

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14802469	
		Catalog # :	00156ET3E143T-S	
Frame	: 143/5T	Cooling method	: IC411 - TEFC	
Insulation class	: F	Mounting	: F-1	
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight ²	: 34.9 lb	
Protection degree	: IP55	Moment of inertia (J)	: 0.1023 sq.ft.lb	
Design	: B			
Output [HP]	1.5	1.5	1.5	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	3.74/1.87	4.44/2.22	4.02/2.13	
L. R. Amperes [A]	34.0/17.0	32.0/16.0	32.1/17.0	
LRC [A]	9.1x(Code L)	7.2x(Code H)	8.0x(Code J)	
No load current [A]	1.72/0.859	1.69/0.845	1.72/0.914	
Rated speed [RPM]	3520	2895	2905	
Slip [%]	2.22	3.50	3.17	
Rated torque [ft.lb]	2.24	2.72	2.71	
Locked rotor torque [%]	229	190	220	
Breakdown torque [%]	300	280	310	
Service factor		1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	30s (cold) 17s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)	
Efficiency (%)	25%	78.4	83.1	82.2
	50%	80.0	82.6	82.2
	75%	82.5	83.8	84.0
	100%	84.0	82.9	83.6
Power Factor	25%	0.44	0.49	0.46
	50%	0.71	0.77	0.73
	75%	0.82	0.87	0.84
	100%	0.88	0.91	0.89
Bearing type	: <u>Drive end</u> 6205 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads		
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 55 lb	
		Max. compression	: 90 lb	
Lubrication interval	: -			
Lubricant amount	: -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 4.13A SF 1.00 SFA 4.13A				
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

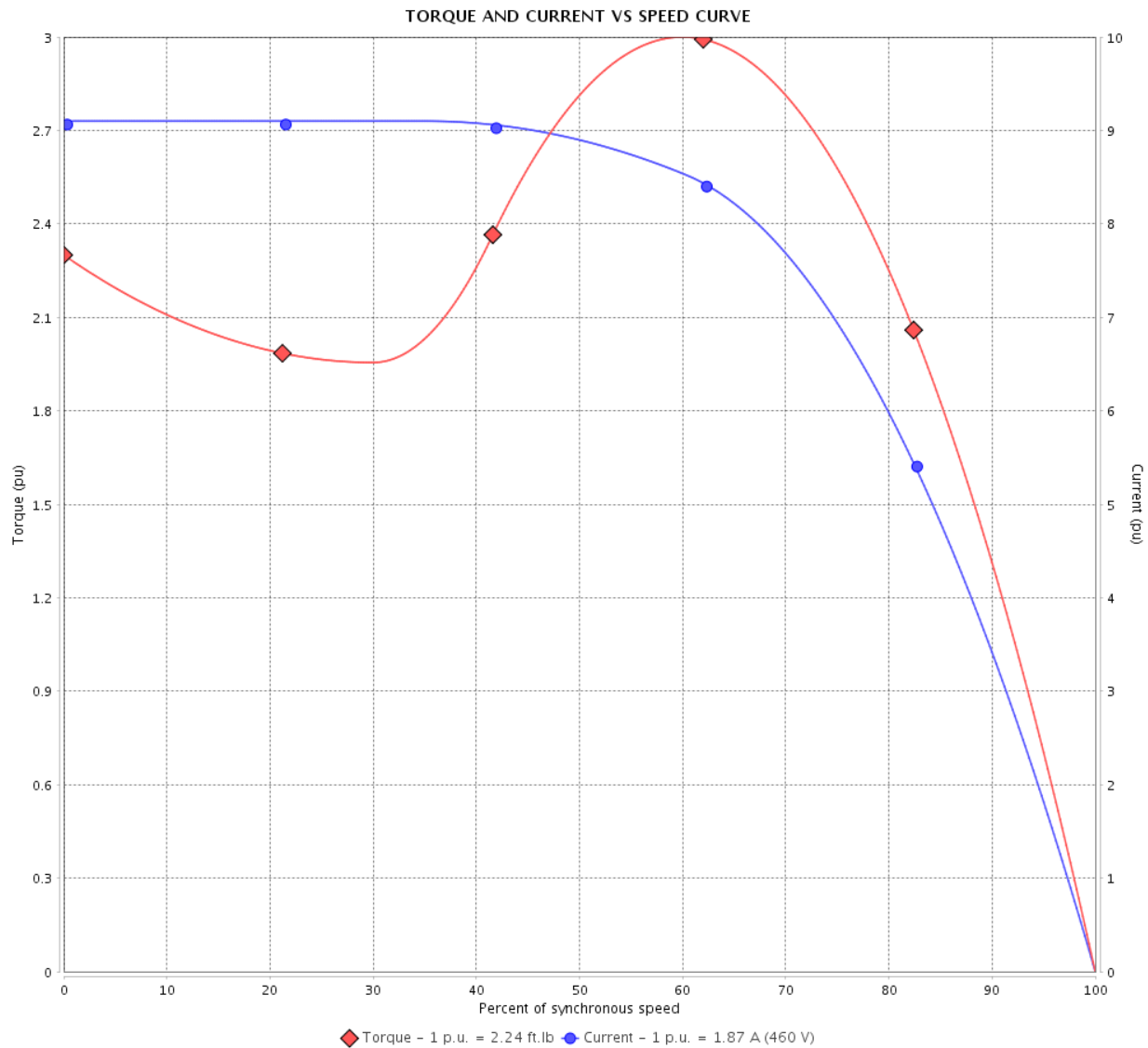


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14802469

Catalog # : 00156ET3E143T-S



Performance : 230/460 V 60 Hz 2P

Rated current	: 3.74/1.87 A	Moment of inertia (J)	: 0.1023 sq.ft.lb
LRC	: 9.1	Duty cycle	: Cont.(S1)
Rated torque	: 2.24 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3520 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



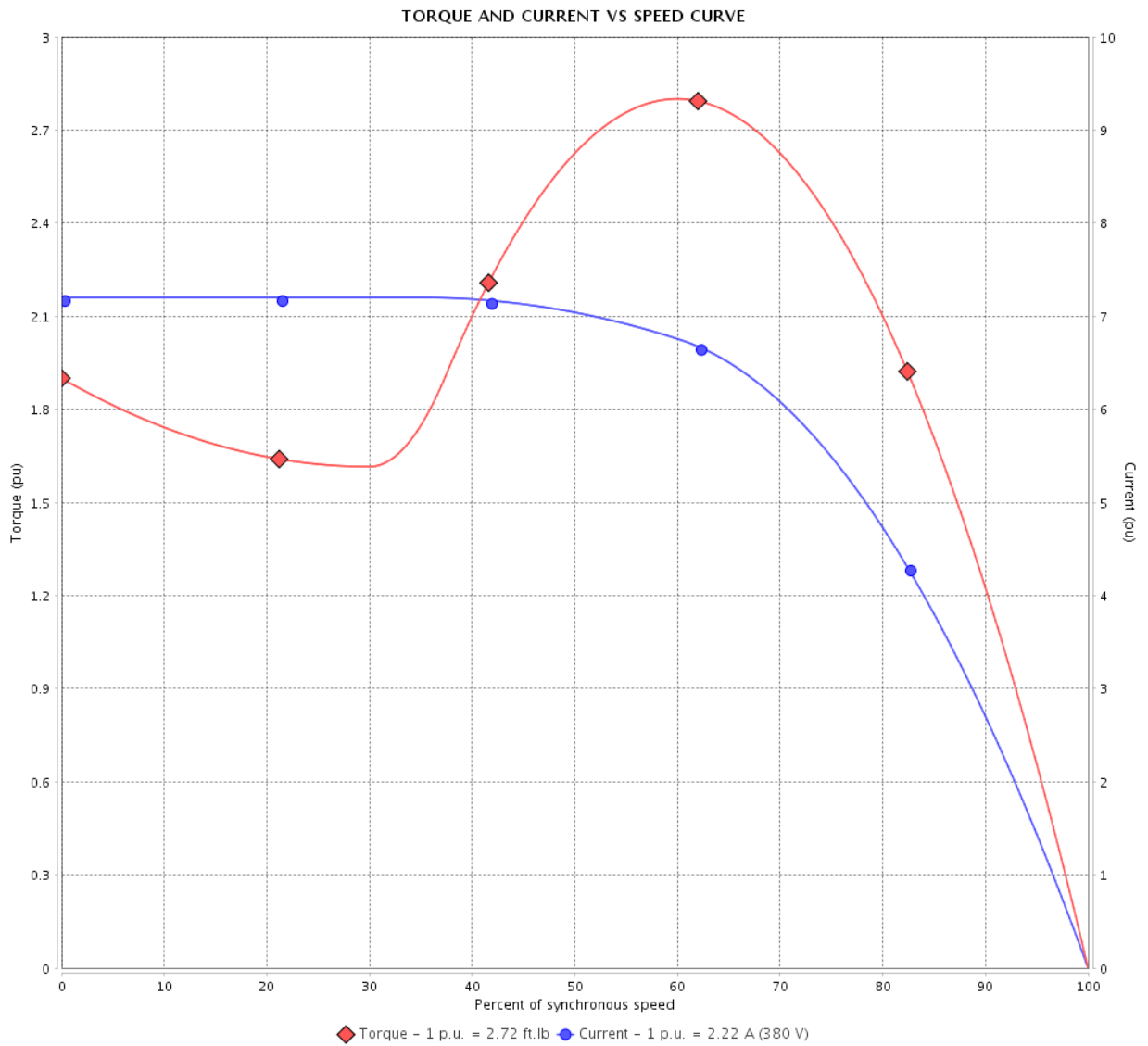
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14802469

Catalog # : 00156ET3E143T-S



Performance : 190/380 V 50 Hz 2P

Rated current : 4.44/2.22 A
 LRC : 7.2
 Rated torque : 2.72 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 280 %
 Rated speed : 2895 rpm

Moment of inertia (J) : 0.1023 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

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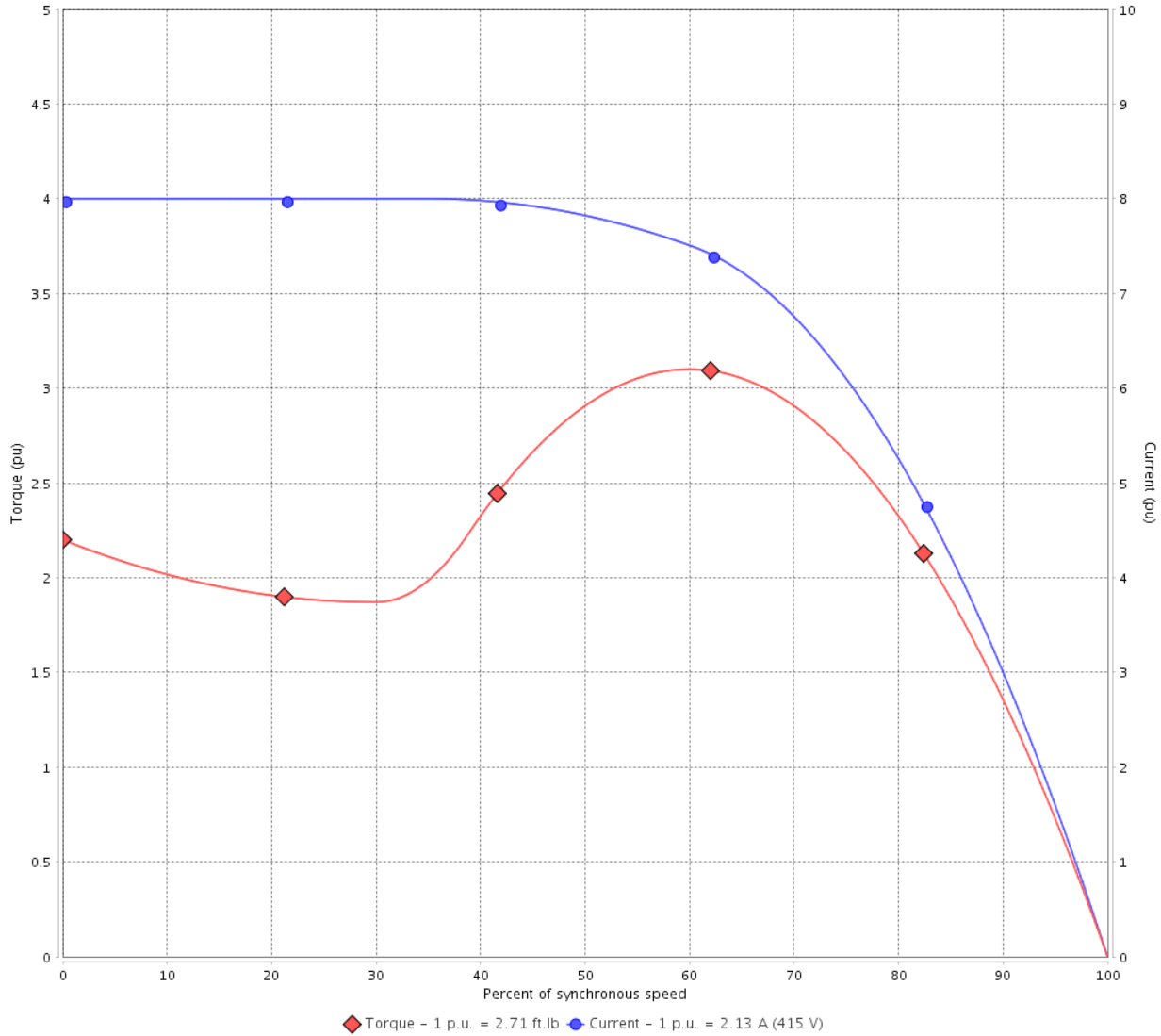
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14802469

Catalog # : 00156ET3E143T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 4.02/2.13 A
 LRC : 8.0
 Rated torque : 2.71 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 310 %
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.1023 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

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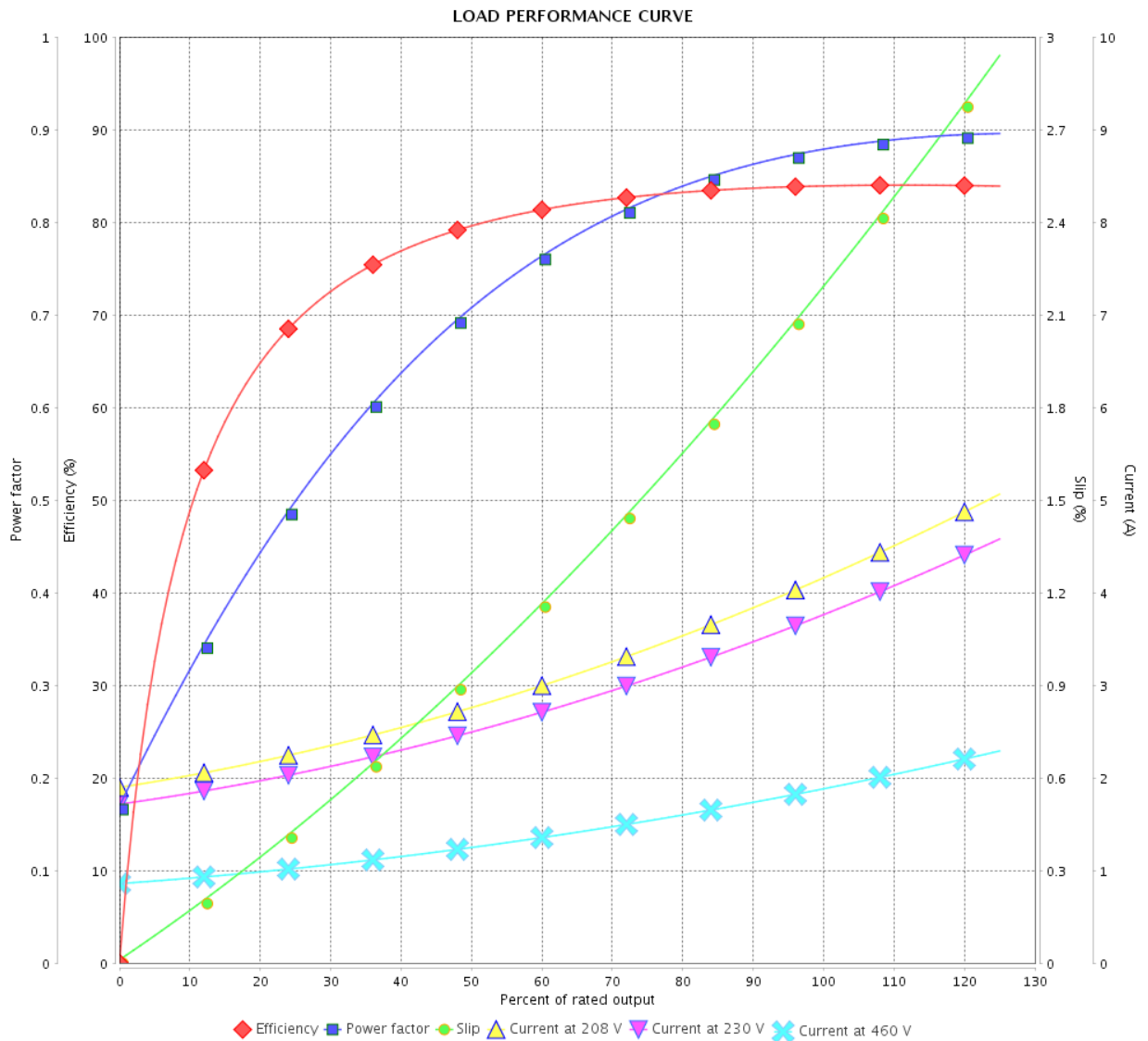


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Product code : 14802469

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Performance : 230/460 V 60 Hz 2P

Rated current : 3.74/1.87 A
 LRC : 9.1
 Rated torque : 2.24 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 300 %
 Rated speed : 3520 rpm

Moment of inertia (J) : 0.1023 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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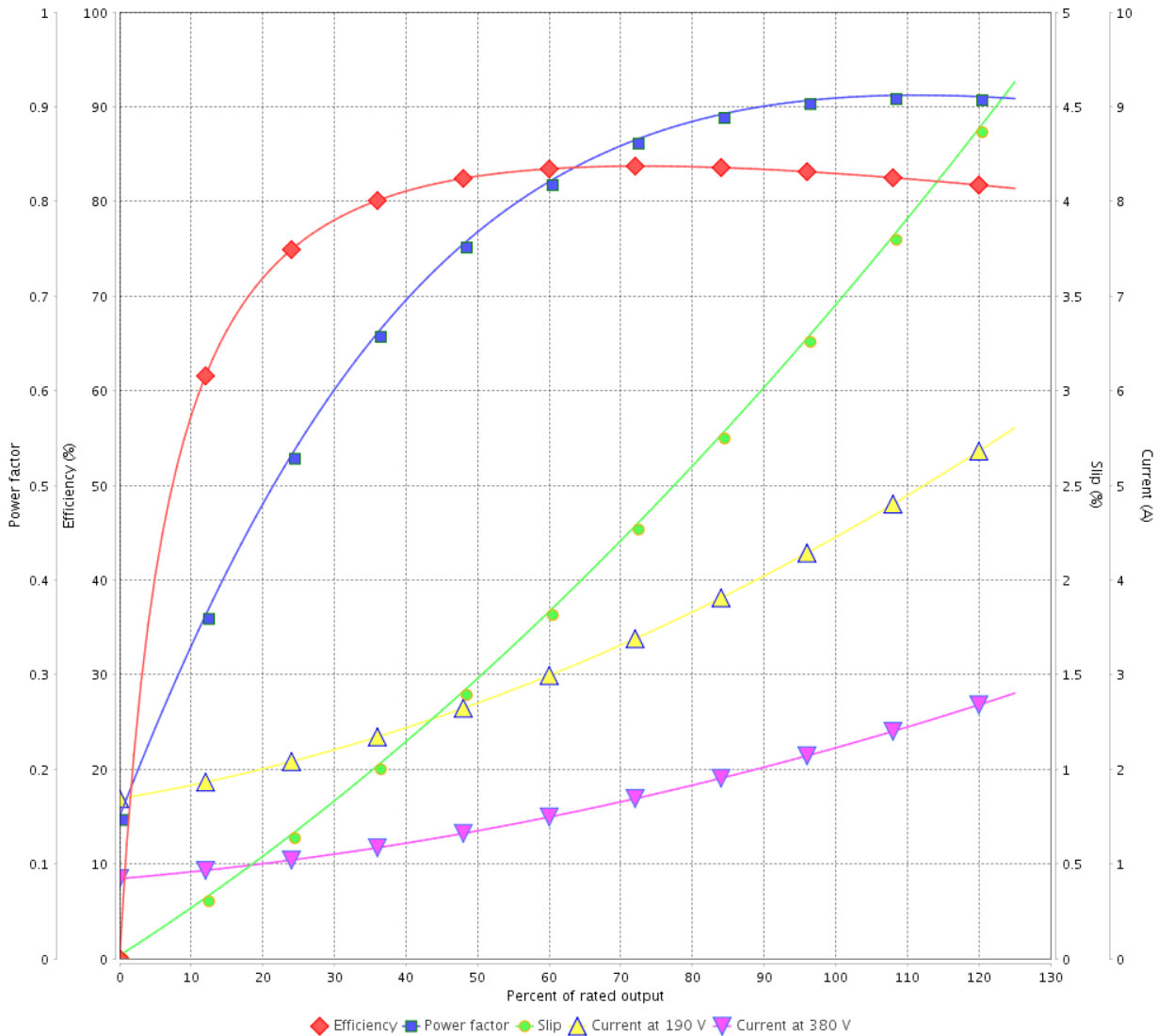
Customer :

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Product code : 14802469

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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 4.44/2.22 A
 LRC : 7.2
 Rated torque : 2.72 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 280 %
 Rated speed : 2895 rpm

Moment of inertia (J) : 0.1023 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

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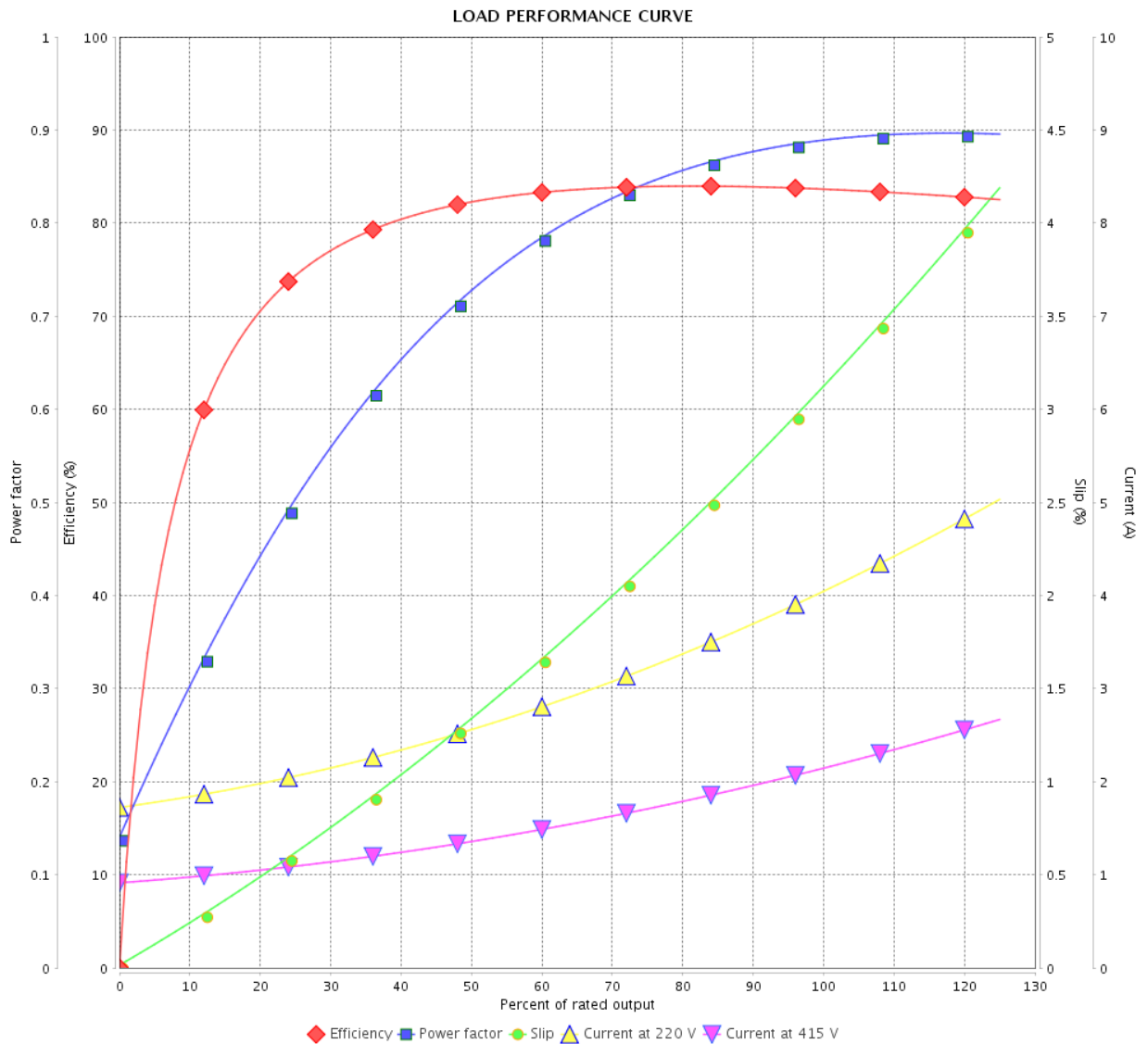


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Performance : 220/415 V 50 Hz 2P

Rated current : 4.02/2.13 A
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 Rated torque : 2.71 ft.lb
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 Breakdown torque : 310 %
 Rated speed : 2905 rpm

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THERMAL LIMIT CURVE



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Rated torque : 2.24 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor :
Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 3520 rpm	Design : B

Heating constant

Cooling constant

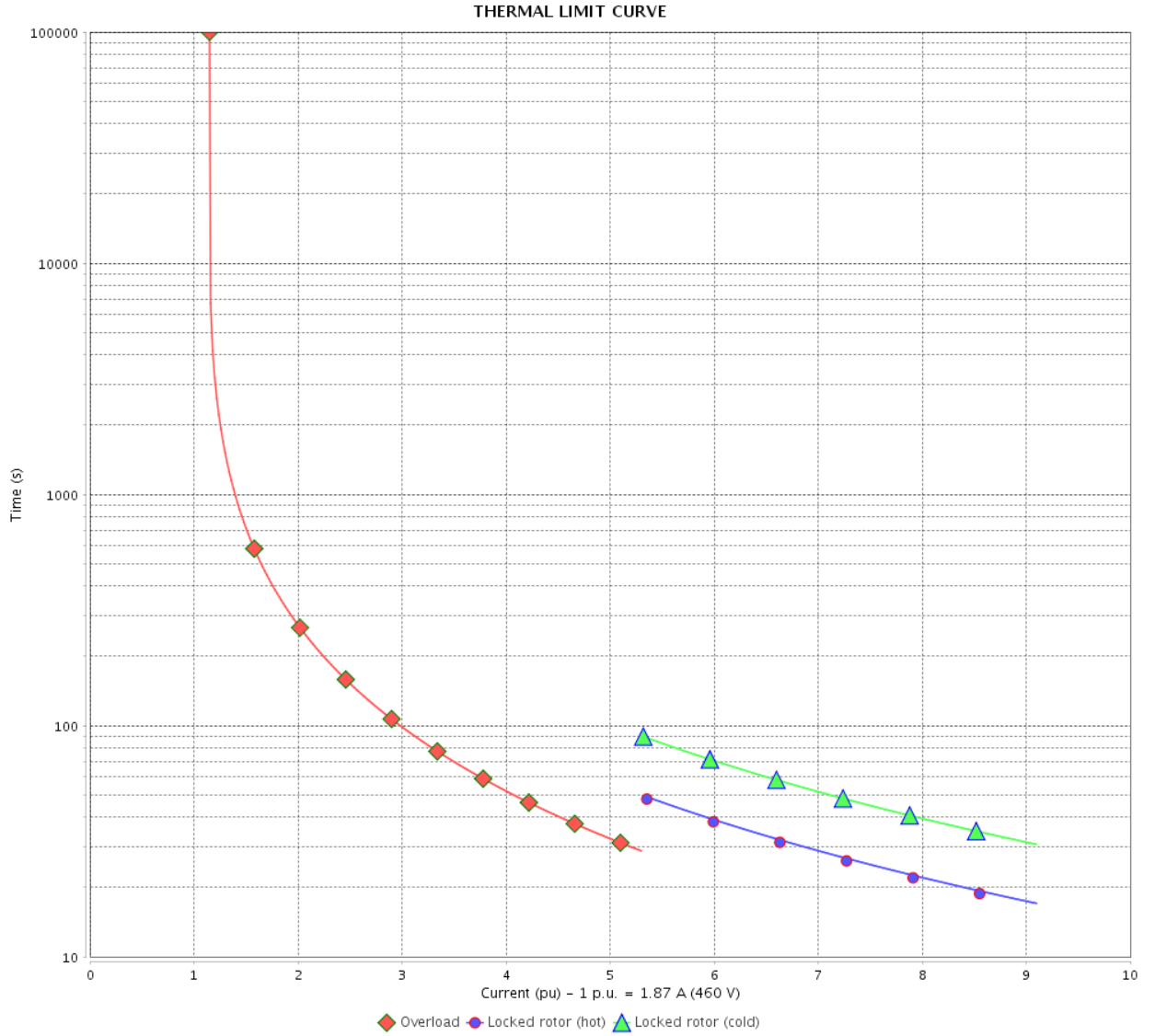
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THERMAL LIMIT CURVE



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Performance : 190/380 V 50 Hz 2P

Rated current : 4.44/2.22 A	Moment of inertia (J) : 0.1023 sq.ft.lb
LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 2.72 ft.lb	Insulation class : F
Locked rotor torque : 190 %	Service factor : 1.15
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 2895 rpm	Design : B

Heating constant

Cooling constant

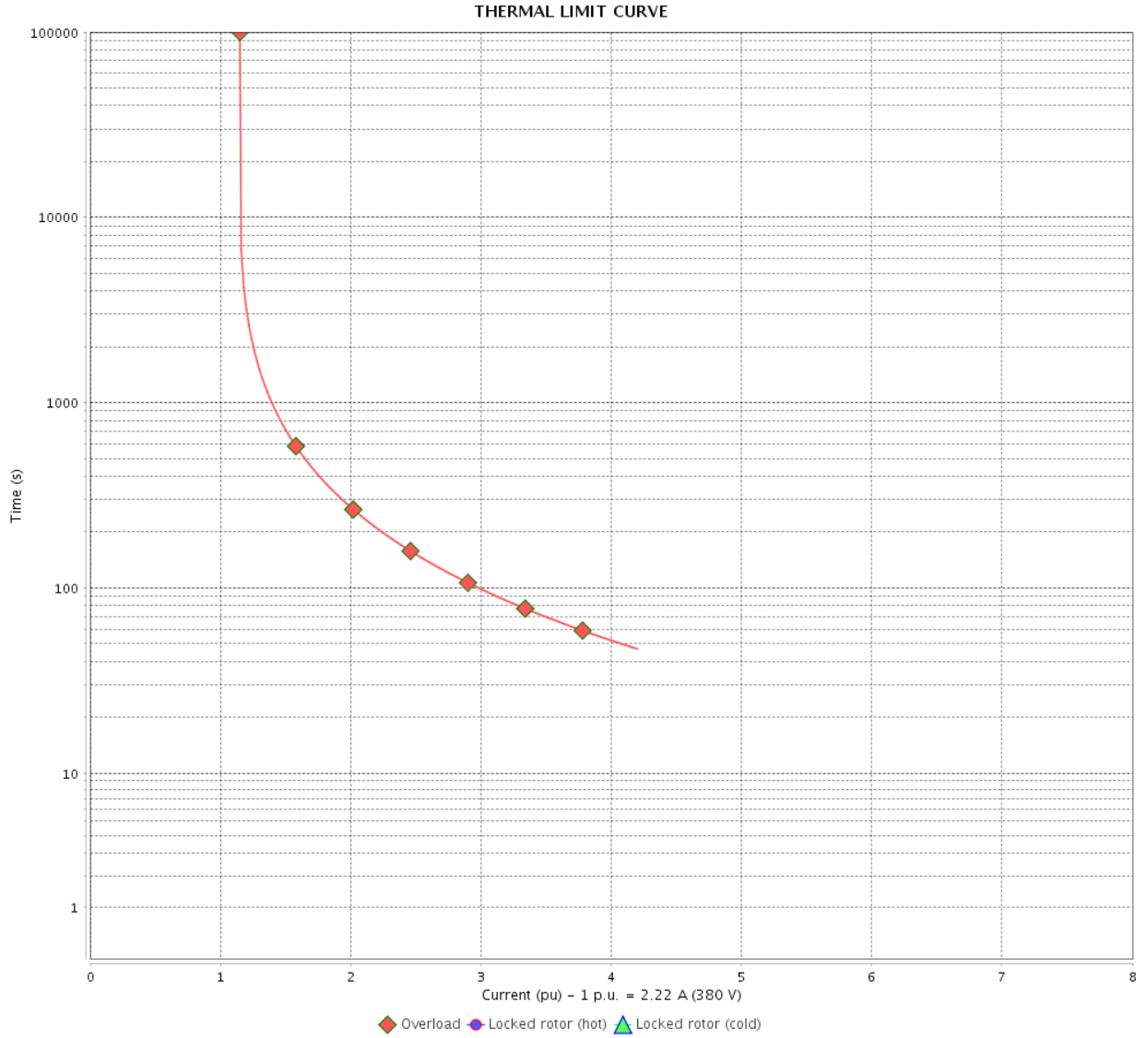
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Rated current	: 4.02/2.13 A	Moment of inertia (J)	: 0.1023 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 2.71 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2905 rpm	Design	: B

Heating constant

Cooling constant

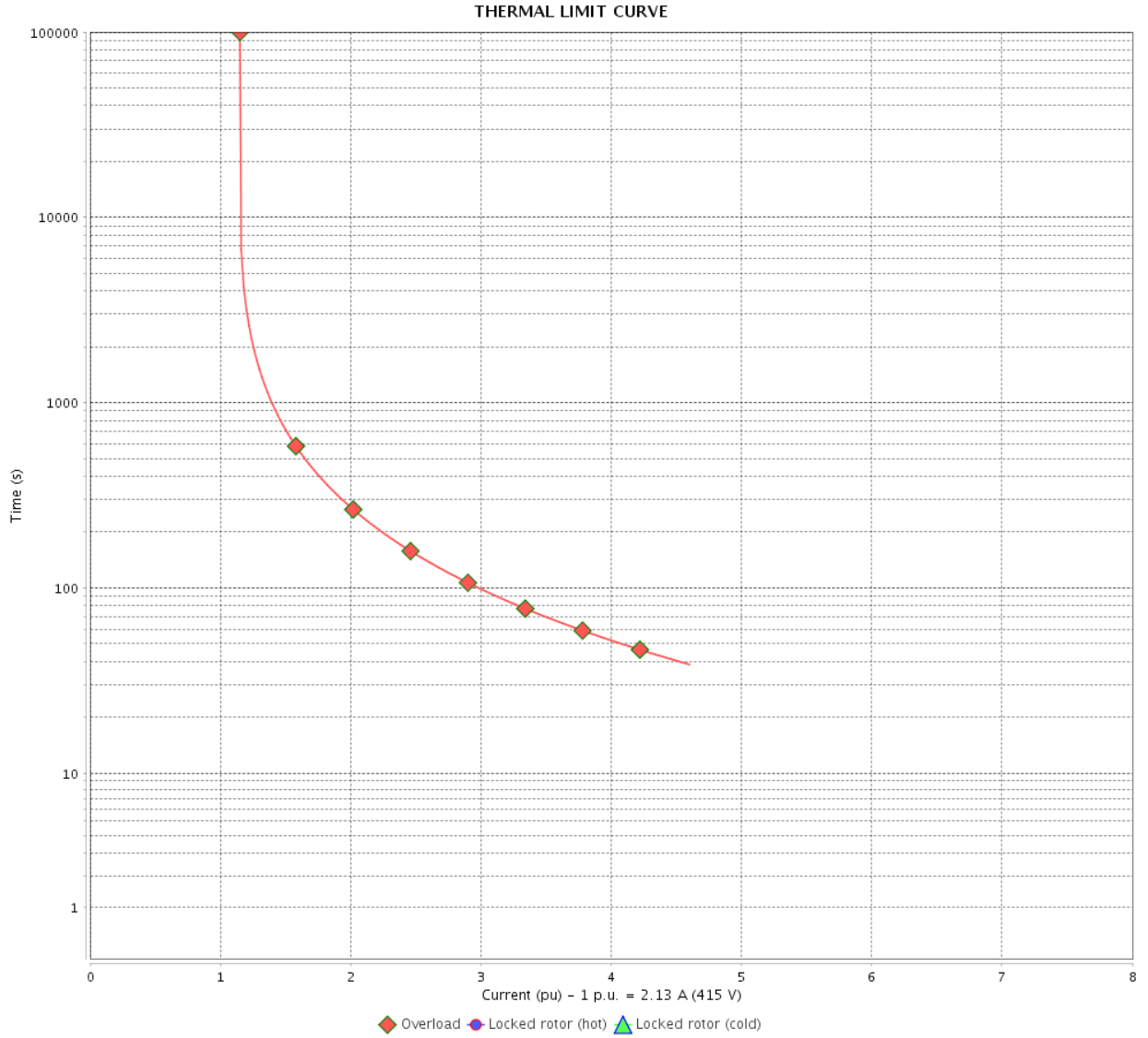
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THERMAL LIMIT CURVE

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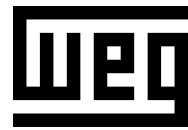
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

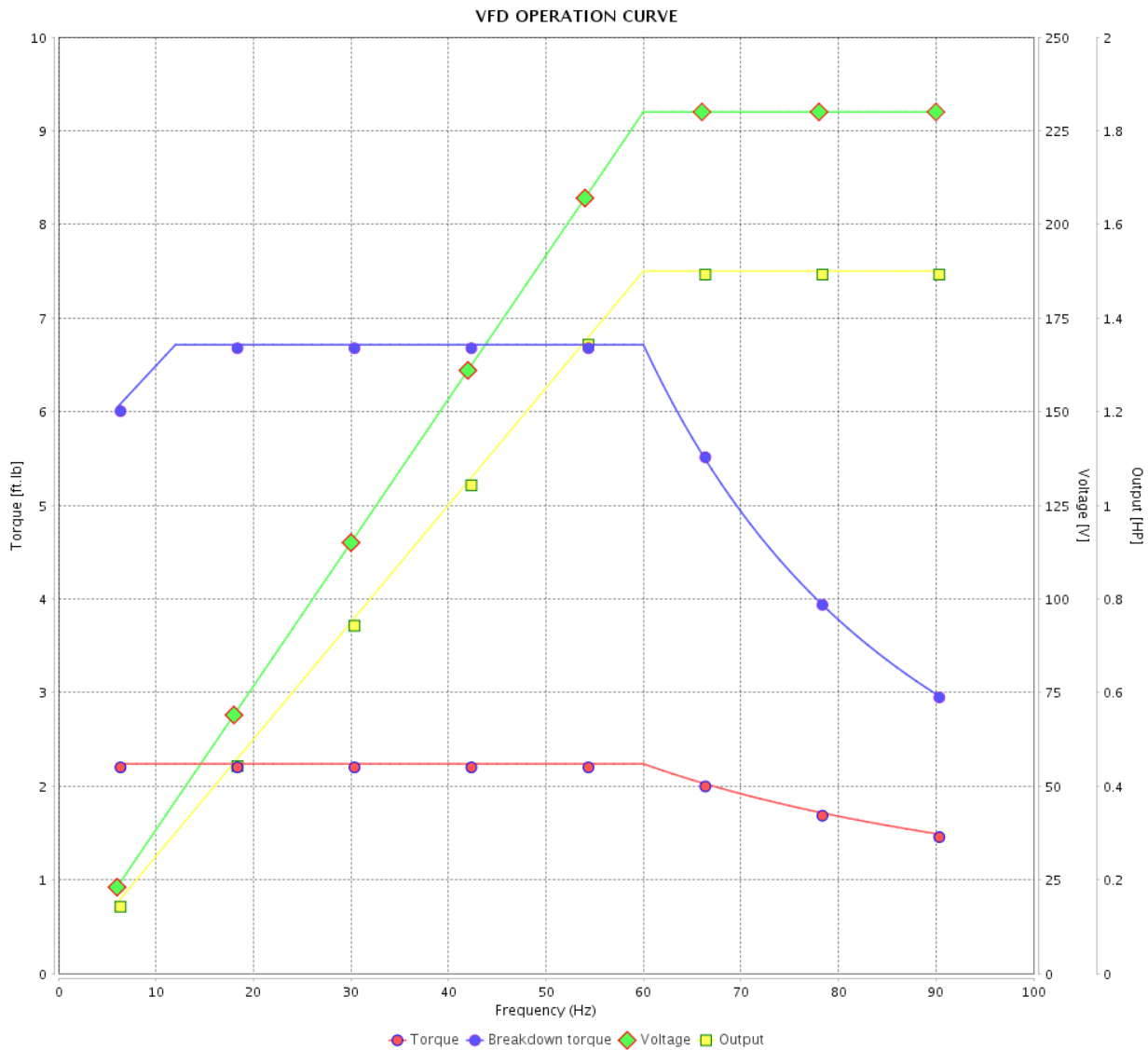


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 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

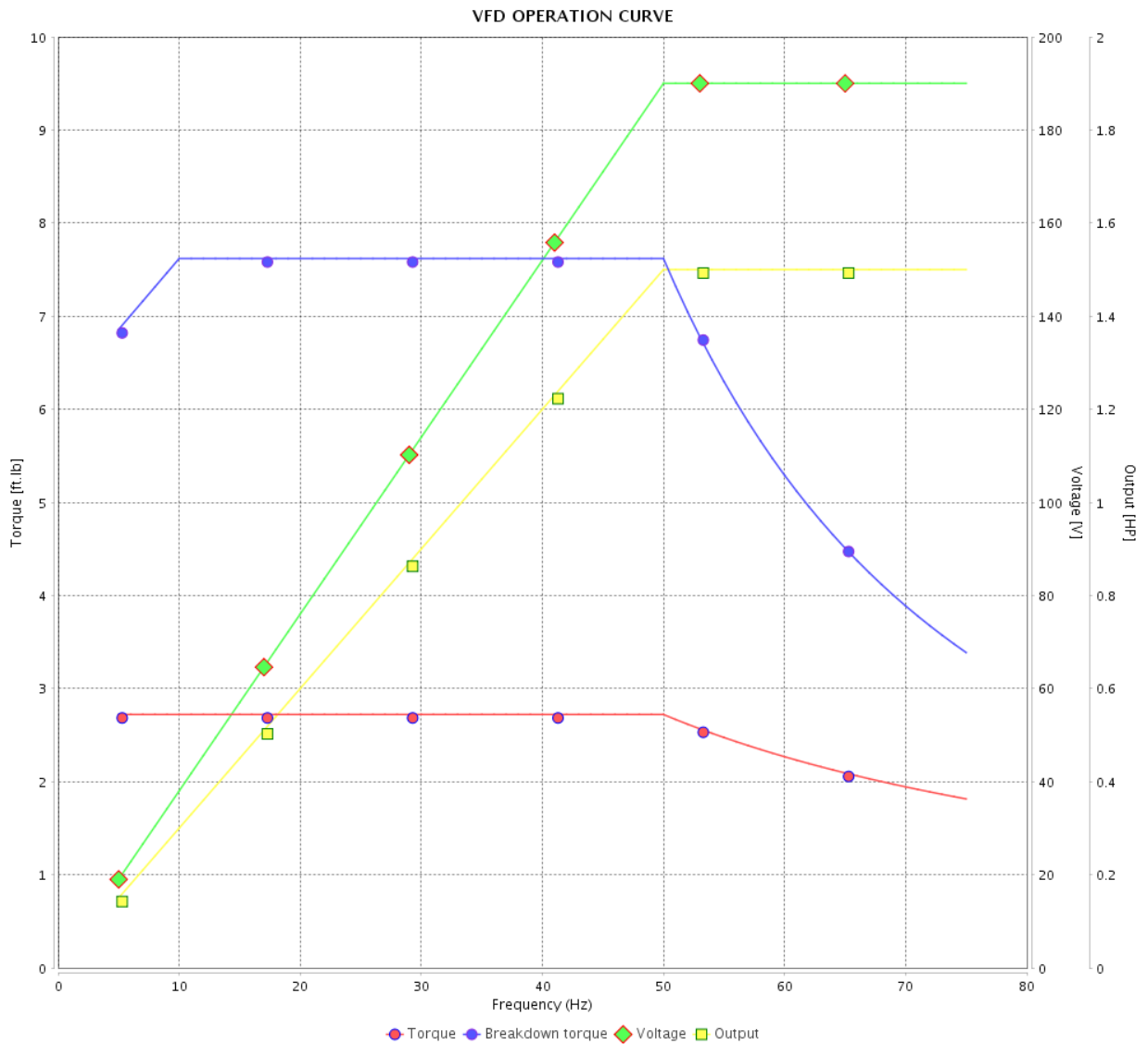


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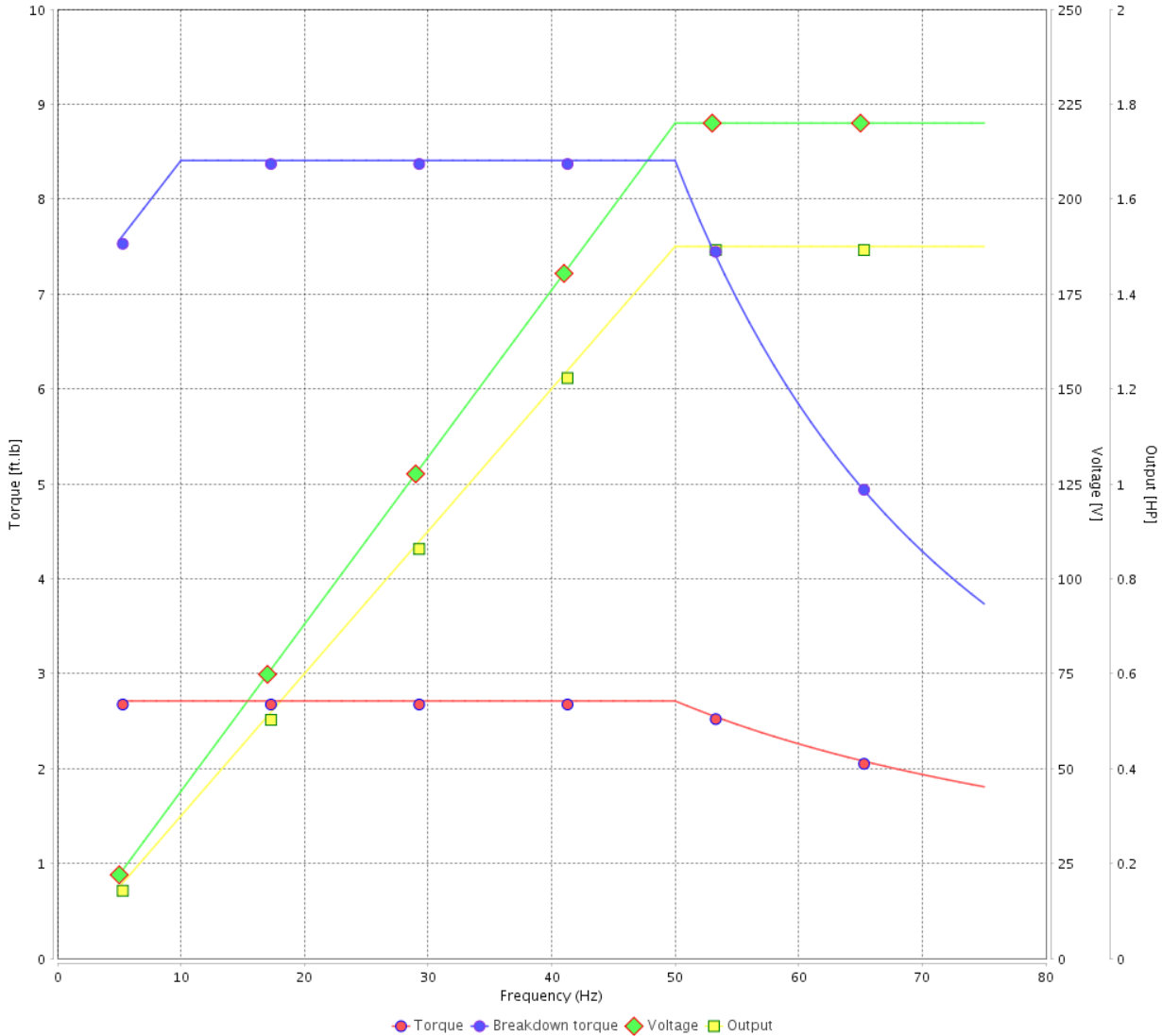
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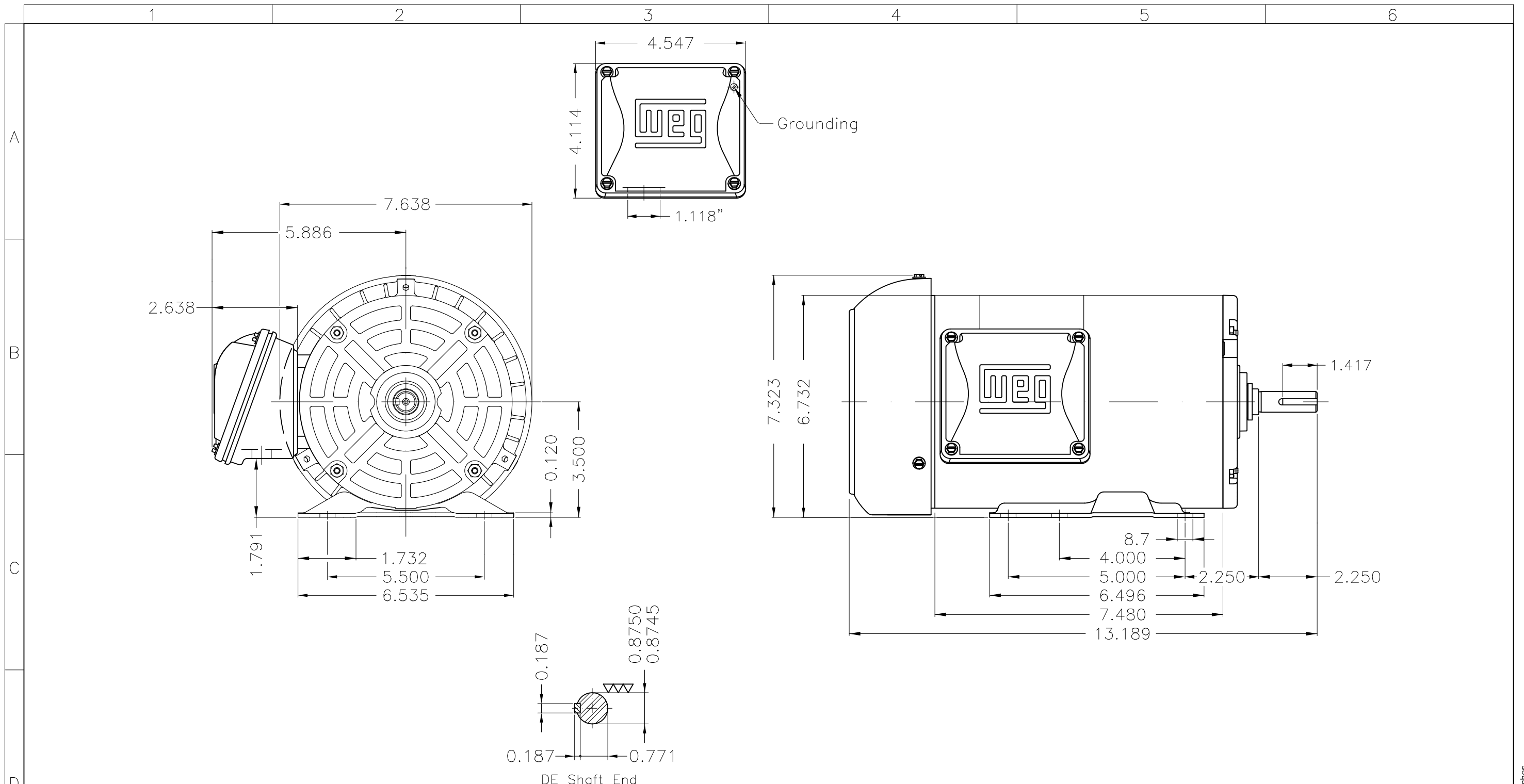


Performance : 220/415 V 50 Hz 2P

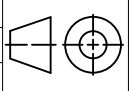
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 Rated torque : 2.71 ft.lb
 Locked rotor torque : 220 %
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Fan cover - steel plate
 Color Munsell N 1 matte black
 Painting plan 207N
 Mounting F-1/B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	 THREE PH. MOTOR ROLLED STEEL PREM. EFF. FRAME 143/5T IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET		1 / 1	

1.5 HP 02 Poles 60 Hz



PREVIEW
 WDD



NEMA
Premium



3PT9



Energy Verified

MADE IN MEXICO

MAT: 14802469 CC029A
W01.TE0IC0X0N
MODEL 00156ET3E143T-S
02MAR2022 B/N:

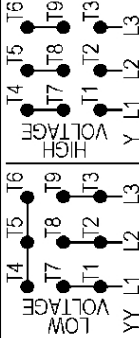
For 60Hz: Class I, Zone 2, IIC
Class I, Div.2, Gr. A,B,C,D - T3
Div 2 Inverter Duty (SF1.00)
CT 2:1/VT 1000:1

PH 3	Hz 60	HP 1.5
FR 143/5T		KW 1.1
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 3.74/1.87
INS CL F AT 80K	IP55	SFA 4.30/2.15
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE L	PF 0.88
USABLE @ 208V 4.14A		RPM 3520
SF1.00		NEMA NOM. EFF 84.0%

ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15
4.4-3.90/2.22-2.07A 2895RPM EFF 82.9% (IE3) IEC 60034-1

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

DE 6205-ZZ ODE 6203-ZZ MOBIL POLYREX EM



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.

