

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: JP Pump NEMA Premium Efficiency Three-Phase	Product code :	13500643	
		Catalog # :	00156OT3E143JPV-S	
Frame	: 143/5JP	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: W-6	
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 31.5 lb	
Design	: B	Moment of inertia (J)	: 0.0835 sq.ft.lb	
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]	3.70/1.85	4.40/2.20	4.02/2.13	
L. R. Amperes [A]	31.8/15.9	29.5/14.7	29.7/15.8	
LRC [A]	8.6x(Code K)	6.7x(Code H)	7.4x(Code J)	
No load current [A]	1.62/0.809	1.59/0.796	1.66/0.881	
Rated speed [RPM]	3510	2890	2900	
Slip [%]	2.50	3.67	3.33	
Rated torque [ft.lb]	2.24	2.73	2.72	
Locked rotor torque [%]	210	180	200	
Breakdown torque [%]	330	250	280	
Service factor		1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	34s (cold) 19s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	62.0 dB(A)	60.0 dB(A)	60.0 dB(A)	
Efficiency (%)	25%	81.1	82.1	
	50%	81.5	81.9	
	75%	84.0	83.5	
	100%	84.0	82.9	
Power Factor	25%	0.45	0.47	
	50%	0.73	0.75	
	75%	0.83	0.85	
	100%	0.89	0.90	
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 50 lb	
		Max. compression	: 82 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
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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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



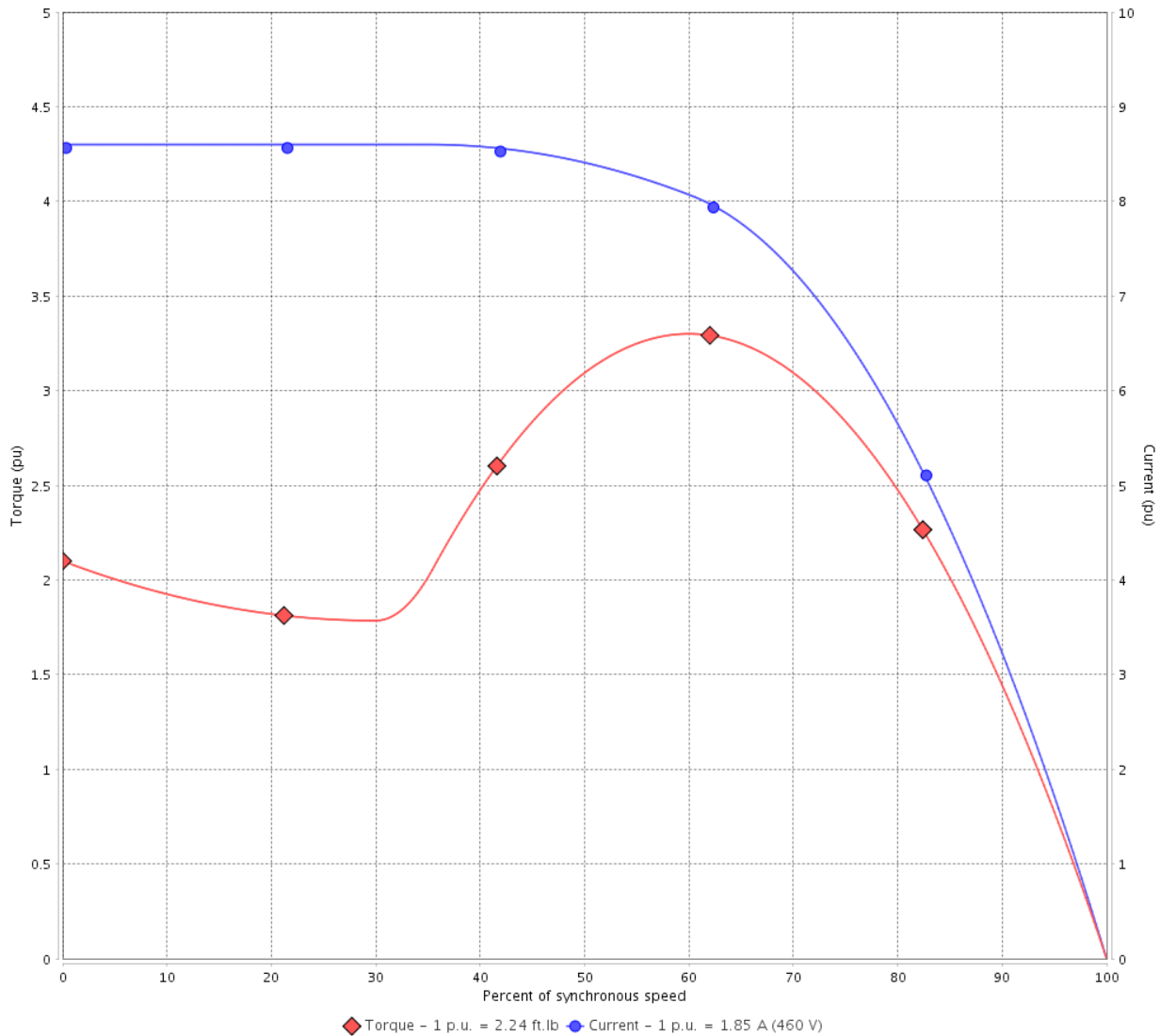
Customer :

Product line : JP Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13500643

Catalog # : 00156OT3E143JPV-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



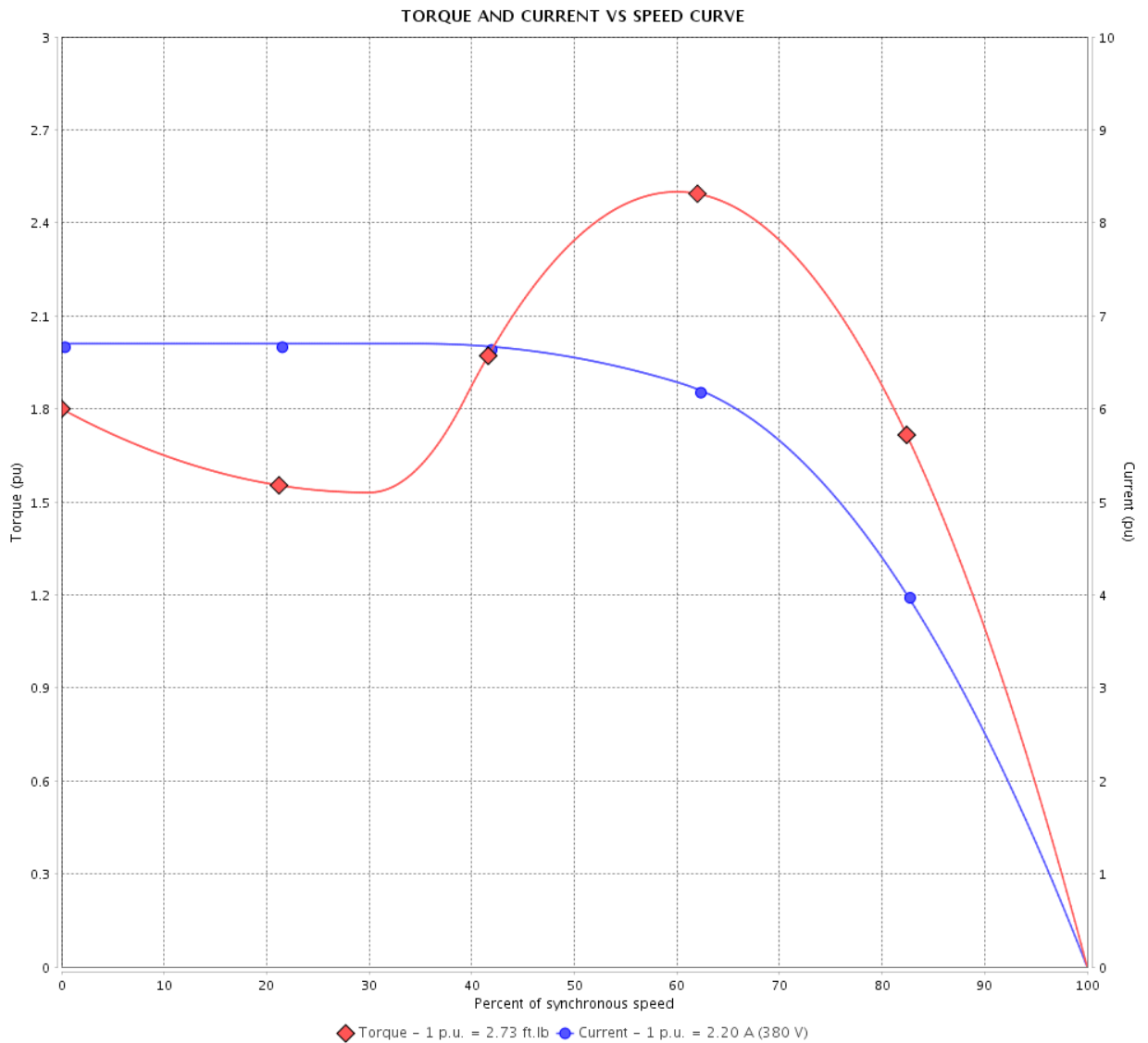
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JP Pump NEMA Premium Efficiency Three-Phase

Product code : 13500643

Catalog # : 00156OT3E143JPV-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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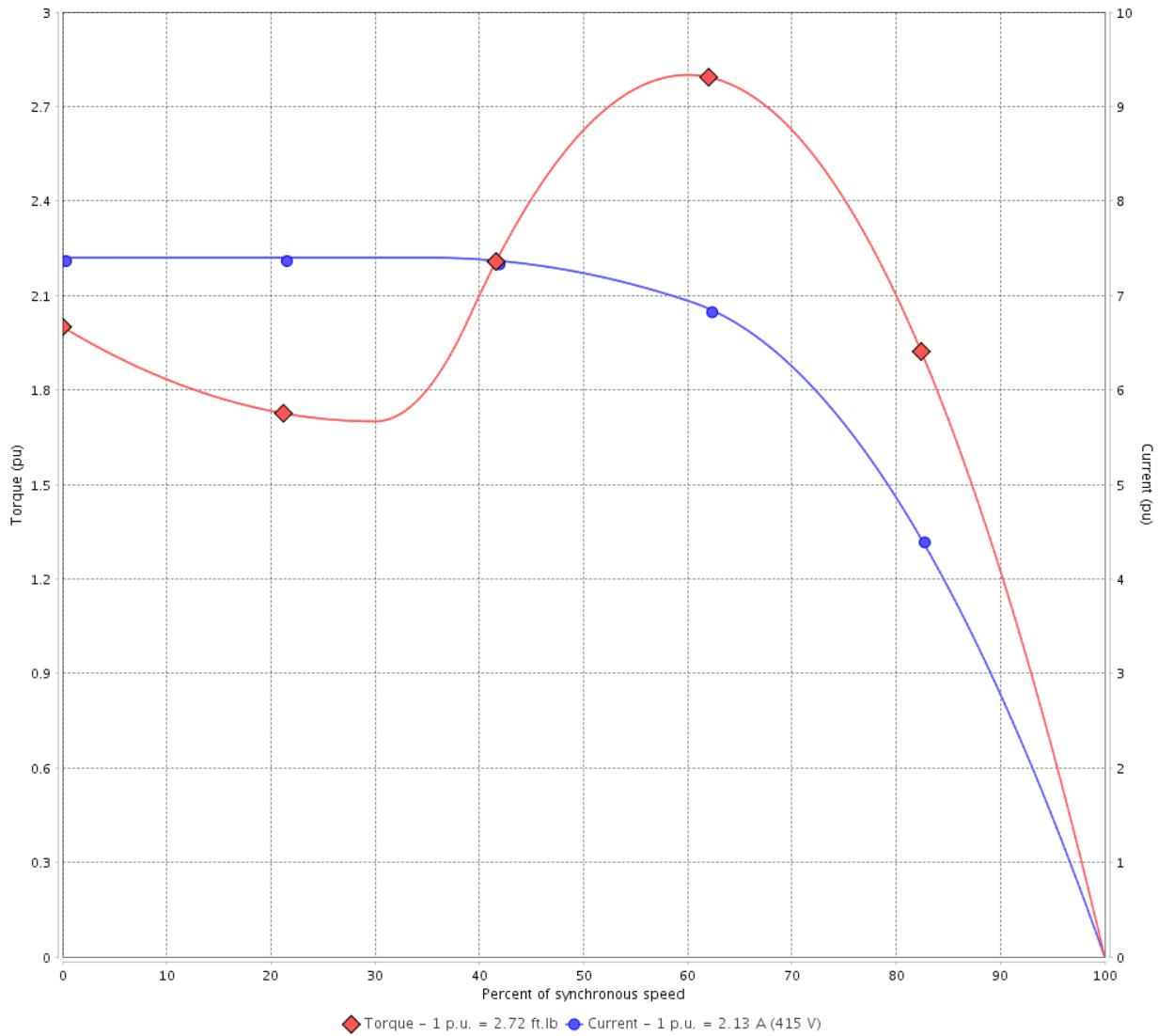
Customer :

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Efficiency Three-Phase

Product code : 13500643

Catalog # : 00156OT3E143JPV-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)	: 0.0835 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 2.72 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

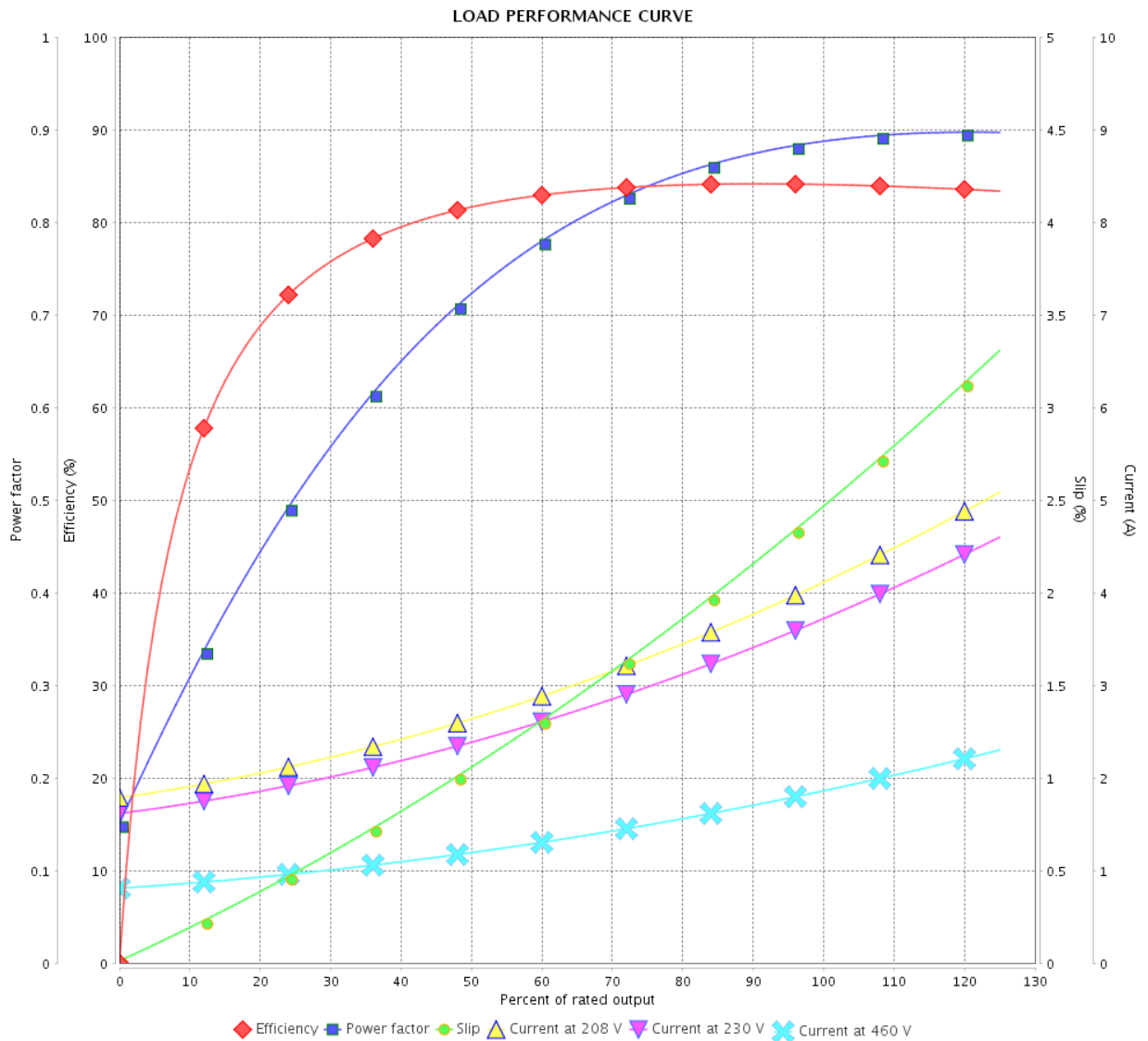


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Product code : 13500643

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Performance : 230/460 V 60 Hz 2P

Rated current : 3.70/1.85 A  
 LRC : 8.6  
 Rated torque : 2.24 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 330 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.0835 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



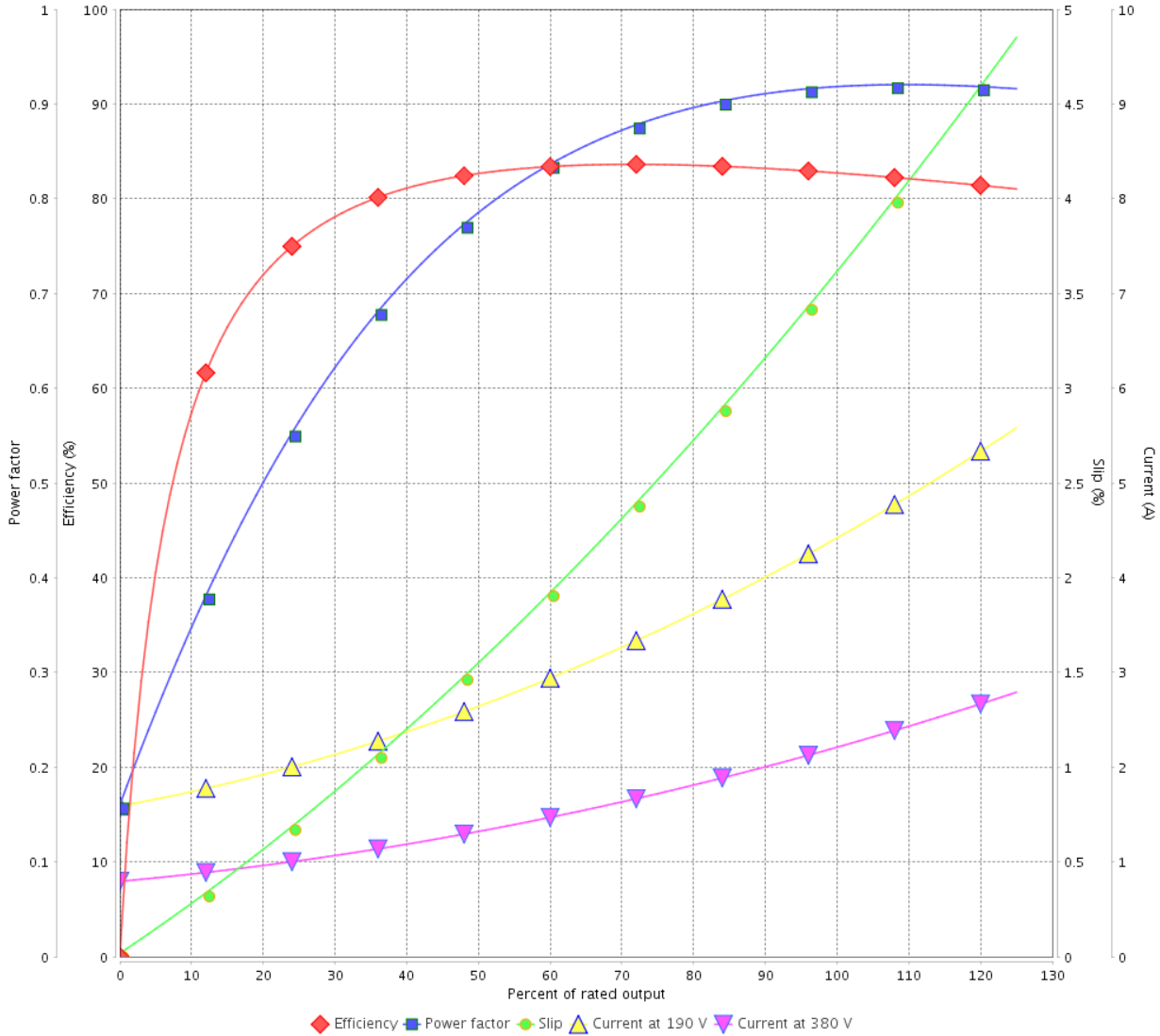
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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 4.40/2.20 A  
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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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

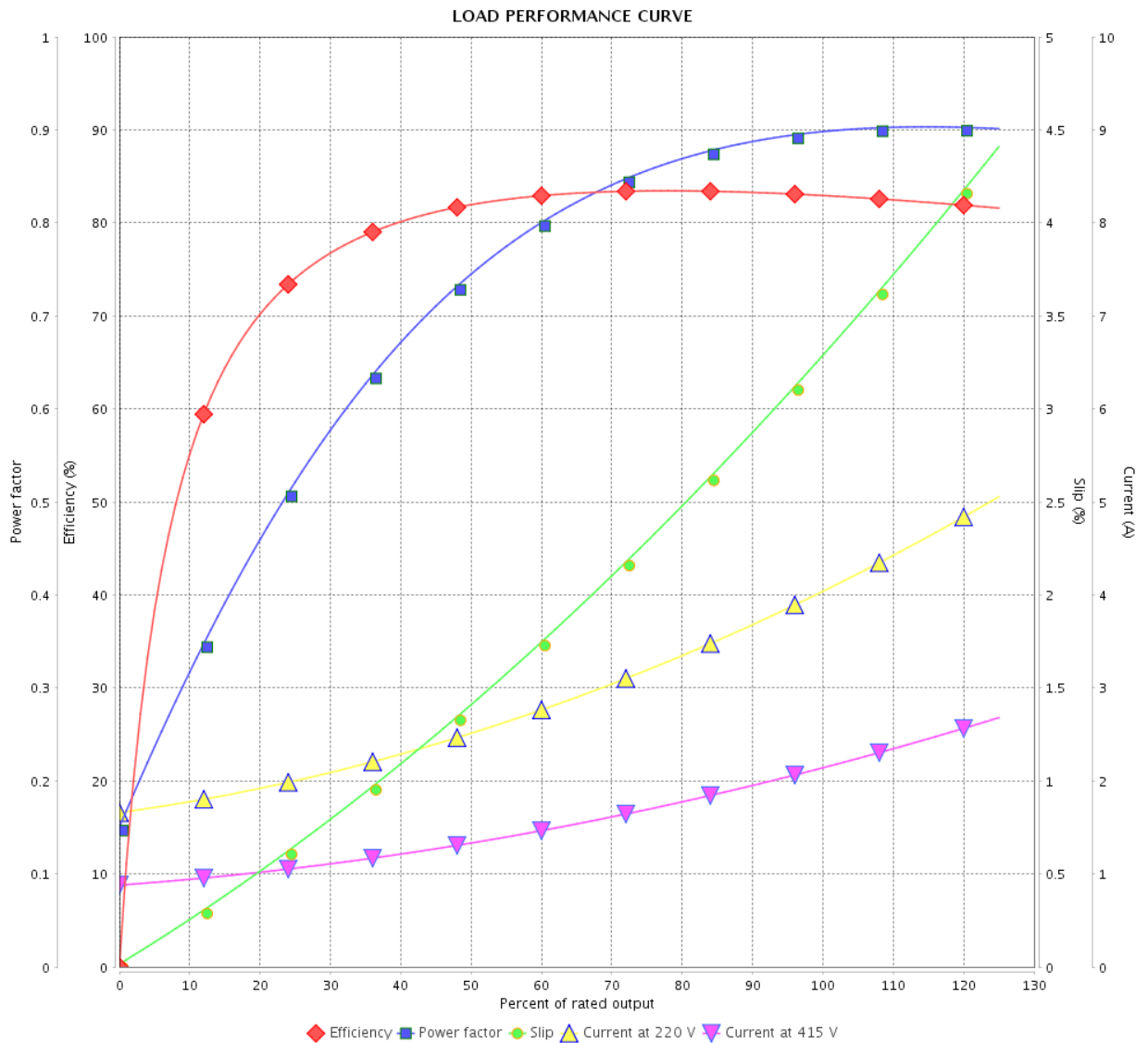


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Performance : 220/415 V 50 Hz 2P

Rated current : 4.02/2.13 A  
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 Breakdown torque : 280 %  
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# THERMAL LIMIT CURVE



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Breakdown torque : 330 %  
Rated speed : 3510 rpm

Moment of inertia (J) : 0.0835 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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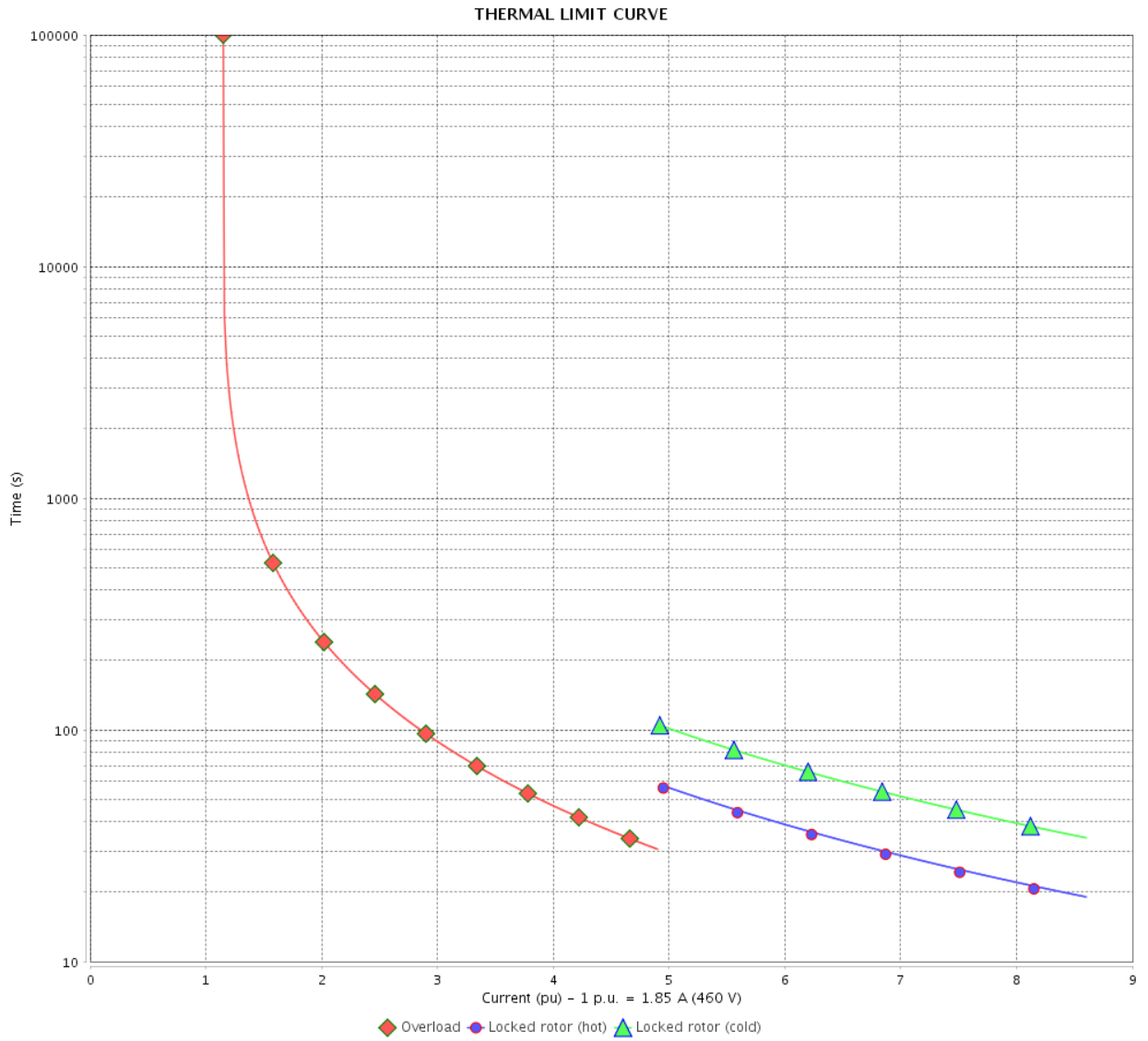


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Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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Cooling constant

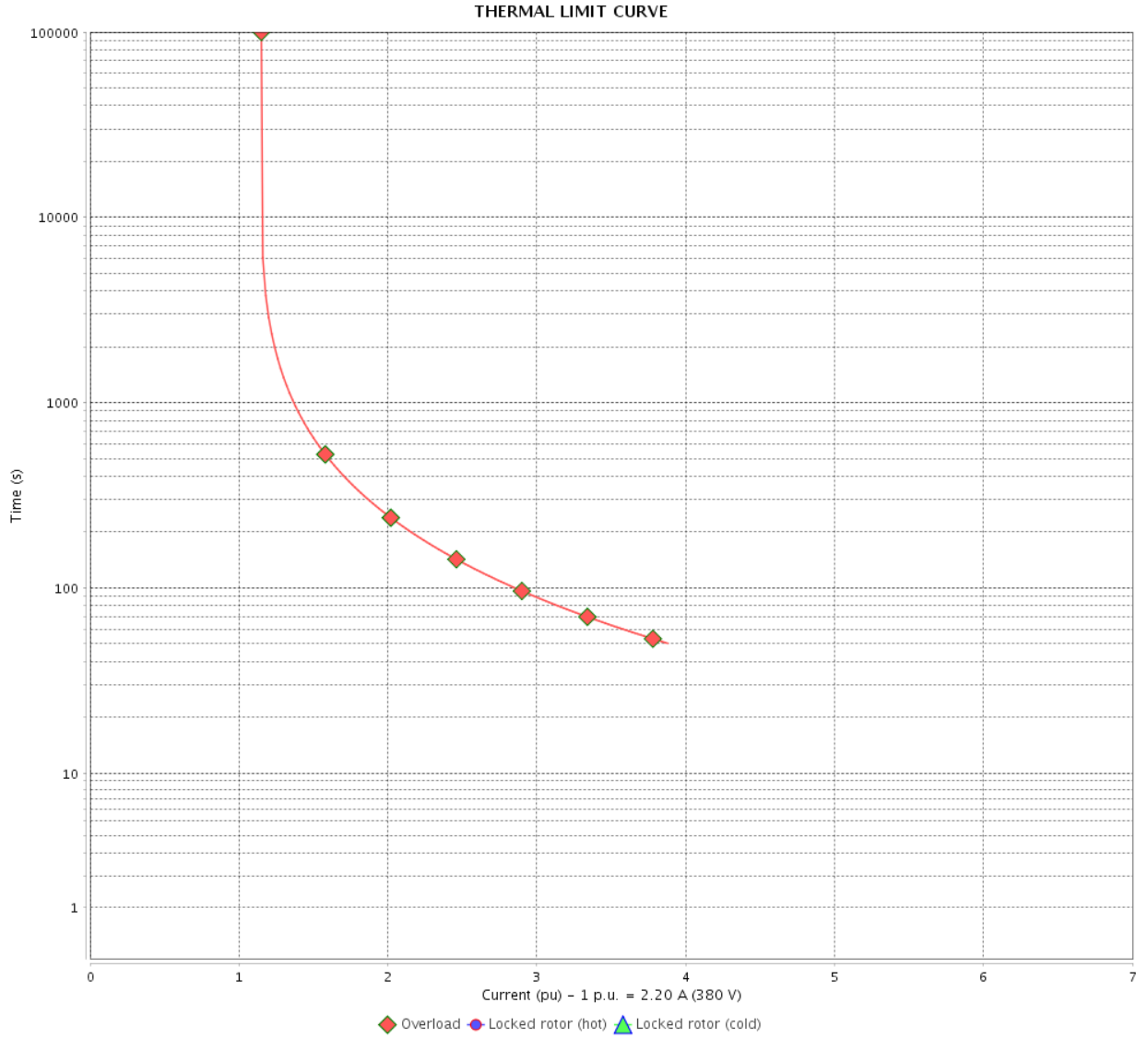
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Insulation class : F  
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Heating constant

Cooling constant

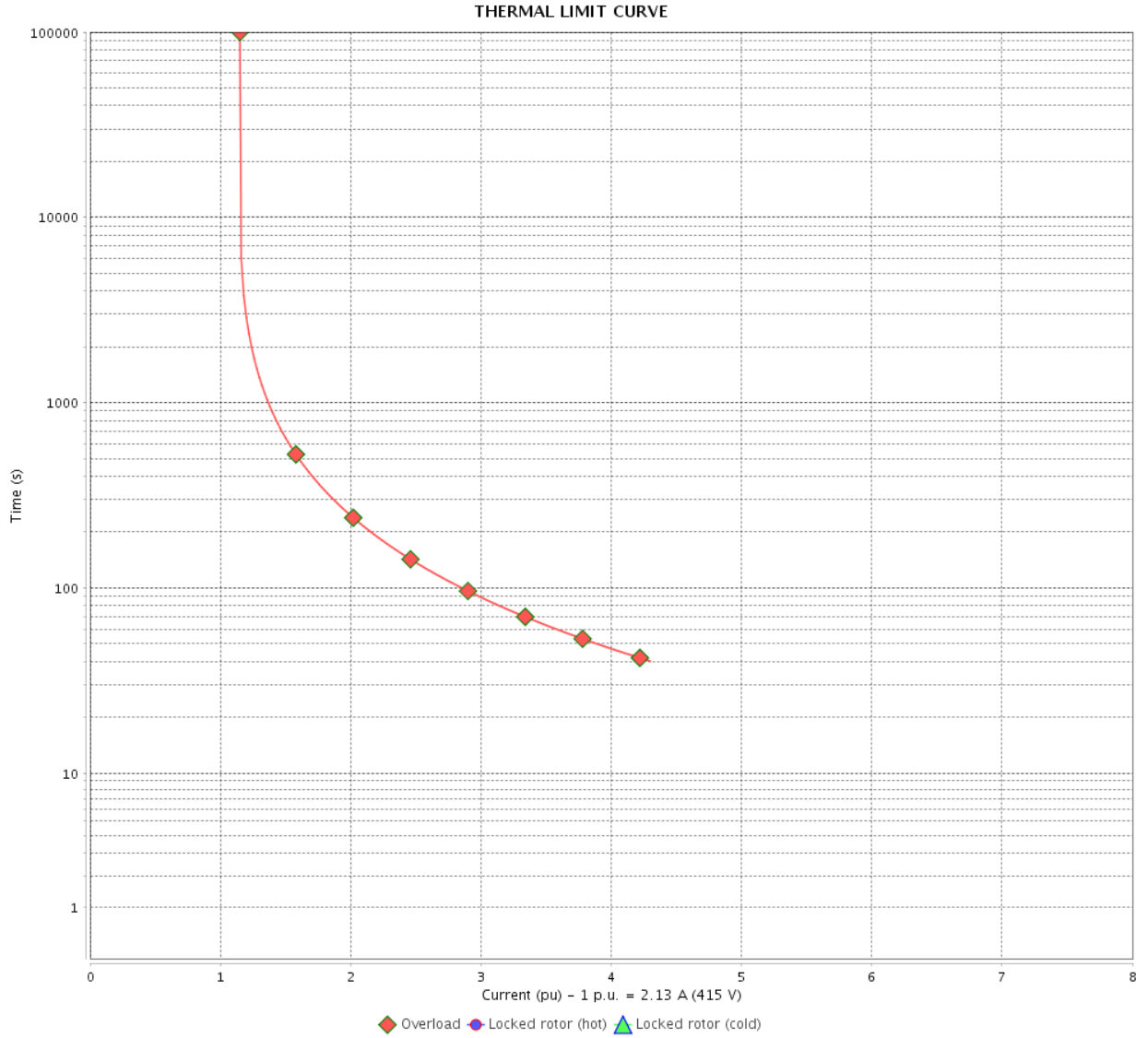
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Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



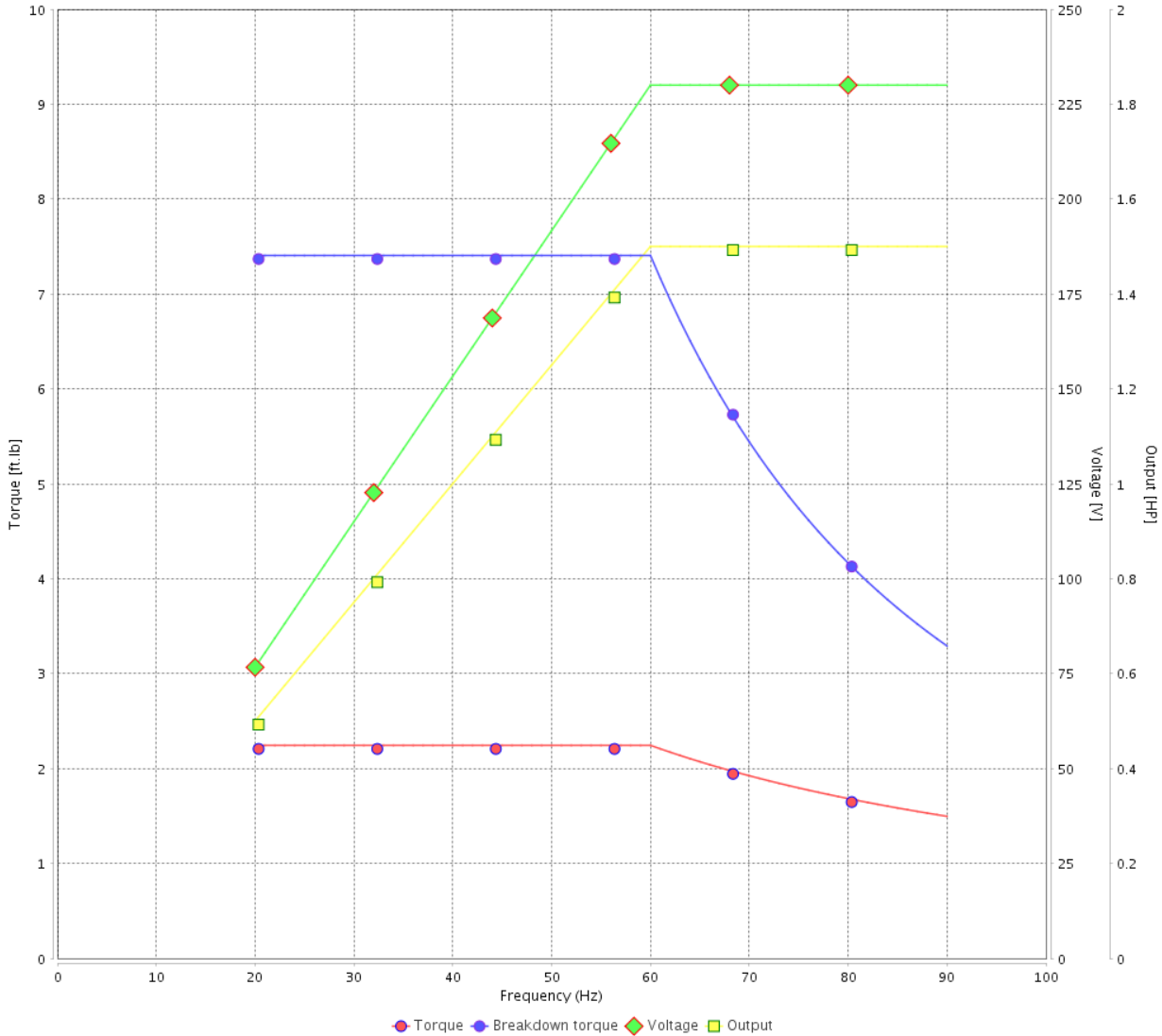
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VFD OPERATION CURVE



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 Rated torque : 2.24 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 330 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.0835 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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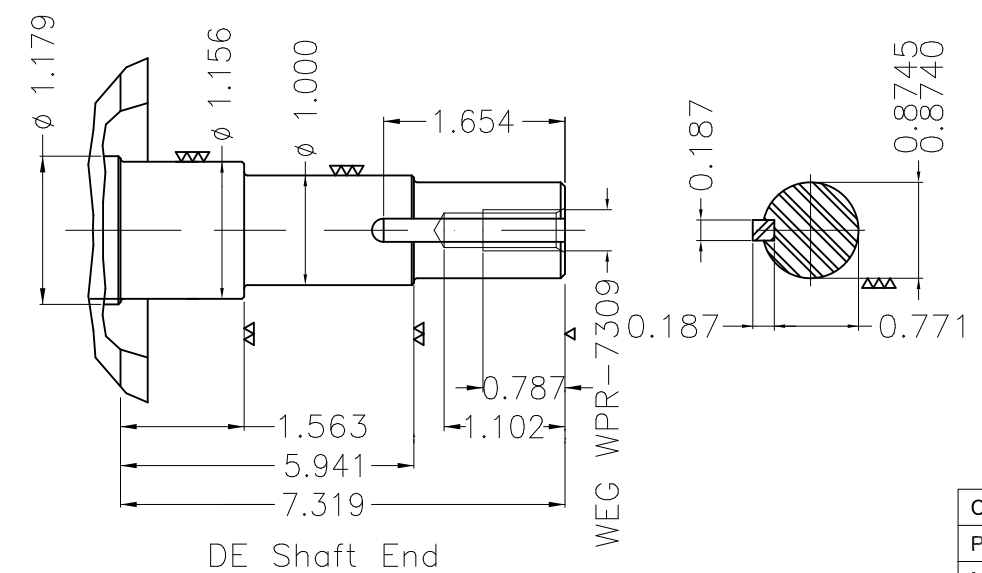
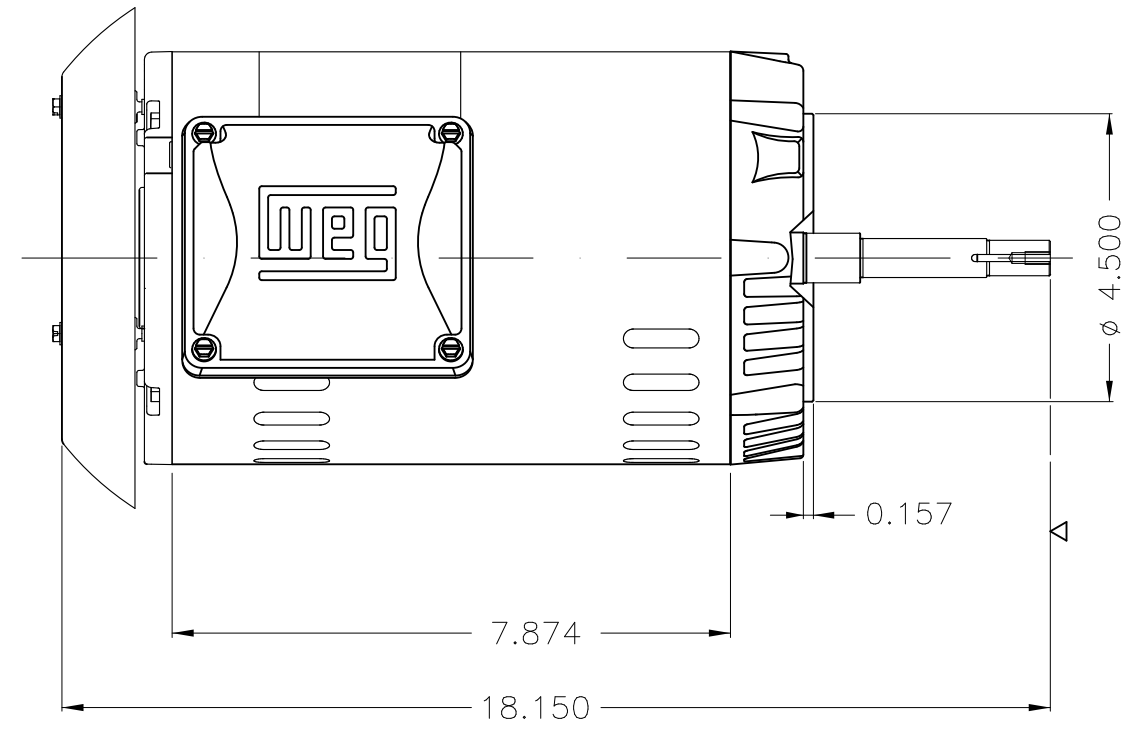
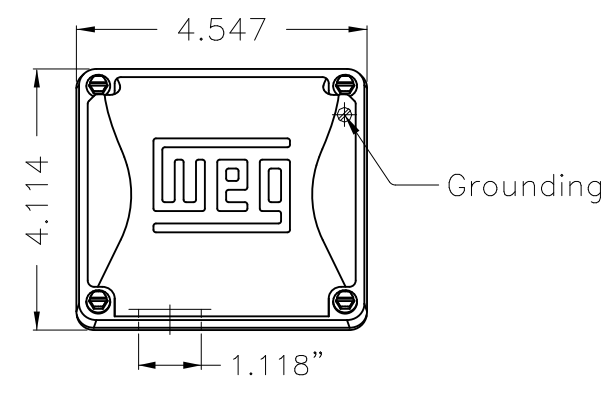
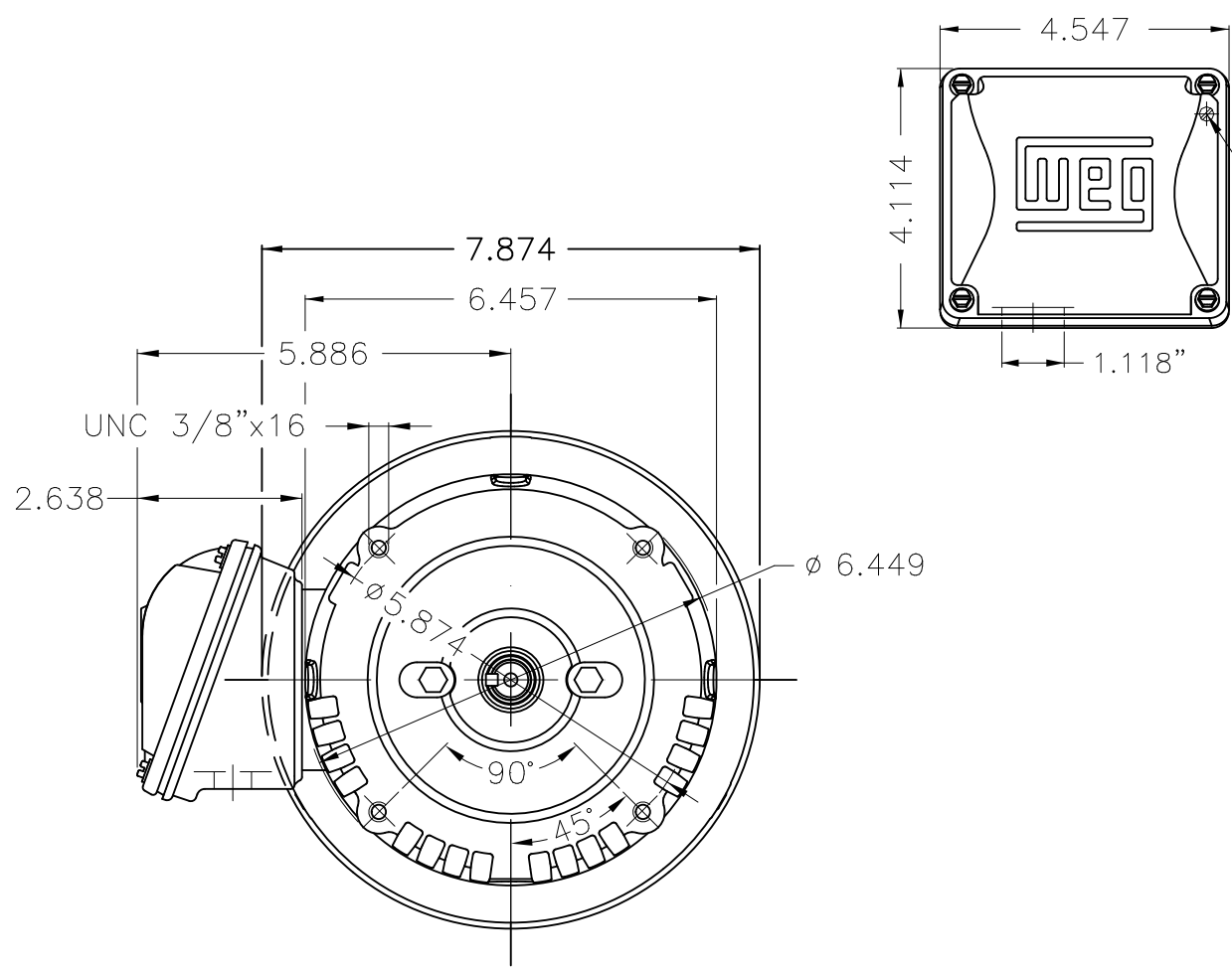
A

B

C

D

E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

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 CLOSE COUPLED PUMP JP 3/5 DE PREL ETX							
CHECKED		FRAME 143/5JP IP21 ODP							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

PREVIEW

WDD



1.5 HP 02 Poles 60 Hz