

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12628412	
Catalog # :	00156OT3E143T-S	
Frame	: 143/5T	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Design	: B	
Cooling method	: IC01 - ODP	
Mounting	: F-1	
Rotation ¹	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight ²	: 29.8 lb	
Moment of inertia (J)	: 0.0835 sq.ft.lb	
Output [HP]	1.5	
Poles	2	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	3.70/1.85	
L. R. Amperes [A]	31.8/15.9	
LRC [A]	8.6x(Code K)	
No load current [A]	1.62/0.809	
Rated speed [RPM]	3510	
Slip [%]	2.50	
Rated torque [ft.lb]	2.24	
Locked rotor torque [%]	210	
Breakdown torque [%]	330	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	34s (cold) 19s (hot)	
Noise level ²	62.0 dB(A)	
Efficiency (%)	25%	81.1
	50%	81.5
	75%	84.0
	100%	84.0
Power Factor	25%	0.45
	50%	0.73
	75%	0.83
	100%	0.89
Bearing type	: <u>Drive end</u> 6205 ZZ <u>Non drive end</u> 6203 ZZ	
Sealing	: Without Without	
	: Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 51 lb	
	Max. compression : 81 lb	
Notes		
USABLE @208V 4.09A SF 1.00 SFA 4.09A		
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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12/04/2022		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



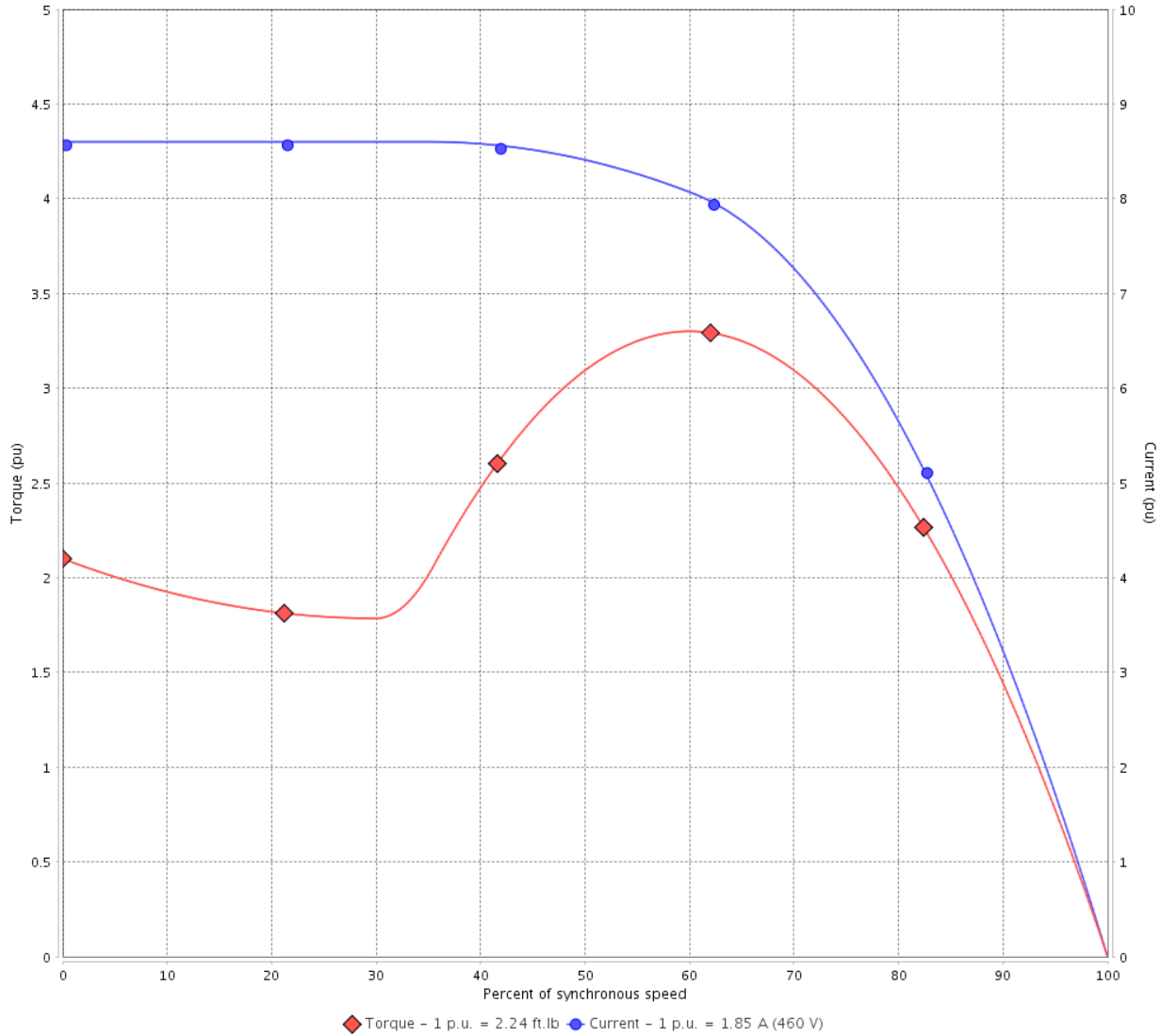
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12628412

Catalog # : 00156OT3E143T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 3.70/1.85 A	Moment of inertia (J)	: 0.0835 sq.ft.lb
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 2.24 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	:
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



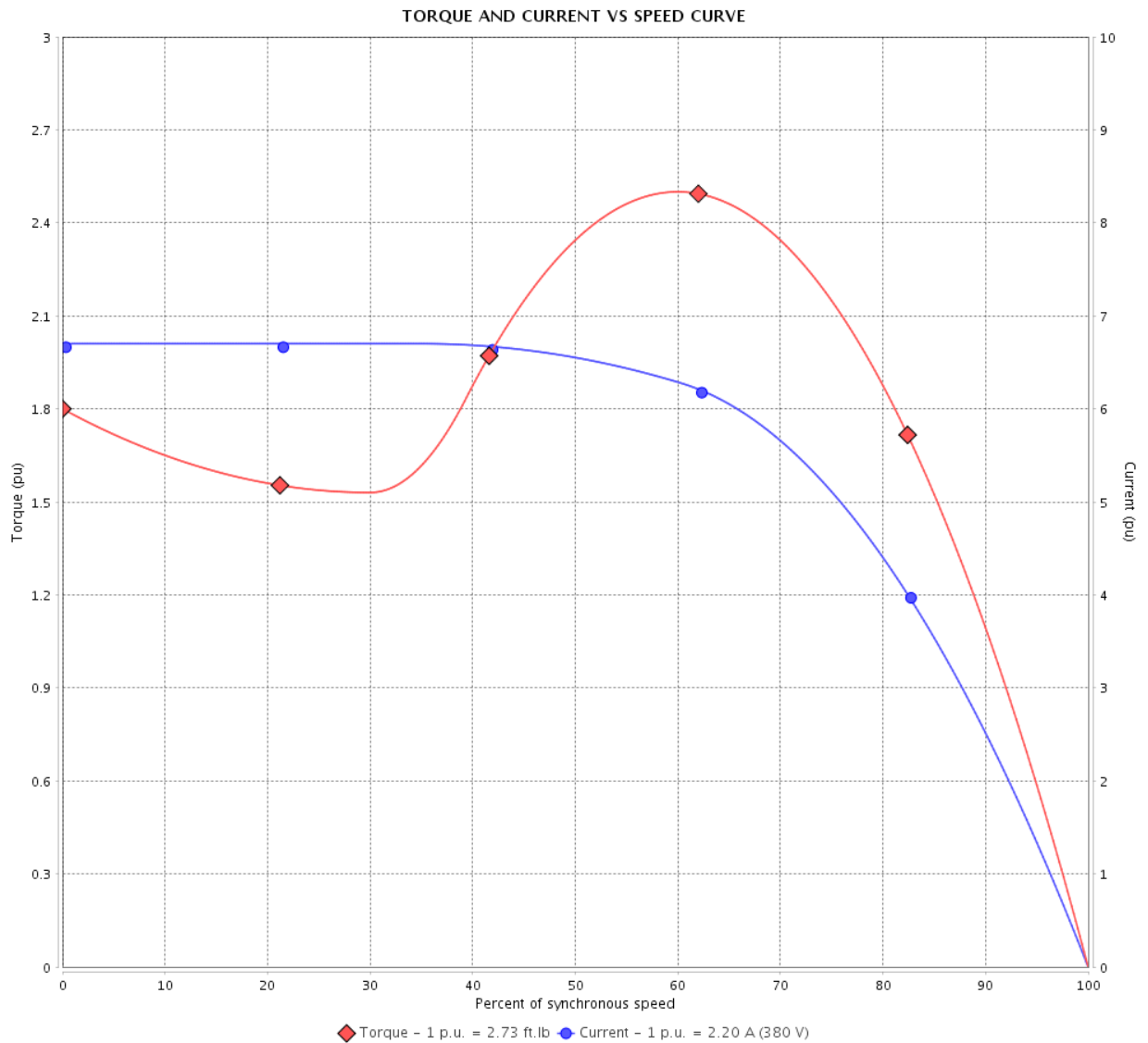
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12628412

Catalog # : 00156OT3E143T-S



Performance : 190/380 V 50 Hz 2P

Rated current : 4.40/2.20 A
 LRC : 6.7
 Rated torque : 2.73 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 250 %
 Rated speed : 2890 rpm

Moment of inertia (J) : 0.0835 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

Three Phase Induction Motor - Squirrel Cage



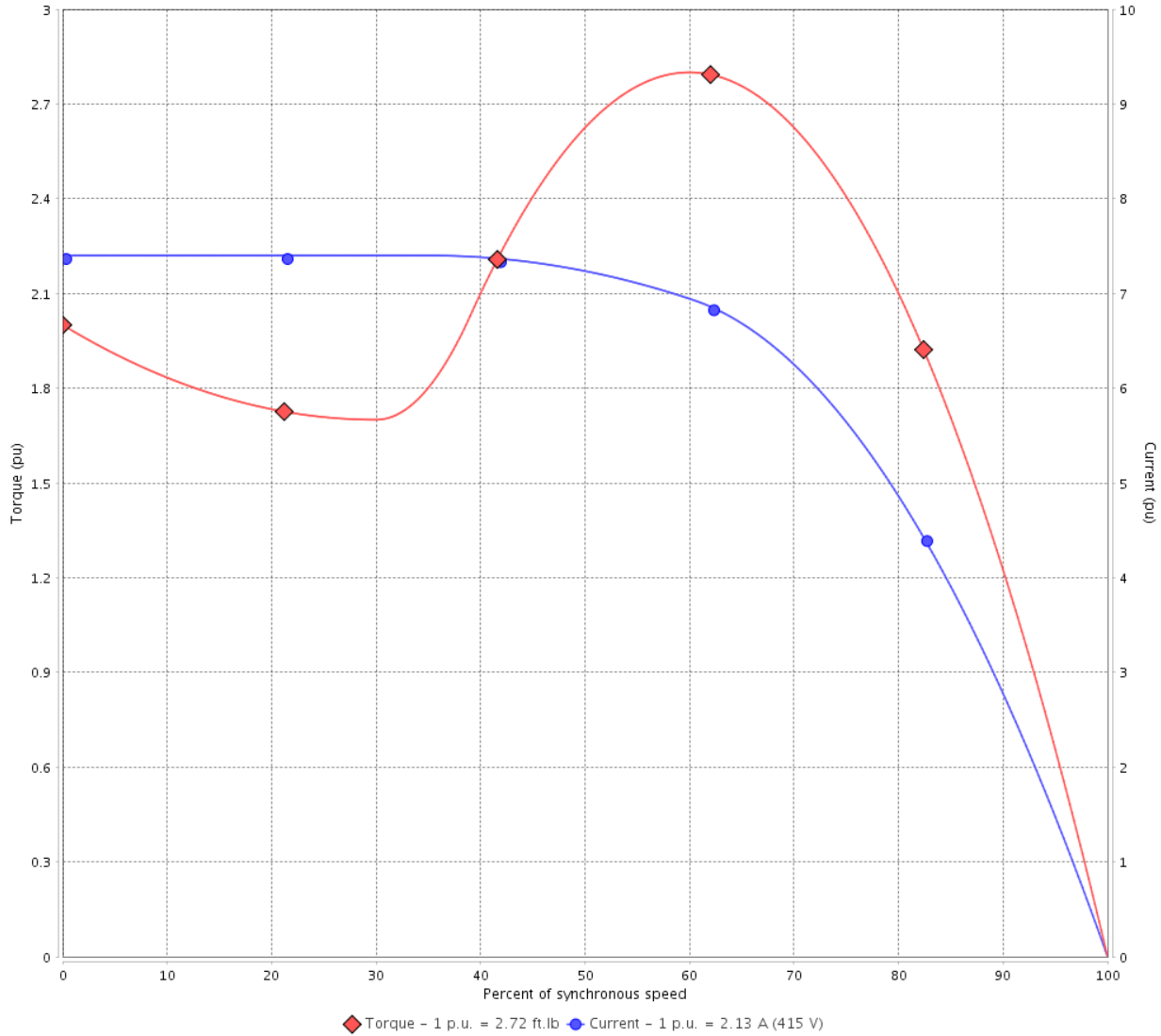
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Product code : 12628412

Catalog # : 00156OT3E143T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 4.02/2.13 A
 LRC : 7.4
 Rated torque : 2.72 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 280 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0835 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

Three Phase Induction Motor - Squirrel Cage

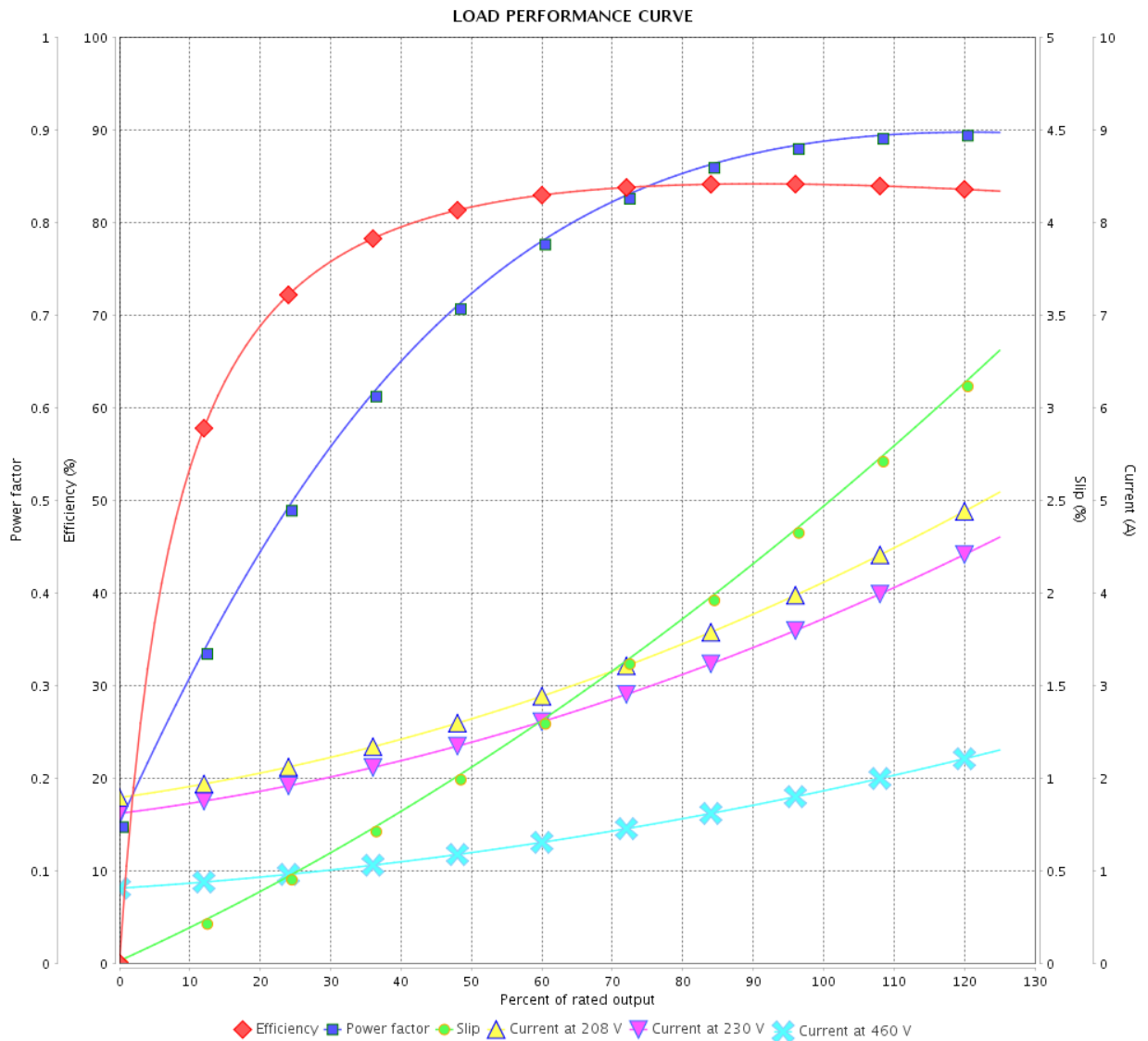


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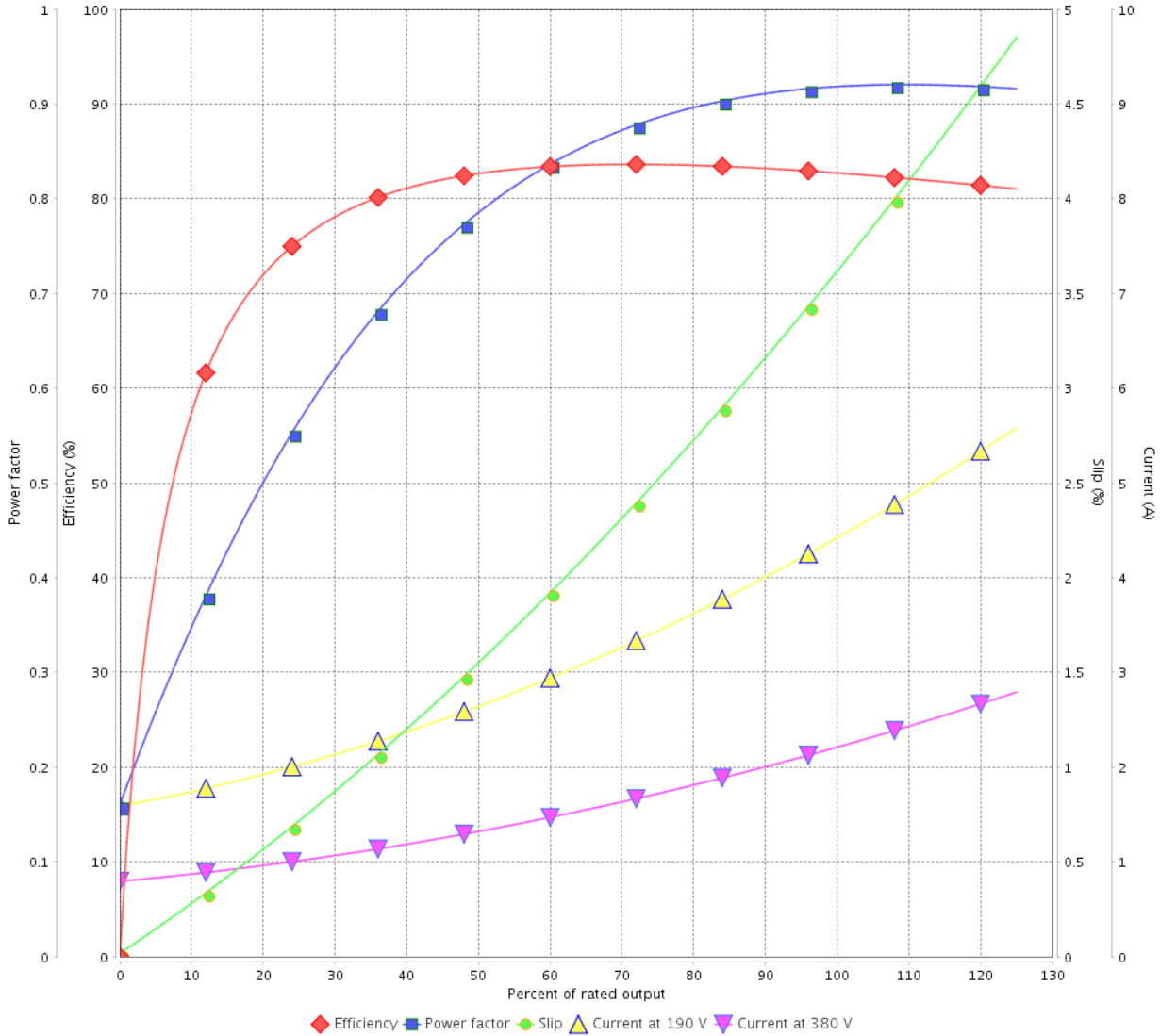
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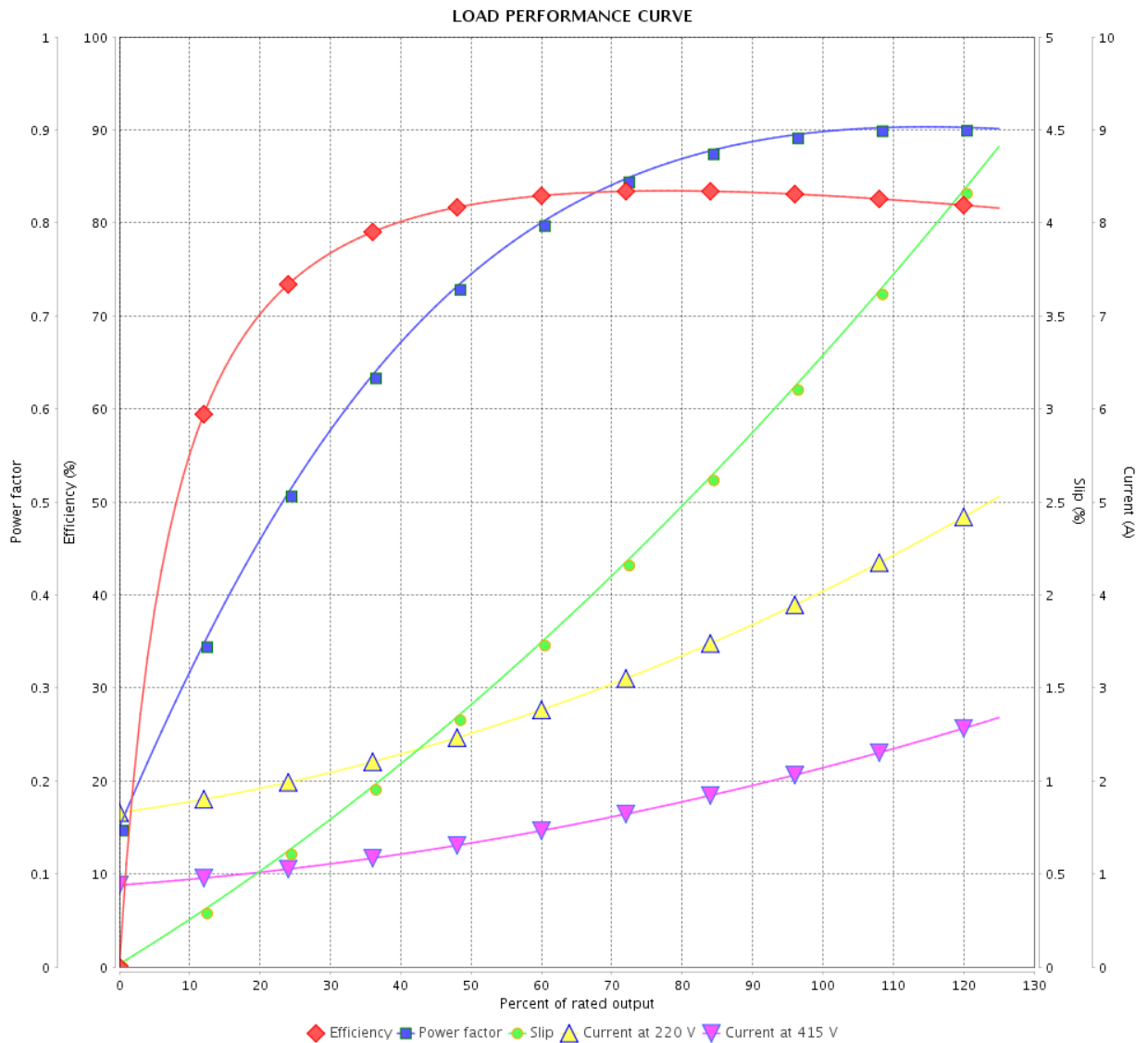


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

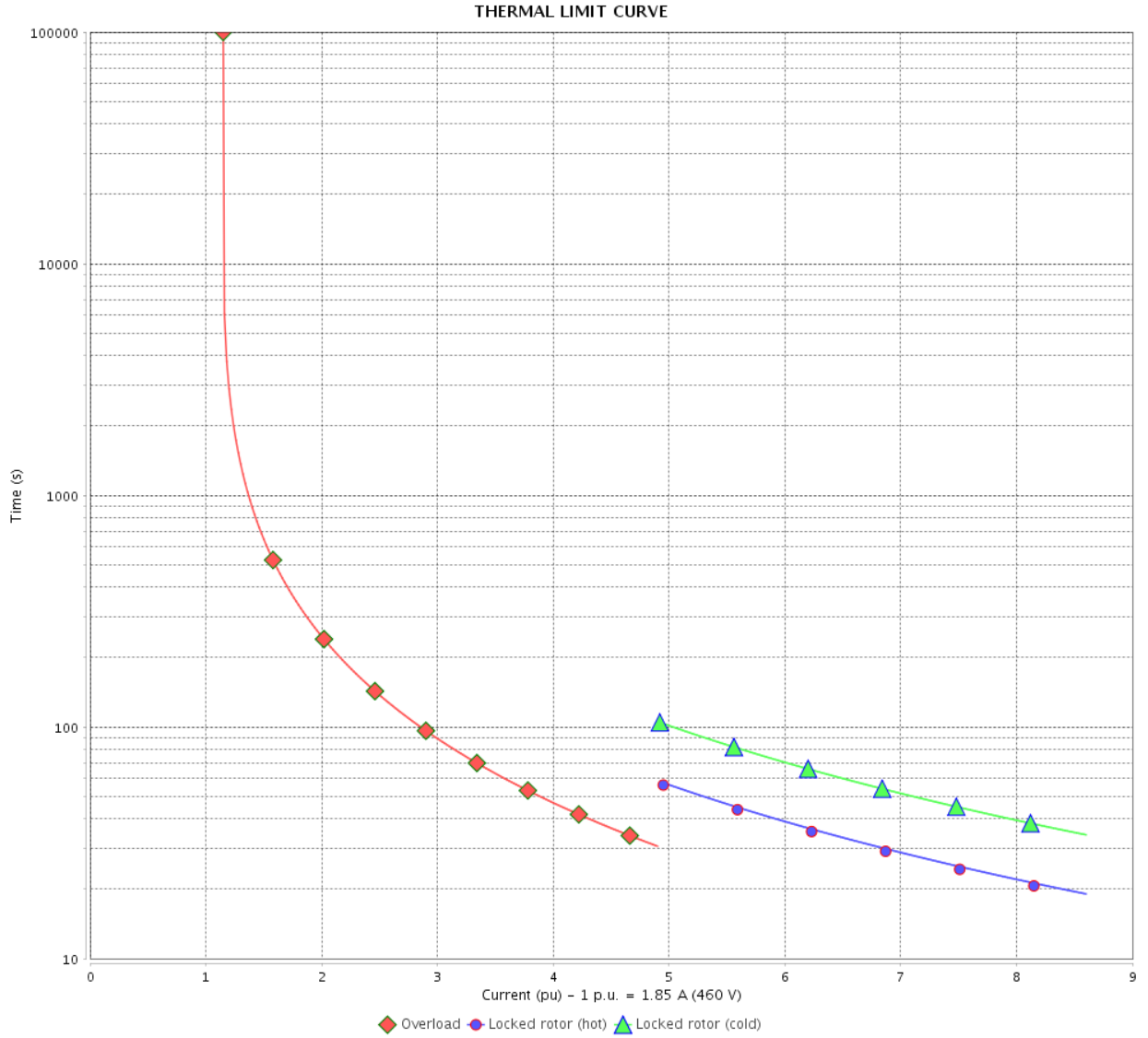
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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

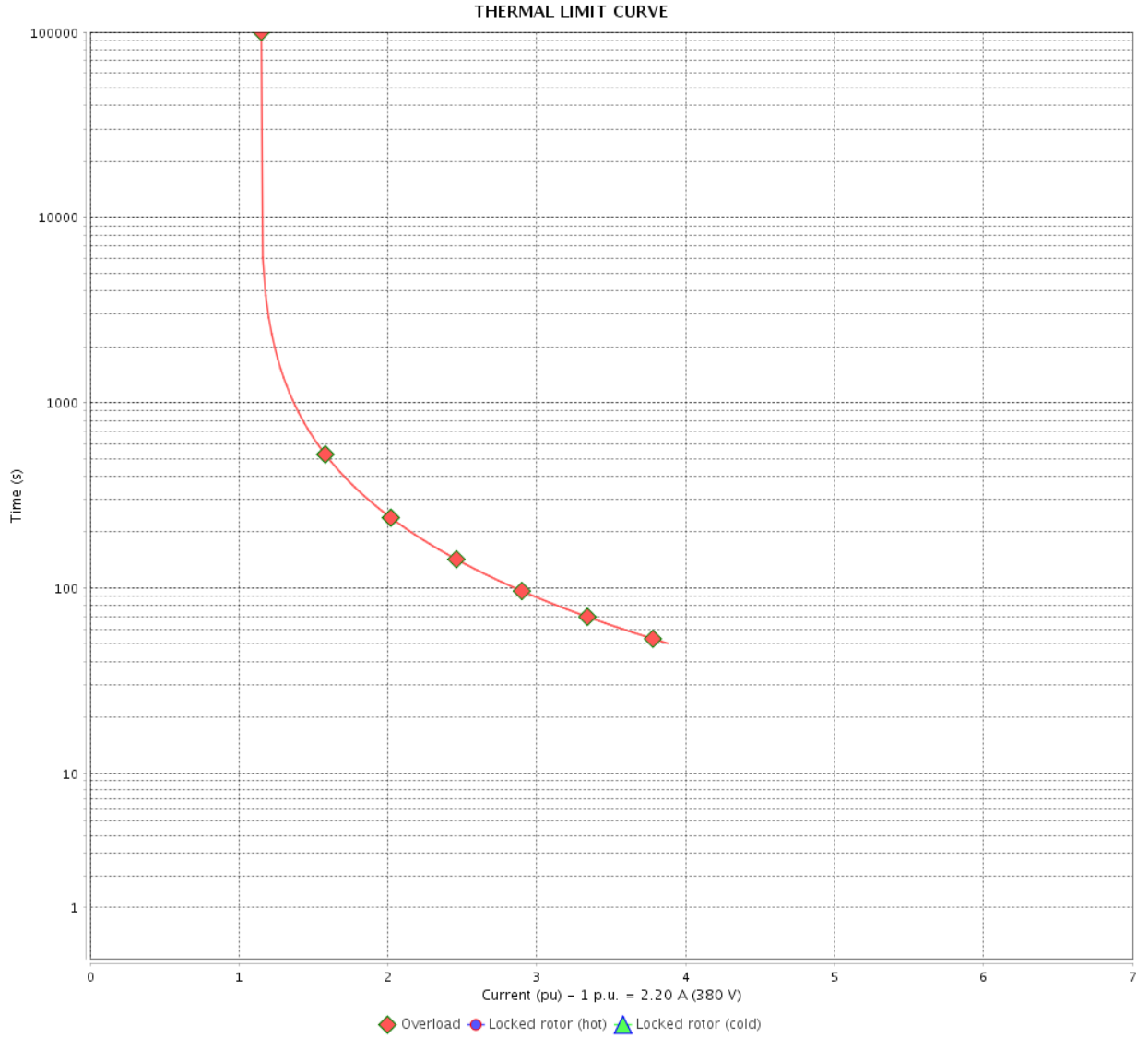
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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

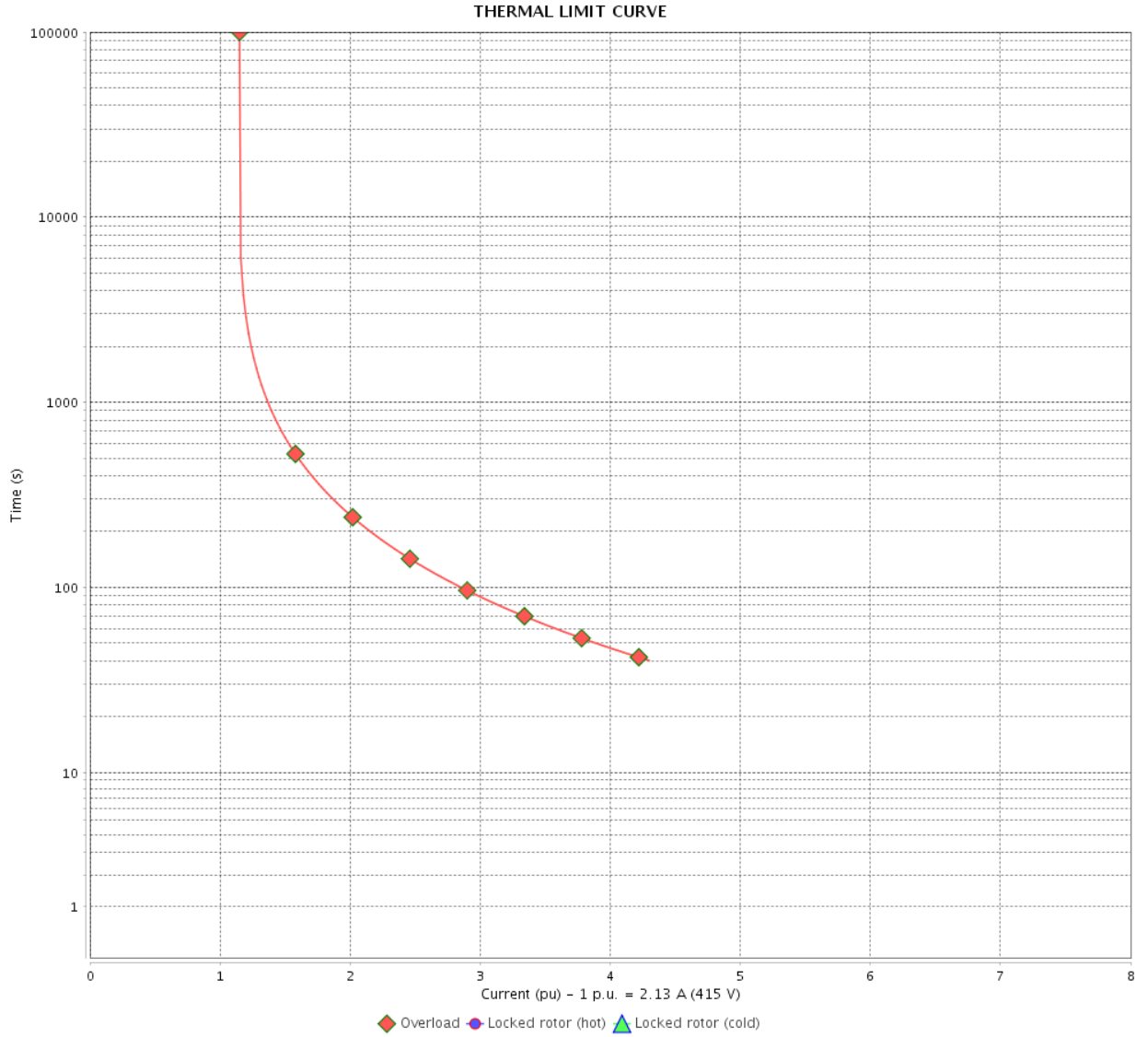
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



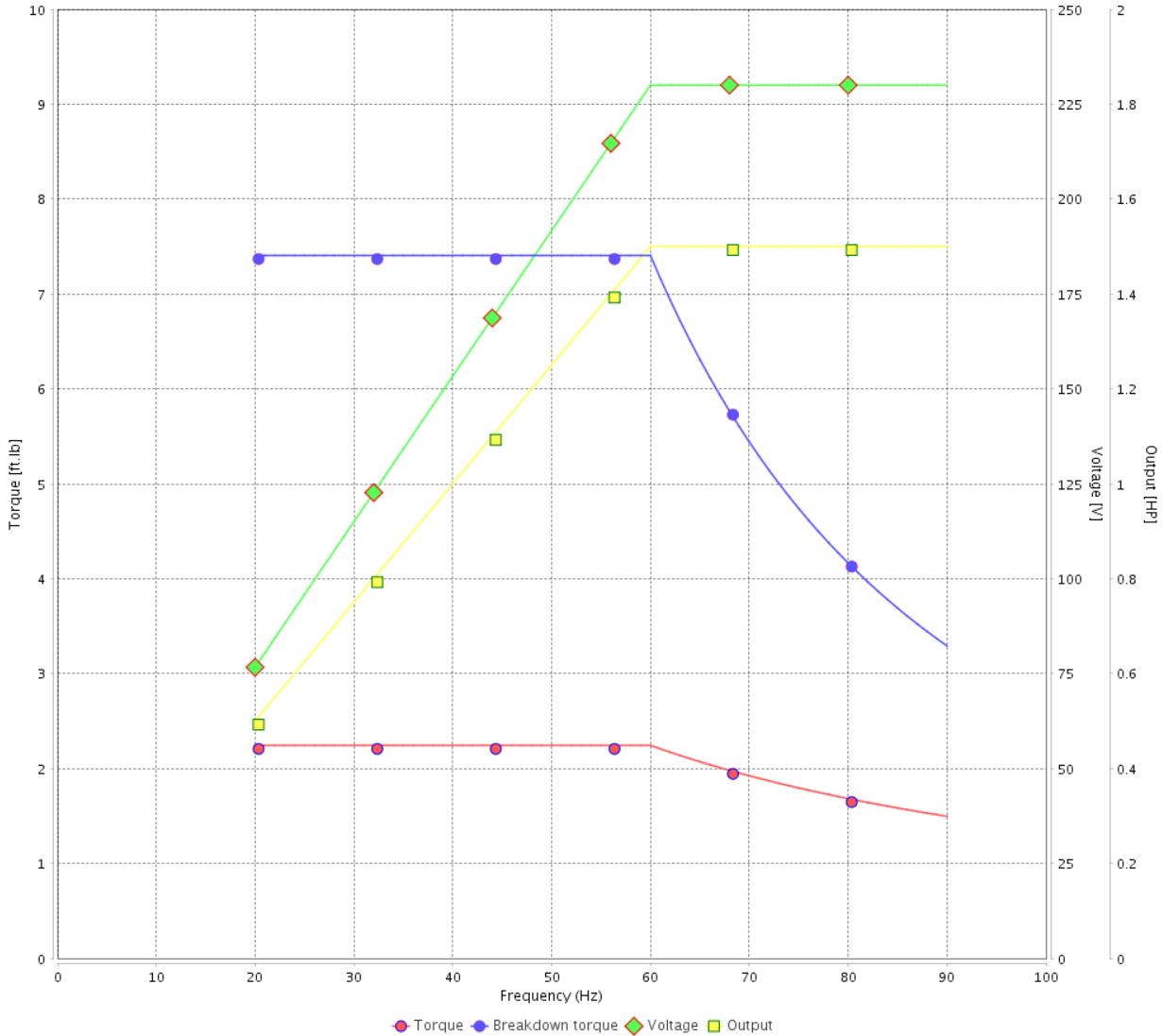
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VFD OPERATION CURVE



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

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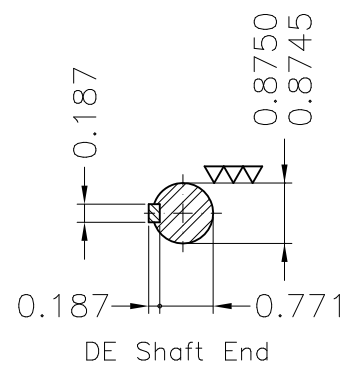
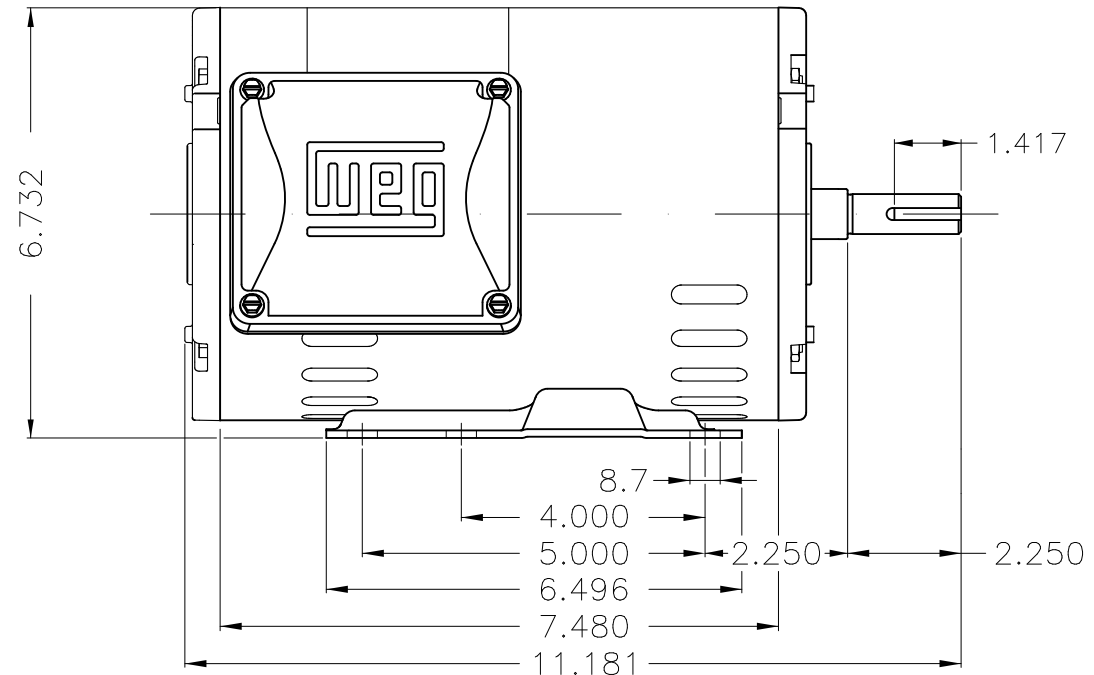
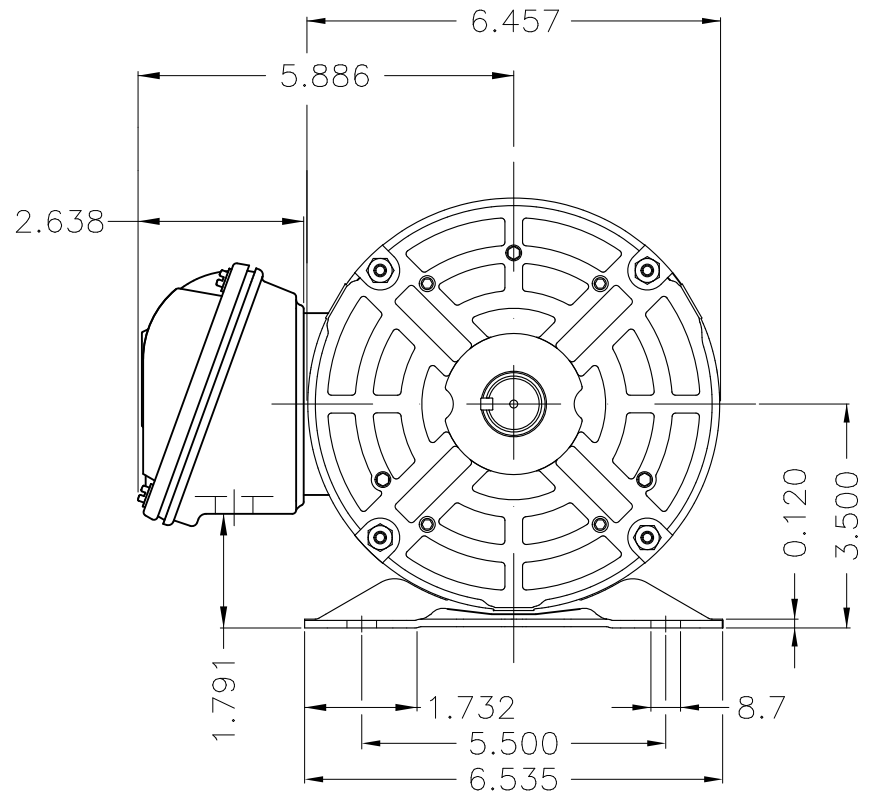
A

B

C

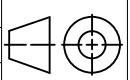
D

E



Dimensions in inches

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 IP21 ODP					
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: 12628412 CC029A
W01.T00IC0X0N
MODEL 001560T3E143T-S
14MAR2022 B/N:



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 3.70/1.85
INS CL F AT 80K		SFA 4.25/2.13
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE K	PF 0.89
USABLE @ 208V 4.09A		RPM 3510
SF1.00		NEMA NOM. EFF 84.0%
ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15		
4.40-3.94/2.20-2.09A 2890RPM EFF 82.7% (IE3) IEC 60034-1		
Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 CT		
DE 6205-ZZ	ODE 6203-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.

