

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12789461		
		Catalog # :	00318ET3ER182TC-W22		
Frame	: 182TC	Cooling method	: IC411 - TEFC		
Insulation class	: F	Mounting	: W-6		
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	: 92.3 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 : 175 lb			
Lubrication interval	: - -	Max. compression : 267 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



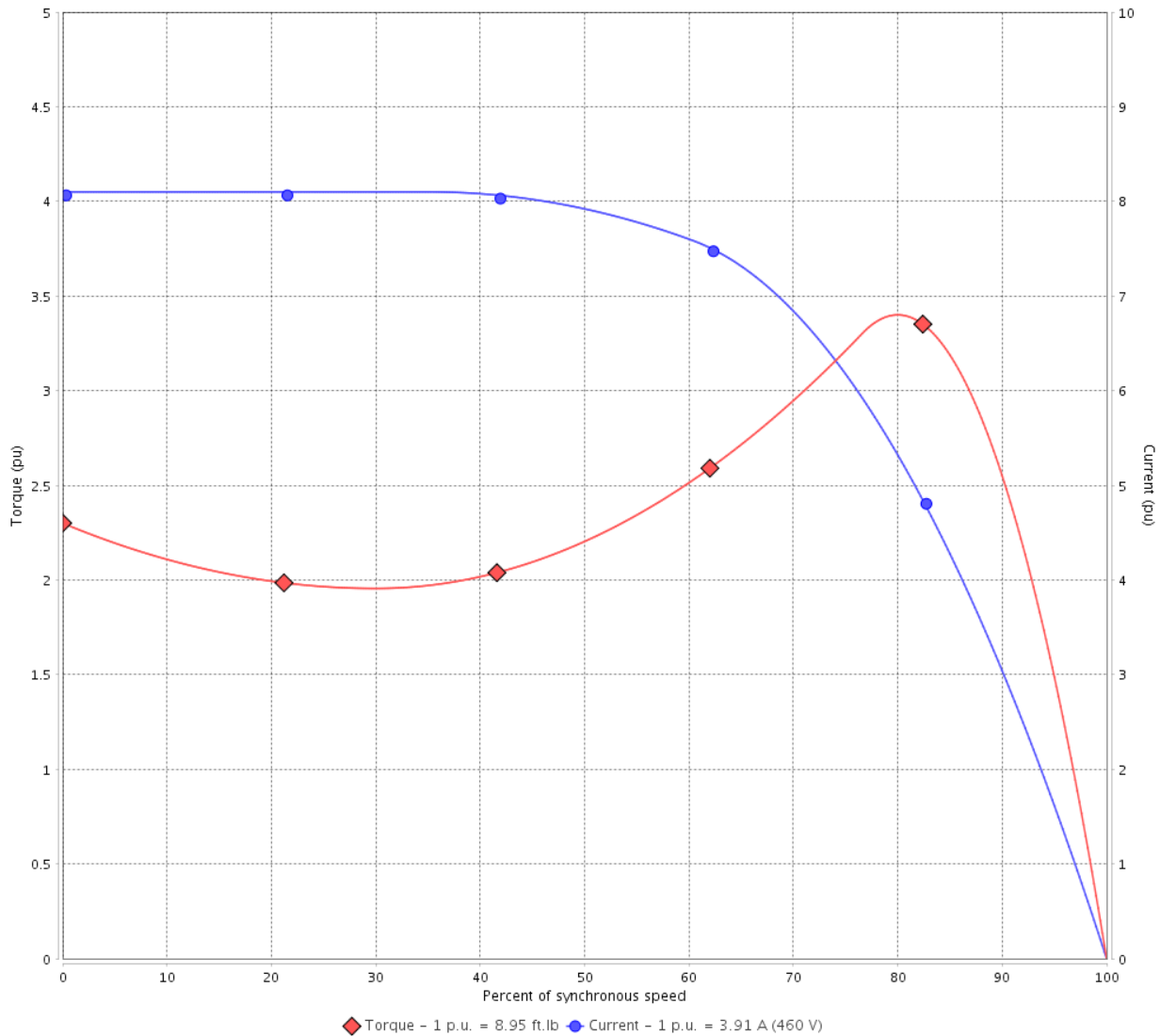
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12789461

Catalog # : 00318ET3ER182TC-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 7.82/3.91 A	Moment of inertia (J)	: 0.3401 sq.ft.lb
LRC	: 8.1	Duty cycle	: Cont.(S1)
Rated torque	: 8.95 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



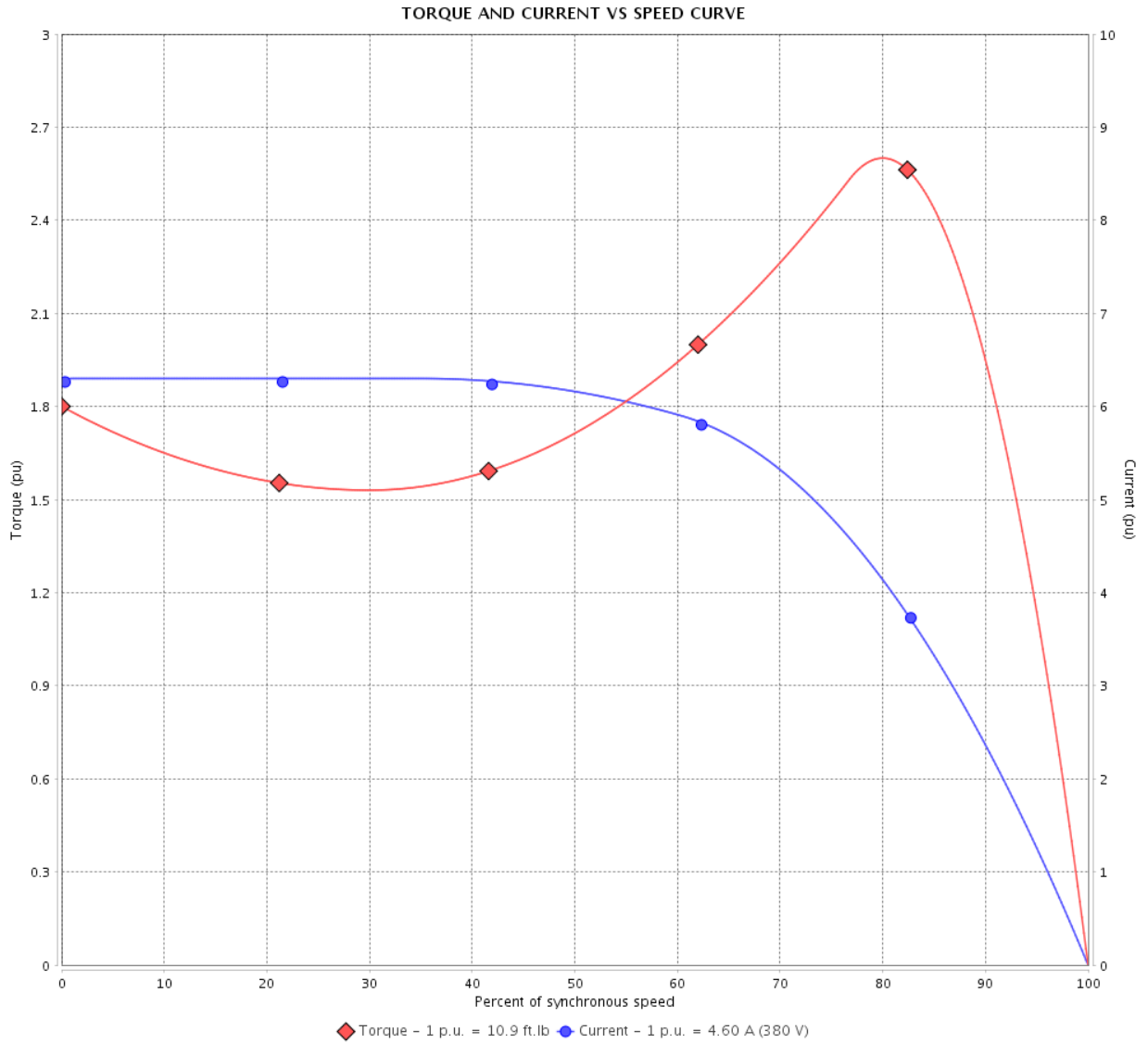
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12789461

Catalog # : 00318ET3ER182TC-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



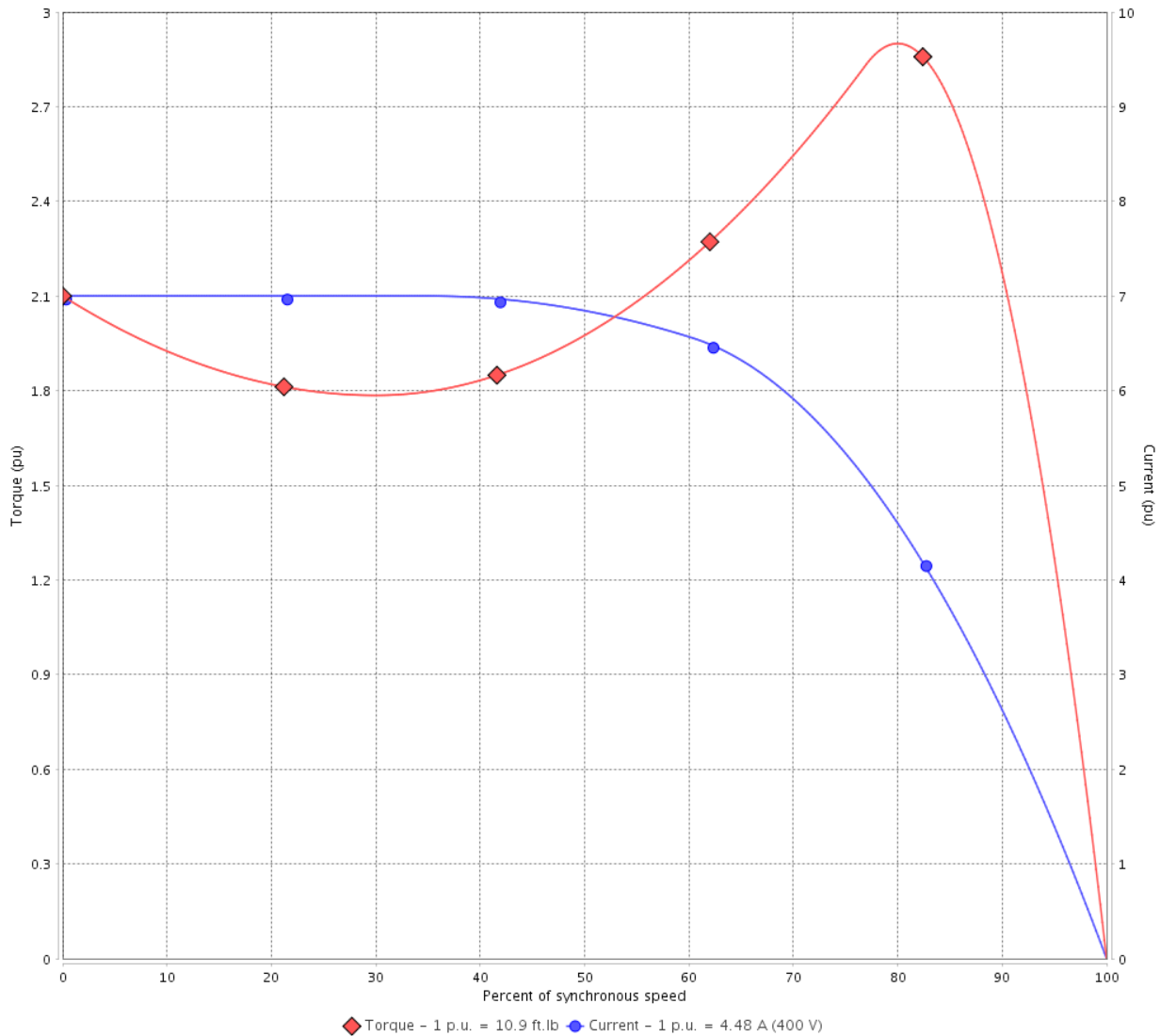
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12789461

Catalog # : 00318ET3ER182TC-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



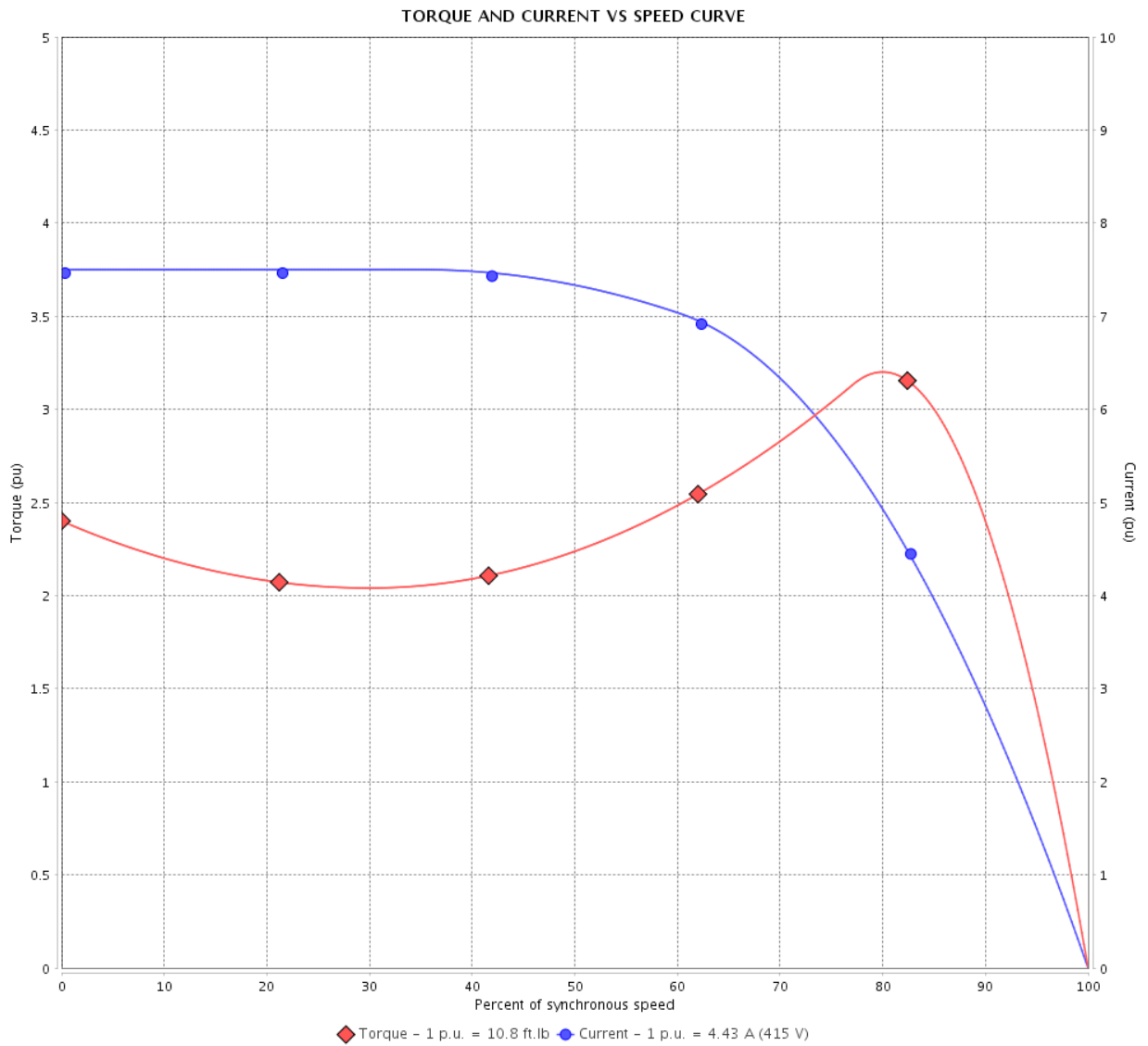
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12789461

Catalog # : 00318ET3ER182TC-W22



Performance : 415 V 50 Hz 4P IE3

Rated current : 4.43 A
 LRC : 7.5
 Rated torque : 10.8 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 320 %
 Rated speed : 1455 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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LOAD PERFORMANCE CURVE

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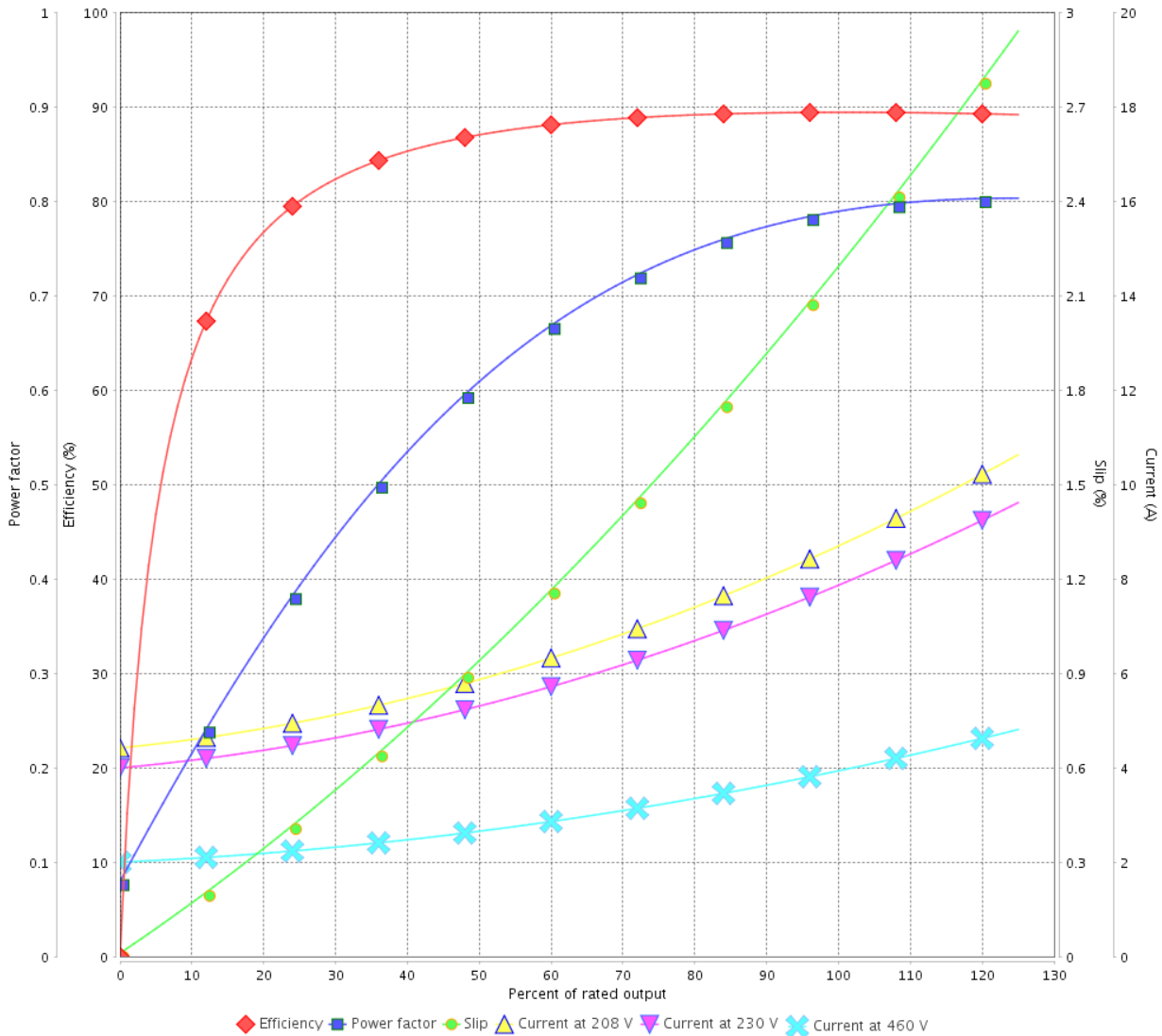
Customer :

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Catalog # : 00318ET3ER182TC-W22

LOAD PERFORMANCE 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

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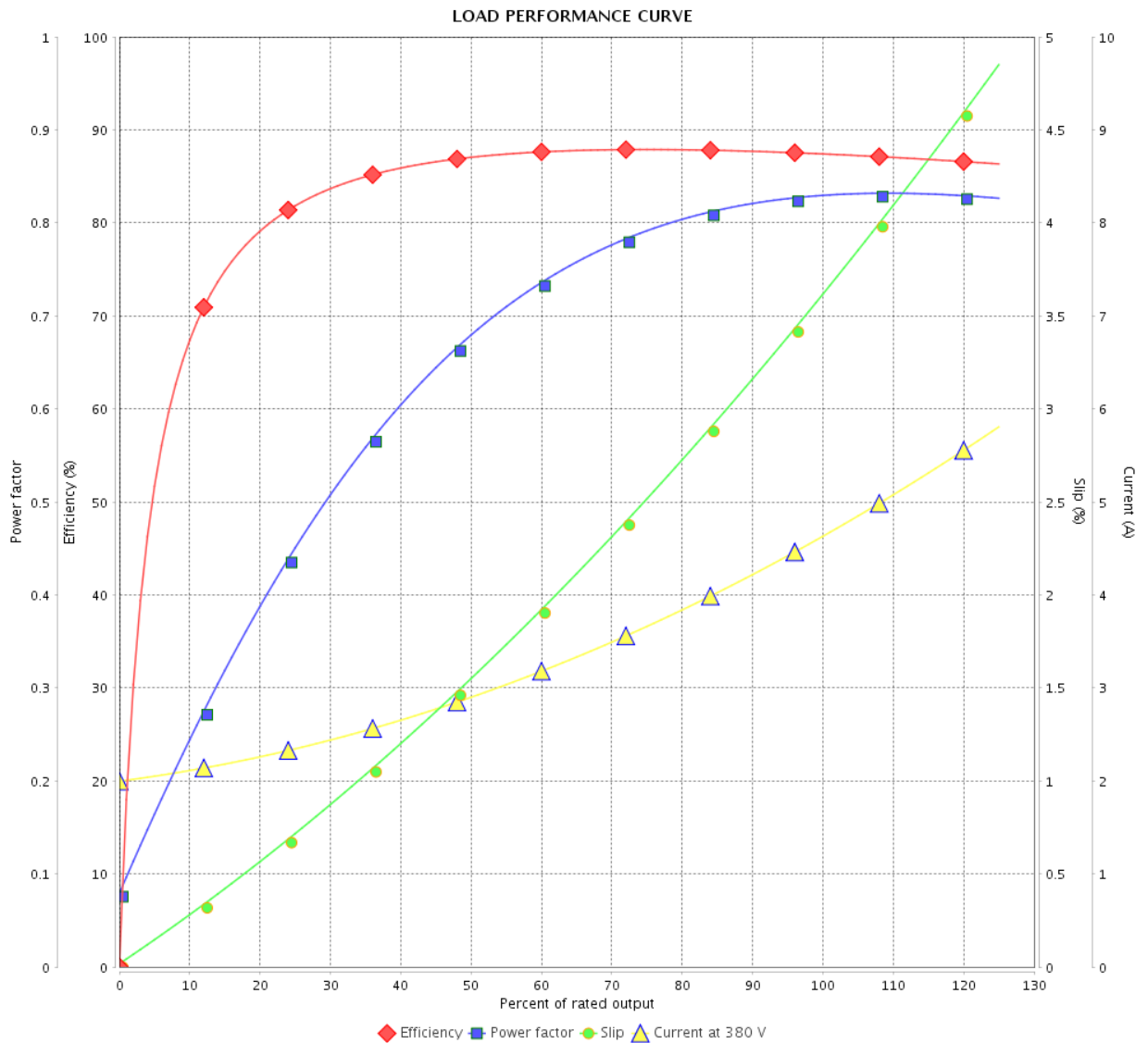


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

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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

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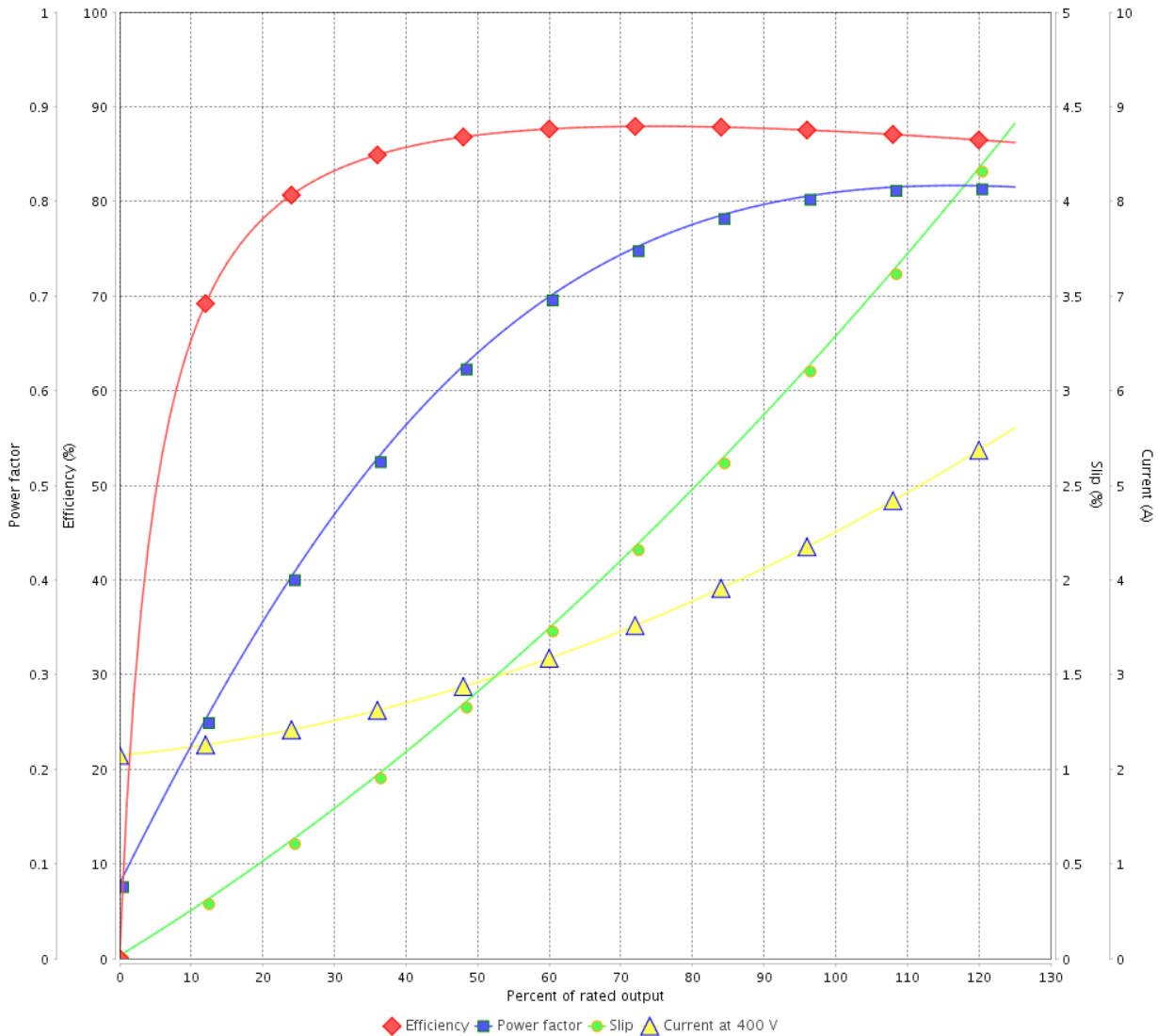
Customer :

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LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current : 4.48 A
 LRC : 7.0
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 210 %
 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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Three Phase Induction Motor - Squirrel Cage

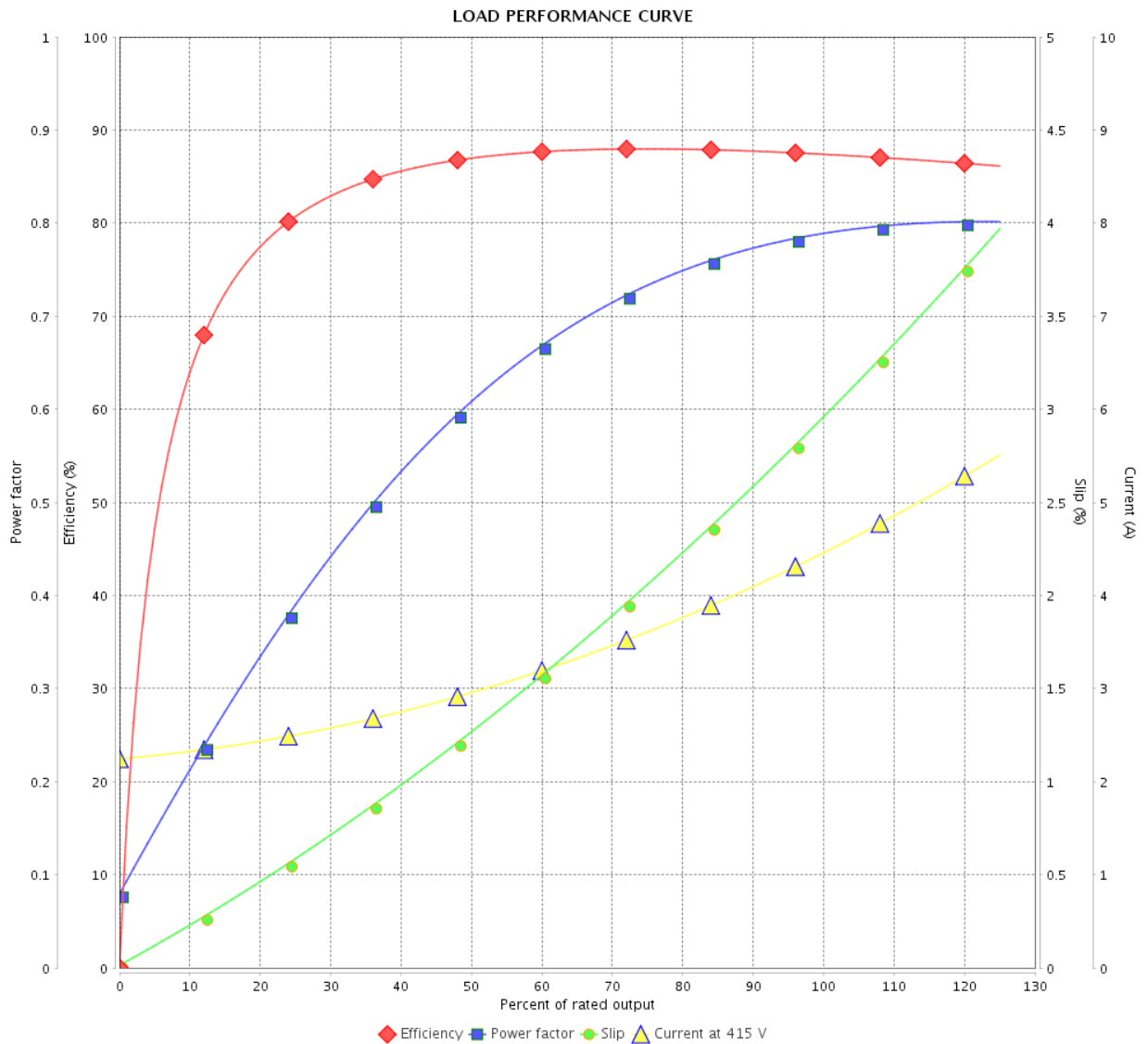


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THERMAL LIMIT CURVE



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Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Heating constant

Cooling constant

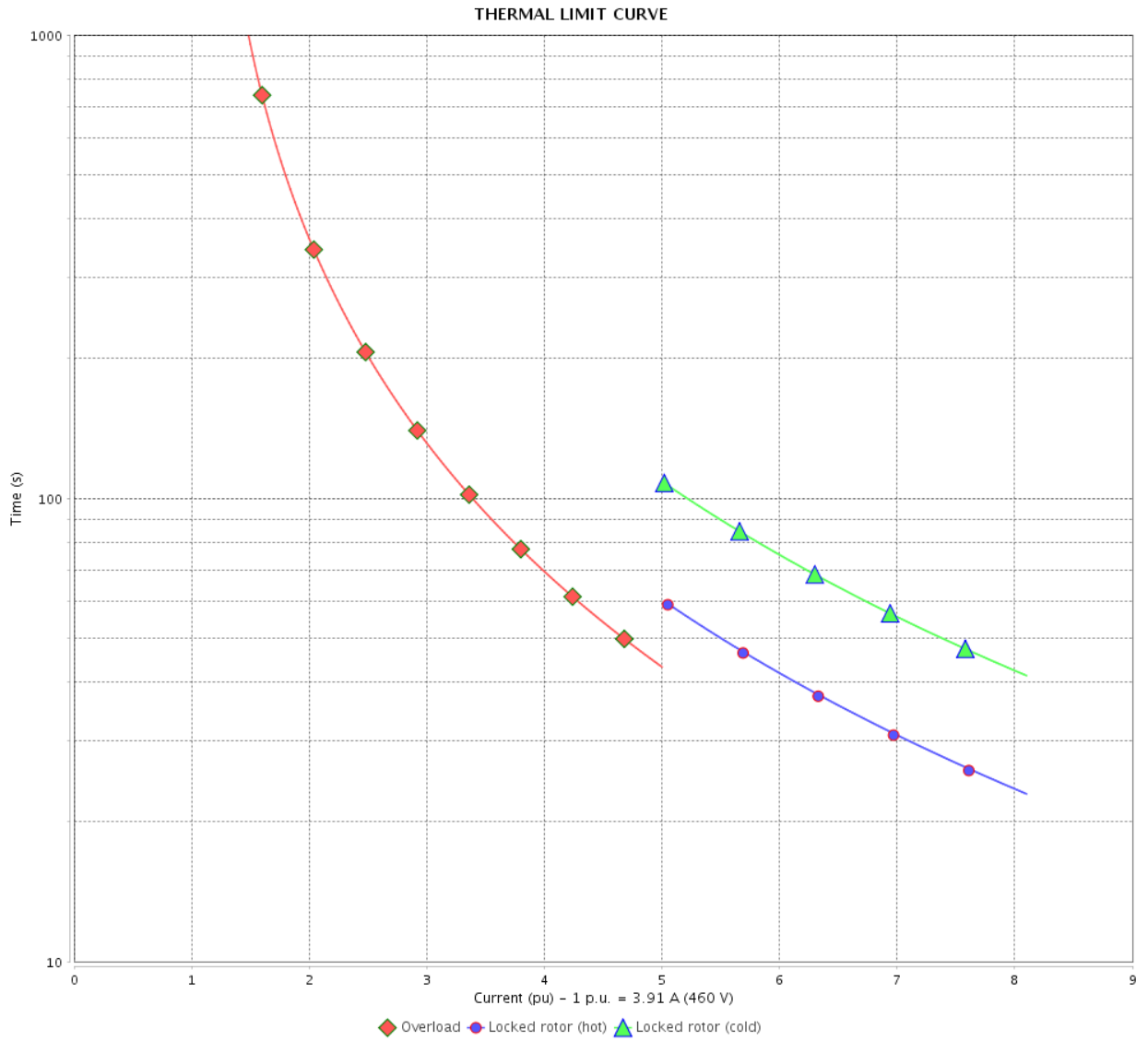
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Performance : 380 V 50 Hz 4P IE3

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

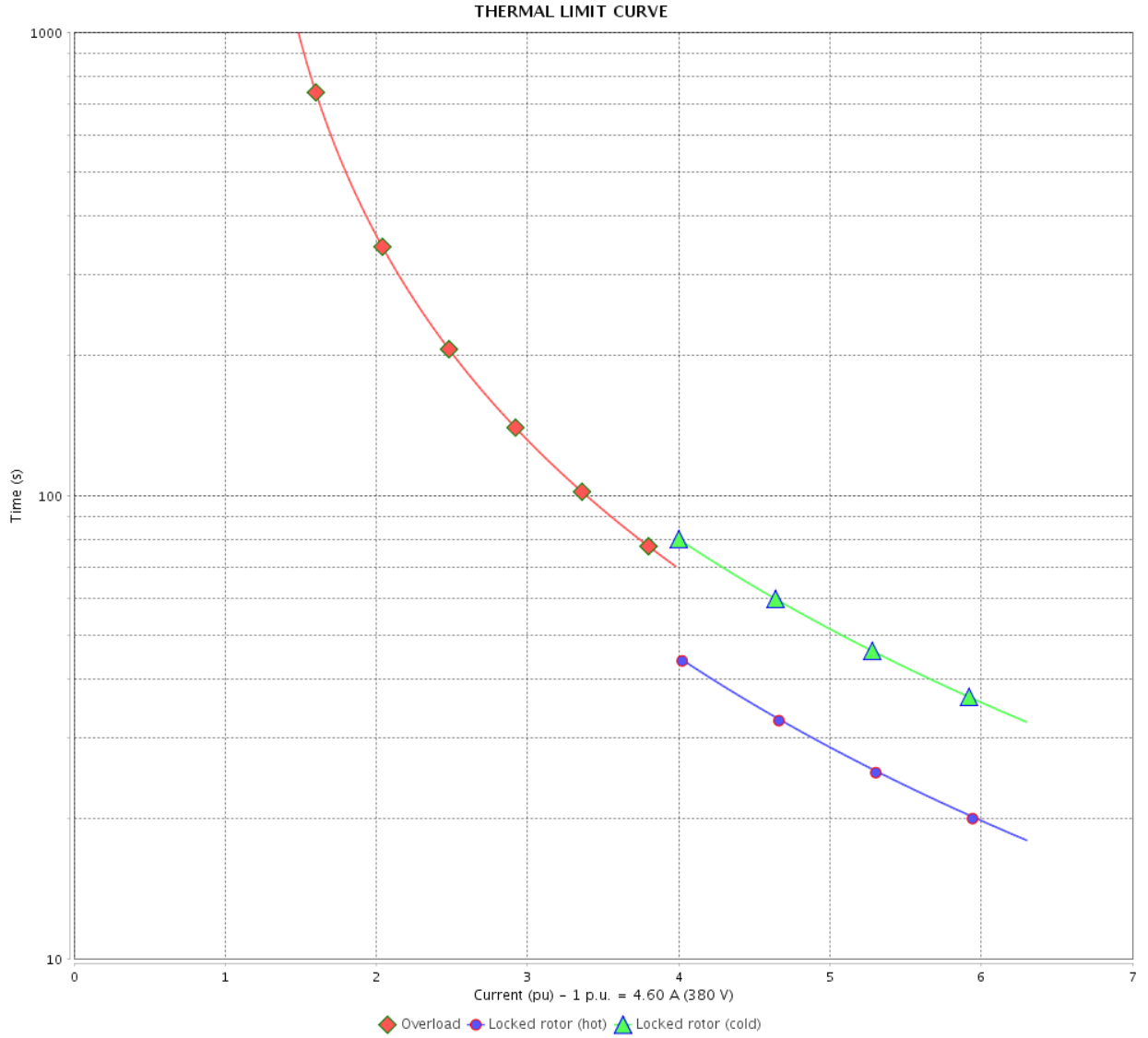
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LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

Heating constant

Cooling constant

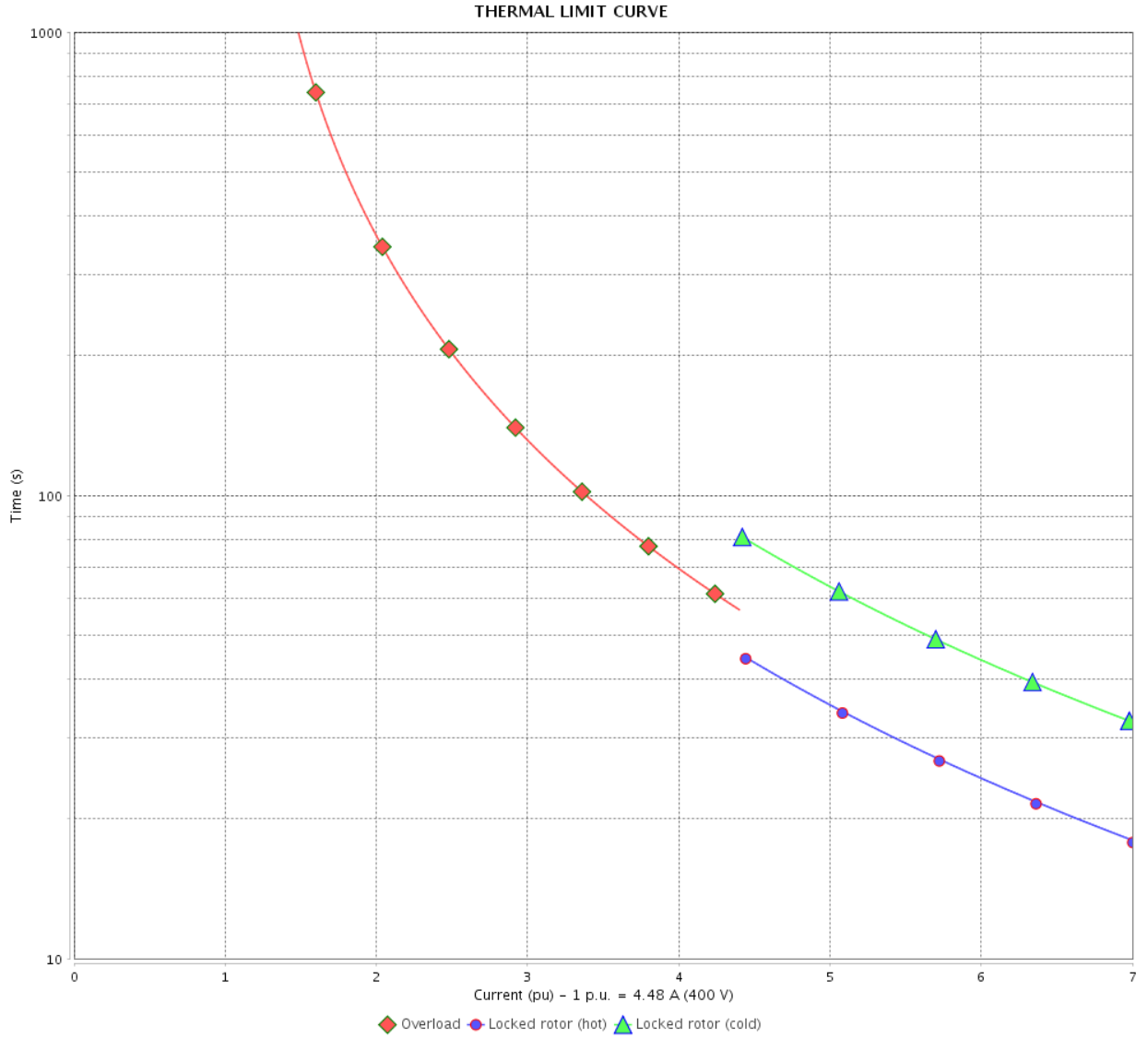
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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Date				

THERMAL LIMIT CURVE



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Customer :

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Catalog # : 00318ET3ER182TC-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

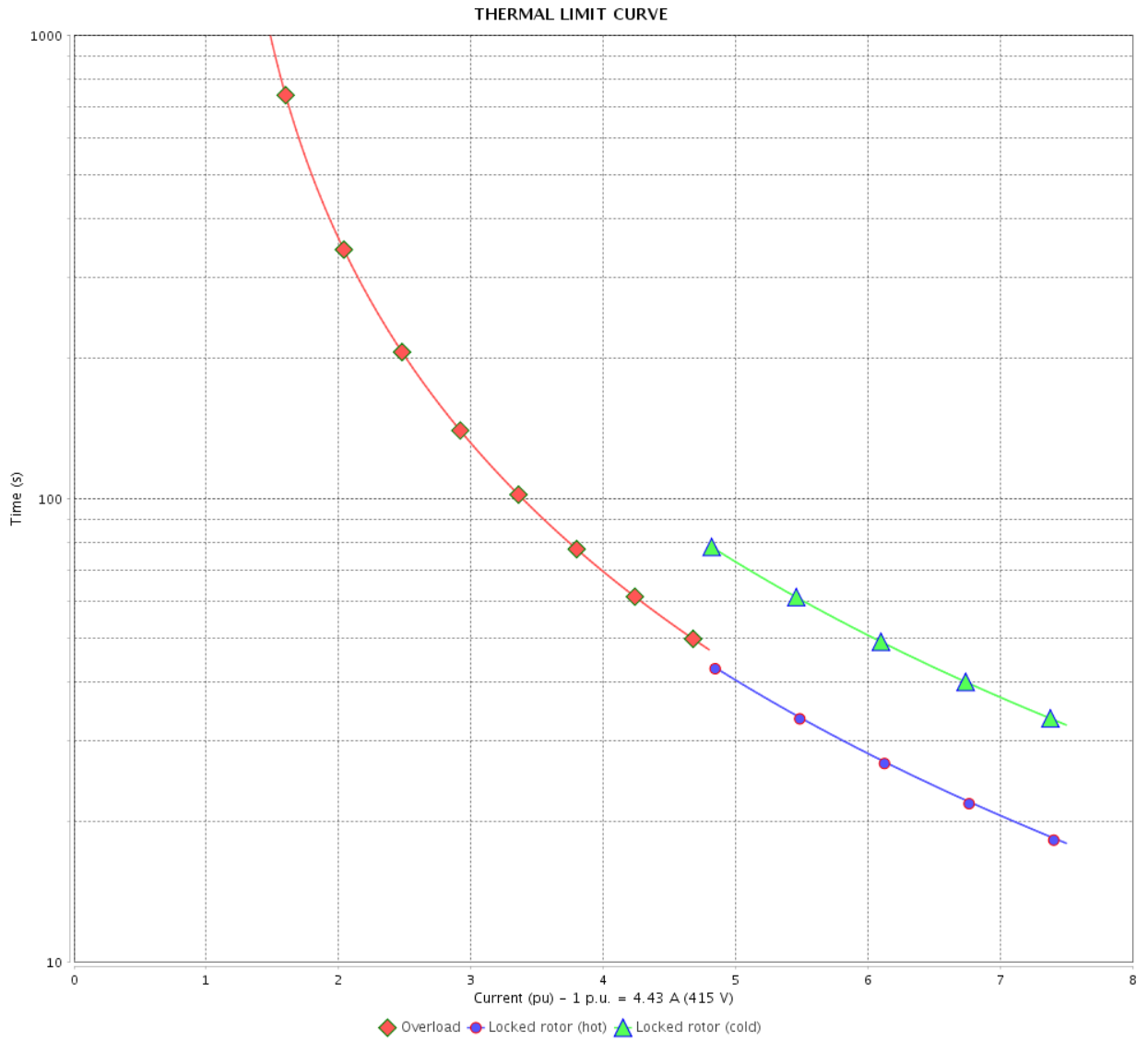
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

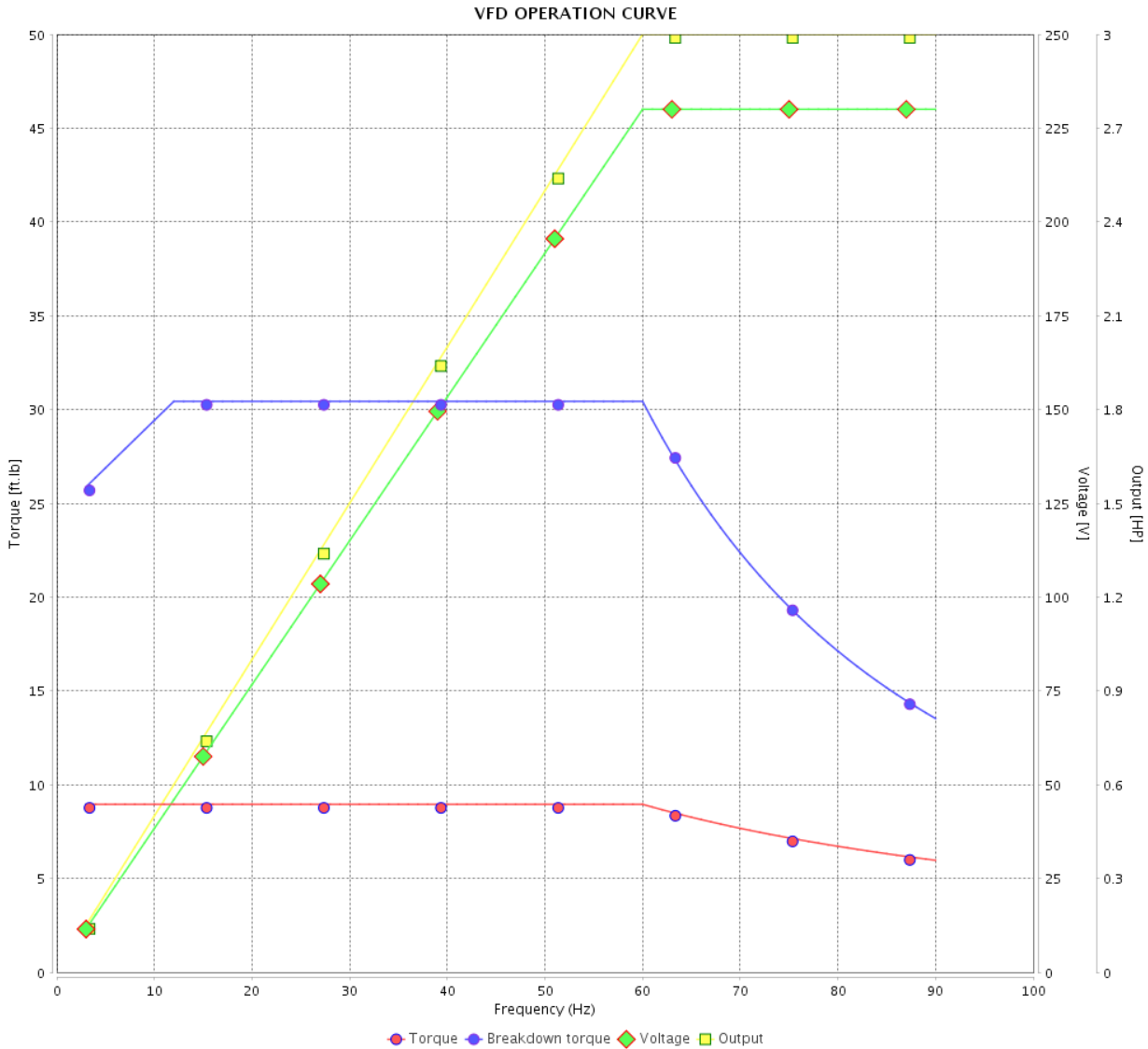


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12789461

Catalog # : 00318ET3ER182TC-W22



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

Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

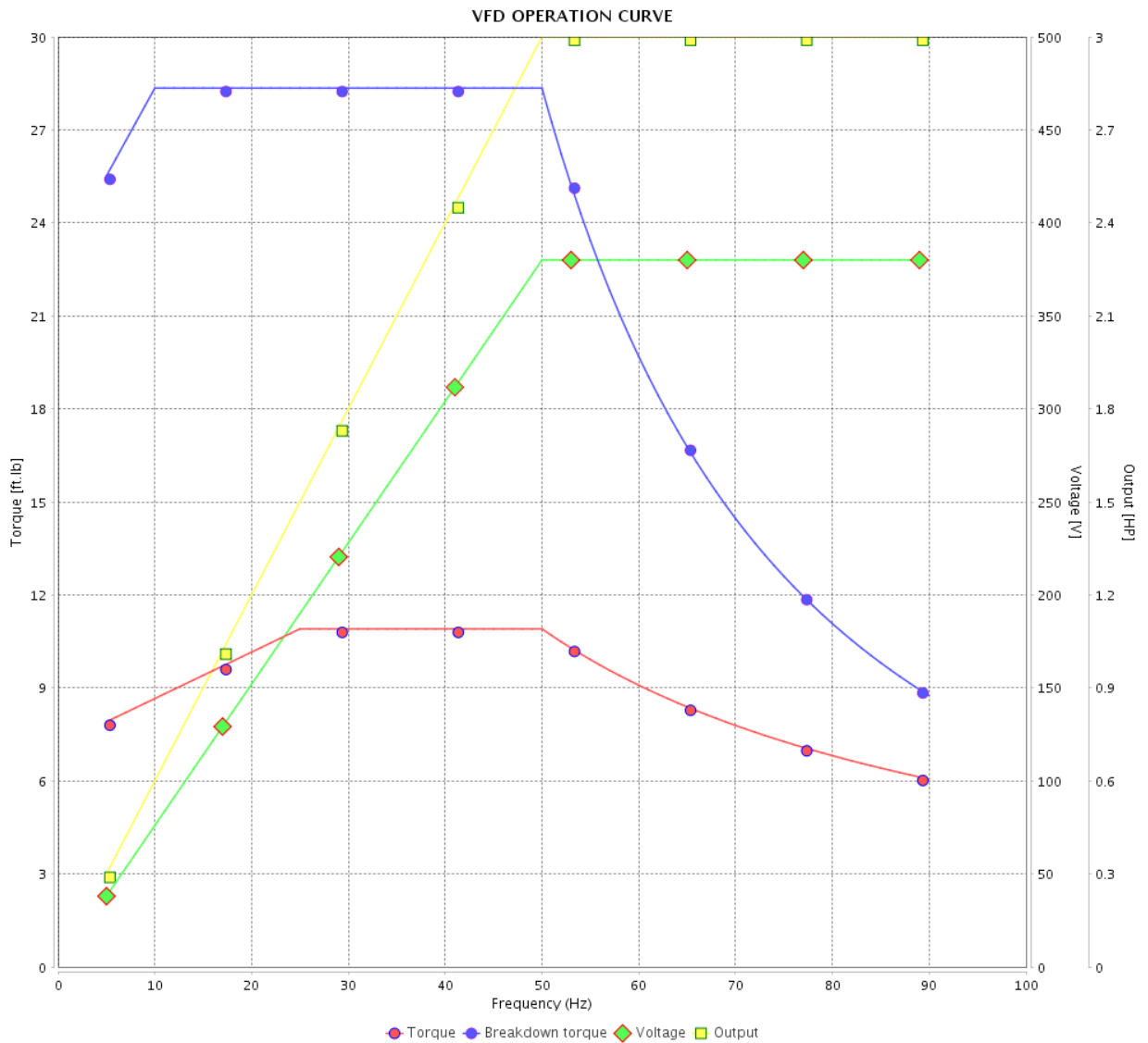


Customer : _____

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Performance : 380 V 50 Hz 4P IE3

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 Locked rotor torque : 180 %
 Breakdown torque : 260 %
 Rated speed : 1445 rpm

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 Duty cycle : Cont.(S1)
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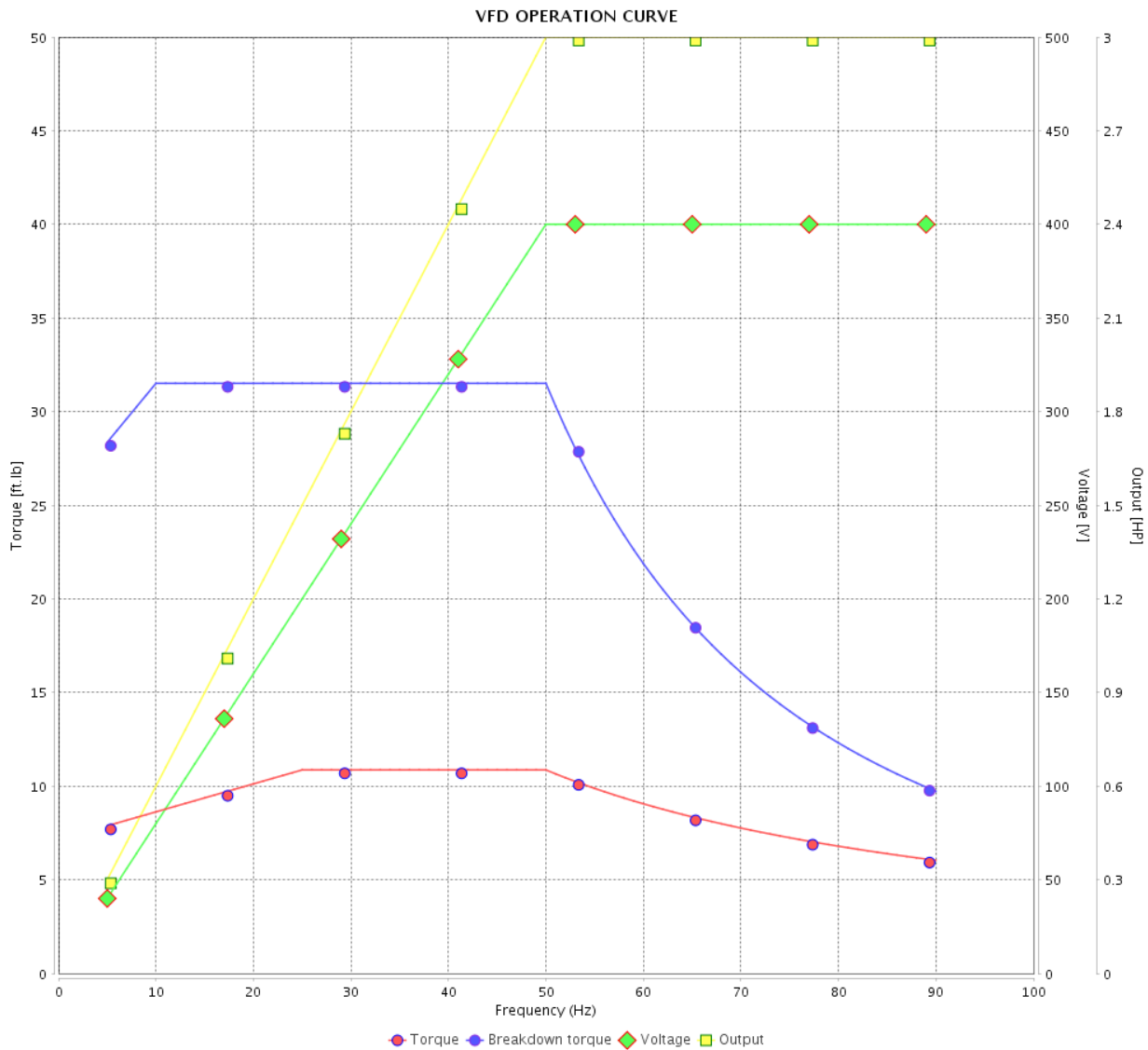


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Performance : 400 V 50 Hz 4P IE3

Rated current : 4.48 A
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 Locked rotor torque : 210 %
 Breakdown torque : 290 %
 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

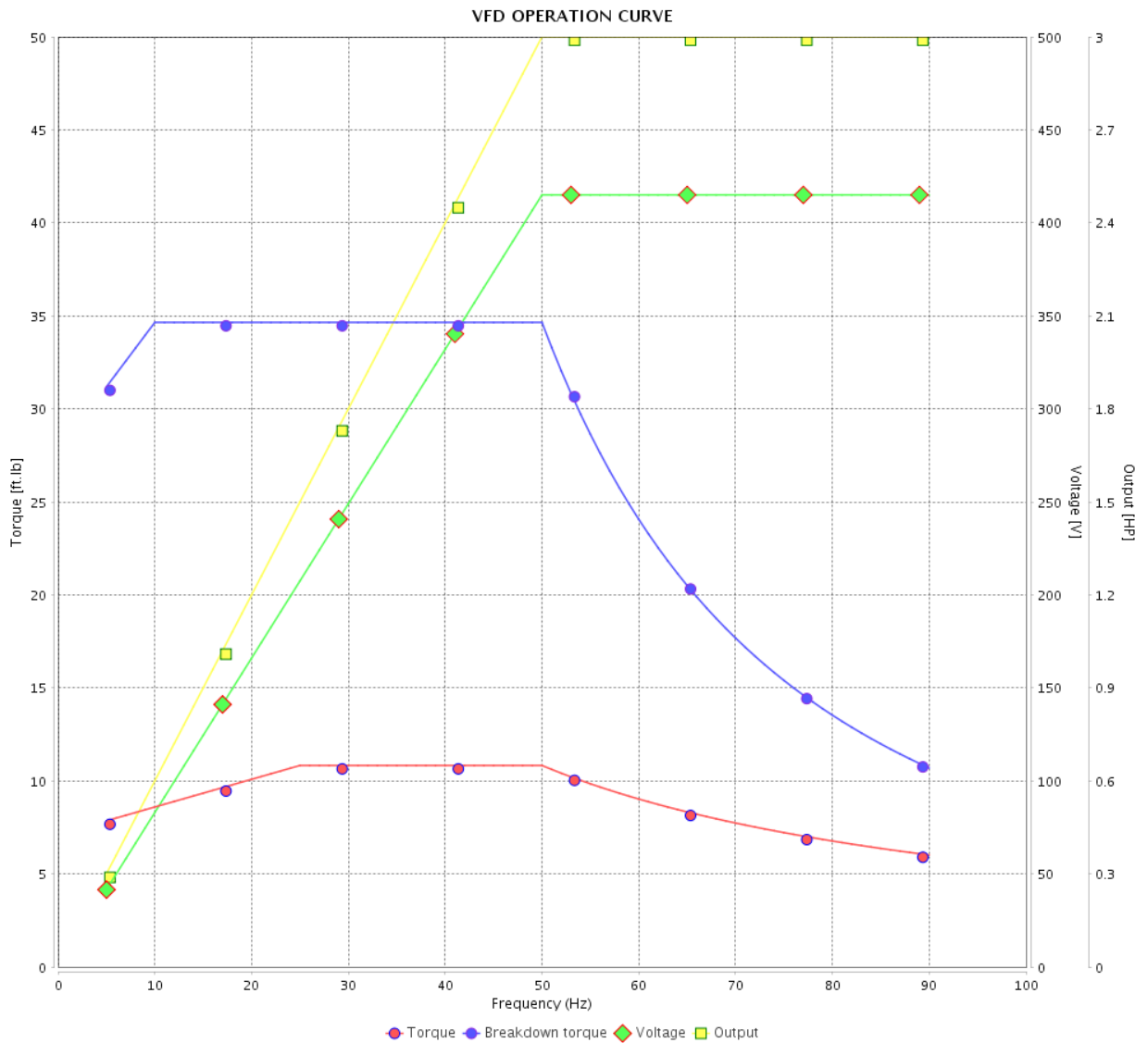


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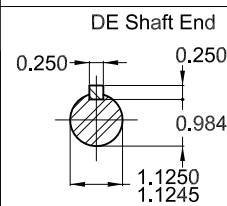
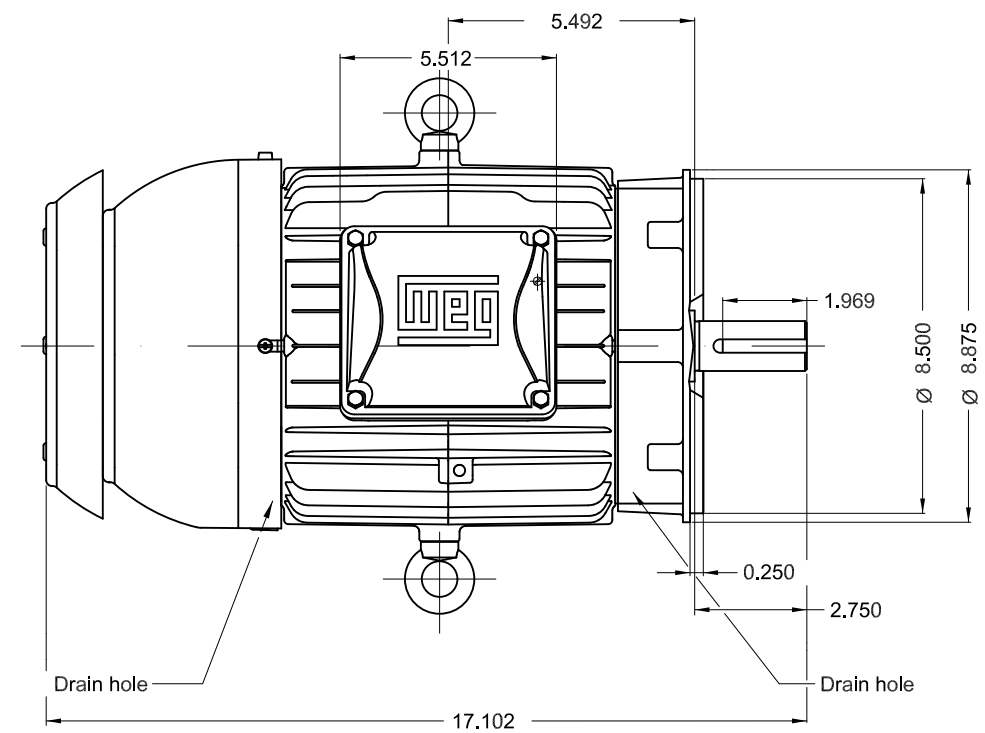
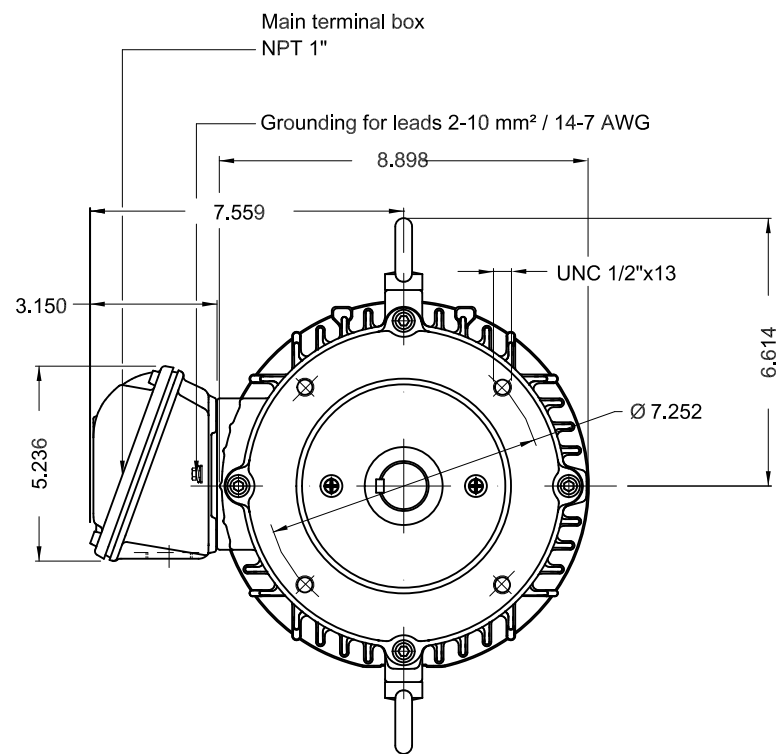


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 Rated torque : 10.8 ft.lb
 Locked rotor torque : 240 %
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 Rated speed : 1455 rpm

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 Insulation class : F
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Bearing cap

Color RAL 5009

Painting plan 207A

Mounting NEMA W-6

Mounting V18

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

PREVIEW
WDD



MADE IN MEXICO
12789461



W22

MODEL 00318ET3ER182TC-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. 182TC 1000m.a.s.l. IP55 TEFC 95lb

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)

