

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	11452806		
		Catalog # :	00159ET3E184T-W22		
Frame	: 182/4T	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	: 99.3 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.5766 sq.ft.lb		
Design	: B				
Output [HP]	1.5	1.5	1.5	1.5	
Poles	8	8	8	8	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	5.40/2.70	3.04	3.01	2.99	
L. R. Amperes [A]	31.9/15.9	15.2	16.6	17.9	
LRC [A]	5.9x(Code K)	5.0x(Code H)	5.5x(Code J)	6.0x(Code K)	
No load current [A]	4.00/2.00	1.90	2.00	2.10	
Rated speed [RPM]	865	705	710	715	
Slip [%]	3.89	6.00	5.33	4.67	
Rated torque [ft.lb]	9.11	11.2	11.1	11.0	
Locked rotor torque [%]	290	229	260	290	
Breakdown torque [%]	340	260	290	320	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	30s (cold) 17s (hot)	
Noise level ²	50.0 dB(A)	46.0 dB(A)	46.0 dB(A)	46.0 dB(A)	
Efficiency (%)	25%				
	50%	80.0	80.0	78.5	77.0
	75%	82.5	80.0	80.0	80.0
	100%	82.5	78.5	80.0	80.0
Power Factor	25%				
	50%	0.43	0.51	0.47	0.44
	75%	0.54	0.62	0.58	0.55
	100%	0.62	0.70	0.66	0.64
Bearing type	: <u>Drive end</u> 6207 ZZ <u>Non drive end</u> 6206 ZZ	Foundation loads			
Sealing	: V'Ring V'Ring	Max. traction	: 175 lb		
Lubrication interval	: - -	Max. compression	: 275 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 5.97A SF 1.15 SFA 6.87A					
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



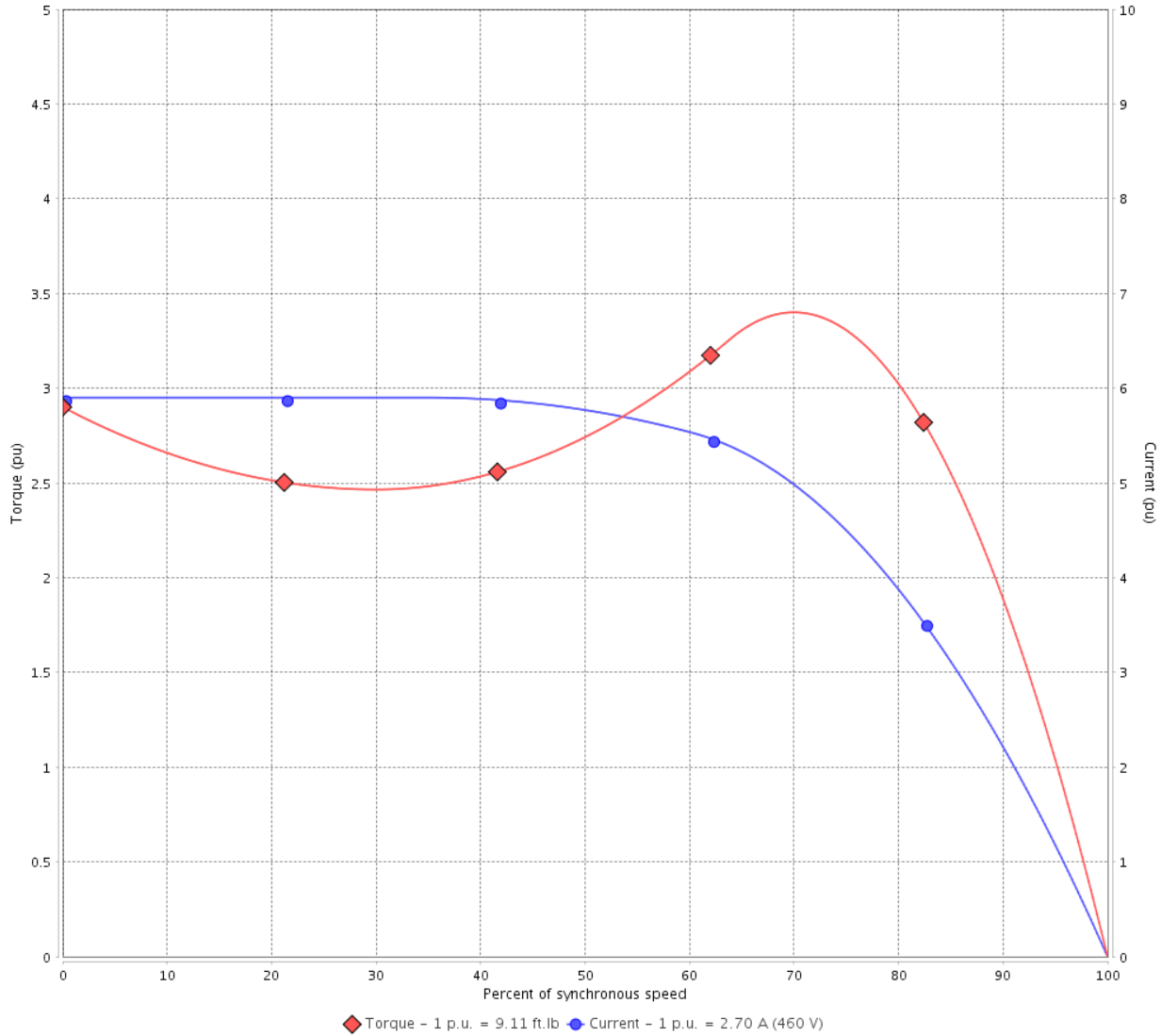
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 8P

Rated current	: 5.40/2.70 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 9.11 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 865 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



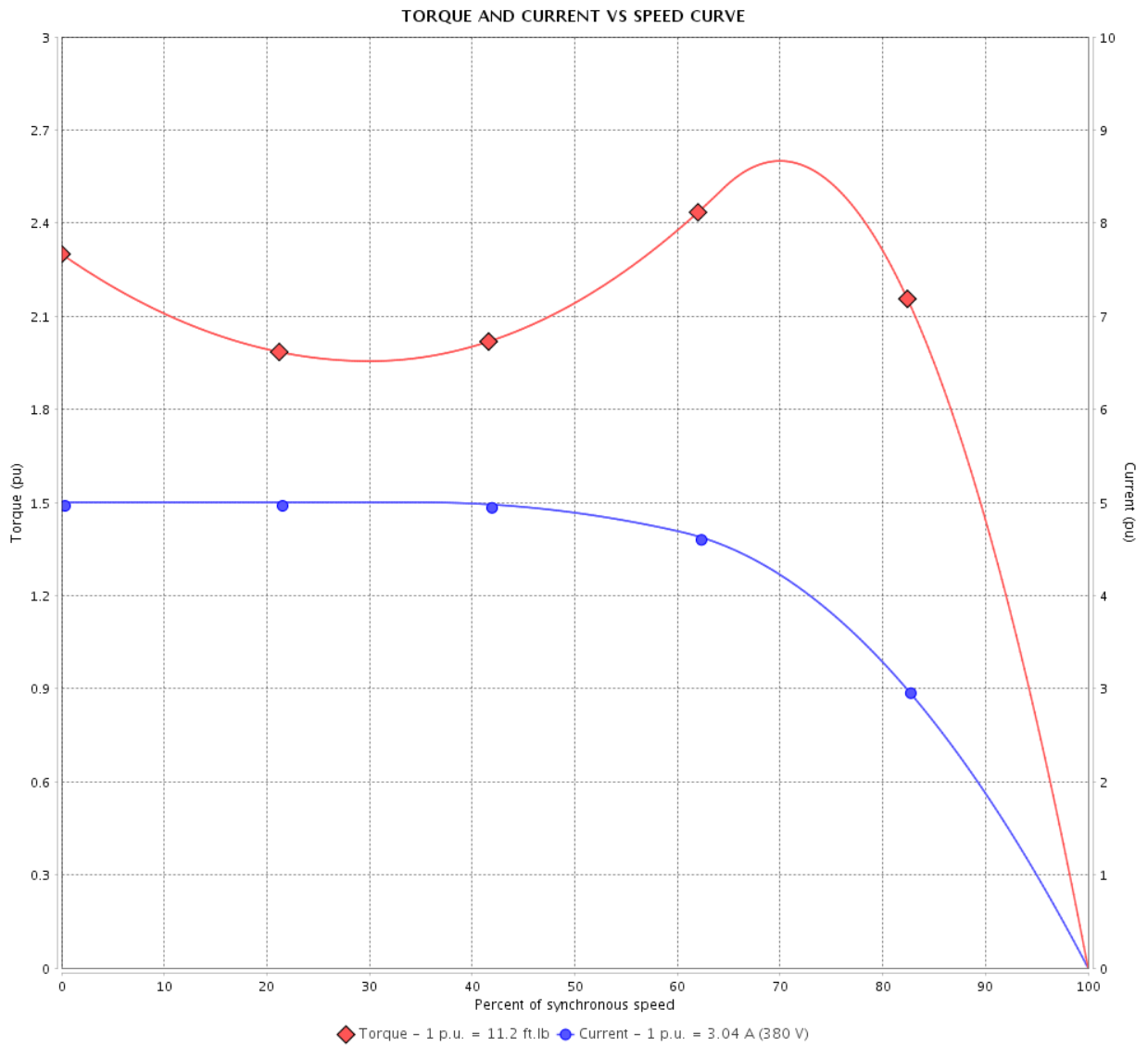
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22



Performance : 380 V 50 Hz 8P IE3

Rated current	: 3.04 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 11.2 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 705 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



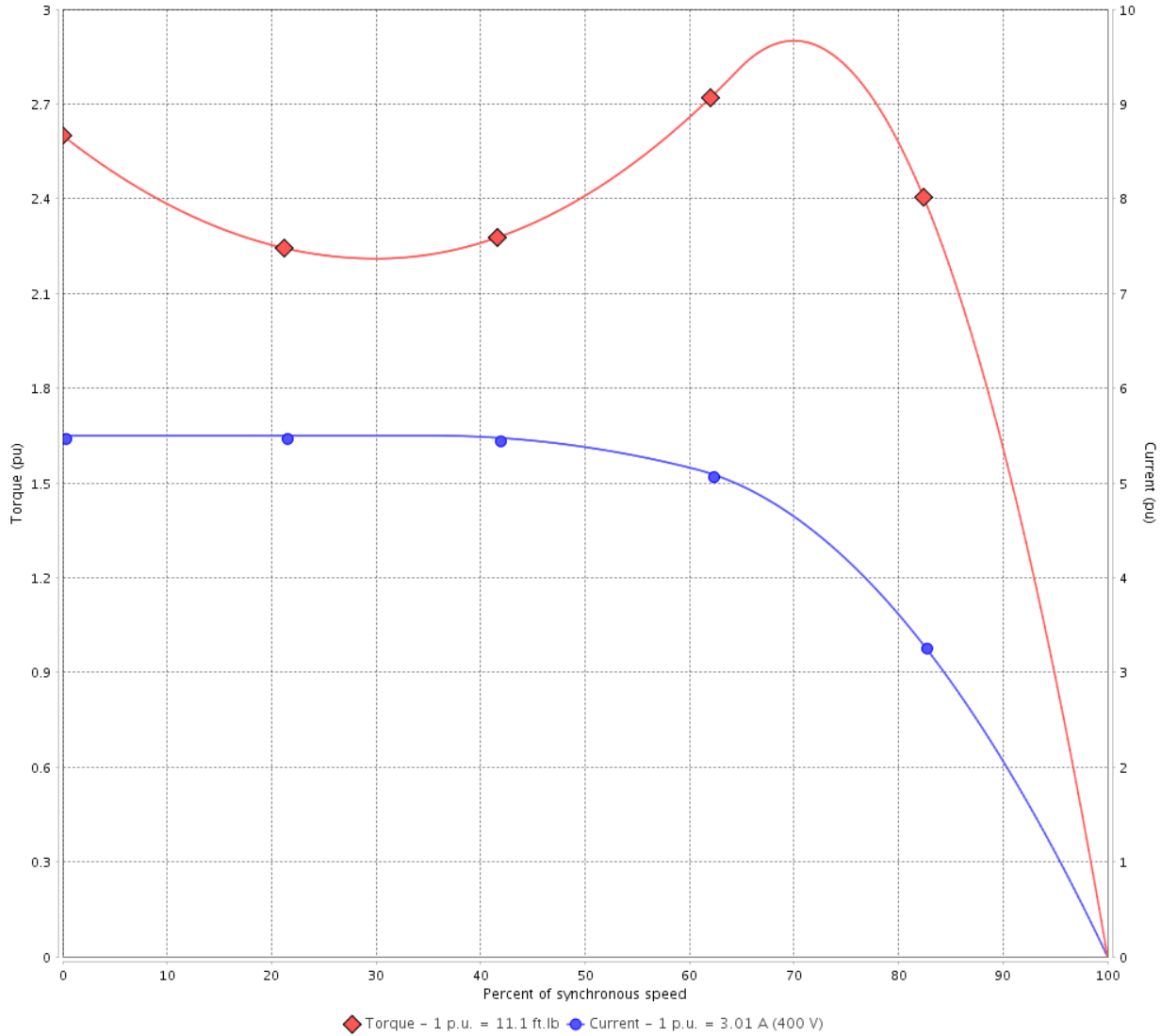
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 8P IE3

Rated current	: 3.01 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 710 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



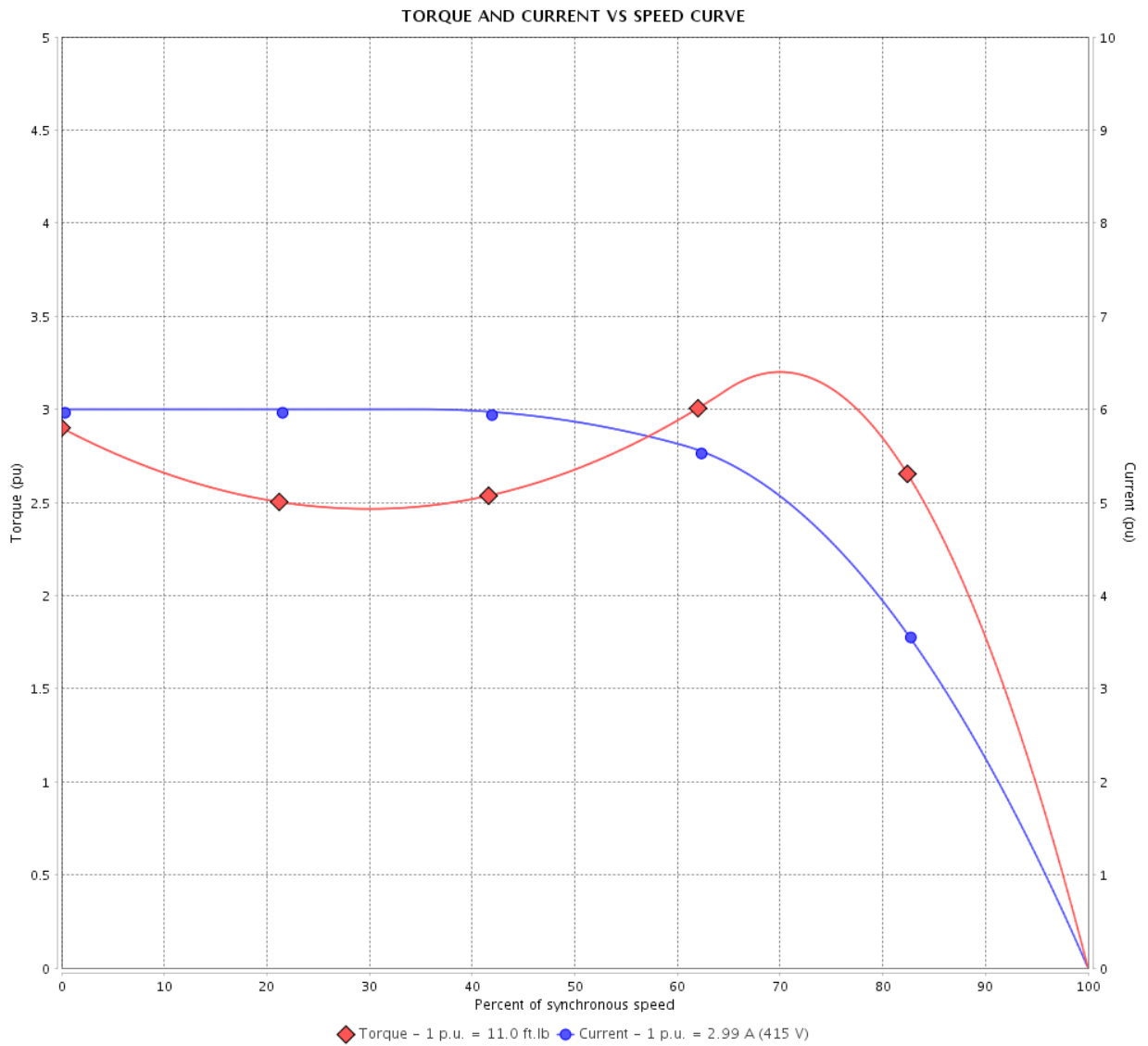
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22



Performance : 415 V 50 Hz 8P IE3

Rated current	: 2.99 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 11.0 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 715 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



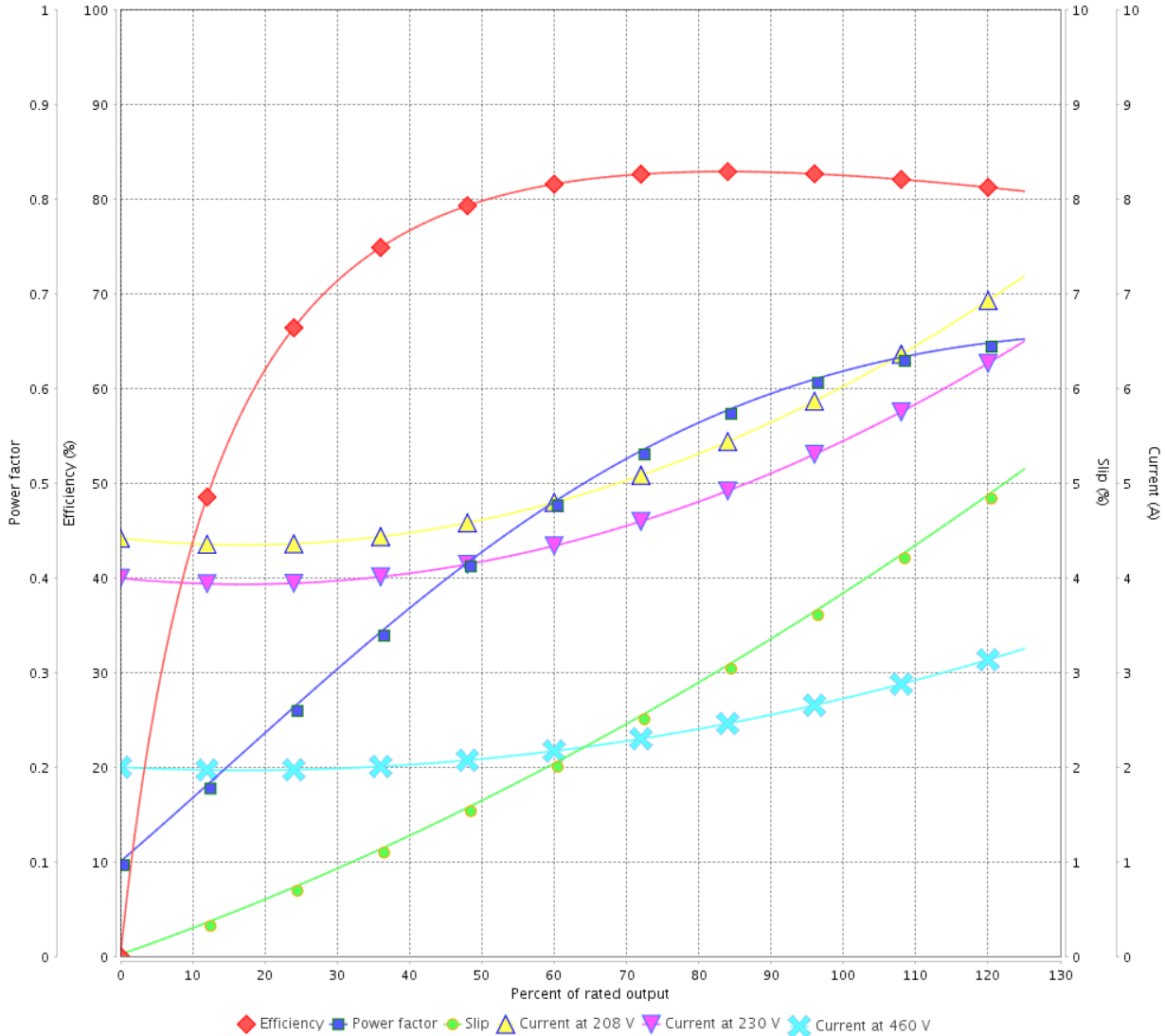
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 8P

Rated current : 5.40/2.70 A
 LRC : 5.9
 Rated torque : 9.11 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 340 %
 Rated speed : 865 rpm

Moment of inertia (J) : 0.5766 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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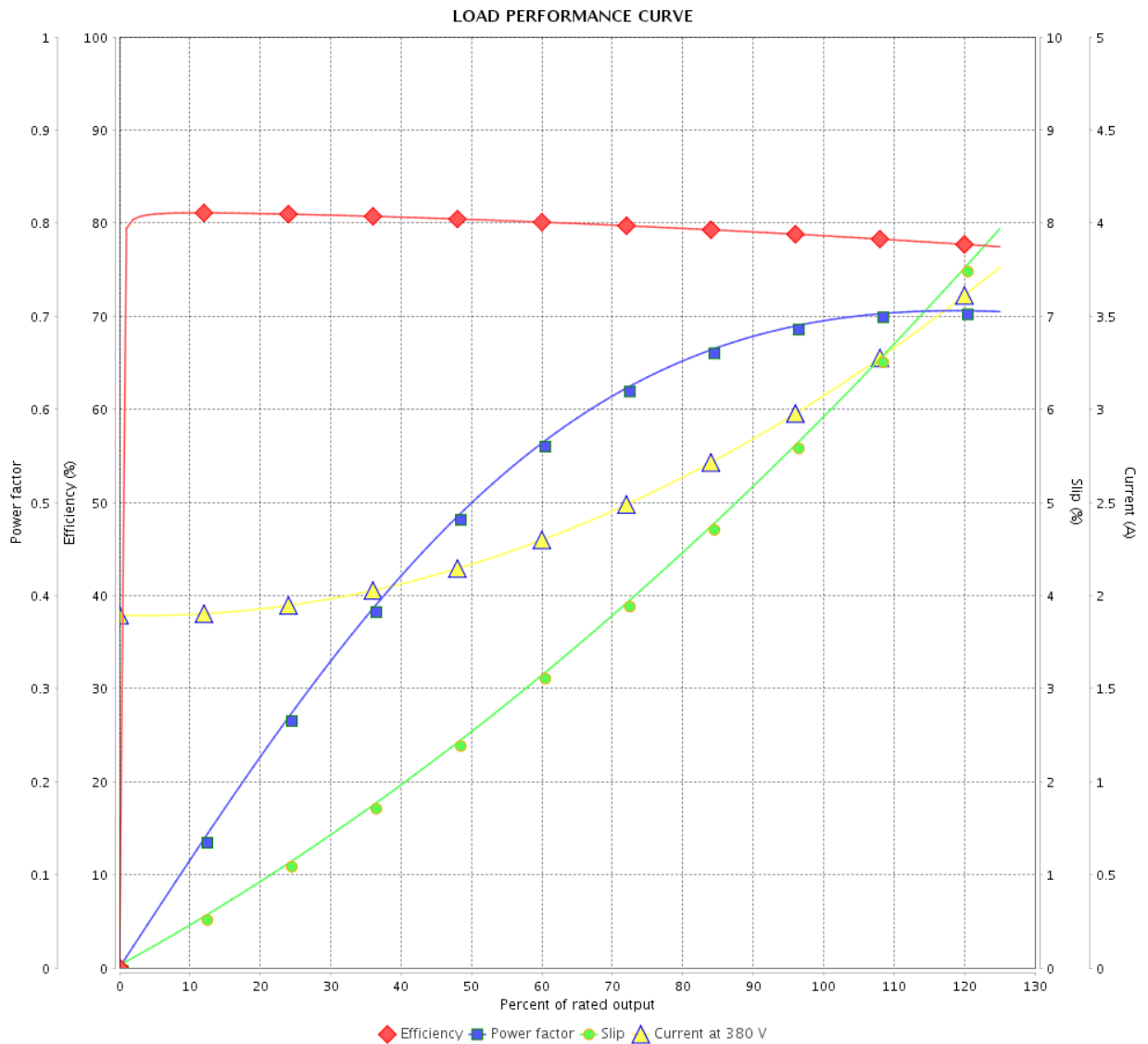


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Product code : 11452806

Catalog # : 00159ET3E184T-W22



Performance : 380 V 50 Hz 8P IE3

Rated current : 3.04 A
 LRC : 5.0
 Rated torque : 11.2 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 260 %
 Rated speed : 705 rpm

Moment of inertia (J) : 0.5766 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



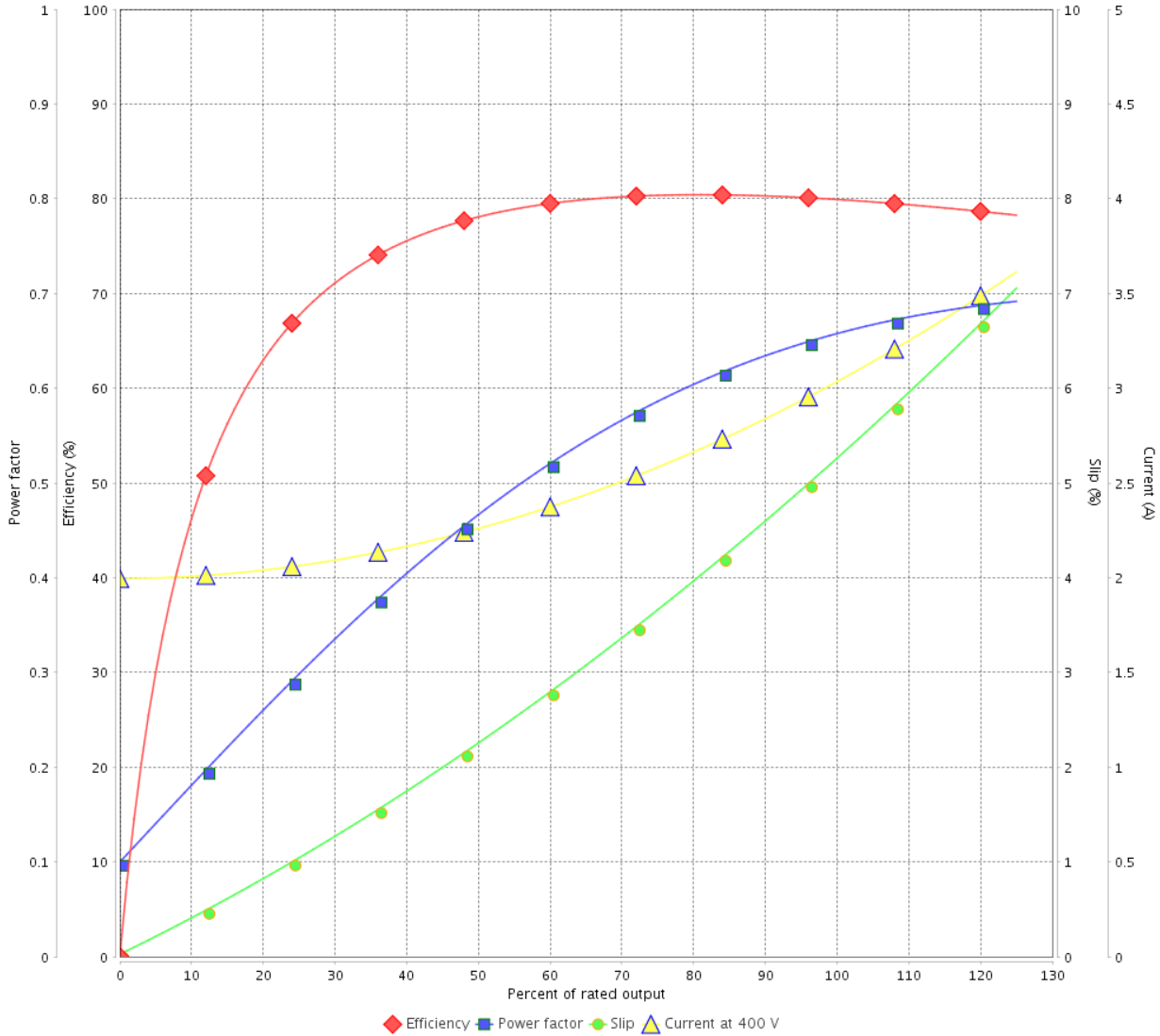
Customer : _____

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Product code : 11452806

Catalog # : 00159ET3E184T-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 8P IE3

Rated current : 3.01 A
 LRC : 5.5
 Rated torque : 11.1 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 290 %
 Rated speed : 710 rpm

Moment of inertia (J) : 0.5766 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

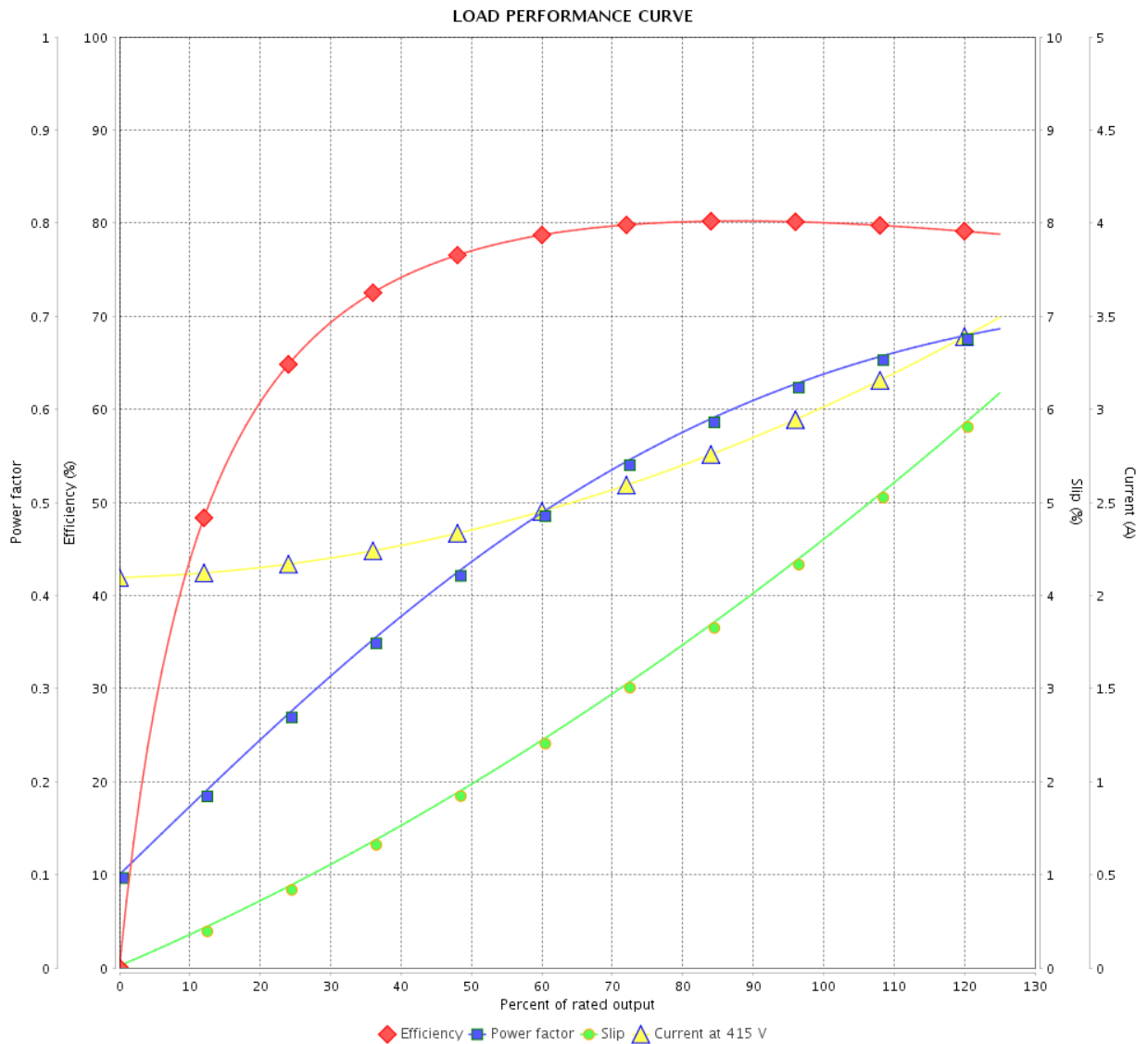


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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Rated torque : 9.11 ft.lb	Insulation class : F
Locked rotor torque : 290 %	Service factor : 1.25
Breakdown torque : 340 %	Temperature rise : 80 K
Rated speed : 865 rpm	Design : B

Heating constant

Cooling constant

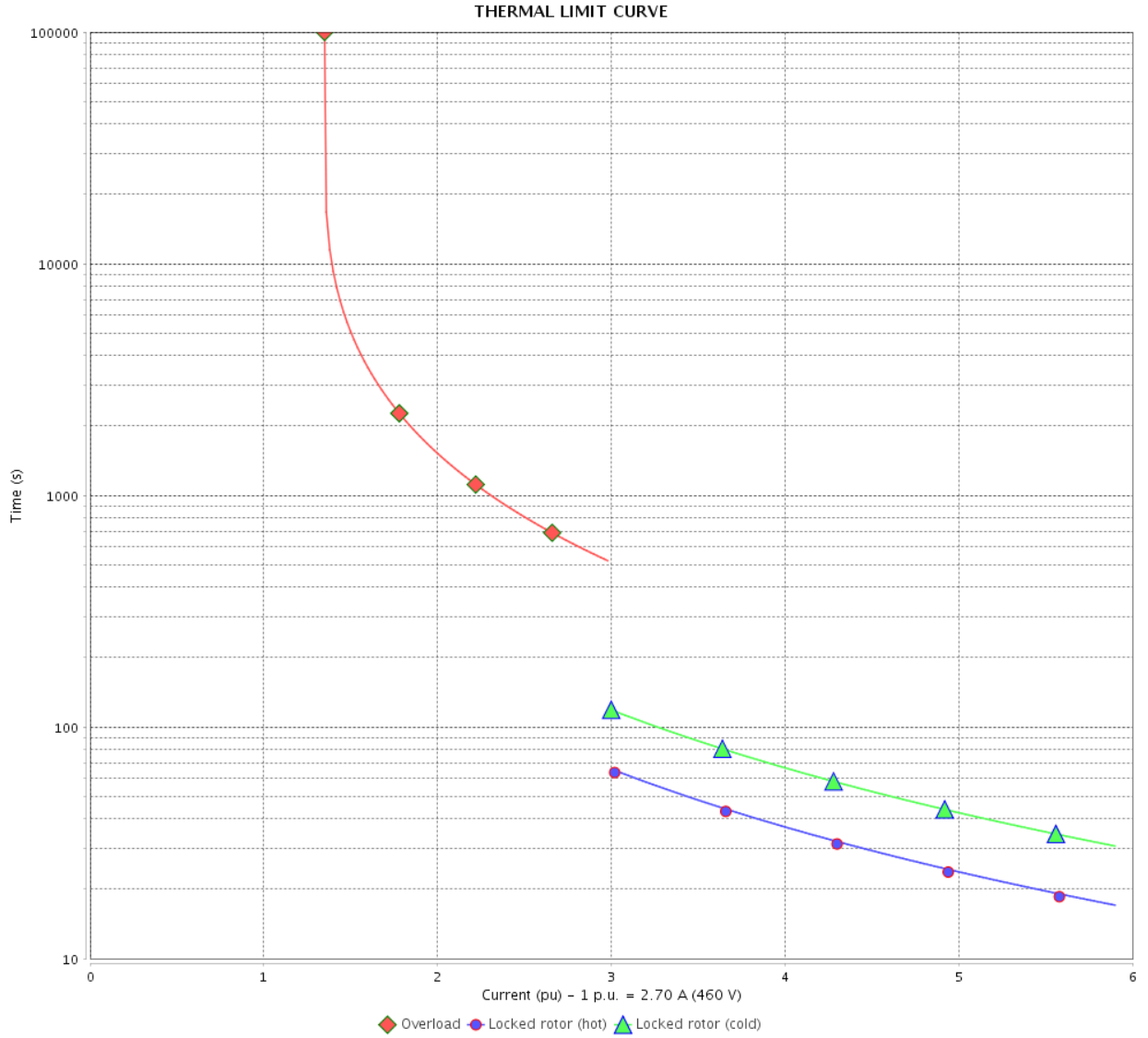
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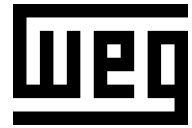


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Rated current	: 3.04 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 11.2 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 705 rpm	Design	: B

Heating constant

Cooling constant

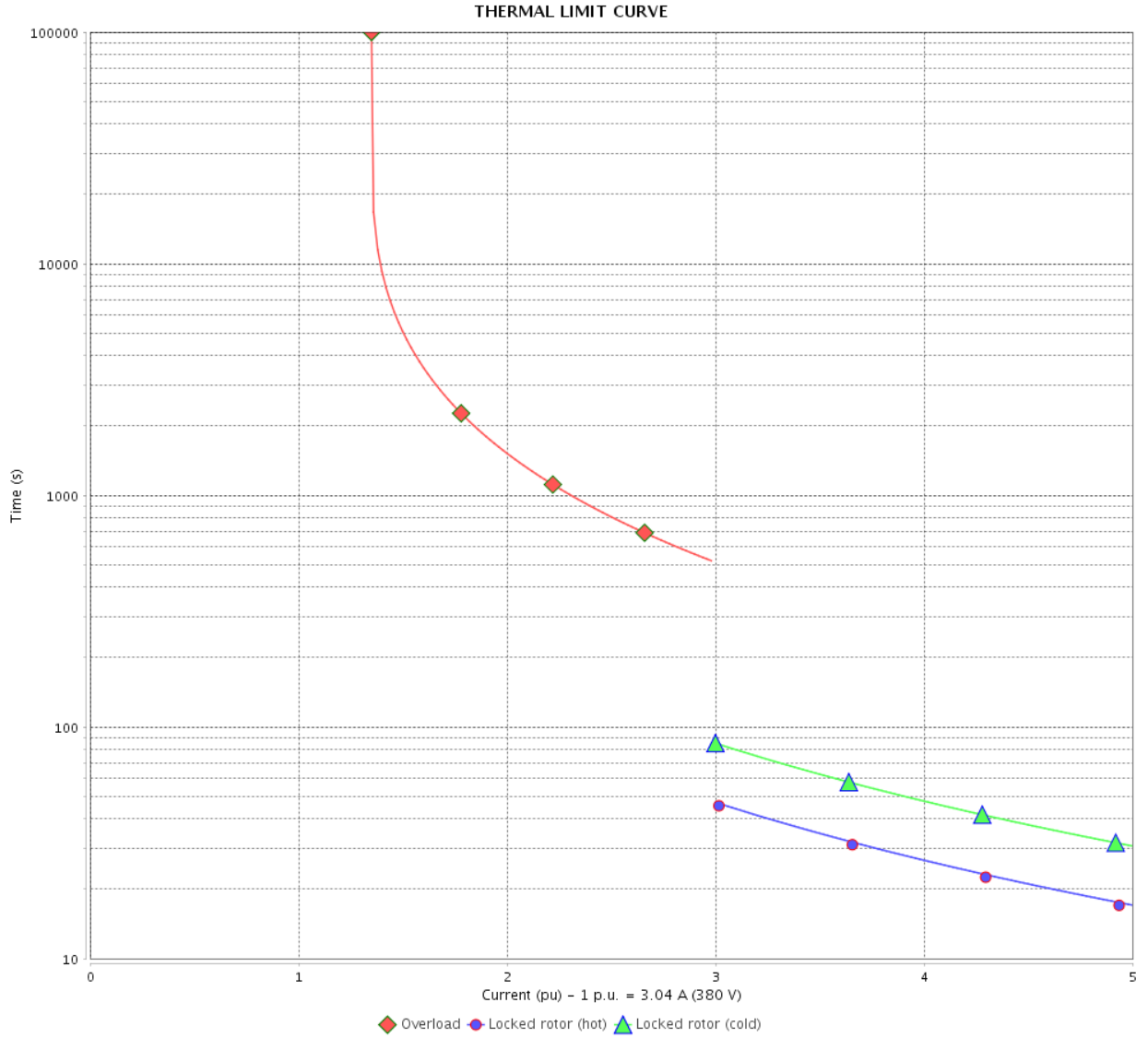
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Product code : 11452806
Catalog # : 00159ET3E184T-W22

Performance : 400 V 50 Hz 8P IE3

Rated current	: 3.01 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 710 rpm	Design	: B

Heating constant

Cooling constant

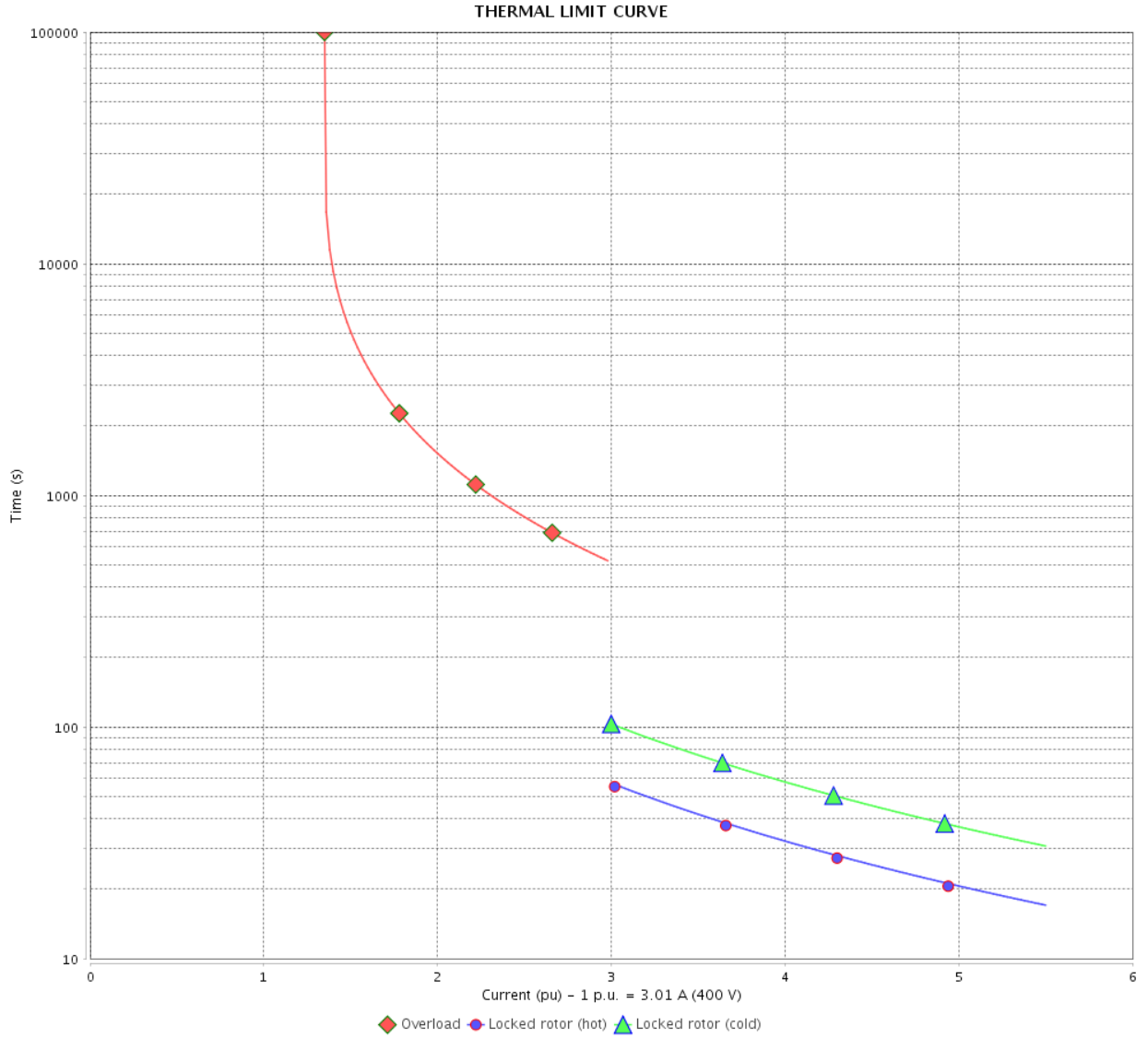
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Customer : _____



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11452806
Catalog # : 00159ET3E184T-W22

Performance : 415 V 50 Hz 8P IE3

Rated current	: 2.99 A	Moment of inertia (J)	: 0.5766 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 11.0 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 715 rpm	Design	: B

Heating constant

Cooling constant

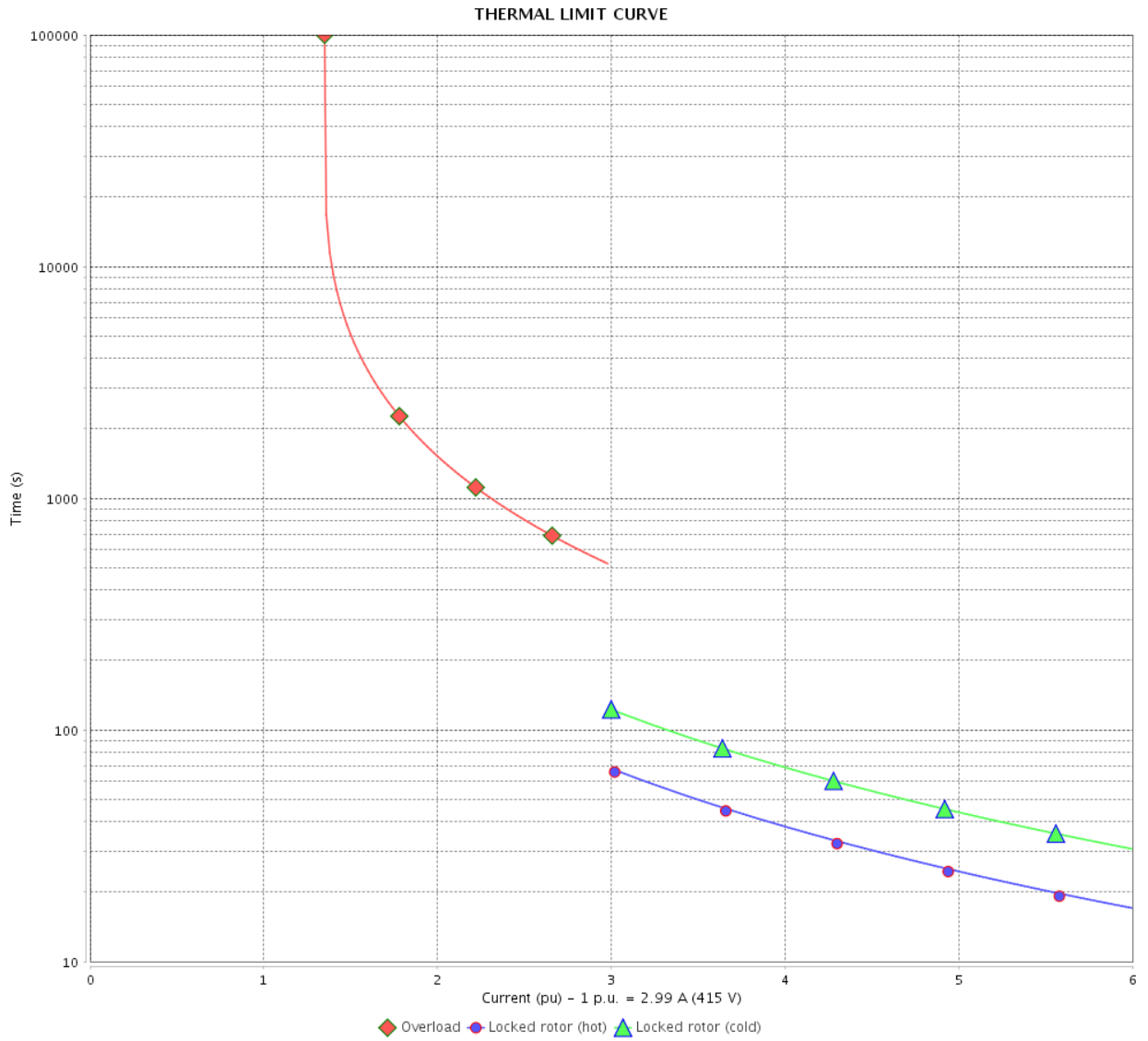
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

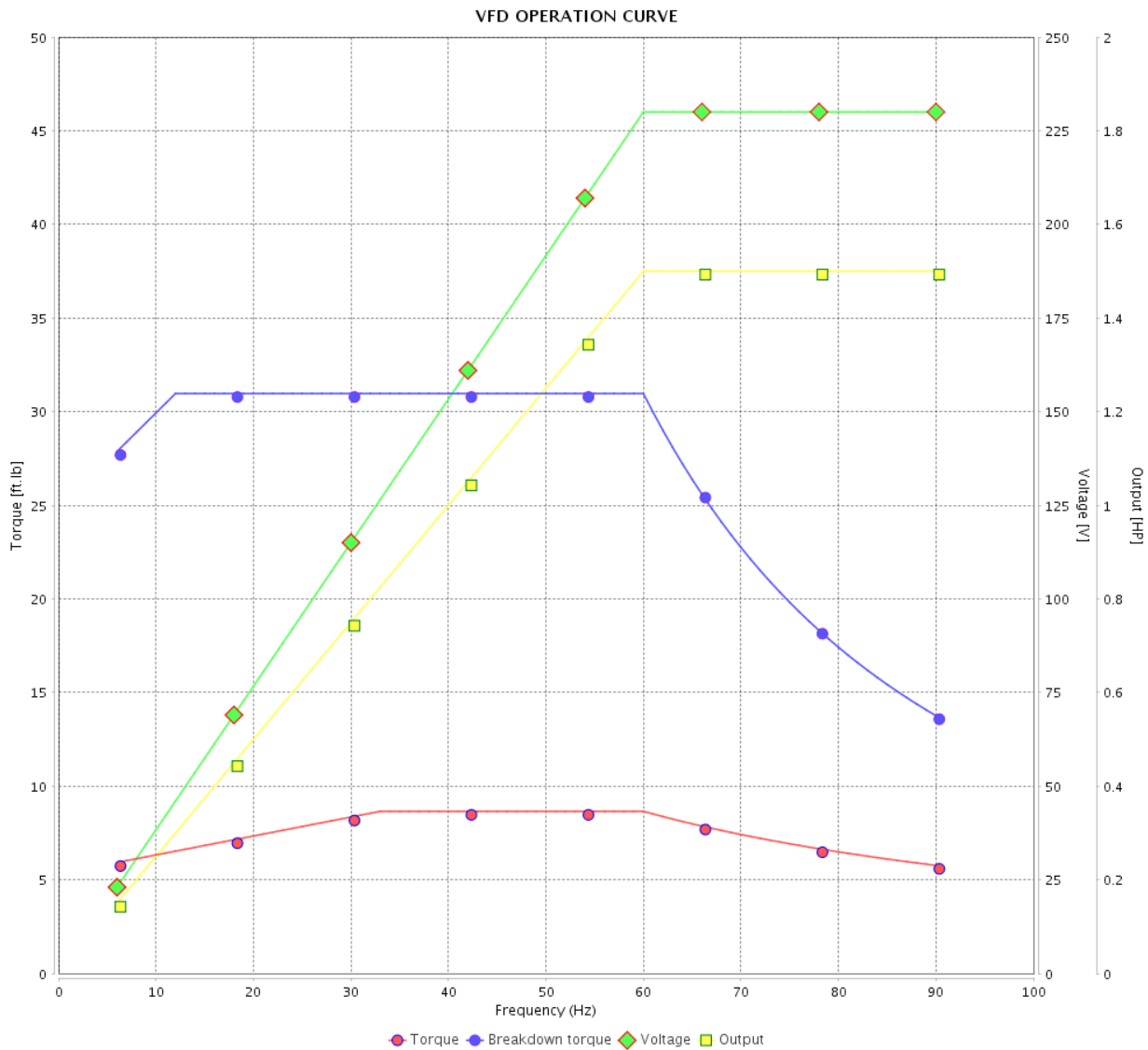


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22



Performance : 230/460 V 60 Hz 8P

Rated current : 5.40/2.70 A
 LRC : 5.9
 Rated torque : 9.11 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 340 %
 Rated speed : 865 rpm

Moment of inertia (J) : 0.5766 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

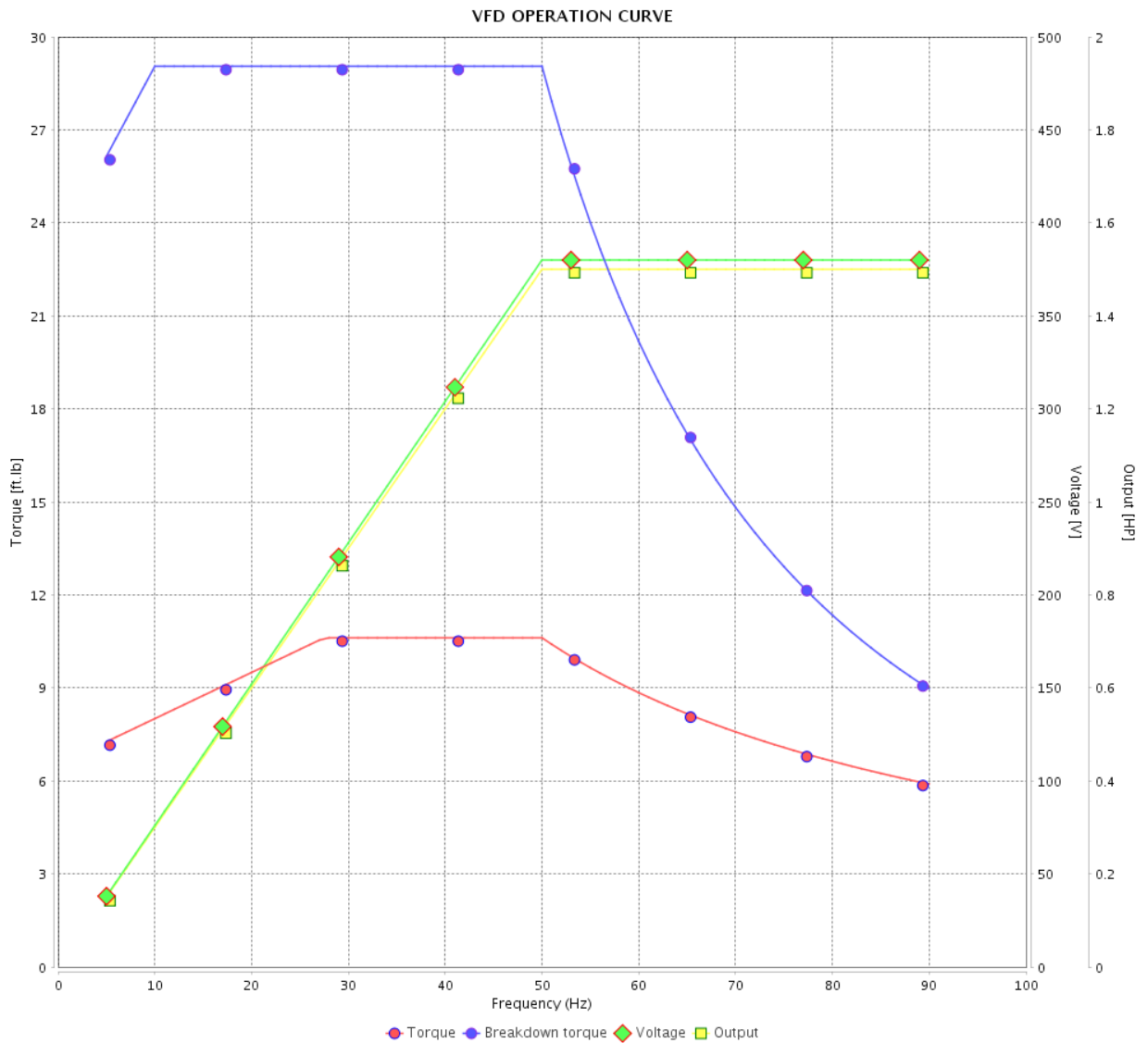


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22



Performance : 380 V 50 Hz 8P IE3

Rated current : 3.04 A
 LRC : 5.0
 Rated torque : 11.2 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 260 %
 Rated speed : 705 rpm

Moment of inertia (J) : 0.5766 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



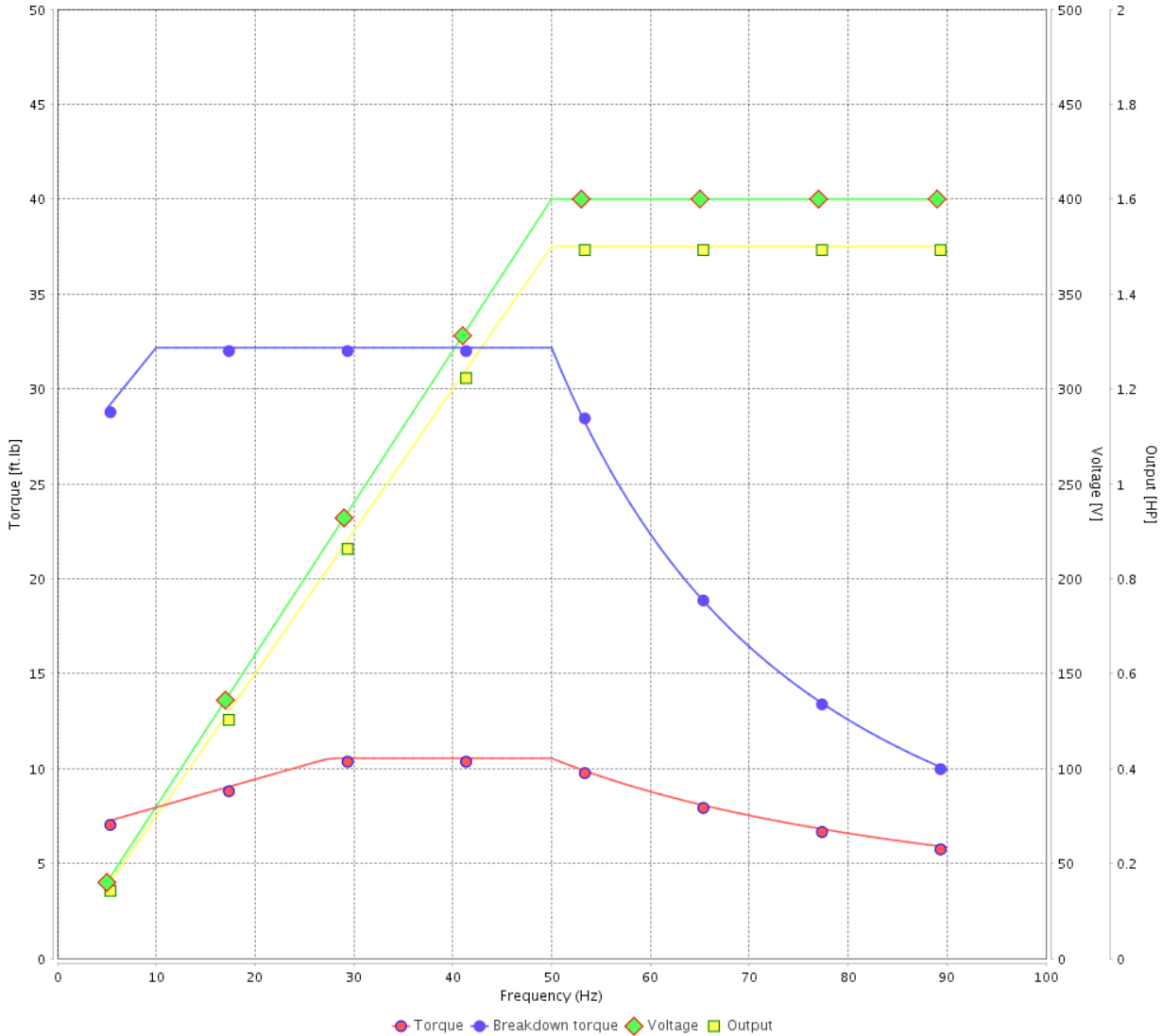
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11452806

Catalog # : 00159ET3E184T-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 8P IE3

Rated current : 3.01 A
 LRC : 5.5
 Rated torque : 11.1 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 290 %
 Rated speed : 710 rpm

Moment of inertia (J) : 0.5766 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 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

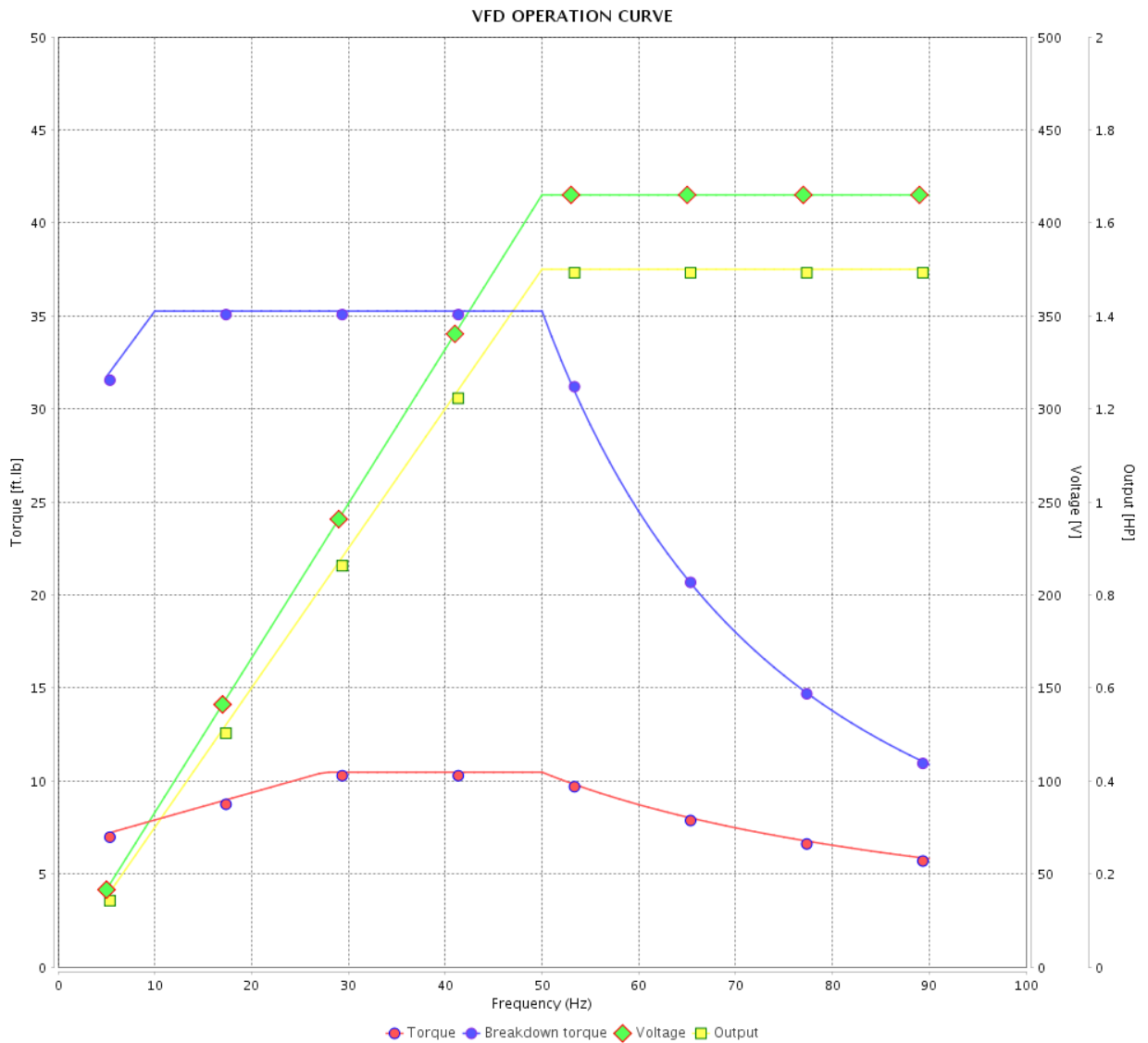


Customer :

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Performance : 415 V 50 Hz 8P IE3

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 Locked rotor torque : 290 %
 Breakdown torque : 320 %
 Rated speed : 715 rpm

Moment of inertia (J) : 0.5766 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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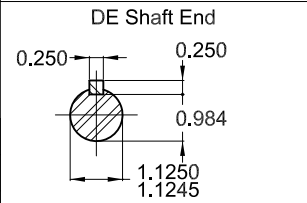
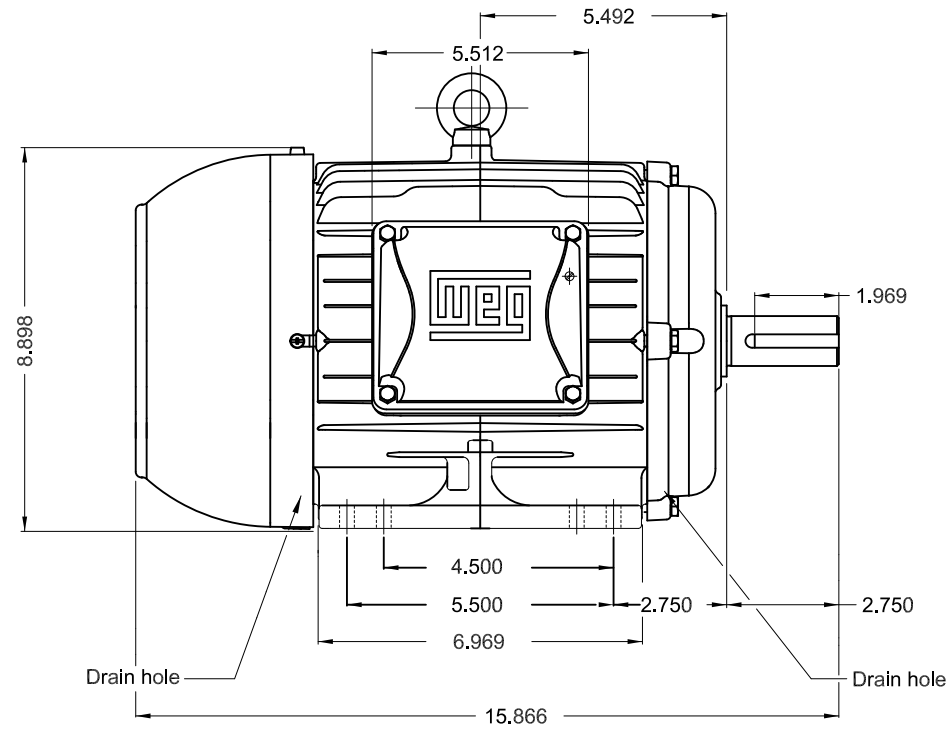
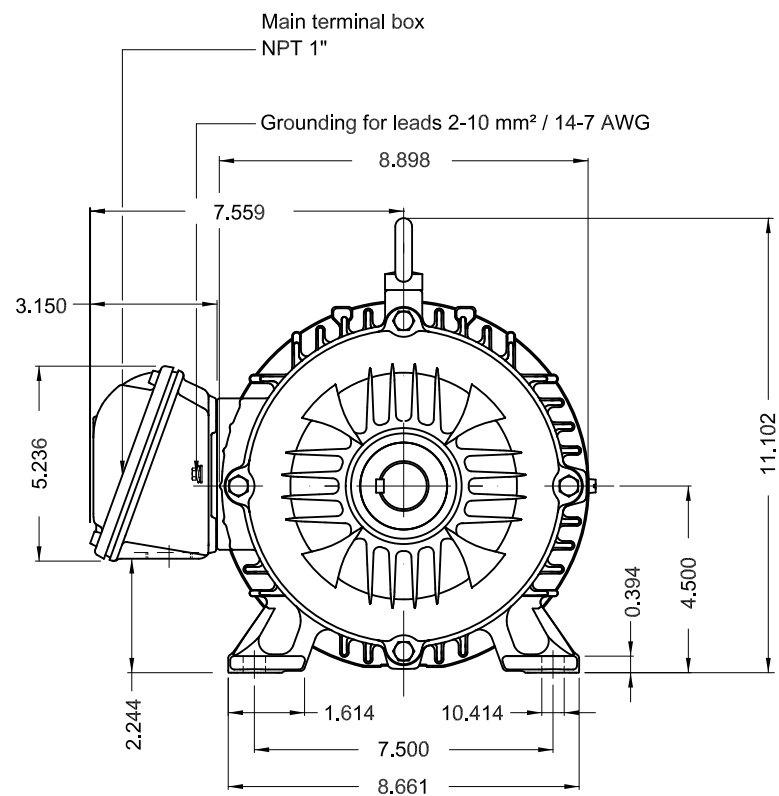
A

B

C

D

E



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

1.5 HP 08 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 182/4T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
 WDD



SHEET 1 / 1


Dimensions in inches XME A3

MADE IN BRAZIL
11452806



MODEL 00159ET3E184T-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. 182/4T 1000m.a.s.l. IP55 TEFC 99Ib

V 230/460

A 5.40/2.70

HP 1.5

kW 1.1

SF 1.25

SFA 6.75/3.38

RPM 865

PF 0.62

AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 82.5%

DUTY CONT.

DES B Code K

USABLE @208V 5.97A SF 1.15 SFA 6.87

1.5HP 1.1kW 50Hz 380V 3.04A 705RPM SF 1.00 EFF 78.5% (IE3)

