

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer	:			
Product line	: Premium Efficiency Three-Phase	Product code :	14798674	
		Catalog # :	00156ET3E56C-S	
Frame	: 56C	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 ³	: 33.3 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)	28s (cold) 16s (hot)	27s (cold) 15s (hot)	
Noise level ²	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)	
Efficiency (%)	25%	78.4	82.2	
	50%	80.0	82.2	
	75%	82.5	84.0	
	100%	84.0	83.6	
Power Factor	25%	0.44	0.46	
	50%	0.71	0.73	
	75%	0.82	0.84	
	100%	0.88	0.89	
Bearing type	: <u>Drive end</u> 6204 ZZ	<u>Non drive end</u> 6202 ZZ	Foundation loads	
Sealing	: V'Ring	Without Bearing Seal	Max. traction : 66 lb	
Lubrication interval	: -	-	Max. compression : 99 lb	
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.		These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.		
(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.				
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Performed by				
Checked by			Page	Revision
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TORQUE AND CURRENT VS SPEED CURVE

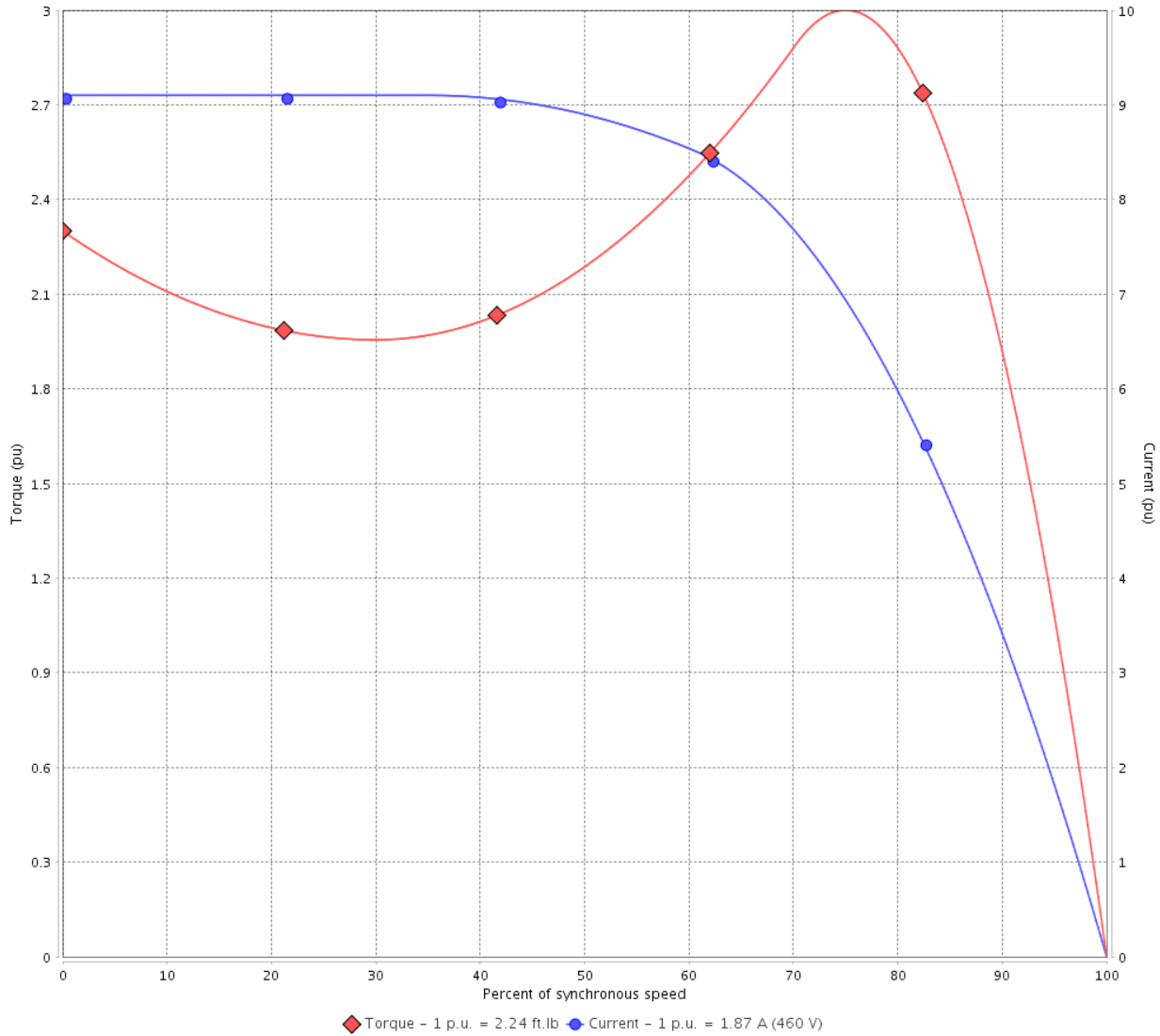
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14798674
 Catalog # : 00156ET3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



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 : _____

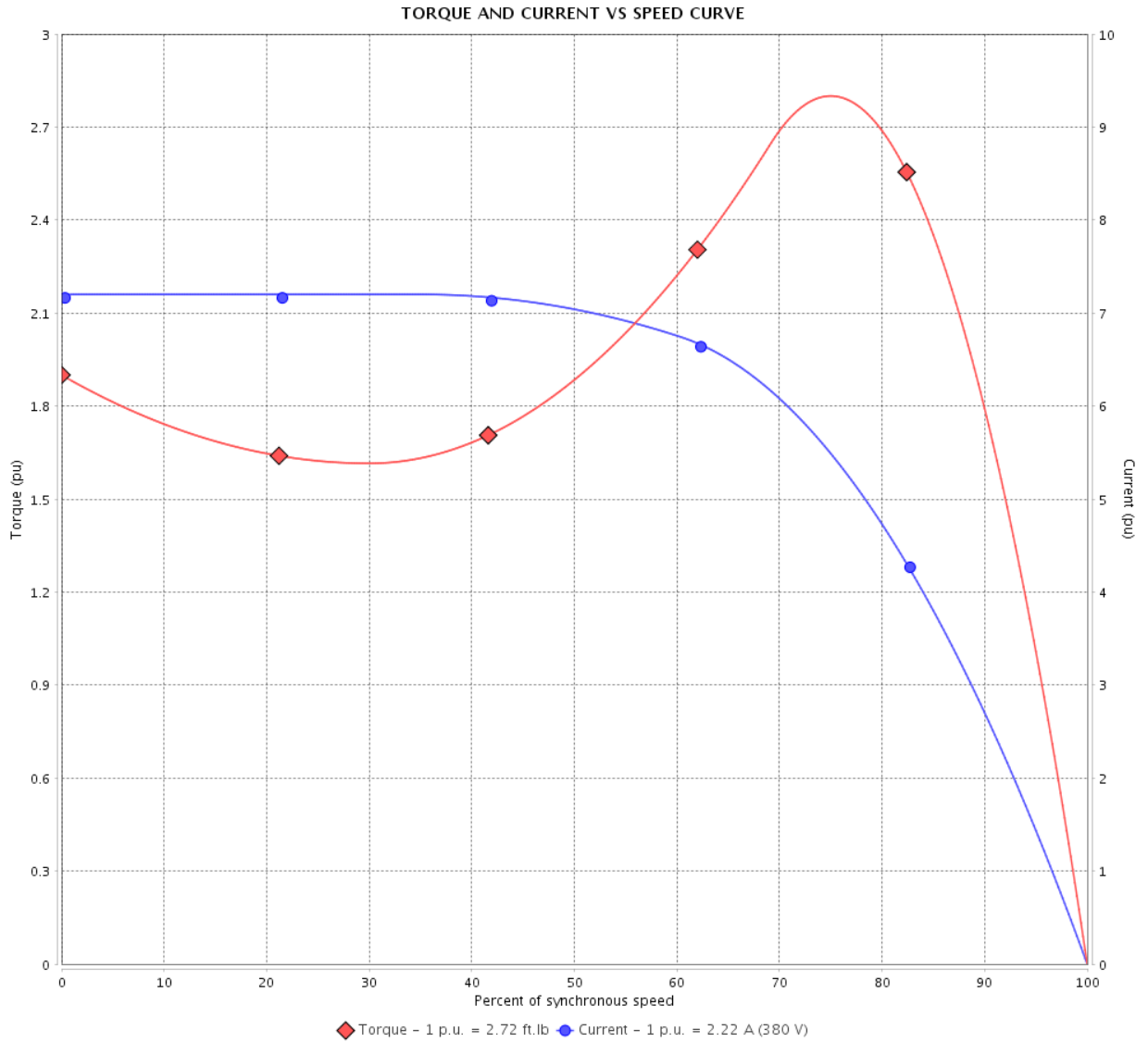
Product line : Premium Efficiency Three-Phase

Product code :

14798674

Catalog # :

00156ET3E56C-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 : 28s (cold) 16s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

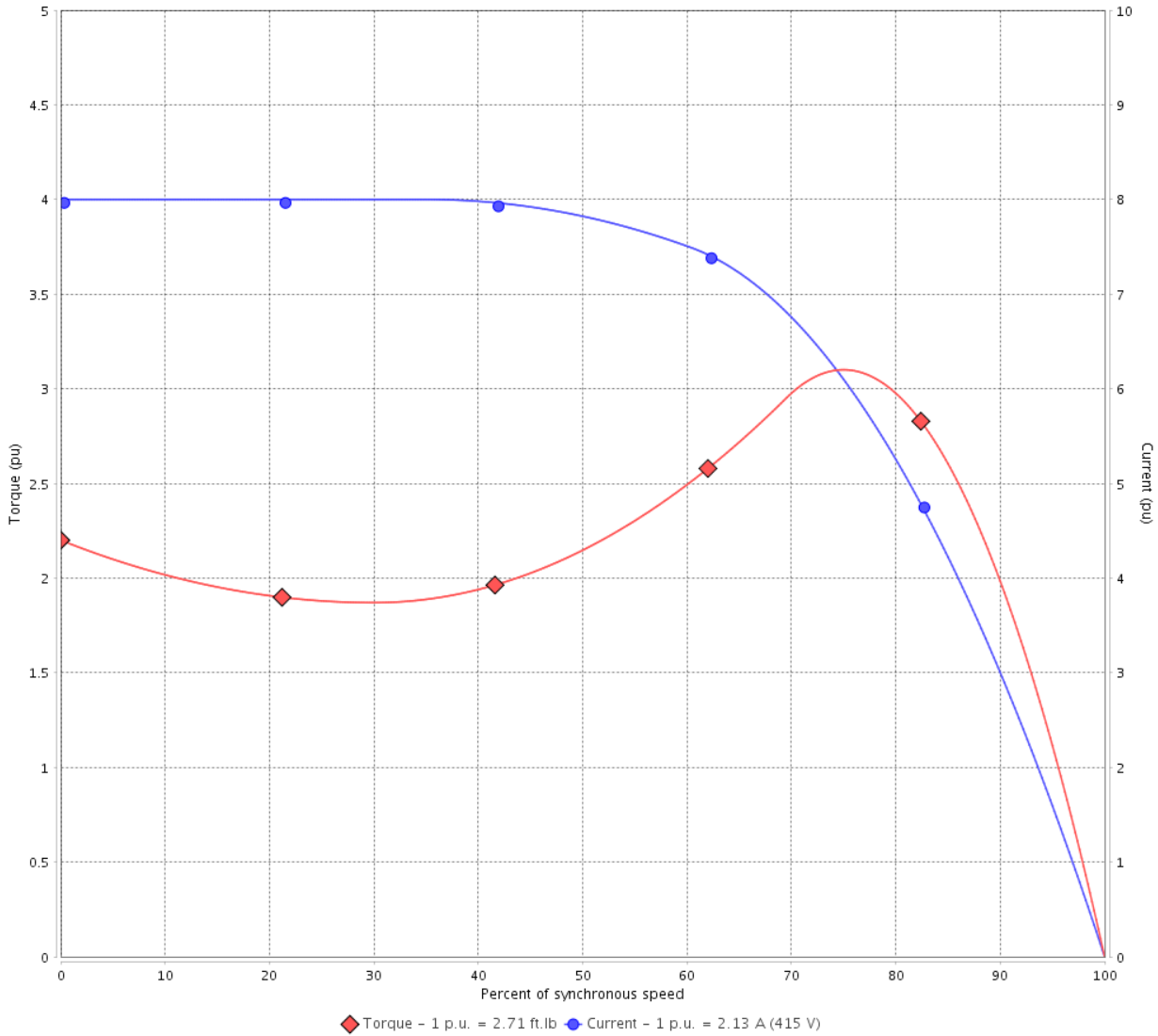
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 14798674
 Catalog # : 00156ET3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

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

Locked rotor time : 27s (cold) 15s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

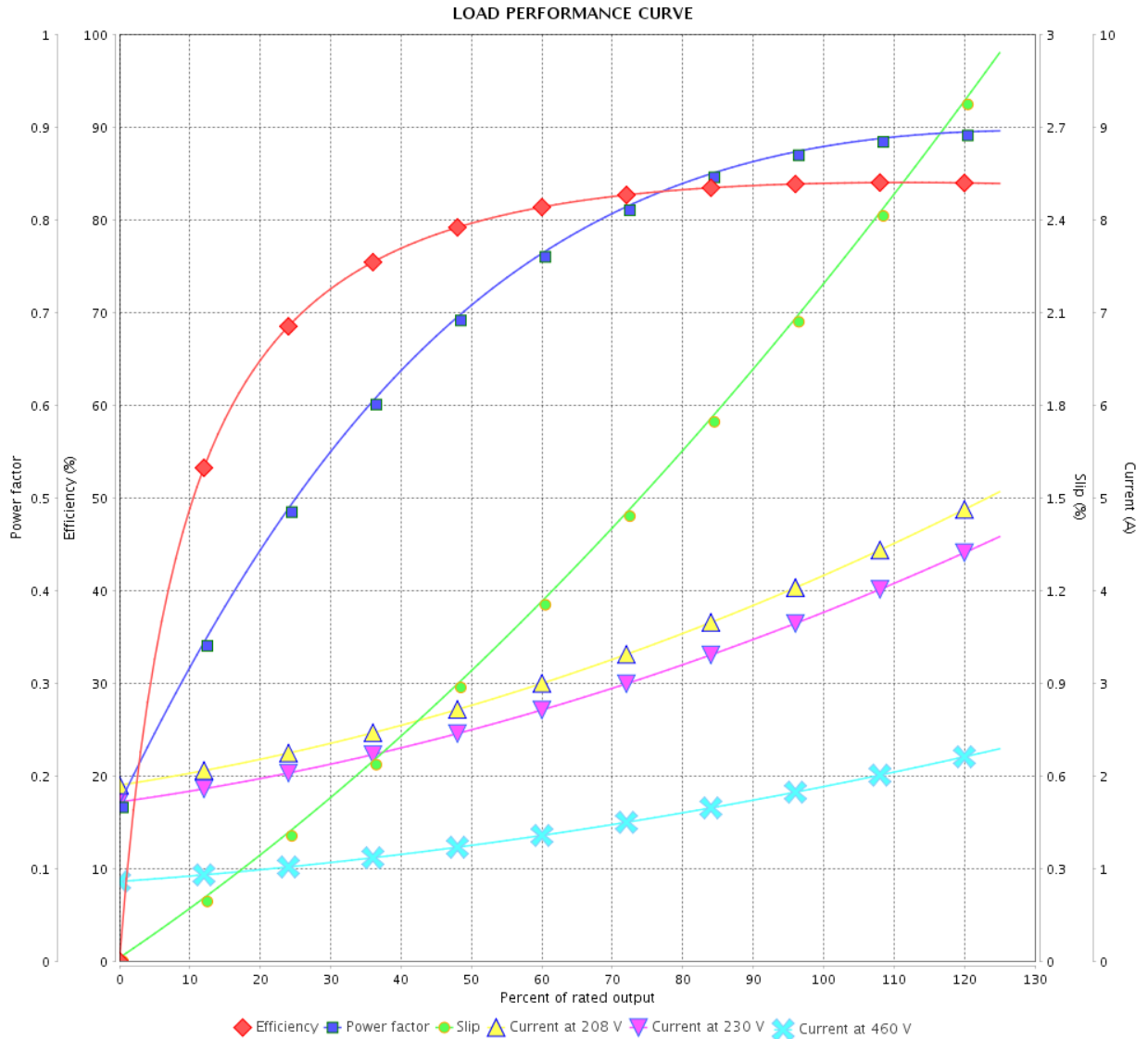
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 LRC : 9.1
 Rated torque : 2.24 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 300 %
 Rated speed : 3520 rpm

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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LOAD PERFORMANCE CURVE

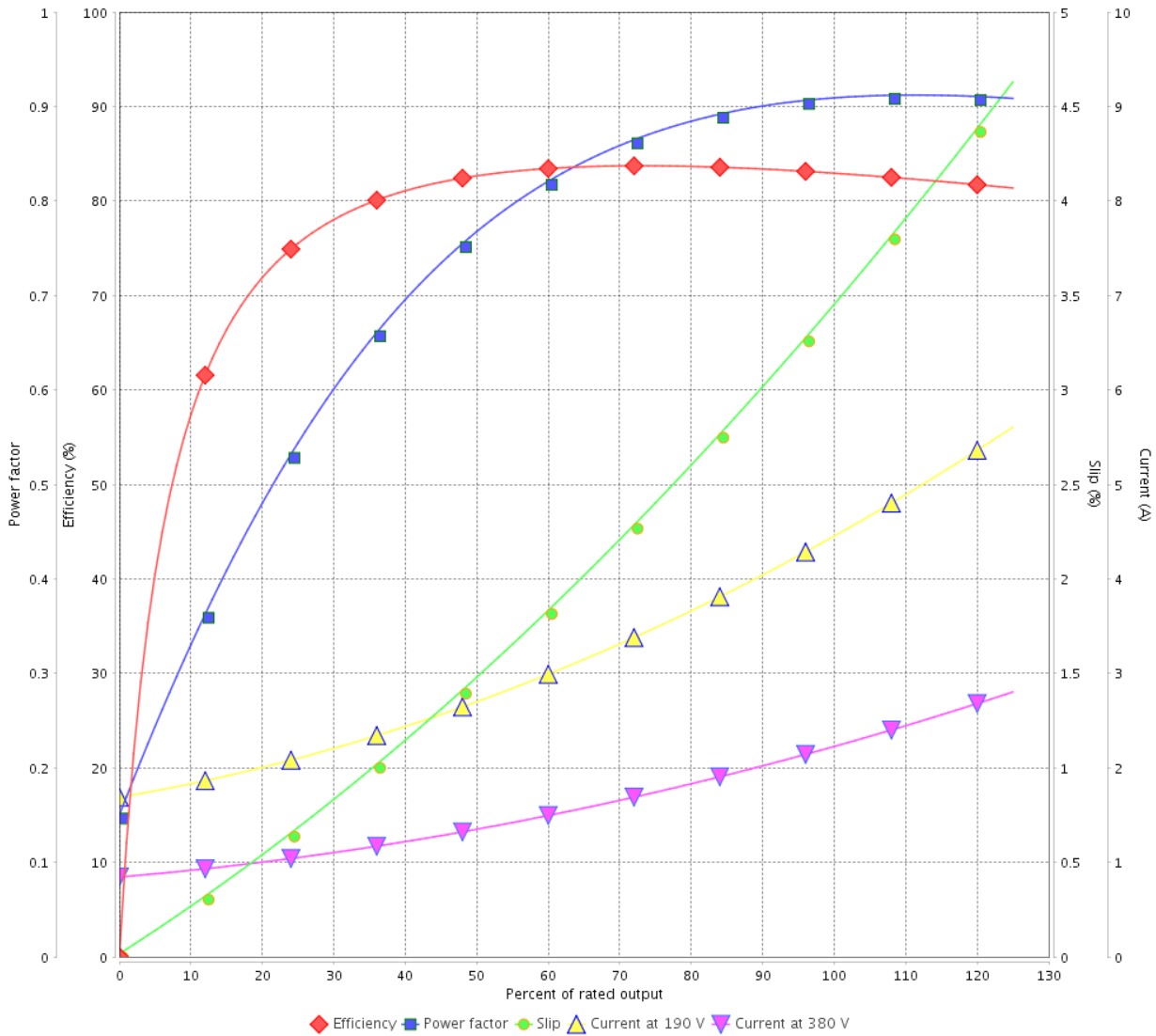
Three Phase Induction Motor - Squirrel Cage



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 Catalog # : 00156ET3E56C-S

LOAD PERFORMANCE CURVE



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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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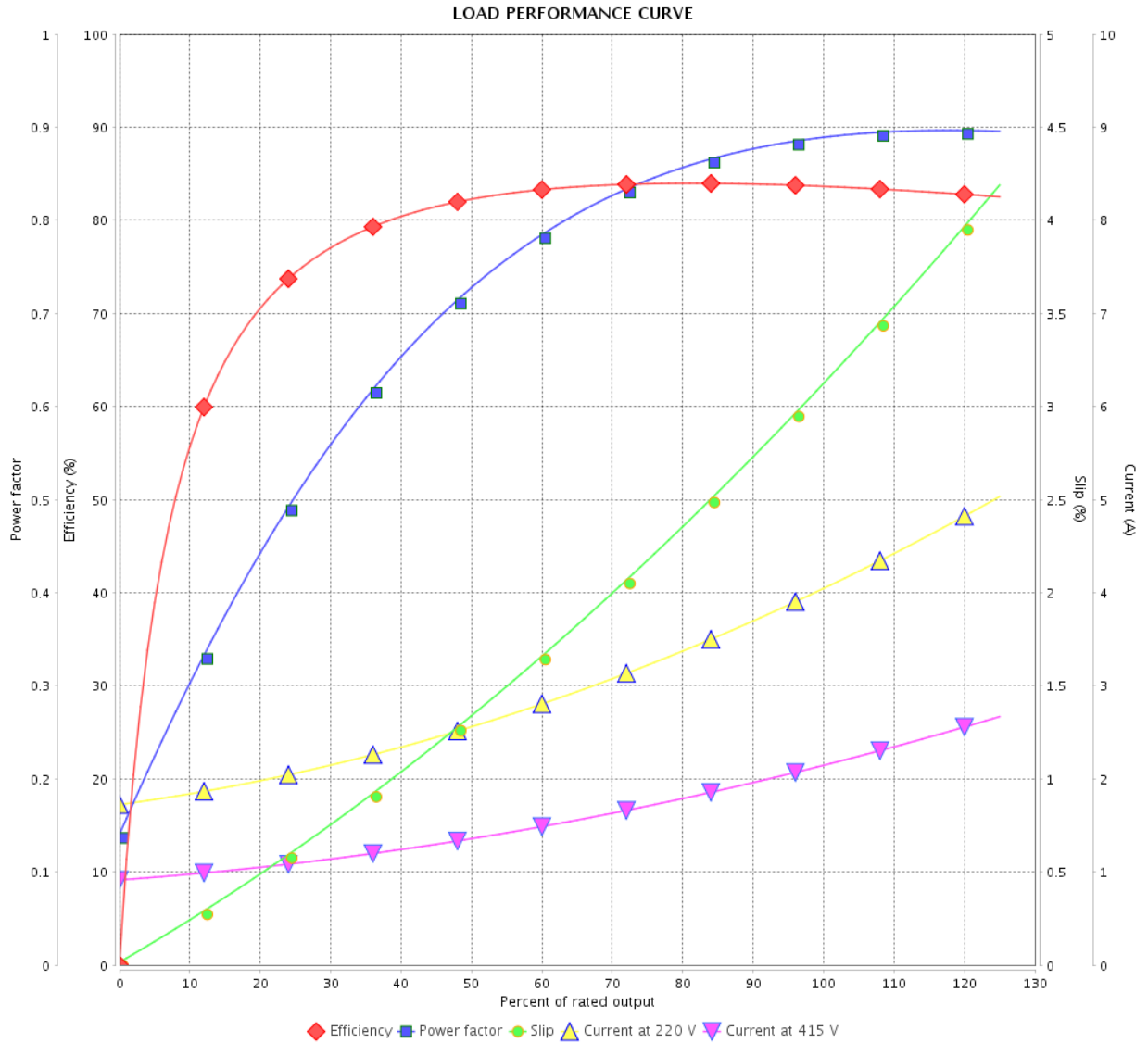
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 Rated torque : 2.71 ft.lb
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 Breakdown torque : 310 %
 Rated speed : 2905 rpm

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

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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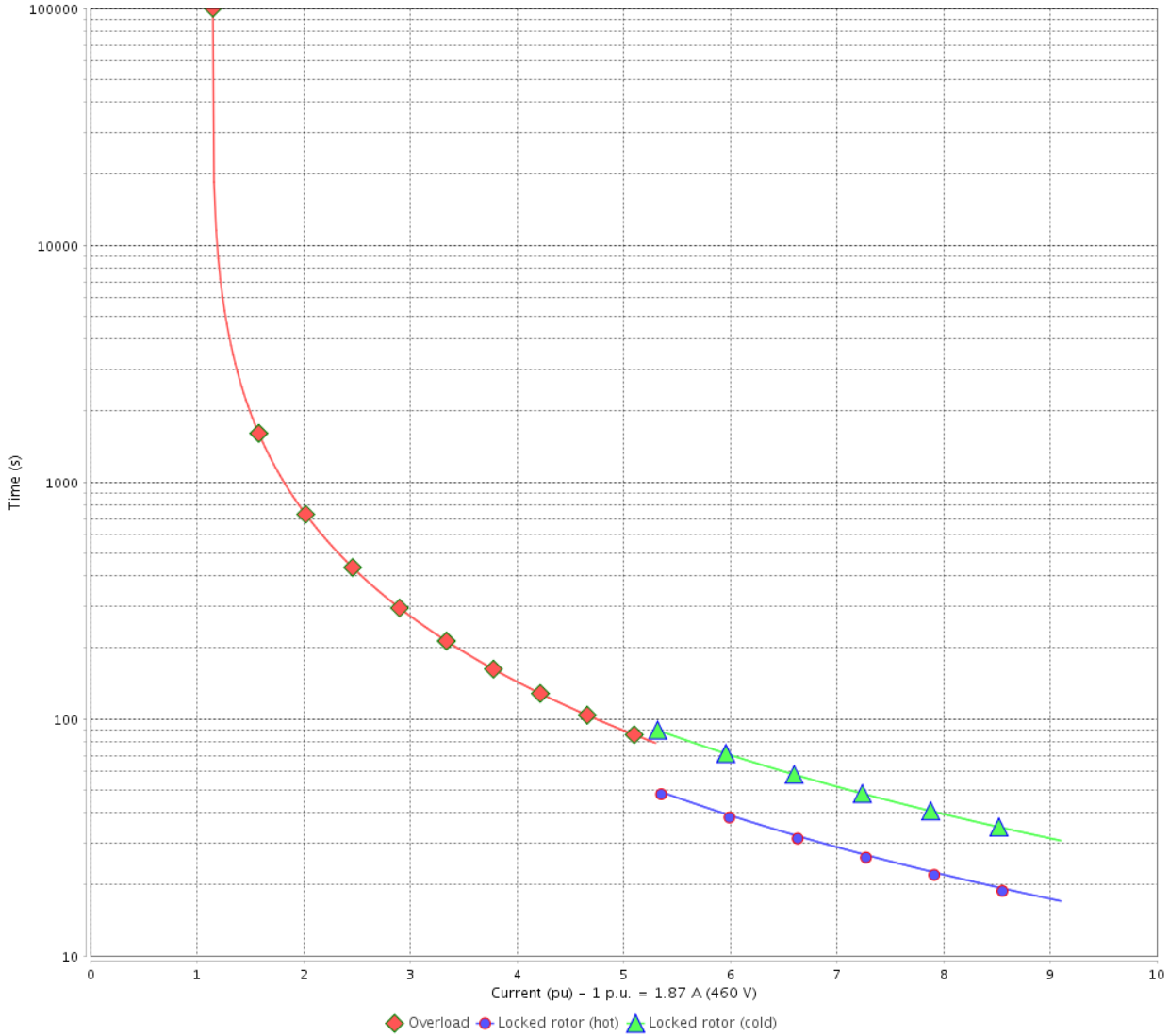
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 Breakdown torque : 300 %
 Rated speed : 3520 rpm

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

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

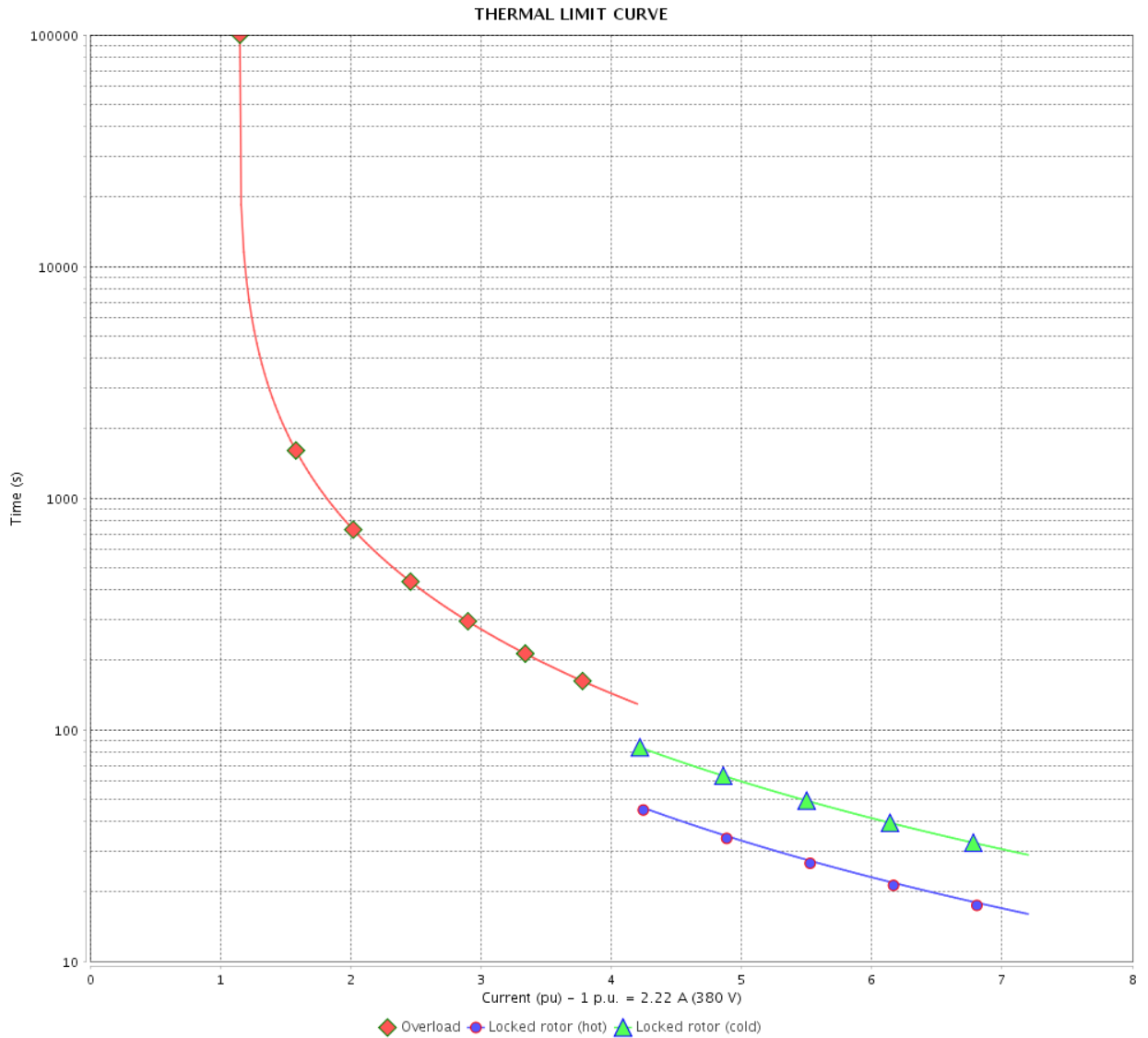
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Performance : 190/380 V 50 Hz 2P

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

Heating constant

Cooling constant

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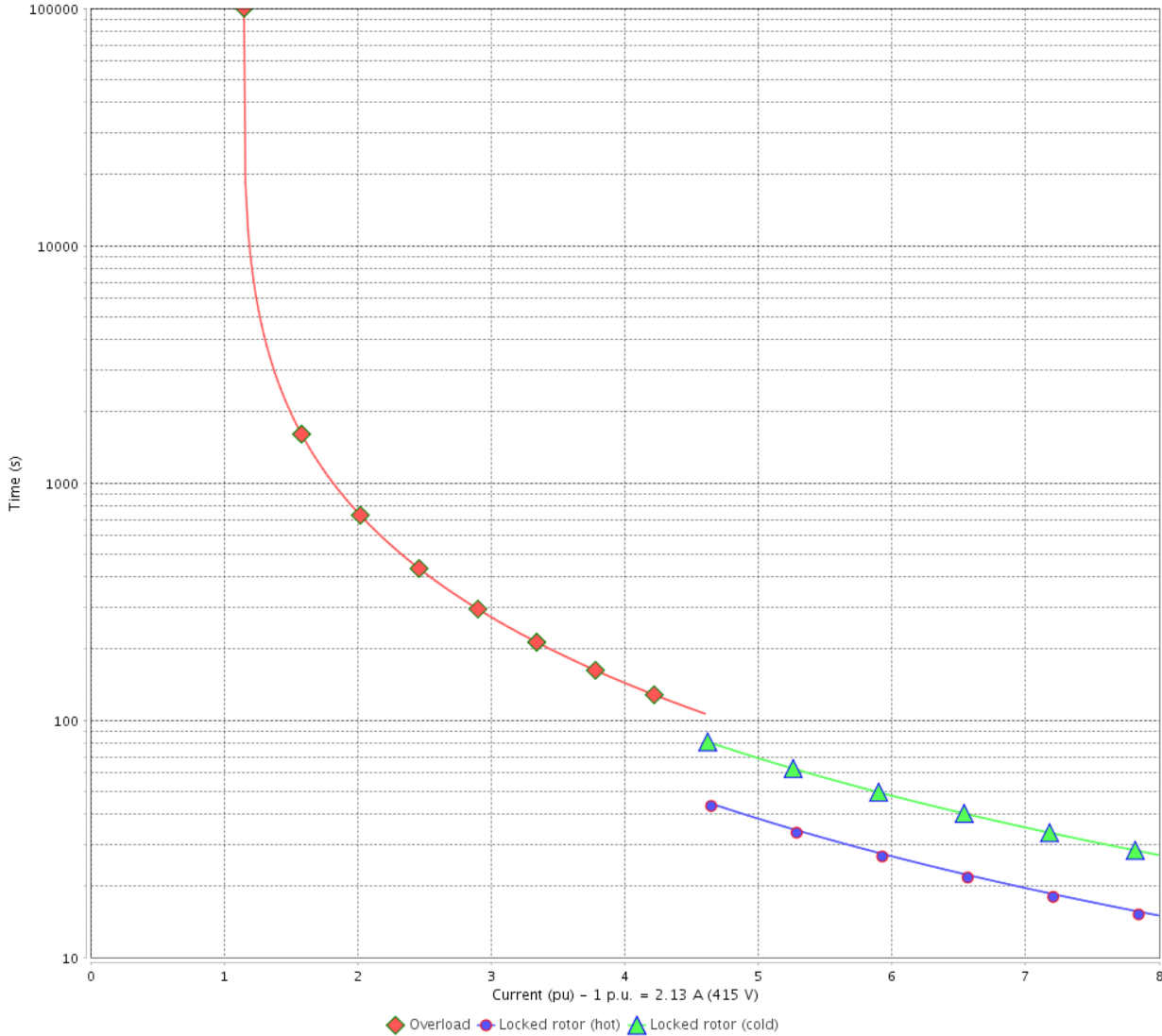
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 LRC : 8.0
 Rated torque : 2.71 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 310 %
 Rated speed : 2905 rpm

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

Heating constant

Cooling constant

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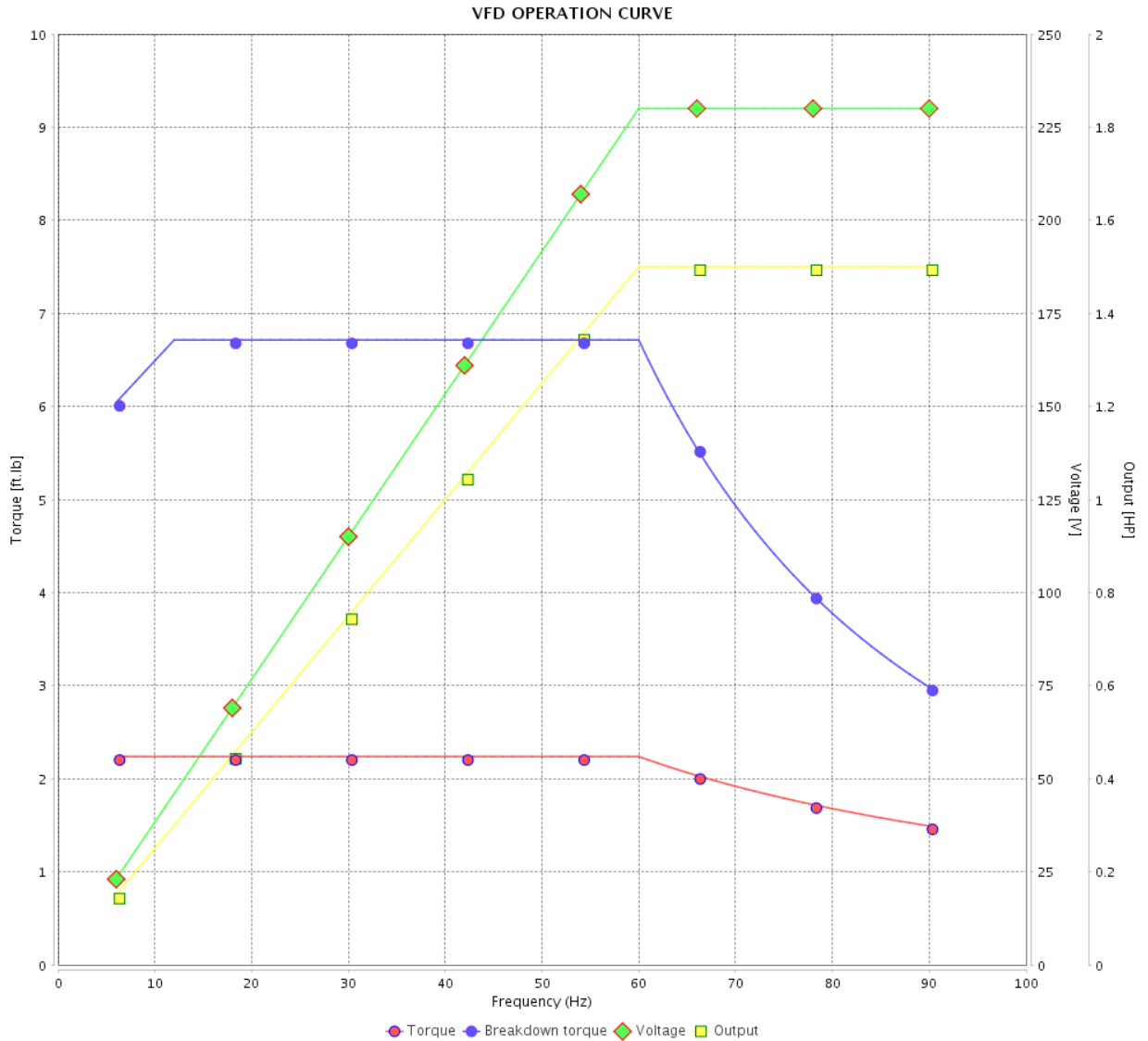
VFD OPERATION CURVE

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 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

Rev.	Changes Summary	Performed	Checked	Date
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Date		12/04/2022		

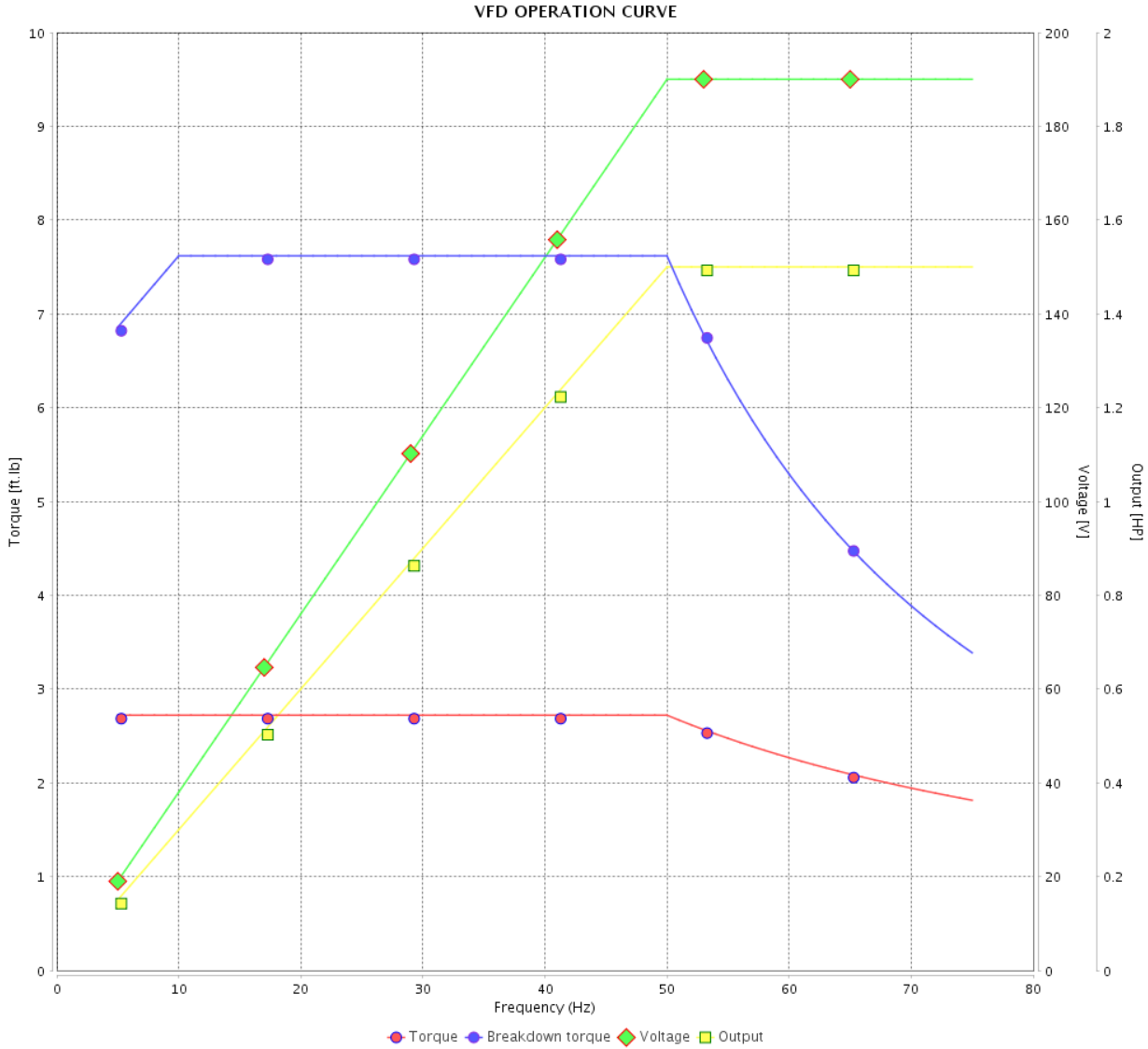
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LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 2.72 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2895 rpm	Design	: B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

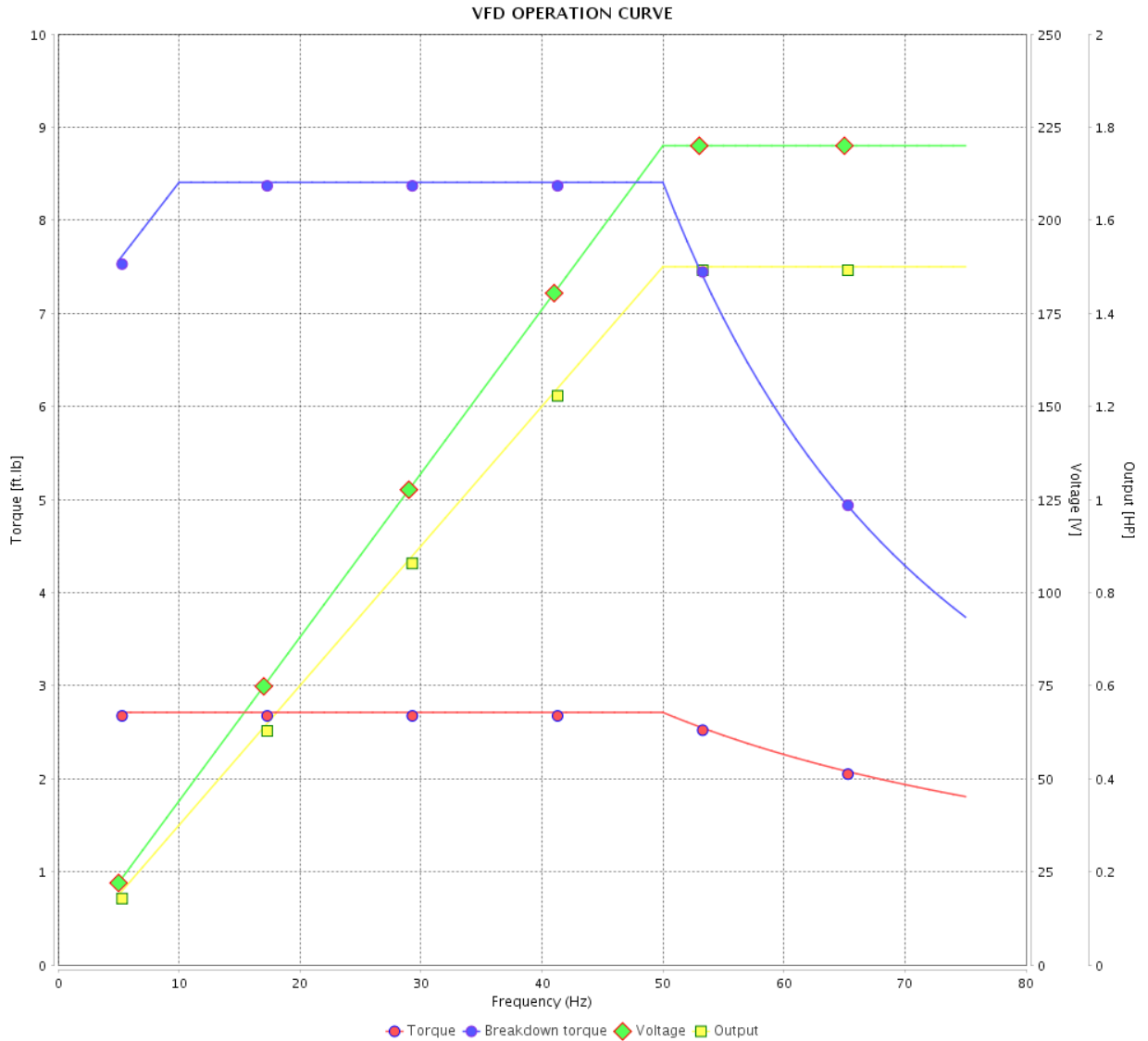
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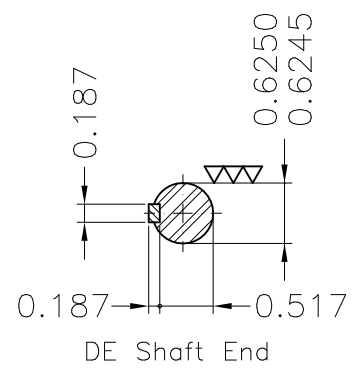
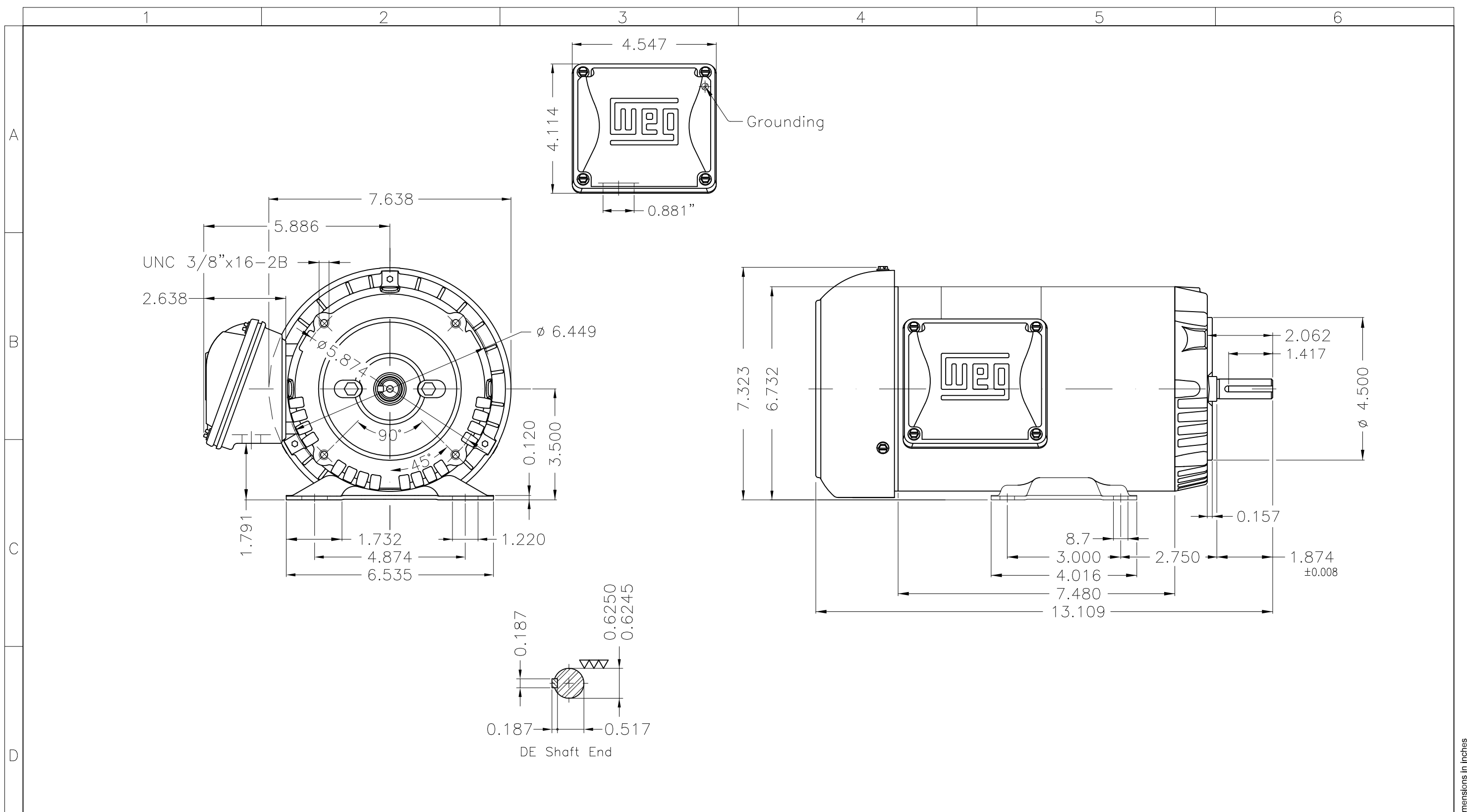


Performance : 220/415 V 50 Hz 2P

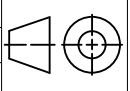
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 Rated torque : 2.71 ft.lb
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 Temperature rise : 80 K
 Design : B

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Fan cover - steel plate
 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 PREM. EFF. FRAME 56C IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
 WDD



1.5 HP 02 Poles 60 Hz



NEMA
Premium



MADE IN BRAZIL

MAT: 14798674 CC029A
W01.TE0IC0X0X
MODEL 00156ET3E56C-S
28MAR2022 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 56C		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
4.44-3.90/2.22-2.07A 2895RPM EFF 82.9% (IE3) IEC 60034-1

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 5:1 CT

DE 6204-ZZ ODE 6202-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.

