

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14802850
		Catalog # :	00336ET3E145TC-S
Frame	: 143/5TC	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	: 50.3 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1663 sq.ft.lb
Design	: B		
Output [HP]	3	3	3
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	7.02/3.51	8.50/4.25	7.62/4.04
L. R. Amperes [A]	66.7/33.3	62.9/31.5	63.3/33.5
LRC [A]	9.5x(Code K)	7.4x(Code H)	8.3x(Code J)
No load current [A]	2.56/1.28	2.52/1.26	2.57/1.36
Rated speed [RPM]	3500	2870	2885
Slip [%]	2.78	4.33	3.83
Rated torque [ft.lb]	4.50	5.49	5.46
Locked rotor torque [%]	300	229	270
Breakdown torque [%]	380	280	310
Service factor		1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level ²	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)
Efficiency (%)	25%	83.6	87.9
	50%	84.0	86.6
	75%	86.5	86.4
	100%	86.5	84.6
Power Factor	25%	0.51	0.57
	50%	0.78	0.83
	75%	0.87	0.90
	100%	0.91	0.93
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	: 122 lb
		Max. compression	: 172 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 7.76A SF 1.00 SFA 7.76A			
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



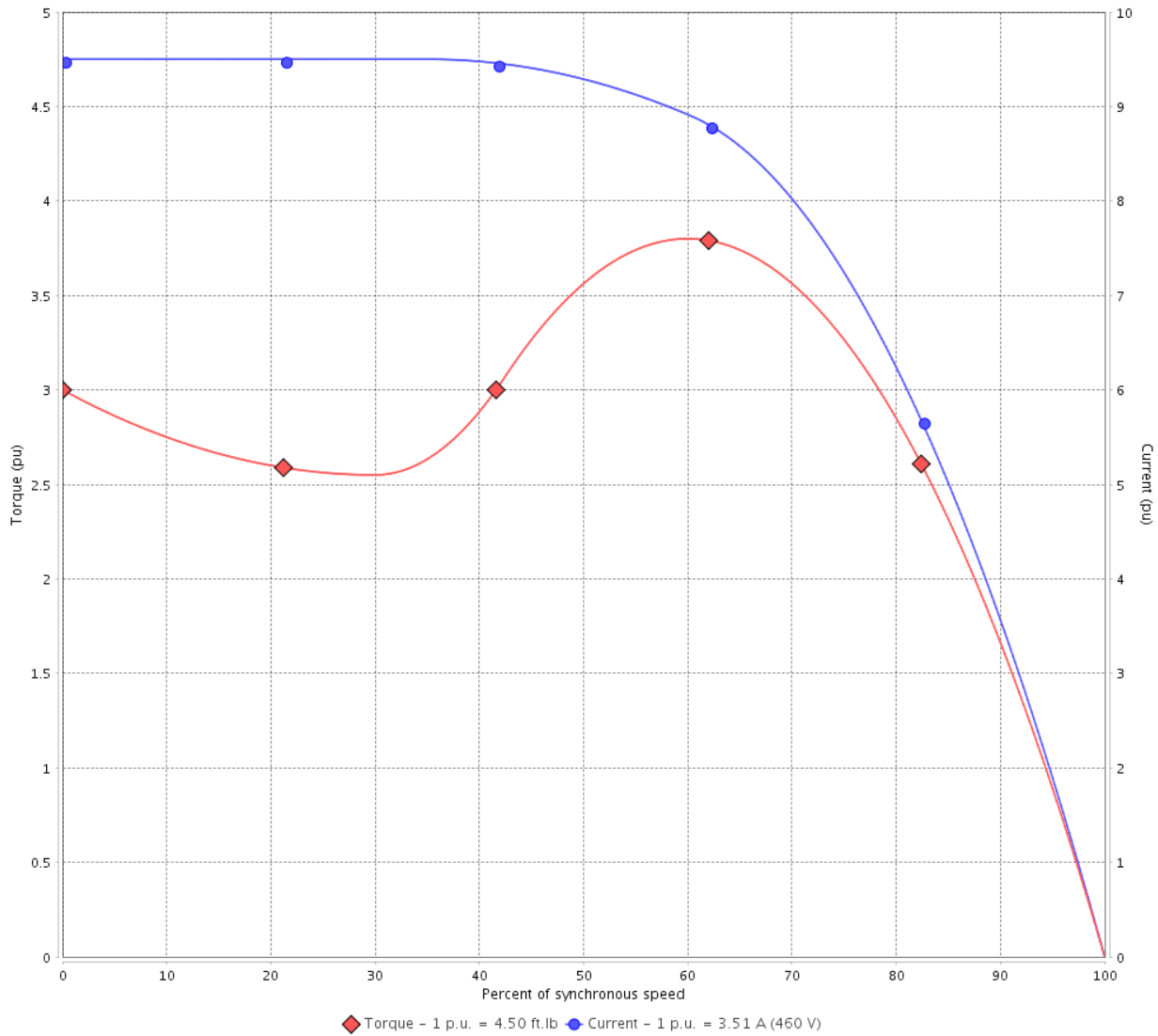
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14802850

Catalog # : 00336ET3E145TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 7.02/3.51 A	Moment of inertia (J)	: 0.1663 sq.ft.lb
LRC	: 9.5	Duty cycle	: Cont.(S1)
Rated torque	: 4.50 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	:
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 3500 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



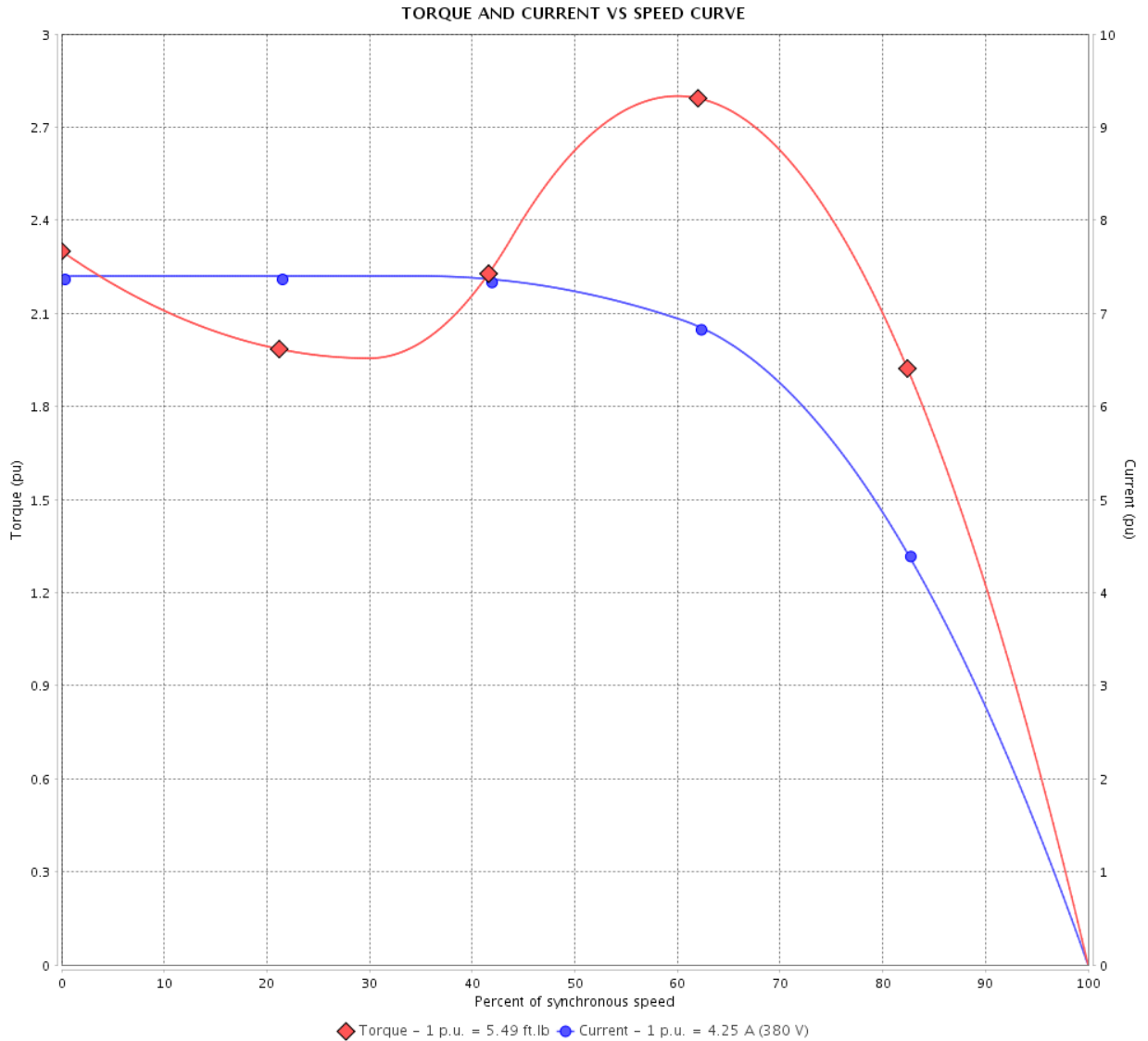
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14802850

Catalog # : 00336ET3E145TC-S



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A
 LRC : 7.4
 Rated torque : 5.49 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 16s (cold) 9s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



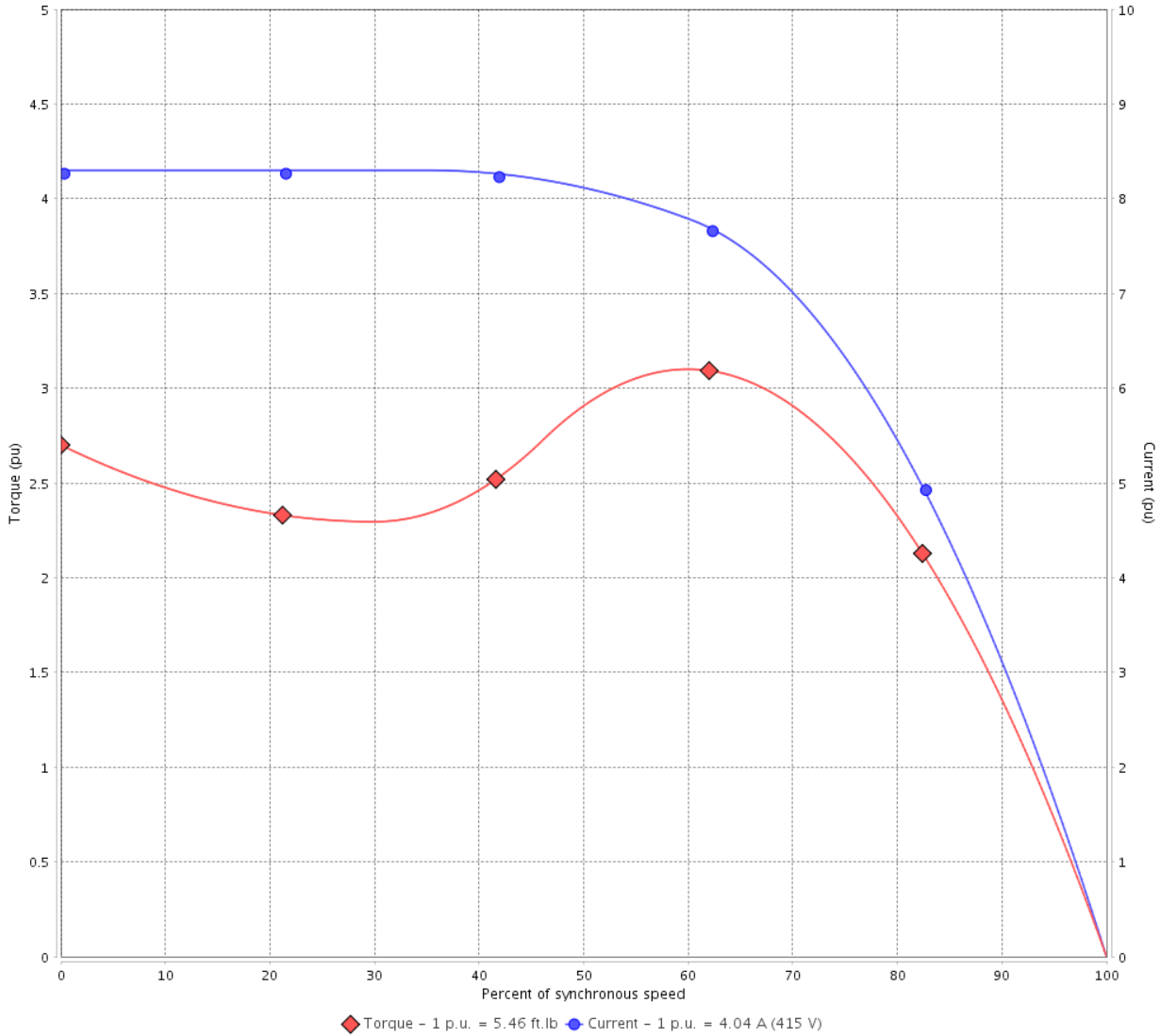
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Catalog # : 00336ET3E145TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 7.62/4.04 A	Moment of inertia (J)	: 0.1663 sq.ft.lb
LRC	: 8.3	Duty cycle	: Cont.(S1)
Rated torque	: 5.46 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2885 rpm	Design	: B

Locked rotor time : 16s (cold) 9s (hot)

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LOAD PERFORMANCE CURVE

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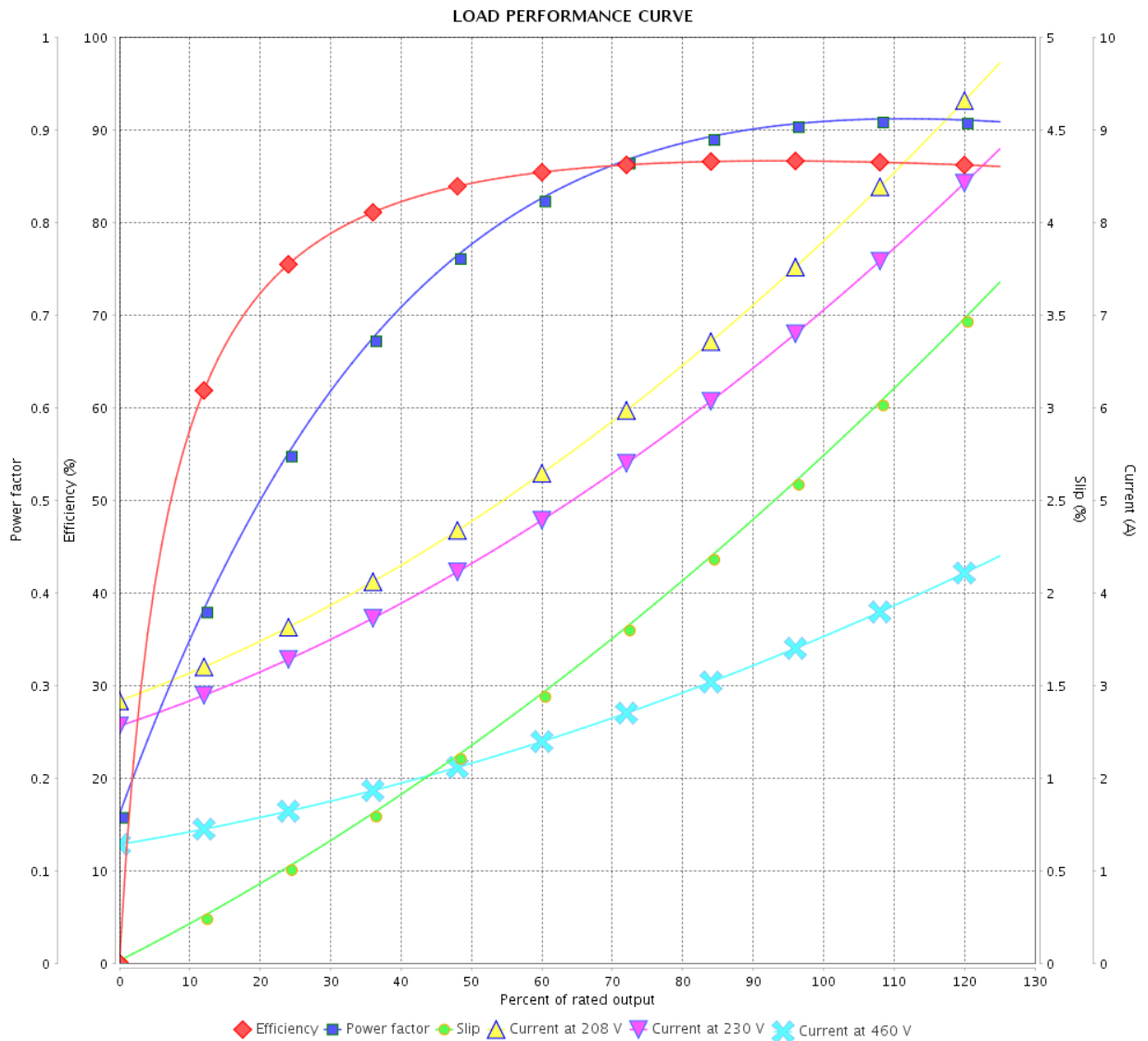


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Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A
 LRC : 9.5
 Rated torque : 4.50 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 380 %
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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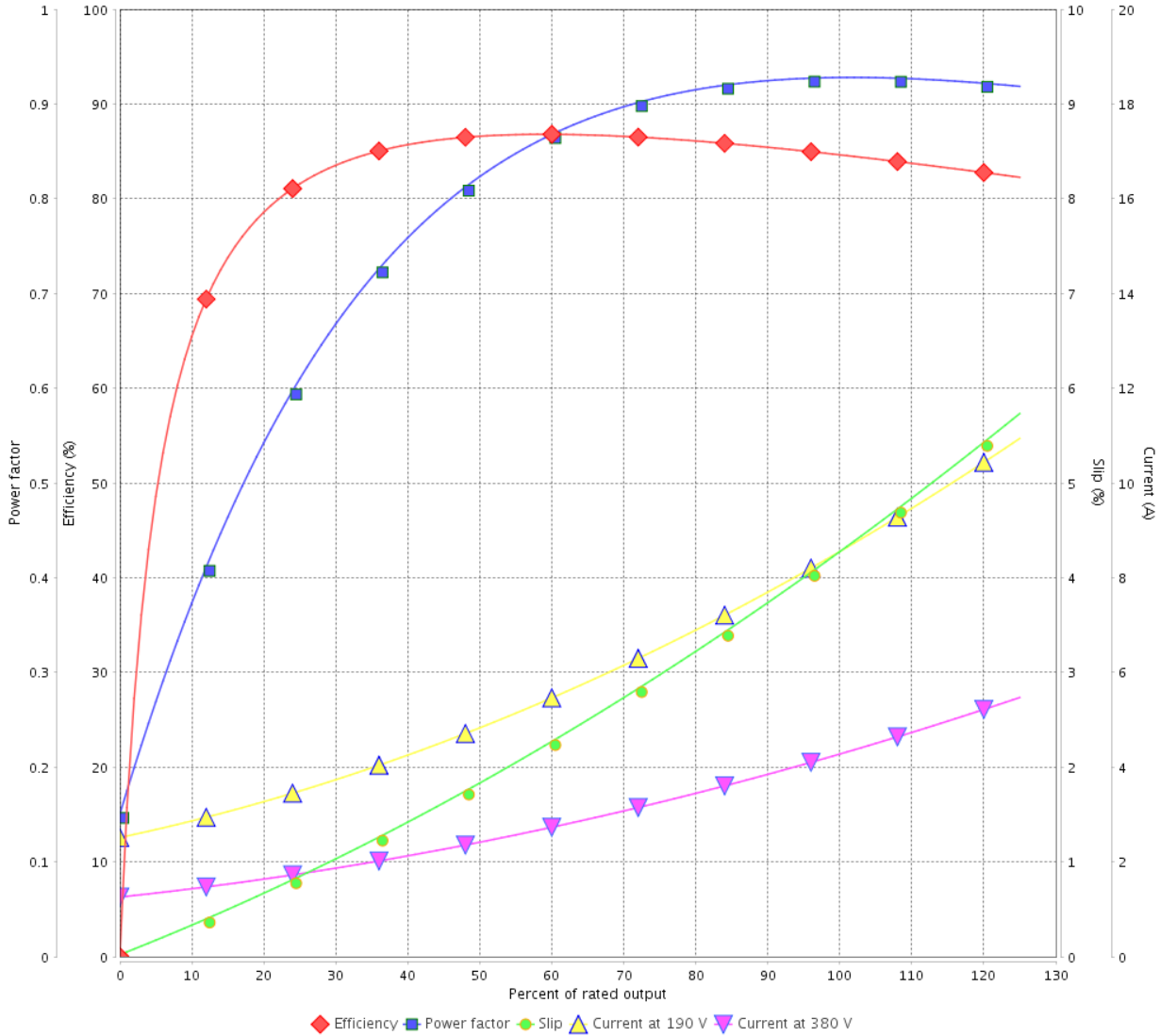
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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A
 LRC : 7.4
 Rated torque : 5.49 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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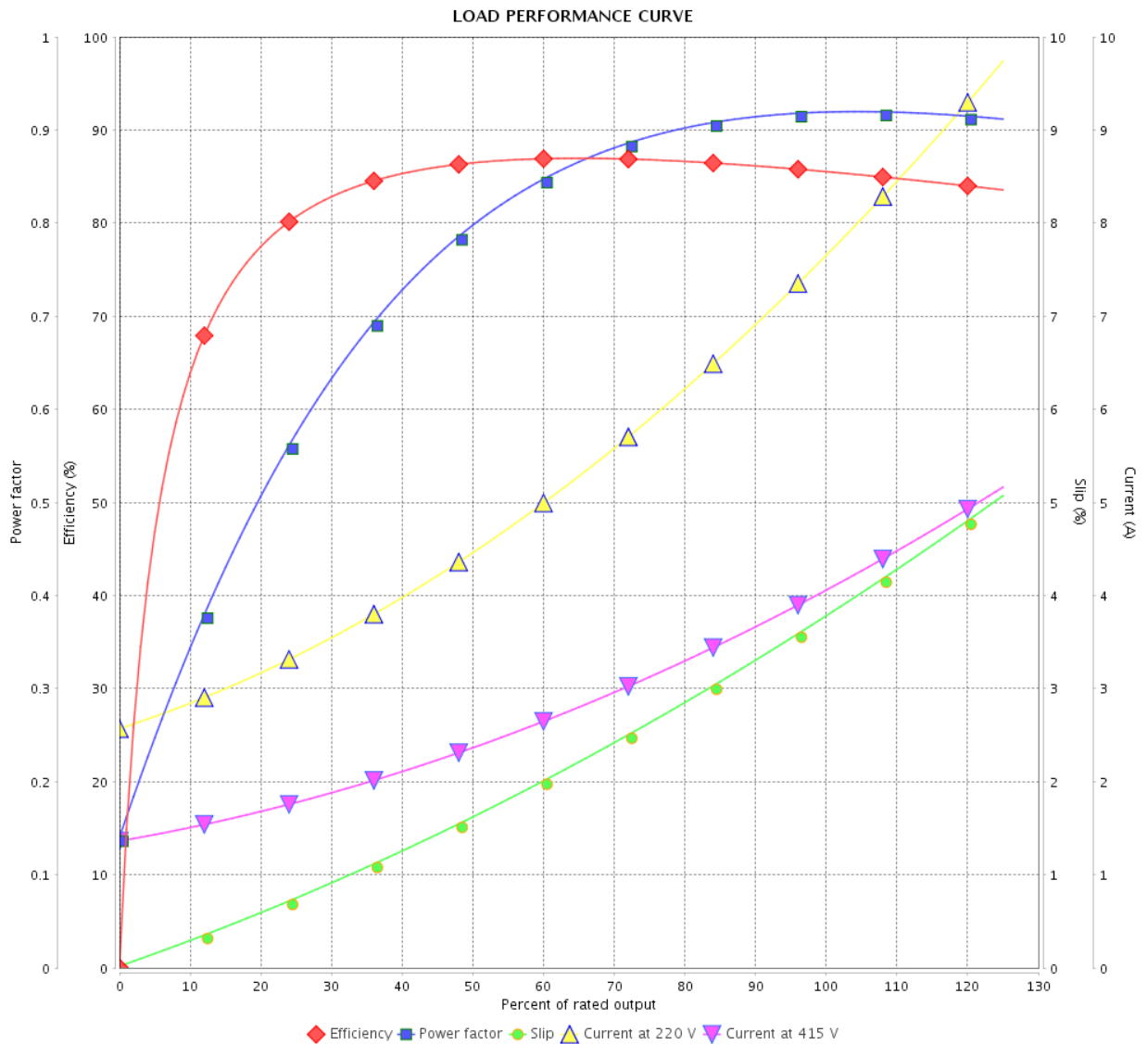


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THERMAL LIMIT CURVE



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Rated torque	: 4.50 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	:
Breakdown torque	: 380 %	Temperature rise	: 80 K
Rated speed	: 3500 rpm	Design	: B

Heating constant

Cooling constant

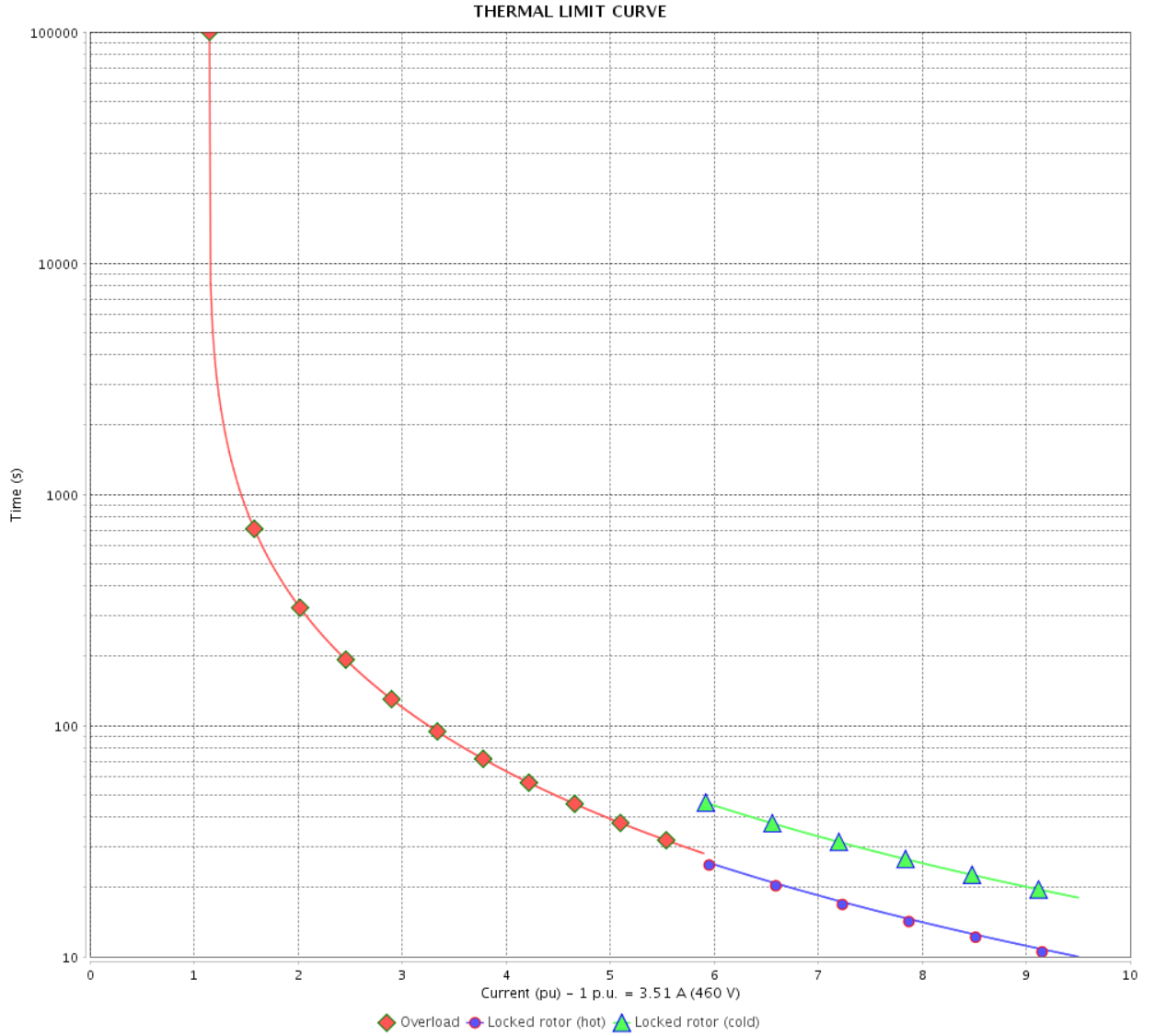
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THERMAL LIMIT CURVE



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Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A	Moment of inertia (J) : 0.1663 sq.ft.lb
LRC : 7.4	Duty cycle : Cont.(S1)
Rated torque : 5.49 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.15
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 2870 rpm	Design : B

Heating constant

Cooling constant

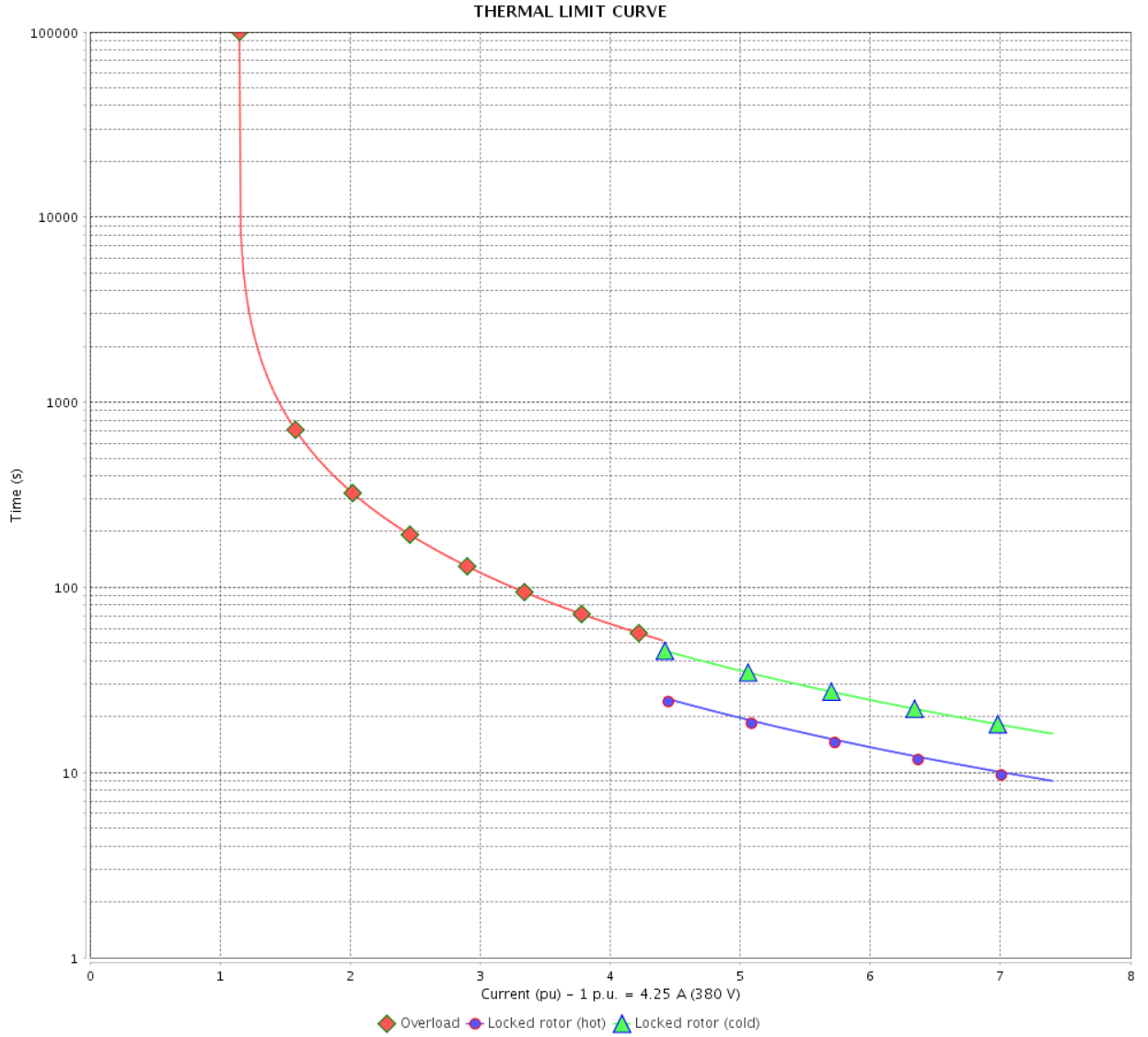
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Locked rotor torque	: 270 %	Service factor	: 1.15
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Cooling constant

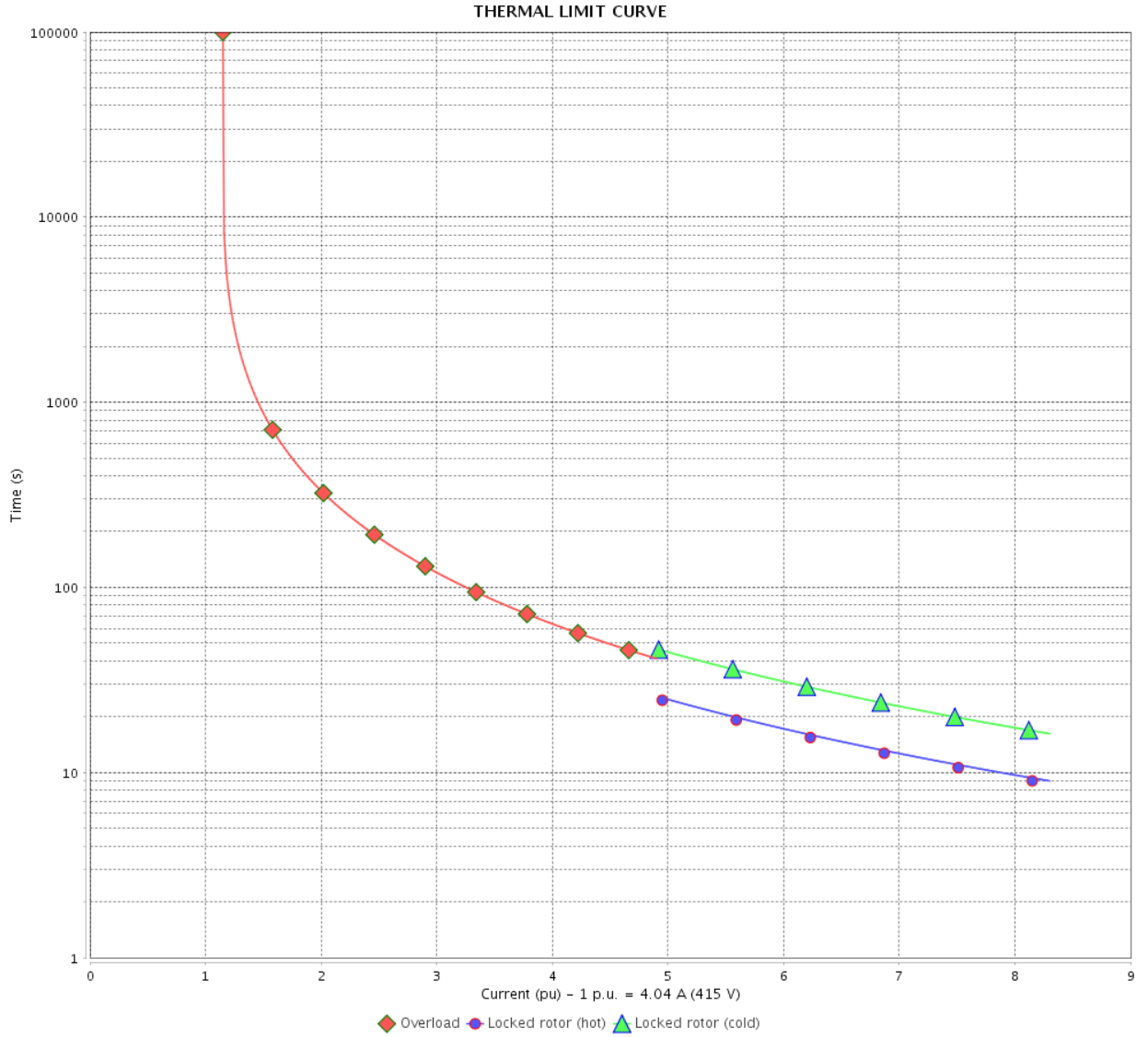
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VFD OPERATION CURVE

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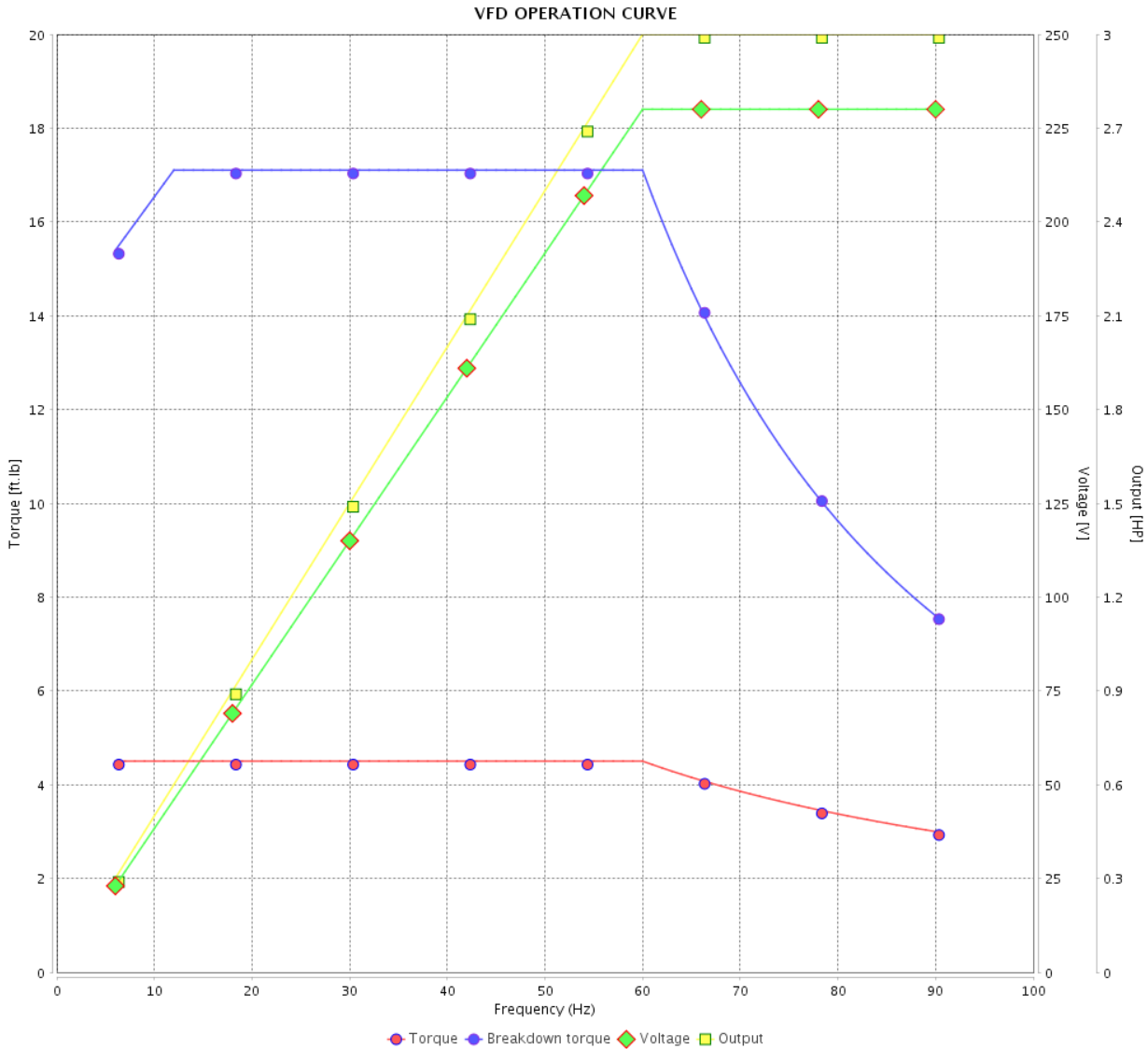


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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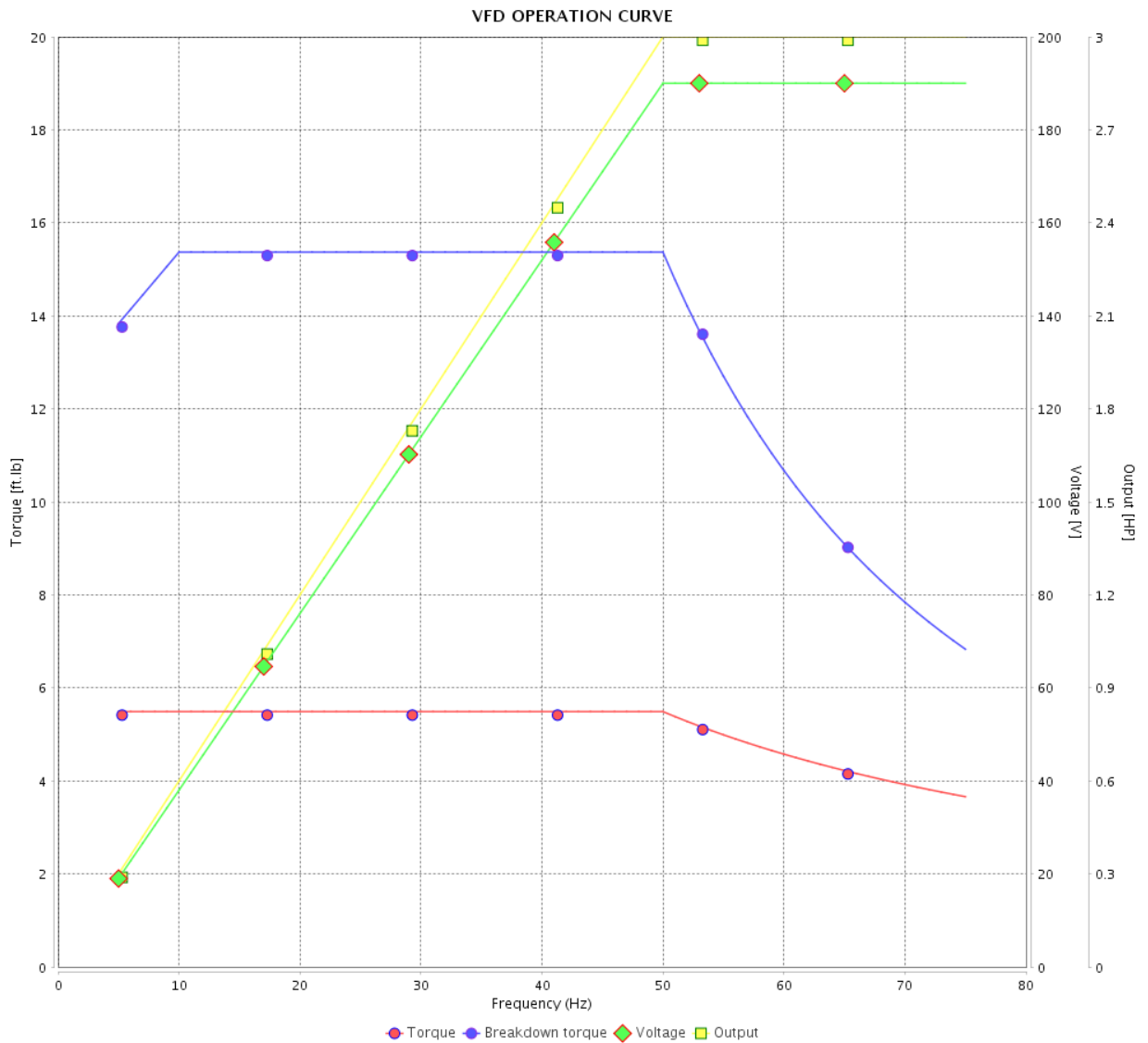


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 Design : B

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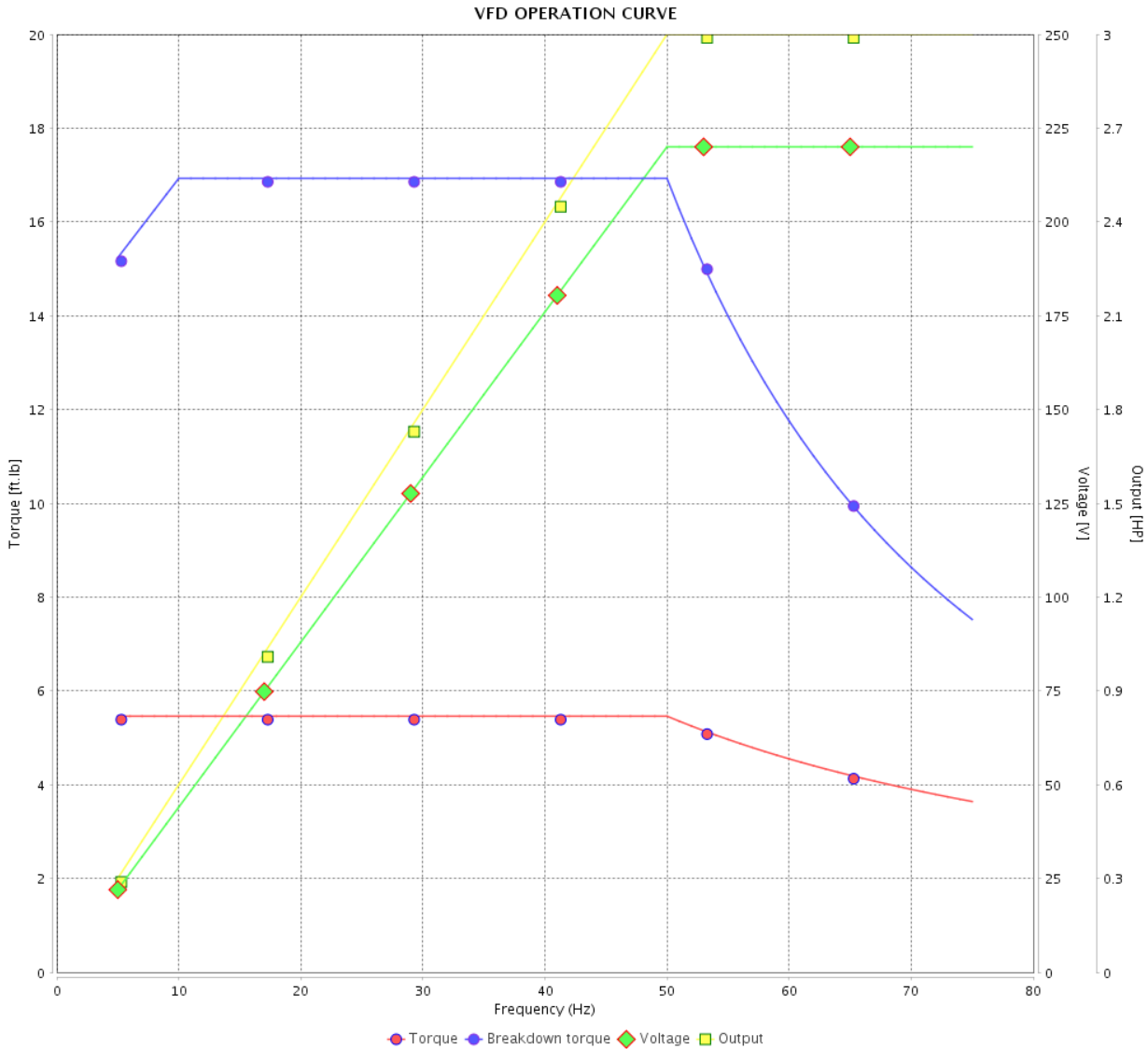


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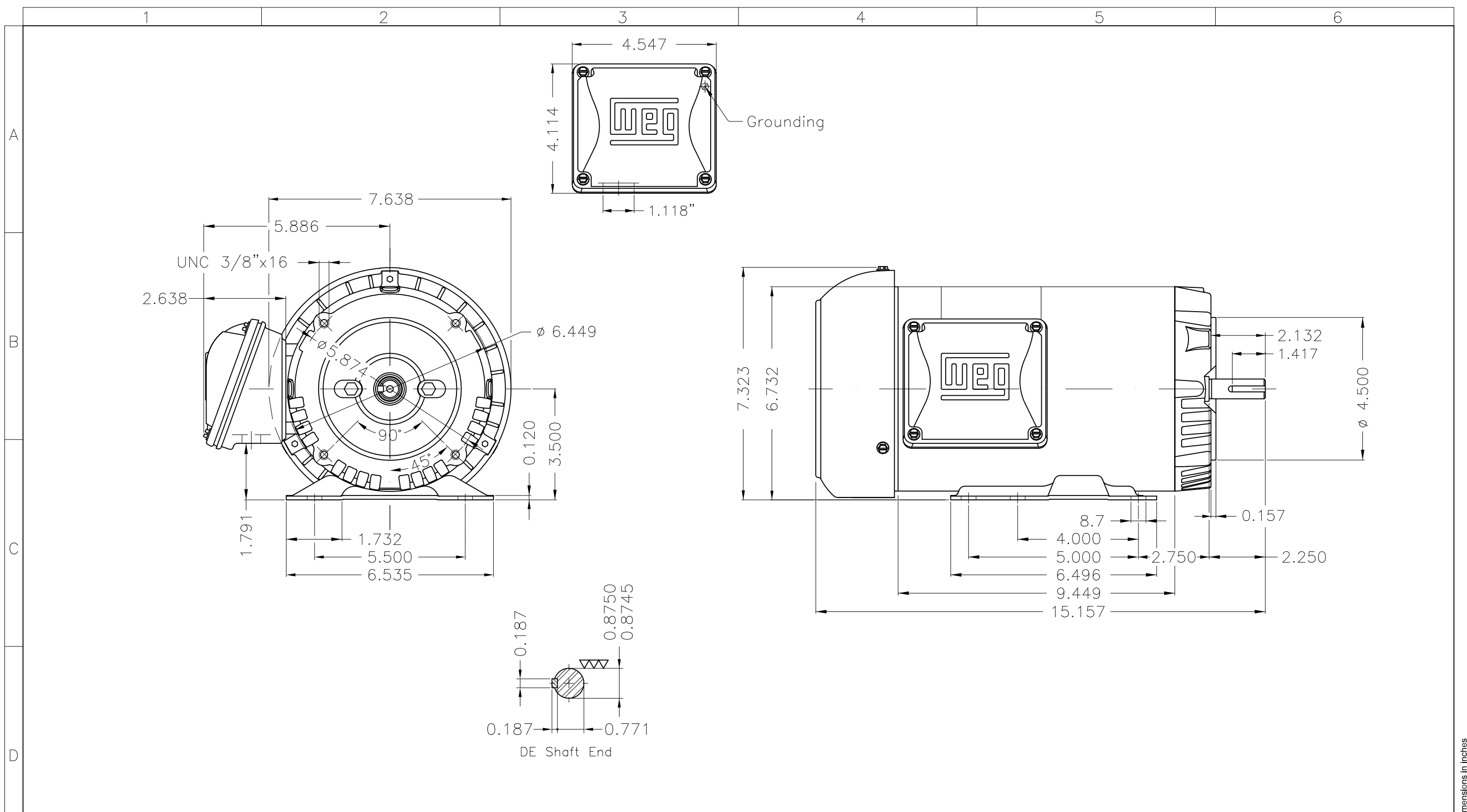



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Fan cover - steel plate										
Color Munsell N 1 matte black										
Painting plan 207N										
Mounting F-1/B34R(D)										
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					PREVIEW WDD			
CHECKED		FRAME 143/5TC IP55 TEFC								
RELEASED										
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

3 HP 02 Poles 60 Hz

Dimensions in inches XME A3



NEMA
Premium



MADE IN BRAZIL

MAT: 14802850 CC029A

W01.TE0IC0X0N

MODEL 00336ET3E145TC-S

08APR2022 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 3.0
FR 143/5TC		KW 2.2
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 7.02/3.51
INS CL F AT 80K	IP55	SFA 8.07/4.04
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE K	PF 0.91
USABLE @ 208V 7.76A		RPM 3500
SF1.00		NEMA NOM. EFF 86.5%

ALTERNATE RATING: 3.0HP 50Hz 190-220/380-415V SF1.15
8.50-7.38/4.25-3.91A 2870RPM EFF 84.6% (IE2) 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
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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.

