

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer					
Product line	: NEMA Premium Efficiency Three-Phase	Product code	: 12445724		
		Catalog #	: 00318ET3E182TC-W22		
Frame	: 182/4TC	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	: 95.8 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.3401 sq.ft.lb		
Design	: B				
Output [HP]	3	3	3	3	3
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	7.82/3.91	4.60	4.48	4.43	4.43
L. R. Amperes [A]	63.3/31.7	29.0	31.4	33.2	33.2
LRC [A]	8.1x(Code K)	6.3x(Code H)	7.0x(Code J)	7.5x(Code J)	7.5x(Code J)
No load current [A]	4.00/2.00	2.00	2.15	2.25	2.25
Rated speed [RPM]	1760	1445	1450	1455	1455
Slip [%]	2.22	3.67	3.33	3.00	3.00
Rated torque [ft.lb]	8.95	10.9	10.9	10.8	10.8
Locked rotor torque [%]	229	180	210	240	240
Breakdown torque [%]	340	260	290	320	320
Service factor	1.25	1.25	1.25	1.25	1.25
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	41s (cold) 23s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)	32s (cold) 18s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%	86.4	87.2	87.3	87.3
	50%	87.5	87.5	87.5	87.5
	75%	88.5	87.5	87.5	87.5
	100%	89.5	87.5	87.5	87.5
Power Factor	25%	0.36	0.42	0.39	0.36
	50%	0.61	0.68	0.64	0.61
	75%	0.73	0.79	0.76	0.73
	100%	0.79	0.83	0.81	0.79
Bearing type	: Drive end : 6207 ZZ Non drive end : 6206 ZZ	Foundation loads			
Sealing	: V'Ring V'Ring	Max. traction : 173 lb			
Lubrication interval	: - -	Max. compression : 269 lb			
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 8.65A SF 1.15 SFA 9.95A					
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



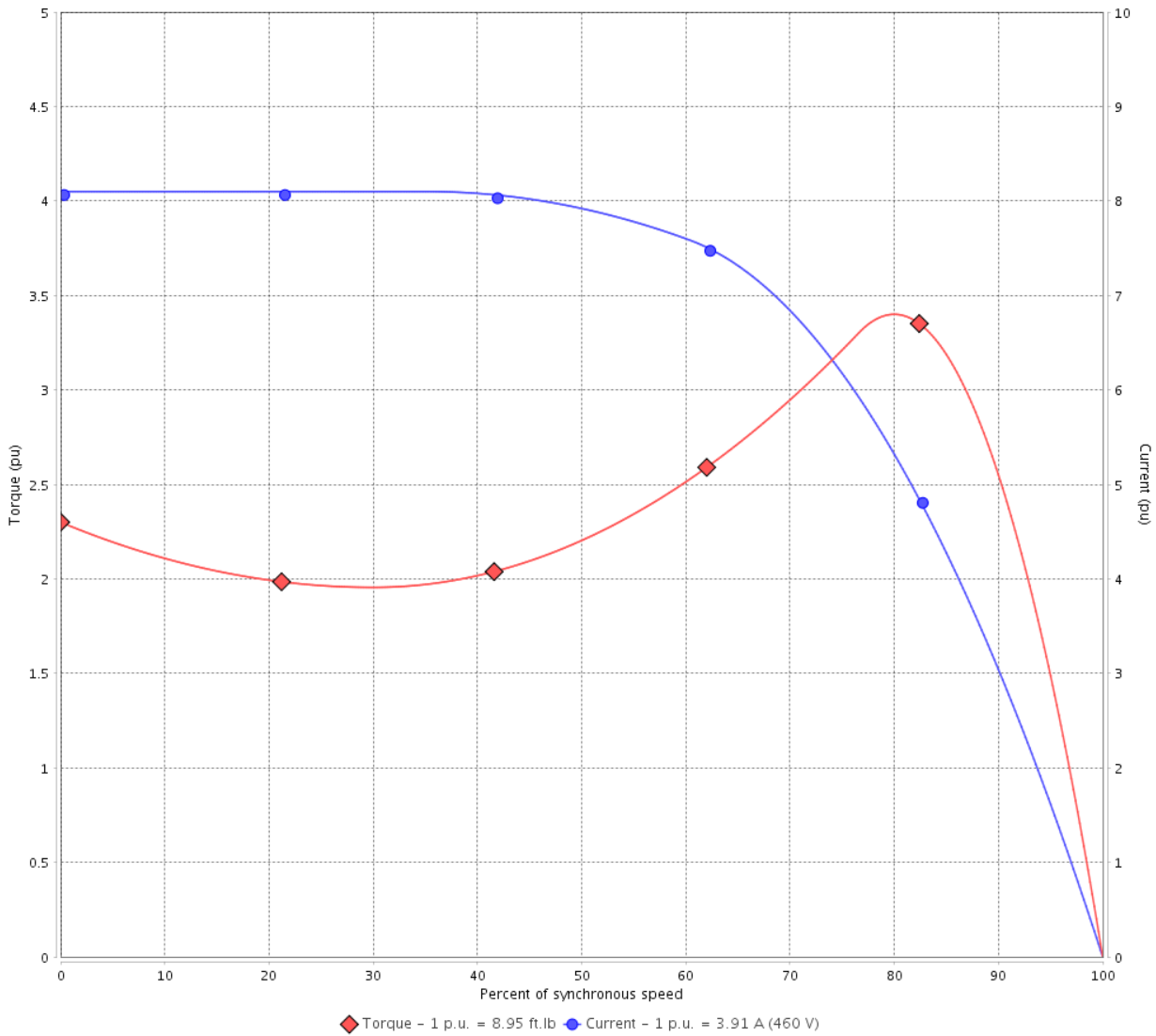
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445724

Catalog # : 00318ET3E182TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 7.82/3.91 A
 LRC : 8.1
 Rated torque : 8.95 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 340 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Locked rotor time : 41s (cold) 23s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



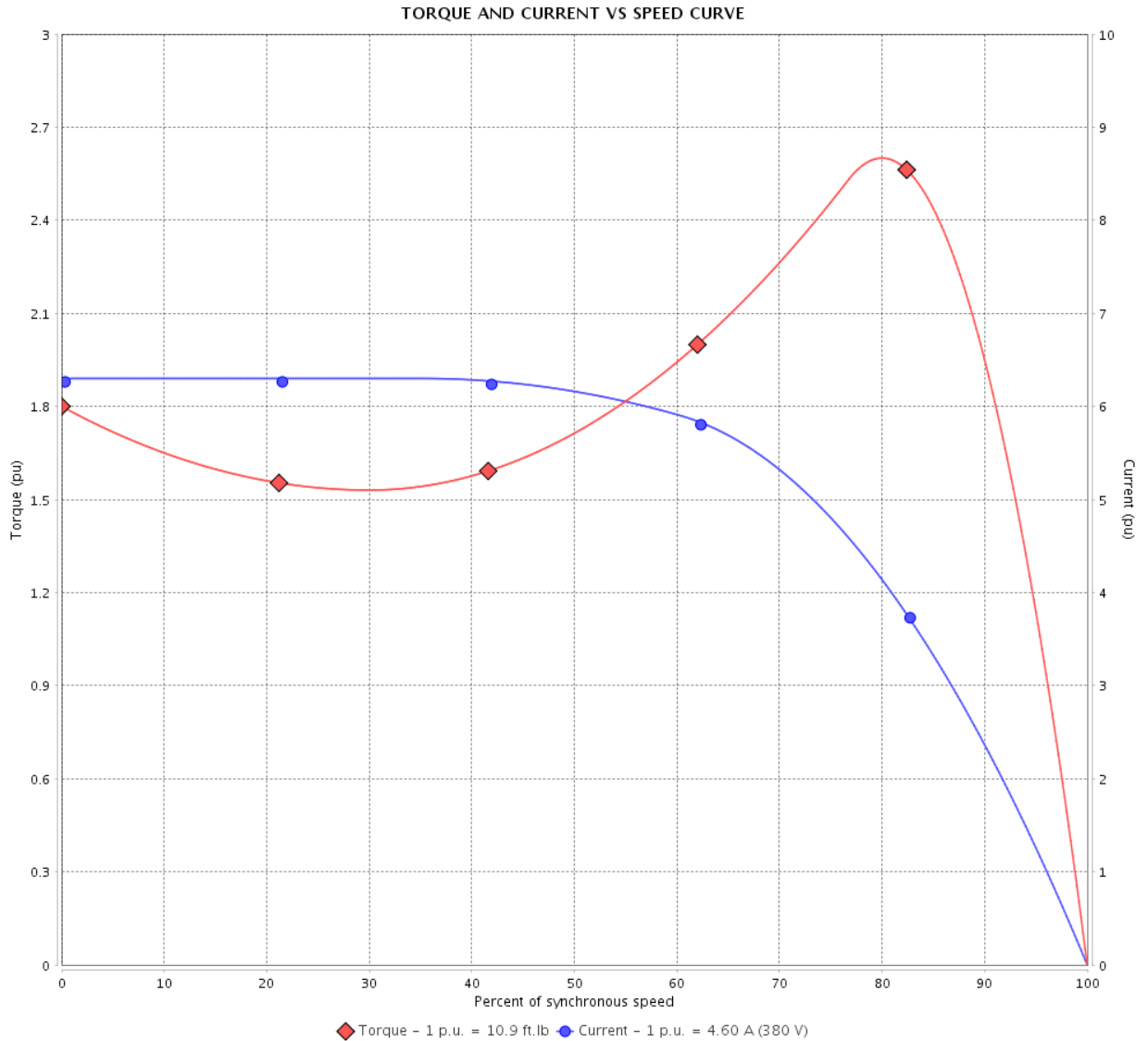
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445724

Catalog # : 00318ET3E182TC-W22



Performance : 380 V 50 Hz 4P IE3

Rated current : 4.60 A
 LRC : 6.3
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 260 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 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



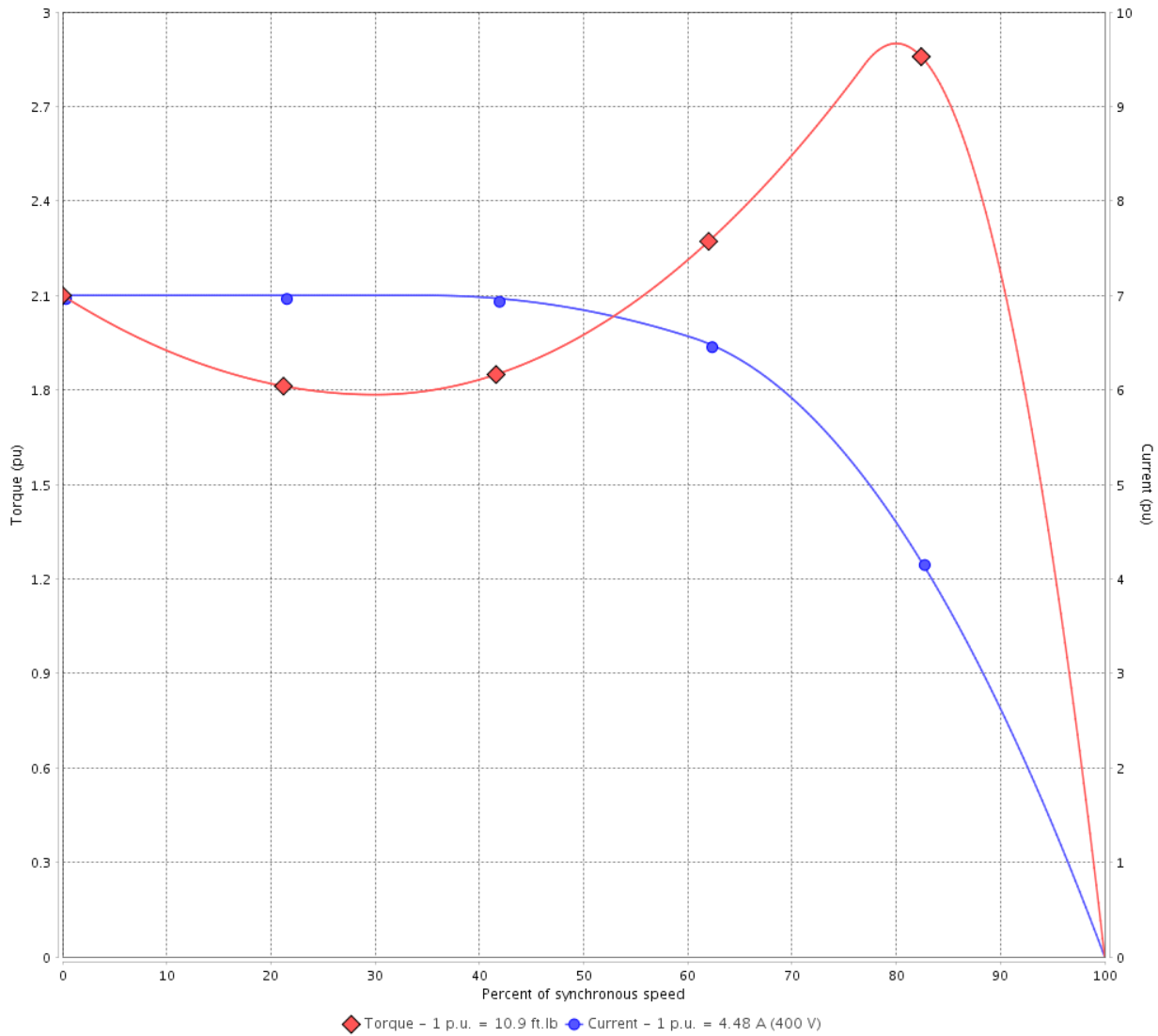
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12445724

Catalog # : 00318ET3E182TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 4.48 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 290 %	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



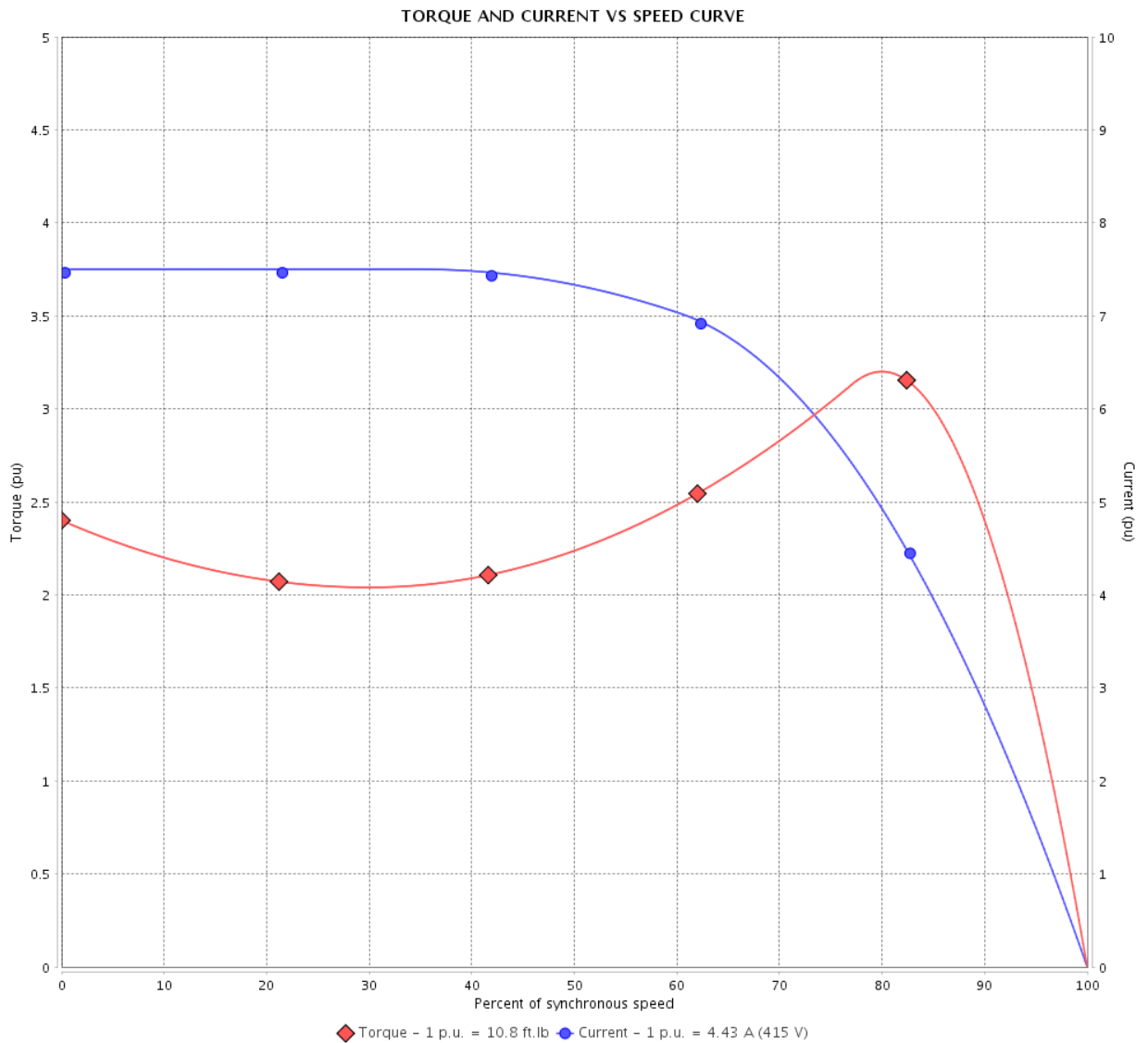
Three Phase Induction Motor - Squirrel Cage

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Product code : 12445724

Catalog # : 00318ET3E182TC-W22



Performance : 415 V 50 Hz 4P IE3

Rated current	: 4.43 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 320 %	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



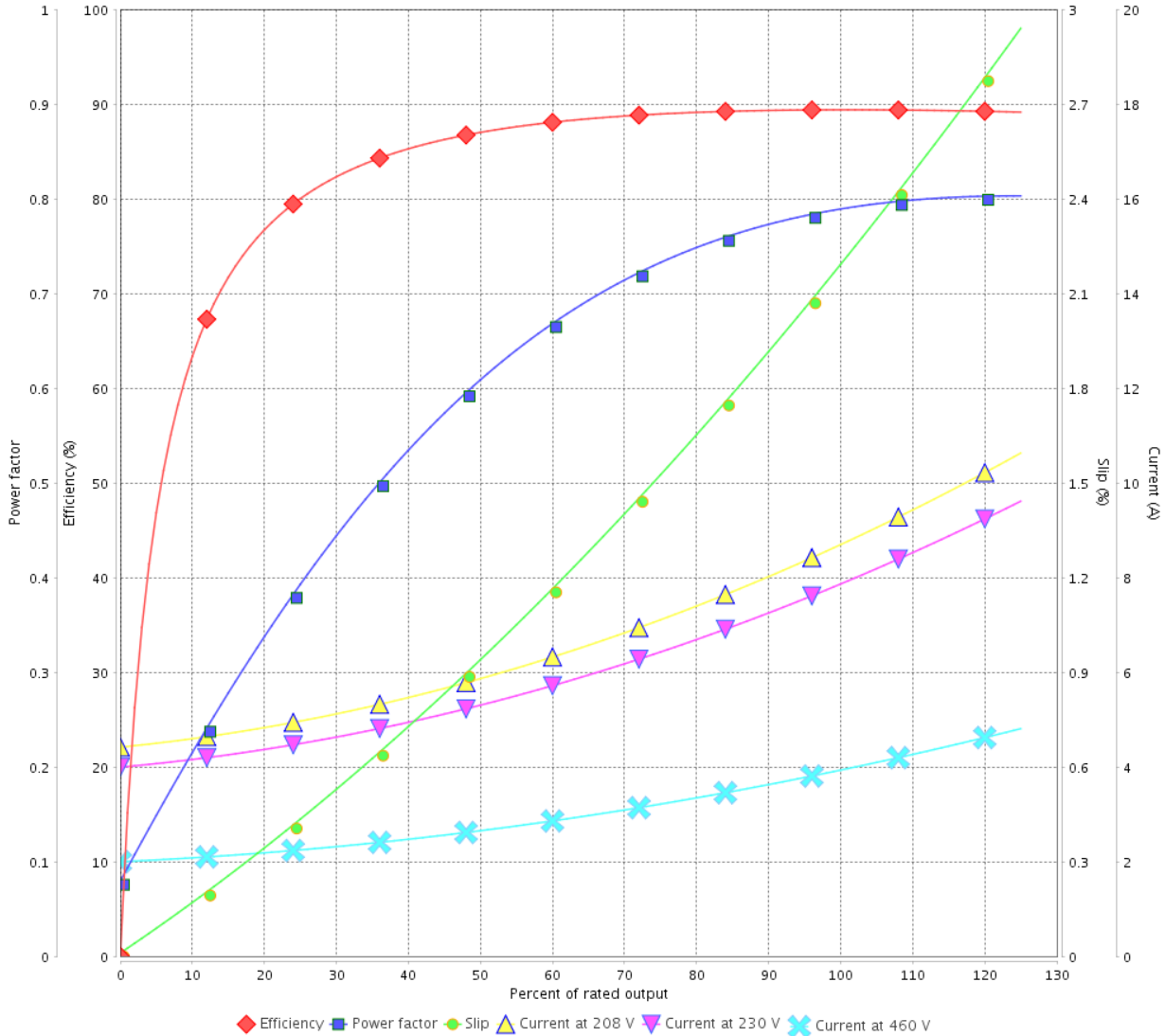
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LOAD PERFORMANCE CURVE



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 LRC : 8.1
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 Locked rotor torque : 229 %
 Breakdown torque : 340 %
 Rated speed : 1760 rpm

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 Insulation class : F
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 Design : B

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Three Phase Induction Motor - Squirrel Cage

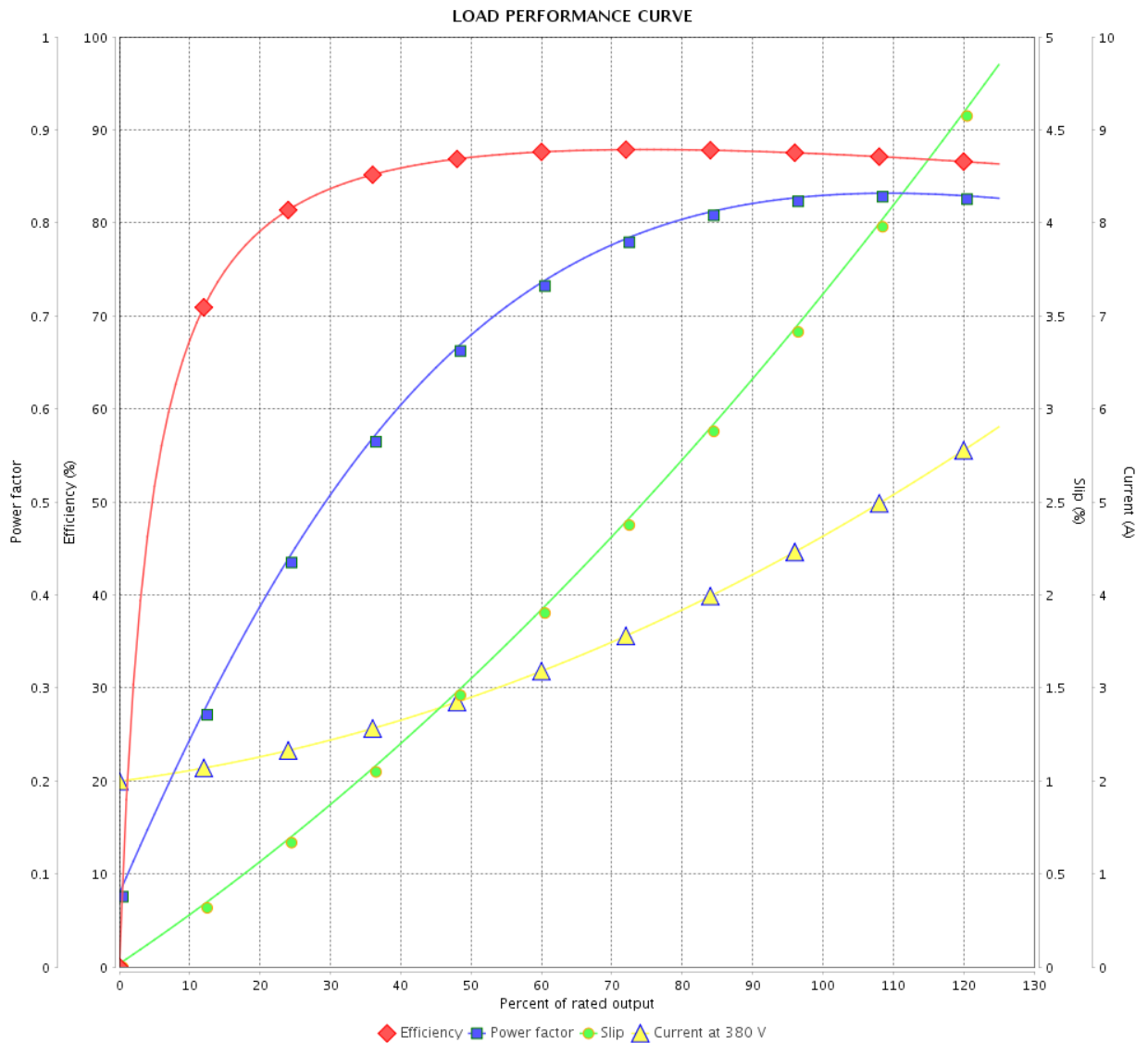


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Performance : 380 V 50 Hz 4P IE3

Rated current : 4.60 A
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 Rated torque : 10.9 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 260 %
 Rated speed : 1445 rpm

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Three Phase Induction Motor - Squirrel Cage



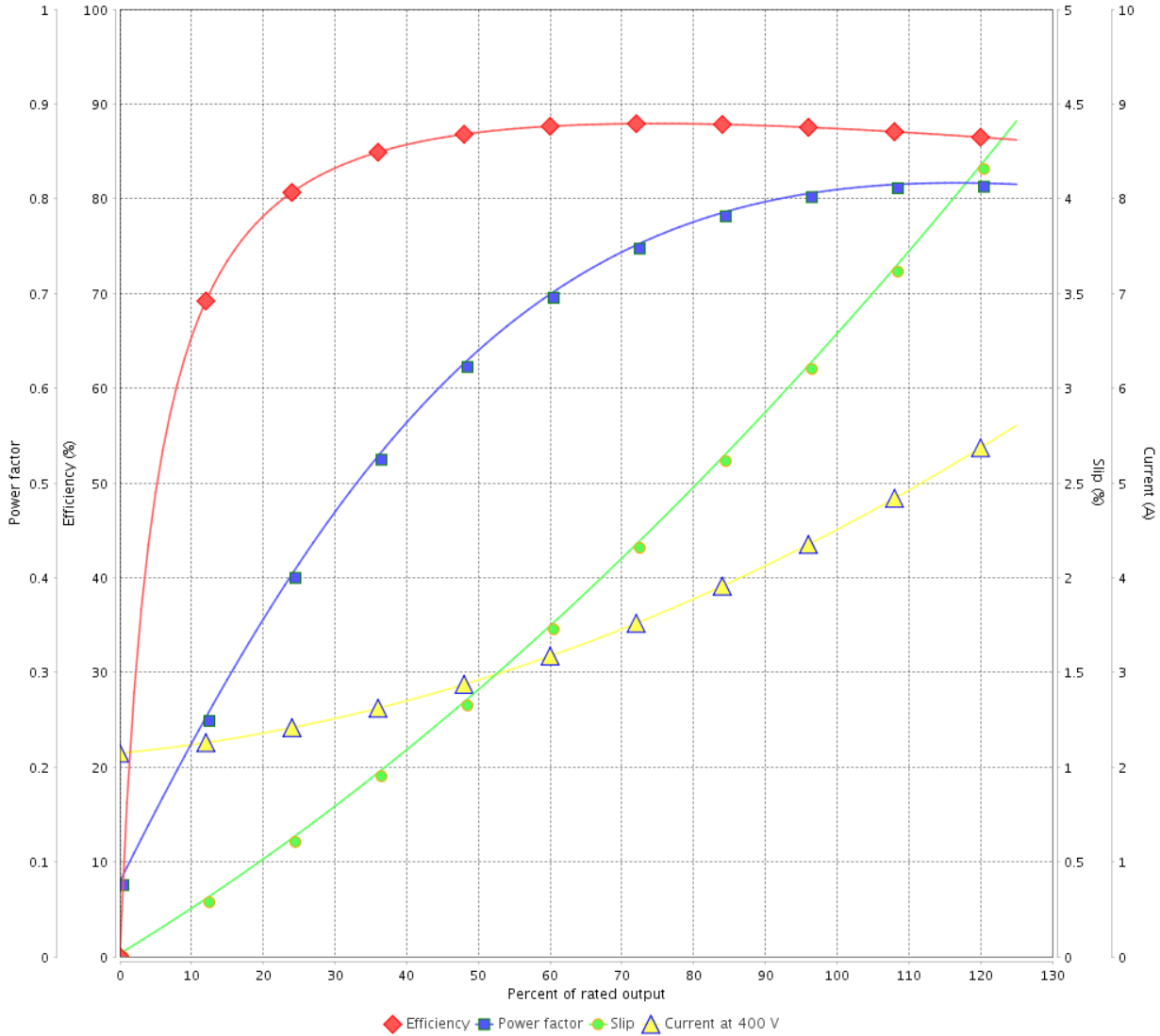
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Rated current : 4.48 A
 LRC : 7.0
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 Breakdown torque : 290 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb
 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

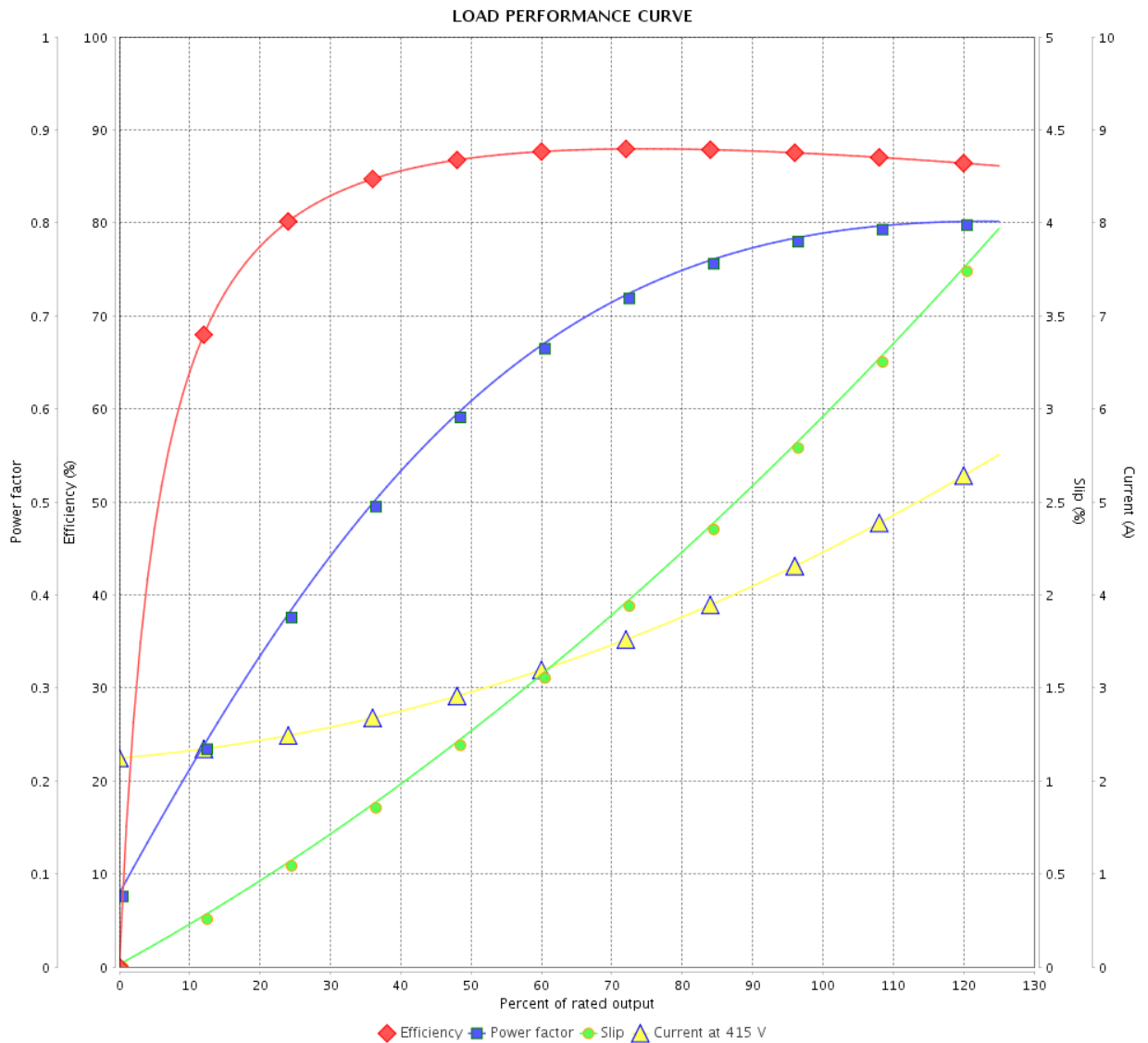


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 Insulation class : F
 Service factor : 1.25
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THERMAL LIMIT CURVE

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Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Heating constant

Cooling constant

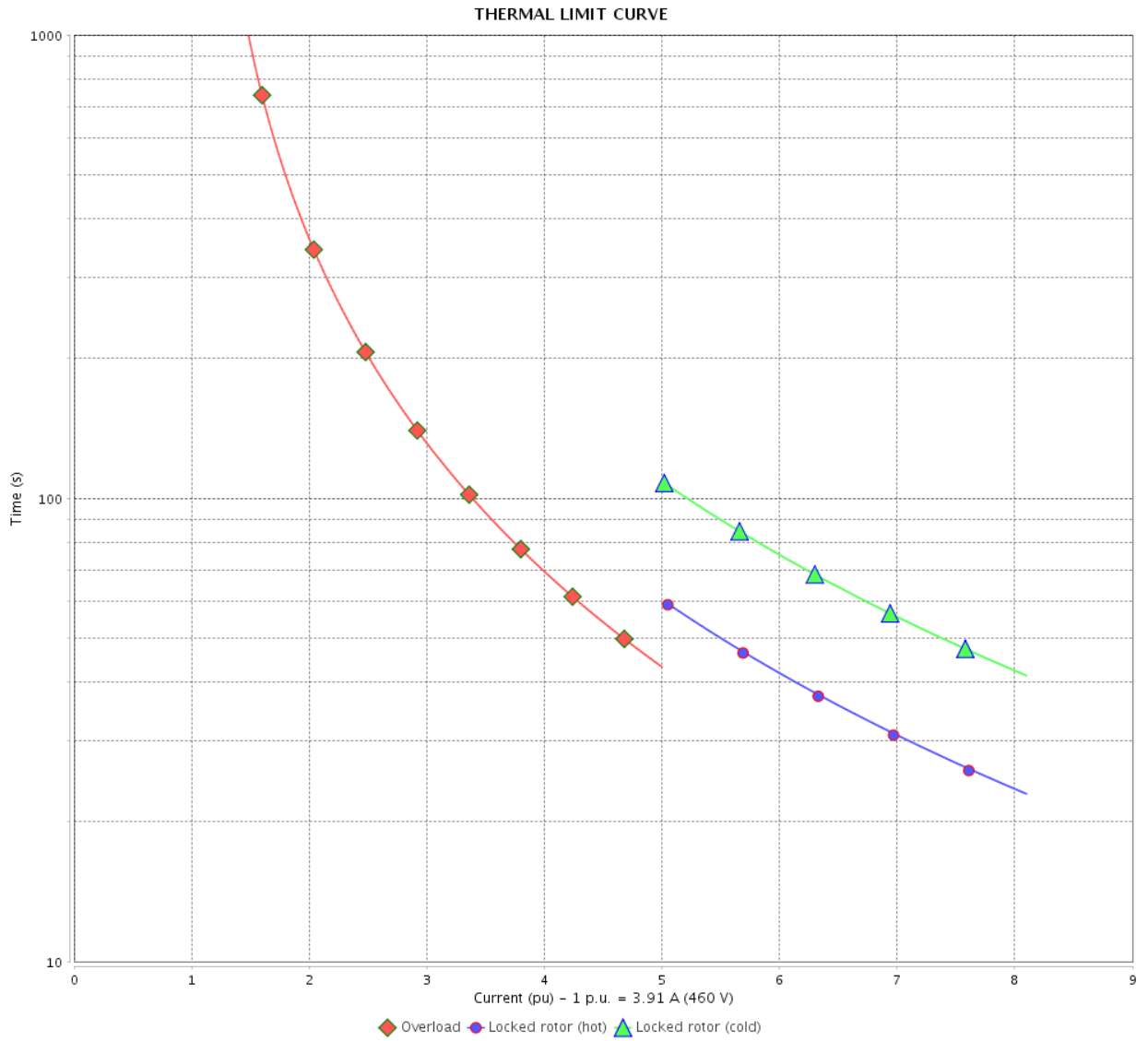
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Performance : 380 V 50 Hz 4P IE3

Rated current	: 4.60 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

Heating constant

Cooling constant

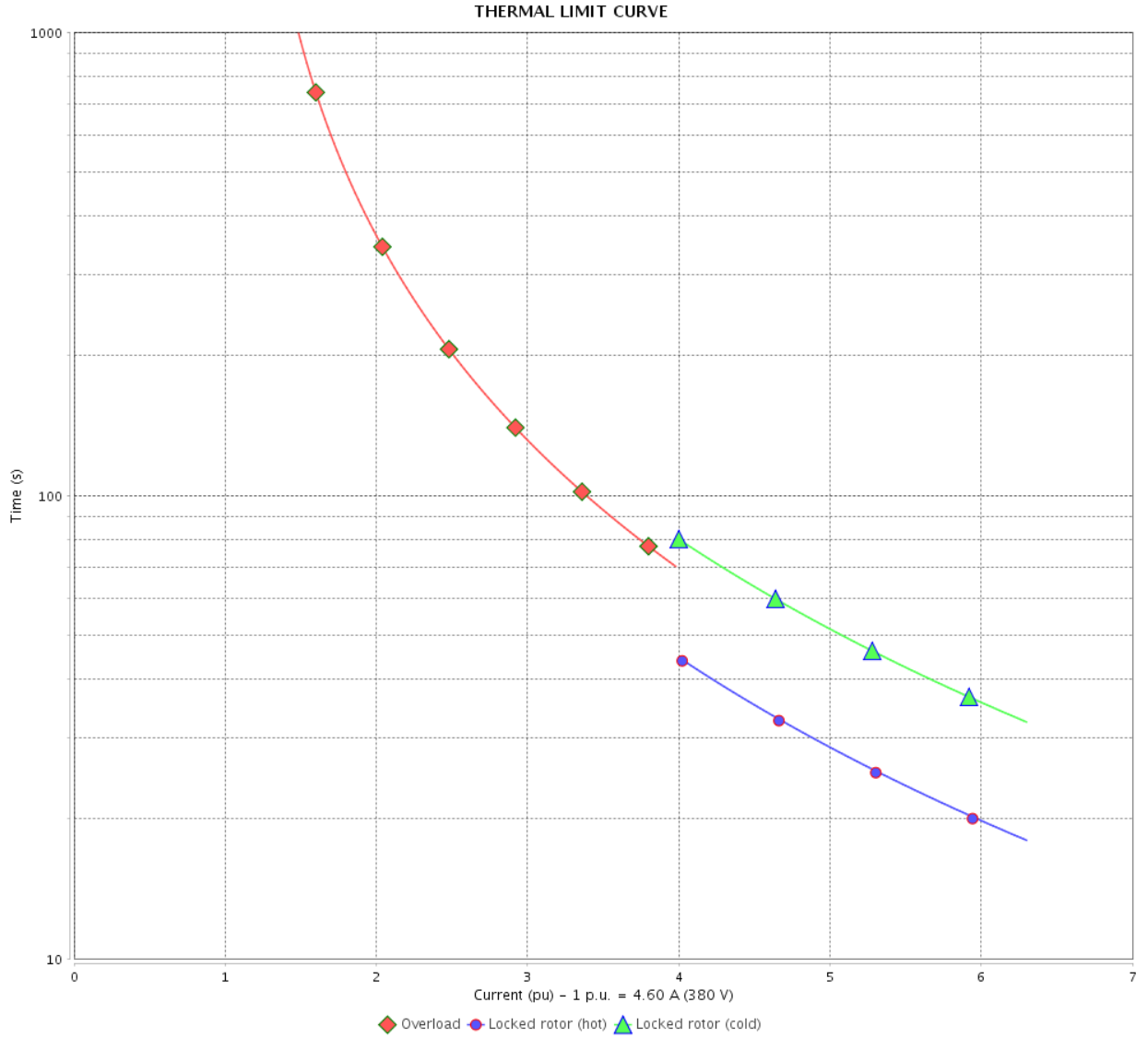
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Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

Heating constant

Cooling constant

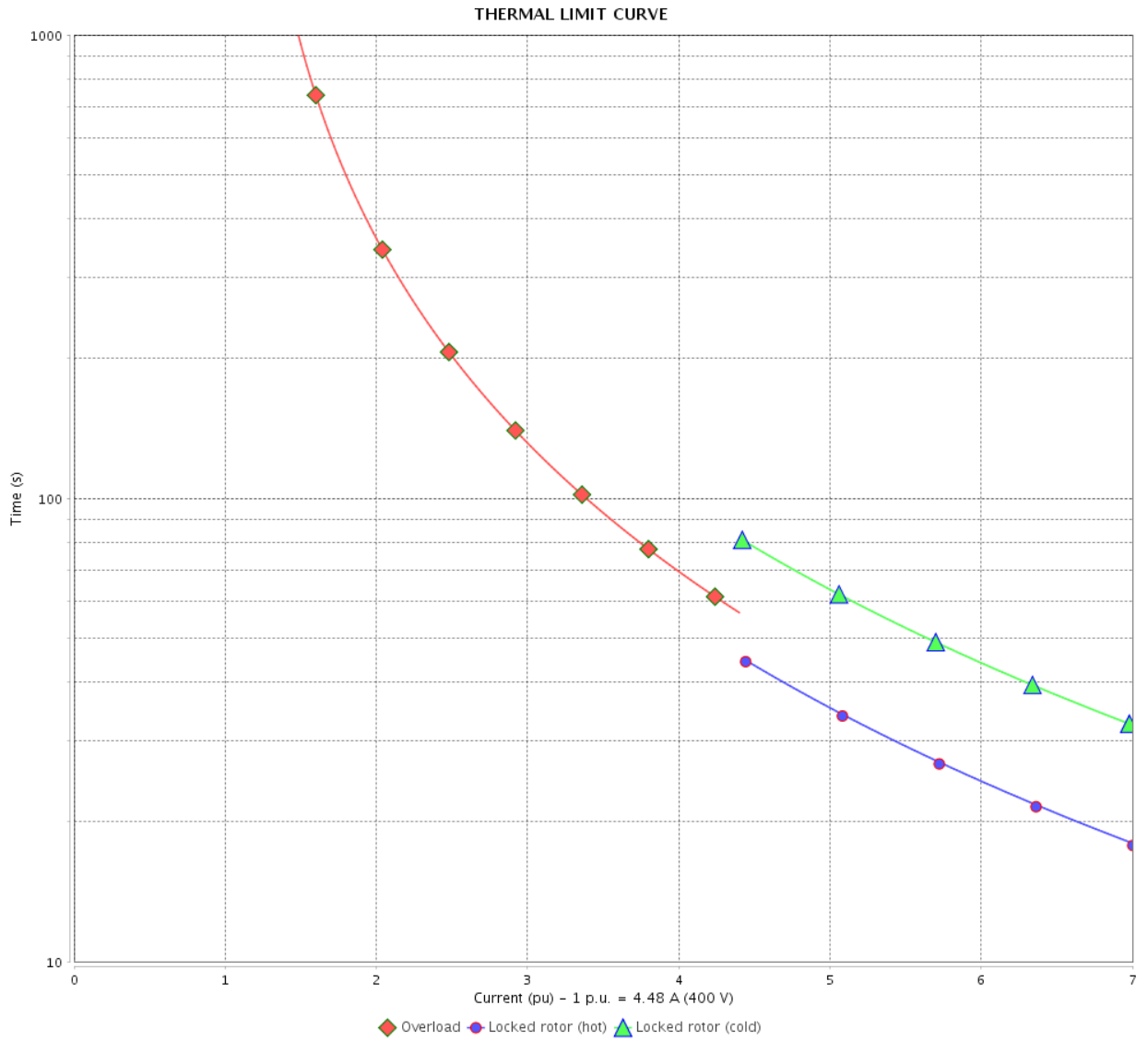
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

THERMAL LIMIT CURVE



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Catalog # : 00318ET3E182TC-W22

Performance : 415 V 50 Hz 4P IE3

Rated current	: 4.43 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: B

Heating constant

Cooling constant

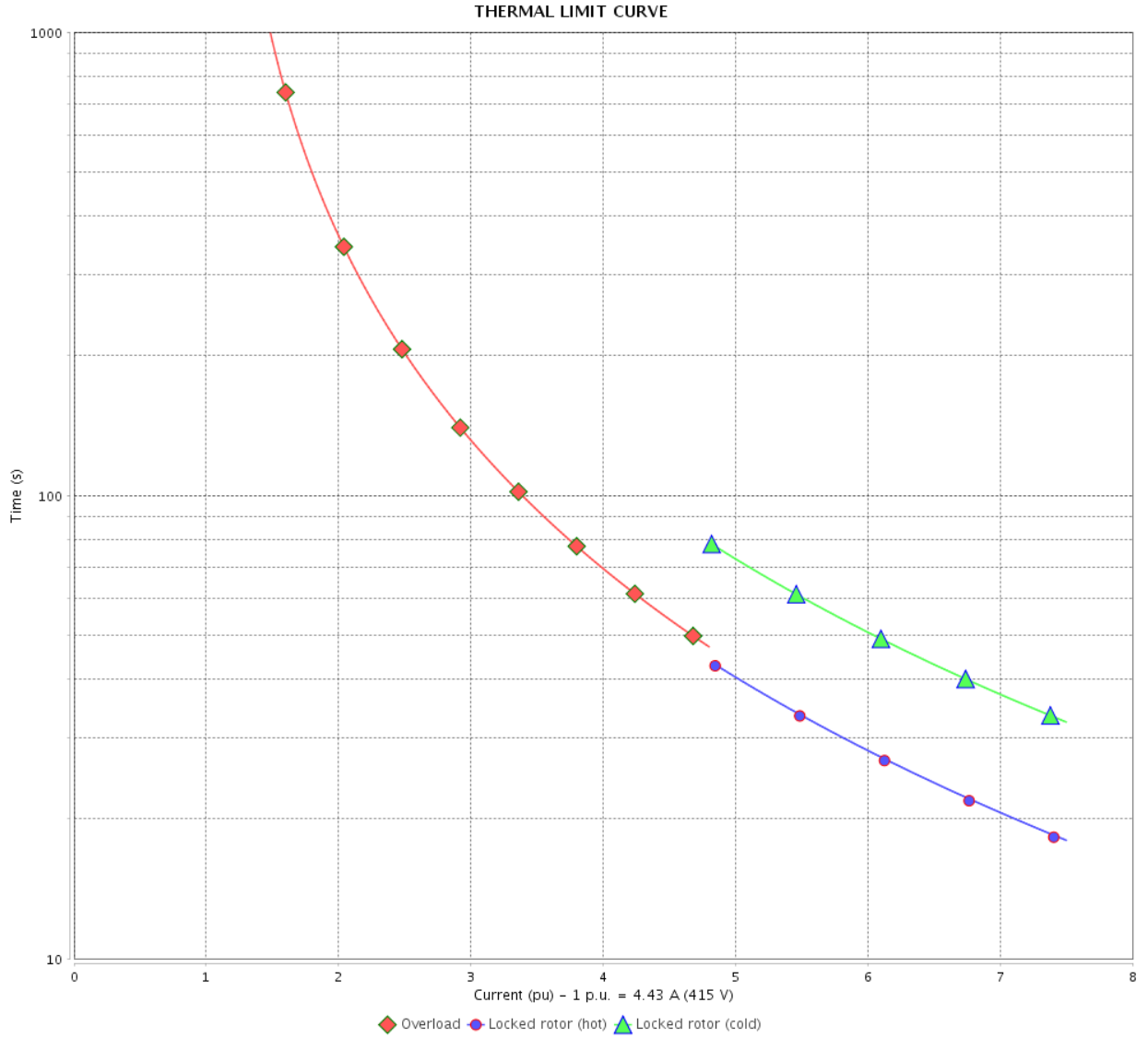
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

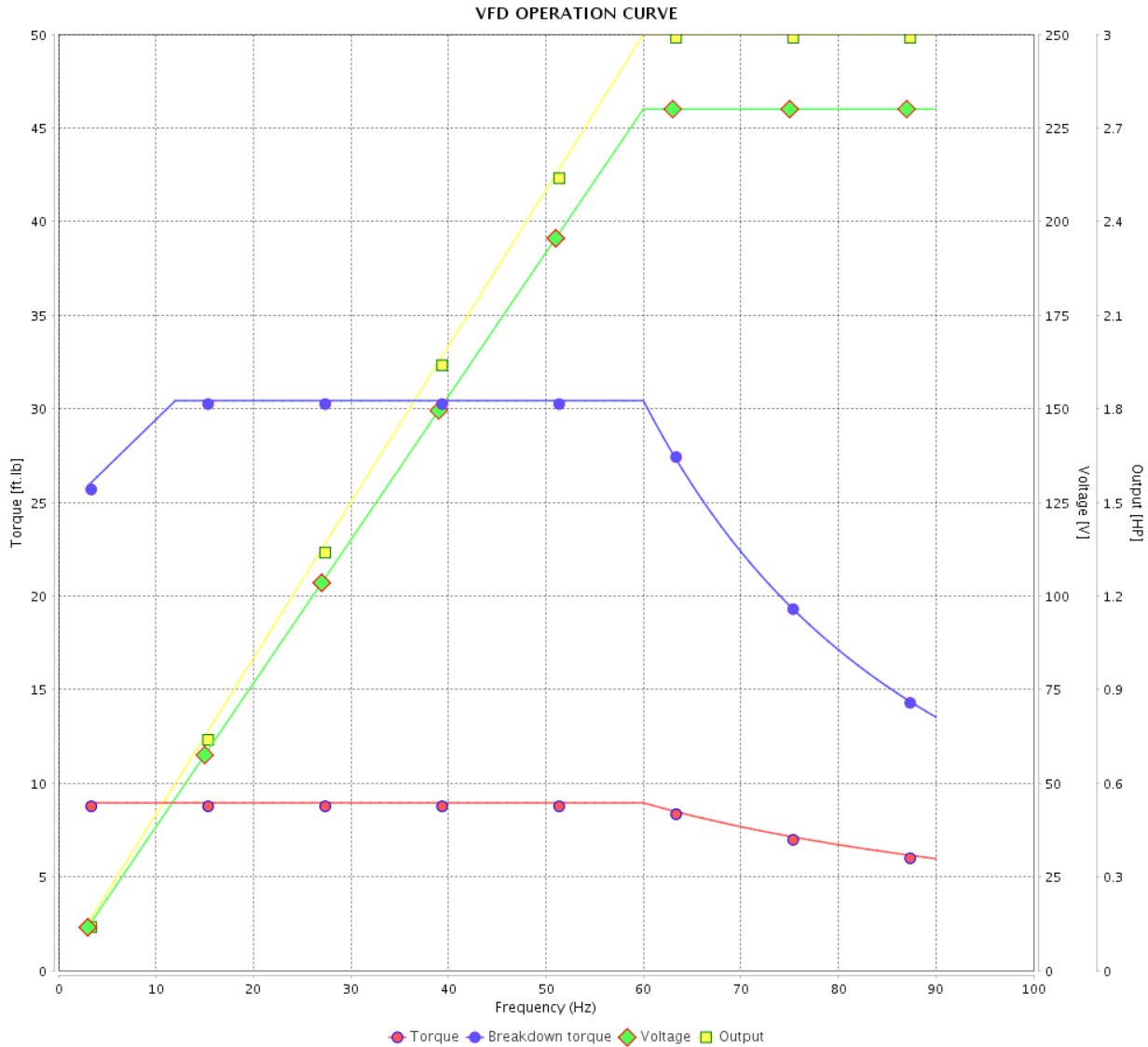


Customer :

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Rated current : 7.82/3.91 A
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 Breakdown torque : 340 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.3401 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

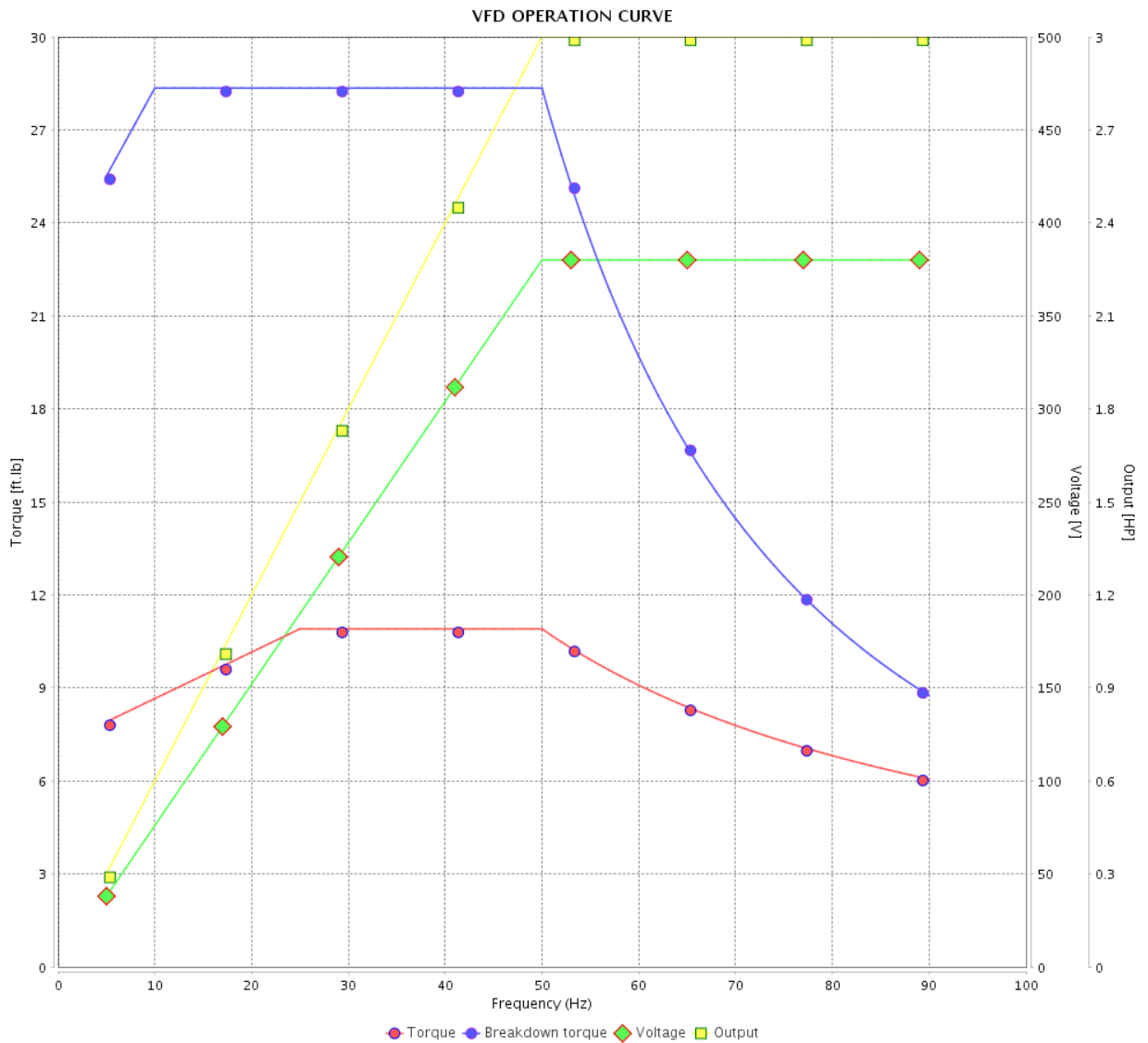


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 Locked rotor torque : 180 %
 Breakdown torque : 260 %
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 Service factor : 1.25
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

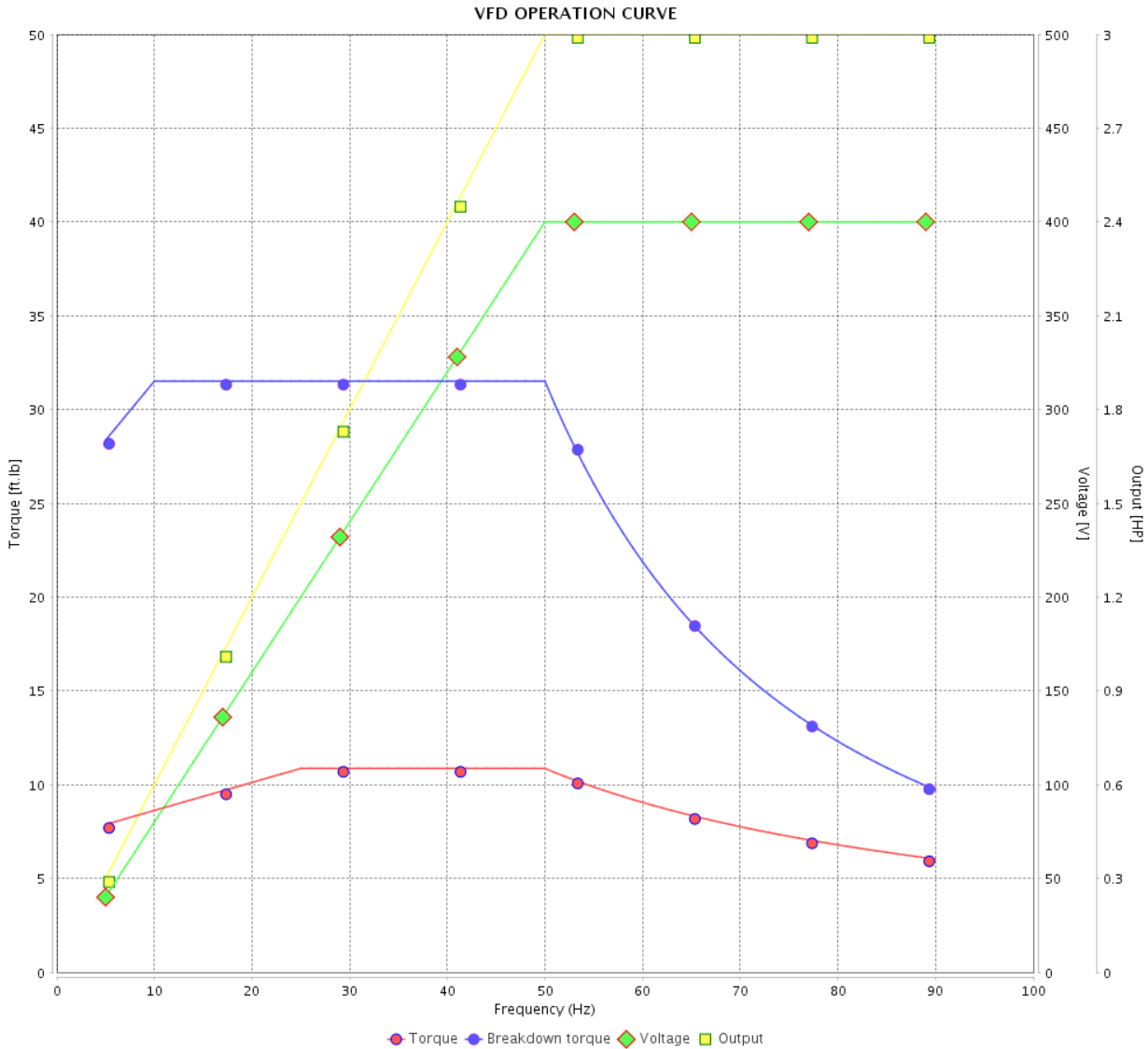


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Performance : 400 V 50 Hz 4P IE3

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 Locked rotor torque : 210 %
 Breakdown torque : 290 %
 Rated speed : 1450 rpm

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

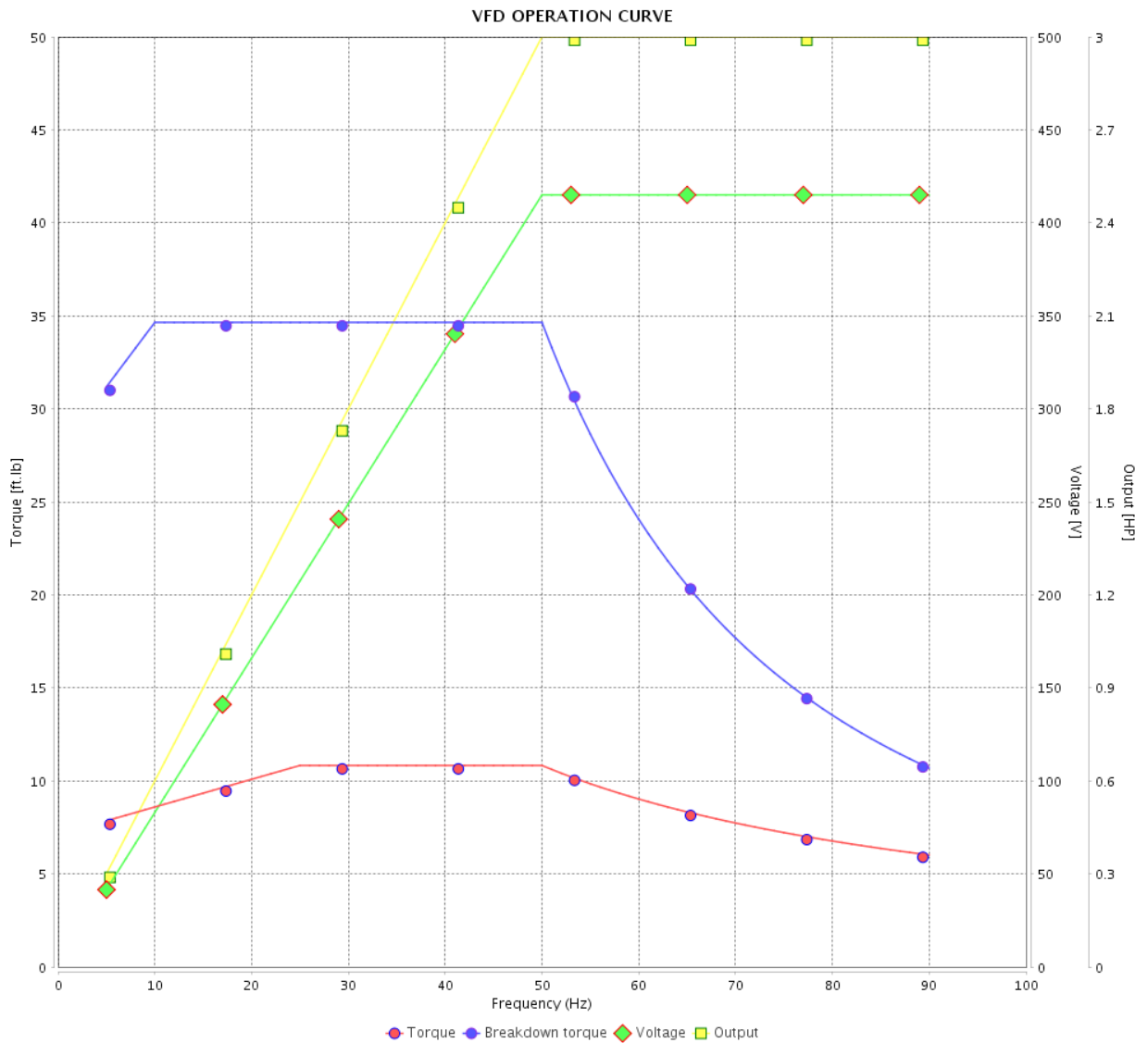


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 Breakdown torque : 320 %
 Rated speed : 1455 rpm

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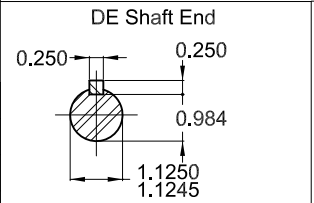
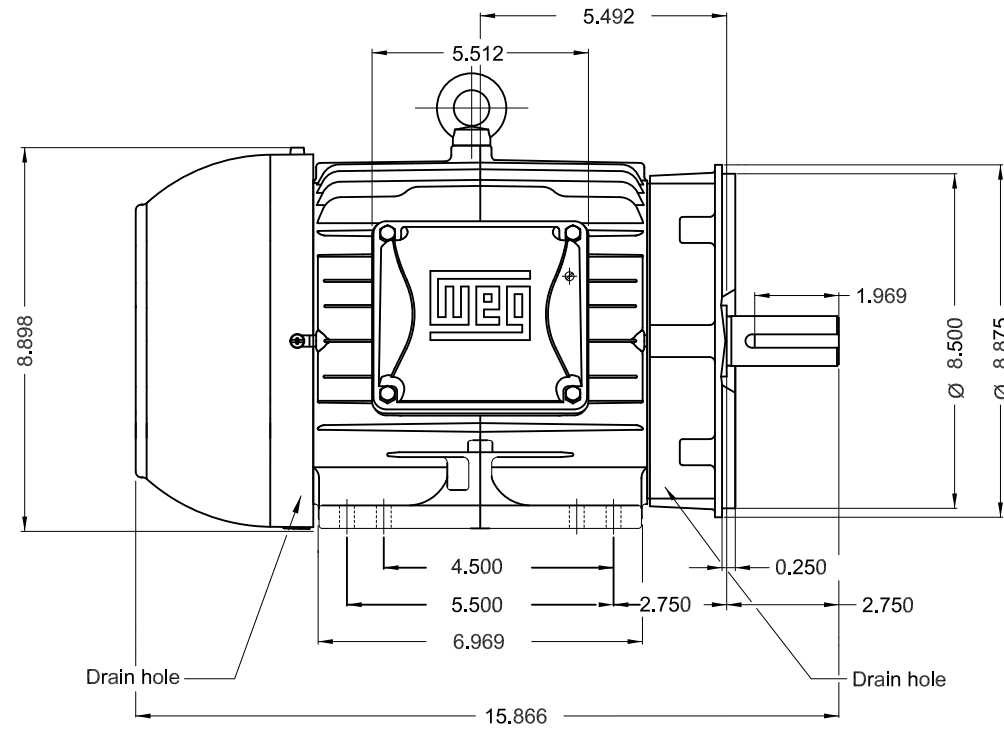
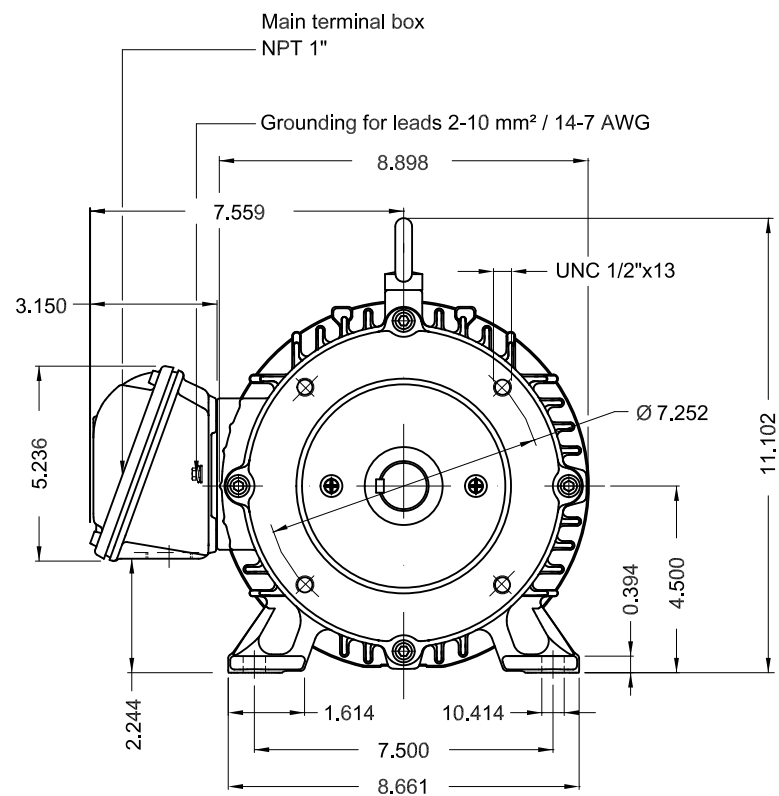
A

B

C

D

E



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

3 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 182/4TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



MADE IN MEXICO
12445724



W22

MODEL 00318ET3E182TC-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. 182/4TC 1000m.a.s.l. IP55 TEFC 94lb

V 230/460

A 7.82/3.91

HP 3.0

kW 2.2

SF 1.25

SFA 9.78/4.89

RPM 1760

PF 0.79

AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 89.5%

DUTY CONT.

DES B Code K

USABLE @208V 8.65A SF 1.15 SFA 9.95

3.0HP 2.2kW 50Hz 380V 4.60A 1445RPM SF 1.25 SFA 5.75 EFF 87.5% (IE3)

