

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	13459655	
		Catalog # :	001520T3E182T-S	
Frame	: 182/4T	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: F-1	
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 59.1 lb	
Design	: B	Moment of inertia (J)	: 0.2178 sq.ft.lb	
Output [HP]	1.5	1.5	1.5	
Poles	6	6	6	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	4.50/2.25	5.24/2.62	4.79/2.54	
L. R. Amperes [A]	29.3/14.6	27.2/13.6	27.3/14.5	
LRC [A]	6.5x(Code J)	5.2x(Code G)	5.7x(Code H)	
No load current [A]	2.74/1.37	2.69/1.35	2.80/1.49	
Rated speed [RPM]	1165	950	955	
Slip [%]	2.92	5.00	4.50	
Rated torque [ft.lb]	6.76	8.29	8.25	
Locked rotor torque [%]	200	160	190	
Breakdown torque [%]	310	220	260	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	82s (cold) 46s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	52.0 dB(A)	50.0 dB(A)	50.0 dB(A)	
Efficiency (%)	25%	82.8	82.3	
	50%	84.0	82.3	
	75%	85.5	84.0	
	100%	86.5	83.5	
Power Factor	25%	0.29	0.31	
	50%	0.51	0.54	
	75%	0.63	0.67	
	100%	0.71	0.75	
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	: 107 lb	
		Max. compression	: 166 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 4.98A SF 1.00 SFA 4.98A				
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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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



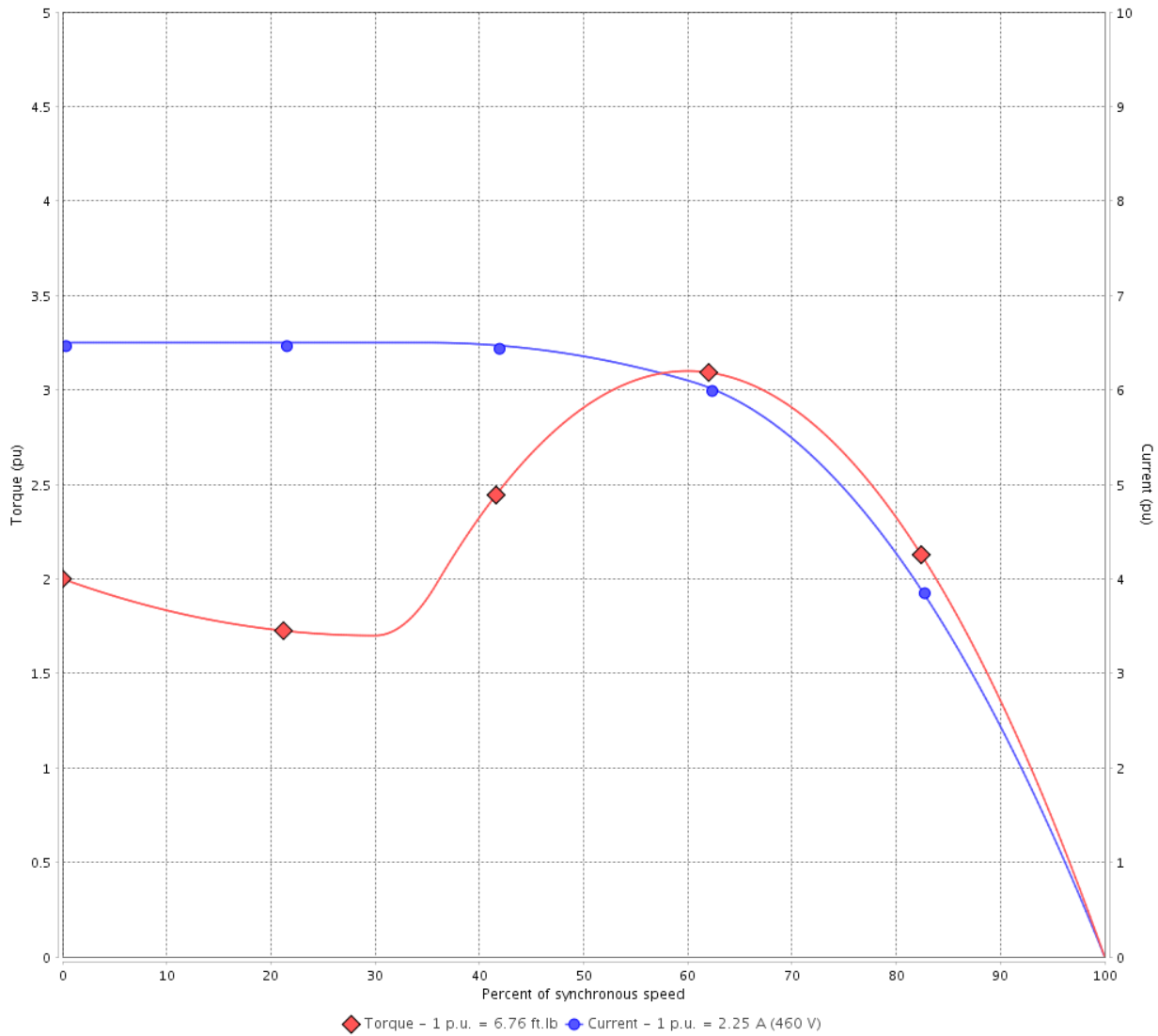
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13459655

Catalog # : 001520T3E182T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 4.50/2.25 A  
 LRC : 6.5  
 Rated torque : 6.76 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 310 %  
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.2178 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 82s (cold) 46s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



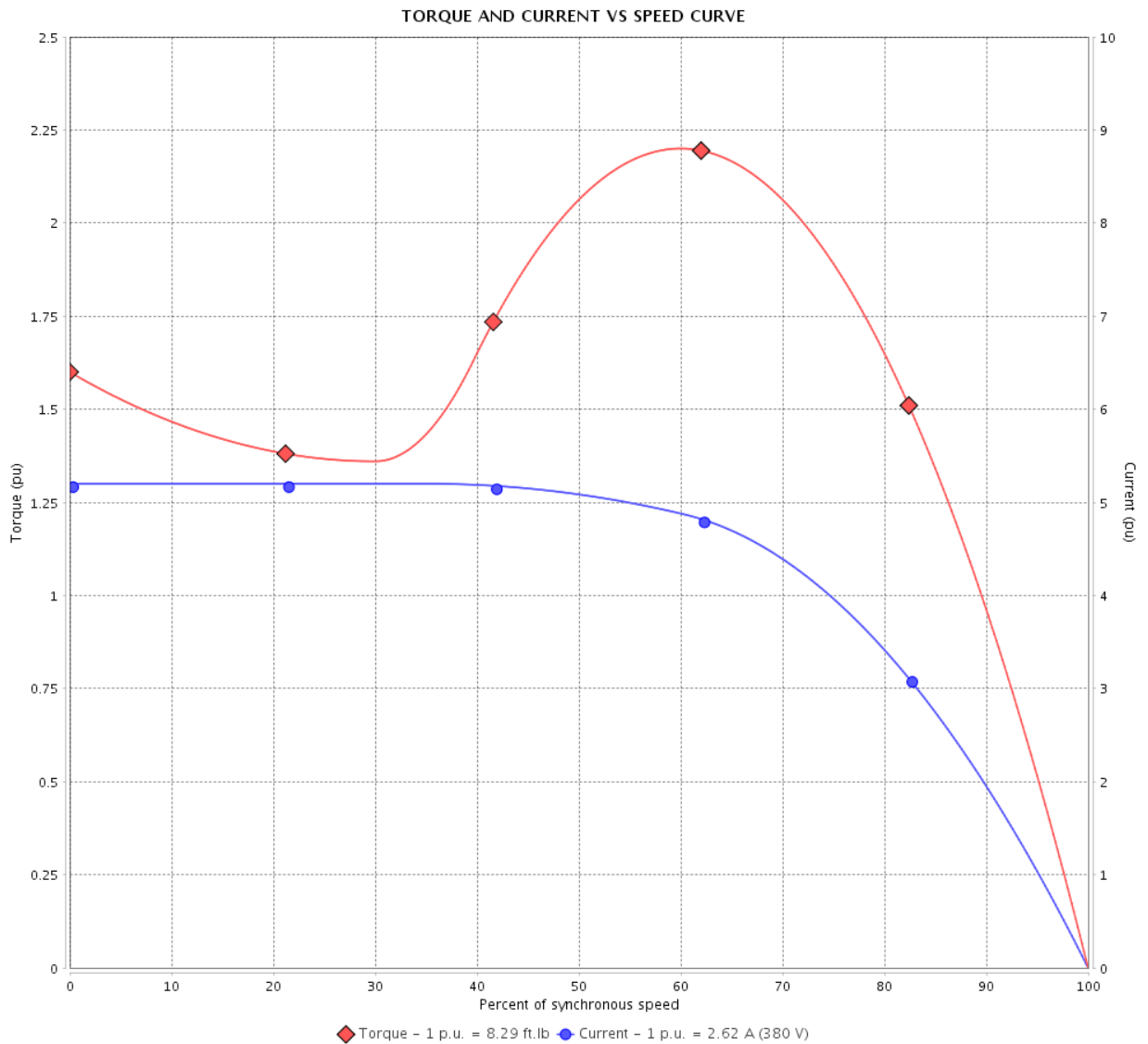
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13459655

Catalog # : 00152OT3E182T-S



Performance : 190/380 V 50 Hz 6P

Rated current : 5.24/2.62 A  
 LRC : 5.2  
 Rated torque : 8.29 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 220 %  
 Rated speed : 950 rpm

Moment of inertia (J) : 0.2178 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)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



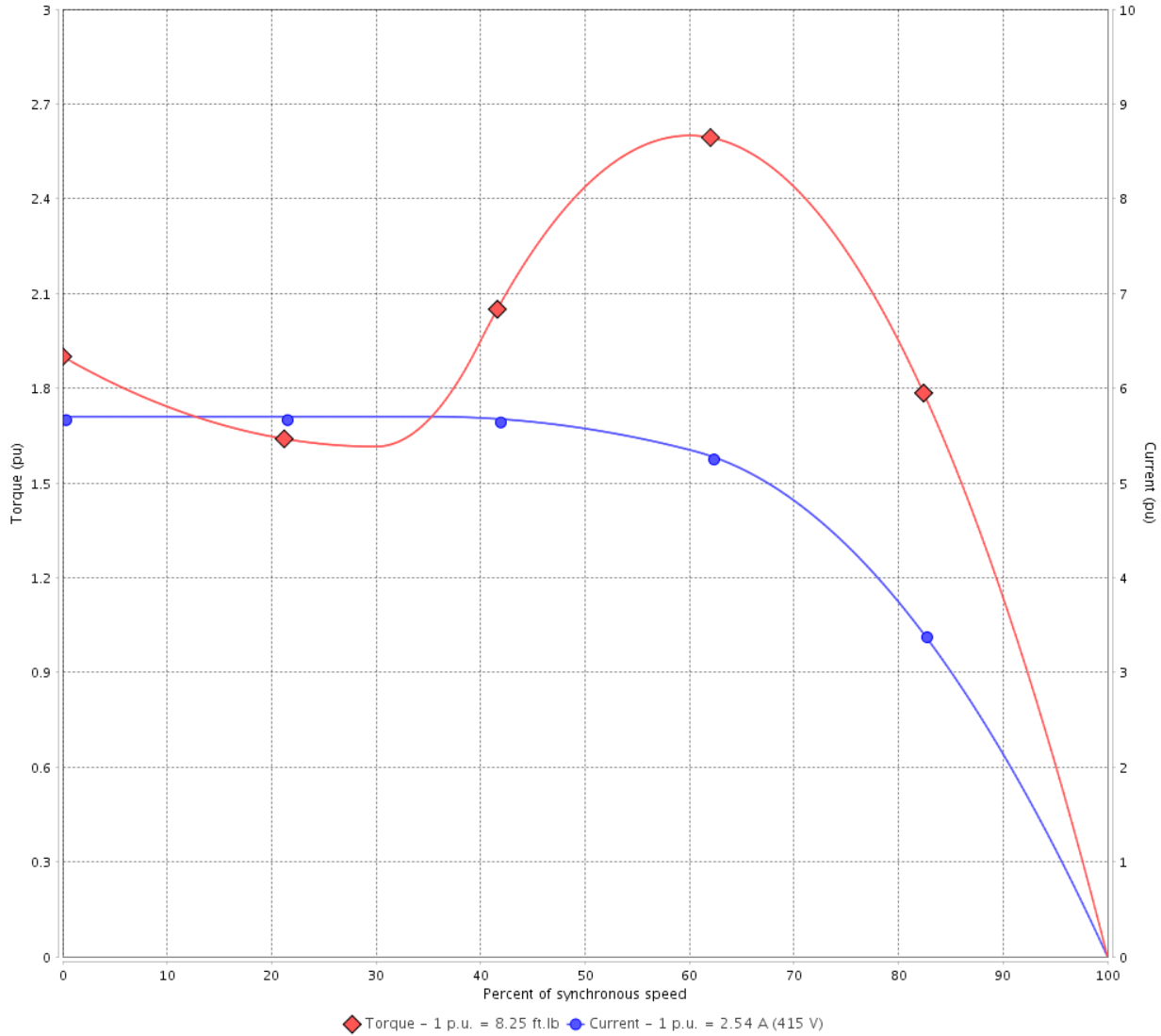
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13459655

Catalog # : 001520T3E182T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current : 4.79/2.54 A  
 LRC : 5.7  
 Rated torque : 8.25 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 260 %  
 Rated speed : 955 rpm

Moment of inertia (J) : 0.2178 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)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

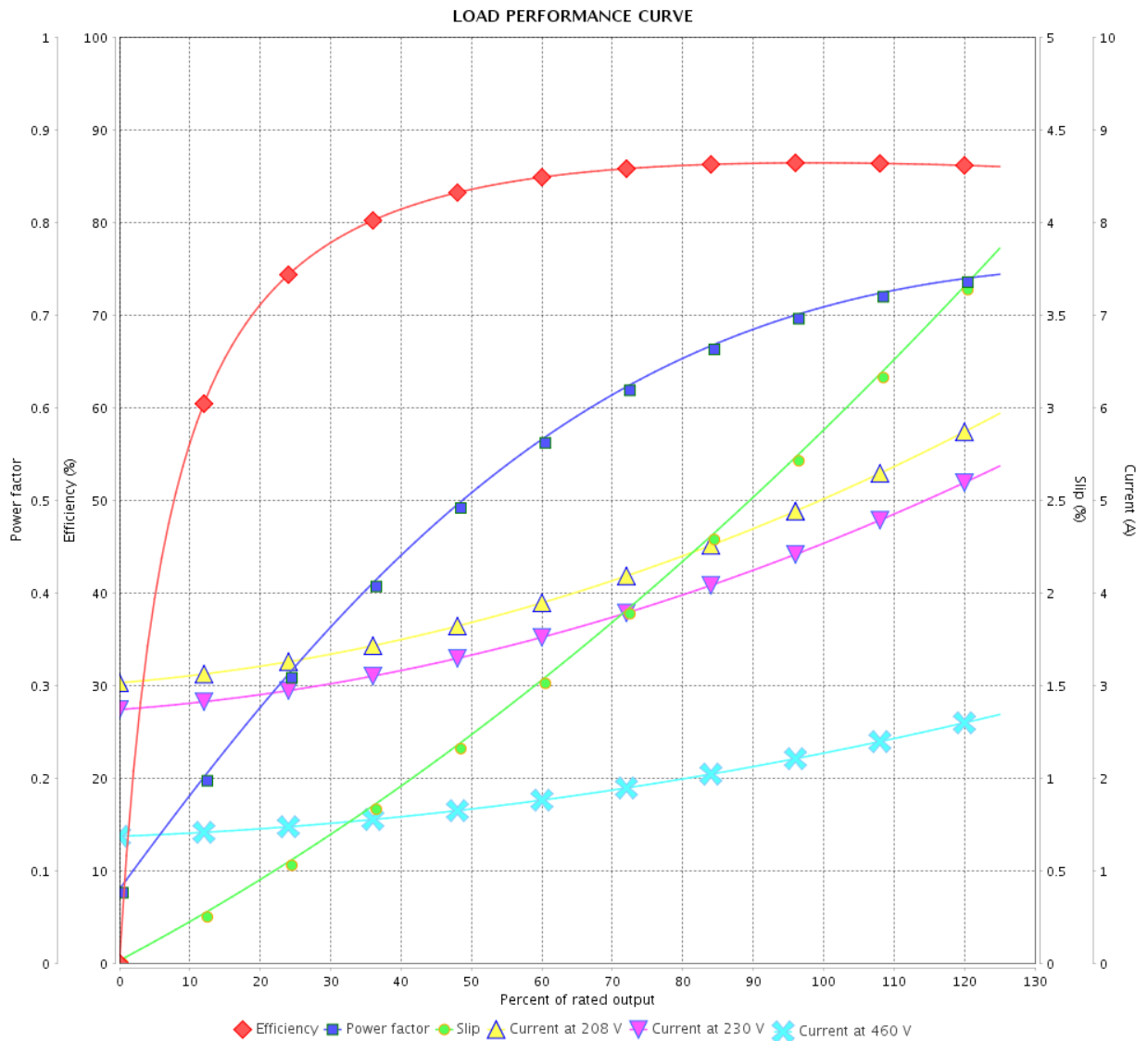


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13459655

Catalog # : 00152OT3E182T-S



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 Locked rotor torque : 200 %  
 Breakdown torque : 310 %  
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.2178 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



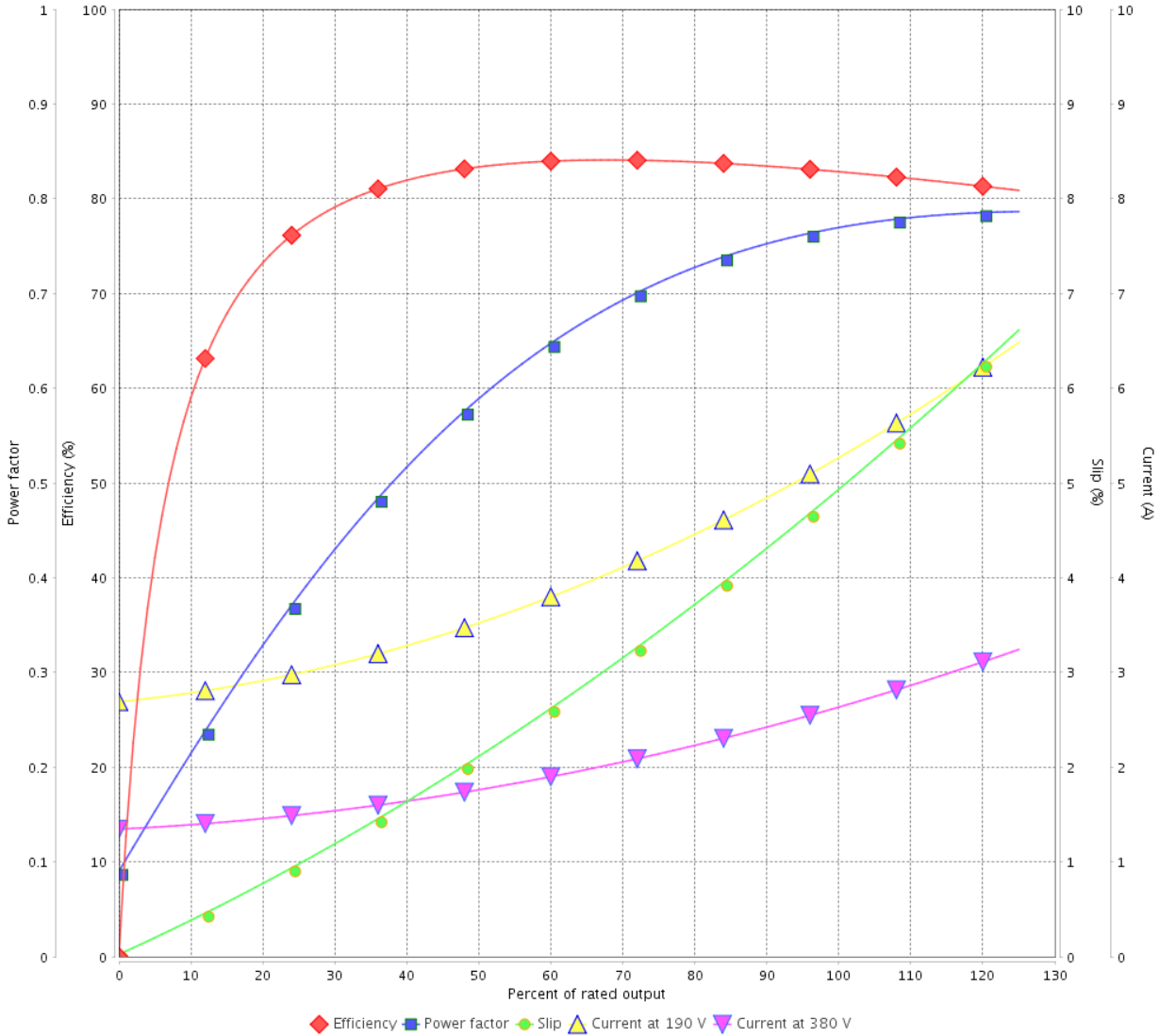
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13459655

Catalog # : 001520T3E182T-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 5.24/2.62 A  
 LRC : 5.2  
 Rated torque : 8.29 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 220 %  
 Rated speed : 950 rpm

Moment of inertia (J) : 0.2178 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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## Three Phase Induction Motor - Squirrel Cage

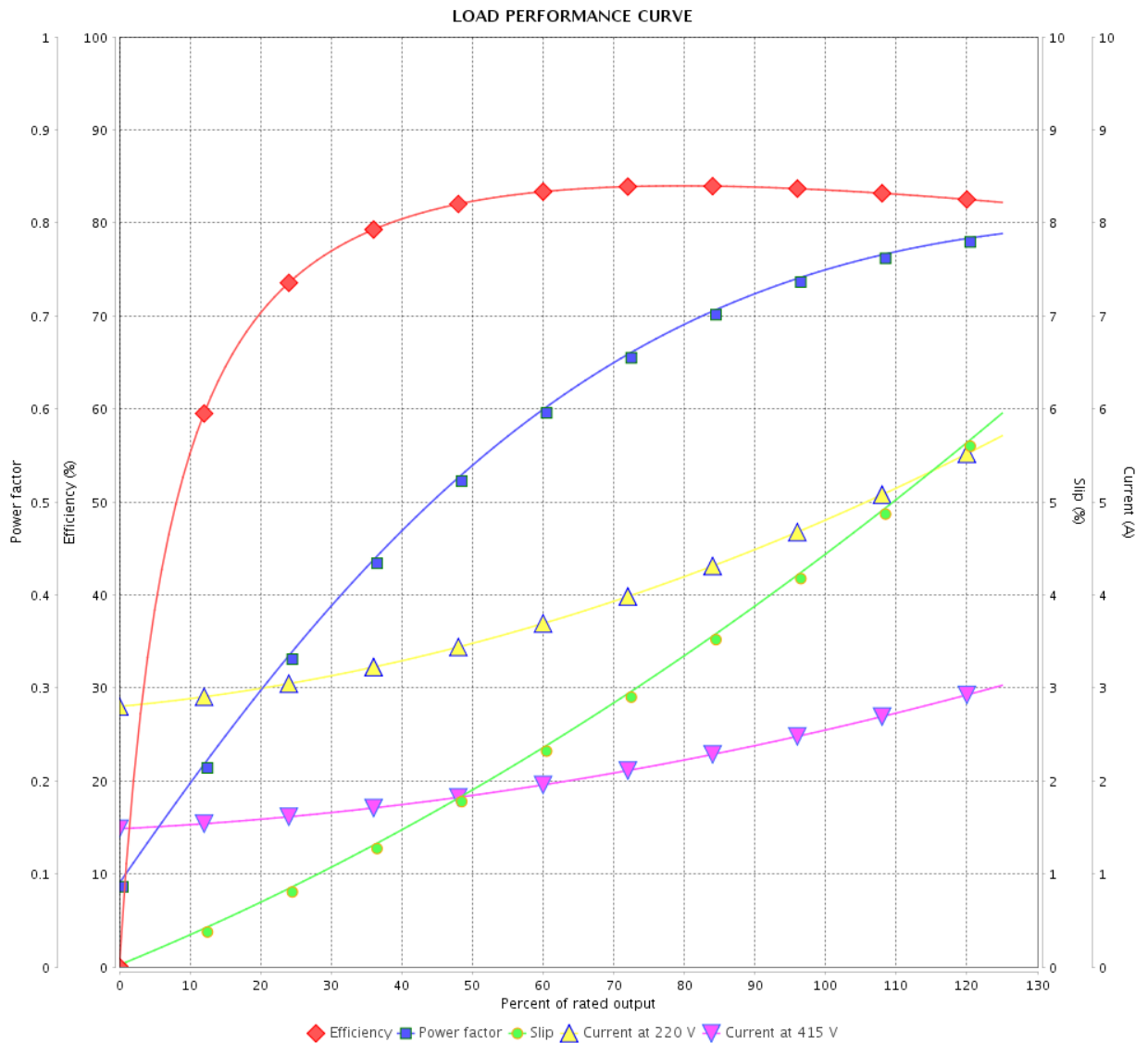


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Product code : 13459655

Catalog # : 00152OT3E182T-S



Performance : 220/415 V 50 Hz 6P

Rated current : 4.79/2.54 A  
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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 13459655  
Catalog # : 00152OT3E182T-S

Performance : 230/460 V 60 Hz 6P

Rated current	: 4.50/2.25 A	Moment of inertia (J)	: 0.2178 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 6.76 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 1165 rpm	Design	: B

Heating constant

Cooling constant

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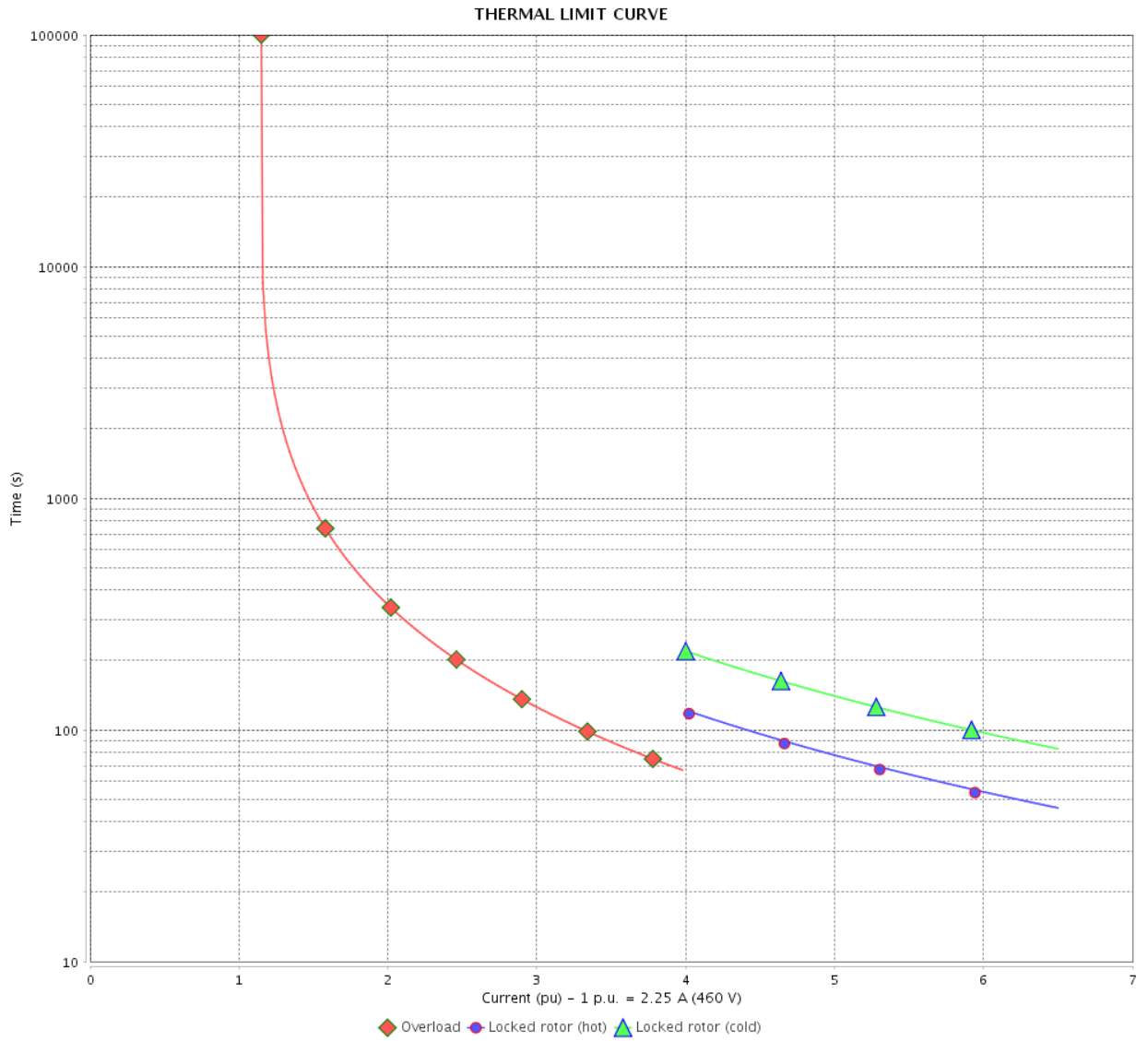


# THERMAL LIMIT CURVE

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  
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Performance : 190/380 V 50 Hz 6P

Rated current	: 5.24/2.62 A	Moment of inertia (J)	: 0.2178 sq.ft.lb
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 8.29 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: B

Heating constant

Cooling constant

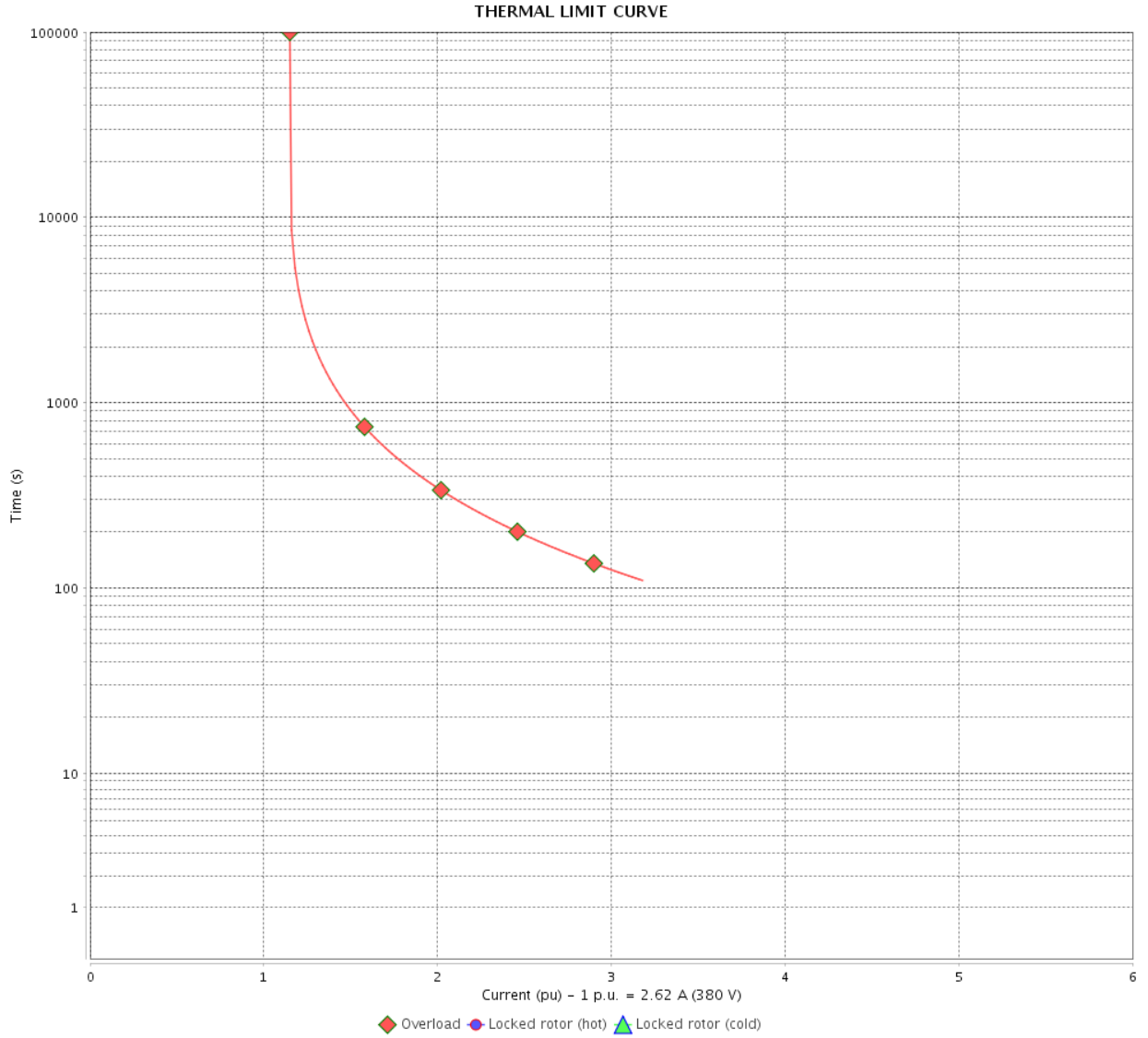
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Three Phase Induction Motor - Squirrel Cage



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



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Rated torque	: 8.25 ft.lb	Insulation class	: F
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Heating constant

Cooling constant

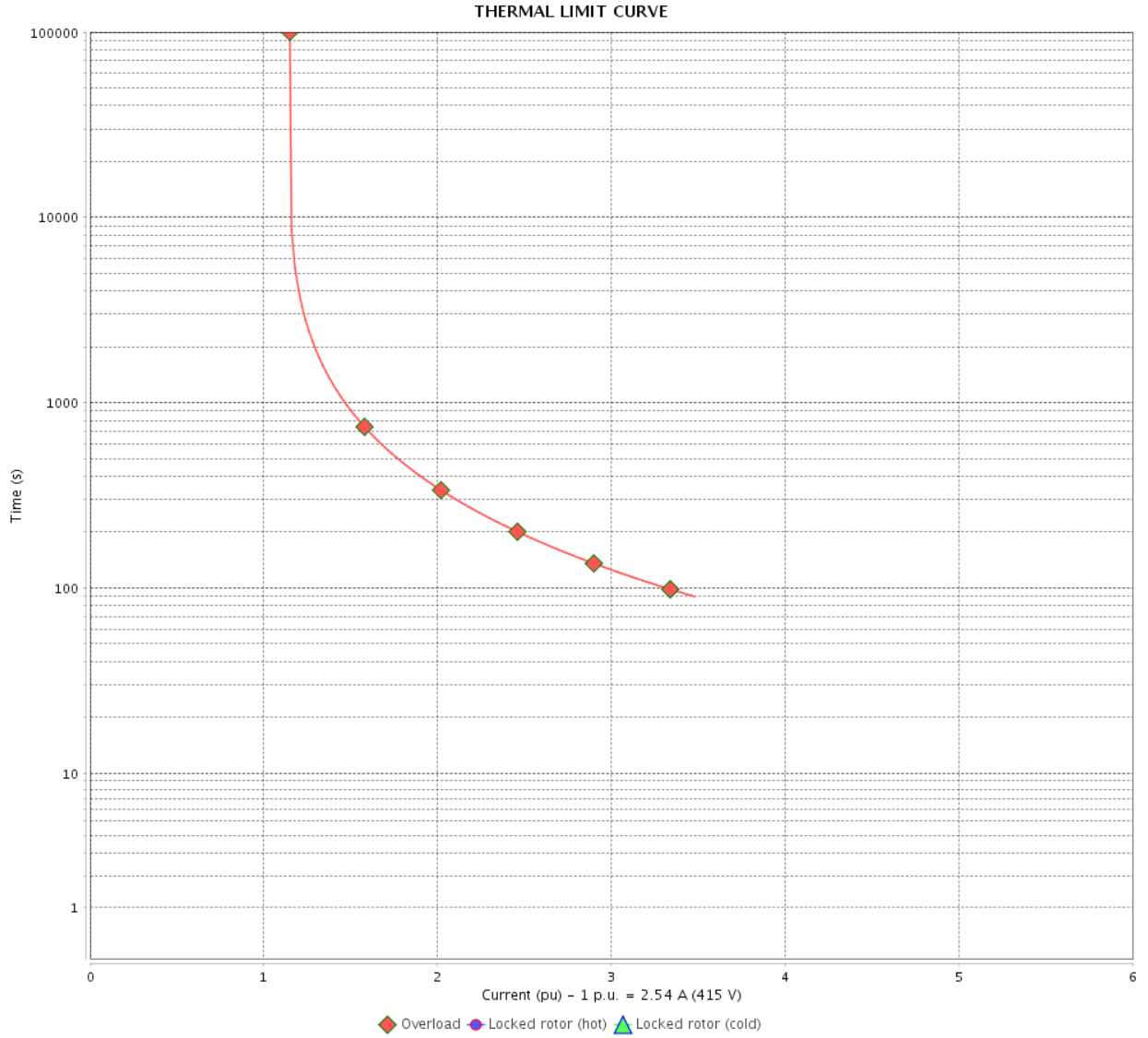
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Three Phase Induction Motor - Squirrel Cage



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

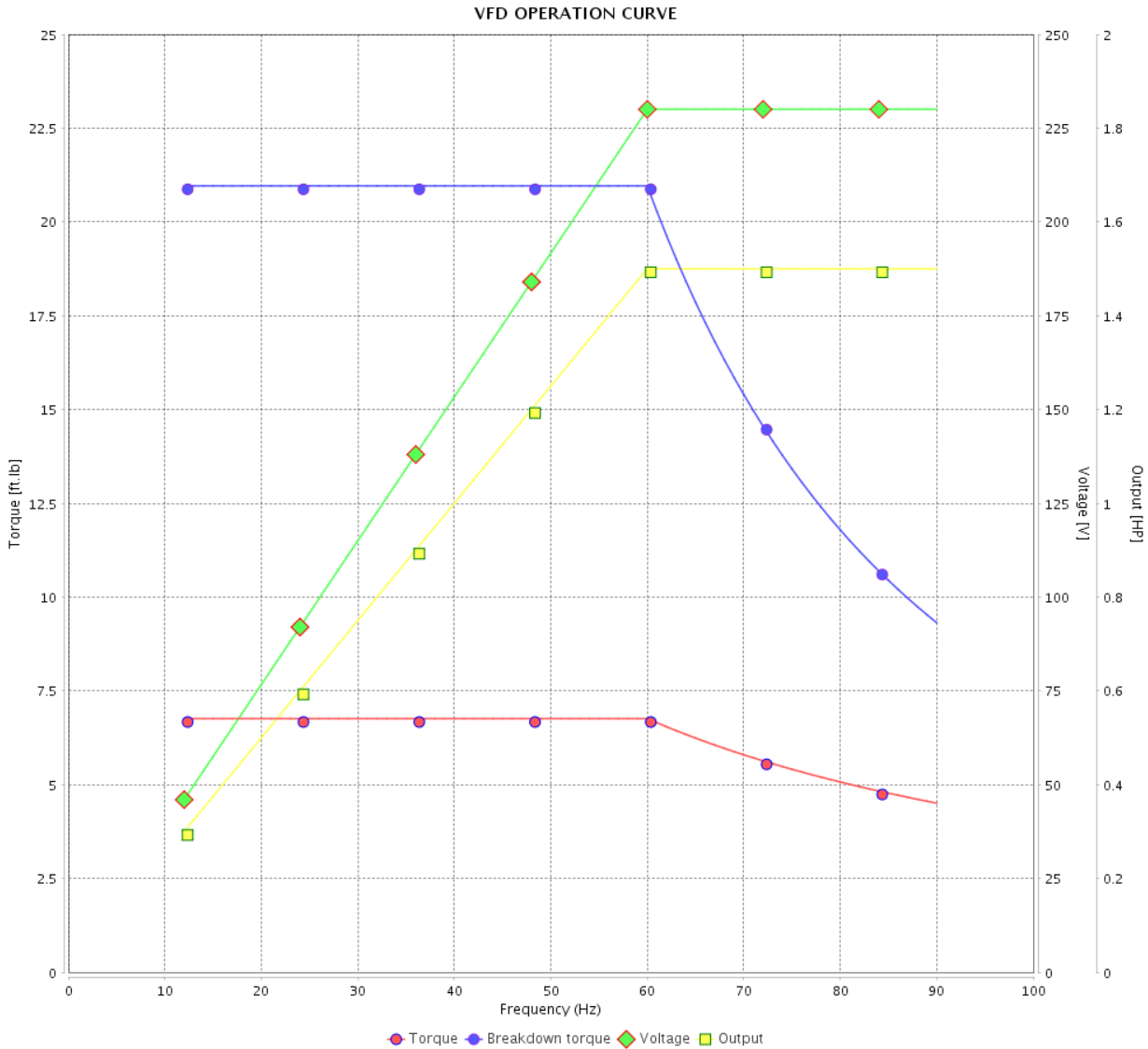


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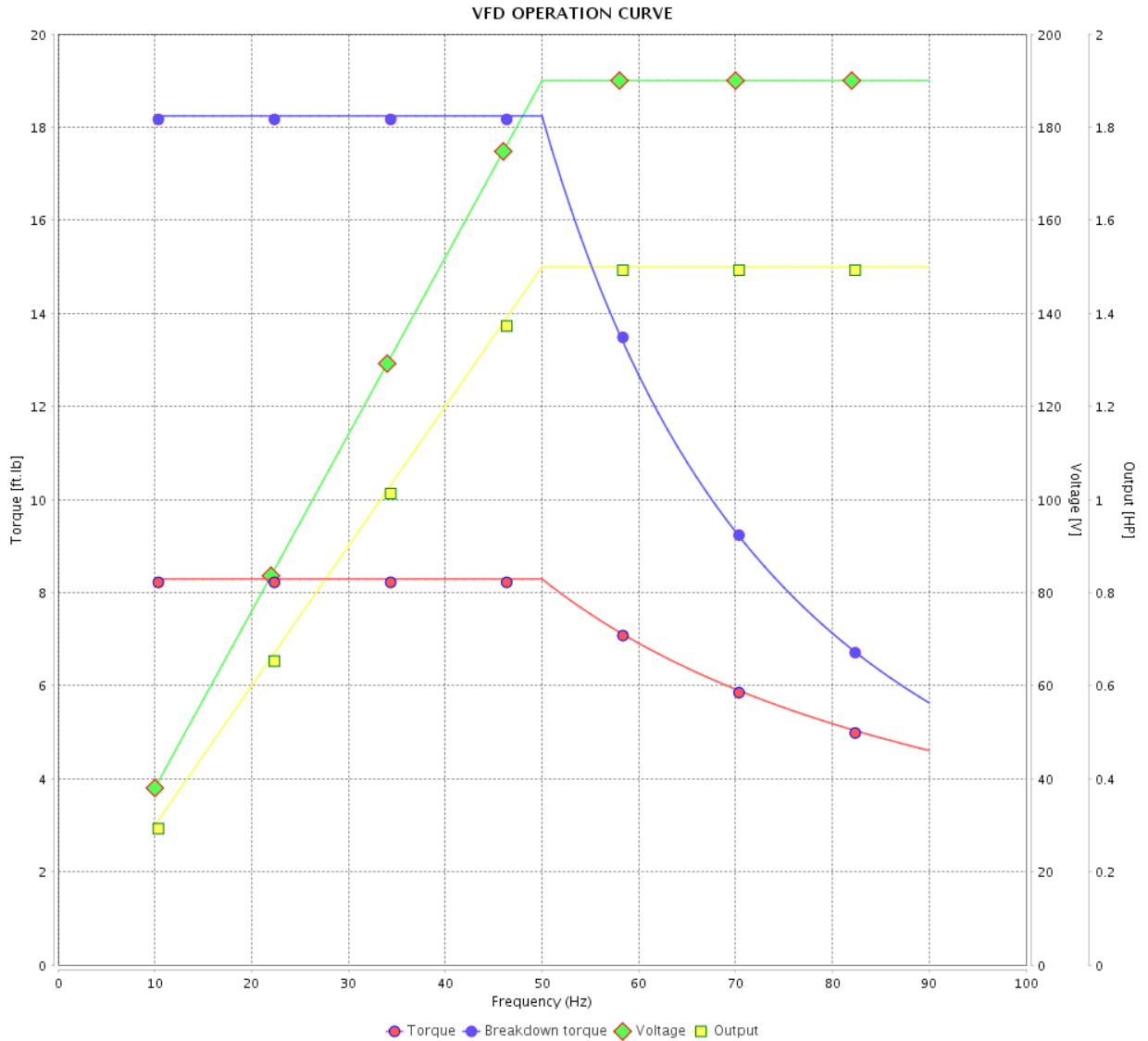


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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



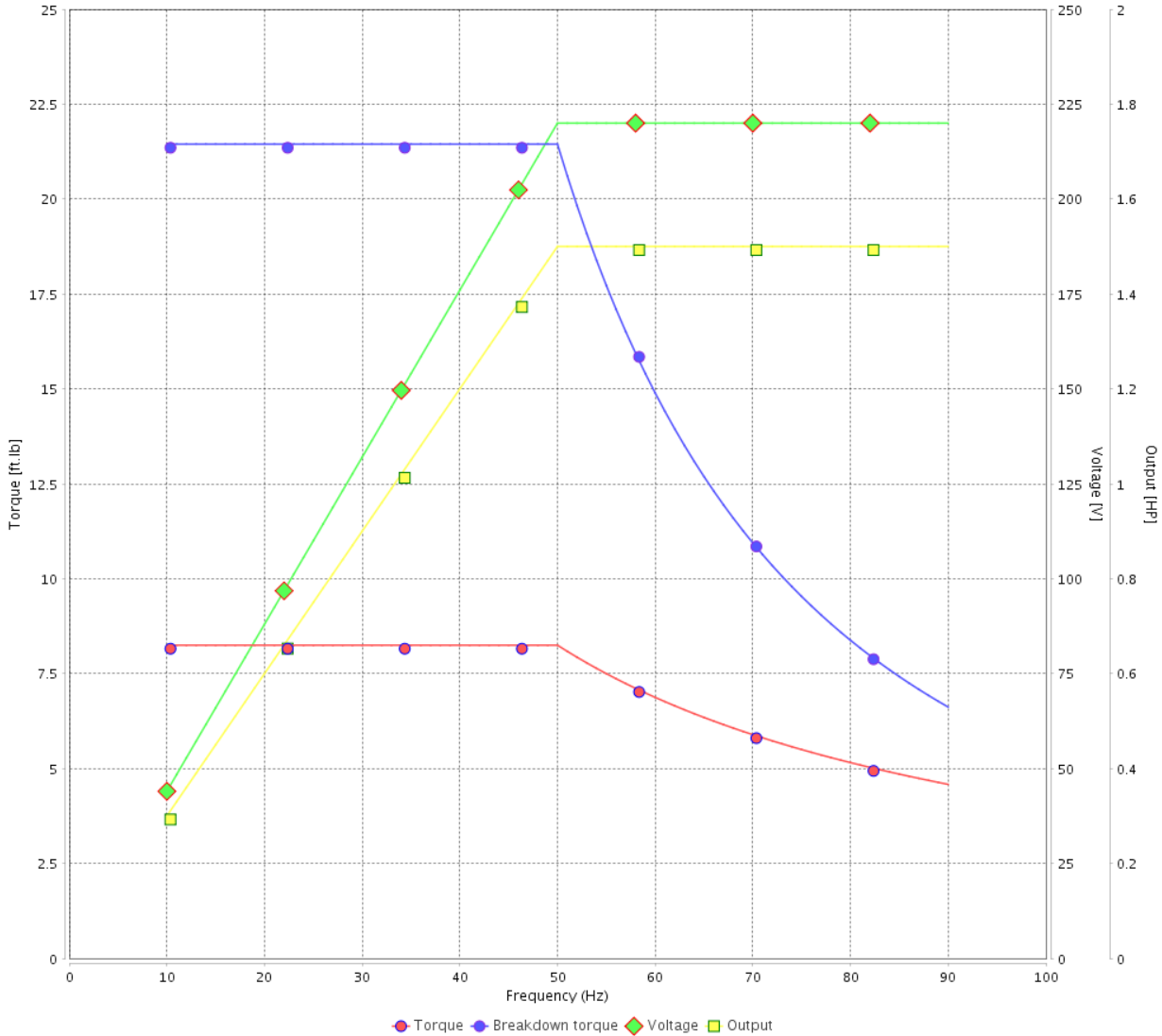
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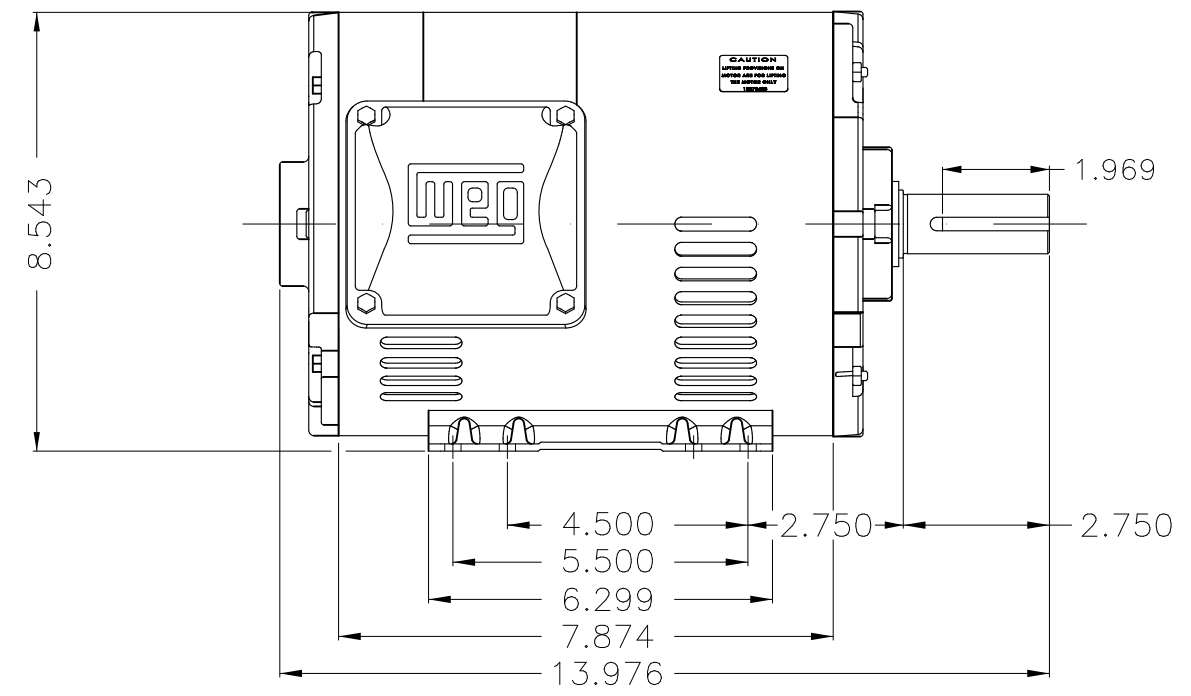
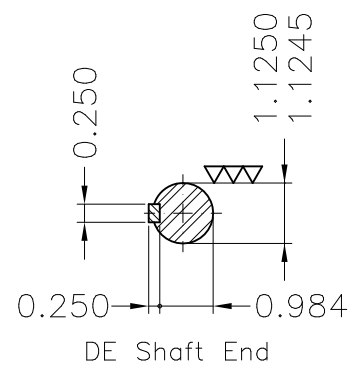
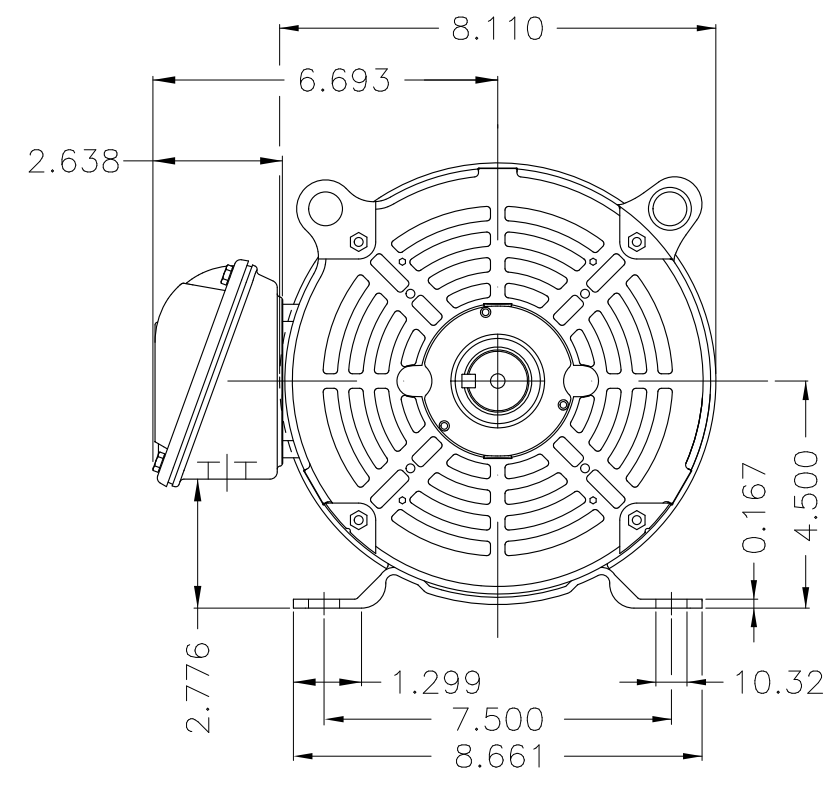
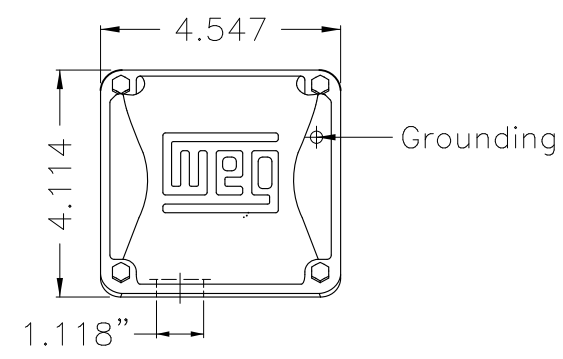
A

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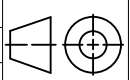
C

D

E



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		

**PREVIEW**  
 WDD



1.5 HP 06 Poles 60 Hz

**NEMA**  
**Premium**

MADE IN MEXICO

**MAT: 13459655 CC029A**  
**W01.T00IC0X0N**  
**MODEL 001520T3E182T-S**  
**15OCT2021 S/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 1.5</b>
<b>FR 182/4T</b>		<b>KW 1.1</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 4.50/2.25</b>
<b>INS CL F AT 80K</b>		<b>SFA 5.17/2.59</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL ODP</b>	<b>CODE J</b>	<b>PF 0.71</b>
<b>USABLE @ 208V 4.98A</b>		<b>RPM 1165</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 86.5%</b>

**ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15**  
**5.24-4.81/2.62-2.55A 950RPM EFF 82.8% (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.

