

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12751143	
		Catalog # :	00318OT3E182T-SG	
Frame	: 182/4T	Cooling method	: IC01 - ODP	
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	: 67.8 lb	
Design	: B	Moment of inertia (J)	: 0.3092 sq.ft.lb	
Output [HP]	3	3	3	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	7.72/3.86	9.08/4.54	8.41/4.46	
L. R. Amperes [A]	64.8/32.4	58.1/29.1	59.7/31.7	
LRC [A]	8.4x(Code K)	6.4x(Code H)	7.1x(Code J)	
No load current [A]	4.14/2.07	4.08/2.04	4.20/2.22	
Rated speed [RPM]	1765	1460	1465	
Slip [%]	1.94	2.67	2.33	
Rated torque [ft.lb]	8.93	10.8	10.8	
Locked rotor torque [%]	220	150	170	
Breakdown torque [%]	330	240	280	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	27s (cold) 15s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)	
Efficiency (%)	25%	86.4	85.6	88.0
	50%	87.5	86.0	87.3
	75%	88.5	86.5	87.9
	100%	89.5	86.7	86.9
Power Factor	25%	0.35	0.42	0.37
	50%	0.60	0.68	0.63
	75%	0.73	0.79	0.76
	100%	0.80	0.85	0.82
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 158 lb	
		Max. compression	: 226 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 8.54A SF 1.00 SFA 8.54A				
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 / 16	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



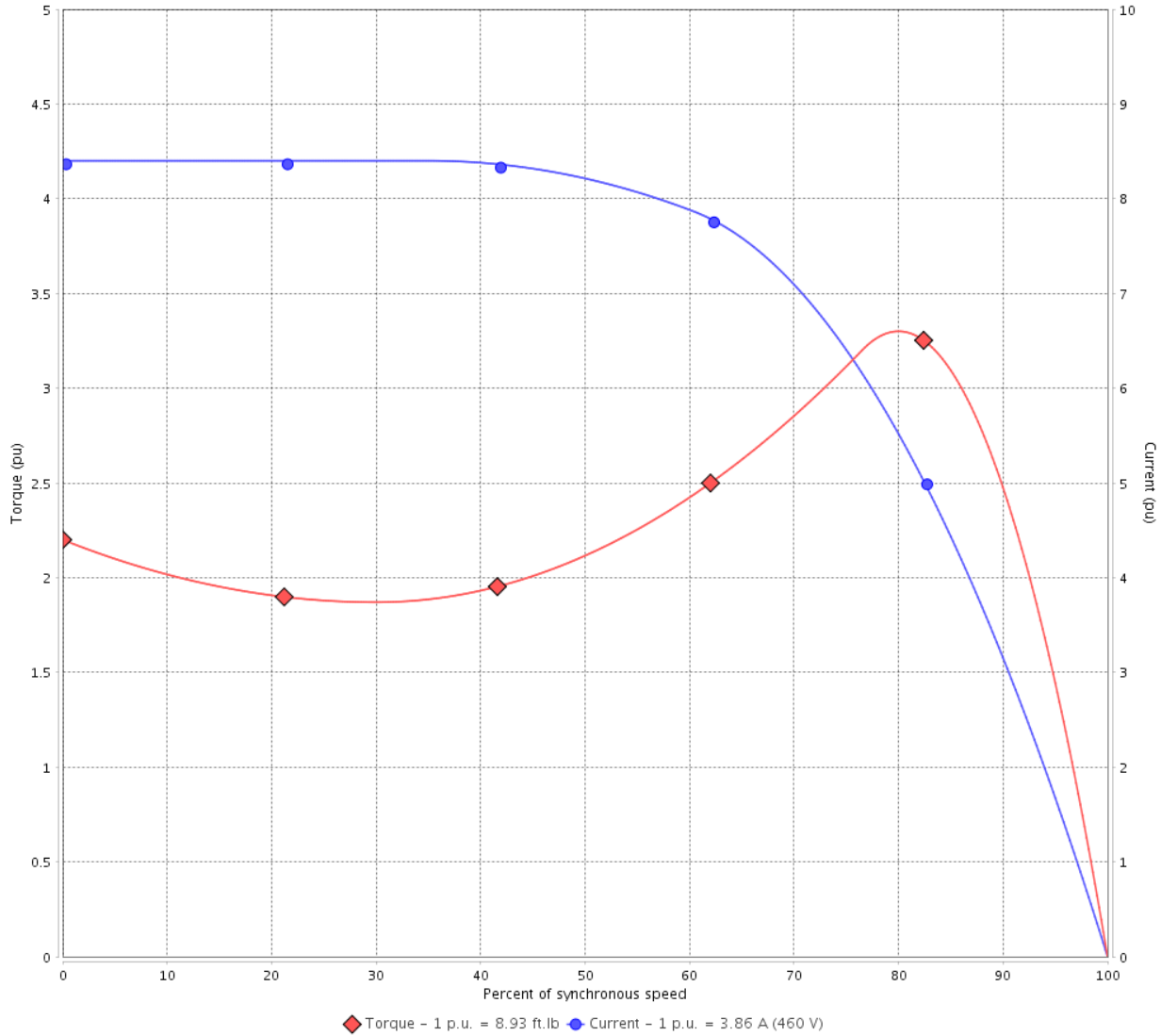
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 003180T3E182T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 7.72/3.86 A	Moment of inertia (J)	: 0.3092 sq.ft.lb
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 8.93 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (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



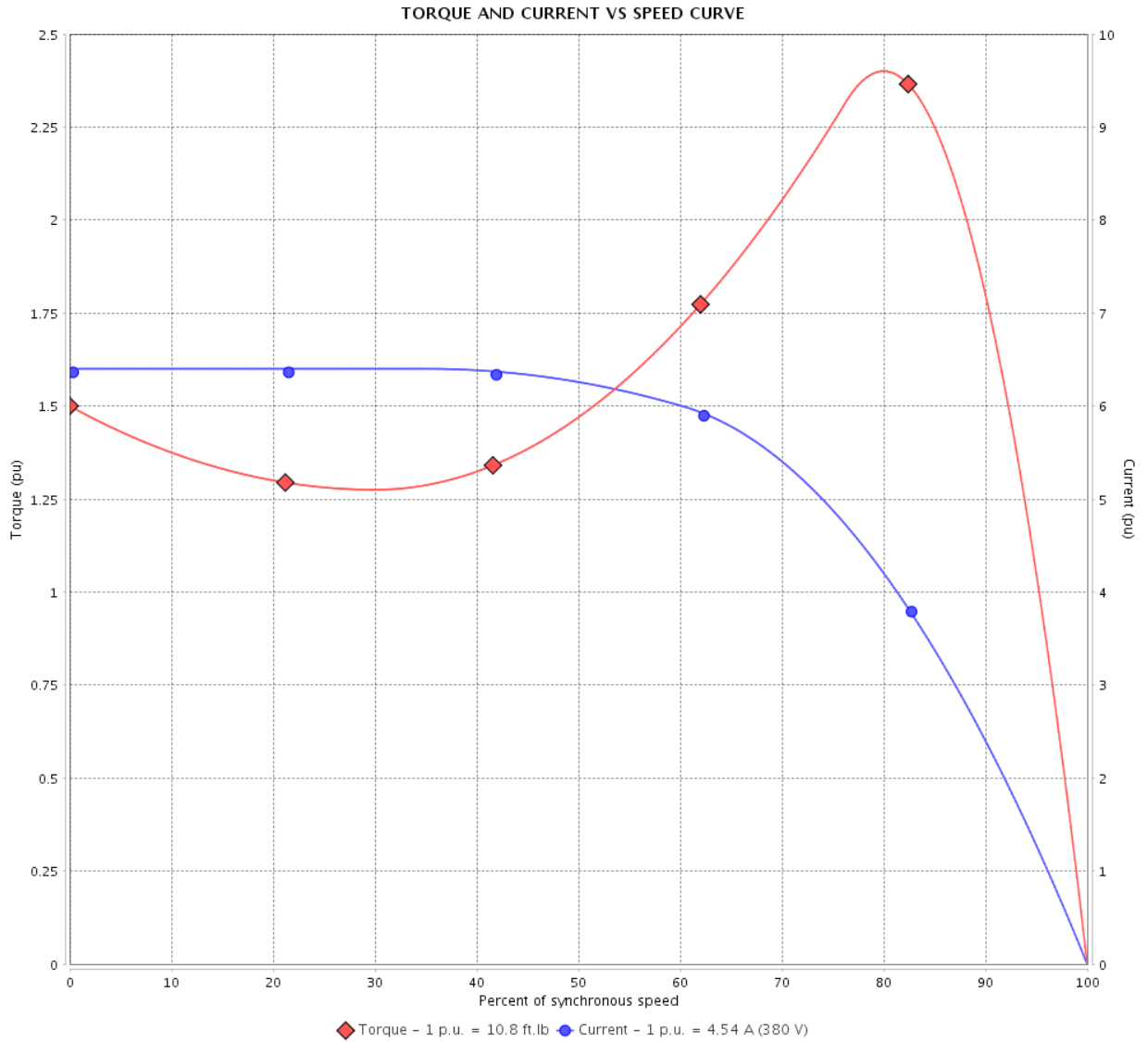
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 00318OT3E182T-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 9.08/4.54 A
 LRC : 6.4
 Rated torque : 10.8 ft.lb
 Locked rotor torque : 150 %
 Breakdown torque : 240 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.3092 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 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

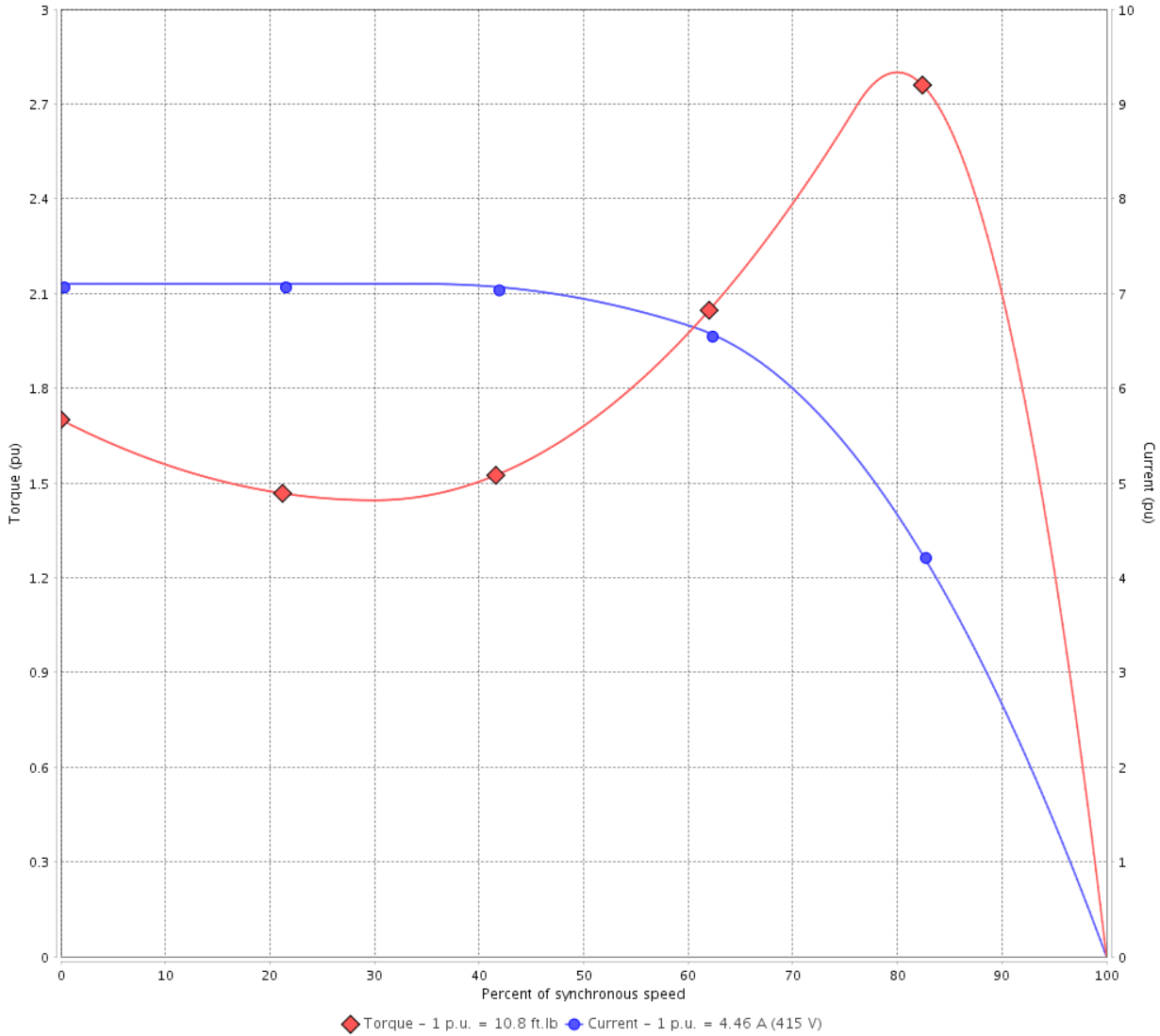
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 003180T3E182T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 8.41/4.46 A	Moment of inertia (J)	: 0.3092 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1465 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

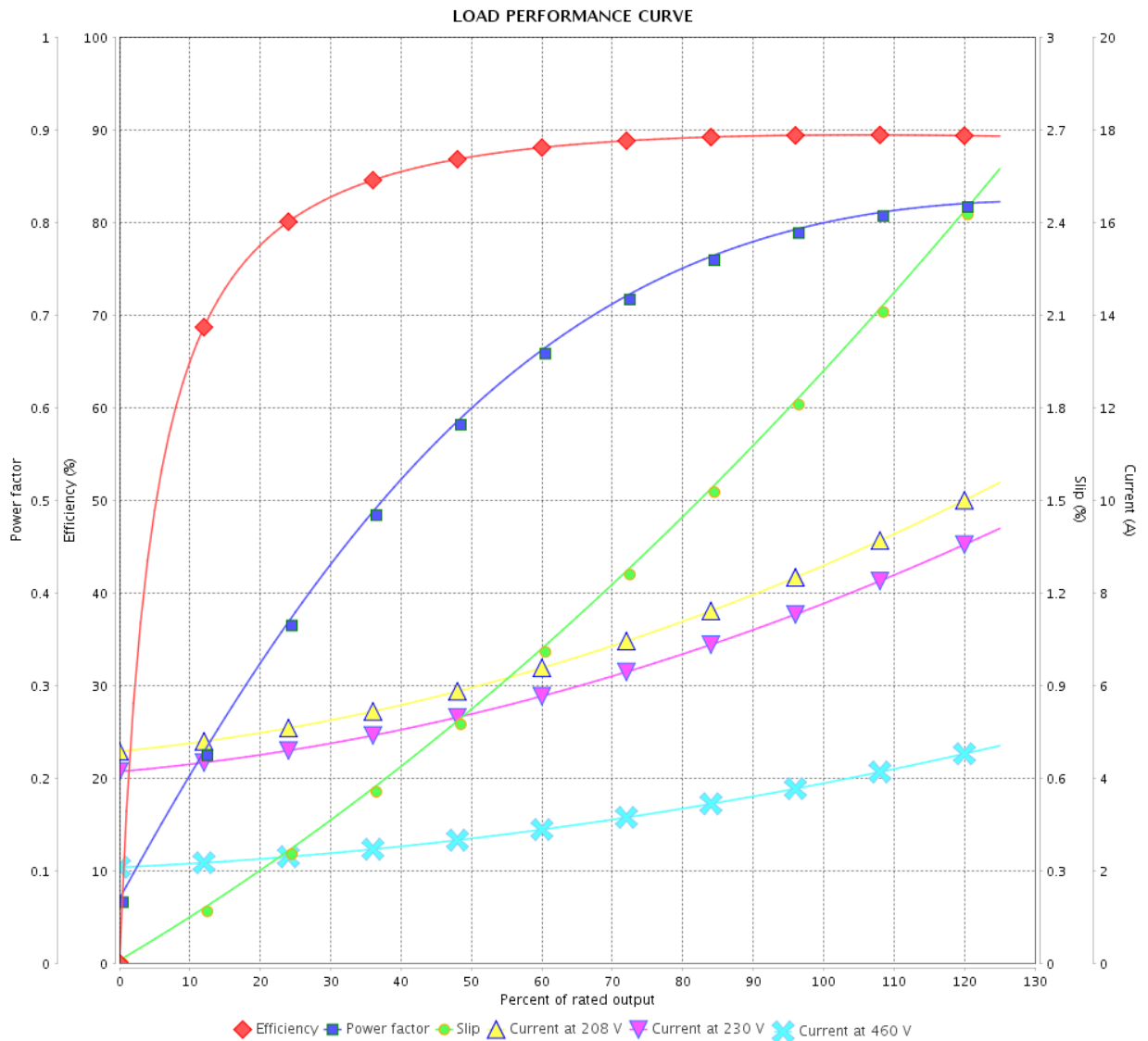


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 003180T3E182T-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 7.72/3.86 A
 LRC : 8.4
 Rated torque : 8.93 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 330 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.3092 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



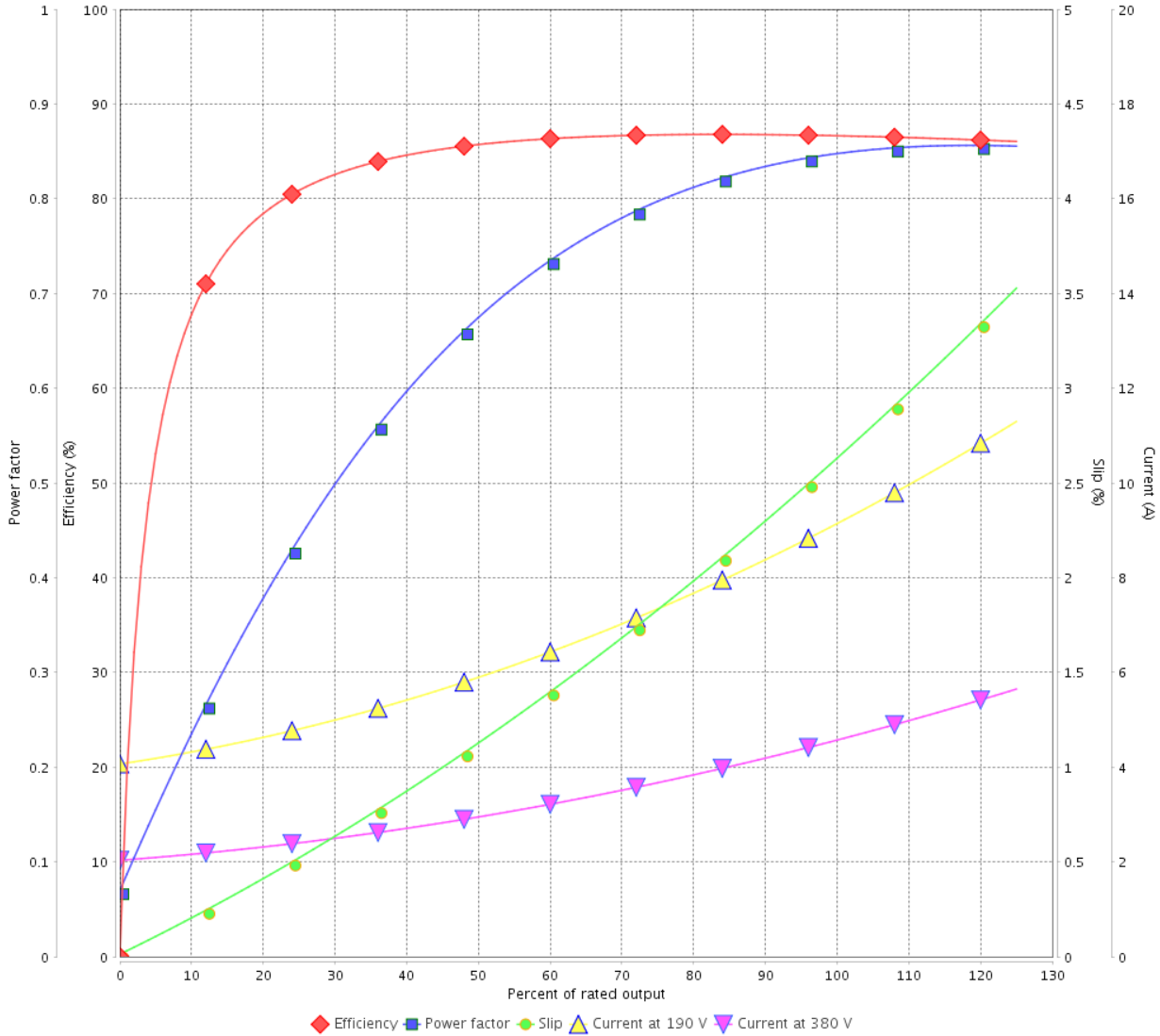
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 003180T3E182T-SG

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 9.08/4.54 A
 LRC : 6.4
 Rated torque : 10.8 ft.lb
 Locked rotor torque : 150 %
 Breakdown torque : 240 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.3092 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

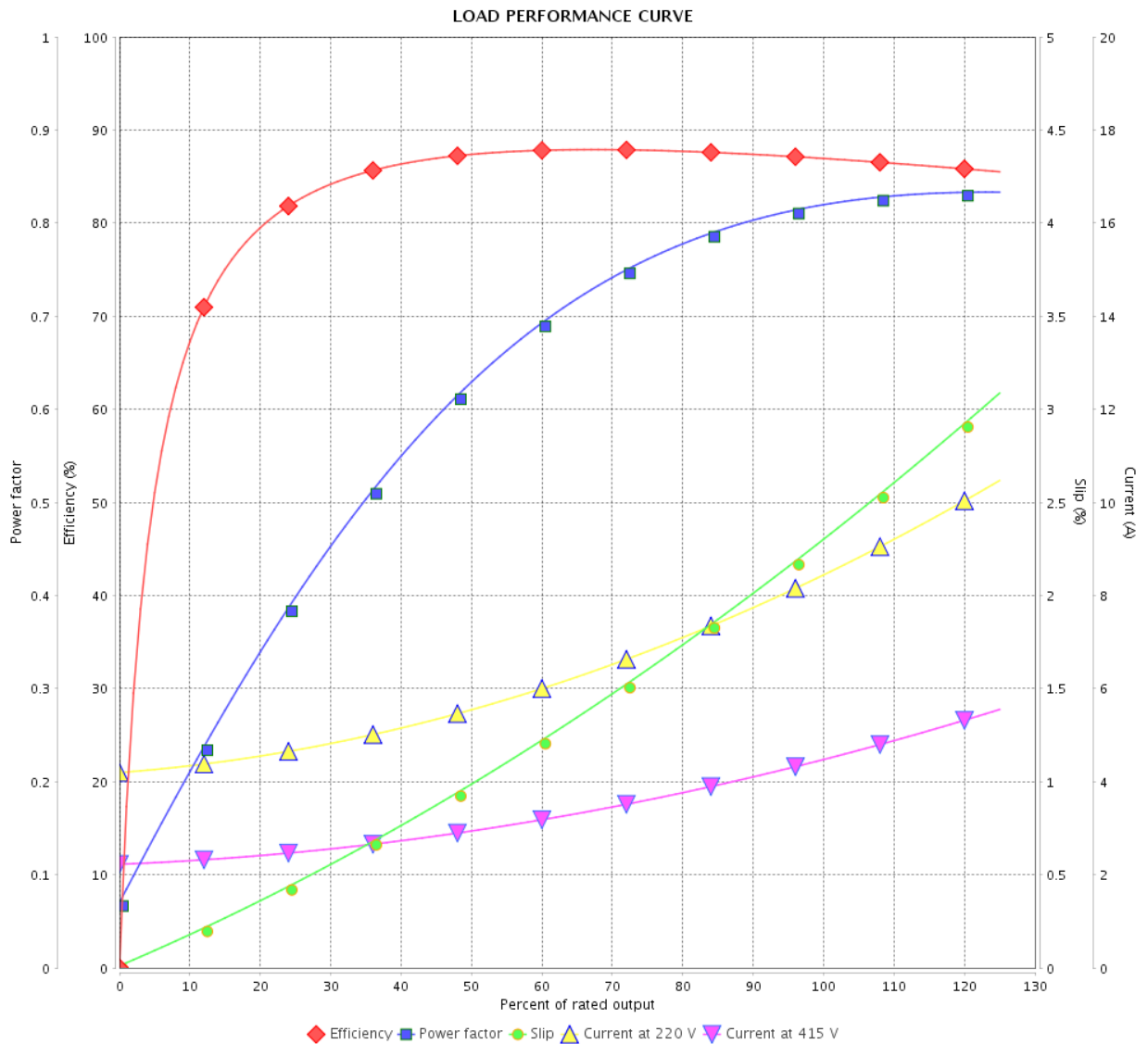


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 003180T3E182T-SG



Performance : 220/415 V 50 Hz 4P

Rated current : 8.41/4.46 A
 LRC : 7.1
 Rated torque : 10.8 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 280 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.3092 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				

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12751143
Catalog # : 00318OT3E182T-SG

Performance : 230/460 V 60 Hz 4P

Rated current	: 7.72/3.86 A	Moment of inertia (J)	: 0.3092 sq.ft.lb
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 8.93 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Heating constant

Cooling constant

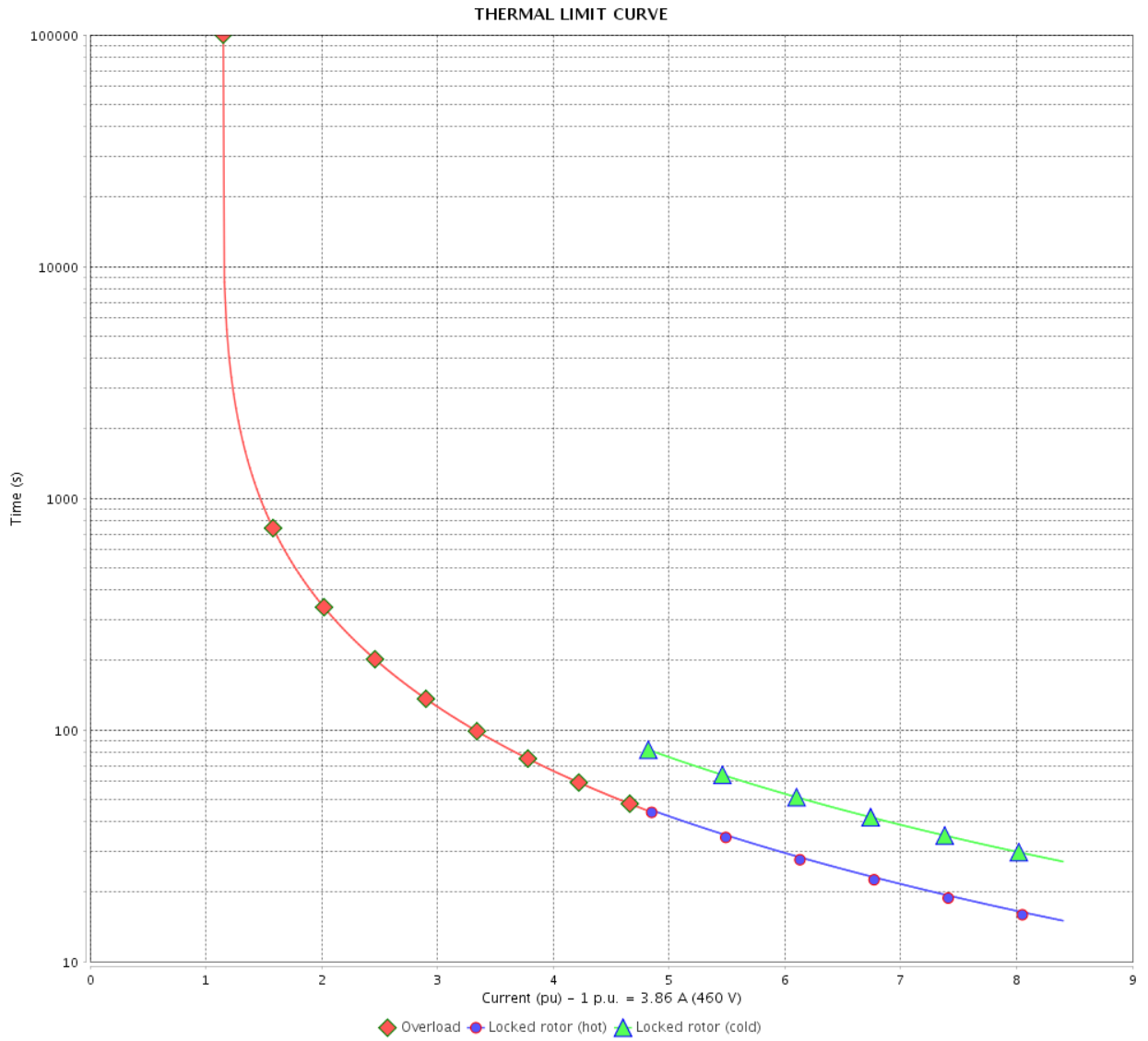
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		8 / 16	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12751143
Catalog # : 00318OT3E182T-SG

Performance : 190/380 V 50 Hz 4P

Rated current	: 9.08/4.54 A	Moment of inertia (J)	: 0.3092 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

Heating constant

Cooling constant

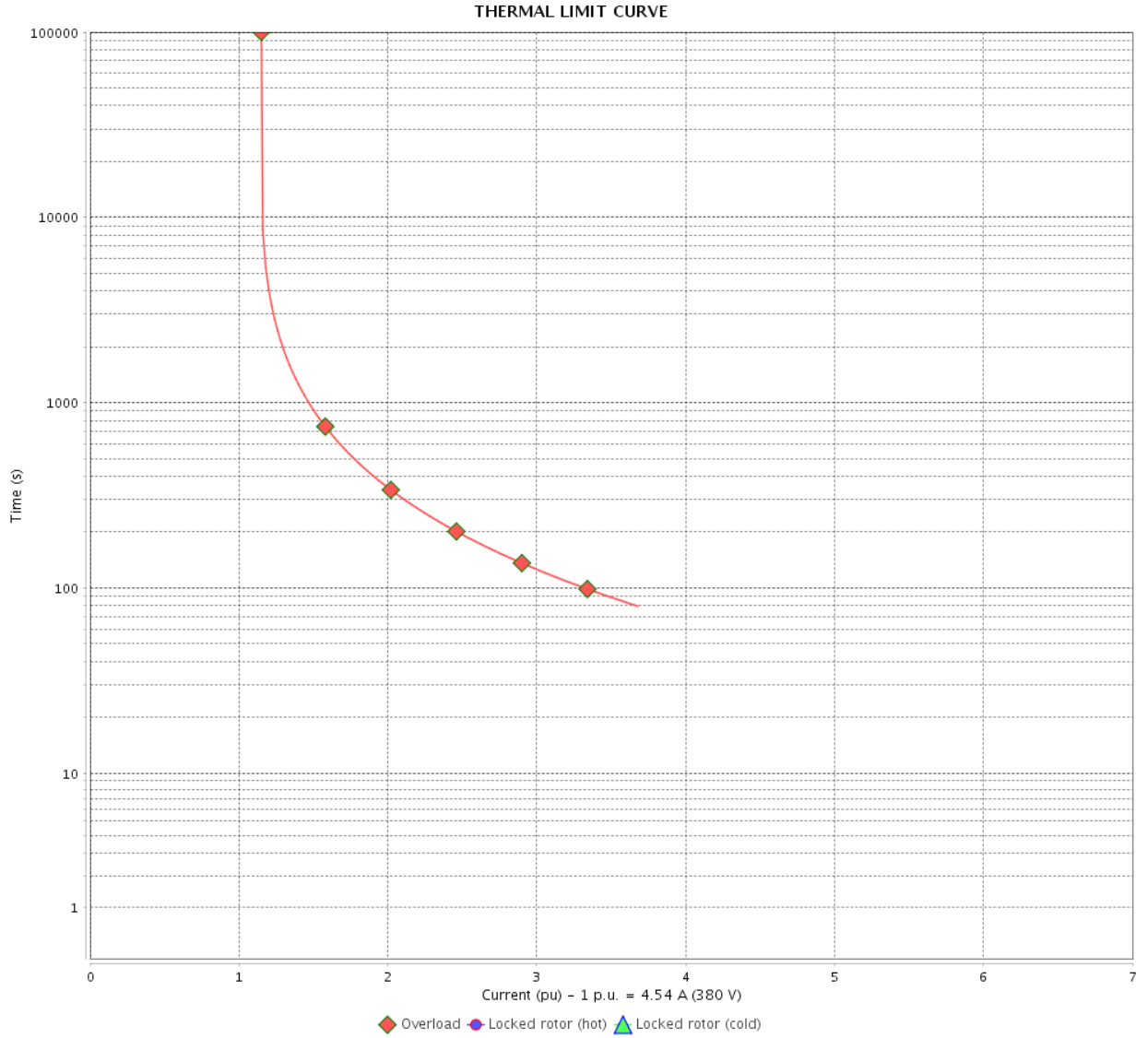
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		10 / 16	

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 : 12751143
Catalog # : 00318OT3E182T-SG

Performance : 220/415 V 50 Hz 4P

Rated current	: 8.41/4.46 A	Moment of inertia (J)	: 0.3092 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

Heating constant

Cooling constant

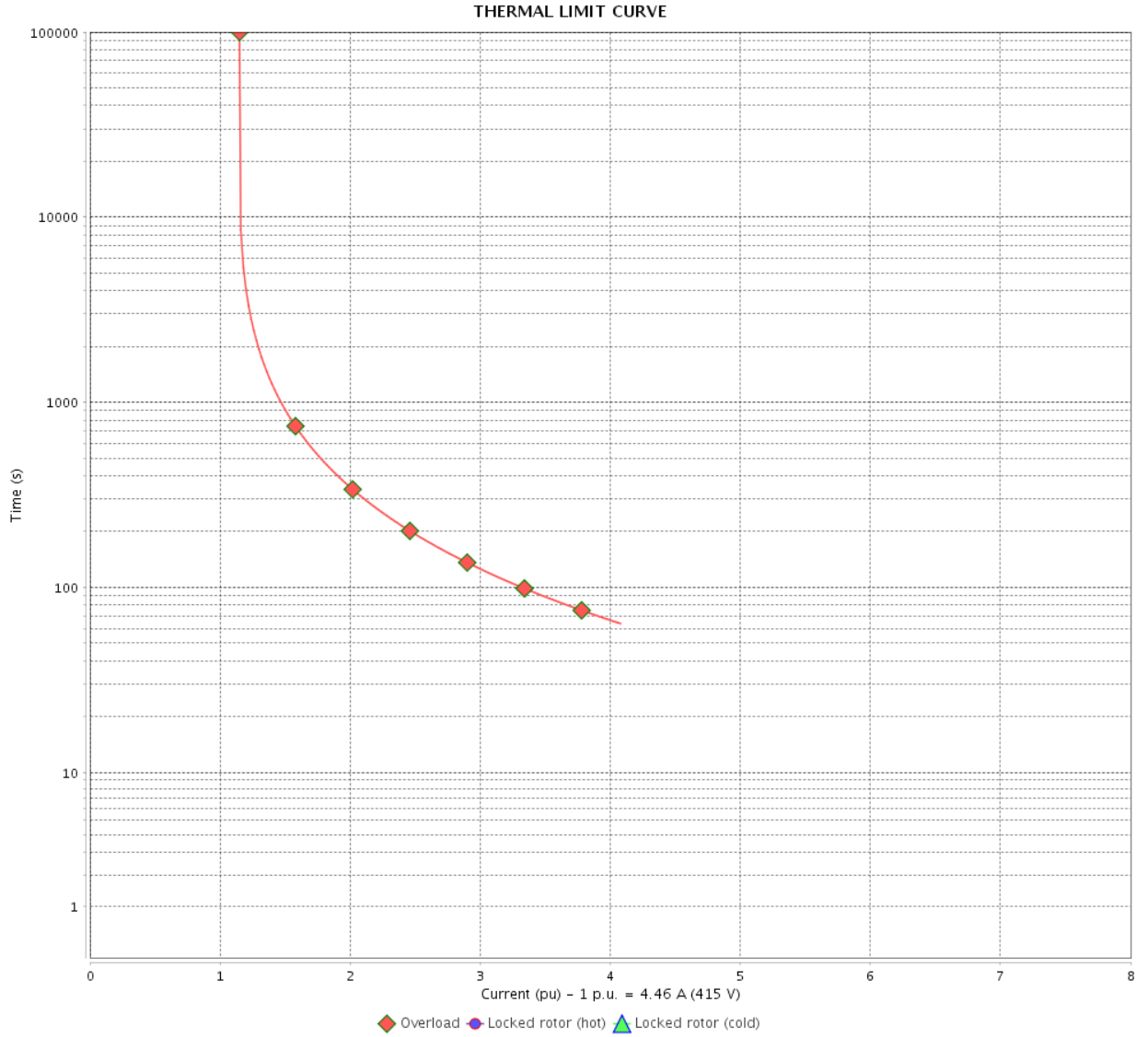
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		12 / 16	

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

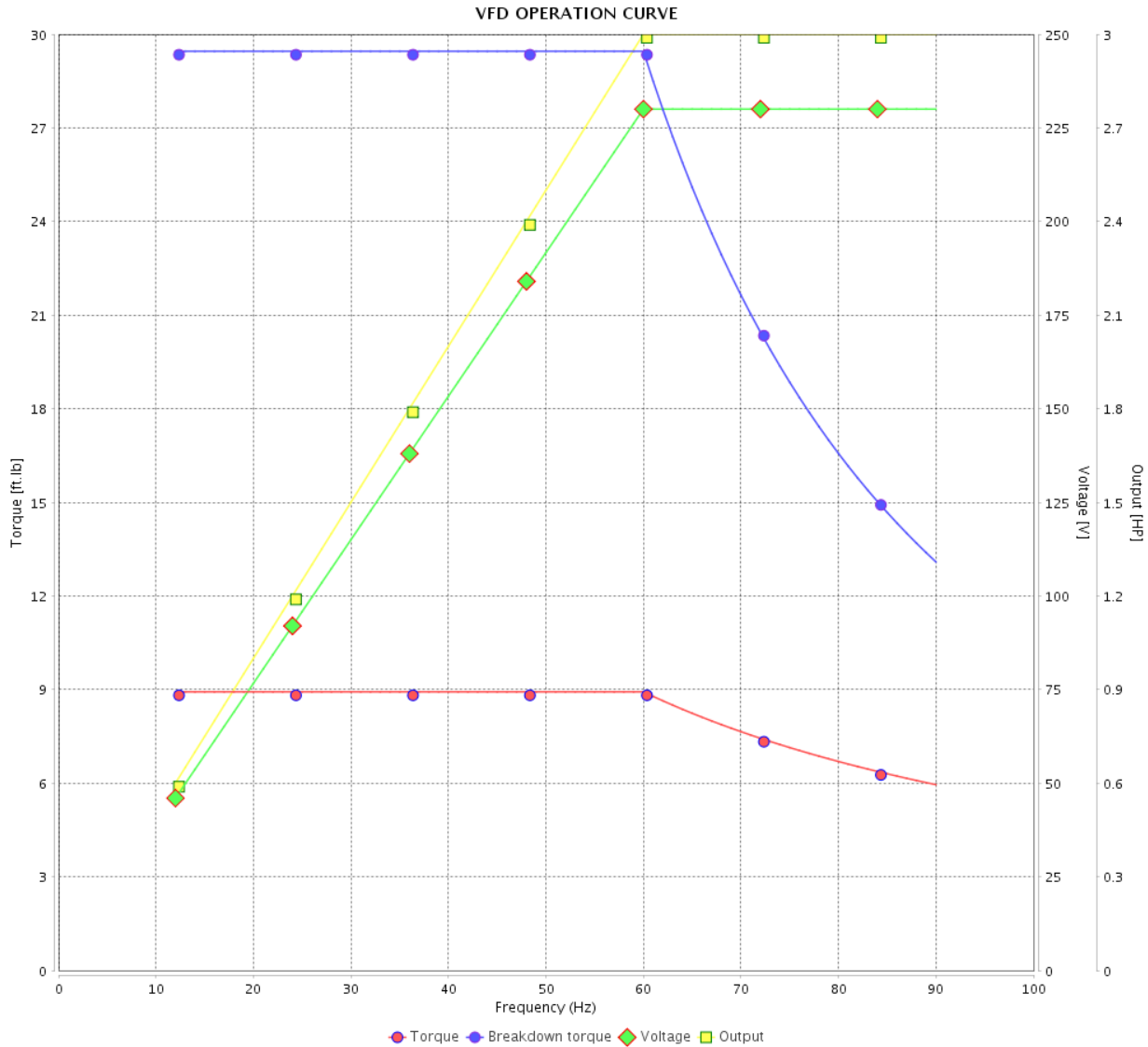


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 00318OT3E182T-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 7.72/3.86 A
 LRC : 8.4
 Rated torque : 8.93 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 330 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.3092 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

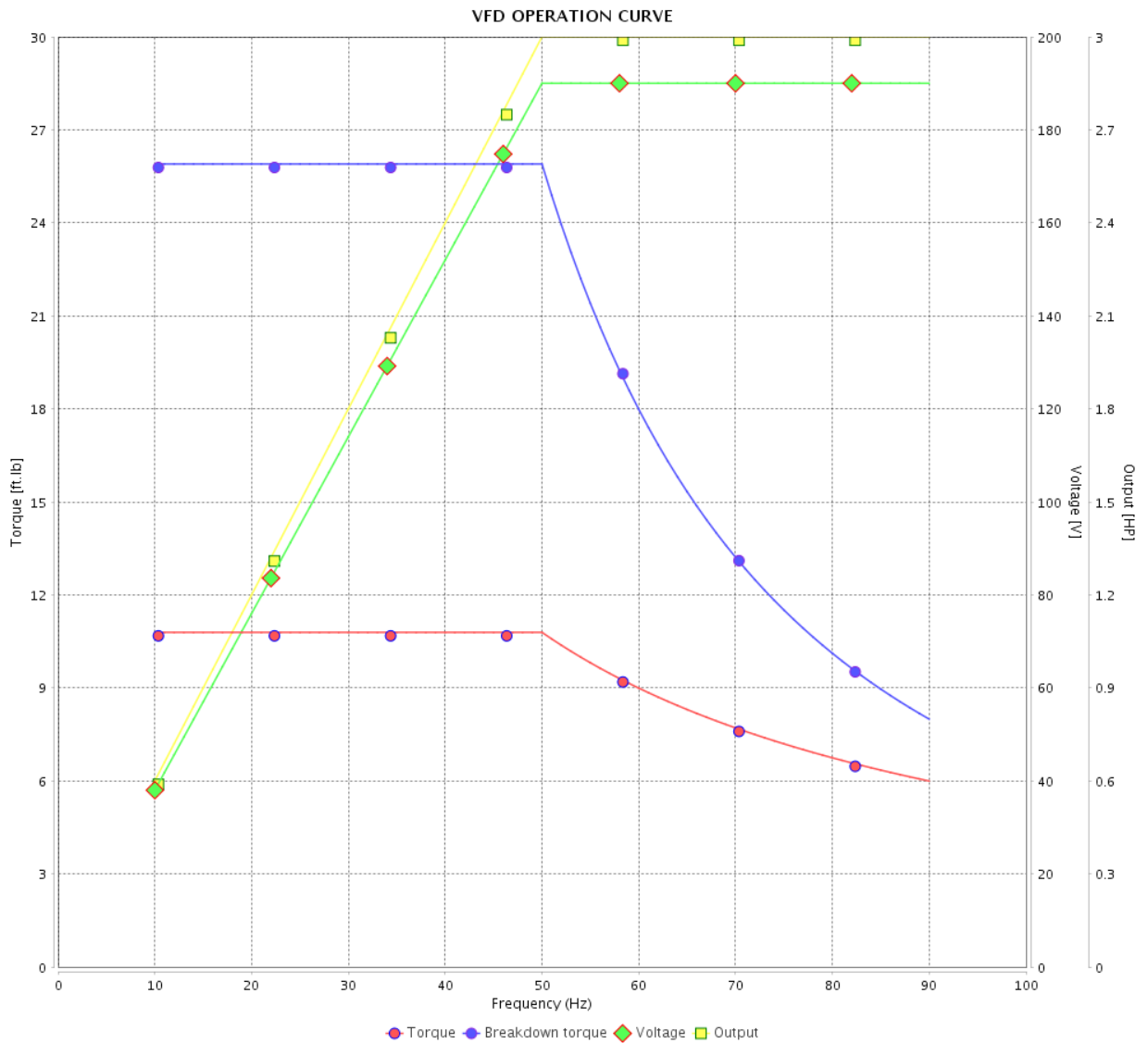


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 003180T3E182T-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 9.08/4.54 A
 LRC : 6.4
 Rated torque : 10.8 ft.lb
 Locked rotor torque : 150 %
 Breakdown torque : 240 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.3092 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				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

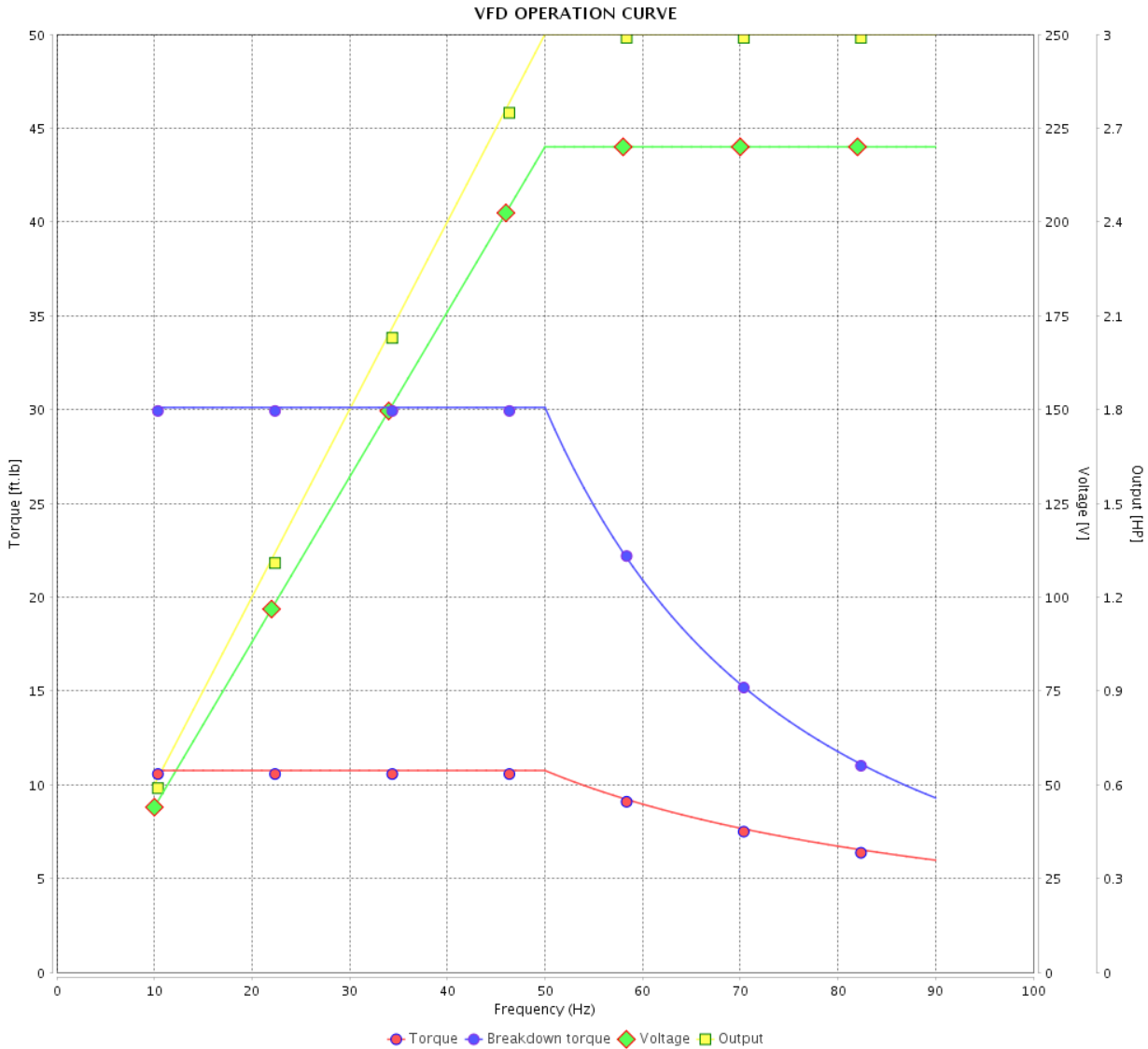


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751143

Catalog # : 00318OT3E182T-SG



Performance : 220/415 V 50 Hz 4P

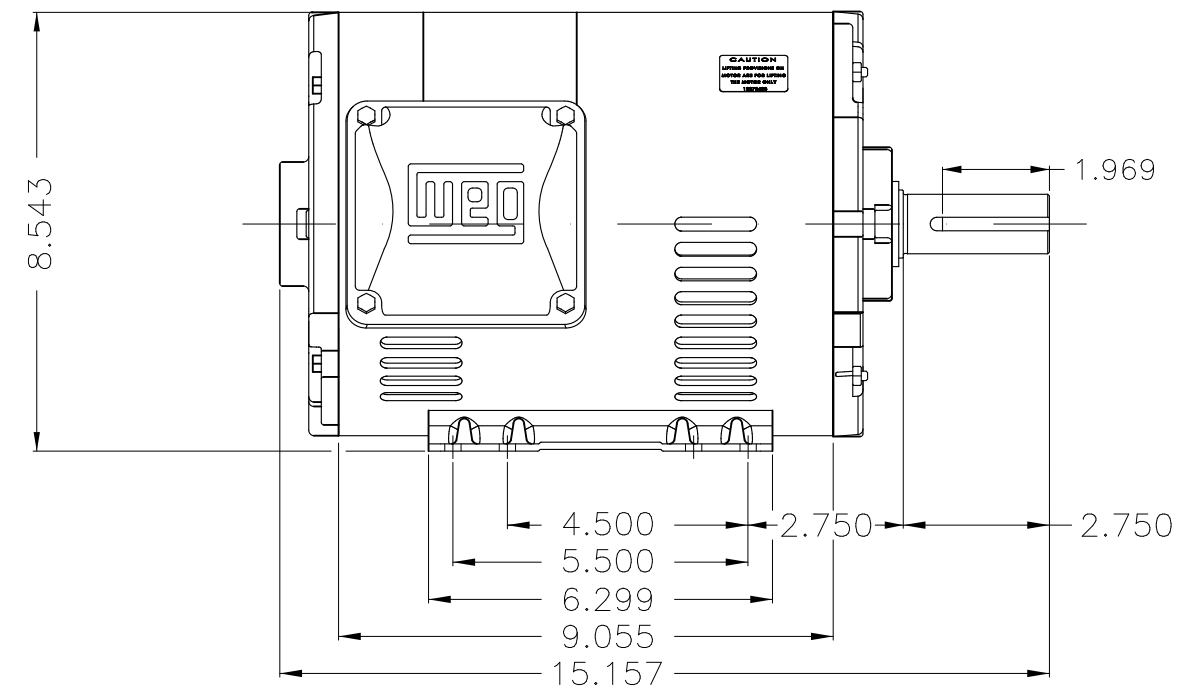
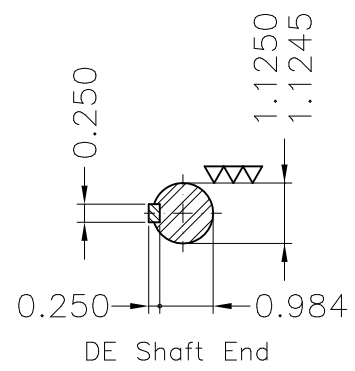
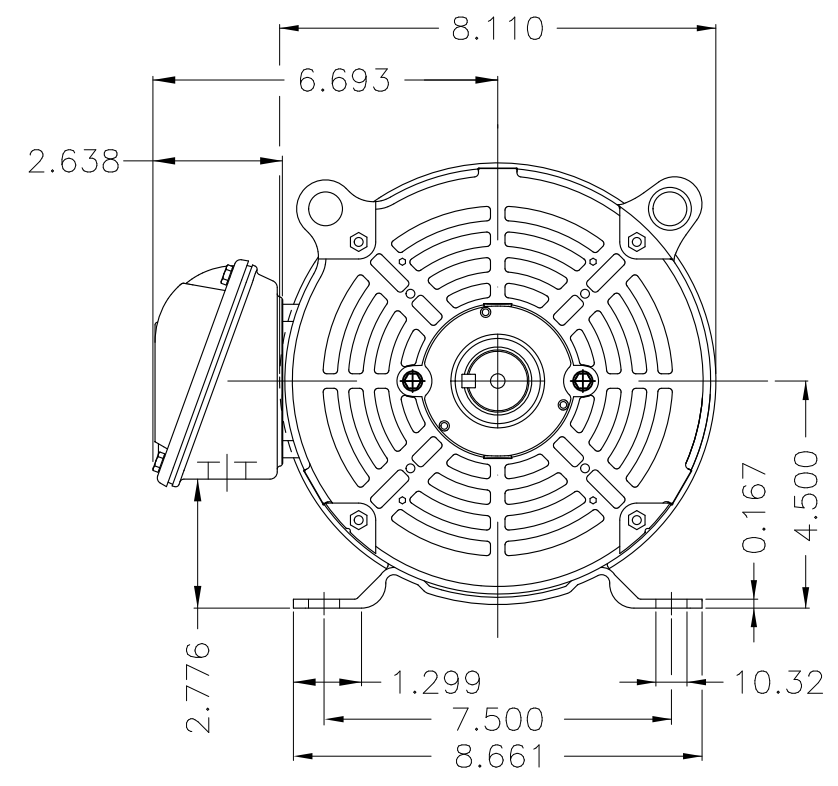
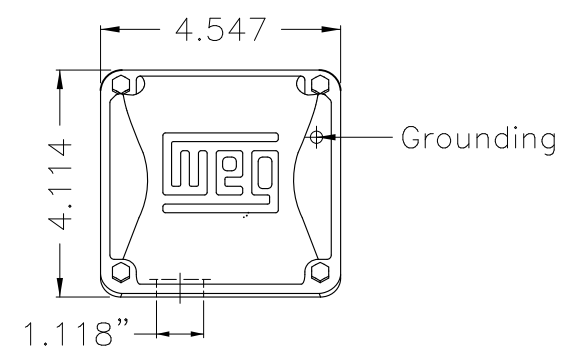
Rated current : 8.41/4.46 A
 LRC : 7.1
 Rated torque : 10.8 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 280 %
 Rated speed : 1465 rpm

Moment of inertia (J) : 0.3092 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

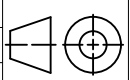
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 16	Revision
Checked by				
Date	13/04/2022			

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 182/4T IP21 ODP					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET 1 / 1			

3 HP 04 Poles 60 Hz

A

PREVIEW
WDD





NEMA
Premium



MADE IN MEXICO

MAT: 12751143 CC029A

W01.T00IC0X0N

MODEL 003180T3E182T-SG

19APR2022 S/N:



PH 3	Hz 60	HP 3.0
FR 182/4T		KW 2.2
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 7.72/3.86
INS CL F AT 80K		SFA 8.88/4.44
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE K	PF 0.80
USABLE @ 208V 8.54A		RPM 1765
SF1.00		NEMA NOM. EFF 89.5%

ALTERNATE RATING: 3.0HP 50Hz 190-220/380-415V SF1.15
9.08-8.17/4.54-4.33A 1460RPM EFF 86.7% (IE3) IEC 60034-1

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT

DE 6206-ZZ	ODE 6205-ZZ	MOBIL POLYREX EM
-------------------	--------------------	-------------------------



T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-BRK RED

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.

