

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	11439680		
		Catalog # :	06036XT3E364TS		
Frame	: 364/5TS	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	: 1026 lb		
Protection degree	: IP55	Moment of inertia (J)	: 9.96 sq.ft.lb		
Design	: B				
Output [HP]	60	50	50	50	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	137/68.6	68.7	65.3	63.6	
L. R. Amperes [A]	878/439	419	438	458	
LRC [A]	6.4x(Code G)	6.1x(Code F)	6.7x(Code G)	7.2x(Code H)	
No load current [A]	30.0/15.0	15.0	16.0	17.0	
Rated speed [RPM]	3550	2950	2960	2960	
Slip [%]	1.39	1.67	1.33	1.33	
Rated torque [ft.lb]	88.8	89.0	88.7	88.7	
Locked rotor torque [%]	200	190	210	229	
Breakdown torque [%]	250	240	260	290	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	108s (cold) 60s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	
Noise level ²	85.0 dB(A)	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)	
Efficiency (%)	25%	91.7	91.6	91.7	91.7
	50%	92.4	92.0	92.0	92.0
	75%	93.0	92.8	92.8	92.8
	100%	93.6	93.0	93.0	93.0
Power Factor	25%	0.59	0.59	0.56	0.54
	50%	0.79	0.79	0.77	0.76
	75%	0.86	0.86	0.85	0.85
	100%	0.88	0.88	0.88	0.87
Bearing type	: <u>Drive end</u> 6314 C3 <u>Non drive end</u> 6314 C3	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 368 lb		
Lubrication interval	: 3604 h 3604 h	Max. compression	: 1394 lb		
Lubricant amount	: 27 g 27 g				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 151A SF 1.00 SFA 151A					
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



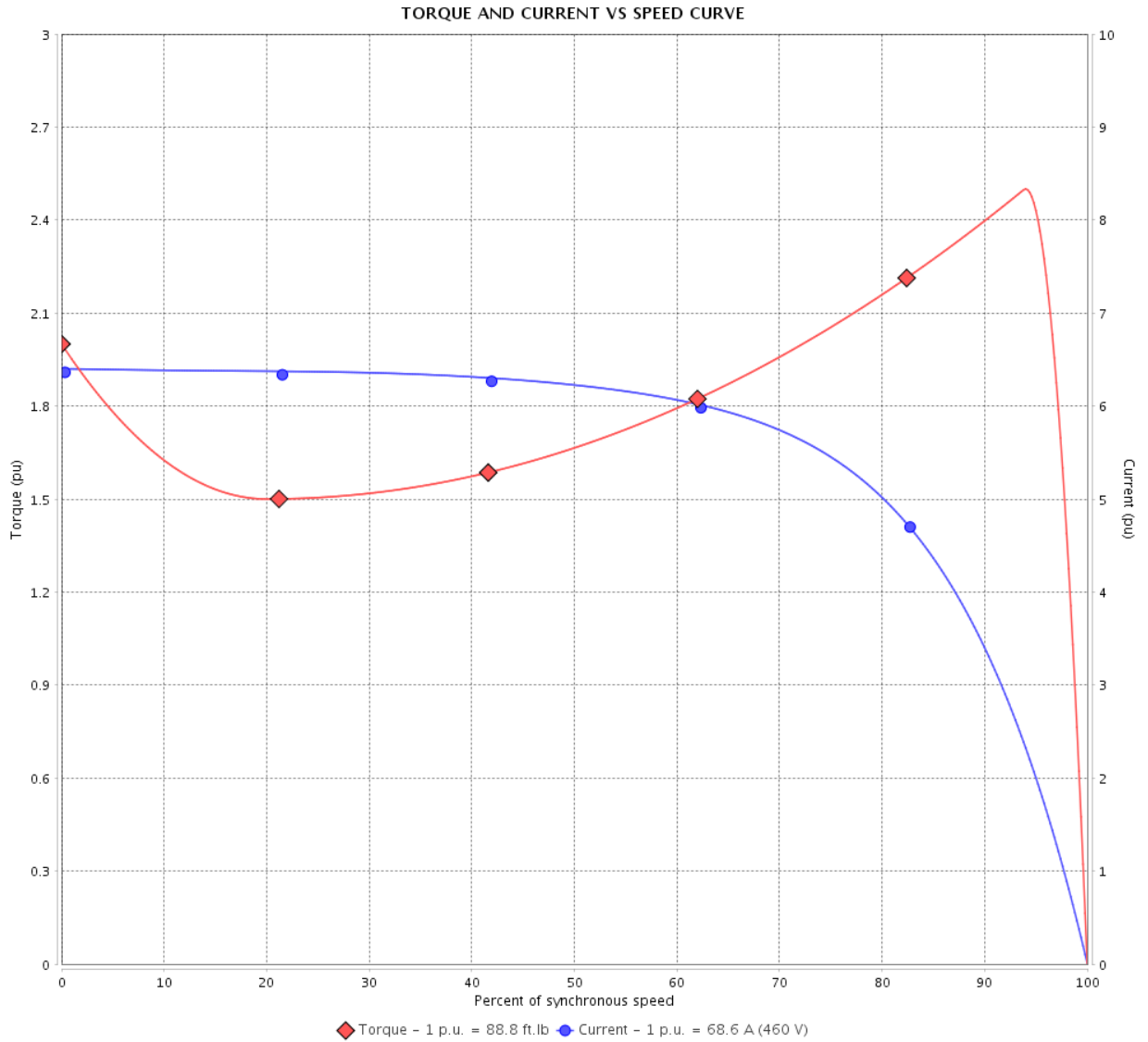
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11439680

Catalog # : 06036XT3E364TS



Performance : 230/460 V 60 Hz 2P

Rated current : 137/68.6 A
 LRC : 6.4
 Rated torque : 88.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 3550 rpm

Moment of inertia (J) : 9.96 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 108s (cold) 60s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



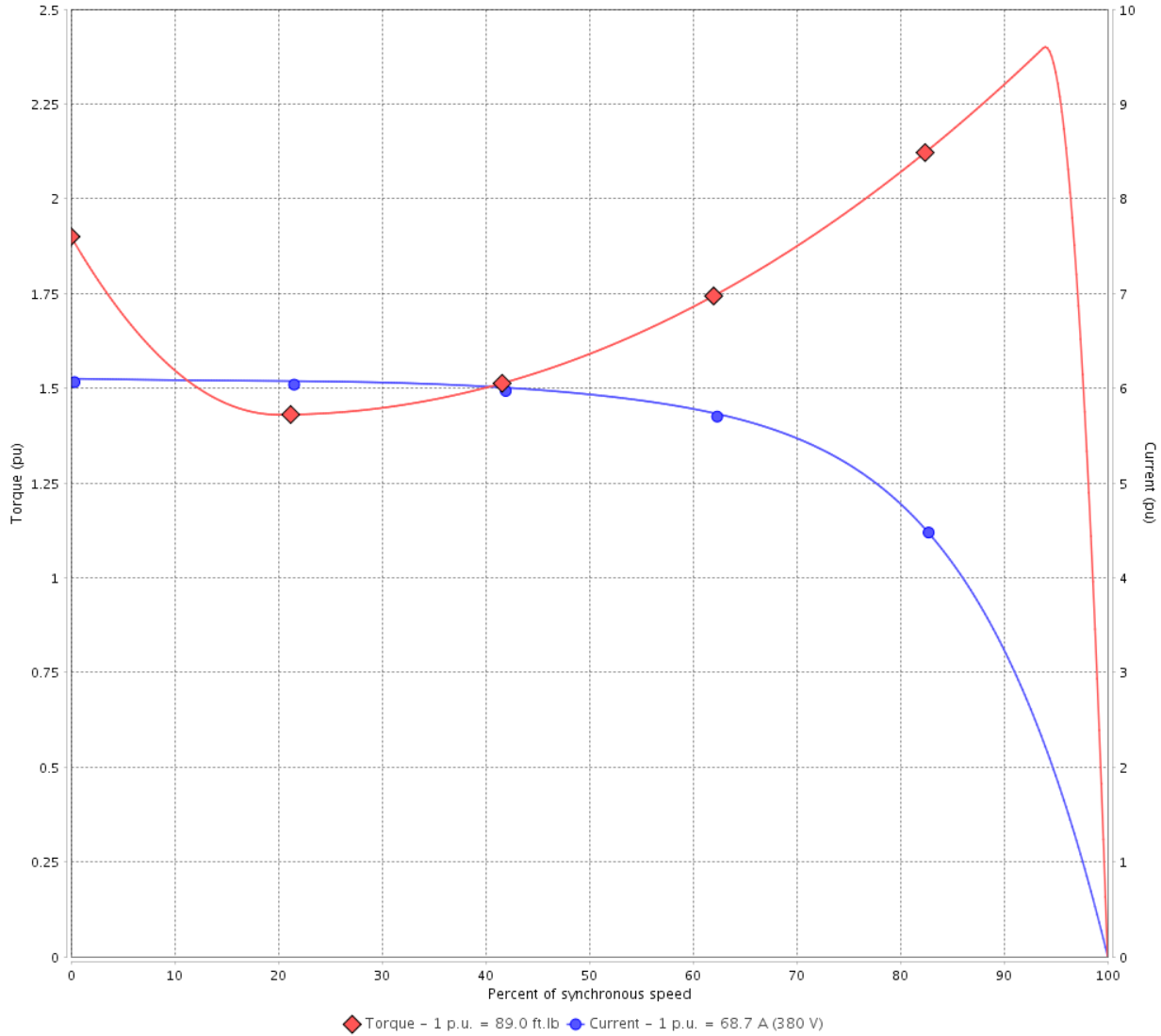
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11439680

Catalog # : 06036XT3E364TS

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current	: 68.7 A	Moment of inertia (J)	: 9.96 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 89.0 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Locked rotor time : 45s (cold) 25s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



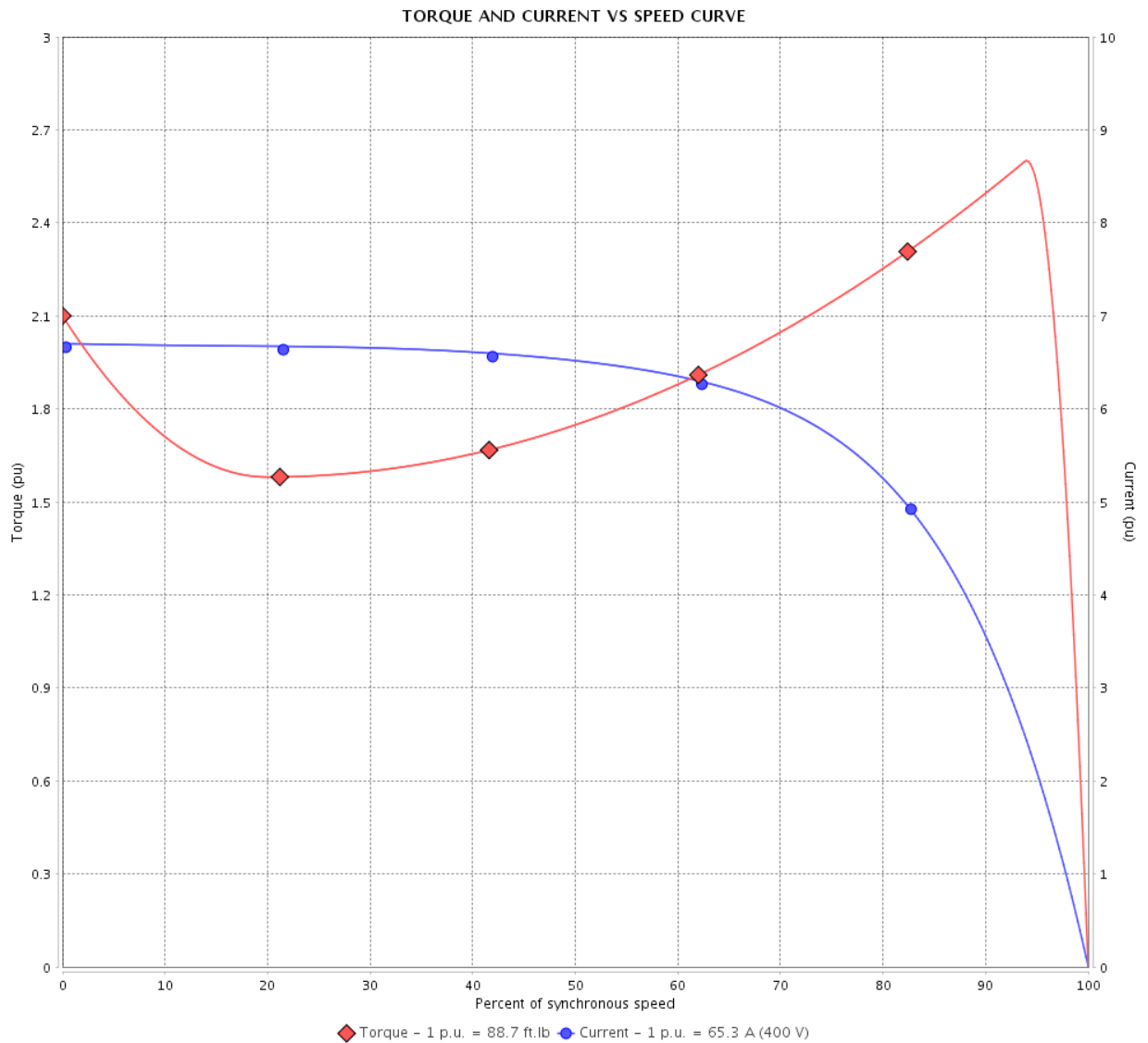
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11439680

Catalog # : 06036XT3E364TS



Performance : 400 V 50 Hz 2P IE2

Rated current	: 65.3 A	Moment of inertia (J)	: 9.96 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 88.7 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 45s (cold) 25s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



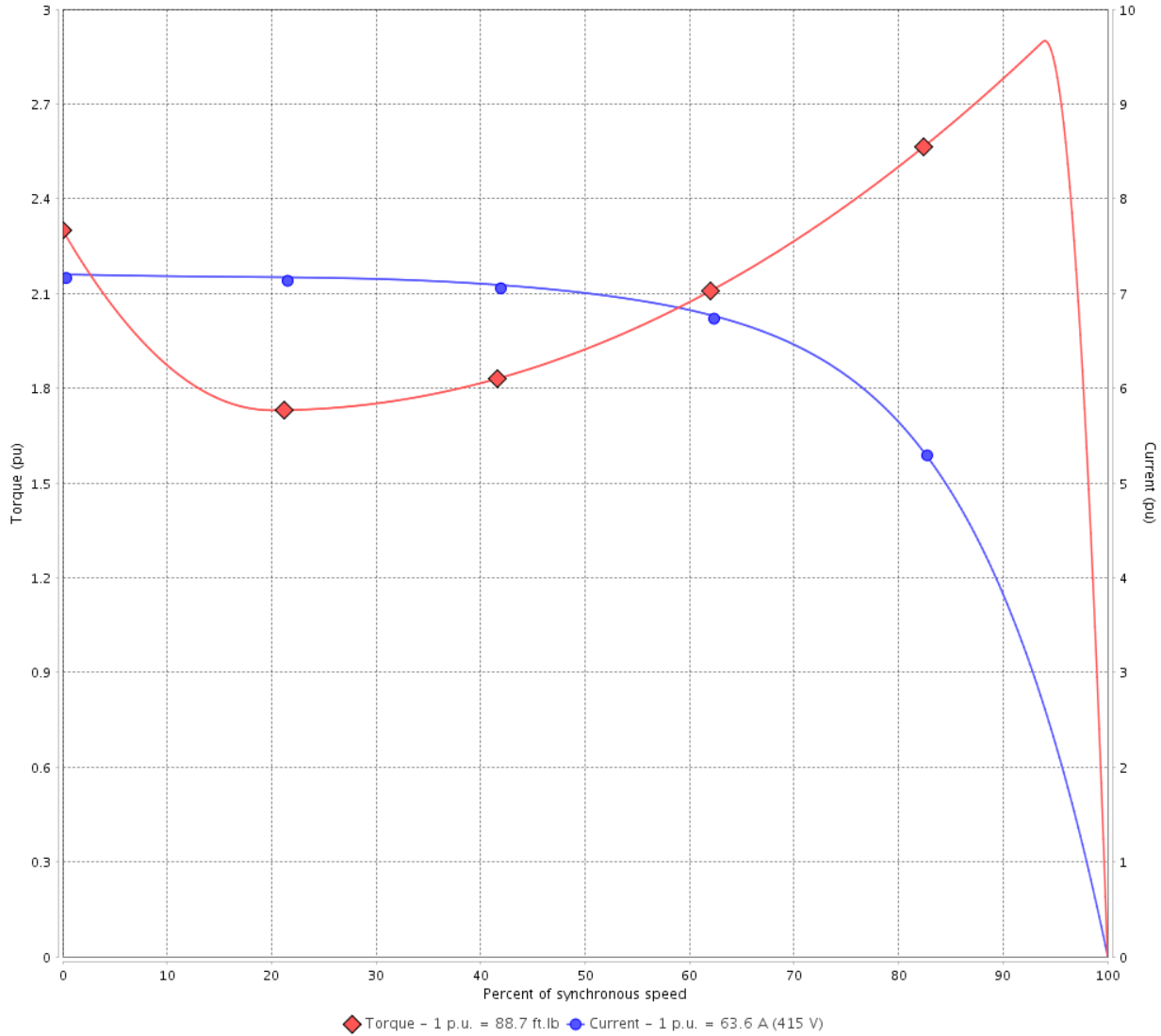
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Product code : 11439680

Catalog # : 06036XT3E364TS

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE2

Rated current	: 63.6 A	Moment of inertia (J)	: 9.96 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 88.7 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 45s (cold) 25s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

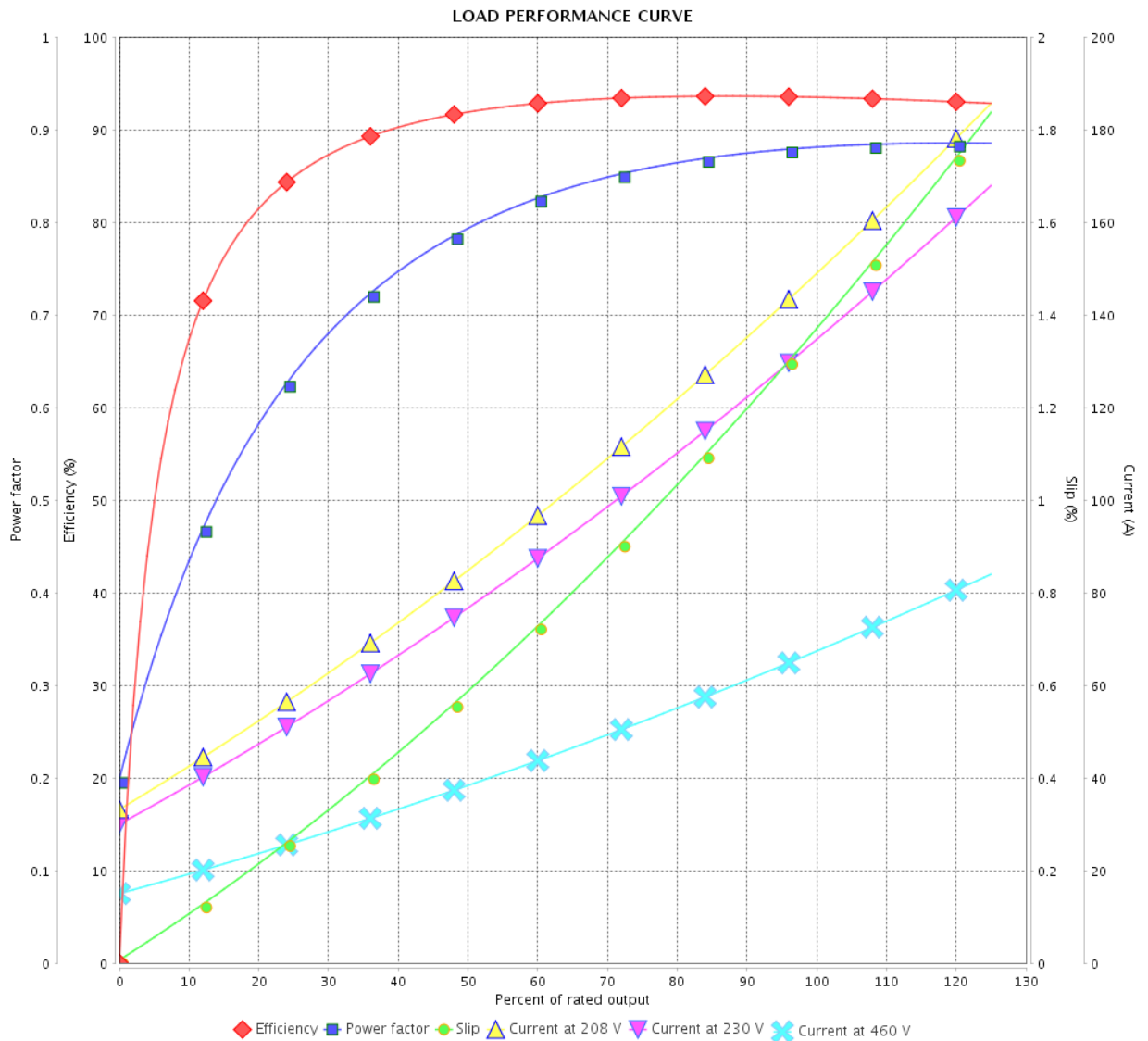


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11439680

Catalog # : 06036XT3E364TS



Performance : 230/460 V 60 Hz 2P

Rated current : 137/68.6 A
 LRC : 6.4
 Rated torque : 88.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 3550 rpm

Moment of inertia (J) : 9.96 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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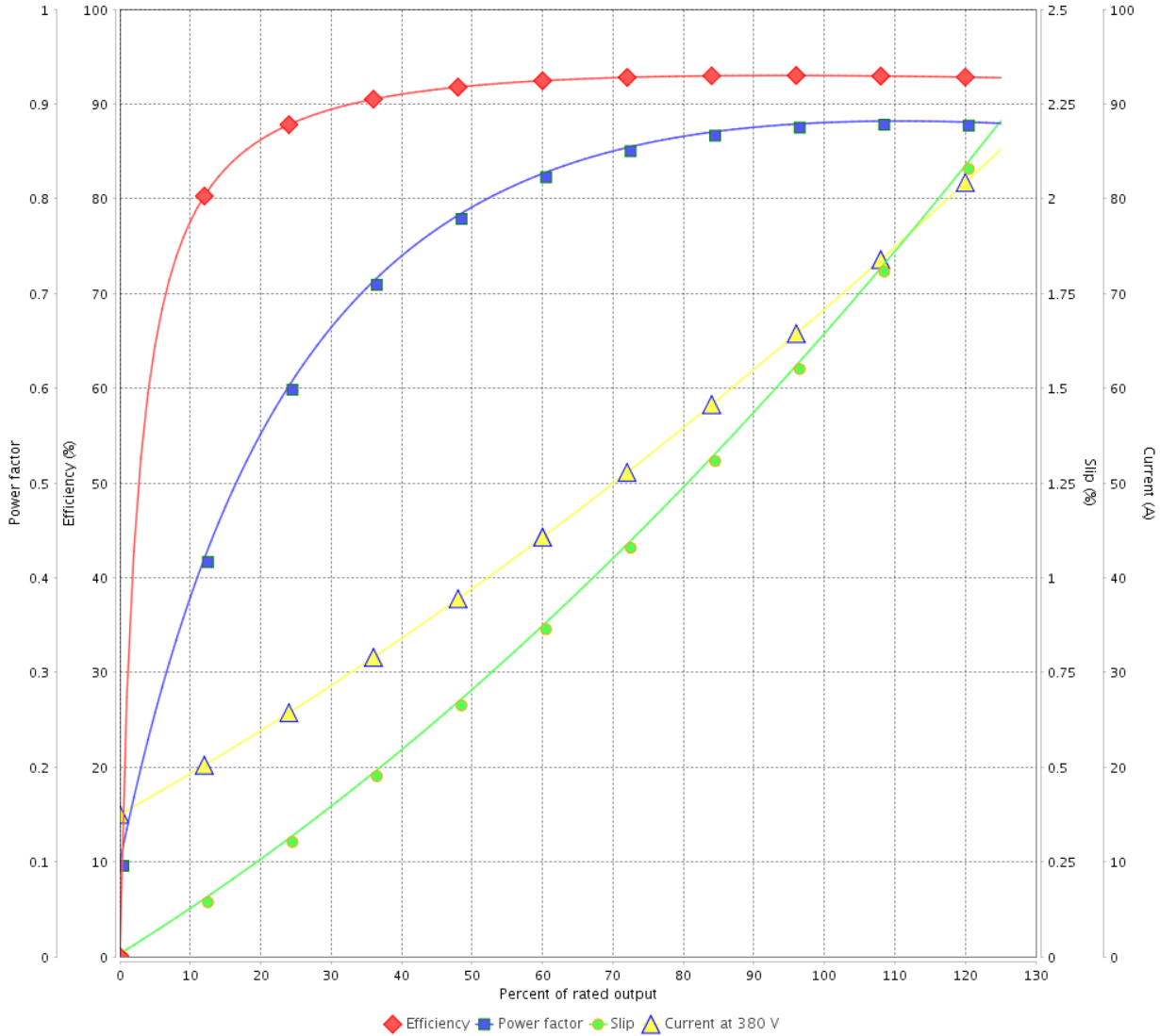
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Performance : 380 V 50 Hz 2P IE2

Rated current : 68.7 A
 LRC : 6.1
 Rated torque : 89.0 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 9.96 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

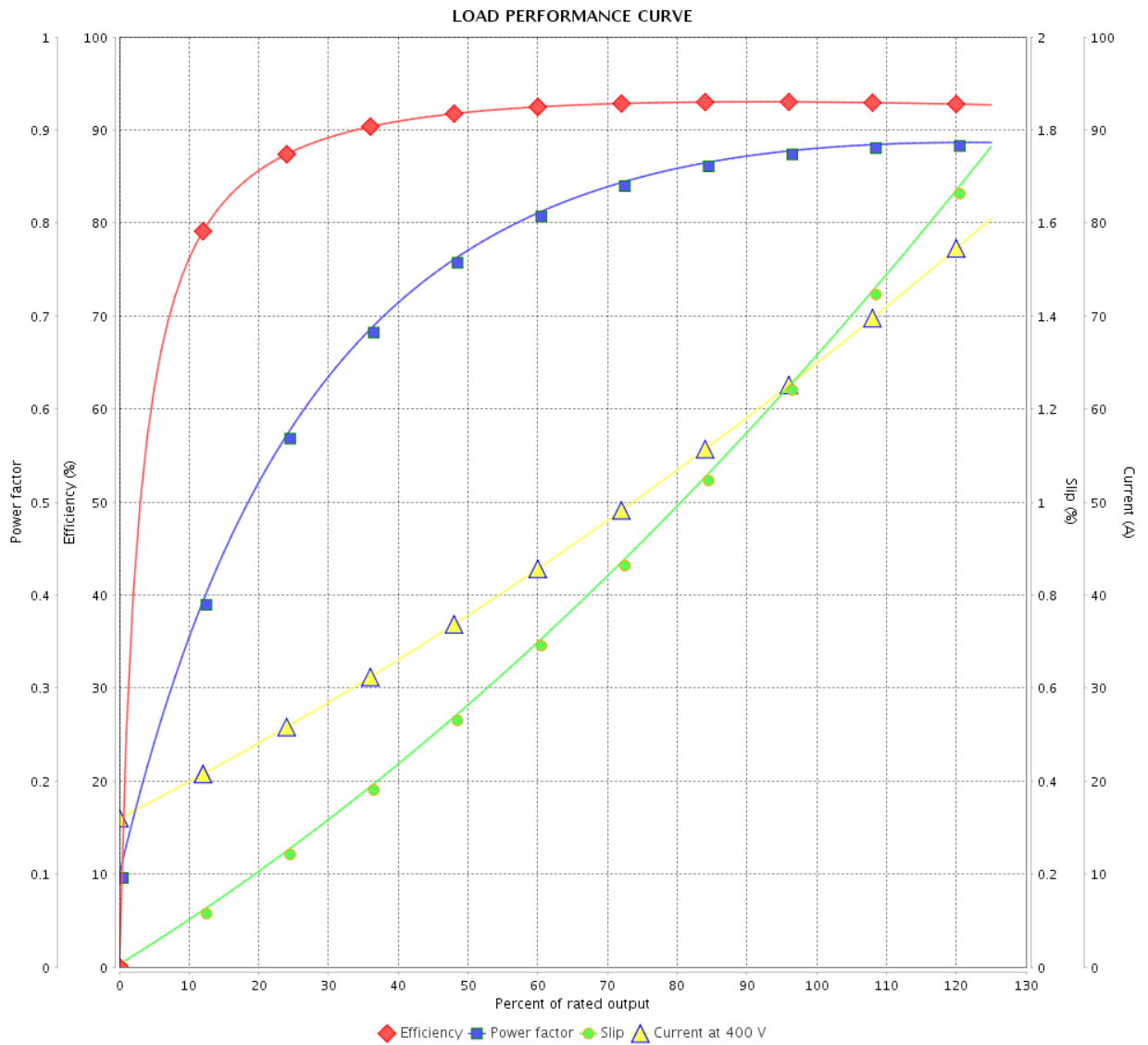


Customer : _____

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Catalog # : 06036XT3E364TS



Performance : 400 V 50 Hz 2P IE2

Rated current : 65.3 A
 LRC : 6.7
 Rated torque : 88.7 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 260 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 9.96 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



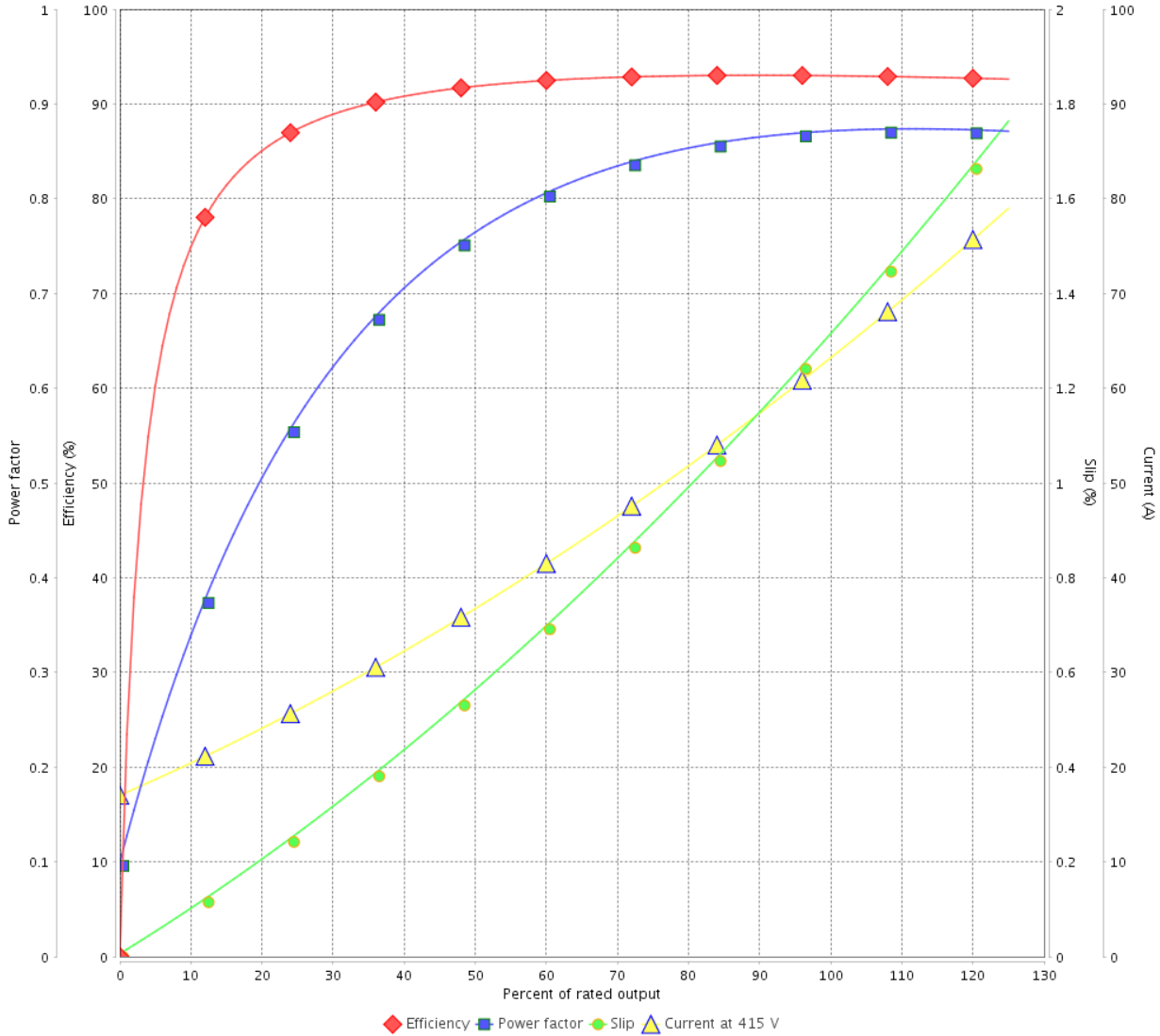
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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Rated torque	: 88.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 3550 rpm	Design	: B

Heating constant

Cooling constant

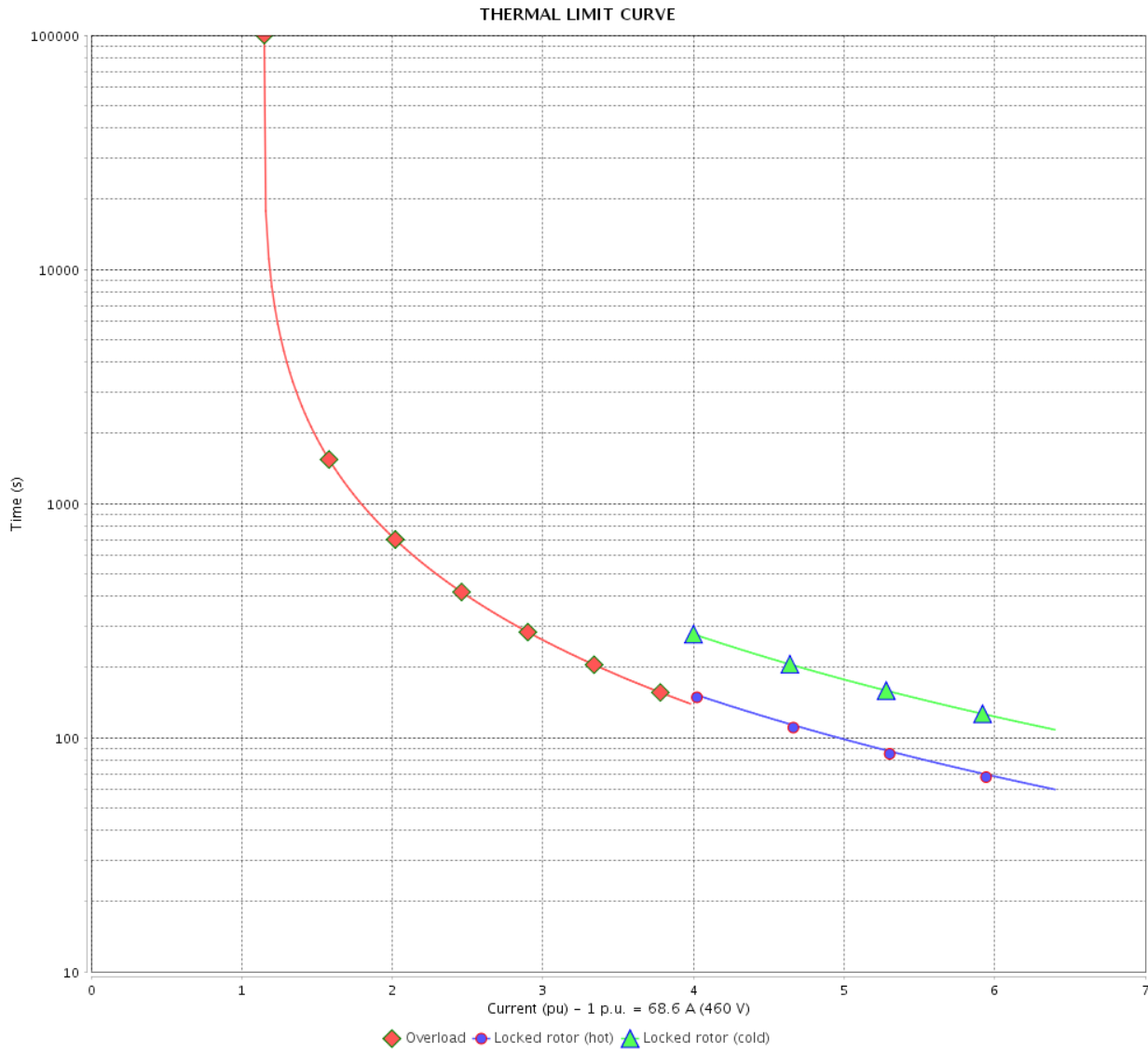
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 89.0 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2950 rpm	Design	: B

Heating constant

Cooling constant

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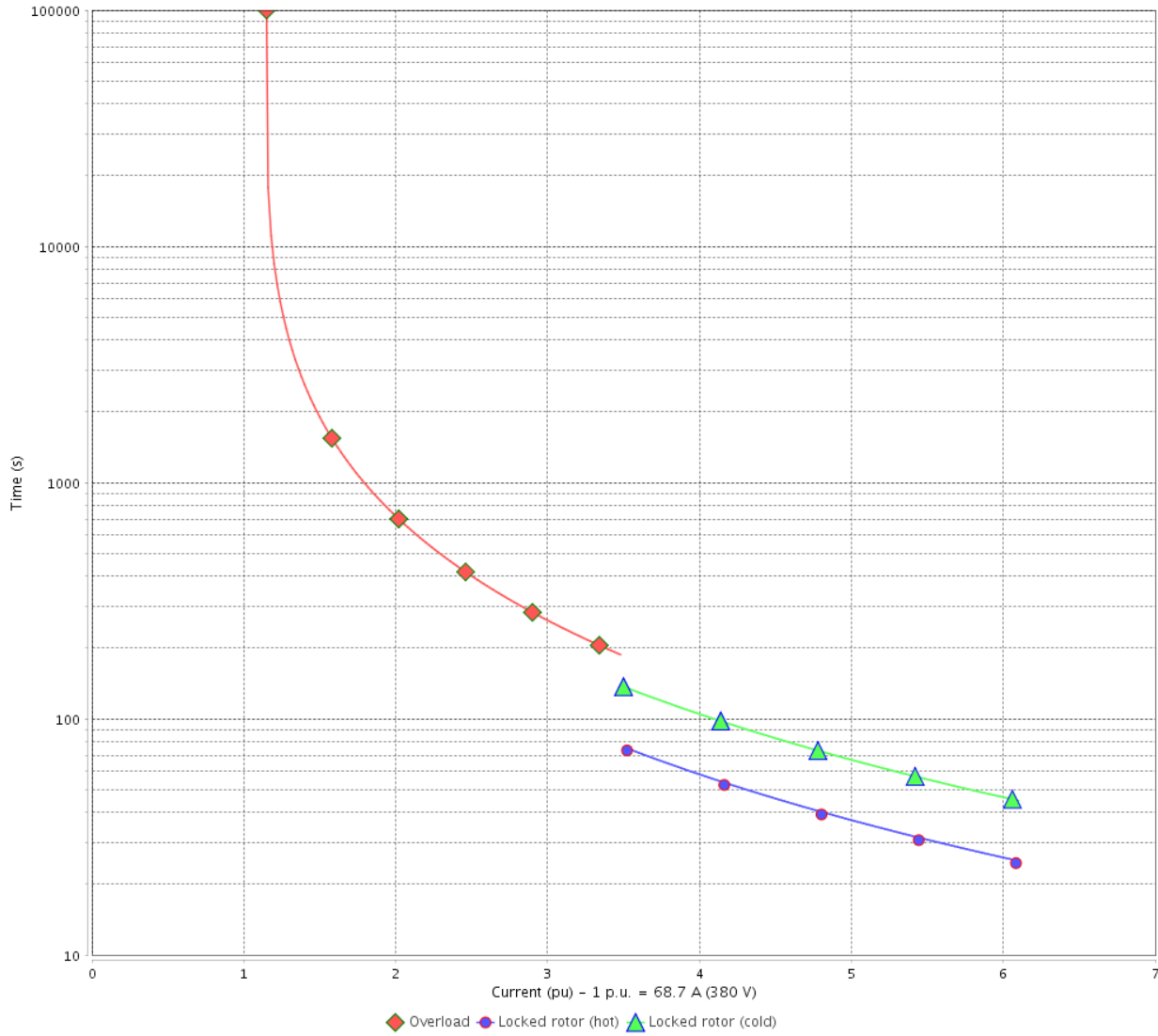
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 Product code : 11439680
 Catalog # : 06036XT3E364TS

Performance : 400 V 50 Hz 2P IE2

Rated current : 65.3 A	Moment of inertia (J) : 9.96 sq.ft.lb
LRC : 6.7	Duty cycle : Cont.(S1)
Rated torque : 88.7 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 2960 rpm	Design : B

Heating constant

Cooling constant

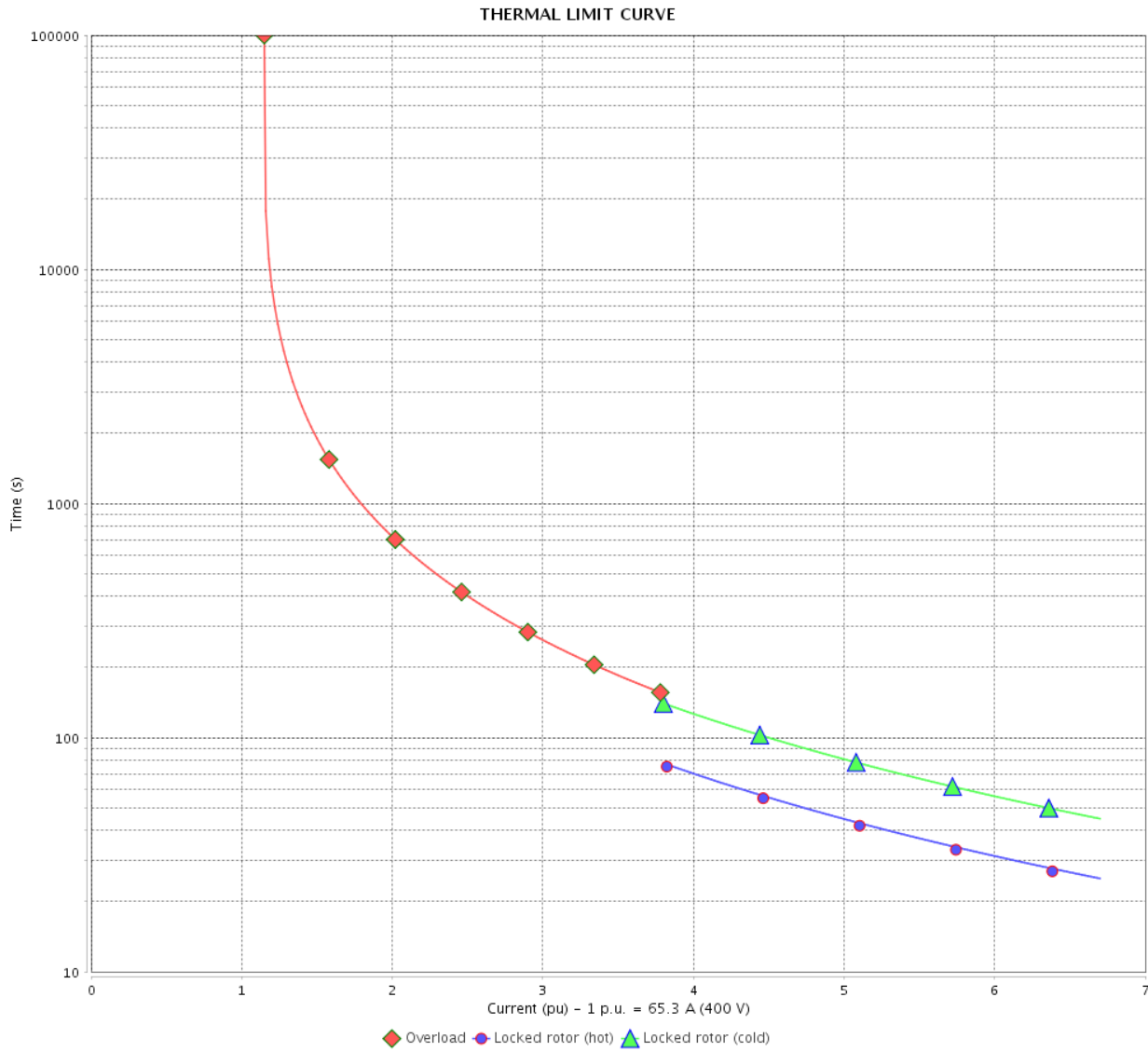
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Three Phase Induction Motor - Squirrel Cage



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Three Phase Induction Motor - Squirrel Cage

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 Product code : 11439680
 Catalog # : 06036XT3E364TS

Performance : 415 V 50 Hz 2P IE2

Rated current : 63.6 A	Moment of inertia (J) : 9.96 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 88.7 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 2960 rpm	Design : B

Heating constant

Cooling constant

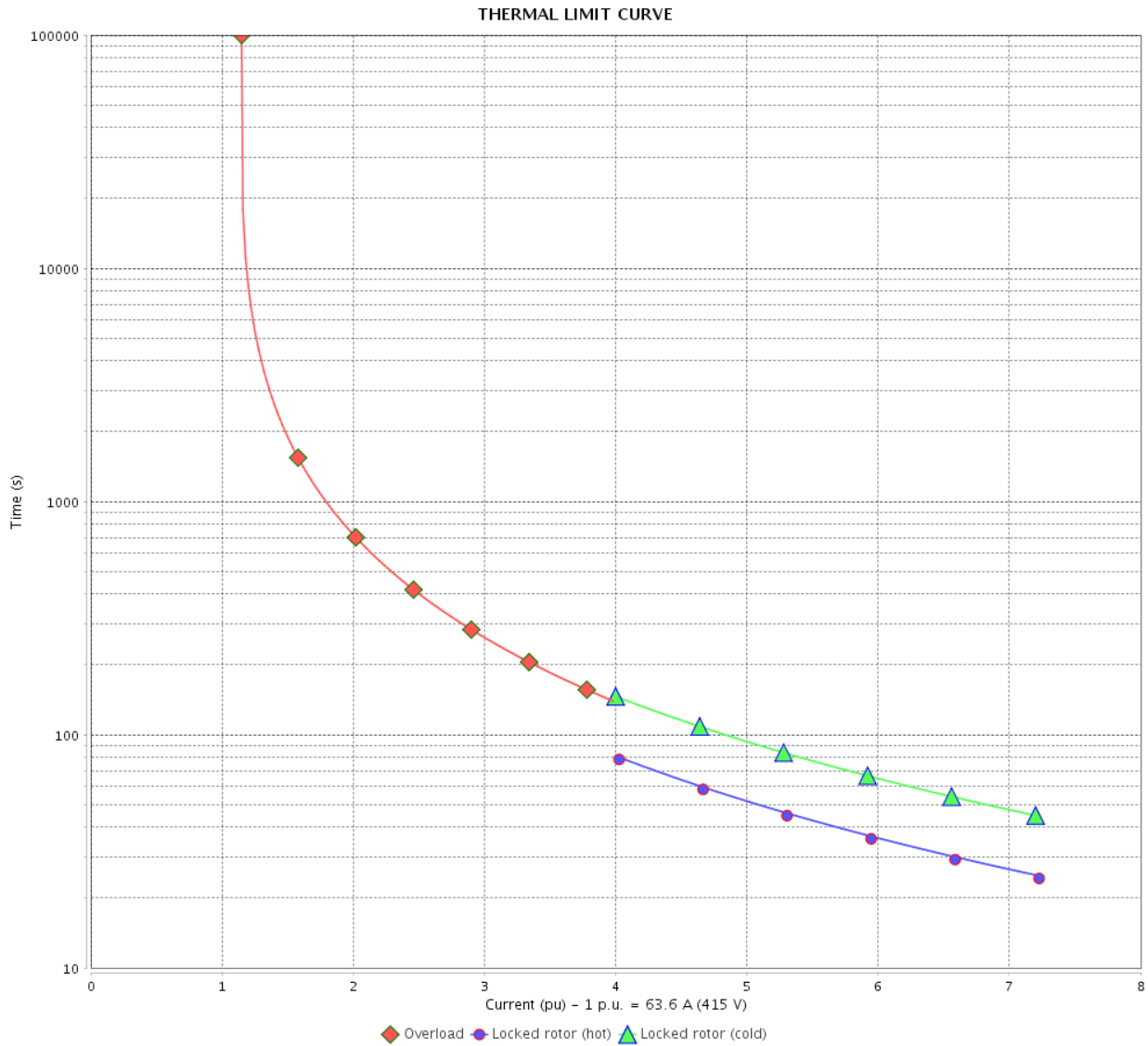
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

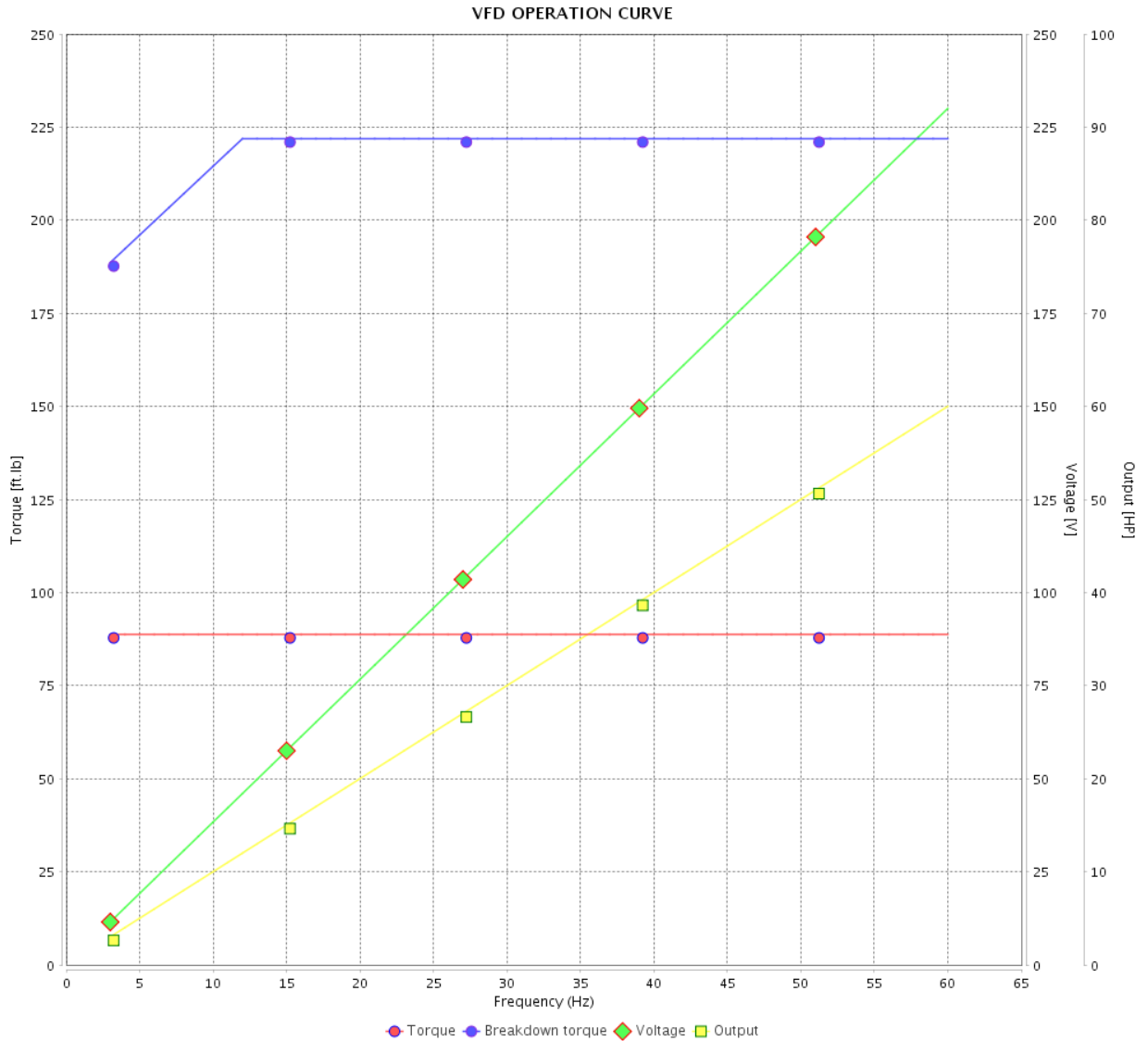


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11439680

Catalog # : 06036XT3E364TS



Performance : 230/460 V 60 Hz 2P

Rated current : 137/68.6 A
 LRC : 6.4
 Rated torque : 88.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 3550 rpm

Moment of inertia (J) : 9.96 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



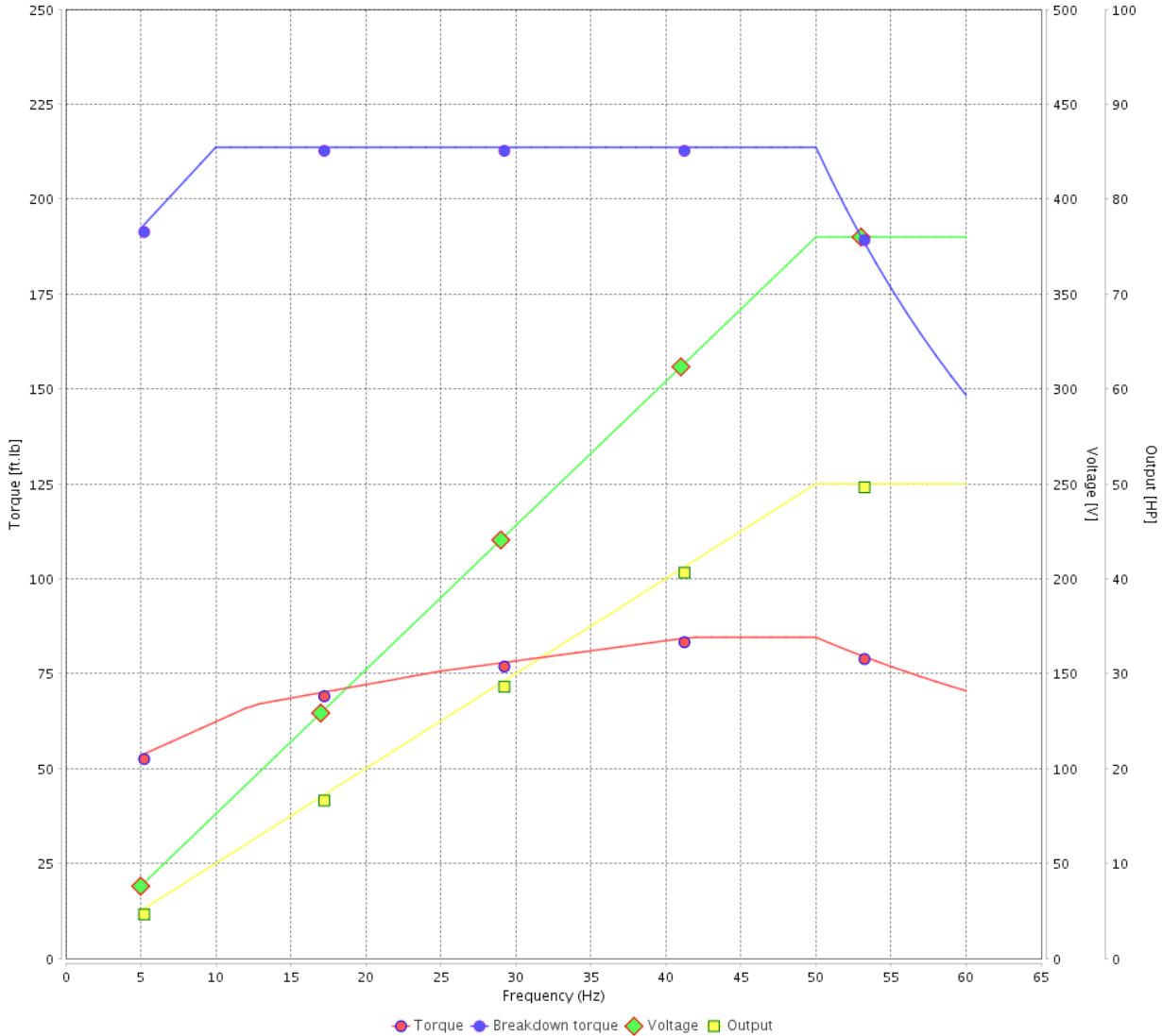
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Catalog # : 06036XT3E364TS

VFD OPERATION CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current : 68.7 A
 LRC : 6.1
 Rated torque : 89.0 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 9.96 sq.ft.lb
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

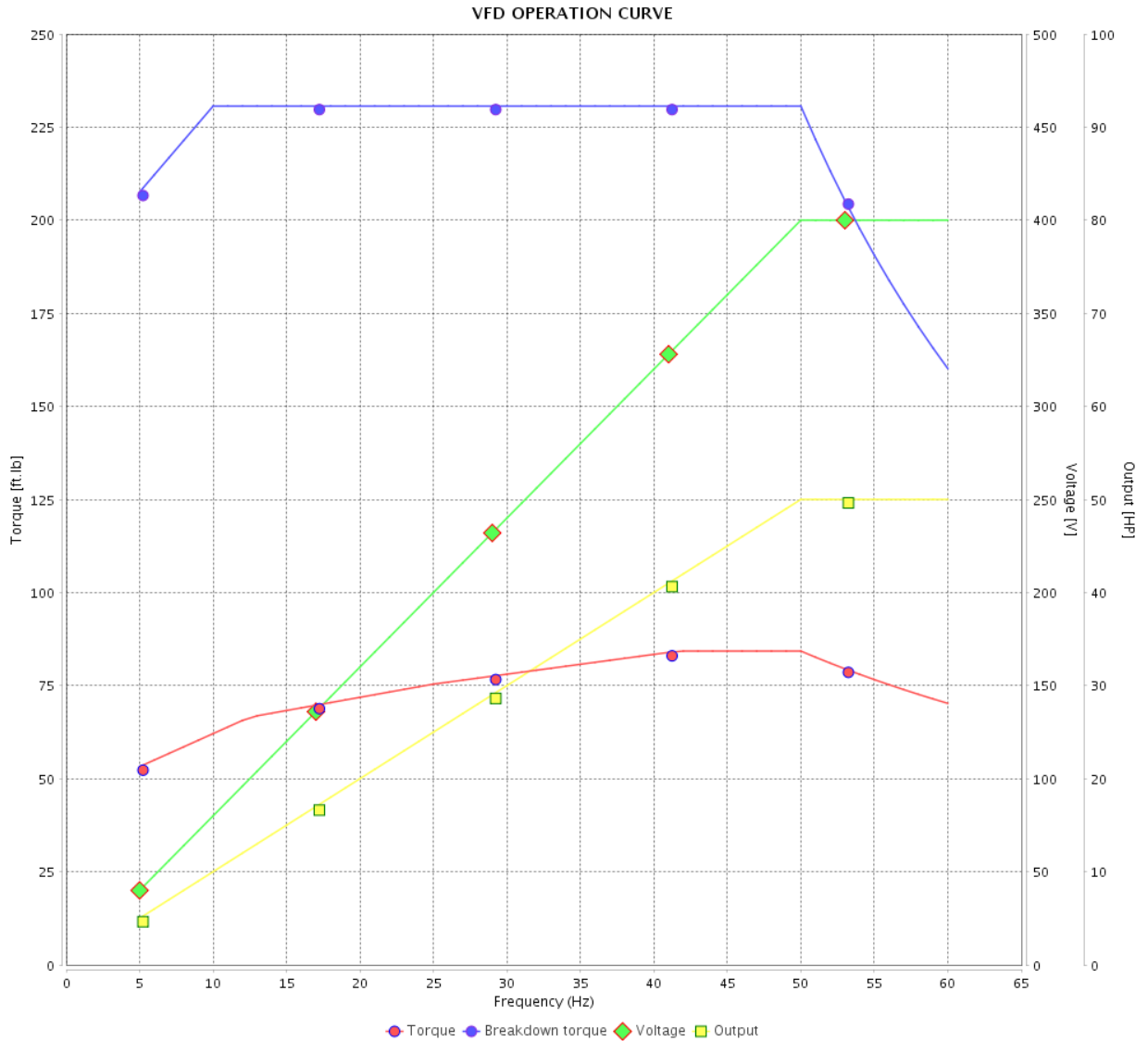


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 11439680

Catalog # : 06036XT3E364TS



Performance : 400 V 50 Hz 2P IE2

Rated current : 65.3 A
 LRC : 6.7
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 Breakdown torque : 260 %
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Moment of inertia (J) : 9.96 sq.ft.lb
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



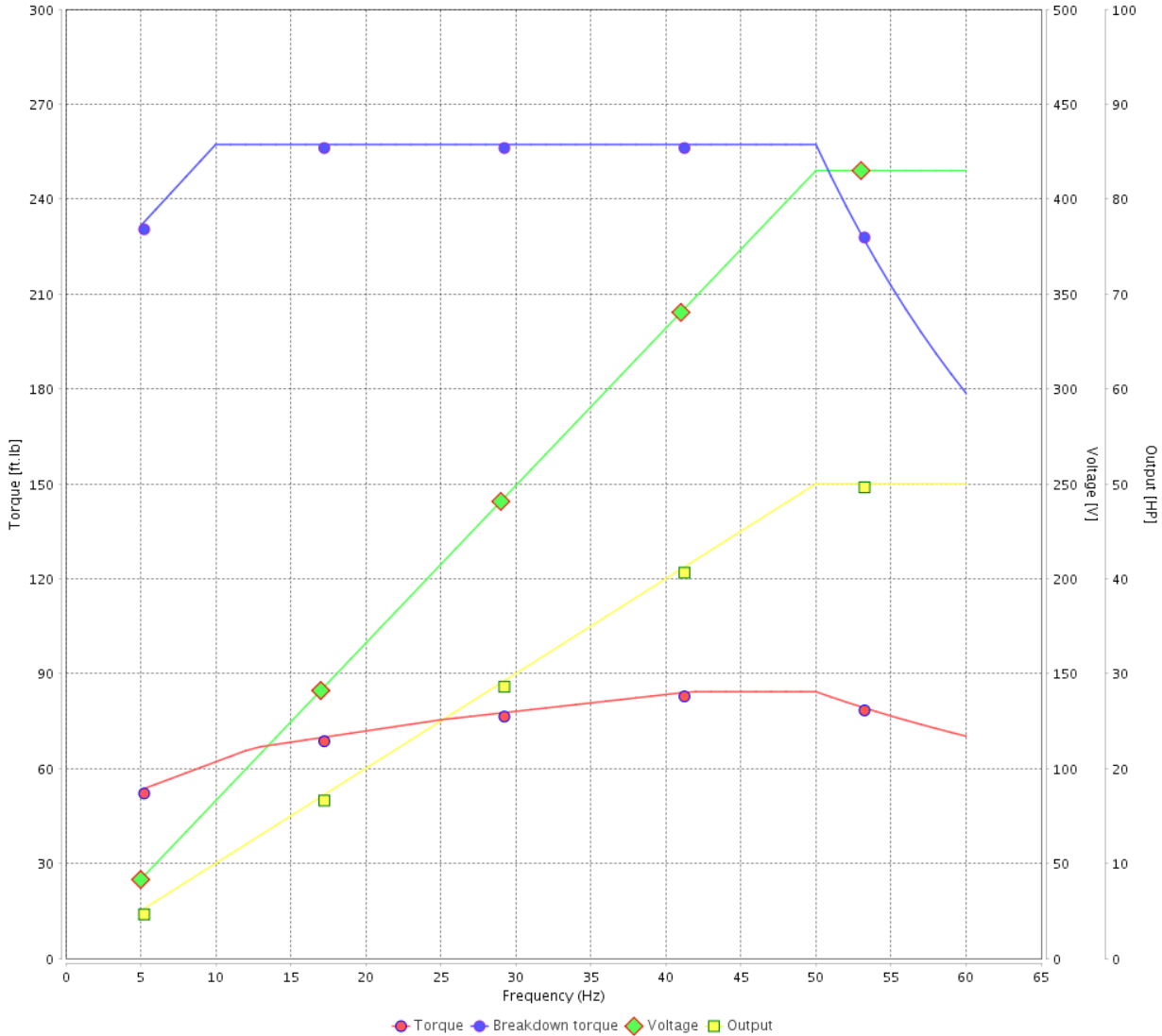
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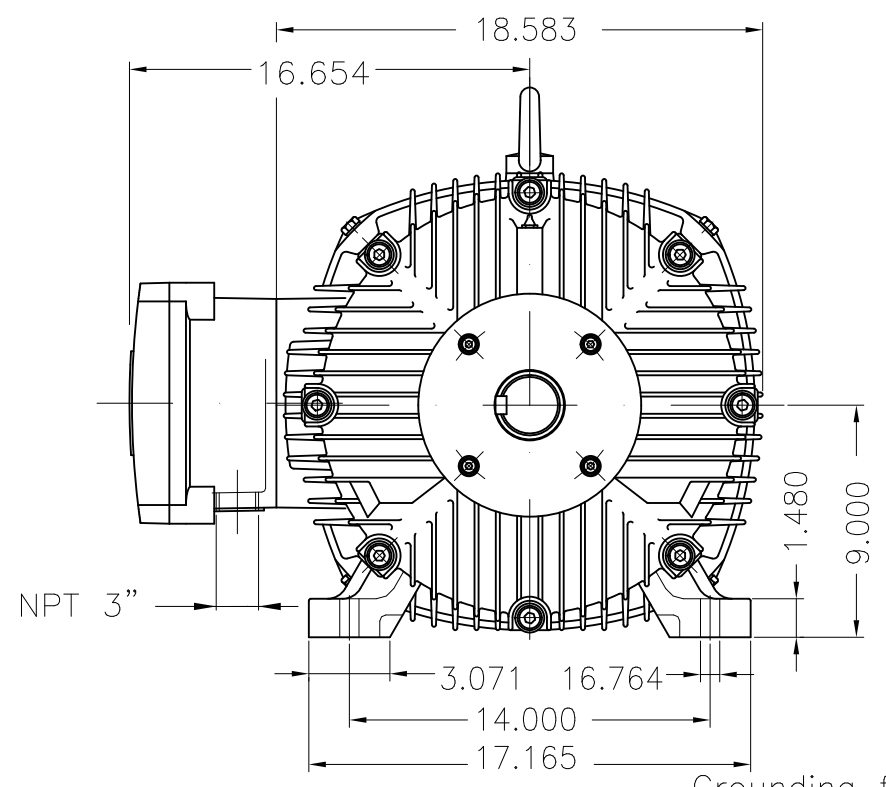


Performance : 415 V 50 Hz 2P IE2

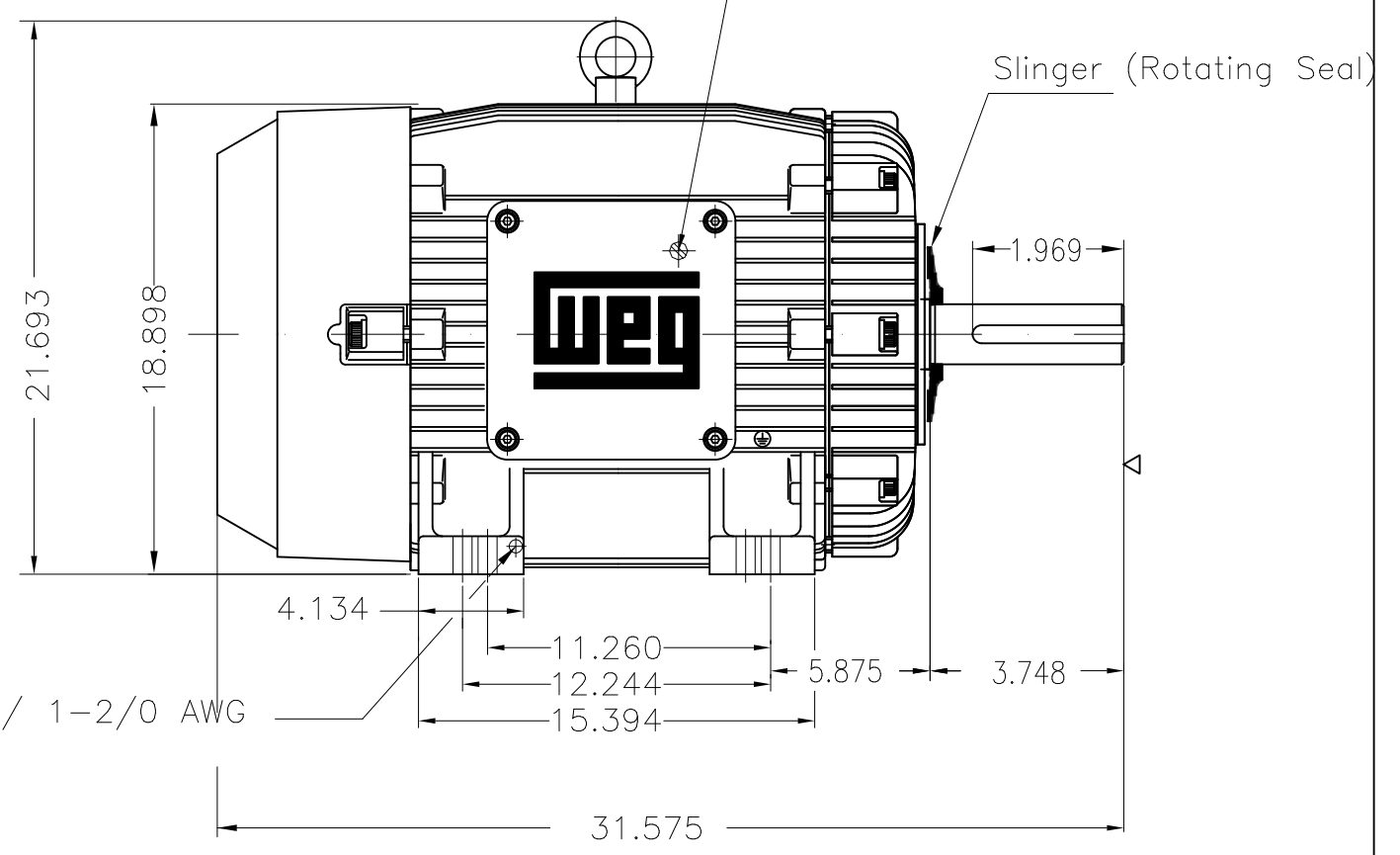
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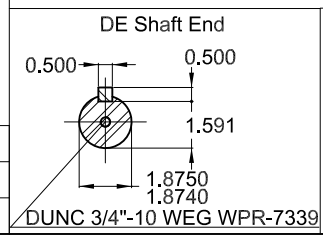


Grounding for leads 25-50 mm² / 3-1 AWG



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

60 HP 02 Poles 60 Hz A



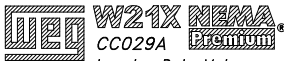
Color RAL 5009
Painting plan 202P
Mounting B3R(D)

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

PREVIEW
WDD



SHEET 1 / 1



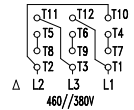
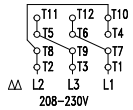
W21X NEMA
CC029A Premium
Inverter Duty Motor
Severe Duty



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 06036XT3E364TS
 MADE IN BRAZIL
 11439680

PH 3	FR 364/5TS	HP(kW) 60.0(45.0)	Hz 60
V 230/460	A 137/68.6	RPM 3550	
NEMA NOM. EFF. 93.6%	INS CL F	ΔT 80 K	IP55
PF 0.88	DUTY CONT.	CODE G	
ENCL. TEFC	SF 1.15	SFA 158/78.9	
AMB 40°C	DES B	USABLE @208V 151 A SF 1.00	
AMB 55°C SF1.0	-bearings lub interval reduced by a factor of 50%		
50HP 37kW 50Hz 380V 68.7A 2950RPM SF1.00 EFF 93.0% (IE2)			



→ 6314-C3(27g) MOBIL POLYREX EM
 → 6314-C3(27g) 3604 h
 ALT 1000 m.a.s.l | 1027 Lbs