

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :			
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	13405270
		Catalog # :	00158OT3E145JMV-S
Frame	: 143/5JM	Cooling method	: IC01 - ODP
Insulation class	: F	Mounting	: W-6
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	: 43.3 lb
Design	: B	Moment of inertia (J)	: 0.1426 sq.ft.lb
Output [HP]	1.5	1.5	1.5
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	4.14/2.07	4.84/2.42	4.41/2.34
L. R. Amperes [A]	36.0/18.0	31.0/15.5	30.9/16.4
LRC [A]	8.7x(Code L)	6.4x(Code H)	7.0x(Code J)
No load current [A]	2.40/1.20	2.36/1.18	2.41/1.28
Rated speed [RPM]	1760	1440	1445
Slip [%]	2.22	4.00	3.67
Rated torque [ft.lb]	4.48	5.47	5.45
Locked rotor torque [%]	280	190	220
Breakdown torque [%]	330	250	280
Service factor		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	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	83.6	84.0
	50%	84.0	83.6
	75%	86.5	84.8
	100%	86.5	83.9
Power Factor	25%	0.32	0.35
	50%	0.56	0.60
	75%	0.69	0.73
	100%	0.77	0.81
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads	
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 111 lb
		Max. compression	: 154 lb
Lubrication interval	: - -		
Lubricant amount	: - -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 4.58A SF 1.00 SFA 4.58A			
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	14/04/2022		Revision
			1 / 16

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



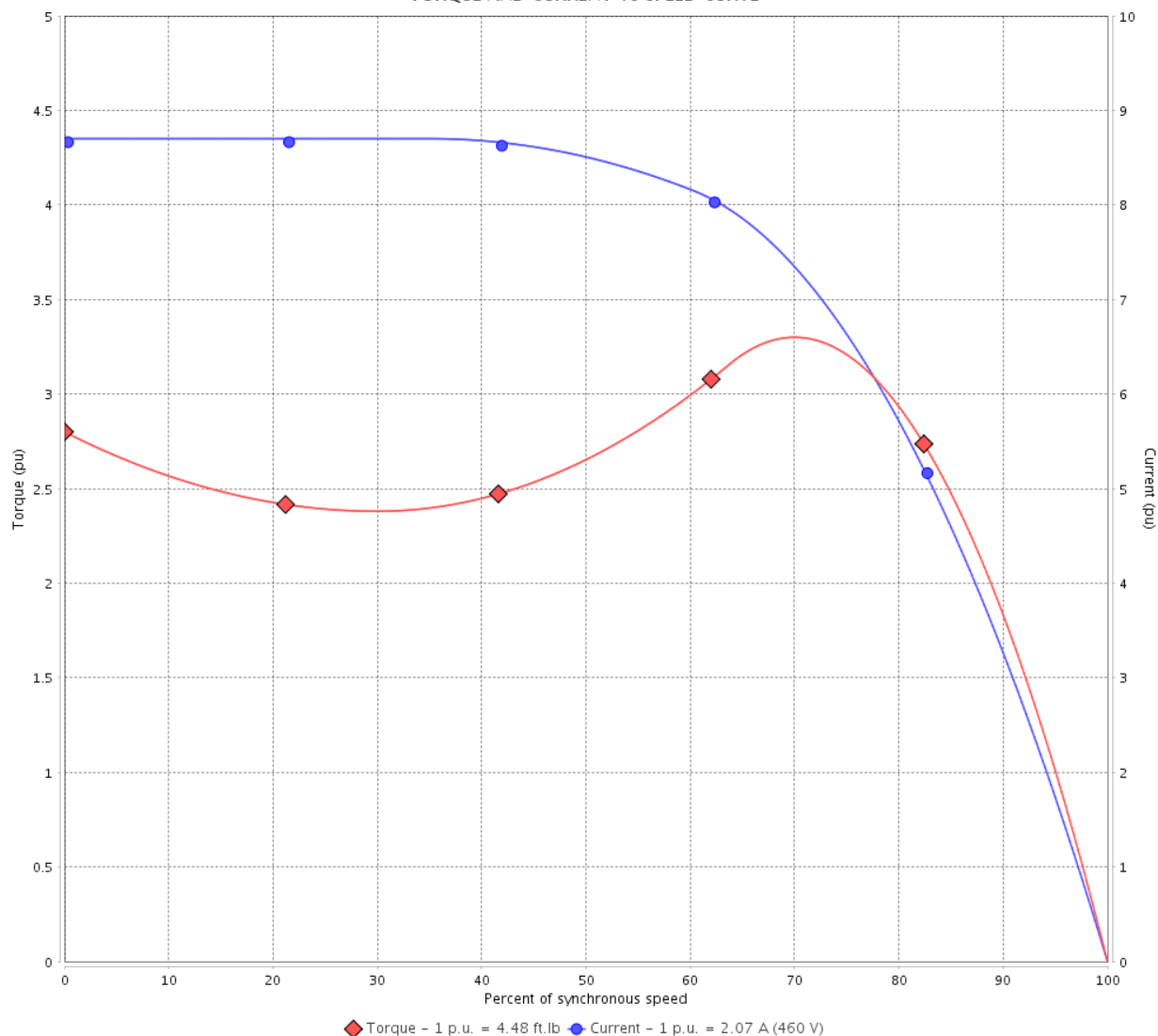
Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 4.14/2.07 A
LRC : 8.7
Rated torque : 4.48 ft.lb
Locked rotor torque : 280 %
Breakdown torque : 330 %
Rated speed : 1760 rpm

Moment of inertia (J) : 0.1426 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor :
Temperature rise : 80 K
Design : B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 16	Revision
Checked by				
Date	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE



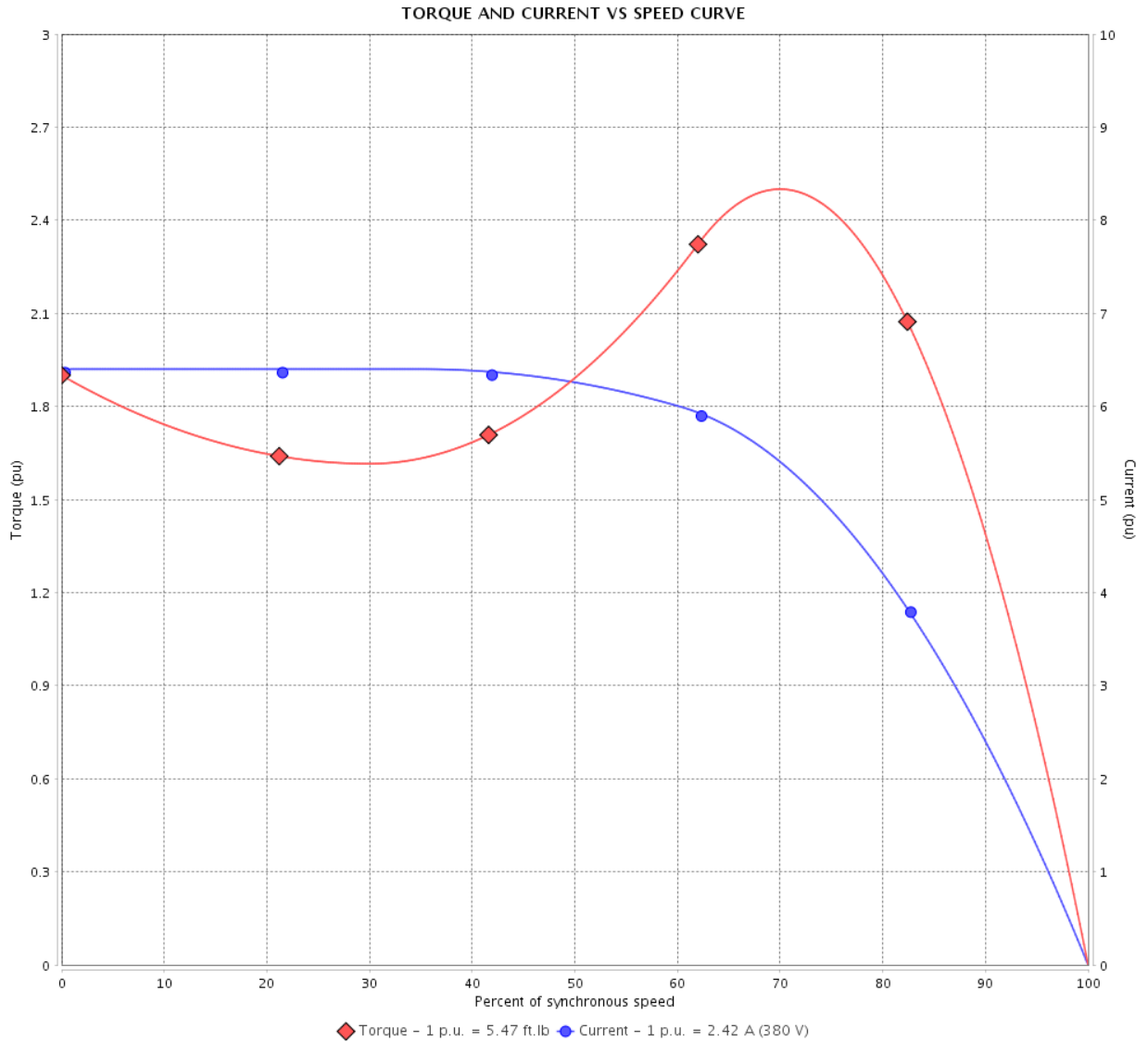
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S



Performance : 190/380 V 50 Hz 4P

Rated current : 4.84/2.42 A
 LRC : 6.4
 Rated torque : 5.47 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 250 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.1426 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	14/04/2022			

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



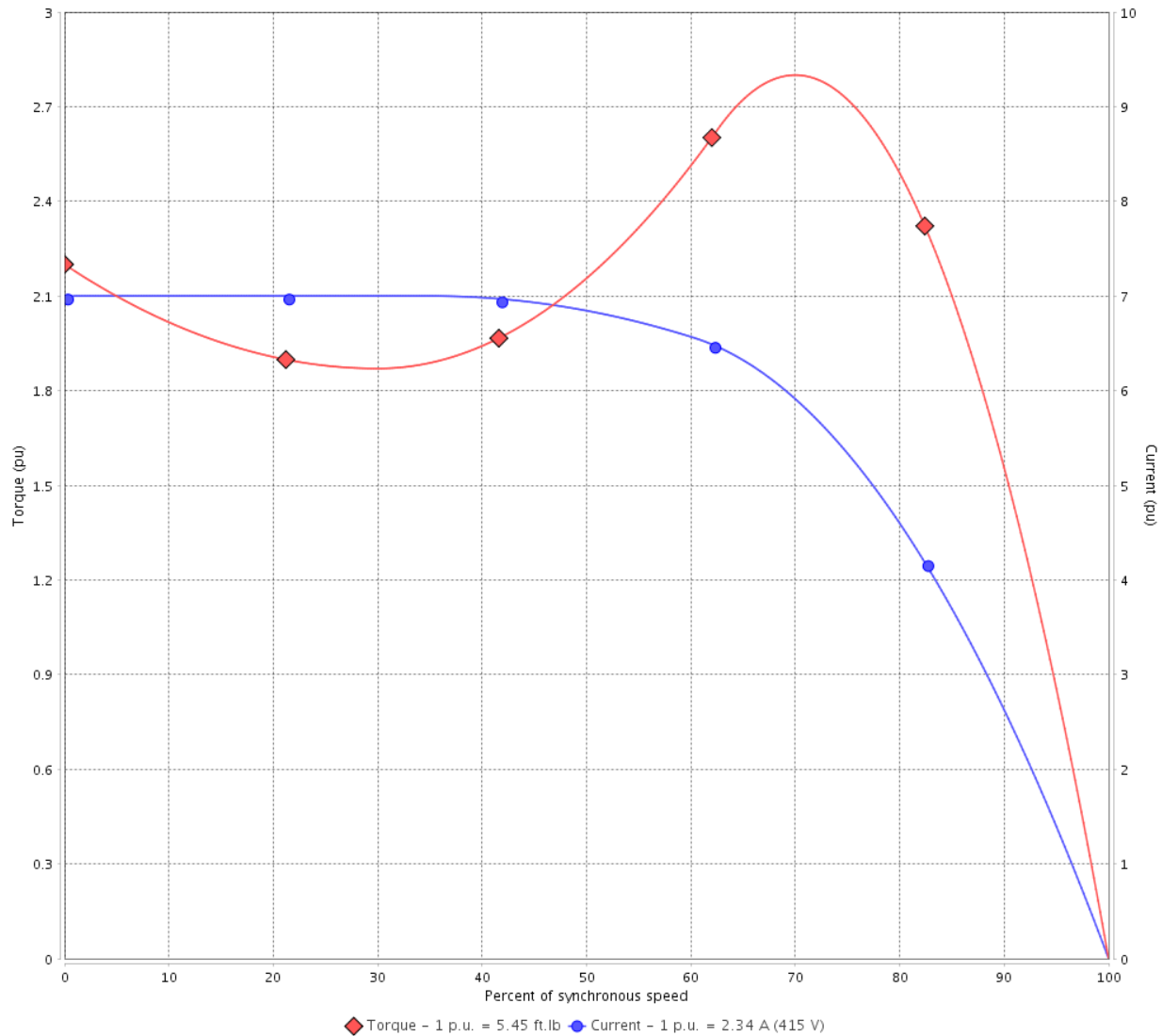
Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 4.41/2.34 A	Moment of inertia (J)	: 0.1426 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 5.45 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1445 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	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

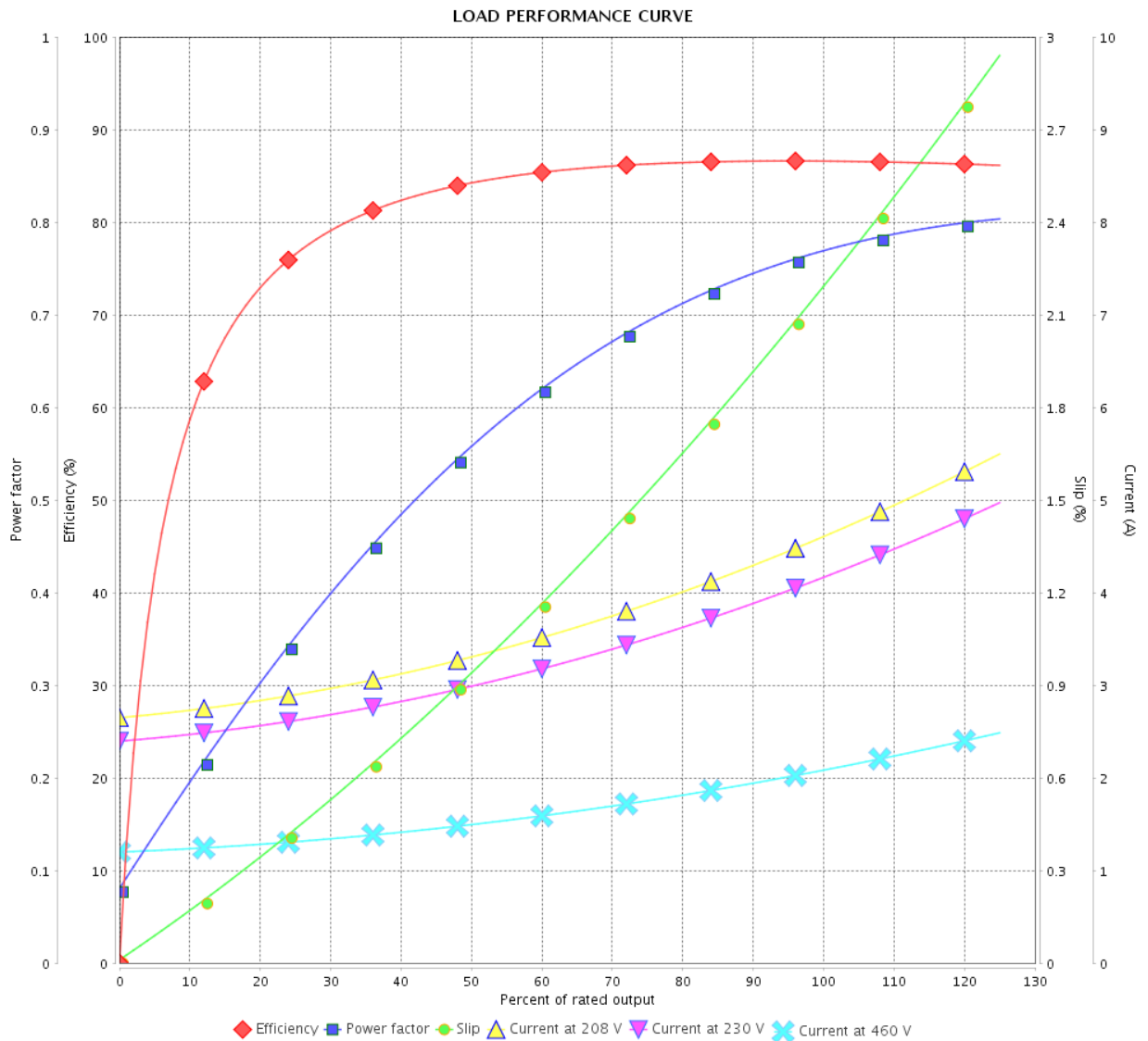


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S



Performance : 230/460 V 60 Hz 4P

Rated current : 4.14/2.07 A
 LRC : 8.7
 Rated torque : 4.48 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 330 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.1426 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 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



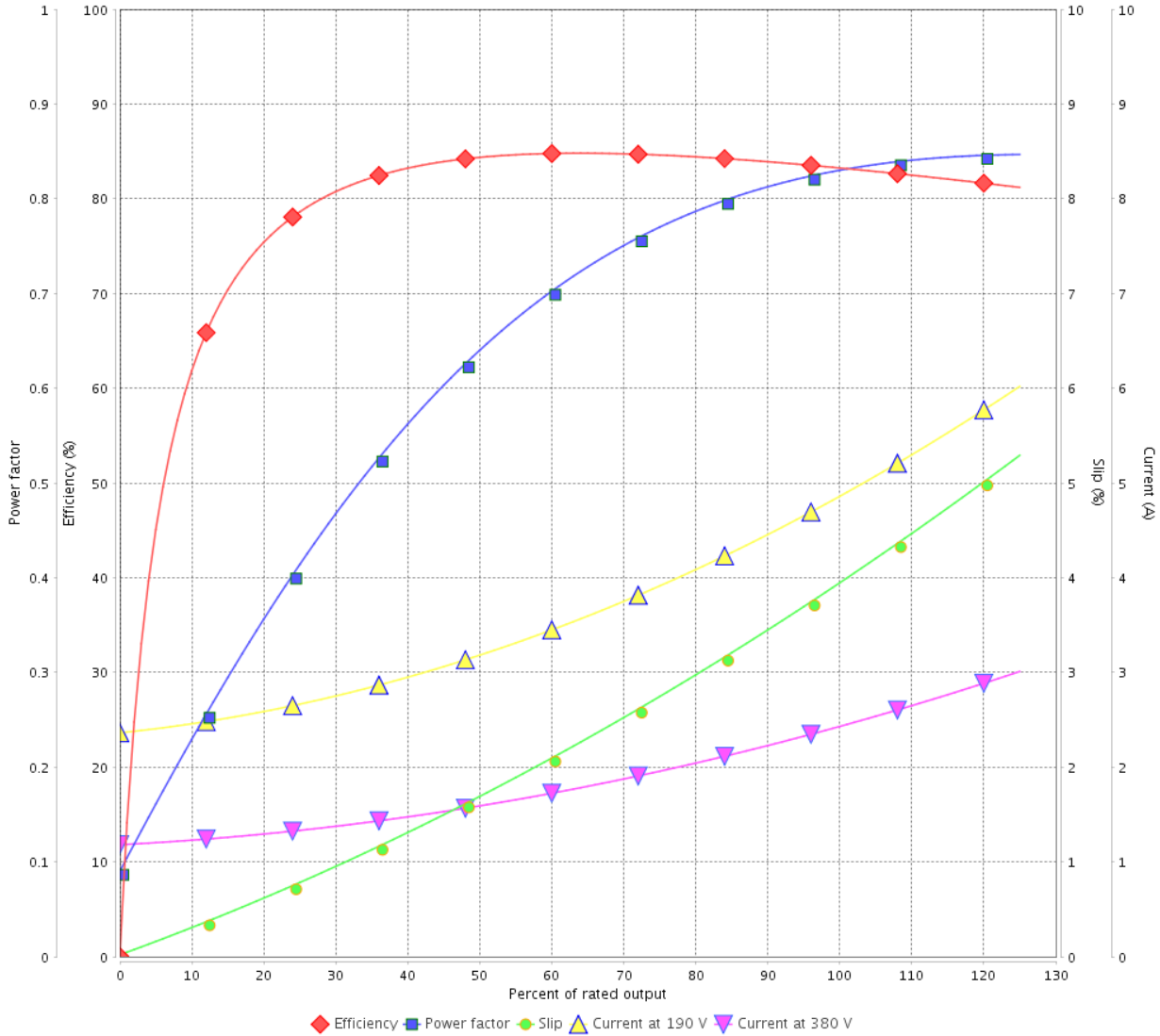
Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 4.84/2.42 A
LRC : 6.4
Rated torque : 5.47 ft.lb
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 1440 rpm

Moment of inertia (J) : 0.1426 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	14/04/2022			

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

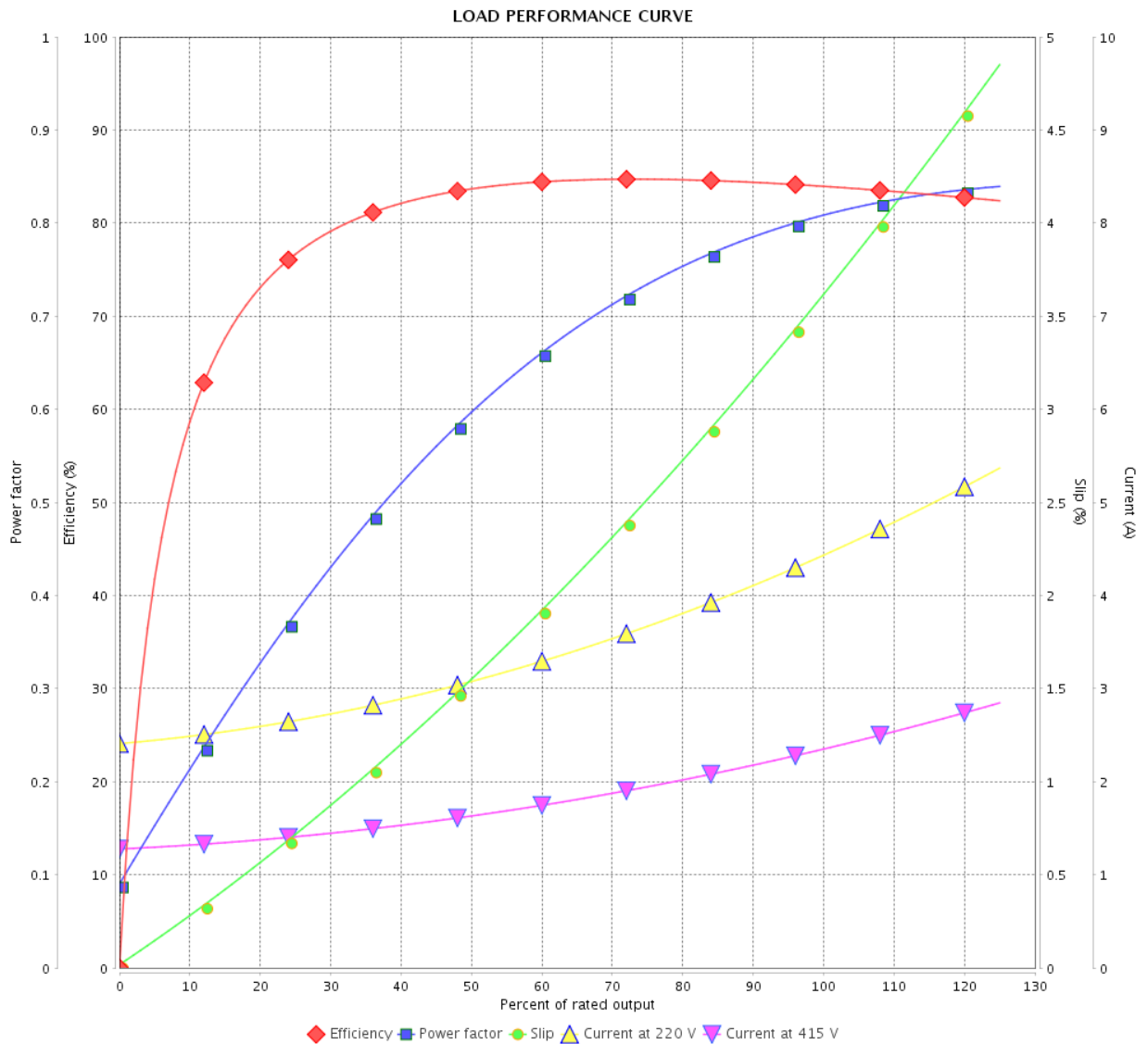


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S



Performance : 220/415 V 50 Hz 4P

Rated current : 4.41/2.34 A
 LRC : 7.0
 Rated torque : 5.45 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.1426 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		14/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S

Performance : 230/460 V 60 Hz 4P

Rated current : 4.14/2.07 A
LRC : 8.7
Rated torque : 4.48 ft.lb
Locked rotor torque : 280 %
Breakdown torque : 330 %
Rated speed : 1760 rpm

Moment of inertia (J) : 0.1426 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor :
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

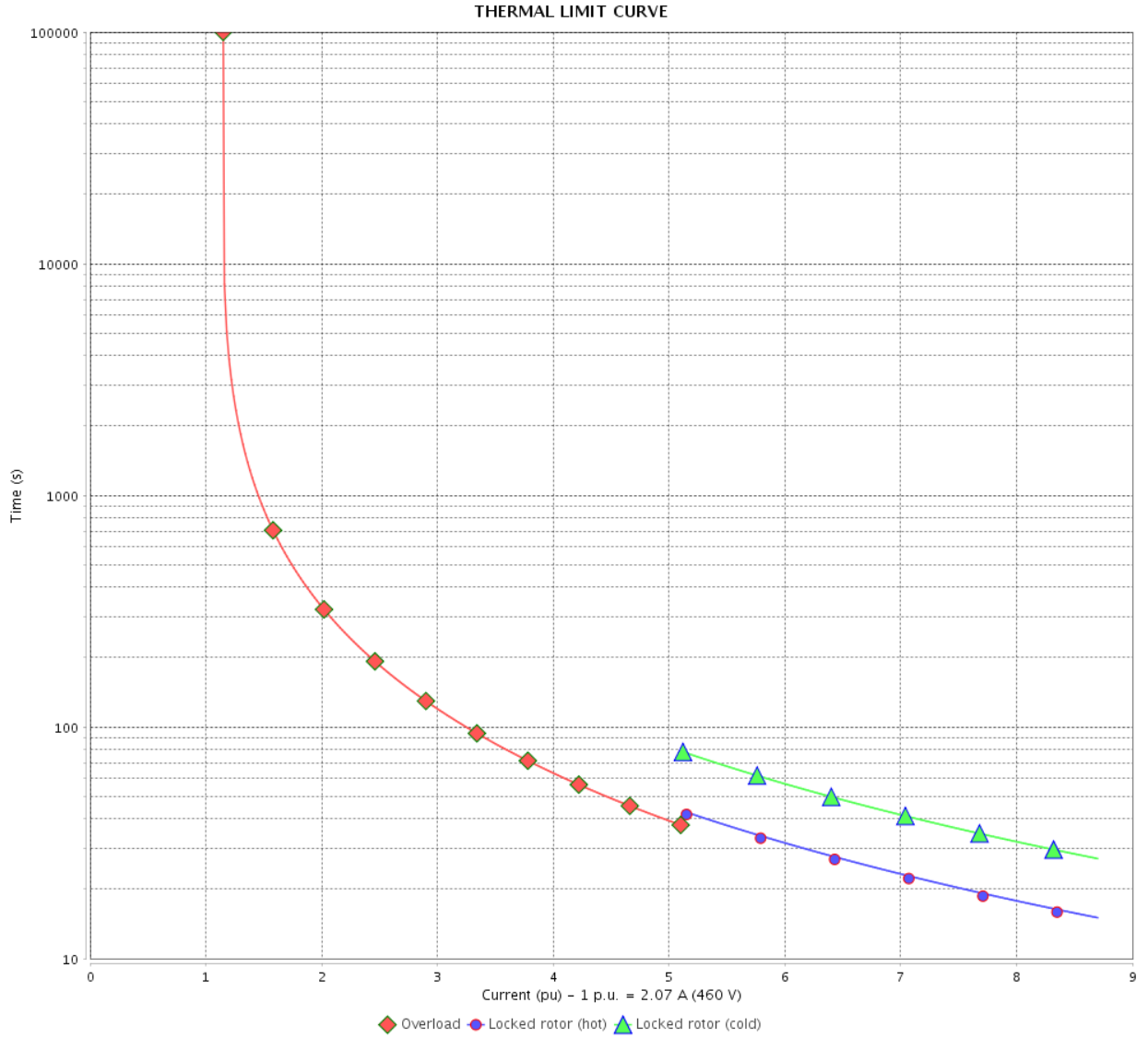
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		8 / 16	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S

Performance : 190/380 V 50 Hz 4P

Rated current : 4.84/2.42 A
LRC : 6.4
Rated torque : 5.47 ft.lb
Locked rotor torque : 190 %
Breakdown torque : 250 %
Rated speed : 1440 rpm

Moment of inertia (J) : 0.1426 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

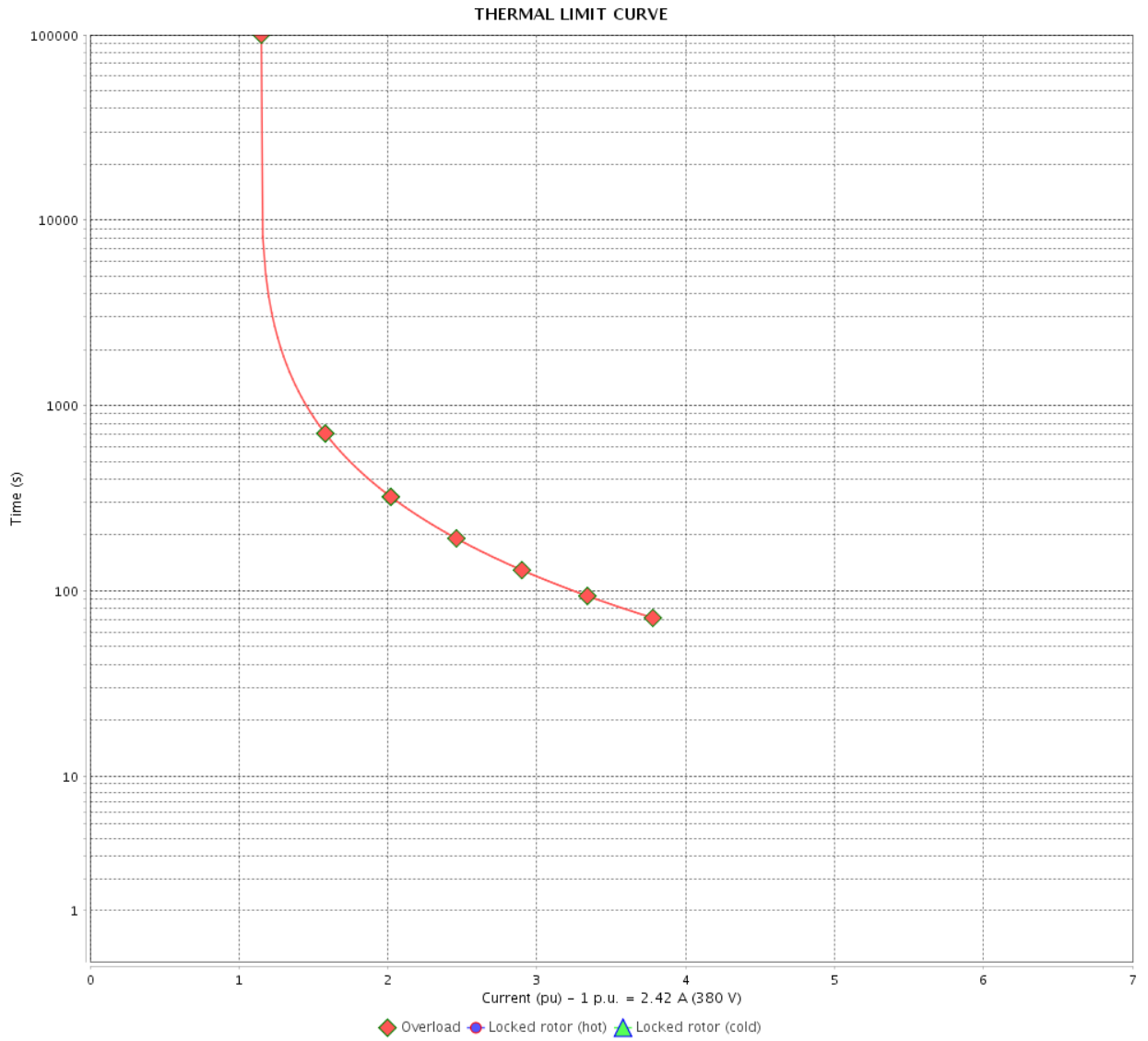
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		10 / 16	

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		14/04/2022		

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S

Performance : 220/415 V 50 Hz 4P

Rated current : 4.41/2.34 A
LRC : 7.0
Rated torque : 5.45 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 280 %
Rated speed : 1445 rpm

Moment of inertia (J) : 0.1426 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

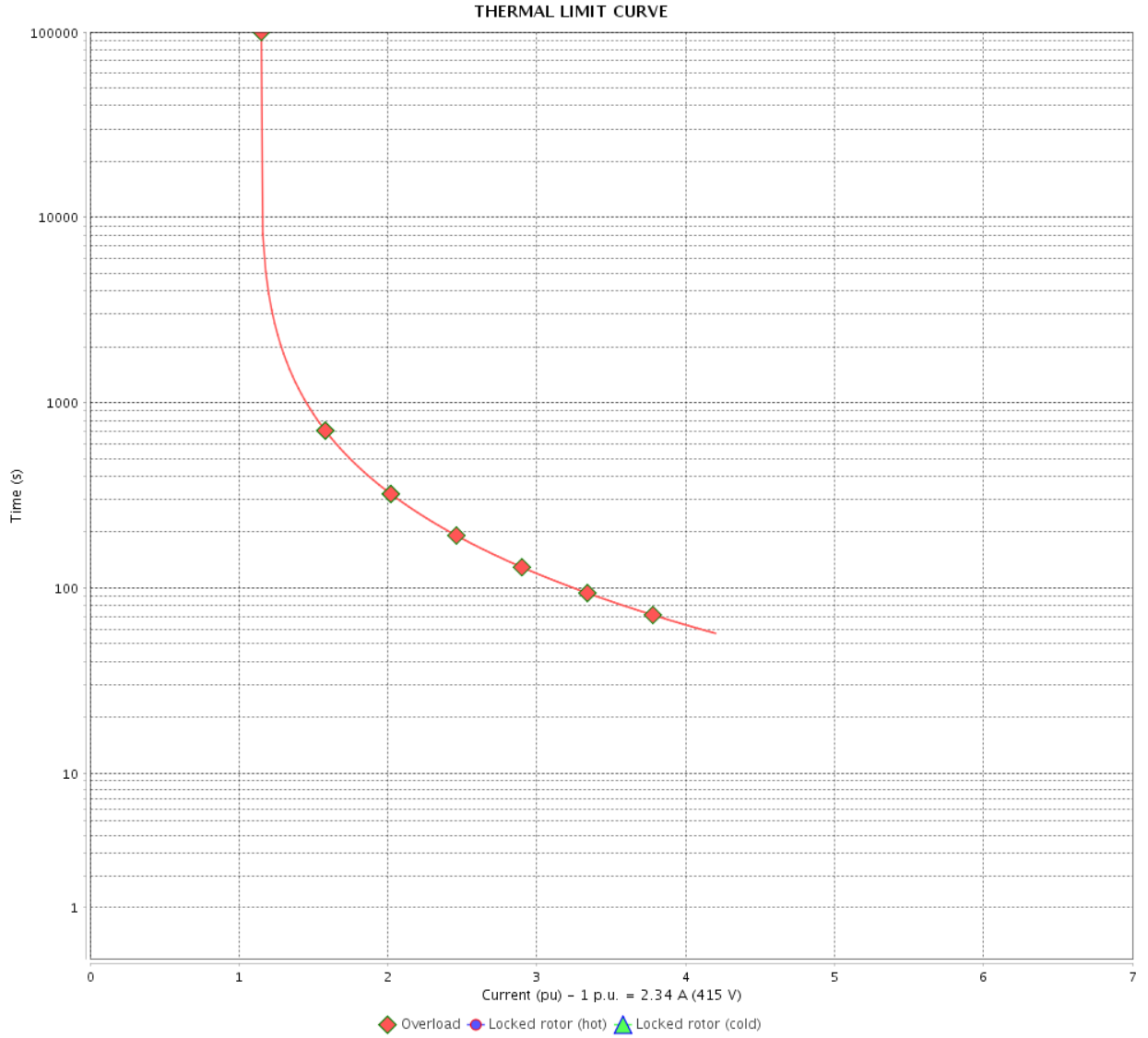
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	14/04/2022		12 / 16	

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

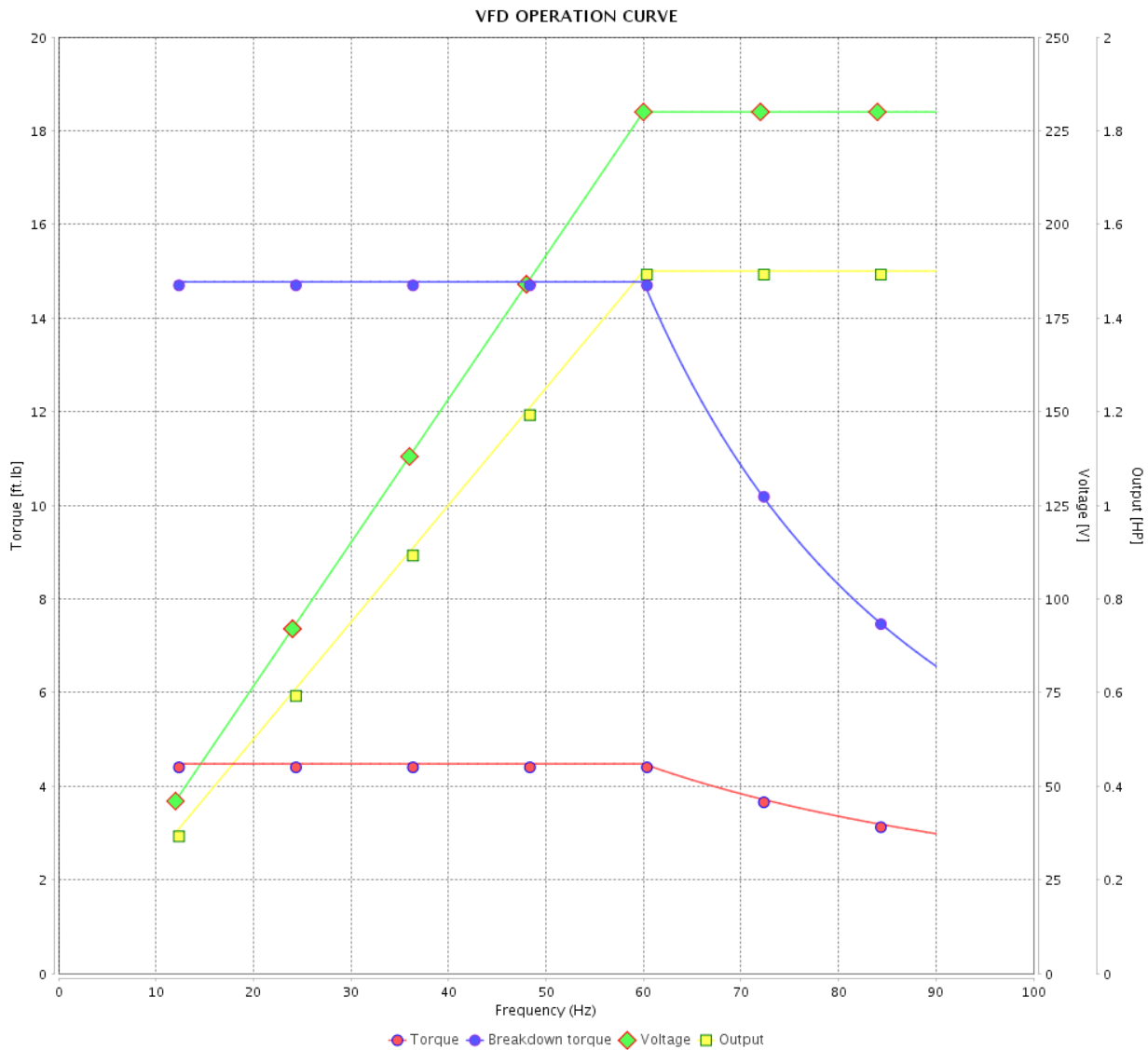


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S



Performance : 230/460 V 60 Hz 4P

Rated current : 4.14/2.07 A
 LRC : 8.7
 Rated torque : 4.48 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 330 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.1426 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 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

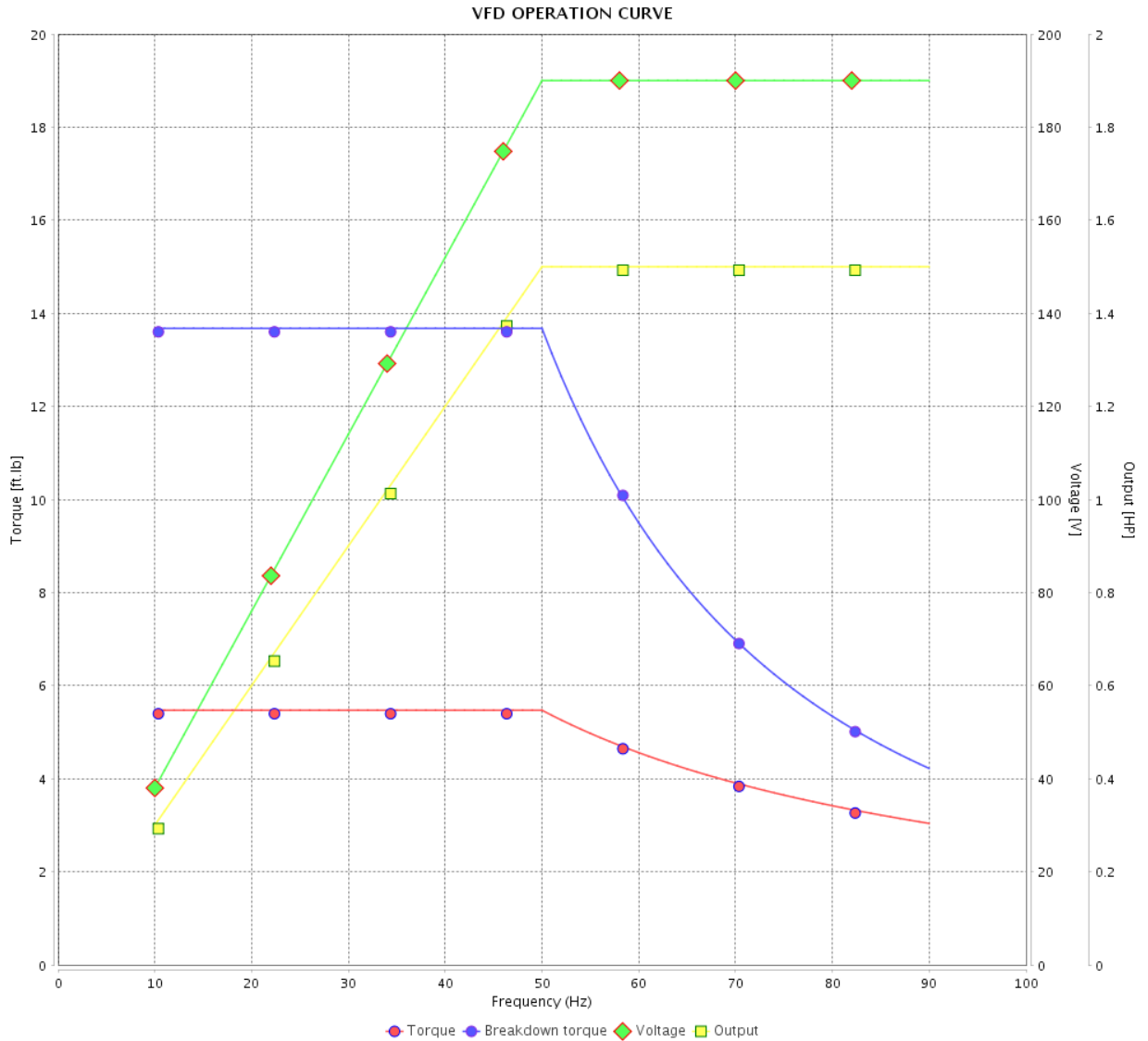


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S



Performance : 190/380 V 50 Hz 4P

Rated current : 4.84/2.42 A
 LRC : 6.4
 Rated torque : 5.47 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 250 %
 Rated speed : 1440 rpm

Moment of inertia (J) : 0.1426 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		14/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



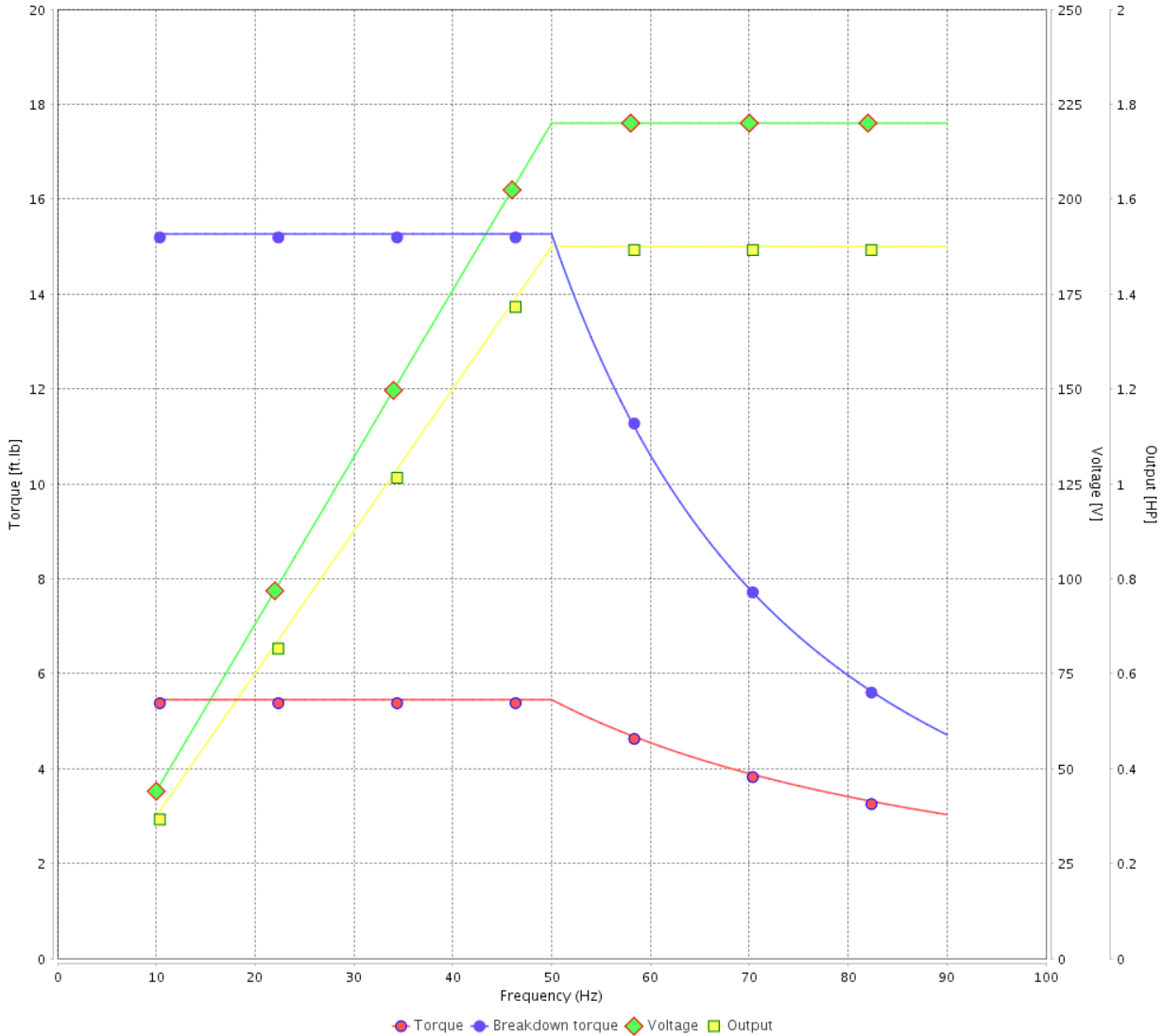
Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13405270

Catalog # : 00158OT3E145JMV-S

VFD OPERATION CURVE



Performance : 220/415 V 50 Hz 4P

Rated current : 4.41/2.34 A
 LRC : 7.0
 Rated torque : 5.45 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 280 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.1426 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				

1 2 3 4 5 6

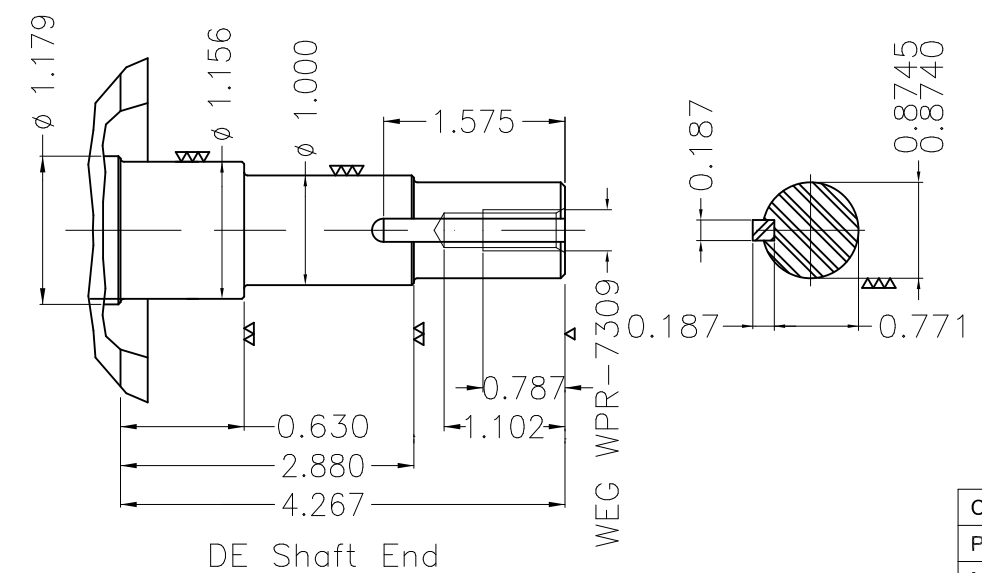
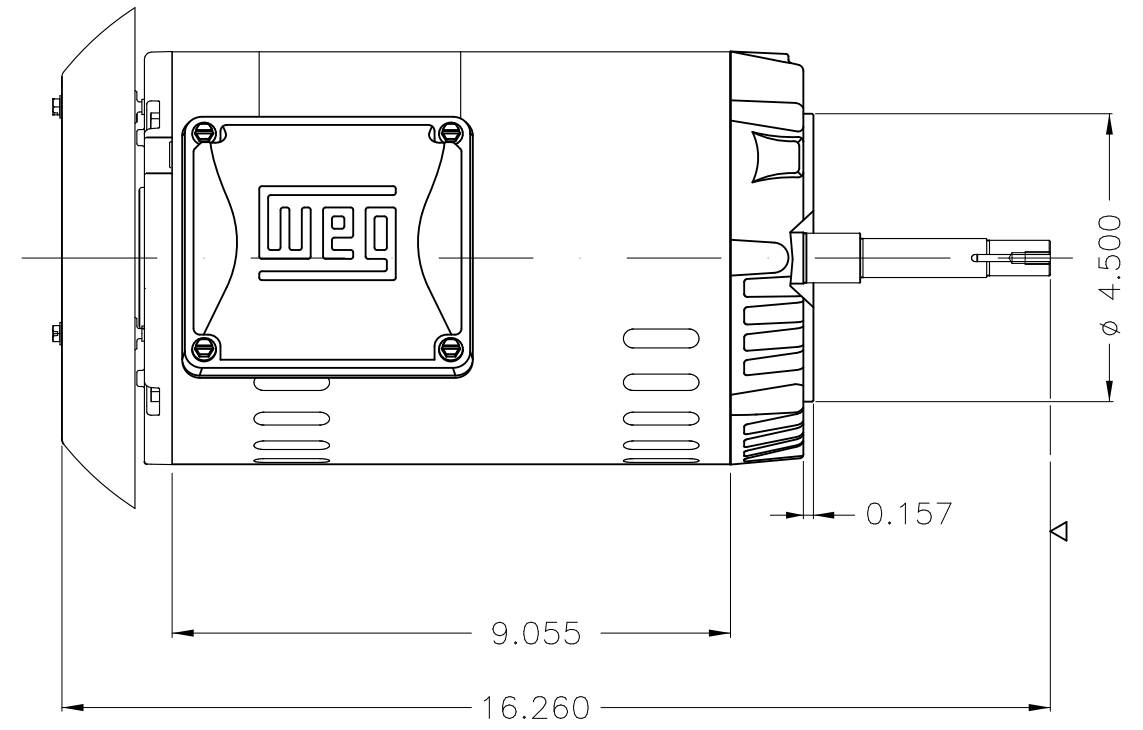
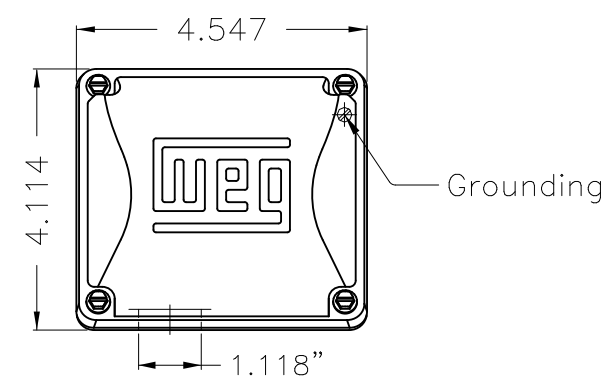
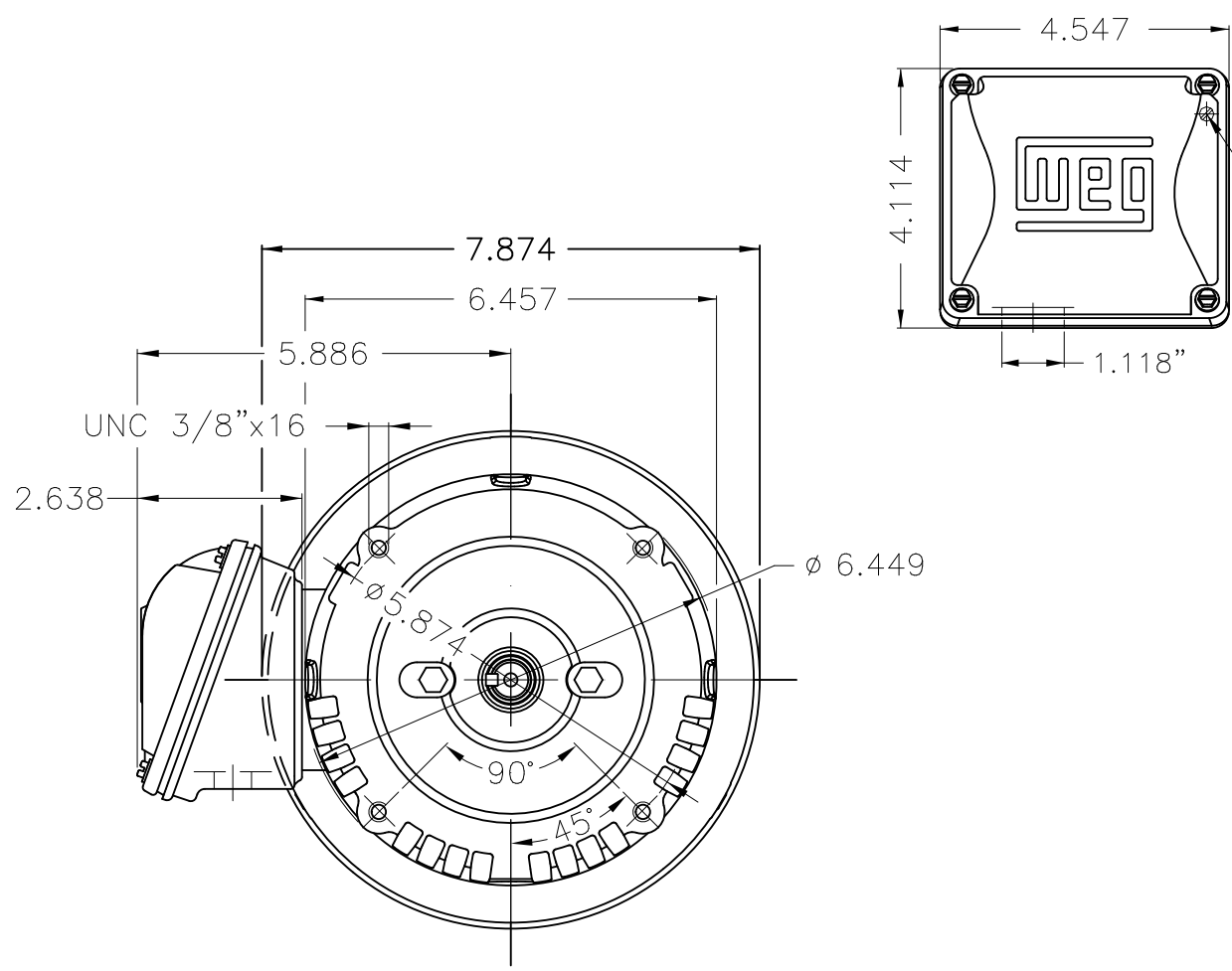
A

B

C

D

E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

Color Munsell N 1 matte black									
Painting plan 207N									
Mounting W-6/V18R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 187							
CHECKED		FRAME 143/5JM IP21 ODP							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

1.5 HP 04 Poles 60 Hz

A SHEET 1 / 1



Dimensions in inches XME A3

**NEMA
Premium**

MADE IN BRAZIL

MAT: 13405270 CC029A**W01.T00IC0X0N****MODEL 001580T3E145JMV-S****19APR2022 B/N:**

PH 3	Hz 60	HP 1.5
FR 143/5JM		KW 1.1
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 4.14/2.07
INS CL F AT 80K		SFA 4.76/2.38
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE L	PF 0.77
USABLE @ 208V 4.58A		RPM 1760
SF1.00		NEMA NOM. EFF 86.5%

ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15
4.84-4.34/2.42-2.30A 1440RPM EFF 83.2% (IE2) IEC 60034-1

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

DE 6206-ZZ	ODE 6203-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.

