

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12751141	
		Catalog # :	00518OT3E184T-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	: 81.8 lb	
Design	: B	Moment of inertia (J)	: 0.4003 sq.ft.lb	
Output [HP]	5	5	5	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	12.7/6.33	15.4/7.71	13.8/7.32	
L. R. Amperes [A]	91.2/45.6	89.4/44.7	89.8/47.6	
LRC [A]	7.2x(Code J)	5.8x(Code G)	6.5x(Code H)	
No load current [A]	6.29/3.15	6.19/3.10	6.38/3.38	
Rated speed [RPM]	1760	1445	1450	
Slip [%]	2.22	3.67	3.33	
Rated torque [ft.lb]	14.9	18.2	18.1	
Locked rotor torque [%]	200	140	160	
Breakdown torque [%]	310	220	250	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	21s (cold) 12s (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%	87.5	89.3	
	50%	88.5	87.9	
	75%	88.5	87.6	
	100%	89.5	85.8	
Power Factor	25%	0.38	0.40	
	50%	0.63	0.67	
	75%	0.76	0.79	
	100%	0.82	0.85	
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	: 248 lb	
		Max. compression	: 330 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 14.0A SF 1.00 SFA 14.0A				
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 / 16	

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



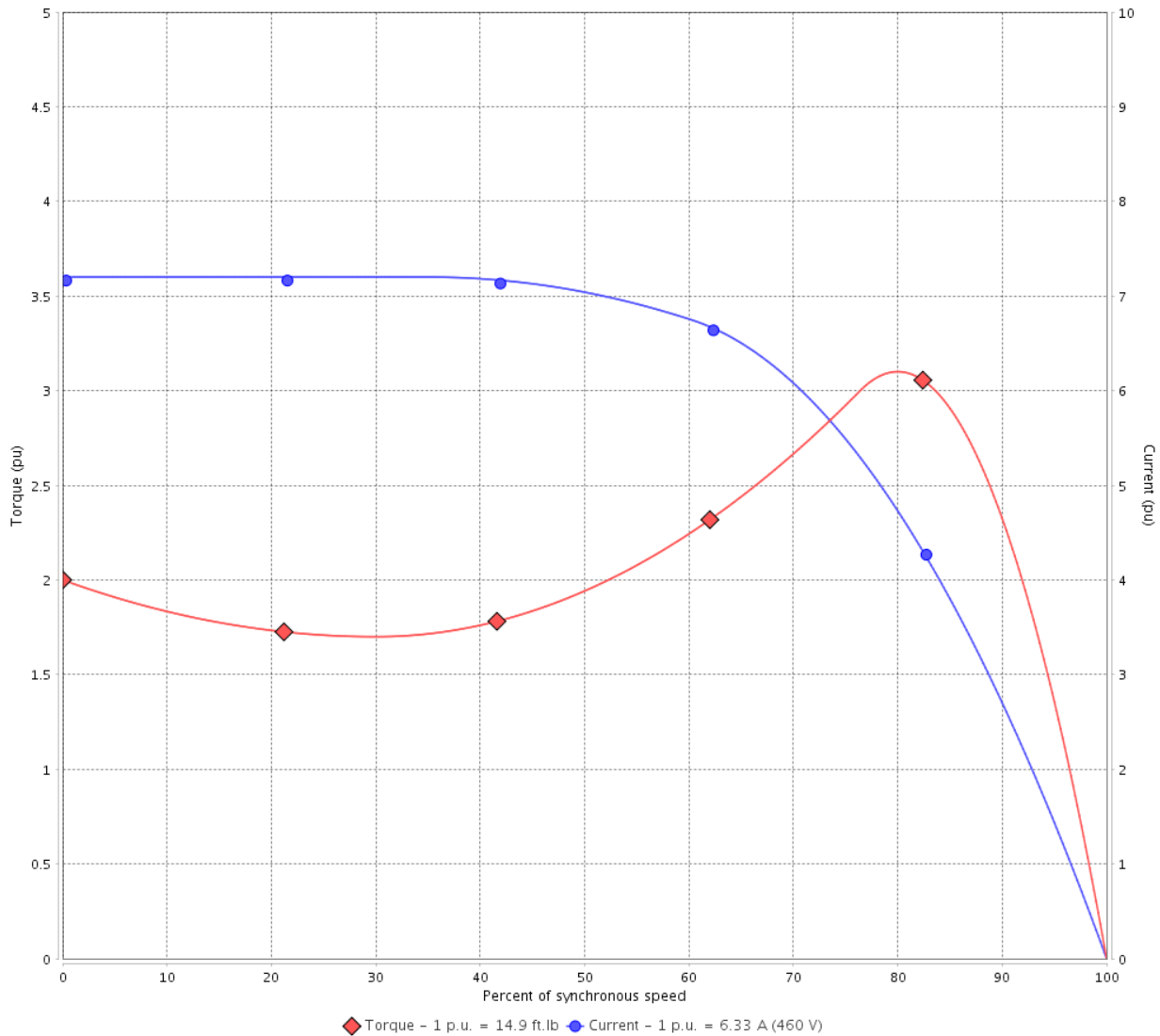
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 005180T3E184T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 12.7/6.33 A
 LRC : 7.2
 Rated torque : 14.9 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 310 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.4003 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 21s (cold) 12s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 16	Revision
Checked by				
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



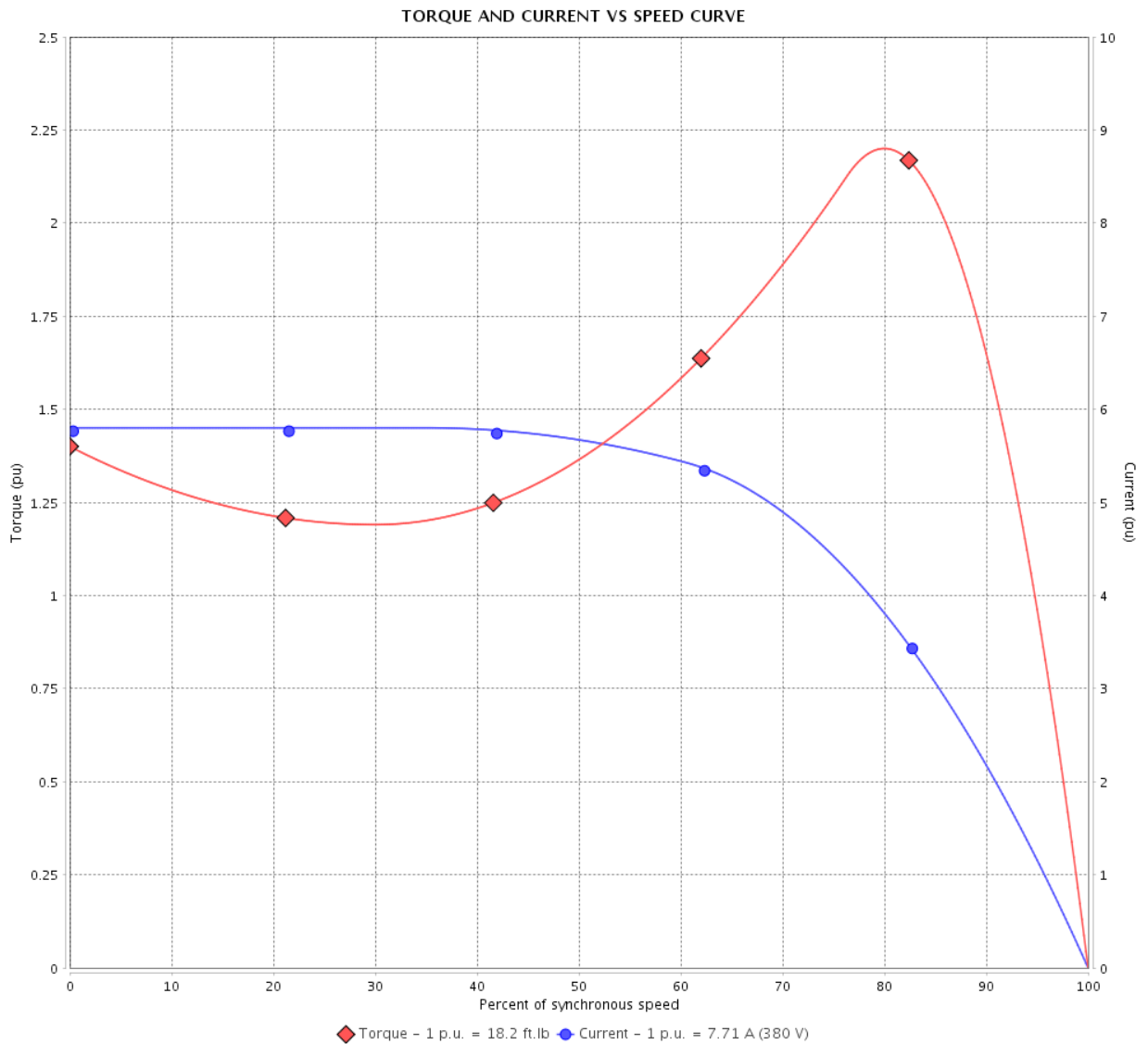
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 005180T3E184T-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 15.4/7.71 A
 LRC : 5.8
 Rated torque : 18.2 ft.lb
 Locked rotor torque : 140 %
 Breakdown torque : 220 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.4003 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	Revision
Checked by			3 / 16	
Date	12/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



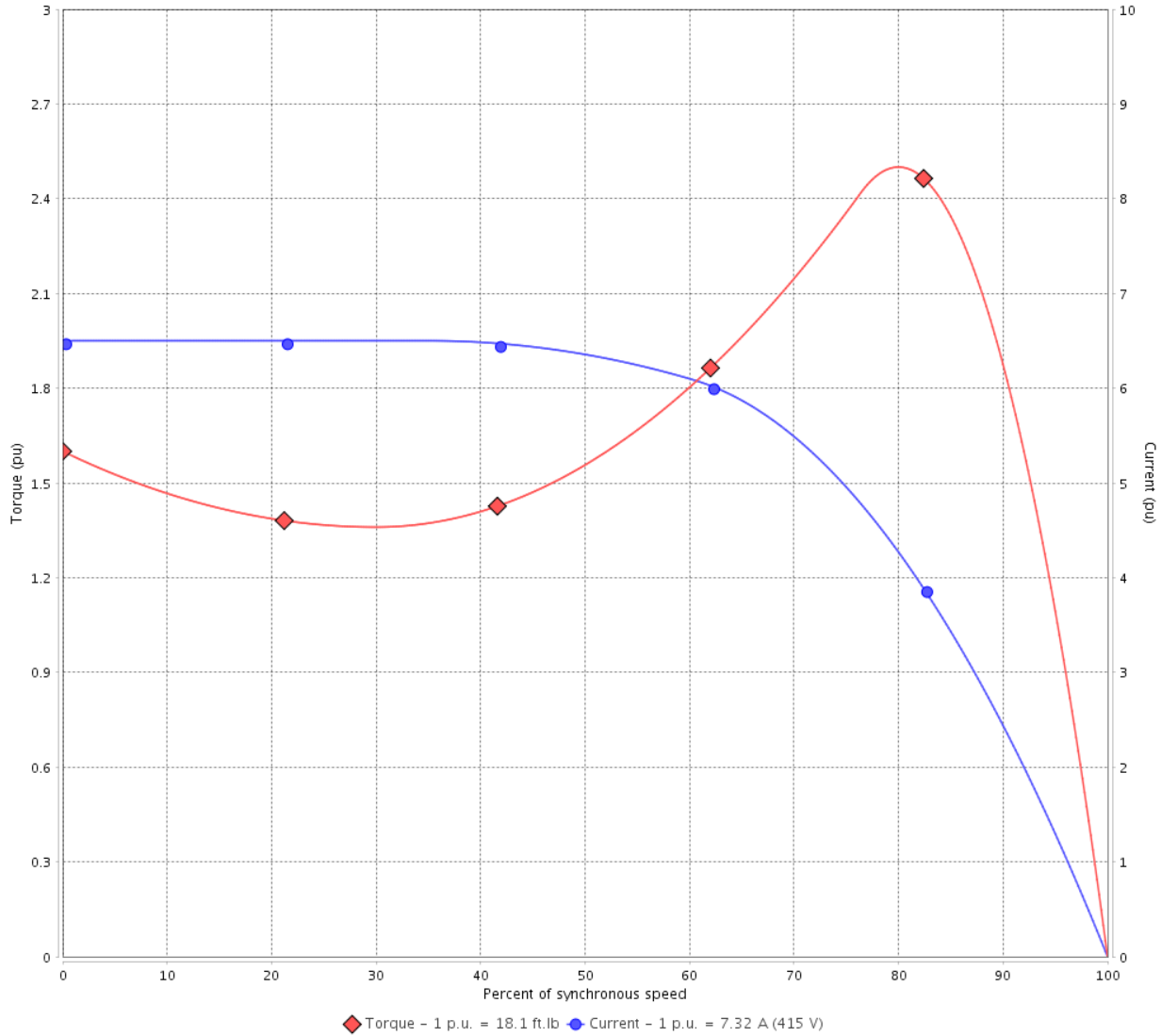
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 00518OT3E184T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 13.8/7.32 A	Moment of inertia (J)	: 0.4003 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 18.1 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1450 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	12/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

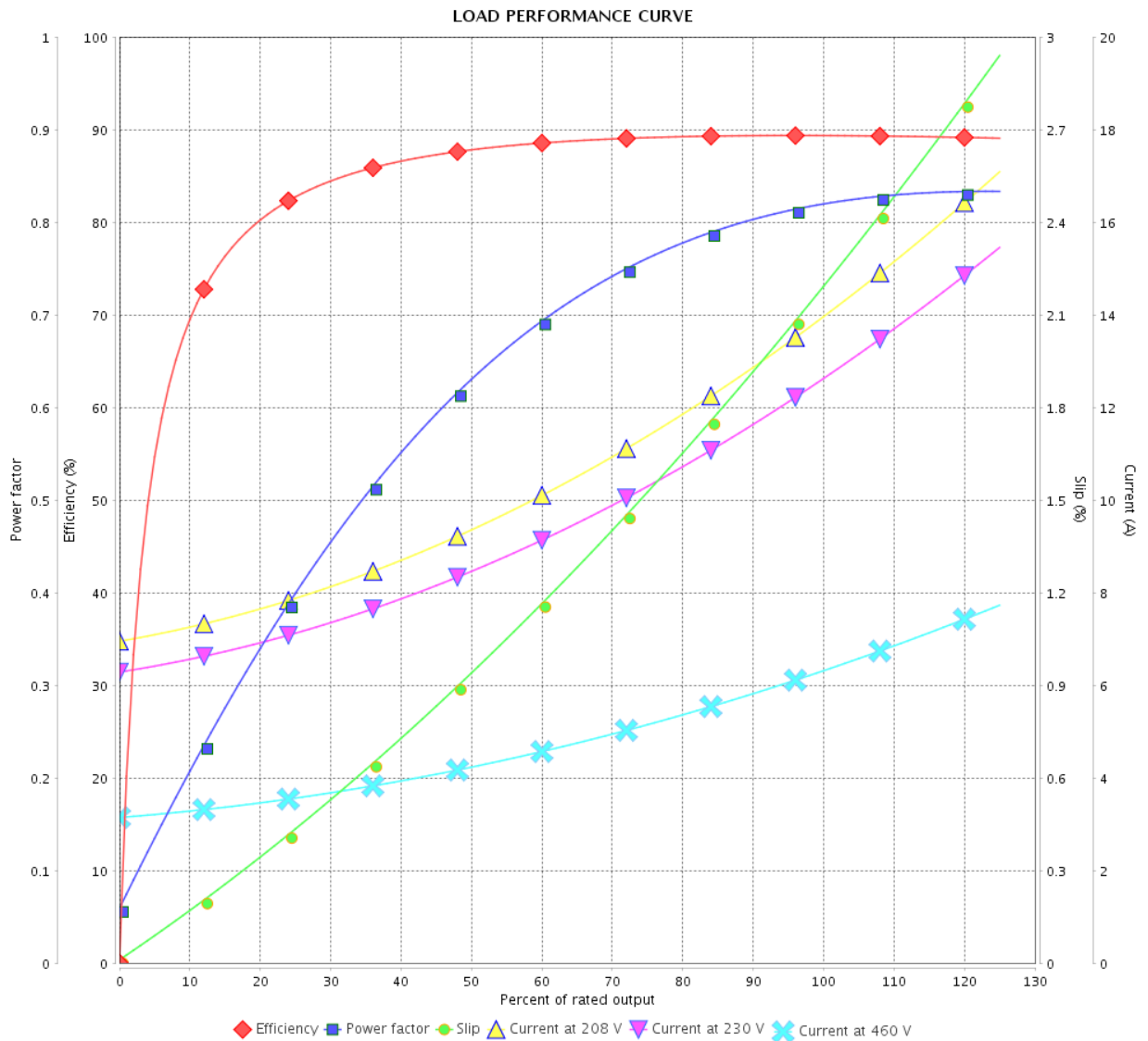


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 00518OT3E184T-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 12.7/6.33 A
 LRC : 7.2
 Rated torque : 14.9 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 310 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.4003 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		5 / 16		
Date		12/04/2022		

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



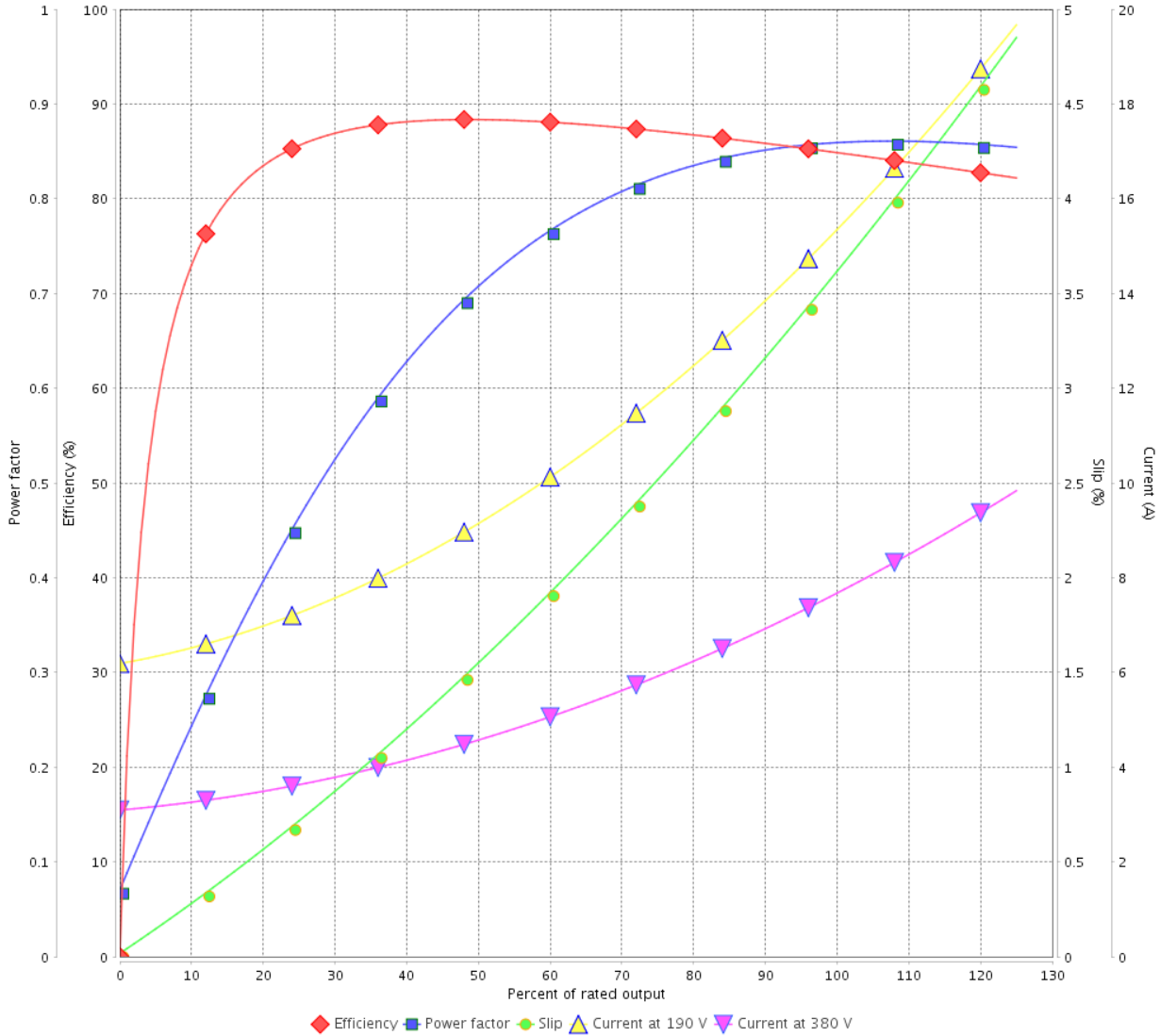
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 00518OT3E184T-SG

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 15.4/7.71 A
 LRC : 5.8
 Rated torque : 18.2 ft.lb
 Locked rotor torque : 140 %
 Breakdown torque : 220 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.4003 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			6 / 16	
Date	12/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

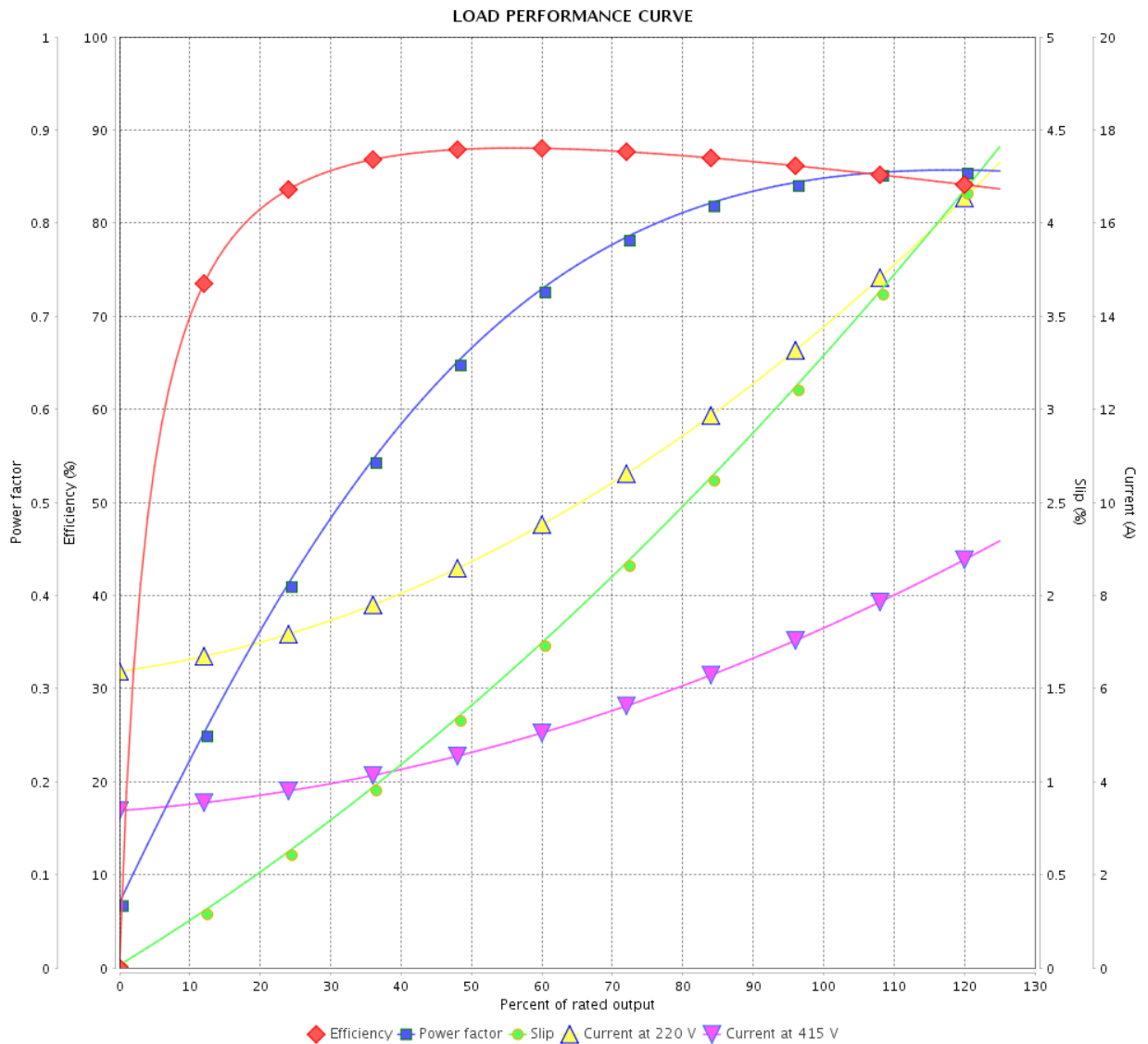


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 00518OT3E184T-SG



Performance : 220/415 V 50 Hz 4P

Rated current : 13.8/7.32 A
 LRC : 6.5
 Rated torque : 18.1 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 250 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.4003 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 / 16		
Date		12/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 12751141
 Catalog # : 00518OT3E184T-SG

Performance : 230/460 V 60 Hz 4P

Rated current : 12.7/6.33 A	Moment of inertia (J) : 0.4003 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 14.9 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.15
Breakdown torque : 310 %	Temperature rise : 80 K
Rated speed : 1760 rpm	Design : B

Heating constant

Cooling constant

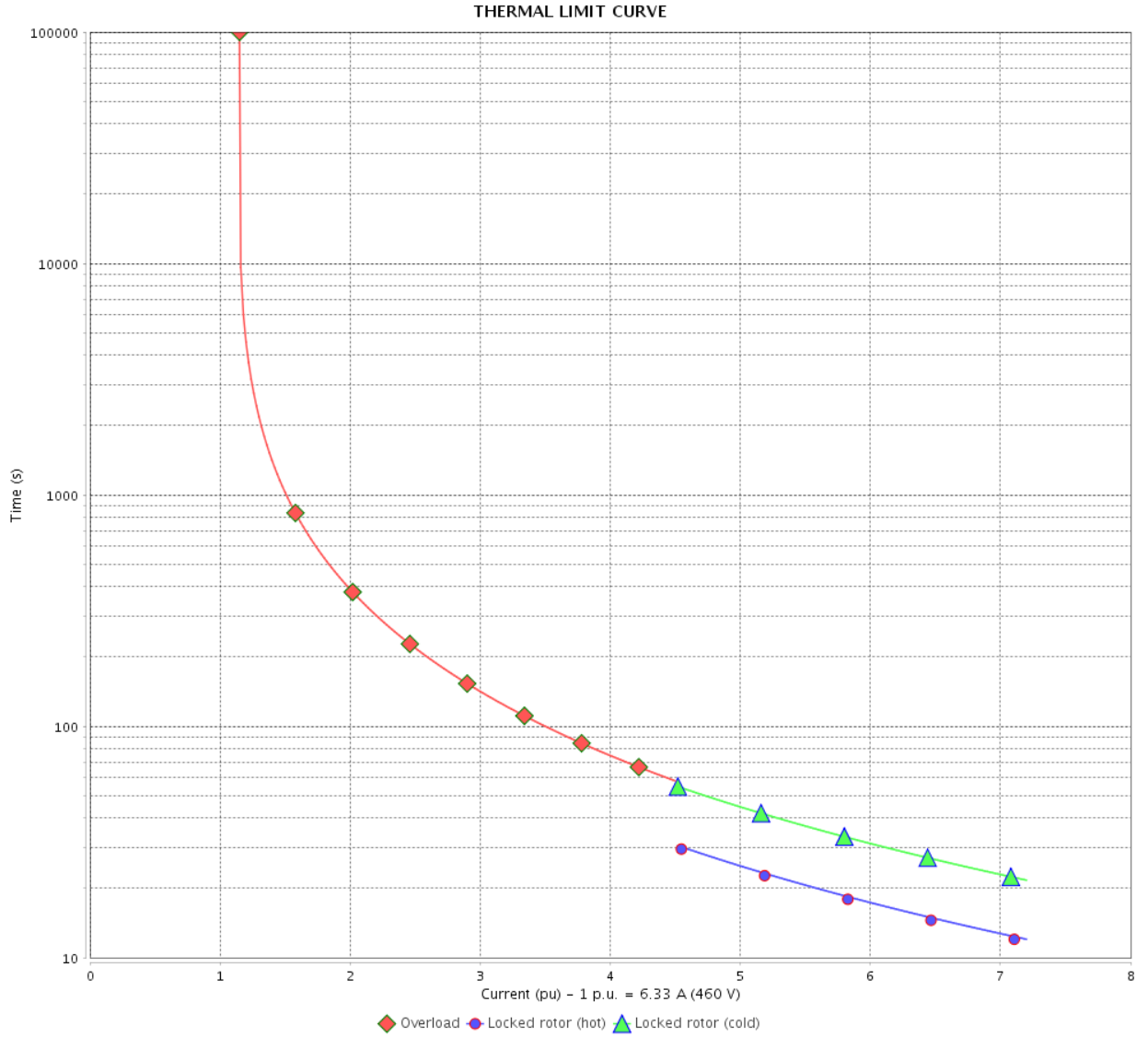
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 16	Revision
Checked by				
Date	12/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 12751141
Catalog # : 00518OT3E184T-SG

Performance : 190/380 V 50 Hz 4P

Rated current	: 15.4/7.71 A	Moment of inertia (J)	: 0.4003 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 18.2 ft.lb	Insulation class	: F
Locked rotor torque	: 140 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

Heating constant

Cooling constant

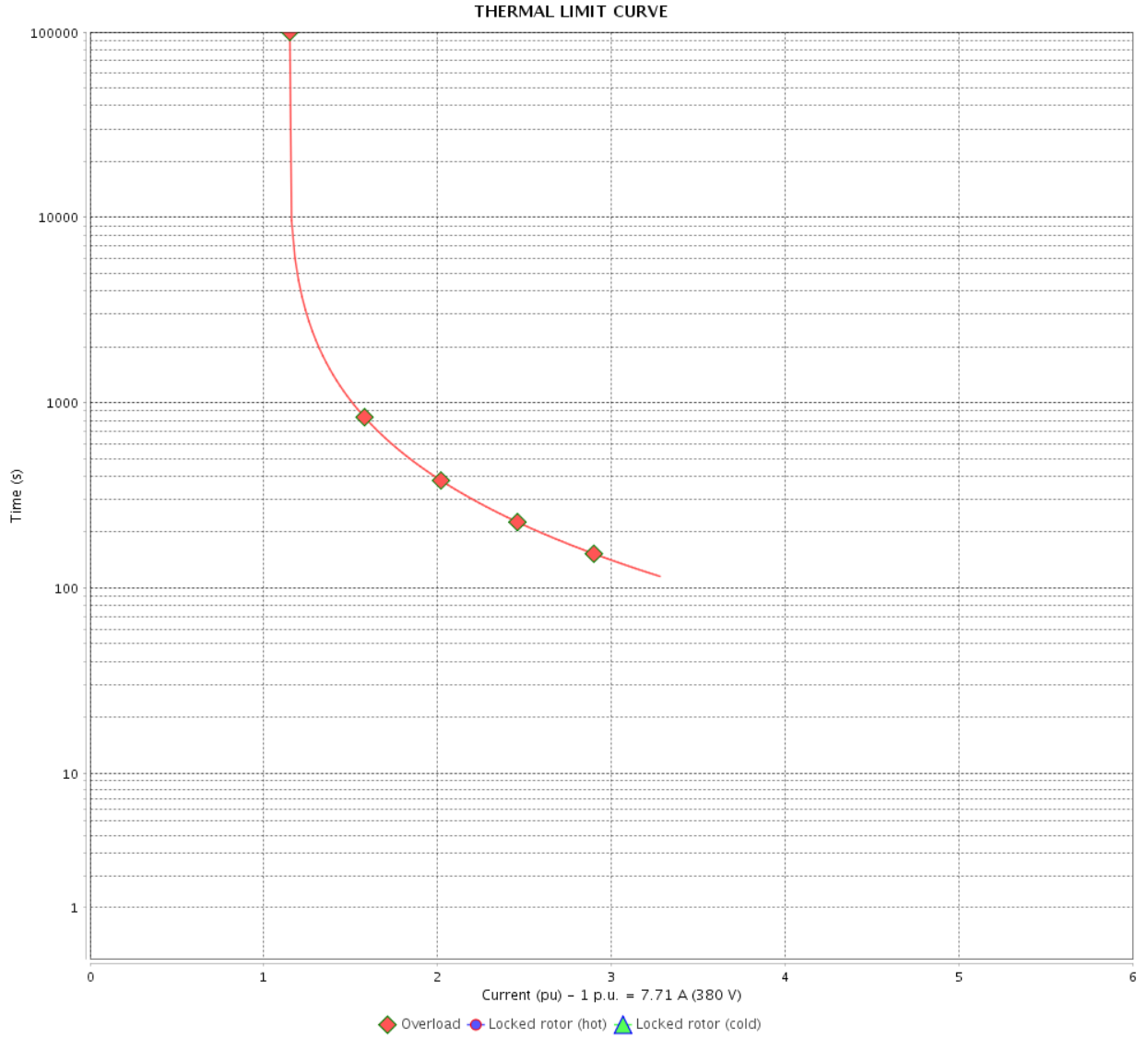
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	12/04/2022		10 / 16	

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		12/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
 Product code : 12751141
 Catalog # : 00518OT3E184T-SG

Performance : 220/415 V 50 Hz 4P

Rated current : 13.8/7.32 A	Moment of inertia (J) : 0.4003 sq.ft.lb
LRC : 6.5	Duty cycle : Cont.(S1)
Rated torque : 18.1 ft.lb	Insulation class : F
Locked rotor torque : 160 %	Service factor : 1.15
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 1450 rpm	Design : B

Heating constant

Cooling constant

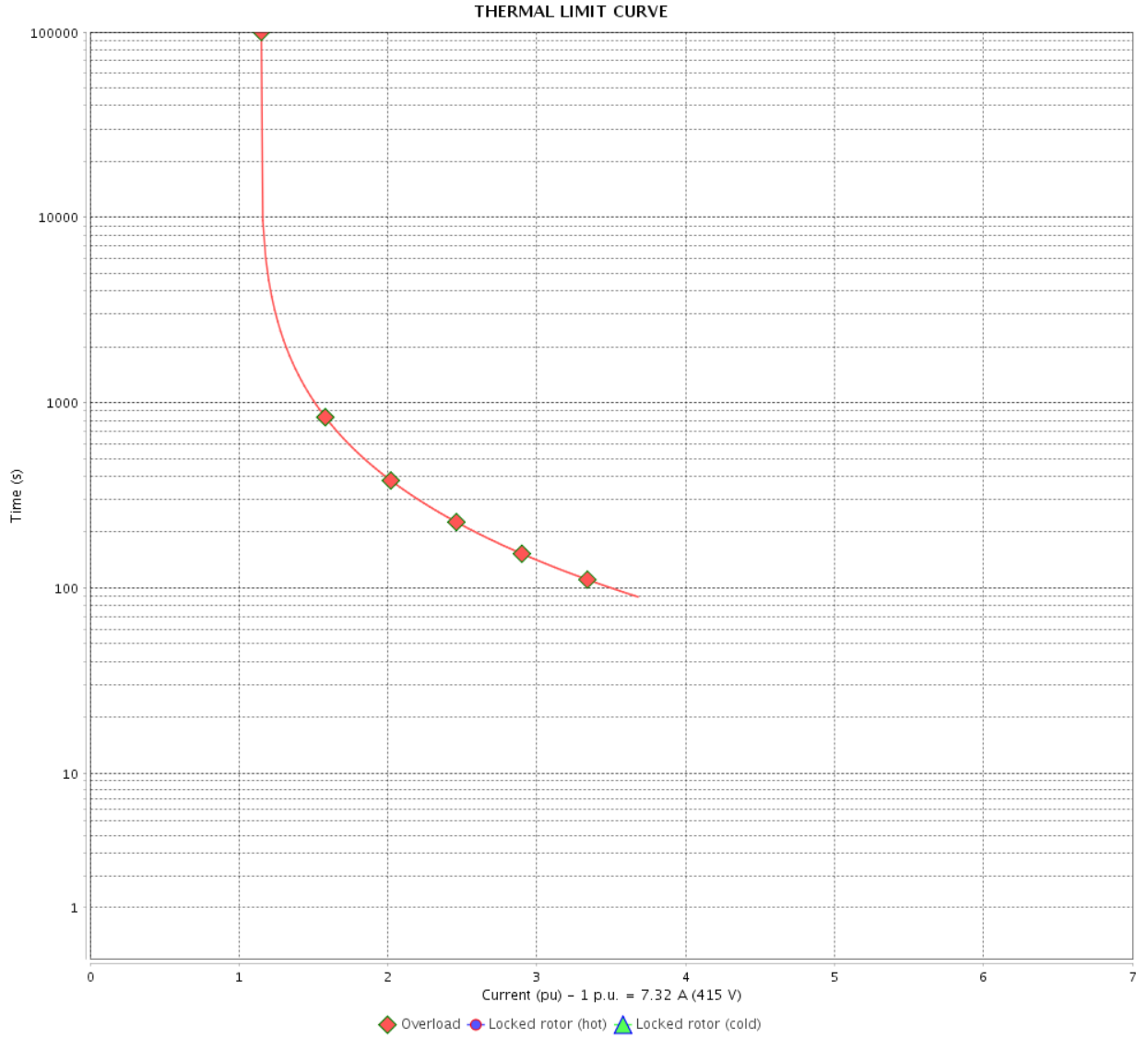
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 12 / 16	Revision
Checked by				
Date	12/04/2022			

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

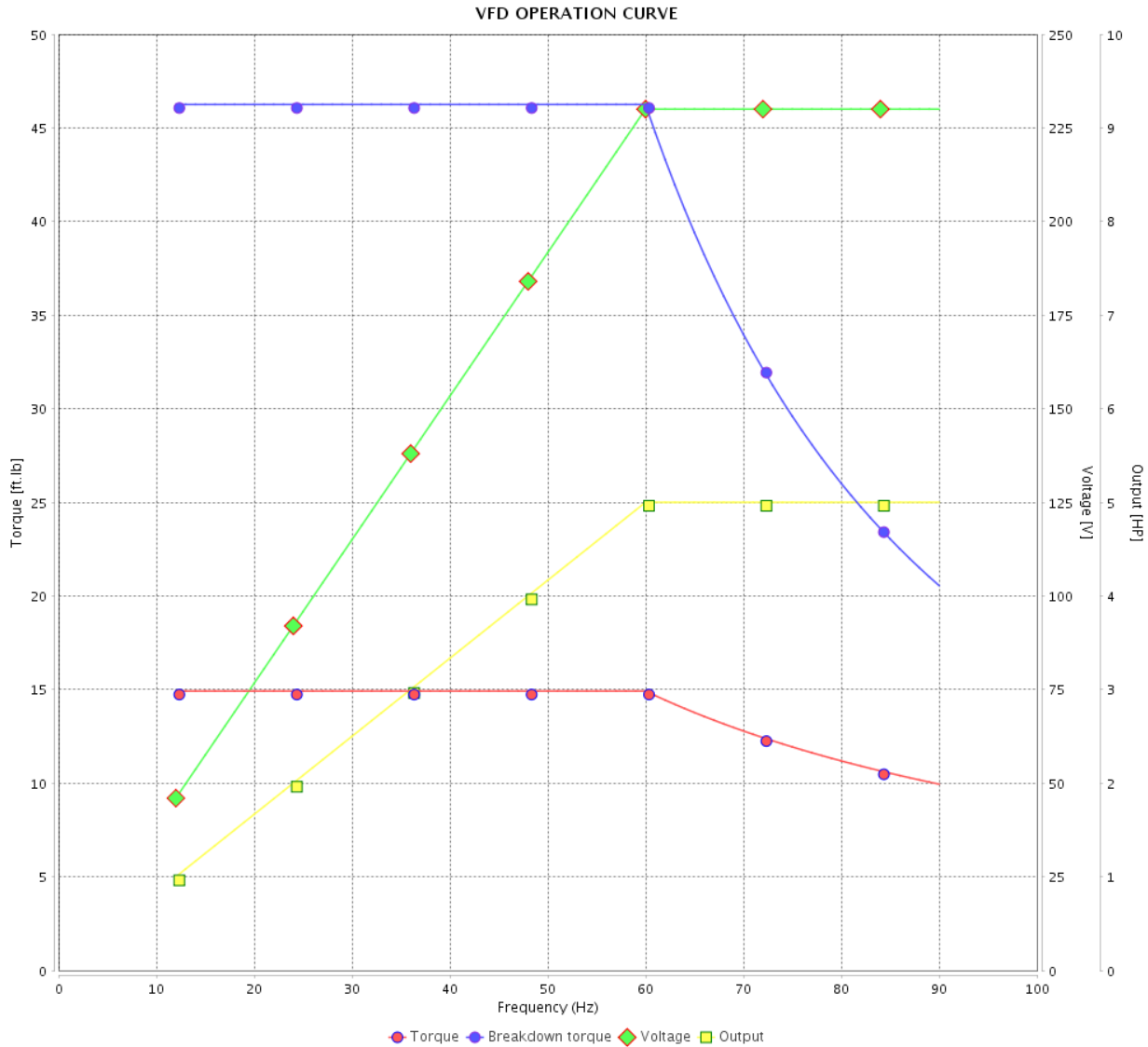


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 00518OT3E184T-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 12.7/6.33 A
 LRC : 7.2
 Rated torque : 14.9 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 310 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.4003 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

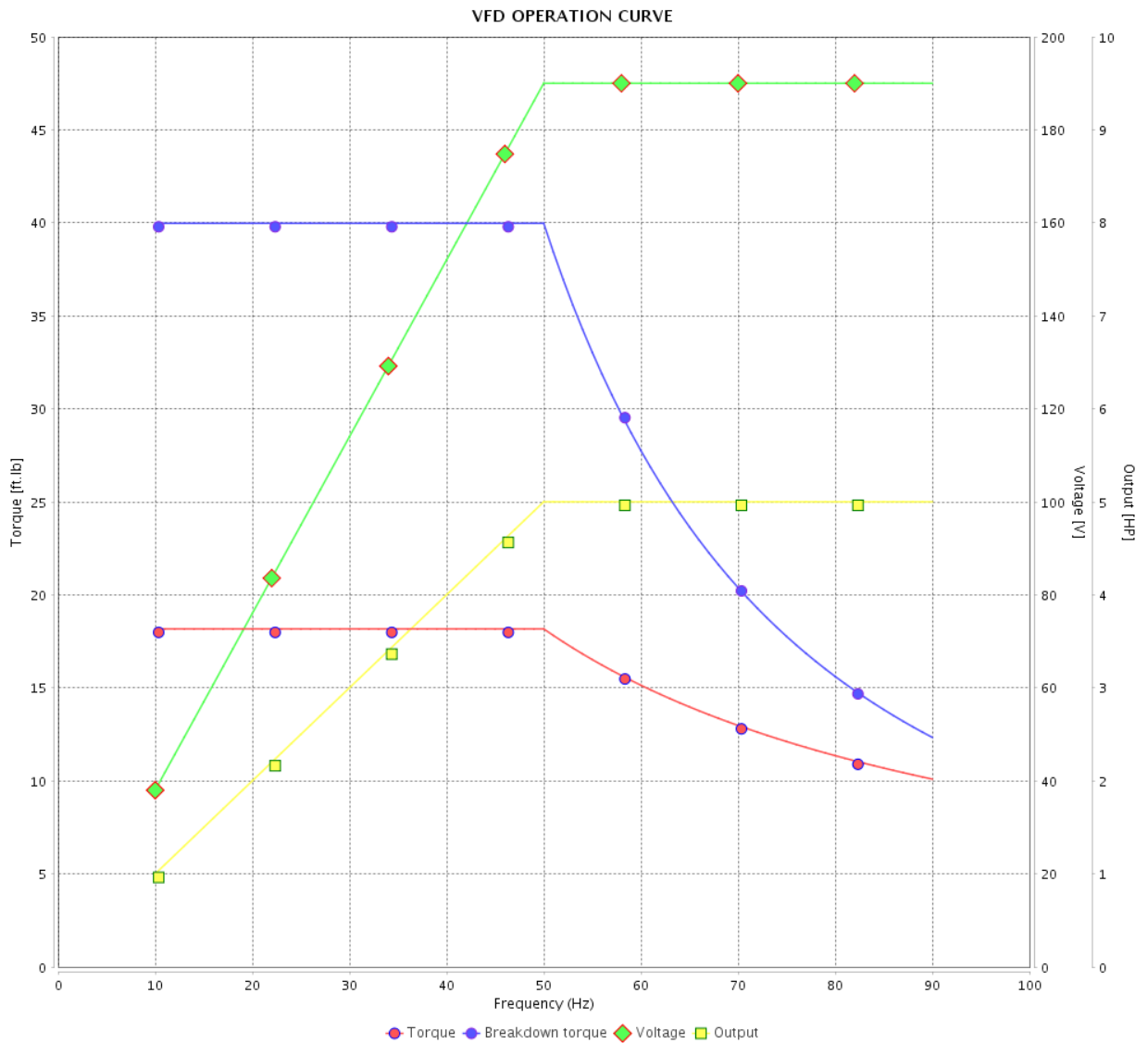


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 00518OT3E184T-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 15.4/7.71 A
 LRC : 5.8
 Rated torque : 18.2 ft.lb
 Locked rotor torque : 140 %
 Breakdown torque : 220 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.4003 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		15 / 16		
Date		12/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



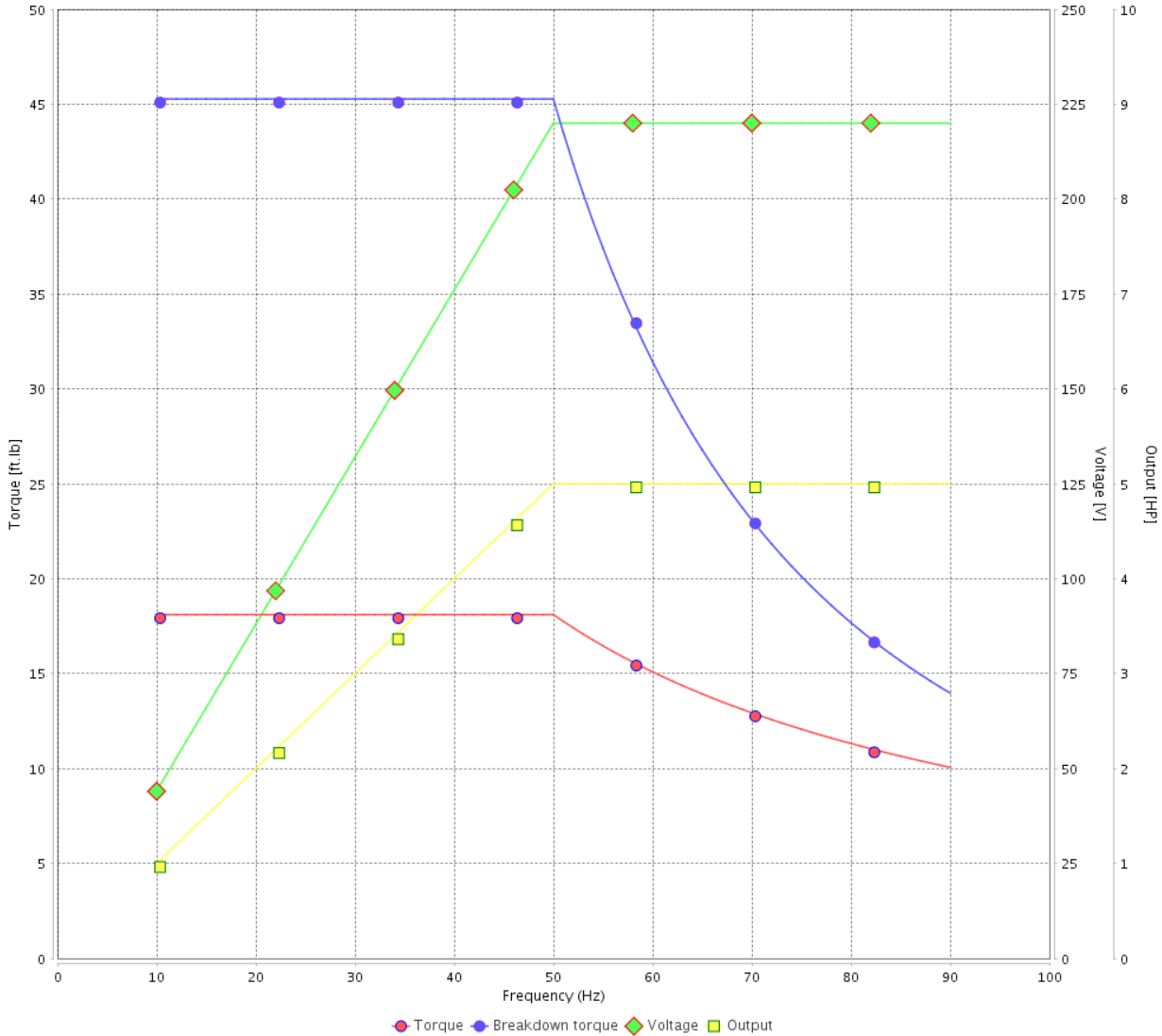
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751141

Catalog # : 00518OT3E184T-SG

VFD OPERATION CURVE



Performance : 220/415 V 50 Hz 4P

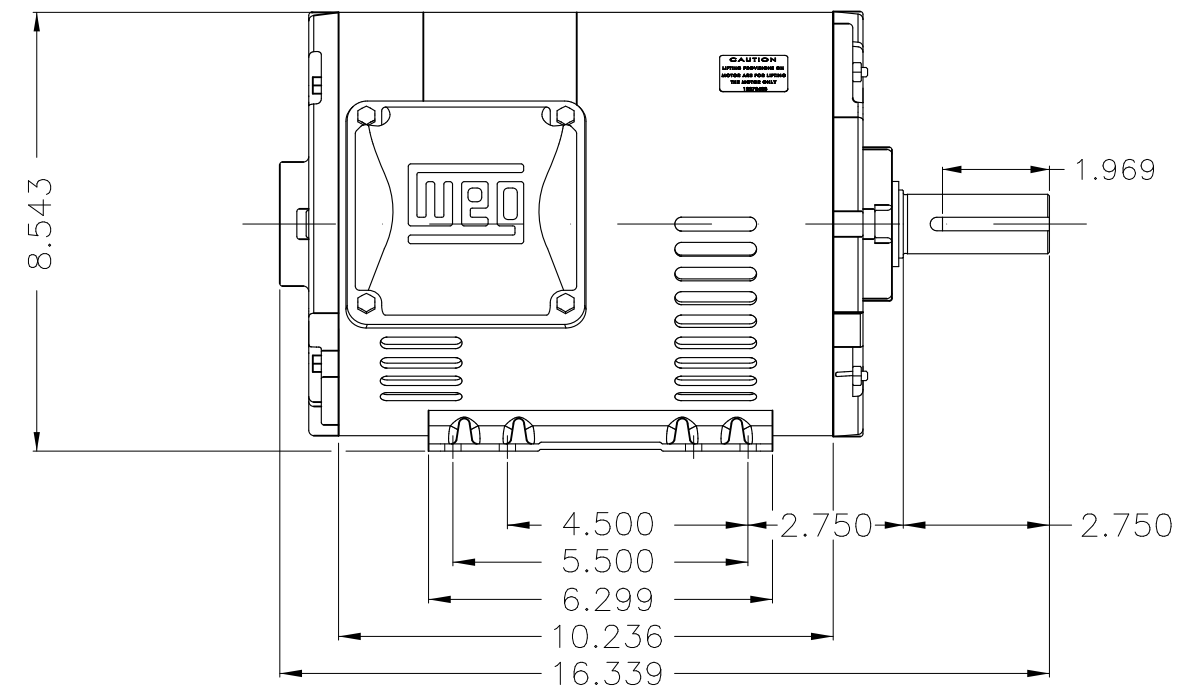
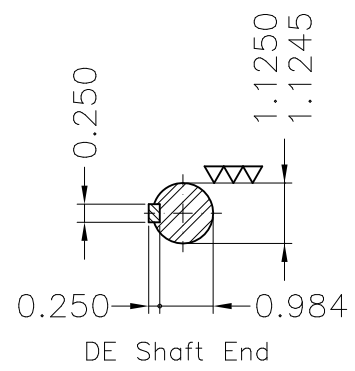
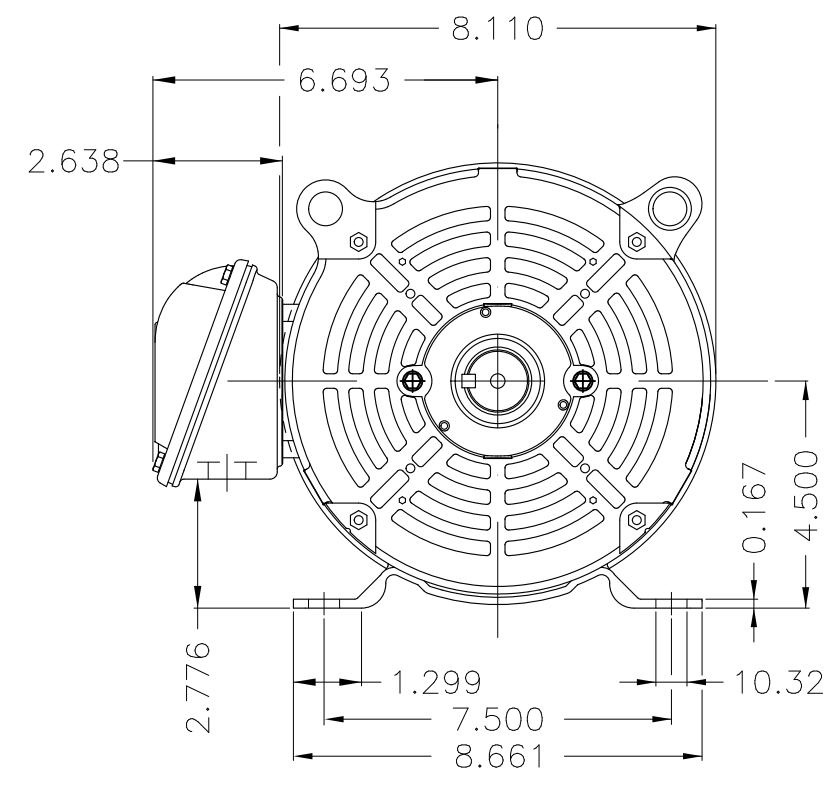
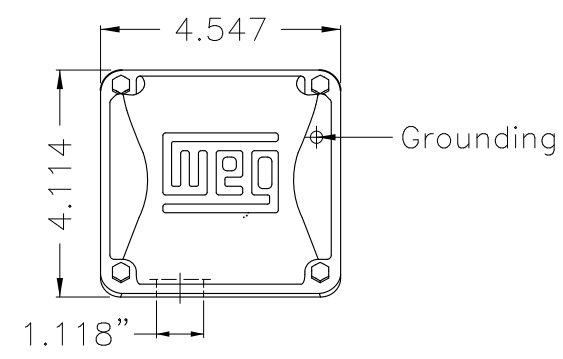
Rated current : 13.8/7.32 A
 LRC : 6.5
 Rated torque : 18.1 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 250 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.4003 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

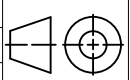
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 16	Revision
Checked by				
Date	12/04/2022			

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			

5 HP 04 Poles 60 Hz

A

PREVIEW
WDD



**NEMA**
Premium

MADE IN MEXICO

MAT: 12751141 CC029A

W01.T00IC0X0N

MODEL 005180T3E184T-SG

23MAR2022 S/N:

PH 3	Hz 60	HP 5.0
FR 182/4T		KW 3.7
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 12.7/6.33
INS CL F AT 80K		SFA 14.6/7.28
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE J	PF 0.82
USABLE @ 208V 14.0A		RPM 1760
SF1.00		NEMA NOM. EFF 89.5%

ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.15
 15.4-13.57.71-7.18A 1445RPM EFF 84.8% (IE1) 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.

