

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	13393200	
		Catalog # :	00536ET3E184JM-S	
Frame	: 182/4JM	Cooling method	: IC411 - TEFC	
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>	: 88.9 lb	
Protection degree	: IP55	Moment of inertia (J)	: 0.2079 sq.ft.lb	
Design	: B			
Output [HP]	5	5	5	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	11.8/5.90	14.3/7.17	12.8/6.81	
L. R. Amperes [A]	92.0/46.0	91.8/45.9	91.2/48.4	
LRC [A]	7.8x(Code J)	6.4x(Code G)	7.1x(Code H)	
No load current [A]	4.40/2.20	4.34/2.17	4.39/2.33	
Rated speed [RPM]	3500	2860	2875	
Slip [%]	2.78	4.67	4.17	
Rated torque [ft.lb]	7.50	9.18	9.13	
Locked rotor torque [%]	220	180	200	
Breakdown torque [%]	300	250	280	
Service factor	1.15	1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	30s (cold) 17s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)	
Efficiency (%)	25%	87.2	89.3	
	50%	87.5	88.1	
	75%	88.5	87.8	
	100%	88.5	86.2	
Power Factor	25%	0.49	0.52	
	50%	0.76	0.79	
	75%	0.85	0.87	
	100%	0.89	0.91	
Bearing type	: <u>Drive end</u> 6207 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads		
Sealing	: V'Ring V'Ring	Max. traction	: 119 lb	
Lubrication interval	: - -	Max. compression	: 208 lb	
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 13.1A SF 1.00 SFA 13.1A				
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

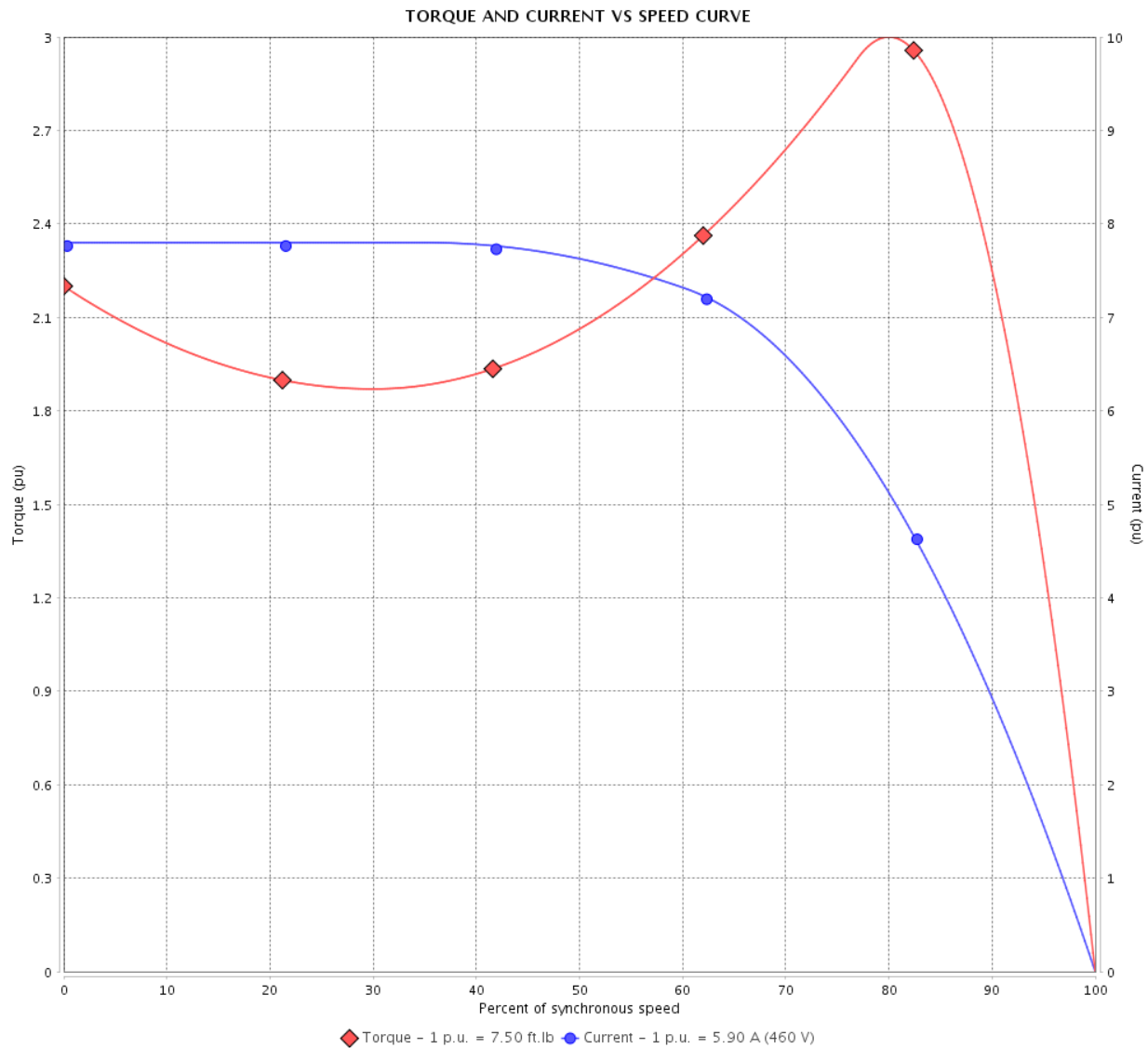


Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13393200

Catalog # : 00536ET3E184JM-S



Performance : 230/460 V 60 Hz 2P

Rated current	: 11.8/5.90 A	Moment of inertia (J)	: 0.2079 sq.ft.lb
LRC	: 7.8	Duty cycle	: Cont.(S1)
Rated torque	: 7.50 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3500 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



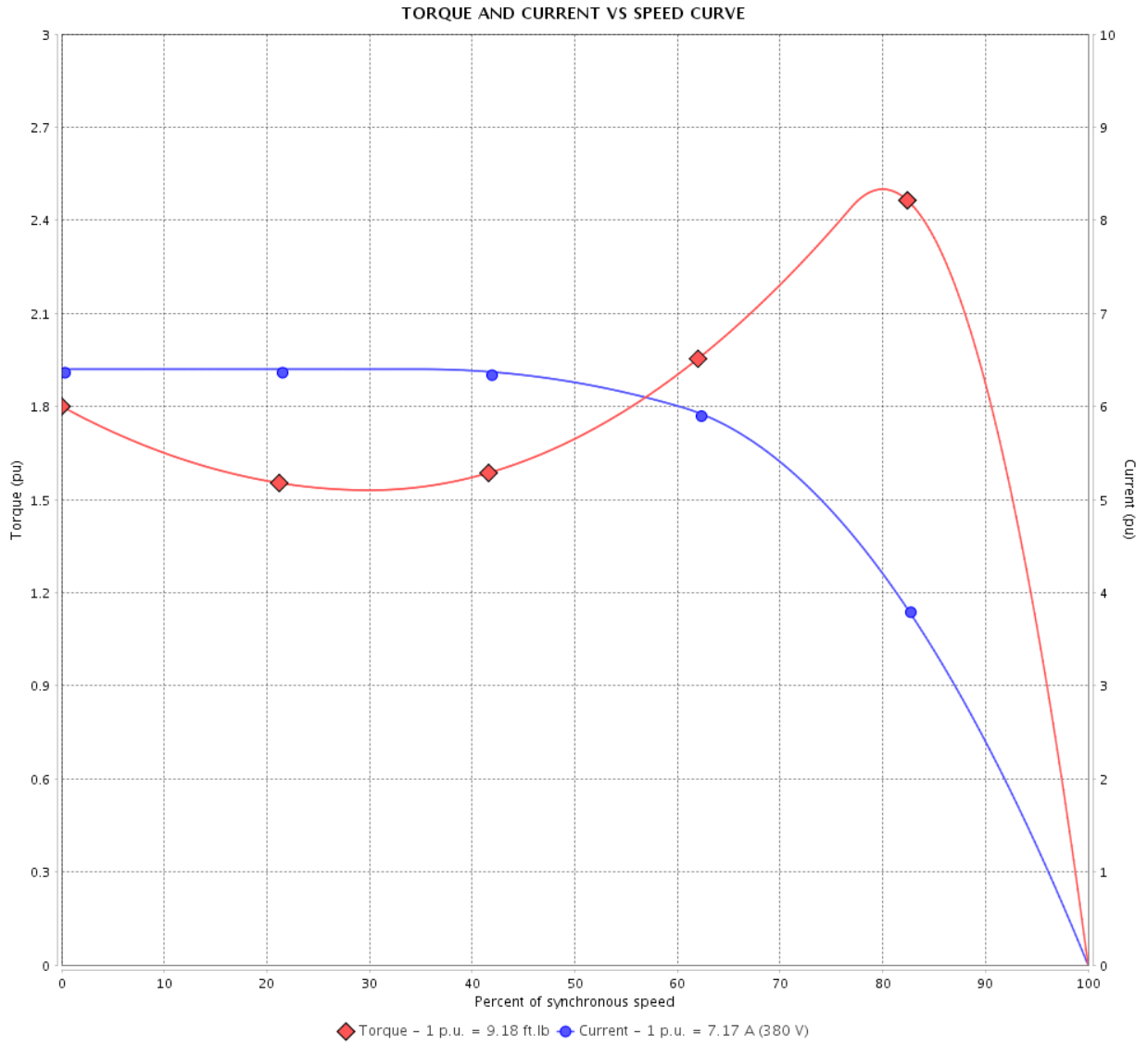
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13393200

Catalog # : 00536ET3E184JM-S



Performance : 190/380 V 50 Hz 2P

Rated current : 14.3/7.17 A  
 LRC : 6.4  
 Rated torque : 9.18 ft.lb  
 Locked rotor torque : 180 %  
 Breakdown torque : 250 %  
 Rated speed : 2860 rpm

Moment of inertia (J) : 0.2079 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



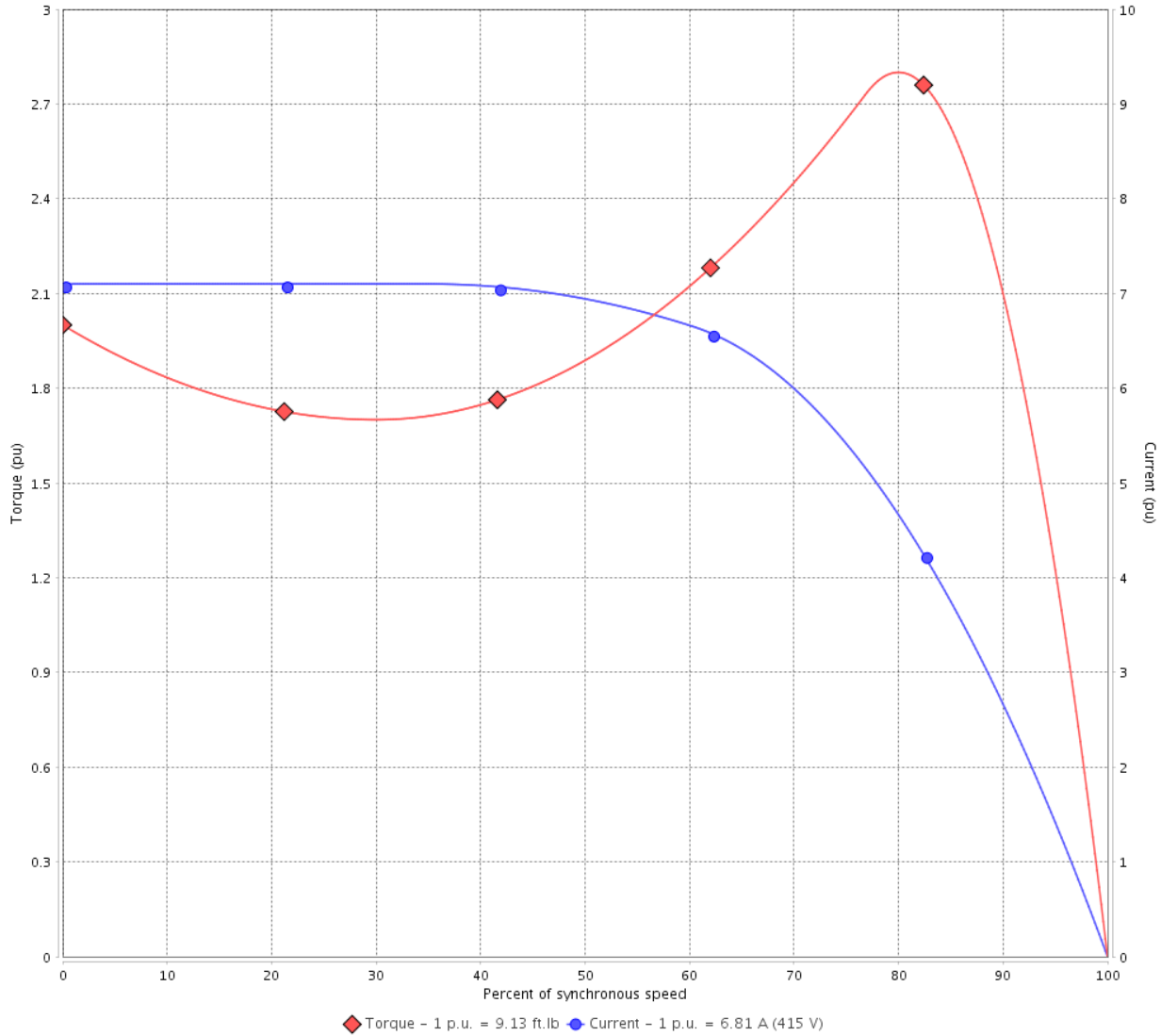
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Efficiency Three-Phase

Product code : 13393200

Catalog # : 00536ET3E184JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 12.8/6.81 A  
LRC : 7.1  
Rated torque : 9.13 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 280 %  
Rated speed : 2875 rpm

Moment of inertia (J) : 0.2079 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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# LOAD PERFORMANCE CURVE

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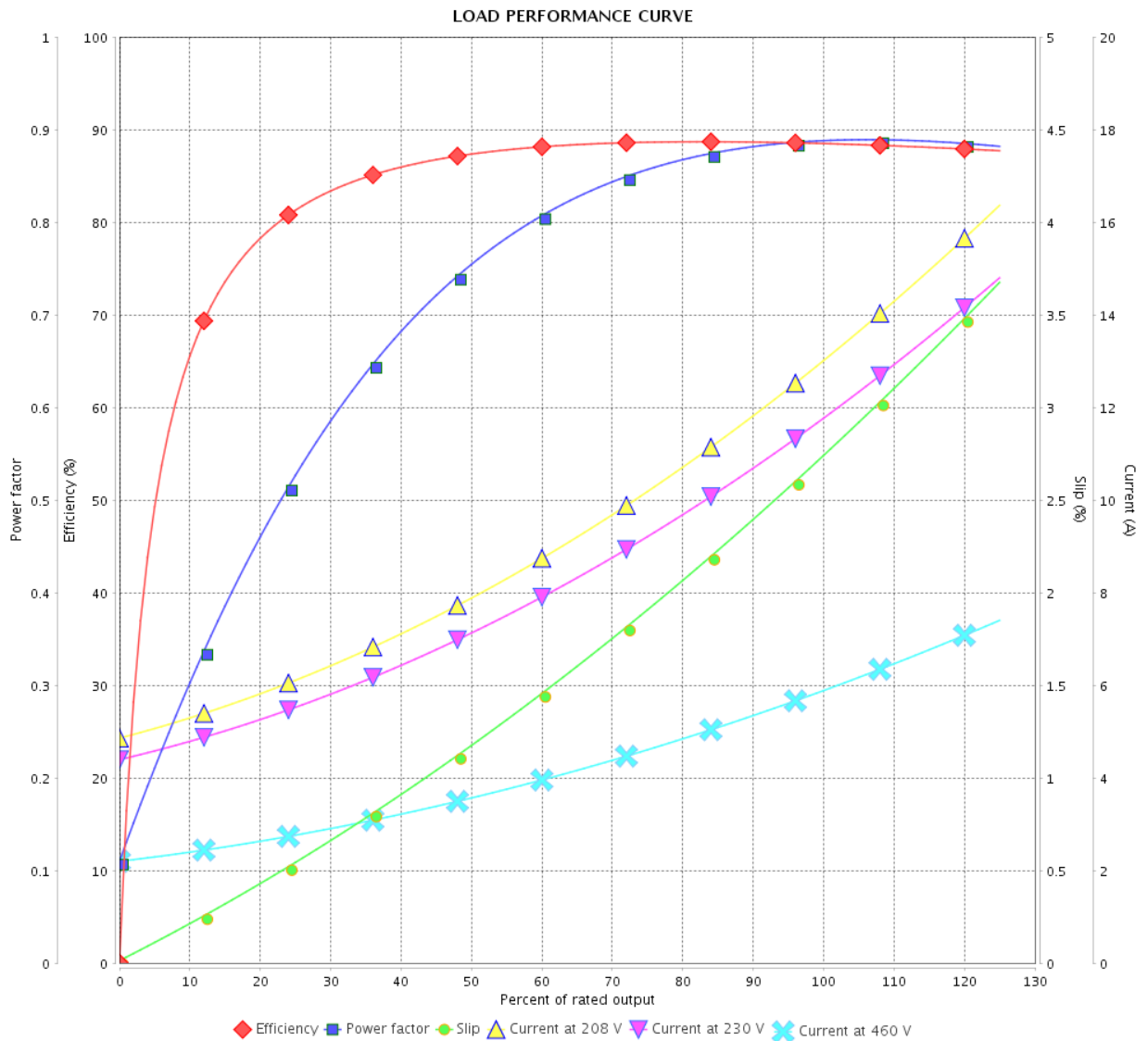


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 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.2079 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



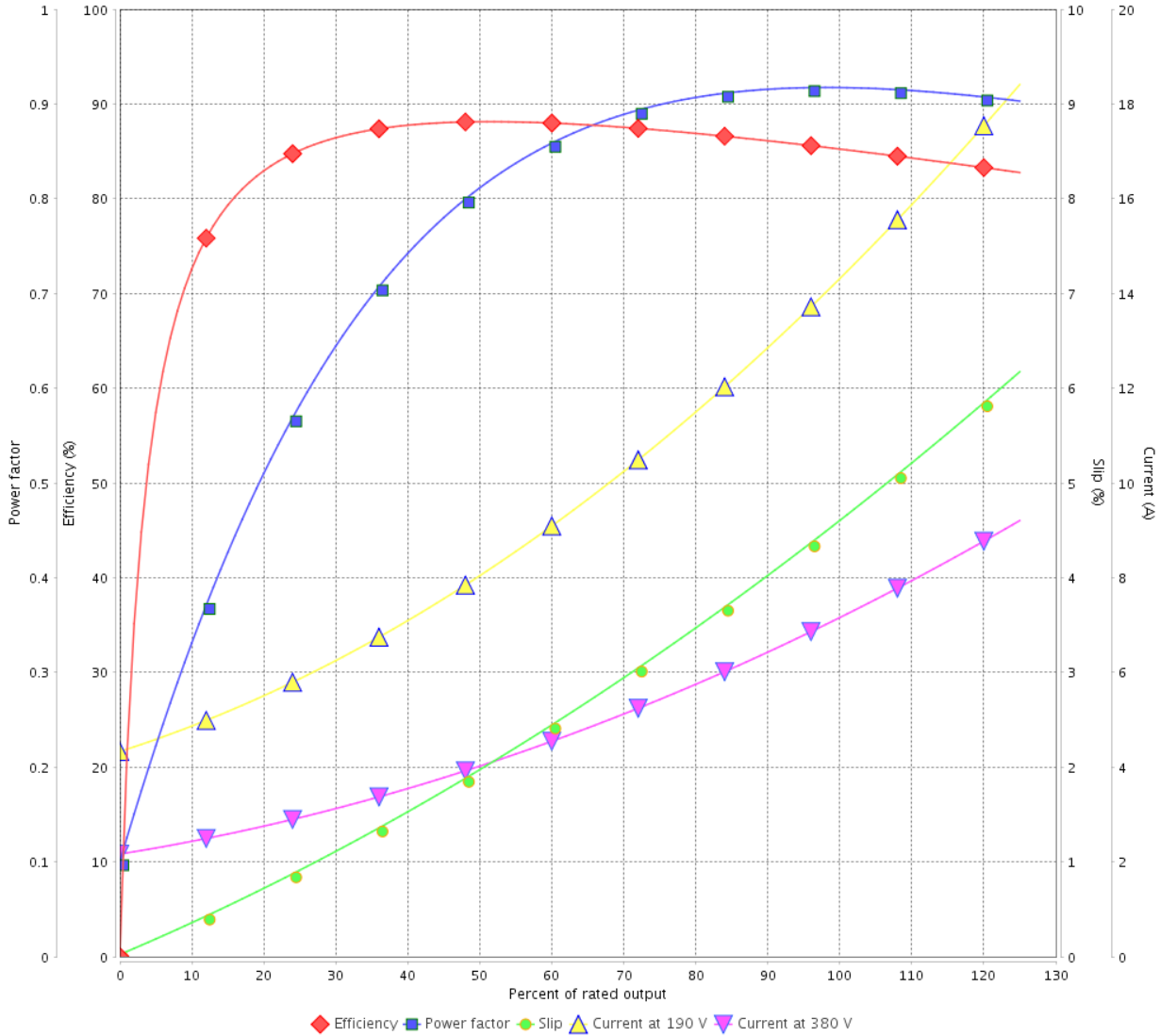
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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

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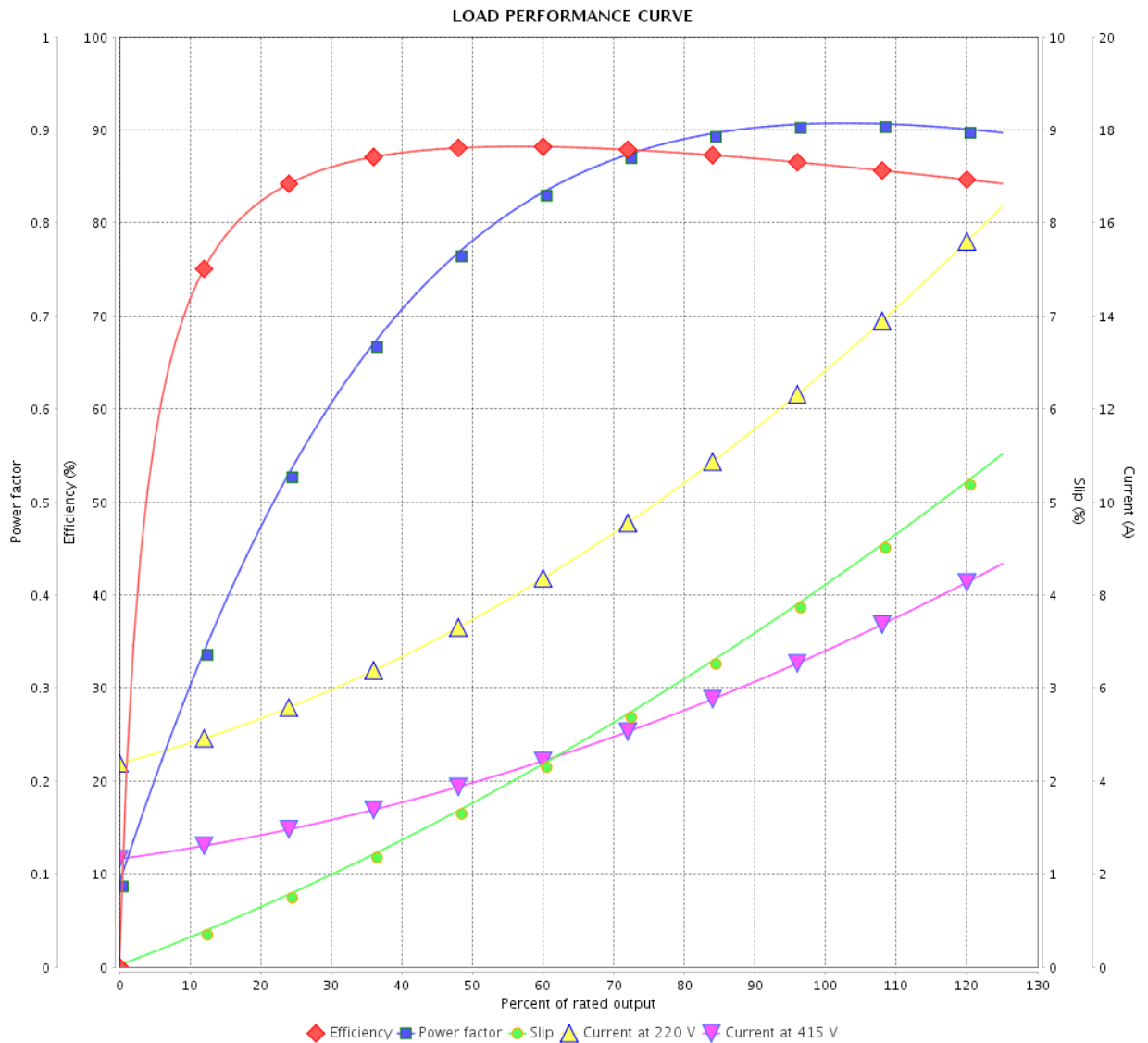


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Performance : 220/415 V 50 Hz 2P

Rated current : 12.8/6.81 A  
 LRC : 7.1  
 Rated torque : 9.13 ft.lb  
 Locked rotor torque : 200 %  
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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Efficiency Three-Phase

Product code : 13393200

Catalog # : 00536ET3E184JM-S

Performance : 230/460 V 60 Hz 2P

Rated current : 11.8/5.90 A  
LRC : 7.8  
Rated torque : 7.50 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 300 %  
Rated speed : 3500 rpm

Moment of inertia (J) : 0.2079 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

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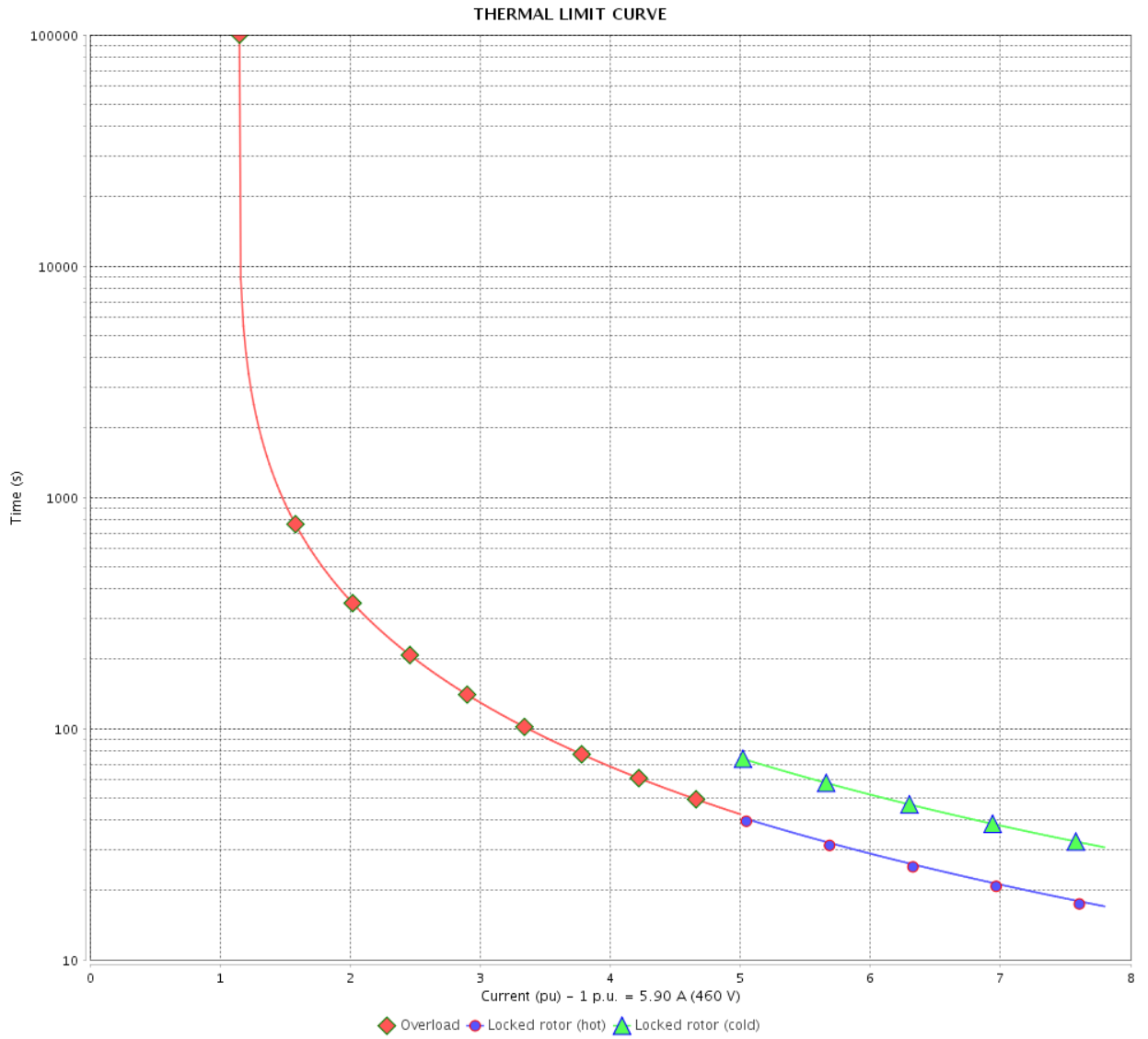


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Three Phase Induction Motor - Squirrel Cage



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



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Cooling constant

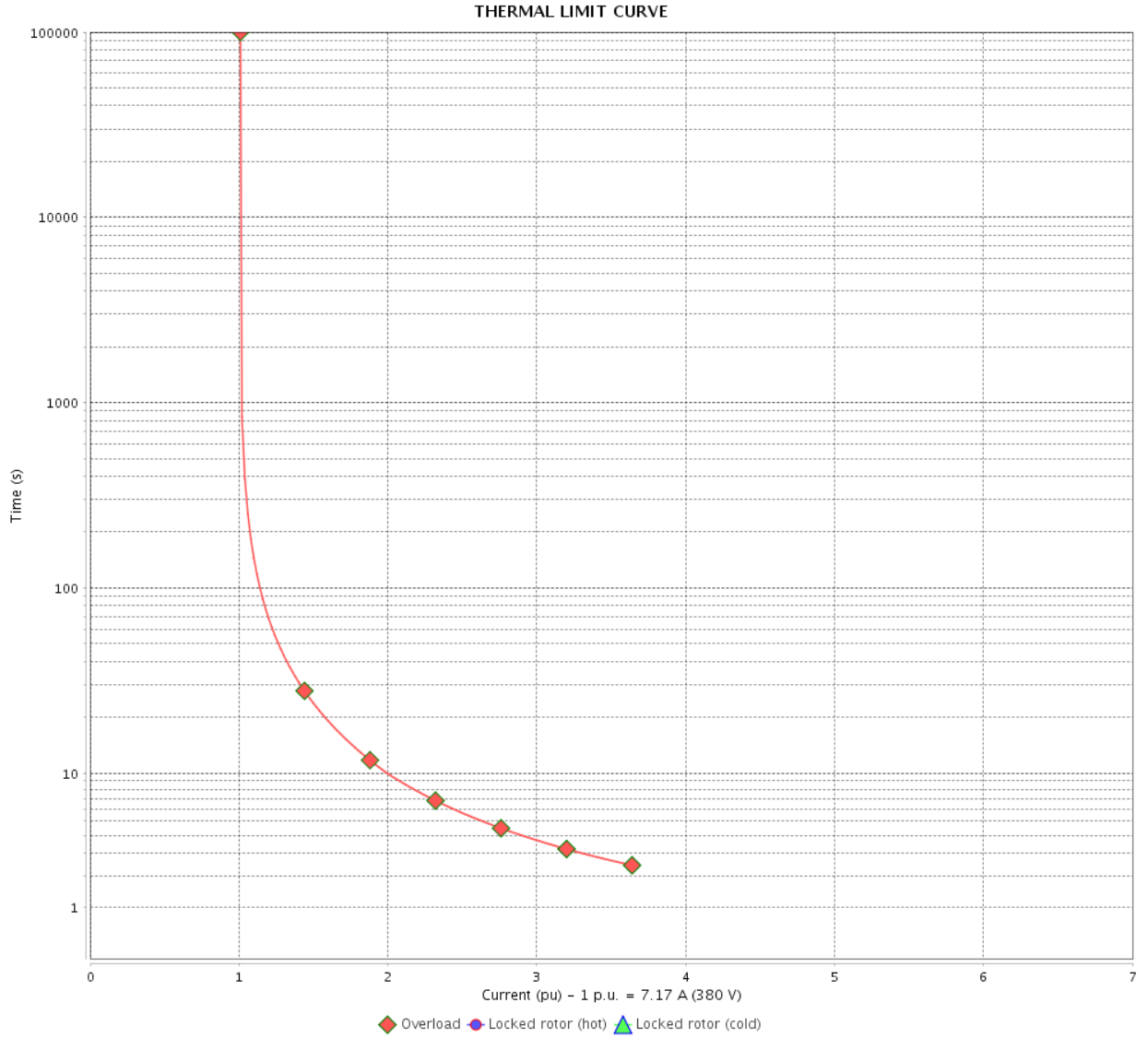
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Heating constant

Cooling constant

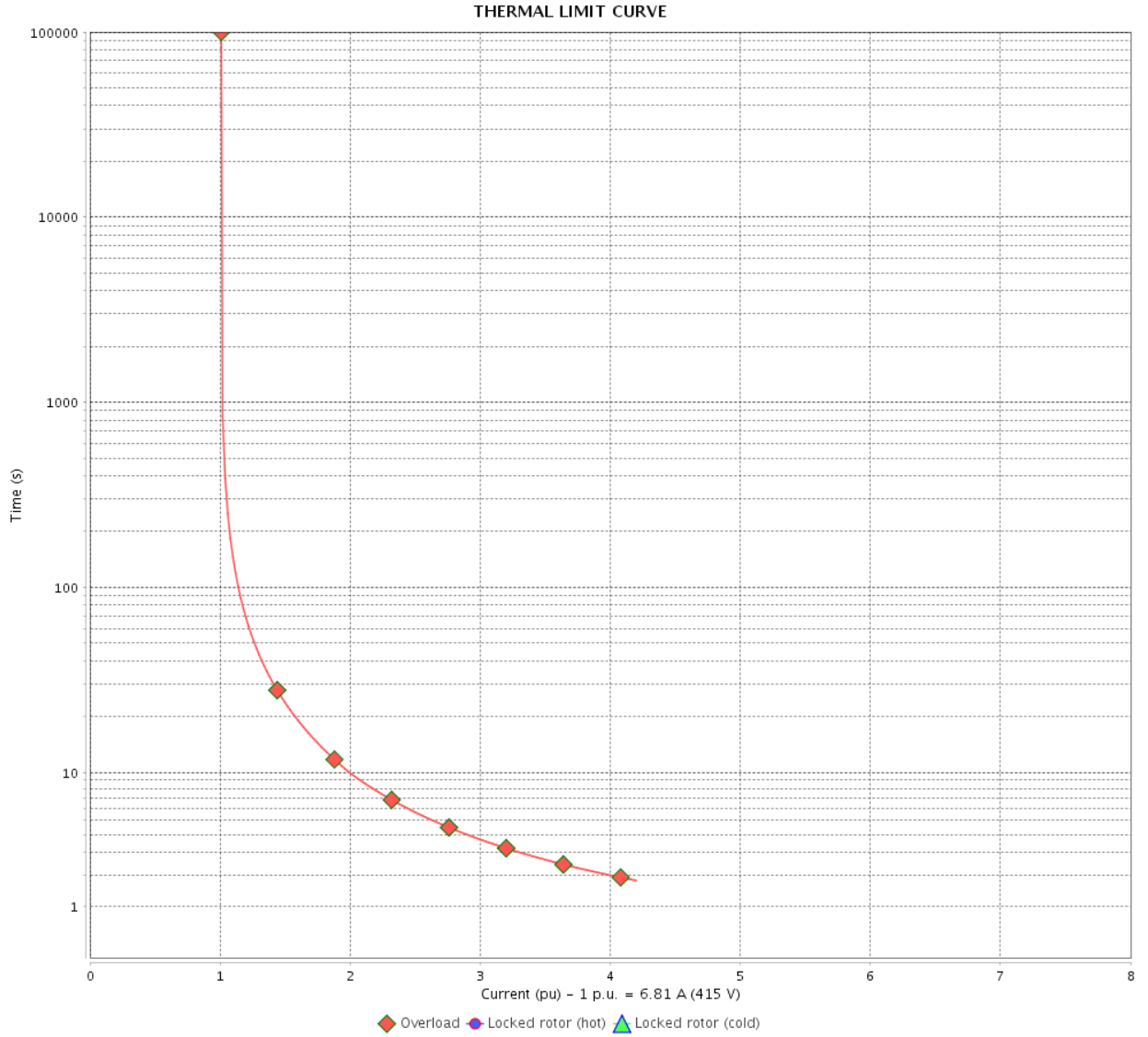
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# VFD OPERATION CURVE

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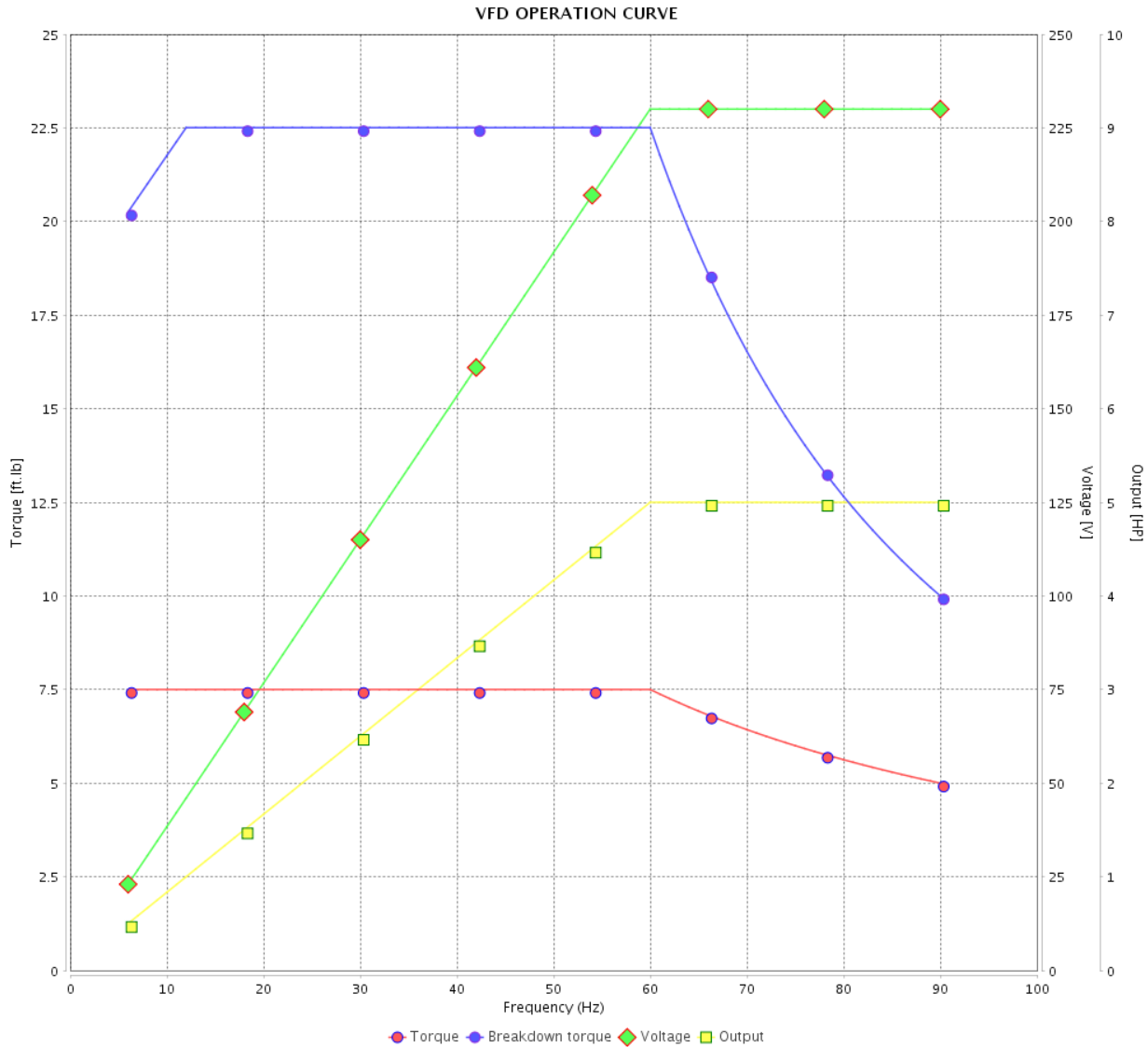


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Performance : 230/460 V 60 Hz 2P

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 LRC : 7.8  
 Rated torque : 7.50 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.2079 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

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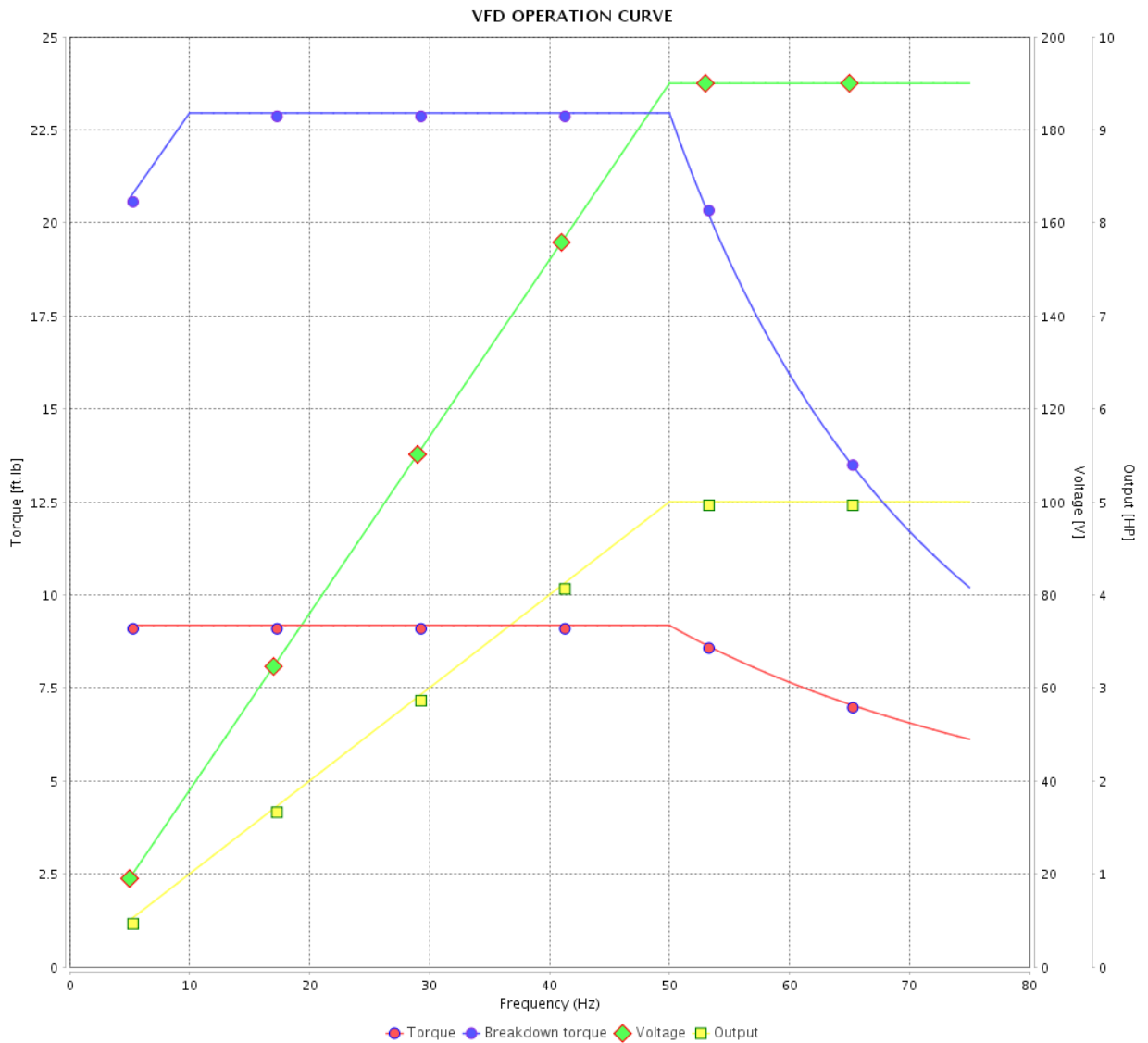


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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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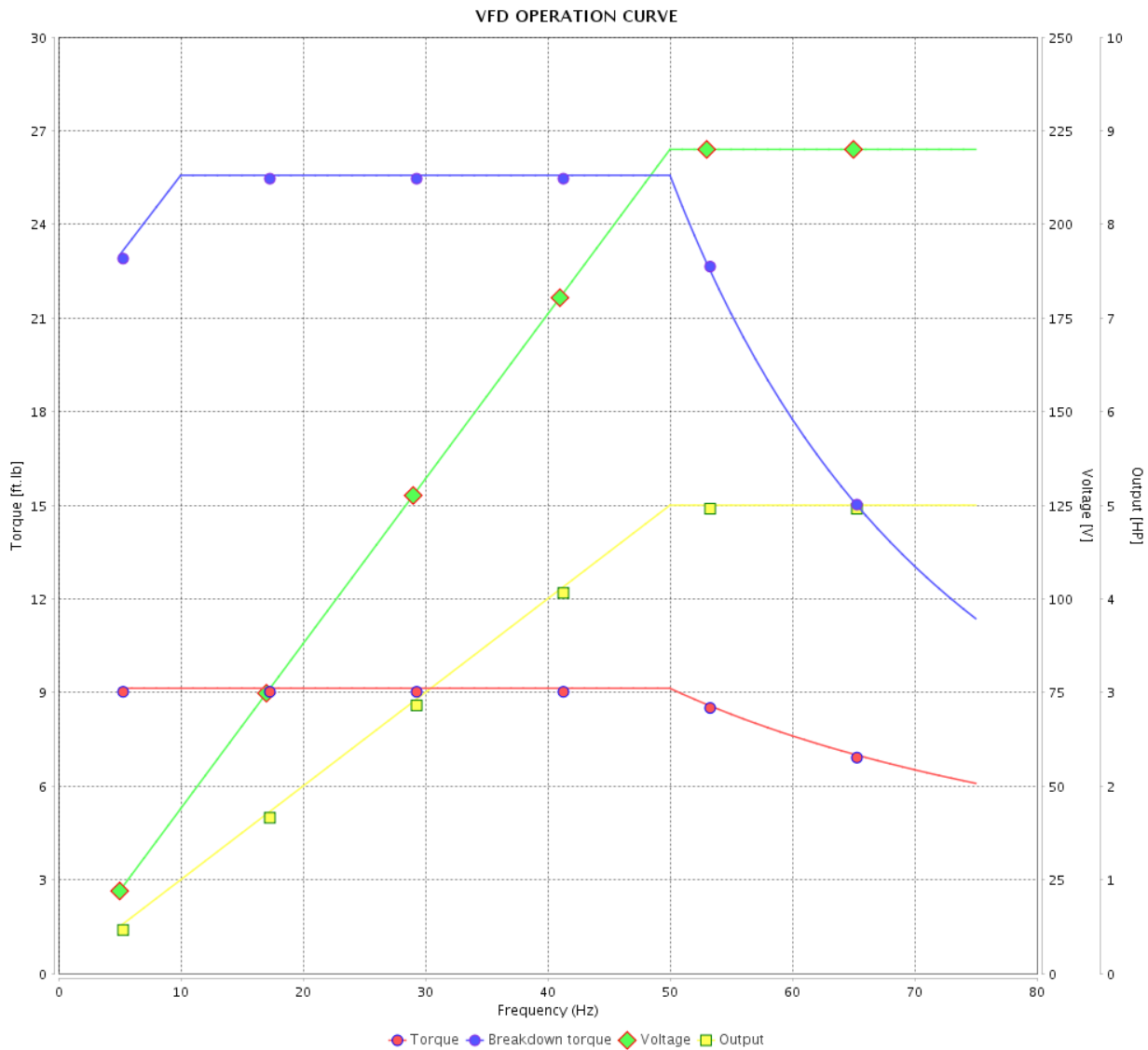


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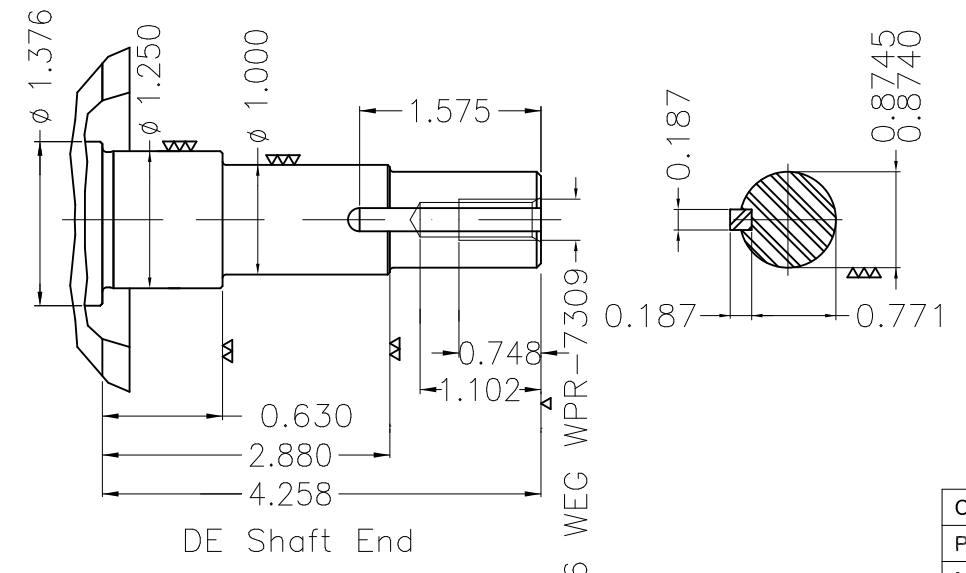
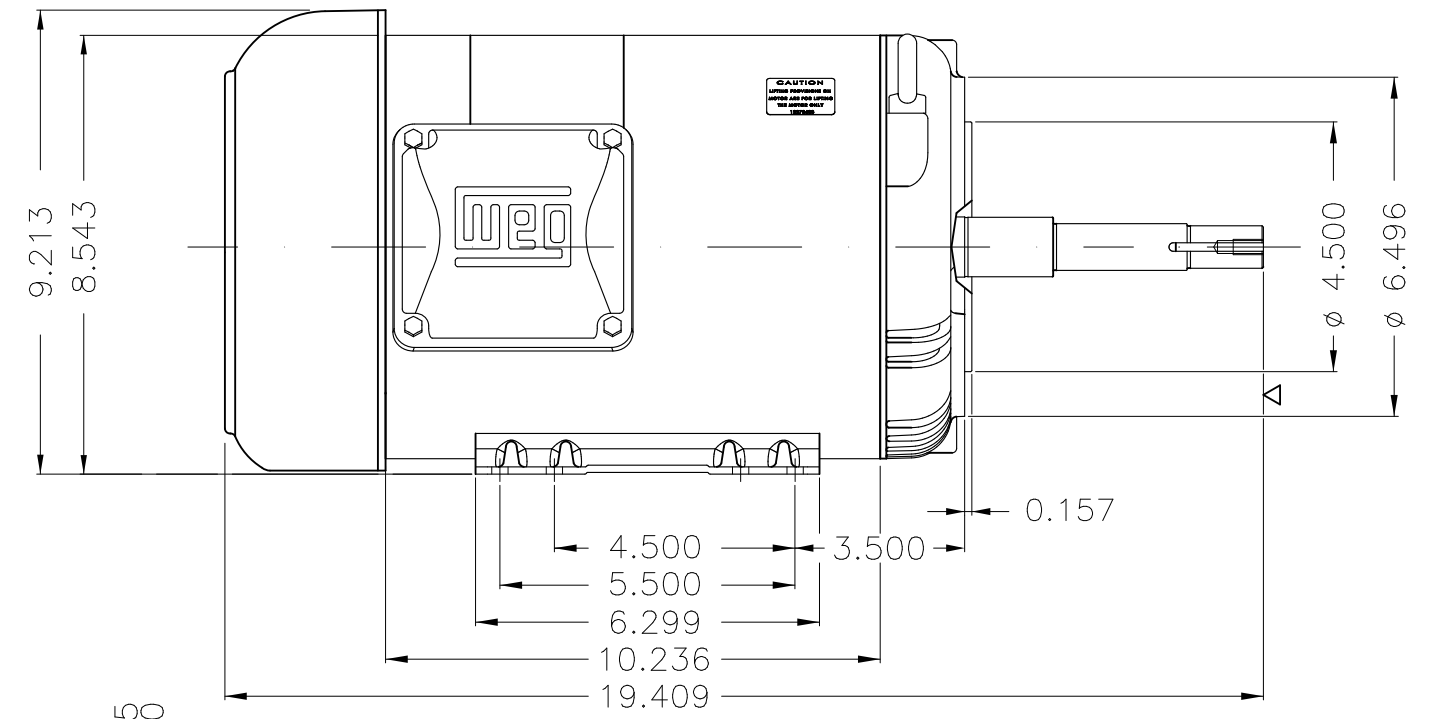
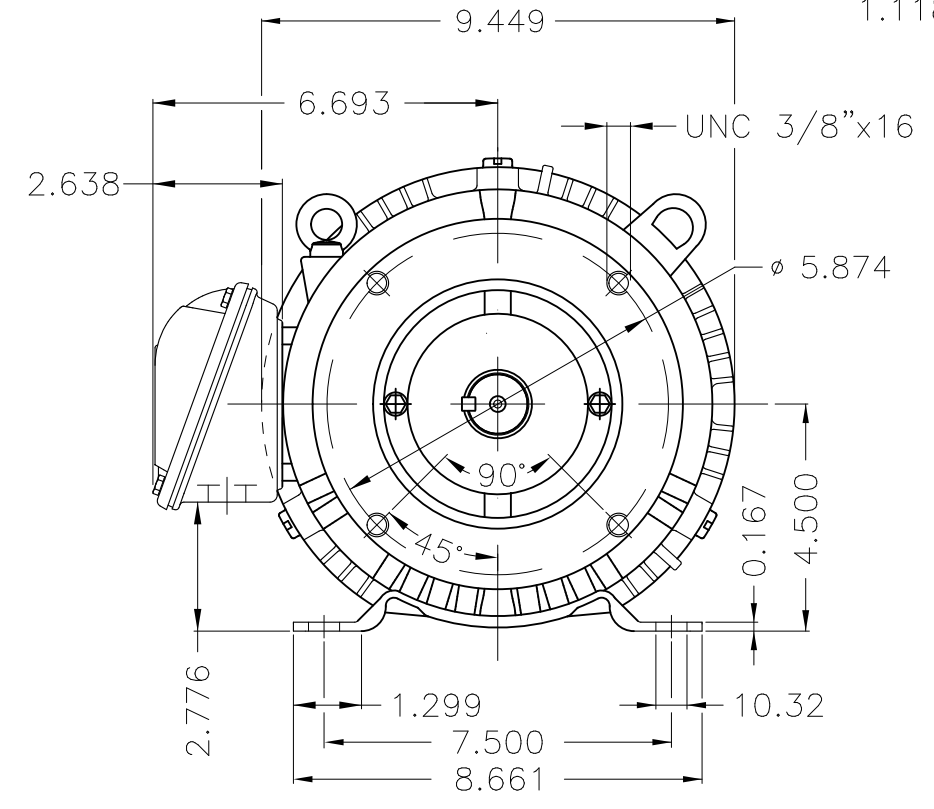
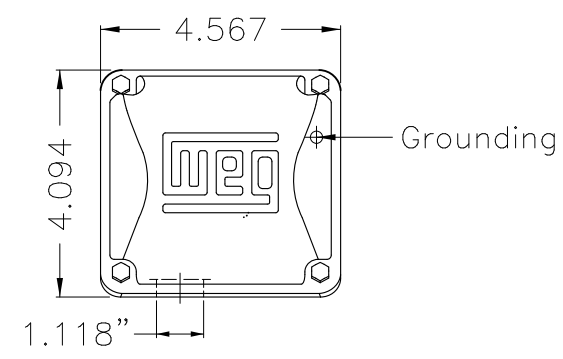
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1 2 3 4 5 6

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 F-1/B34R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JM TYPE PSEF 575							
CHECKED		FRAME 182/4JM IP55 TEFC							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

5 HP 02 Poles 60 Hz

Dimensions in inches XME A3



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 13393200 CC029A**

**W01.TE0IC0X0N**

**MODEL 00536ET3E184JM-S**

**20APR2022 S/N:**

**For 60Hz: Class I, Zone 2, IIC  
Class I, Div.2, Gr. A,B,C,D - T3  
Div 2 Inverter Duty (SF1.00)**

**CT 2:1/VT 1000:1**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 5.0</b>
<b>FR 182/4JM</b>		<b>KW 3.7</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 11.8/5.90</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 13.6/6.79</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE J</b>	<b>PF 0.89</b>
<b>USABLE @ 208V 13.1A</b>		<b>RPM 3500</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 88.5%</b>

<b>ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.00</b>
<b>14.3-12.47.17-6.59A 2860RPM EFF 85.2% (IE1) IEC 60034-1</b>

For safe area-Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 10:1 CT

<b>DE 6207-ZZ</b>	<b>ODE 6205-ZZ</b>	<b>MOBIL POLYREX EM</b>
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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.

