

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :							
Product line		: NEMA Premium Efficiency Three-Phase			Product code :		11904015
					Catalog # :		10036ET3E405JP-W22
Frame : 404/5JP Insulation class : F Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : B				Cooling method : IC411 - TEFC Mounting : F-1 Rotation ¹ : Both (CW and CCW) Starting method : Direct On Line Approx. weight ² : 1128 lb Moment of inertia (J) : 13.2 sq.ft.lb			
Output [HP]	100	75	75	75			
Poles	2	2	2	2			
Frequency [Hz]	60	50	50	50			
Rated voltage [V]	230/460	380	400	415			
Rated current [A]	224/112	99.6	94.6	92.2			
L. R. Amperes [A]	1456/728	677	719	756			
LRC [A]	6.5x(Code G)	6.8x(Code G)	7.6x(Code H)	8.2x(Code J)	x(Code)	x(Code)	x(Code)
No load current [A]	52.0/26.0	25.7	27.5	29.1			
Rated speed [RPM]	3545	2955	2960	2965			
Slip [%]	1.53	1.50	1.33	1.17			
Rated torque [ft.lb]	148	133	133	133			
Locked rotor torque [%]	240	250	280	300			
Breakdown torque [%]	260	280	310	330			
Service factor	1.25	1.00	1.00	1.00			
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)	18s (cold) 10s (hot)			
Noise level ²	79.0 dB(A)	74.0 dB(A)	74.0 dB(A)	74.0 dB(A)	dB(A)	dB(A)	dB(A)
Efficiency (%)	25%	92.8	92.4	92.5	93.1		
	50%	93.0	93.0	93.1	93.5		
	75%	94.1	93.8	93.8	94.0		
	100%	94.1	94.3	94.3	94.3		
Power Factor	25%	0.61	0.59	0.55	0.53		
	50%	0.83	0.82	0.80	0.78		
	75%	0.88	0.88	0.86	0.85		
	100%	0.89	0.89	0.89	0.88		
Bearing type : 6314 C3 Sealing : Lip Seal Lubrication interval : 4000 h Lubricant amount : 27 g Lubricant type : Mobil Polyrex EM		Drive end : 6314 C3 Non drive end : 6314 C3		Foundation loads Max. traction : 751 lb Max. compression : 1880 lb			
Notes USABLE @208V 243A SF 1.10 SFA 268A							
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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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



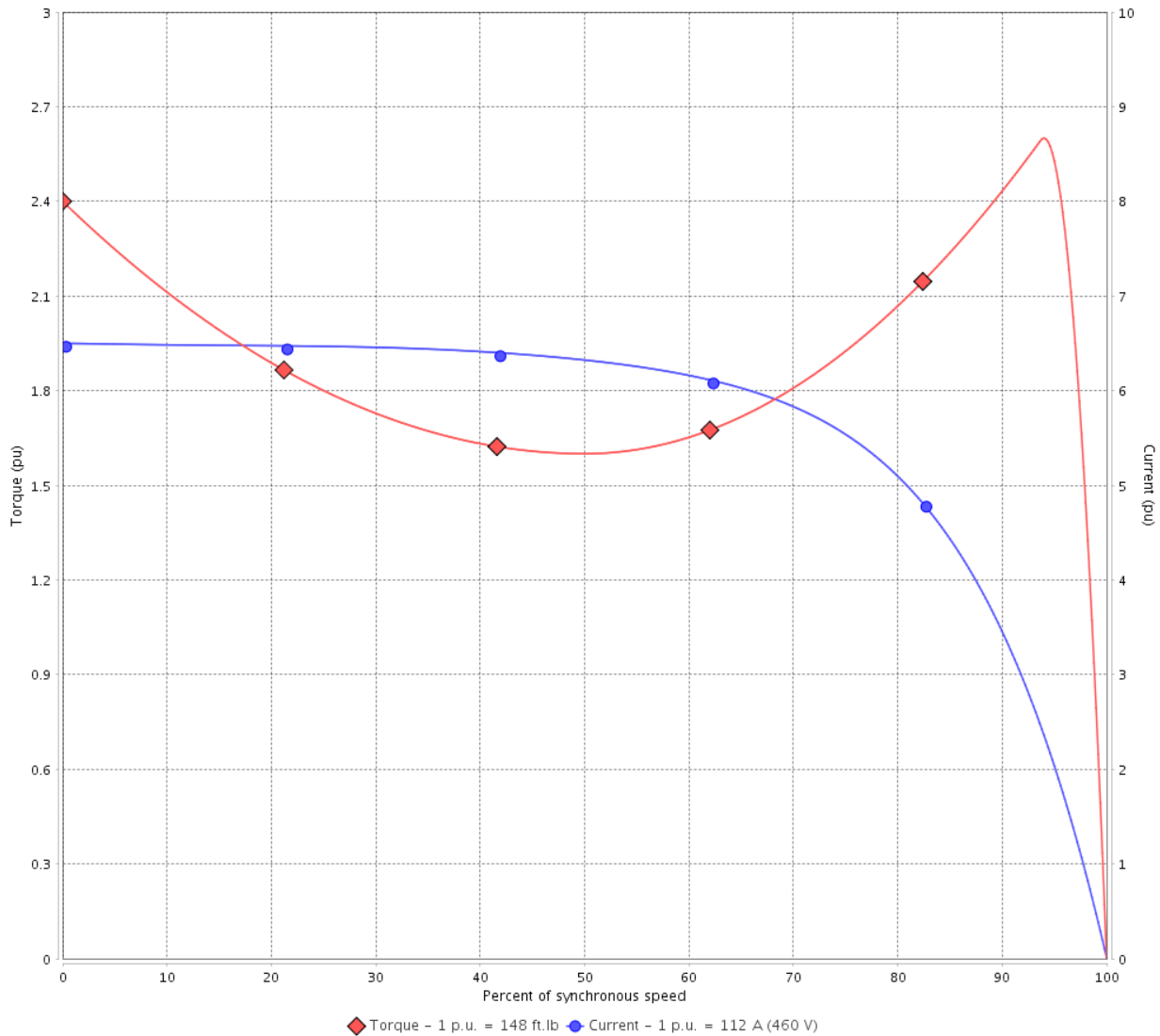
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11904015

Catalog # : 10036ET3E405JP-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 224/112 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 148 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3545 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



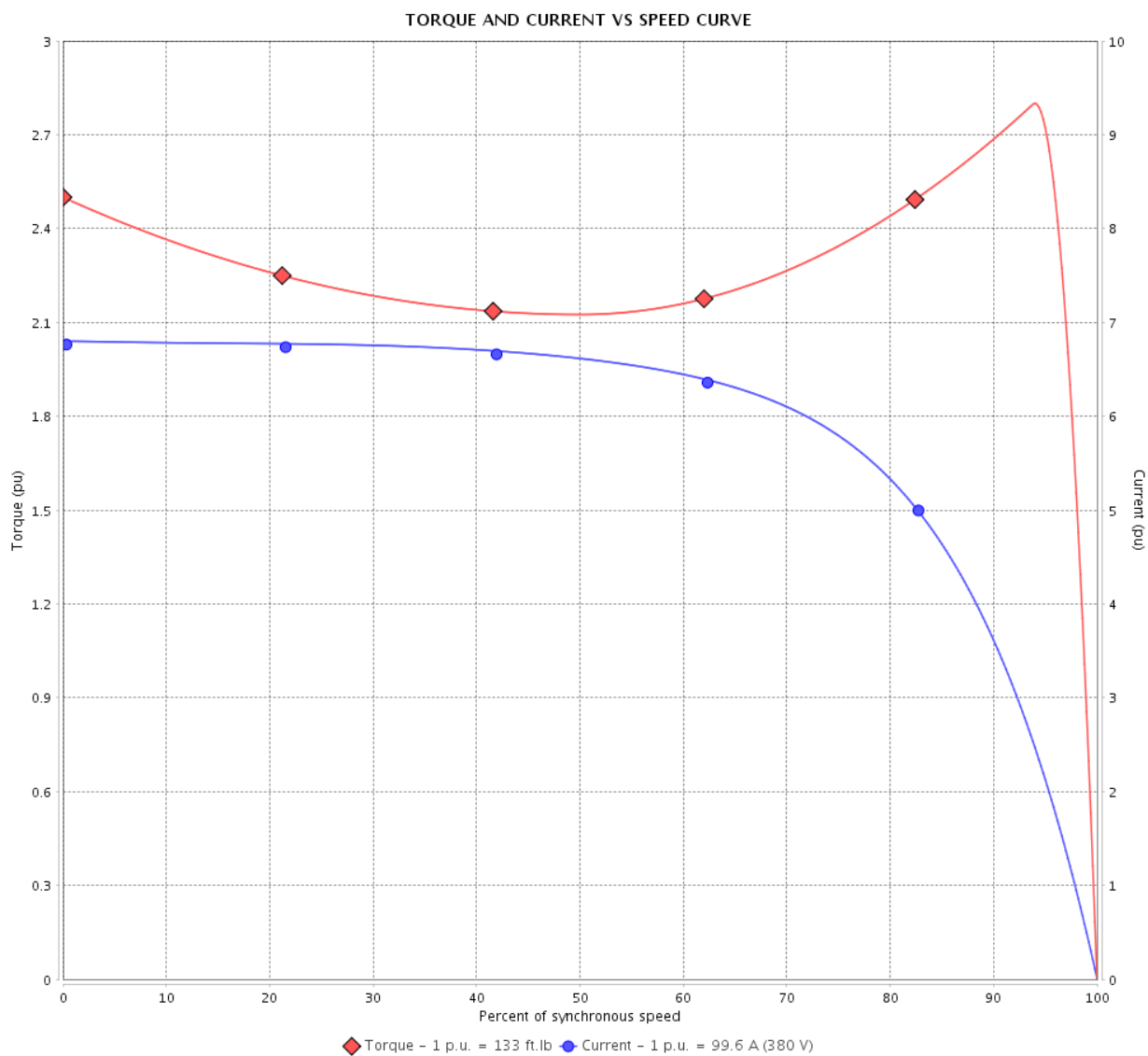
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11904015

Catalog # : 10036ET3E405JP-W22



Performance : 380 V 50 Hz 2P IE3

Rated current	: 99.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



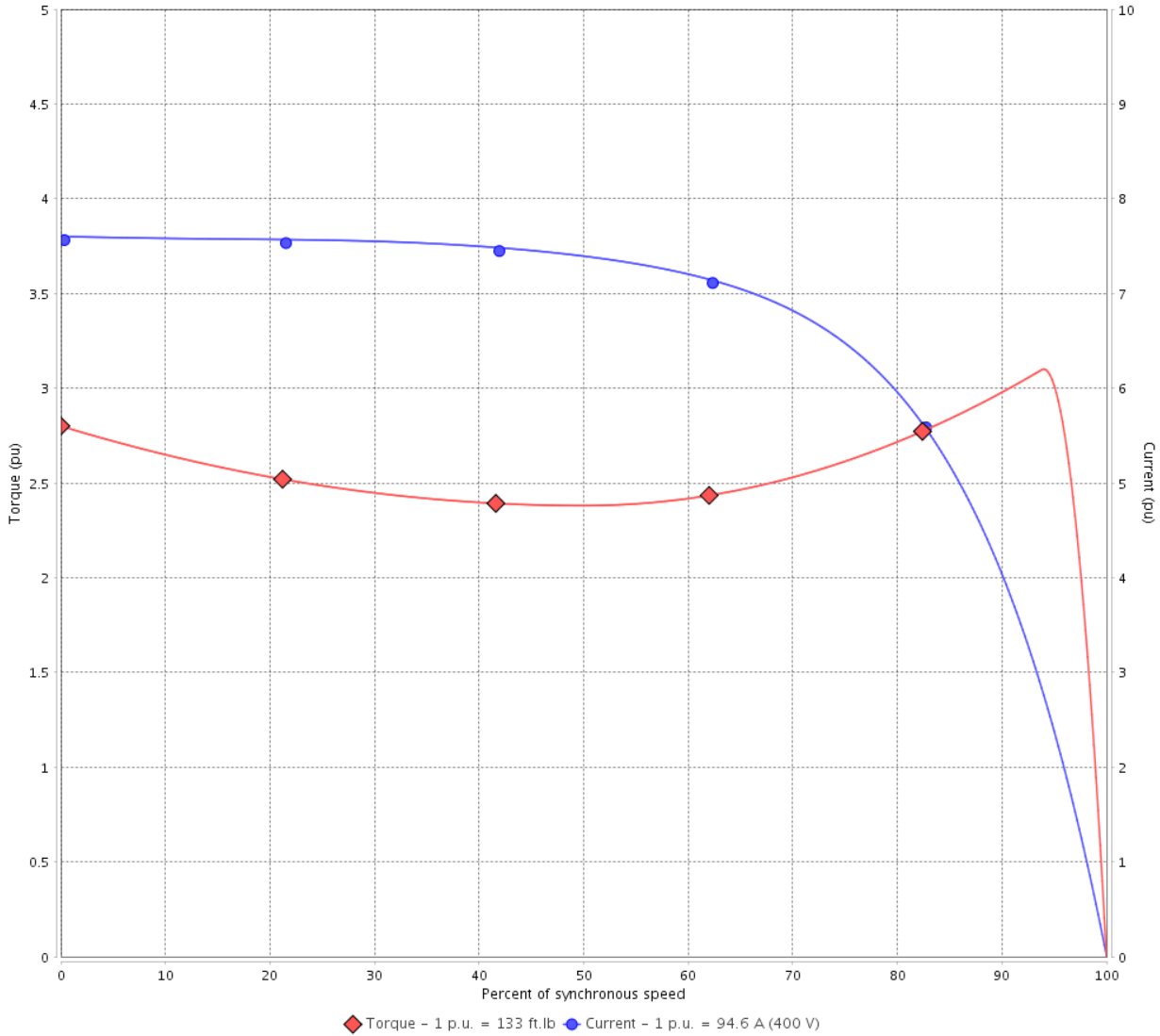
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11904015

Catalog # : 10036ET3E405JP-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 94.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



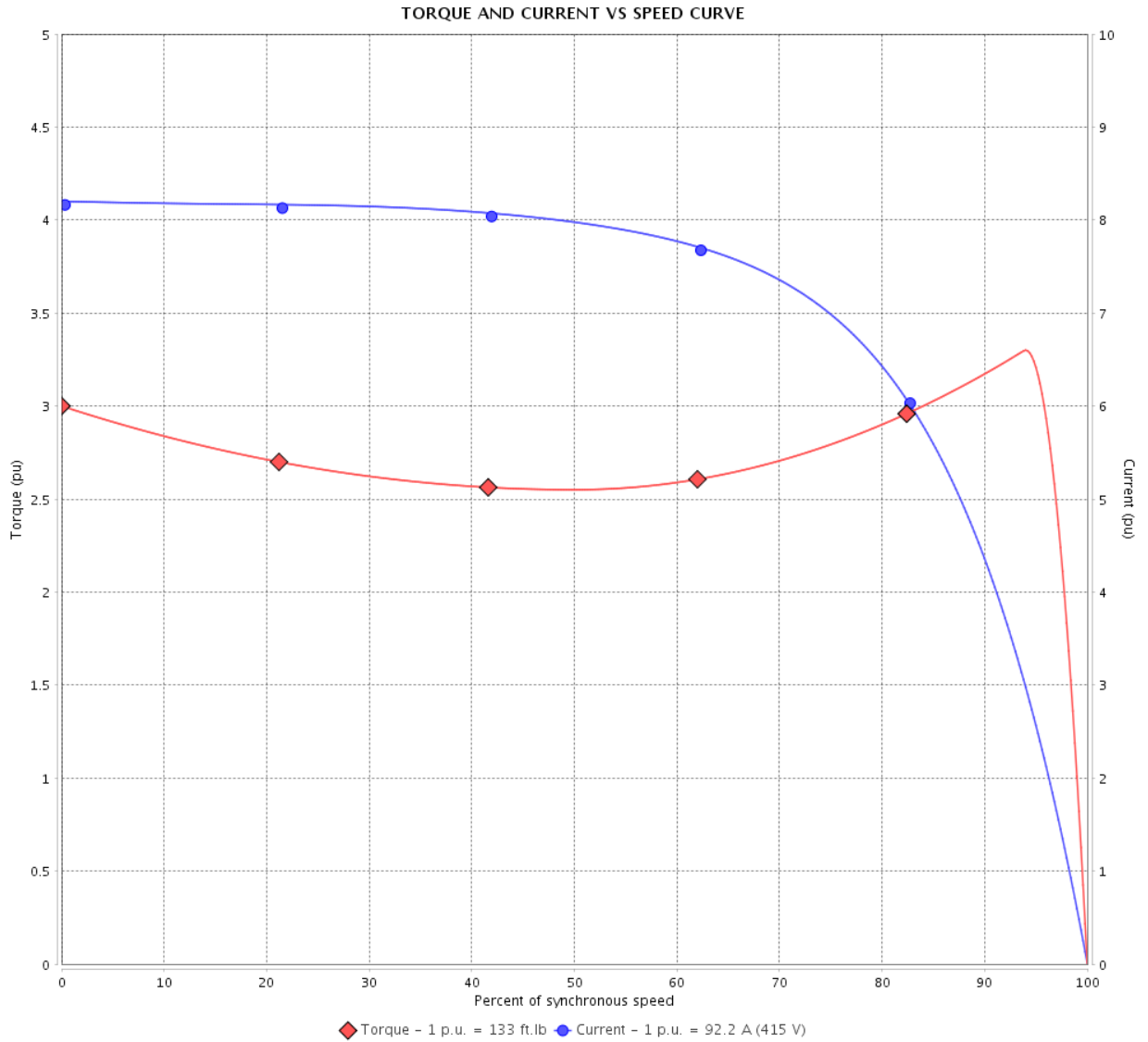
Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 11904015

Catalog # : 10036ET3E405JP-W22



Performance : 415 V 50 Hz 2P IE3

Rated current	: 92.2 A	Moment of inertia (J)	: 13.2 sq.ft.lb
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 2965 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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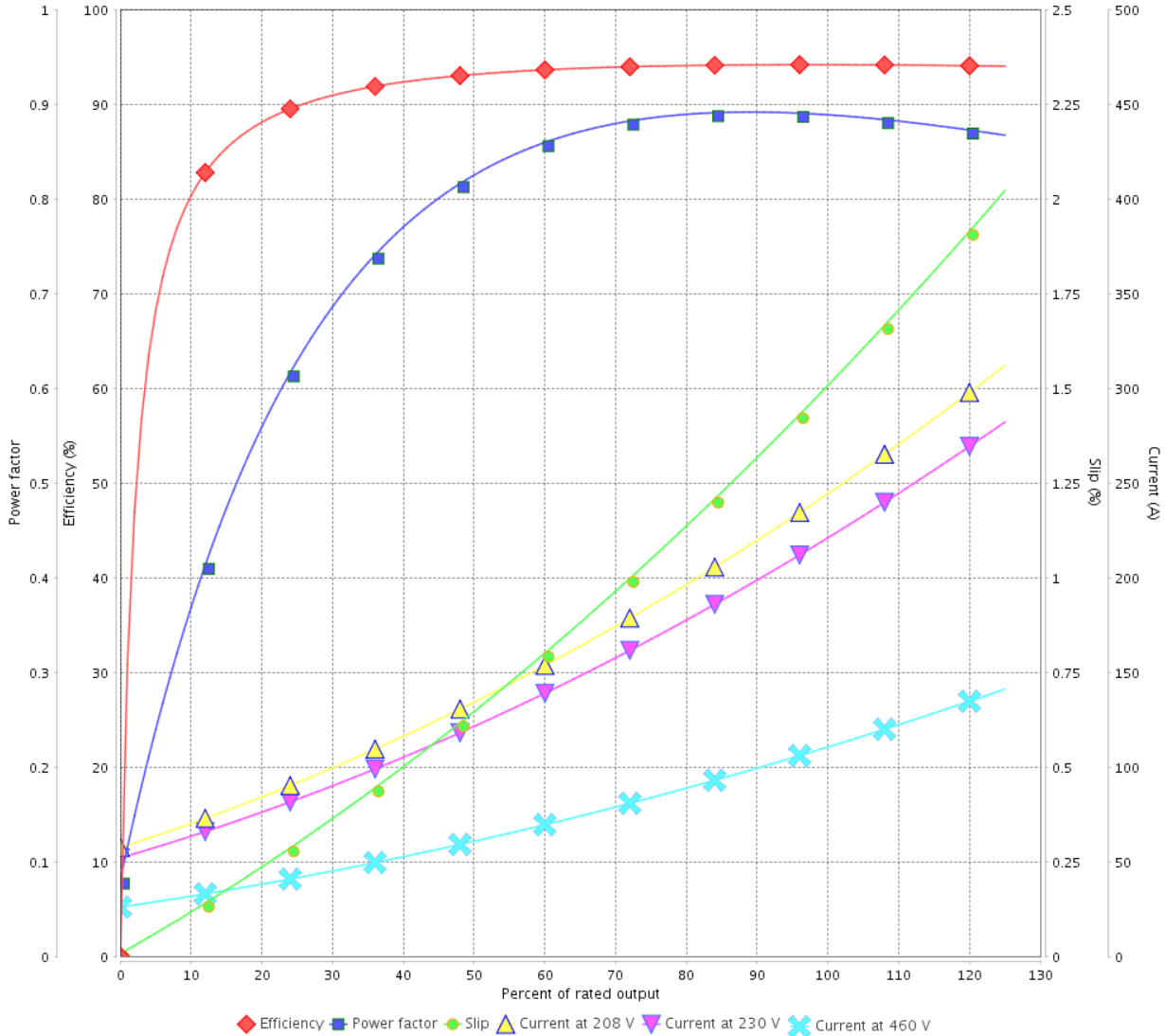
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 11904015

Catalog # : 10036ET3E405JP-W22

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 224/112 A
 LRC : 6.5
 Rated torque : 148 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 3545 rpm

Moment of inertia (J) : 13.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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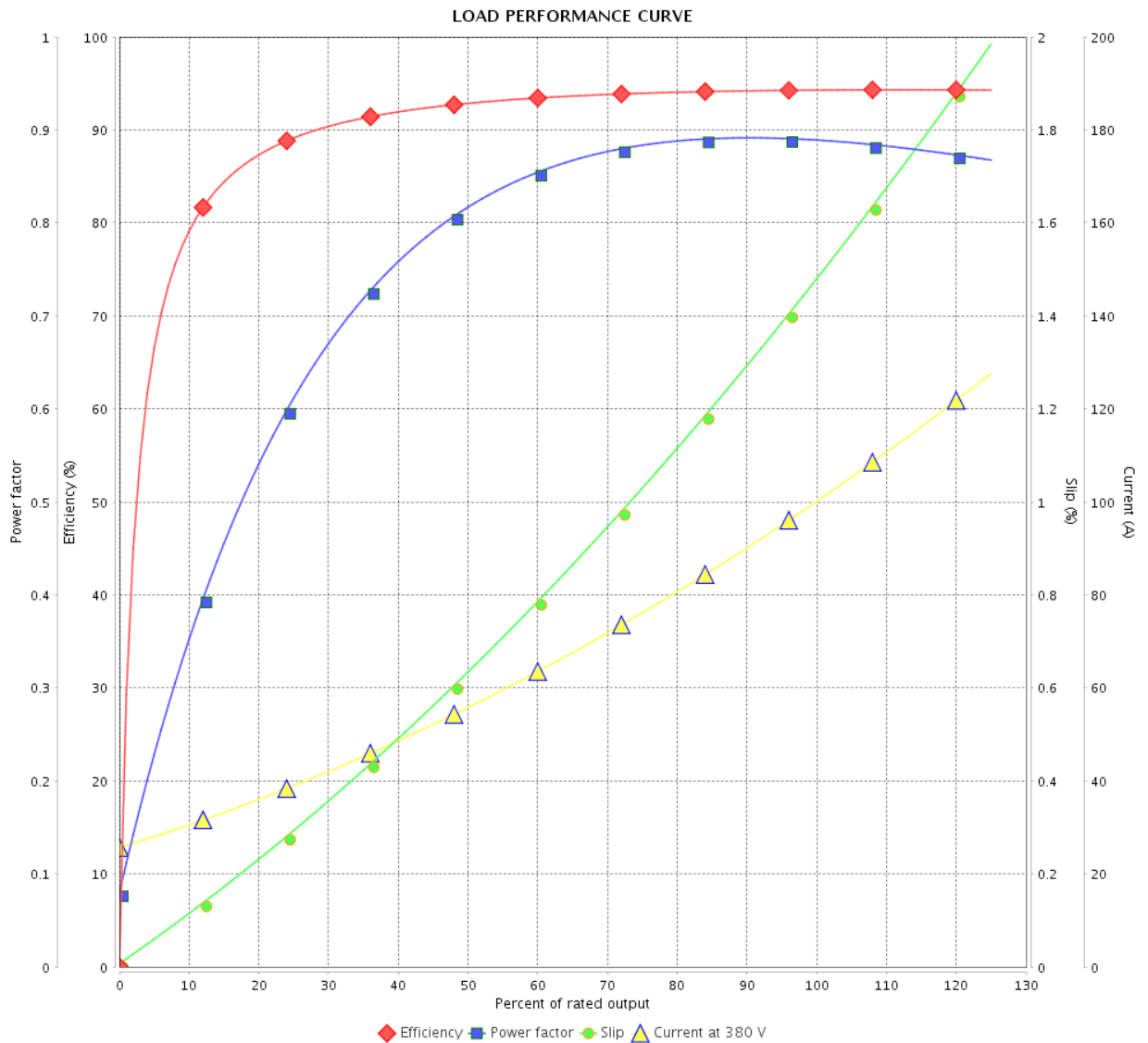


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Performance : 380 V 50 Hz 2P IE3

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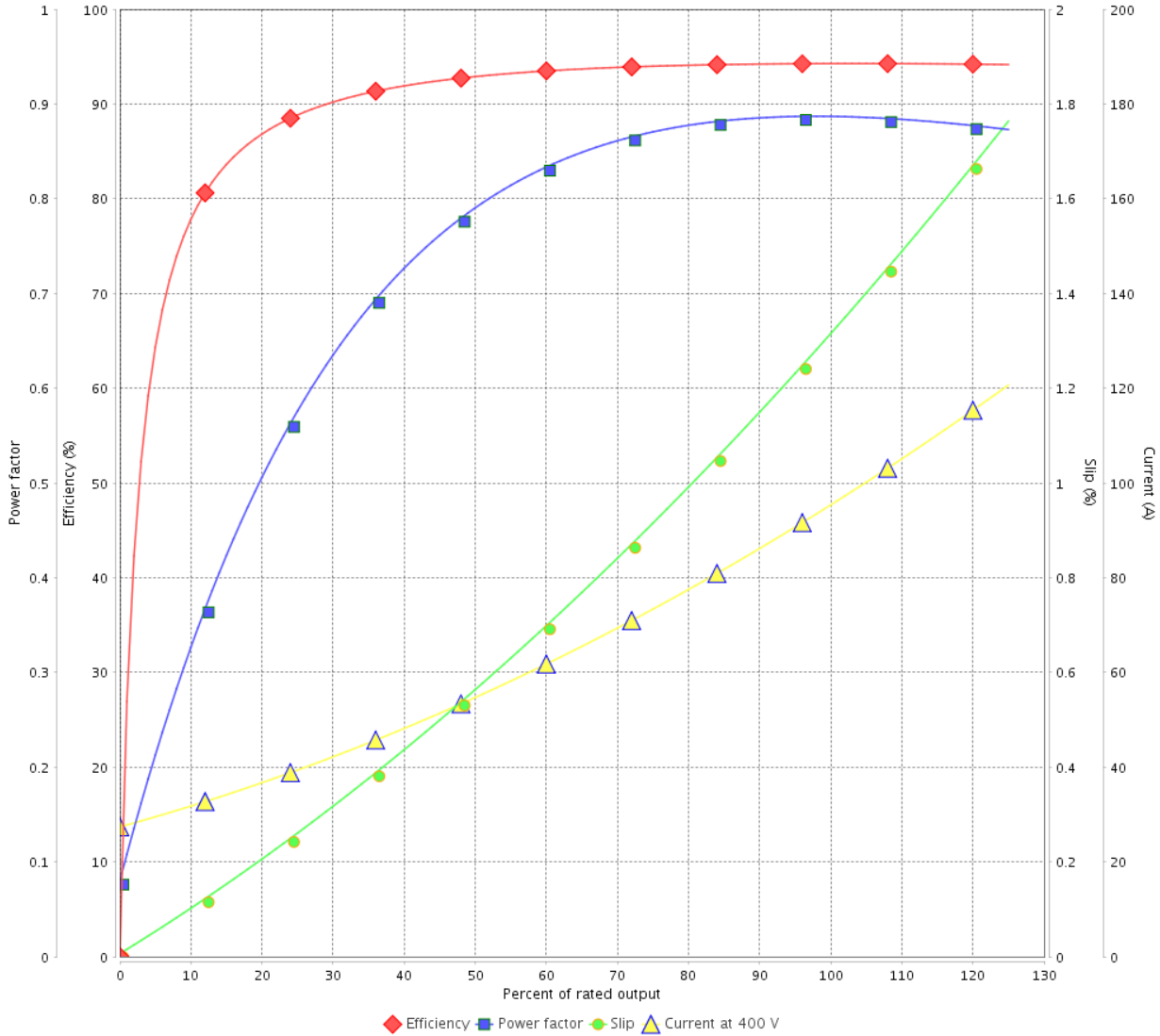
Customer : _____

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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 94.6 A
 LRC : 7.6
 Rated torque : 133 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 310 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 13.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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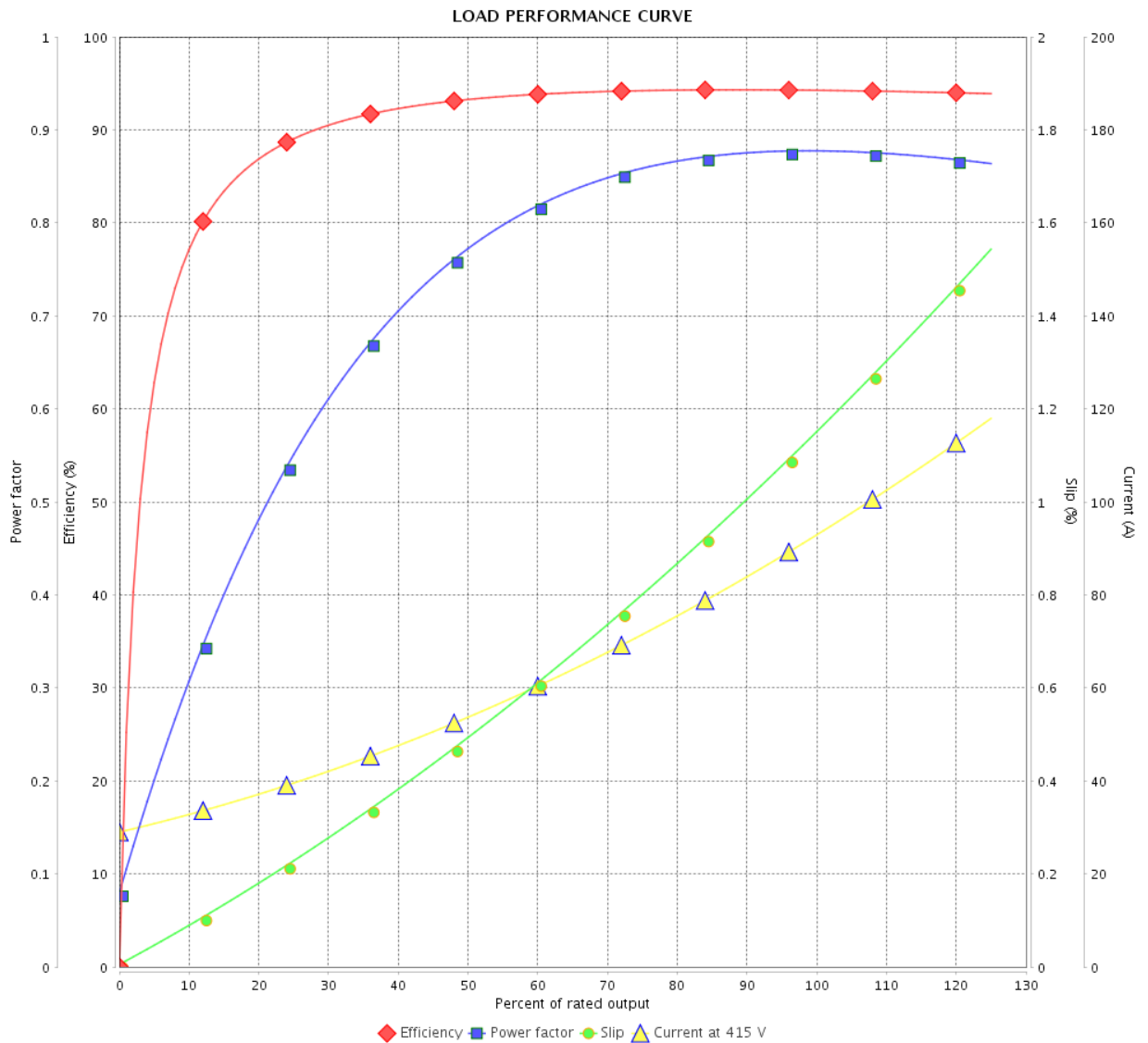


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 Breakdown torque : 330 %
 Rated speed : 2965 rpm

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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 speed : 3545 rpm	Design : B

Heating constant

Cooling constant

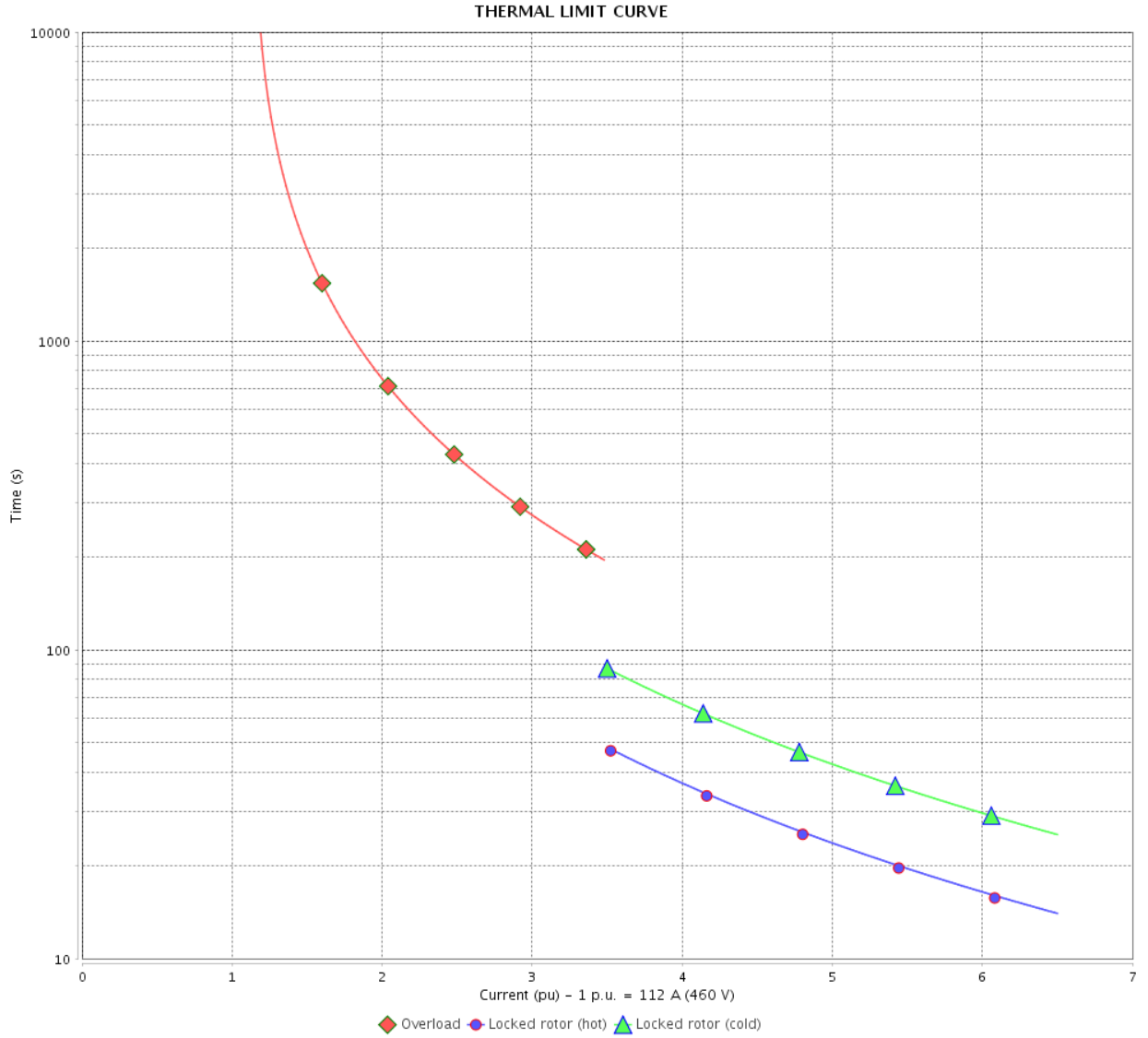
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Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2955 rpm	Design	: B

Heating constant

Cooling constant

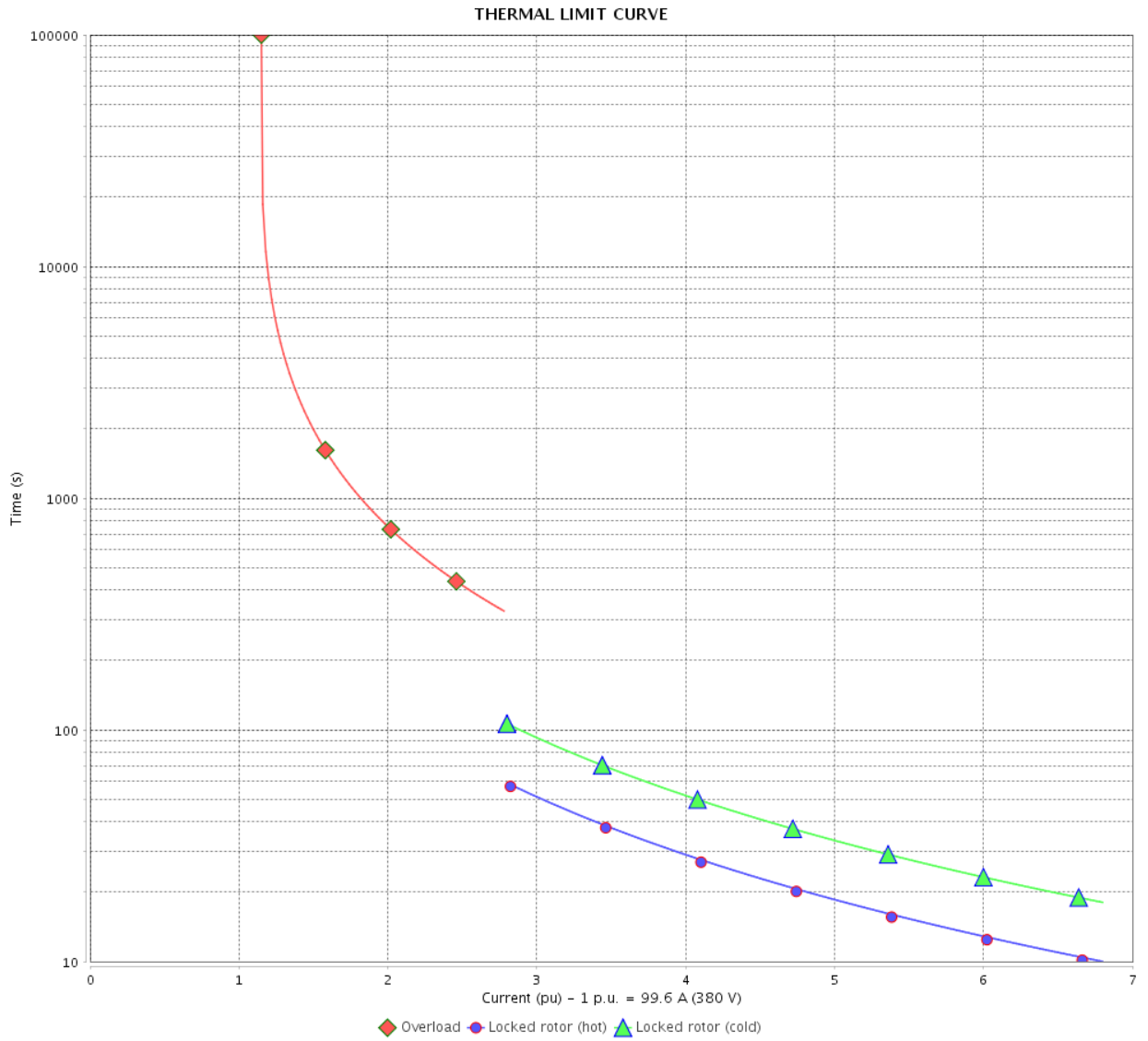
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LRC : 7.6	Duty cycle : Cont.(S1)
Rated torque : 133 ft.lb	Insulation class : F
Locked rotor torque : 280 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 2960 rpm	Design : B

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Cooling constant

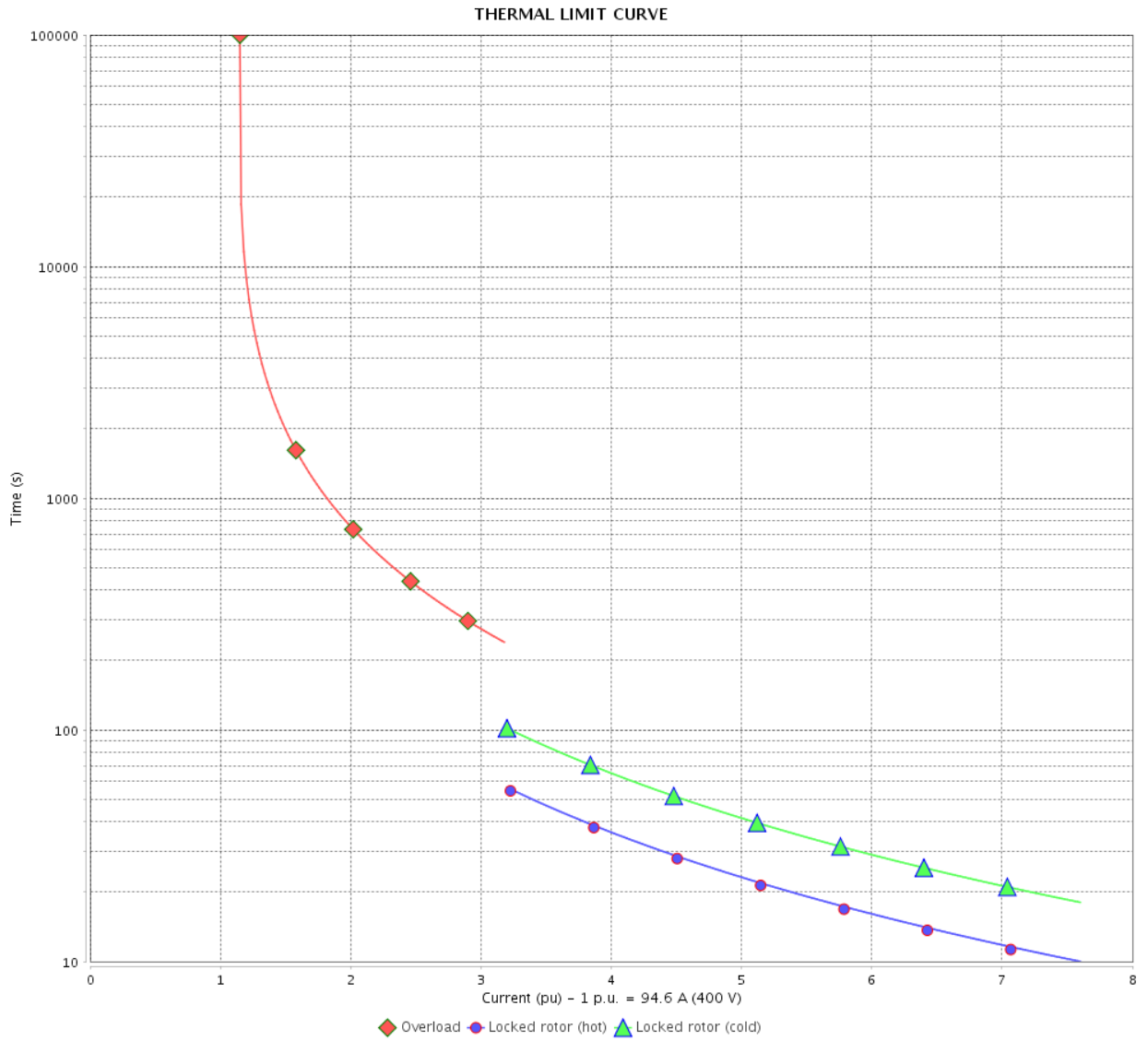
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LRC : 8.2	Duty cycle : Cont.(S1)
Rated torque : 133 ft.lb	Insulation class : F
Locked rotor torque : 300 %	Service factor : 1.00
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 2965 rpm	Design : B

Heating constant

Cooling constant

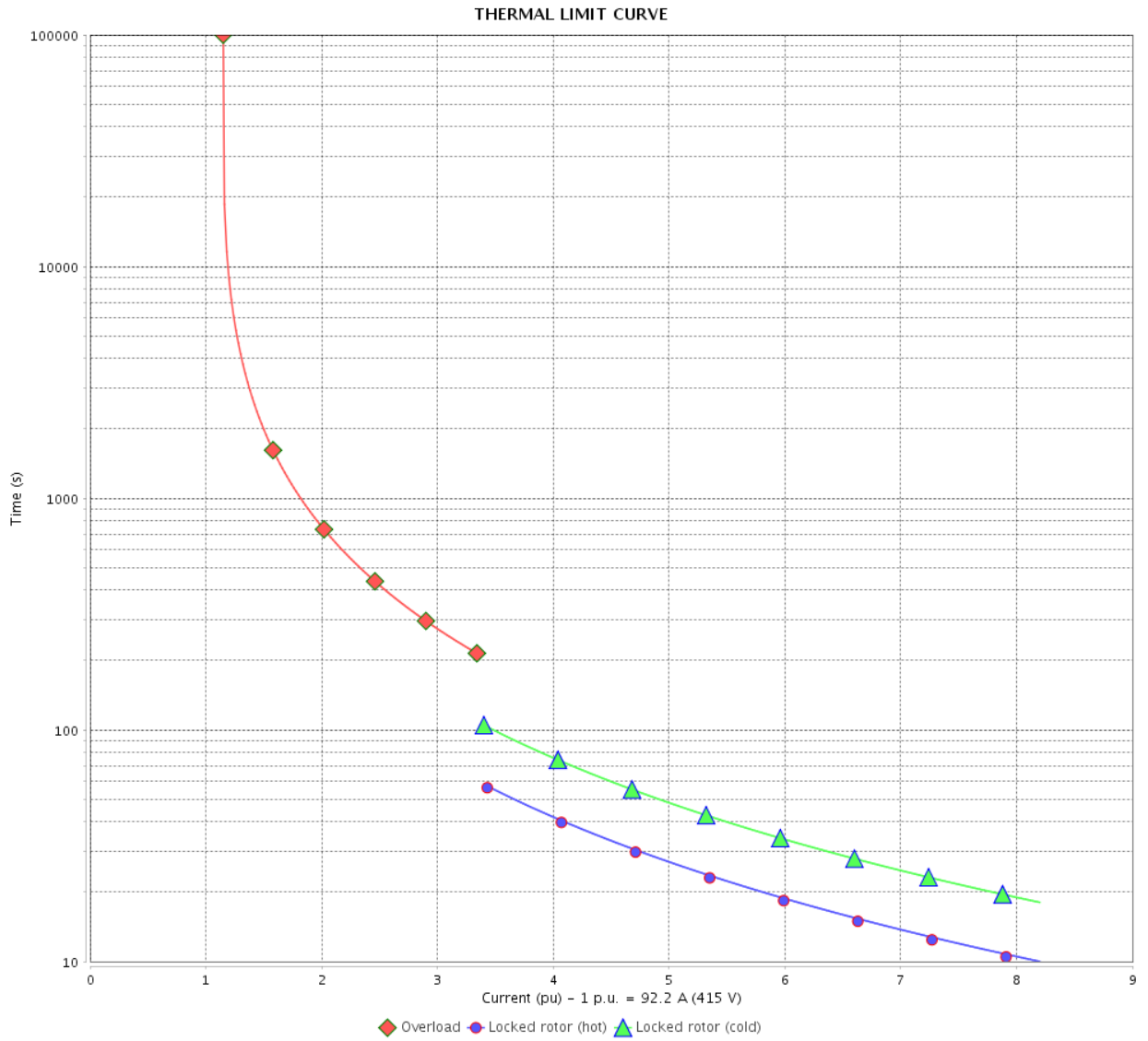
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

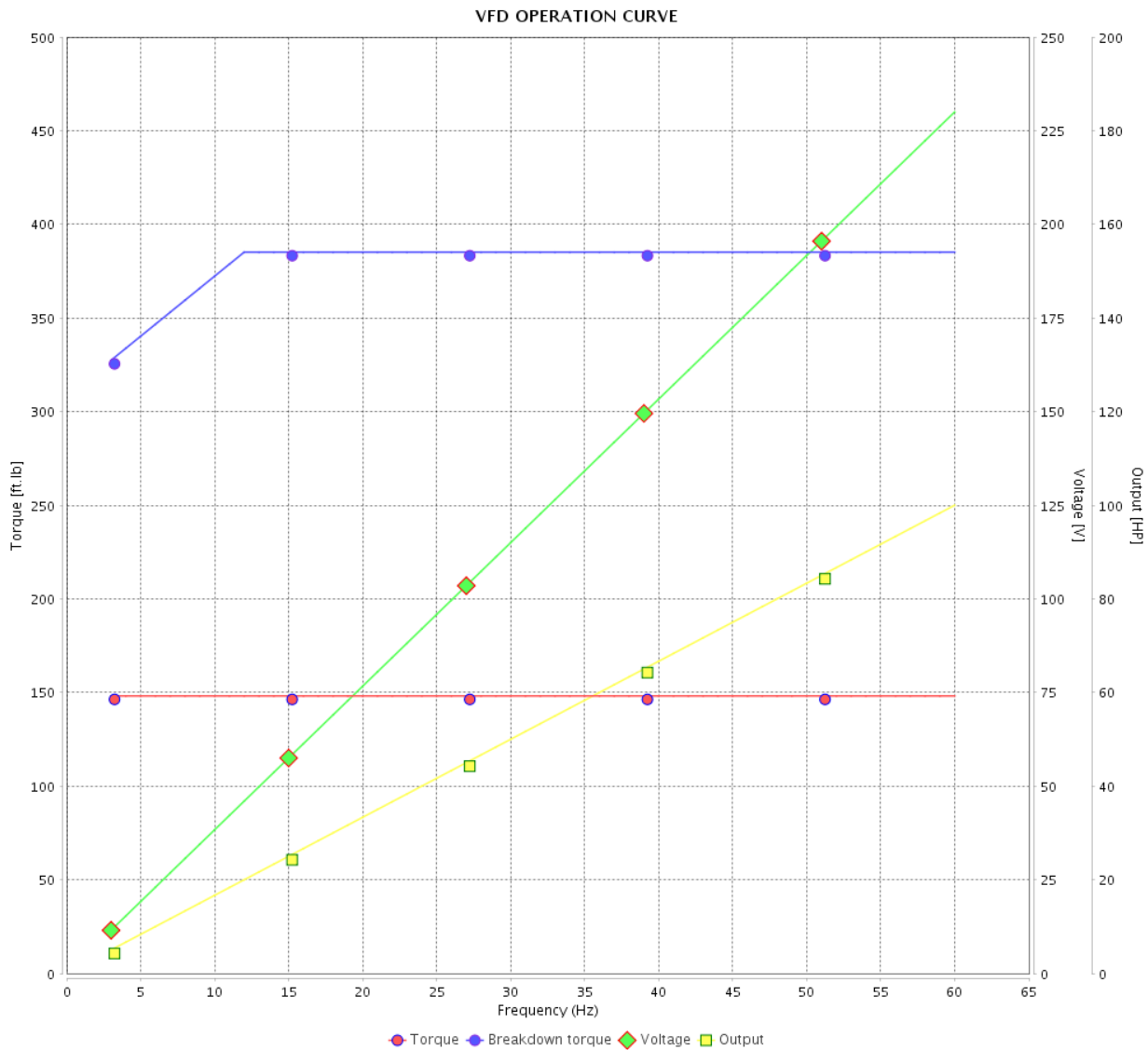


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Catalog # : 10036ET3E405JP-W22



Performance : 230/460 V 60 Hz 2P

Rated current : 224/112 A
 LRC : 6.5
 Rated torque : 148 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 3545 rpm

Moment of inertia (J) : 13.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

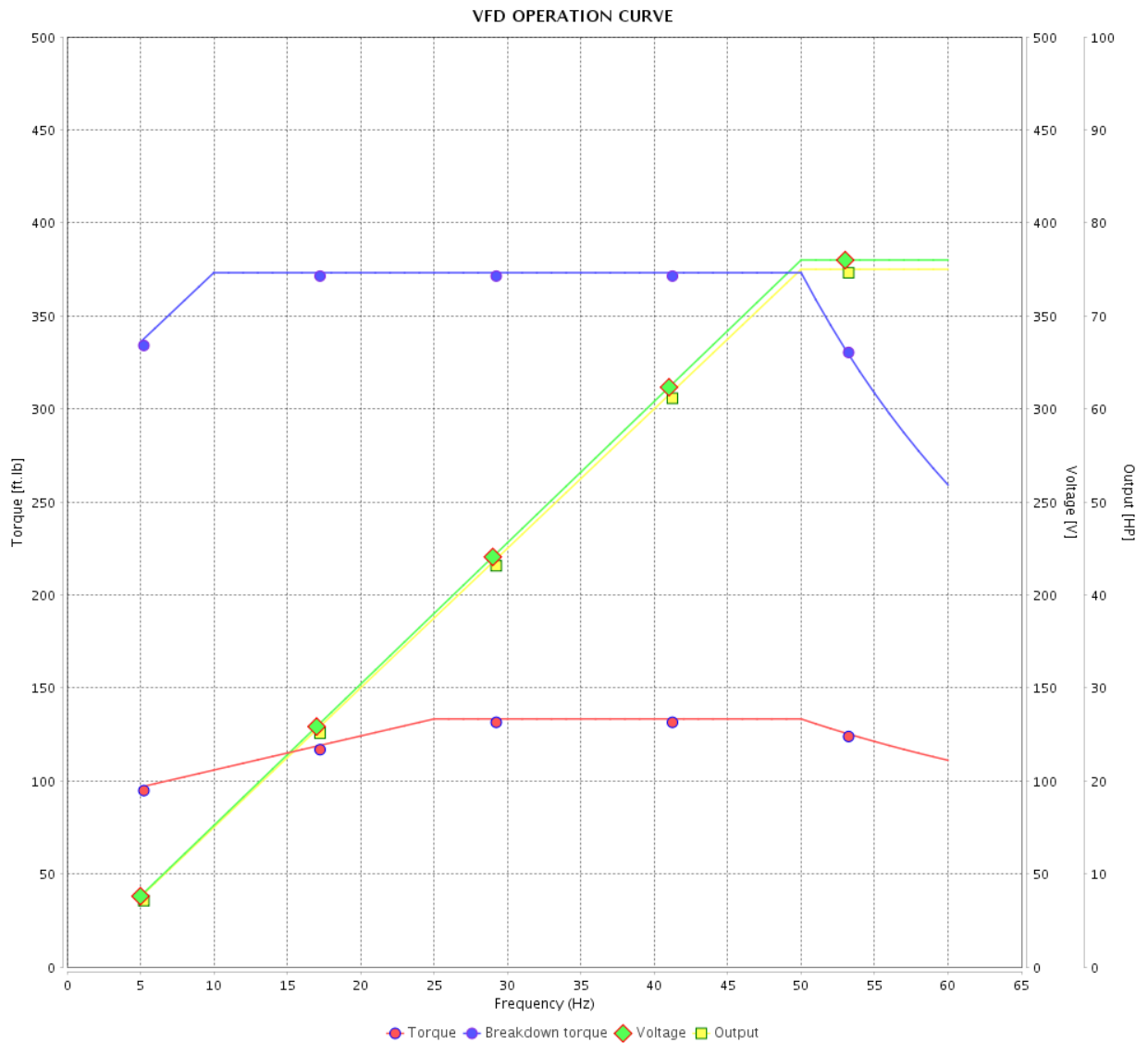


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 Locked rotor torque : 250 %
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 Rated speed : 2955 rpm

Moment of inertia (J) : 13.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



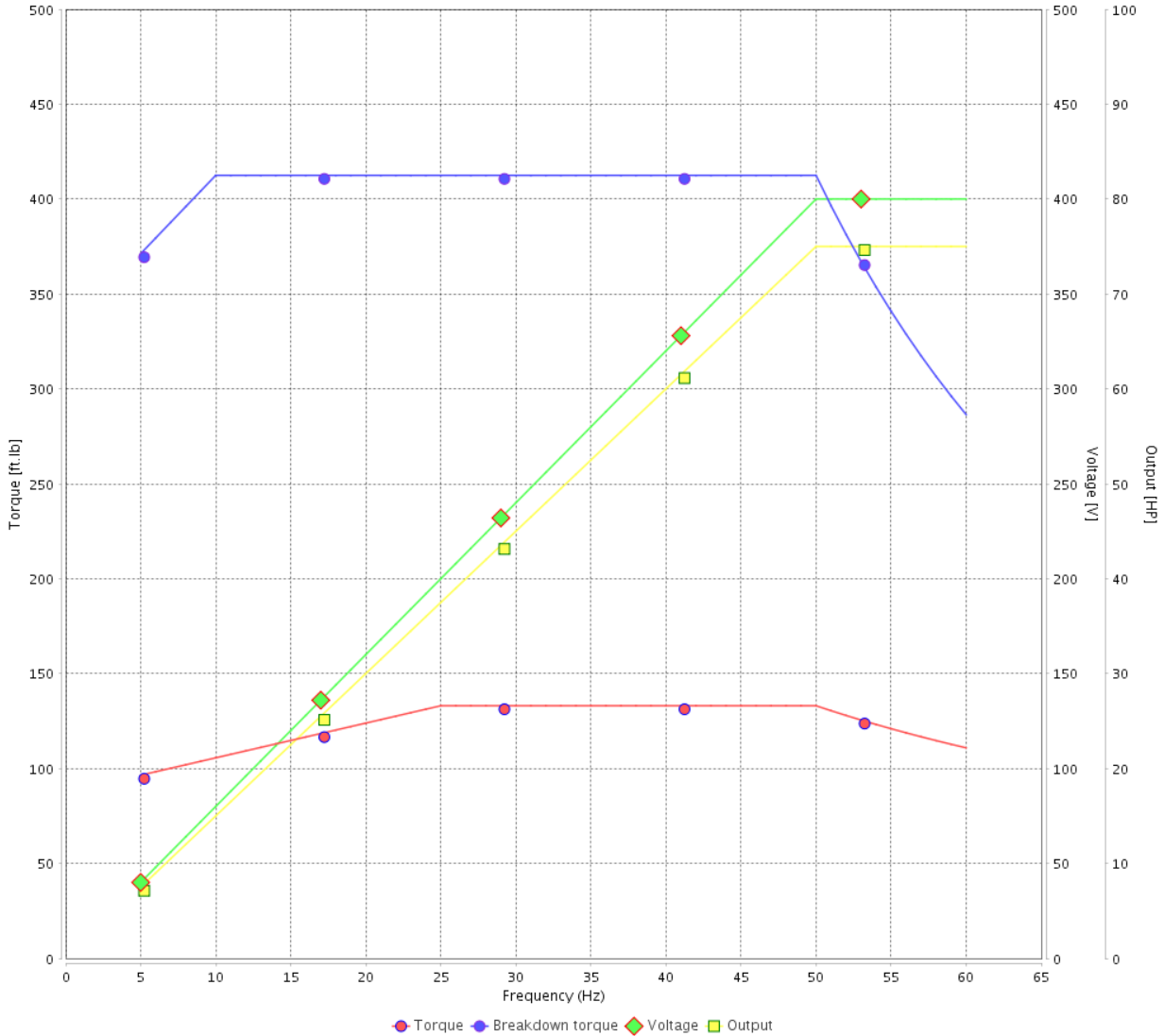
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VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current	: 94.6 A	Moment of inertia (J)	: 13.2 sq.ft.lb
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Rated torque	: 133 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2960 rpm	Design	: B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

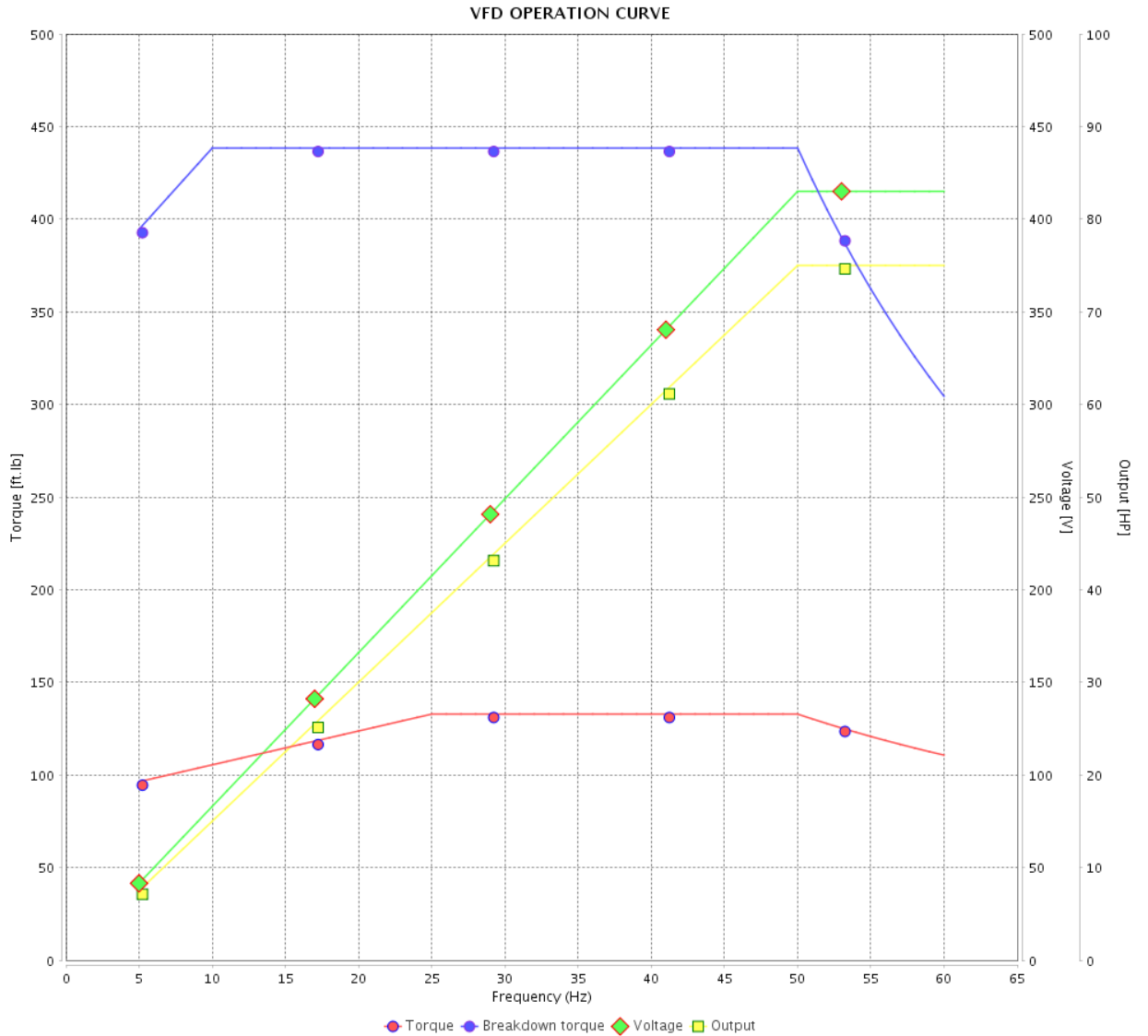


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 LRC : 8.2
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 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 13.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

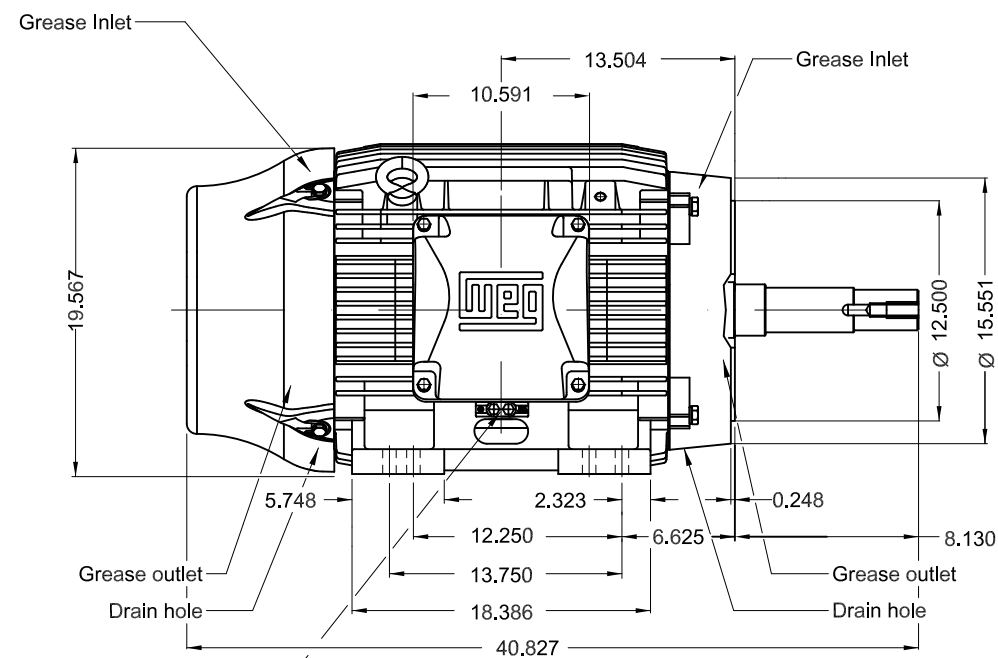
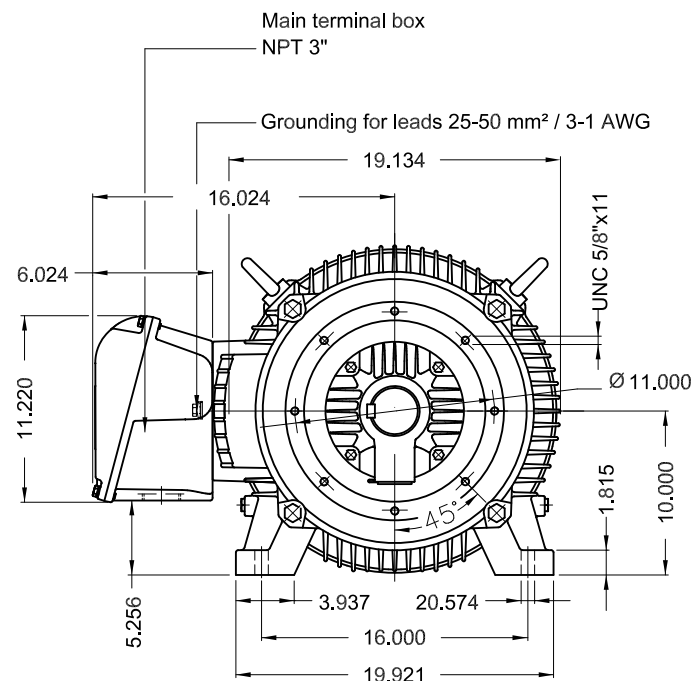
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A

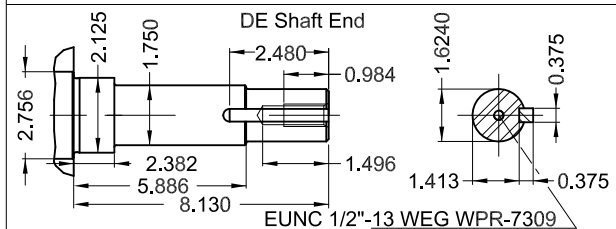
B

C



Grounding for leads 25-185 mm² / 3AWG-350MCM

D

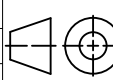


E

Without vertical jackscrews
 Color RAL 5009
 Painting plan 203A
 Mounting B34R(D)

100 HP 02 Poles 60 Hz

A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	 THREE PH. MOTOR JM/JP/JET PUMP W22 PREM. EFF. FRAME 404/5JP IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering	SHEET	1 / 1	

PREVIEW
 WDD



Dimensions in inches

XME A3



FOR SAFE AREA
MOD.TE1BFOXON



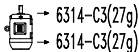
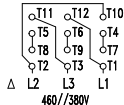
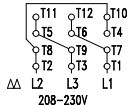
For 60Hz: Class I, Div 2, Gr. A, B, C and D - T3
Class I, Zone 2, IIC - T3

Class II, Div 2, Gr. F and G - T4

For 60Hz use on PWM, Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.0SF, T3A

MODEL 10036ET3E405JP-W22
MADE IN BRAZIL
11904015

PH 3	FR 404/5JP	HP(kW) 100.0(75.0)	Hz 60
V 230/460	A 224/112	RPM 3545	DES B
NEMA NOM EFF 94.1 %	INS. CL. F Δ T 80 K	IP55	
ENCL TEFC	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.89	SF 1.25	SFA 280/140
USABLE @208V 243 A	SF 1.10	SFA 267	
75HP 55kW 50Hz 380V 99.6A 2955RPM SF1.00 EFF 94.3% (IE3)	ALT 1000 m.a.s.l.	1129 Lbs	



MOBIL POLYREX EM
4000 h