

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12445601		
		Catalog # :	00118ET3E143TC-W22		
Frame	: 143/5TC	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	: 48.4 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.1172 sq.ft.lb		
Design	: B				
Output [HP]	1	1	1	1	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	2.94/1.47	1.71	1.65	1.63	
L. R. Amperes [A]	25.3/12.6	10.9	11.5	12.1	
LRC [A]	8.6x(Code M)	6.4x(Code J)	7.0x(Code K)	7.4x(Code K)	
No load current [A]	1.88/0.940	0.930	1.00	1.08	
Rated speed [RPM]	1760	1450	1455	1455	
Slip [%]	2.22	3.33	3.00	3.00	
Rated torque [ft.lb]	2.98	3.62	3.61	3.61	
Locked rotor torque [%]	290	220	240	260	
Breakdown torque [%]	350	250	290	310	
Service factor	1.25	1.25	1.25	1.25	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	
Noise level ²	51.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	78.4	79.6	78.4	78.4
	50%	80.0	80.0	80.0	80.0
	75%	84.0	82.5	82.5	82.5
	100%	85.5	82.5	84.0	84.0
Power Factor	25%	0.31	0.36	0.33	0.31
	50%	0.55	0.62	0.58	0.55
	75%	0.68	0.74	0.71	0.69
	100%	0.75	0.81	0.78	0.76
Bearing type	: Drive end : 6205 ZZ Non drive end : 6204 ZZ	Foundation loads	Max. traction : 73 lb Max. compression : 121 lb		
Sealing	: V'Ring V'Ring				
Lubrication interval	: - -				
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 3.07A SF 1.15 SFA 3.54A					
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



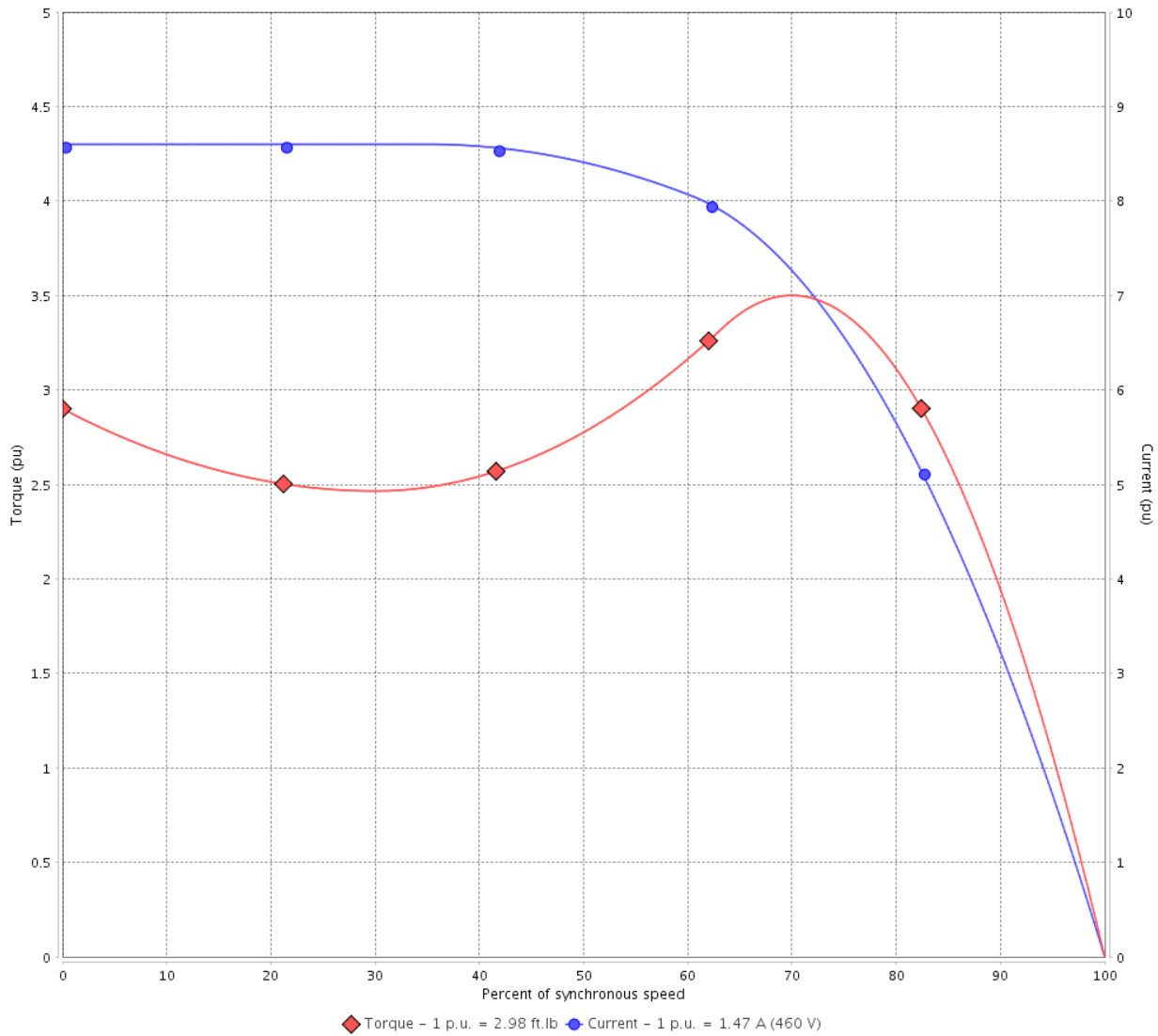
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445601

Catalog # : 00118ET3E143TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 2.94/1.47 A	Moment of inertia (J)	: 0.1172 sq.ft.lb
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 2.98 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.25
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



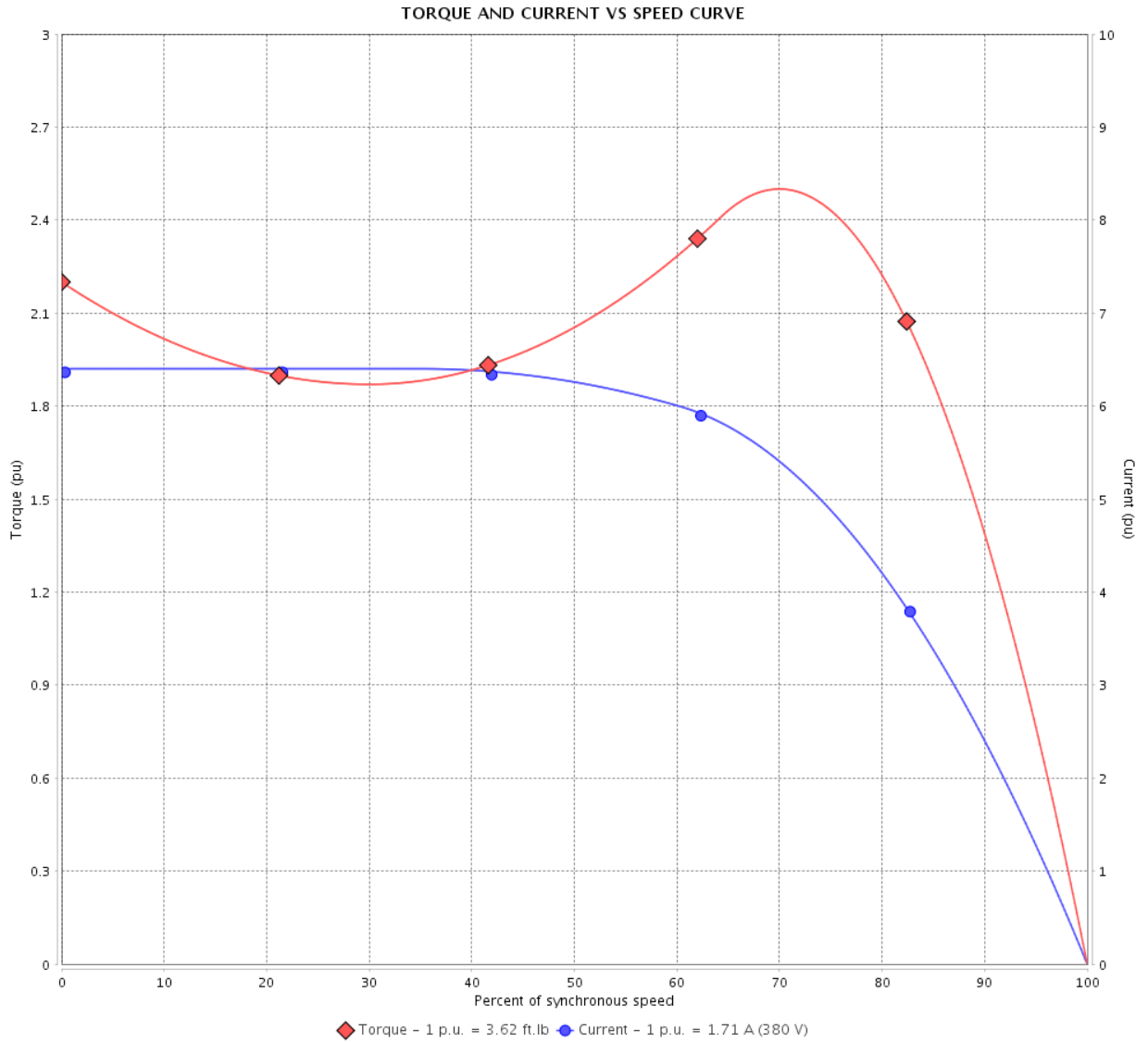
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445601

Catalog # : 00118ET3E143TC-W22



Performance : 380 V 50 Hz 4P IE3

Rated current	: 1.71 A	Moment of inertia (J)	: 0.1172 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 3.62 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



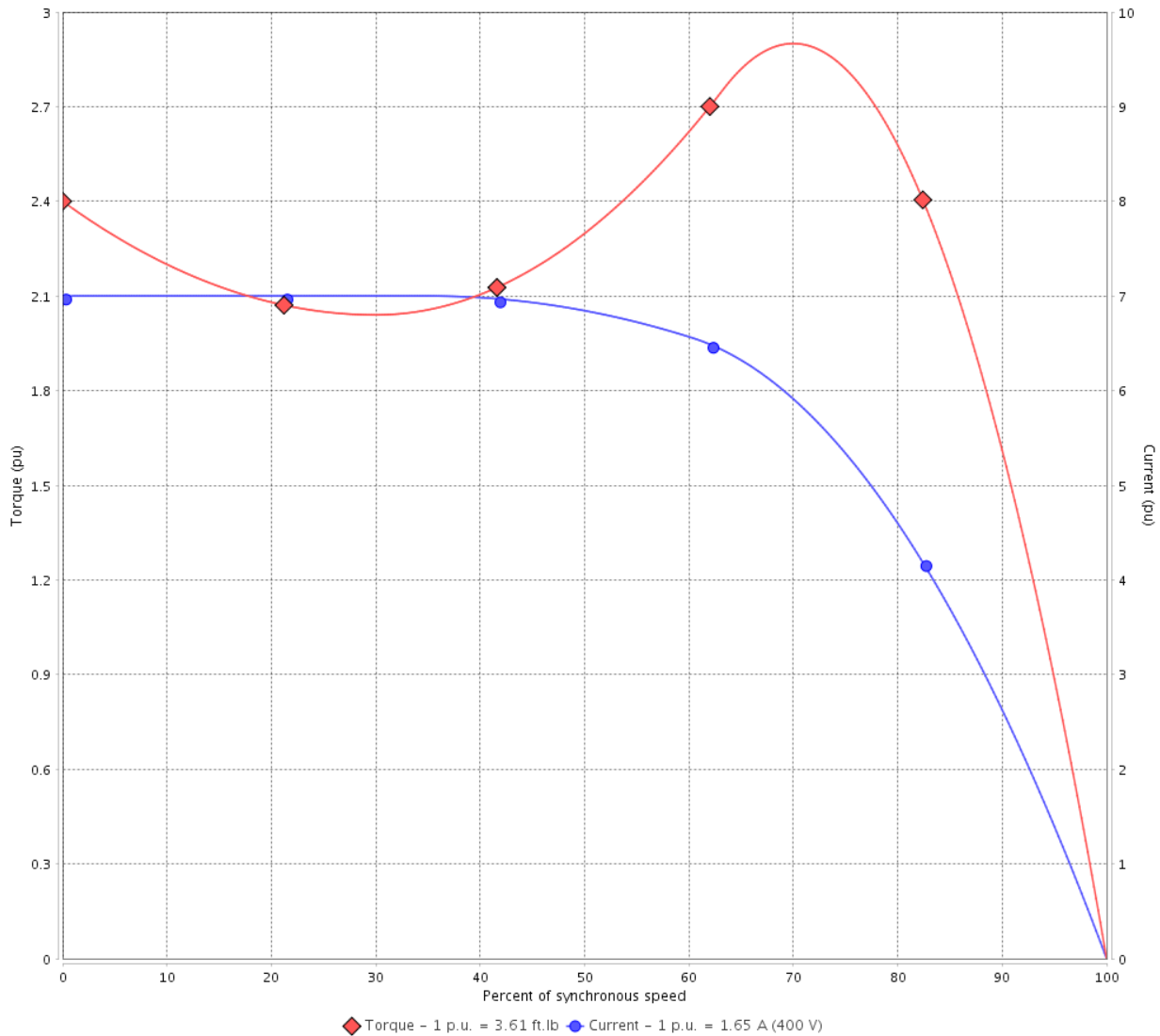
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445601

Catalog # : 00118ET3E143TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 1.65 A	Moment of inertia (J)	: 0.1172 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 3.61 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



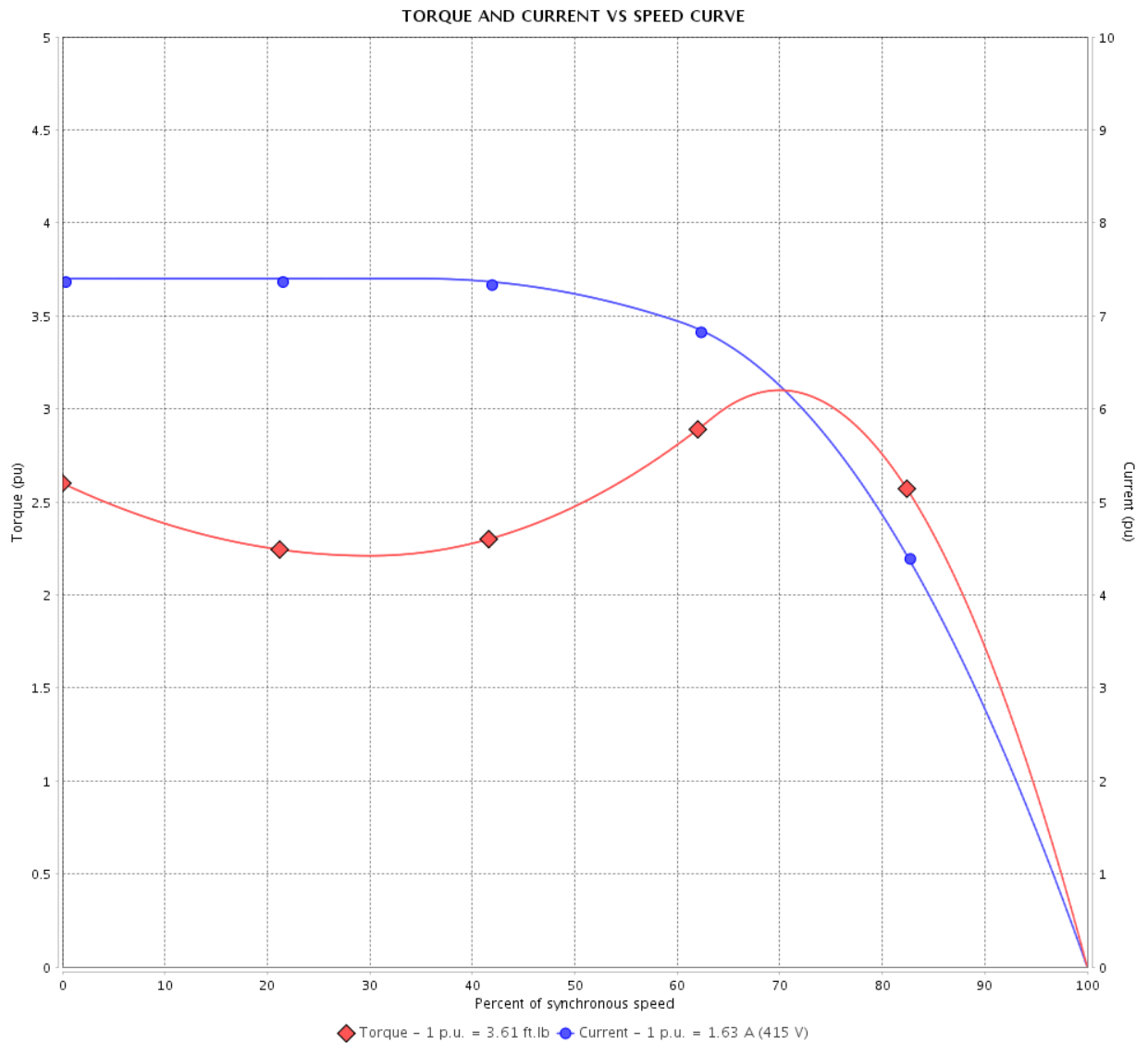
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LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 3.61 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.25
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



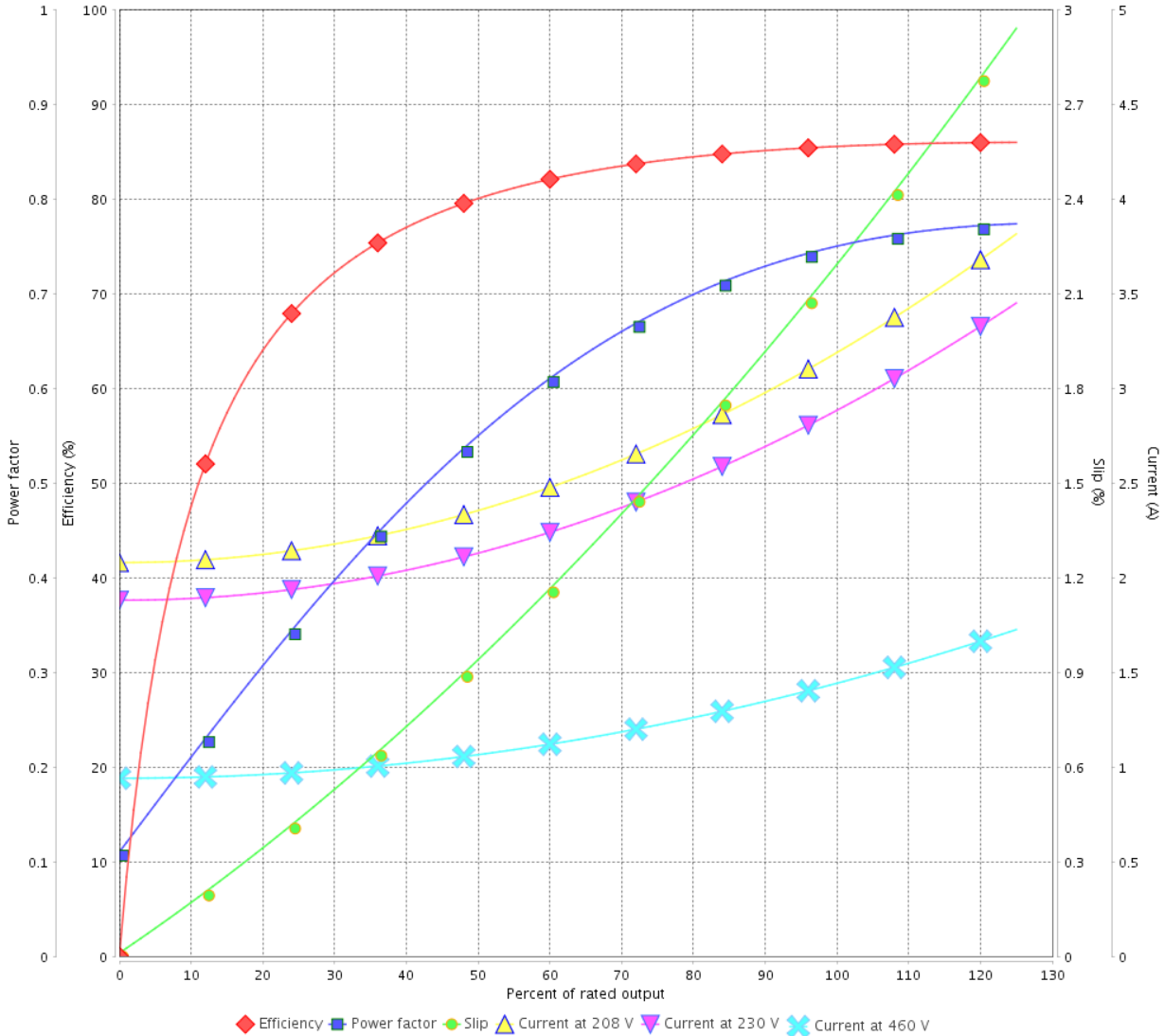
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LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 2.94/1.47 A
 LRC : 8.6
 Rated torque : 2.98 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 350 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.1172 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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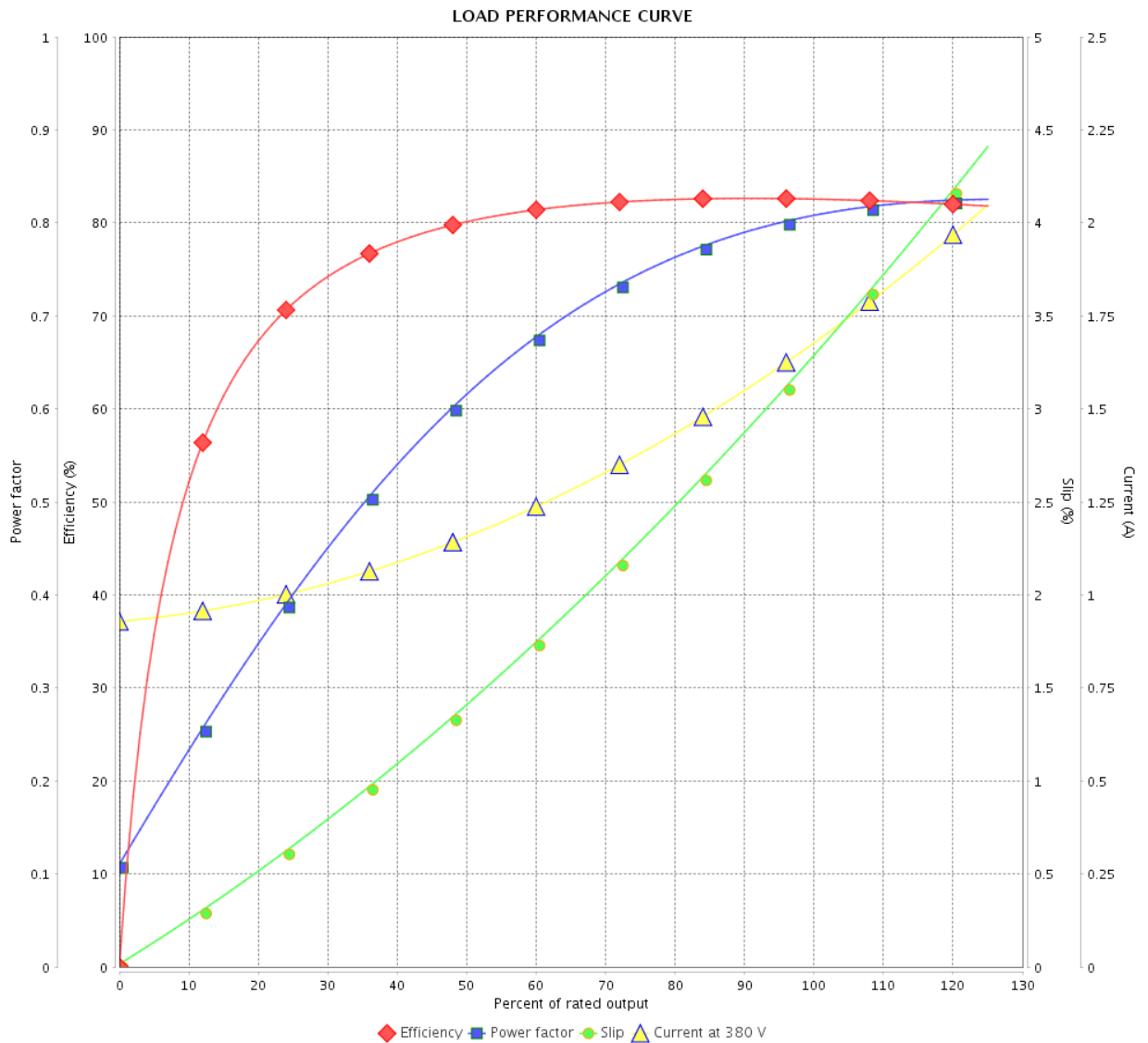


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Performance : 380 V 50 Hz 4P IE3

Rated current : 1.71 A
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 Breakdown torque : 250 %
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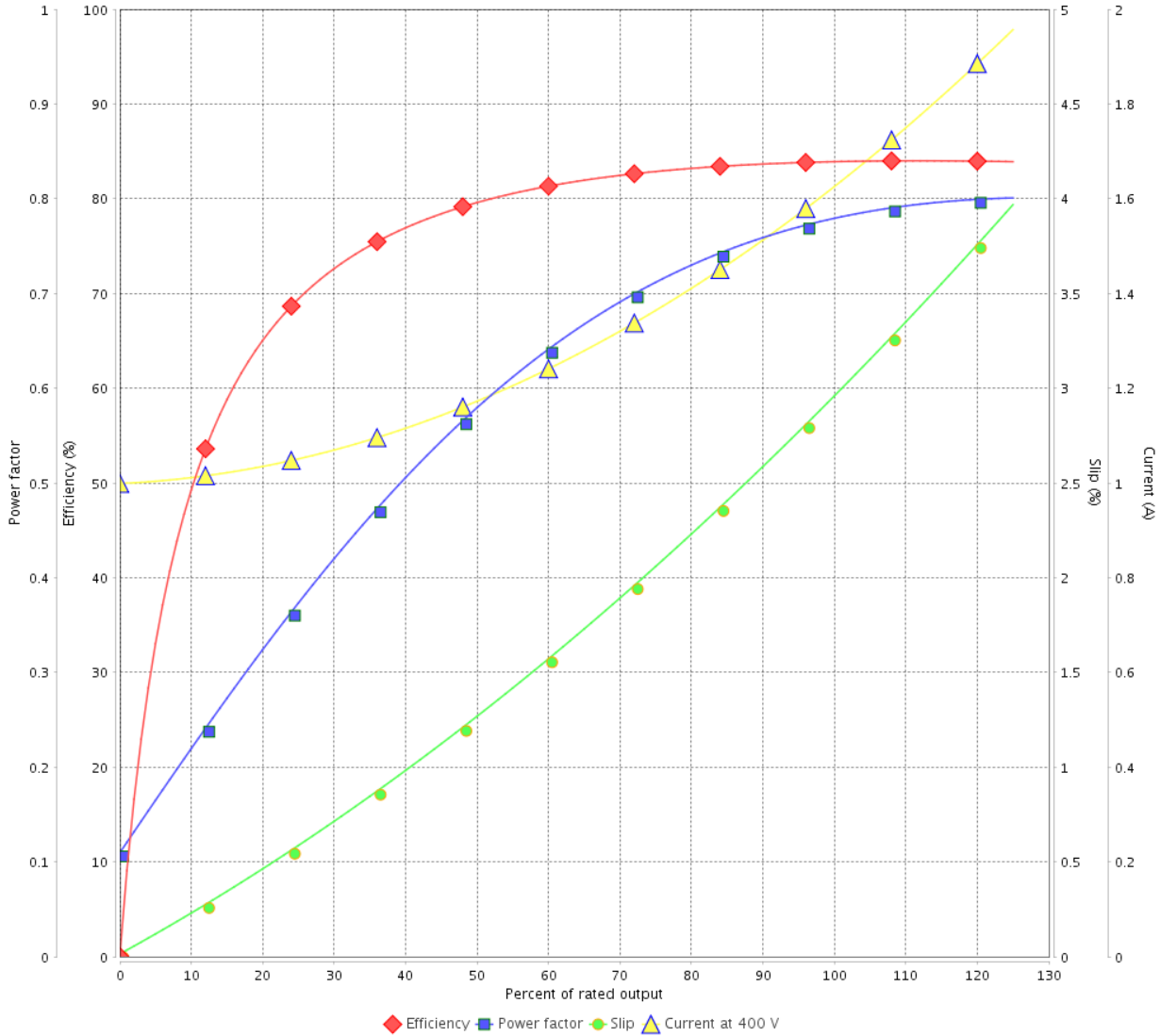
Customer :

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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 4P IE3

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

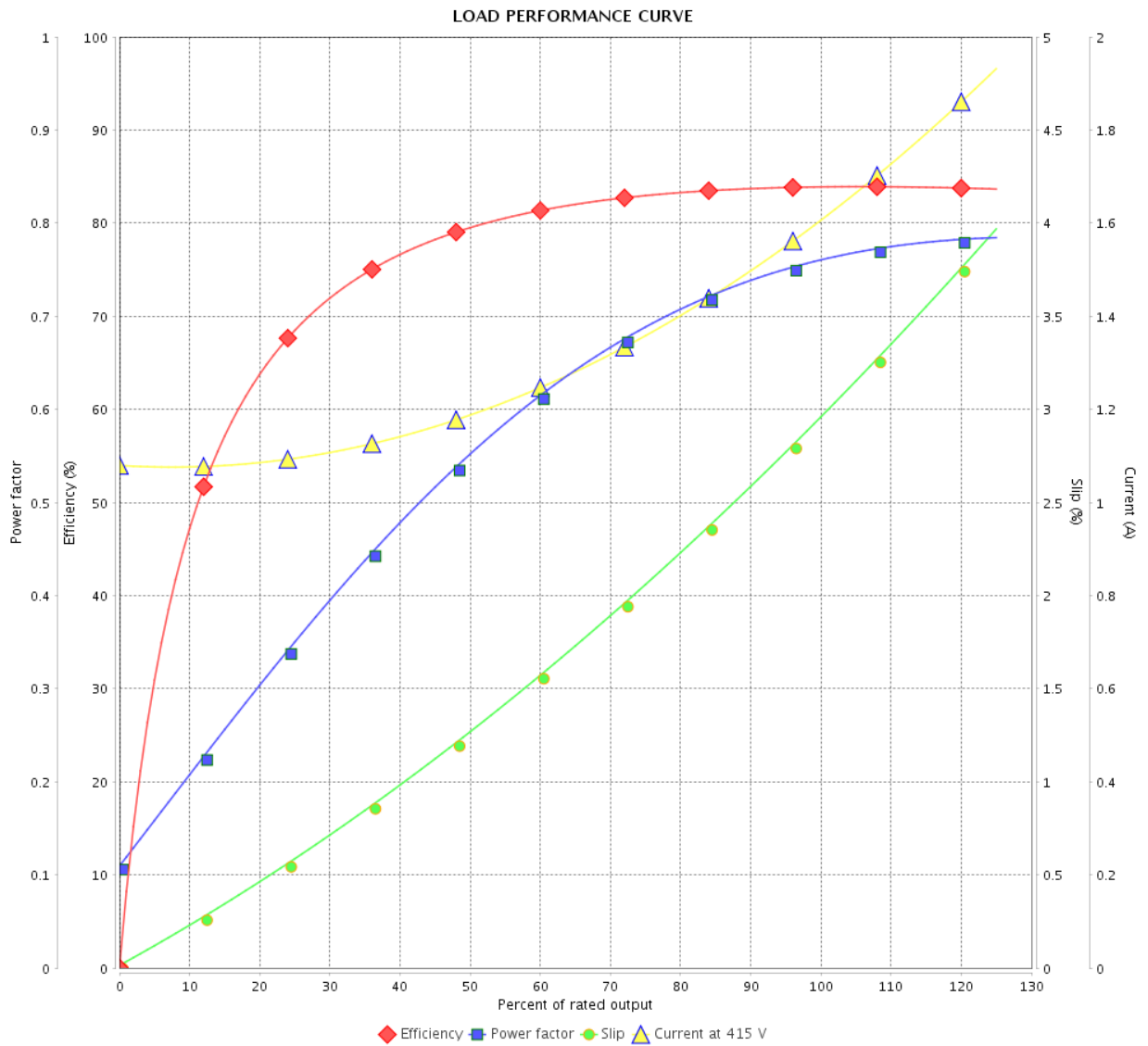


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

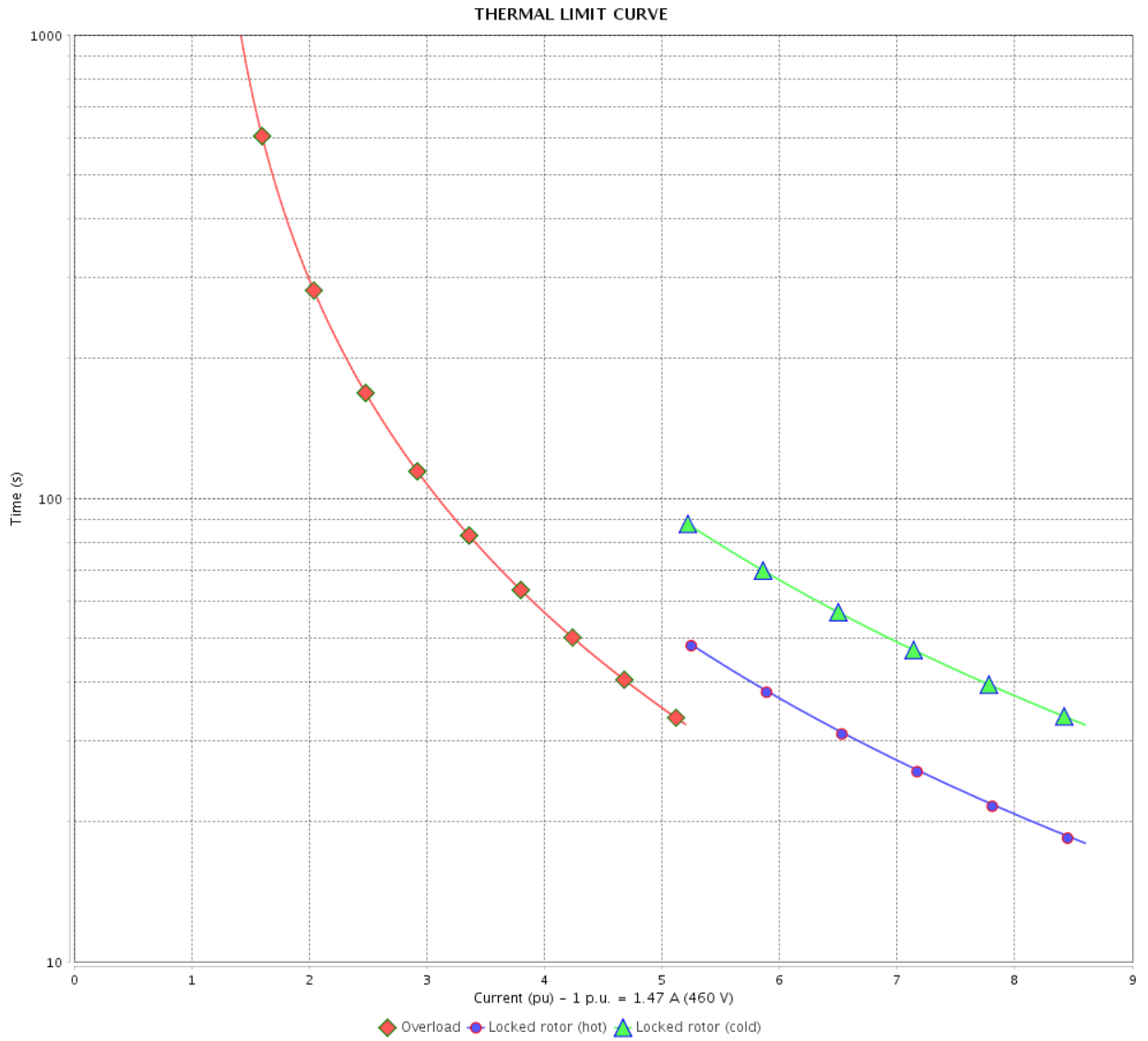
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Three Phase Induction Motor - Squirrel Cage



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Cooling constant

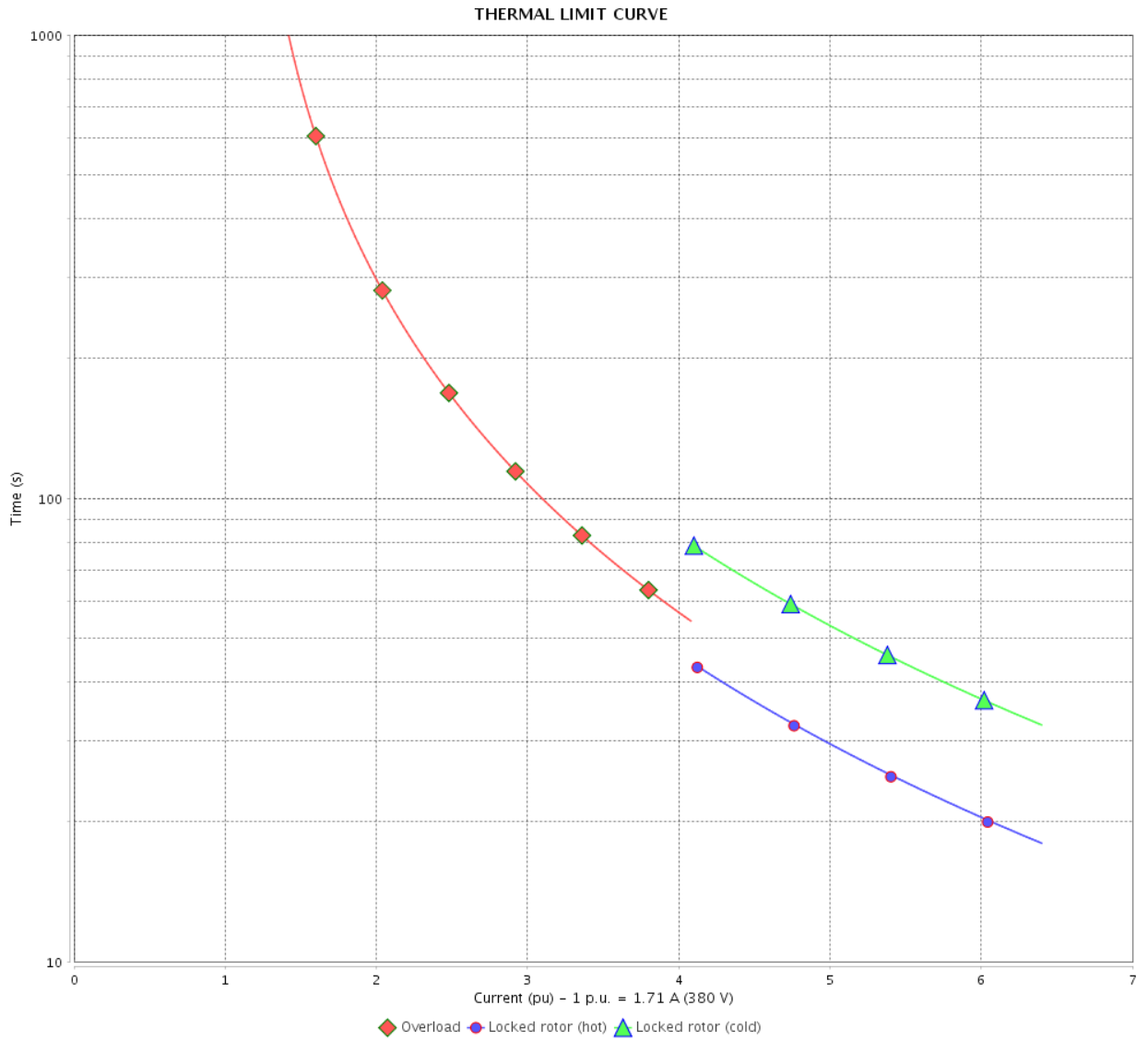
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Performance : 400 V 50 Hz 4P IE3

Rated current	: 1.65 A	Moment of inertia (J)	: 0.1172 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 3.61 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

Heating constant

Cooling constant

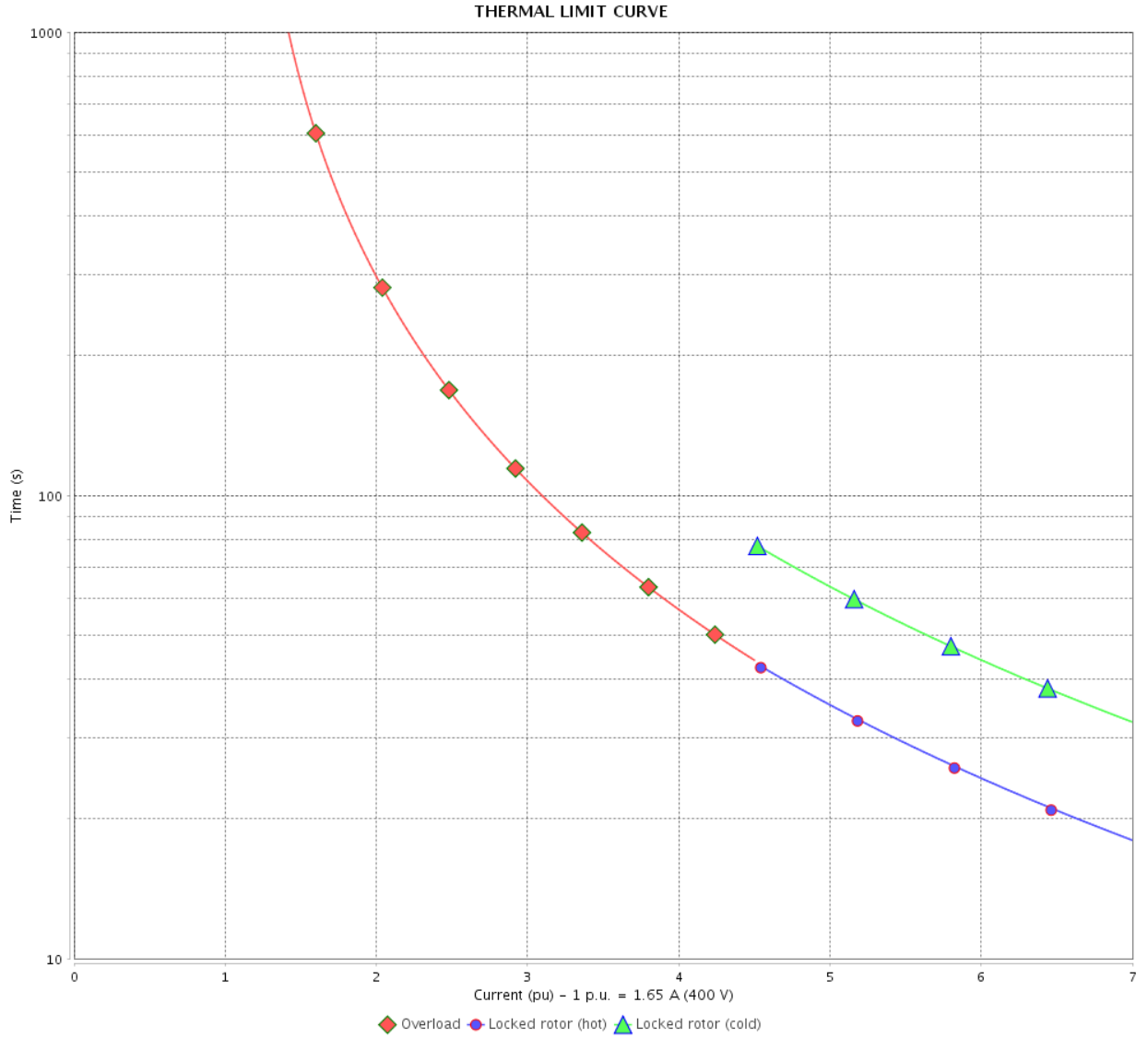
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Locked rotor torque	: 260 %	Service factor	: 1.25
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Heating constant

Cooling constant

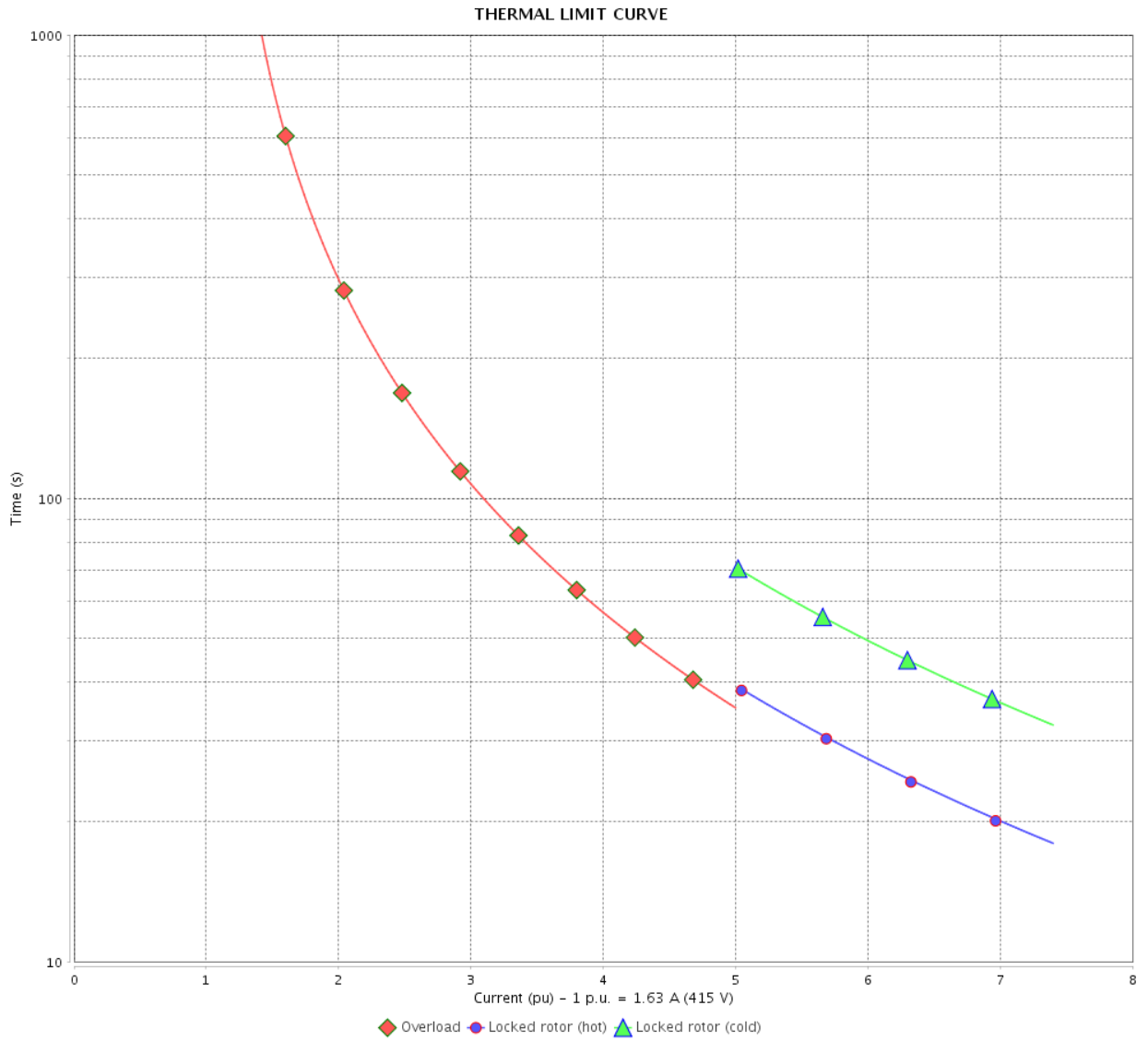
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



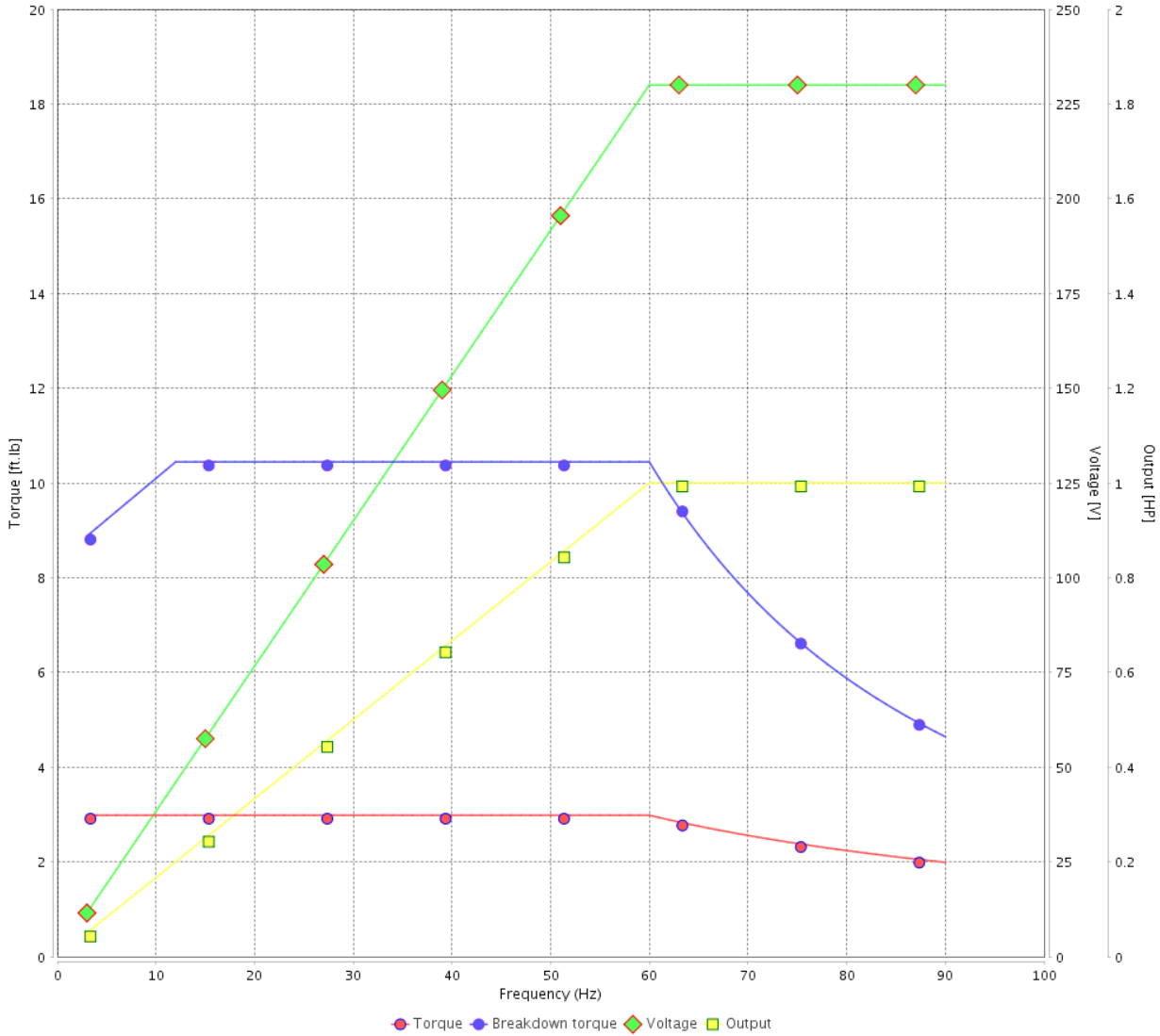
Customer :

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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 2.94/1.47 A
 LRC : 8.6
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

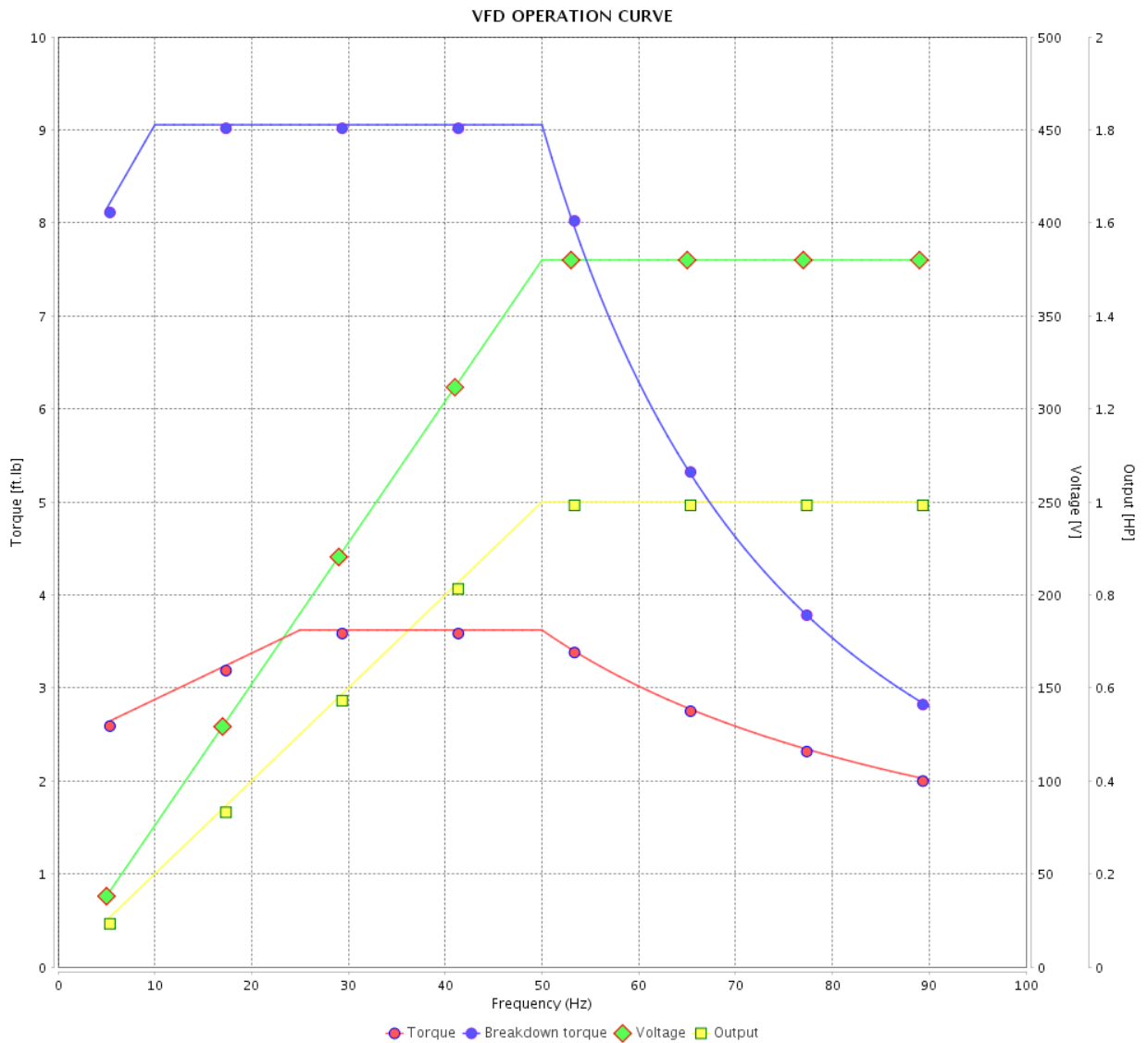


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Performance : 380 V 50 Hz 4P IE3

Rated current : 1.71 A
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 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1450 rpm

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 Duty cycle : Cont.(S1)
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



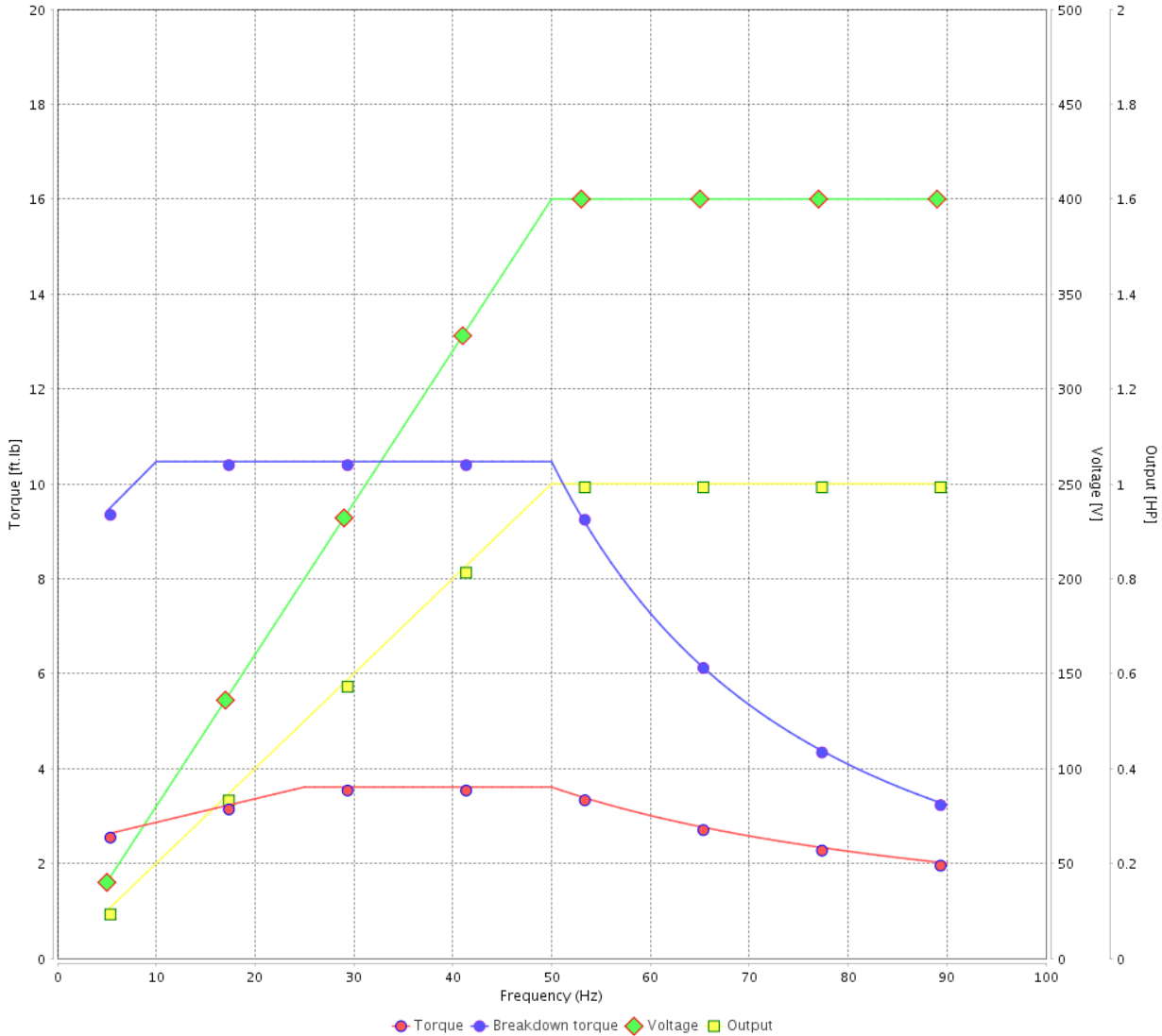
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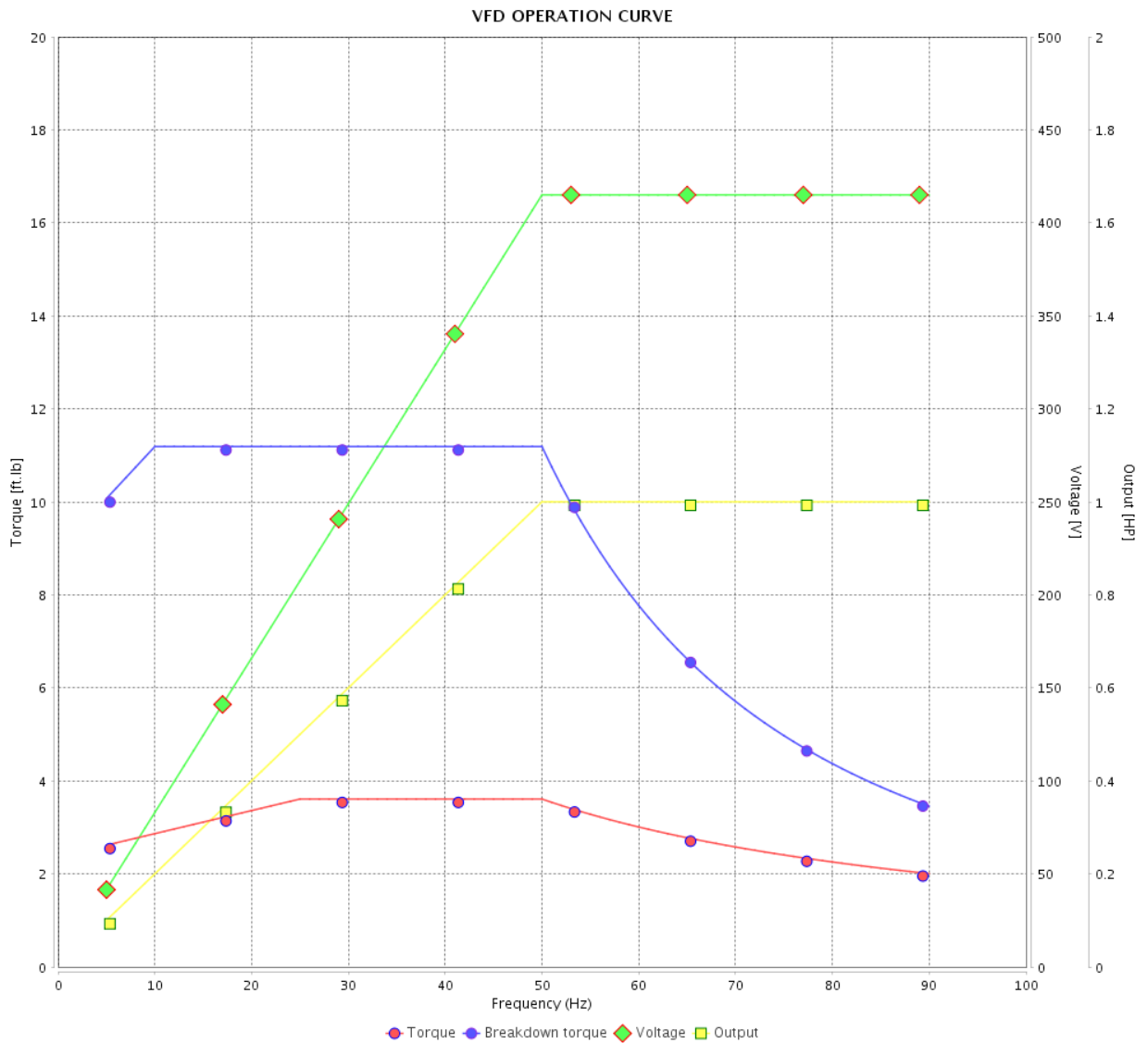


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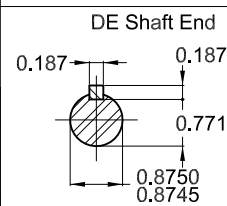
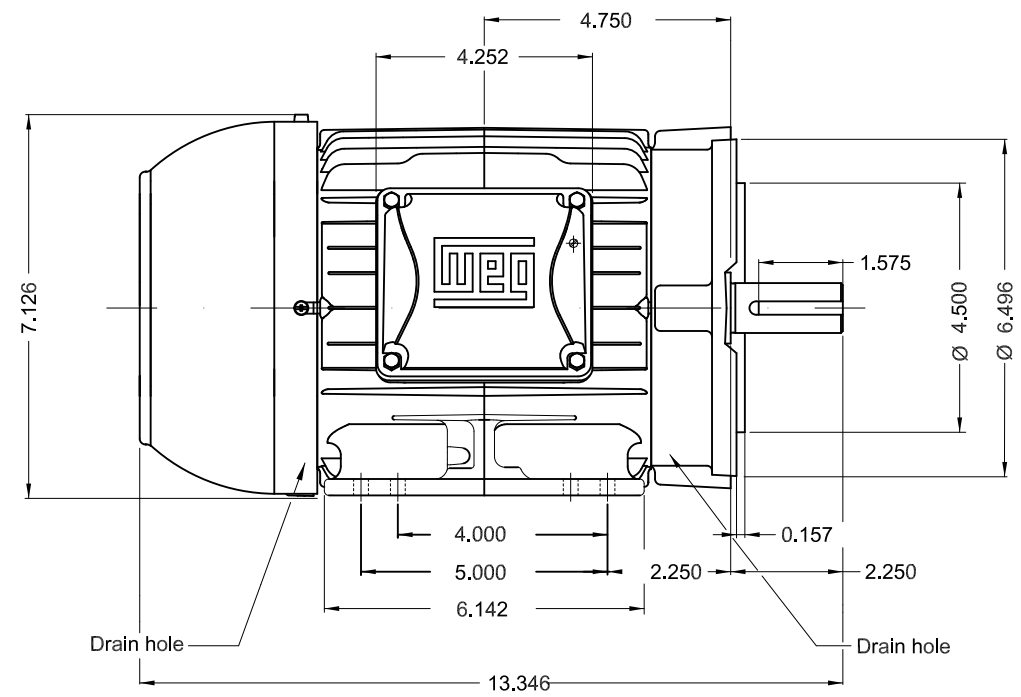
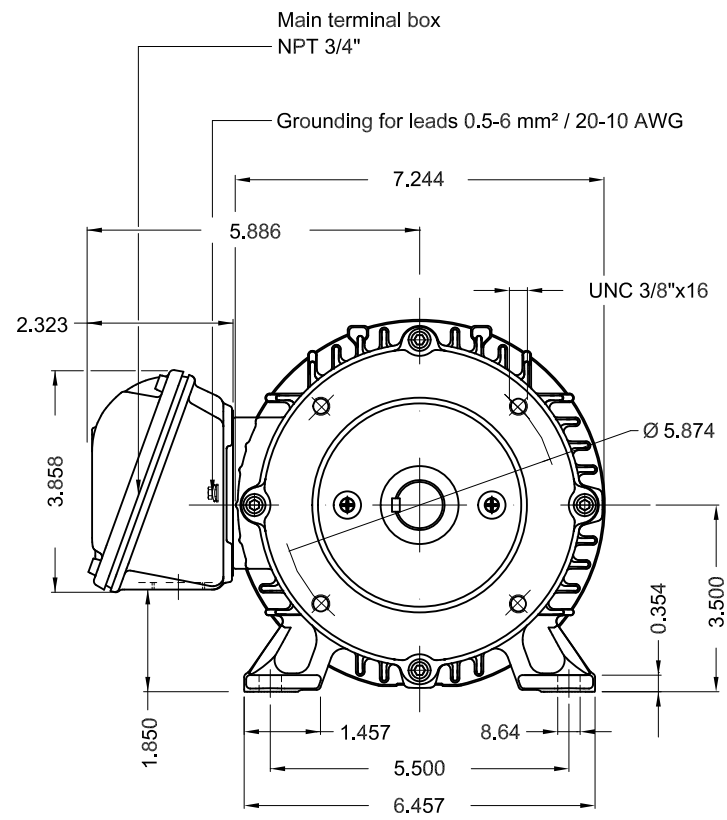


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Bearing cap
 Color RAL 5009
 Painting plan 207A
 Mounting B34R(D)

1 HP 04 Poles 60 Hz

A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 143/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
 WDD



MADE IN MEXICO
12445601



W22

MODEL 00118ET3E143TC-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 - T5
For use on PWM: Gr. A, B, C, D, F and G,
VT 1000:1, CT 20:1, 1.00SF - T4A



FOR SAFE AREA
Mod. TE1BFOXON
CC029A

PH3 60Hz Fr. 143/5TC 1000m.a.s.l. IP55 TEFC 48lb

V 230/460

A 2.94/1.47

HP 1.0

kW 0.75

SF 1.25

SFA 3.67/1.84

RPM 1760

PF 0.75

AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 85.5%

DUTY CONT.

DES B Code M

USABLE @208V 3.07A SF 1.15 SFA 3.53

1.0HP 0.75kW 50Hz 380V 1.71A 1450RPM SF 1.25 SFA 2.14 EFF 82.5% (IE3)

