

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	14788057	
		Catalog # :	00112ET3ER145TC-S	
Frame	: 143/5TC	Cooling method	: IC411 - TEFC	
Insulation class	: F	Mounting	: W-6	
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	: 38.2 lb	
Protection degree	: IP55	Moment of inertia (J)	: 0.1597 sq.ft.lb	
Design	: B			
Output [HP]	1	1	1	
Poles	6	6	6	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	3.16/1.58	3.74/1.87	3.41/1.81	
L. R. Amperes [A]	18.3/9.16	16.5/8.23	16.7/8.87	
LRC [A]	5.8x(Code J)	4.4x(Code F)	4.9x(Code G)	
No load current [A]	2.03/1.01	2.00/1.00	2.02/1.07	
Rated speed [RPM]	1145	915	930	
Slip [%]	4.58	8.50	7.00	
Rated torque [ft.lb]	4.59	5.74	5.65	
Locked rotor torque [%]	229	170	200	
Breakdown torque [%]	280	200	229	
Service factor		1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	55s (cold) 31s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	50.0 dB(A)	47.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%	79.5	82.0	80.4
	50%	80.0	80.1	79.4
	75%	82.5	80.1	80.4
	100%	82.5	77.3	78.6
Power Factor	25%	0.28	0.33	0.31
	50%	0.50	0.58	0.54
	75%	0.63	0.71	0.68
	100%	0.72	0.79	0.76
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	: 94 lb	
		Max. compression	: 132 lb	
Lubrication interval	: -			
Lubricant amount	: -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 3.49A SF 1.00 SFA 3.49A				
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



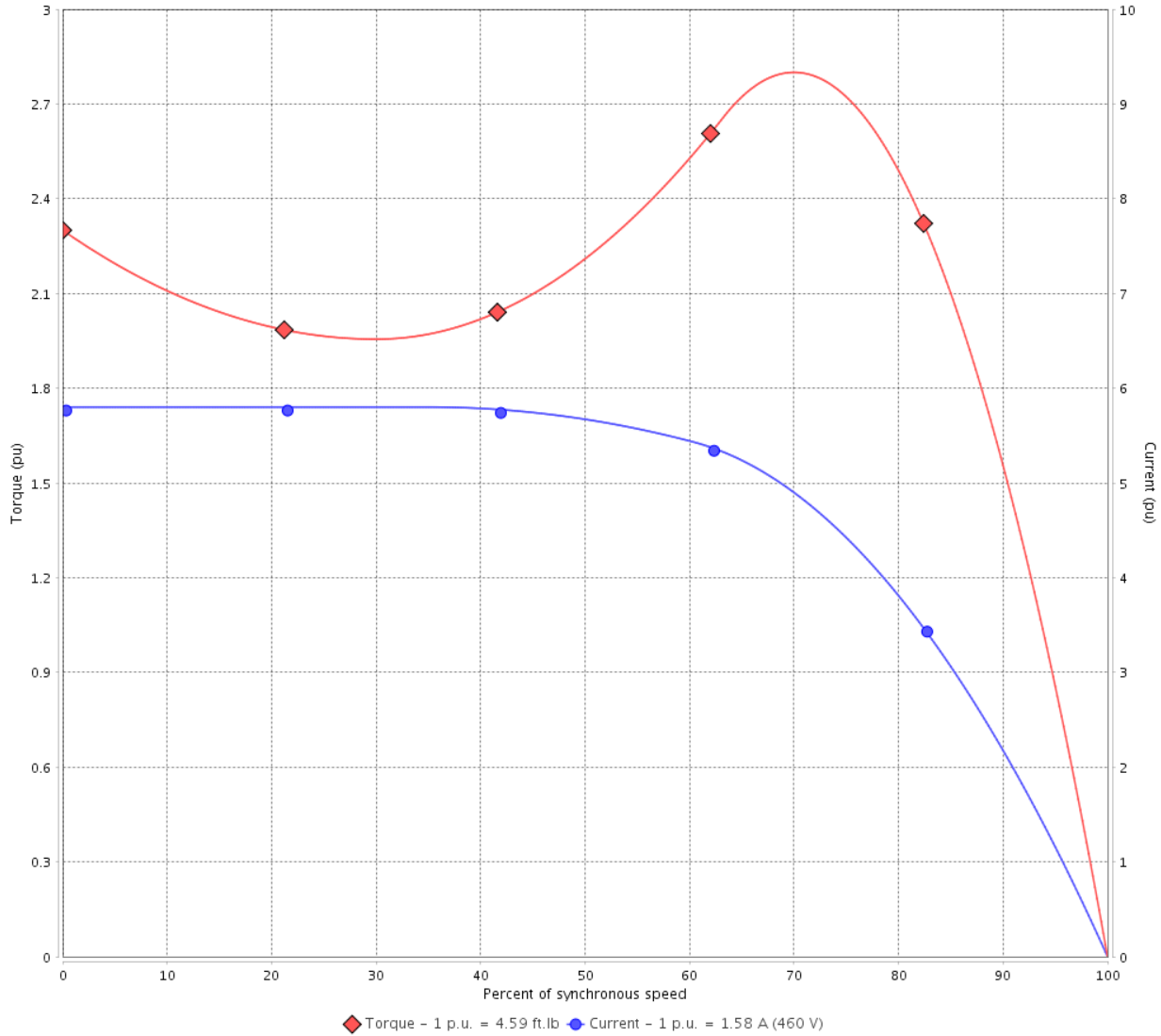
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14788057

Catalog # : 00112ET3ER145TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 3.16/1.58 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.59 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1145 rpm	Design	: B

Locked rotor time : 55s (cold) 31s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



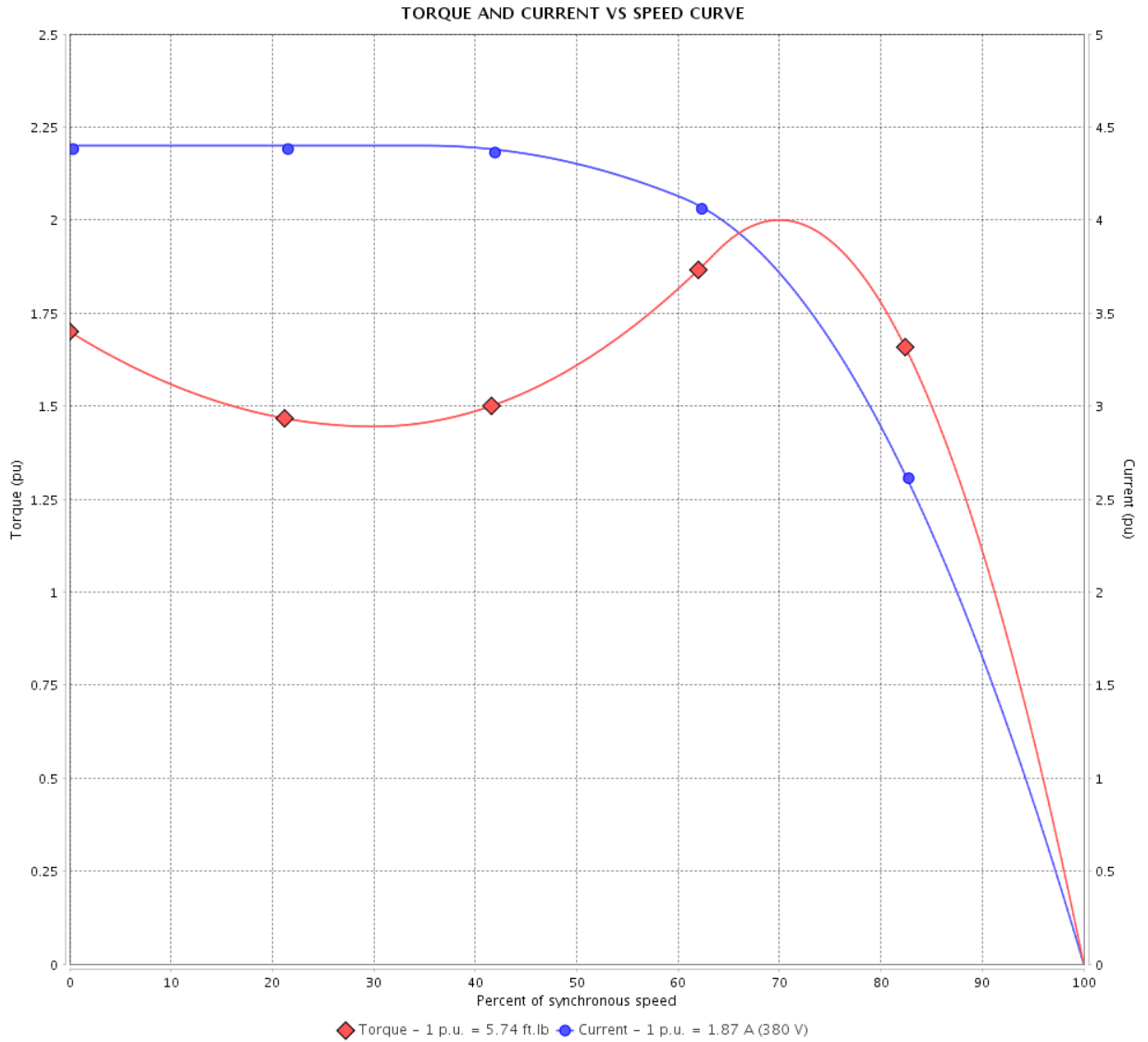
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14788057

Catalog # : 00112ET3ER145TC-S



Performance : 190/380 V 50 Hz 6P

Rated current	: 3.74/1.87 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.74 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 915 rpm	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

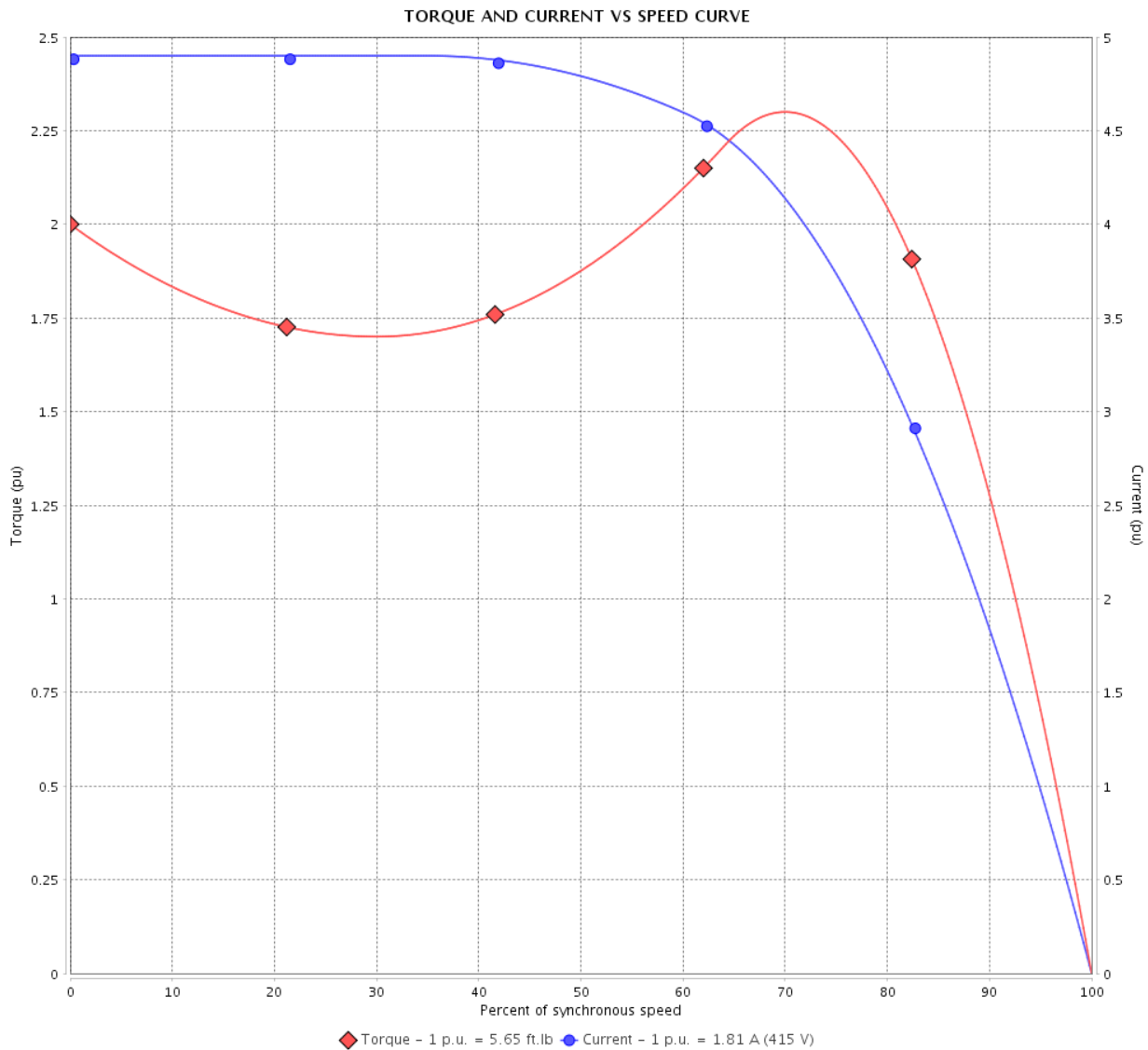


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14788057

Catalog # : 00112ET3ER145TC-S



Performance : 220/415 V 50 Hz 6P

Rated current	: 3.41/1.81 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.9	Duty cycle	: Cont.(S1)
Rated torque	: 5.65 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 930 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

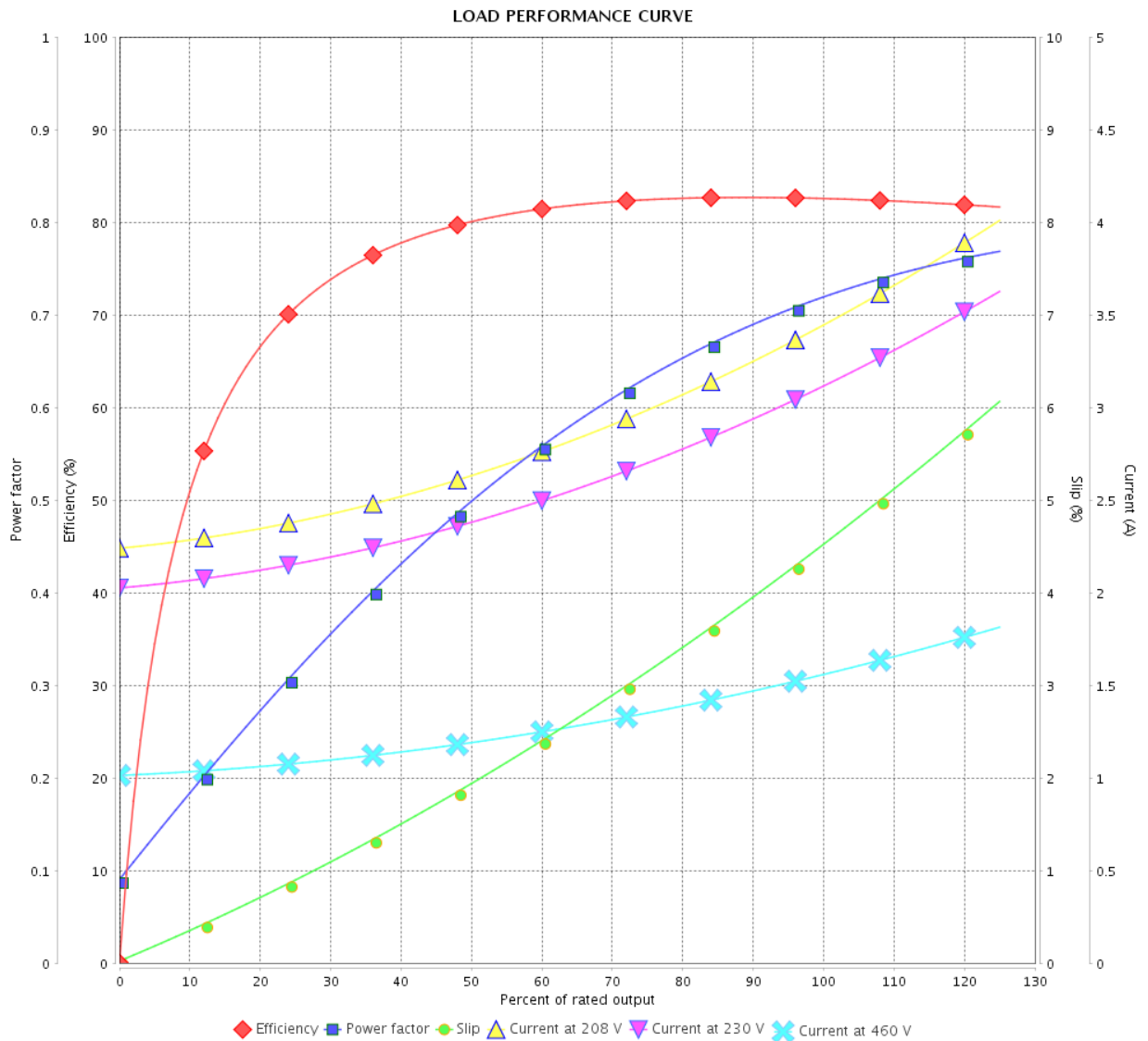


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Product line : NEMA Premium Efficiency Three-Phase

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Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A
 LRC : 5.8
 Rated torque : 4.59 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



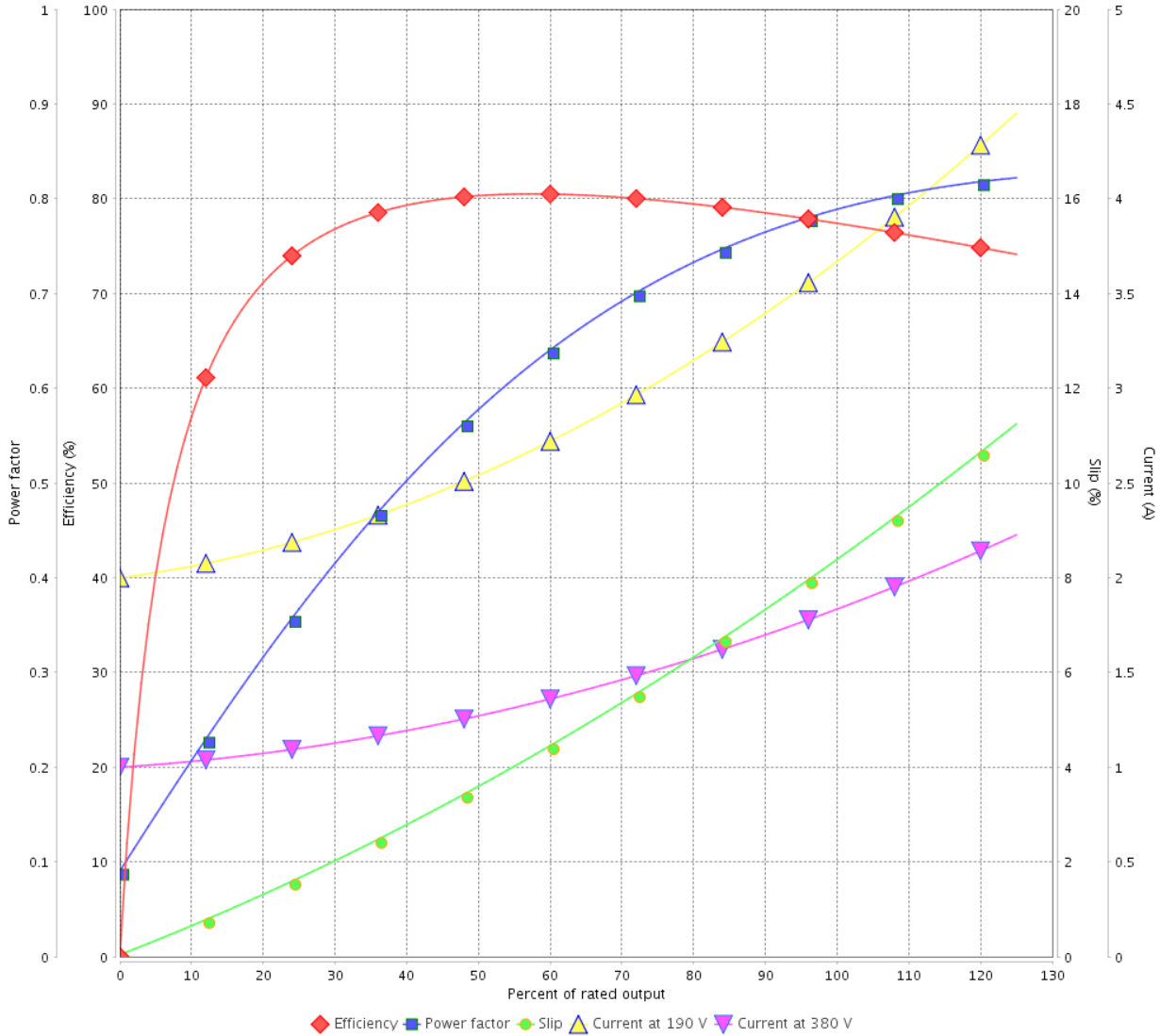
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Product code : 14788057

Catalog # : 00112ET3ER145TC-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A
 LRC : 4.4
 Rated torque : 5.74 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 200 %
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb
 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

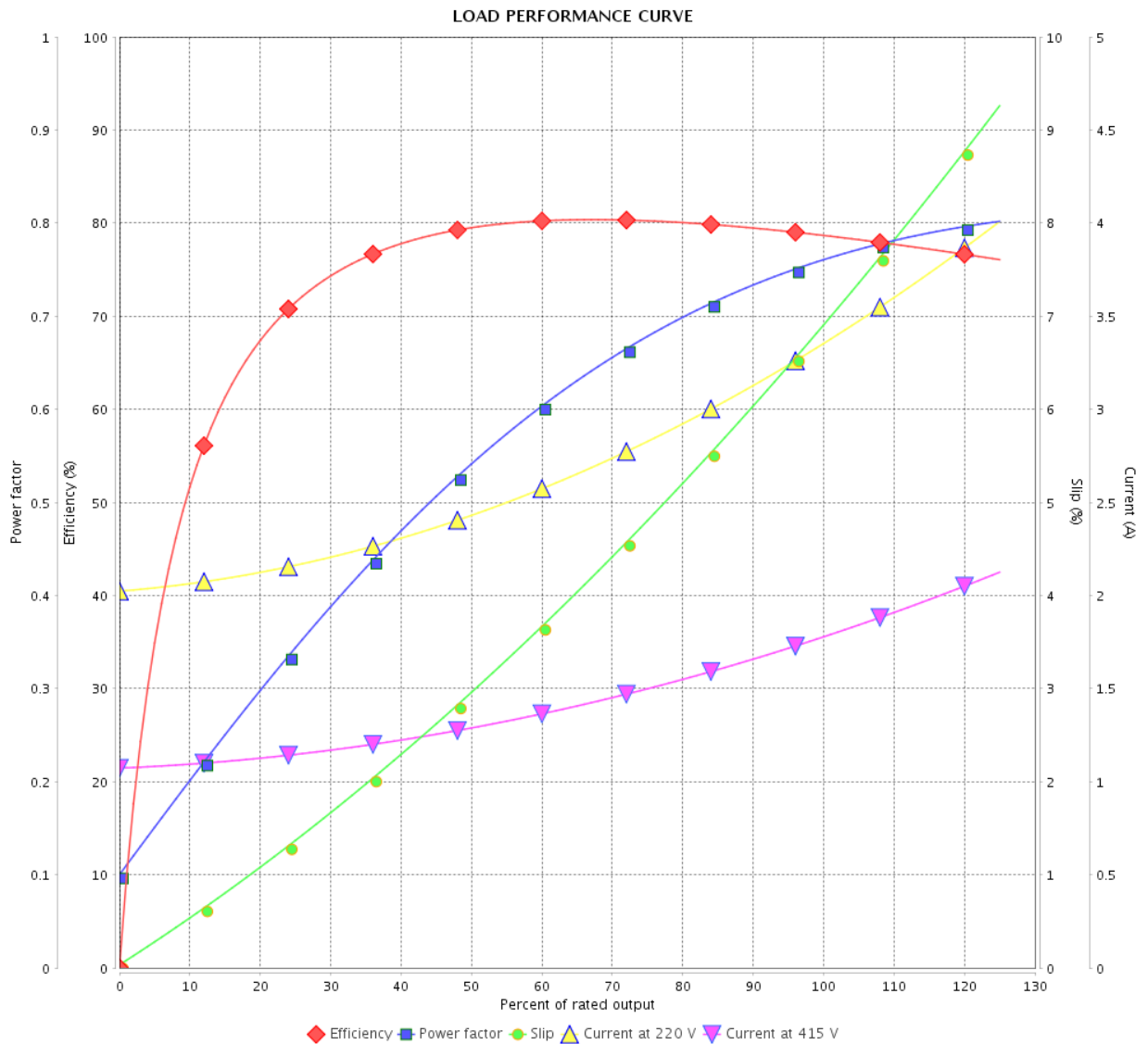


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 Duty cycle : Cont.(S1)
 Insulation class : F
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 Temperature rise : 105 K
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THERMAL LIMIT CURVE



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LRC : 5.8	Duty cycle : Cont.(S1)
Rated torque : 4.59 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor :
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 1145 rpm	Design : B

Heating constant

Cooling constant

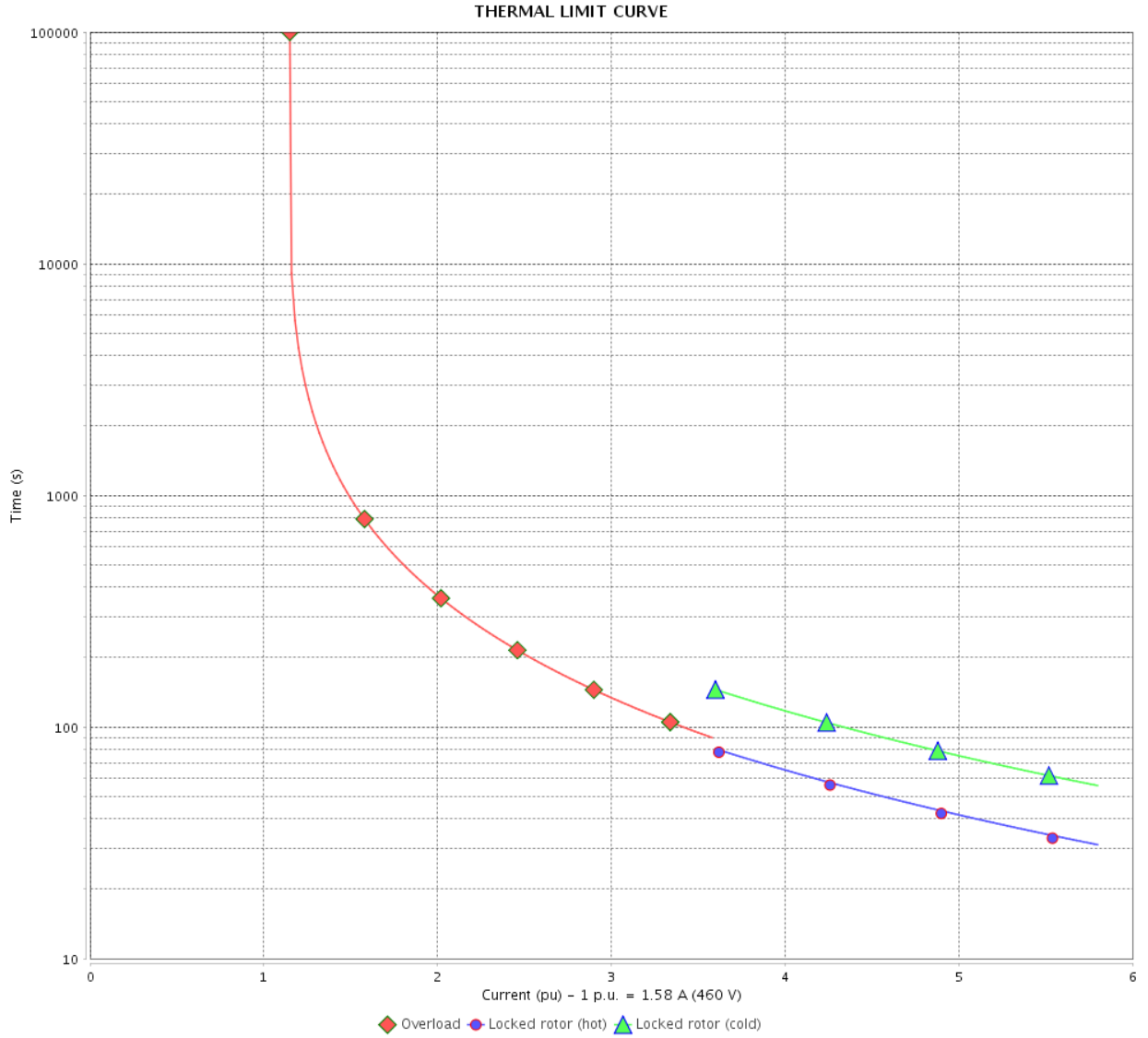
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THERMAL LIMIT CURVE

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Rated current : 3.74/1.87 A	Moment of inertia (J) : 0.1597 sq.ft.lb
LRC : 4.4	Duty cycle : Cont.(S1)
Rated torque : 5.74 ft.lb	Insulation class : F
Locked rotor torque : 170 %	Service factor : 1.00
Breakdown torque : 200 %	Temperature rise : 105 K
Rated speed : 915 rpm	Design : B

Heating constant

Cooling constant

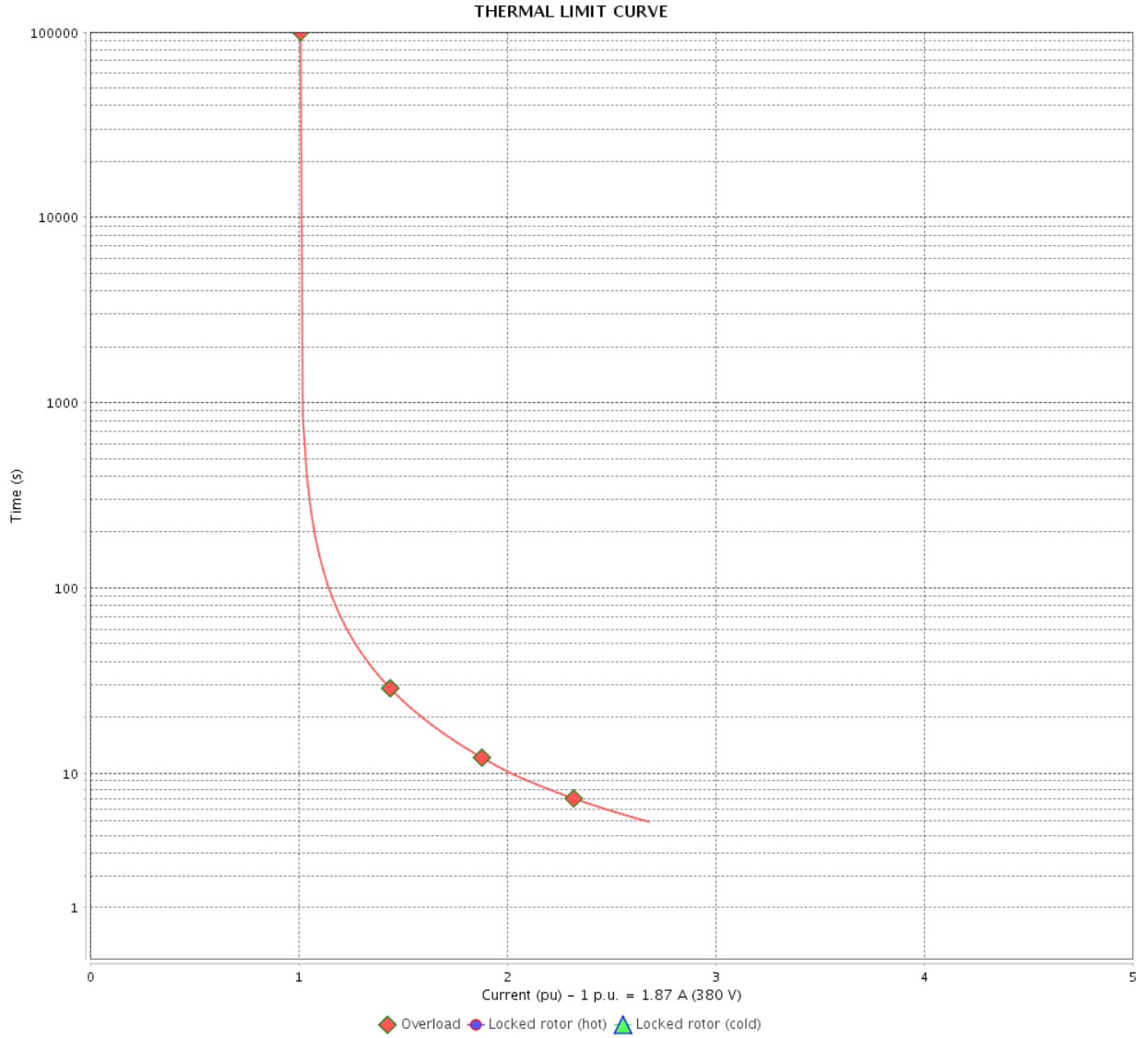
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Rated current : 3.41/1.81 A	Moment of inertia (J) : 0.1597 sq.ft.lb
LRC : 4.9	Duty cycle : Cont.(S1)
Rated torque : 5.65 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
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Rated speed : 930 rpm	Design : B

Heating constant

Cooling constant

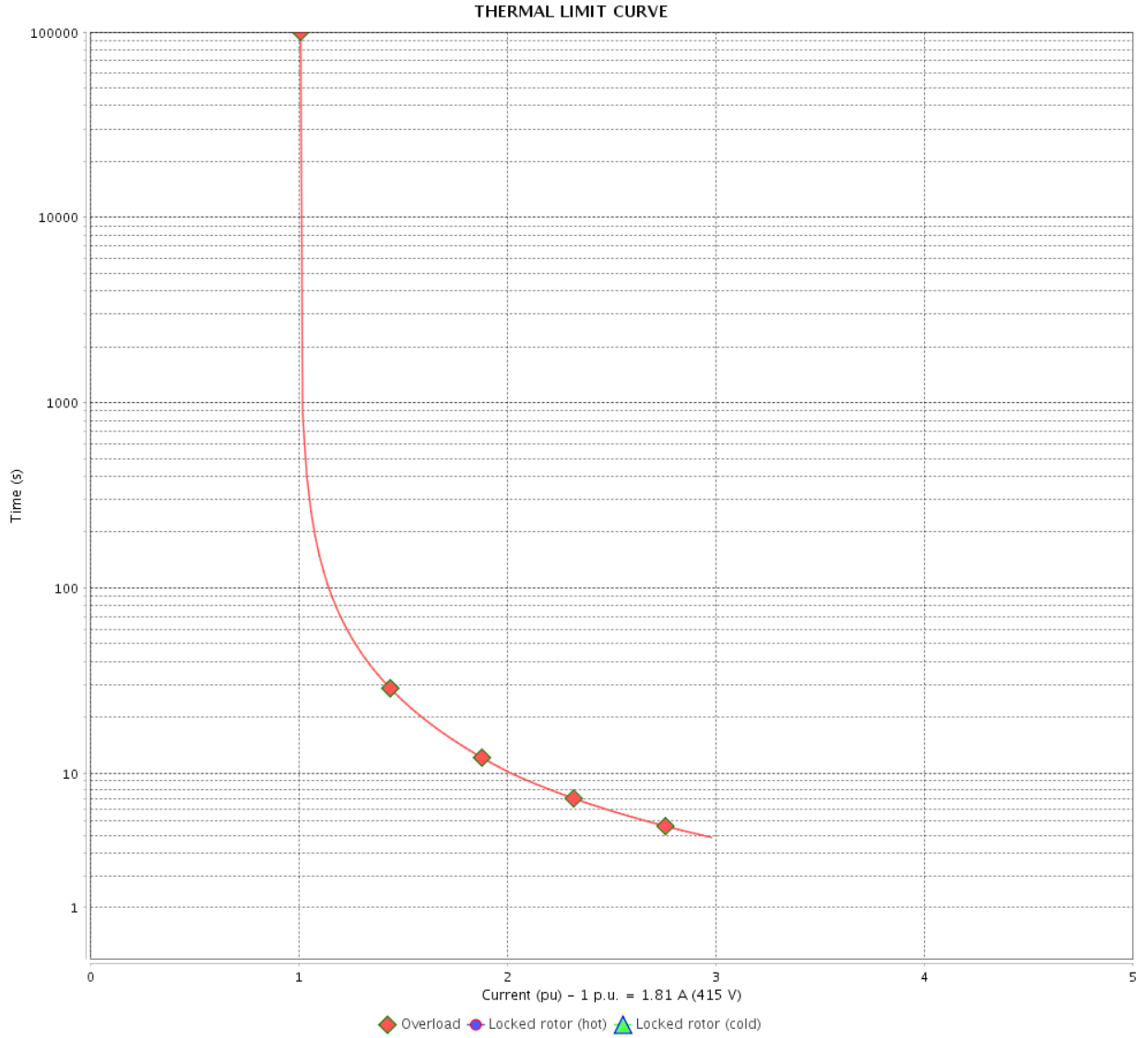
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



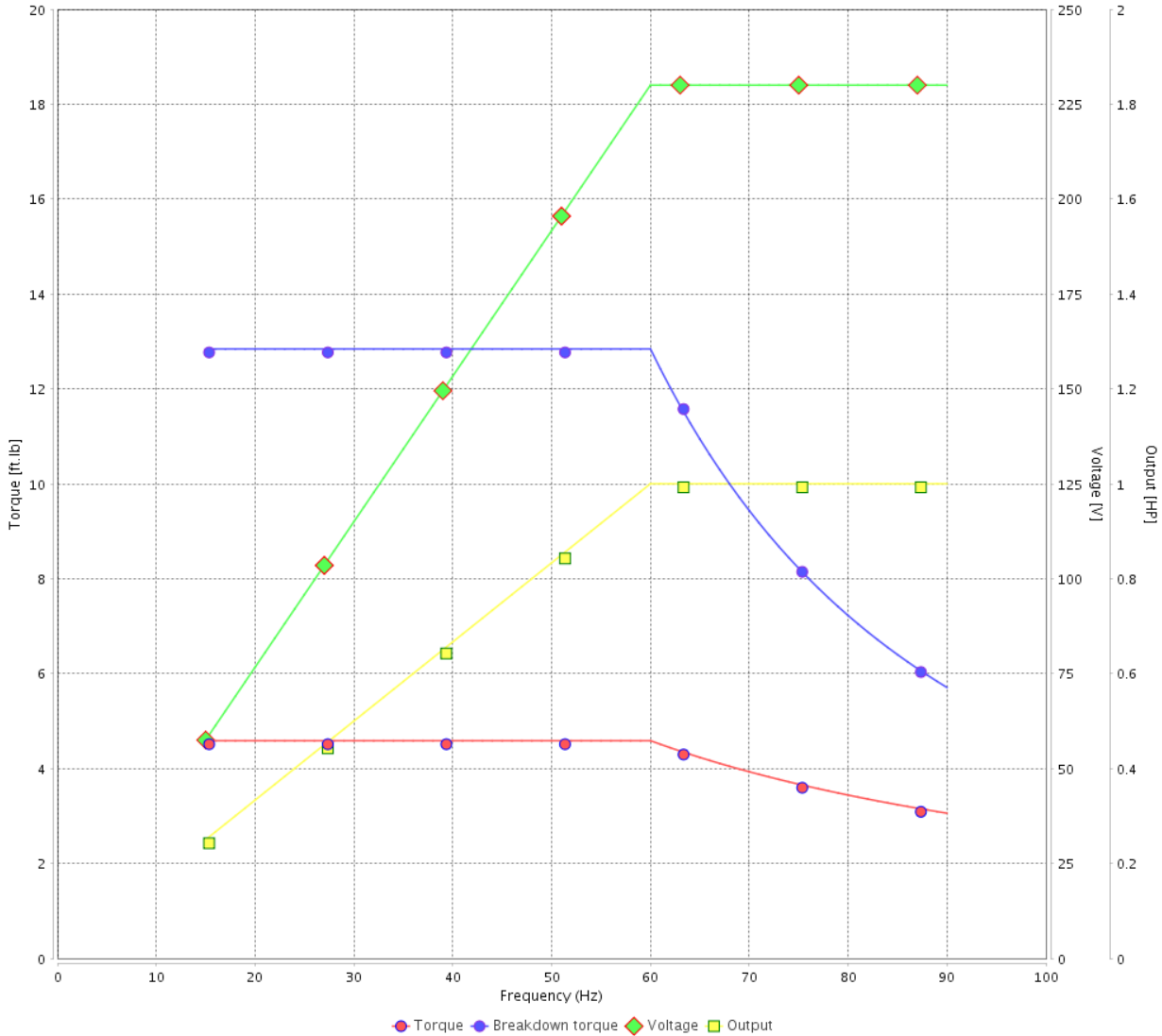
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VFD OPERATION CURVE



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 Breakdown torque : 280 %
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

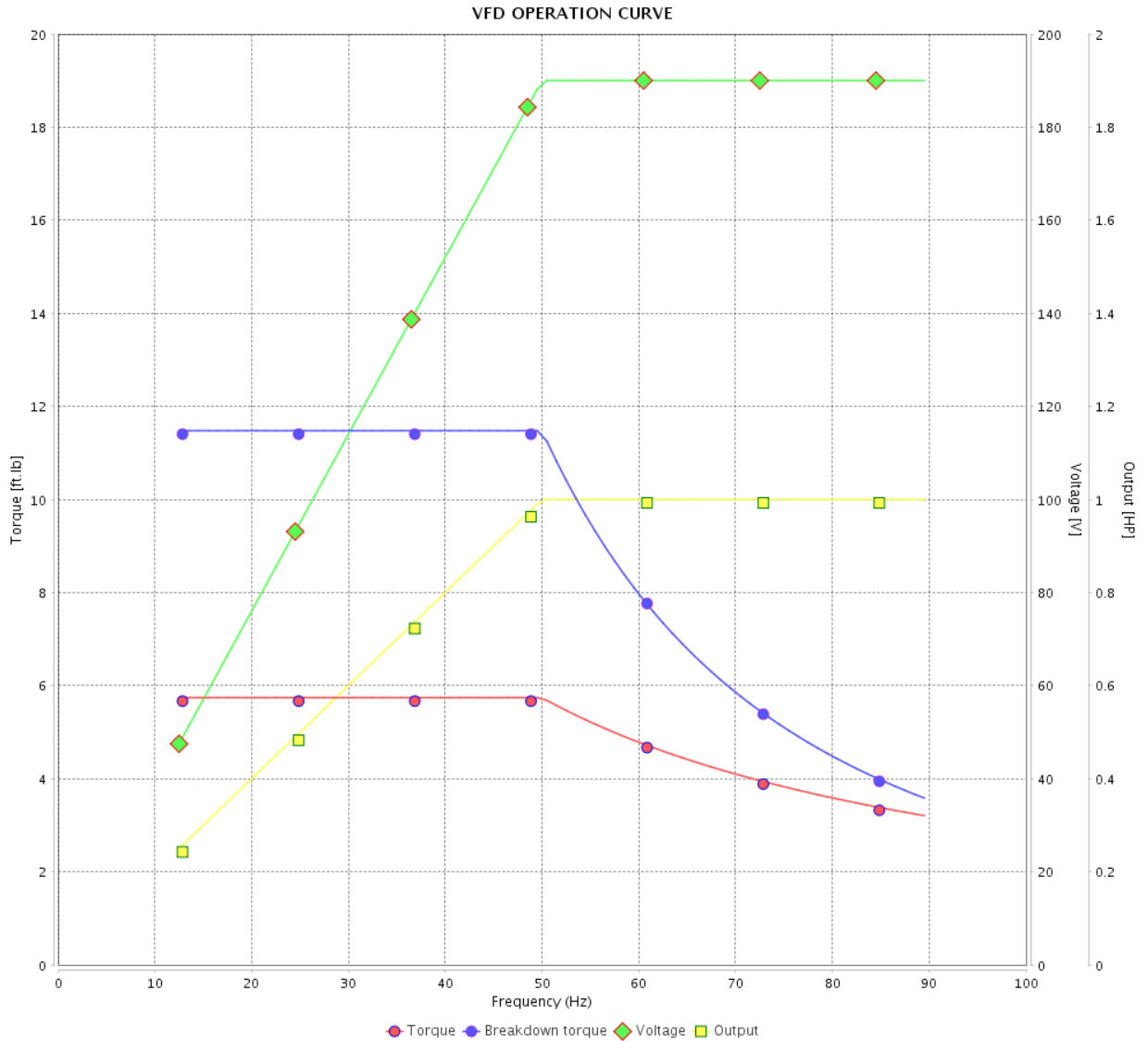


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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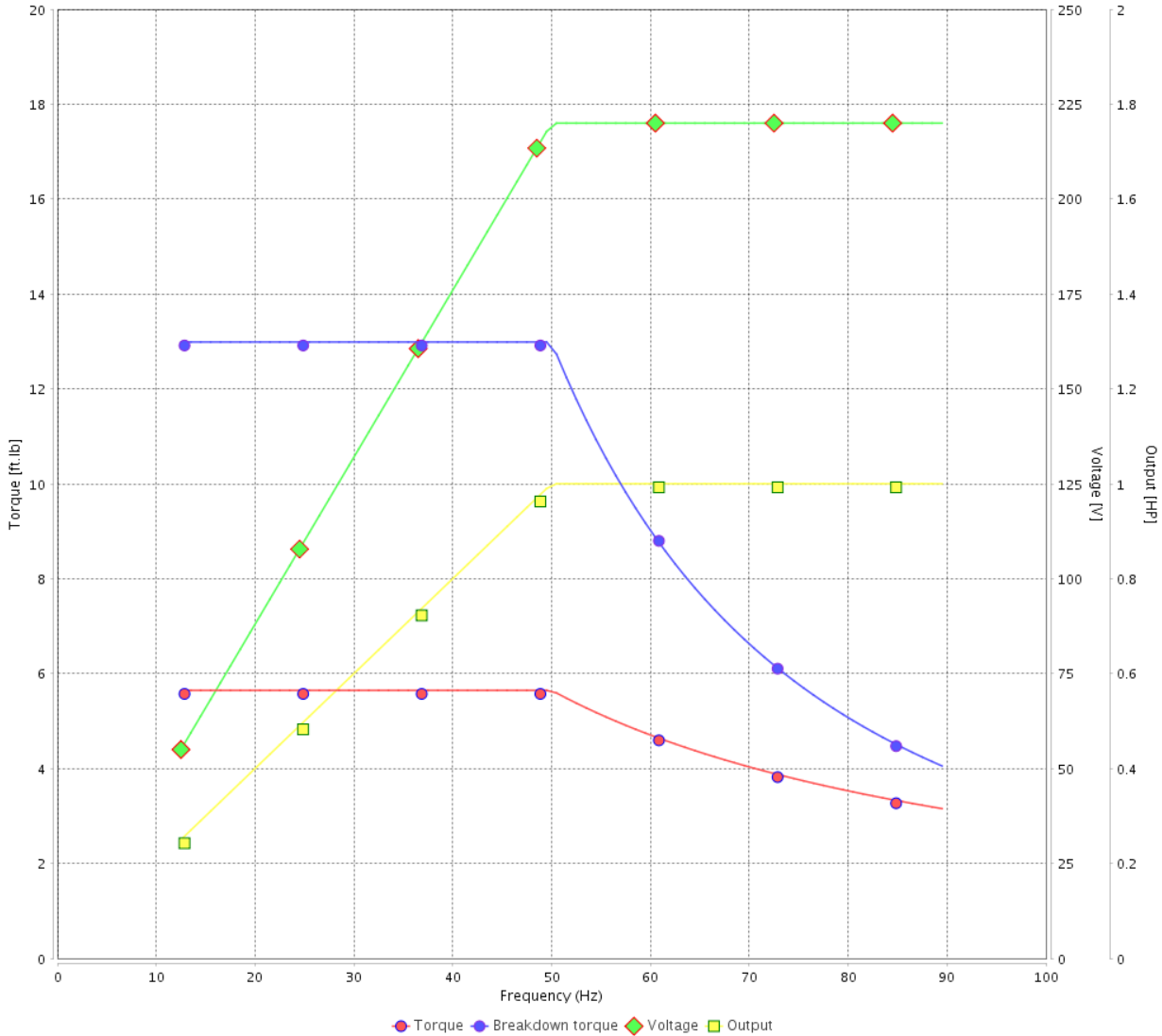
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 Design : B

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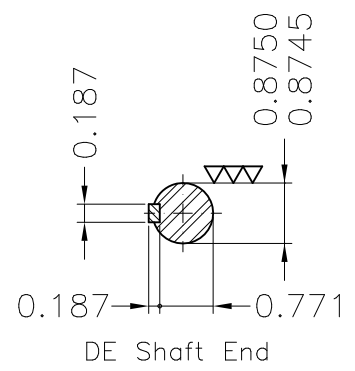
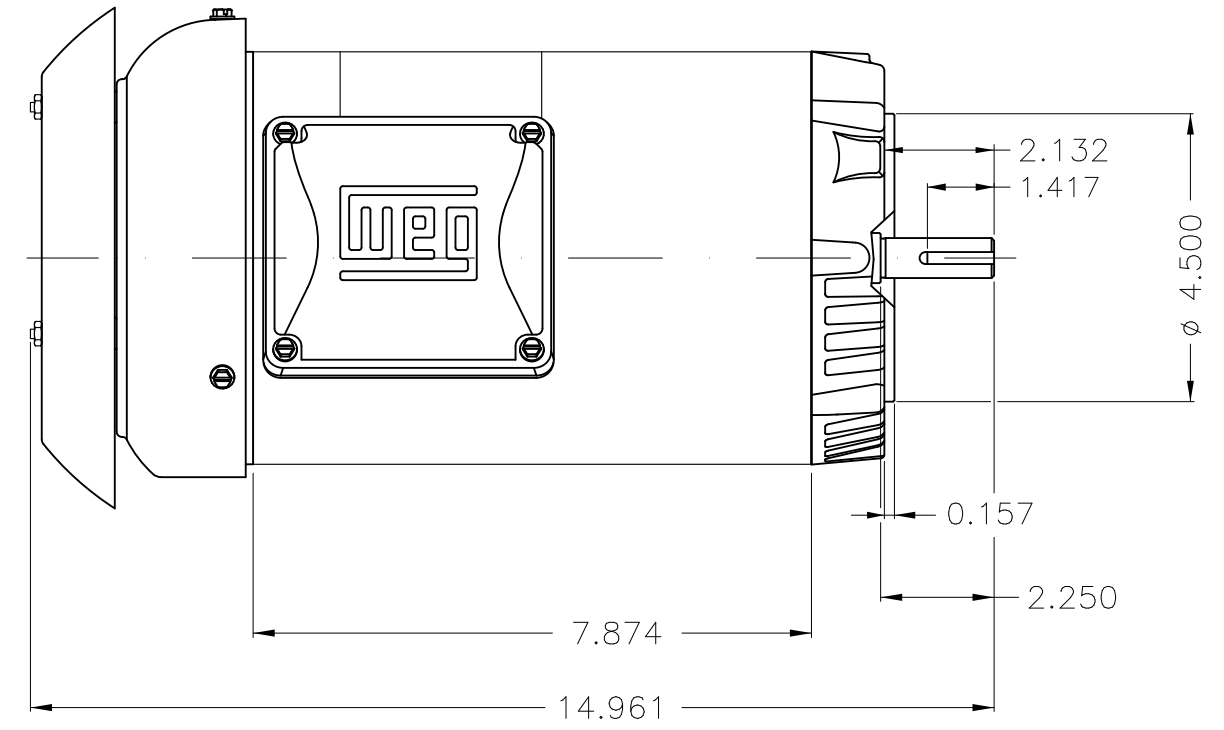
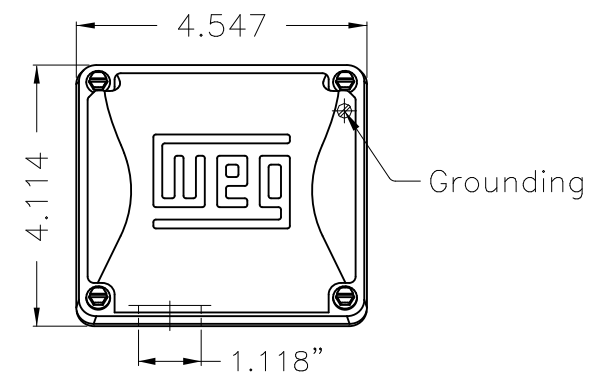
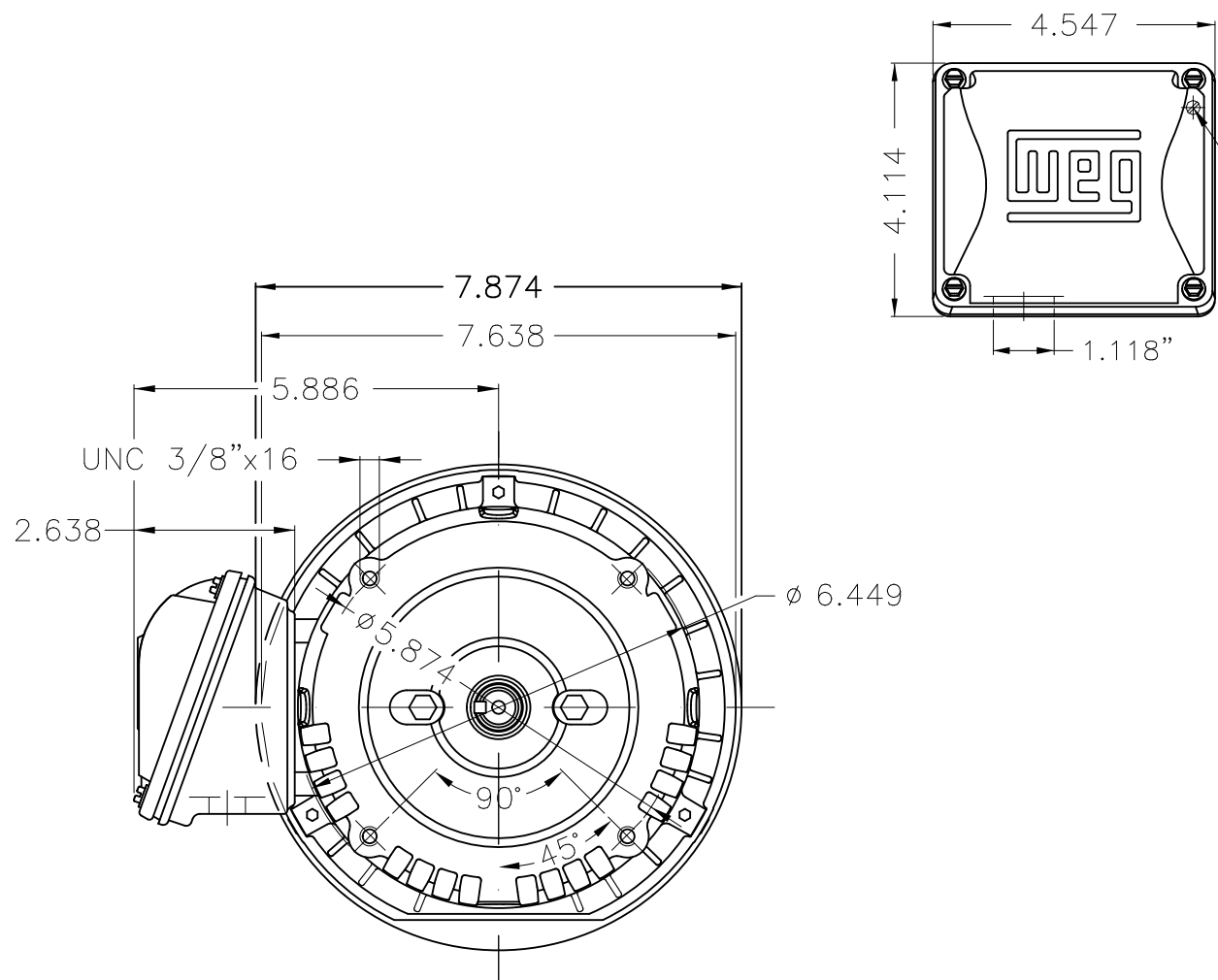
A

B

C

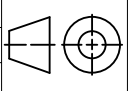
D

E



Dimensions in inches

Fan cover - steel plate
 Color Munsell N 1 matte black
 Painting plan 207N
 Mounting W-6/V18R(D)

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

PREVIEW
 WDD



1 HP 06 Poles 60 Hz



NEMA
Premium



3PT9



Energy Verified

MADE IN MEXICO

MAT: 14788057 CC029A

W01.TE0IC0X0N

MODEL 00112ET3ER145TC-S

25MAR2022 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 1.0
FR 143/5TC		KW 0.75
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 3.16/1.58
INS CL F AT 80K	IP55	SFA 3.63/1.82
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE J	PF 0.72
USABLE @ 208V 3.49A		RPM 1145
SF1.00		NEMA
		NOM. EFF 82.5%

ALTERNATE RATING: 1.0HP 50Hz 190-220/380-415V SF1.00
3.74-3.36/1.87-1.78A 915RPM EFF 77.3% (IE2) IEC 60034-1

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 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.

