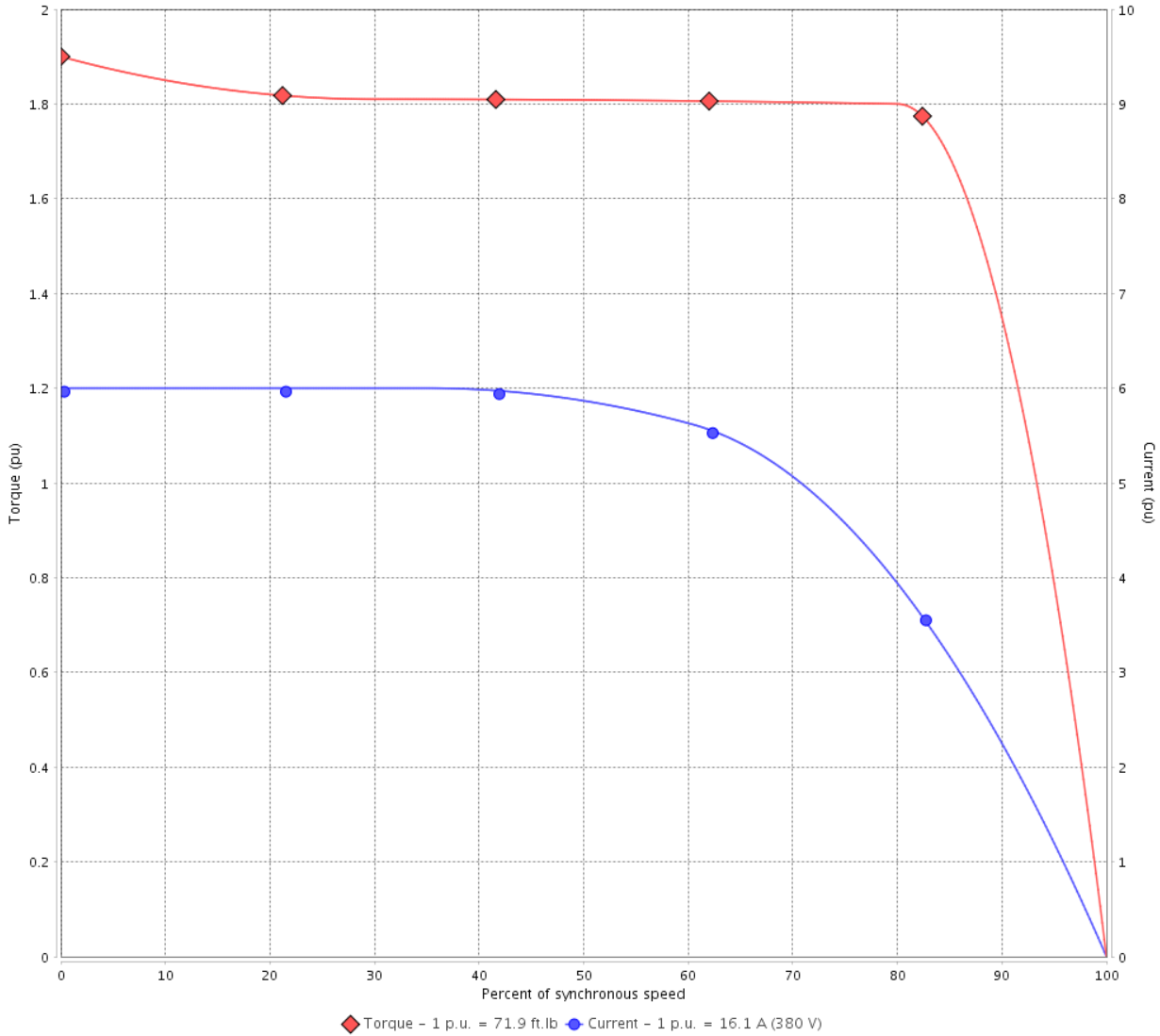
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407460

Catalog # : 01009XT3E284T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 8P IE3

Rated current	: 16.1 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 71.9 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 180 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



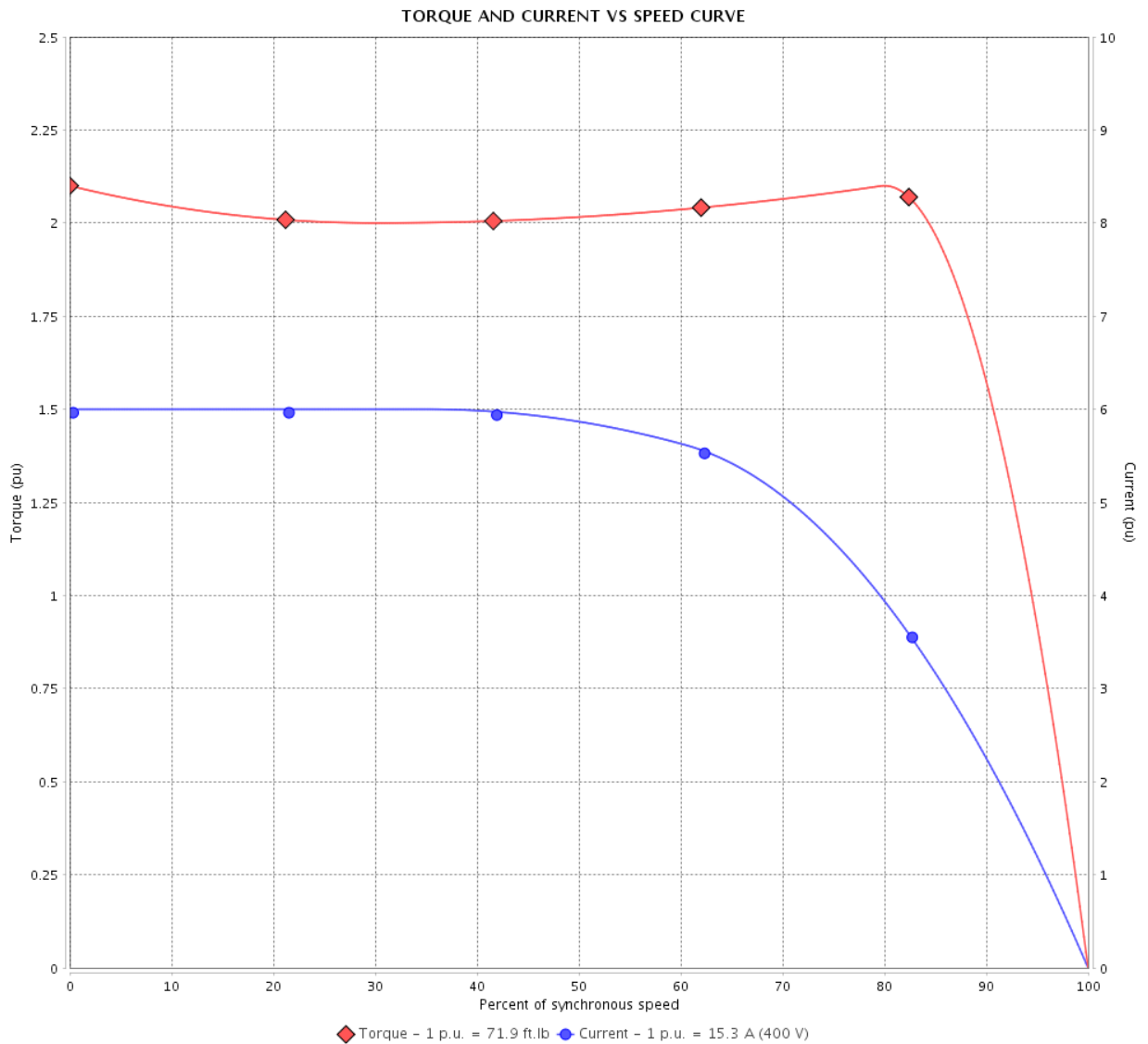
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407460

Catalog # : 01009XT3E284T



Performance : 400 V 50 Hz 8P IE4

Rated current	: 15.3 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 71.9 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 730 rpm	Design	: B

Locked rotor time : 54s (cold) 30s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



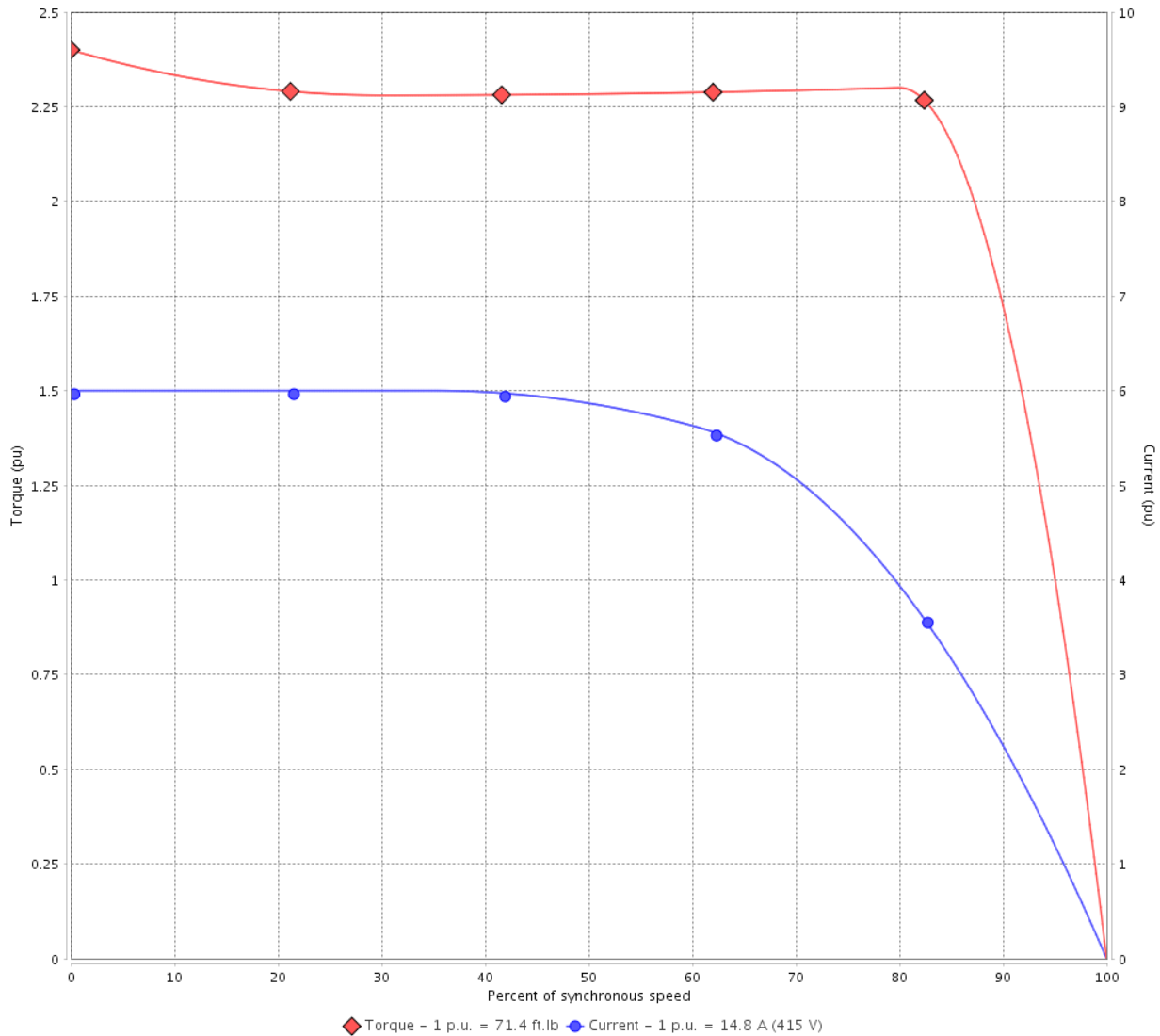
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407460

Catalog # : 01009XT3E284T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 8P IE4

Rated current	: 14.8 A	Moment of inertia (J)	: 7.20 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 71.4 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 735 rpm	Design	: B

Locked rotor time : 54s (cold) 30s (hot)

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LOAD PERFORMANCE CURVE

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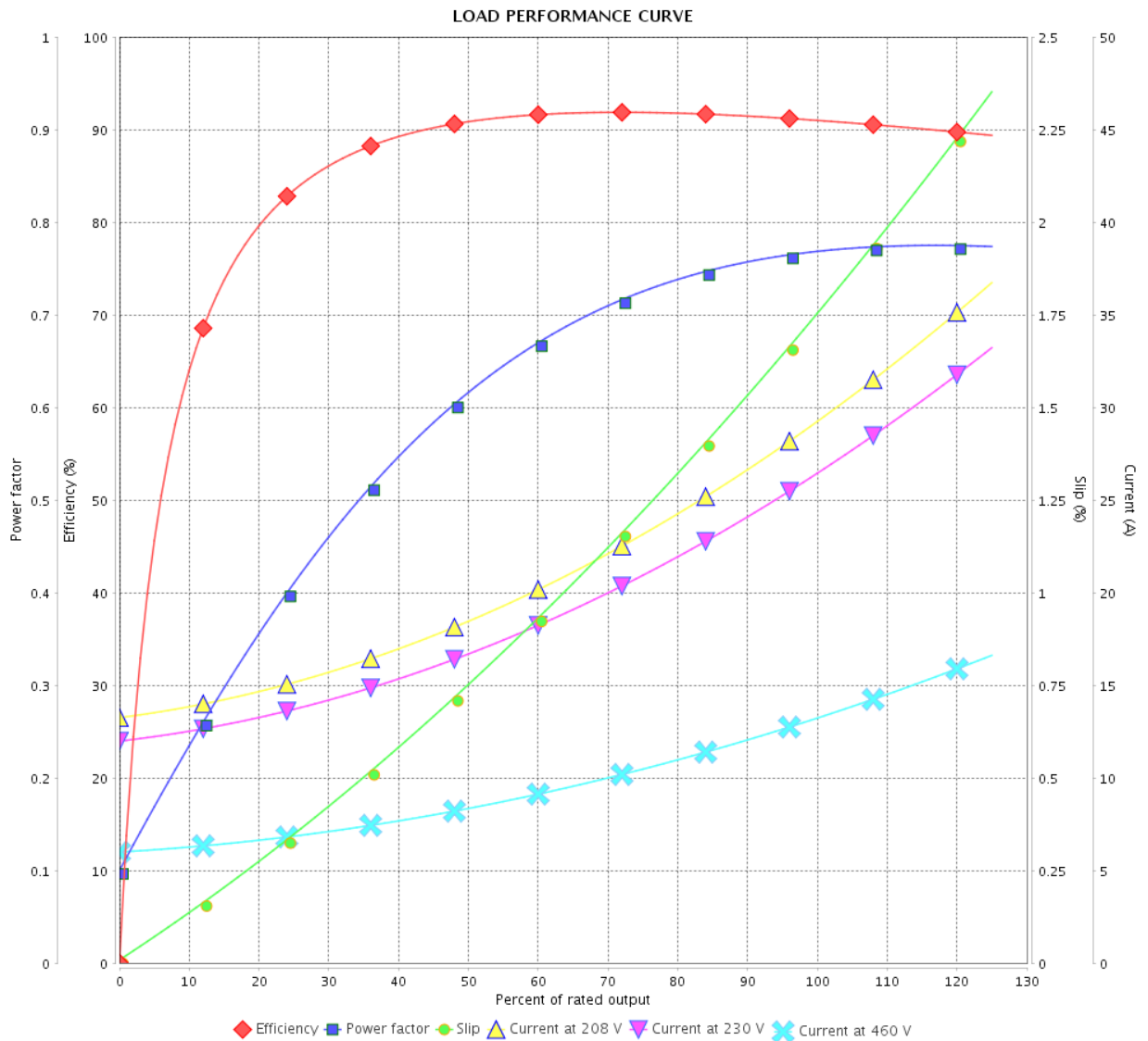


Customer :

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Performance : 230/460 V 60 Hz 8P

Rated current : 26.8/13.4 A
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 Locked rotor torque : 250 %
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Three Phase Induction Motor - Squirrel Cage



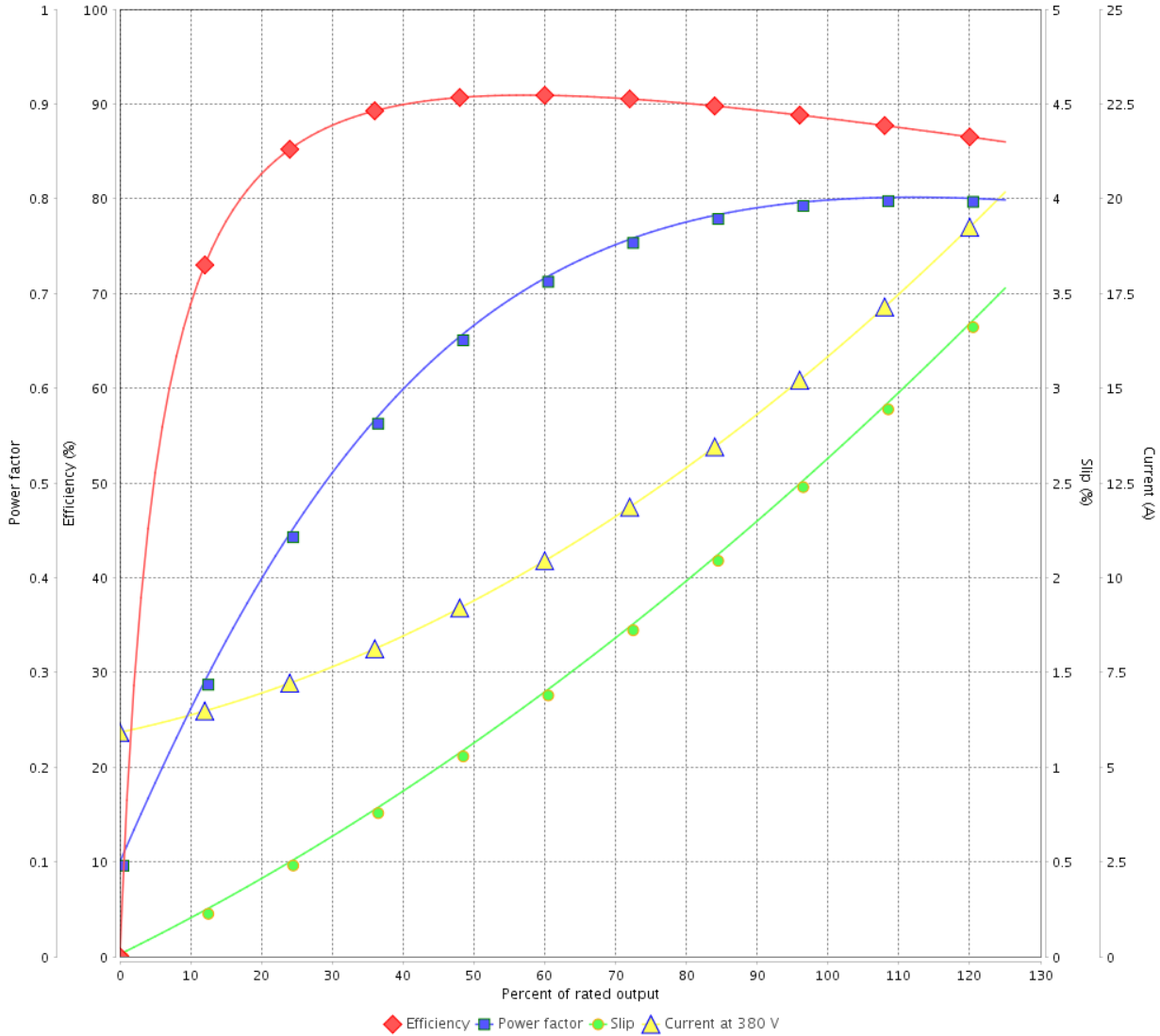
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Moment of inertia (J) : 7.20 sq.ft.lb
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 Insulation class : F
 Service factor : 1.00
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Three Phase Induction Motor - Squirrel Cage

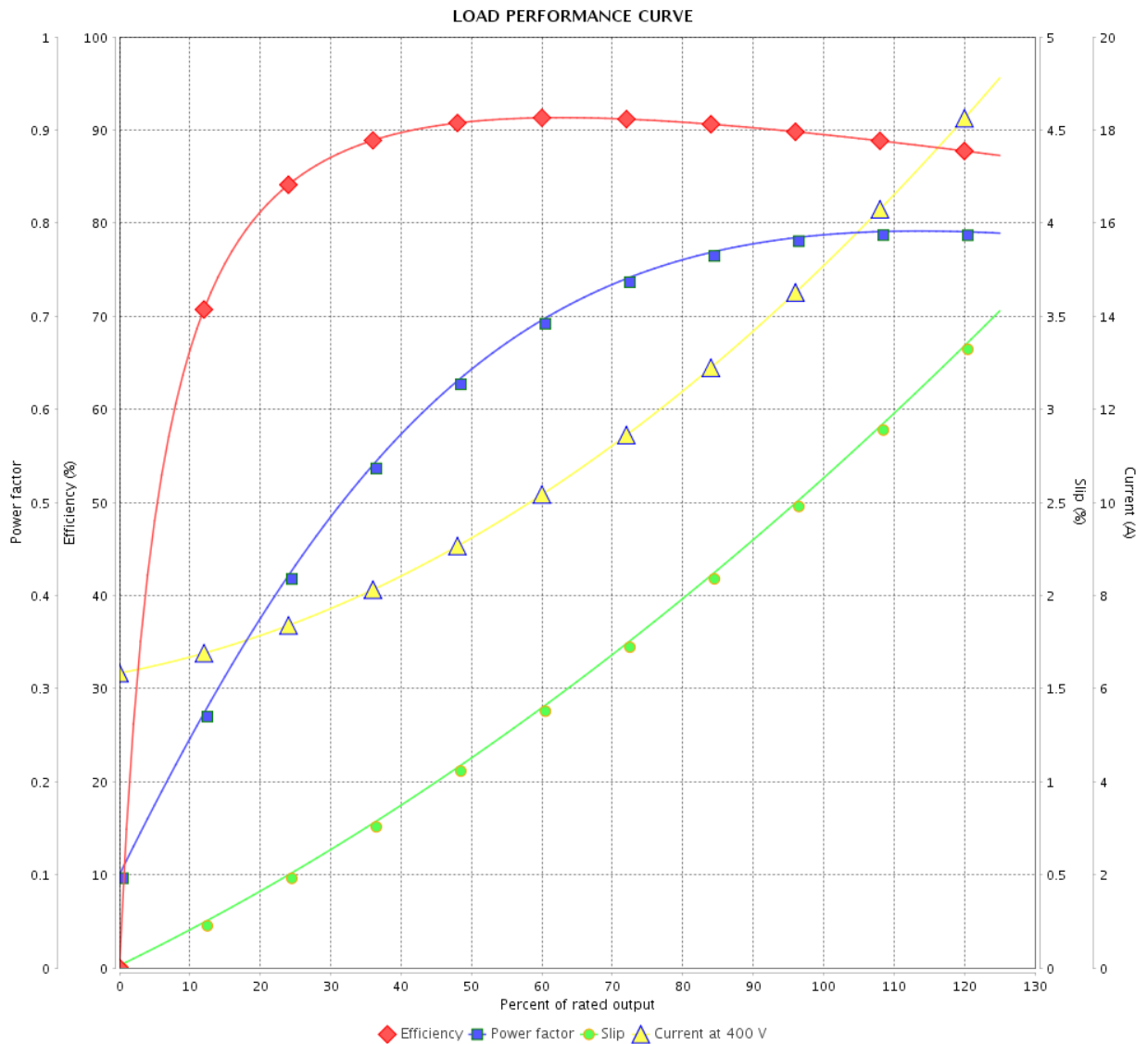


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 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



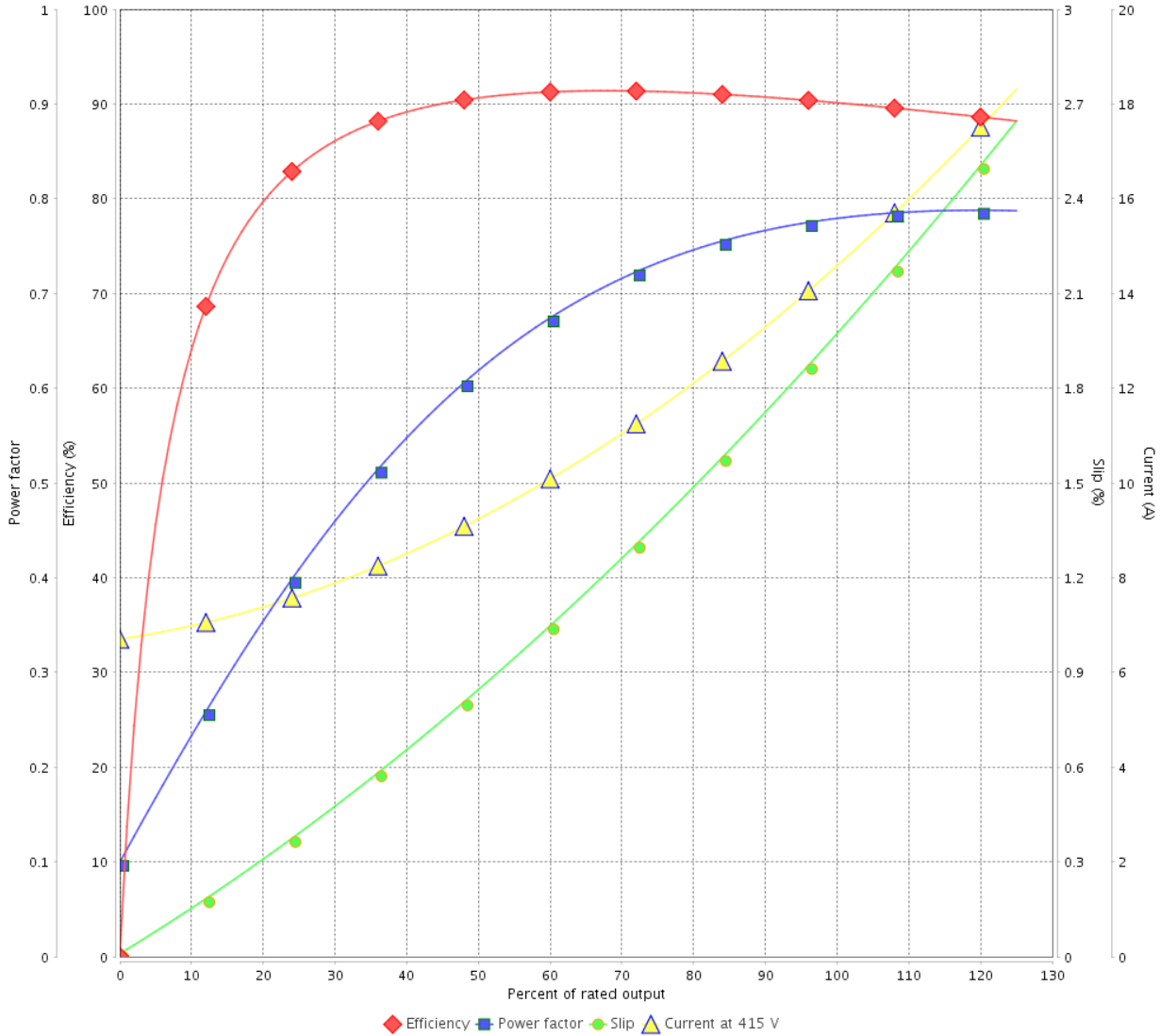
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 Insulation class : F
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THERMAL LIMIT CURVE



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Rated speed : 884 rpm	Design : B

Heating constant

Cooling constant

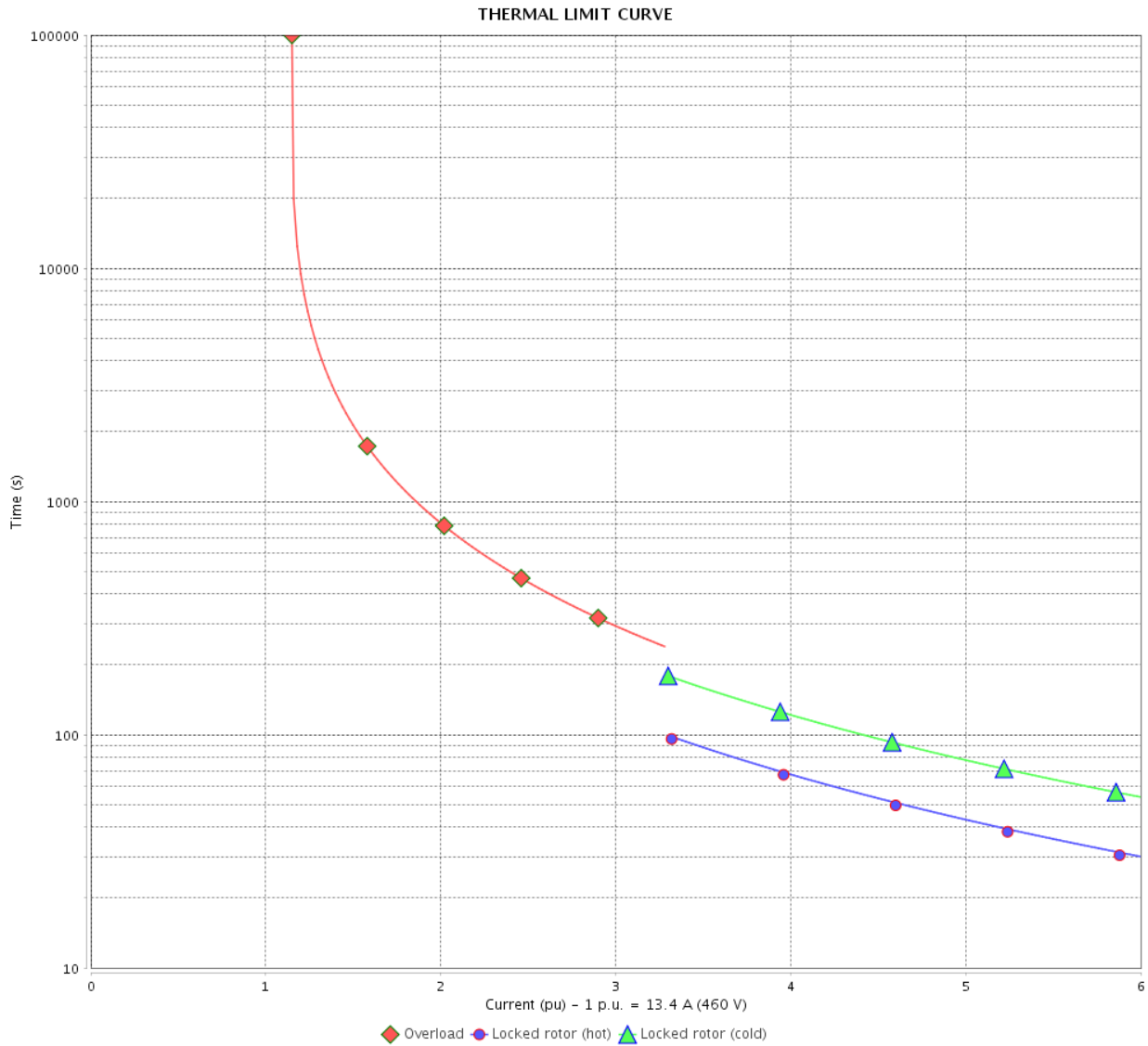
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Heating constant

Cooling constant

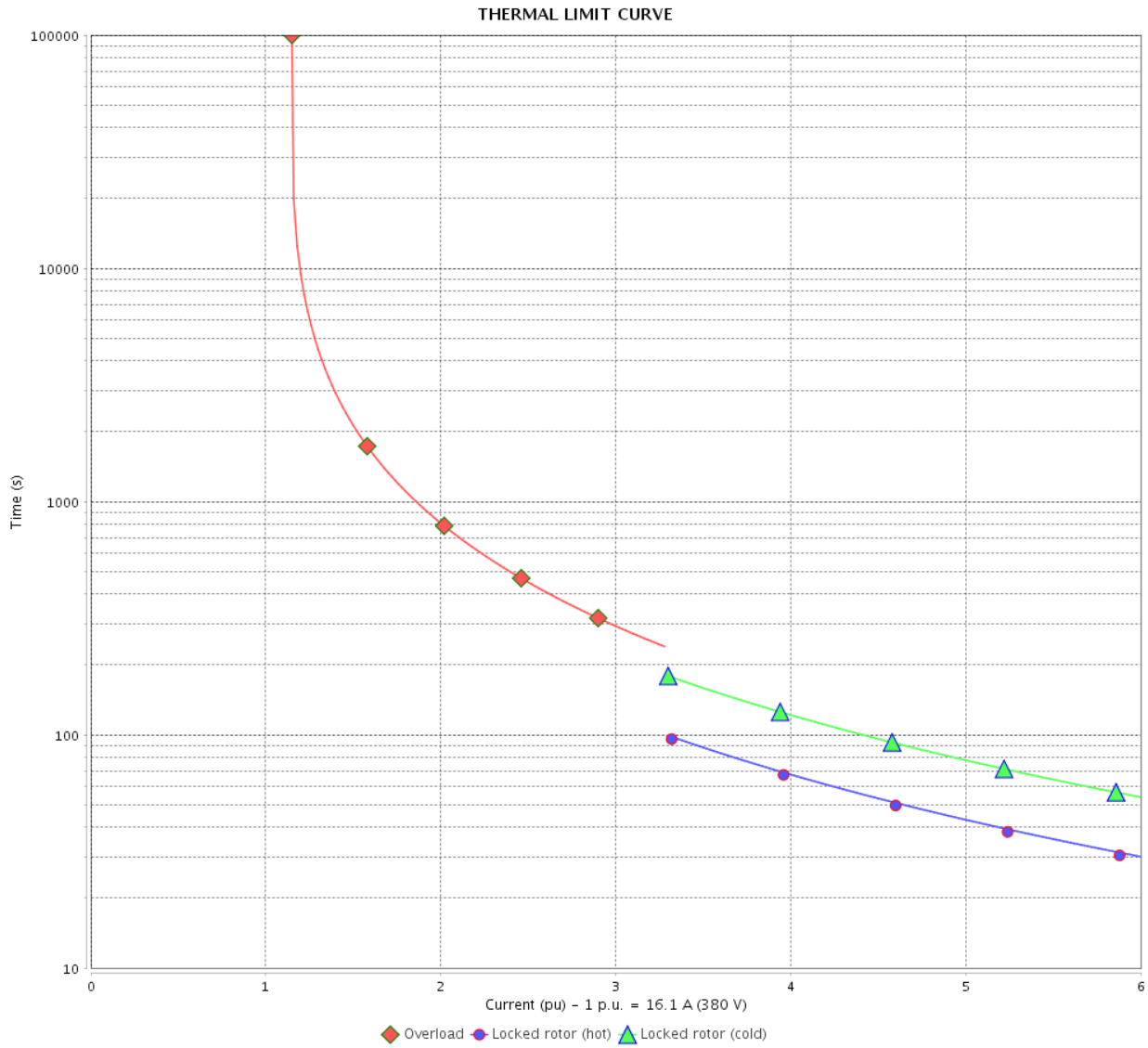
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 210 %	Temperature rise : 80 K
Rated speed : 730 rpm	Design : B

Heating constant

Cooling constant

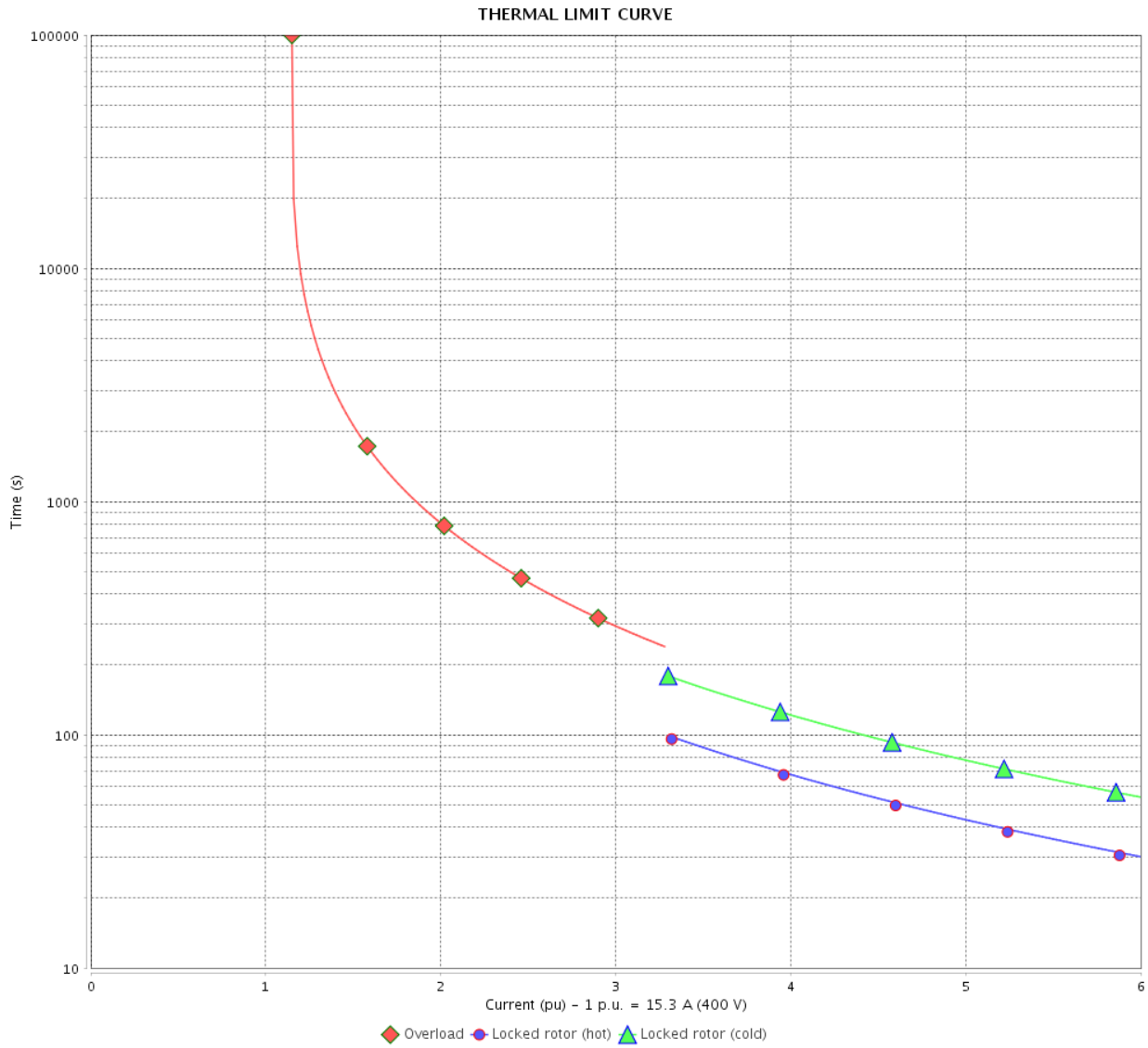
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Customer : _____



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THERMAL LIMIT CURVE



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Cooling constant

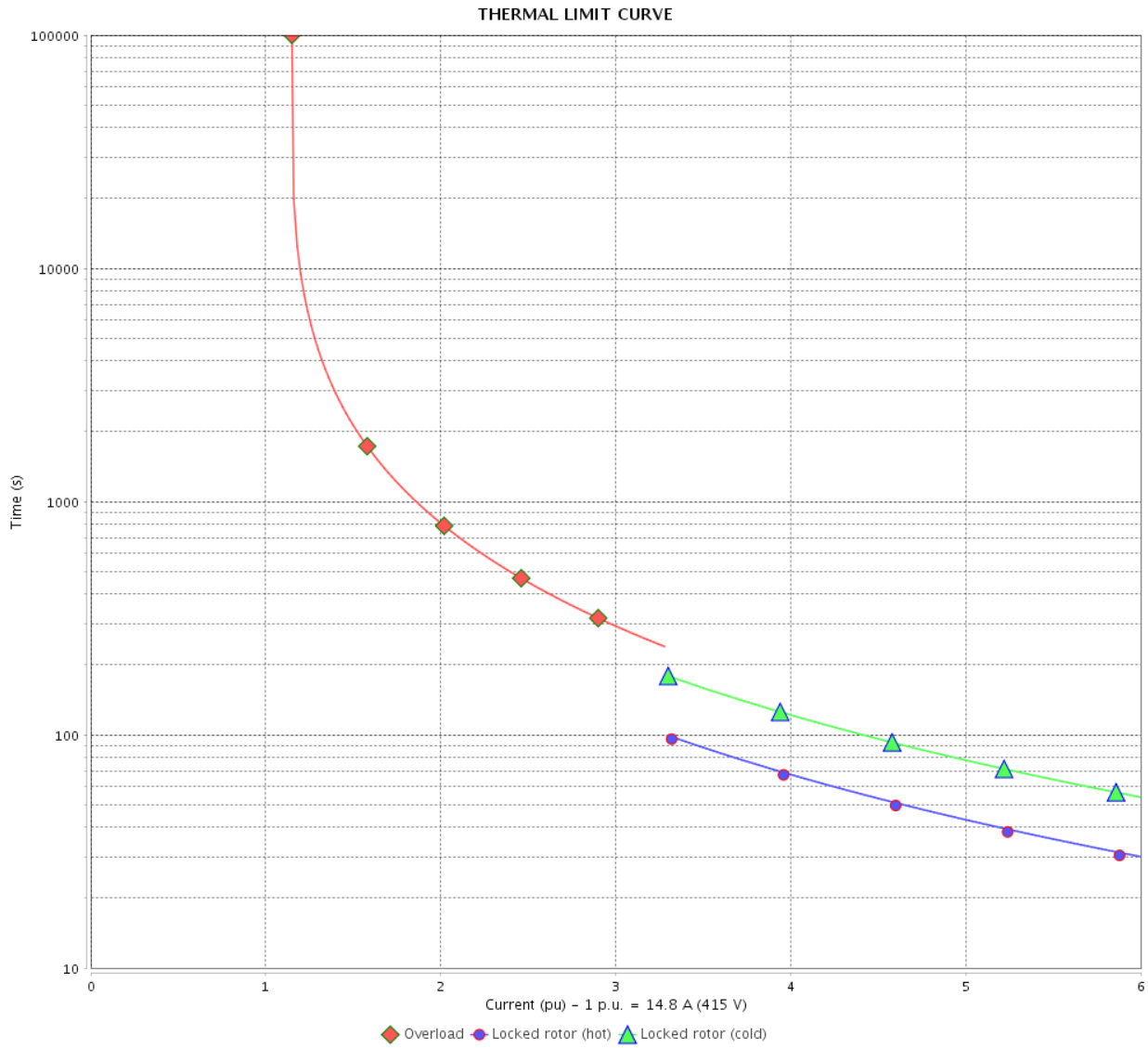
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THERMAL LIMIT CURVE

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Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

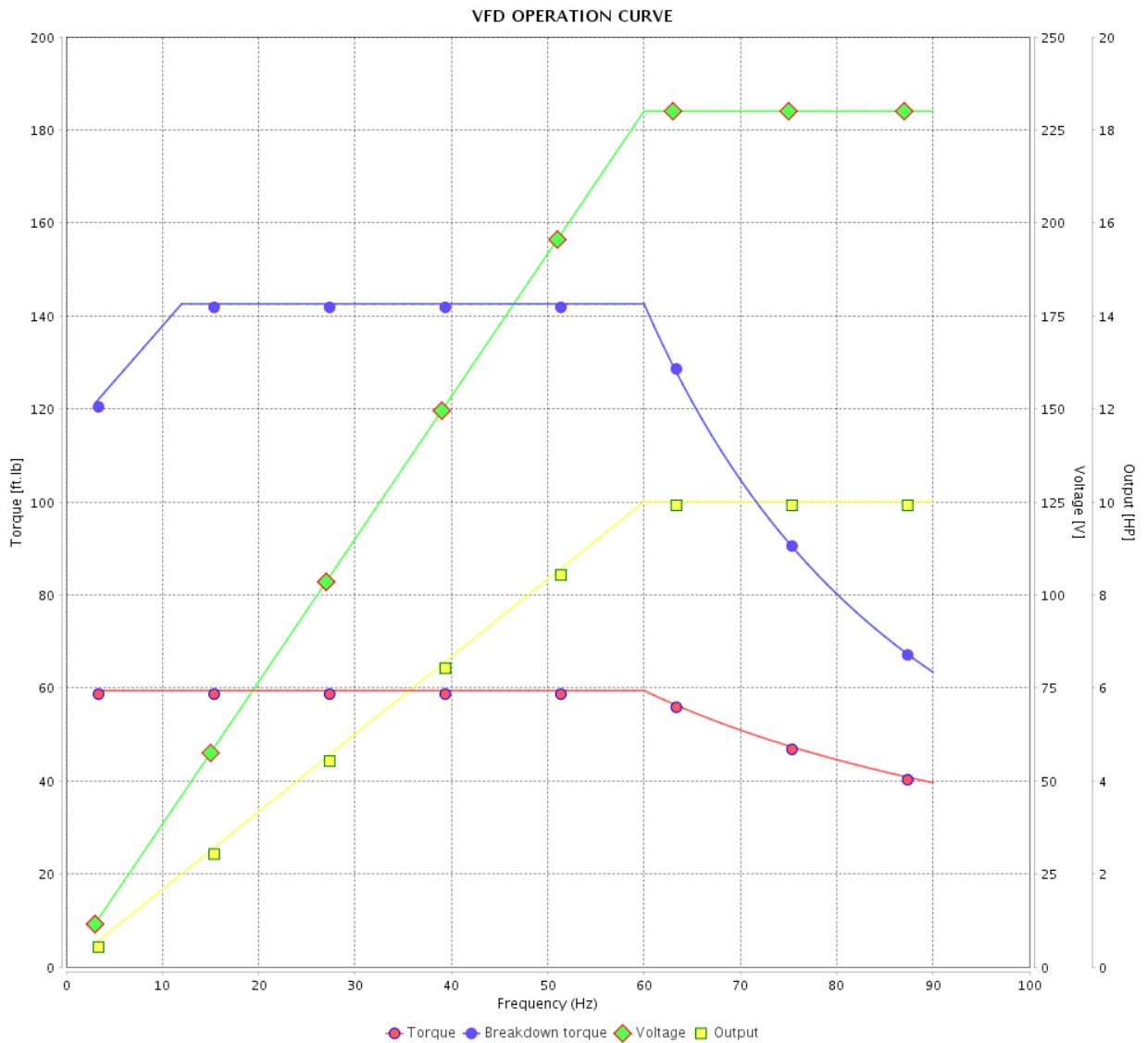


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Product code : 14407460

Catalog # : 01009XT3E284T



Performance : 230/460 V 60 Hz 8P

Rated current : 26.8/13.4 A
 LRC : 6.0
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 Locked rotor torque : 250 %
 Breakdown torque : 240 %
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 Insulation class : F
 Service factor : 1.15
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



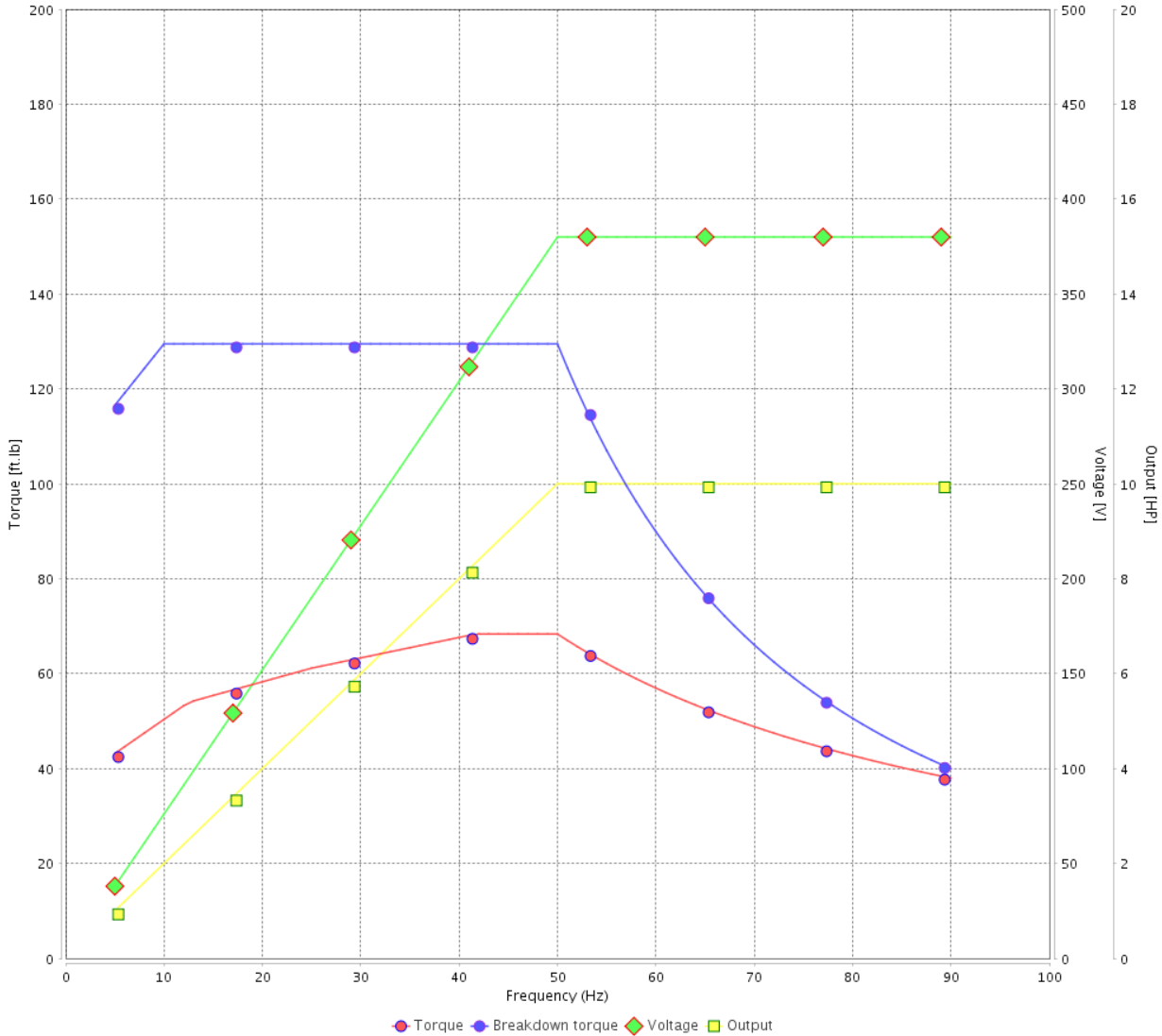
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VFD OPERATION CURVE



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Rated current : 16.1 A
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 Breakdown torque : 180 %
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Moment of inertia (J) : 7.20 sq.ft.lb
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 Insulation class : F
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

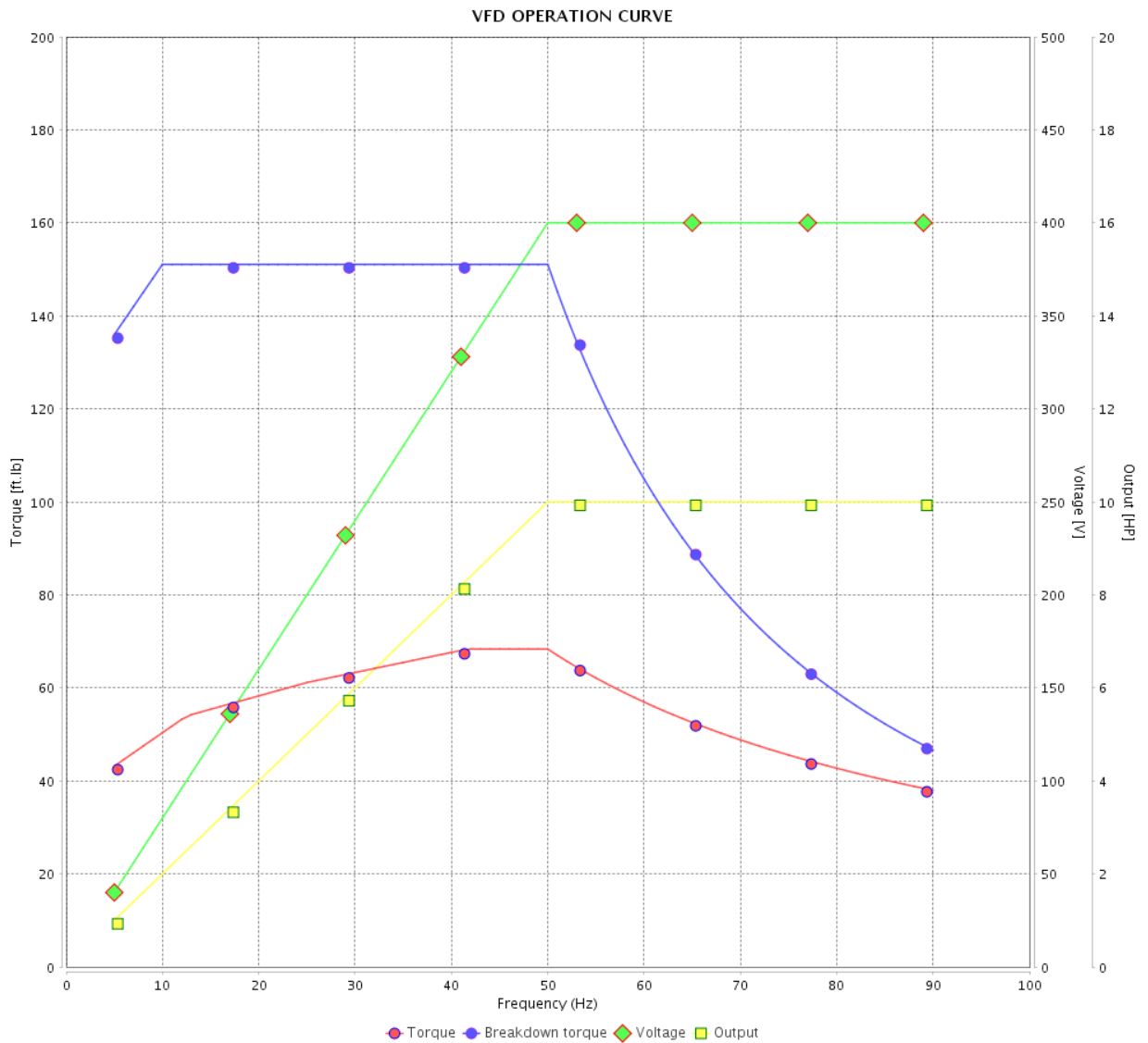


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Performance : 400 V 50 Hz 8P IE4

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



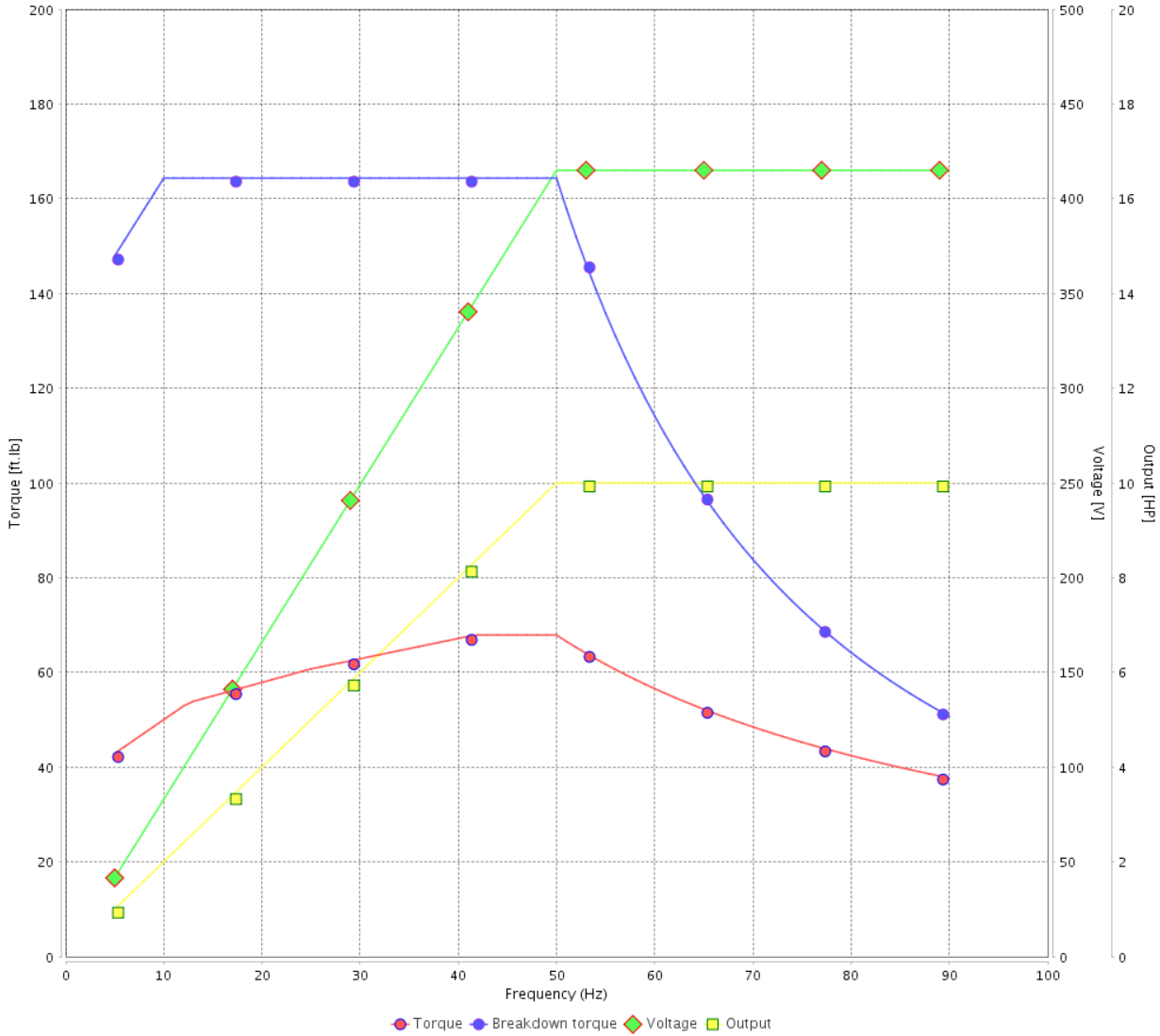
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A

B

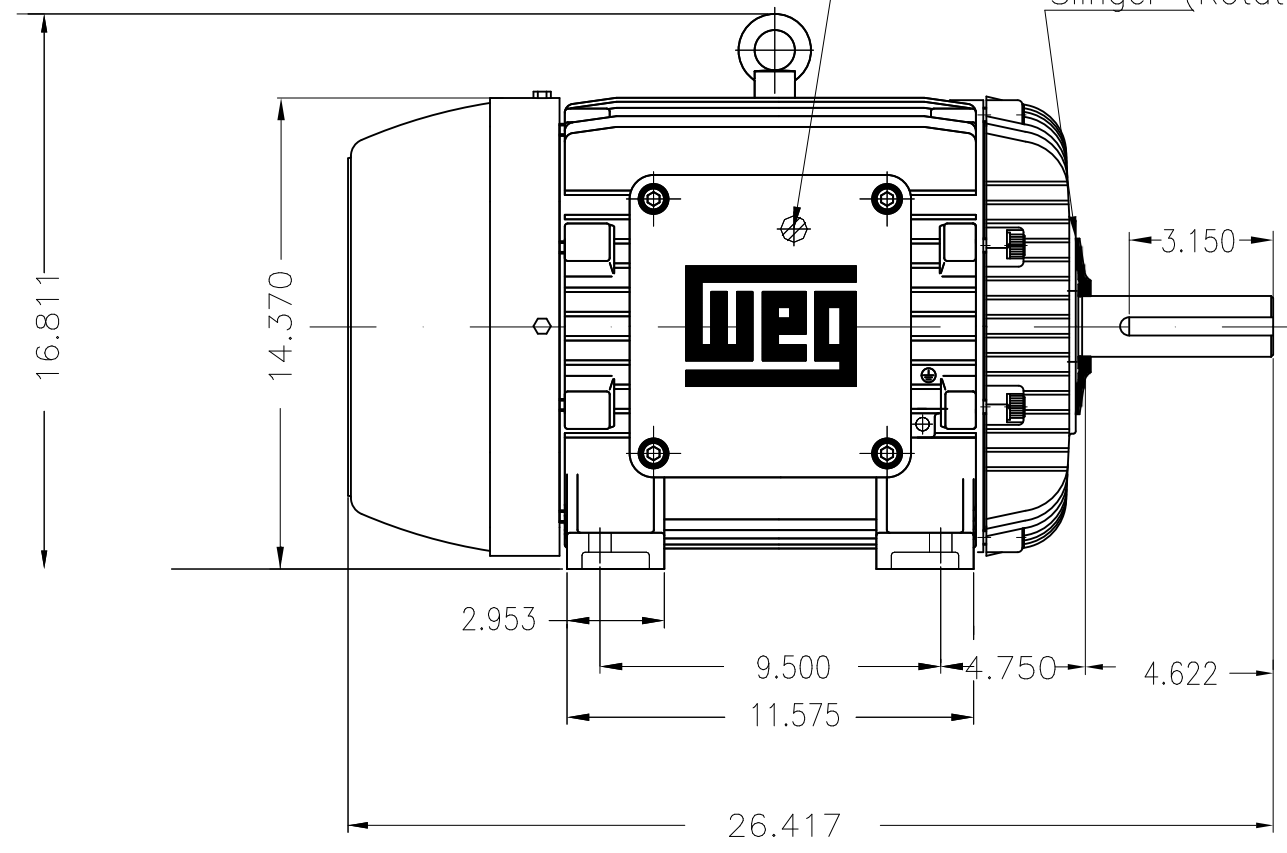
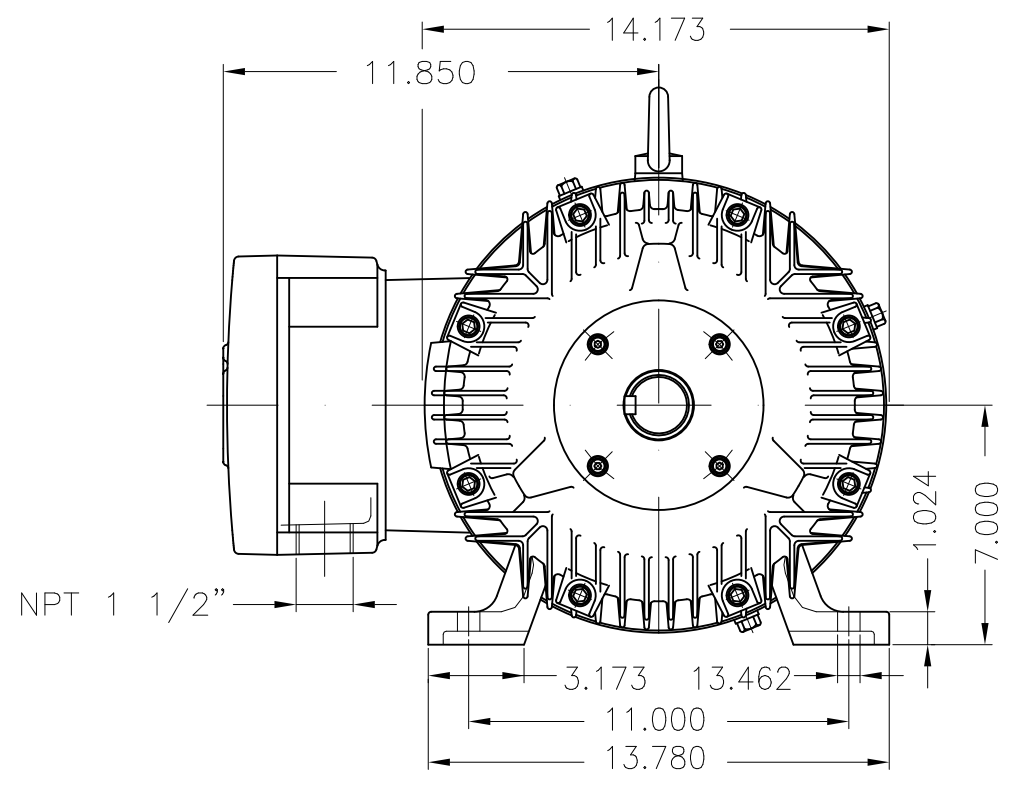
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D

E

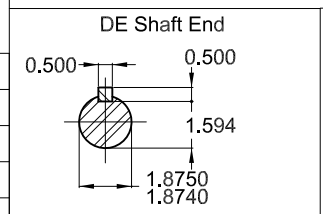
Grounding for leads 5.2–25 mm² / 10–4 AWG

Slinger (Rotating Seal)



10 HP 08 Poles 60 Hz A

- With grease fitting
- Color RAL 5009
- Painting plan 202P
- Mounting NEMA F-1
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 284T IP55 TEFC					
RELEASED							
REL DT.		WMO Jaragua do Sul					

PREVIEW

WDD

SHEET 1 / 1

Dimensions in inches XME A3

MADE IN BRAZIL

**W21X NEMA**
Premium

14407460



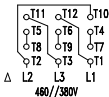
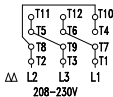
LISTED

CC029A

Inverter Duty Motor
Severe Duty

MODEL 01009XT3E284T

PH 3	FR 284T		
HP(kW) 10.0(7.5)		HZ 60	IP55
V 230/460		A 26.8/13.4	
RPM 884		NEMA NOM EFF 91.0%	
PF 0.77		SFA 30.8/15.4	DES B
INS CL F ΔT 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE H	ALT 1000 m.a.s.l.
AMB 40°C	USABLE @208V	29.4 A	SF 1.15 SFA 33.8
AMB 55°C SF1.0			
10HP 7.5kW 50Hz 380V 16.1A 730RPM SF1.00 EFF 88.5% (IE3)			



→ 6311-C3 MOBIL POLYREX EM
→ 6211-C3 18 g 20000 h

463 Lbs



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, 6:1CT, 1.0SF, T3C, AMB 40°C.