

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :	12408986	
			Catalog # :	07518XT3E365TC	
Frame	: 364/5TC	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	: 1043 lb		
Protection degree	: IP55	Moment of inertia (J)	: 23.3 sq.ft.lb		
Design	: A				
Output [HP]	75	60	60	60	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	166/83.2	83.2	79.9	78.5	
L. R. Amperes [A]	1281/641	599	623	667	
LRC [A]	7.7x(Code H)	7.2x(Code H)	7.8x(Code J)	8.5x(Code J)	
No load current [A]	56.0/28.0	30.0	30.0	32.0	
Rated speed [RPM]	1780	1480	1480	1483	
Slip [%]	1.11	1.33	1.33	1.13	
Rated torque [ft.lb]	221	213	213	212	
Locked rotor torque [%]	240	220	250	270	
Breakdown torque [%]	290	280	310	340	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	28s (cold) 16s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	27s (cold) 15s (hot)	
Noise level ²	75.0 dB(A)	70.0 dB(A)	70.0 dB(A)	70.0 dB(A)	
Efficiency (%)	25%	94.0	94.0	94.0	
	50%	94.5	94.1	94.1	
	75%	95.0	94.5	94.5	
	100%	95.4	94.5	94.5	
Power Factor	25%	0.49	0.48	0.45	
	50%	0.74	0.74	0.70	
	75%	0.83	0.83	0.81	
	100%	0.87	0.87	0.86	
		<u>Drive end</u>	<u>Non drive end</u>	Foundation loads	
Bearing type	: 6314 C3	6314 C3		Max. traction : 1954 lb	
Sealing	: Oil Seal	Lip Seal		Max. compression : 2997 lb	
Lubrication interval	: 9789 h	9789 h			
Lubricant amount	: 27 g	27 g			
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 184A SF 1.00 SFA 184A					
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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DATA SHEET

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



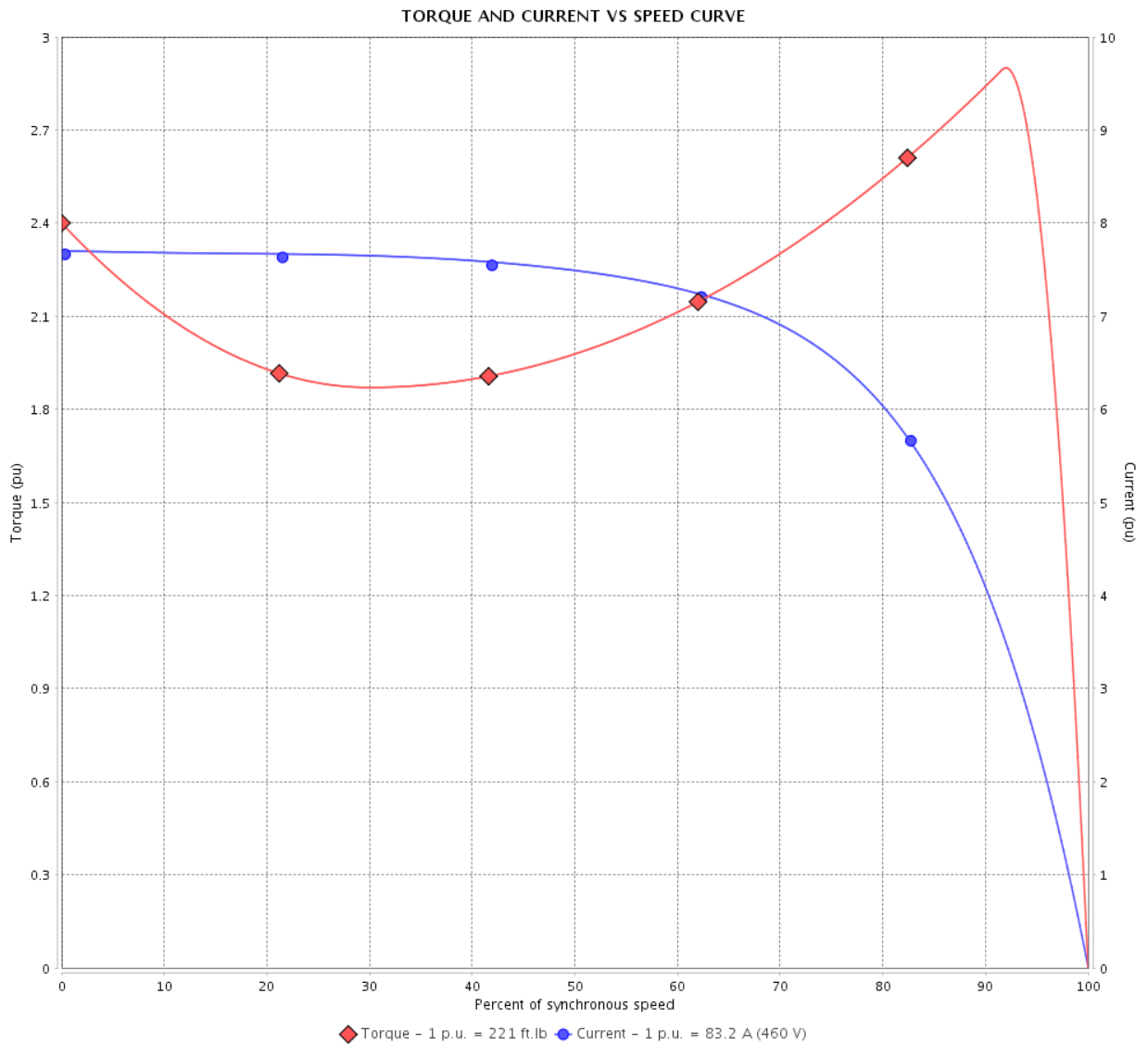
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408986

Catalog # : 07518XT3E365TC



Performance : 230/460 V 60 Hz 4P

Rated current : 166/83.2 A
 LRC : 7.7
 Rated torque : 221 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 290 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 23.3 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

Locked rotor time : 28s (cold) 16s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



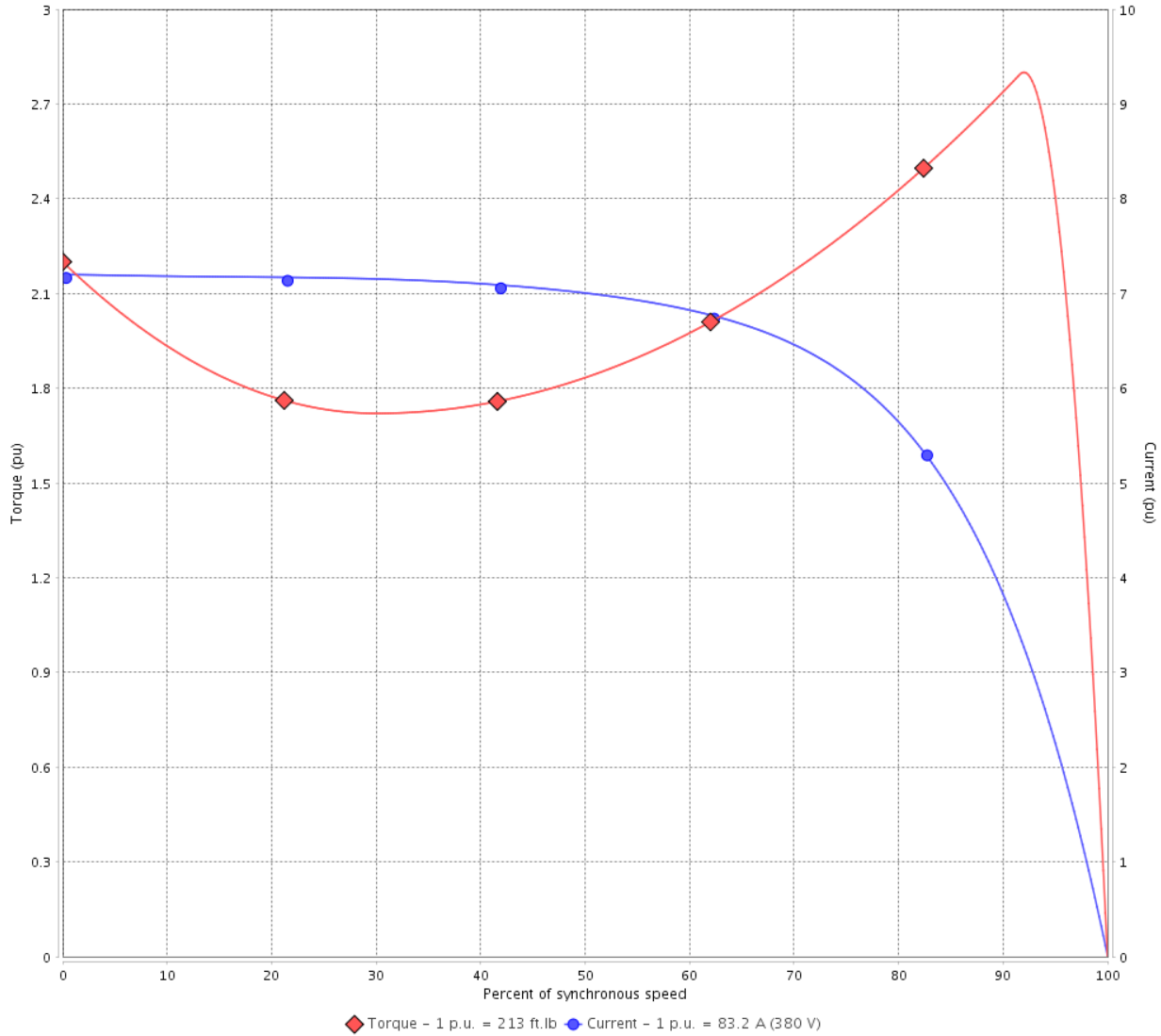
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408986

Catalog # : 07518XT3E365TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current	: 83.2 A	Moment of inertia (J)	: 23.3 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 213 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: A

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



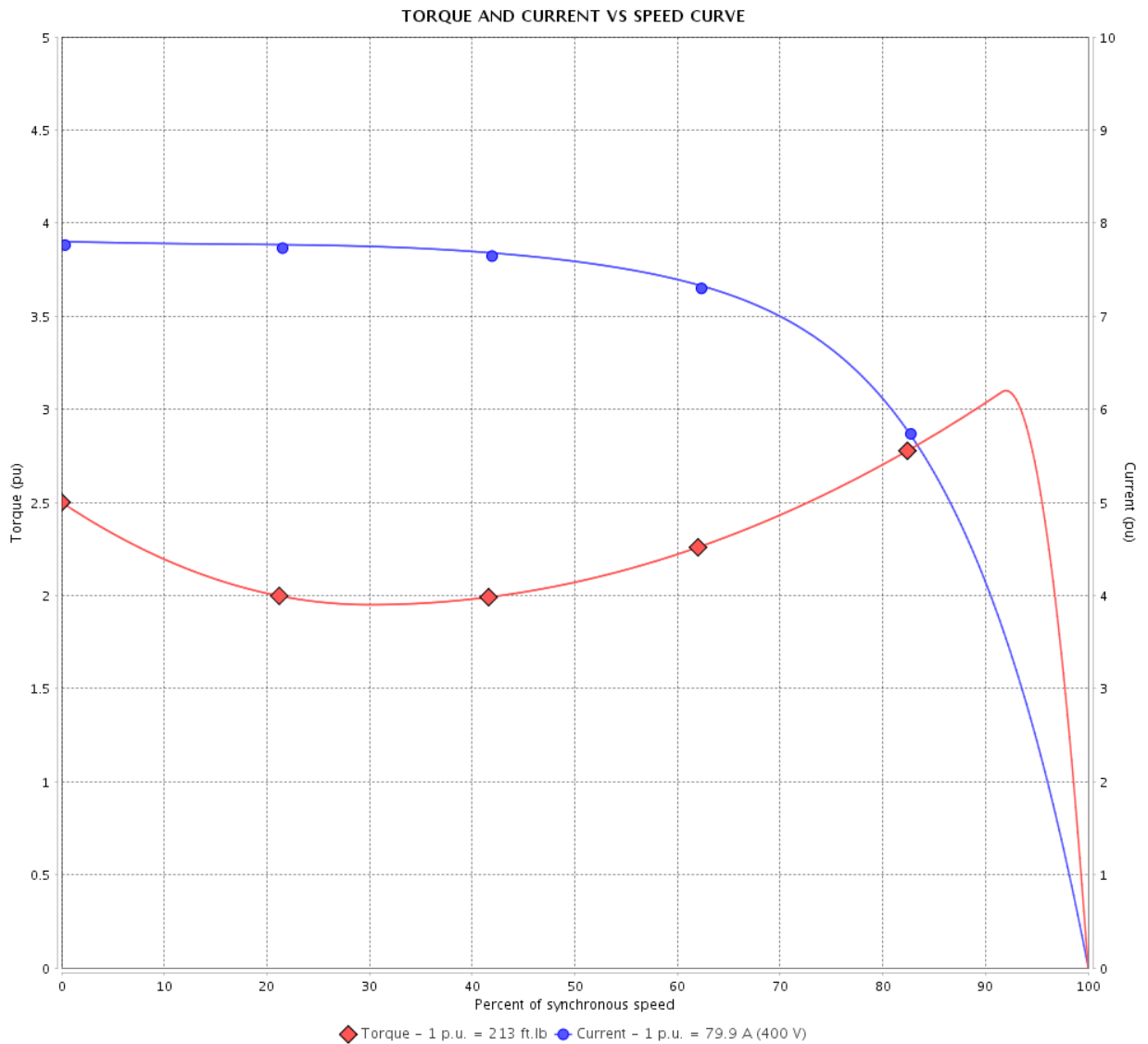
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408986

Catalog # : 07518XT3E365TC



Performance : 400 V 50 Hz 4P IE3

Rated current	: 79.9 A	Moment of inertia (J)	: 23.3 sq.ft.lb
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 213 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: A

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



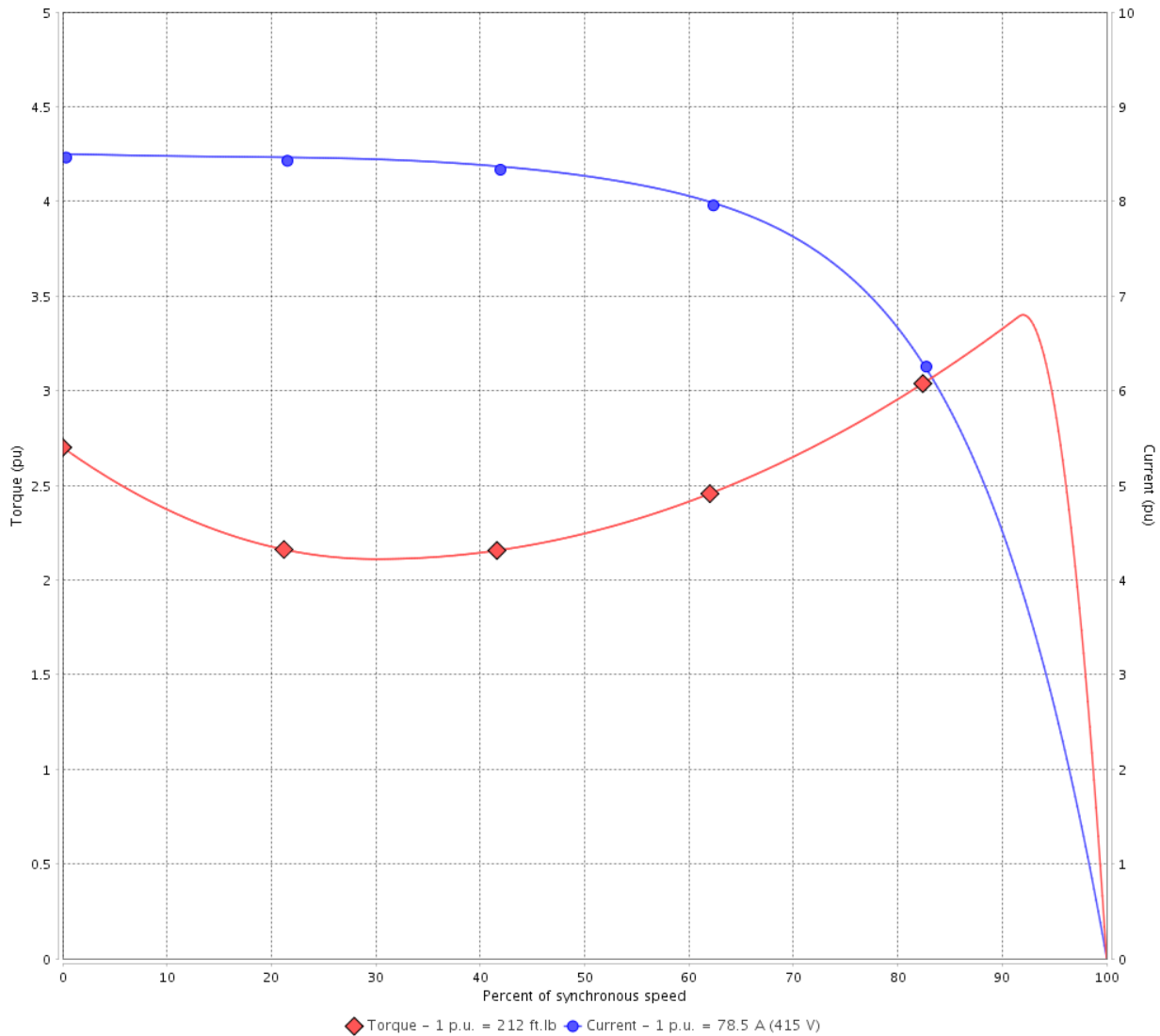
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408986

Catalog # : 07518XT3E365TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current	: 78.5 A	Moment of inertia (J)	: 23.3 sq.ft.lb
LRC	: 8.5	Duty cycle	: Cont.(S1)
Rated torque	: 212 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1483 rpm	Design	: A

Locked rotor time : 27s (cold) 15s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

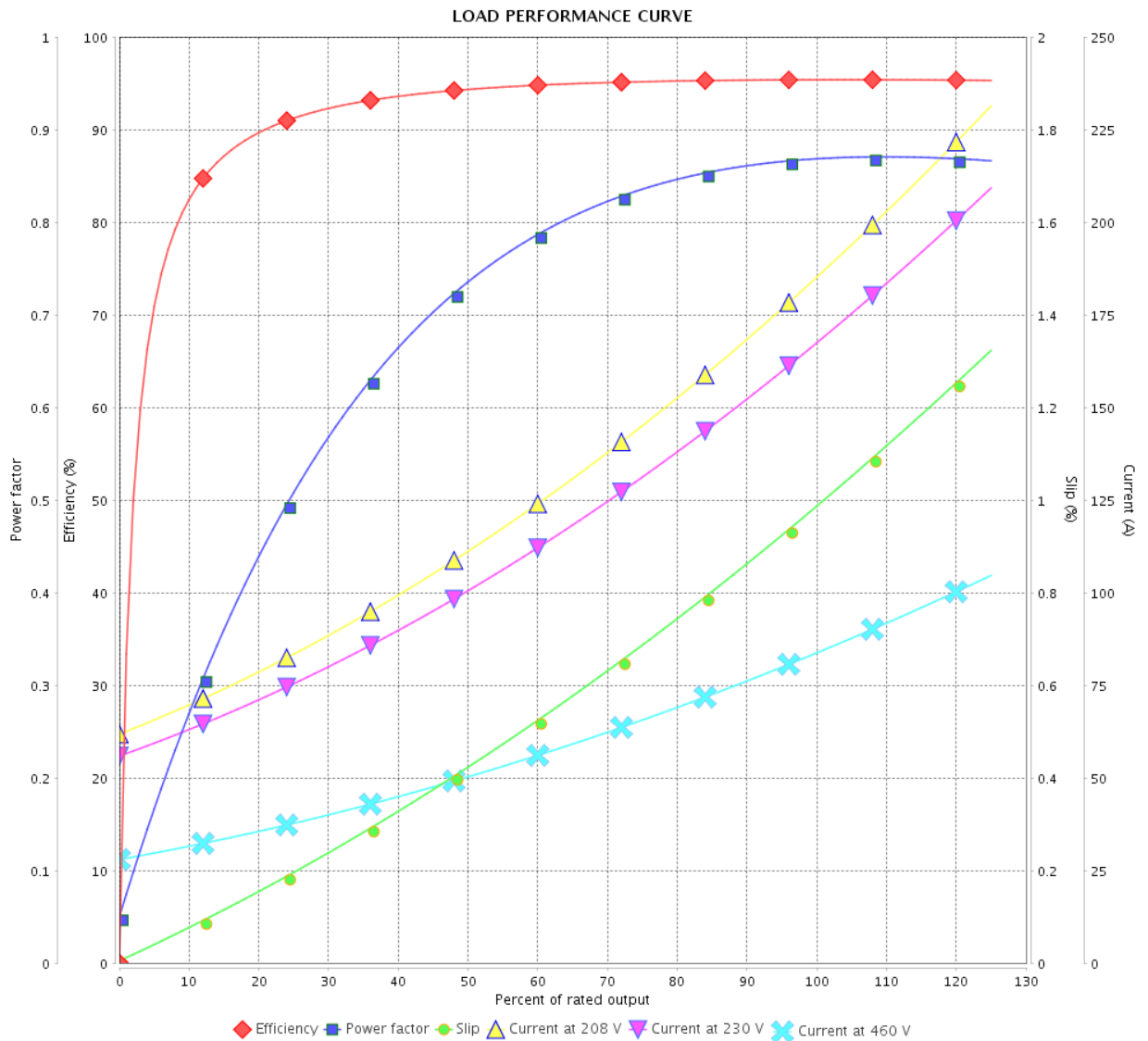


Customer :

Product line : NEMA Premium Efficiency Three-Phase

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Catalog # : 07518XT3E365TC



Performance : 230/460 V 60 Hz 4P

Rated current : 166/83.2 A
 LRC : 7.7
 Rated torque : 221 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 290 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 23.3 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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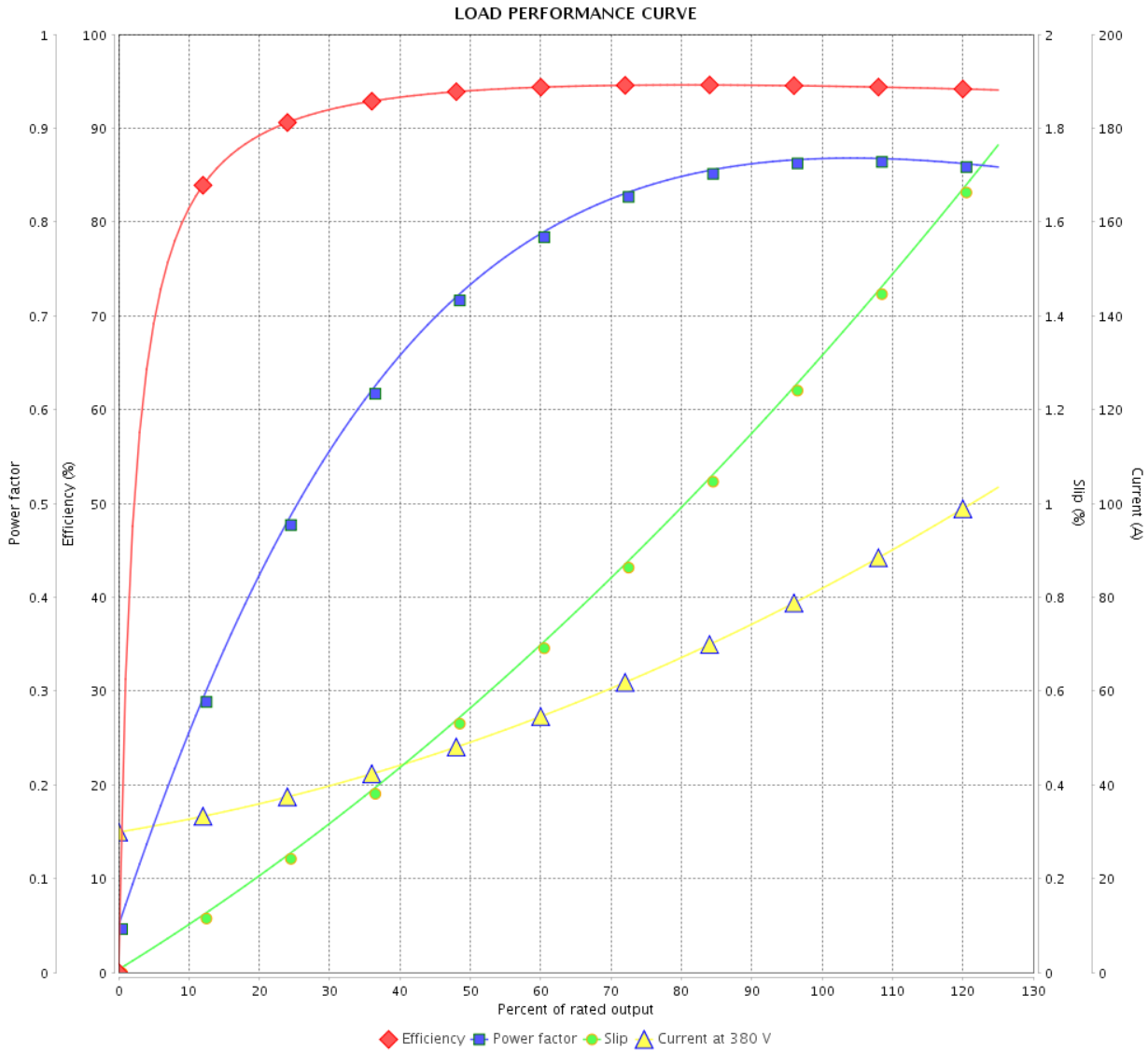


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Performance : 380 V 50 Hz 4P IE3

Rated current : 83.2 A
 LRC : 7.2
 Rated torque : 213 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 23.3 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

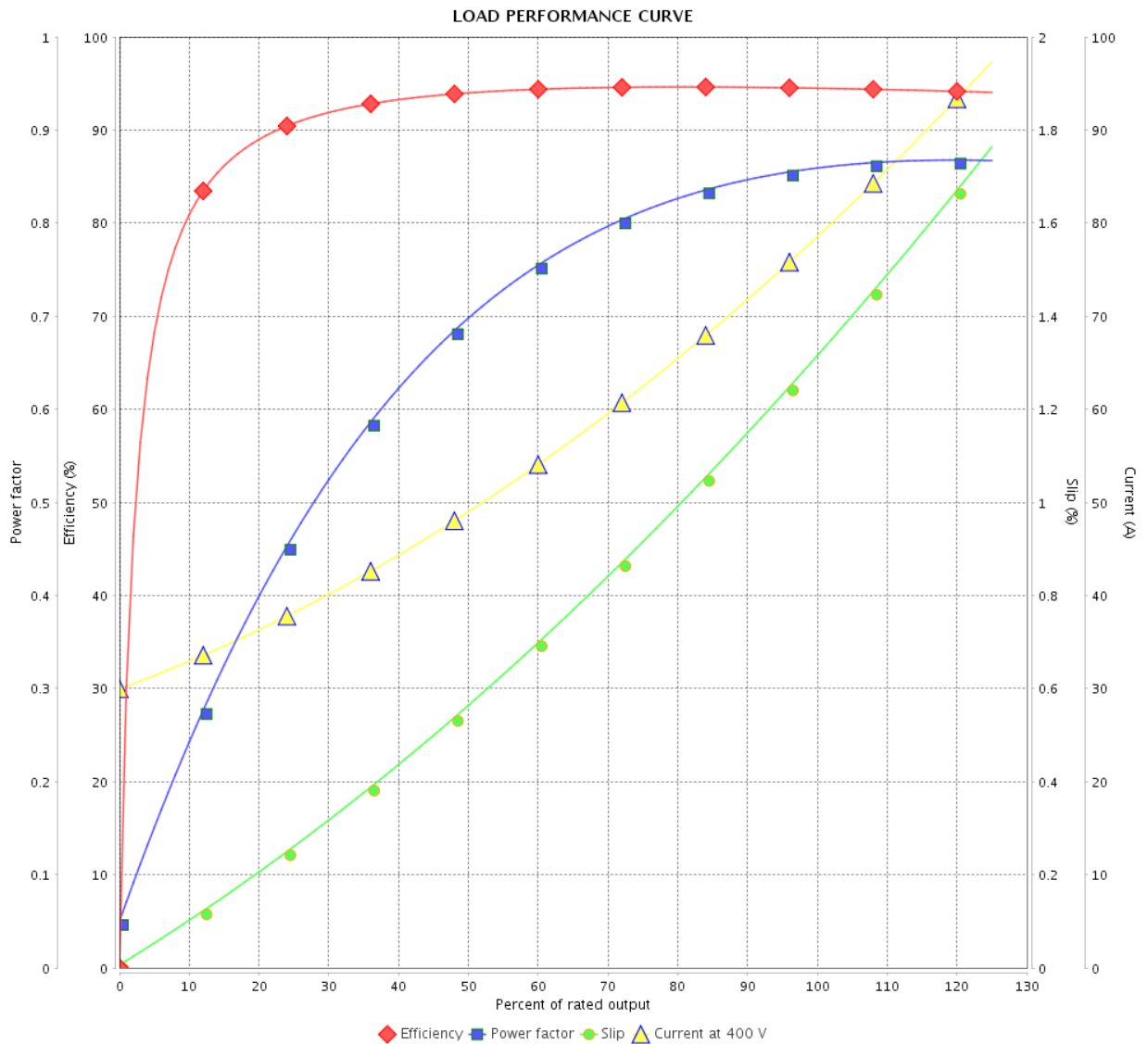


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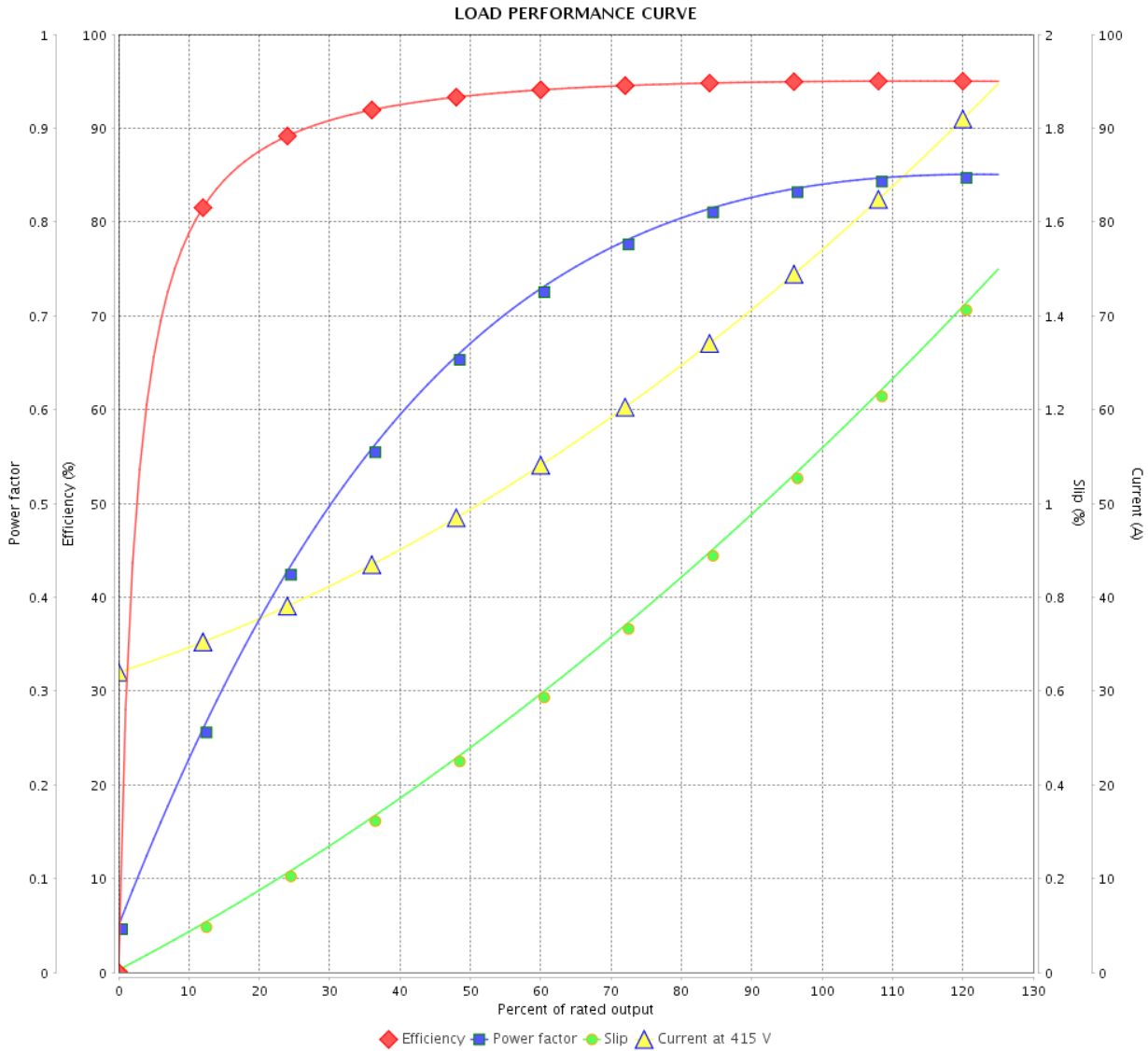


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 Breakdown torque : 340 %
 Rated speed : 1483 rpm

Moment of inertia (J) : 23.3 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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THERMAL LIMIT CURVE



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Rated torque : 221 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.15
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 1780 rpm	Design : A

Heating constant

Cooling constant

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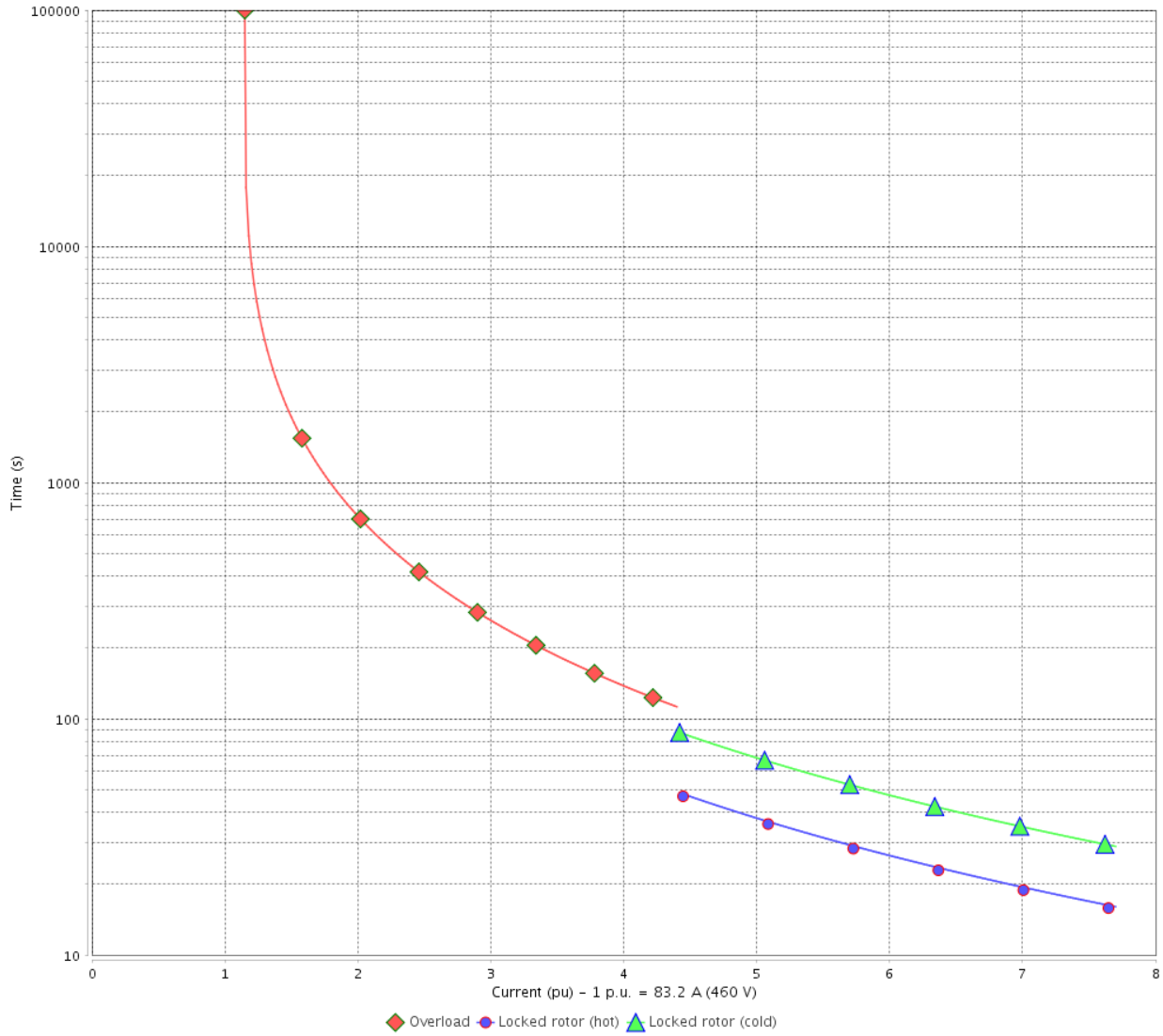
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 213 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : A

Heating constant

Cooling constant

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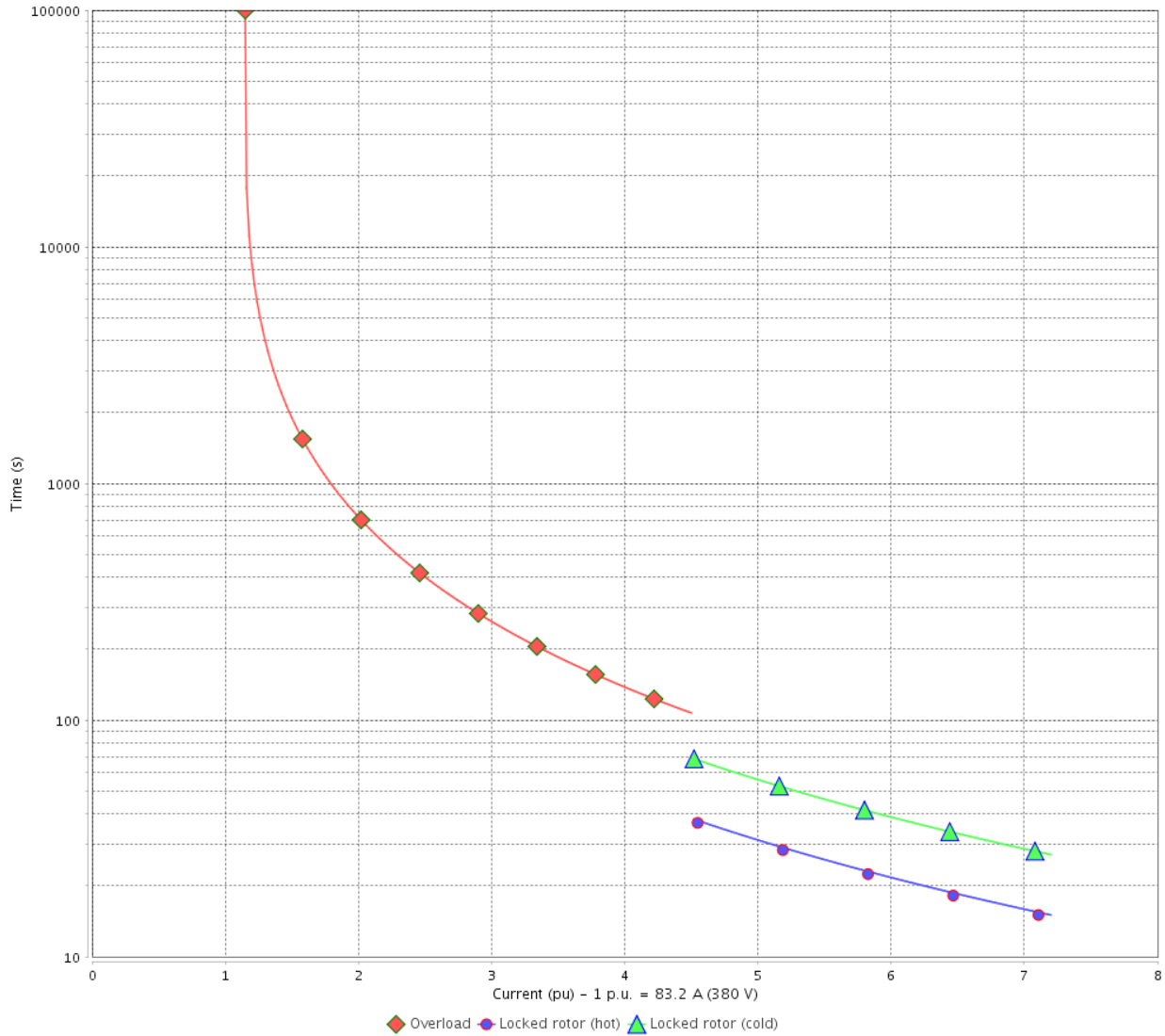
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LRC : 7.8	Duty cycle : Cont.(S1)
Rated torque : 213 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 1480 rpm	Design : A

Heating constant

Cooling constant

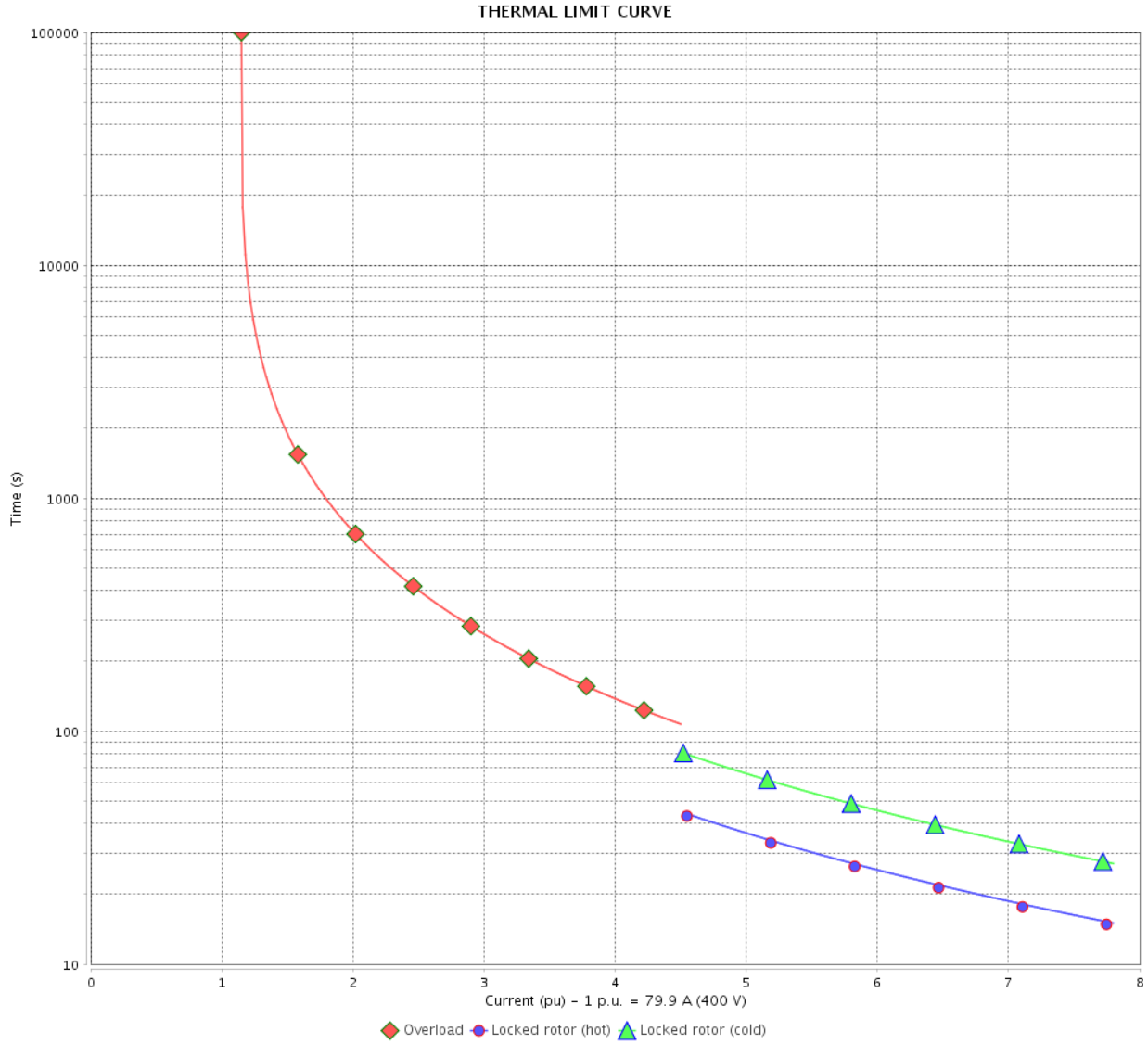
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



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 Product code : 12408986
 Catalog # : 07518XT3E365TC

Performance : 415 V 50 Hz 4P IE3

Rated current : 78.5 A	Moment of inertia (J) : 23.3 sq.ft.lb
LRC : 8.5	Duty cycle : Cont.(S1)
Rated torque : 212 ft.lb	Insulation class : F
Locked rotor torque : 270 %	Service factor : 1.00
Breakdown torque : 340 %	Temperature rise : 80 K
Rated speed : 1483 rpm	Design : A

Heating constant

Cooling constant

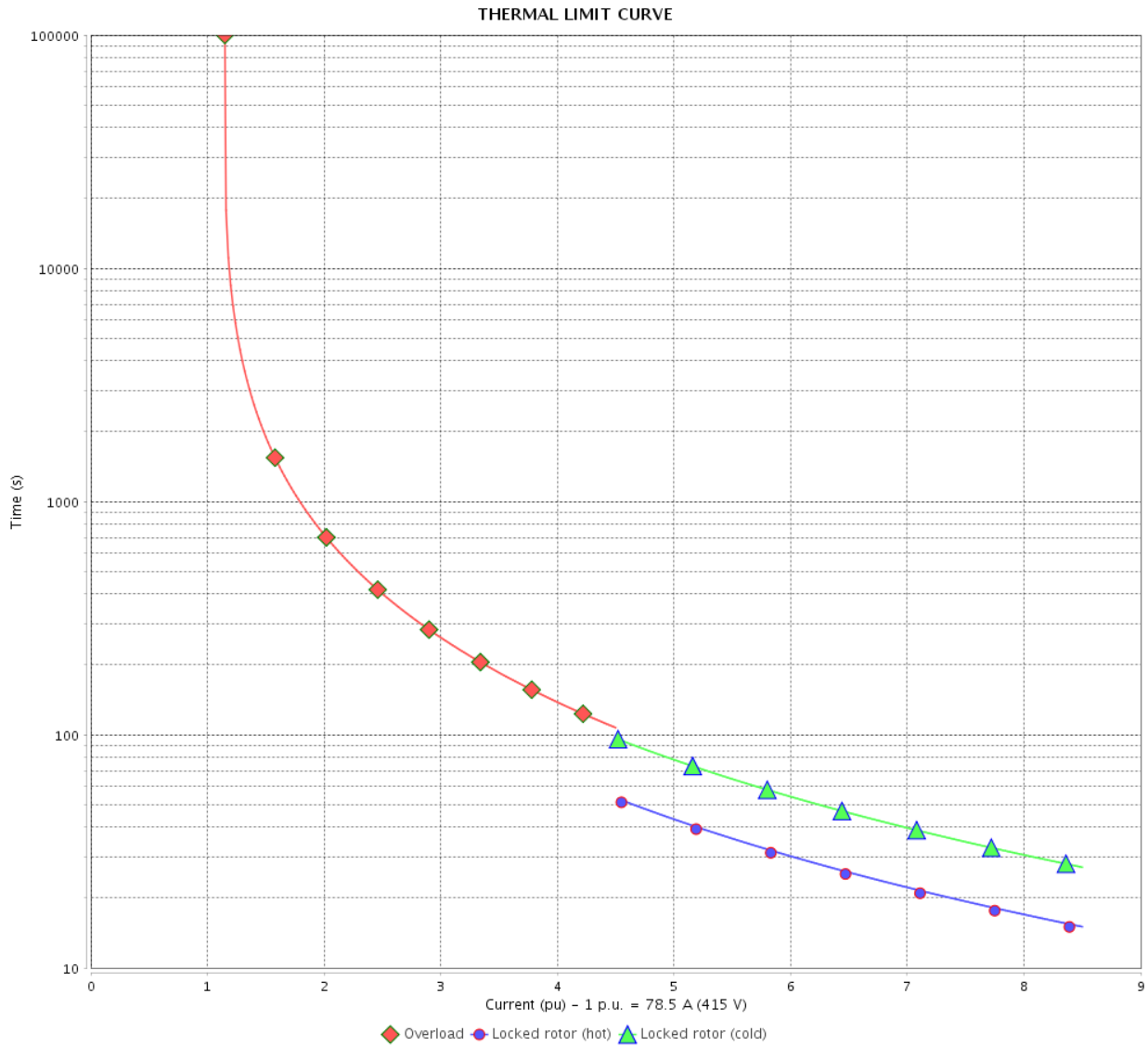
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

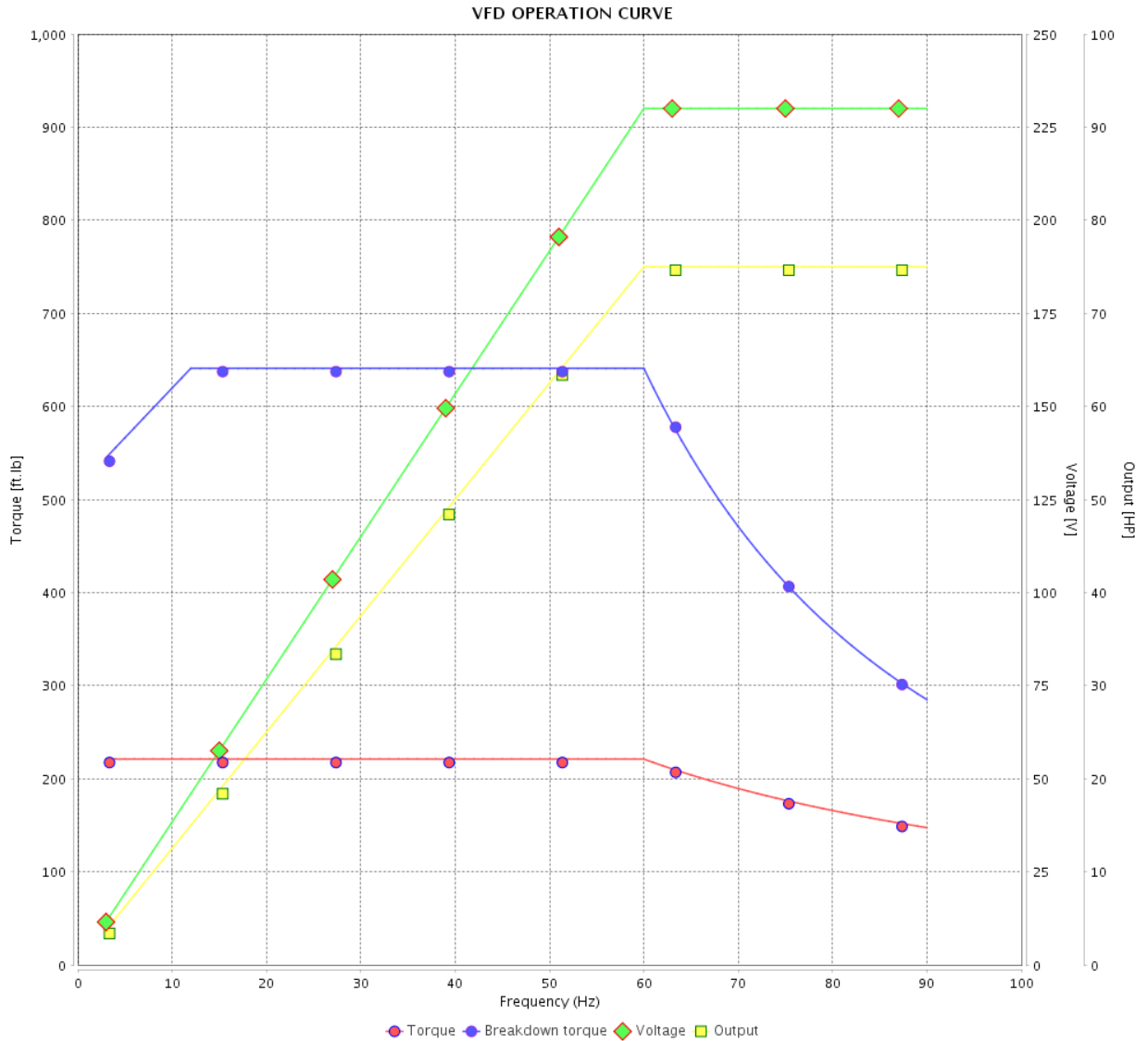


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408986

Catalog # : 07518XT3E365TC



Performance : 230/460 V 60 Hz 4P

Rated current : 166/83.2 A
 LRC : 7.7
 Rated torque : 221 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 290 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 23.3 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



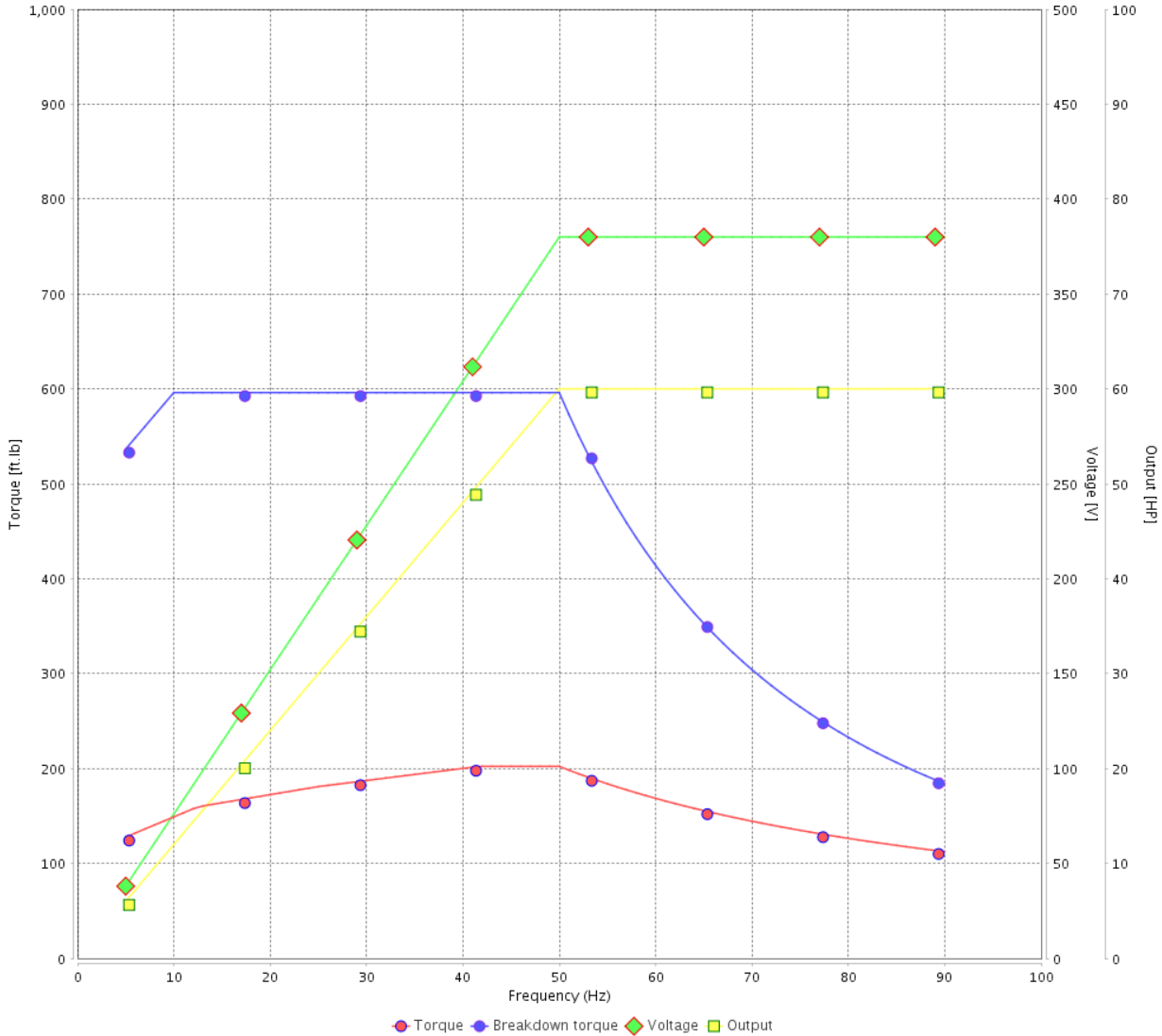
Customer :

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VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current : 83.2 A
 LRC : 7.2
 Rated torque : 213 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 23.3 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

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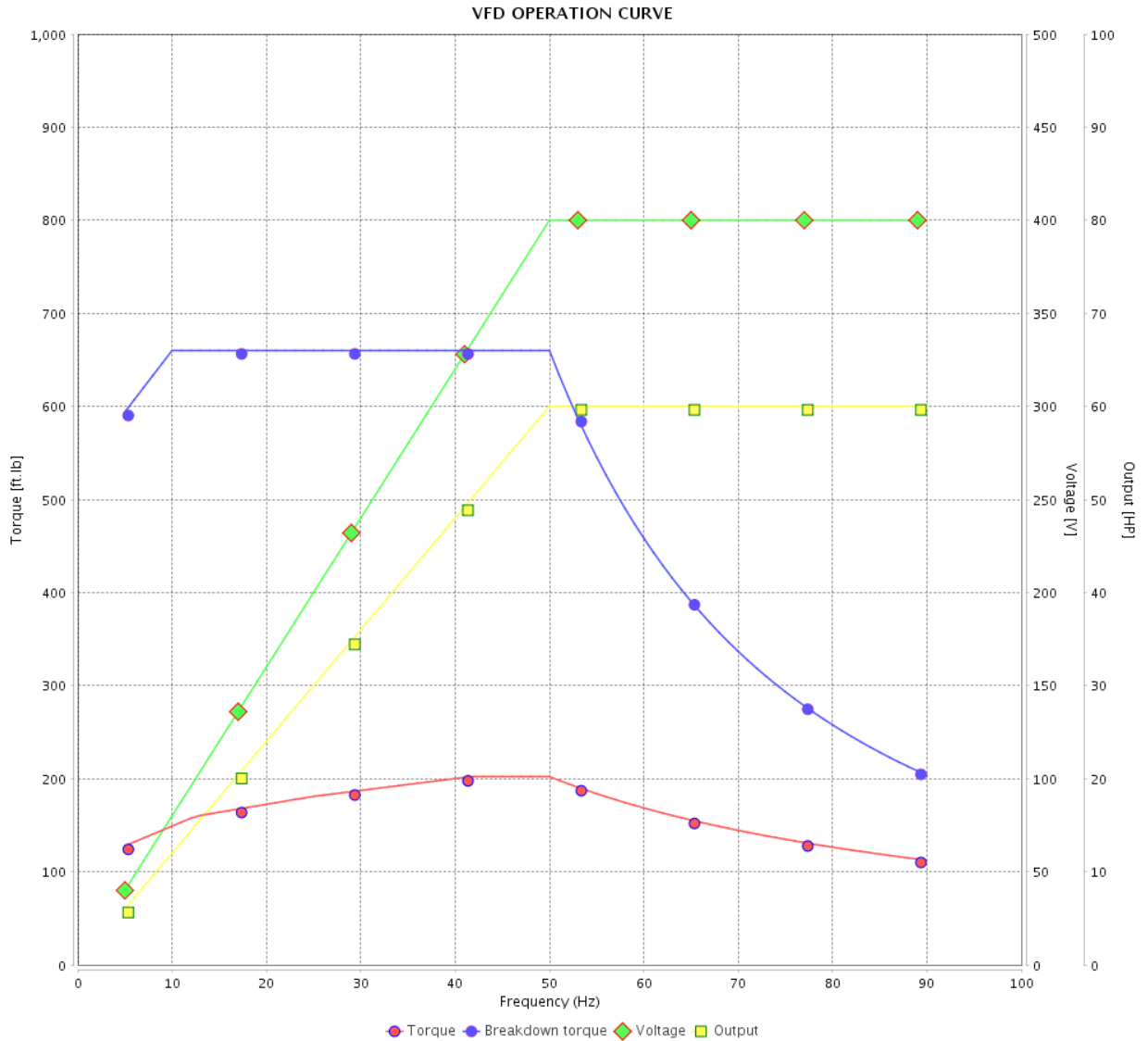


Customer :

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Product code : 12408986

Catalog # : 07518XT3E365TC



Performance : 400 V 50 Hz 4P IE3

Rated current : 79.9 A
 LRC : 7.8
 Rated torque : 213 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 310 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 23.3 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

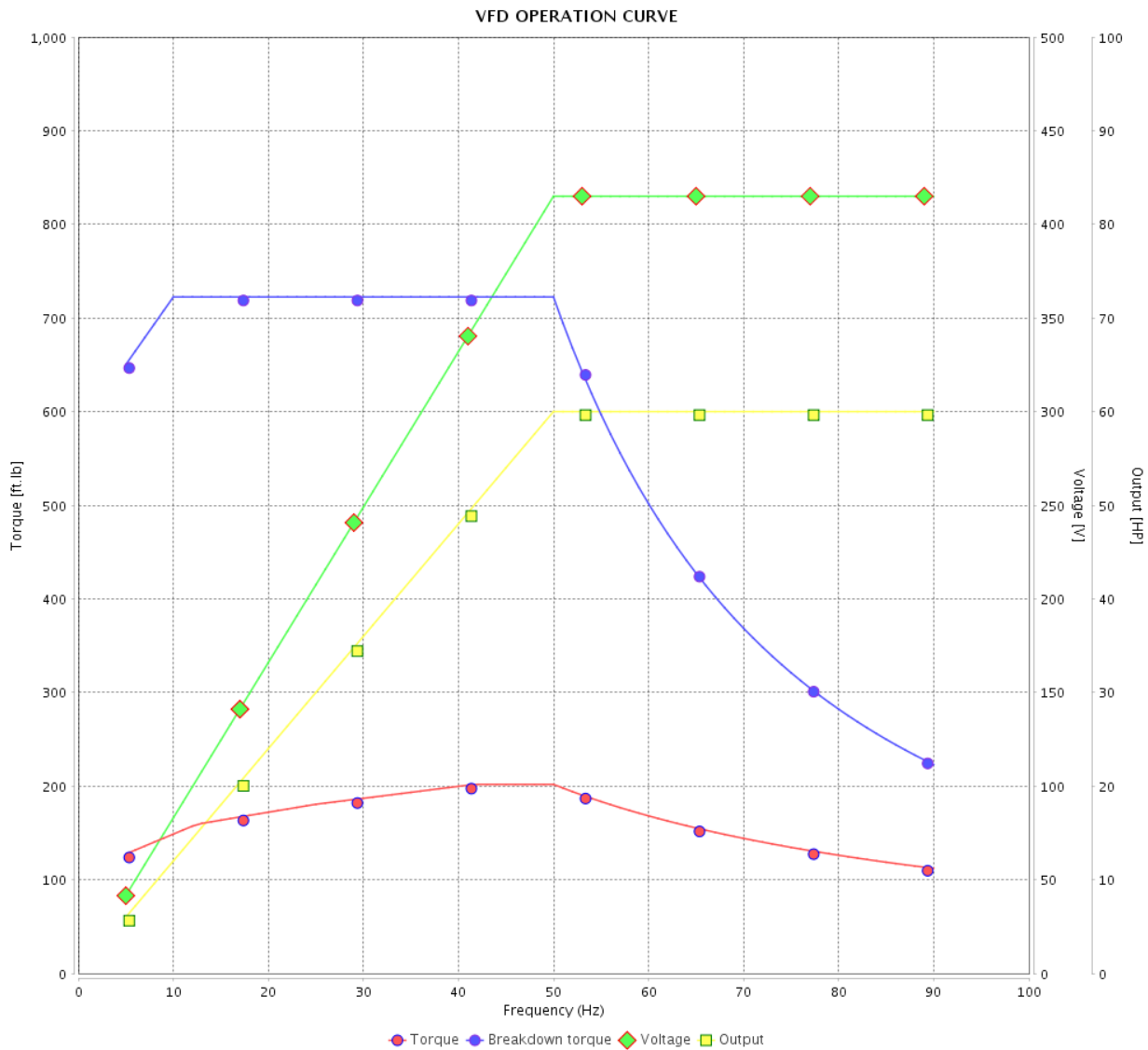


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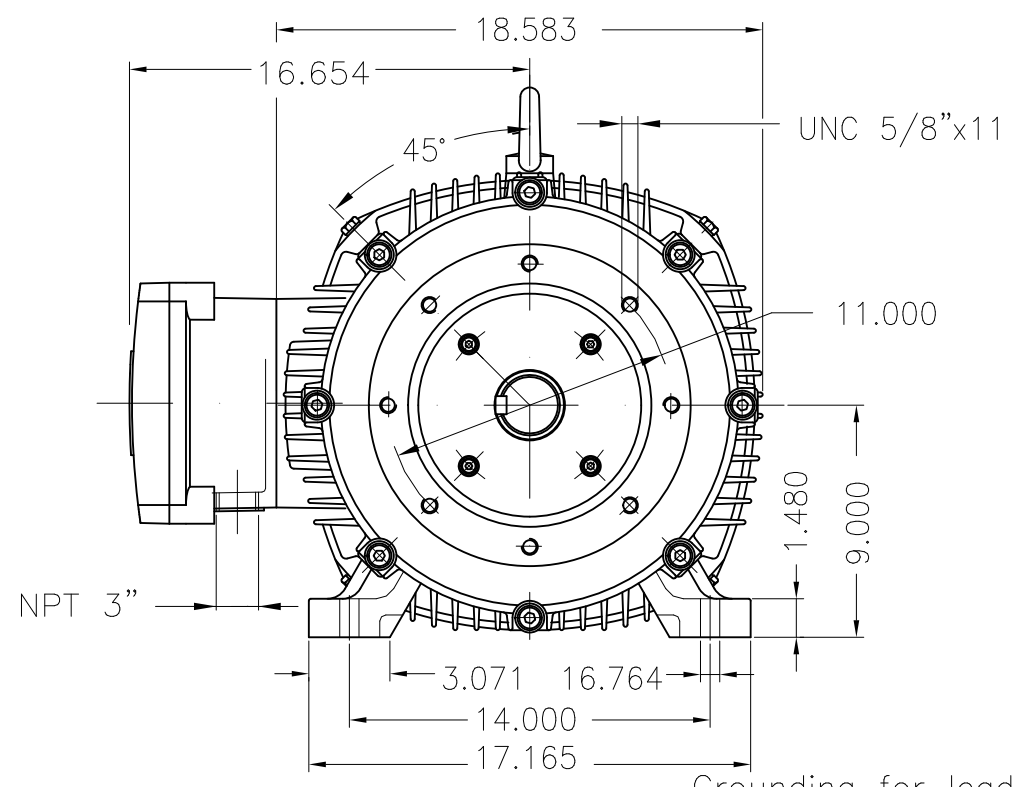
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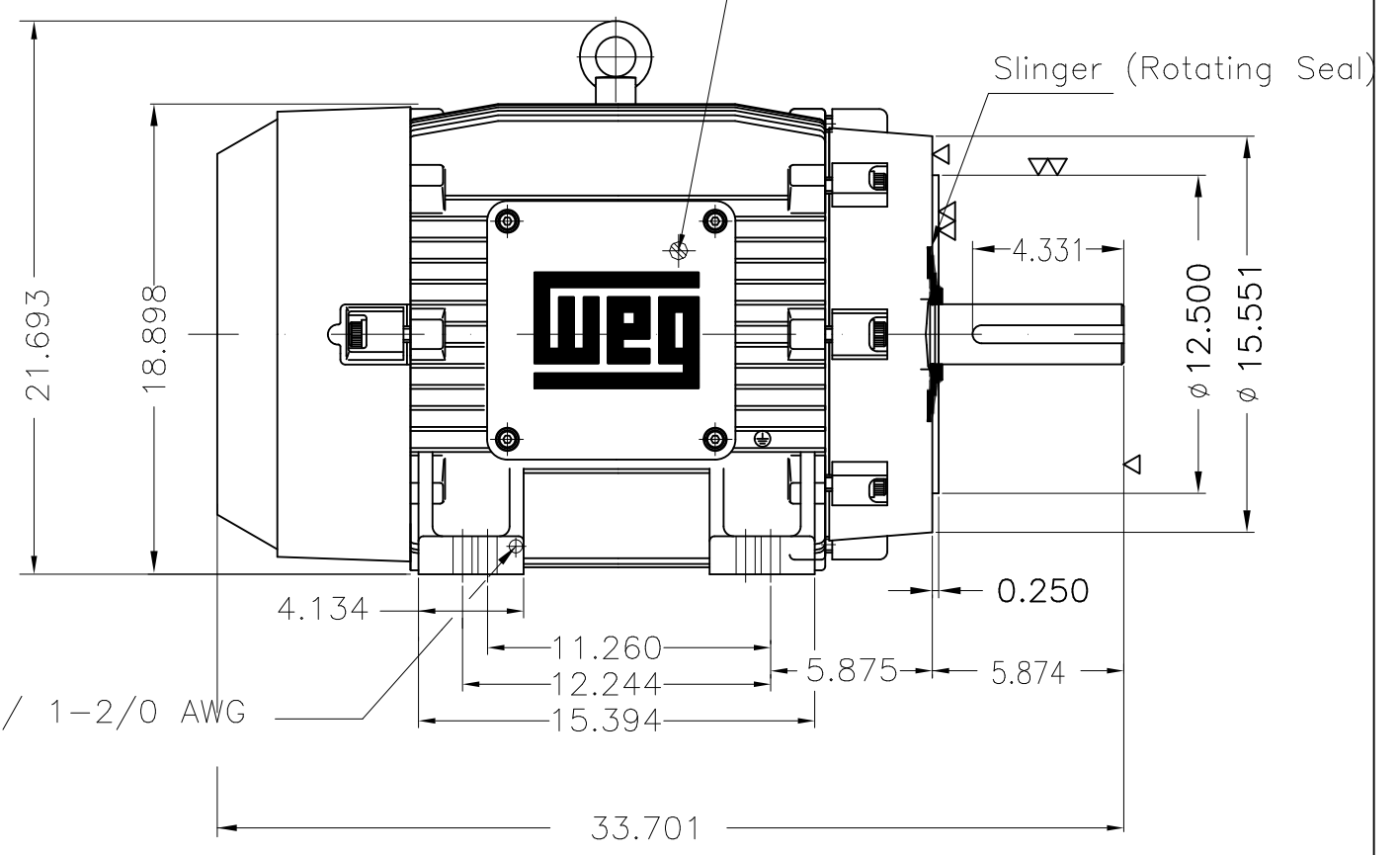
Performance : 415 V 50 Hz 4P IE3

Rated current	: 78.5 A	Moment of inertia (J)	: 23.3 sq.ft.lb
LRC	: 8.5	Duty cycle	: Cont.(S1)
Rated torque	: 212 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1483 rpm	Design	: A

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Date	13/04/2022			

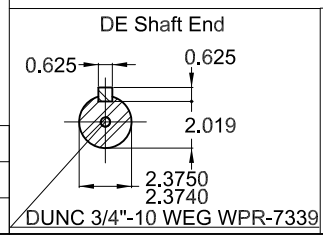


Grounding for leads 25-50 mm² / 3-1 AWG



Grounding for leads 35-70 mm² / 1-2/0 AWG

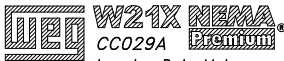
Color RAL 5009
 Painting plan 202P
 Mounting B34R(D)



75 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 364/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

PREVIEW
WDD



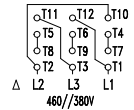
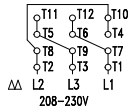
W21X NEMA
CC029A Premium
Inverter Duty Motor
Severe Duty



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 07518XT3E365TC
 MADE IN BRAZIL
 12408986

PH 3	FR 364/5TC	HP(kW) 75.0(55.0)	Hz 60
V 230/460		A 166/83.2	RPM 1782
NEMA NOM. EFF. 95.4%		INS CL F Δ T 80 K	IP55
PF 0.87	DUTY CONT.		CODE H
ENCL. TEFC	SF 1.15	SFA 191/95.7	
AMB 40°C	DES A	USABLE @208V 184 A SF 1.00	
AMB 55°C SF1.0	-bearings lub interval reduced by a factor of 50%		
60HP 45kW 50Hz 380V 83.2A 1480RPM SF1.00 EFF 94.5% (IE3)			



→ 6314-C3(27g) MOBIL POLYREX EM
 → 6314-C3(27g) 9789 h
 ALT 1000 m.a.s.l | 1032 Lbs