

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	11456657		
		Catalog # :	00309ET3E215T-W22		
Frame	: 213/5T	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	: 181 lb		
Protection degree	: IP55	Moment of inertia (J)	: 2.11 sq.ft.lb		
Design	: B				
Output [HP]	3	3	3	3	
Poles	8	8	8	8	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	9.10/4.55	5.33	5.20	5.06	
L. R. Amperes [A]	61.9/30.9	28.2	31.2	32.9	
LRC [A]	6.8x(Code K)	5.3x(Code G)	6.0x(Code J)	6.5x(Code J)	
No load current [A]	5.43/2.71	2.68	2.86	3.00	
Rated speed [RPM]	870	710	715	720	
Slip [%]	3.33	5.33	4.67	4.00	
Rated torque [ft.lb]	18.1	22.2	22.0	21.9	
Locked rotor torque [%]	229	180	220	260	
Breakdown torque [%]	275	200	240	270	
Service factor	1.25	1.25	1.25	1.25	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	79s (cold) 44s (hot)	59s (cold) 33s (hot)	59s (cold) 33s (hot)	59s (cold) 33s (hot)	
Noise level ²	52.0 dB(A)	52.0 dB(A)	52.0 dB(A)	52.0 dB(A)	
Efficiency (%)	25%				
	50%	84.0	84.0	84.0	
	75%	85.5	84.0	84.0	
	100%	85.5	82.5	82.5	
Power Factor	25%				
	50%	0.50	0.57	0.54	
	75%	0.63	0.70	0.67	
	100%	0.71	0.76	0.74	
Bearing type	: <u>Drive end</u> 6308 ZZ <u>Non drive end</u> 6207 ZZ	Foundation loads			
Sealing	: V'Ring V'Ring	Max. traction	: 242 lb		
Lubrication interval	: - -	Max. compression	: 424 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 10.1A SF 1.15 SFA 11.6A					
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



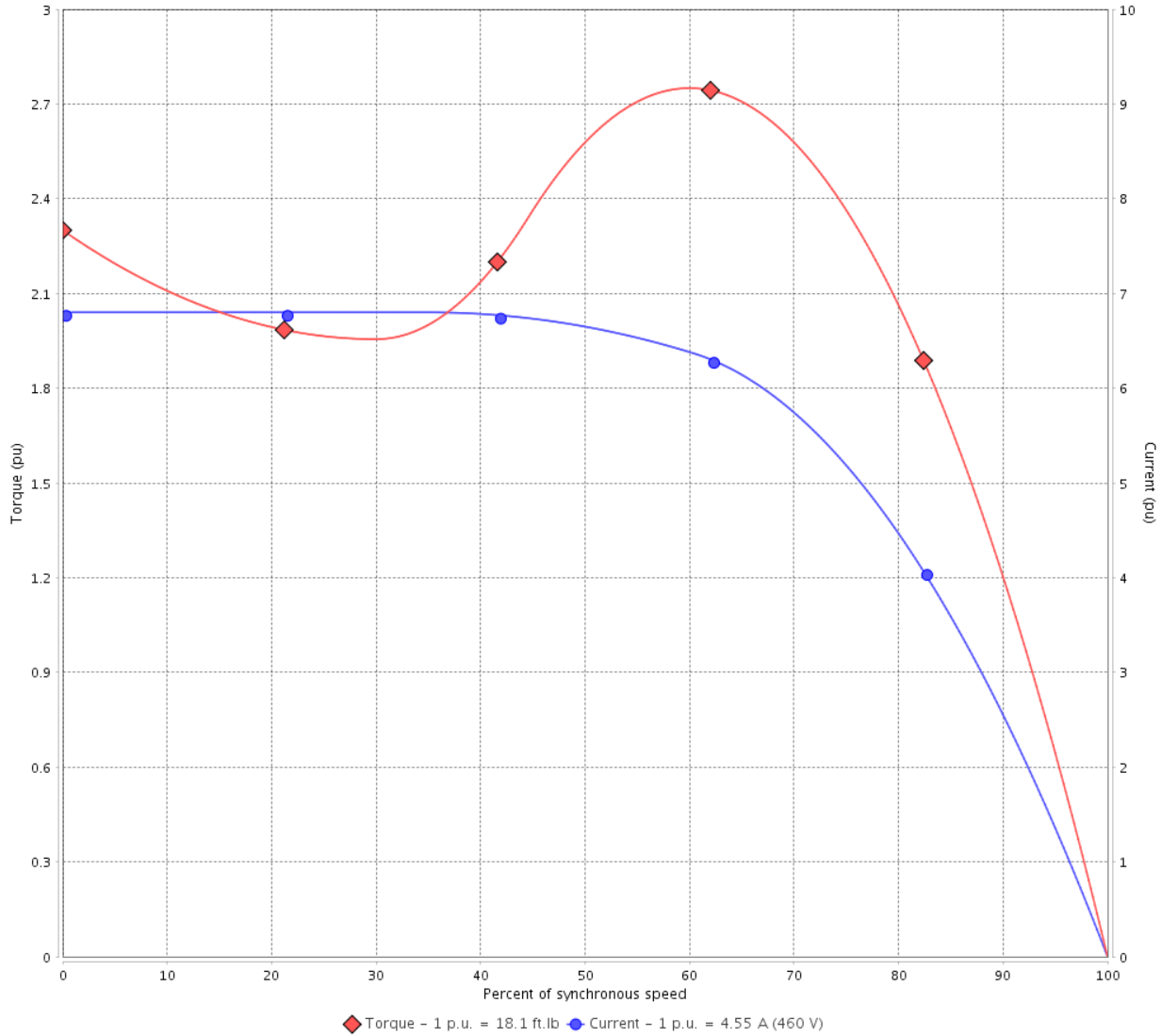
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11456657

Catalog # : 00309ET3E215T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 8P

Rated current	: 9.10/4.55 A	Moment of inertia (J)	: 2.11 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 18.1 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 275 %	Temperature rise	: 80 K
Rated speed	: 870 rpm	Design	: B

Locked rotor time : 79s (cold) 44s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



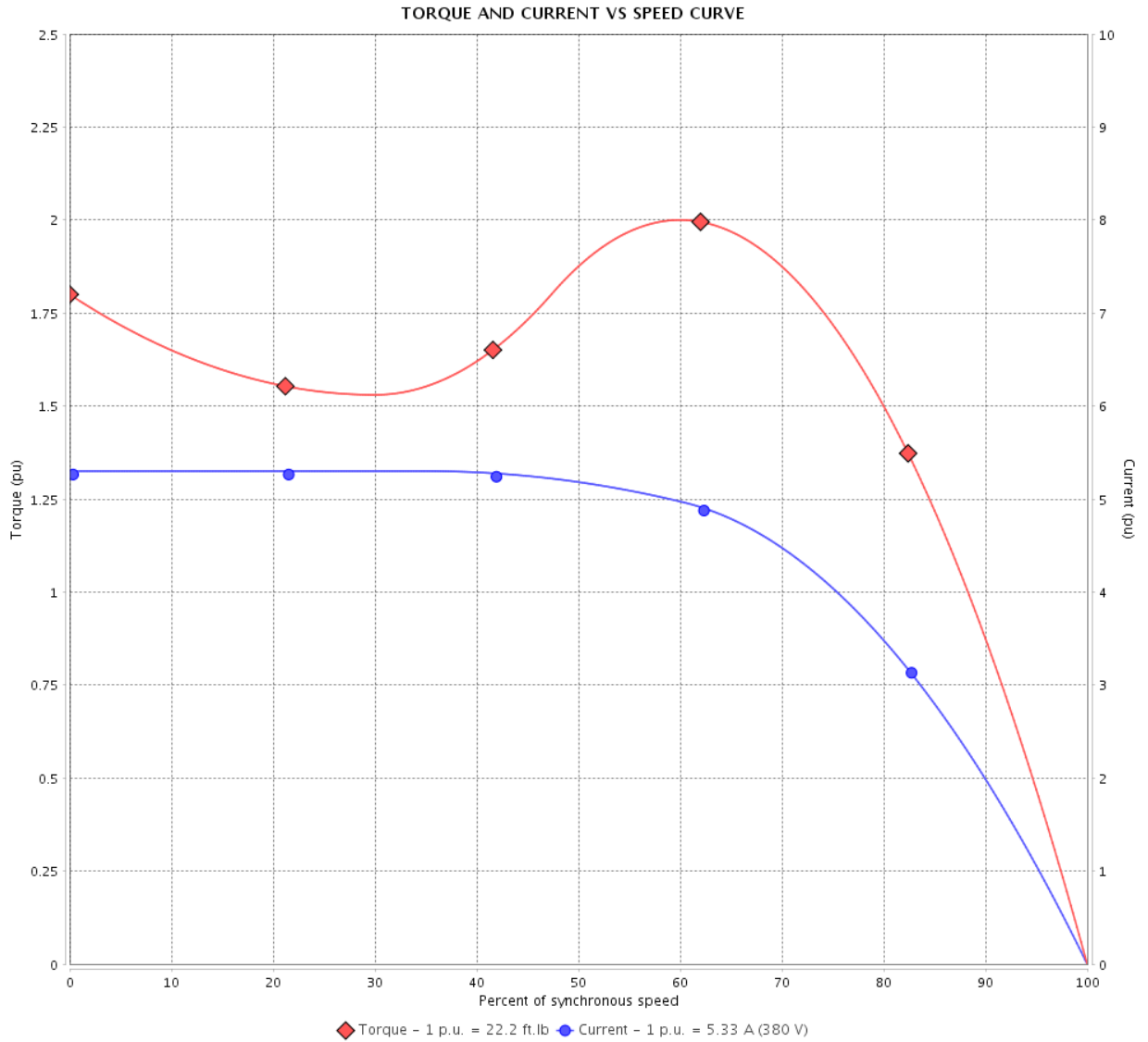
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11456657

Catalog # : 00309ET3E215T-W22



Performance : 380 V 50 Hz 8P IE3

Rated current : 5.33 A
 LRC : 5.3
 Rated torque : 22.2 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 200 %
 Rated speed : 710 rpm

Moment of inertia (J) : 2.11 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Locked rotor time : 59s (cold) 33s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

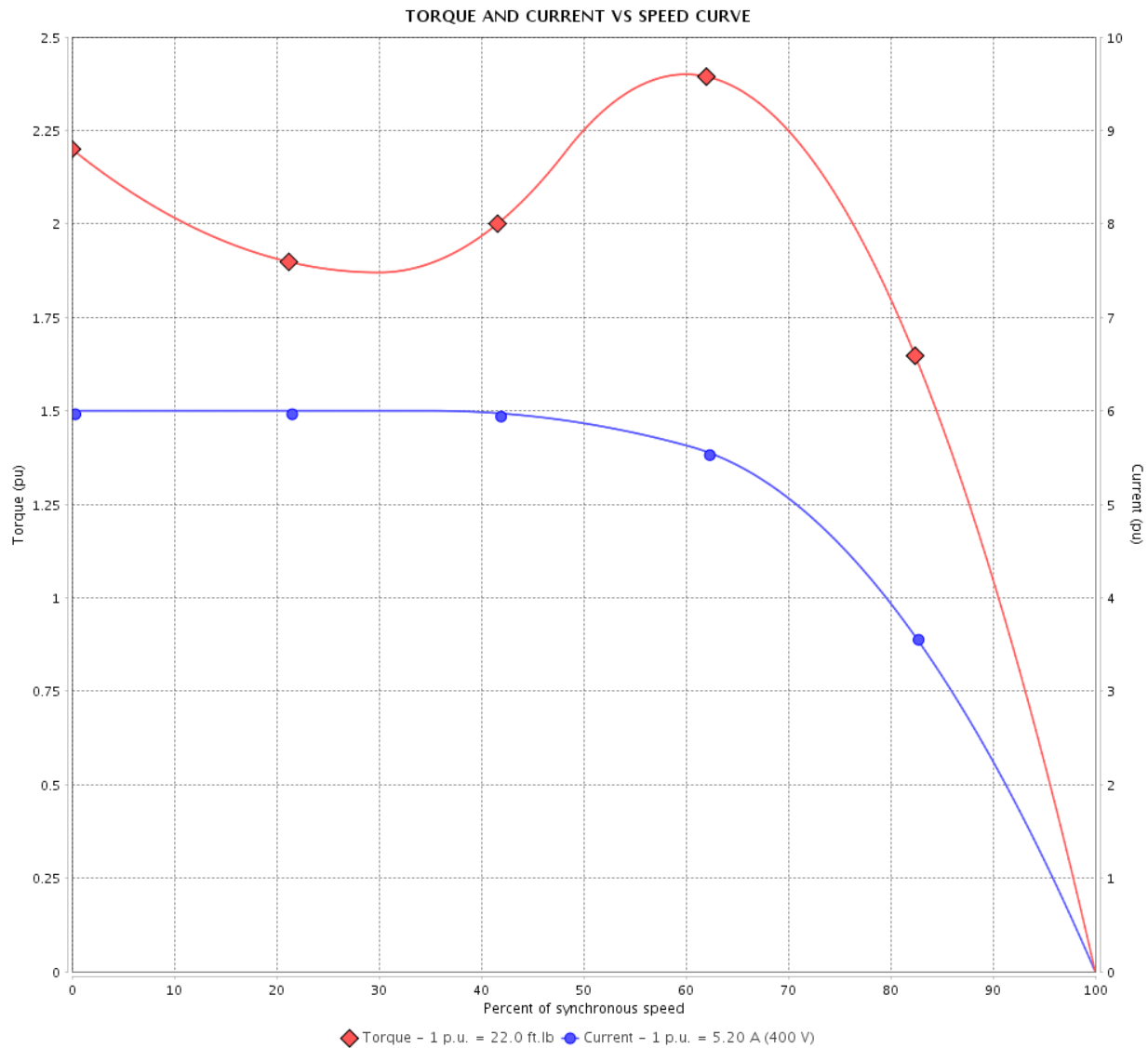


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11456657

Catalog # : 00309ET3E215T-W22



Performance : 400 V 50 Hz 8P IE3

Rated current	: 5.20 A	Moment of inertia (J)	: 2.11 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 22.0 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 715 rpm	Design	: B

Locked rotor time : 59s (cold) 33s (hot)

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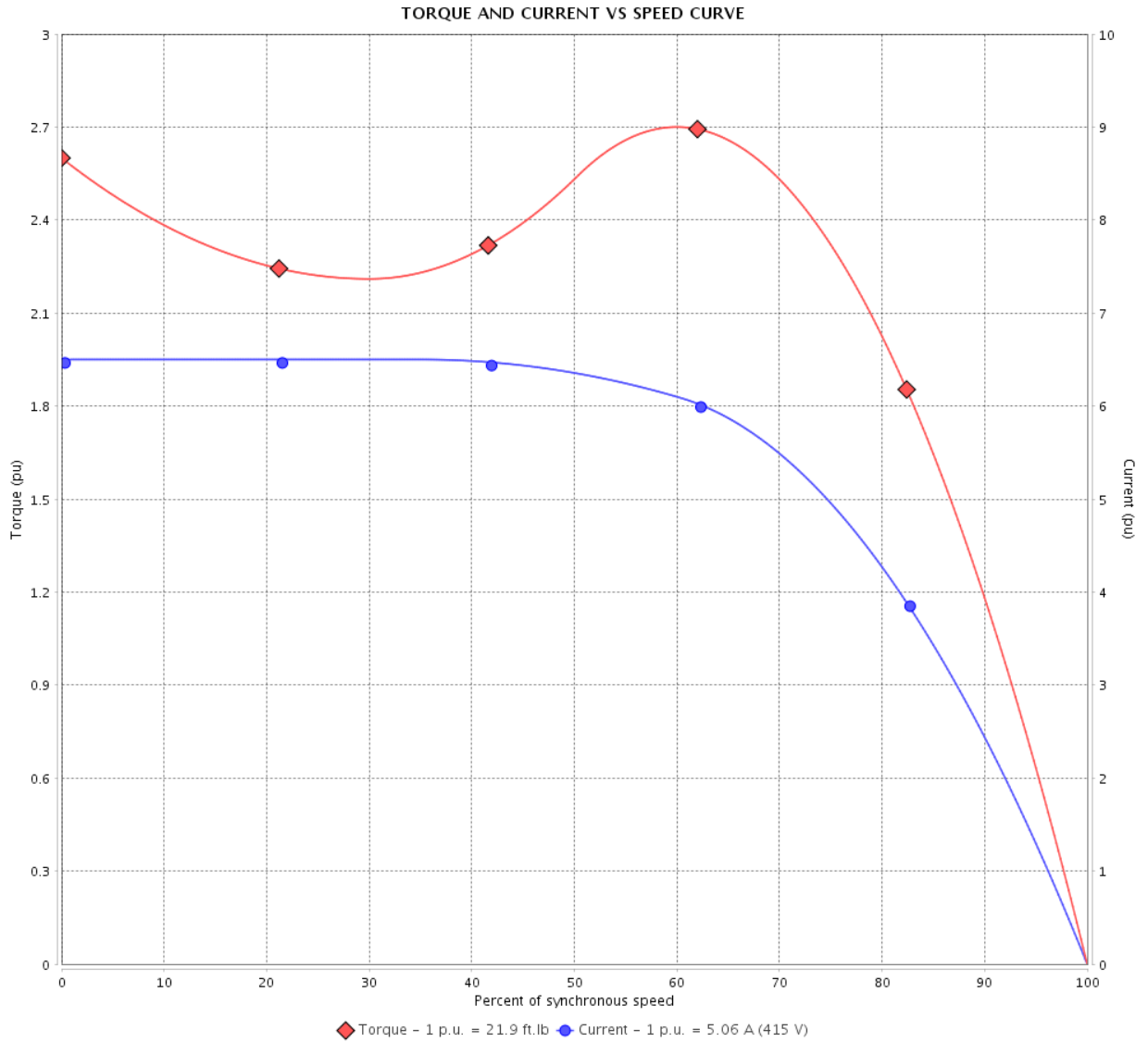
TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 11456657
 Catalog # : 00309ET3E215T-W22



Performance : 415 V 50 Hz 8P IE3

Rated current	: 5.06 A	Moment of inertia (J)	: 2.11 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 21.9 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 720 rpm	Design	: B

Locked rotor time : 59s (cold) 33s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



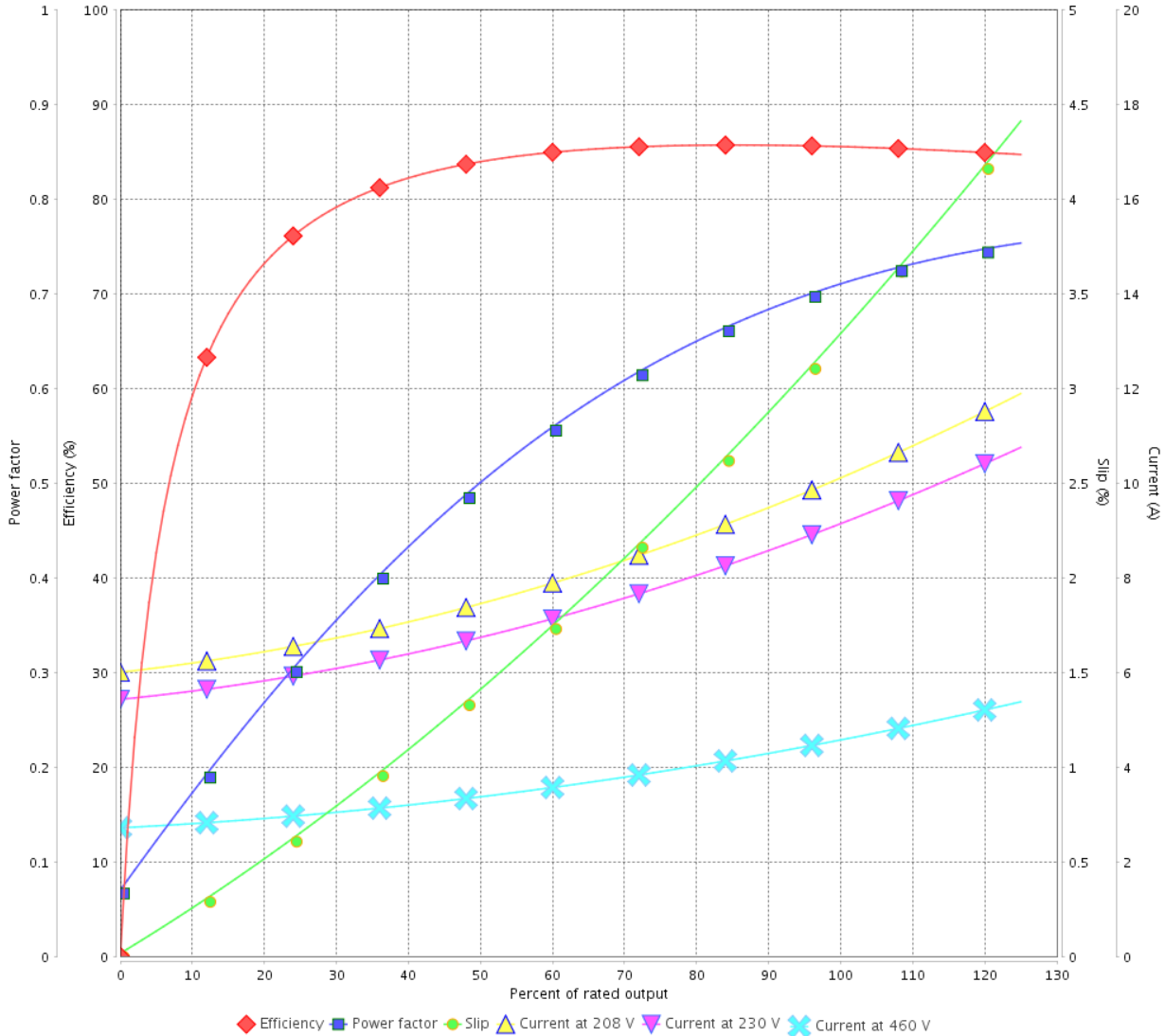
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11456657

Catalog # : 00309ET3E215T-W22

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 8P

Rated current : 9.10/4.55 A
 LRC : 6.8
 Rated torque : 18.1 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 275 %
 Rated speed : 870 rpm

Moment of inertia (J) : 2.11 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

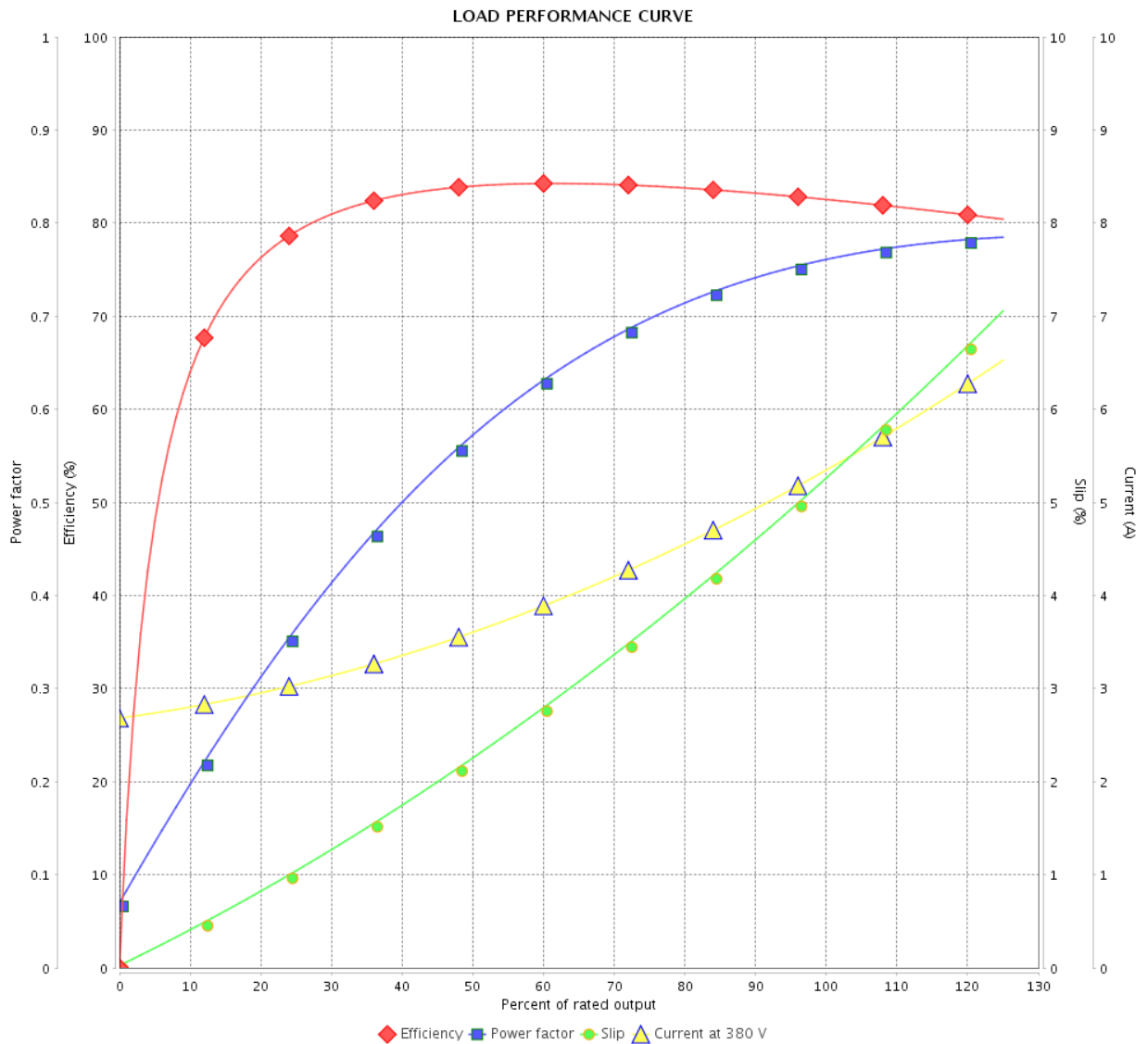


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Performance : 380 V 50 Hz 8P IE3

Rated current : 5.33 A
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 Locked rotor torque : 180 %
 Breakdown torque : 200 %
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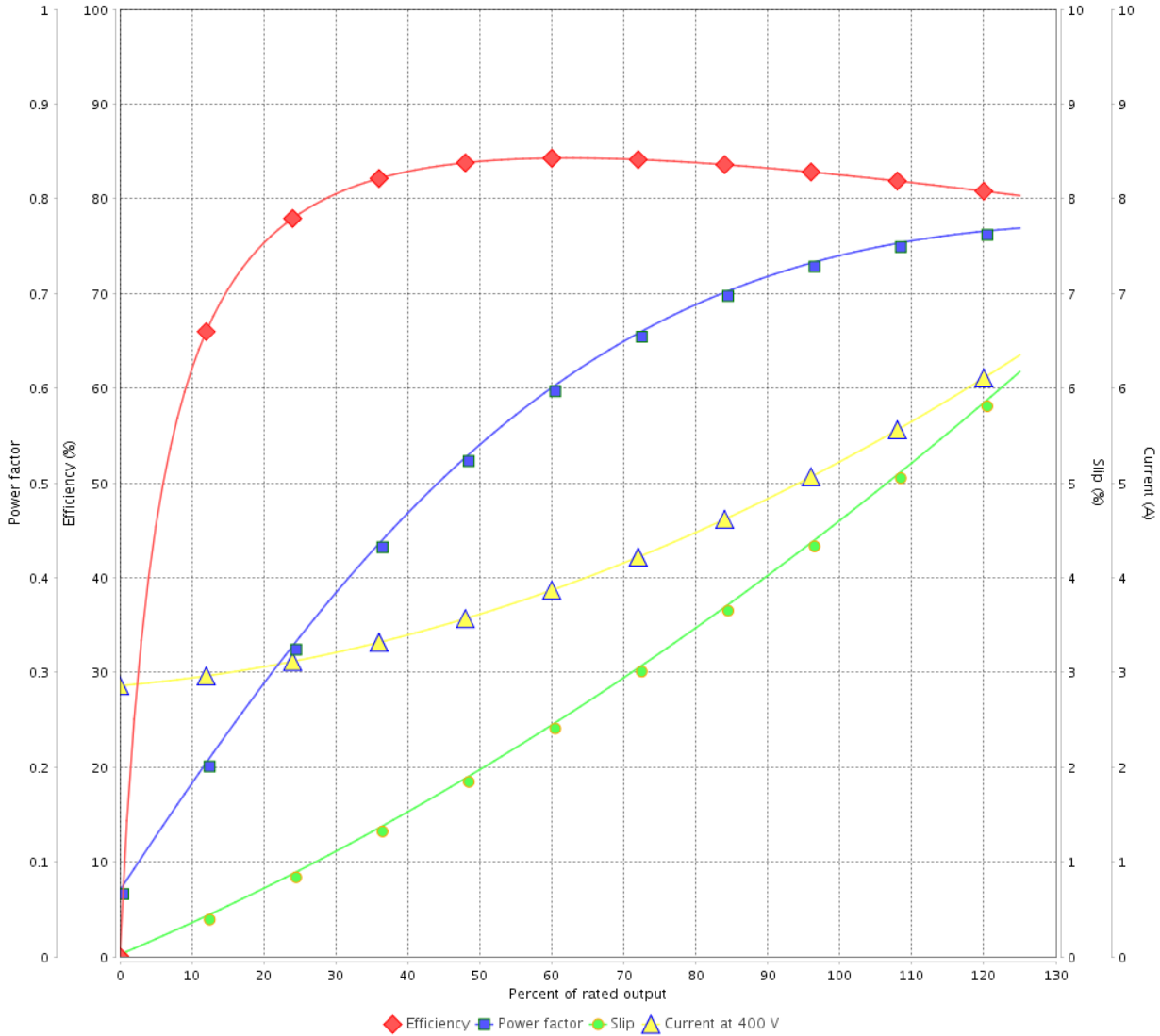
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Performance : 400 V 50 Hz 8P IE3

Rated current : 5.20 A
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 Rated torque : 22.0 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 715 rpm

Moment of inertia (J) : 2.11 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

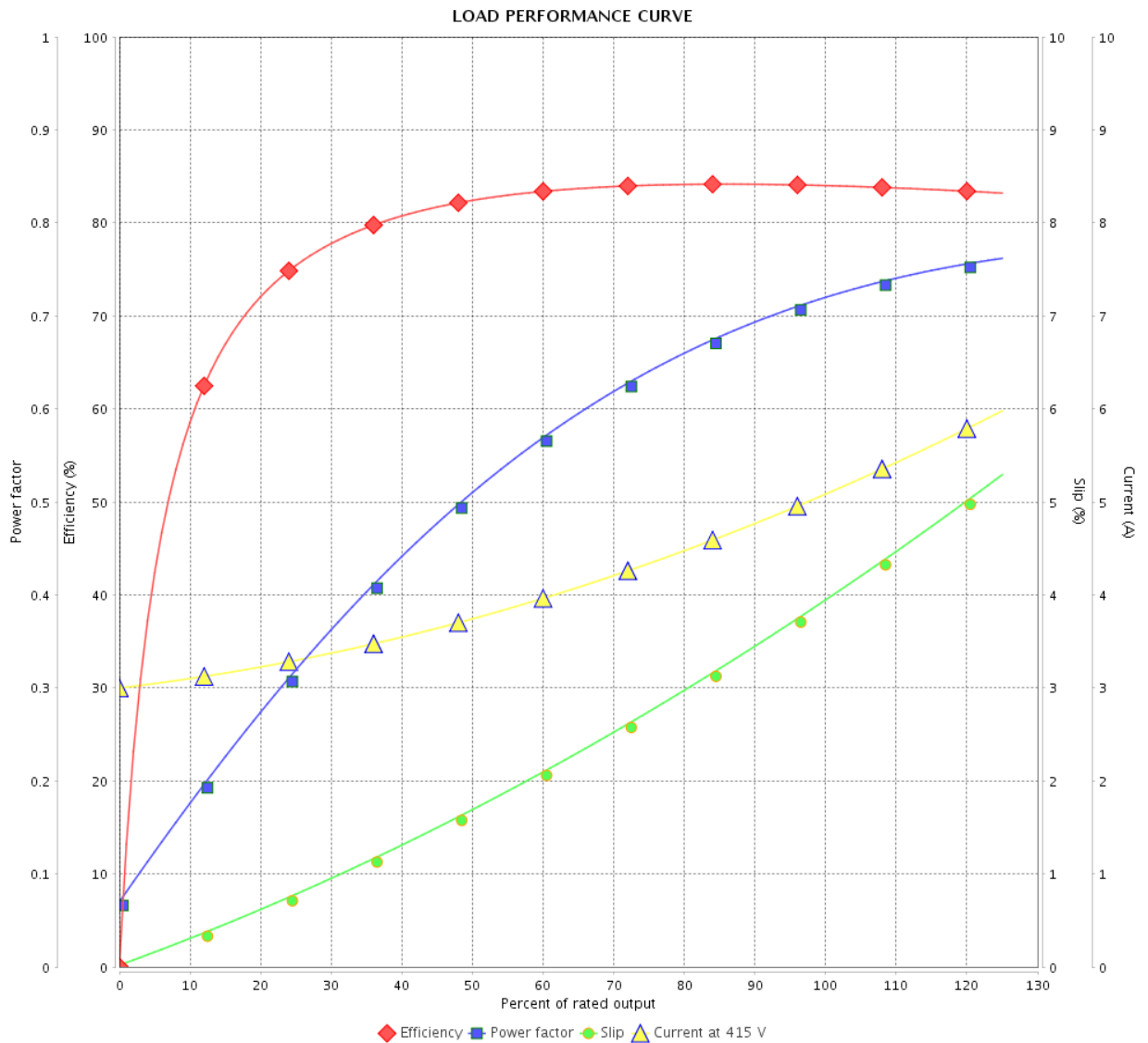


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
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THERMAL LIMIT CURVE



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Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 275 %	Temperature rise	: 80 K
Rated speed	: 870 rpm	Design	: B

Heating constant

Cooling constant

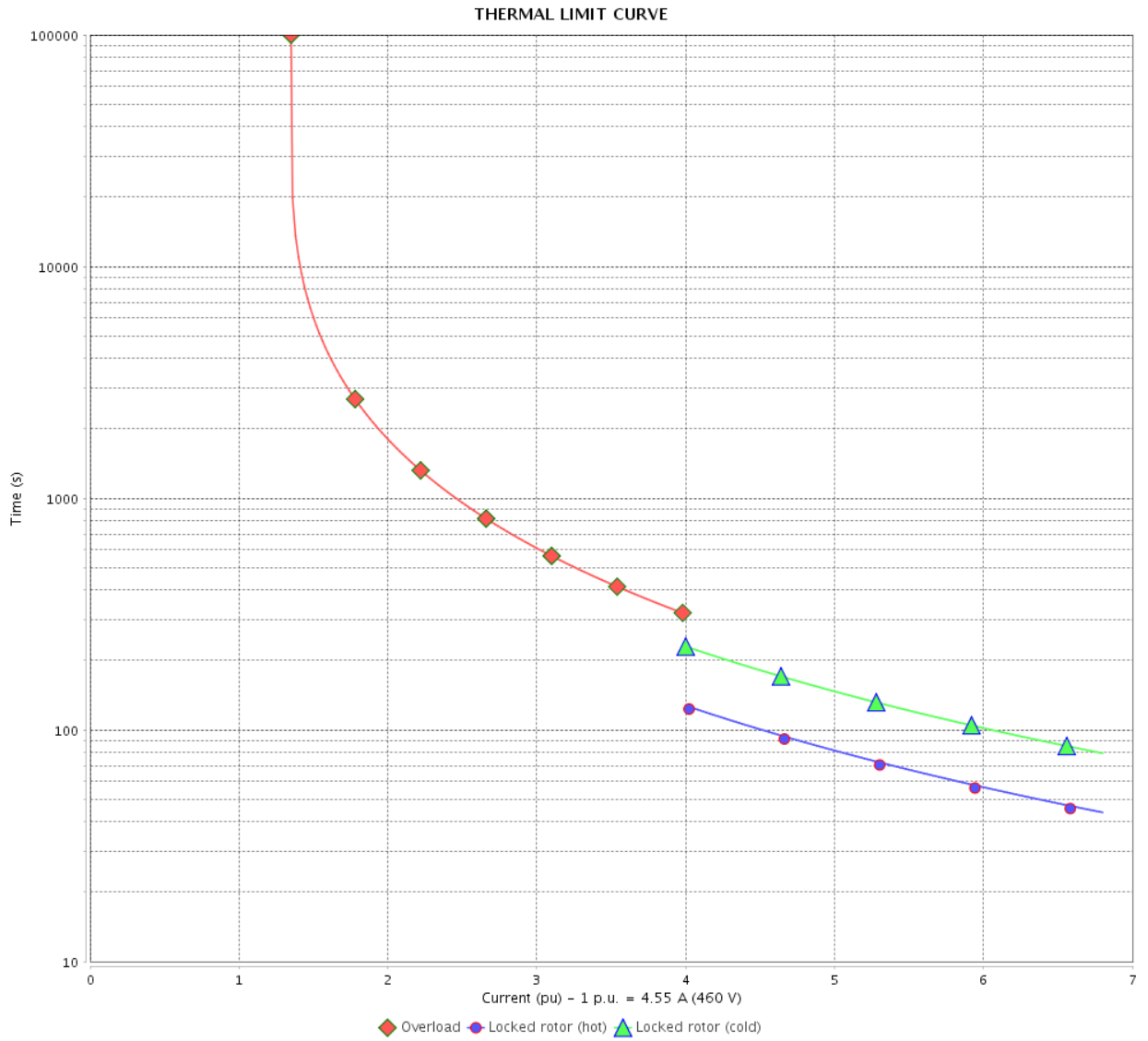
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Performance : 380 V 50 Hz 8P IE3

Rated current	: 5.33 A	Moment of inertia (J)	: 2.11 sq.ft.lb
LRC	: 5.3	Duty cycle	: Cont.(S1)
Rated torque	: 22.2 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 200 %	Temperature rise	: 80 K
Rated speed	: 710 rpm	Design	: B

Heating constant

Cooling constant

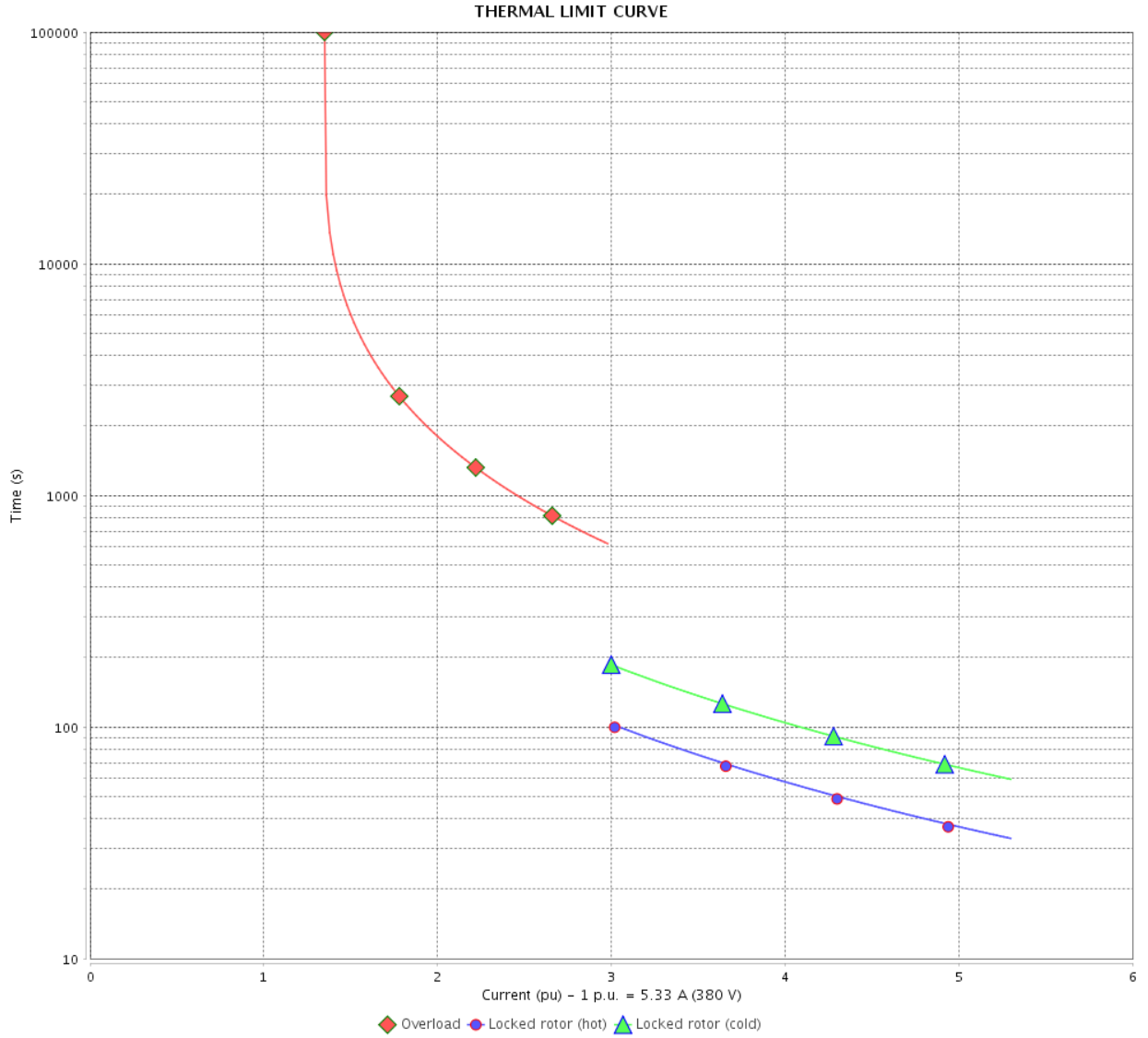
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LRC : 6.0	Duty cycle : Cont.(S1)
Rated torque : 22.0 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.25
Breakdown torque : 240 %	Temperature rise : 80 K
Rated speed : 715 rpm	Design : B

Heating constant

Cooling constant

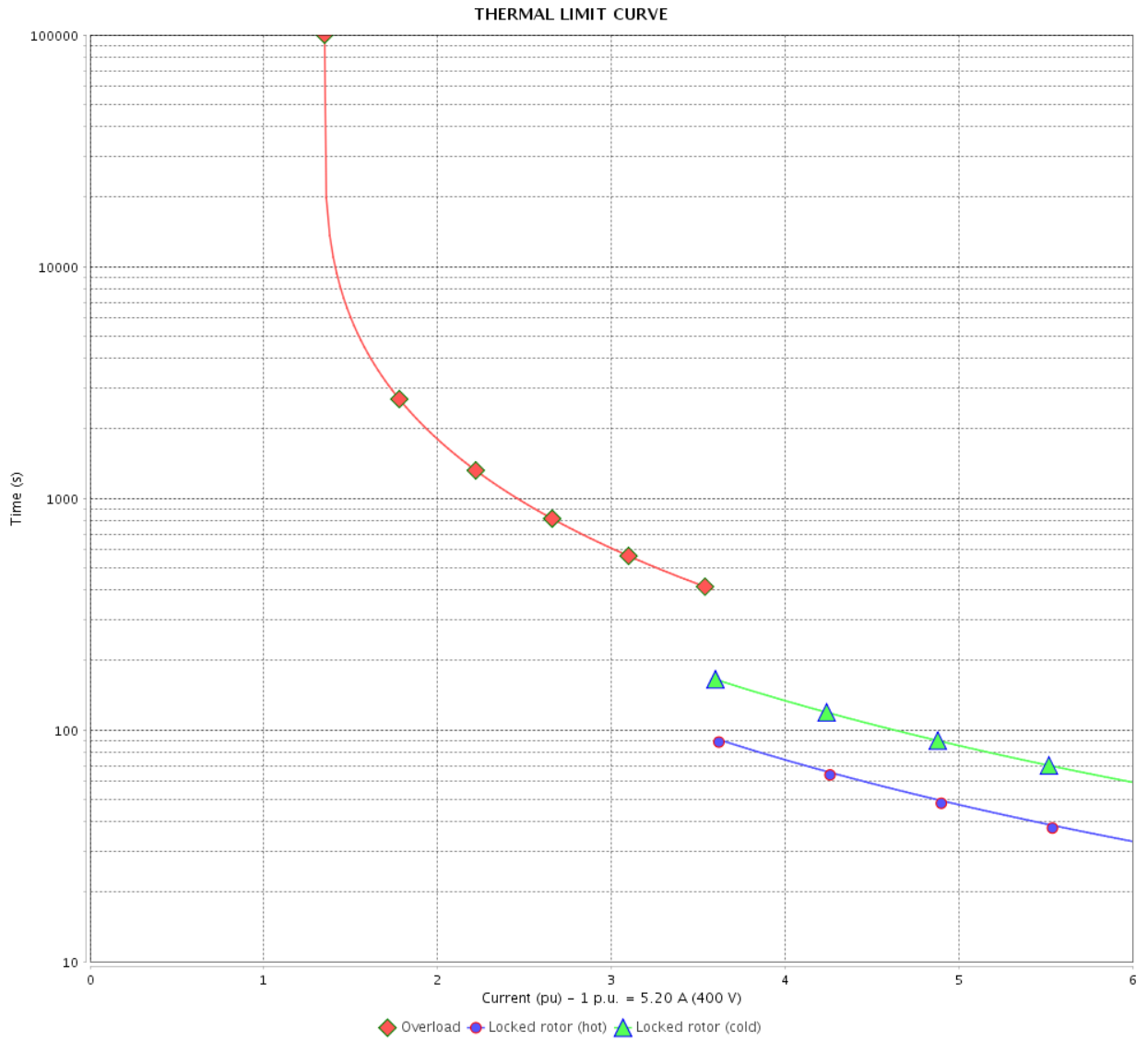
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Rated current	: 5.06 A	Moment of inertia (J)	: 2.11 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 21.9 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 720 rpm	Design	: B

Heating constant

Cooling constant

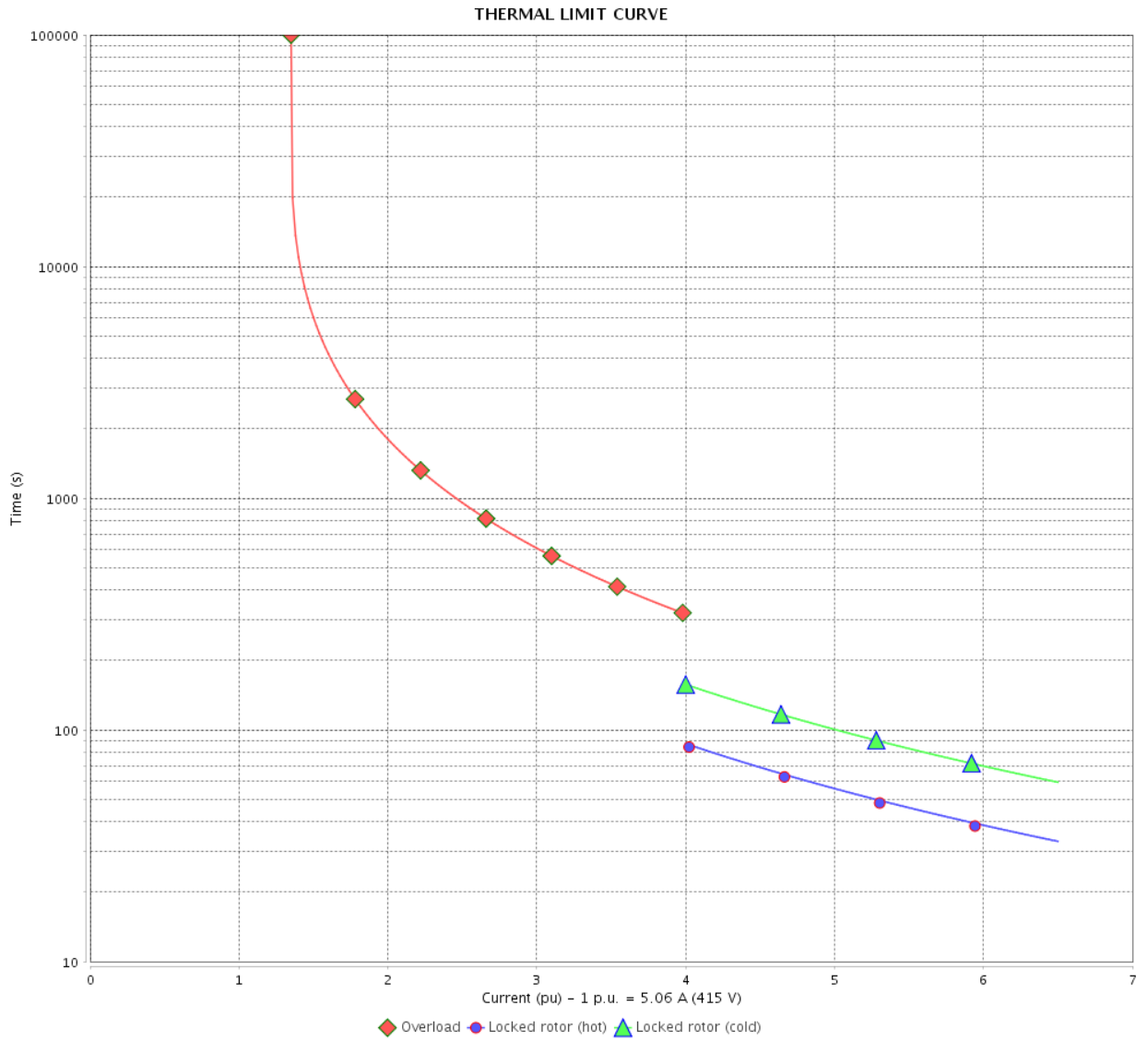
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

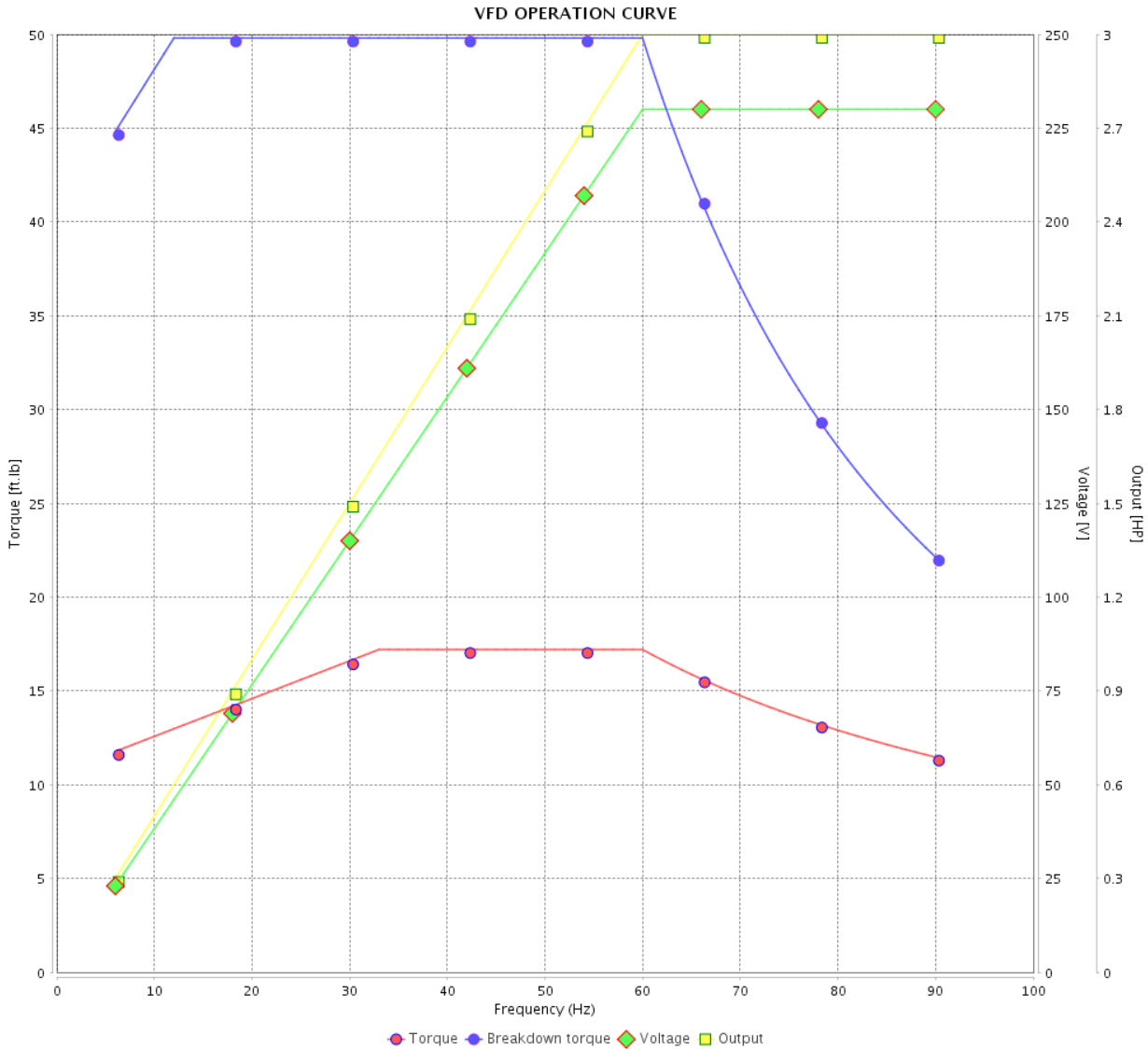


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Performance : 230/460 V 60 Hz 8P

Rated current : 9.10/4.55 A
 LRC : 6.8
 Rated torque : 18.1 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 275 %
 Rated speed : 870 rpm

Moment of inertia (J) : 2.11 sq.ft.lb
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 Insulation class : F
 Service factor : 1.25
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Rev.	Changes Summary	Performed	Checked	Date
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

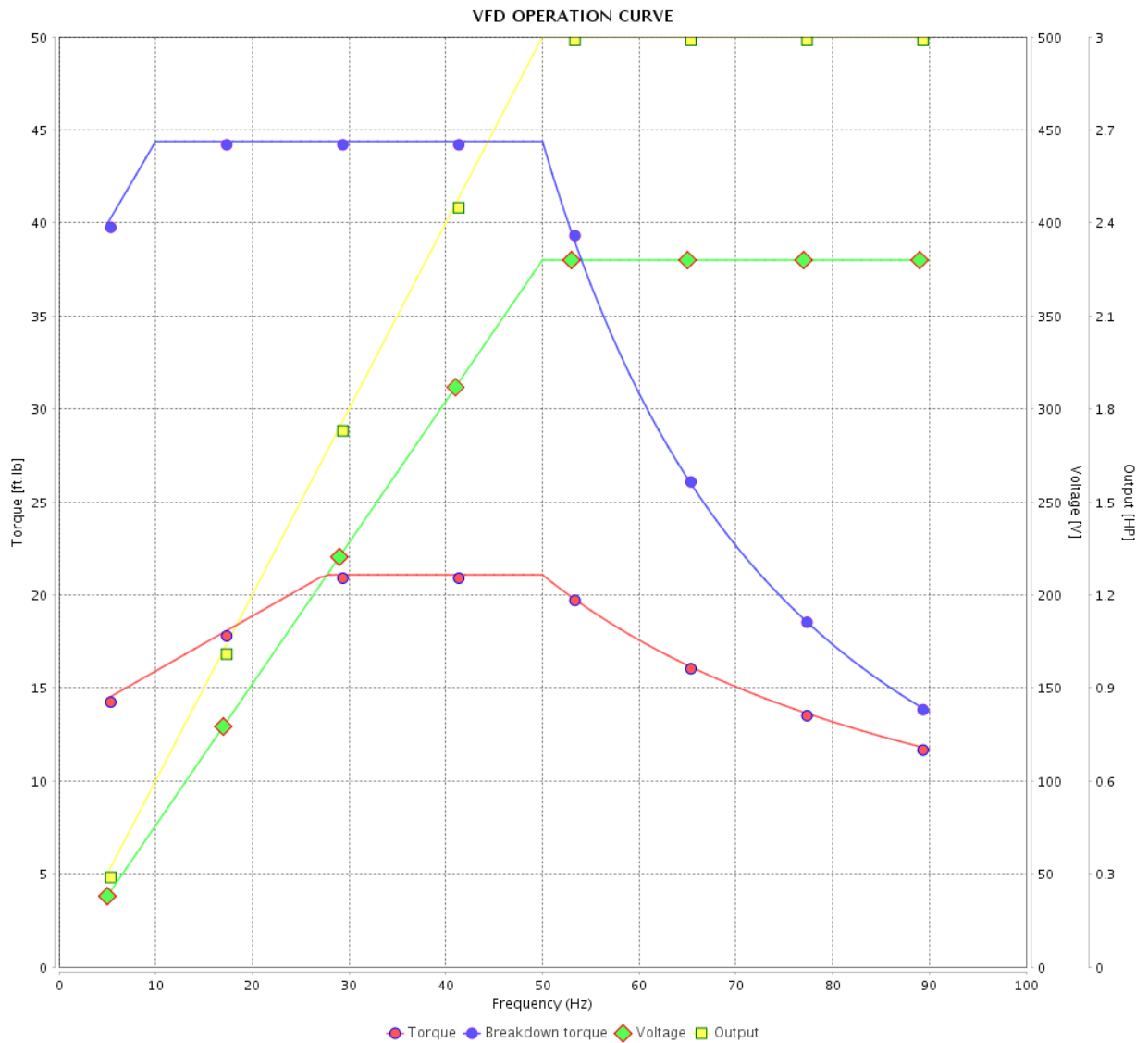


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Performance : 380 V 50 Hz 8P IE3

Rated current : 5.33 A
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 Rated torque : 22.2 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 200 %
 Rated speed : 710 rpm

Moment of inertia (J) : 2.11 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

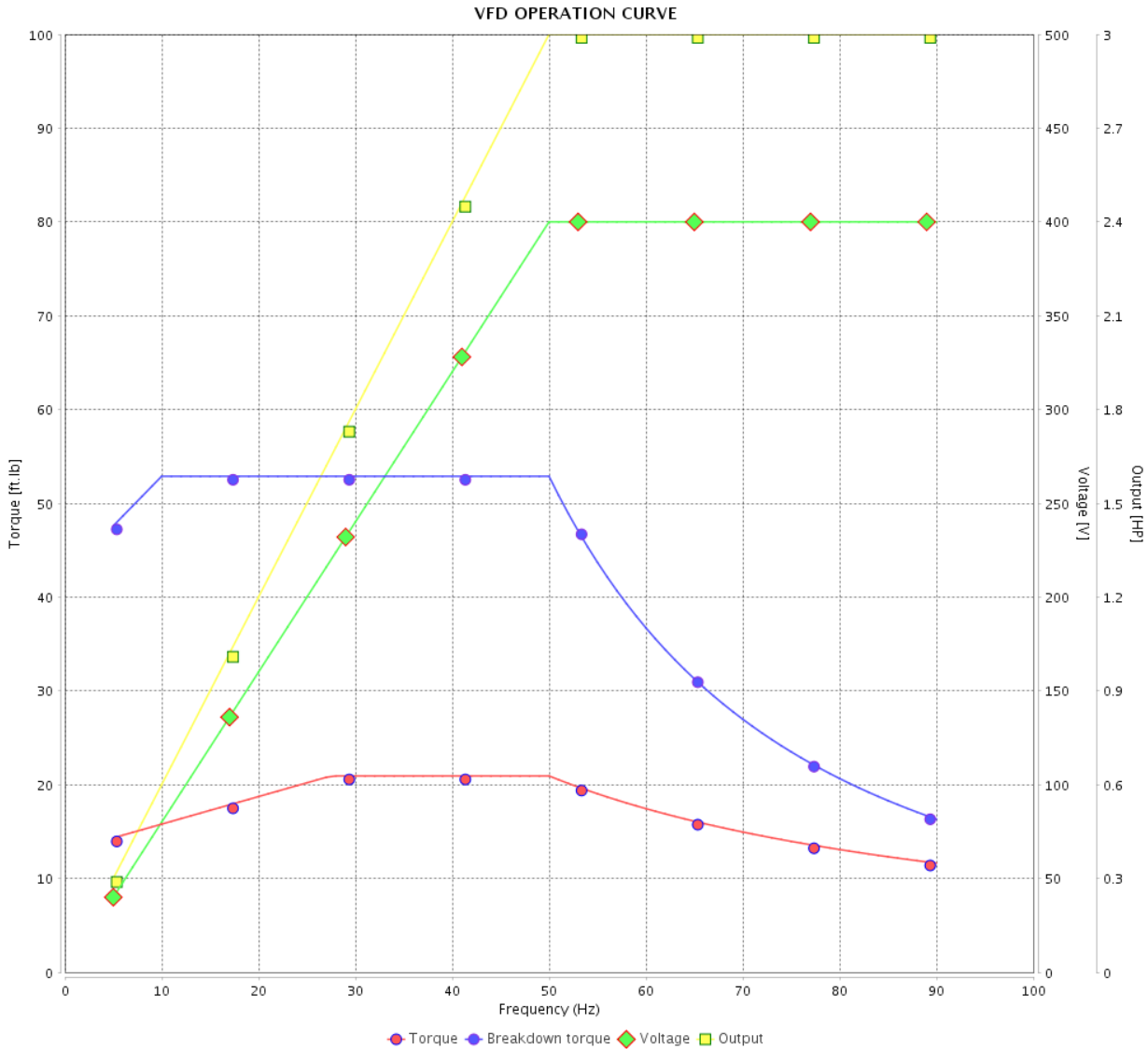


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Performance : 400 V 50 Hz 8P IE3

Rated current	: 5.20 A	Moment of inertia (J)	: 2.11 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 22.0 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 715 rpm	Design	: B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

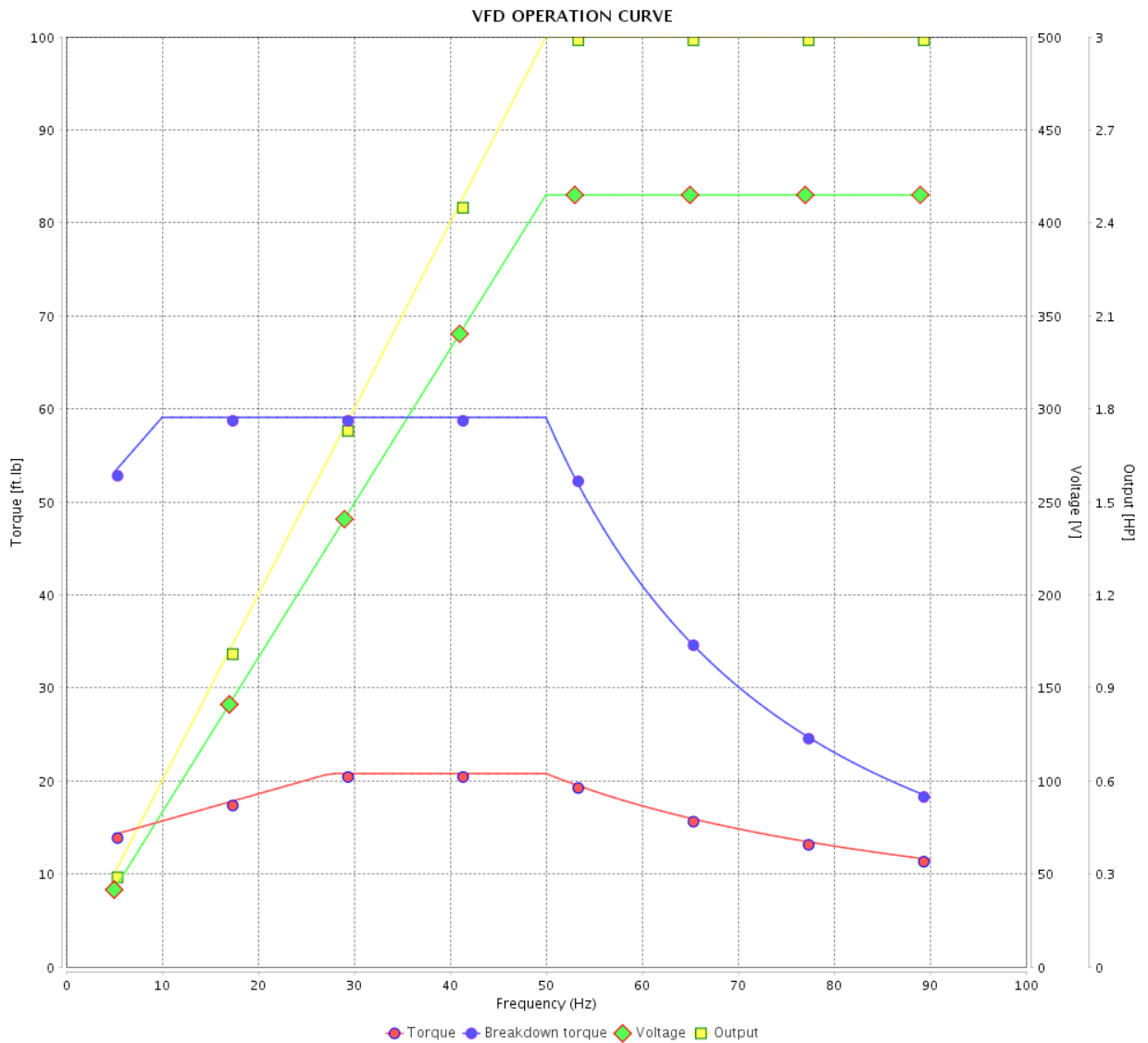


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 Locked rotor torque : 260 %
 Breakdown torque : 270 %
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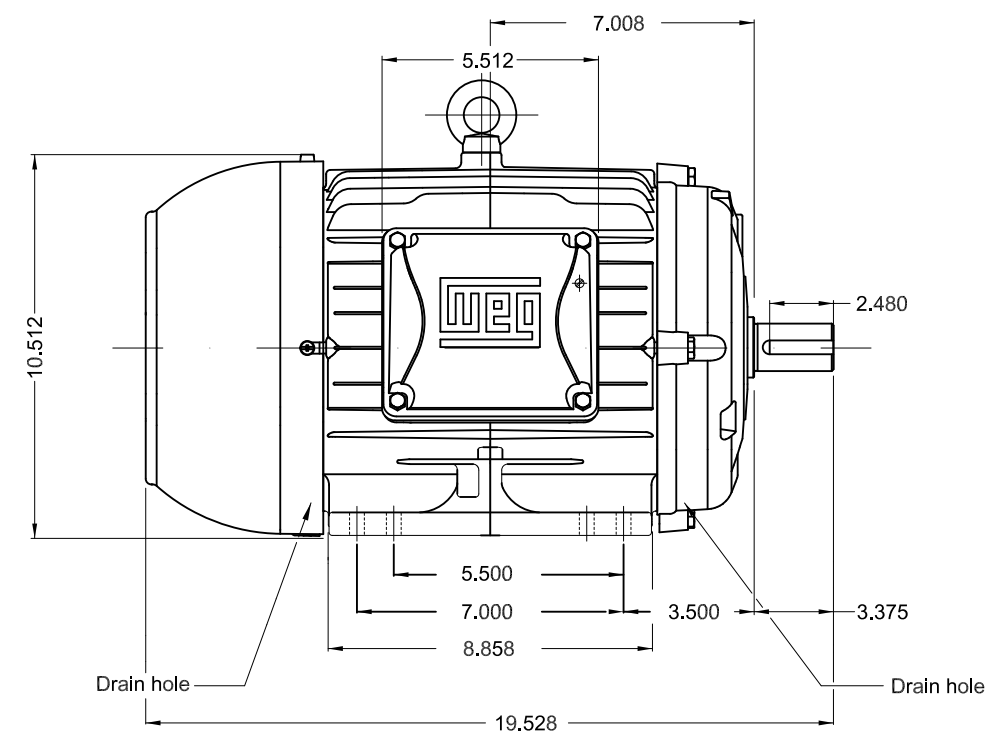
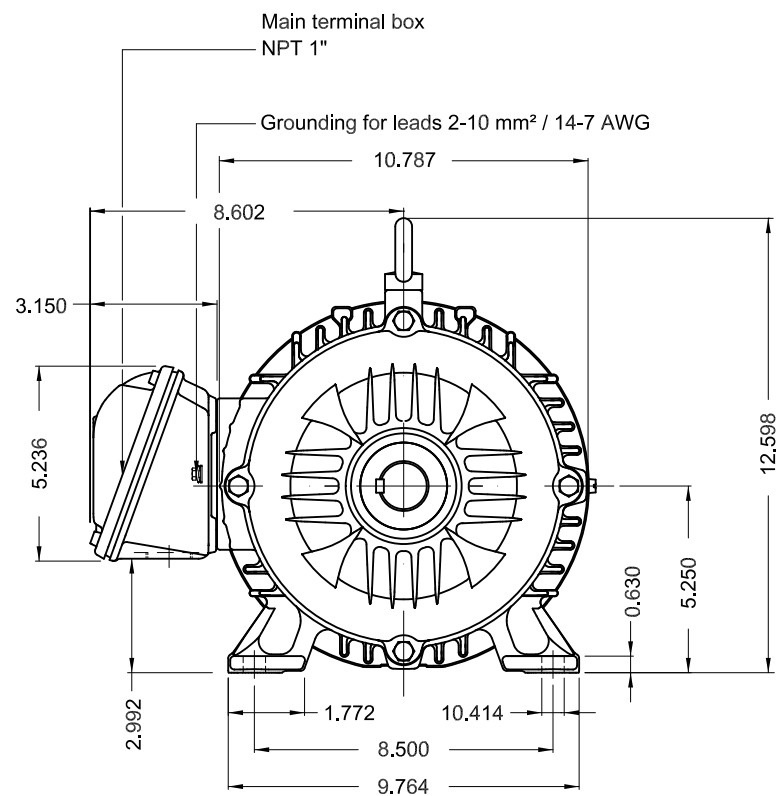
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1 2 3 4 5 6

A

B

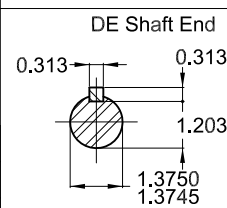
C



D

E

Color RAL 5009
 Painting plan 207A
 Mounting B3R(D)



3 HP 08 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF. FRAME 213/5T IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO		Jaragua do Sul	Product Engineering	SHEET	1 / 1	

PREVIEW
 WDD



Dimensions in inches XME A3

MADE IN BRAZIL
11456657



MODEL 00309ET3E215T-W22

Inverter Duty Motor
Severe Duty



For use on 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 use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3A



FOR SAFE AREA
Mod. TE1BFOXON
CC029A

PH3 60Hz Fr. 213/5T 1000m.a.s.l. IP55 TEFC 181lb

V 230/460

A 9.10/4.55

HP 3.0

kW 2.2

SF 1.25

SFA 11.4/5.69

RPM 870

PF 0.71

AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 85.5%

DUTY CONT.

DES B Code K

USABLE @208V 10.1A SF 1.15 SFA 11.6

3.0HP 2.2kW 50Hz 380V 5.33A 710RPM SF 1.25 SFA 6.66 EFF 82.5% (IE3)

