

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :		14284316
			Catalog # :		00736XT3E213TC
Frame		: 213/5TC	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		: 213 lb
Protection degree		: IP55	Moment of inertia (J)		: 0.4696 sq.ft.lb
Design		: B			
Output [HP]	7.5	7.5	7.5	7.5	7.5
Poles	2	2	2	2	2
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	230/460	380	400	415	415
Rated current [A]	17.1/8.57	10.3	9.89	9.61	9.61
L. R. Amperes [A]	120/60.0	63.9	67.3	71.1	71.1
LRC [A]	7.0x(Code H)	6.2x(Code G)	6.8x(Code G)	7.4x(Code H)	7.4x(Code H)
No load current [A]	5.60/2.80	2.70	2.85	2.90	2.90
Rated speed [RPM]	3525	2900	2910	2920	2920
Slip [%]	2.08	3.33	3.00	2.67	2.67
Rated torque [ft.lb]	11.2	13.6	13.5	13.5	13.5
Locked rotor torque [%]	240	190	210	290	290
Breakdown torque [%]	330	240	270	310	310
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	41s (cold) 23s (hot)	46s (cold) 26s (hot)	46s (cold) 26s (hot)	46s (cold) 26s (hot)	46s (cold) 26s (hot)
Noise level ²	72.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%	84.3	84.9	85.6	85.3
	50%	85.5	86.5	86.5	86.5
	75%	88.5	87.5	88.5	88.5
	100%	89.5	89.0	89.2	89.5
Power Factor	25%	0.53	0.61	0.57	0.55
	50%	0.78	0.84	0.81	0.79
	75%	0.87	0.89	0.88	0.86
	100%	0.90	0.91	0.90	0.89
Bearing type		: <u>Drive end</u> 6308 2RS <u>Non drive end</u> 6207 2RS	Foundation loads		
Sealing		: Oil Seal Lip Seal	Max. traction : 129 lb		
Lubrication interval		: - -	Max. compression : 342 lb		
Lubricant amount		: - -			
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 19.8A SF 1.15 SFA 22.8A					
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	13/04/2022			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	13/04/2022		2 / 22	

TORQUE AND CURRENT VS SPEED CURVE



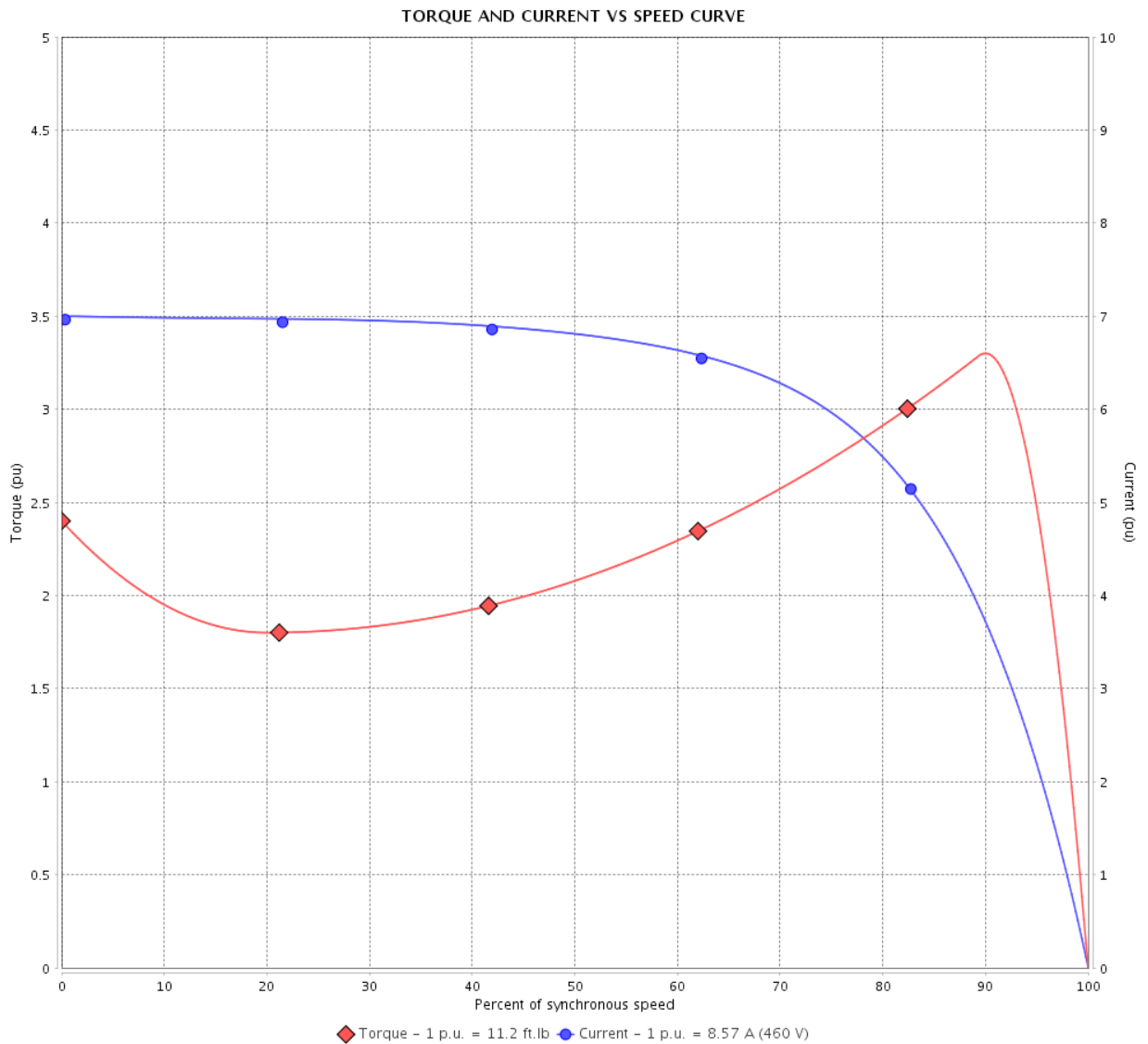
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC



Performance : 230/460 V 60 Hz 2P

Rated current : 17.1/8.57 A
 LRC : 7.0
 Rated torque : 11.2 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 330 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.4696 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 22	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



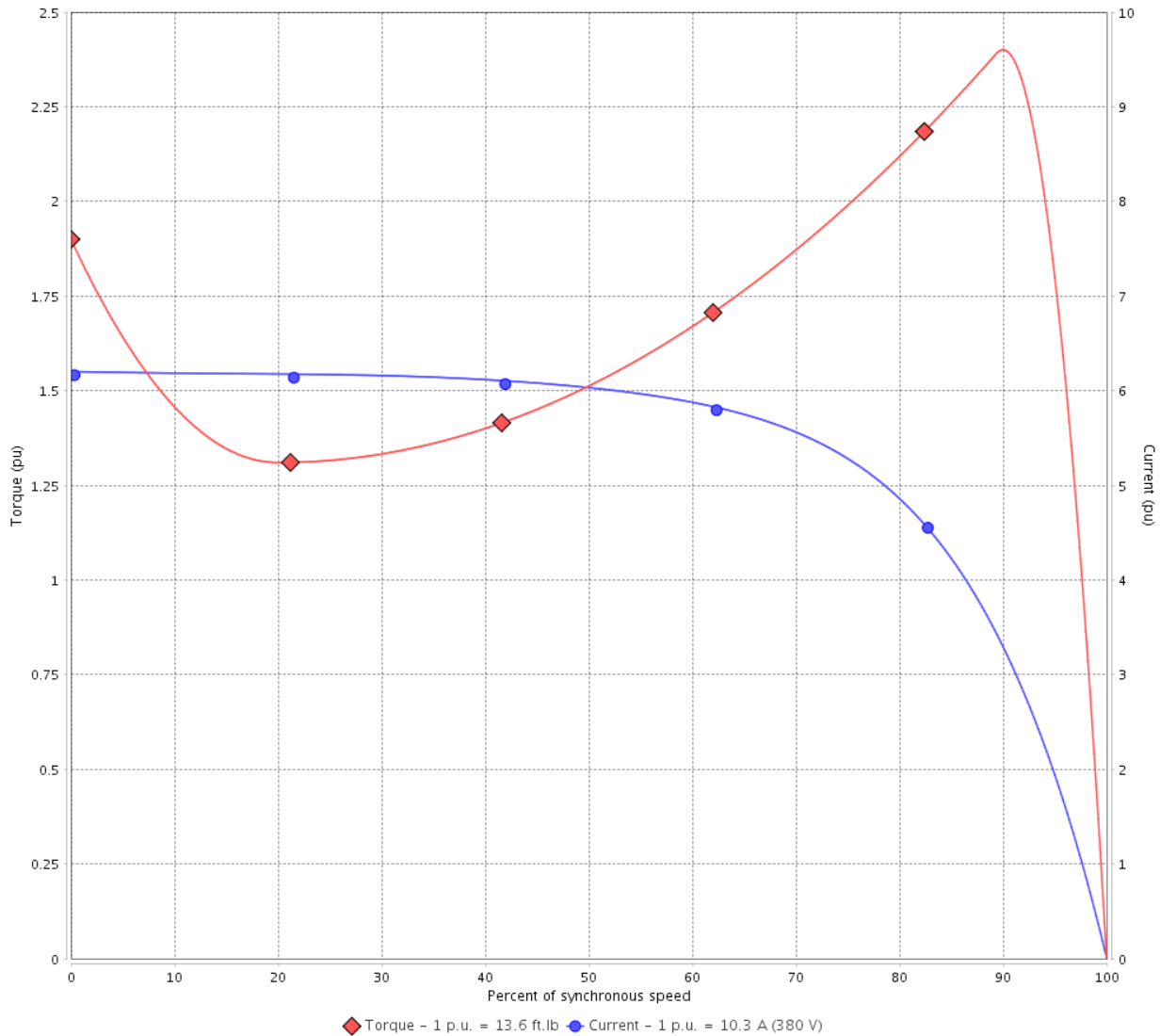
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current	: 10.3 A	Moment of inertia (J)	: 0.4696 sq.ft.lb
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 13.6 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: B

Locked rotor time : 46s (cold) 26s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 22	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



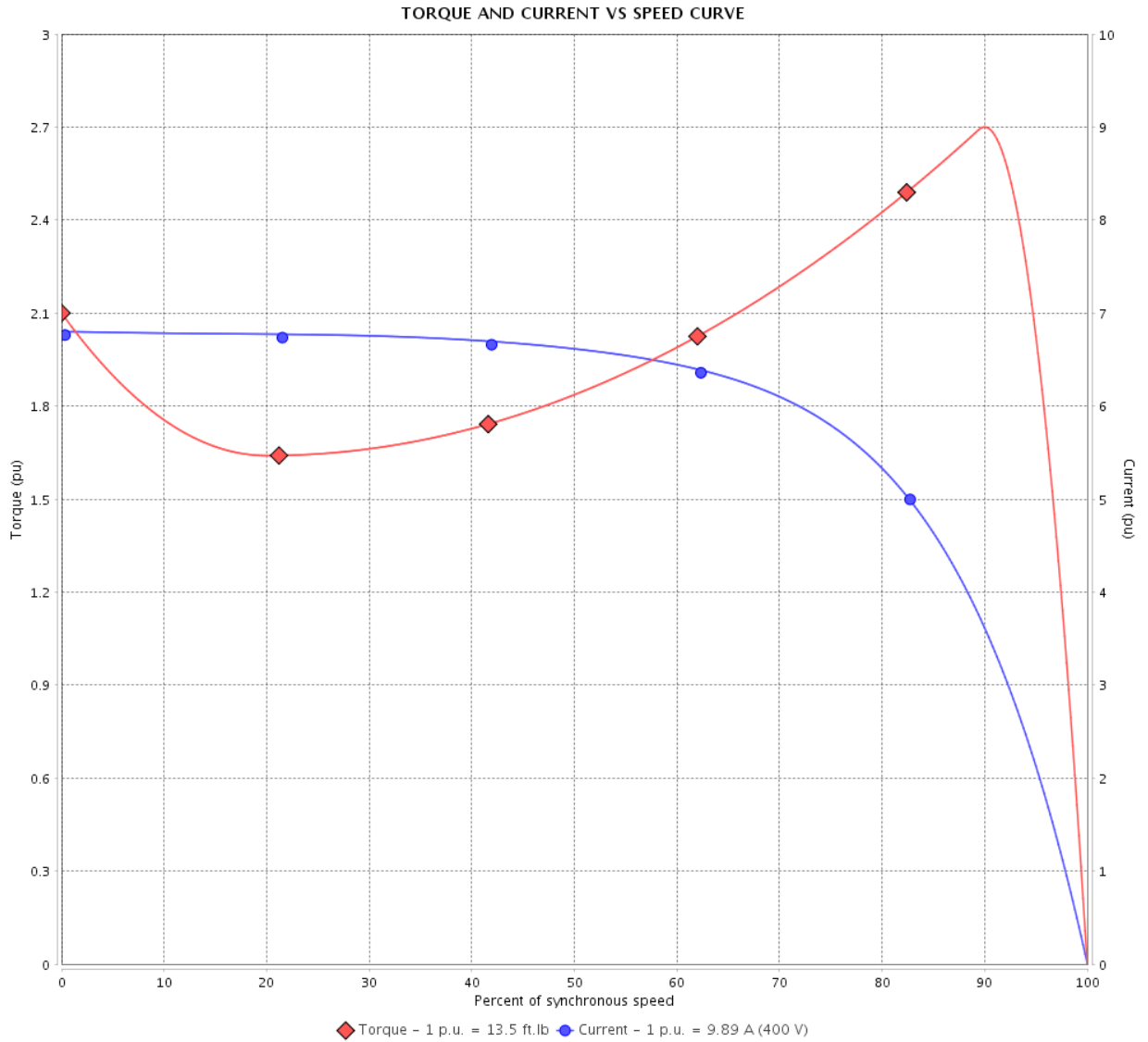
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC



Performance : 400 V 50 Hz 2P IE3

Rated current	: 9.89 A	Moment of inertia (J)	: 0.4696 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 13.5 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 2910 rpm	Design	: B

Locked rotor time : 46s (cold) 26s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 5 / 22	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



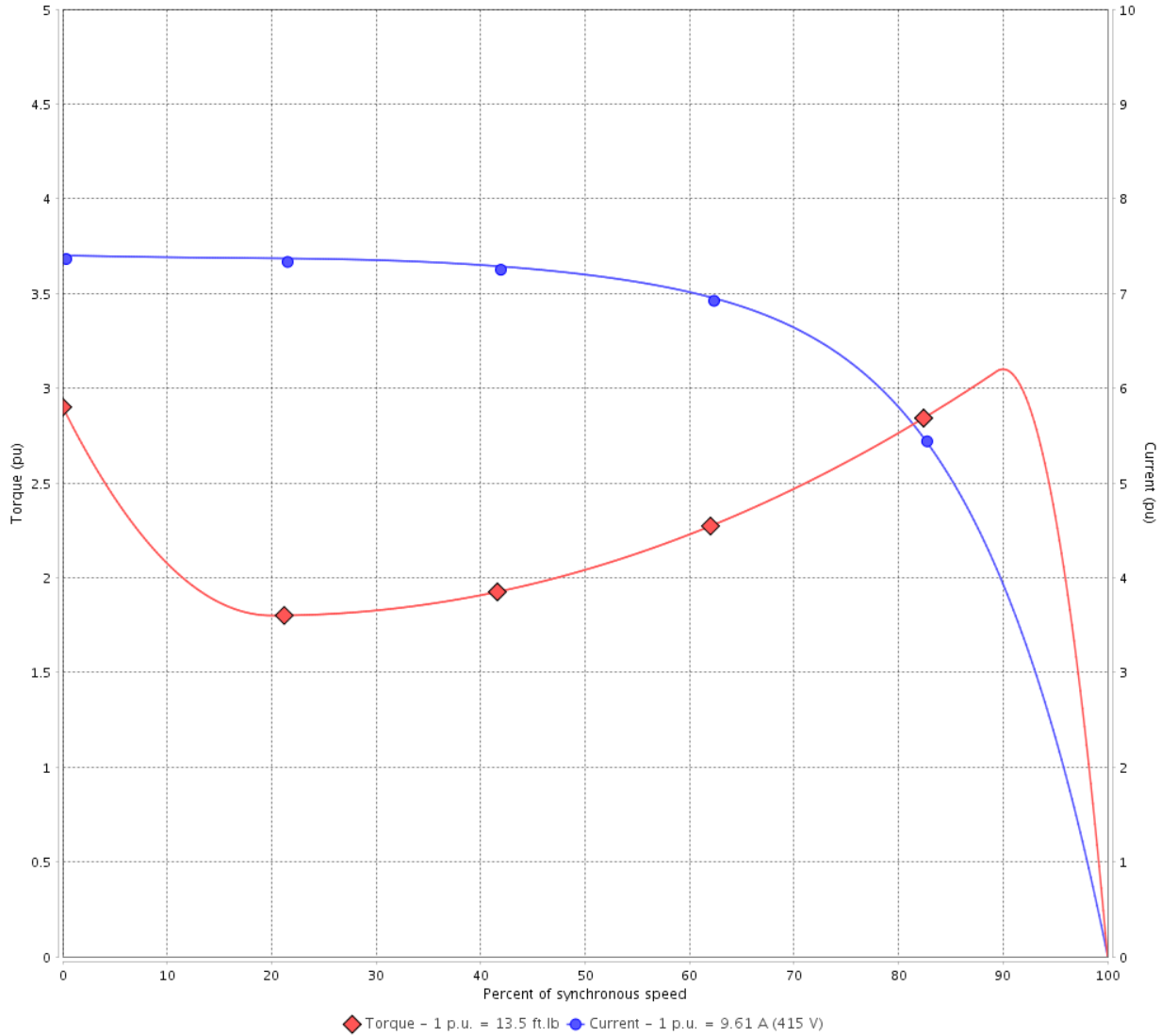
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current	: 9.61 A	Moment of inertia (J)	: 0.4696 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.5 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2920 rpm	Design	: B

Locked rotor time : 46s (cold) 26s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 6 / 22	Revision
Checked by				
Date	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

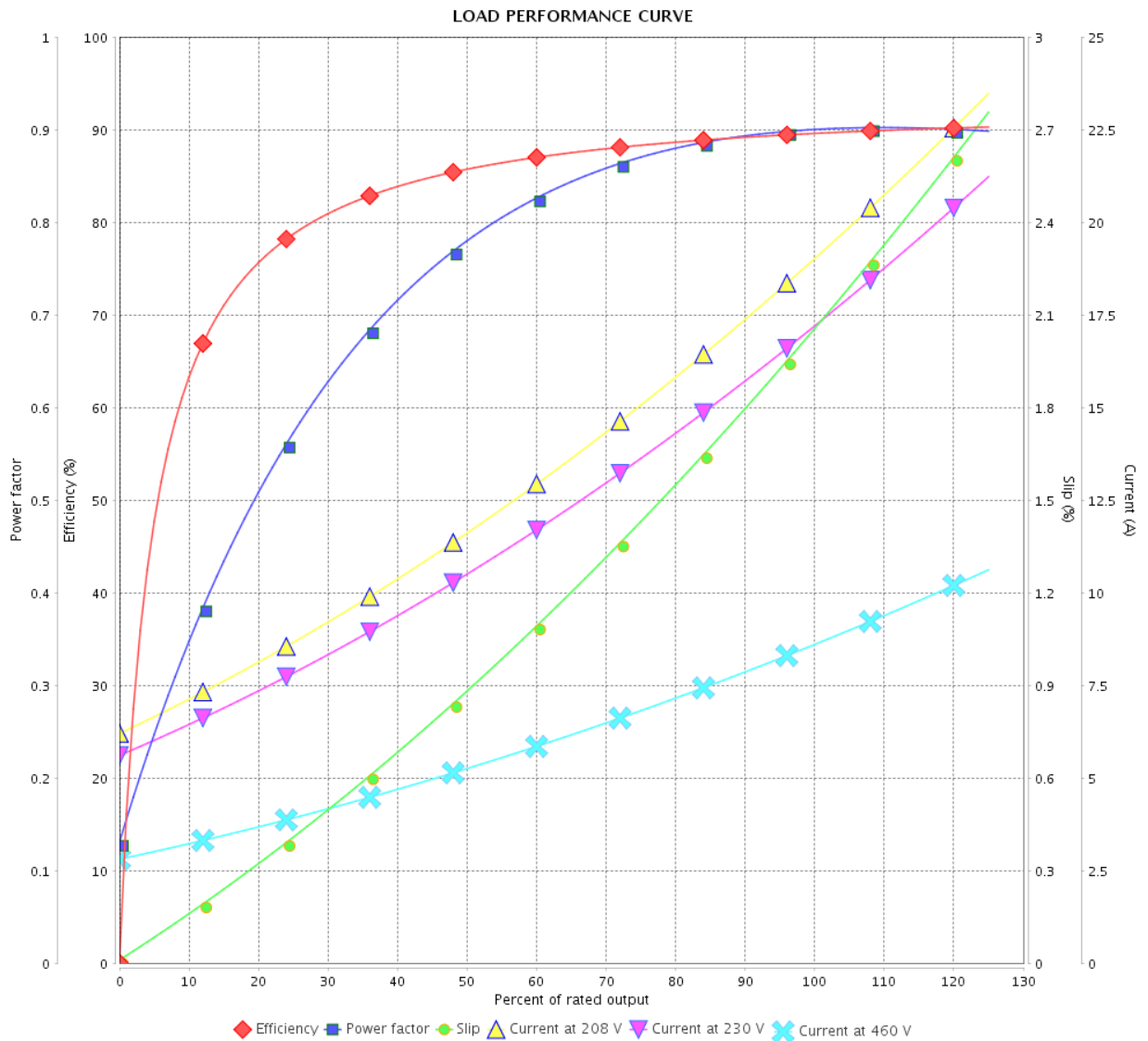


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC



Performance : 230/460 V 60 Hz 2P

Rated current : 17.1/8.57 A
 LRC : 7.0
 Rated torque : 11.2 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 330 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.4696 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		7 / 22		
Date		13/04/2022		

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



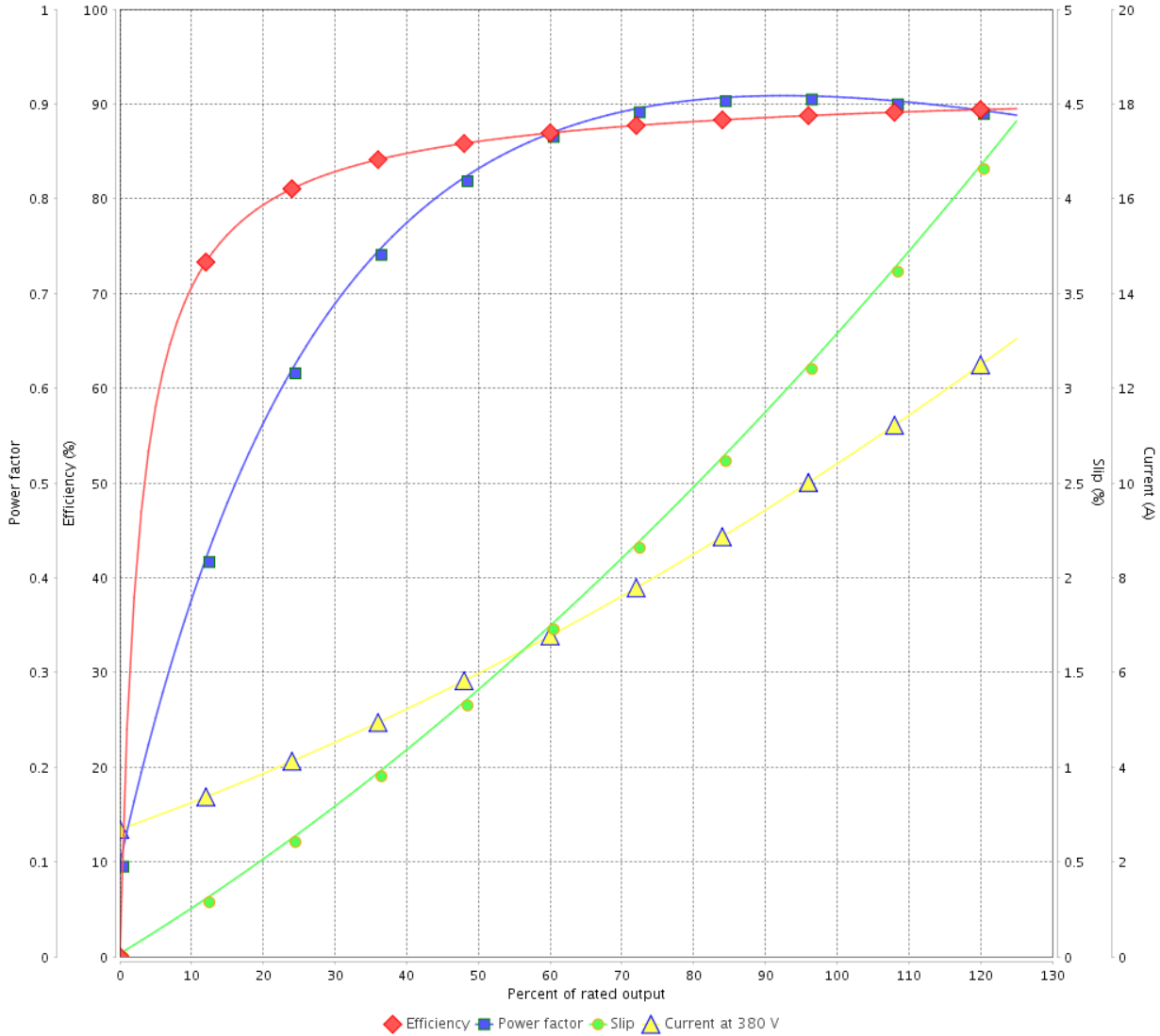
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current : 10.3 A
 LRC : 6.2
 Rated torque : 13.6 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.4696 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	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

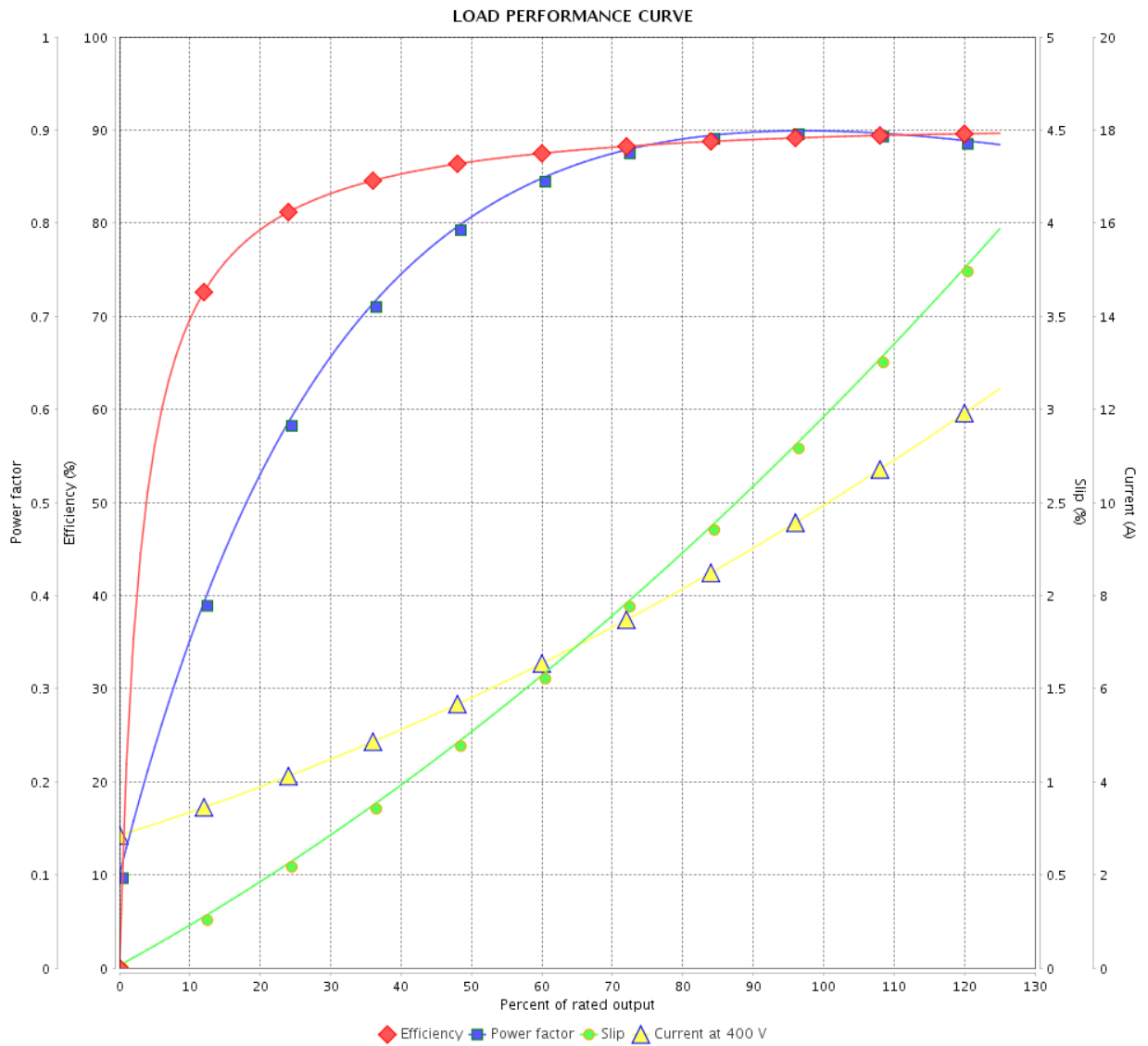


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC



Performance : 400 V 50 Hz 2P IE3

Rated current : 9.89 A
 LRC : 6.8
 Rated torque : 13.5 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 270 %
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.4696 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		9 / 22		
Date		13/04/2022		

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



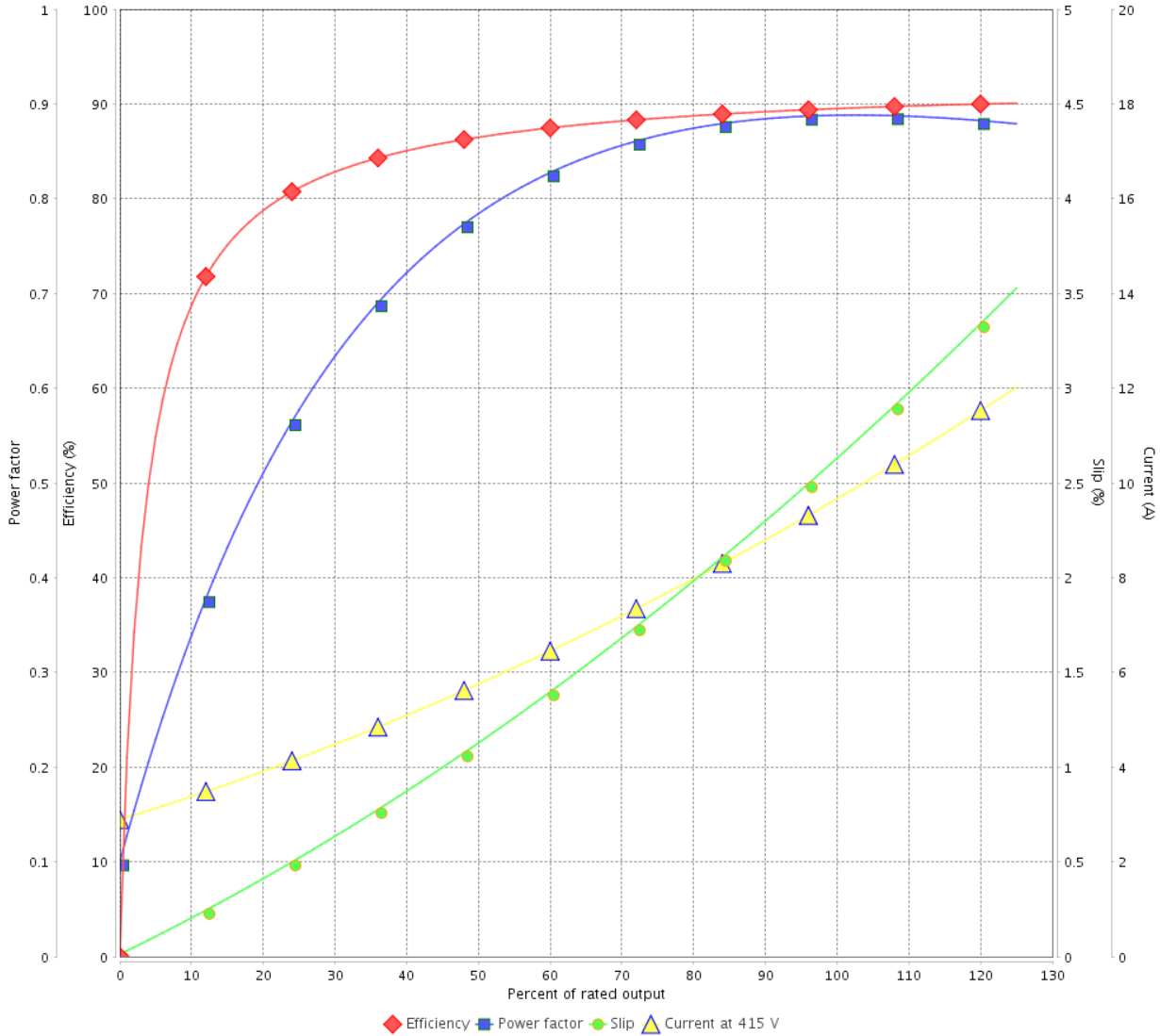
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current : 9.61 A
 LRC : 7.4
 Rated torque : 13.5 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 310 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.4696 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	13/04/2022			

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14284316
 Catalog # : 00736XT3E213TC

Performance : 230/460 V 60 Hz 2P

Rated current : 17.1/8.57 A	Moment of inertia (J) : 0.4696 sq.ft.lb
LRC : 7.0	Duty cycle : Cont.(S1)
Rated torque : 11.2 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.15
Breakdown torque : 330 %	Temperature rise : 80 K
Rated speed : 3525 rpm	Design : B

Heating constant

Cooling constant

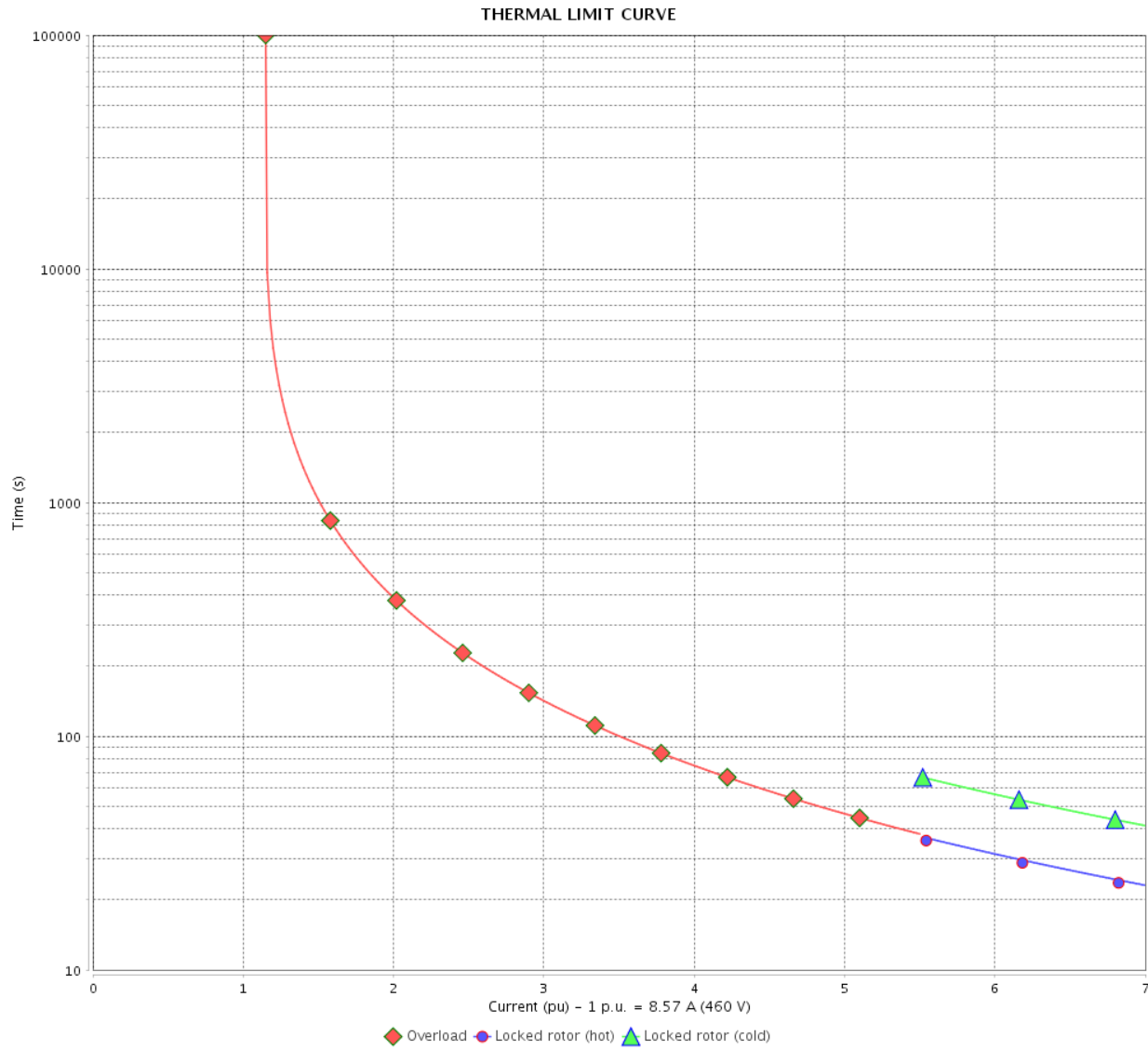
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 11 / 22	Revision
Checked by				
Date	13/04/2022			

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		13/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

Performance : 380 V 50 Hz 2P IE2

Rated current : 10.3 A
 LRC : 6.2
 Rated torque : 13.6 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.4696 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Heating constant

Cooling constant

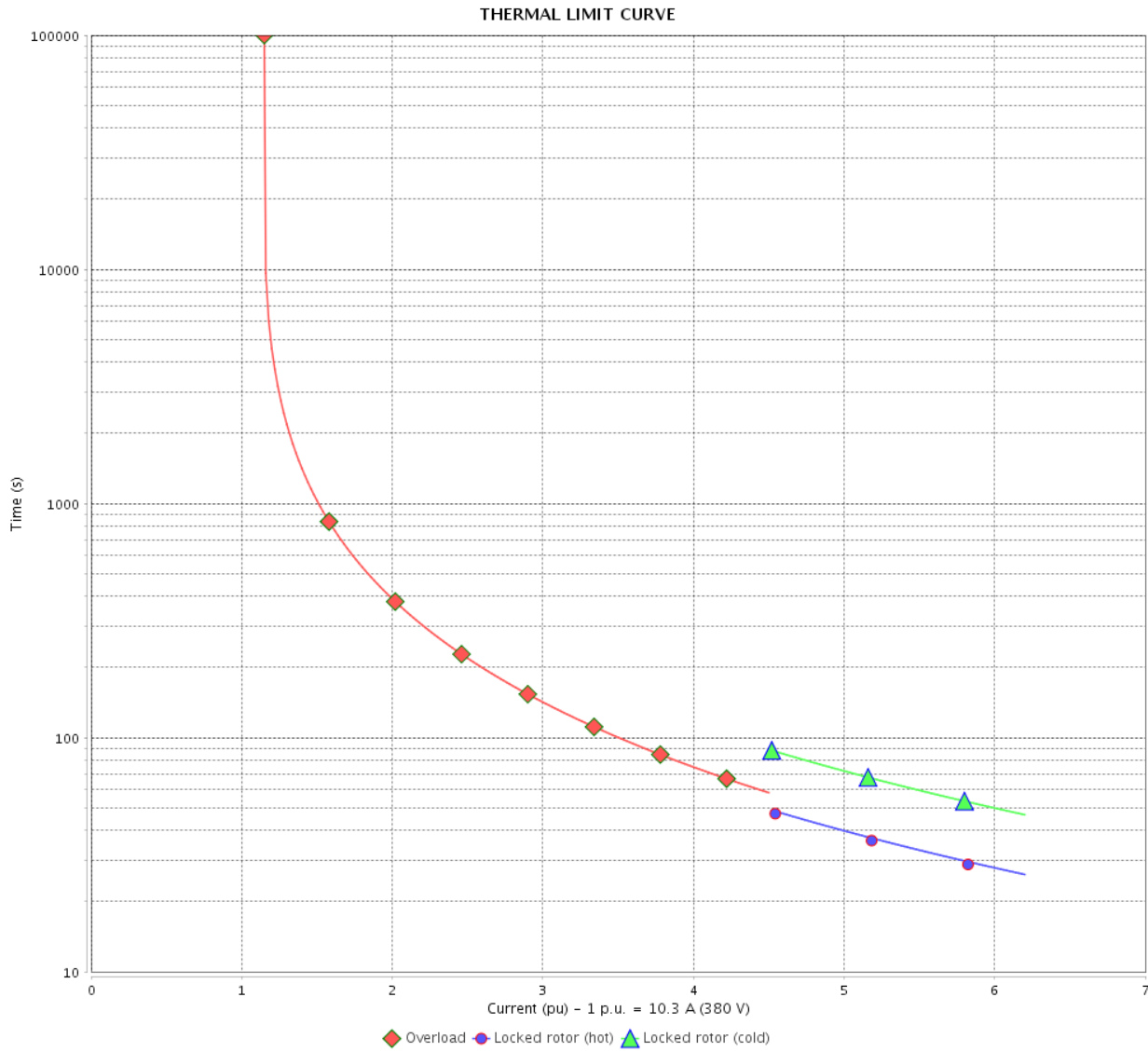
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date	13/04/2022			

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		13/04/2022		

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

Performance : 400 V 50 Hz 2P IE3

Rated current : 9.89 A
LRC : 6.8
Rated torque : 13.5 ft.lb
Locked rotor torque : 210 %
Breakdown torque : 270 %
Rated speed : 2910 rpm

Moment of inertia (J) : 0.4696 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

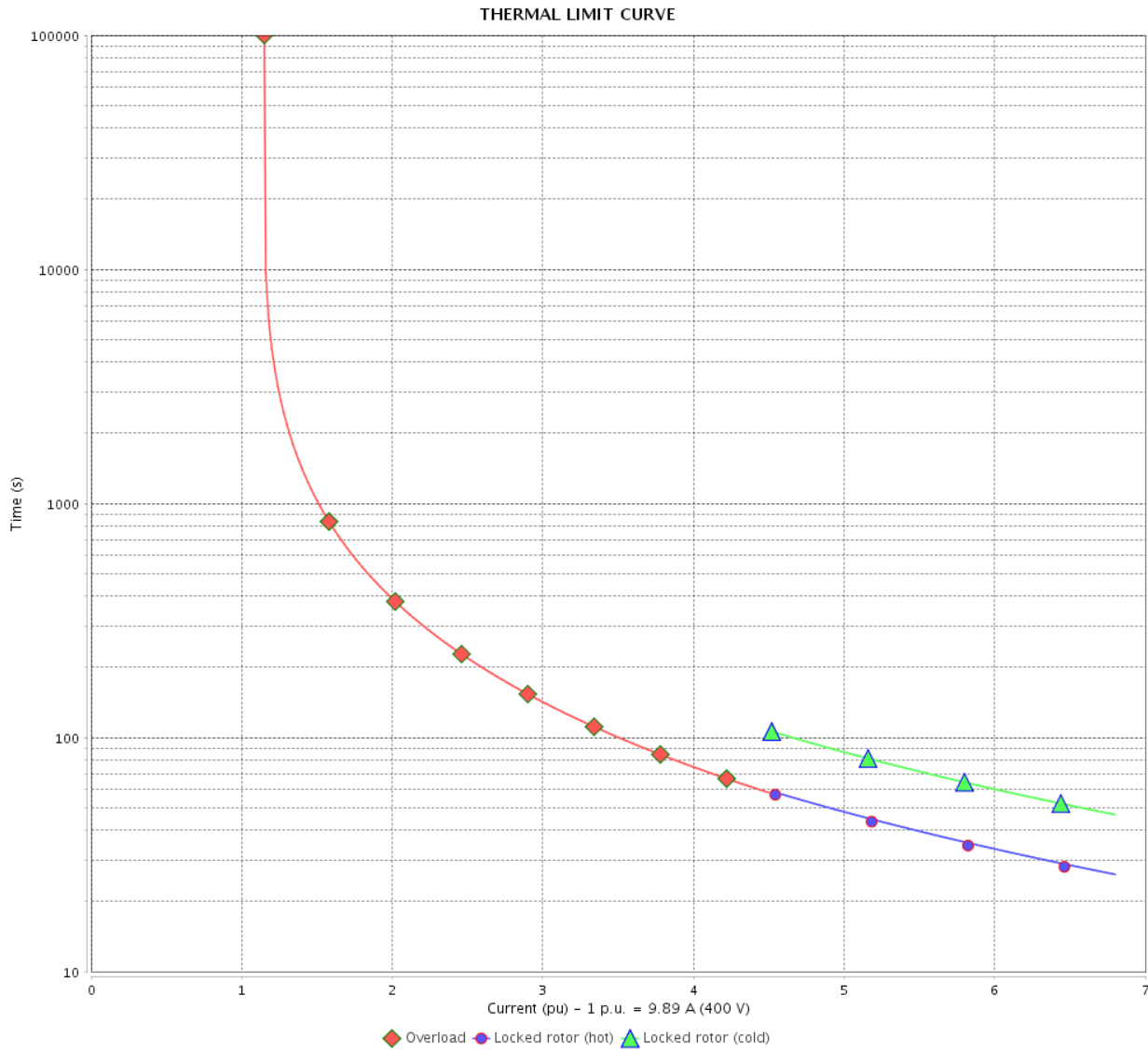
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		15 / 22	

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		13/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 14284316
 Catalog # : 00736XT3E213TC

Performance : 415 V 50 Hz 2P IE3

Rated current : 9.61 A	Moment of inertia (J) : 0.4696 sq.ft.lb
LRC : 7.4	Duty cycle : Cont.(S1)
Rated torque : 13.5 ft.lb	Insulation class : F
Locked rotor torque : 290 %	Service factor : 1.00
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 2920 rpm	Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		17 / 22		
Date	13/04/2022			

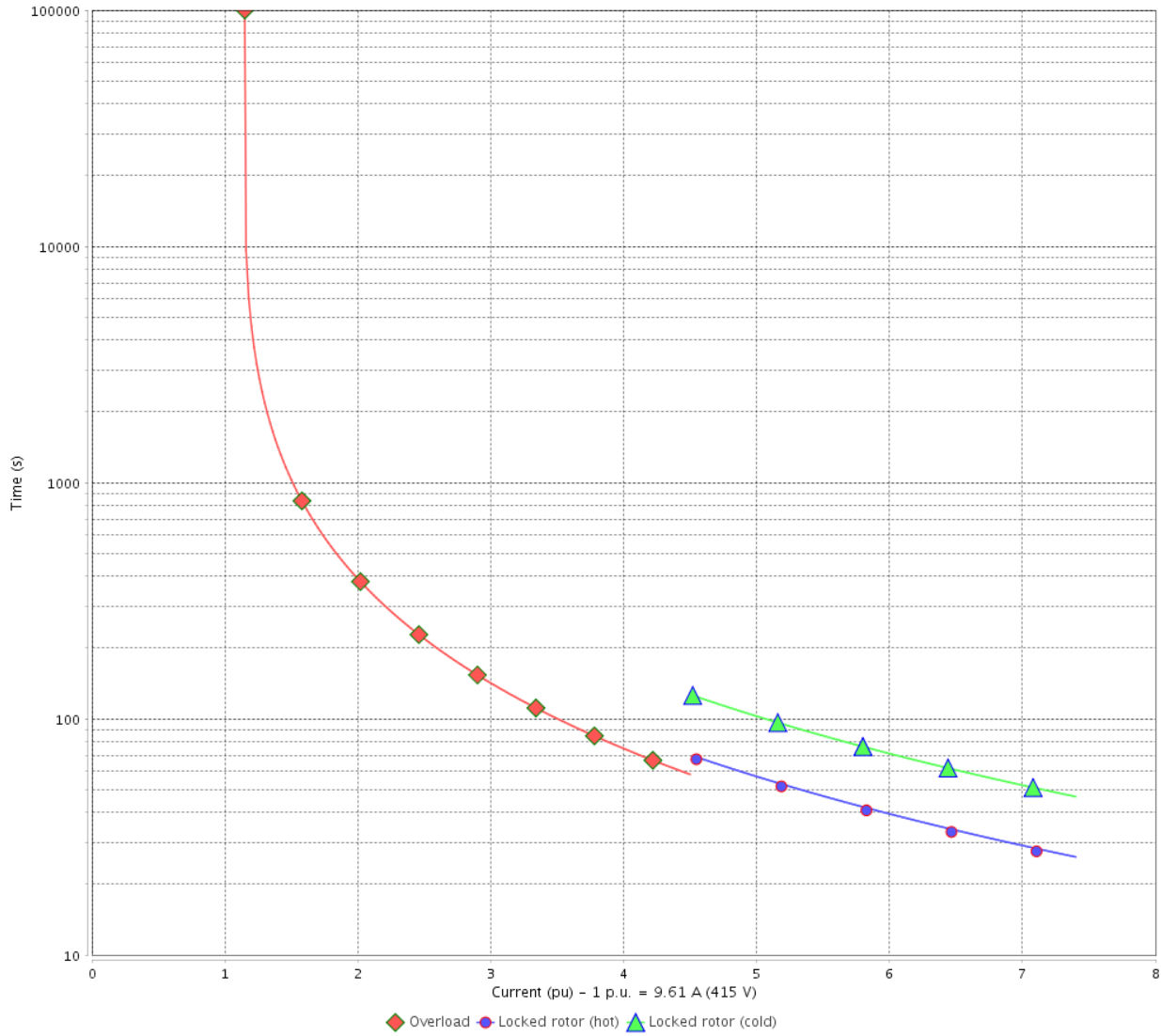
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

THERMAL LIMIT CURVE



Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 18 / 22	Revision
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

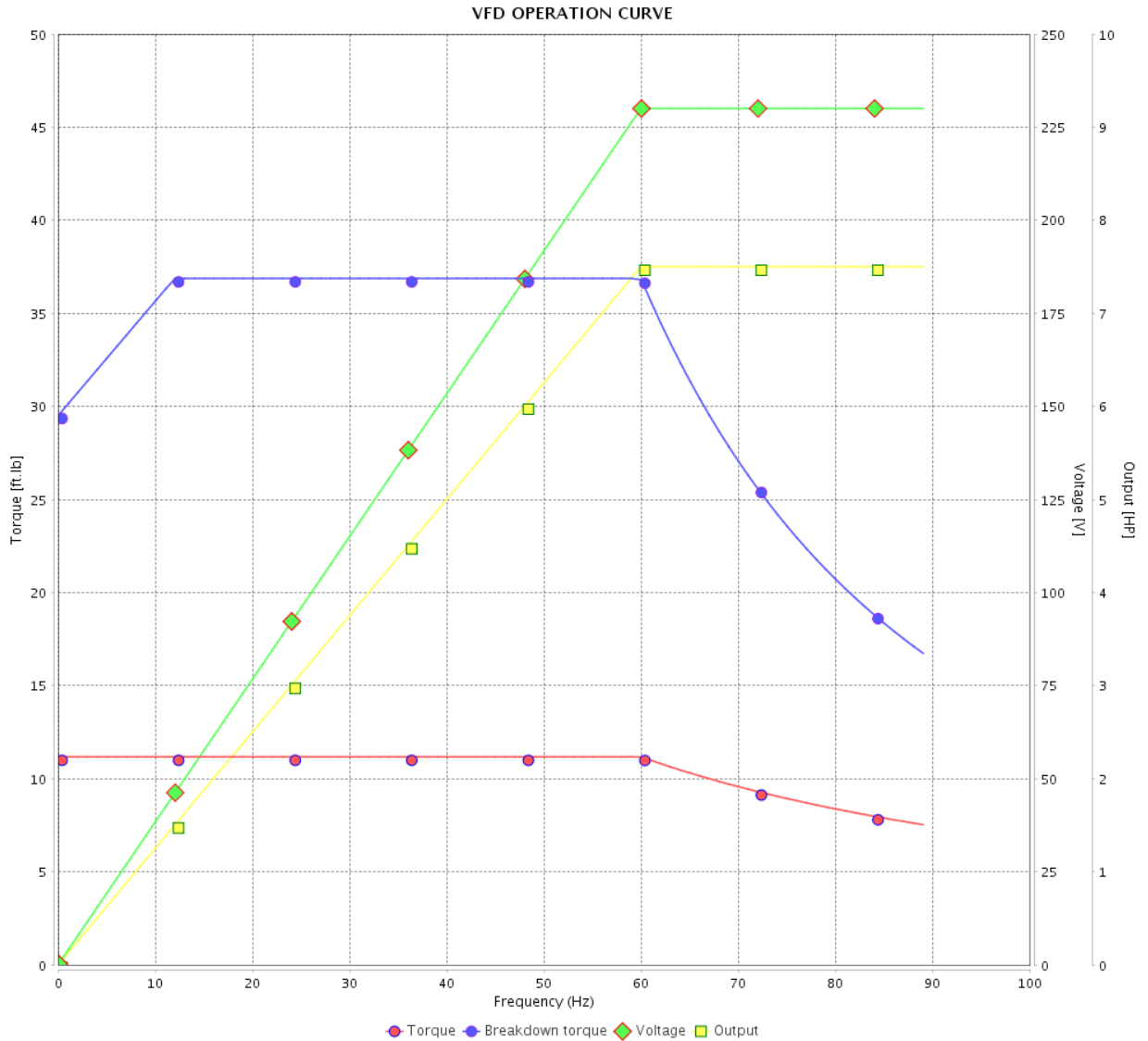


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC



Performance : 230/460 V 60 Hz 2P

Rated current : 17.1/8.57 A
 LRC : 7.0
 Rated torque : 11.2 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 330 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.4696 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	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



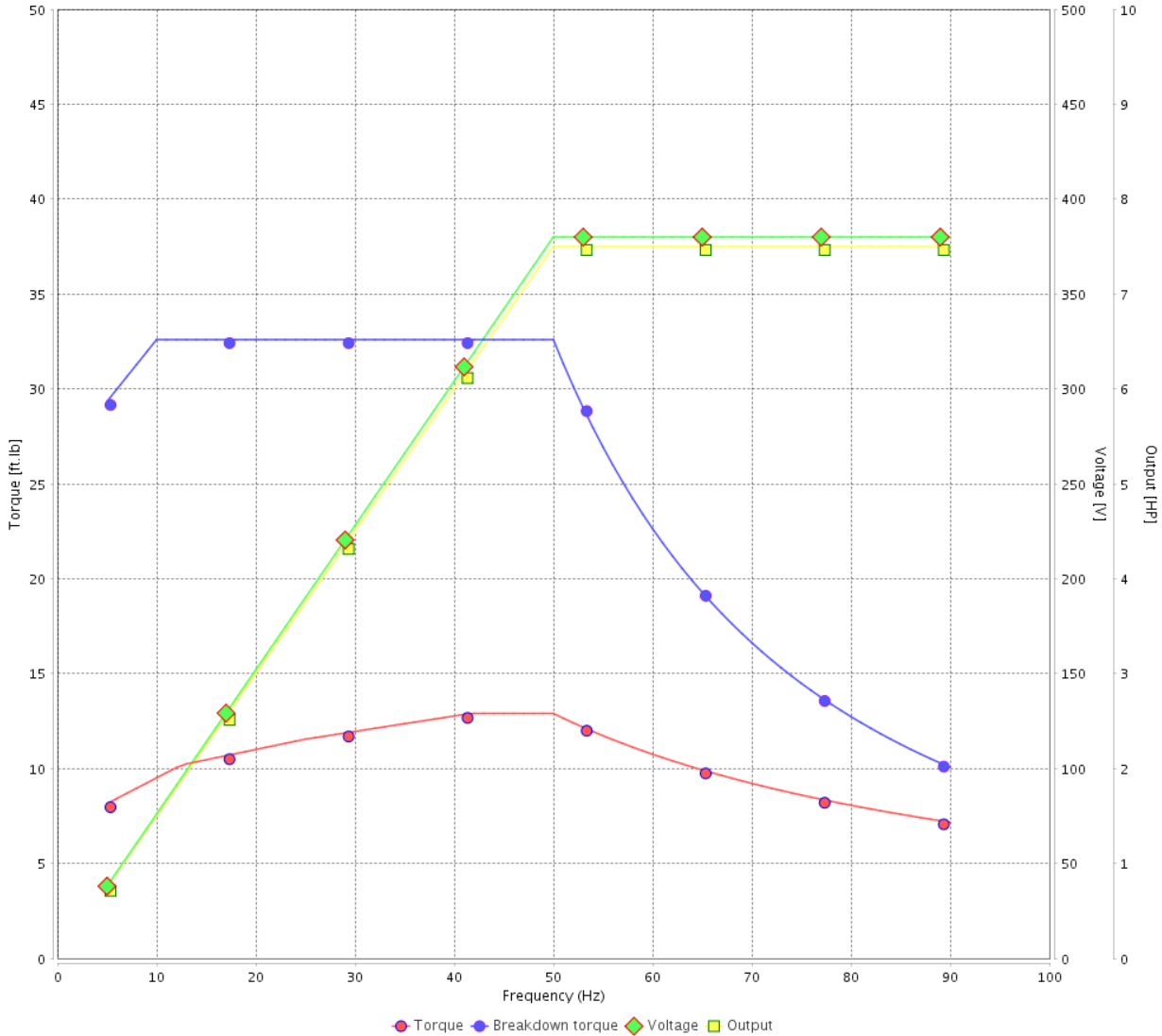
Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

VFD OPERATION CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current : 10.3 A
 LRC : 6.2
 Rated torque : 13.6 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.4696 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		20 / 22		
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

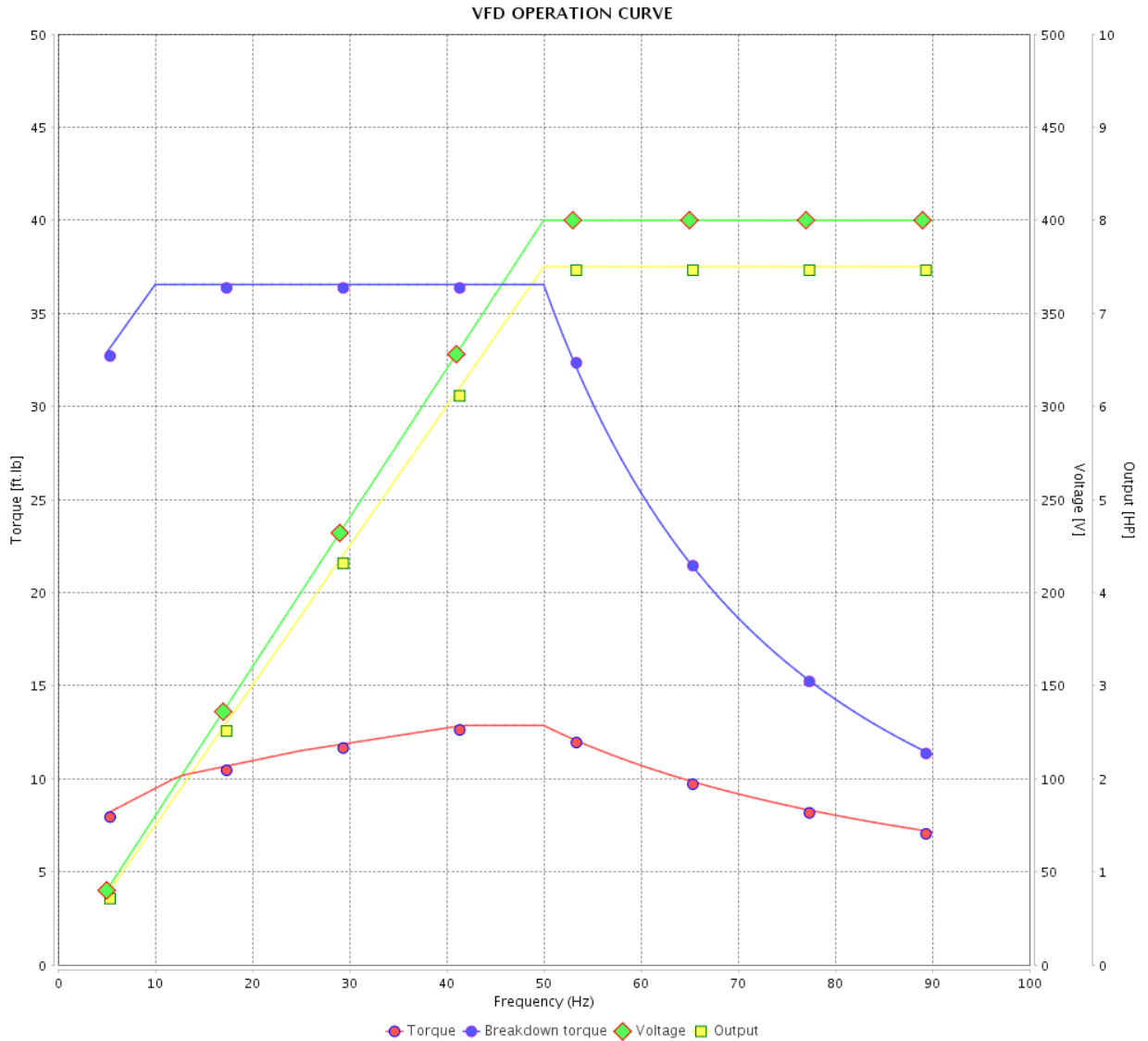


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC



Performance : 400 V 50 Hz 2P IE3

Rated current : 9.89 A
 LRC : 6.8
 Rated torque : 13.5 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 270 %
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.4696 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	13/04/2022			
				Revision

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



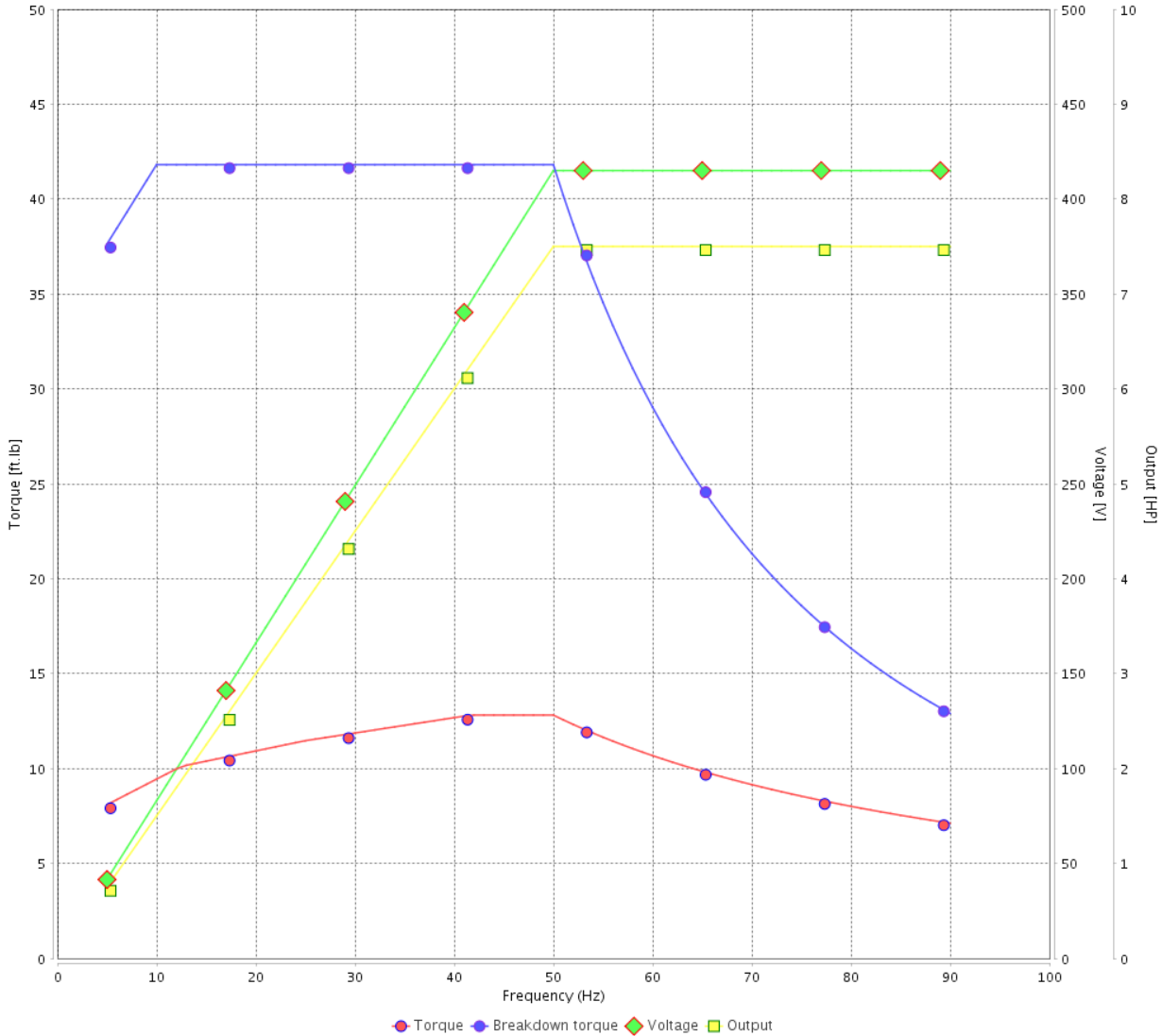
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14284316

Catalog # : 00736XT3E213TC

VFD OPERATION CURVE

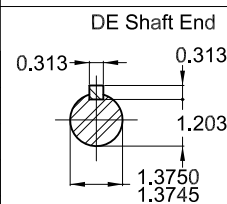
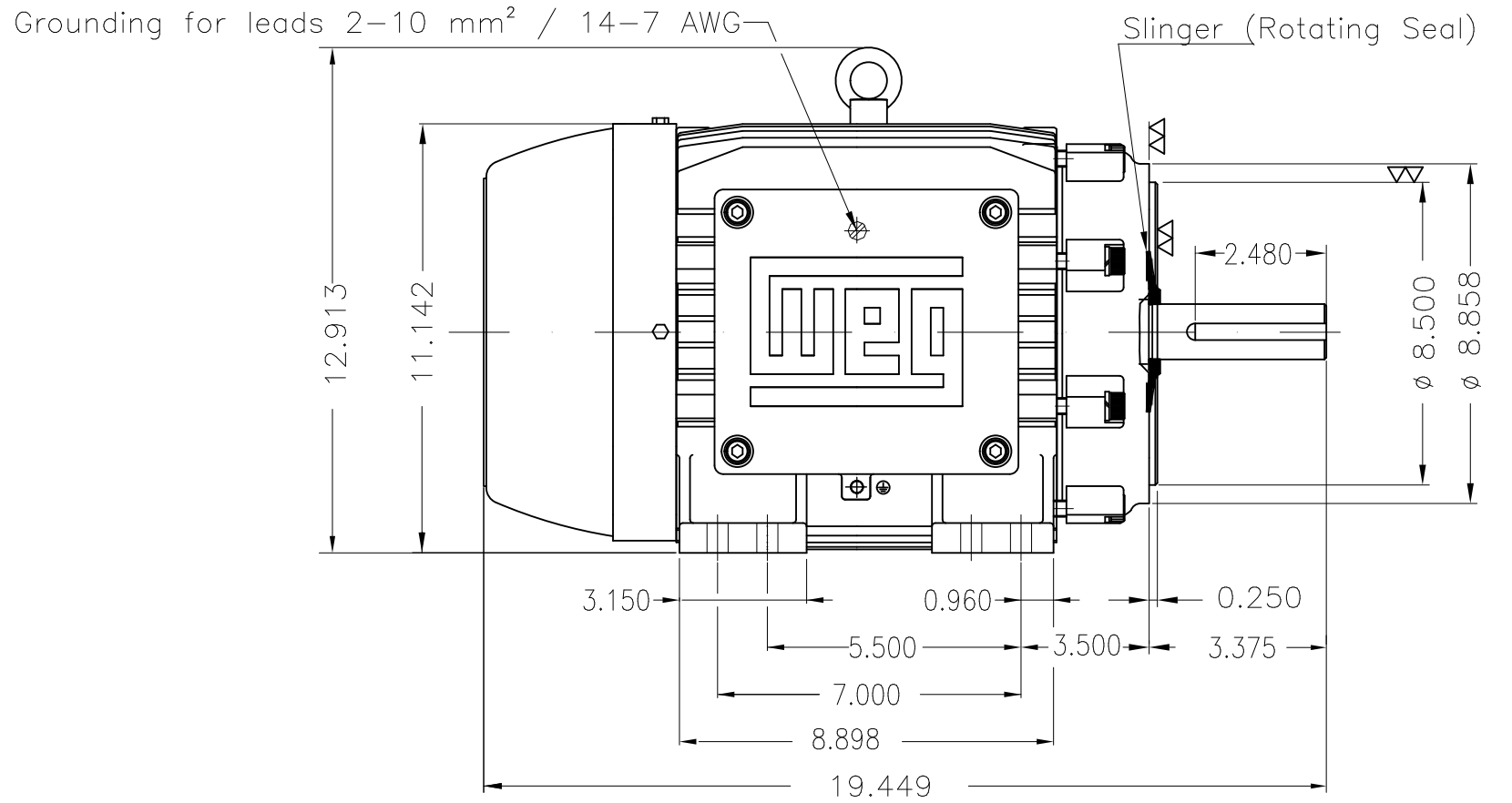
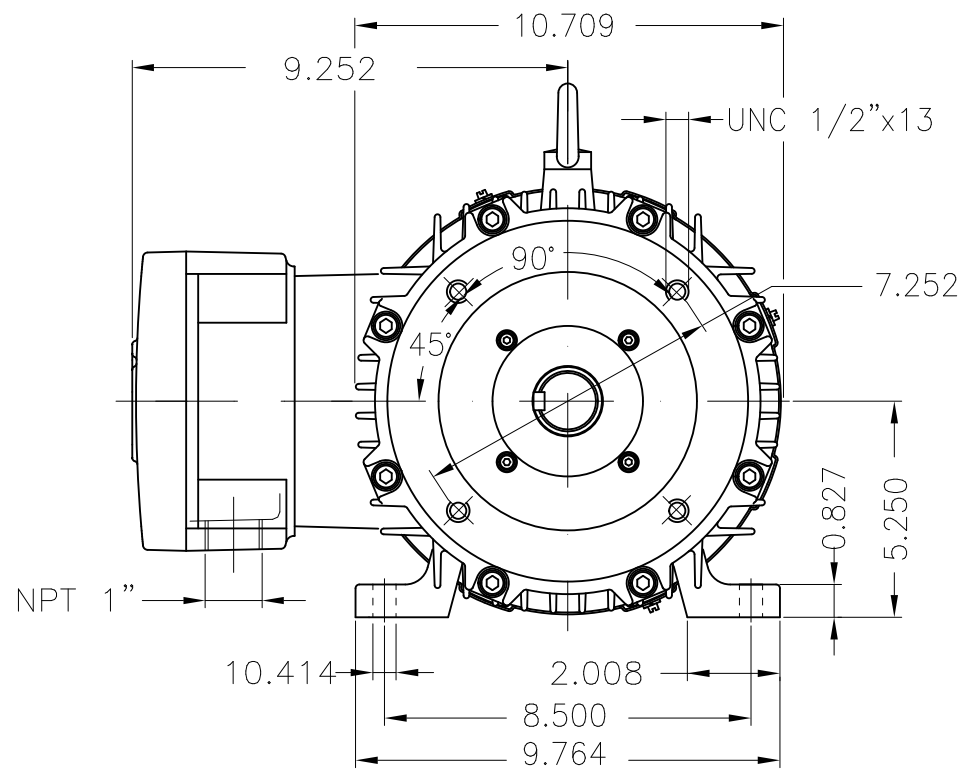


Performance : 415 V 50 Hz 2P IE3

Rated current : 9.61 A
 LRC : 7.4
 Rated torque : 13.5 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 310 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.4696 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			22 / 22	
Date	13/04/2022			



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

7.5 HP 02 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 213/5TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
 WDD



SHEET 1 / 1

MADE IN BRAZIL


W21X NEMA
Premium

14284316

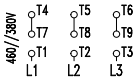
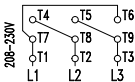
CC029A

Inverter Duty Motor
Severe Duty


LISTED

MODEL 00736XT3E213TC

PH 3	FR 213/5TC		
HP(kW) 7.5(5.5)		HZ 60	IP55
V 230/460		A 17.1/8.57	
RPM 3535		NEMA NOM EFF 89.5%	
PF 0.90		SFA 19.7/9.86	DES B
INS CL F Δ T 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE H	ALT 1000 m.a.s.l.
AMB 40°C	USABLE @208V	19.8 A	SF 1.15 SFA 22.8
AMB 55°C SF1.0			
7.5HP 5.5kW 50Hz 380V 10.3A 2910RPM SF1.00 EFF 89.0% (IE2)			



→ 6308-2RS MOBIL POLYREX EM
 → 6207-2RS

209 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.