

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12751142	
Catalog # :	00536OT3E182T-S	
Frame	: 182/4T	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Design	: B	
Cooling method	: IC01 - ODP	
Mounting	: F-1	
Rotation <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 56.4 lb	
Moment of inertia (J)	: 0.1386 sq.ft.lb	
Output [HP]	5	
Poles	2	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	12.2/6.10	
L. R. Amperes [A]	92.7/46.4	
LRC [A]	7.6x(Code J)	
No load current [A]	5.15/2.58	
Rated speed [RPM]	3510	
Slip [%]	2.50	
Rated torque [ft.lb]	7.48	
Locked rotor torque [%]	190	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	21s (cold) 12s (hot)	
Noise level <sup>2</sup>	65.0 dB(A)	
Efficiency (%)	25%	85.2
	50%	85.5
	75%	86.5
	100%	86.5
Power Factor	25%	0.45
	50%	0.73
	75%	0.83
	100%	0.88
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	
Sealing	: Without Without	
	: Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 116 lb	
	Max. compression : 173 lb	
Notes USABLE @208V 13.5A SF 1.00 SFA 13.5A		
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.		
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13/04/2022		
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



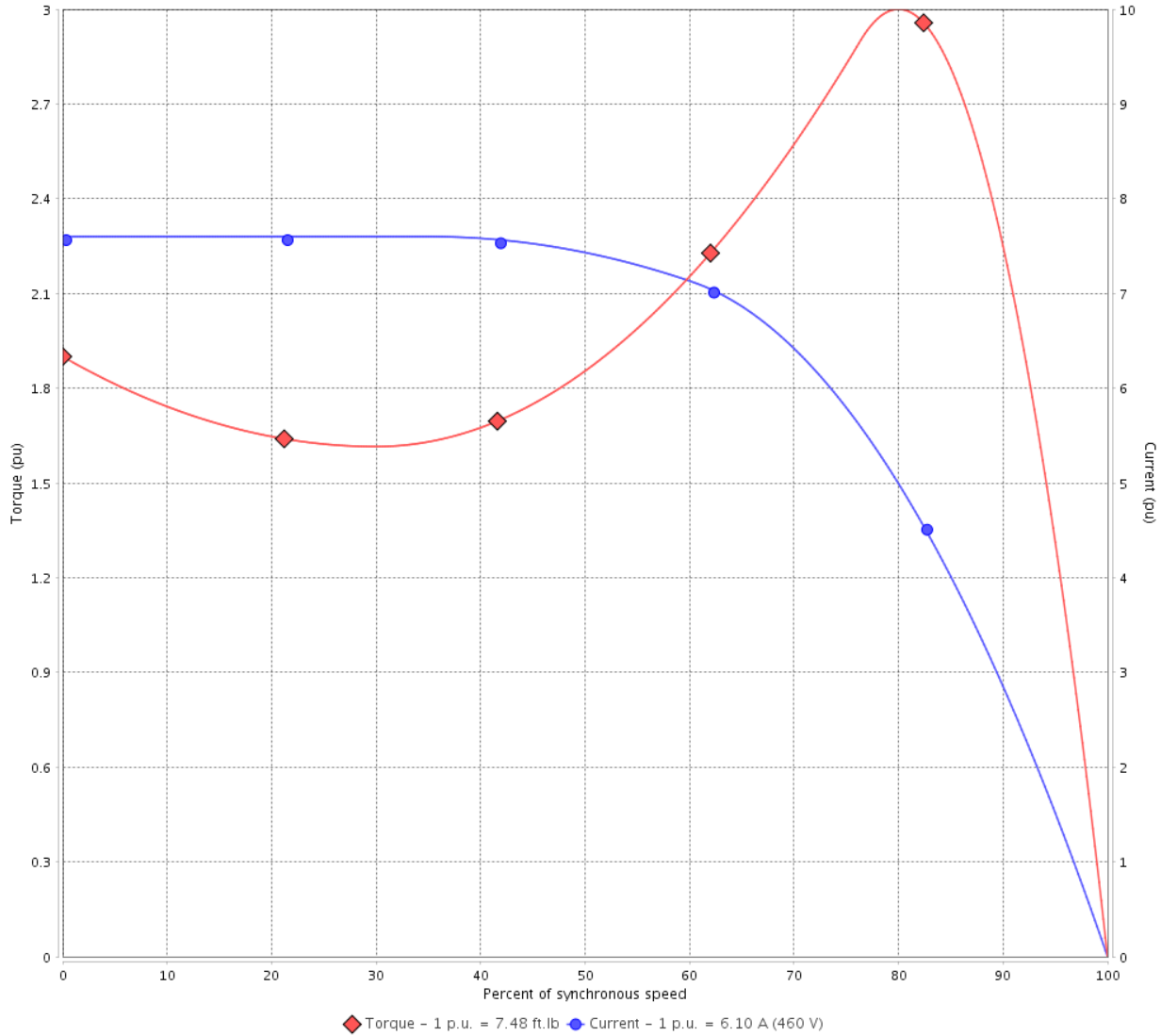
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751142

Catalog # : 00536OT3E182T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 12.2/6.10 A  
 LRC : 7.6  
 Rated torque : 7.48 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 300 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1386 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)

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# TORQUE AND CURRENT VS SPEED CURVE



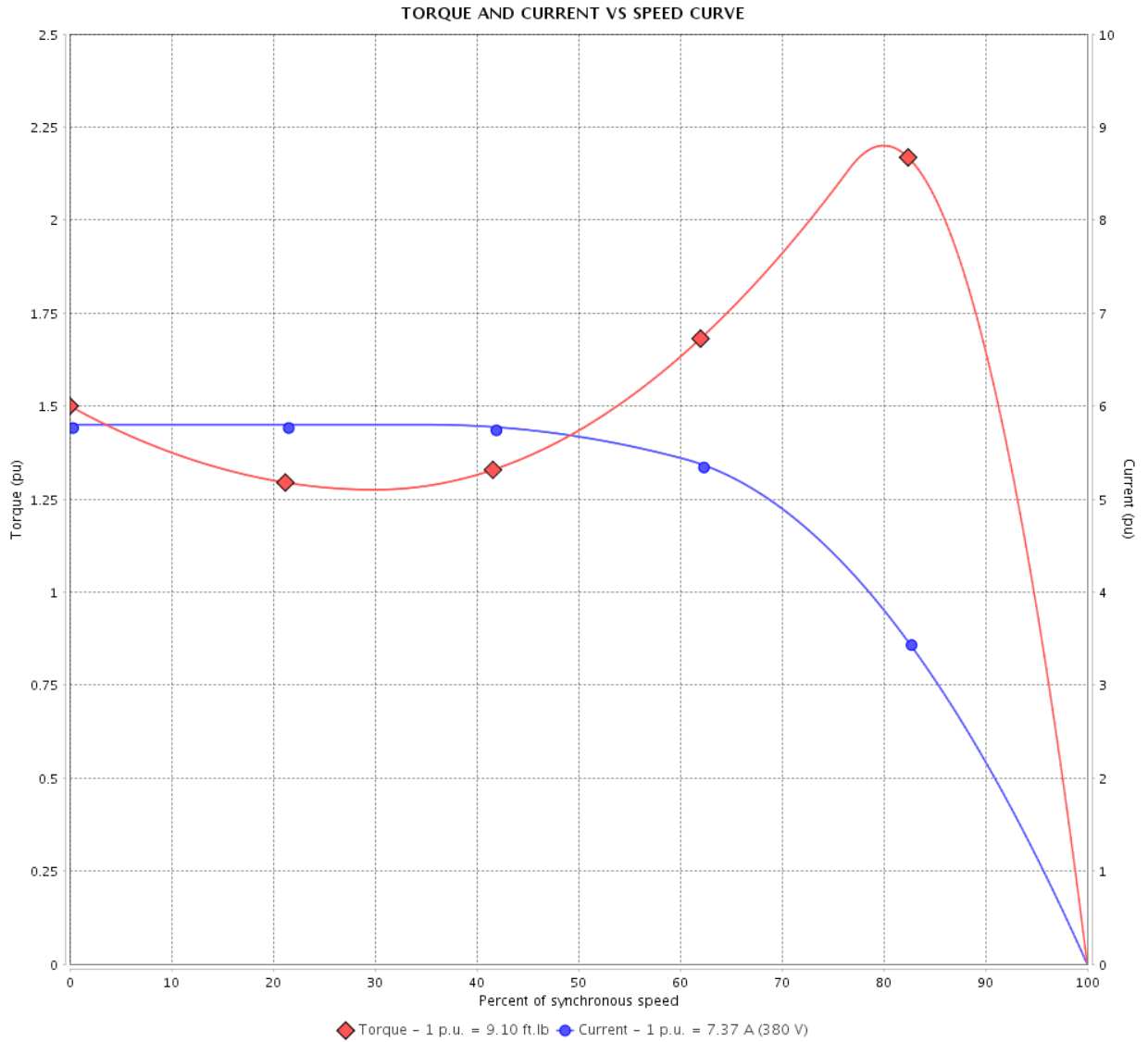
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751142

Catalog # : 00536OT3E182T-S



Performance : 190/380 V 50 Hz 2P

Rated current : 14.7/7.37 A  
 LRC : 5.8  
 Rated torque : 9.10 ft.lb  
 Locked rotor torque : 150 %  
 Breakdown torque : 220 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1386 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)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



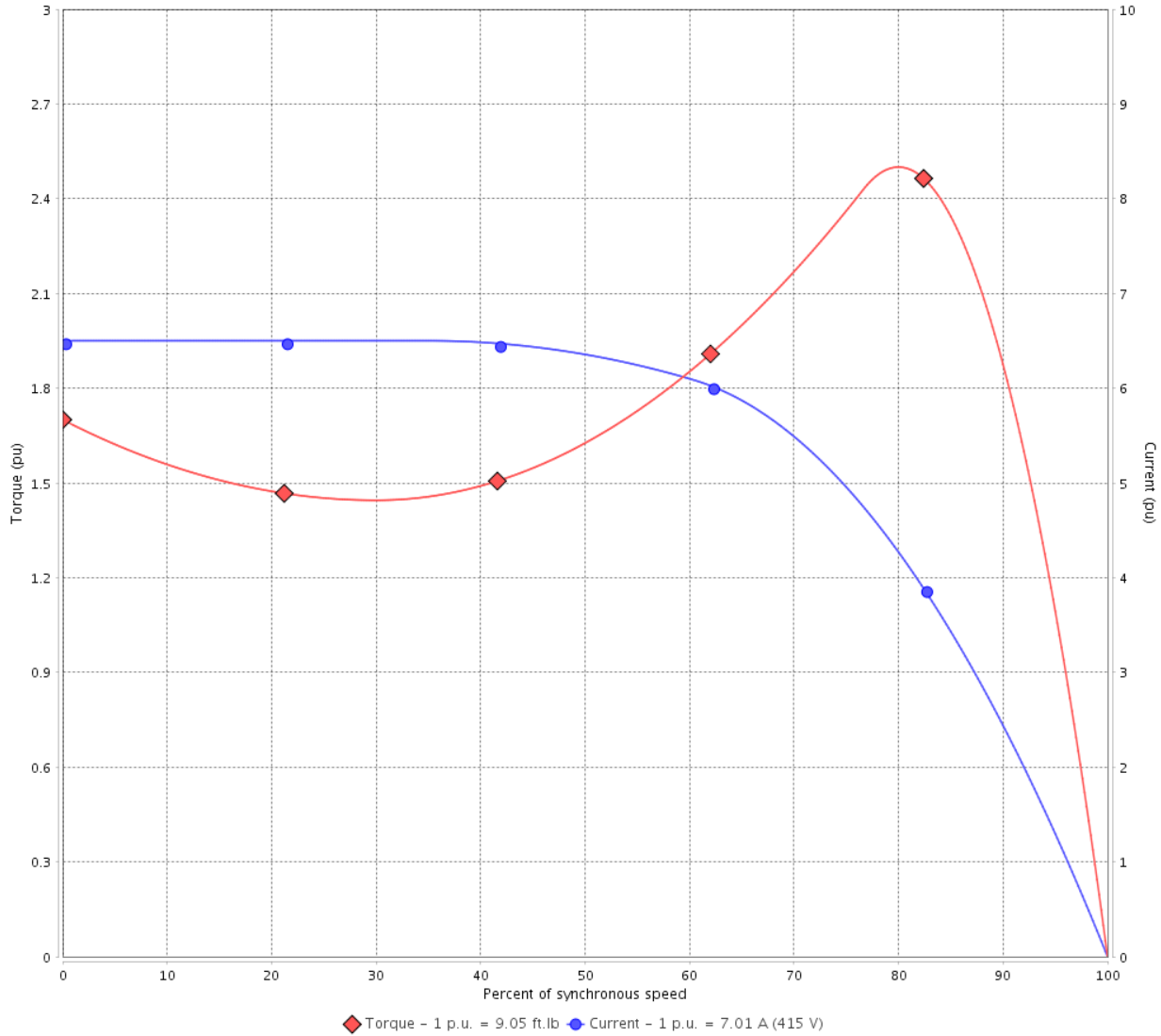
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751142

Catalog # : 00536OT3E182T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 13.2/7.01 A	Moment of inertia (J)	: 0.1386 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 9.05 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

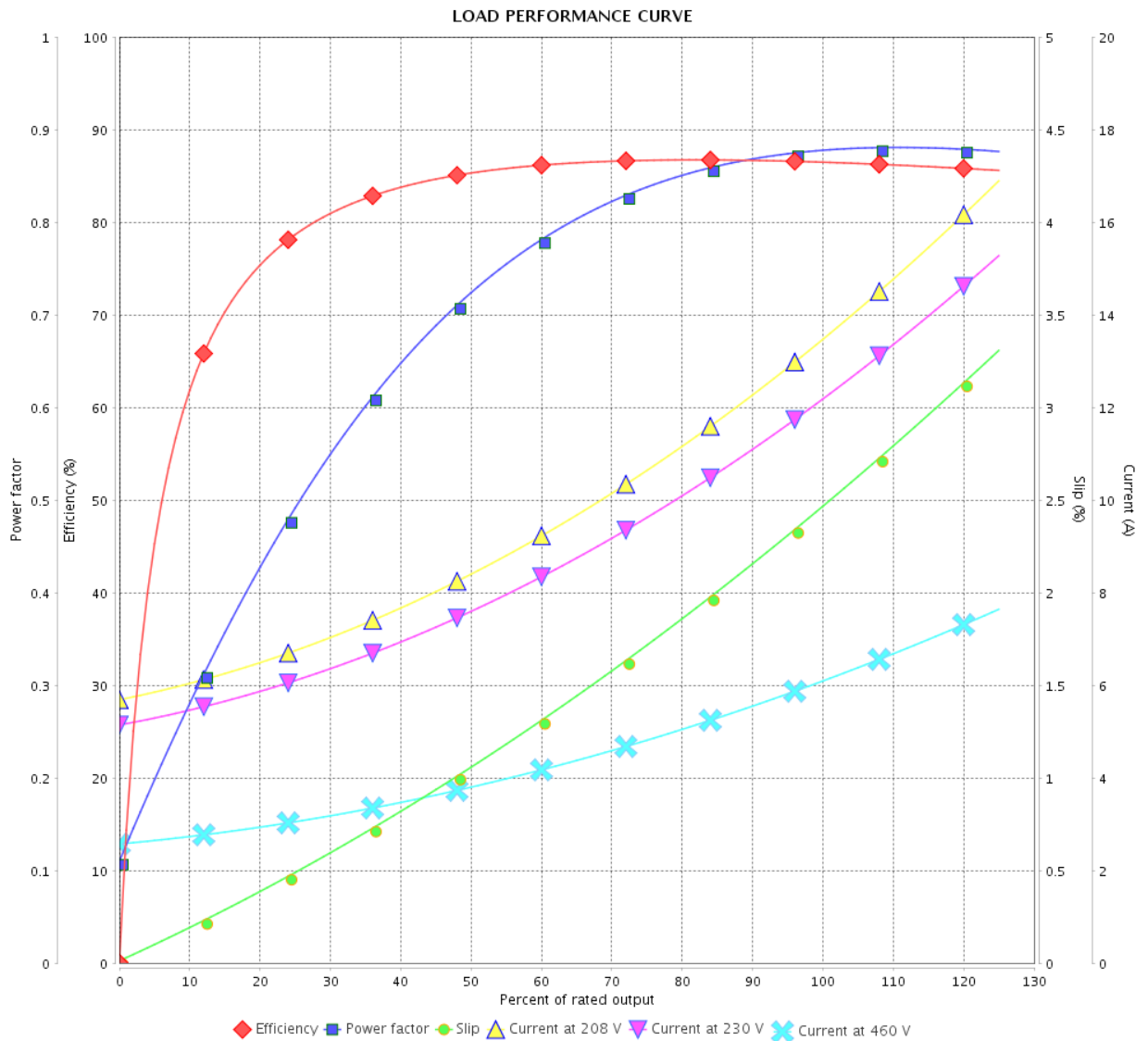


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751142

Catalog # : 00536OT3E182T-S



Performance : 230/460 V 60 Hz 2P

Rated current : 12.2/6.10 A  
 LRC : 7.6  
 Rated torque : 7.48 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 300 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1386 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



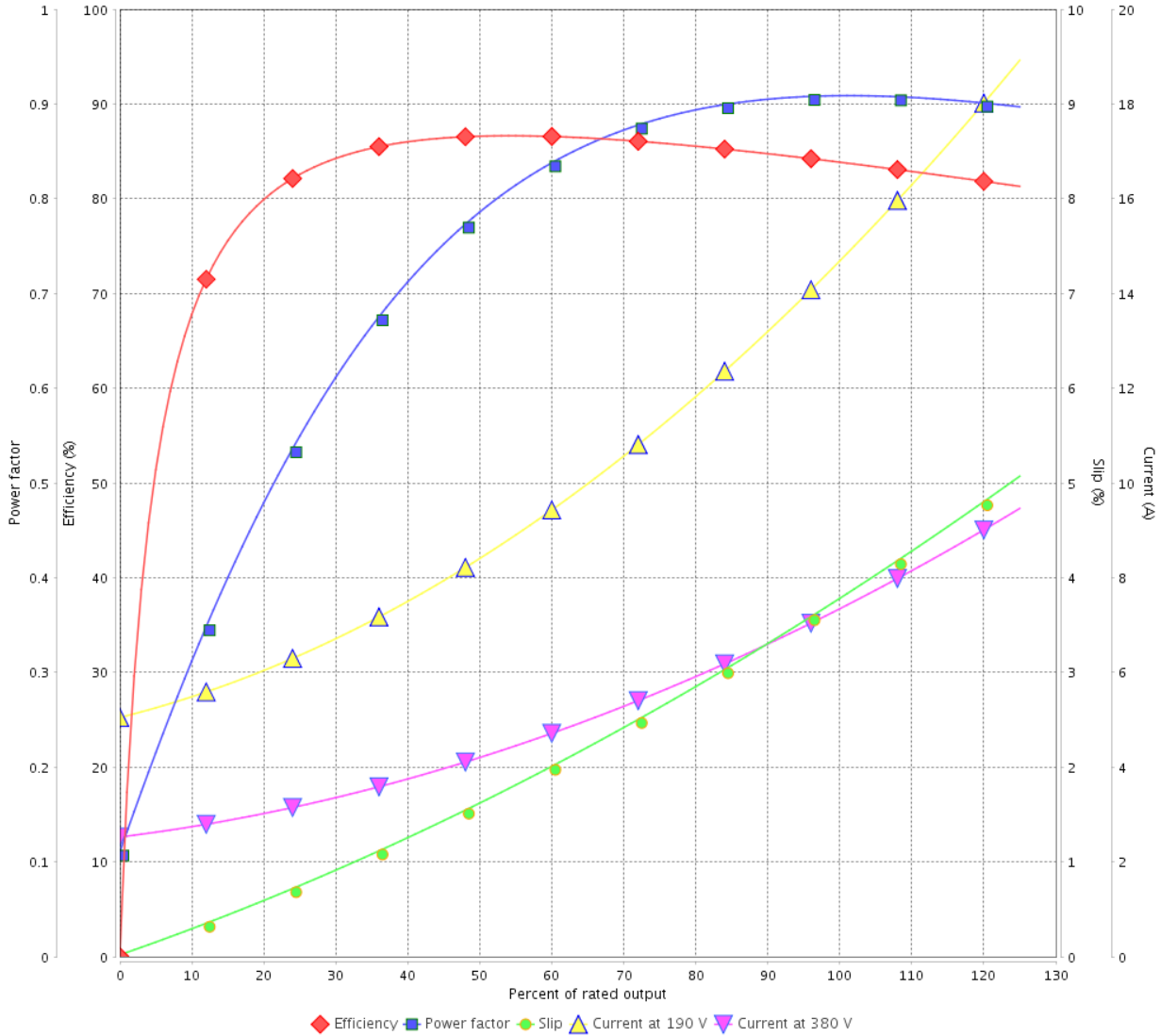
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751142

Catalog # : 005360T3E182T-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 14.7/7.37 A  
 LRC : 5.8  
 Rated torque : 9.10 ft.lb  
 Locked rotor torque : 150 %  
 Breakdown torque : 220 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1386 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

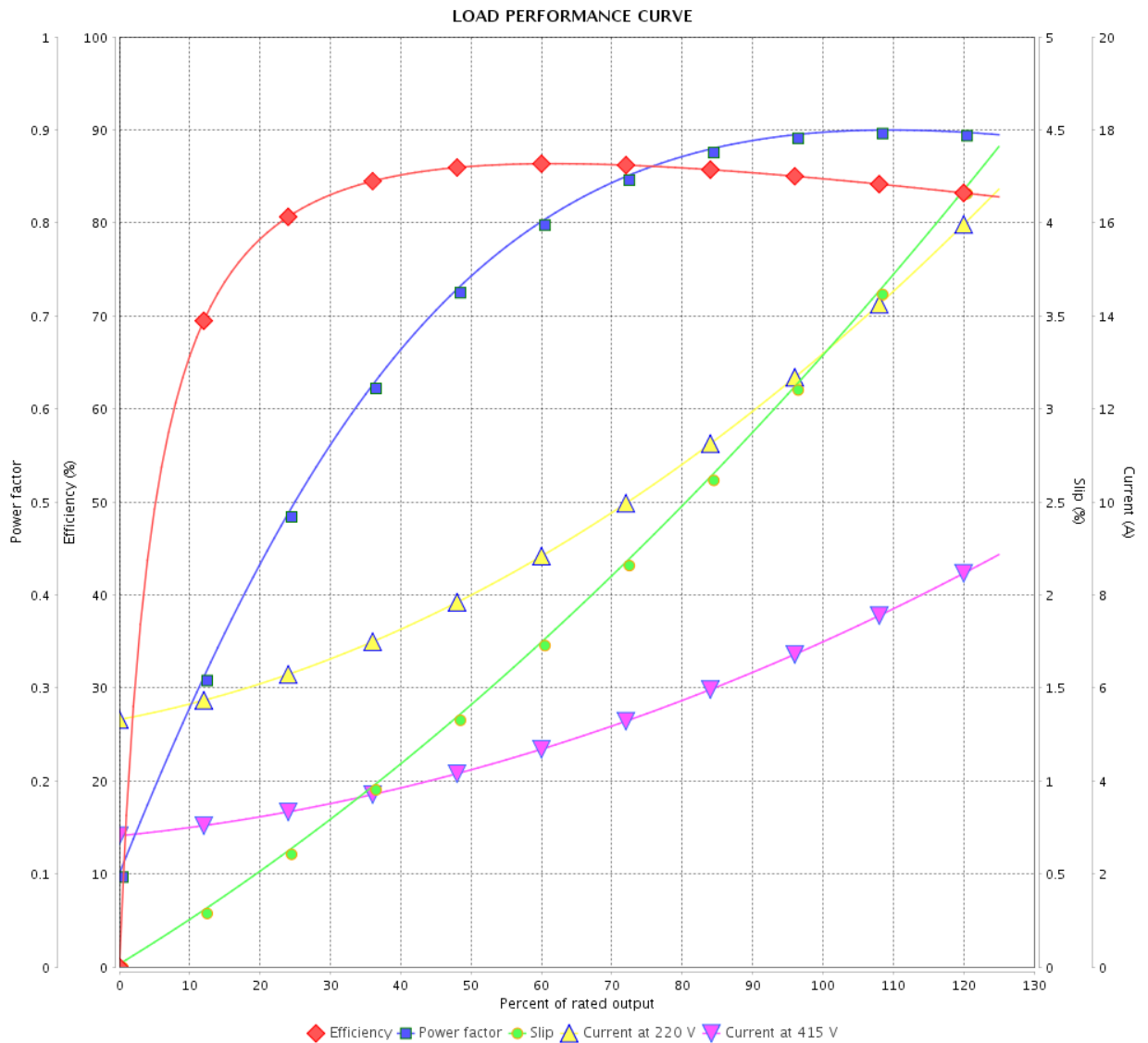


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751142

Catalog # : 00536OT3E182T-S



Performance : 220/415 V 50 Hz 2P

Rated current : 13.2/7.01 A  
 LRC : 6.5  
 Rated torque : 9.05 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 250 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.1386 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12751142  
Catalog # : 00536OT3E182T-S

Performance : 230/460 V 60 Hz 2P

Rated current	: 12.2/6.10 A	Moment of inertia (J)	: 0.1386 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 7.48 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

Heating constant

Cooling constant

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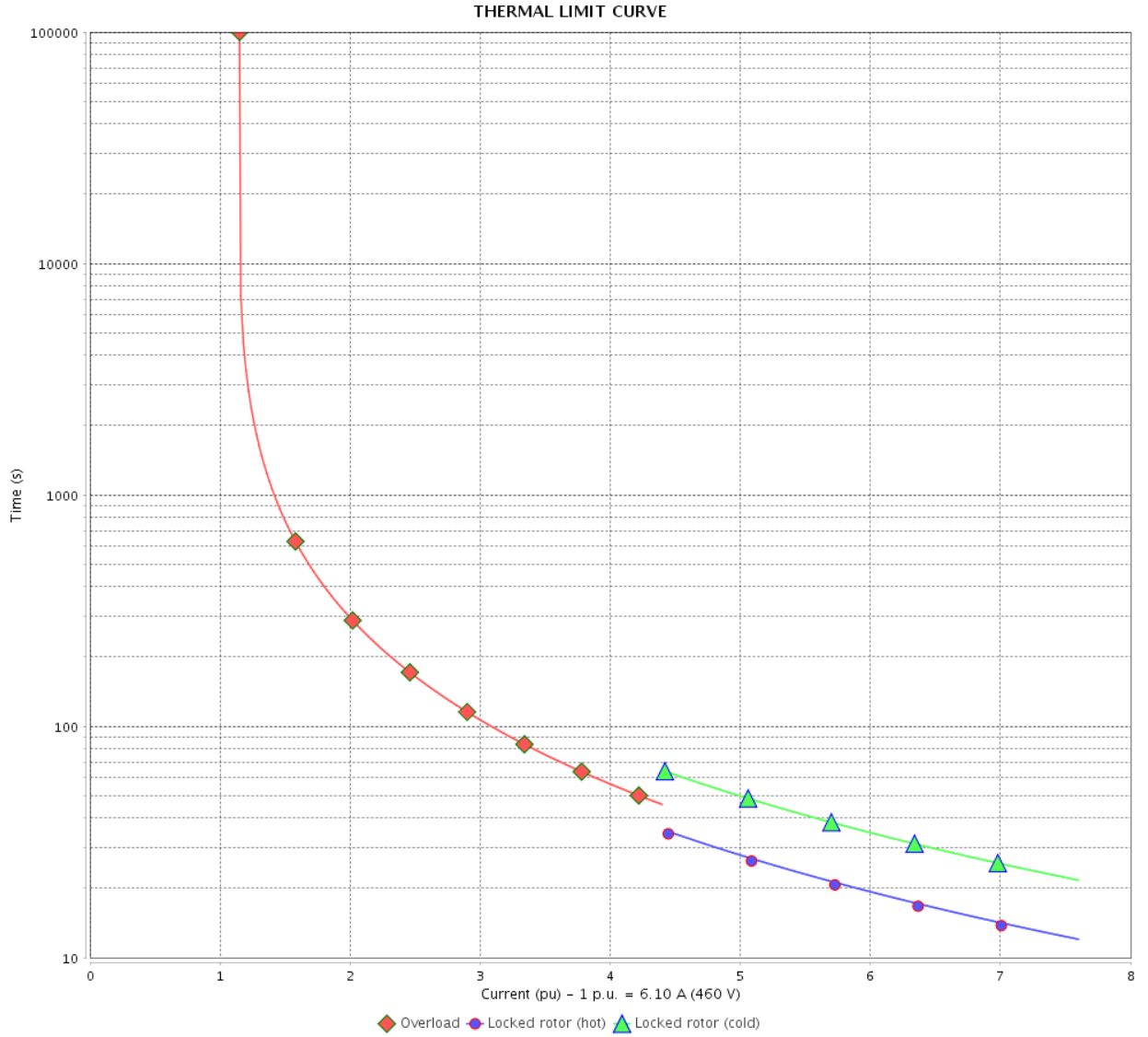


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12751142  
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Performance : 190/380 V 50 Hz 2P

Rated current	: 14.7/7.37 A	Moment of inertia (J)	: 0.1386 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 9.10 ft.lb	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 2885 rpm	Design	: B

Heating constant

Cooling constant

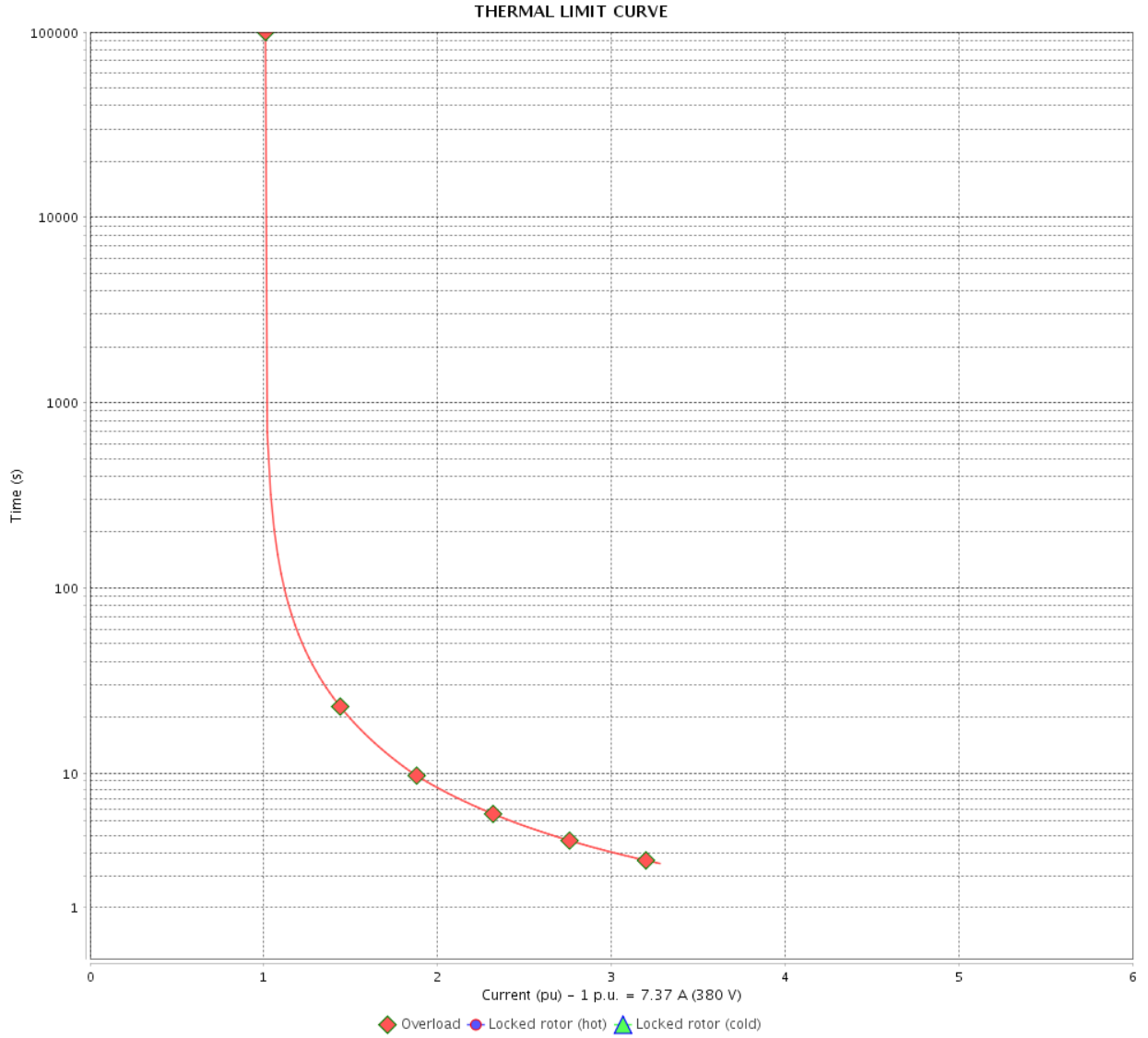
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE



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Customer :

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LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 9.05 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: B

Heating constant

Cooling constant

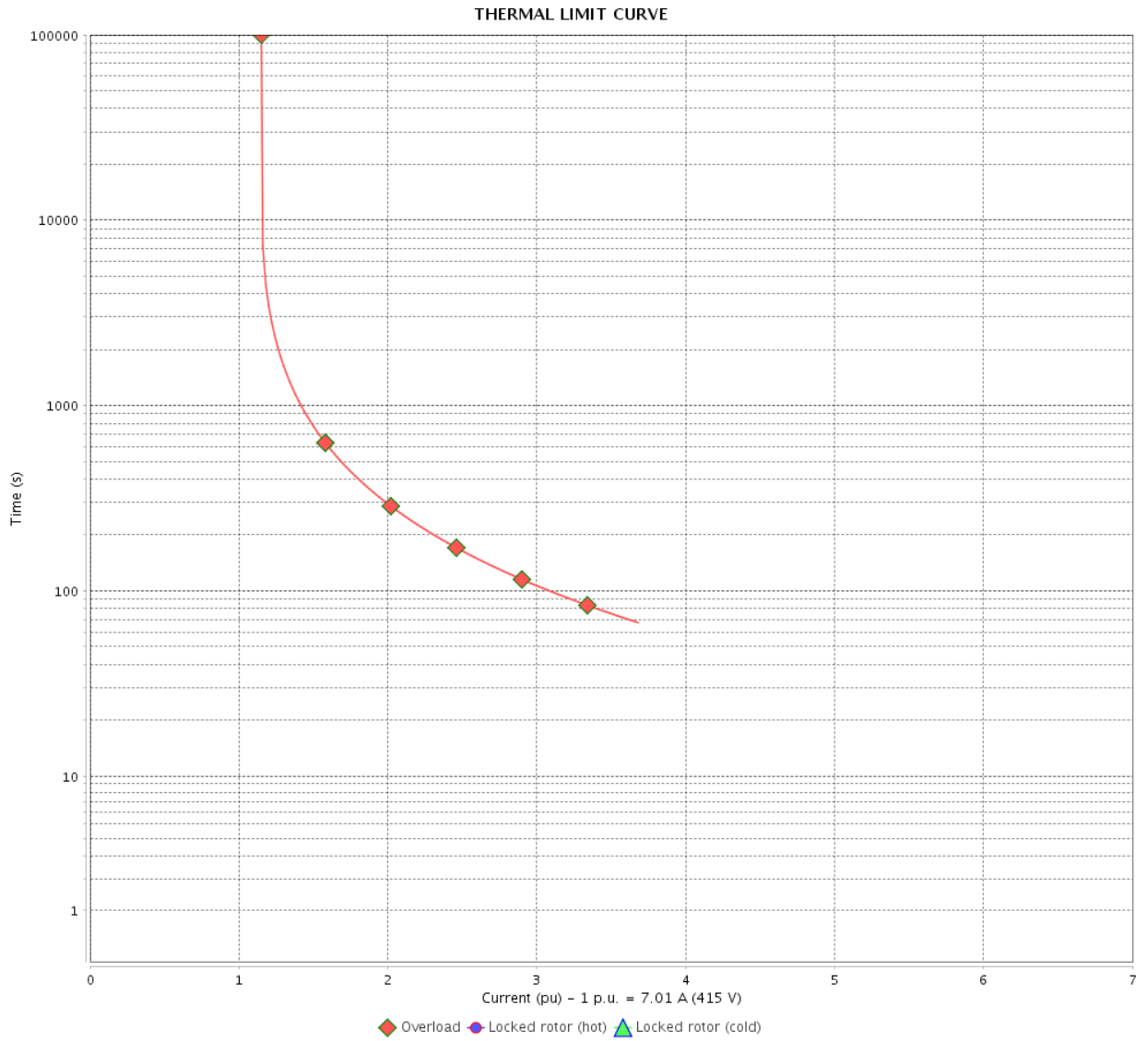
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

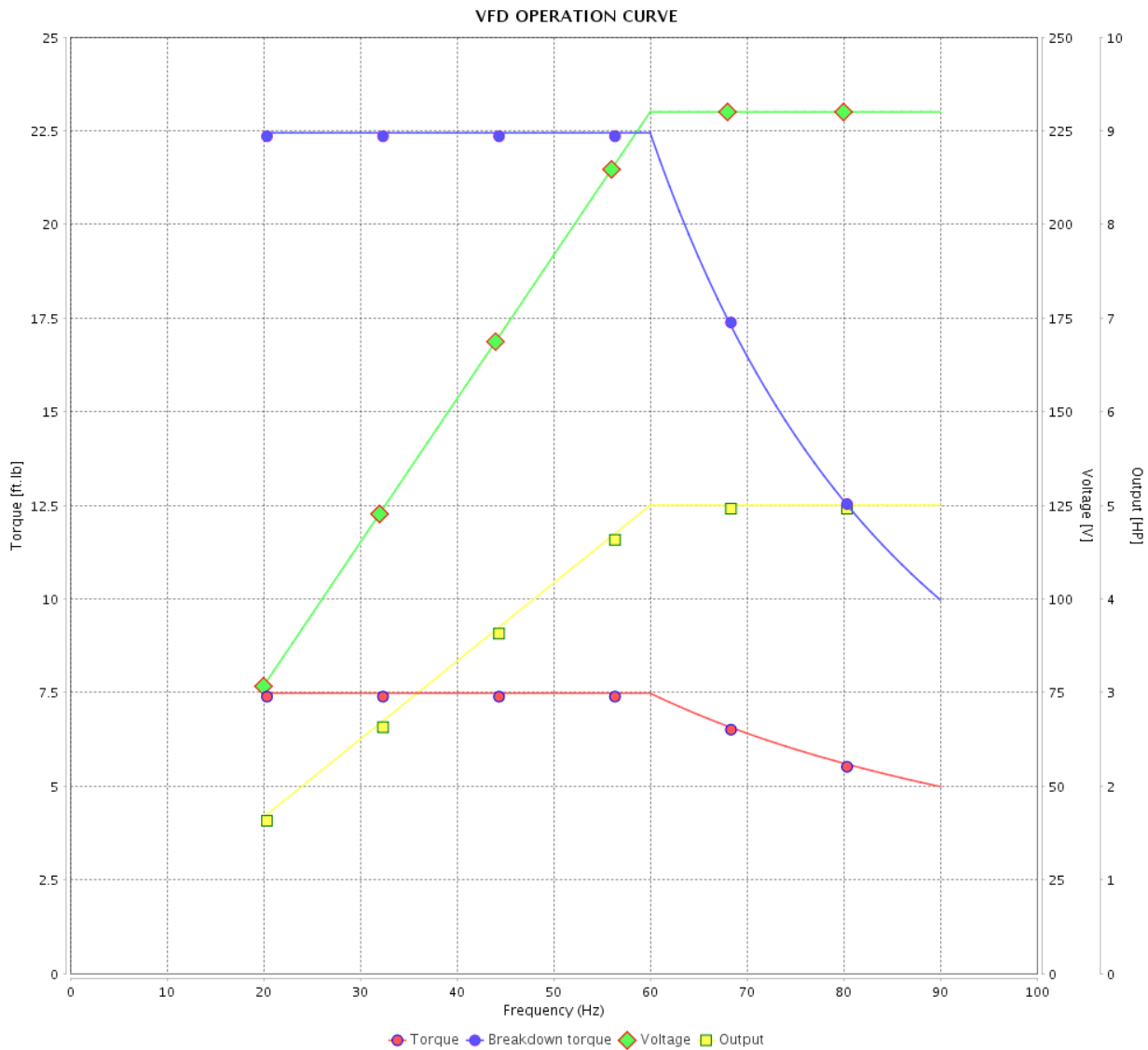


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751142

Catalog # : 00536OT3E182T-S

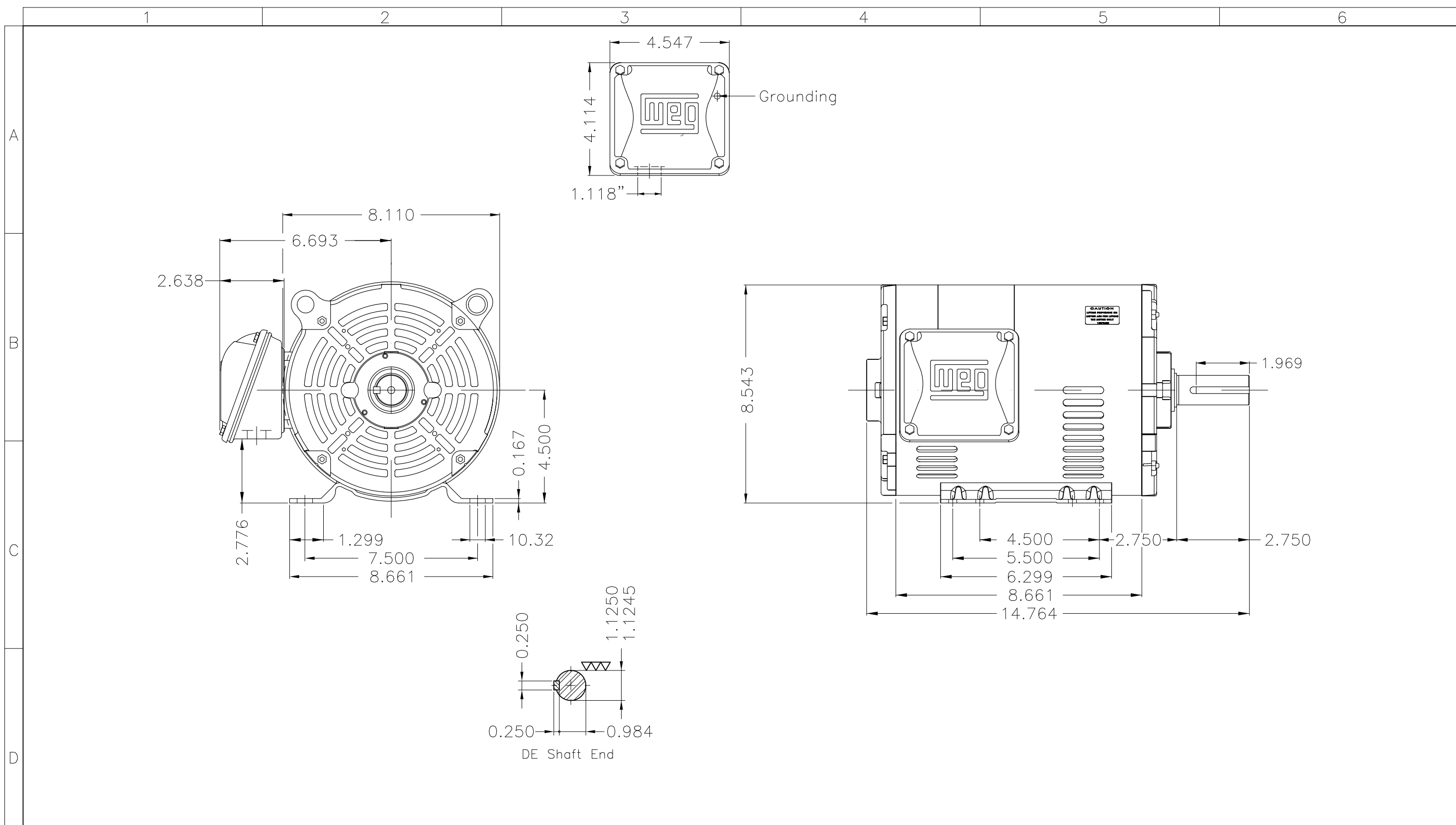


Performance : 230/460 V 60 Hz 2P

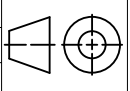
Rated current : 12.2/6.10 A  
 LRC : 7.6  
 Rated torque : 7.48 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 300 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1386 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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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 02 Poles 60 Hz

A

PREVIEW  
WDD



**NEMA**  
**Premium**

MADE IN MEXICO

MAT: 12751142 CC029A

W01.T00IC0X0N

DP005402NPW01

04APR2022 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 12.2/6.10
INS CL F AT 80K		SFA 14.0/7.01
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE J	PF 0.88
USABLE @ 208V 13.5A		RPM 3510
SF1.00		NEMA NOM. EFF 86.5%

ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.00
14.7-13.07.37-6.87A 2885RPM EFF 83.8% (IE1) IEC 60034-1

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 CT

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

