

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: Rolled Steel NEMA Premium Efficiency Three-Phase			
Product code :	12687912			
Catalog # :	01518ET3E254T-SG			
Frame	: 254/6T	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>	: 212 lb	
Protection degree	: IP55	Moment of inertia (J)	: 2.15 sq.ft.lb	
Design	: B			
Output [HP]	15	15	15	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	36.4/18.2	43.8/21.9	39.4/20.9	
L. R. Amperes [A]	237/118	241/120	240/127	
LRC [A]	6.5x(Code G)	5.5x(Code F)	6.1x(Code G)	
No load current [A]	17.3/8.65	17.1/8.53	17.5/9.28	
Rated speed [RPM]	1770	1455	1460	
Slip [%]	1.67	3.00	2.67	
Rated torque [ft.lb]	44.5	54.1	54.0	
Locked rotor torque [%]	250	190	210	
Breakdown torque [%]	300	229	260	
Service factor	1.15	1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	34s (cold) 19s (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%	90.8	92.5	91.9
	50%	91.0	91.5	91.2
	75%	92.4	91.2	91.4
	100%	92.4	89.9	90.4
Power Factor	25%	0.39	0.45	0.41
	50%	0.64	0.71	0.67
	75%	0.76	0.81	0.78
	100%	0.82	0.85	0.84
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads		
Sealing	: V'Ring V'Ring	Max. traction	: 567 lb	
Lubrication interval	: 20000 h 20000 h	Max. compression	: 779 lb	
Lubricant amount	: 13 g 8 g			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 40.2A SF 1.00 SFA 40.2A				
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

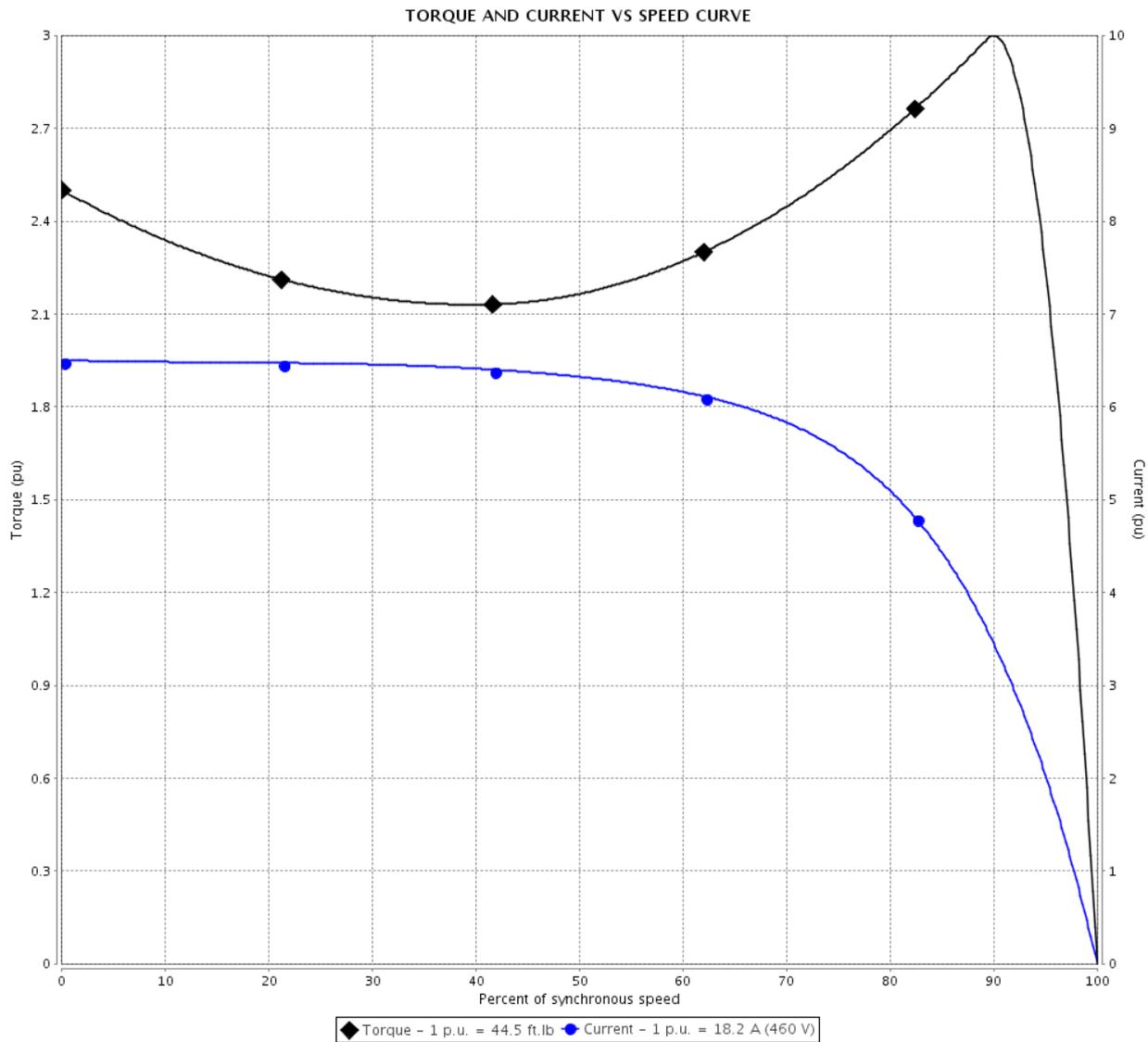


Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12687912

Catalog # : 01518ET3E254T-SG



Performance : 230/460 V 60 Hz 4P

Rated current	: 36.4/18.2 A	Moment of inertia (J)	: 2.15 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



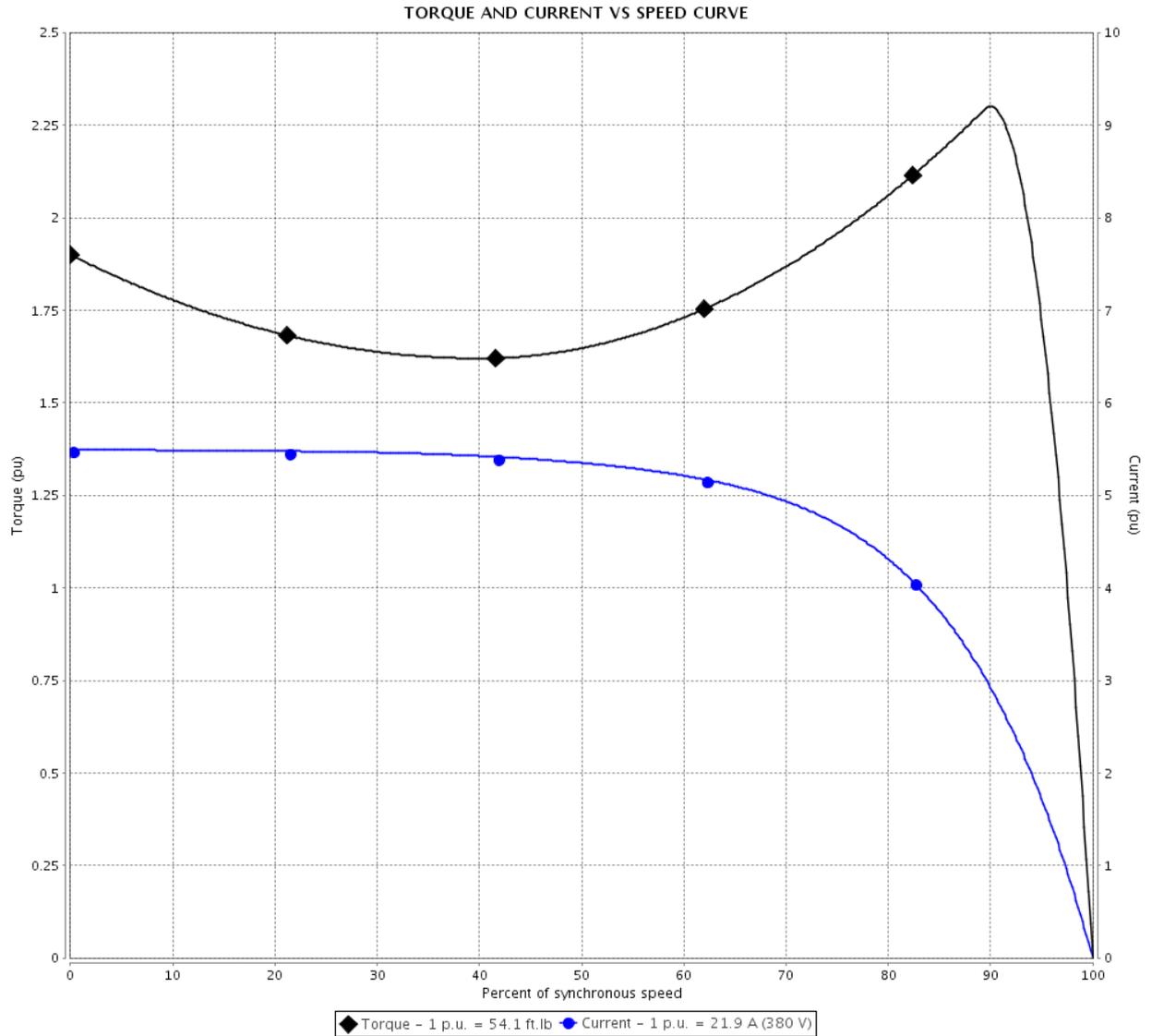
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12687912

Catalog # : 01518ET3E254T-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 43.8/21.9 A  
 LRC : 5.5  
 Rated torque : 54.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 2.15 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



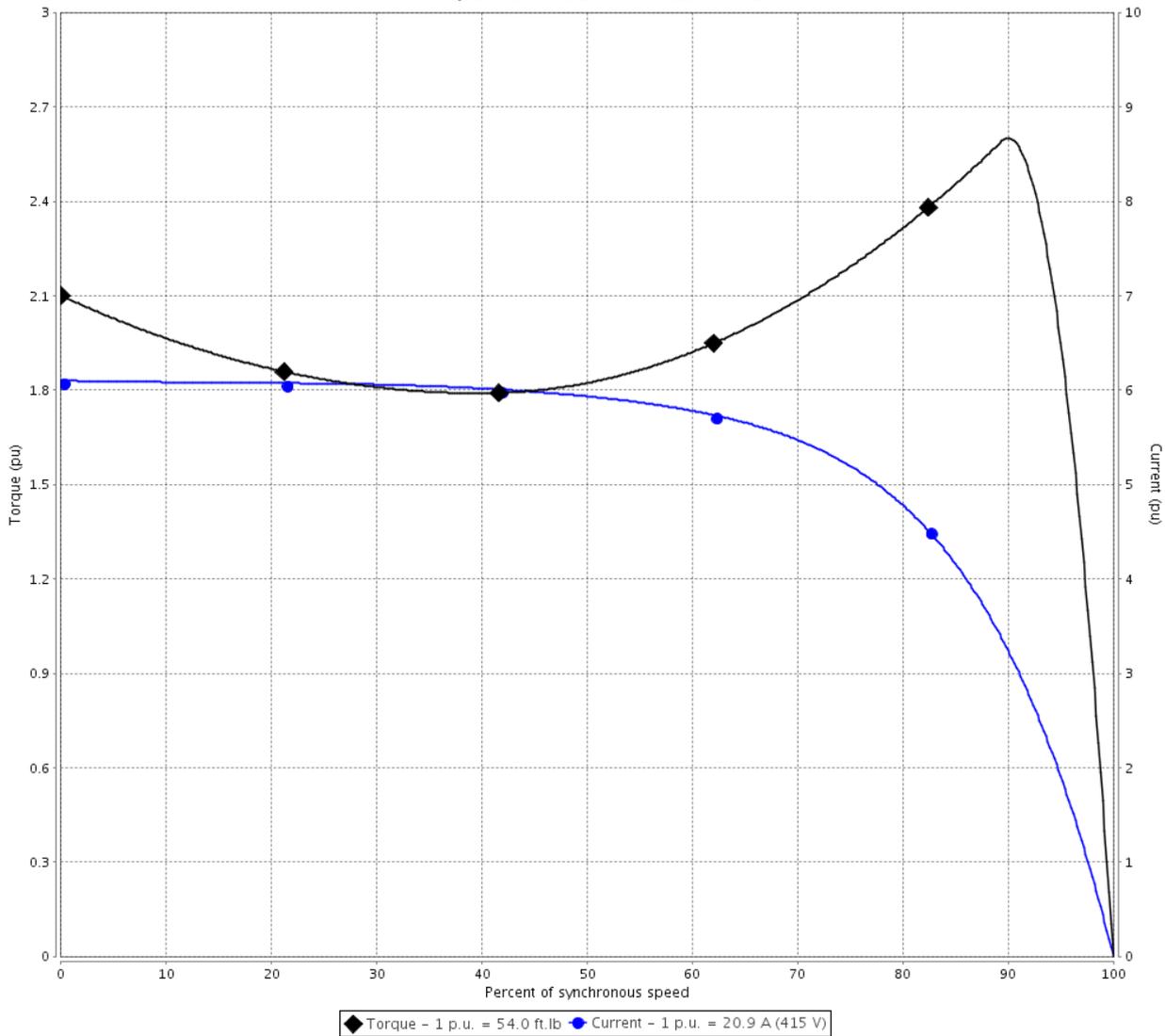
Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12687912

Catalog # : 01518ET3E254T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 39.4/20.9 A	Moment of inertia (J)	: 2.15 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 54.0 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1460 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

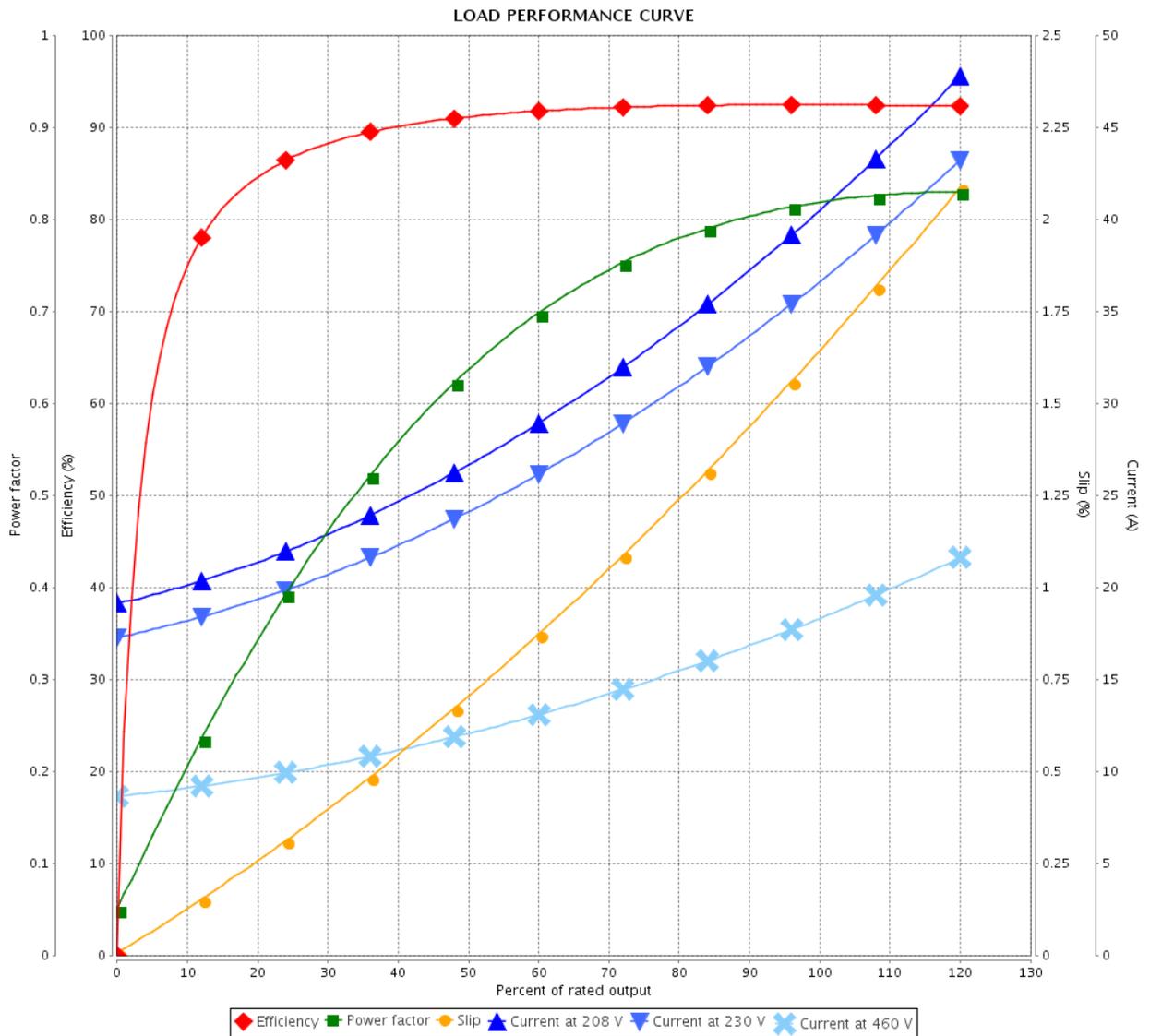


Customer :

Product line : Rolled Steel NEMA Premium  
Efficiency Three-Phase

Product code : 12687912

Catalog # : 01518ET3E254T-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 36.4/18.2 A  
 LRC : 6.5  
 Rated torque : 44.5 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.15 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

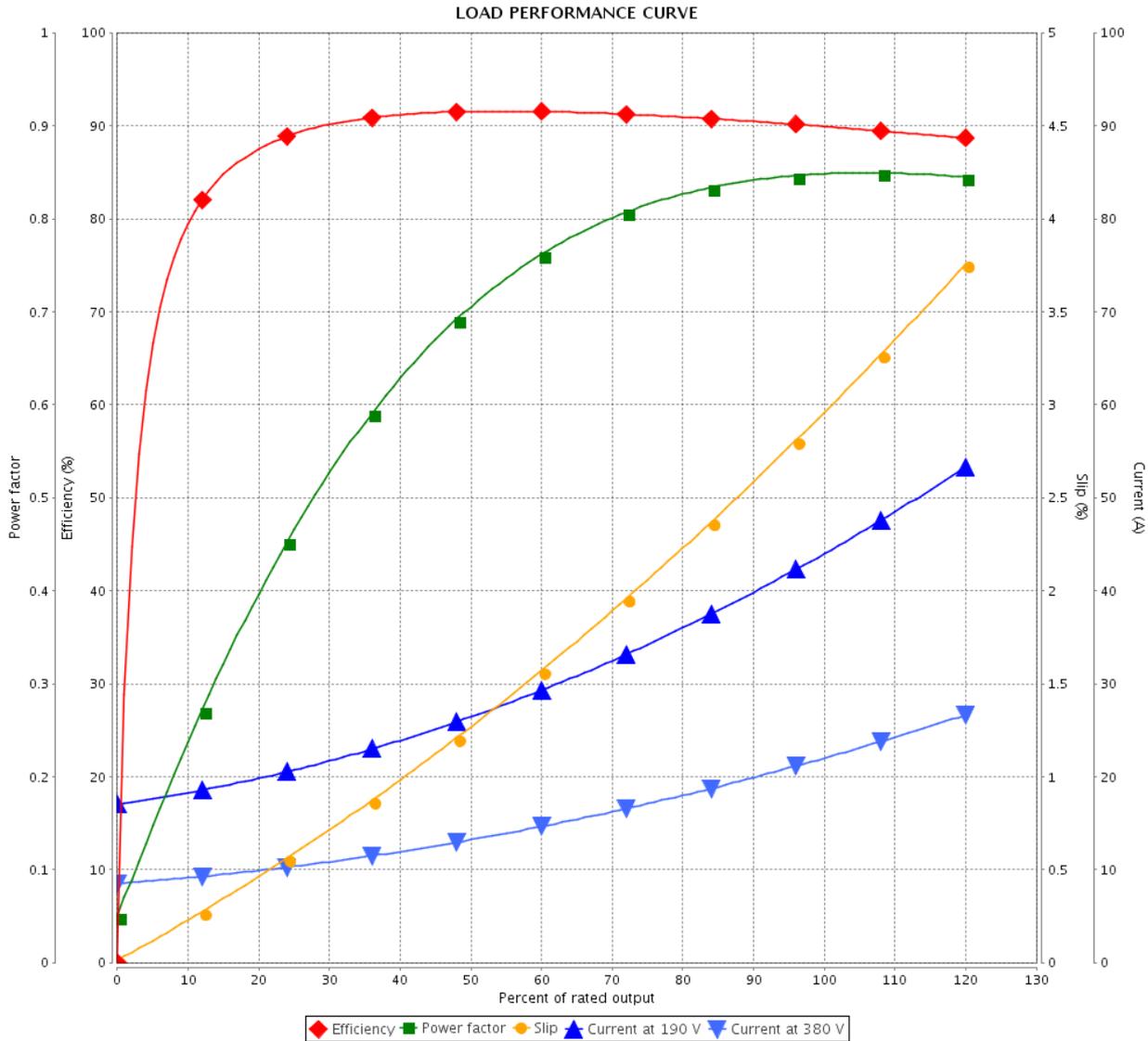


Customer : \_\_\_\_\_

Product line : Rolled Steel NEMA Premium  
Efficiency Three-Phase

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Catalog # : 01518ET3E254T-SG



Performance : 190/380 V 50 Hz 4P

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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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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

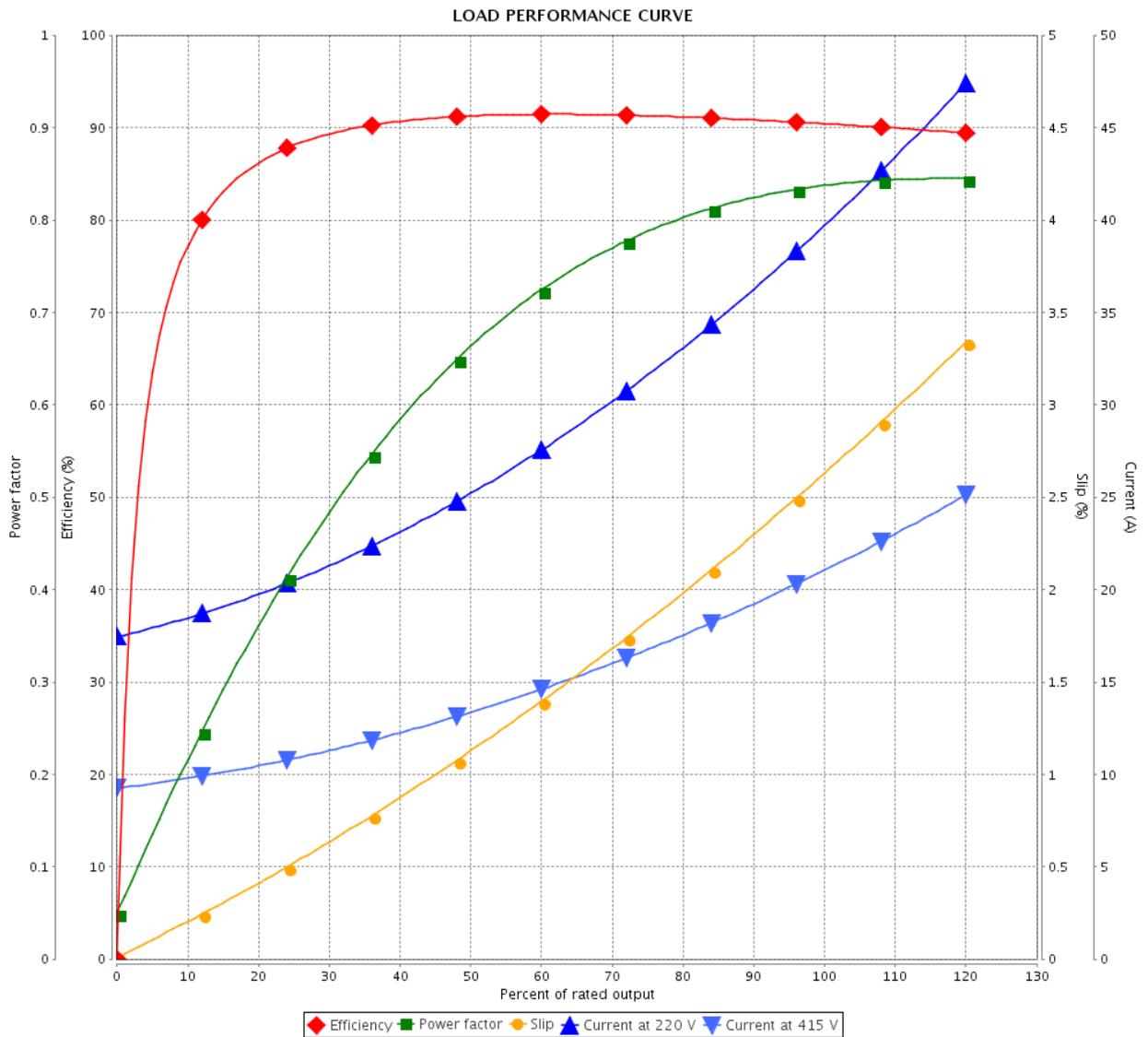


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Catalog # : 01518ET3E254T-SG



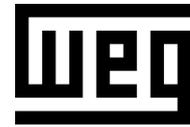
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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

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Efficiency Three-Phase

Product code : 12687912

Catalog # : 01518ET3E254T-SG

Performance : 230/460 V 60 Hz 4P

Rated current : 36.4/18.2 A  
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Rated torque : 44.5 ft.lb  
Locked rotor torque : 250 %  
Breakdown torque : 300 %  
Rated speed : 1770 rpm

Moment of inertia (J) : 2.15 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

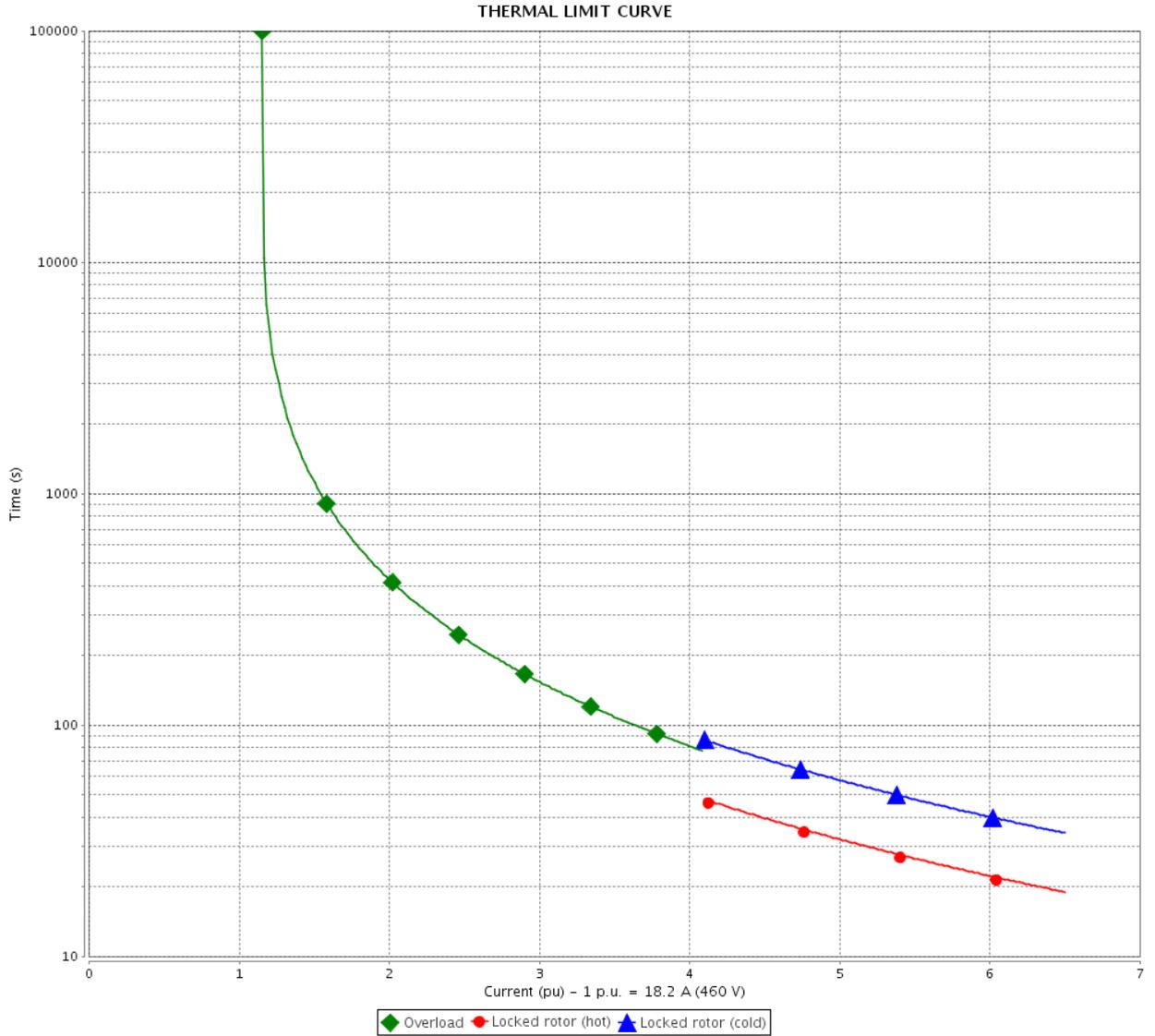
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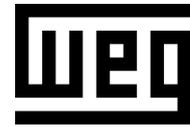


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Design : B

Heating constant

Cooling constant

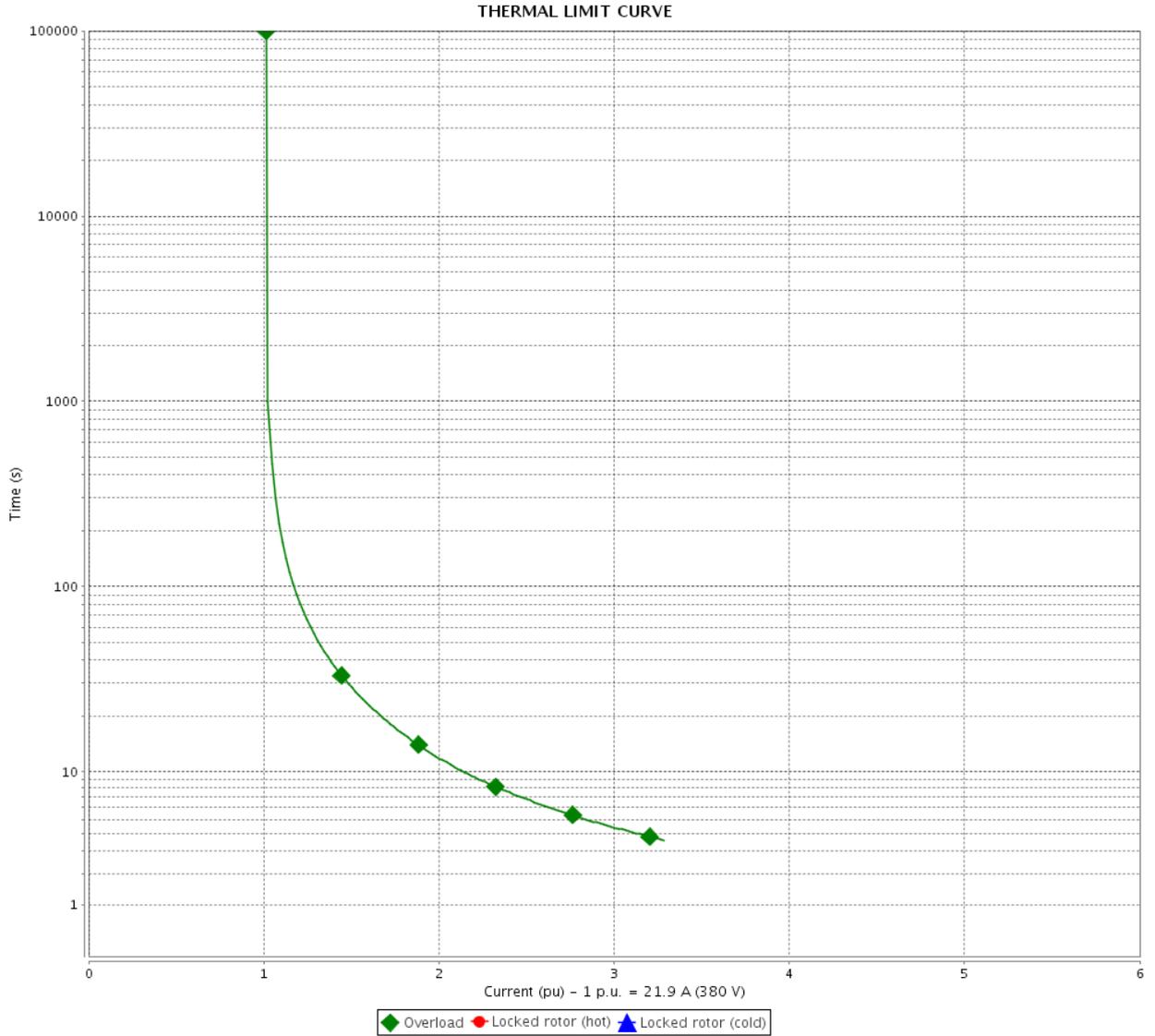
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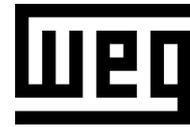


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Design : B

Heating constant

Cooling constant

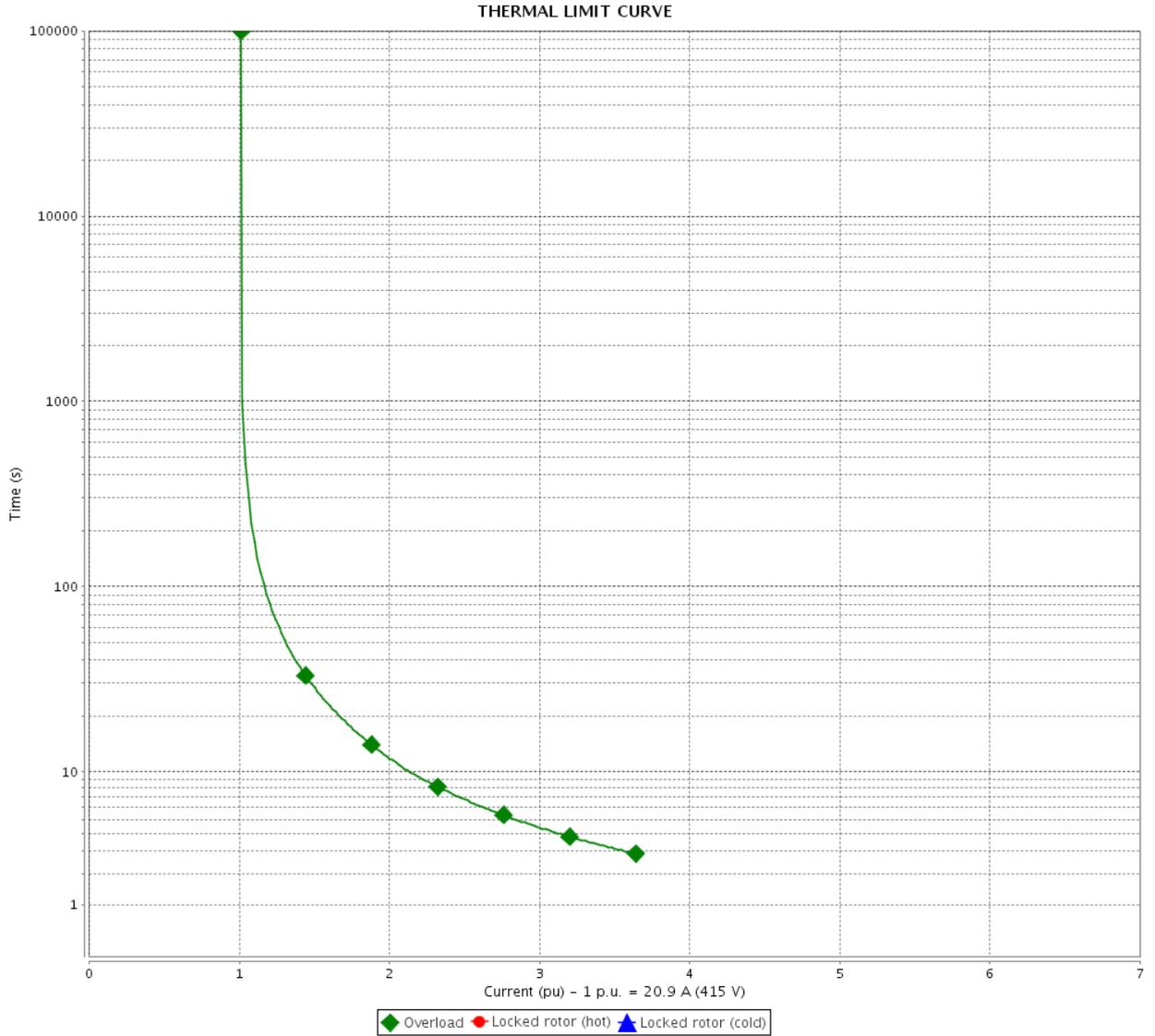
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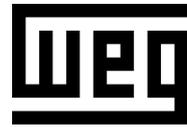
Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

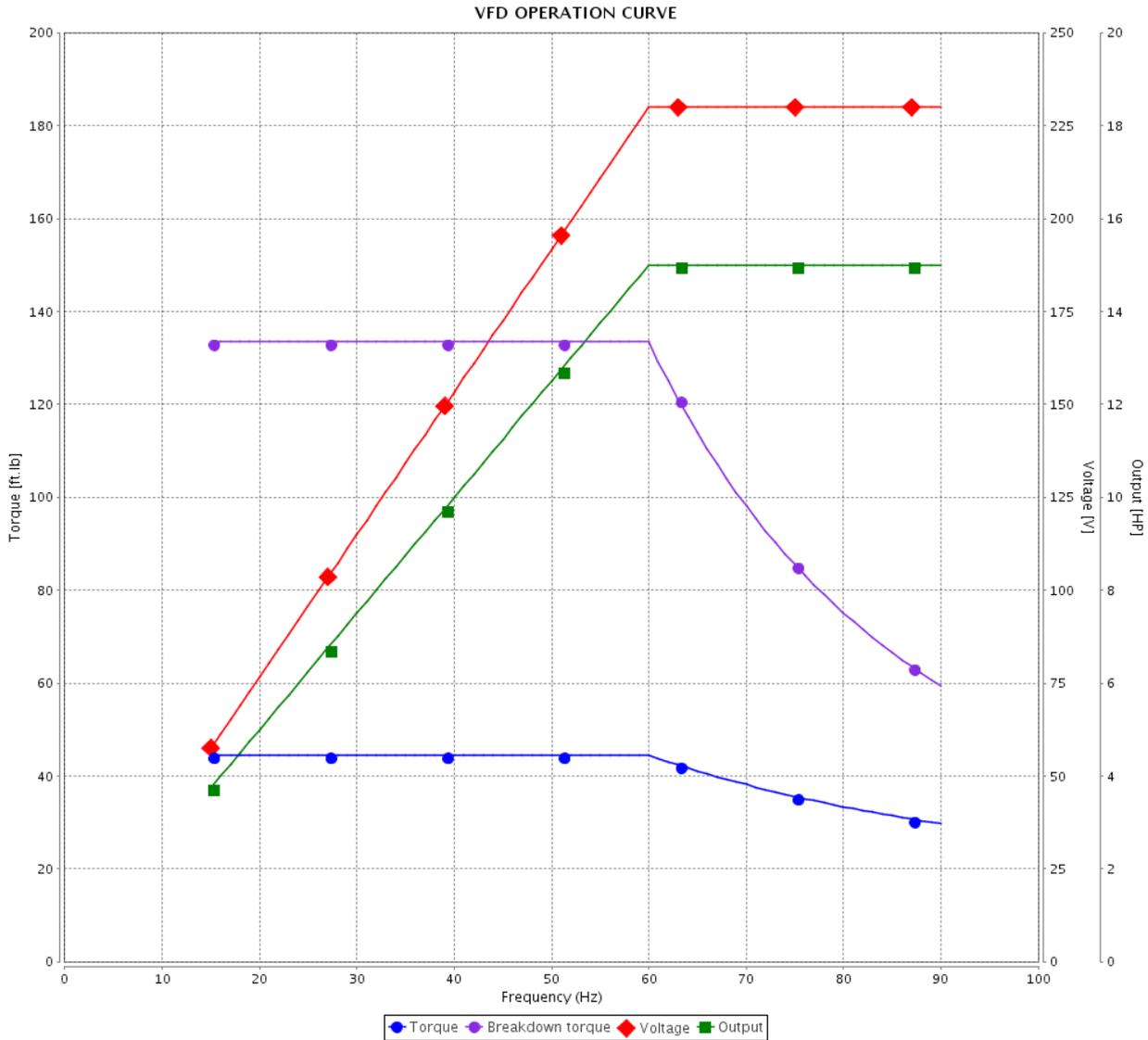


Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12687912

Catalog # : 01518ET3E254T-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 36.4/18.2 A  
 LRC : 6.5  
 Rated torque : 44.5 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 2.15 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

Three Phase Induction Motor - Squirrel Cage

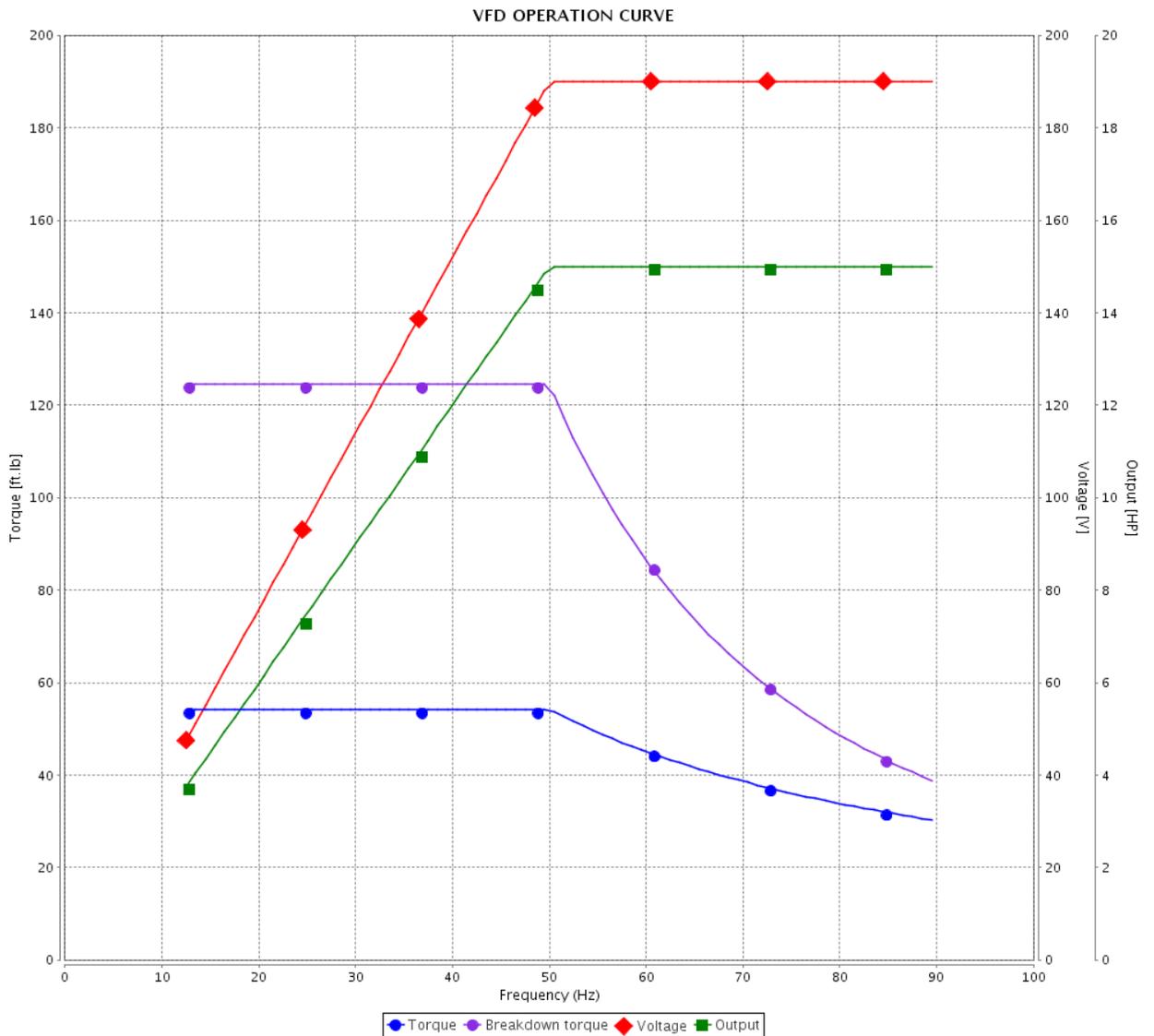


Customer :

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Product code : 12687912

Catalog # : 01518ET3E254T-SG



Performance : 190/380 V 50 Hz 4P

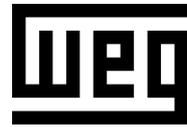
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 Breakdown torque : 229 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 2.15 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

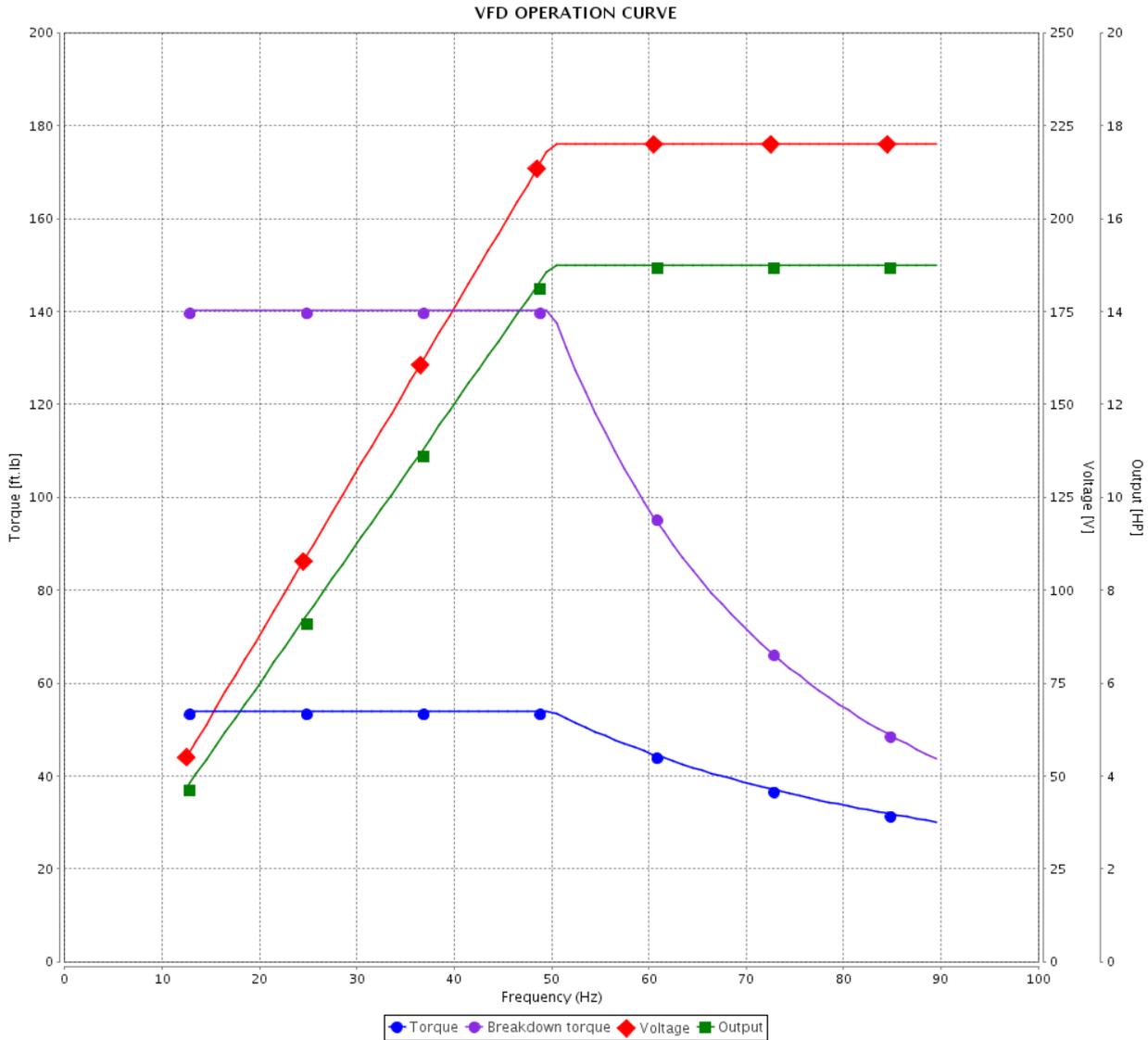


Customer : \_\_\_\_\_

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12687912

Catalog # : 01518ET3E254T-SG



Performance : 220/415 V 50 Hz 4P

Rated current : 39.4/20.9 A  
 LRC : 6.1  
 Rated torque : 54.0 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 260 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 2.15 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

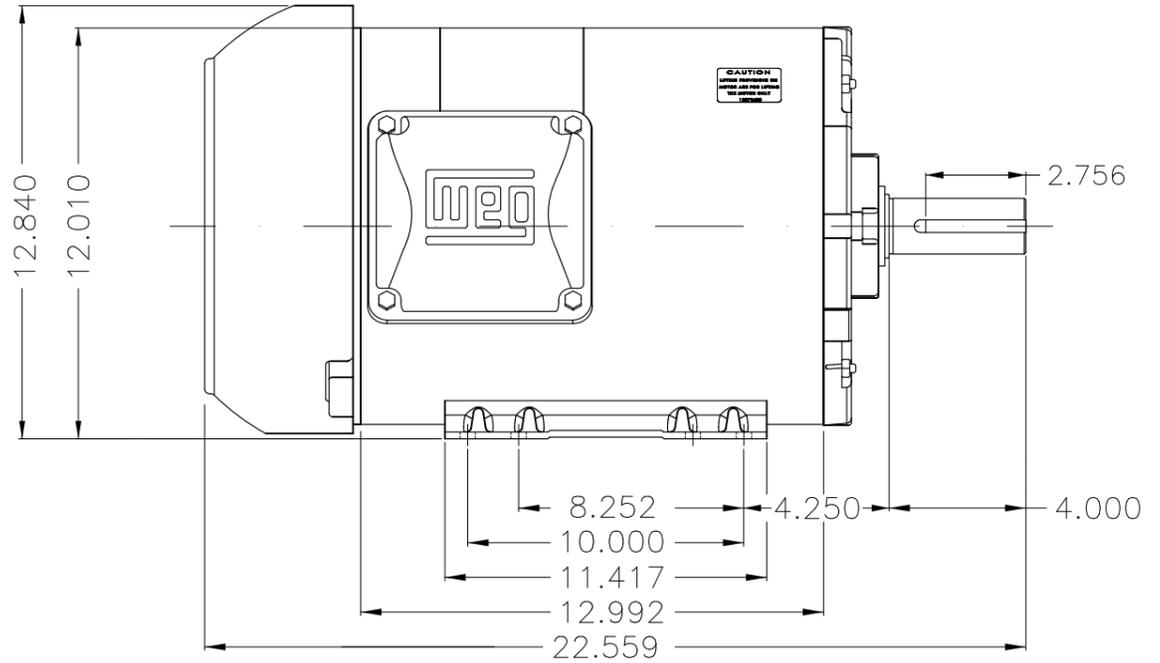
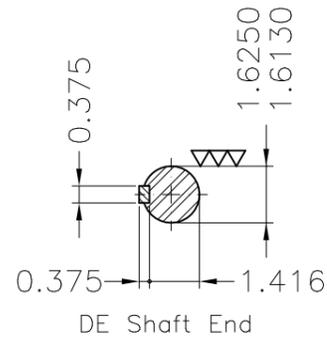
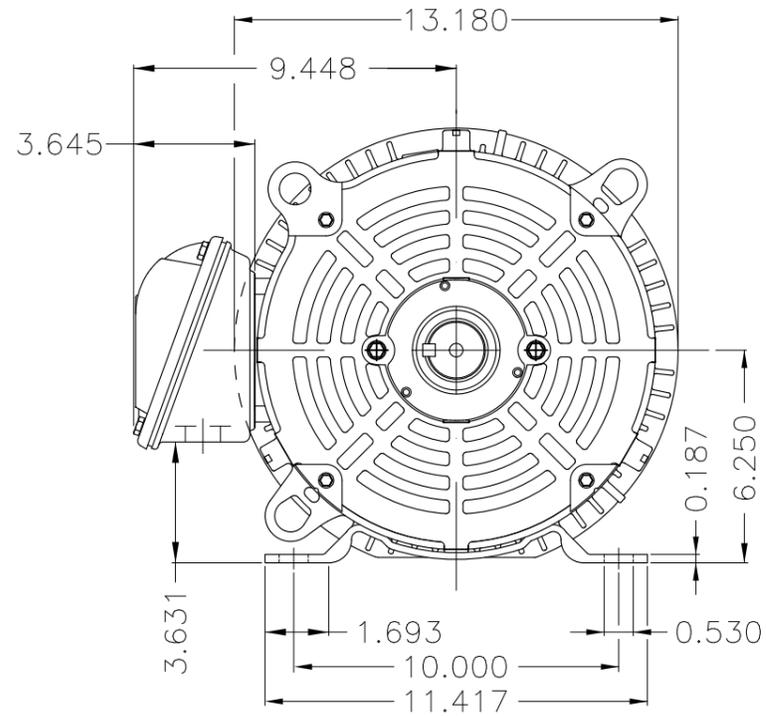
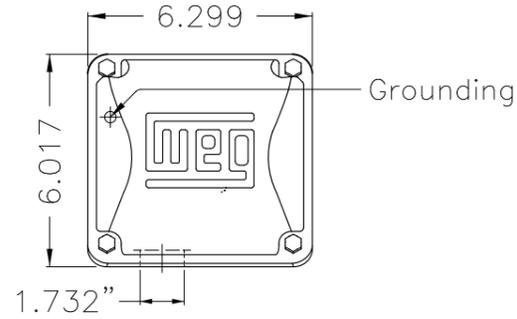
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EIXO  
 PADRÃO  
 OPCIONAL  
 ESPECIAL

Dimensões em polegada  
 Dimensions in inches

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.



Internal AEGIS ground ring on the DE  
 Bearing cap  
 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	USERADMIN	THREE P. MOTOR CLOS ROLLED STEEL NEMA PREM					
CHECKED		FRAME 254/6T IP55 TEFC					
RELEASED		WEG code: 12687912					
REL DT	22.03.2021	WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

15 HP 04 Poles 60Hz

A



ZME A3

**NEMA  
Premium**

3PT9



Energy Verified

MADE IN MEXICO

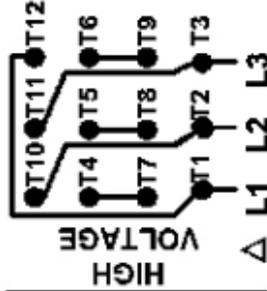
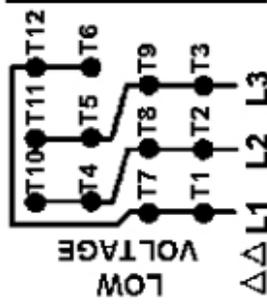
**MAT: 12687912 CC029A****W01.TE0IC0X0N****MODEL 01518ET3E254T-SG****27JAN2021 S/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 15</b>
<b>FR 254/6T</b>		<b>KW 11</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 36.4/18.2</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 41.9/20.9</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE G</b>	<b>PF 0.82</b>
<b>USABLE @ 208V 40.3A</b>		<b>RPM 1770</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 92.4%</b>

**ALTERNATE RATING: 15HP 50Hz 190-220/380-415V SF1.00**  
**43.8-38.9/21.9-20.6A 1455RPM EFF 89.9% (IE2) IEC 60034-1**

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 4:1 CT

**DE 6309-Z-C3 ODE 6208-Z-C3 MOBIL POLYREX EM 20000h**



**T1-BLU T2-WHT**  
**T3-ORG T4-YEL**  
**T5-BLK T6-GRY**  
**T7-PNK T8-RED**  
**T9-BRK RED**  
**T10-CURRY**  
**T11-GRN T12-VLT**

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.

