

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12759402
		Catalog # :	01536ET3E254T-SG
Frame	: 254/6T	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	: 180 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.8718 sq.ft.lb
Design	: B		
Output [HP]	15	12.5	12.5
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	34.8/17.4	35.4/17.7	32.3/17.1
L. R. Amperes [A]	237/118	244/122	245/130
LRC [A]	6.8x(Code G)	6.9x(Code H)	7.6x(Code J)
No load current [A]	13.0/6.50	13.6/6.80	13.9/7.39
Rated speed [RPM]	3525	2920	2930
Slip [%]	2.08	2.67	2.33
Rated torque [ft.lb]	22.3	22.5	22.4
Locked rotor torque [%]	200	190	210
Breakdown torque [%]	300	290	330
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	25s (cold) 14s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	75.0 dB(A)	72.0 dB(A)	72.0 dB(A)
Efficiency (%)	25%	89.2	90.7
	50%	89.5	90.2
	75%	91.0	90.6
	100%	91.0	89.8
Power Factor	25%	0.47	0.47
	50%	0.73	0.74
	75%	0.83	0.84
	100%	0.87	0.88
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 264 lb
Lubrication interval	: 15797 h 20000 h	Max. compression	: 444 lb
Lubricant amount	: 13 g 8 g		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 38.5A SF 1.00 SFA 38.5A			
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
Date	13/04/2022		Revision
			1 / 16

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



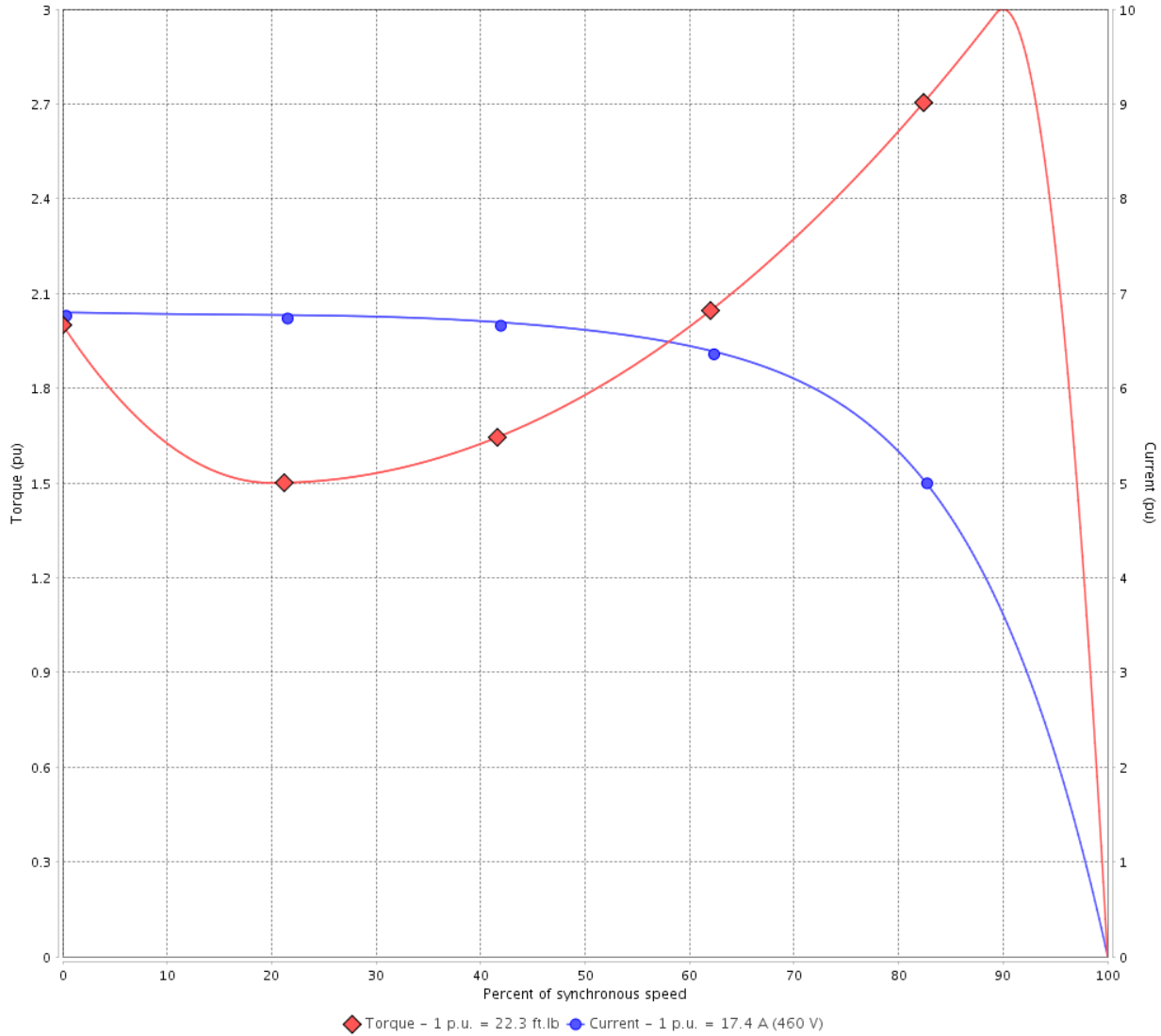
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 34.8/17.4 A	Moment of inertia (J)	: 0.8718 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3525 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 16	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



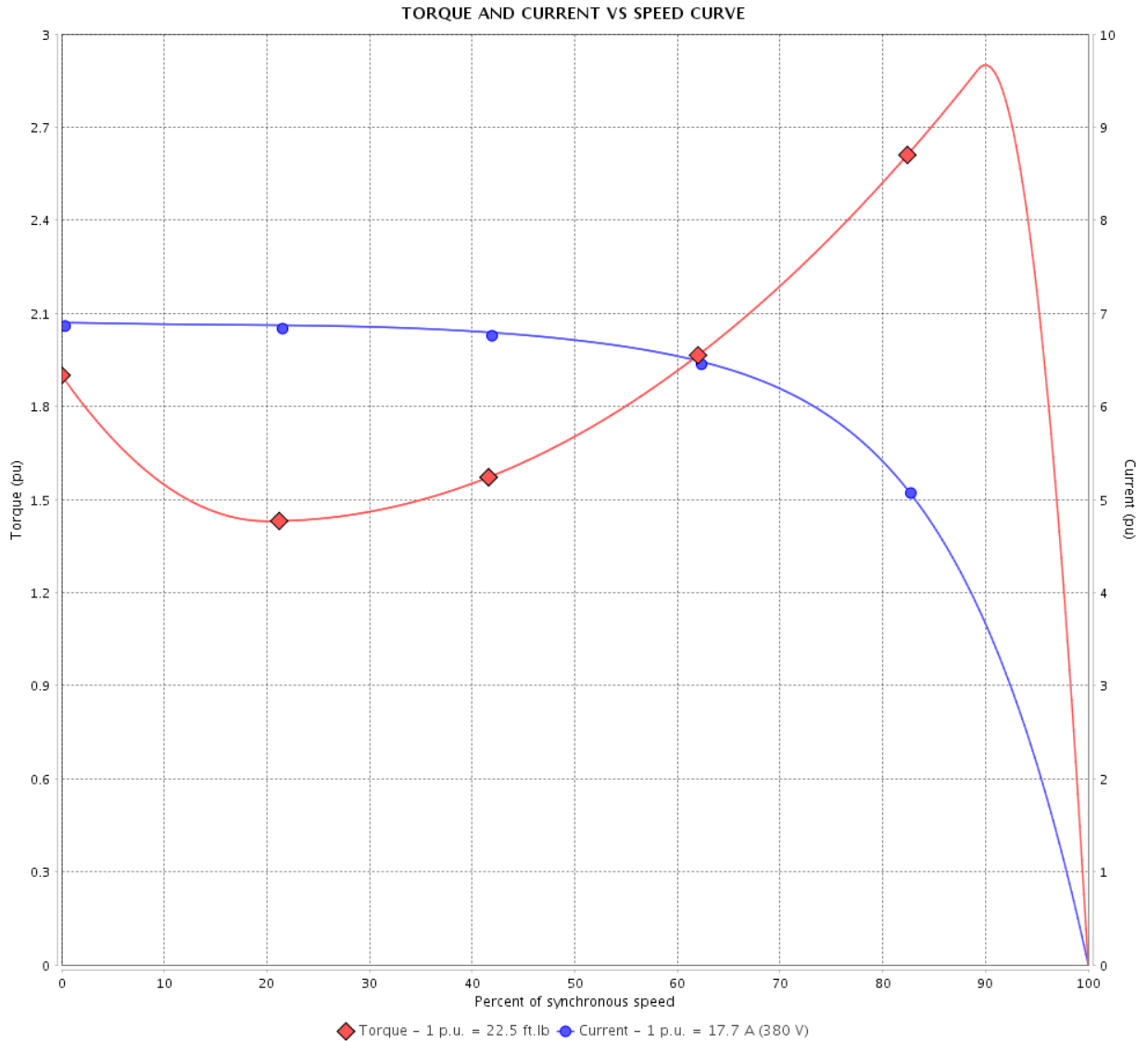
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG



Performance : 190/380 V 50 Hz 2P

Rated current : 35.4/17.7 A
 LRC : 6.9
 Rated torque : 22.5 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 290 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.8718 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Locked rotor time : 0s (cold) 0s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 16	Revision
Checked by				
Date	13/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



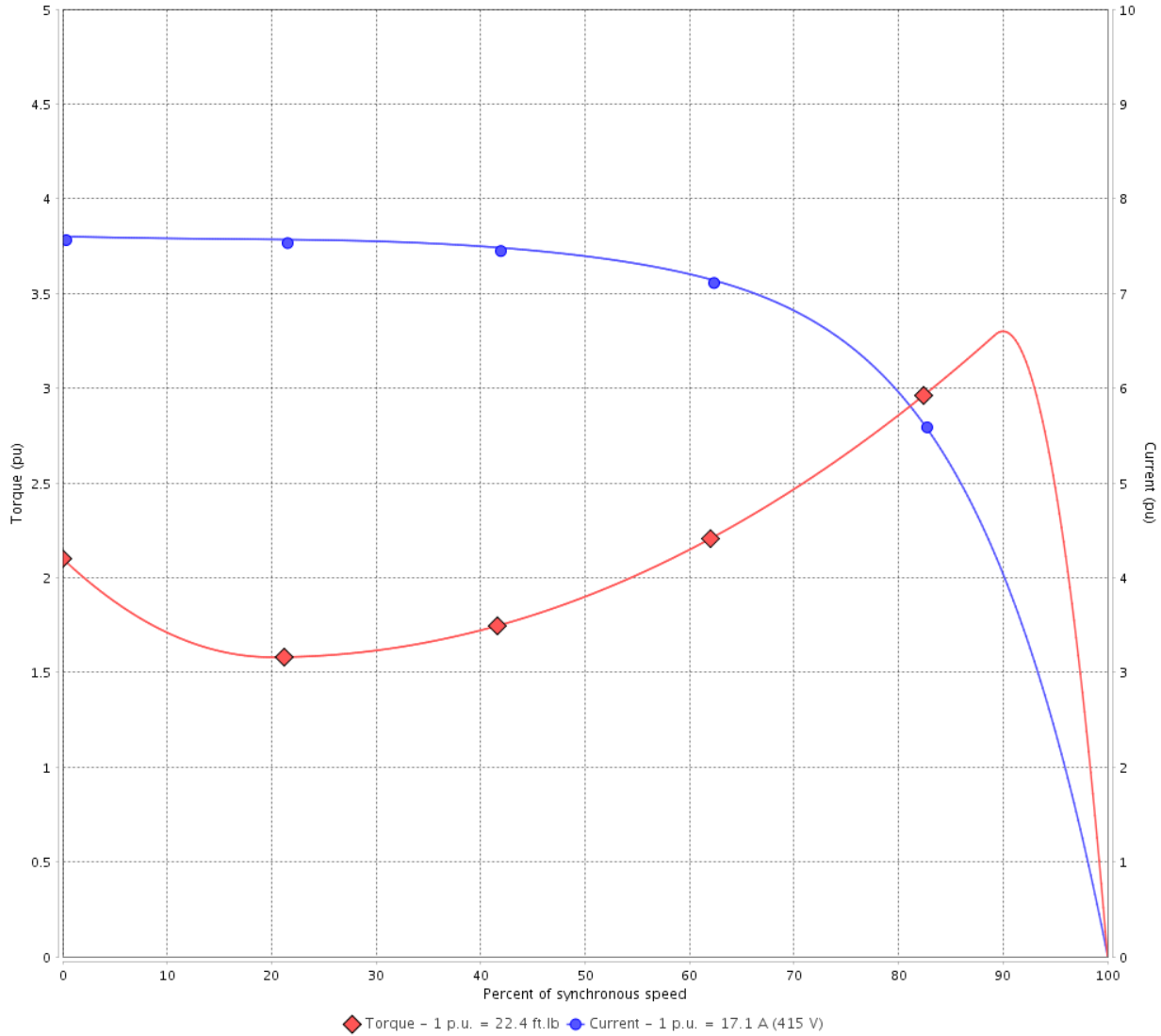
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 32.3/17.1 A	Moment of inertia (J)	: 0.8718 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 22.4 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 105 K
Rated speed	: 2930 rpm	Design	: B

Locked rotor time : 0s (cold) 0s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 16	Revision
Checked by				
Date	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

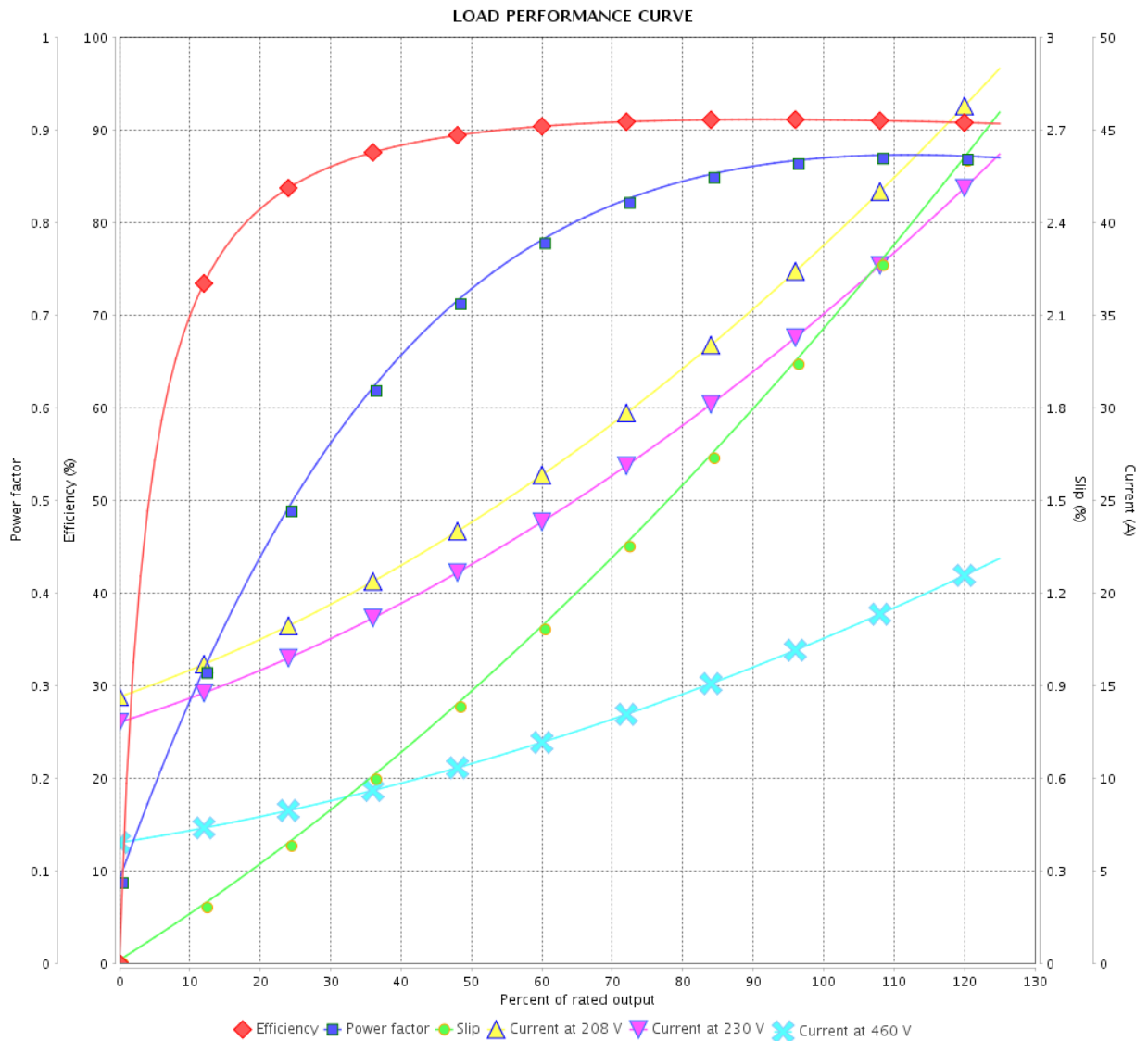


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG



Performance : 230/460 V 60 Hz 2P

Rated current : 34.8/17.4 A
 LRC : 6.8
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 300 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.8718 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

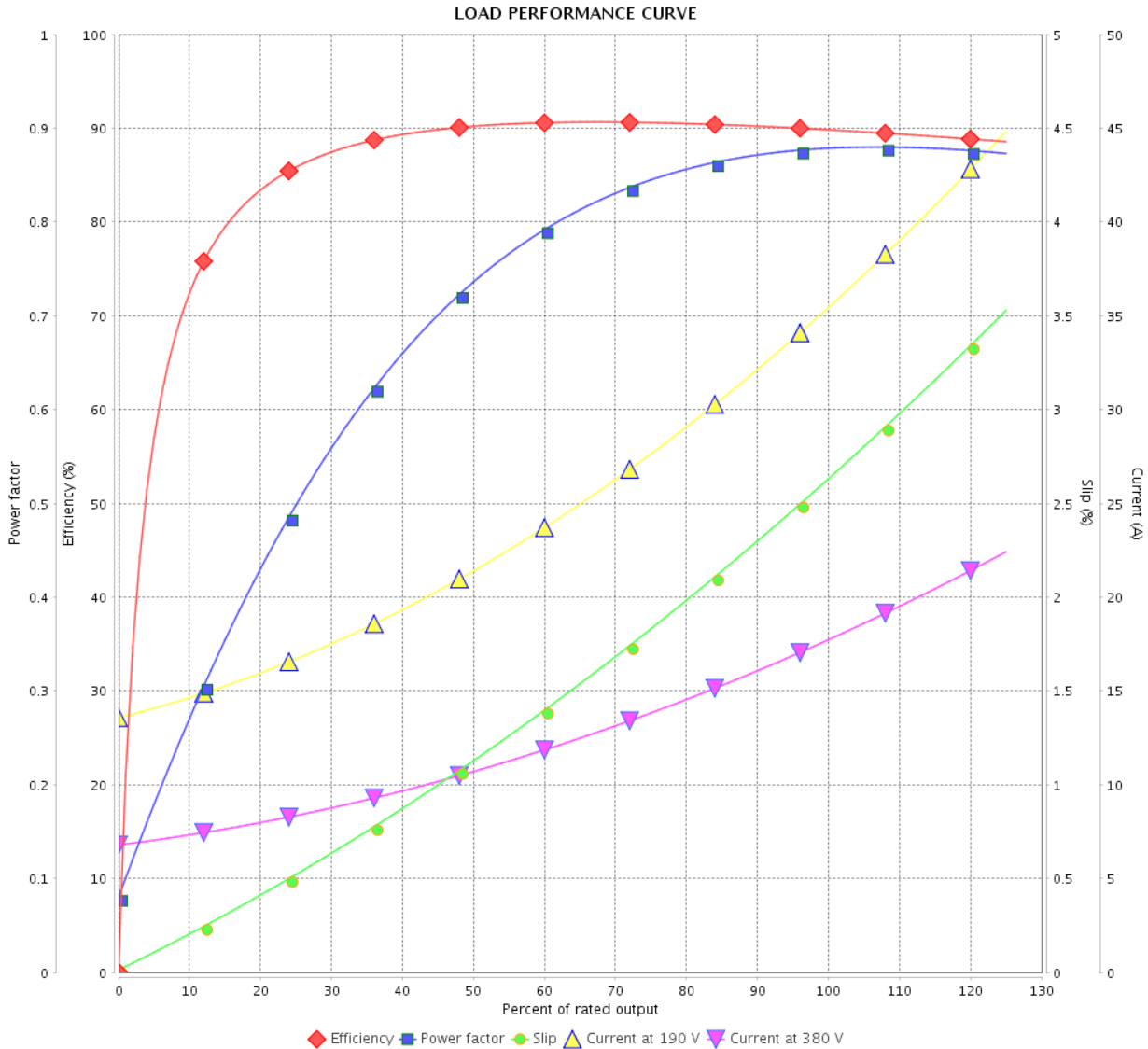


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG



Performance : 190/380 V 50 Hz 2P

Rated current : 35.4/17.7 A
 LRC : 6.9
 Rated torque : 22.5 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 290 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.8718 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			6 / 16	
Date	13/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

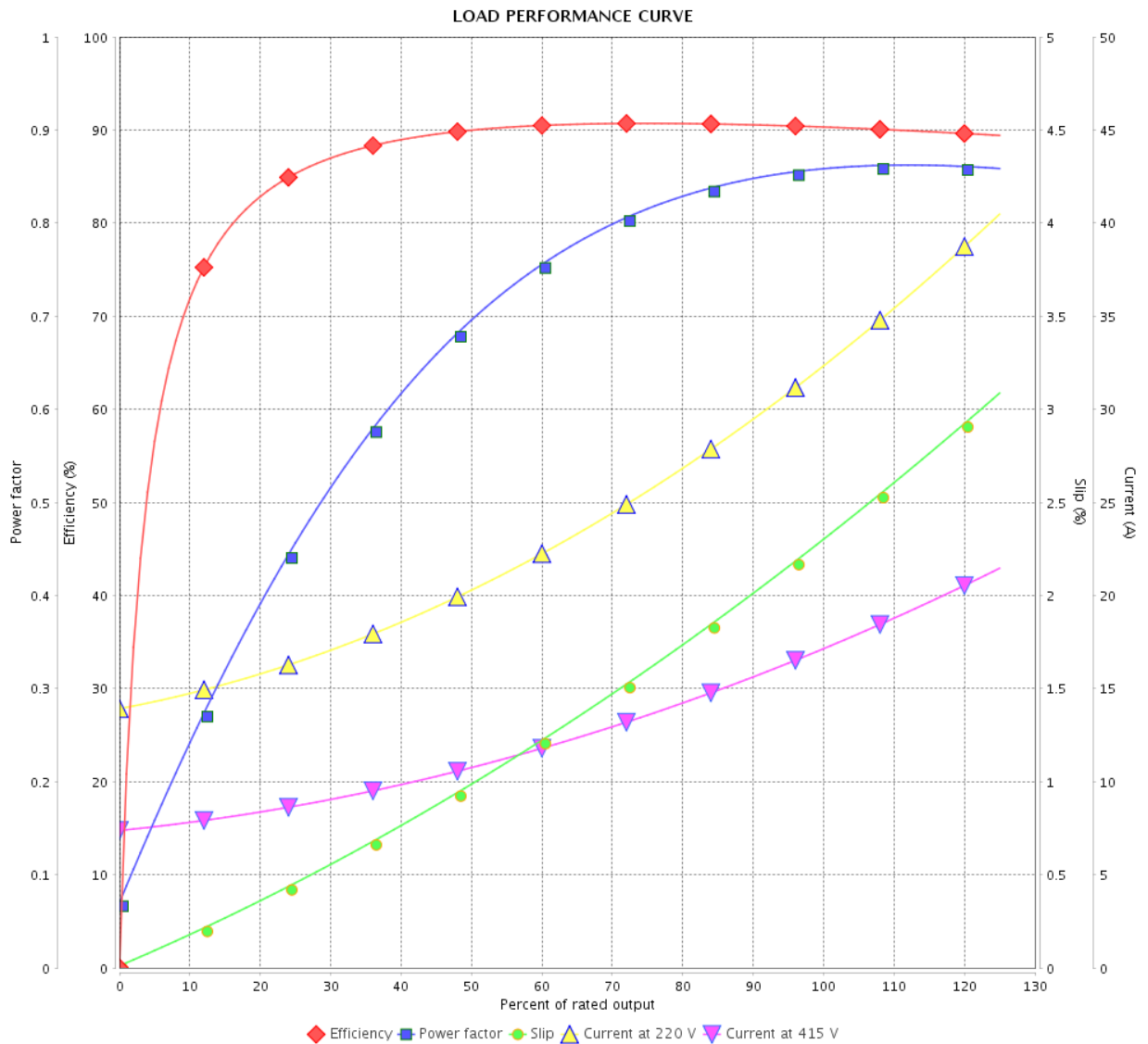


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG



Performance : 220/415 V 50 Hz 2P

Rated current : 32.3/17.1 A
 LRC : 7.6
 Rated torque : 22.4 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 330 %
 Rated speed : 2930 rpm

Moment of inertia (J) : 0.8718 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12759402
Catalog # : 01536ET3E254T-SG

Performance : 230/460 V 60 Hz 2P

Rated current	: 34.8/17.4 A	Moment of inertia (J)	: 0.8718 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3525 rpm	Design	: B

Heating constant

Cooling constant

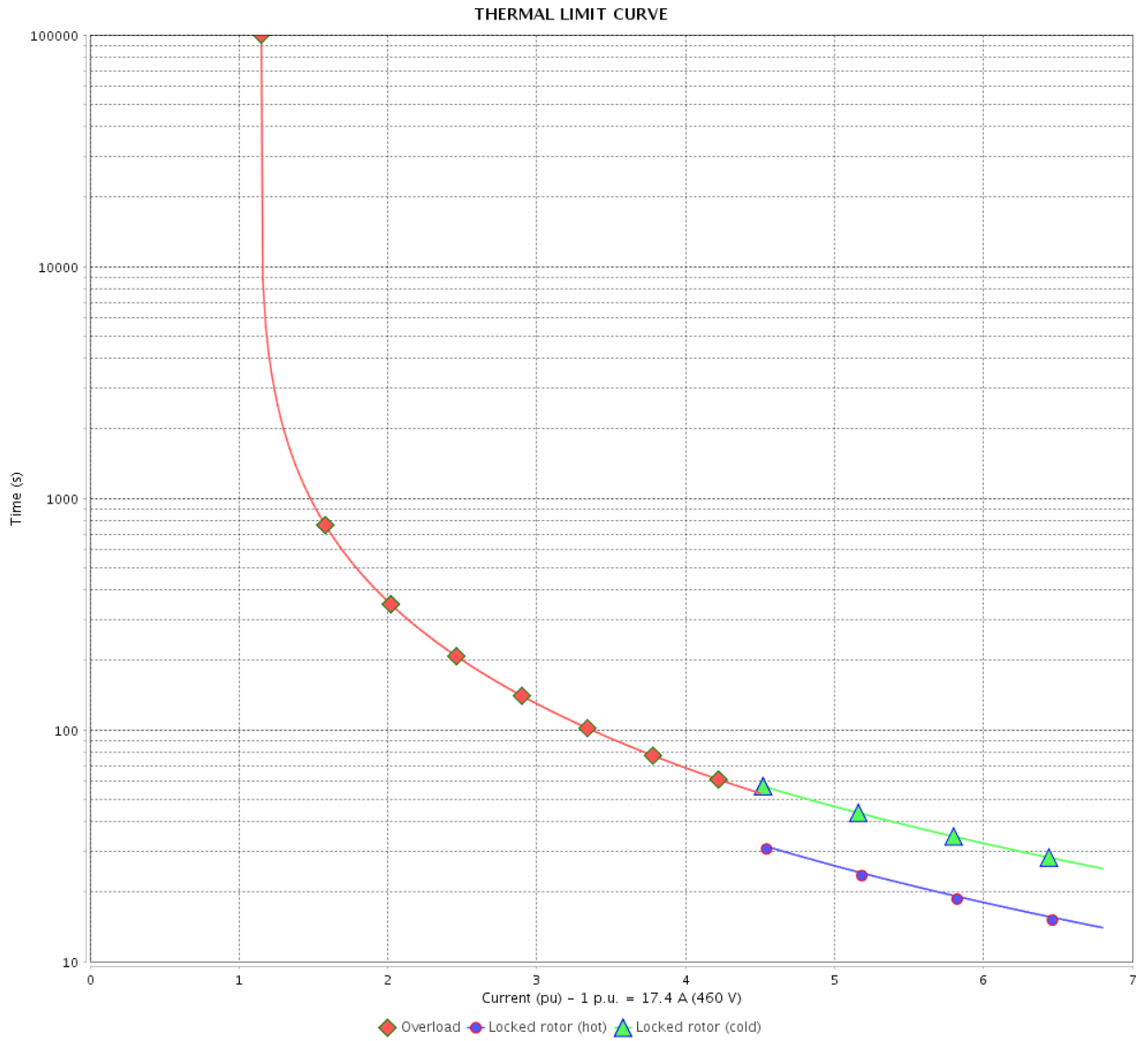
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		8 / 16	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		9 / 16		
Date		13/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12759402
Catalog # : 01536ET3E254T-SG

Performance : 190/380 V 50 Hz 2P

Rated current	: 35.4/17.7 A	Moment of inertia (J)	: 0.8718 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 22.5 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 105 K
Rated speed	: 2920 rpm	Design	: B

Heating constant

Cooling constant

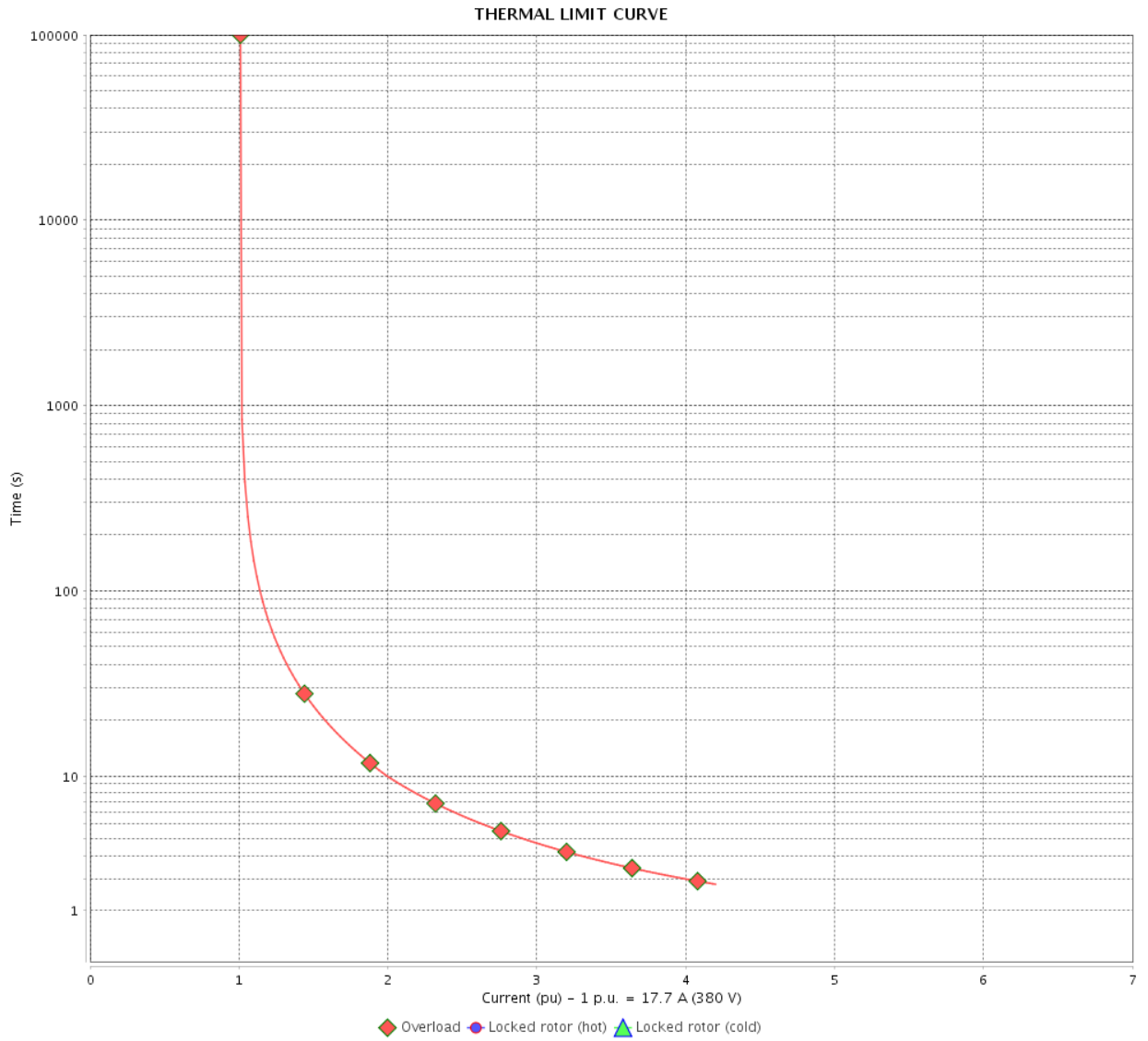
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		10 / 16	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		11 / 16		
Date		13/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12759402
Catalog # : 01536ET3E254T-SG

Performance : 220/415 V 50 Hz 2P

Rated current : 32.3/17.1 A	Moment of inertia (J) : 0.8718 sq.ft.lb
LRC : 7.6	Duty cycle : Cont.(S1)
Rated torque : 22.4 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 330 %	Temperature rise : 105 K
Rated speed : 2930 rpm	Design : B

Heating constant

Cooling constant

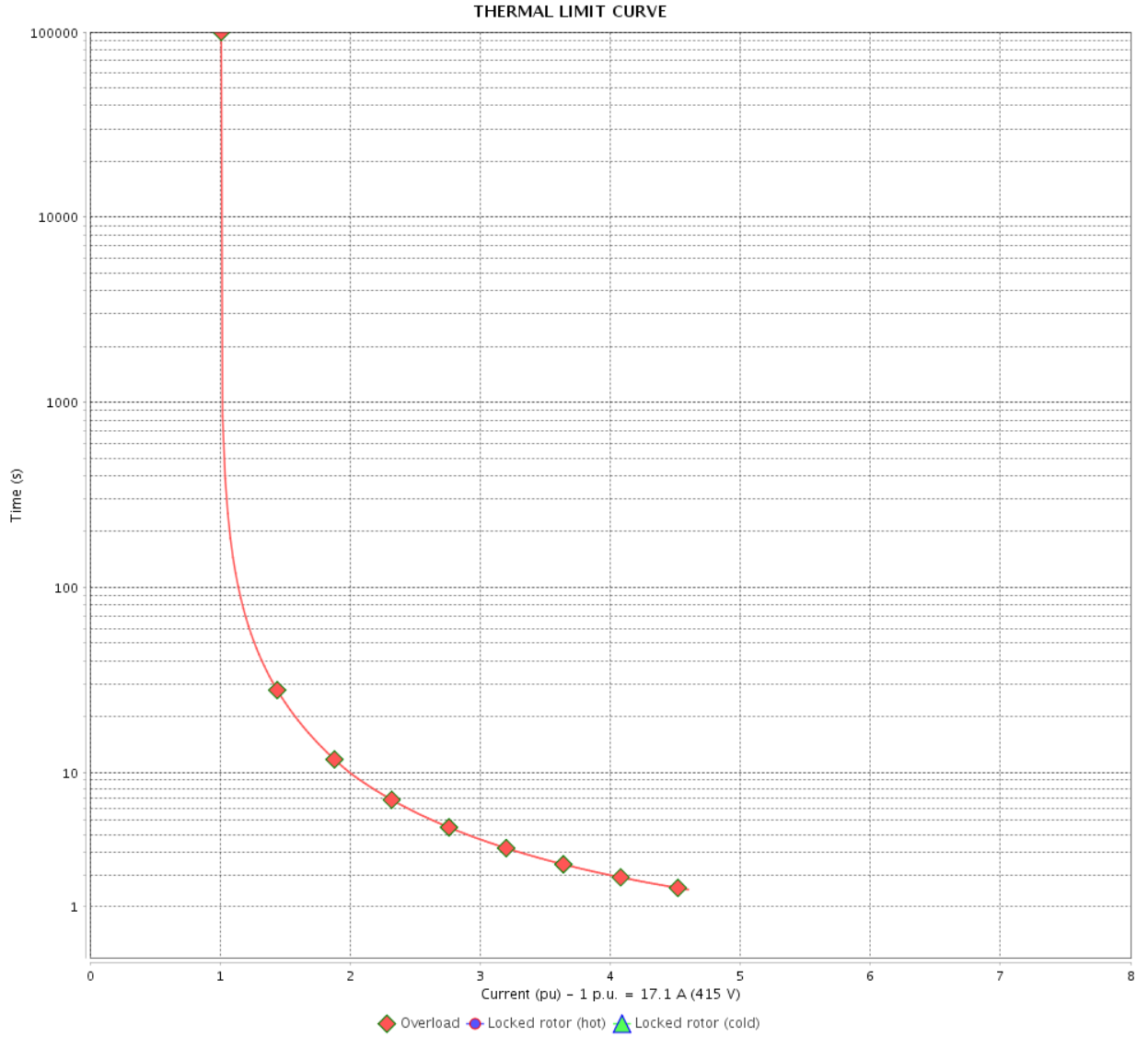
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		12 / 16	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		13 / 16		
Date		13/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



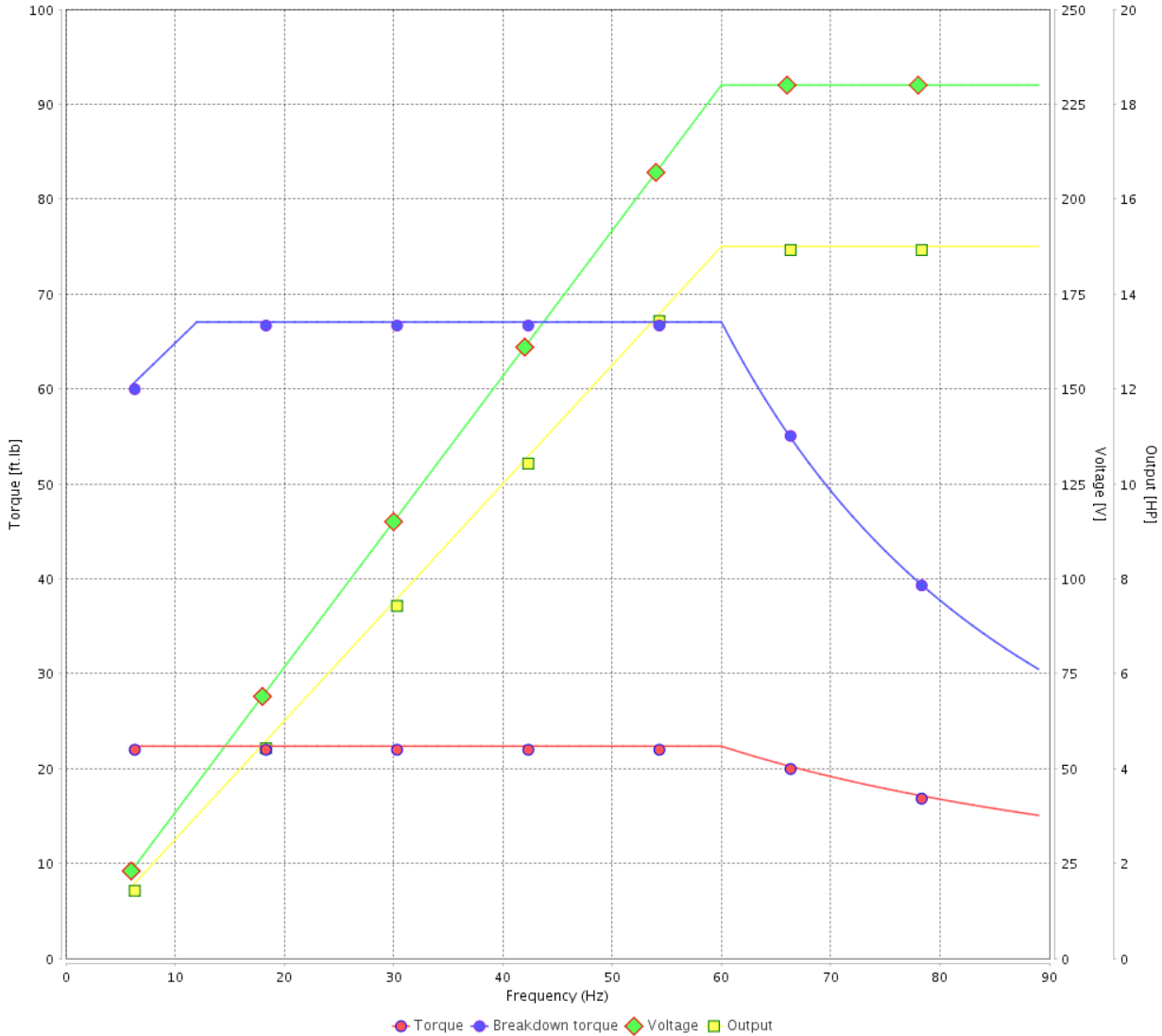
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 34.8/17.4 A
 LRC : 6.8
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 300 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.8718 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 14 / 16	Revision
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

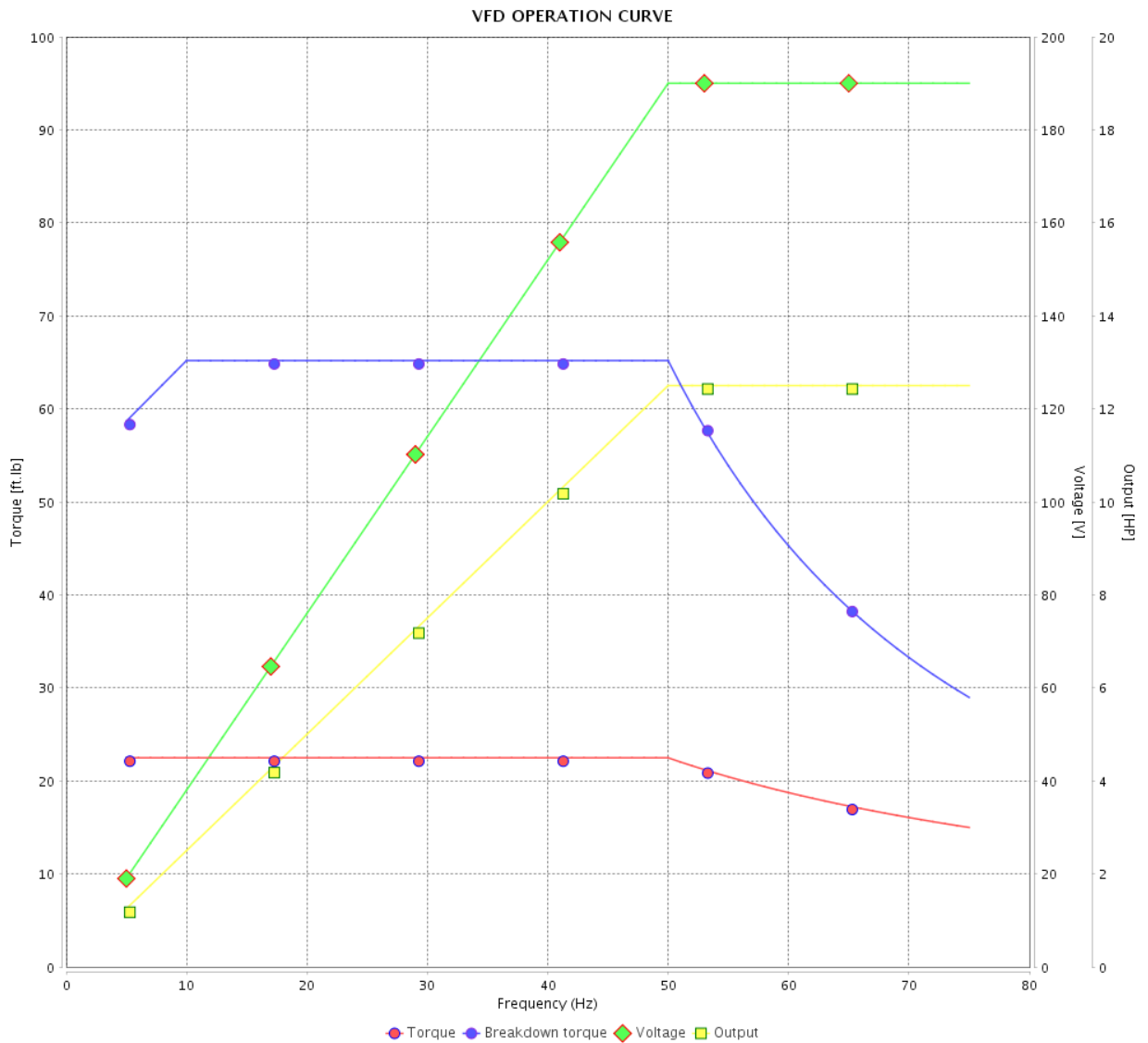


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG



Performance : 190/380 V 50 Hz 2P

Rated current : 35.4/17.7 A
 LRC : 6.9
 Rated torque : 22.5 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 290 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.8718 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 15 / 16	Revision
Checked by				
Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



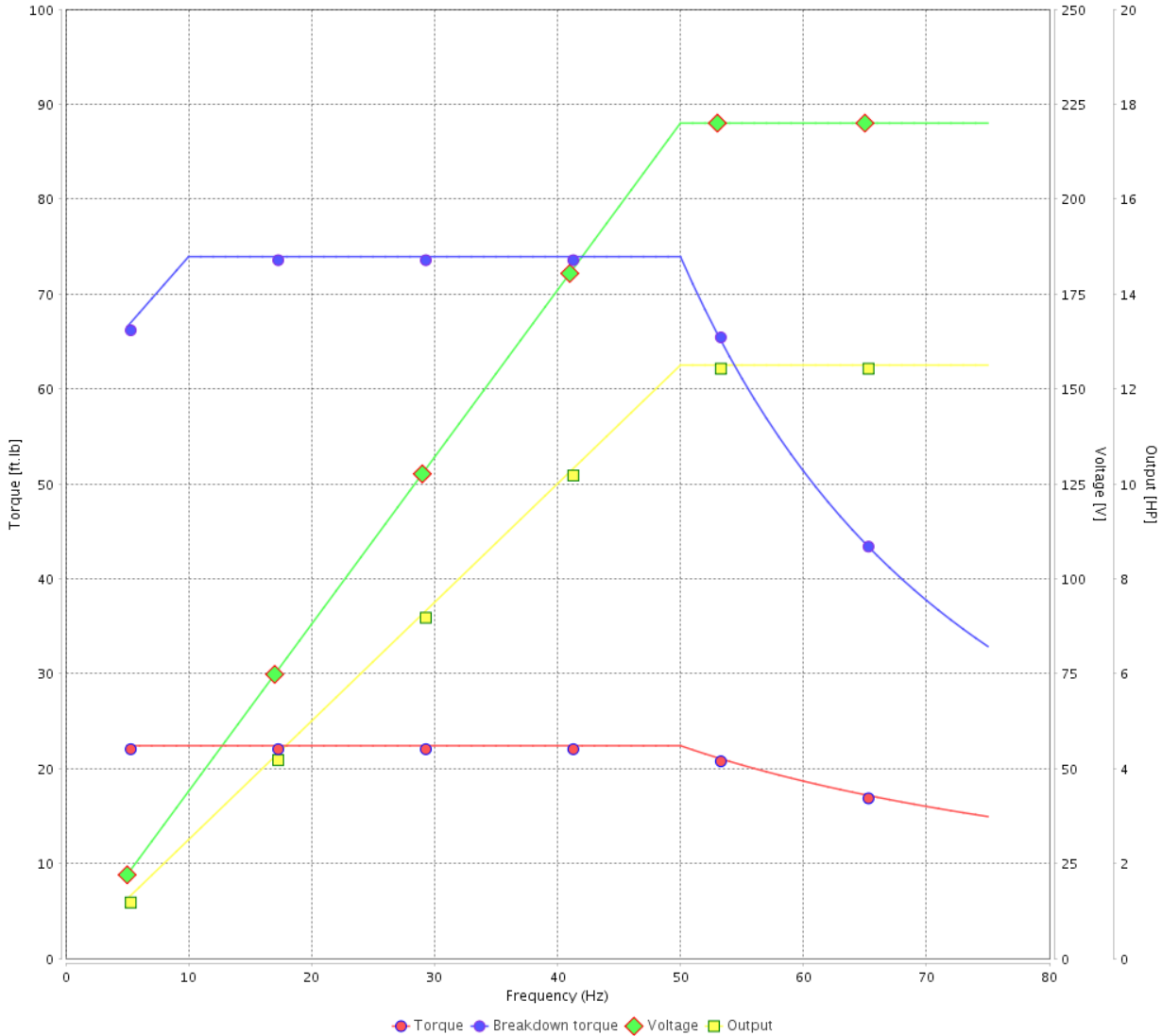
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759402

Catalog # : 01536ET3E254T-SG

VFD OPERATION CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 32.3/17.1 A
 LRC : 7.6
 Rated torque : 22.4 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 330 %
 Rated speed : 2930 rpm

Moment of inertia (J) : 0.8718 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 16	Revision
Checked by				
Date	13/04/2022			

1 2 3 4 5 6

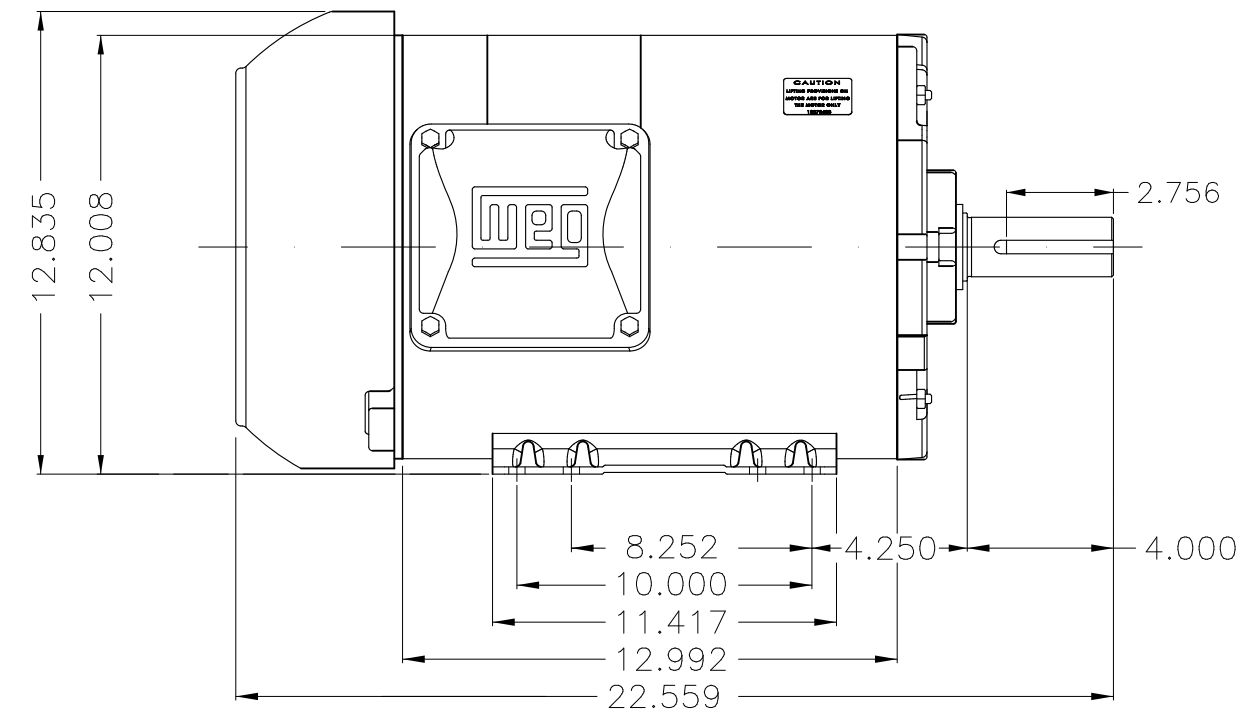
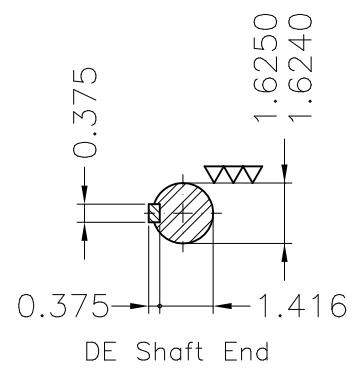
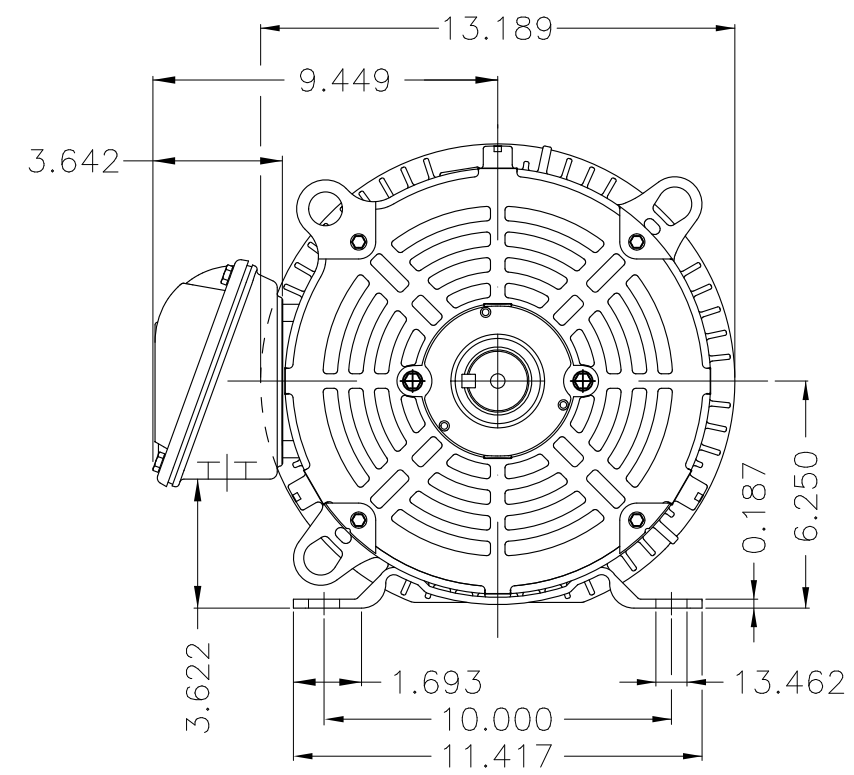
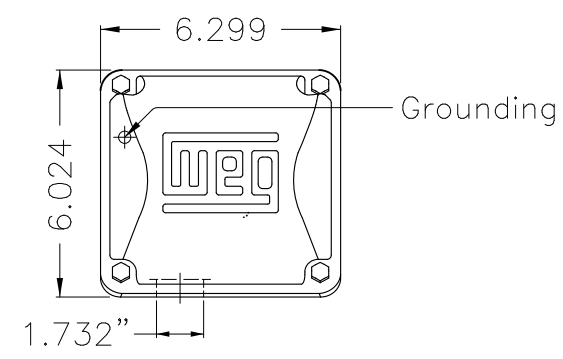
A

B

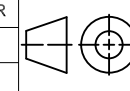
C

D

E



- Bearing cap
- Internal AEGIS ground ring on the DE
- Color Munsell N 1 matte black
- Painting plan 207N
- Mounting F-1/B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	 THREE PH. MOTOR ROLLED STEEL PREM. EFF. FRAME 254/6T IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET 1 / 1			

15 HP 02 Poles 60 Hz

A

PREVIEW
WDD



Dimensions in inches XME A3

**NEMA**
Premium

3PT9



Energy Verified

MADE IN MEXICO

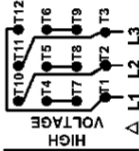
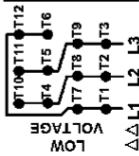
MAT: 12759402 CC029A**W01.TE0IC0X0N****MODEL 01536ET3E254T-SG****05JUL2021 S/N:**

PH 3	Hz 60	HP 15
FR 254/6T		KW 11
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 34.8/17.4
INS CL F AT 80K	IP55	SFA 40.0/20.0
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE G	PF 0.87
USABLE @ 208V 38.5A		RPM 3525
SF1.00		NEMA NOM. EFF 91.0%

ALTERNATE RATING: 12.5HP 50Hz 190-220/380-415V SF1.00
35.4-31.3/17.7-16.6A 2920RPM EFF 89.8% (IE2) IEC 60034-1

Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 10:1 CT

DE 6309-Z-C3	ODE 6208-Z-C3	MOBIL POLYREX EM	15797h
---------------------	----------------------	-------------------------	---------------



T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-BRK RED
T10-CURRY
T11-GRN T12-VLT

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



AVERTISSEMENT: Le moteur doit être mis à la terre

conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

