

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :	12373795	
			Catalog # :	00318ST3QIE182T-W22	
Frame		: 182/4T	Cooling method : IC411 - TEFC		
Insulation class		: F	Mounting : F-1		
Duty cycle		: Cont.(S1)	Rotation <sup>1</sup> : Both (CW and CCW)		
Ambient temperature		: -20°C to +40°C	Starting method : Direct On Line		
Altitude		: 1000 m.a.s.l.	Approx. weight <sup>2</sup> : 109 lb		
Protection degree		: IP55	Moment of inertia (J) : 0.3401 sq.ft.lb		
Design		: B			
Output [HP]	3	3	3	3	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	3.91	4.60	4.48	4.43	
L. R. Amperes [A]	31.7	29.0	31.4	33.2	
LRC [A]	8.1x(Code K)	6.3x(Code H)	7.0x(Code J)	7.5x(Code J)	
No load current [A]	2.00	2.00	2.15	2.25	
Rated speed [RPM]	1760	1445	1450	1455	
Slip [%]	2.22	3.67	3.33	3.00	
Rated torque [ft.lb]	8.95	10.9	10.9	10.8	
Locked rotor torque [%]	229	180	210	240	
Breakdown torque [%]	340	260	290	320	
Service factor	1.25	1.25	1.25	1.25	
Temperature rise	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)	
Noise level <sup>2</sup>	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)	
Efficiency (%)	25%				
	50%	87.5	87.5	87.5	
	75%	88.5	87.5	87.5	
	100%	89.5	87.5	87.5	
Power Factor	25%				
	50%	0.61	0.68	0.64	
	75%	0.73	0.79	0.76	
	100%	0.79	0.83	0.81	
Bearing type		Drive end : 6207 C3	Non drive end : 6206 C3	Foundation loads	
Sealing		: Inpro/Seal	: Inpro/Seal	Max. traction : 167 lb	
Lubrication interval		: 20000 h	: 20000 h	Max. compression : 275 lb	
Lubricant amount		: 7 g	: 5 g		
Lubricant type		: Mobil Polyrex EM			
Notes					
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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Checked by				Page	Revision
Date	14/04/2022			1 / 21	

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



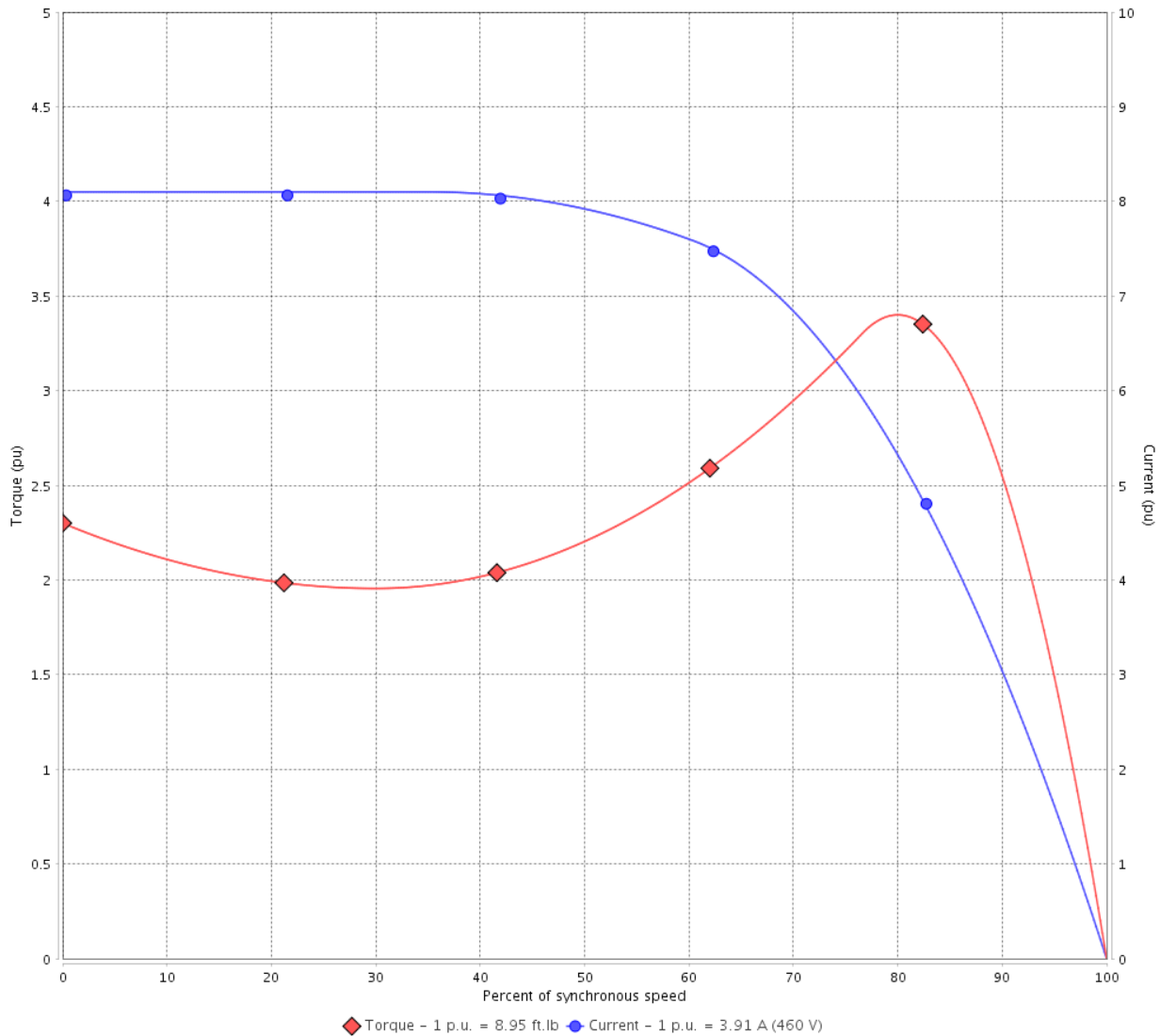
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 4P

Rated current	: 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



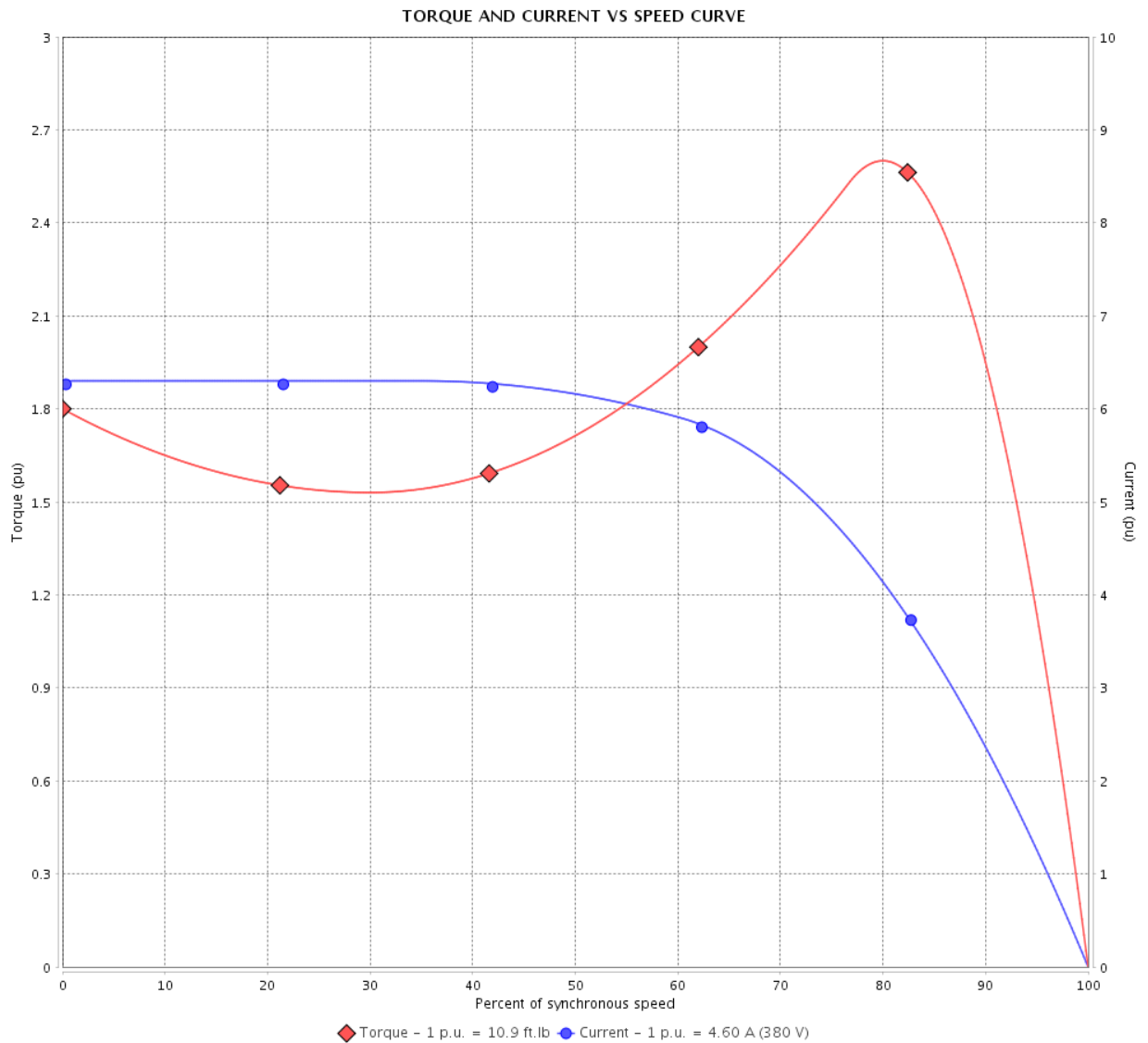
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-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



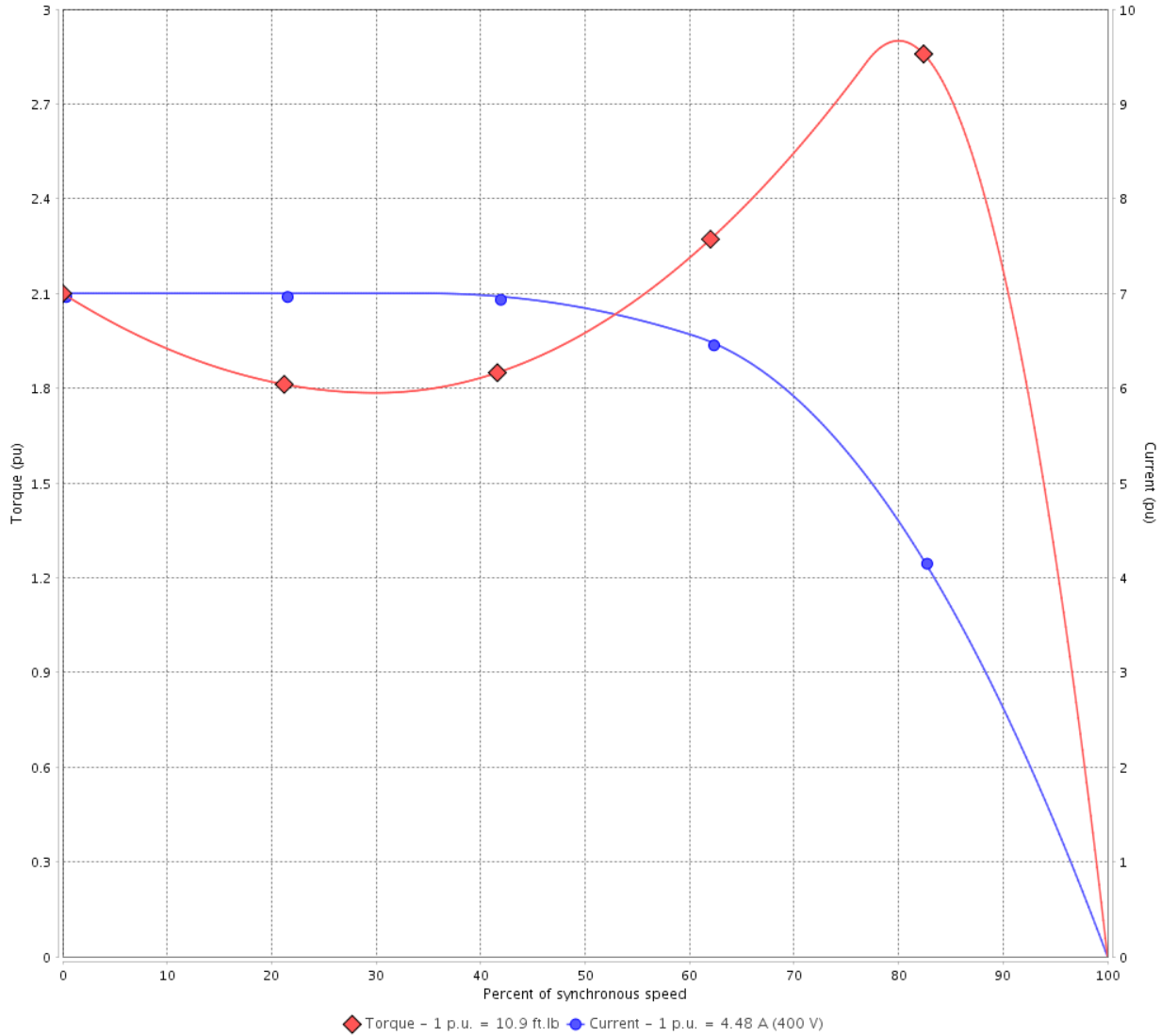
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-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



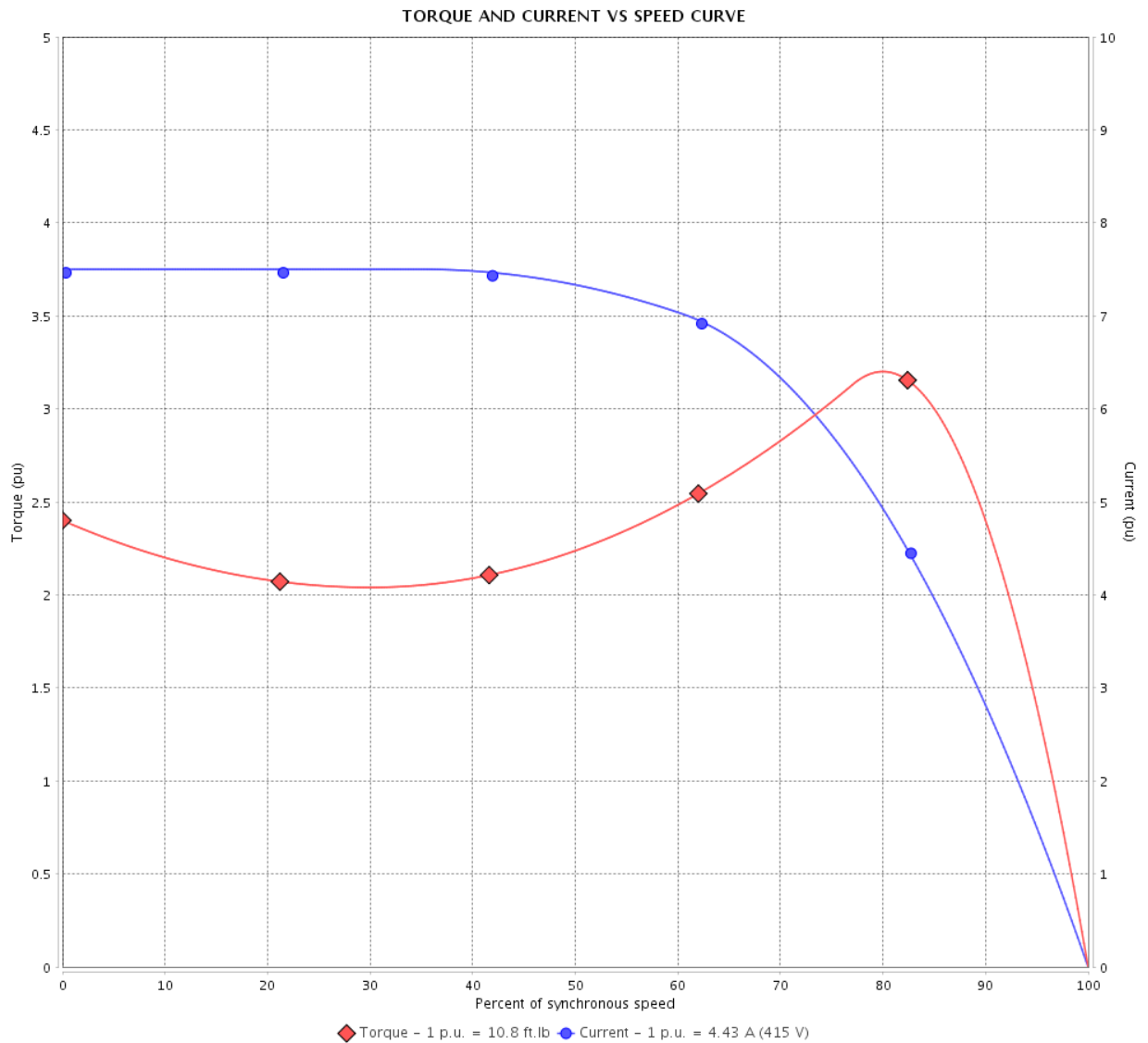
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-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



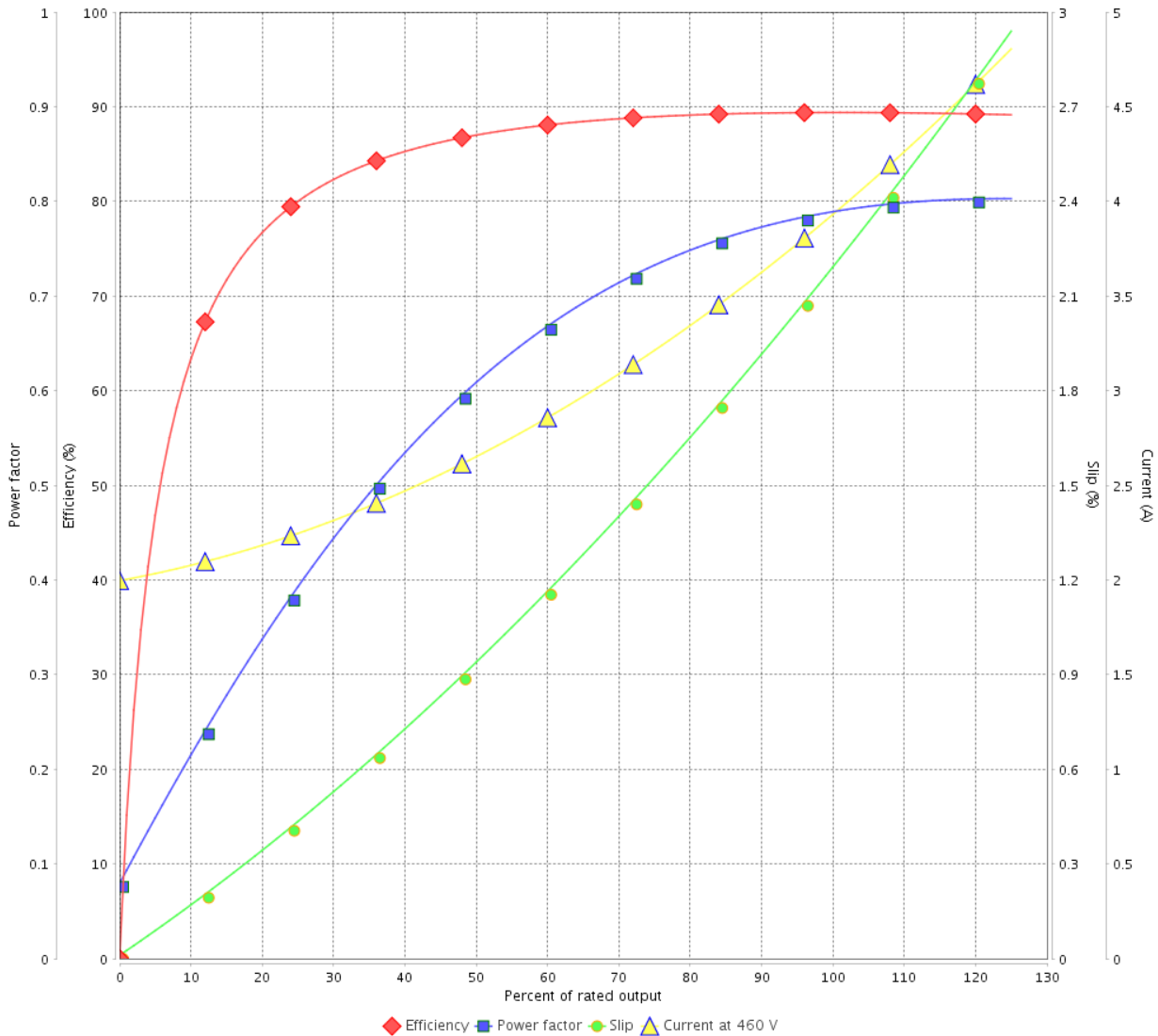
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-W22

LOAD PERFORMANCE CURVE



Performance : 460 V 60 Hz 4P

Rated current : 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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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

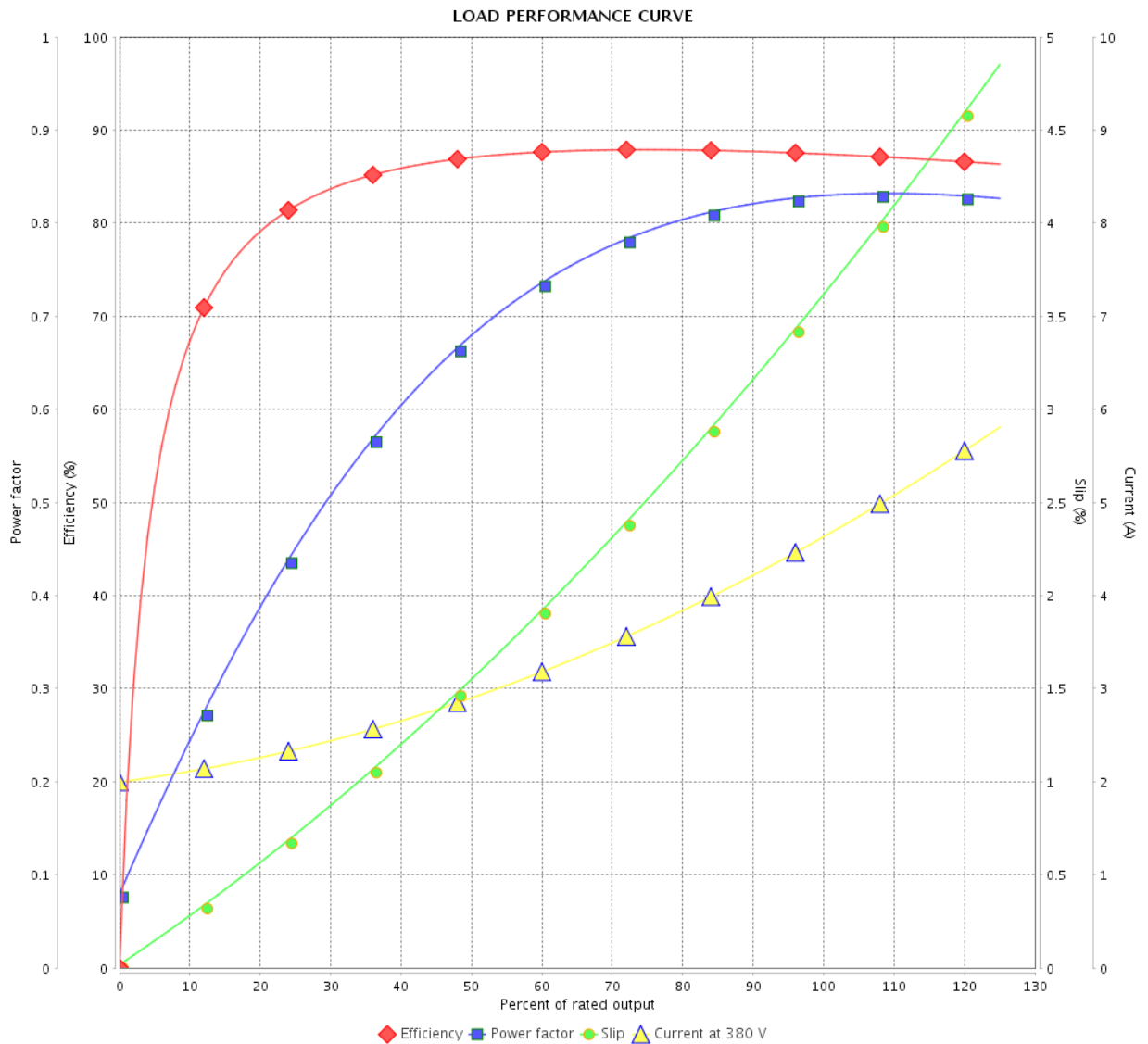


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



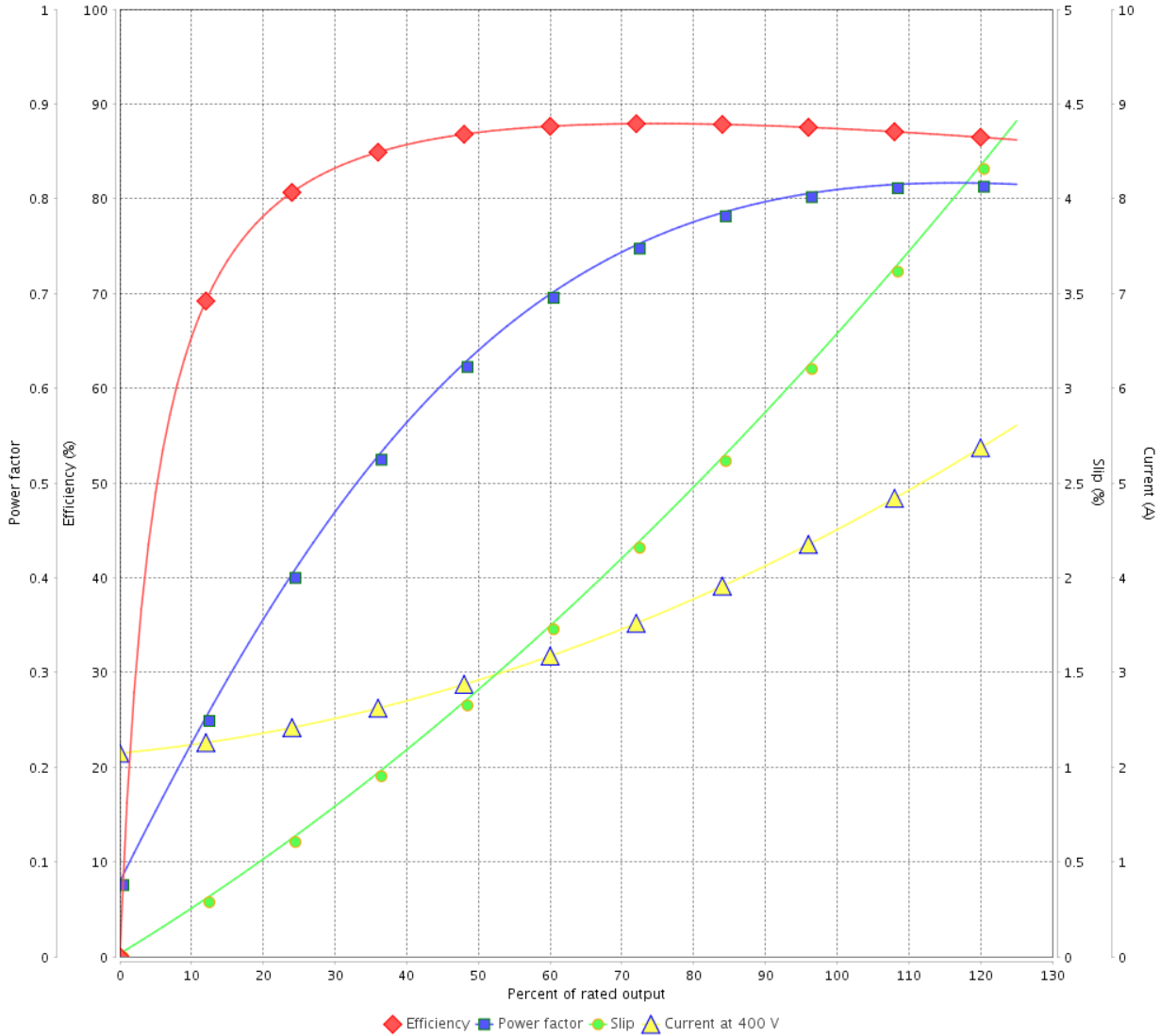
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-W22

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

Rev.	Changes Summary	Performed	Checked	Date
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

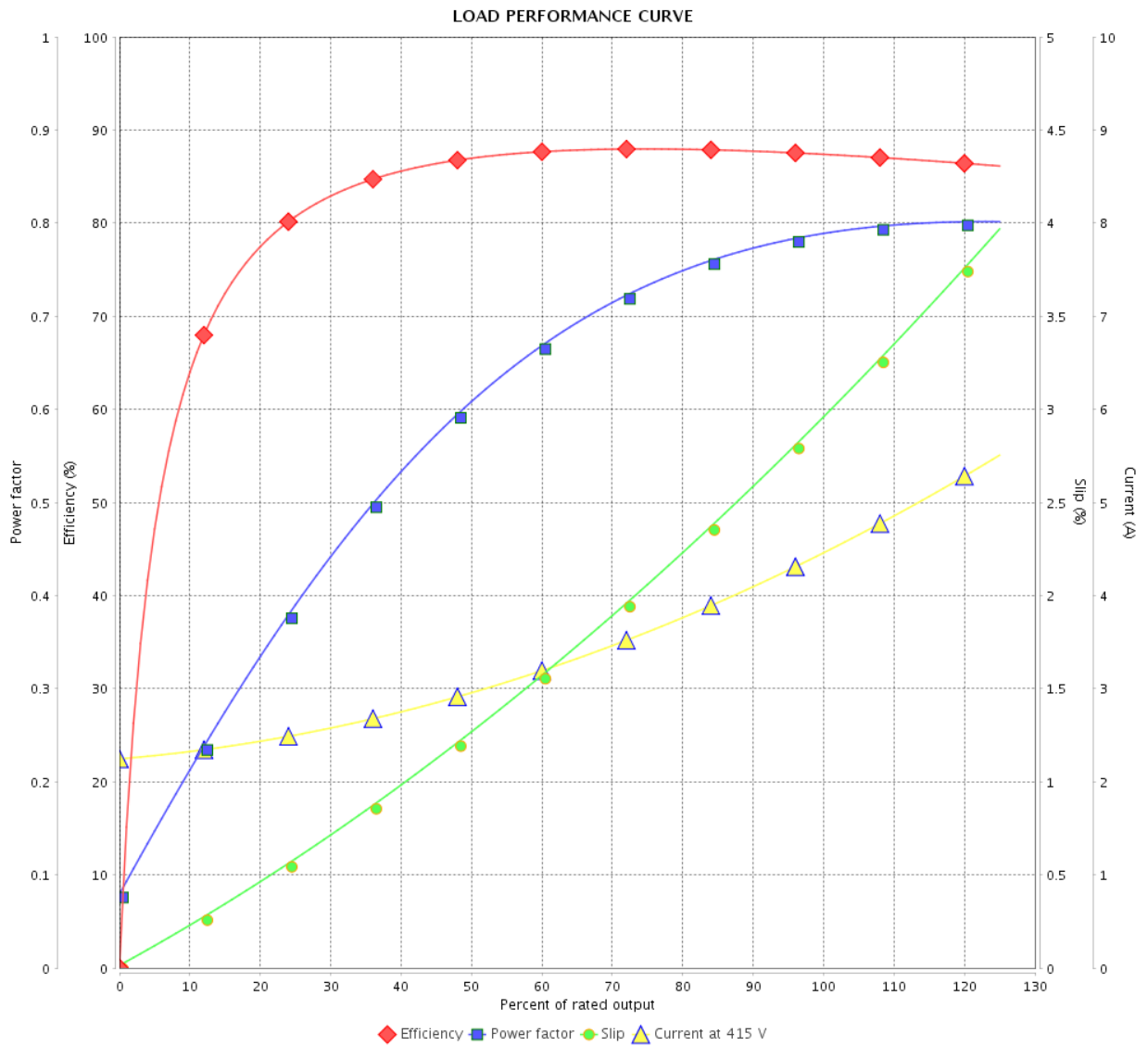


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-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

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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Product code : 12373795  
Catalog # : 00318ST3QIE182T-W22

Performance : 460 V 60 Hz 4P

Rated current	: 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

Heating constant

Cooling constant

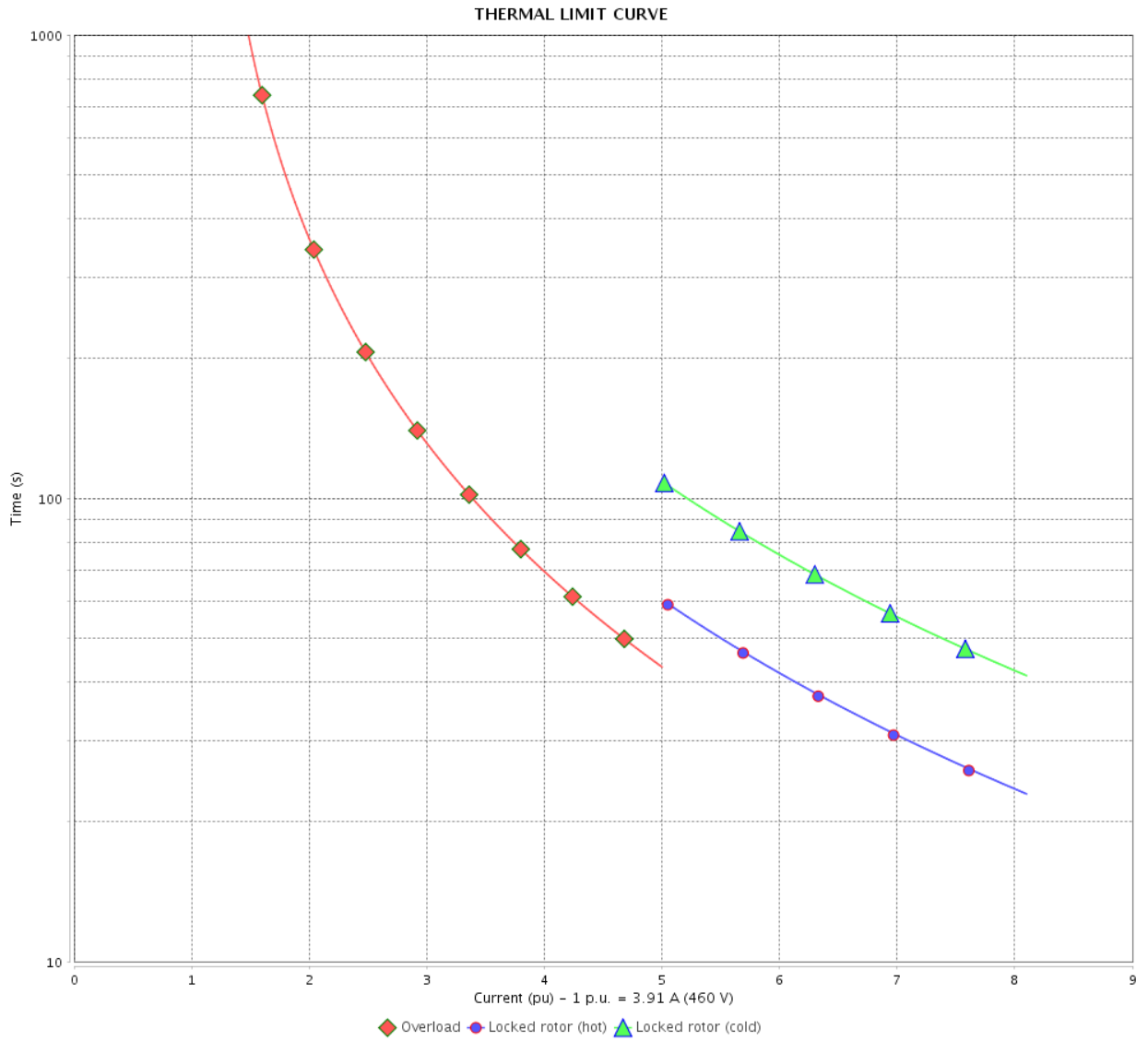
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Date				

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12373795  
Catalog # : 00318ST3QIE182T-W22

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

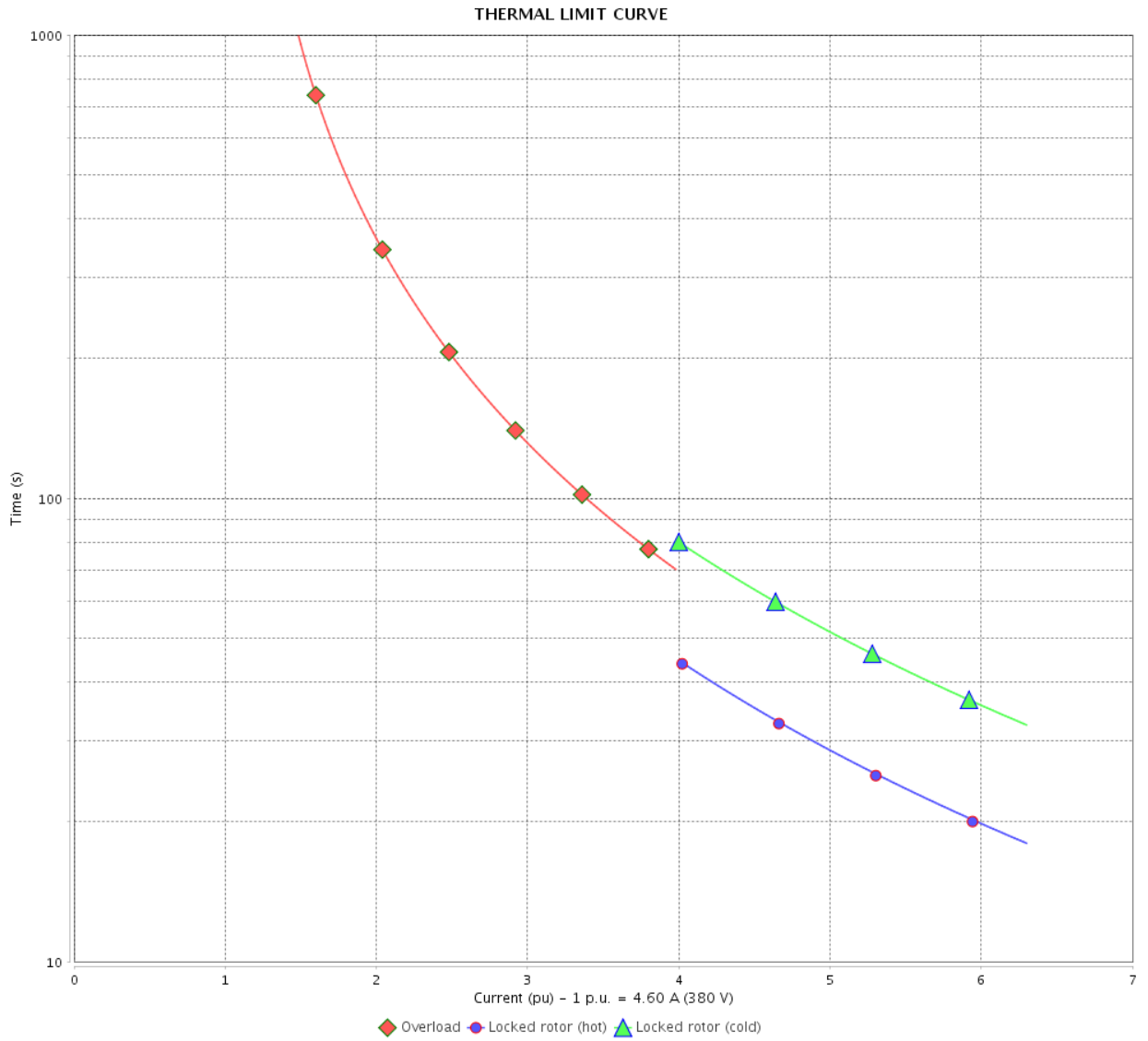
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Checked by				
Date				

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12373795  
Catalog # : 00318ST3QIE182T-W22

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

Heating constant

Cooling constant

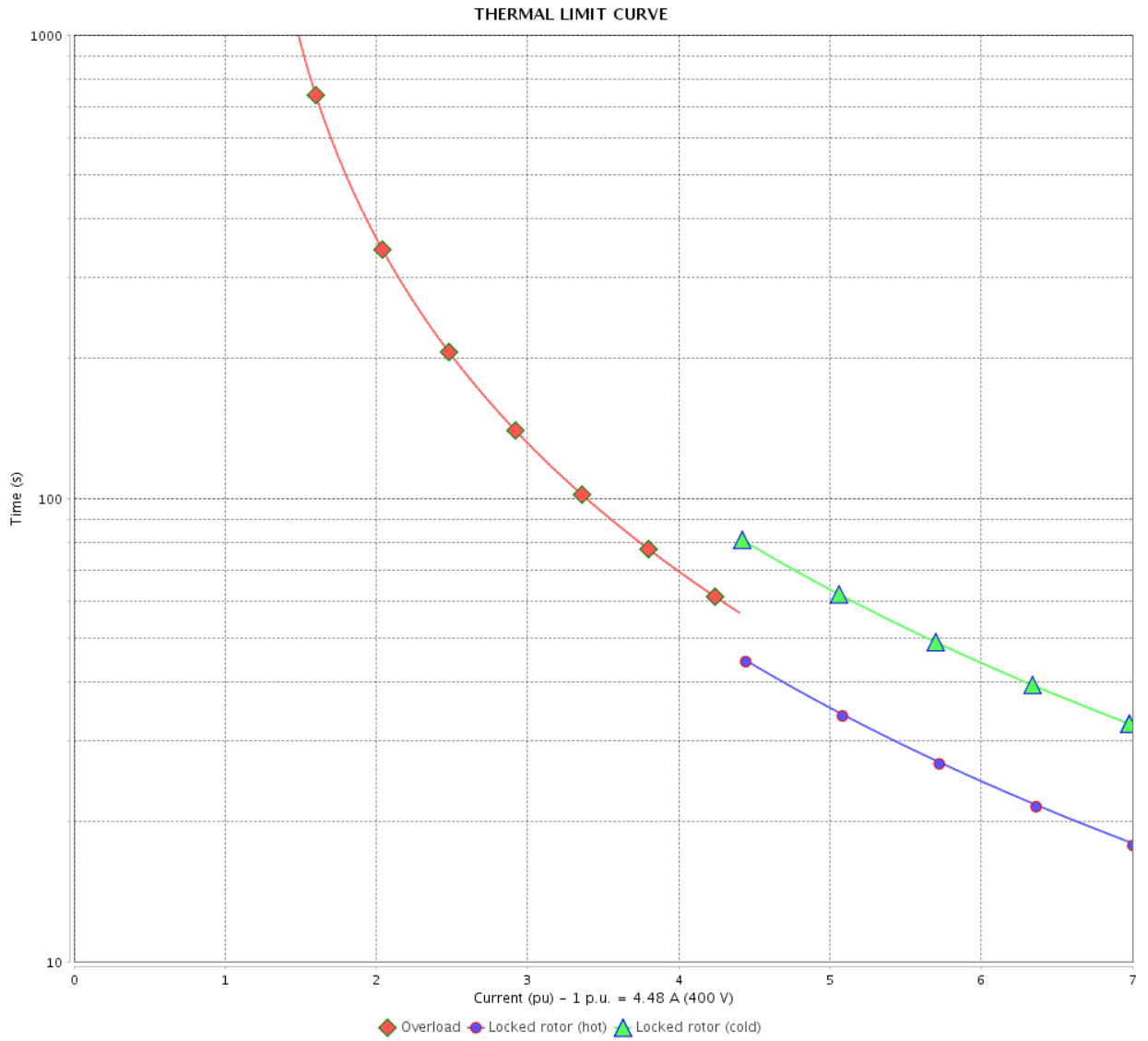
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Checked by			Page	Revision
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Date		14/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12373795  
Catalog # : 00318ST3QIE182T-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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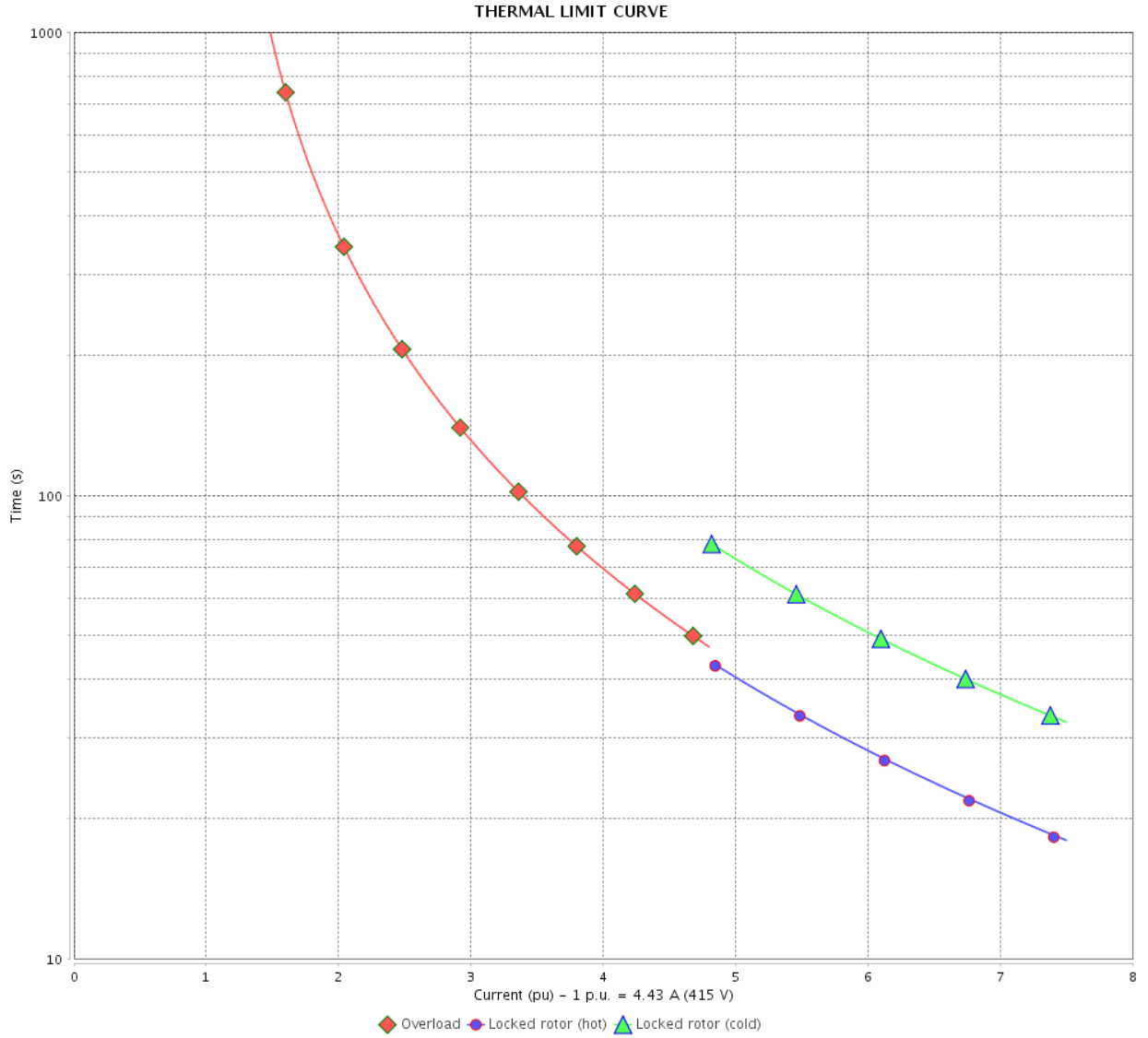


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

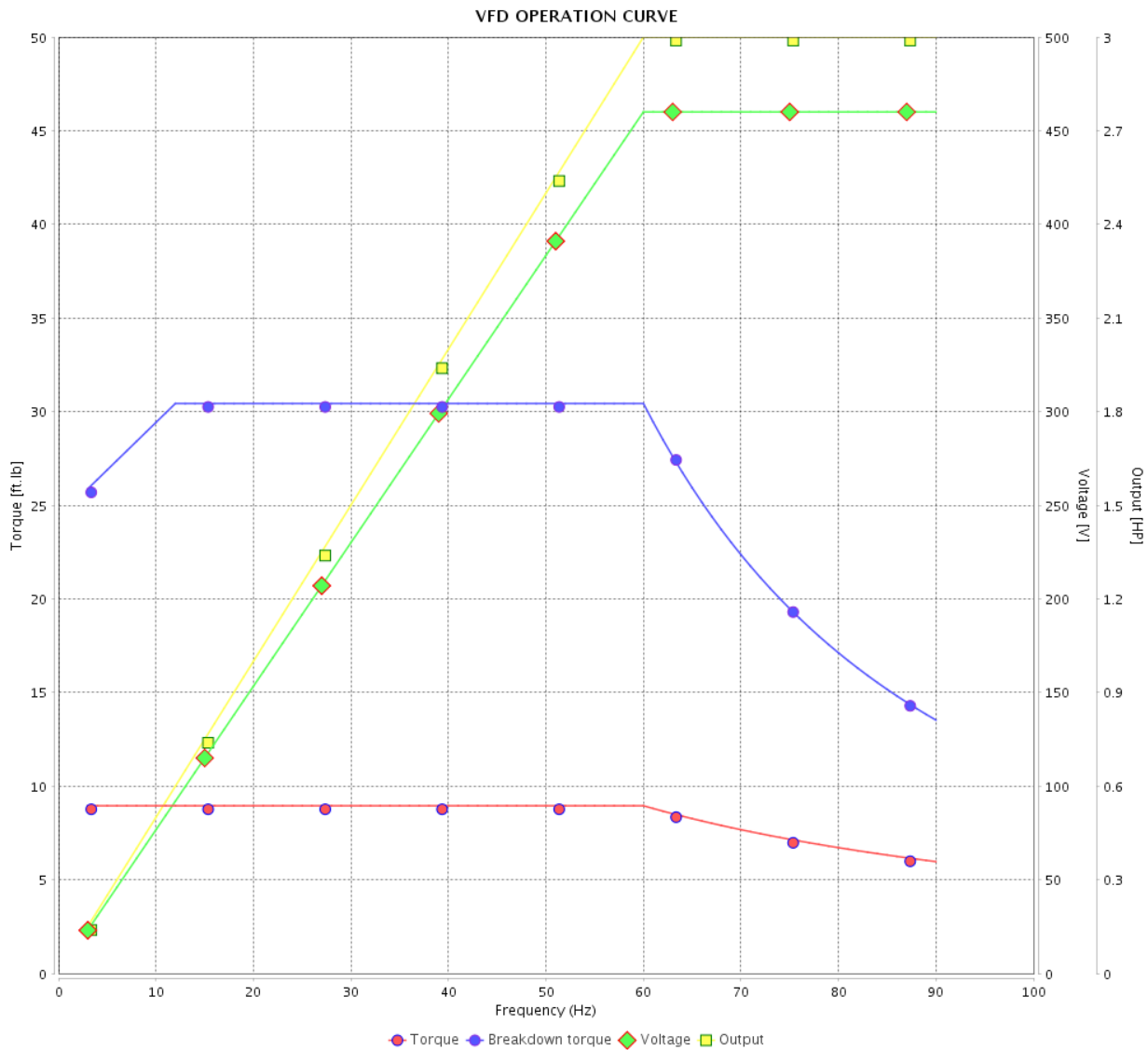


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12373795

Catalog # : 00318ST3QIE182T-W22



Performance : 460 V 60 Hz 4P

Rated current : 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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Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

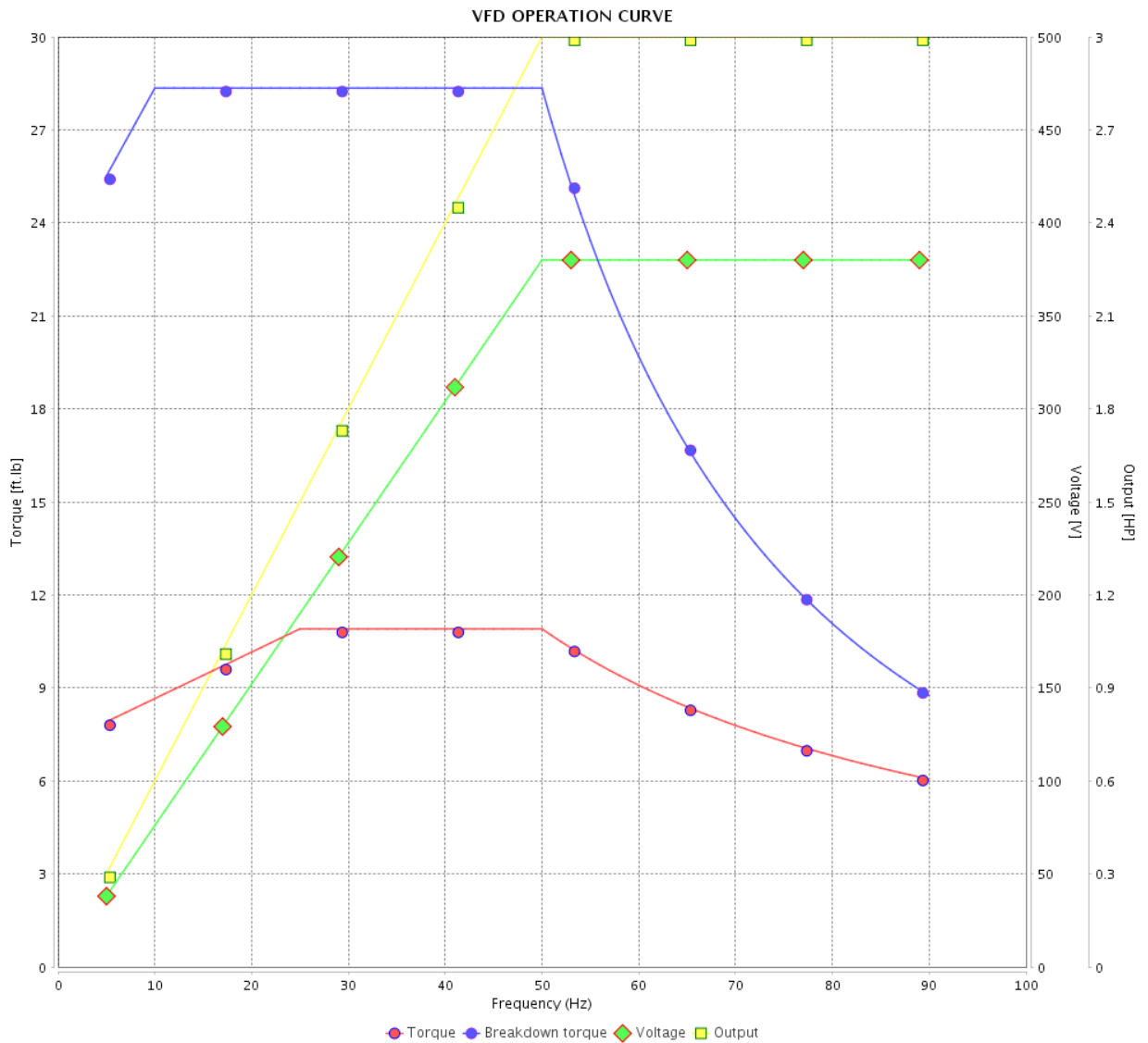


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Product code : 12373795

Catalog # : 00318ST3QIE182T-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

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

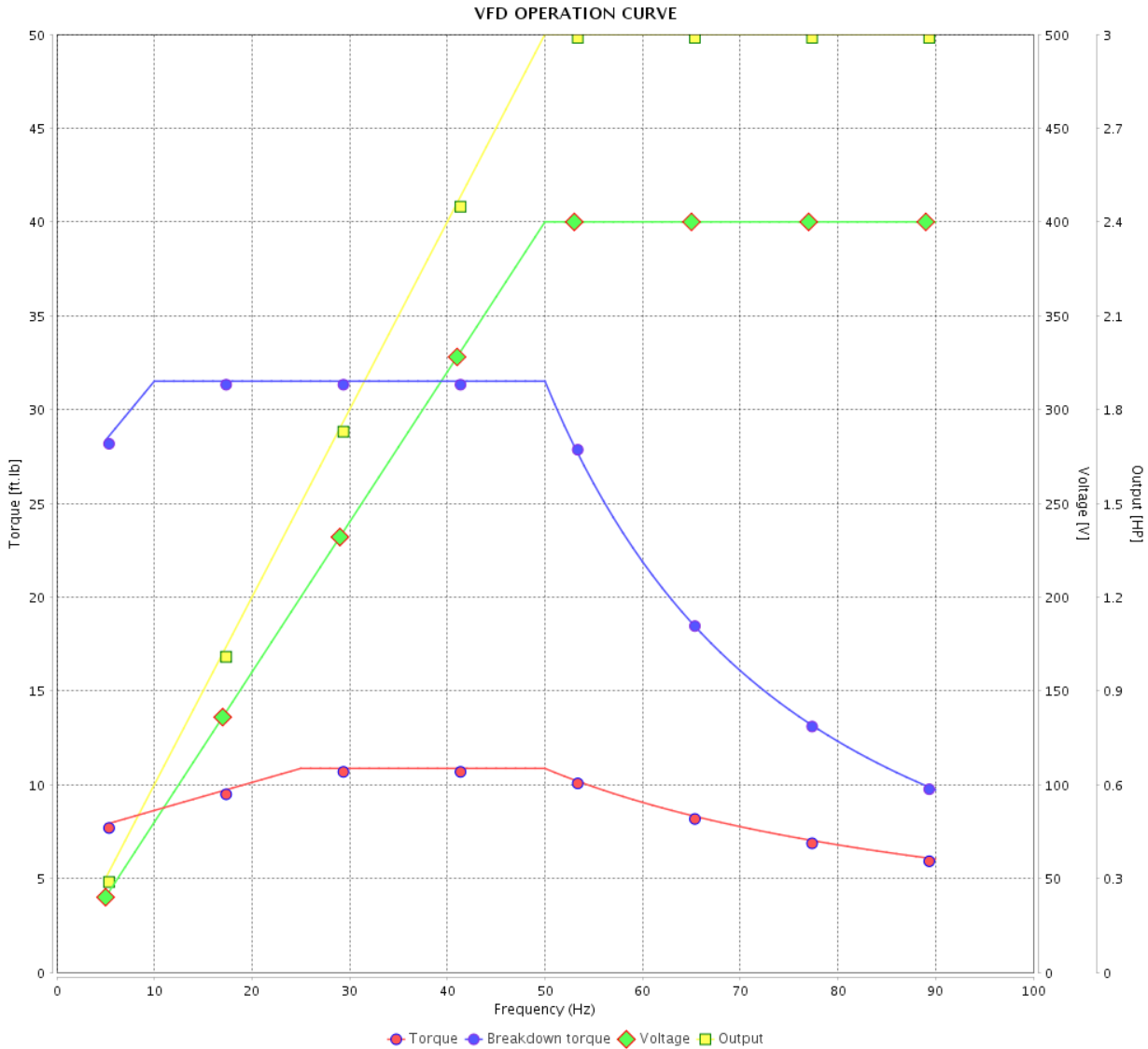


Customer : \_\_\_\_\_

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Catalog # : 00318ST3QIE182T-W22



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

Rev.	Changes Summary	Performed	Checked	Date
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

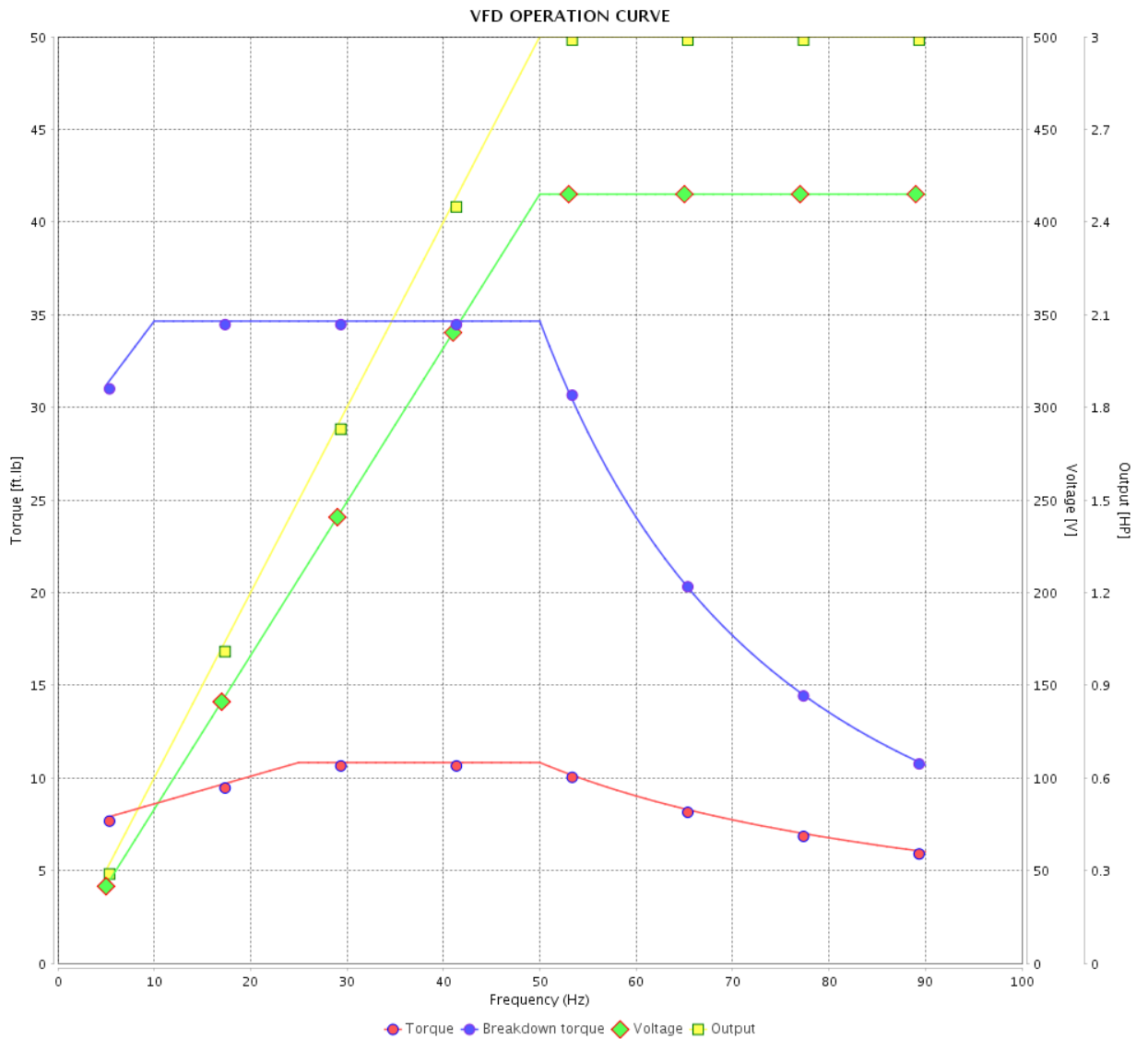


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Catalog # : 00318ST3QIE182T-W22



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  
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 Temperature rise : 80 K  
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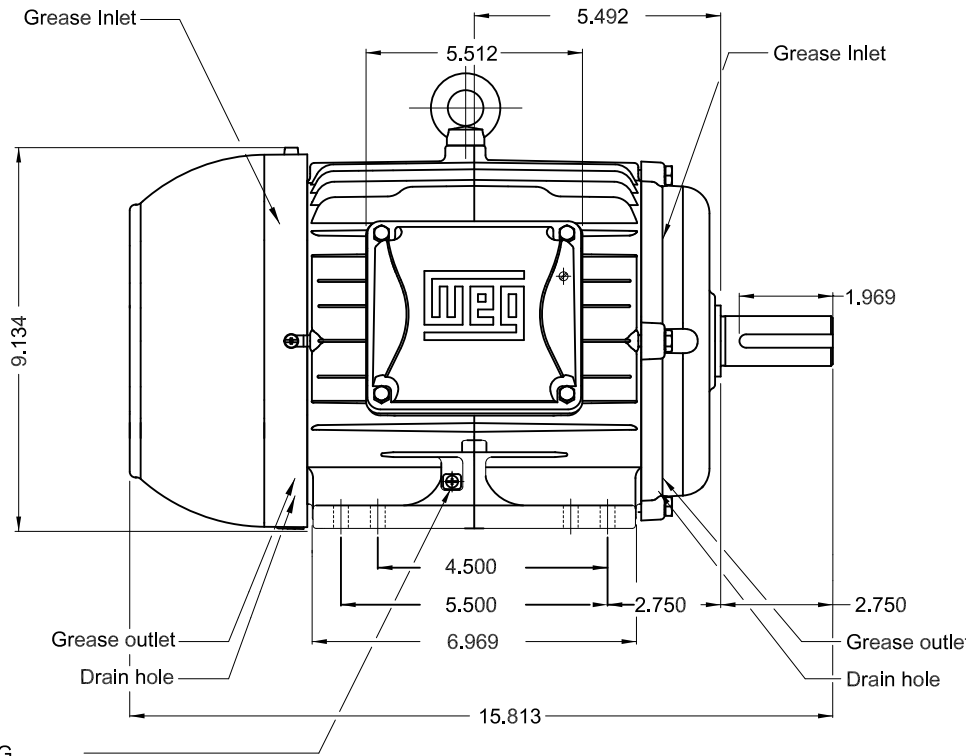
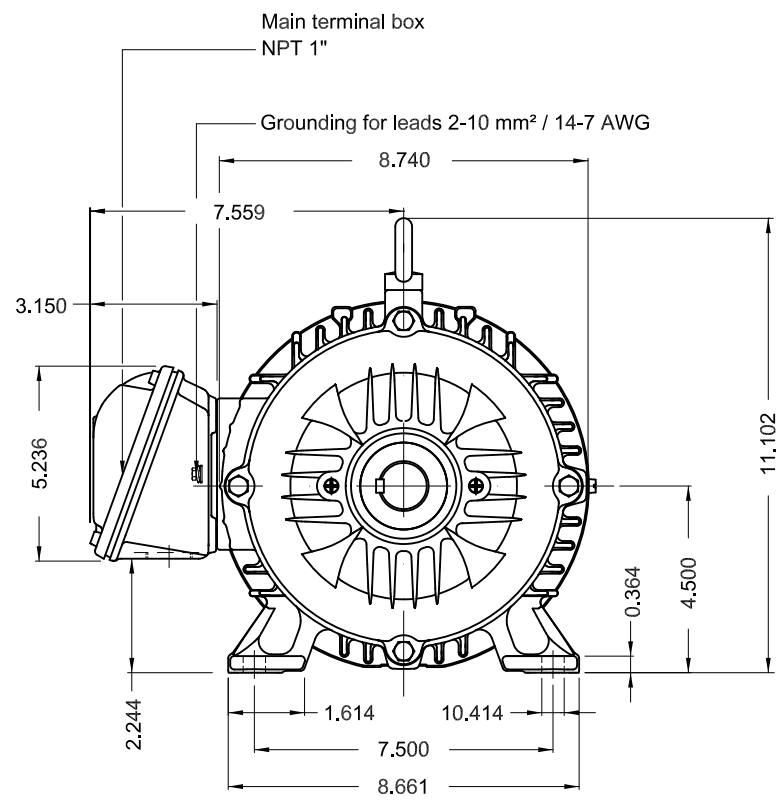
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 21 / 21	Revision
Checked by				
Date	14/04/2022			

1 2 3 4 5 6

A

B

C

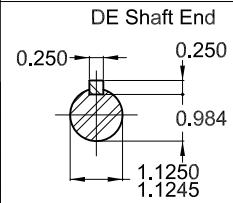


Grounding for leads 2-10 mm² / 14-7 AWG

D

E

Color RAL 5009  
 Painting plan 202E  
 Mounting NEMA F-1  
 Mounting B3R(D)



3 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR IEEE 841 W22 PREM. EFF.					
CHECKED		FRAME 182/4T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
 WDD



Dimensions in inches XME A3

MADE IN BRAZIL  
12373795



**NEMA**  
Premium



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

MODEL 00318ST3QIE182T-W22

Inverter Duty Motor  
Severe Duty

**IEEE**  
841-2009



FOR SAFE AREA  
Mod. TE1BFOXON  
CC029A

PH3 60Hz Fr. 182/4T 1000m.a.s.l. IP55 TEFC 108lb

V 460

A 3.91

HP 3.0

kW 2.2

SF 1.25

SFA 4.89

RPM 1760

PF 0.79

AMB 40°C

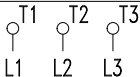
INS cl. F DT80K

NEMA NOM EFF 89.5%

DUTY CONT.

DES B Code K

GUARANT. EFF 87.5%



460V

→ 6207-C3 (7g) 35BC02X30

→ 6206-C3 (5g) 30BC02X30

MOBIL POLYREX EM (20000h)

