

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase			
Product code :	13163453			
Catalog # :	01536ET3E254TC-SG			
Frame	: 254/6TC			
Insulation class	: F			
Duty cycle	: Cont.(S1)			
Ambient temperature	: -20°C to +40°C			
Altitude	: 1000 m.a.s.l.			
Protection degree	: IP55			
Design	: B			
Cooling method	: IC411 - TEFC			
Mounting	: F-1			
Rotation ¹	: Both (CW and CCW)			
Starting method	: Direct On Line			
Approx. weight ²	: 175 lb			
Moment of inertia (J)	: 0.8718 sq.ft.lb			
Output [HP]	15	12.5	12.5	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	34.8/17.4	35.4/17.7	32.3/17.1	
L. R. Amperes [A]	237/118	244/122	245/130	
LRC [A]	6.8x(Code G)	6.9x(Code H)	7.6x(Code J)	
No load current [A]	13.0/6.50	13.6/6.80	13.9/7.39	
Rated speed [RPM]	3525	2920	2930	
Slip [%]	2.08	2.67	2.33	
Rated torque [ft.lb]	22.3	22.5	22.4	
Locked rotor torque [%]	200	190	210	
Breakdown torque [%]	300	290	330	
Service factor	1.15	1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	25s (cold) 14s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	75.0 dB(A)	72.0 dB(A)	72.0 dB(A)	
Efficiency (%)	25%	89.2	90.7	90.1
	50%	89.5	90.2	90.0
	75%	91.0	90.6	90.7
	100%	91.0	89.8	90.3
Power Factor	25%	0.47	0.47	0.43
	50%	0.73	0.74	0.70
	75%	0.83	0.84	0.81
	100%	0.87	0.88	0.86
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads		
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 267 lb	
Lubrication interval	: 15797 h 20000 h	Max. compression	: 442 lb	
Lubricant amount	: 13 g 8 g			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 38.5A SF 1.00 SFA 38.5A				
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



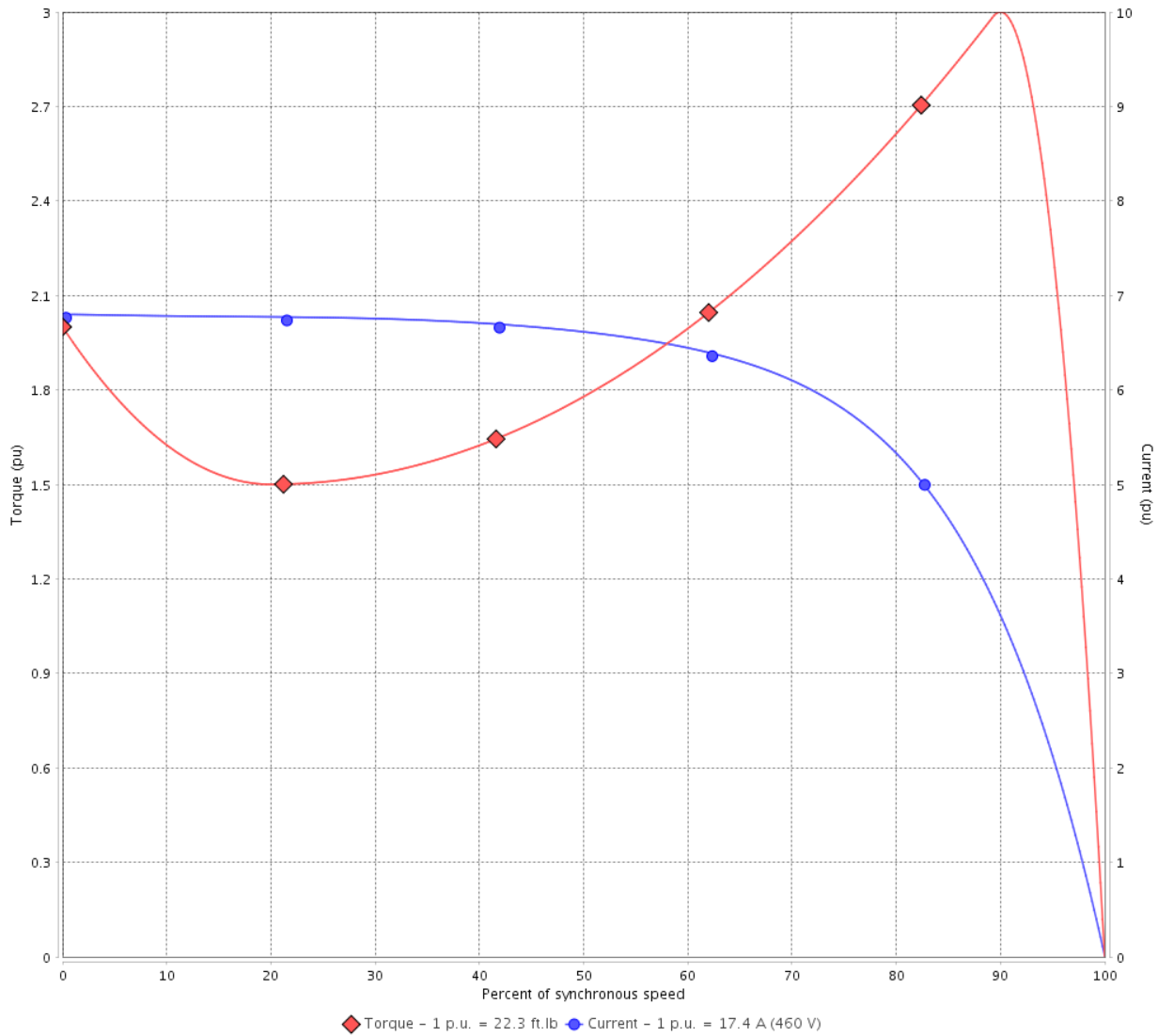
Customer :

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Catalog # : 01536ET3E254TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 34.8/17.4 A	Moment of inertia (J)	: 0.8718 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3525 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



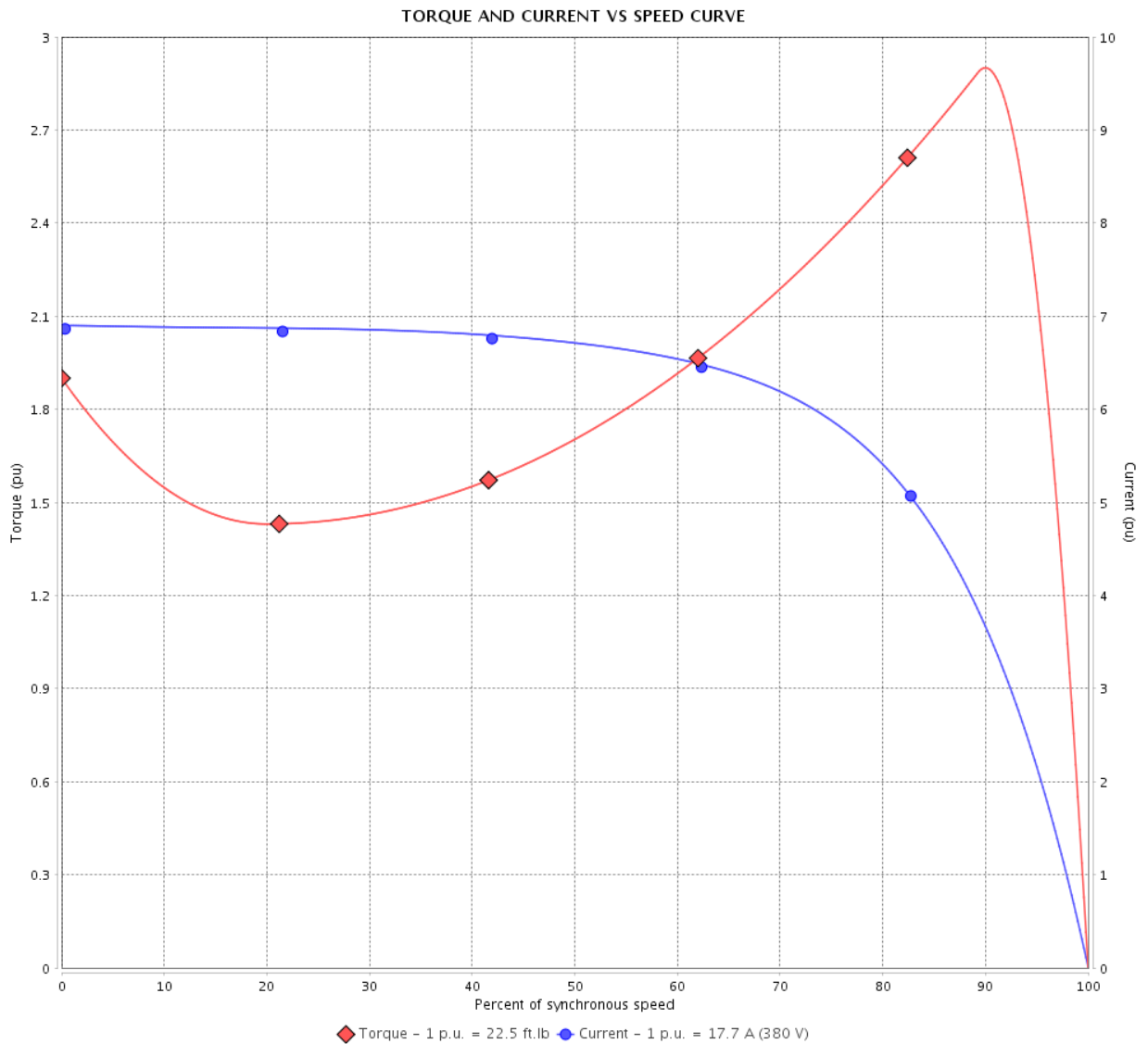
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Customer :

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Performance : 190/380 V 50 Hz 2P

Rated current : 35.4/17.7 A
 LRC : 6.9
 Rated torque : 22.5 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 290 %
 Rated speed : 2920 rpm

Moment of inertia (J) : 0.8718 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

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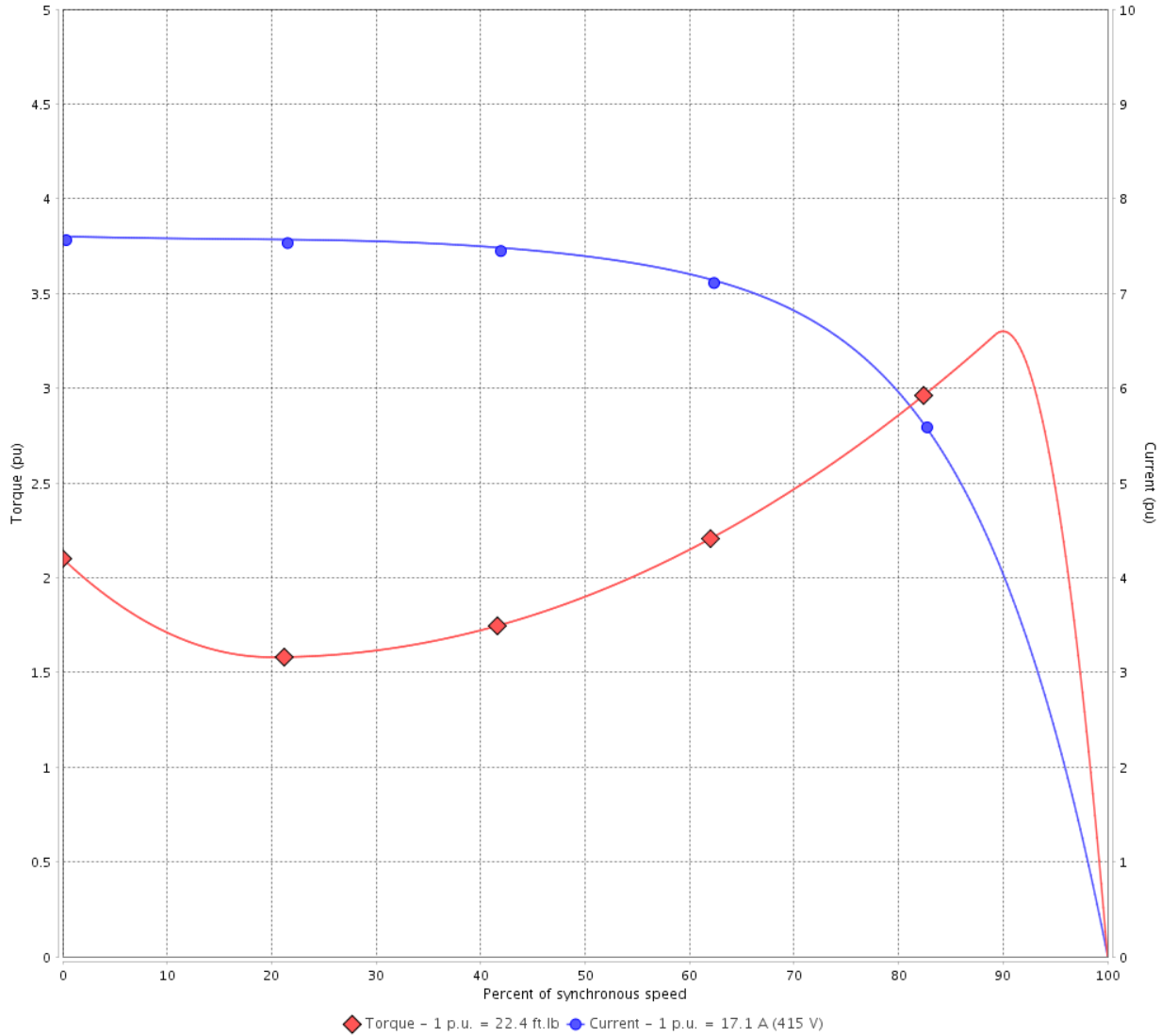
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 32.3/17.1 A	Moment of inertia (J)	: 0.8718 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 22.4 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 105 K
Rated speed	: 2930 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

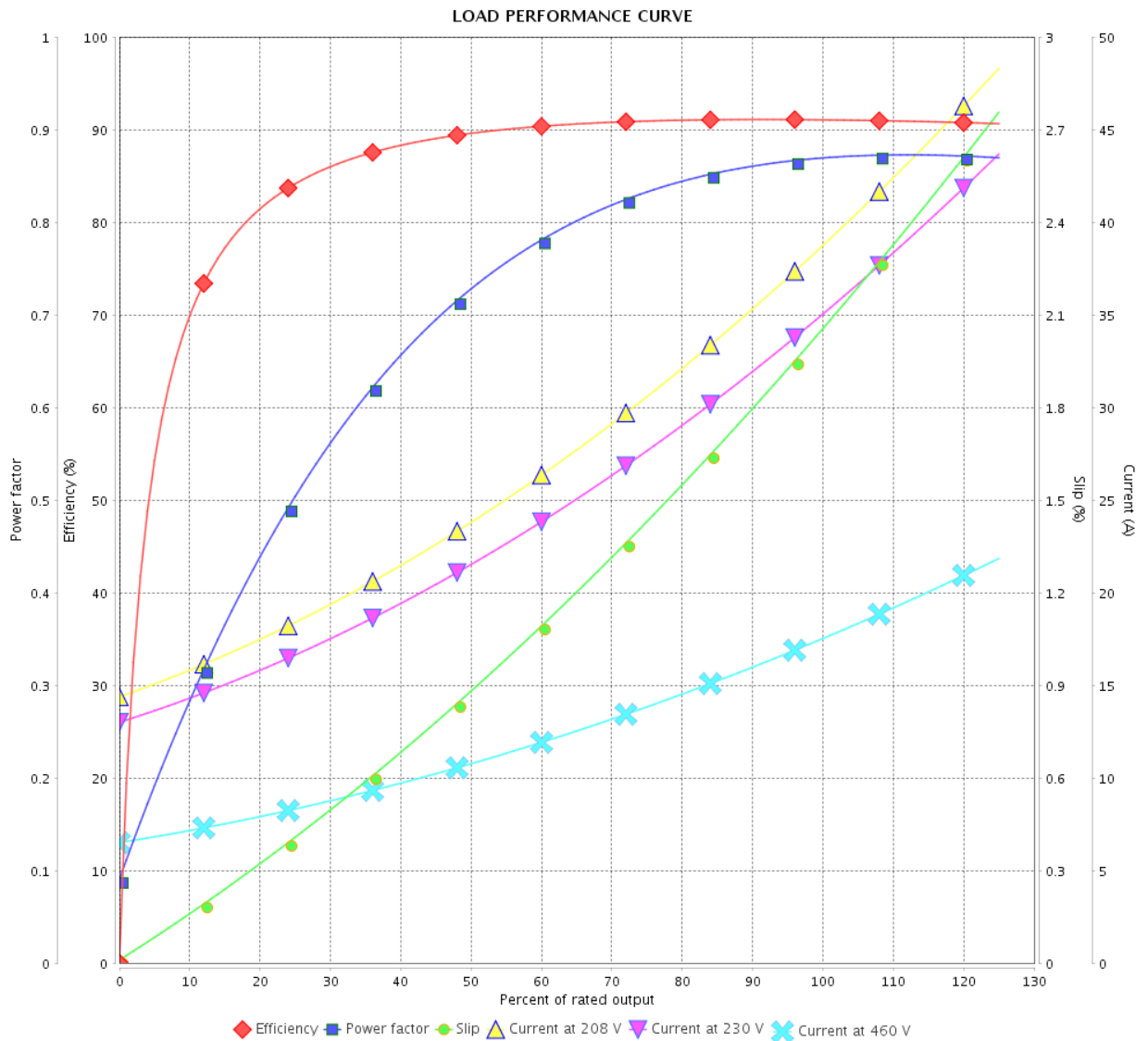


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 Locked rotor torque : 200 %
 Breakdown torque : 300 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.8718 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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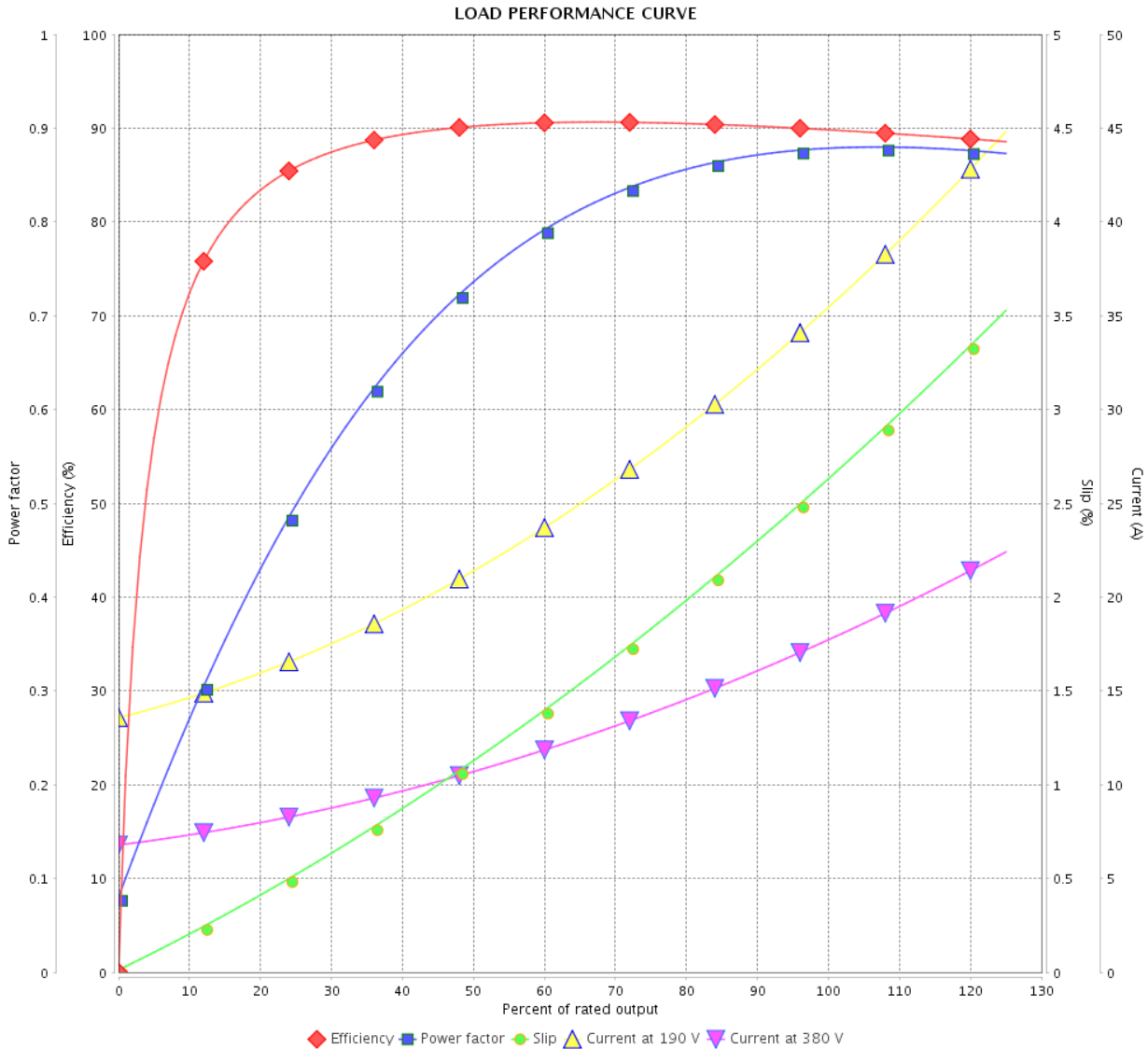


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 Breakdown torque : 290 %
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 Insulation class : F
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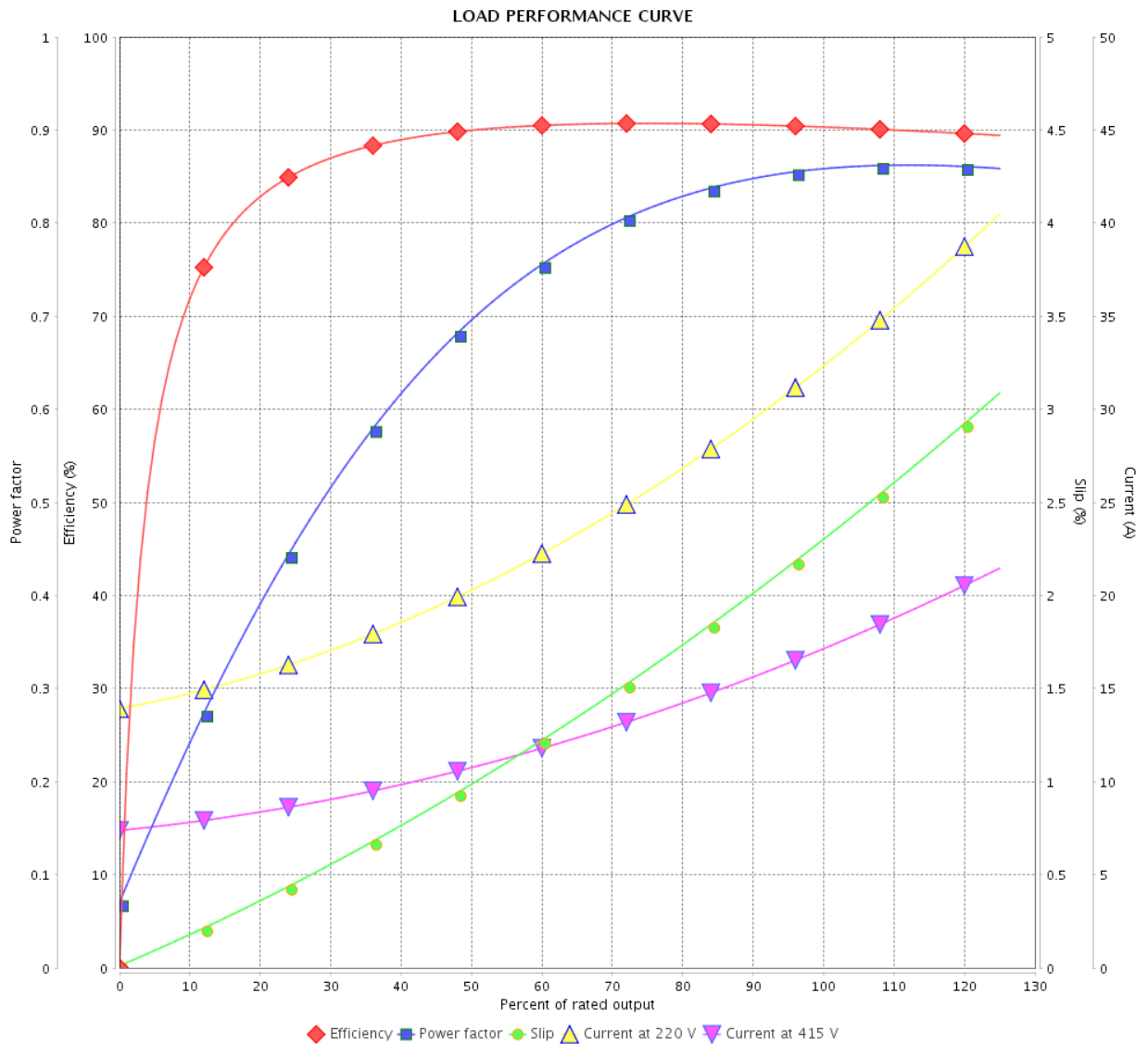


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THERMAL LIMIT CURVE



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Rated speed	: 3525 rpm	Design	: B

Heating constant

Cooling constant

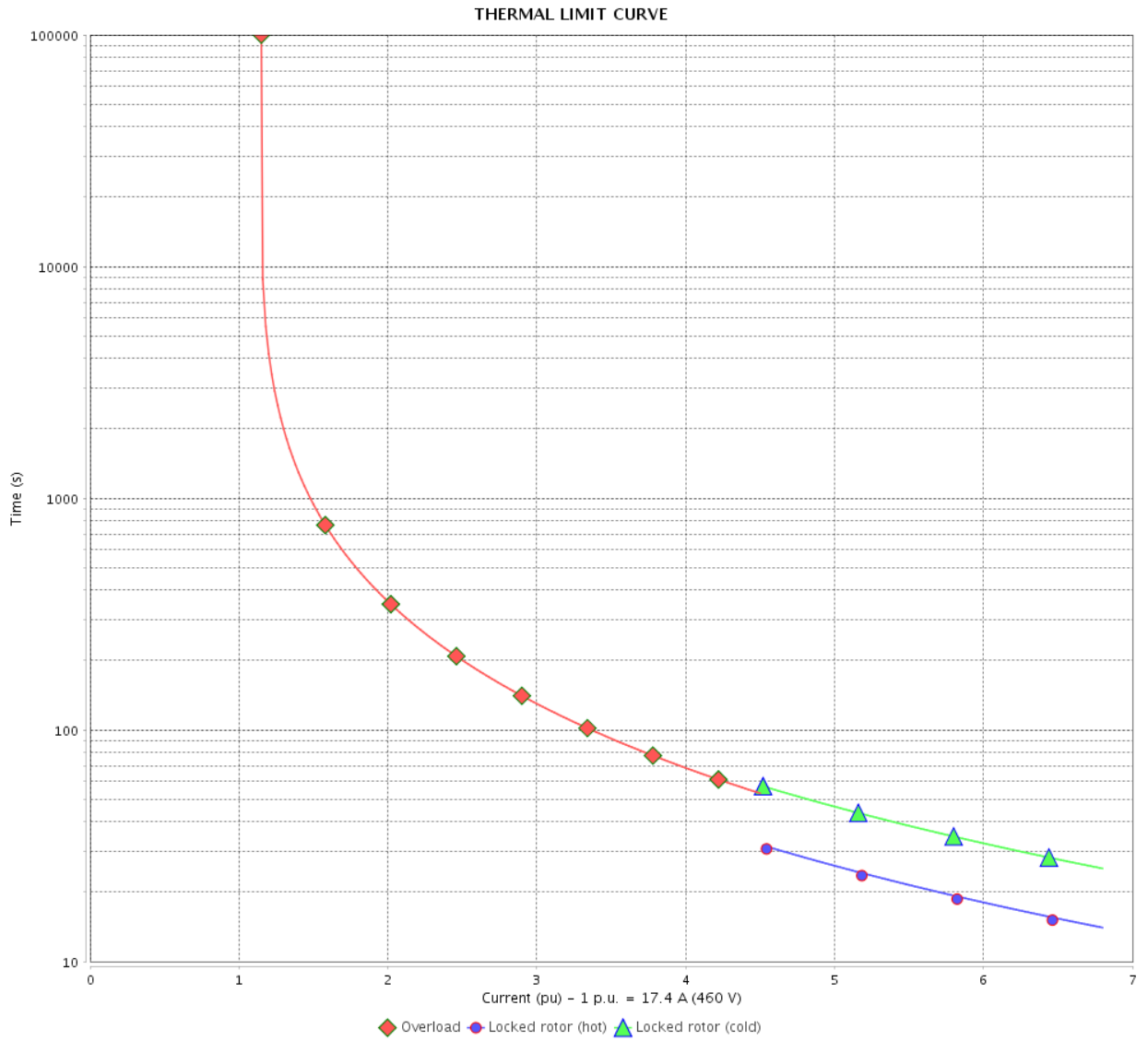
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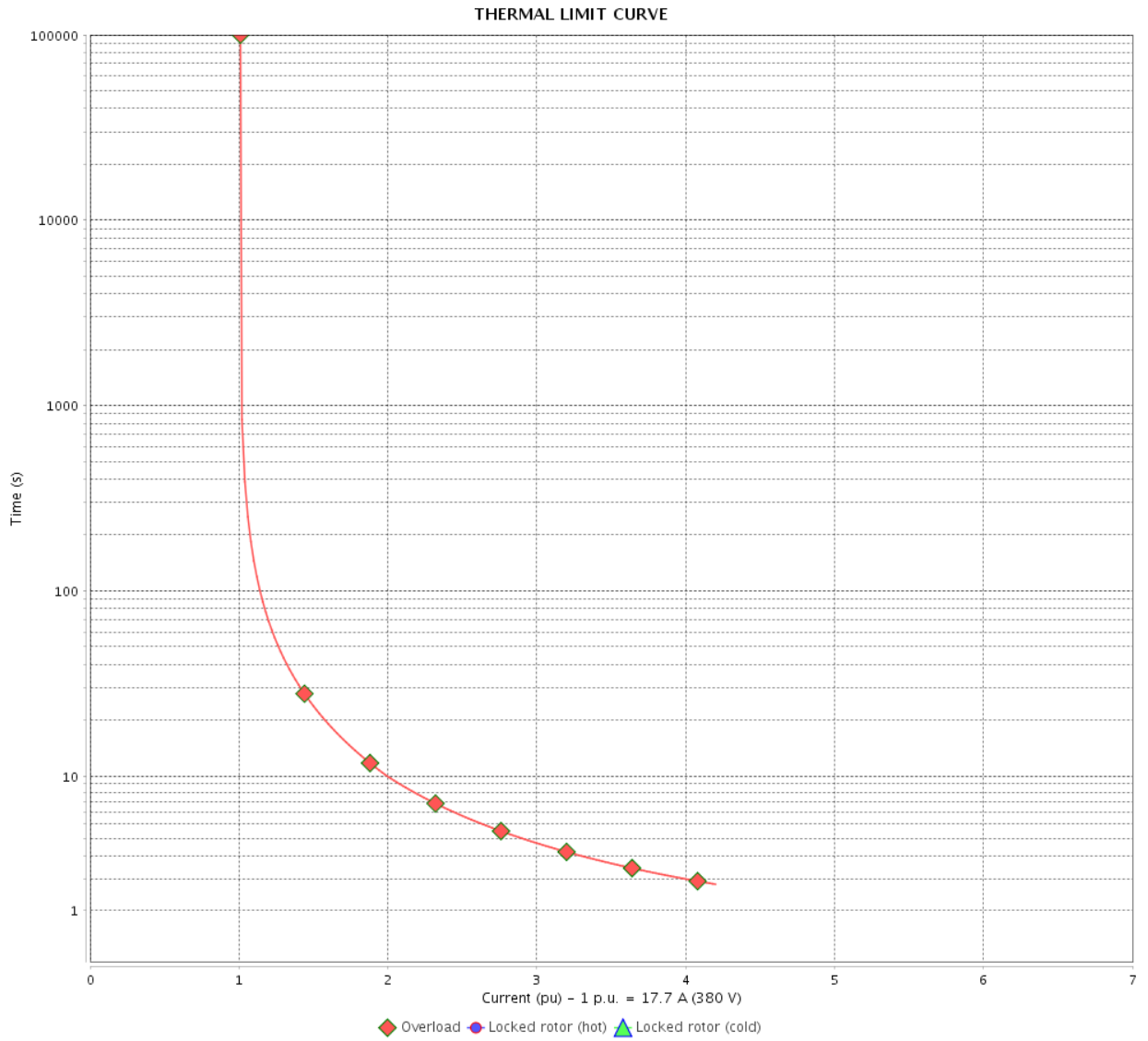
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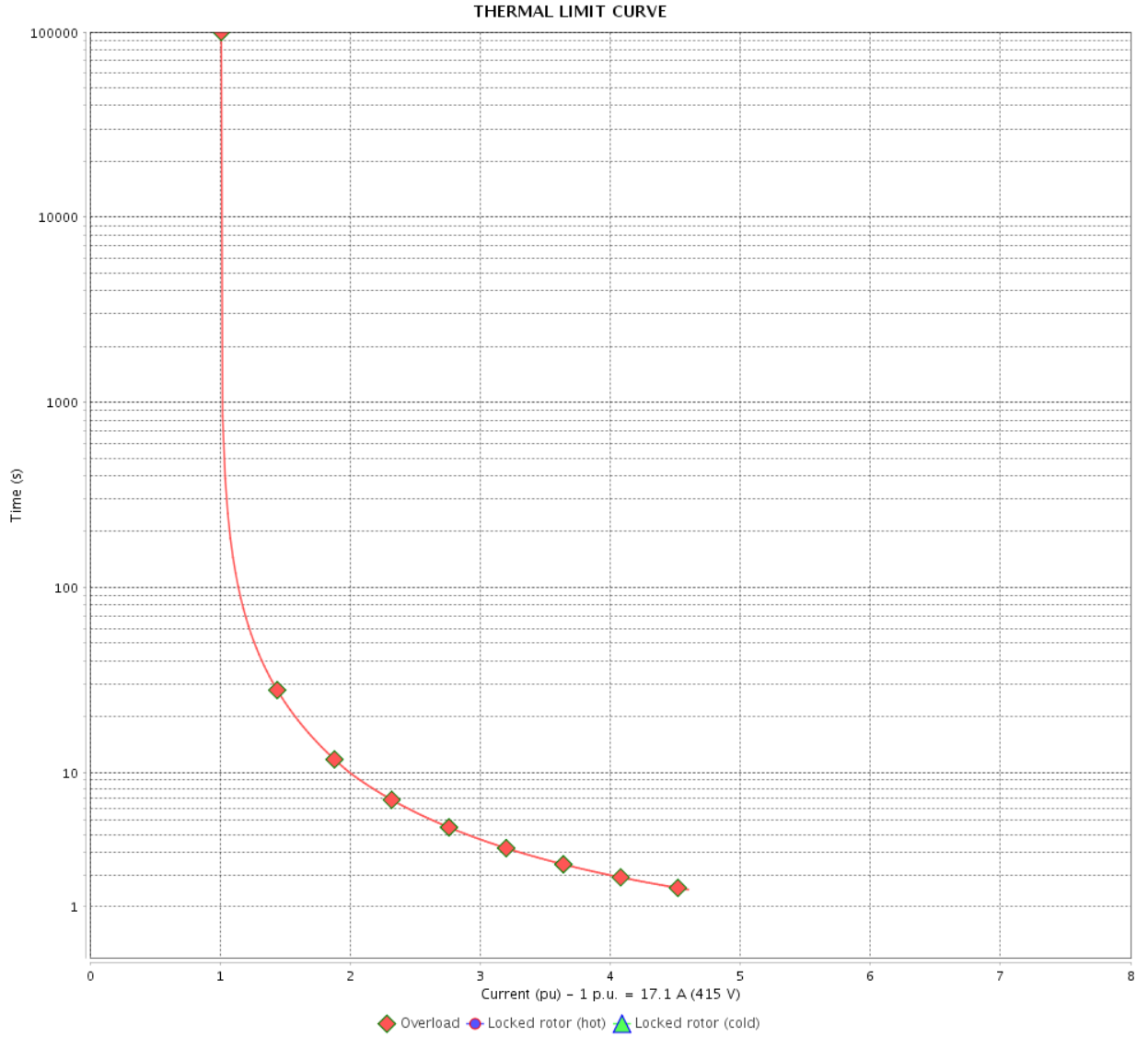
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



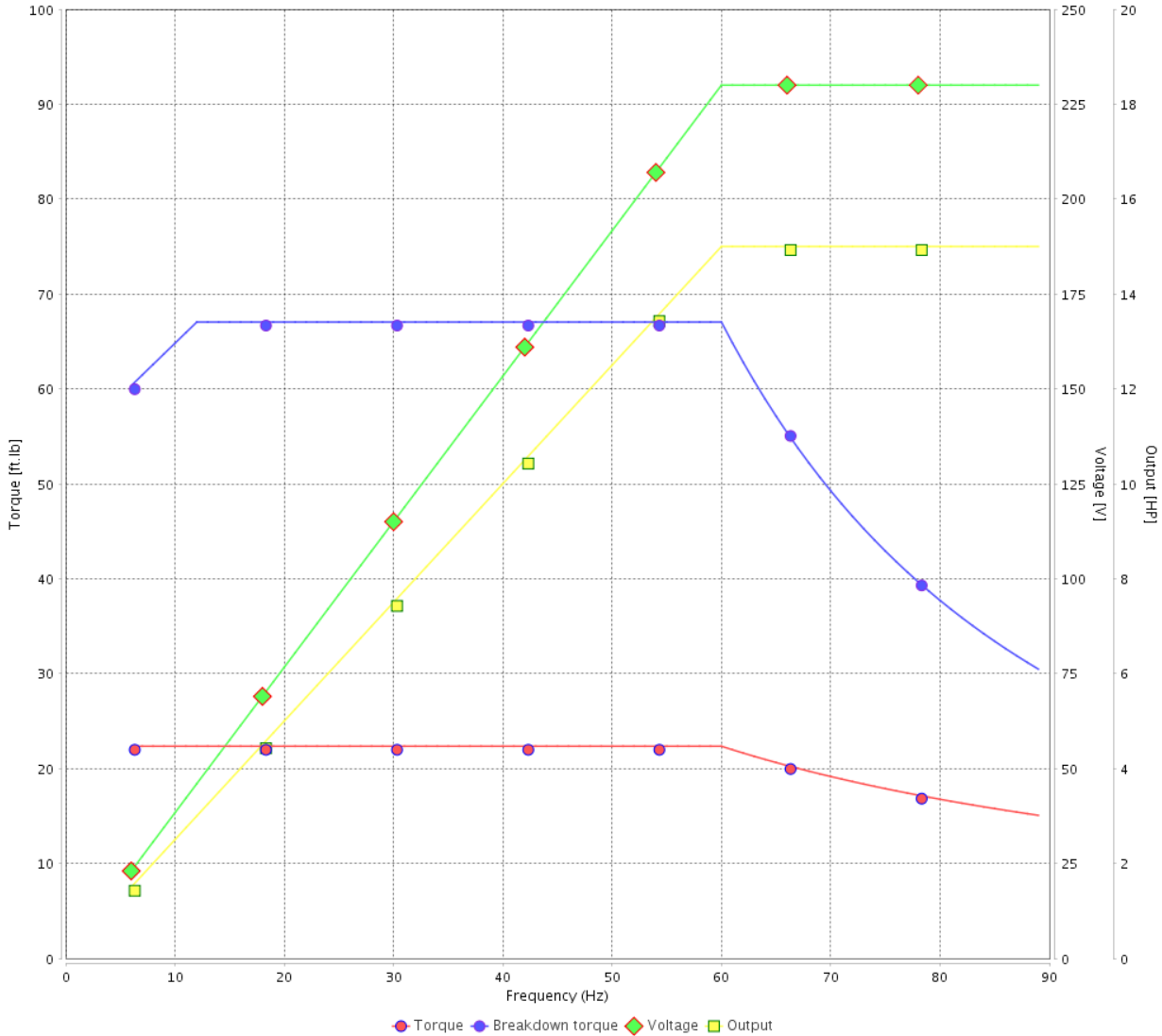
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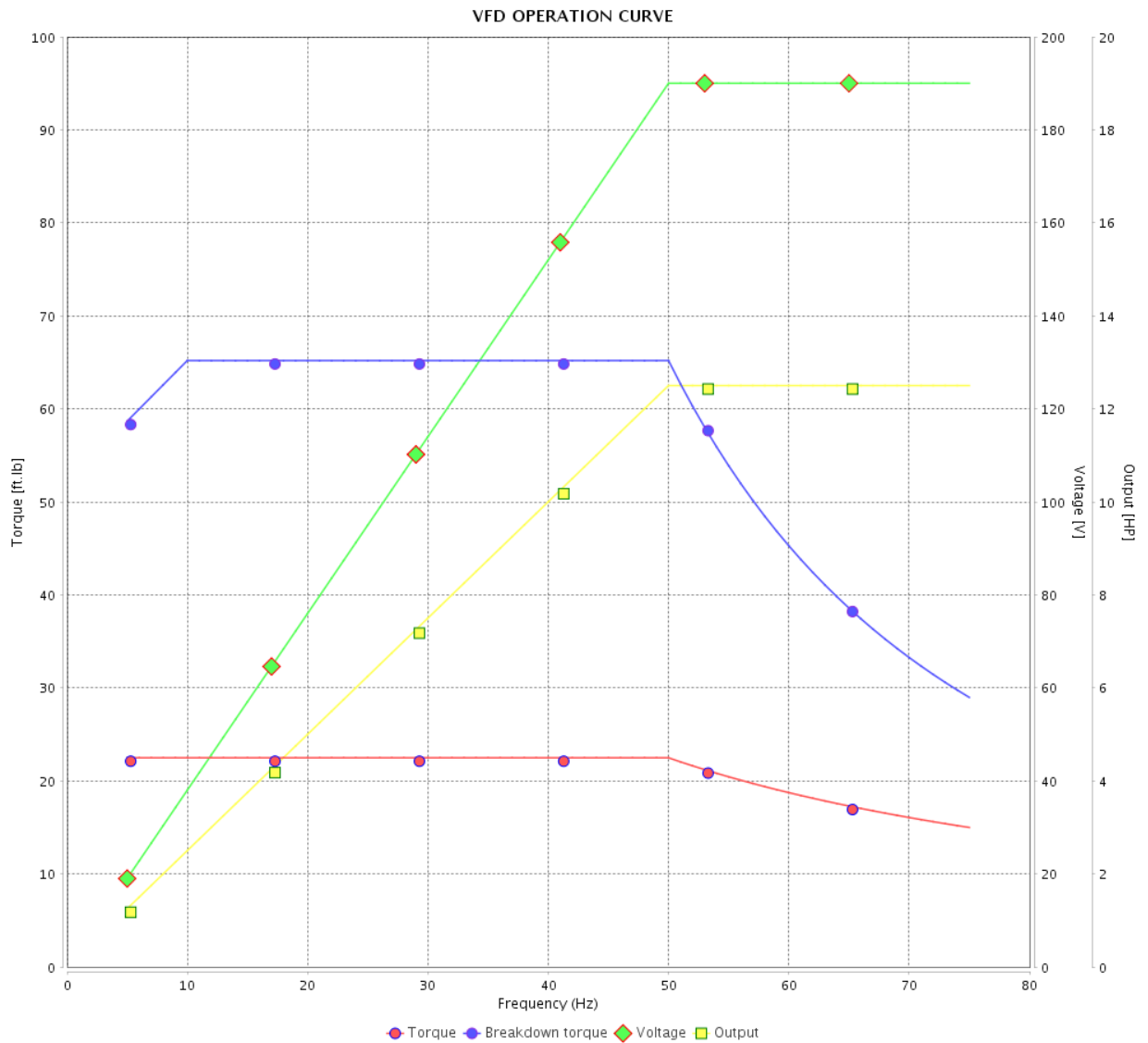
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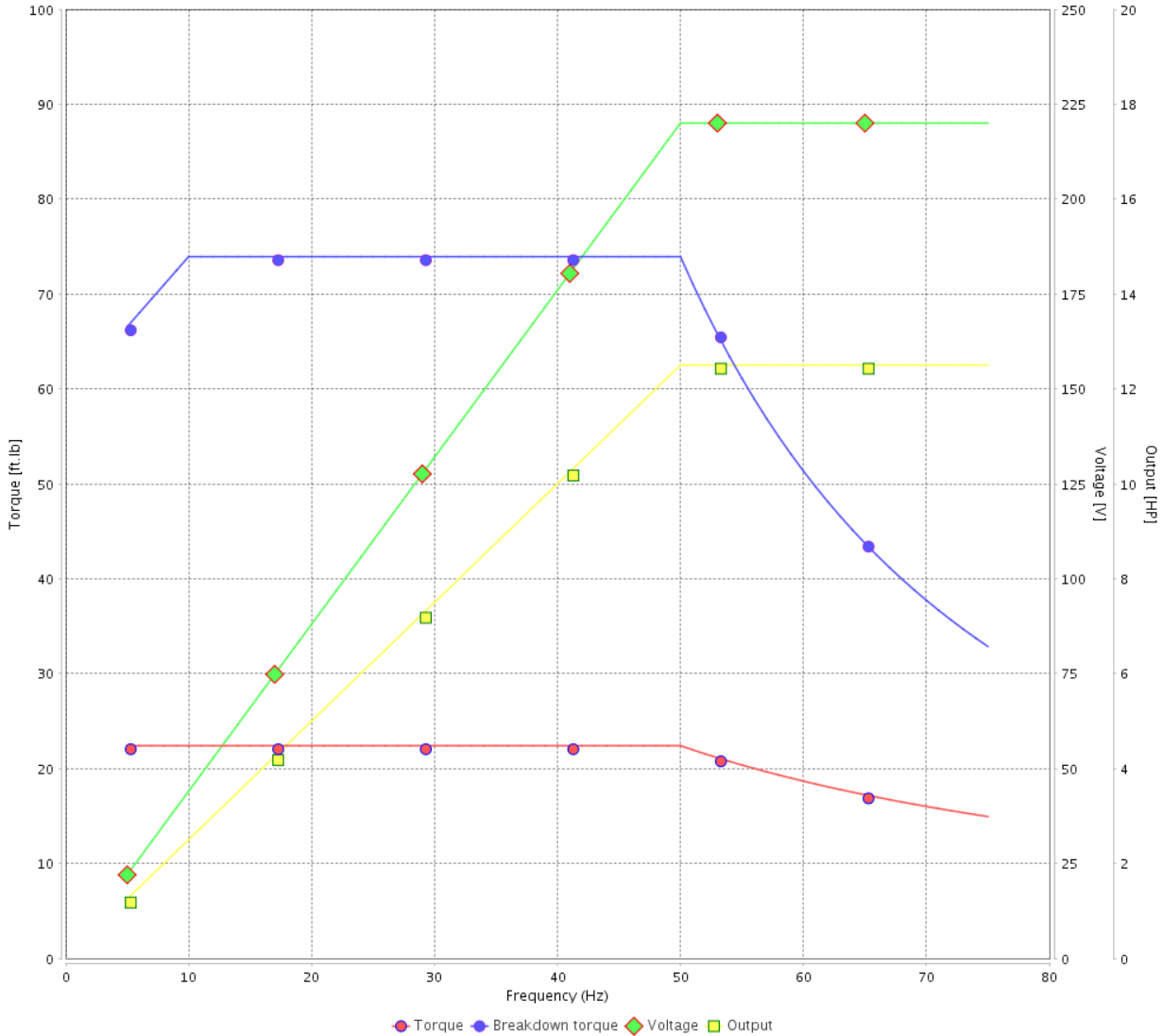
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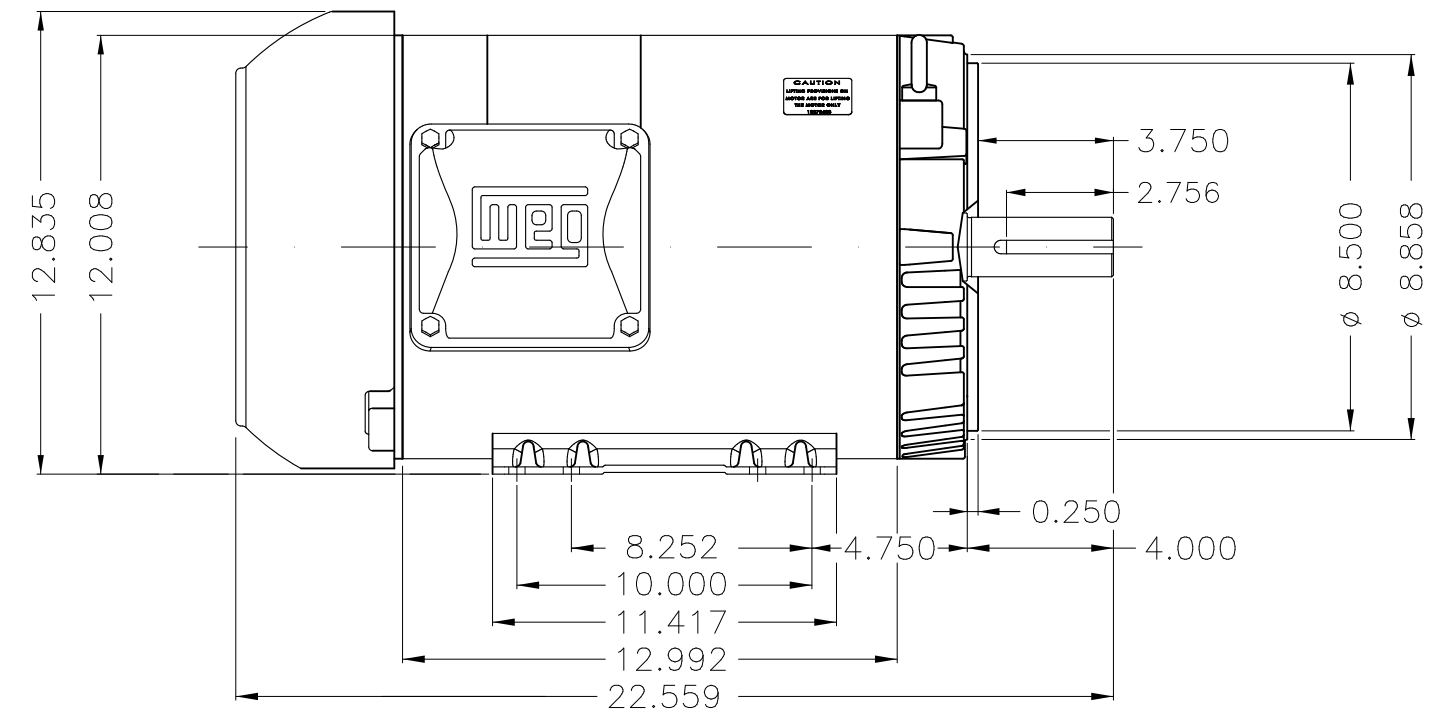
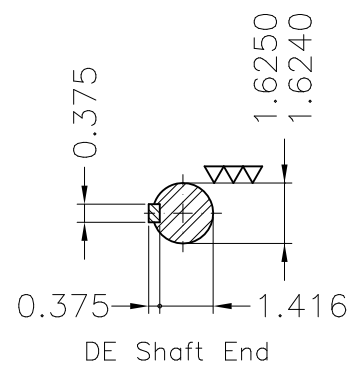
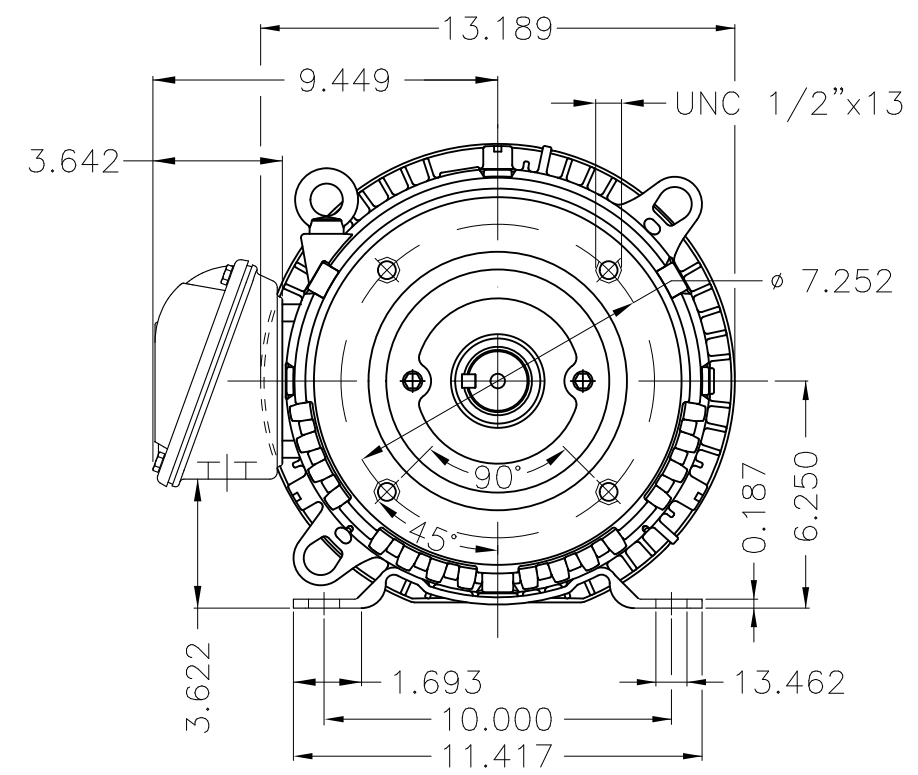
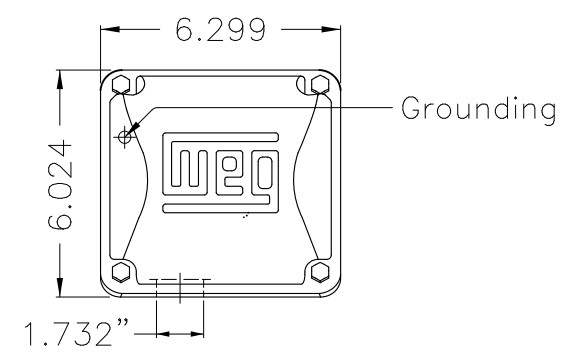
A

B

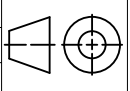
C

D

E



Internal AEGIS ground ring on the DE
 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. FRAME 254/6TC IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

15 HP 02 Poles 60 Hz

A

PREVIEW
WDD



Dimensions in inches XME A3