

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	
Product code :	13374122	
Catalog # :	00152ET3E182JM-S	
Frame	: 182/4JM	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Protection degree	: IP55	
Design	: B	
Cooling method	: IC411 - TEFC	
Mounting	: F-1	
Rotation <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 76.8 lb	
Moment of inertia (J)	: 0.2800 sq.ft.lb	
Output [HP]	1.5	
Poles	6	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	4.44/2.22	
L. R. Amperes [A]	30.6/15.3	
LRC [A]	6.9x(Code K)	
No load current [A]	2.73/1.36	
Rated speed [RPM]	1170	
Slip [%]	2.50	
Rated torque [ft.lb]	6.73	
Locked rotor torque [%]	240	
Breakdown torque [%]	340	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	99s (cold) 55s (hot)	
Noise level <sup>2</sup>	52.0 dB(A)	
Efficiency (%)	25%	82.8
	50%	84.0
	75%	86.5
	100%	87.5
Power Factor	25%	0.29
	50%	0.50
	75%	0.63
	100%	0.71
Bearing type	: <u>Drive end</u> 6207 ZZ <u>Non drive end</u> 6205 ZZ	
Sealing	: V'Ring Without Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 113 lb	
	Max. compression : 190 lb	
Notes USABLE @208V 4.91A SF 1.00 SFA 4.91A		
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



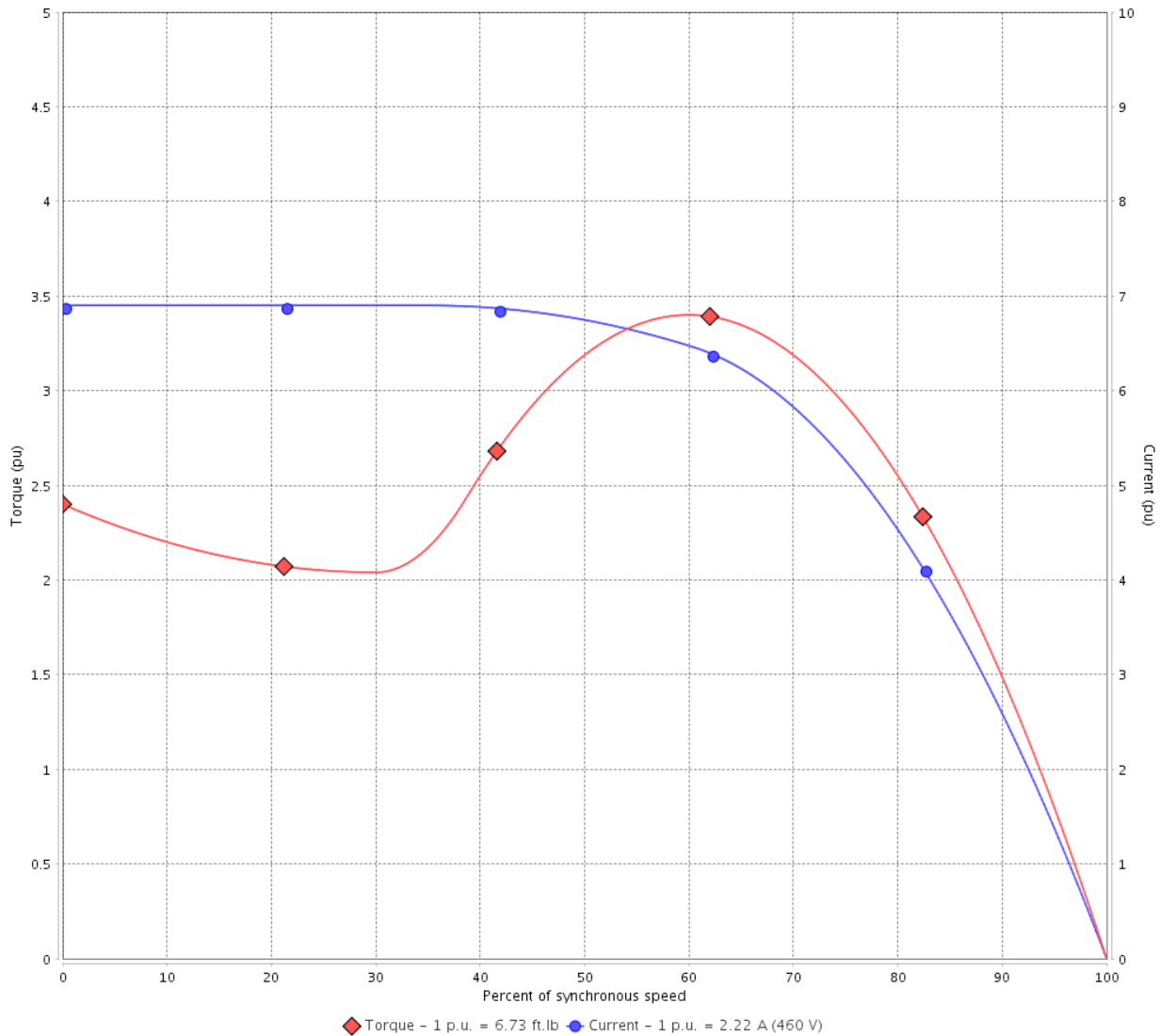
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13374122

Catalog # : 00152ET3E182JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 4.44/2.22 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 6.73 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1170 rpm	Design	: B

Locked rotor time : 99s (cold) 55s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



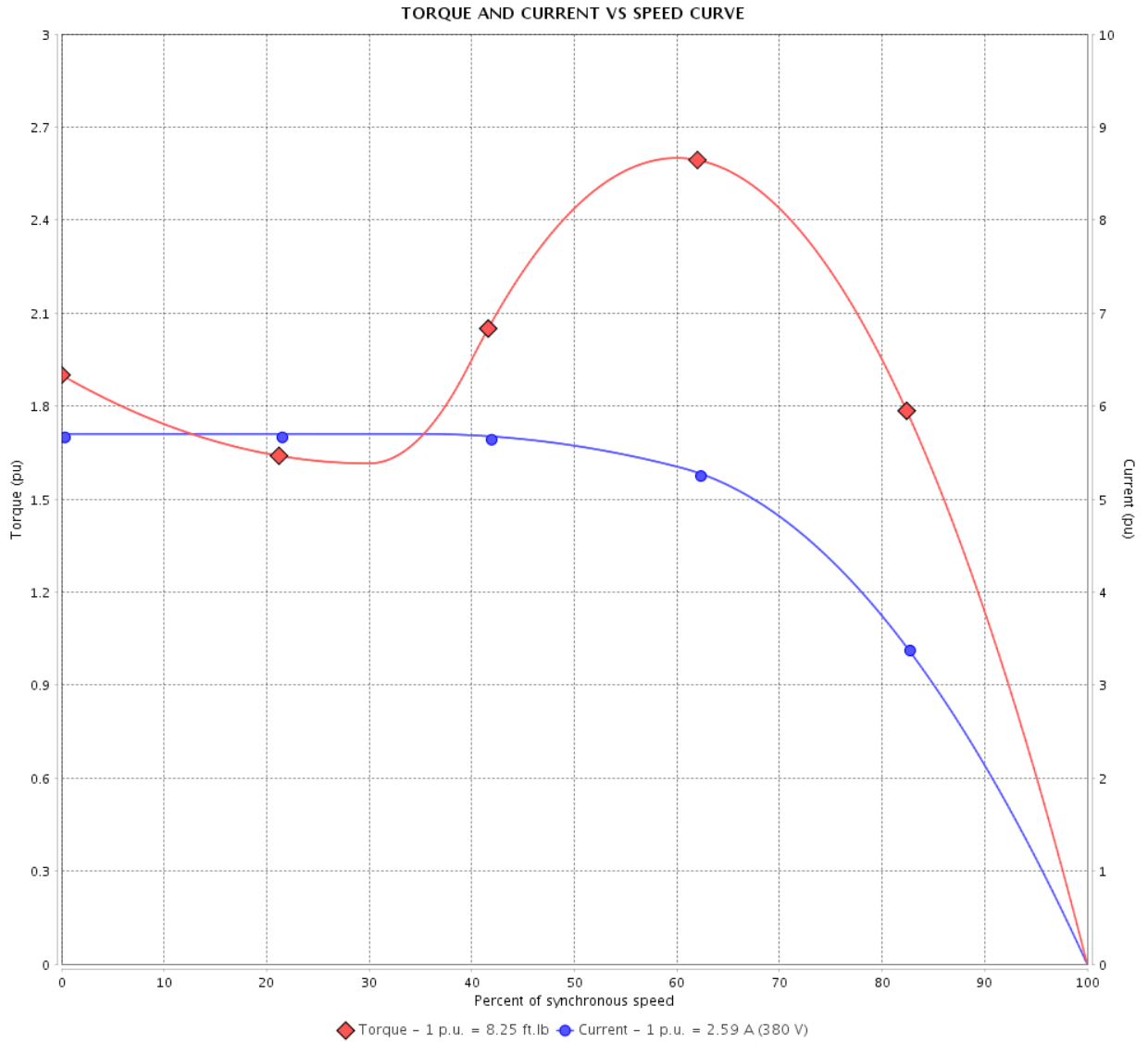
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13374122

Catalog # : 00152ET3E182JM-S



Performance : 190/380 V 50 Hz 6P

Rated current : 5.18/2.59 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) : 0.2800 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



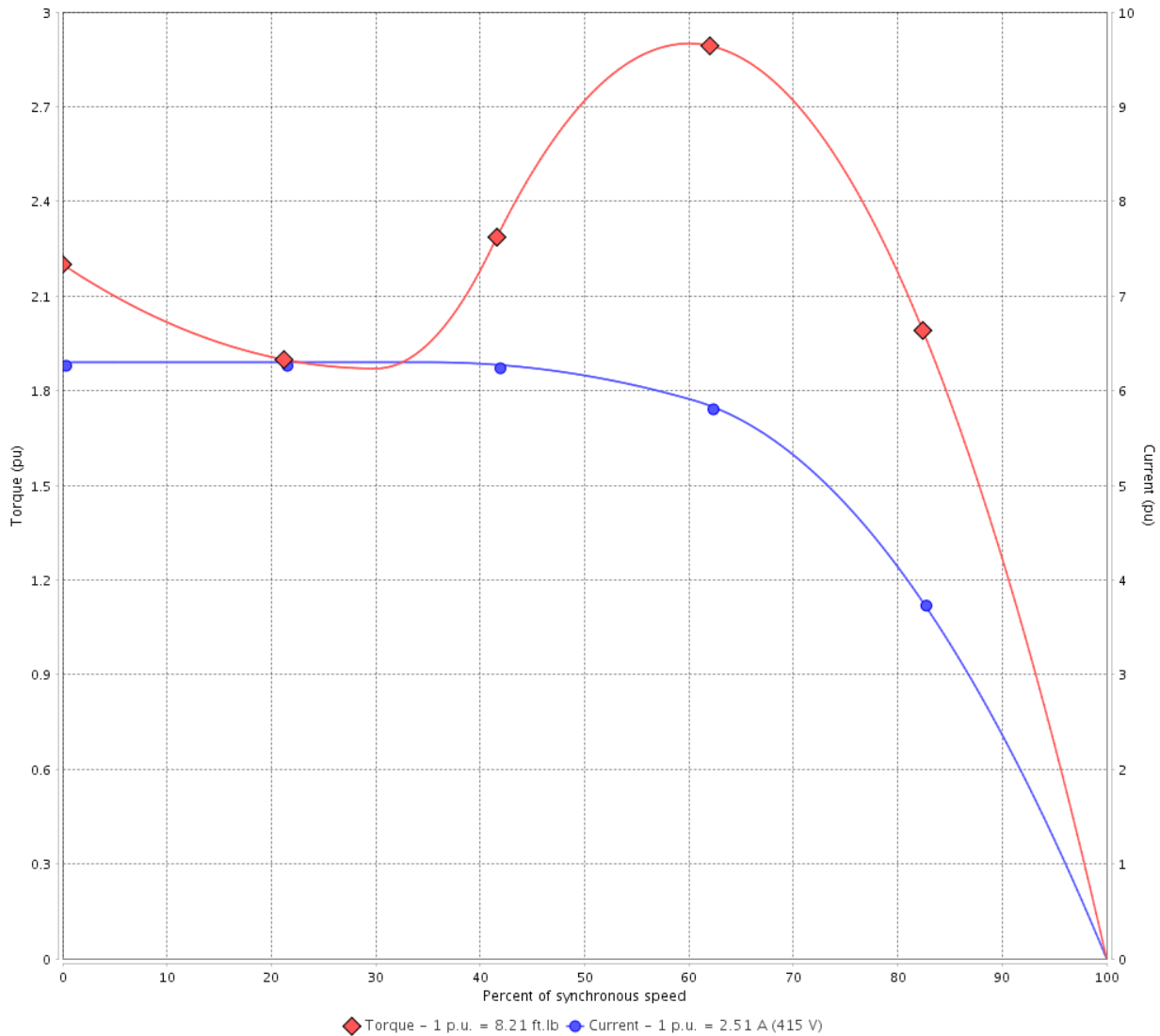
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Product code : 13374122

Catalog # : 00152ET3E182JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 4.73/2.51 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.21 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

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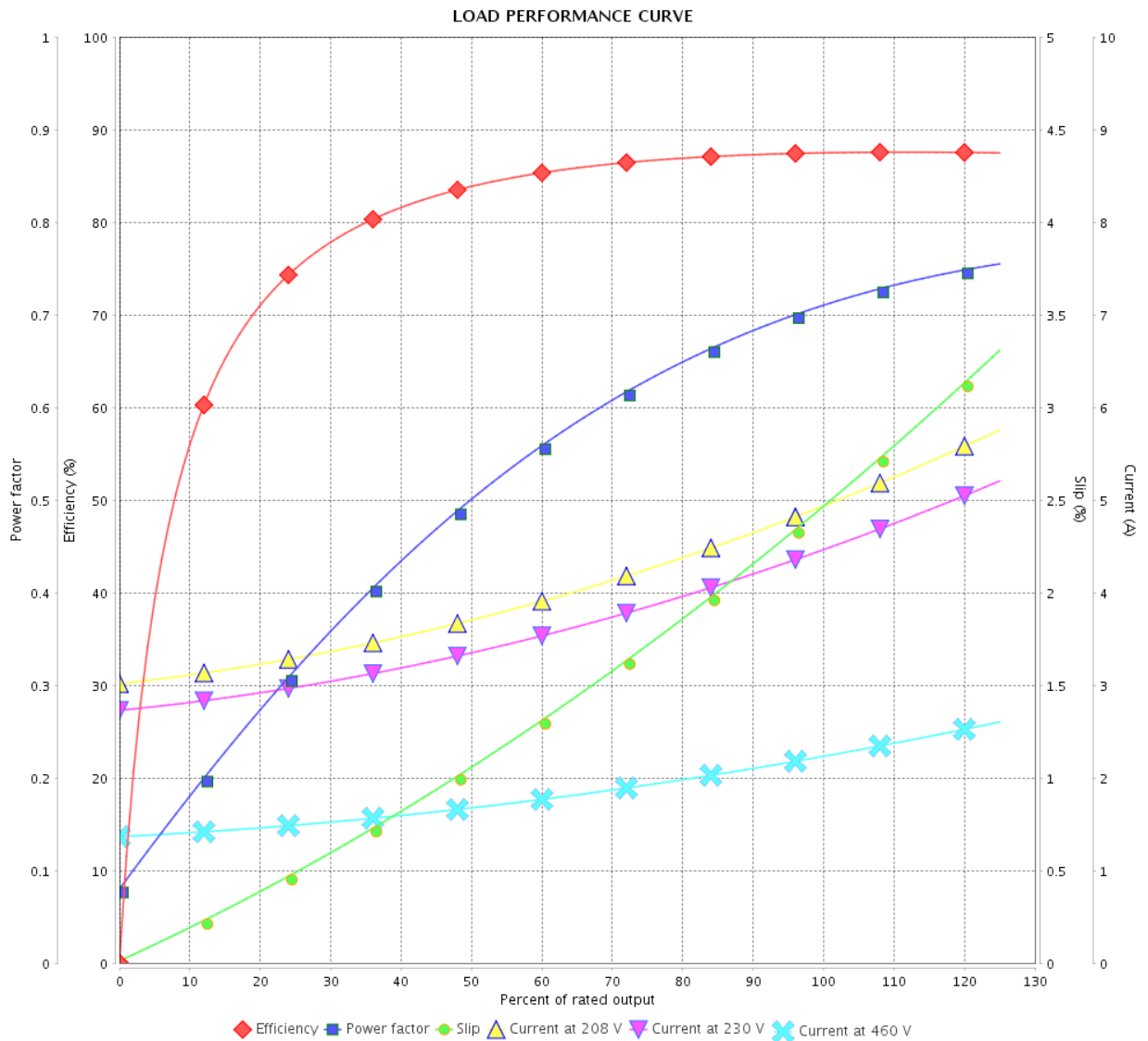


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Performance : 230/460 V 60 Hz 6P

Rated current : 4.44/2.22 A  
 LRC : 6.9  
 Rated torque : 6.73 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 340 %  
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.2800 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



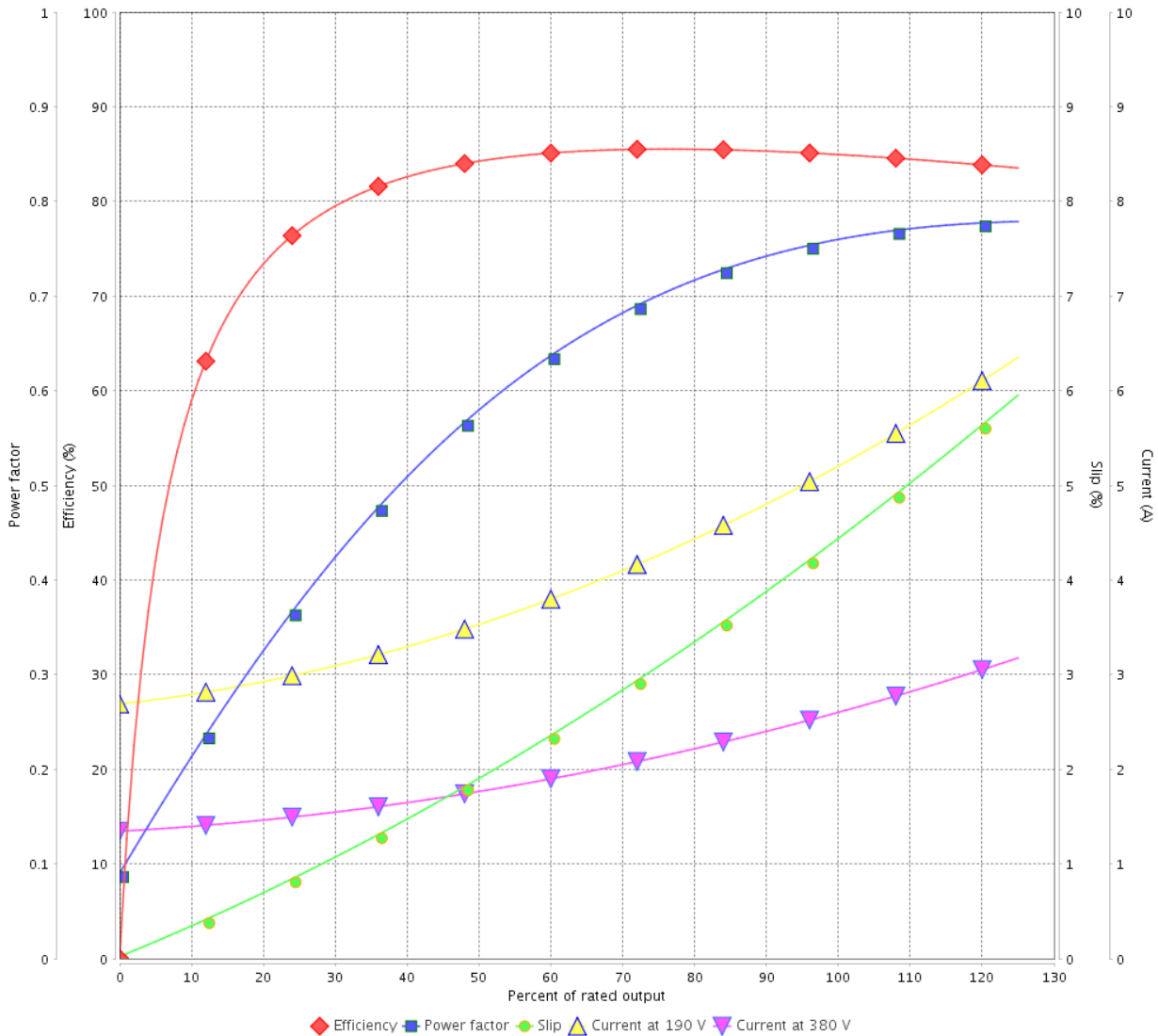
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LOAD PERFORMANCE CURVE



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Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

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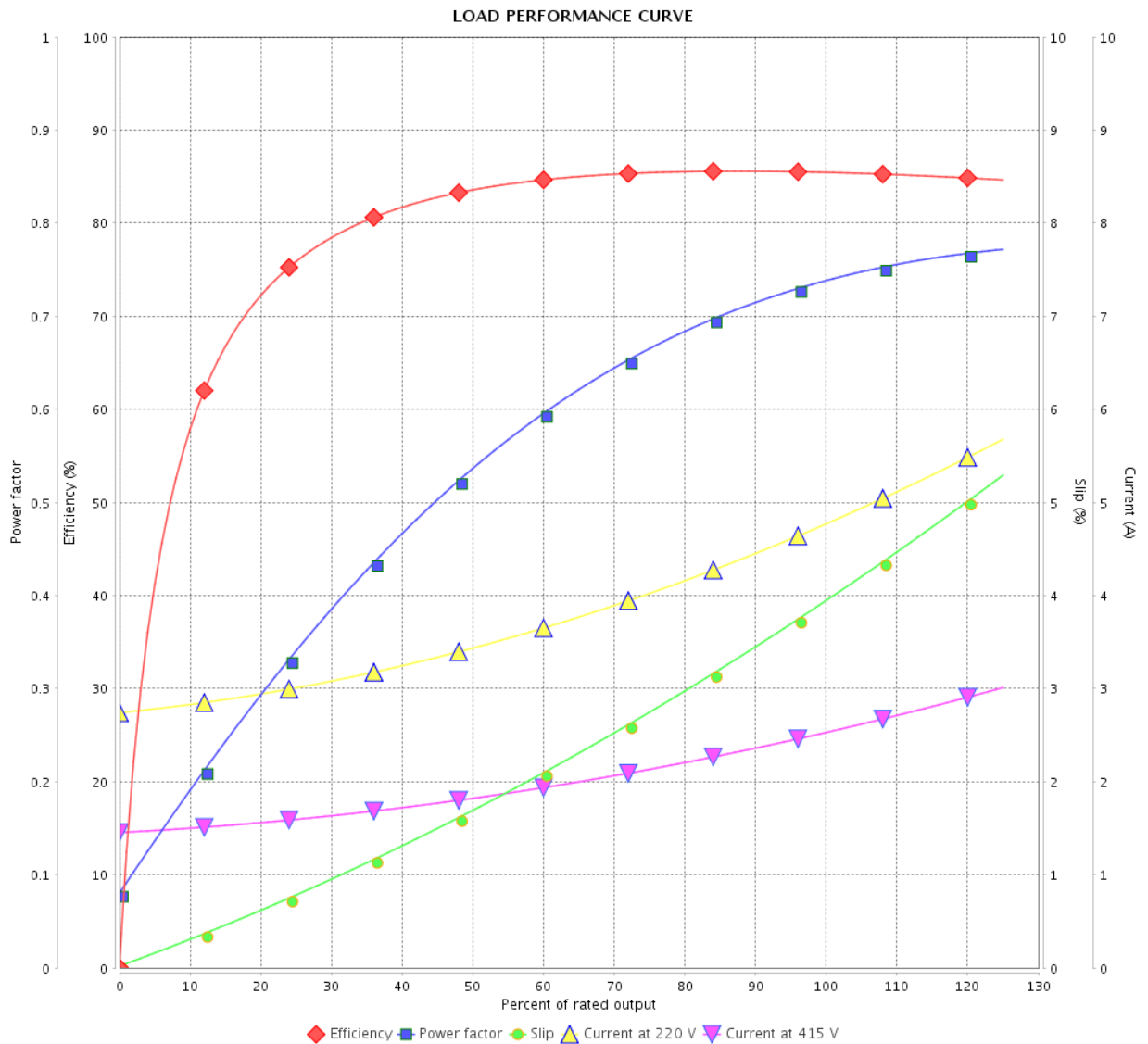


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# THERMAL LIMIT CURVE



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Rated torque : 6.73 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 340 %  
Rated speed : 1170 rpm

Moment of inertia (J) : 0.2800 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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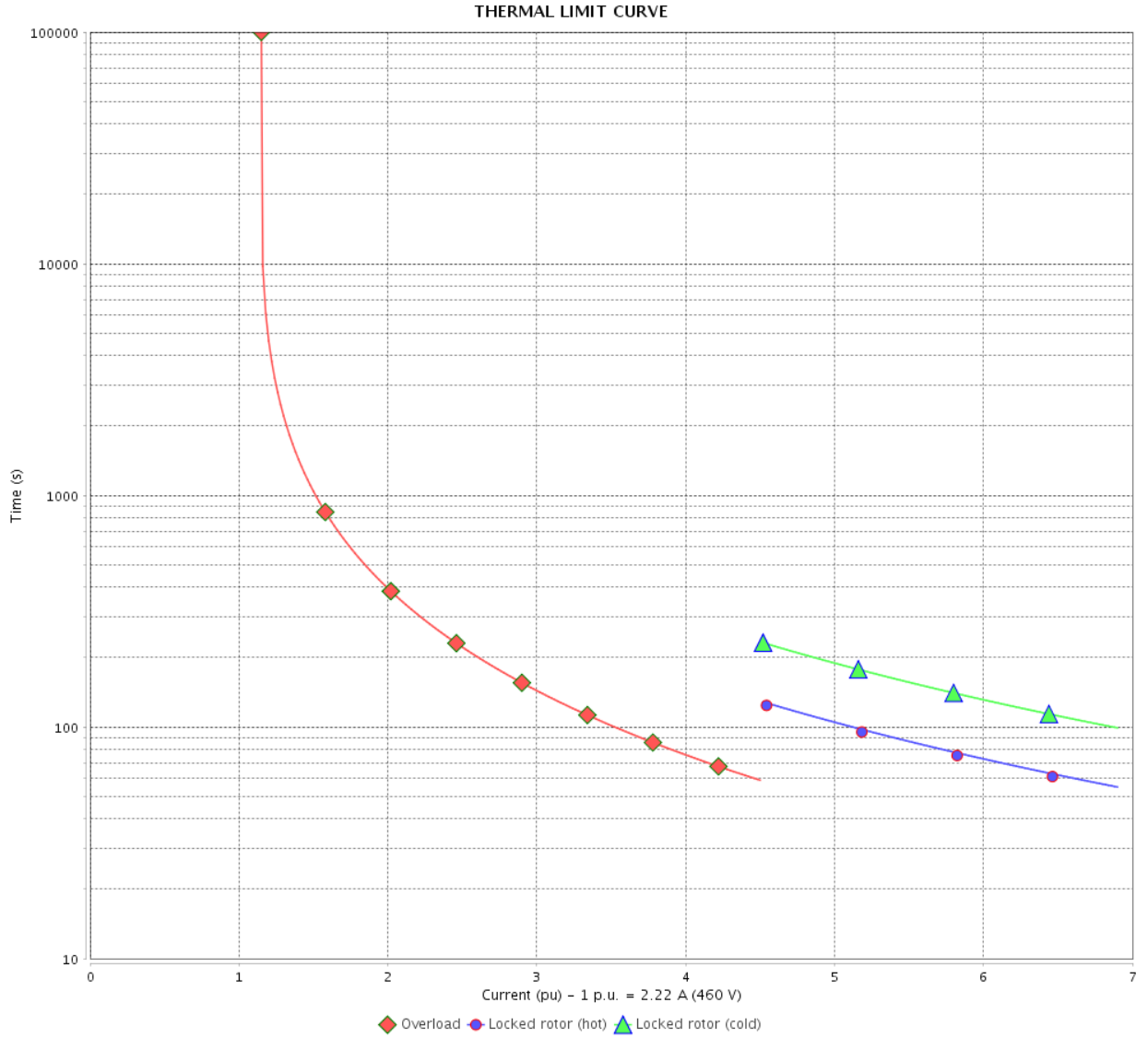


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Three Phase Induction Motor - Squirrel Cage



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Design : B

Heating constant

Cooling constant

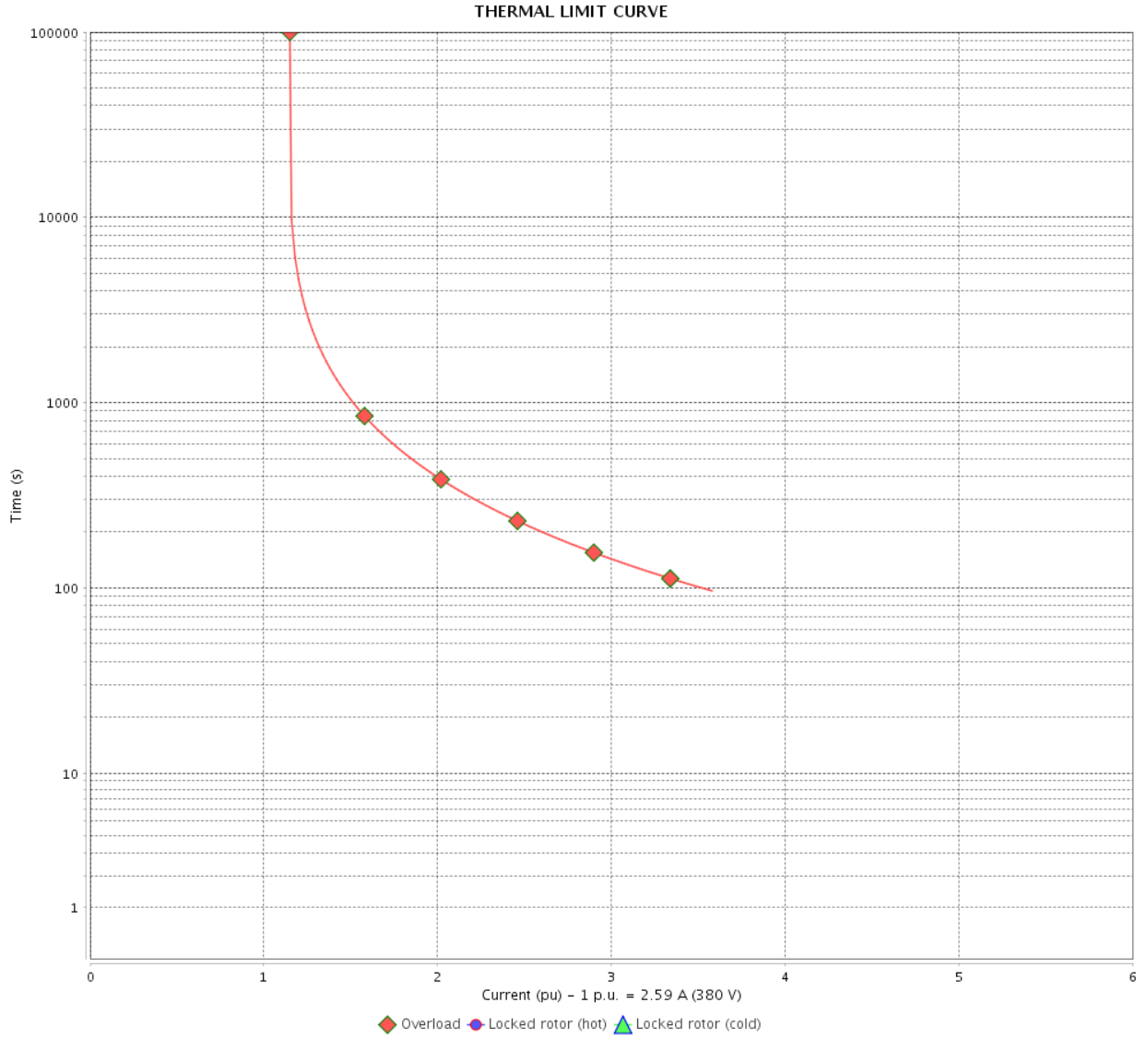
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Cooling constant

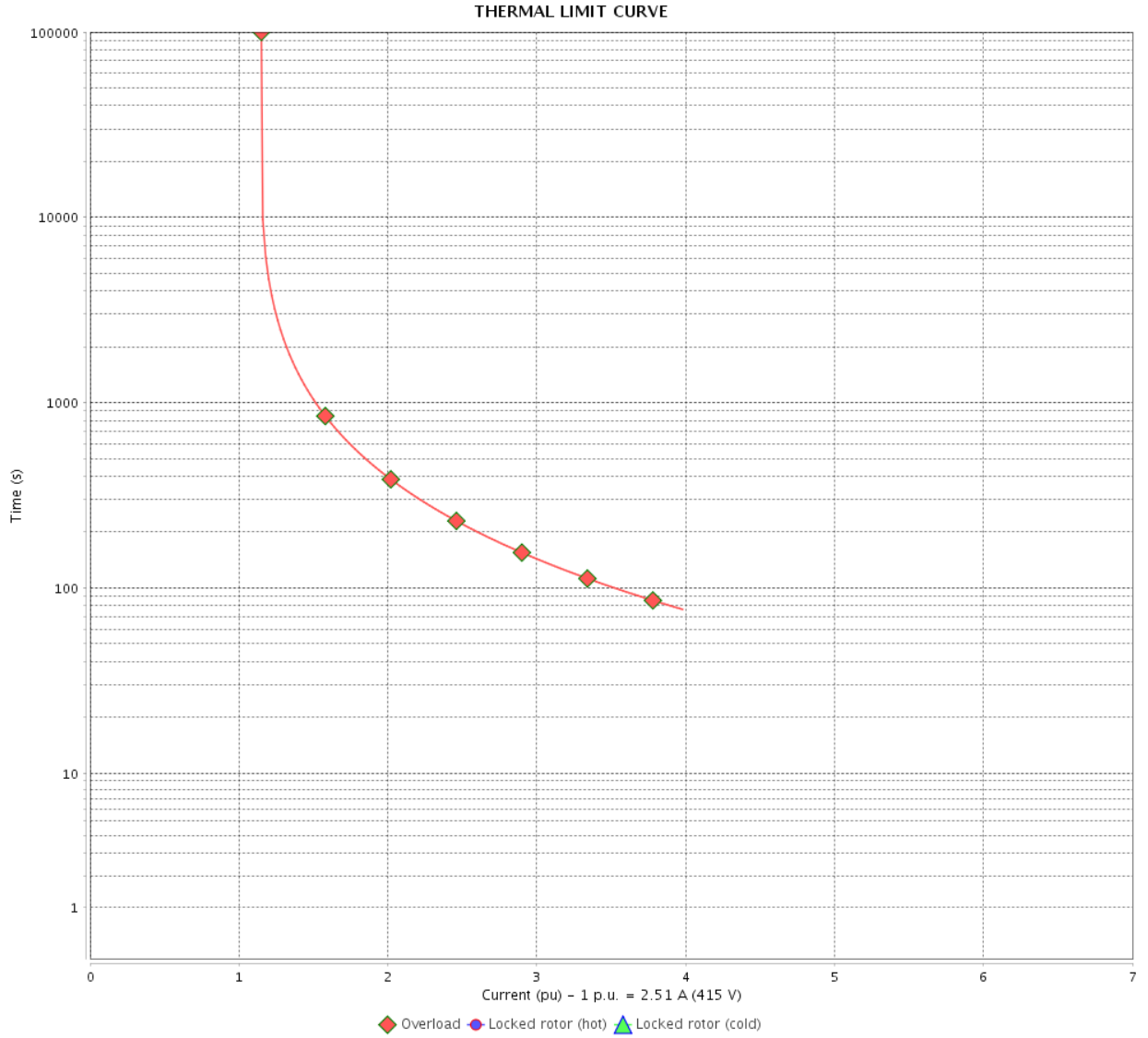
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

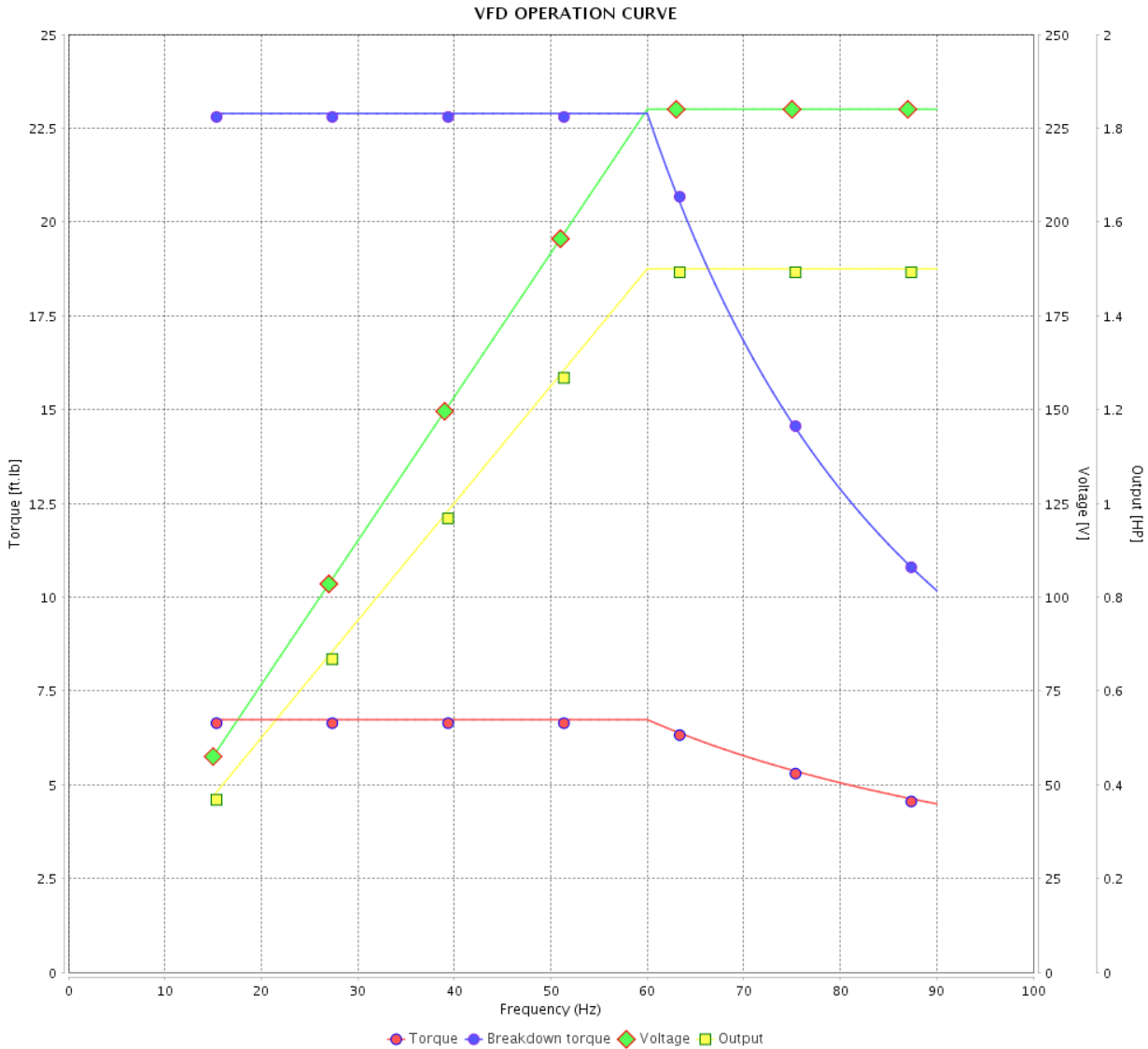


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Performance : 230/460 V 60 Hz 6P

Rated current : 4.44/2.22 A  
 LRC : 6.9  
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 Breakdown torque : 340 %  
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 Service factor : 1.15  
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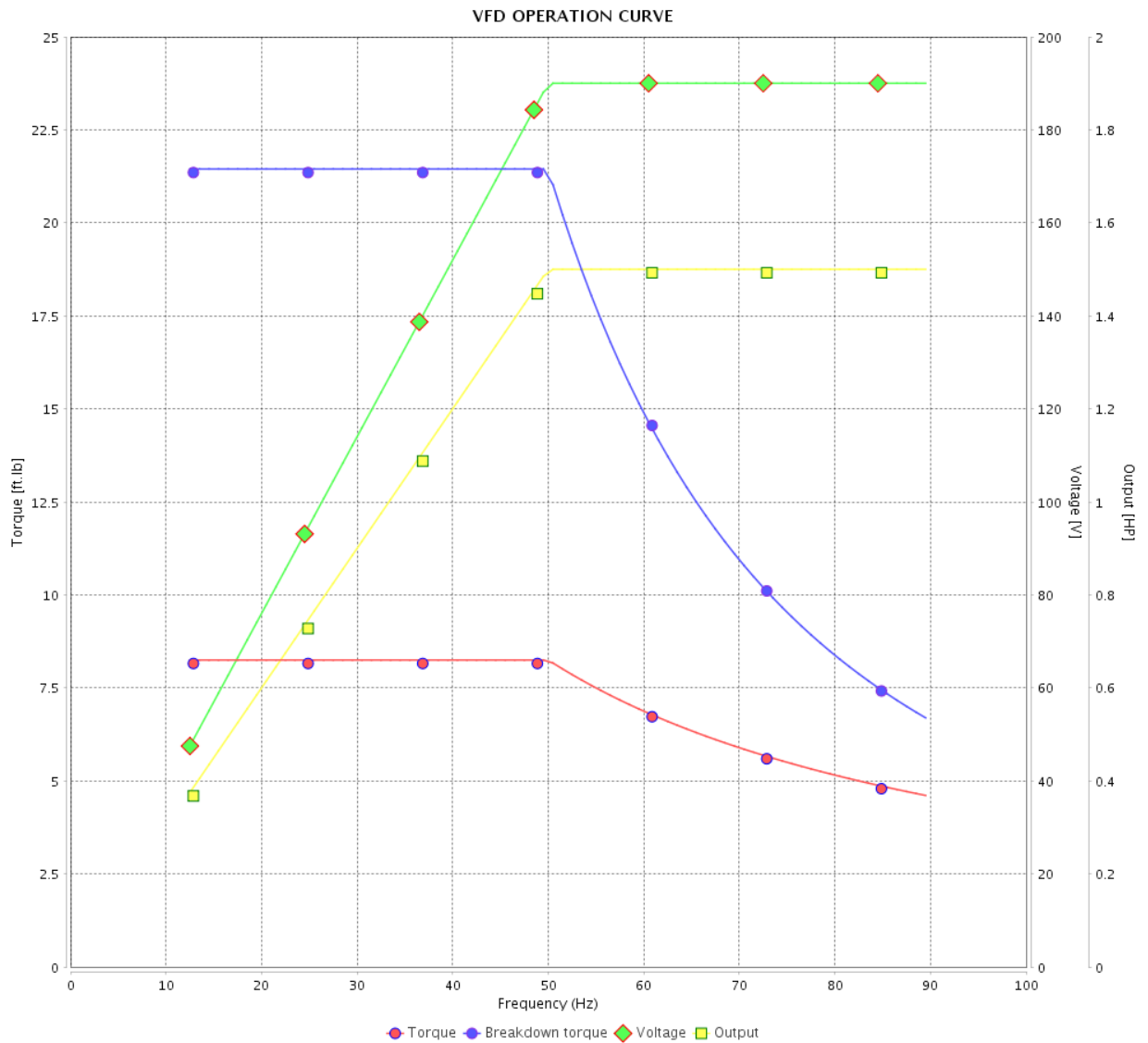


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 Service factor : 1.15  
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 Design : B

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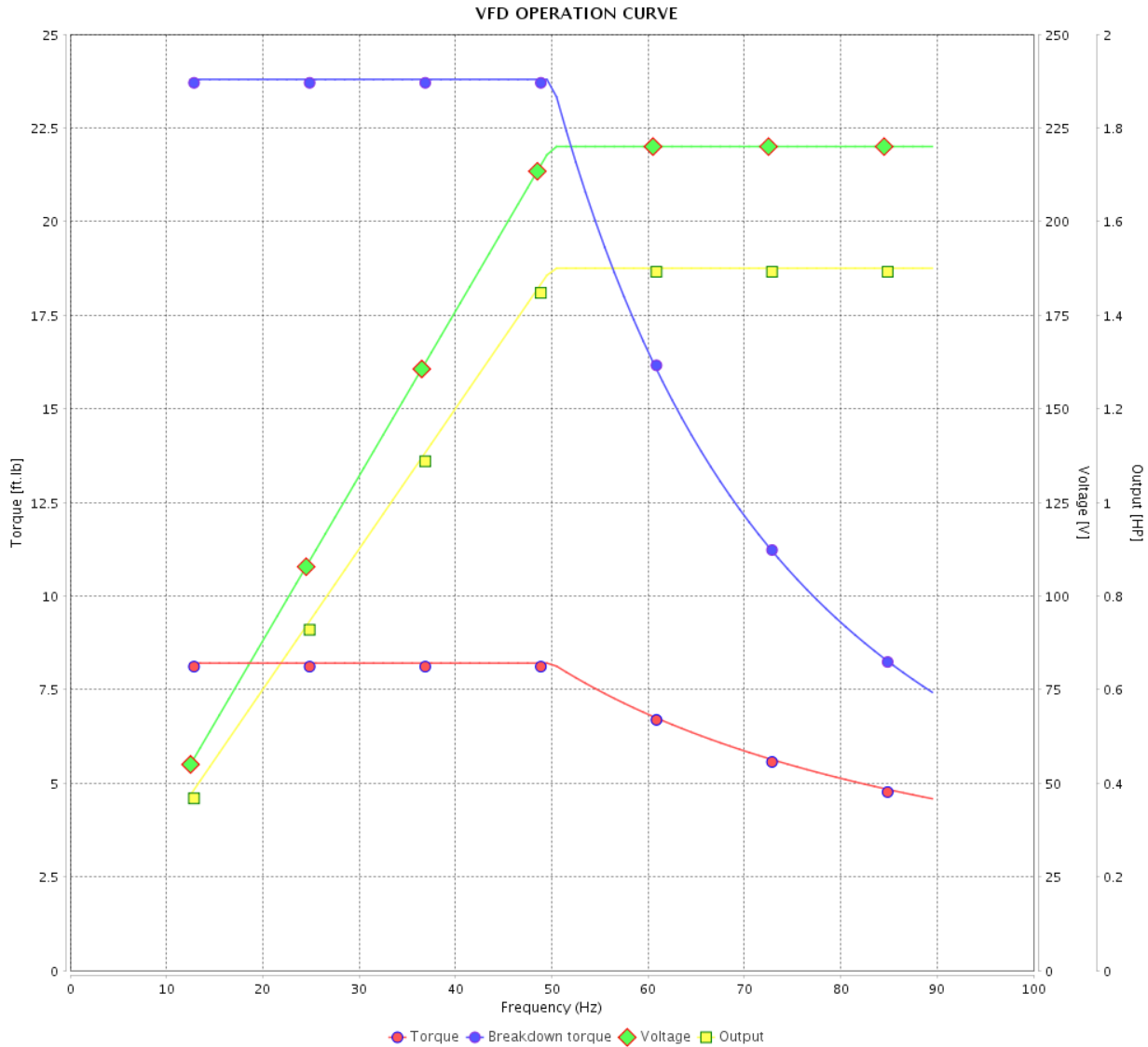


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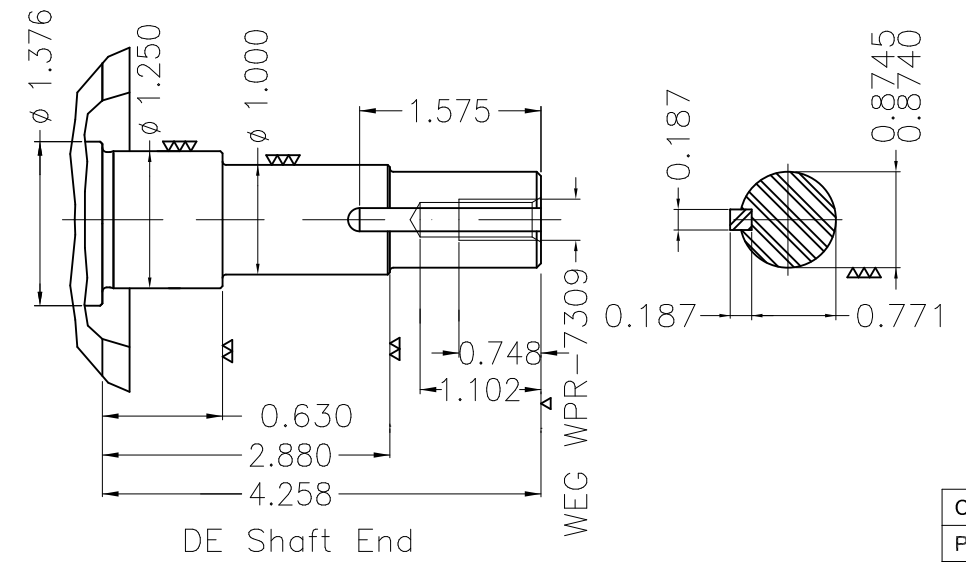
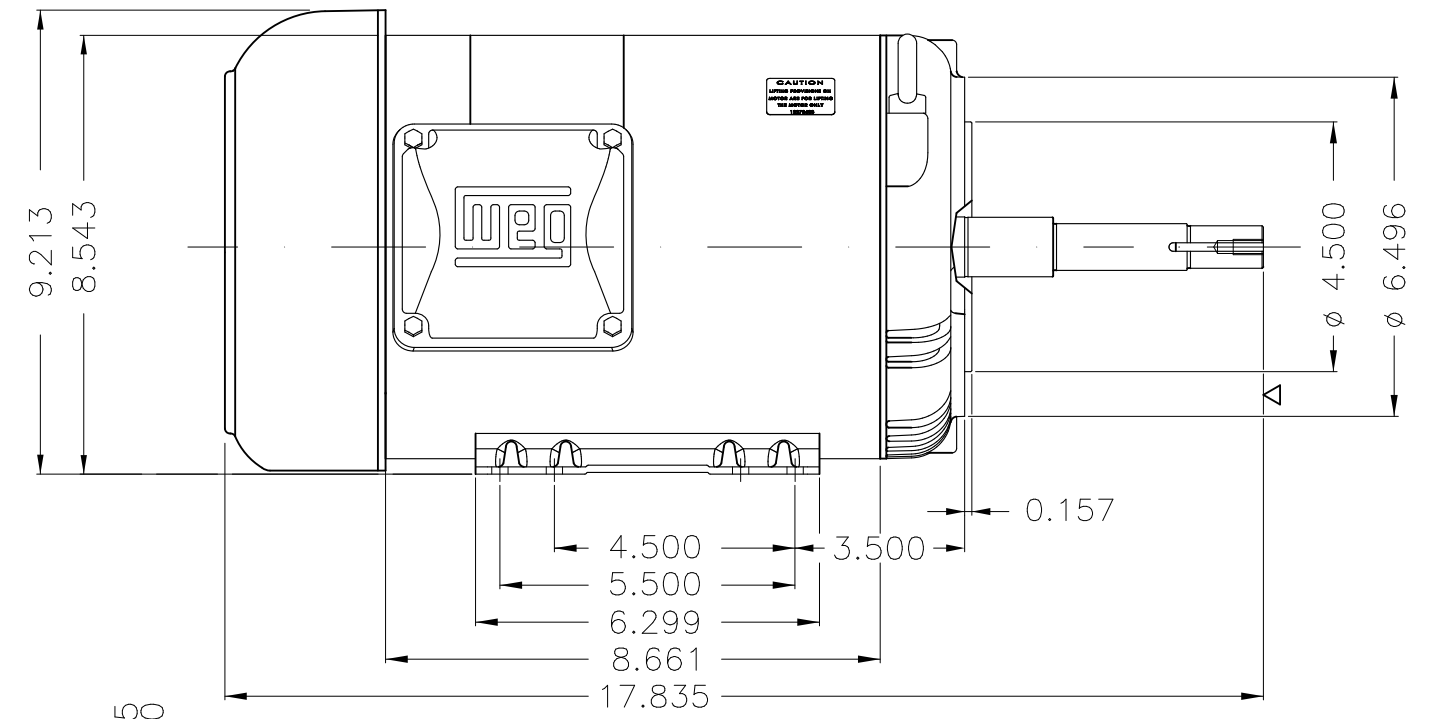
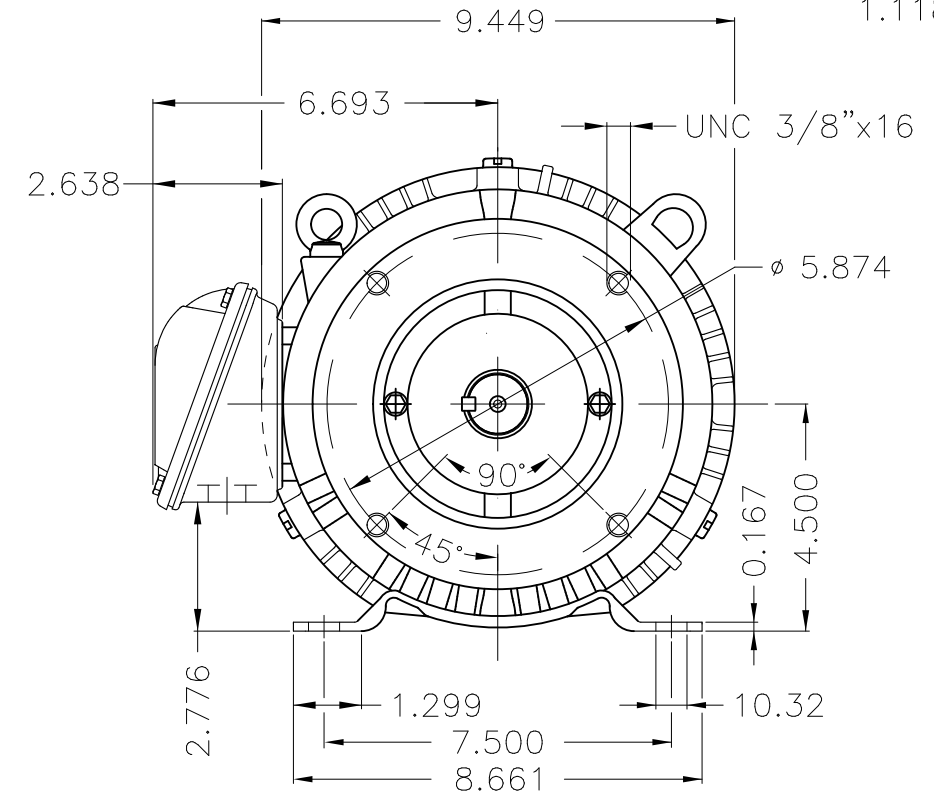
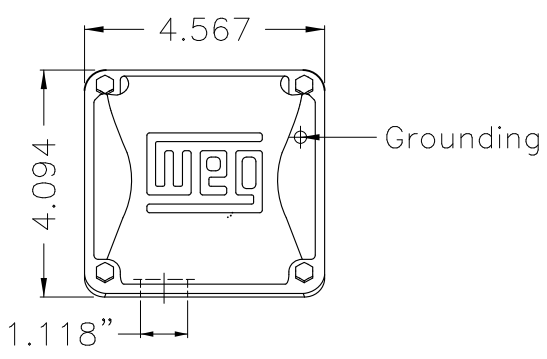
A

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 1824JM IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

1.5 HP 06 Poles 60 Hz





**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 13374122 CC029A**  
**W01.TE0IC0X0N**  
**JM001406NPW01**  
**18MAR2022 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 1.5</b>
<b>FR 182/4JM</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 4.44/2.22</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 5.11/2.55</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE K</b>	<b>PF 0.71</b>
<b>USABLE @ 208V 4.91A</b>		<b>RPM 1170</b>
<b>SF1.00</b>		<b>NEMA</b>
		<b>NOM. EFF 87.5%</b>

<b>ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15</b>
<b>5.18-4.70/2.59-2.49A 955RPM EFF 84.9% (IE4) IEC 60034-1</b>

<b>DE 6207-ZZ</b>	<b>ODE 6205-ZZ</b>	<b>MOBIL POLYREX EM</b>
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For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 CT



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.

