

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase		Product code : 14407505	
				Catalog # : 03012XT3E326T	
Frame : 326T		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 : 649 lb			
Protection degree : IP55		Moment of inertia (J) : 12.5 sq.ft.lb			
Design : B					
Output [HP]	30	30	30	30	30
Poles	6	6	6	6	6
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	73.4/36.7	43.7	42.2	40.9	40.9
L. R. Amperes [A]	521/261	249	266	274	274
LRC [A]	7.1x(Code H)	5.7x(Code F)	6.3x(Code G)	6.7x(Code H)	6.7x(Code H)
No load current [A]	34.0/17.0	17.3	18.6	19.7	19.7
Rated speed [RPM]	1180	975	975	980	980
Slip [%]	1.67	2.50	2.50	2.00	2.00
Rated torque [ft.lb]	134	162	162	161	161
Locked rotor torque [%]	240	180	200	229	229
Breakdown torque [%]	270	210	229	250	250
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)	45s (cold) 25s (hot)
Noise level ²	62.0 dB(A)	58.0 dB(A)	58.0 dB(A)	58.0 dB(A)	58.0 dB(A)
Efficiency (%)	25%	92.2	93.5	92.8	91.5
	50%	92.4	92.4	92.4	91.7
	75%	93.0	92.4	92.4	92.4
	100%	93.0	91.0	91.7	92.4
Power Factor	25%	0.38	0.44	0.41	0.38
	50%	0.63	0.70	0.67	0.63
	75%	0.75	0.80	0.77	0.75
	100%	0.81	0.84	0.82	0.81
Bearing type		Drive end : 6312 C3	Non drive end : 6212 C3	Foundation loads	
Sealing		: Oil Seal	: Lip Seal	Max. traction : 1218 lb	
Lubrication interval		: 20000 h	: 20000 h	Max. compression : 1867 lb	
Lubricant amount		: 21 g	: 13 g		
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 81.2A SF 1.15 SFA 93.3A					
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



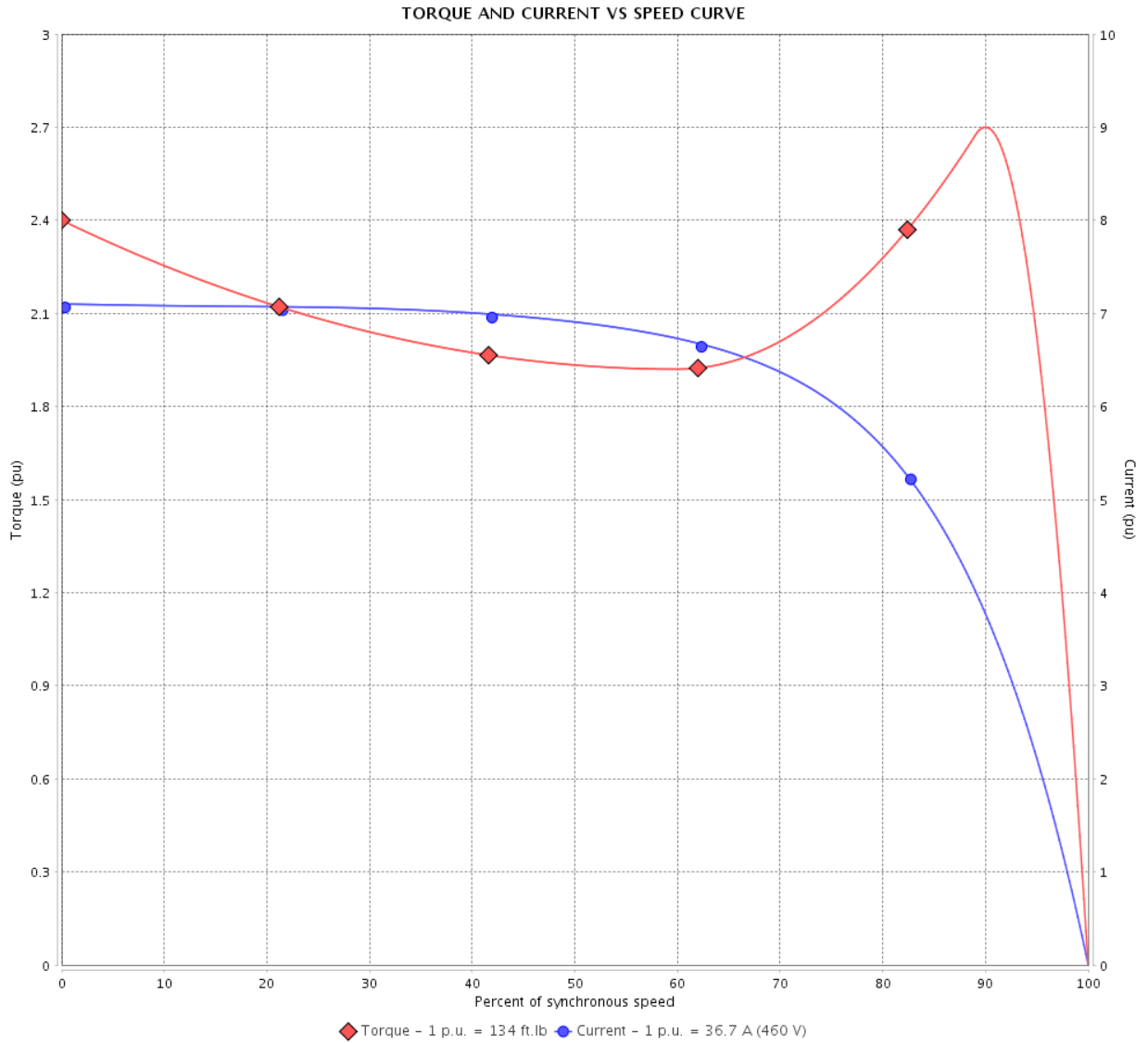
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407505

Catalog # : 03012XT3E326T



Performance : 230/460 V 60 Hz 6P

Rated current : 73.4/36.7 A
 LRC : 7.1
 Rated torque : 134 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 270 %
 Rated speed : 1180 rpm

Moment of inertia (J) : 12.5 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 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



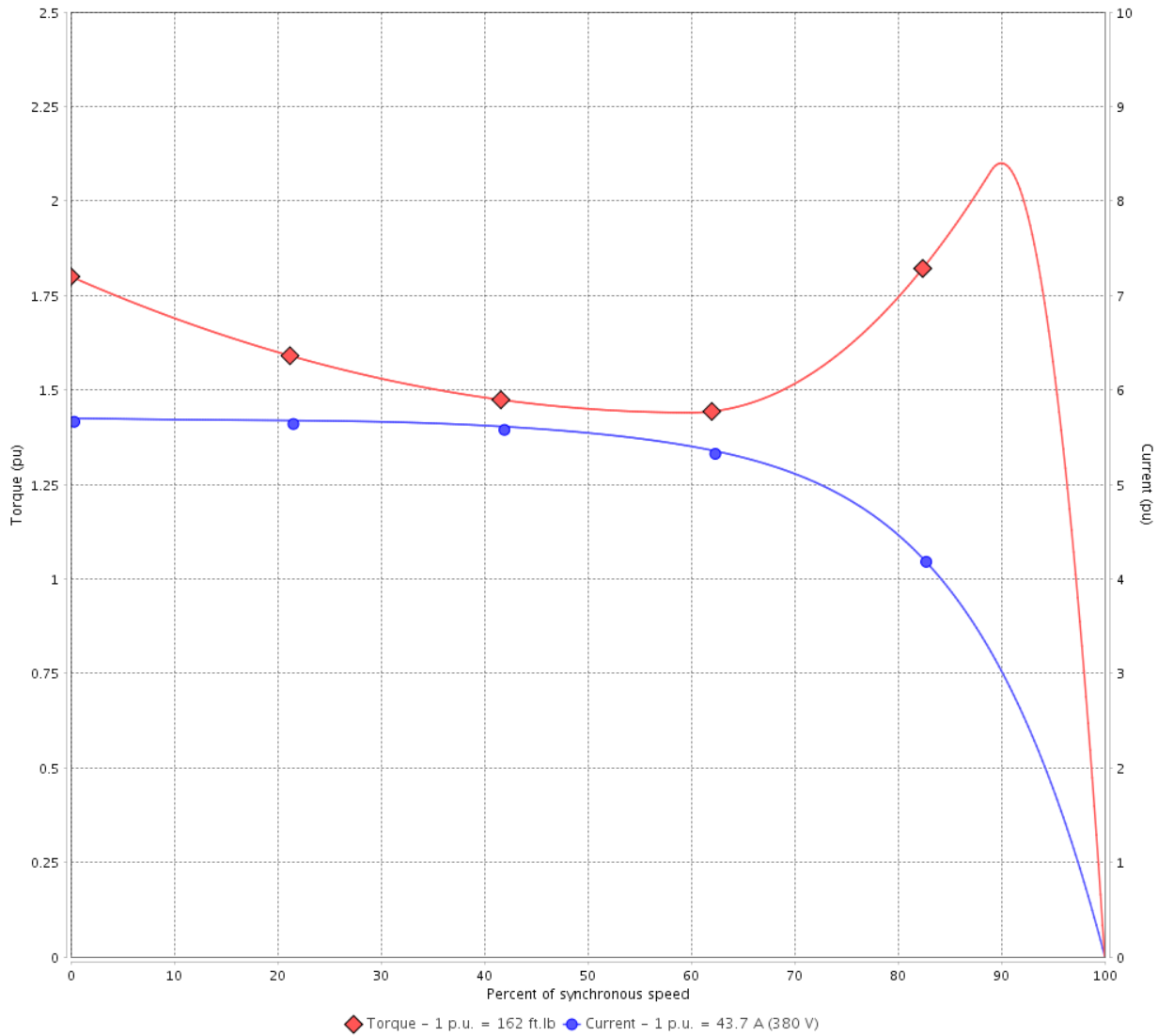
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407505

Catalog # : 03012XT3E326T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 6P IE2

Rated current	: 43.7 A	Moment of inertia (J)	: 12.5 sq.ft.lb
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 162 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



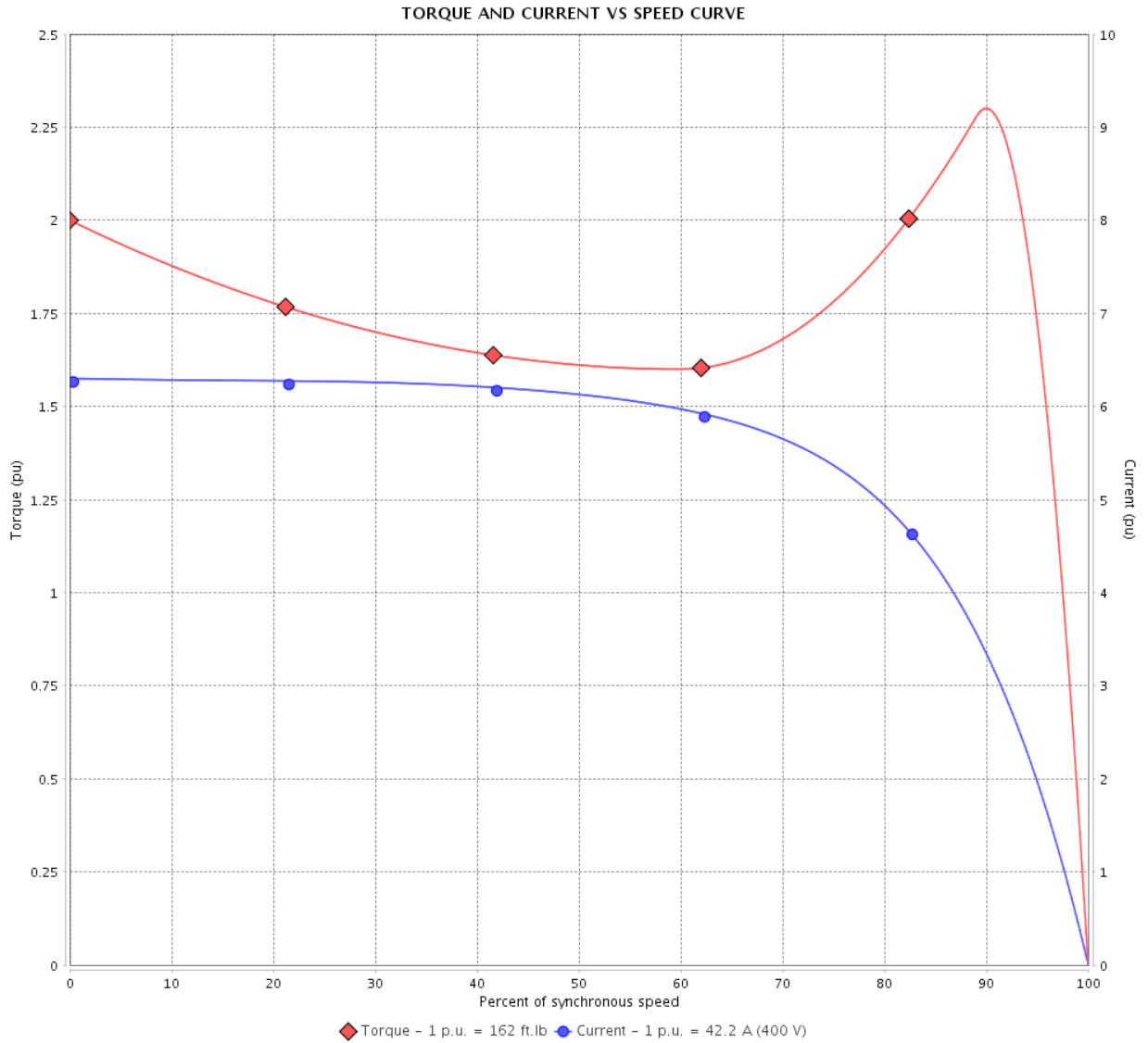
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407505

Catalog # : 03012XT3E326T



Performance : 400 V 50 Hz 6P IE2

Rated current	: 42.2 A	Moment of inertia (J)	: 12.5 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 162 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 975 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



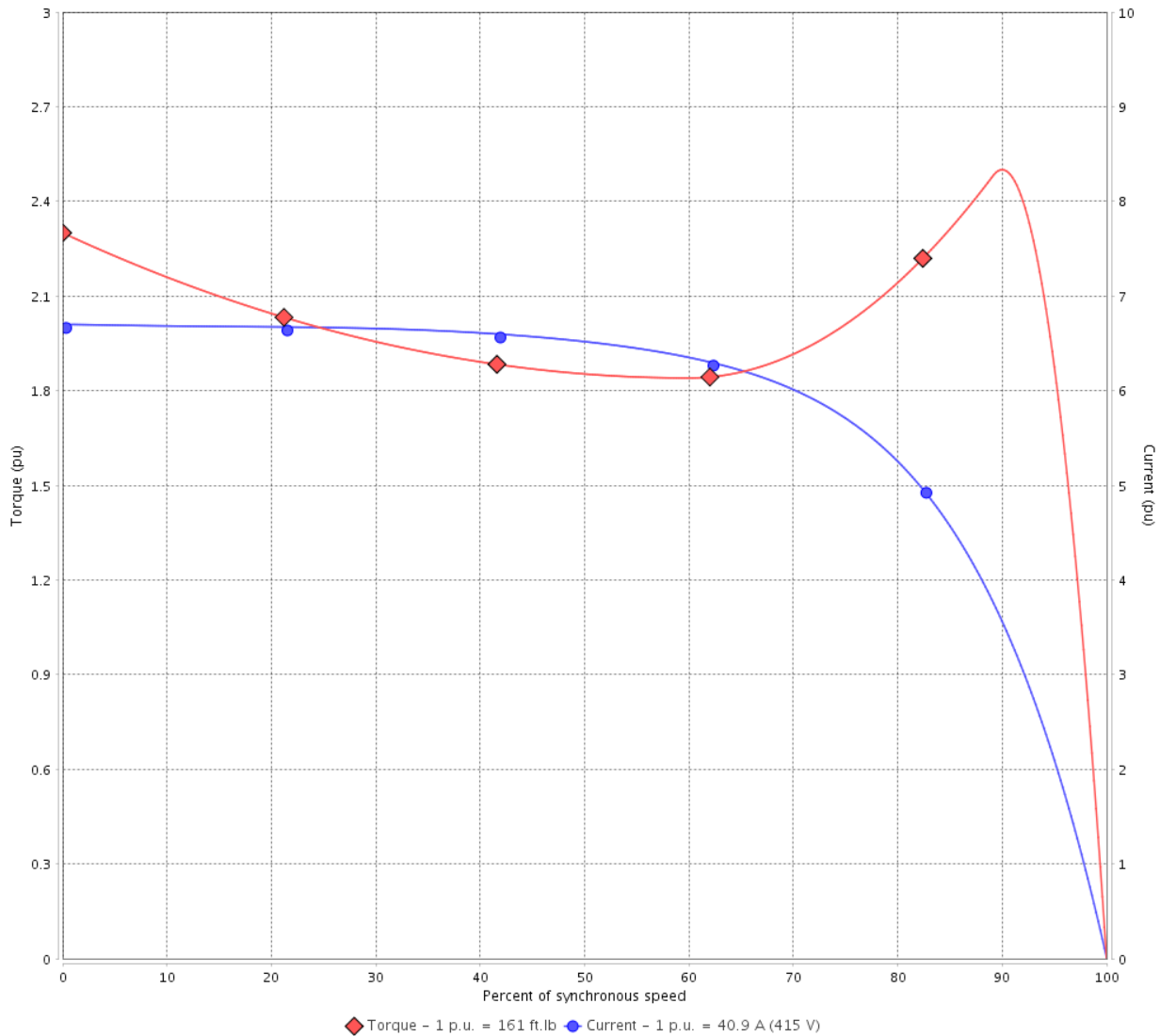
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407505

Catalog # : 03012XT3E326T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 6P IE3

Rated current	: 40.9 A	Moment of inertia (J)	: 12.5 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 161 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

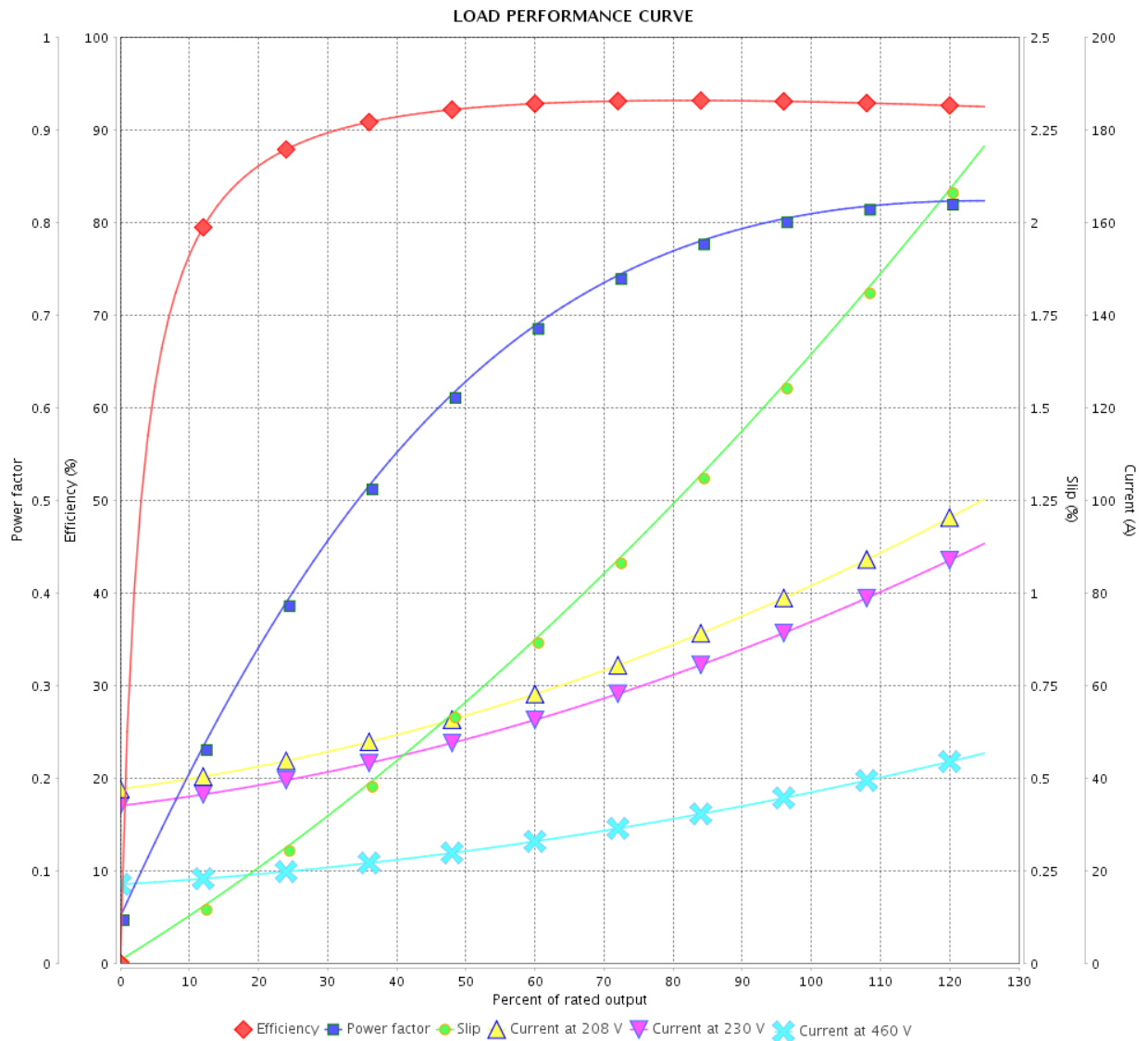


Customer :

Product line : NEMA Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 6P

Rated current : 73.4/36.7 A
 LRC : 7.1
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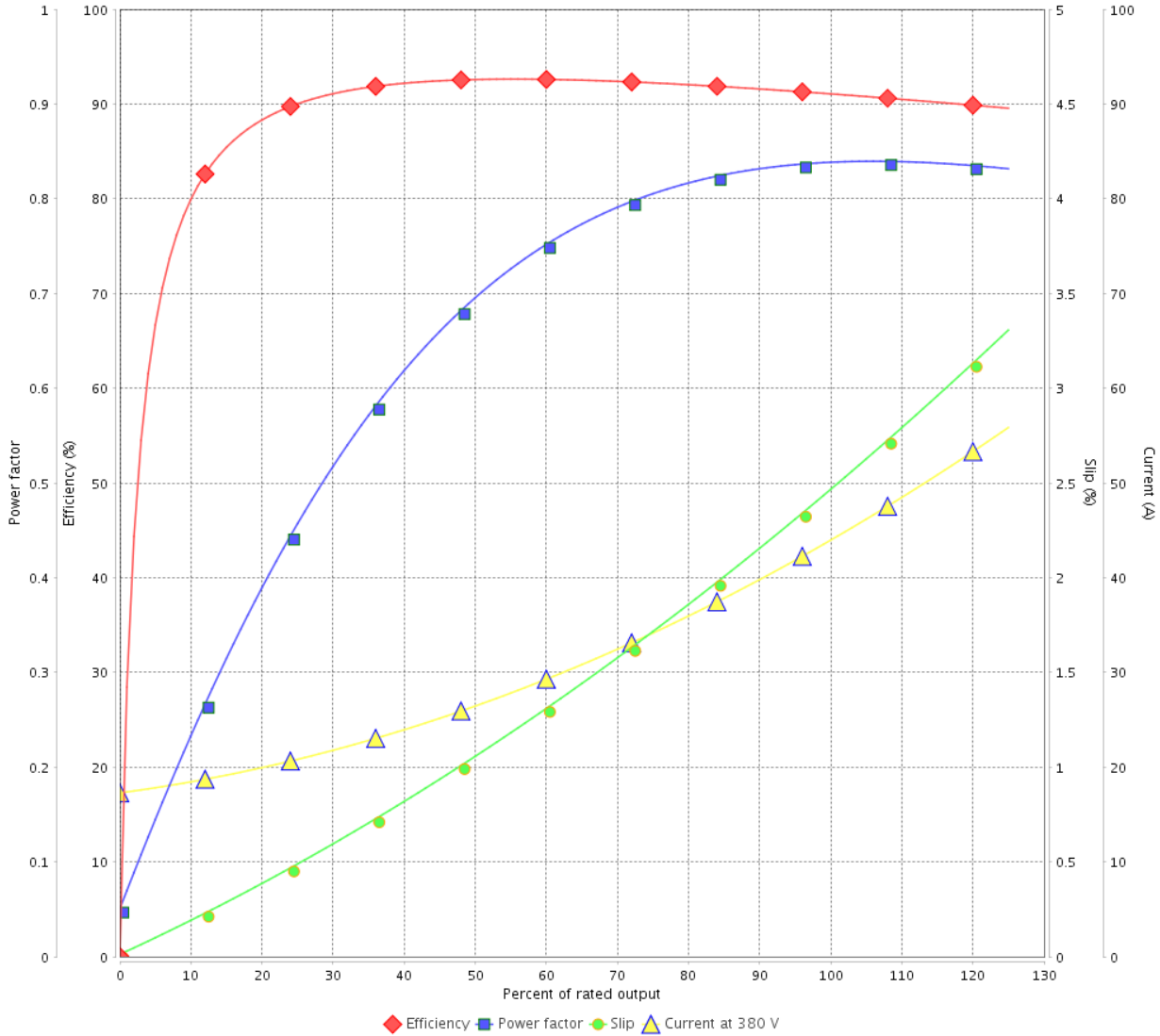
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Performance : 380 V 50 Hz 6P IE2

Rated current : 43.7 A
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Three Phase Induction Motor - Squirrel Cage

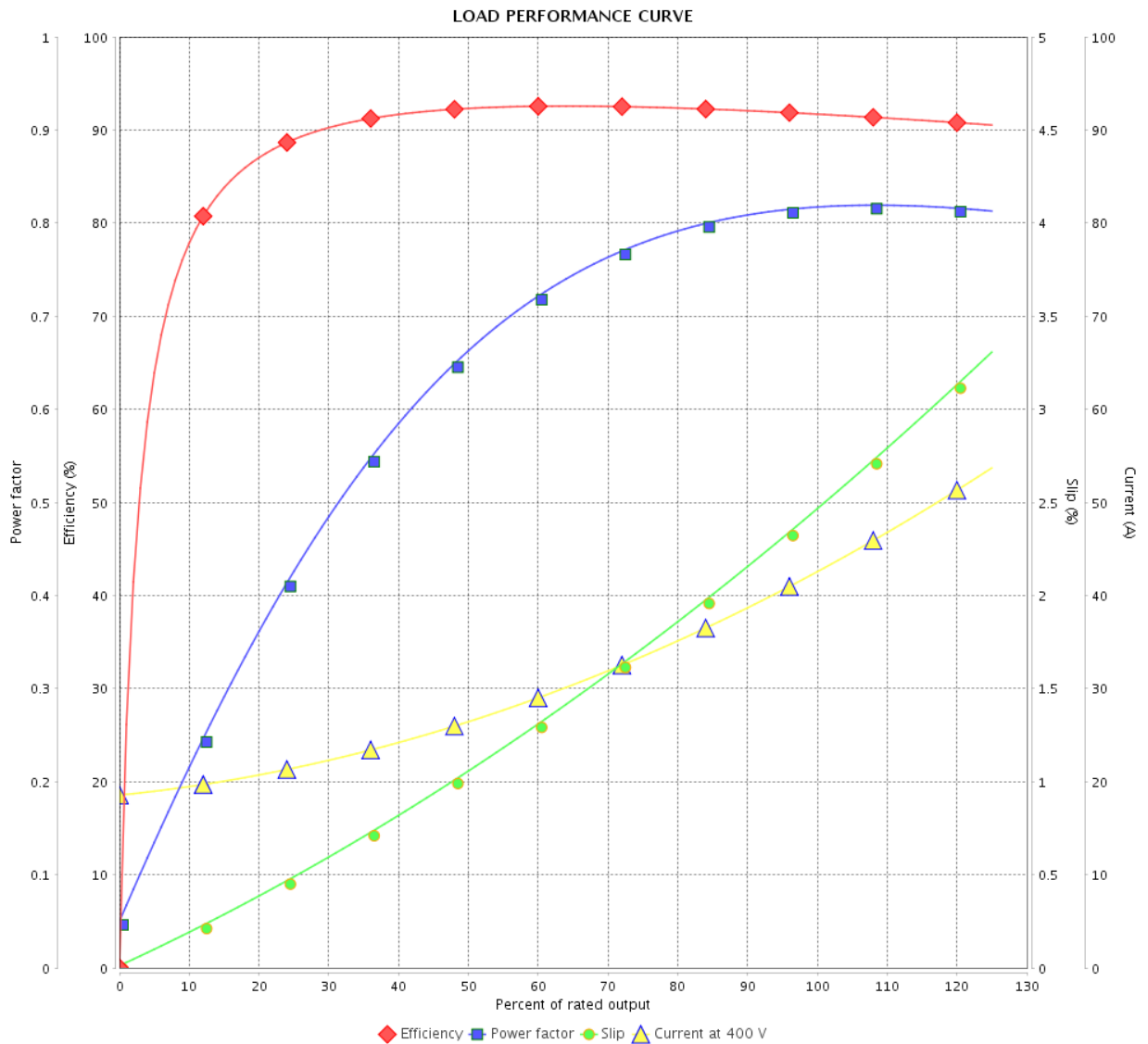


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 Insulation class : F
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



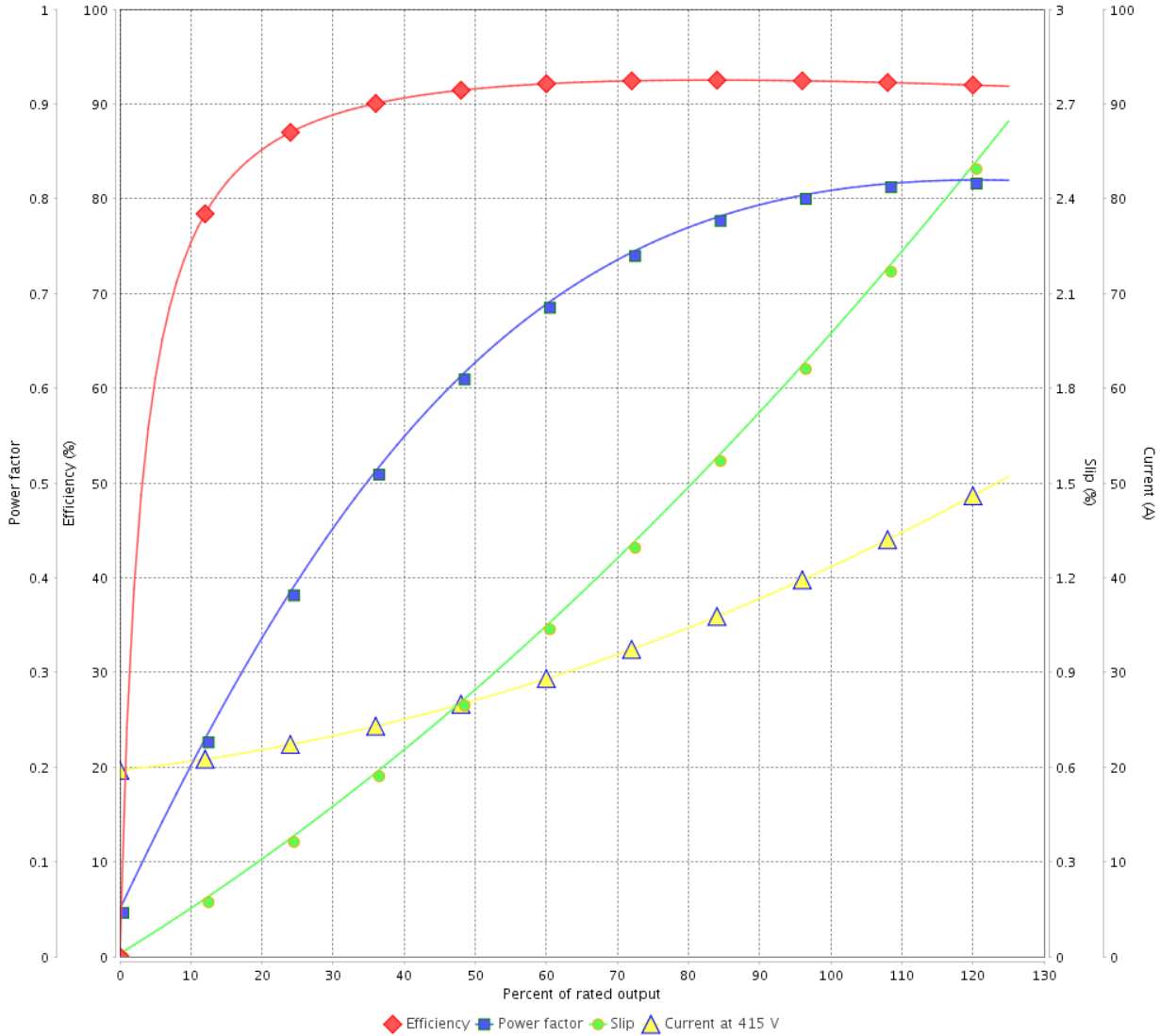
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 Insulation class : F
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THERMAL LIMIT CURVE



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Rated speed	: 1180 rpm	Design	: B

Heating constant

Cooling constant

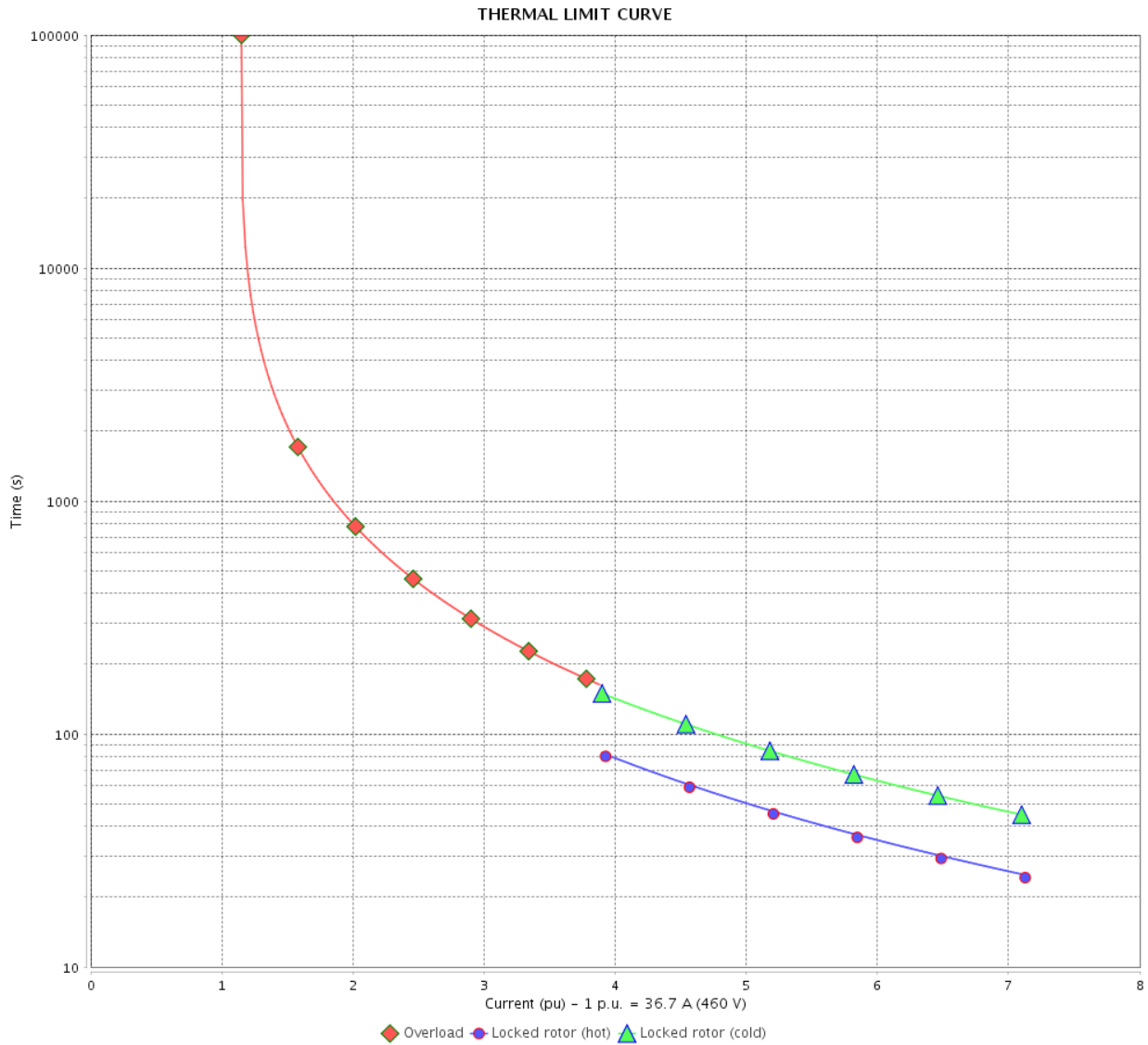
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Locked rotor torque : 180 %	Service factor : 1.00
Breakdown torque : 210 %	Temperature rise : 80 K
Rated speed : 975 rpm	Design : B

Heating constant

Cooling constant

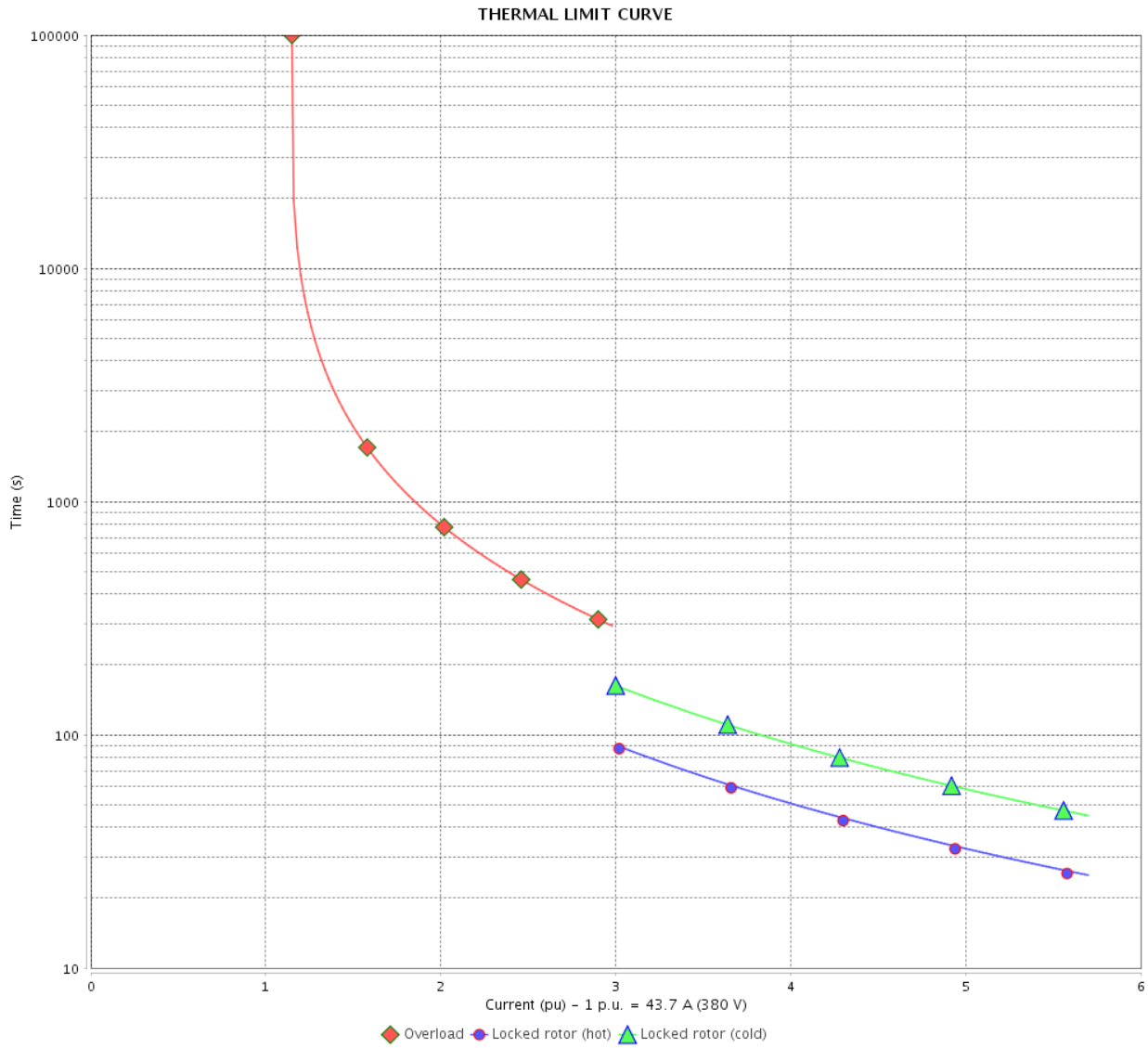
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Three Phase Induction Motor - Squirrel Cage

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Locked rotor torque : 200 %	Service factor : 1.00
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Heating constant

Cooling constant

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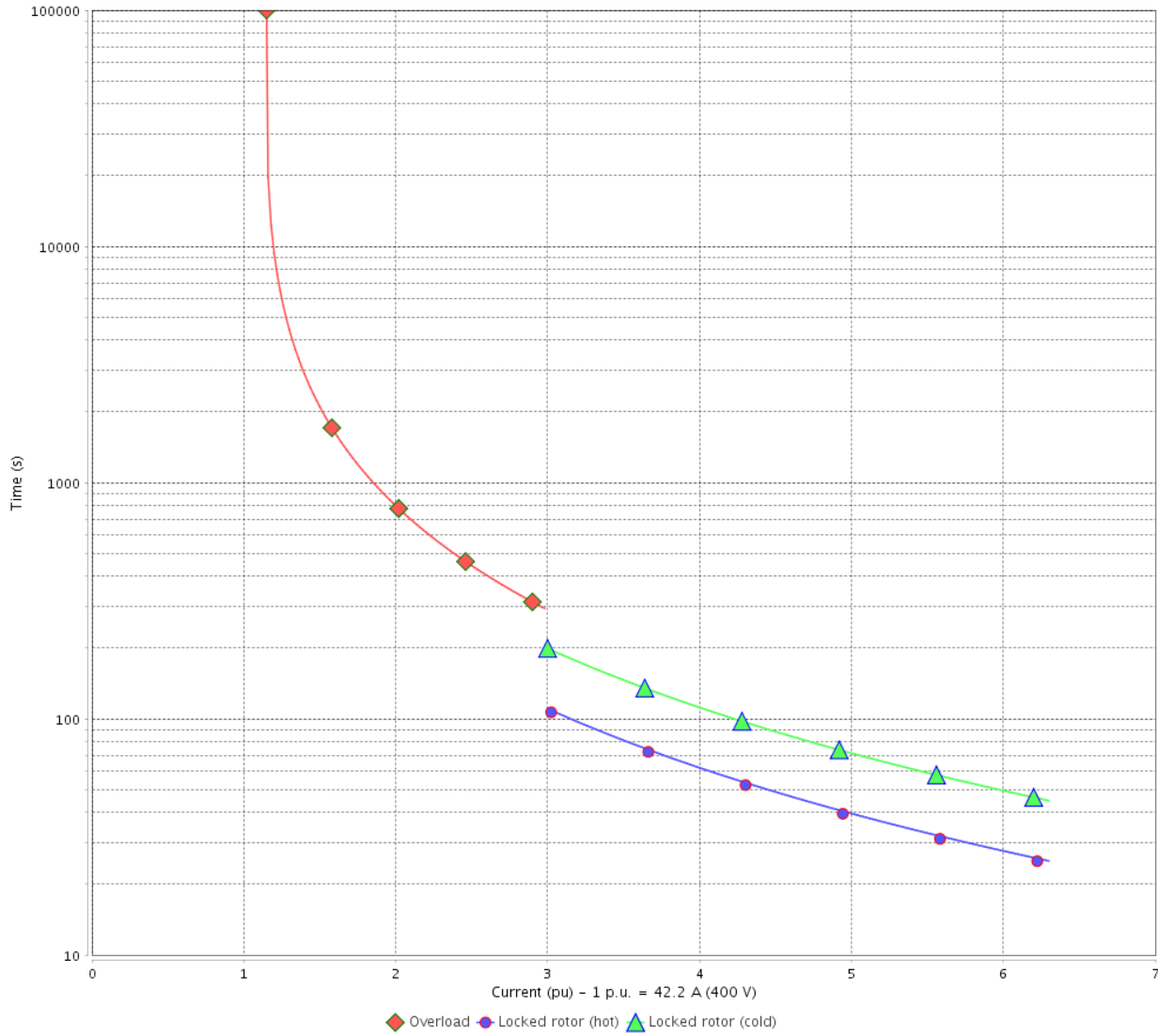
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Three Phase Induction Motor - Squirrel Cage

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Rated current : 40.9 A	Moment of inertia (J) : 12.5 sq.ft.lb
LRC : 6.7	Duty cycle : Cont.(S1)
Rated torque : 161 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 980 rpm	Design : B

Heating constant

Cooling constant

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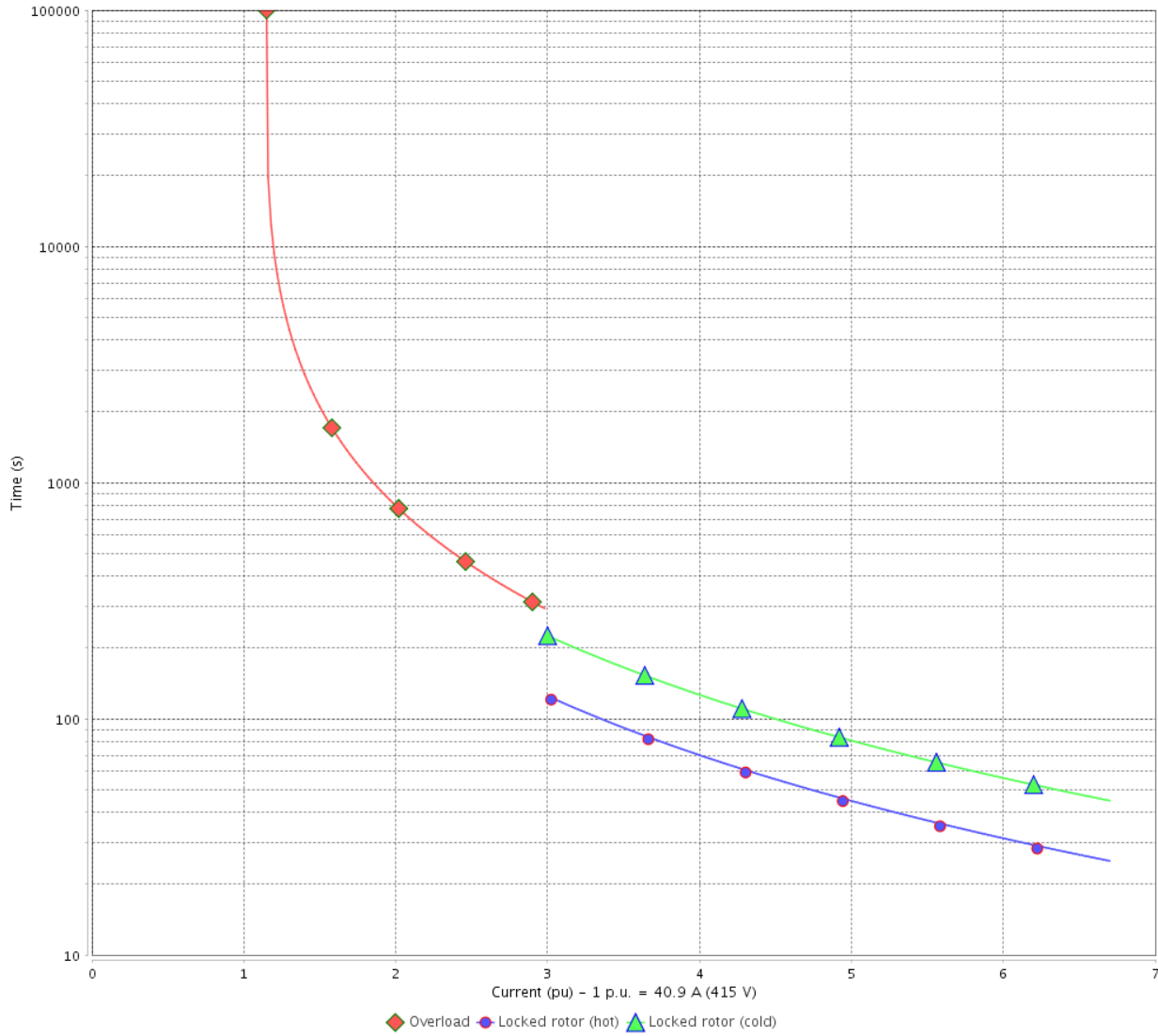
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THERMAL LIMIT CURVE



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

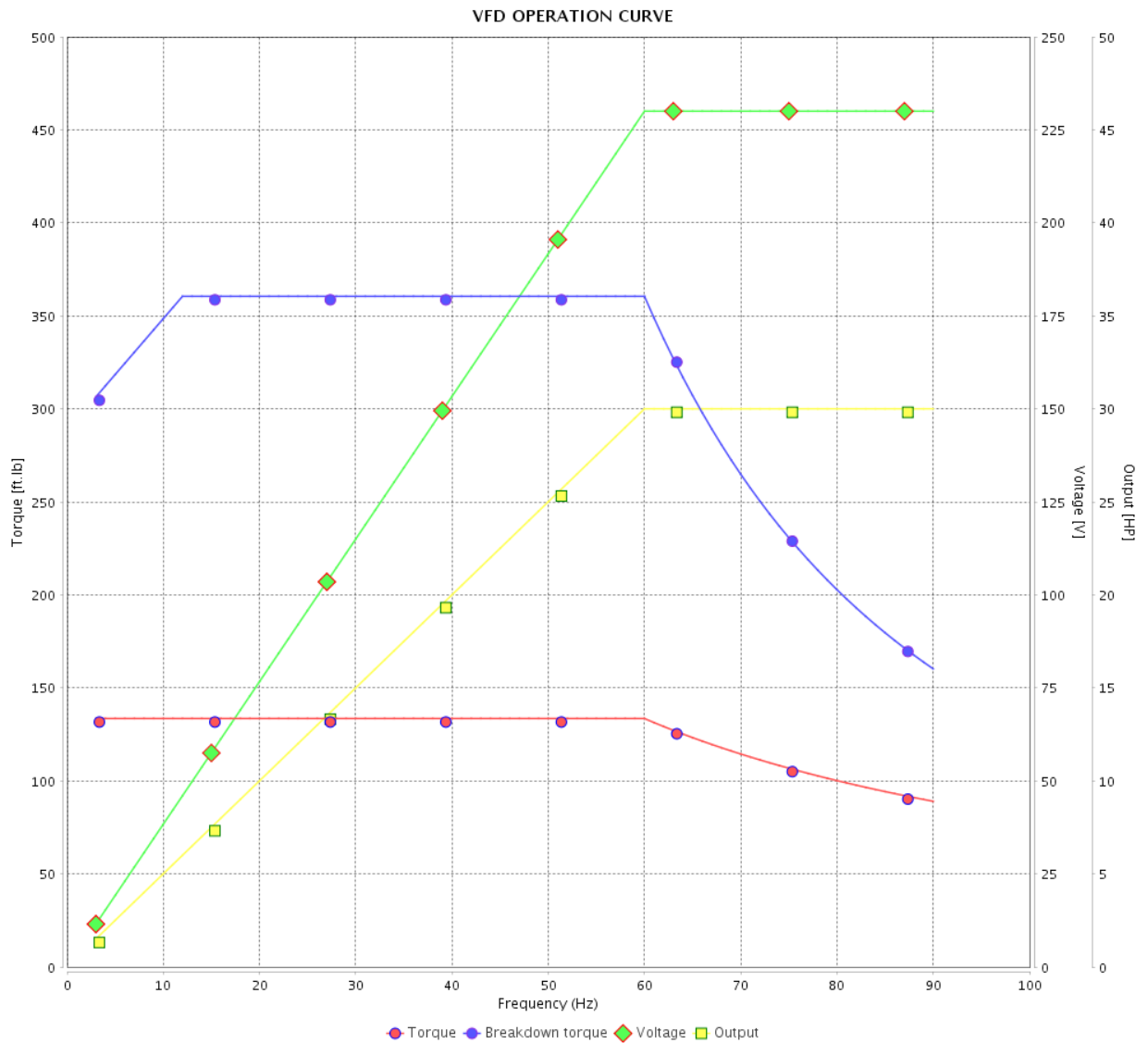


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407505

Catalog # : 03012XT3E326T



Performance : 230/460 V 60 Hz 6P

Rated current : 73.4/36.7 A
 LRC : 7.1
 Rated torque : 134 ft.lb
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 Breakdown torque : 270 %
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



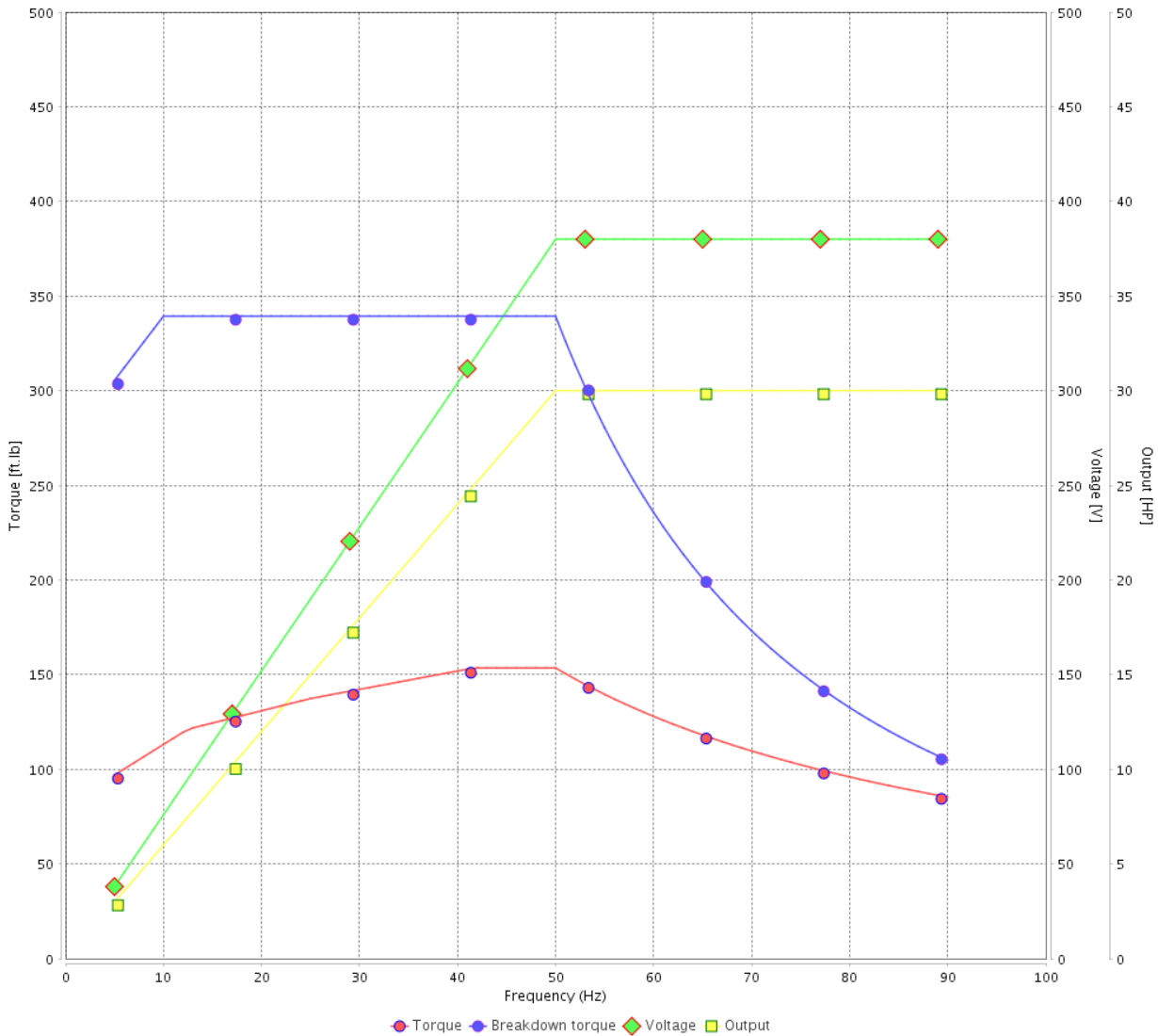
Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407505

Catalog # : 03012XT3E326T

VFD OPERATION CURVE



Performance : 380 V 50 Hz 6P IE2

Rated current	: 43.7 A	Moment of inertia (J)	: 12.5 sq.ft.lb
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 162 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

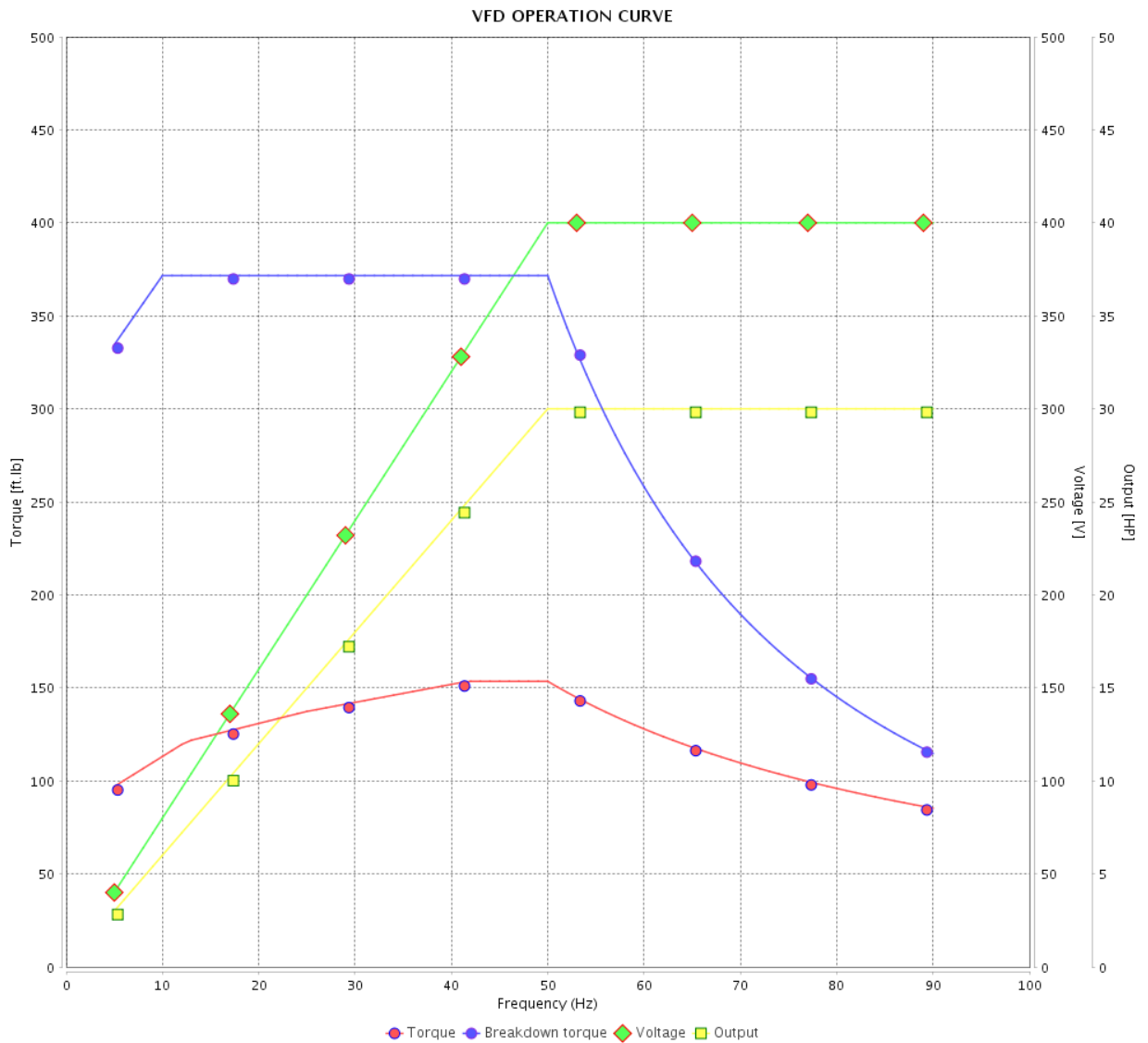


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14407505

Catalog # : 03012XT3E326T



Performance : 400 V 50 Hz 6P IE2

Rated current : 42.2 A
 LRC : 6.3
 Rated torque : 162 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 229 %
 Rated speed : 975 rpm

Moment of inertia (J) : 12.5 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



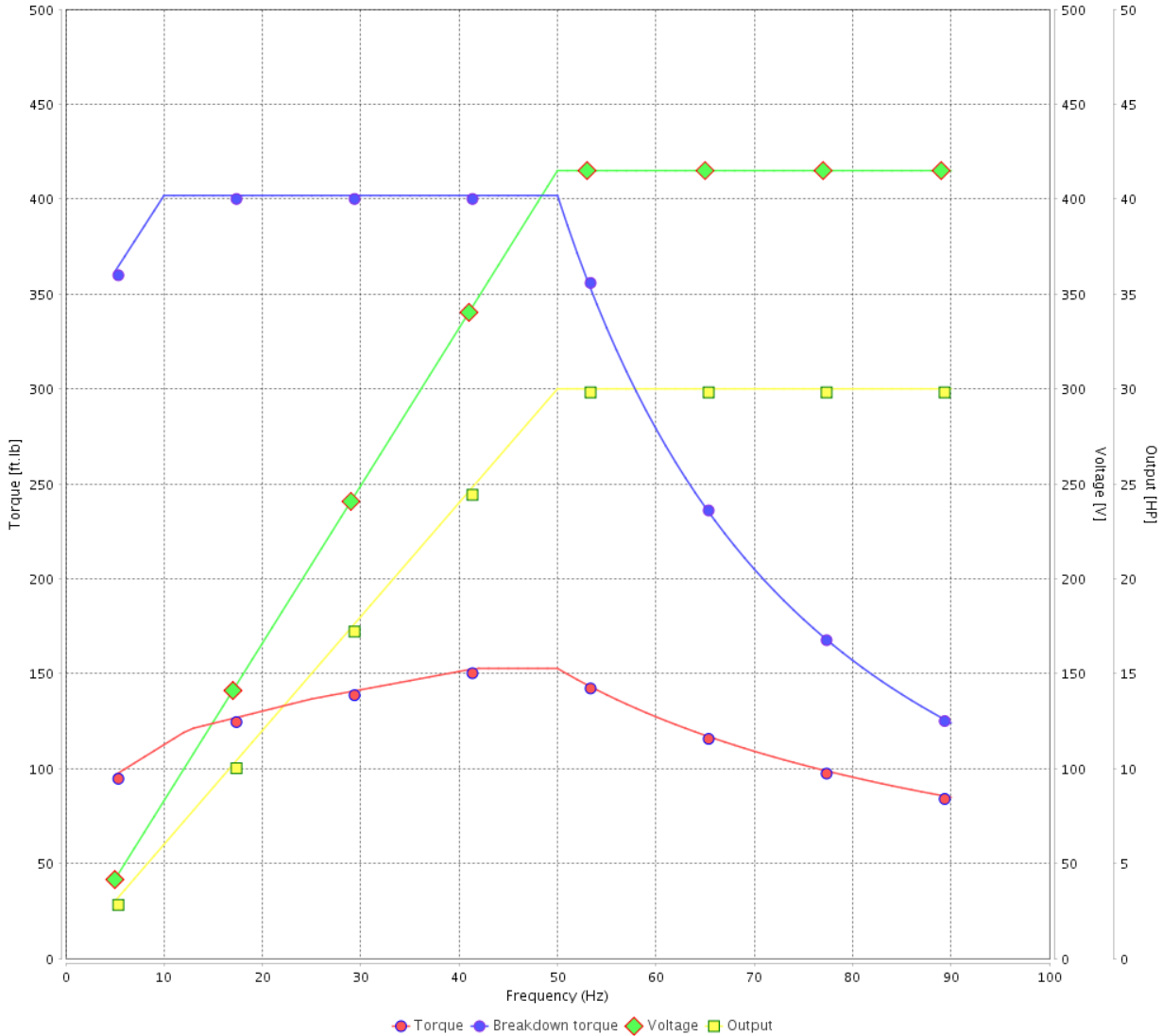
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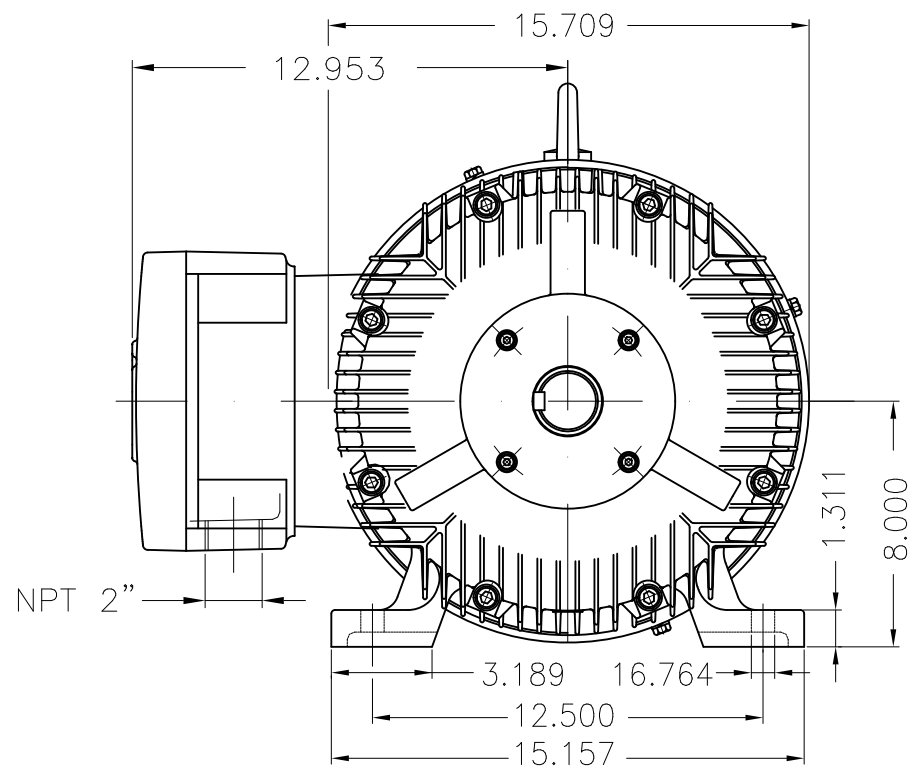
VFD OPERATION CURVE



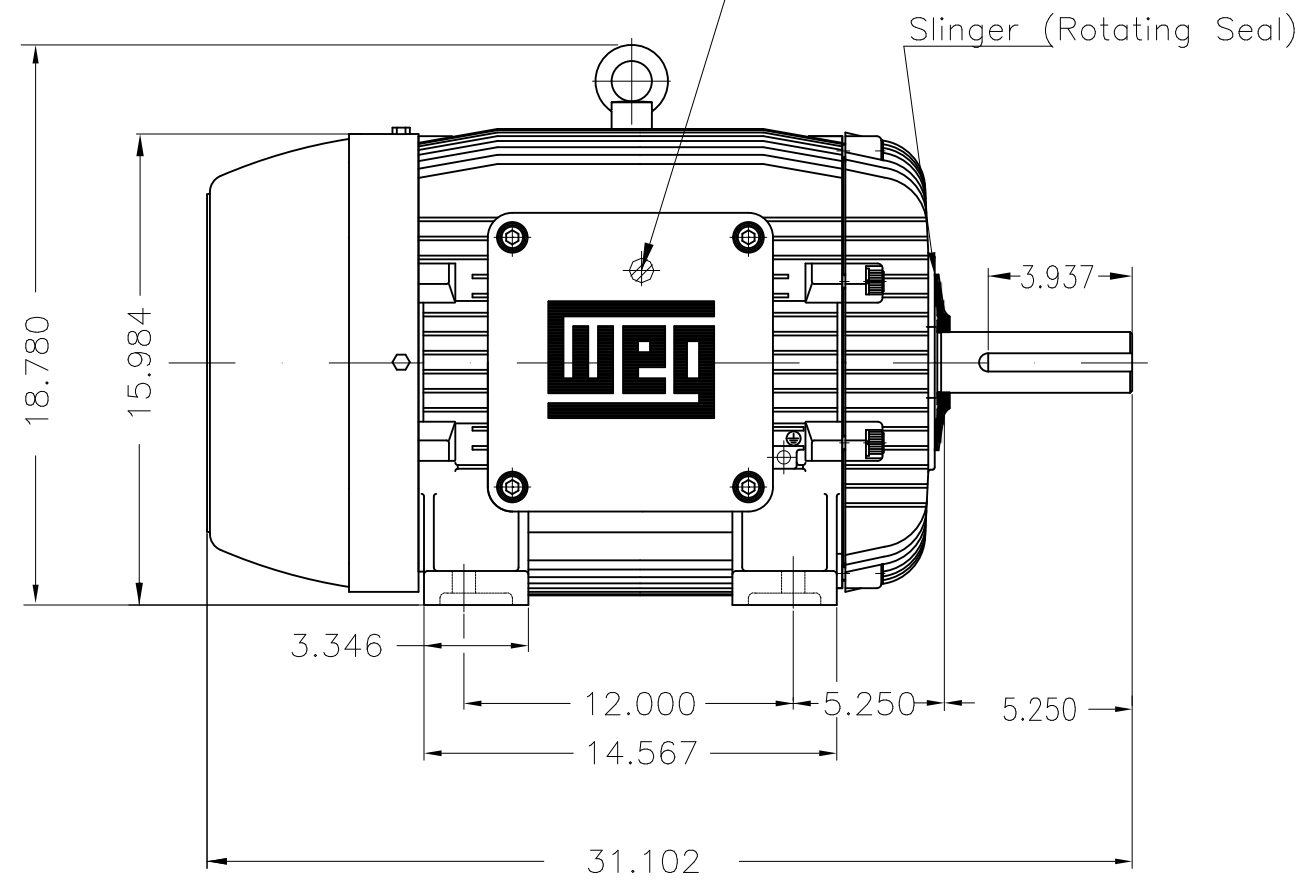
Performance : 415 V 50 Hz 6P IE3

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Locked rotor torque	: 229 %	Service factor	: 1.00
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Rated speed	: 980 rpm	Design	: B

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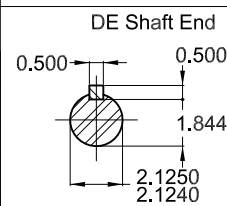
Grounding for leads 5.2–35 mm² / 10–2 AWG



30 HP 06 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 326T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



MADE IN BRAZIL

**W21X NEMA**
Premium

14407505



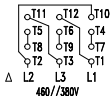
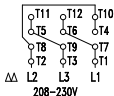
LISTED

CC029A

Inverter Duty Motor
Severe Duty

MODEL 03012XT3E326T

PH 3	FR 326T		
HP(kW) 30.0(22.0)		HZ 60	IP55
V 230/460		A 73.4/36.7	
RPM 1180		NEMA NOM EFF 93.0%	
PF 0.81		SFA 84.4/42.2	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	81.2 A	SF 1.15 SFA 93.4
AMB 55°C SF1.0			
30HP 22kW 50Hz 380V 43.7A 975RPM SF1.00 EFF 91.0% (IE2)			



→ 6312-C3 MOBIL POLYREX EM
→ 6212-C3 21 g 20000 h

648 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.