

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14212598		
		Catalog # :	00152XT3E182TC		
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	: 126 lb		
Protection degree	: IP55	Moment of inertia (J)	: 0.4212 sq.ft.lb		
Design	: B				
Output [HP]	1.5	1.5	1.5	1.5	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	4.64/2.32	2.68	2.62	2.64	
L. R. Amperes [A]	30.6/15.3	13.9	14.4	15.6	
LRC [A]	6.6x(Code K)	5.2x(Code G)	5.5x(Code H)	5.9x(Code J)	
No load current [A]	2.80/1.40	1.40	1.50	1.60	
Rated speed [RPM]	1165	950	960	960	
Slip [%]	2.92	5.00	4.00	4.00	
Rated torque [ft.lb]	6.76	8.29	8.21	8.21	
Locked rotor torque [%]	229	190	220	250	
Breakdown torque [%]	330	240	250	290	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	63s (cold) 35s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	83.3	85.9	84.1	82.8
	50%	84.5	85.5	84.5	84.0
	75%	86.5	86.5	86.5	85.5
	100%	87.5	85.5	86.5	86.5
Power Factor	25%	0.27	0.31	0.28	0.26
	50%	0.47	0.52	0.48	0.45
	75%	0.59	0.63	0.60	0.57
	100%	0.68	0.73	0.70	0.67
Bearing type	: <u>Drive end</u> 6307 2RS <u>Non drive end</u> 6206 2RS	Foundation loads			
Sealing	: Oil Seal Lip Seal	Max. traction	: 89 lb		
Lubrication interval	: - -	Max. compression	: 215 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 5.13A SF 1.15 SFA 5.90A					
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.			
Rev.	Changes Summary	Performed	Checked	Date	
Performed by					
Checked by			Page	Revision	
Date	12/04/2022		1 / 22		

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		2 / 22	

TORQUE AND CURRENT VS SPEED CURVE



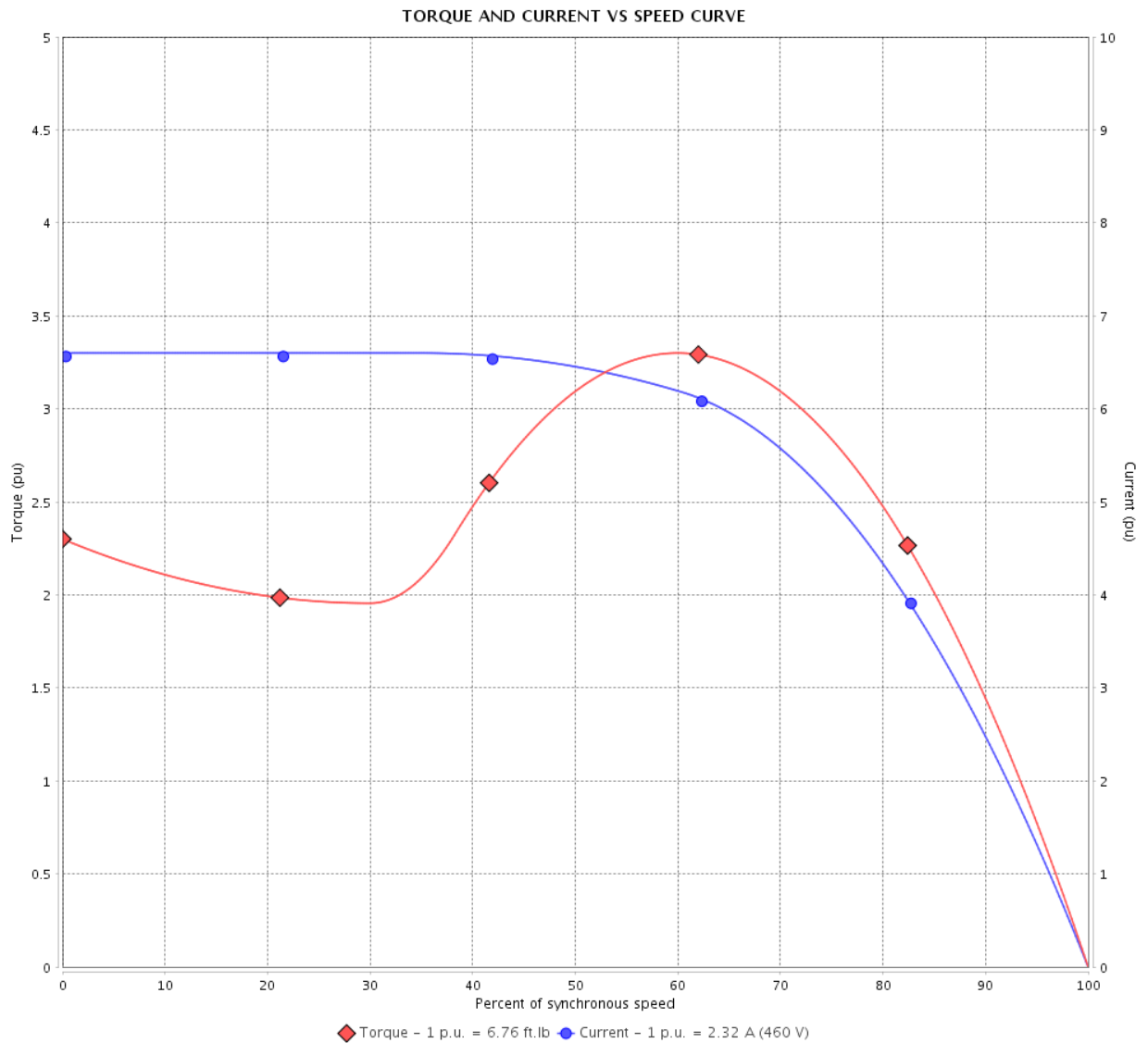
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC



Performance : 230/460 V 60 Hz 6P

Rated current : 4.64/2.32 A
 LRC : 6.6
 Rated torque : 6.76 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 330 %
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.4212 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 63s (cold) 35s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 22	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



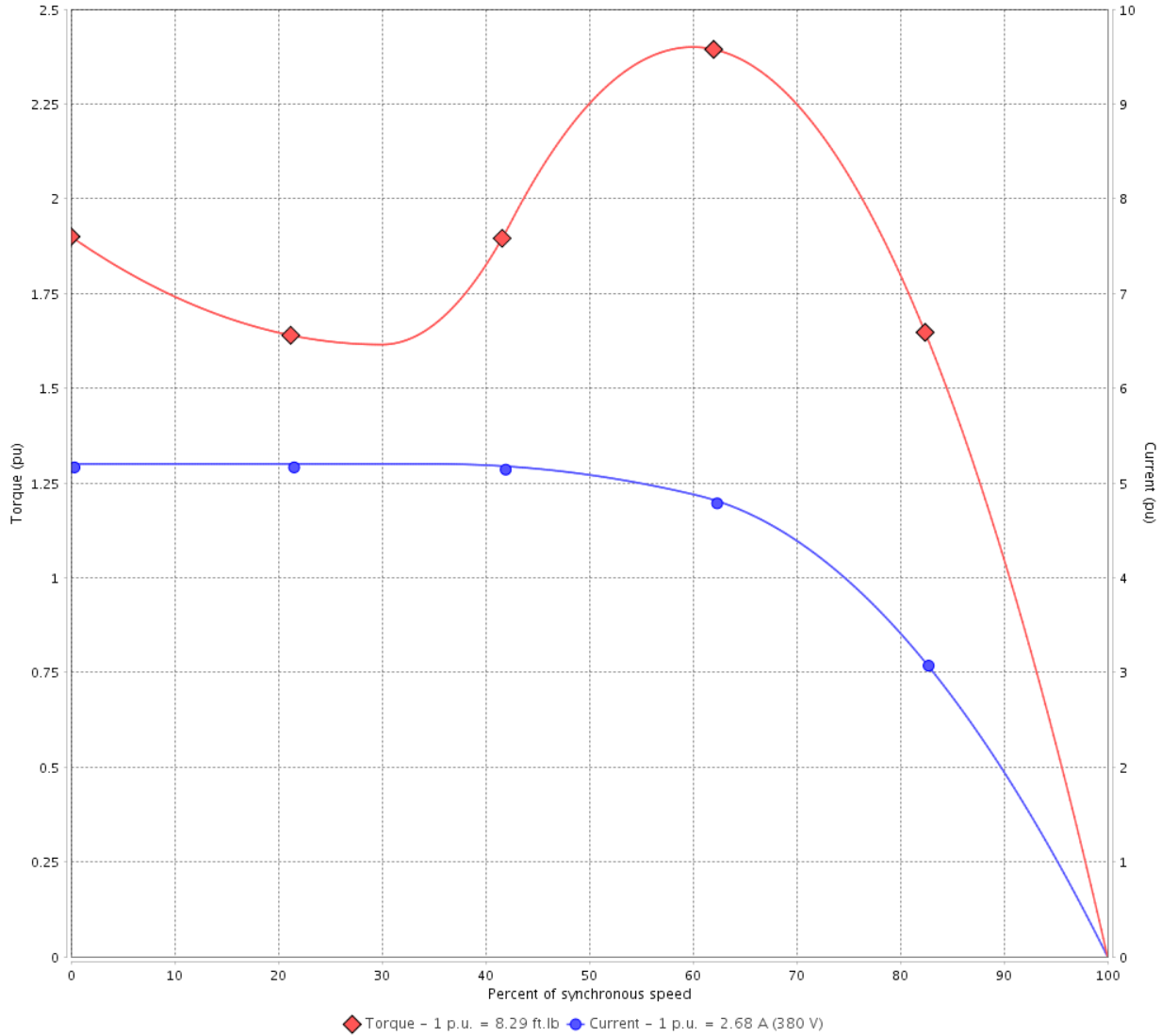
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 6P IE4

Rated current	: 2.68 A	Moment of inertia (J)	: 0.4212 sq.ft.lb
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 8.29 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 22	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



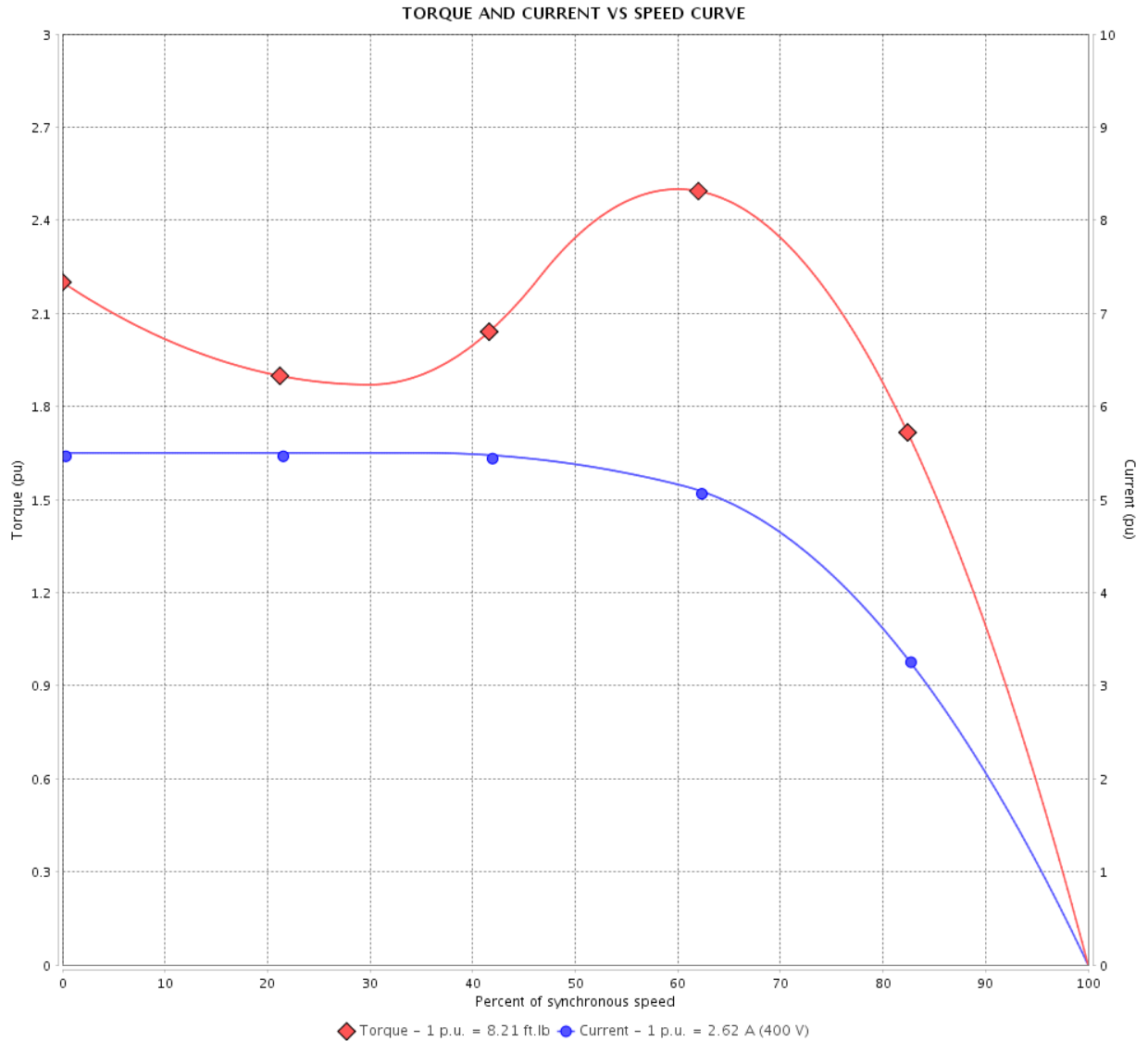
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC



Performance : 400 V 50 Hz 6P IE4

Rated current	: 2.62 A	Moment of inertia (J)	: 0.4212 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 8.21 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 22	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



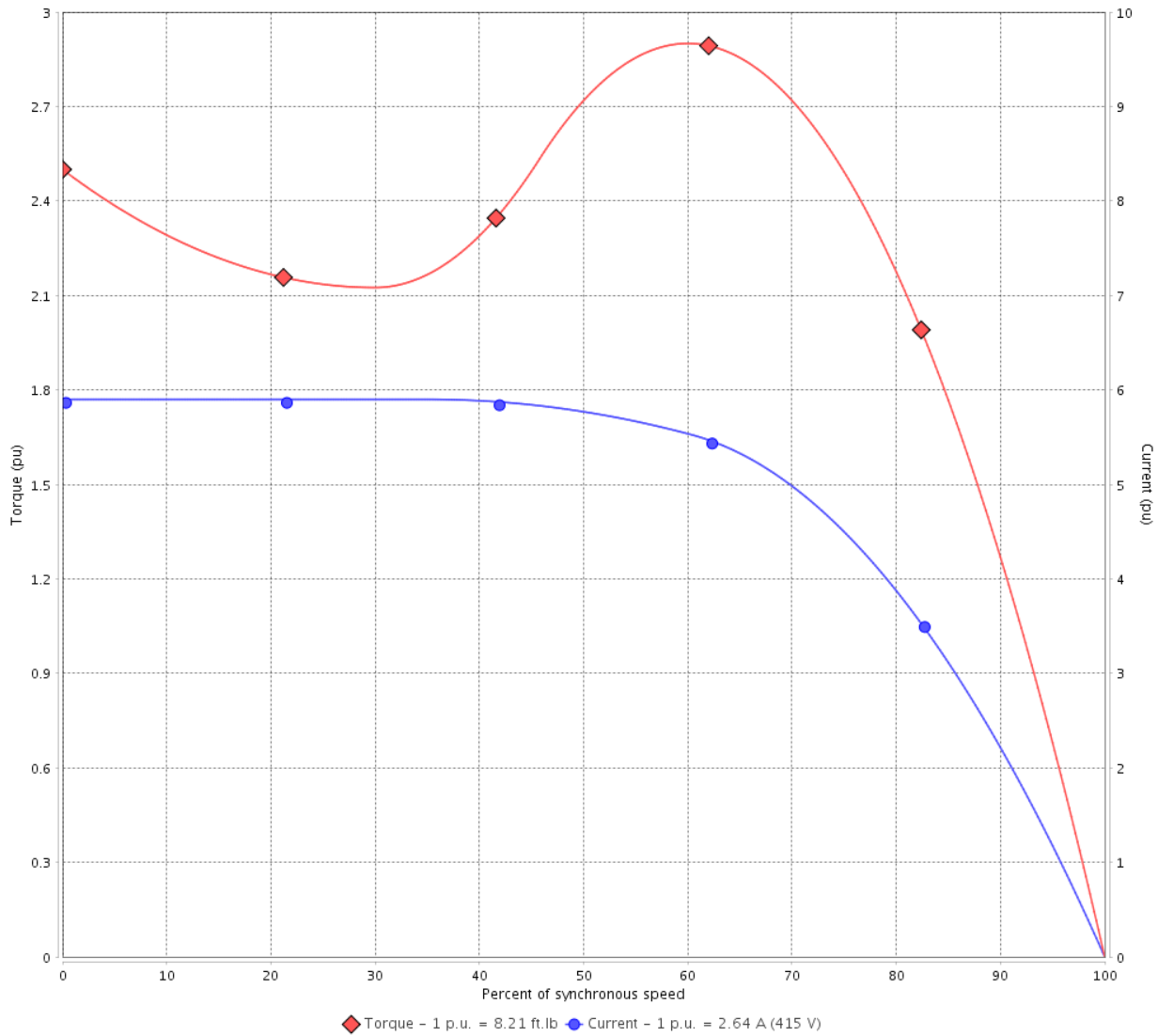
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 6P IE4

Rated current	: 2.64 A	Moment of inertia (J)	: 0.4212 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 8.21 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 22	Revision
Checked by				
Date	12/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

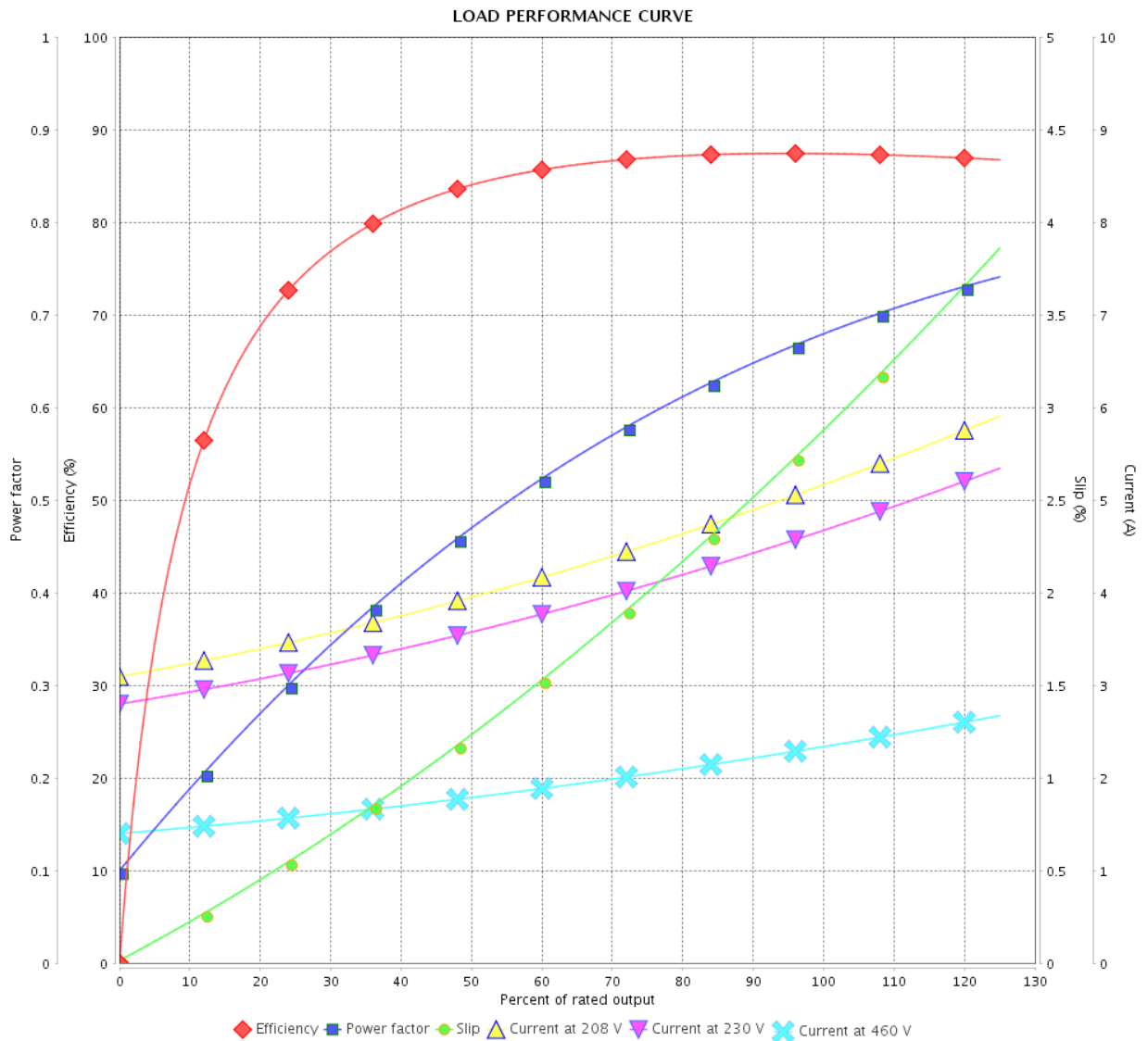


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC



Performance : 230/460 V 60 Hz 6P

Rated current : 4.64/2.32 A
 LRC : 6.6
 Rated torque : 6.76 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 330 %
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.4212 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



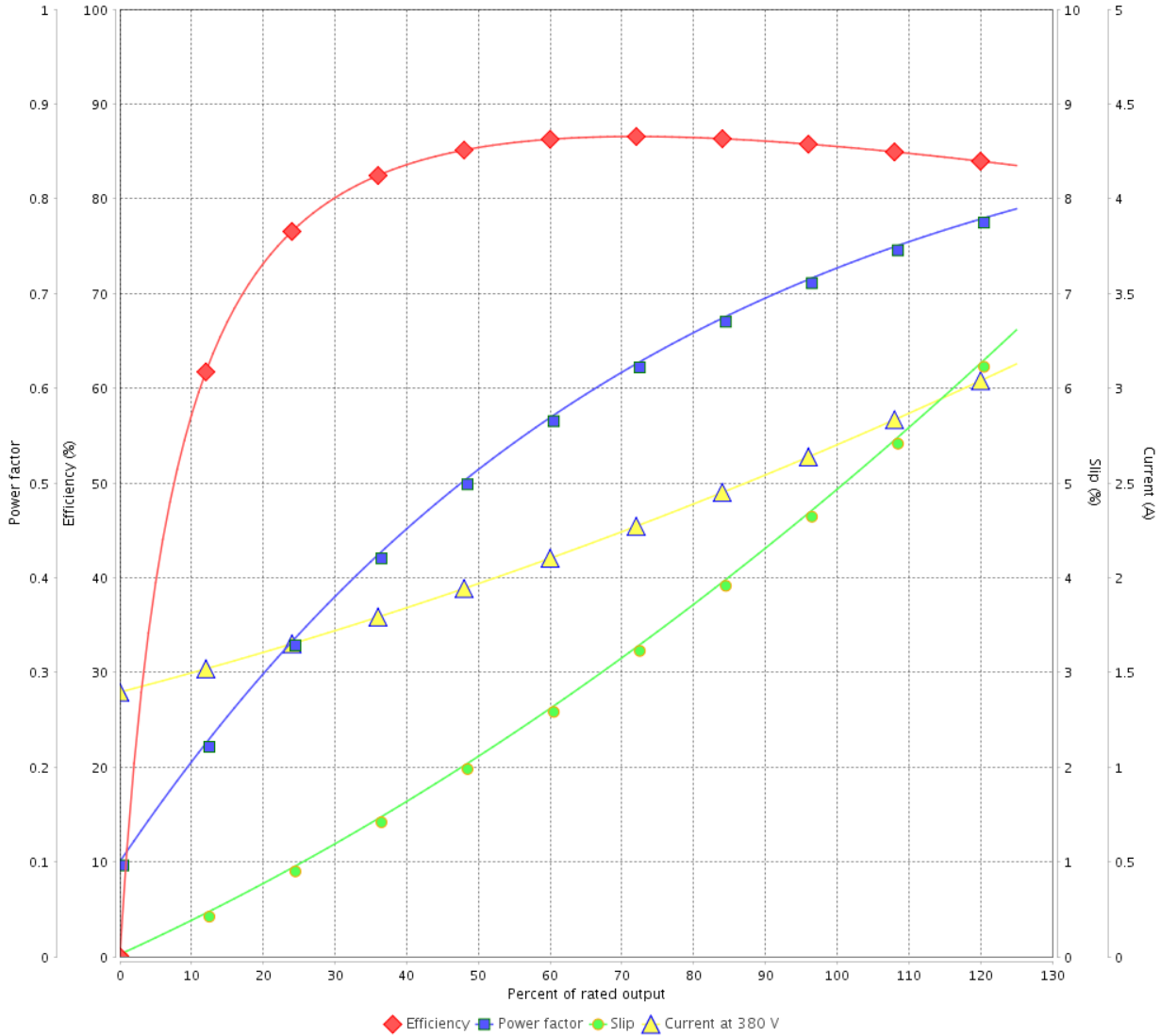
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A
 LRC : 5.2
 Rated torque : 8.29 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 950 rpm

Moment of inertia (J) : 0.4212 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
Performed by			Page	Revision
Checked by				
Date				
			8 / 22	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

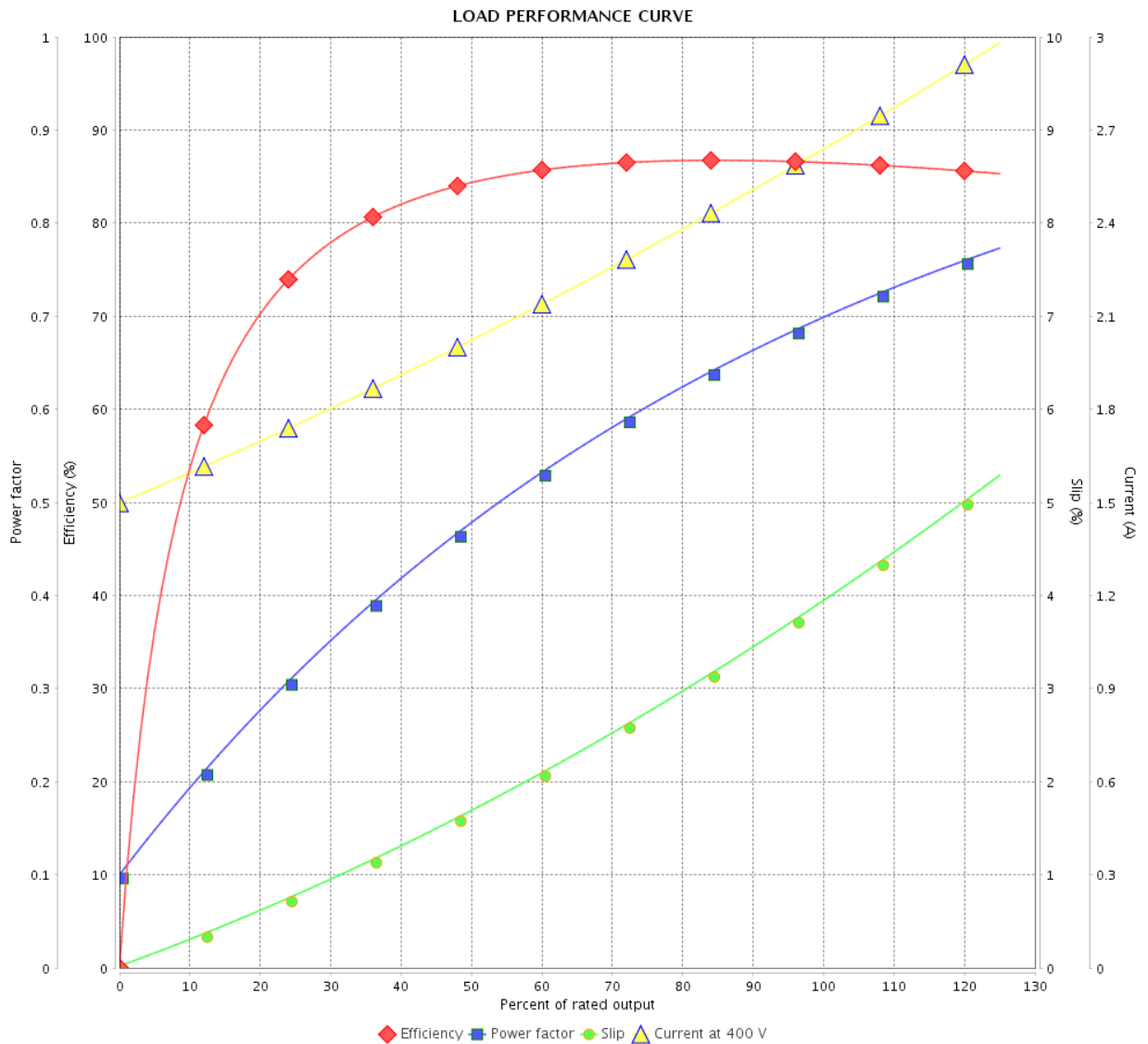


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC



Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A
 LRC : 5.5
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4212 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
Performed by			Page	Revision
Checked by				
Date				
			9 / 22	

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



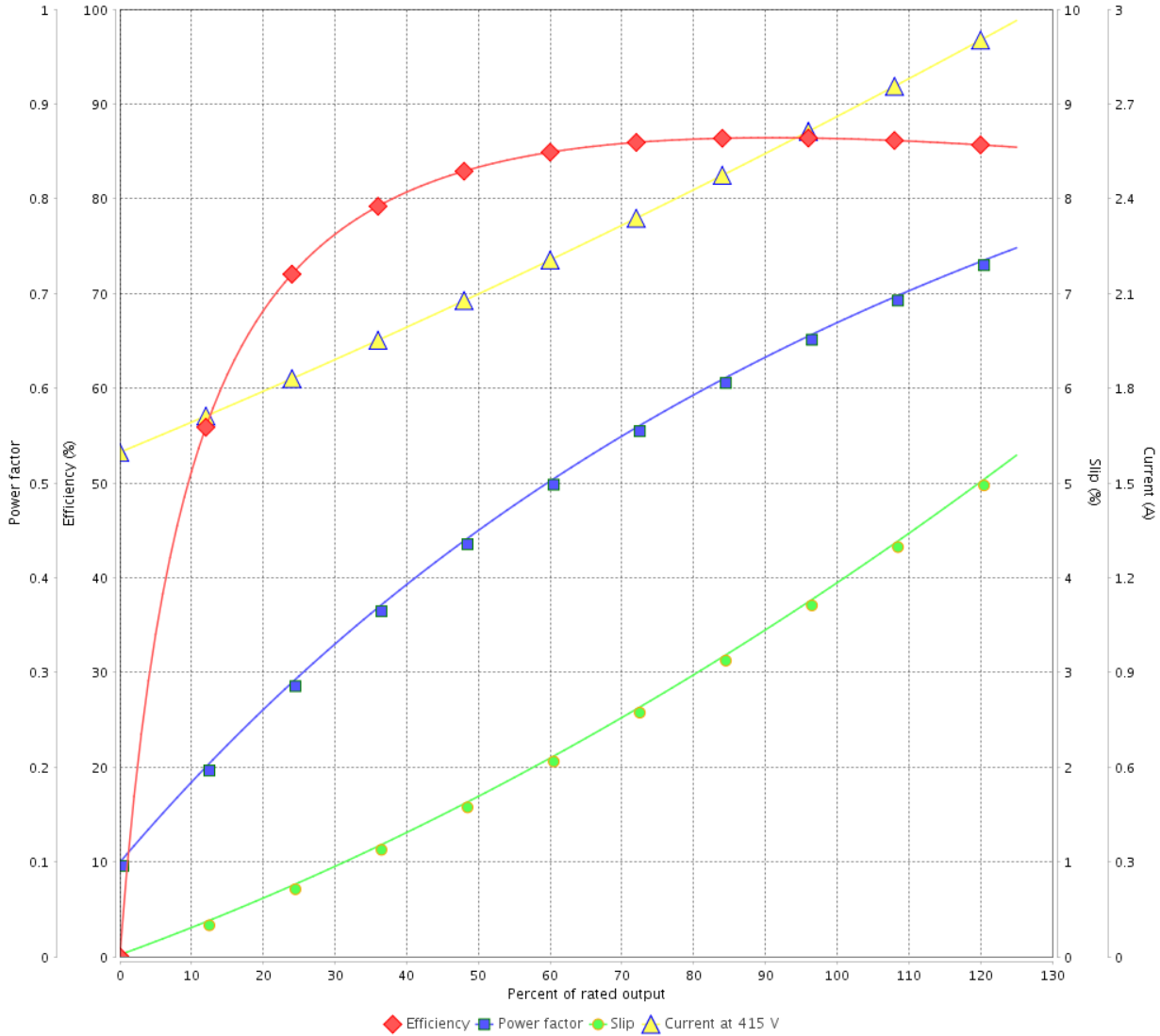
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 6P IE4

Rated current : 2.64 A
 LRC : 5.9
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4212 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
Performed by			Page 10 / 22	Revision
Checked by				
Date	12/04/2022			

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14212598
 Catalog # : 00152XT3E182TC

Performance : 230/460 V 60 Hz 6P

Rated current : 4.64/2.32 A	Moment of inertia (J) : 0.4212 sq.ft.lb
LRC : 6.6	Duty cycle : Cont.(S1)
Rated torque : 6.76 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.15
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 1165 rpm	Design : B

Heating constant

Cooling constant

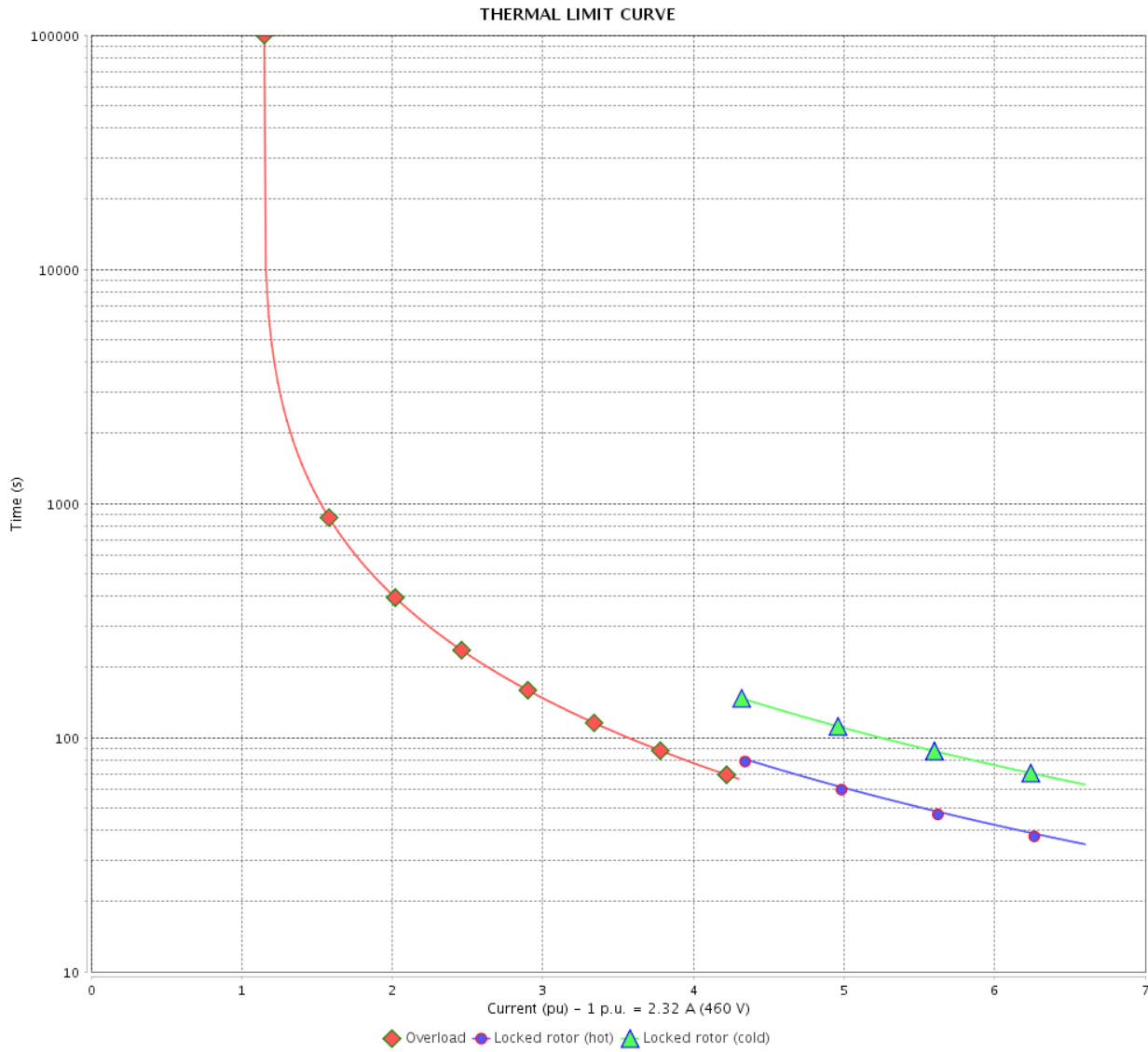
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 11 / 22	Revision
Checked by				
Date	12/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		12 / 22		
Date		12/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14212598
 Catalog # : 00152XT3E182TC

Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A	Moment of inertia (J) : 0.4212 sq.ft.lb
LRC : 5.2	Duty cycle : Cont.(S1)
Rated torque : 8.29 ft.lb	Insulation class : F
Locked rotor torque : 190 %	Service factor : 1.00
Breakdown torque : 240 %	Temperature rise : 80 K
Rated speed : 950 rpm	Design : B

Heating constant

Cooling constant

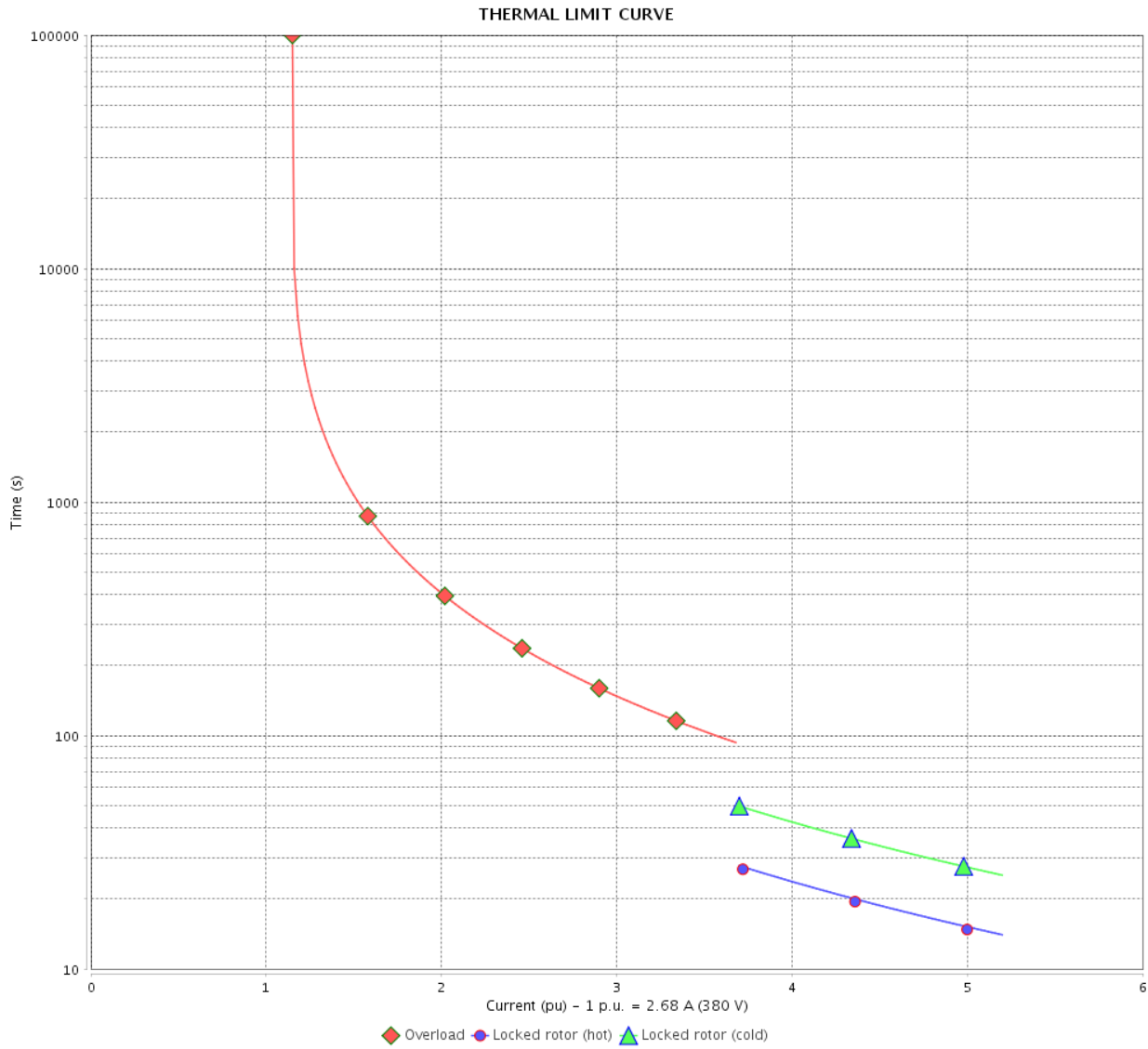
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date	12/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		14 / 22		
Date		12/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14212598
 Catalog # : 00152XT3E182TC

Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A	Moment of inertia (J) : 0.4212 sq.ft.lb
LRC : 5.5	Duty cycle : Cont.(S1)
Rated torque : 8.21 ft.lb	Insulation class : F
Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 960 rpm	Design : B

Heating constant

Cooling constant

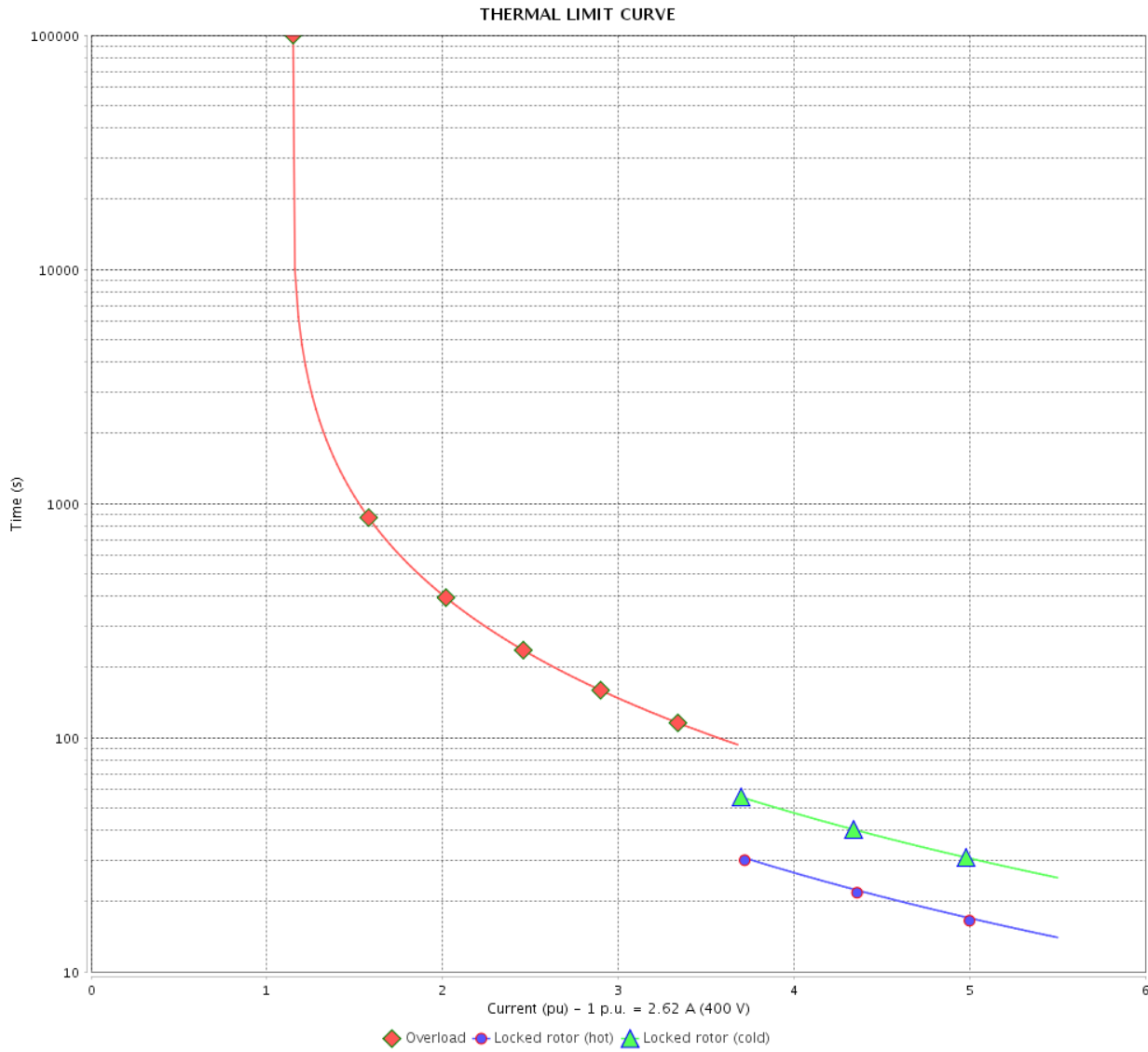
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date	12/04/2022	15 / 22		

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		16 / 22		
Date		12/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14212598
 Catalog # : 00152XT3E182TC

Performance : 415 V 50 Hz 6P IE4

Rated current : 2.64 A	Moment of inertia (J) : 0.4212 sq.ft.lb
LRC : 5.9	Duty cycle : Cont.(S1)
Rated torque : 8.21 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 960 rpm	Design : B

Heating constant

Cooling constant

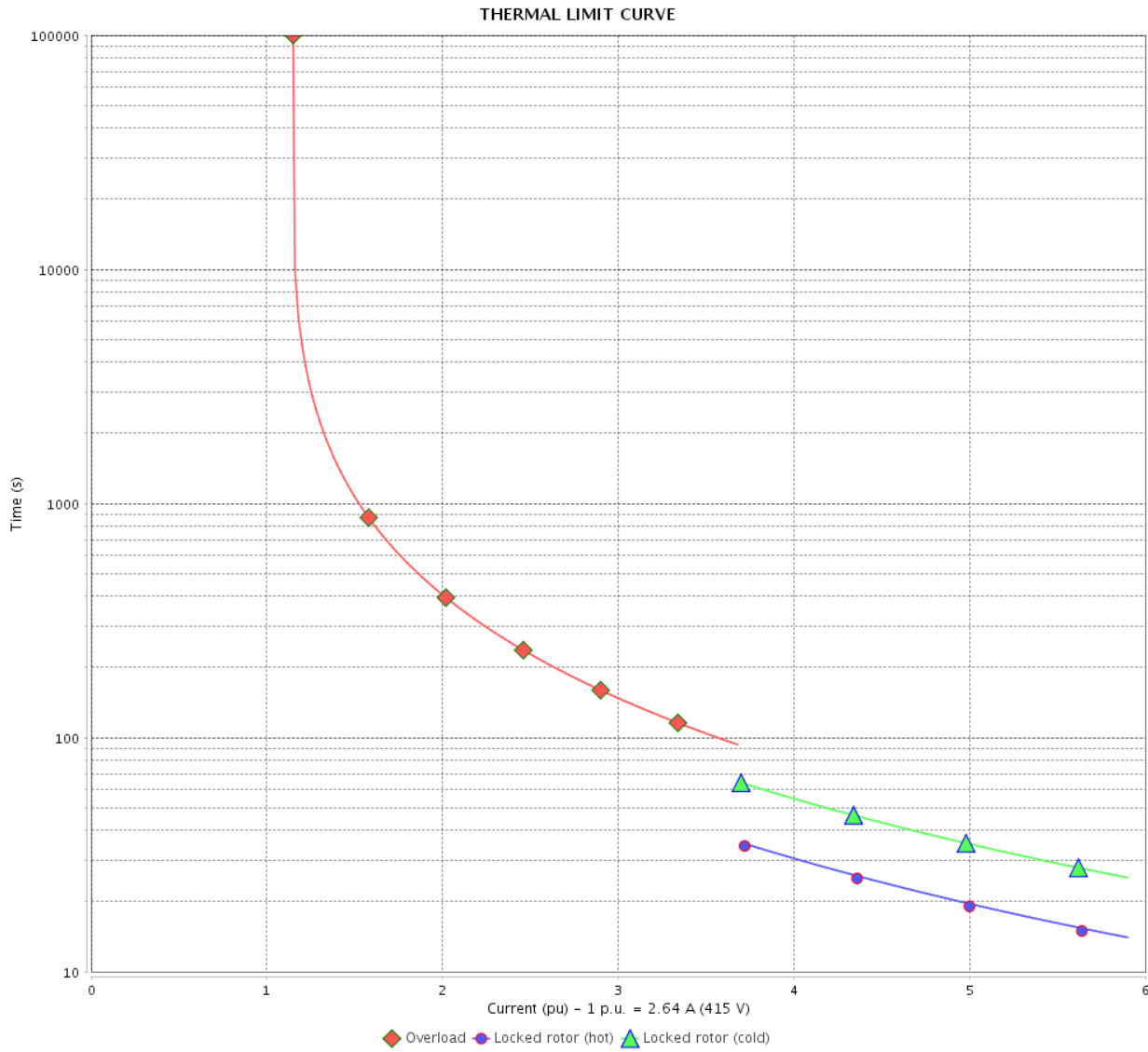
Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		17 / 22		
Date	12/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		18 / 22		
Date		12/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

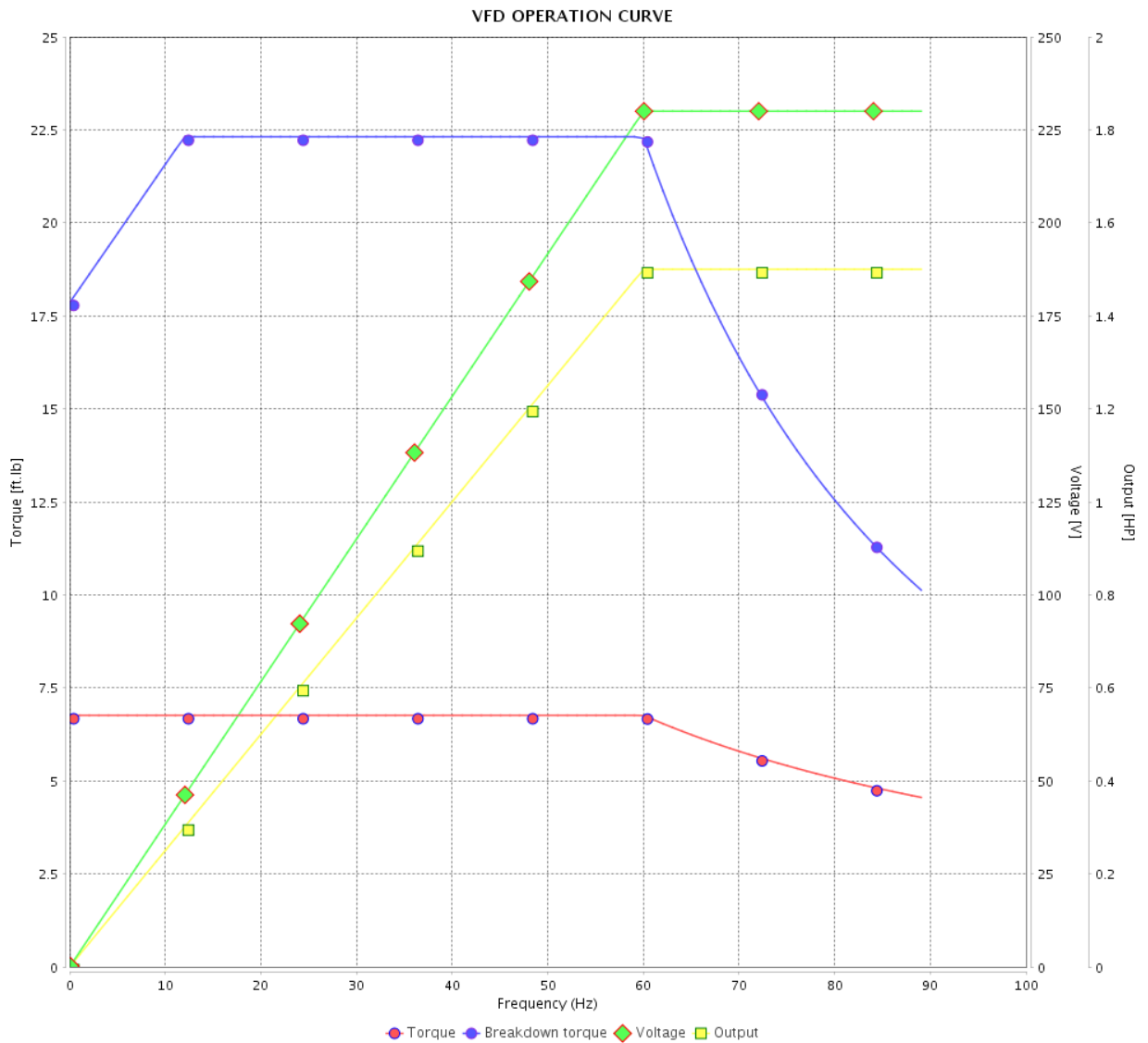


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC



Performance : 230/460 V 60 Hz 6P

Rated current : 4.64/2.32 A
 LRC : 6.6
 Rated torque : 6.76 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 330 %
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.4212 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 19 / 22
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

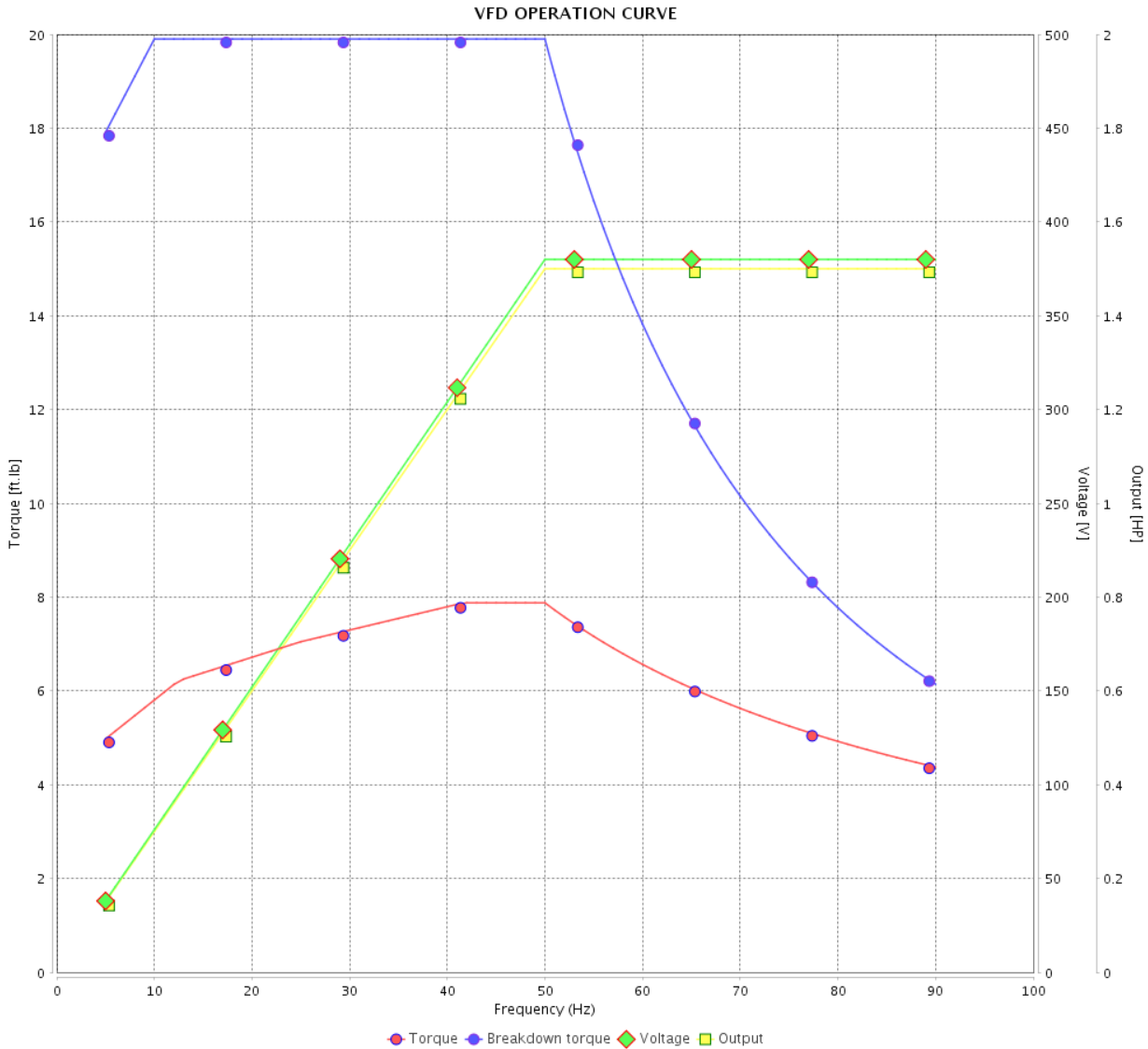


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC



Performance : 380 V 50 Hz 6P IE4

Rated current : 2.68 A
 LRC : 5.2
 Rated torque : 8.29 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 950 rpm

Moment of inertia (J) : 0.4212 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
Performed by			Page 20 / 22	Revision
Checked by				
Date	12/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

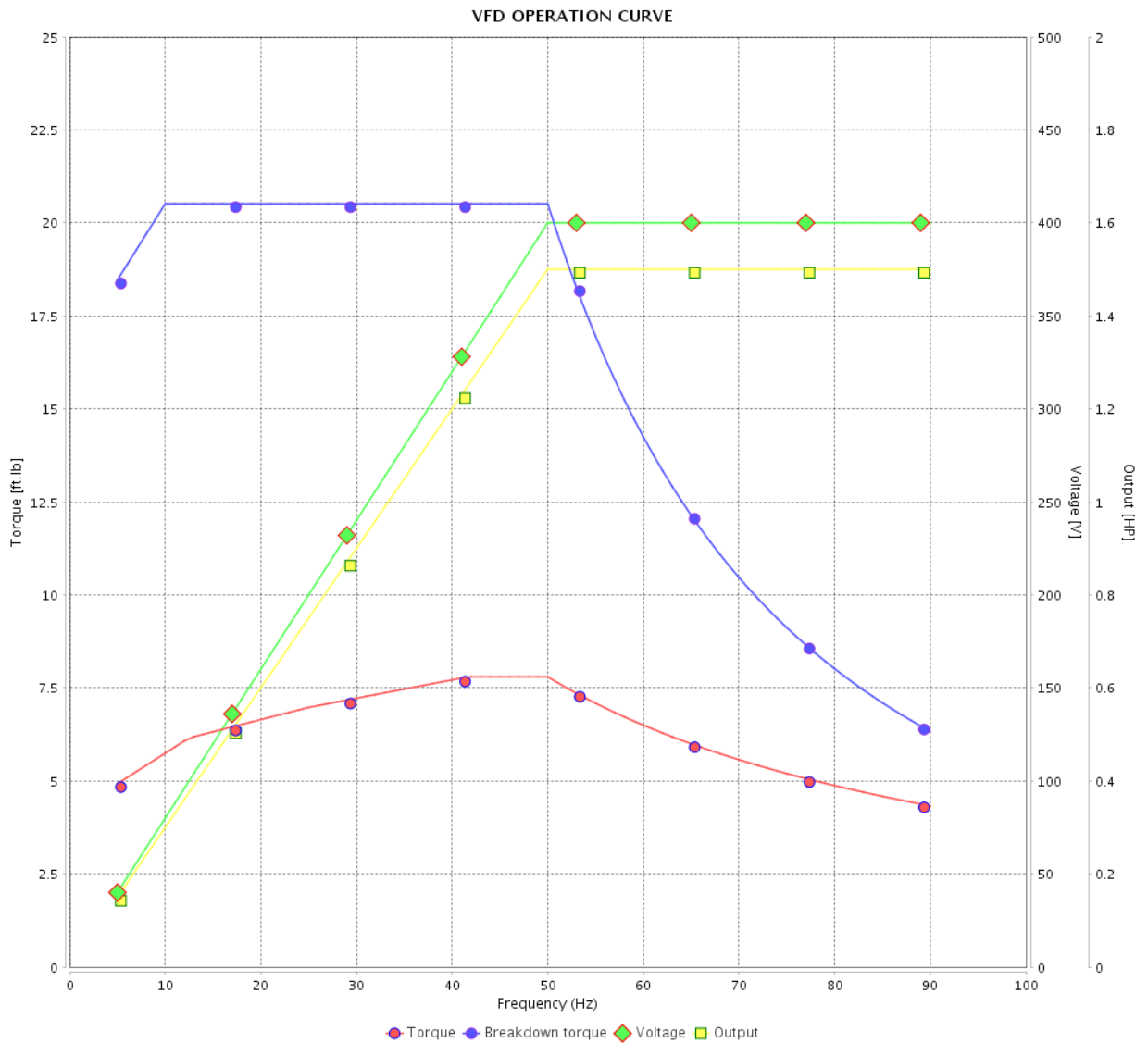


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC



Performance : 400 V 50 Hz 6P IE4

Rated current : 2.62 A
 LRC : 5.5
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4212 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
Performed by				Page 21 / 22
Checked by				
Date	12/04/2022			
				Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

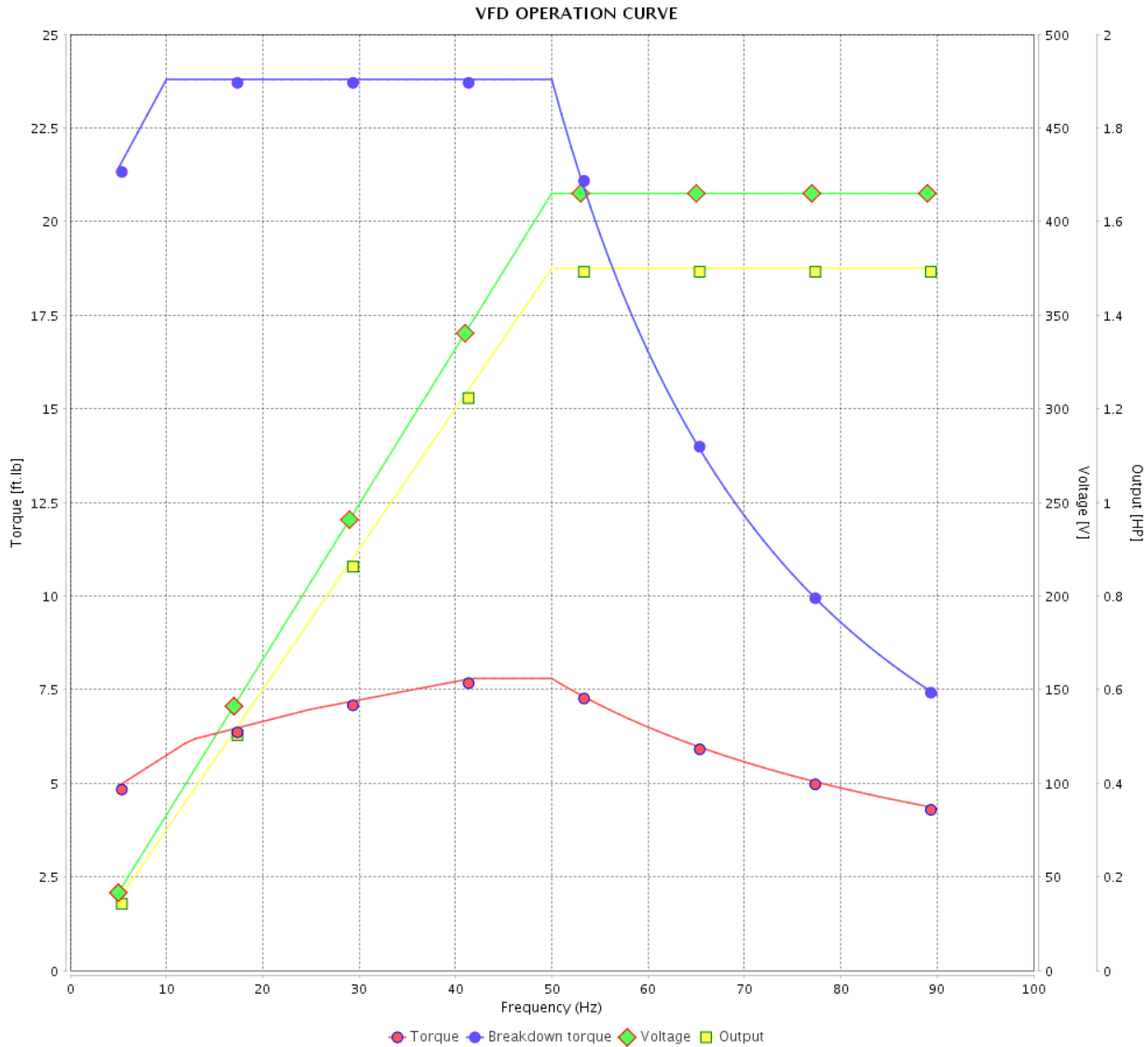


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212598

Catalog # : 00152XT3E182TC

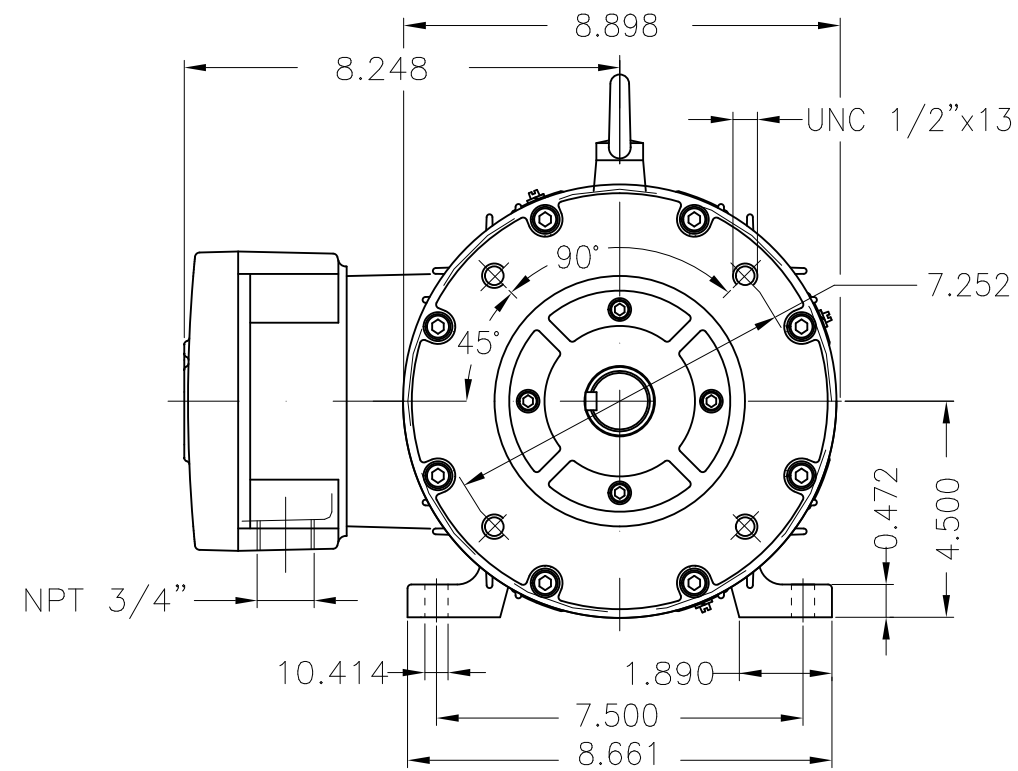


Performance : 415 V 50 Hz 6P IE4

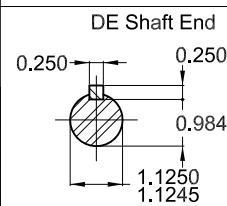
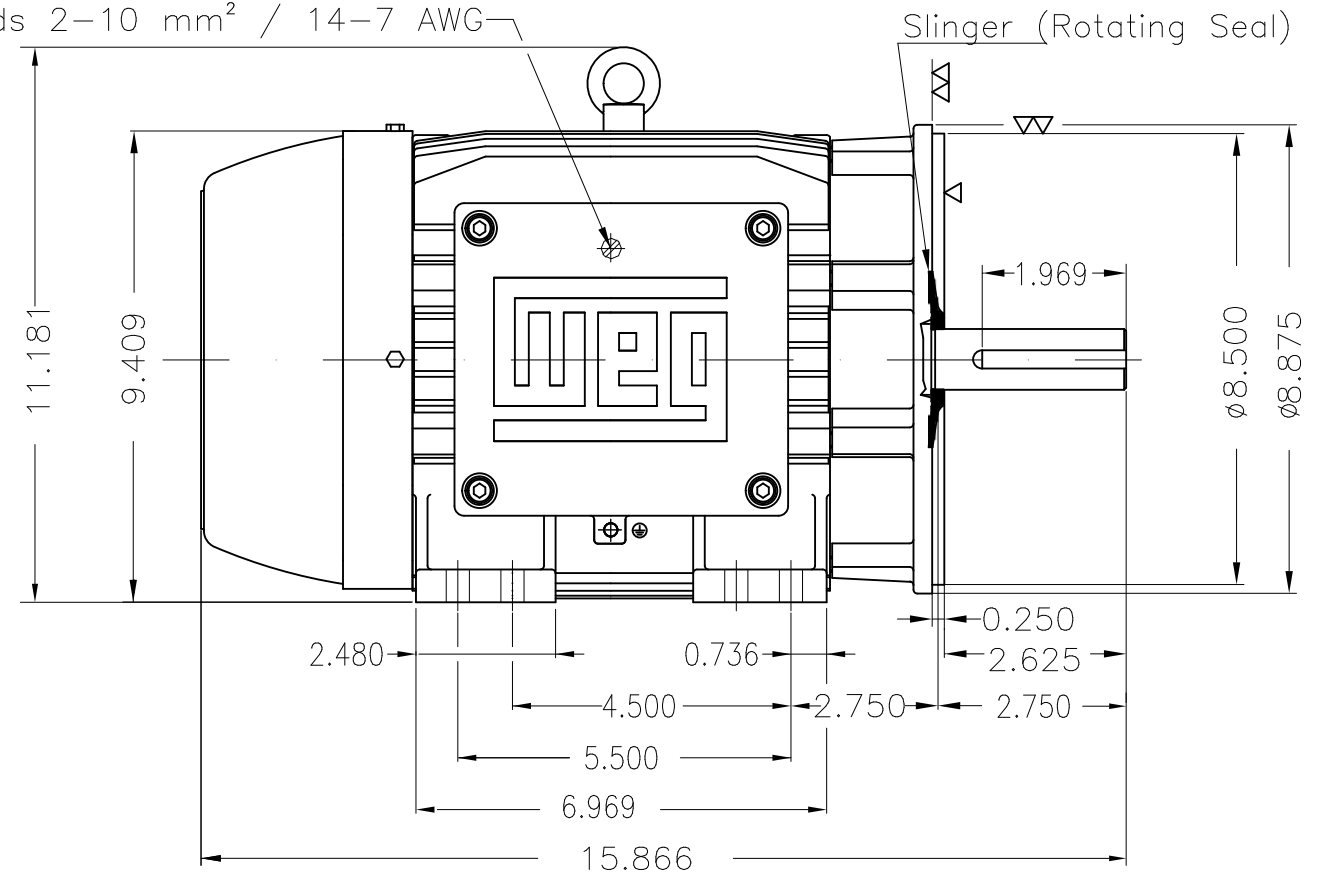
Rated current : 2.64 A
 LRC : 5.9
 Rated torque : 8.21 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.4212 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
Performed by			Page 22 / 22	Revision
Checked by				
Date	12/04/2022			



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



Color RAL 5009
 Painting plan 202P
 Mounting NEMA F-1
 Mounting B34R(D)

1.5 HP 06 Poles 60 Hz

Dimensions in inches

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

PREVIEW
 WDD



SHEET 1 / 1

MADE IN BRAZIL

**W21X NEMA**
Premium

14212598



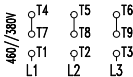
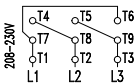
LISTED

CC029A

Inverter Duty Motor
Severe Duty

MODEL 00152XT3E182TC

PH 3	FR 182/4TC		
HP(kW) 1.5(1.1)		HZ 60	IP55
V 230/460		A 4.64/2.32	
RPM 1165		NEMA NOM EFF 87.5%	
PF 0.68		SFA 5.34/2.67	DES B
INS CL F Δ T 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE K	ALT 1000 m.a.s.l.
AMB 40°C	USABLE @208V	5.13 A	SF 1.15 SFA 5.90
AMB 55°C SF1.0			
1.5HP 1.1kW 50Hz 380V 2.68A 950RPM SF1.00 EFF 85.5% (IE4)			



→ 6307-2RS MOBIL POLYREX EM
→ 6206-2RS

126 Lbs



TEMP CODE T3C
CSA/UL: Class I - Div. 1 - Groups C and D
CSA: Class II - Div. 1 - Groups F and G
CSA: Class I - Zone 1 - IIB

EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 20:1CT, 1.0SF, T3C, AMB 40°C.