

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12735309	
		Catalog # :	002120T3E184T-SG	
Frame	: 182/4T	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: F-1	
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>	: 69.4 lb	
Design	: B	Moment of inertia (J)	: 0.2800 sq.ft.lb	
Output [HP]	2	2	2	
Poles	6	6	6	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	5.90/2.95	6.96/3.48	6.41/3.40	
L. R. Amperes [A]	38.9/19.5	35.5/17.7	36.6/19.4	
LRC [A]	6.6x(Code J)	5.1x(Code G)	5.7x(Code H)	
No load current [A]	3.42/1.71	3.37/1.69	3.50/1.86	
Rated speed [RPM]	1165	945	950	
Slip [%]	2.92	5.50	5.00	
Rated torque [ft.lb]	9.02	11.1	11.1	
Locked rotor torque [%]	200	160	190	
Breakdown torque [%]	300	220	250	
Service factor	1.15	1.00	1.00	
Temperature rise	80 K	105 K	80 K	
Locked rotor time	59s (cold) 33s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	52.0 dB(A)	50.0 dB(A)	50.0 dB(A)	
Efficiency (%)	25%	84.4	84.6	
	50%	85.5	84.0	
	75%	86.5	85.0	
	100%	87.5	83.8	
Power Factor	25%	0.30	0.32	
	50%	0.53	0.56	
	75%	0.66	0.69	
	100%	0.73	0.76	
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 142 lb	
		Max. compression	: 211 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 6.52A SF 1.00 SFA 6.52A				
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

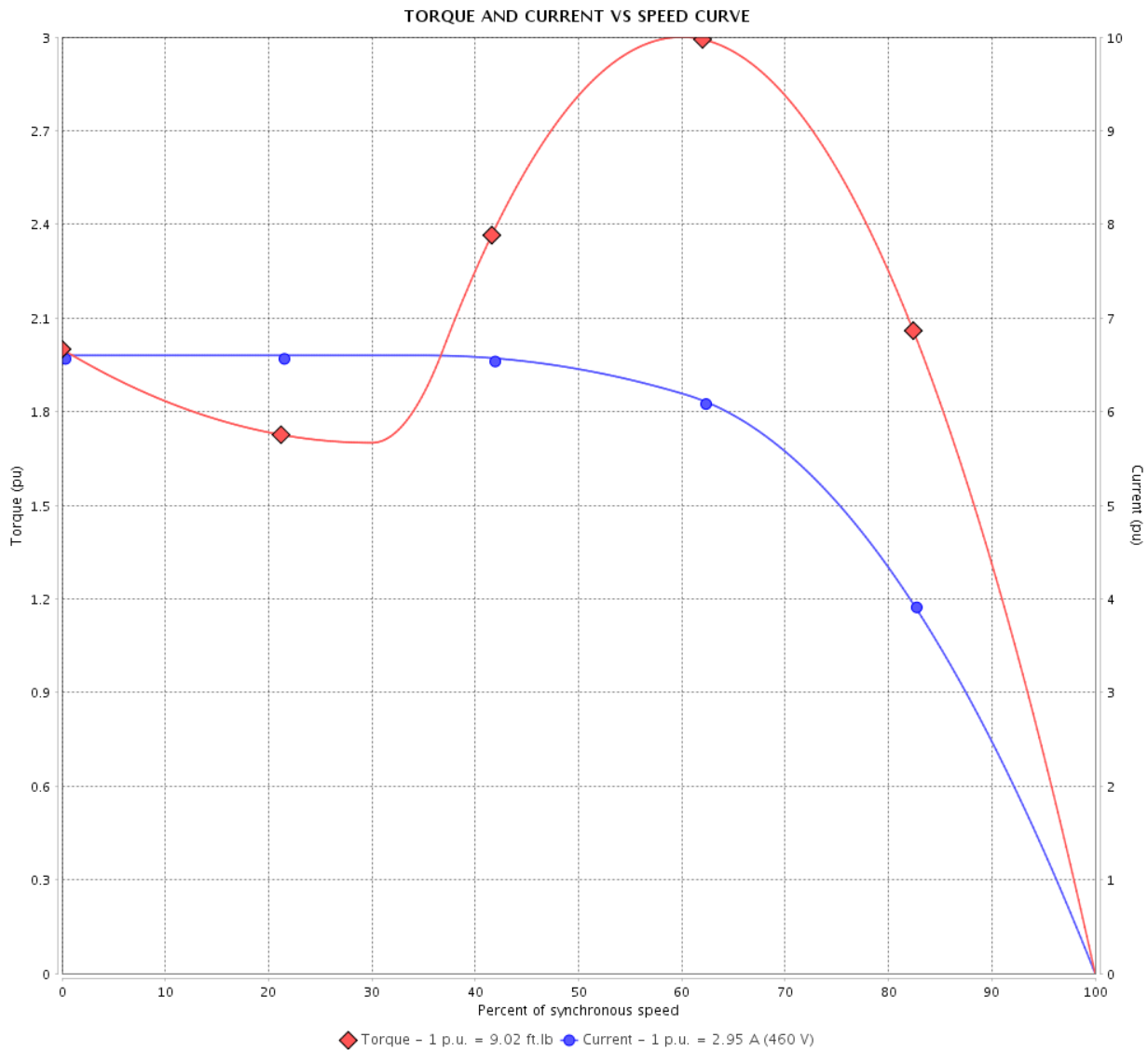


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735309

Catalog # : 002120T3E184T-SG



Performance : 230/460 V 60 Hz 6P

Rated current : 5.90/2.95 A  
 LRC : 6.6  
 Rated torque : 9.02 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 300 %  
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.2800 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 59s (cold) 33s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



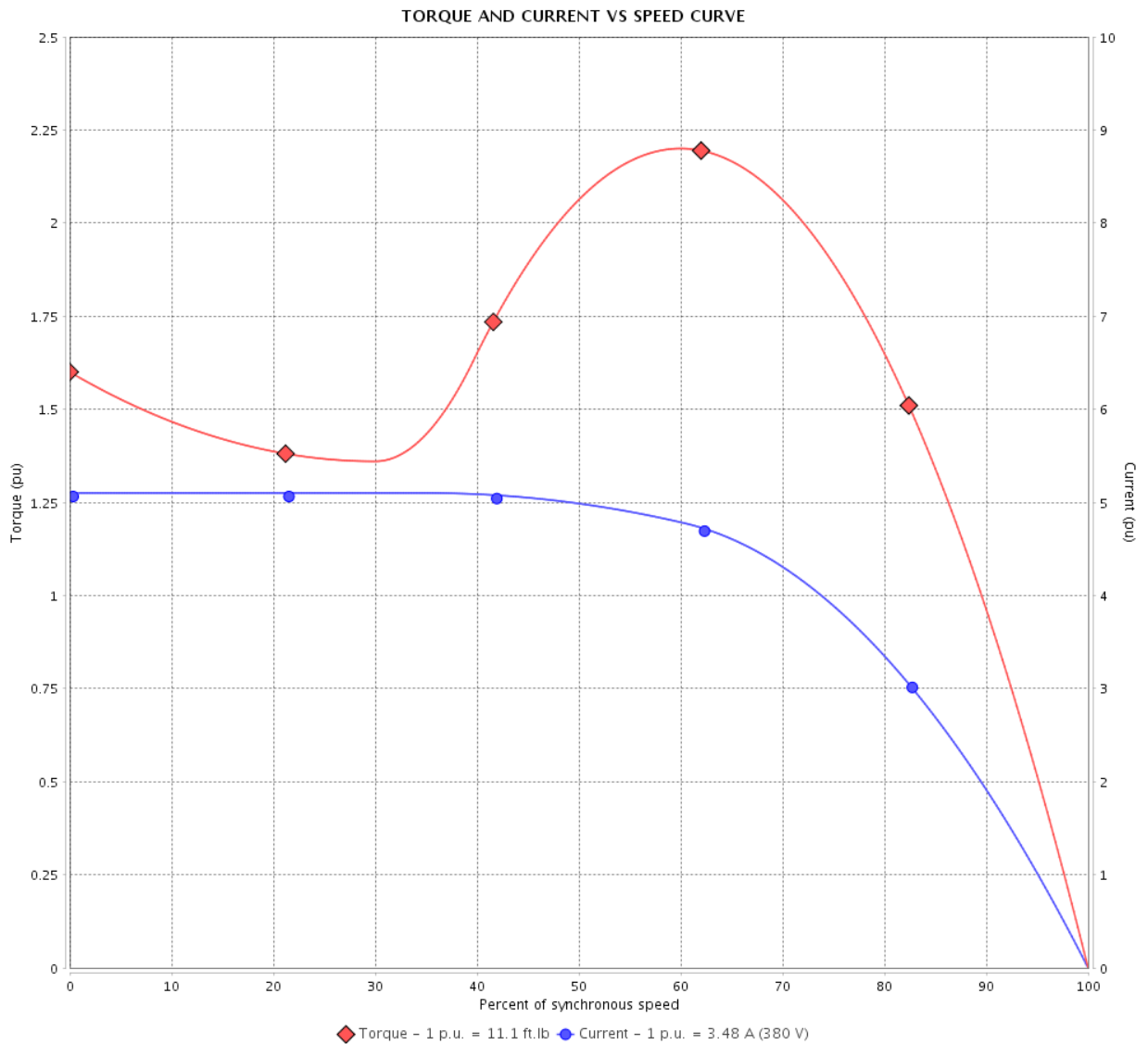
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735309

Catalog # : 002120T3E184T-SG



Performance : 190/380 V 50 Hz 6P

Rated current	: 6.96/3.48 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 945 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



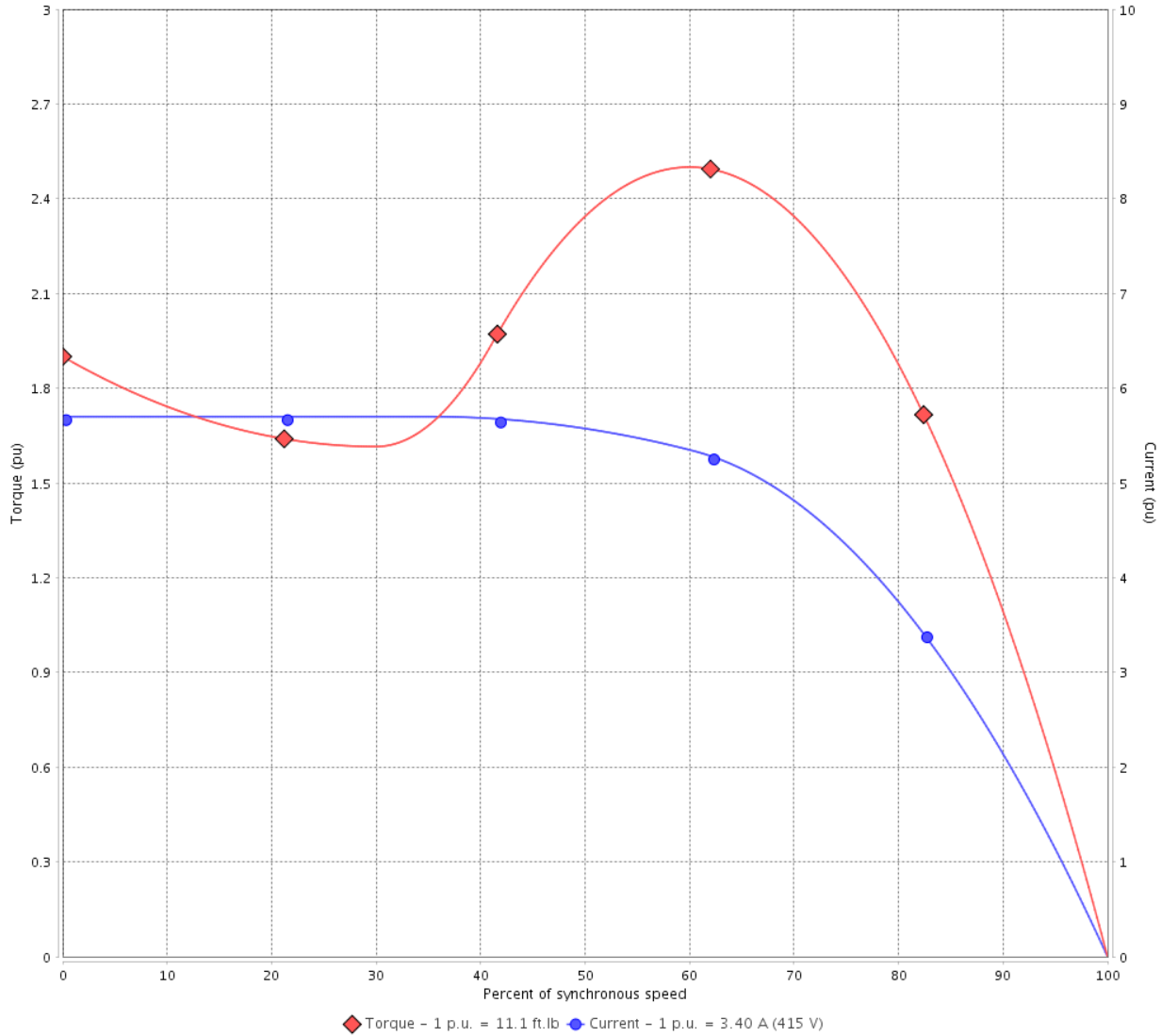
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735309

Catalog # : 002120T3E184T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 6.41/3.40 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

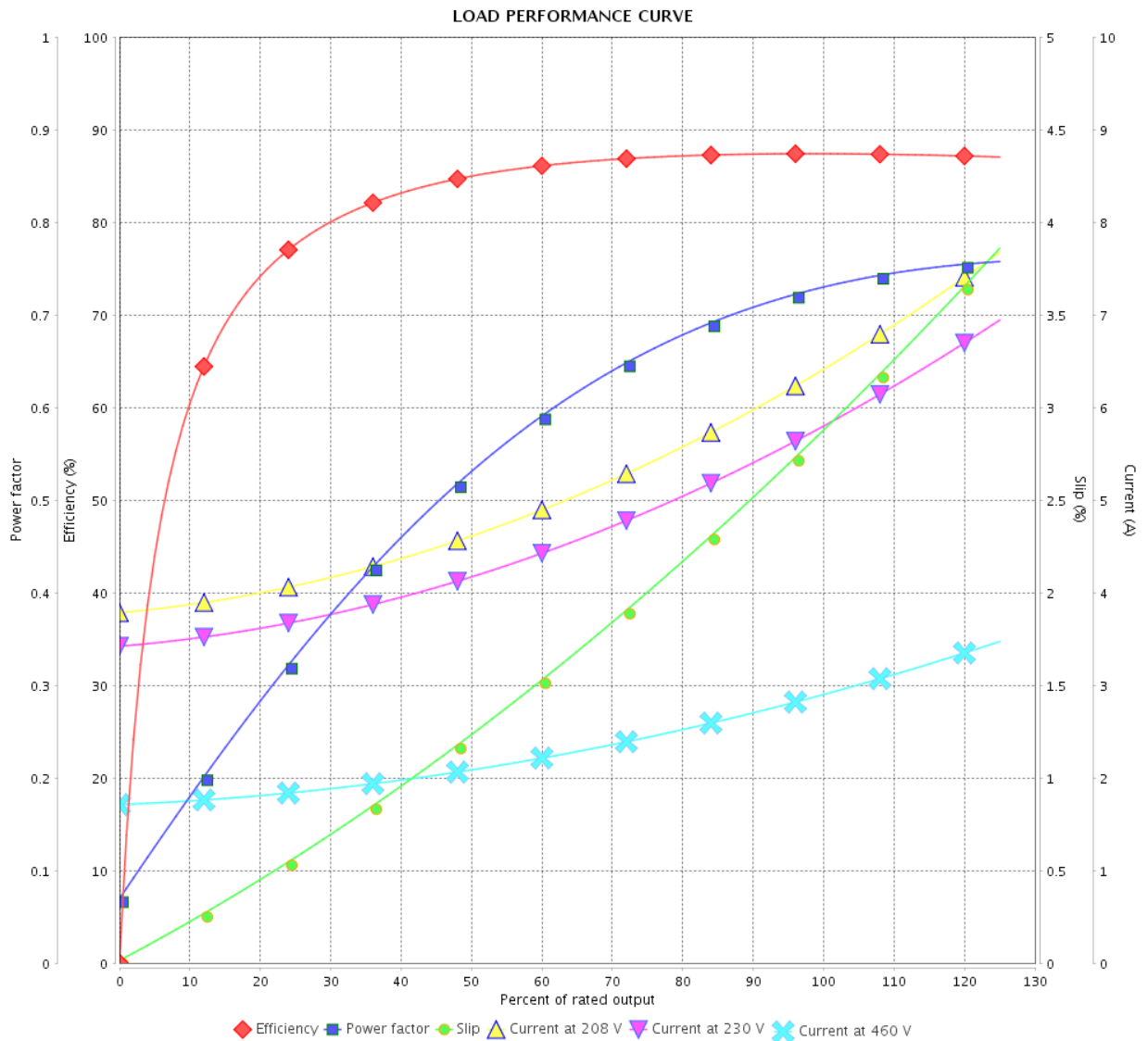


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Performance : 230/460 V 60 Hz 6P

Rated current : 5.90/2.95 A  
 LRC : 6.6  
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 Locked rotor torque : 200 %  
 Breakdown torque : 300 %  
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.2800 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



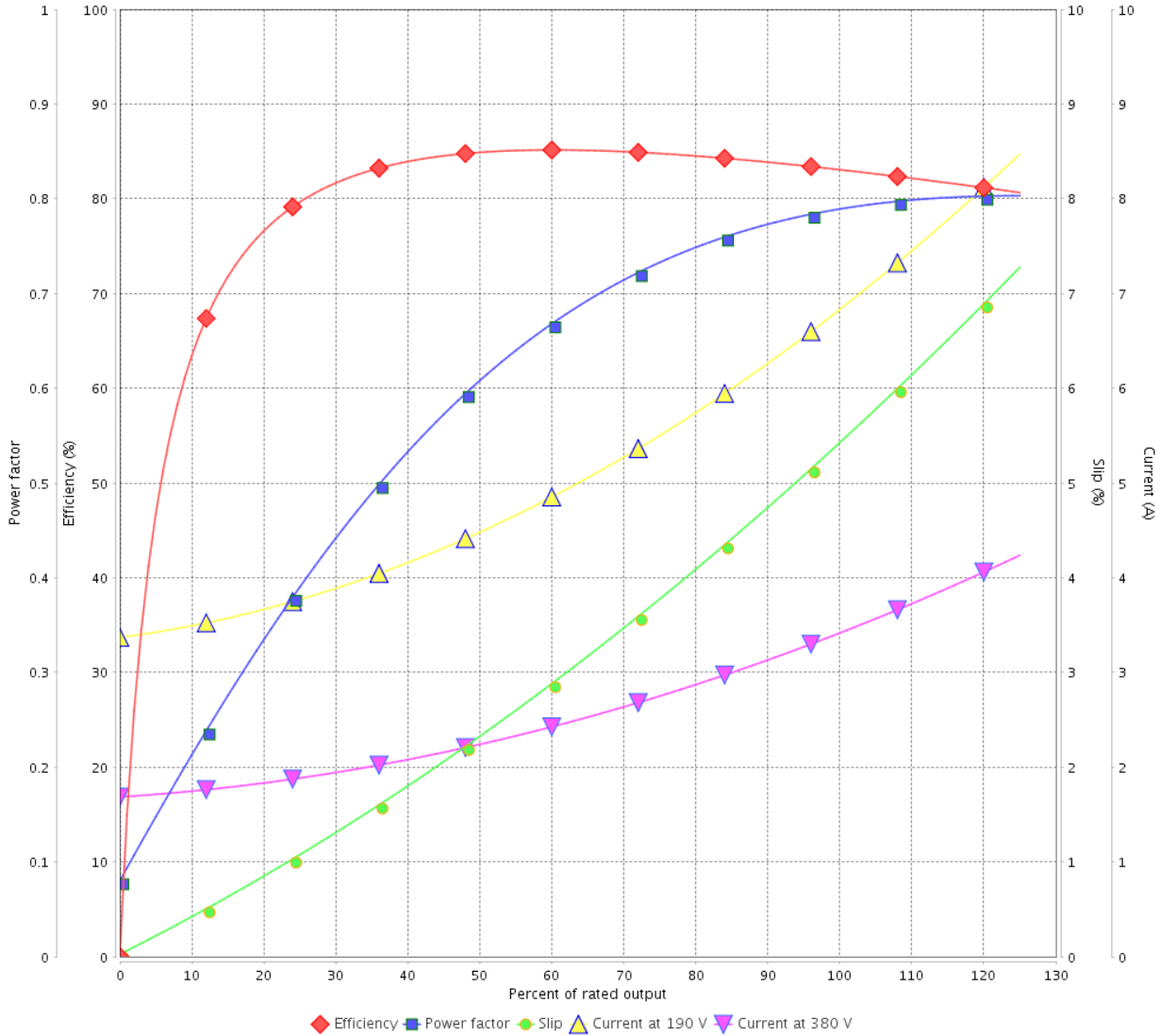
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Product code : 12735309

Catalog # : 002120T3E184T-SG

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 6.96/3.48 A  
 LRC : 5.1  
 Rated torque : 11.1 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 220 %  
 Rated speed : 945 rpm

Moment of inertia (J) : 0.2800 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

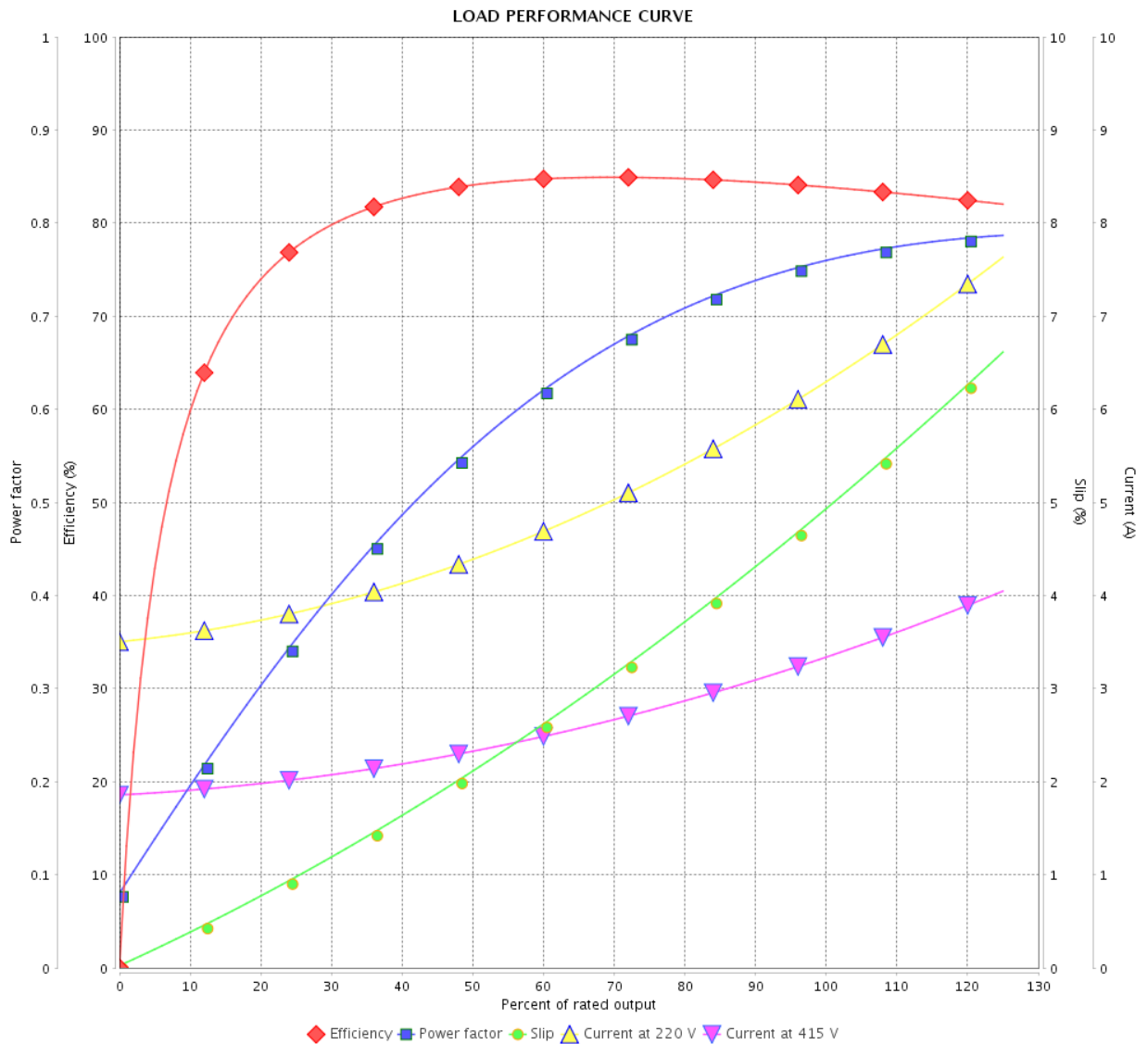


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Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735309

Catalog # : 002120T3E184T-SG



Performance : 220/415 V 50 Hz 6P

Rated current : 6.41/3.40 A  
 LRC : 5.7  
 Rated torque : 11.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 950 rpm

Moment of inertia (J) : 0.2800 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 12735309  
 Catalog # : 00212OT3E184T-SG

Performance : 230/460 V 60 Hz 6P

Rated current : 5.90/2.95 A	Moment of inertia (J) : 0.2800 sq.ft.lb
LRC : 6.6	Duty cycle : Cont.(S1)
Rated torque : 9.02 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.15
Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 1165 rpm	Design : B

Heating constant

Cooling constant

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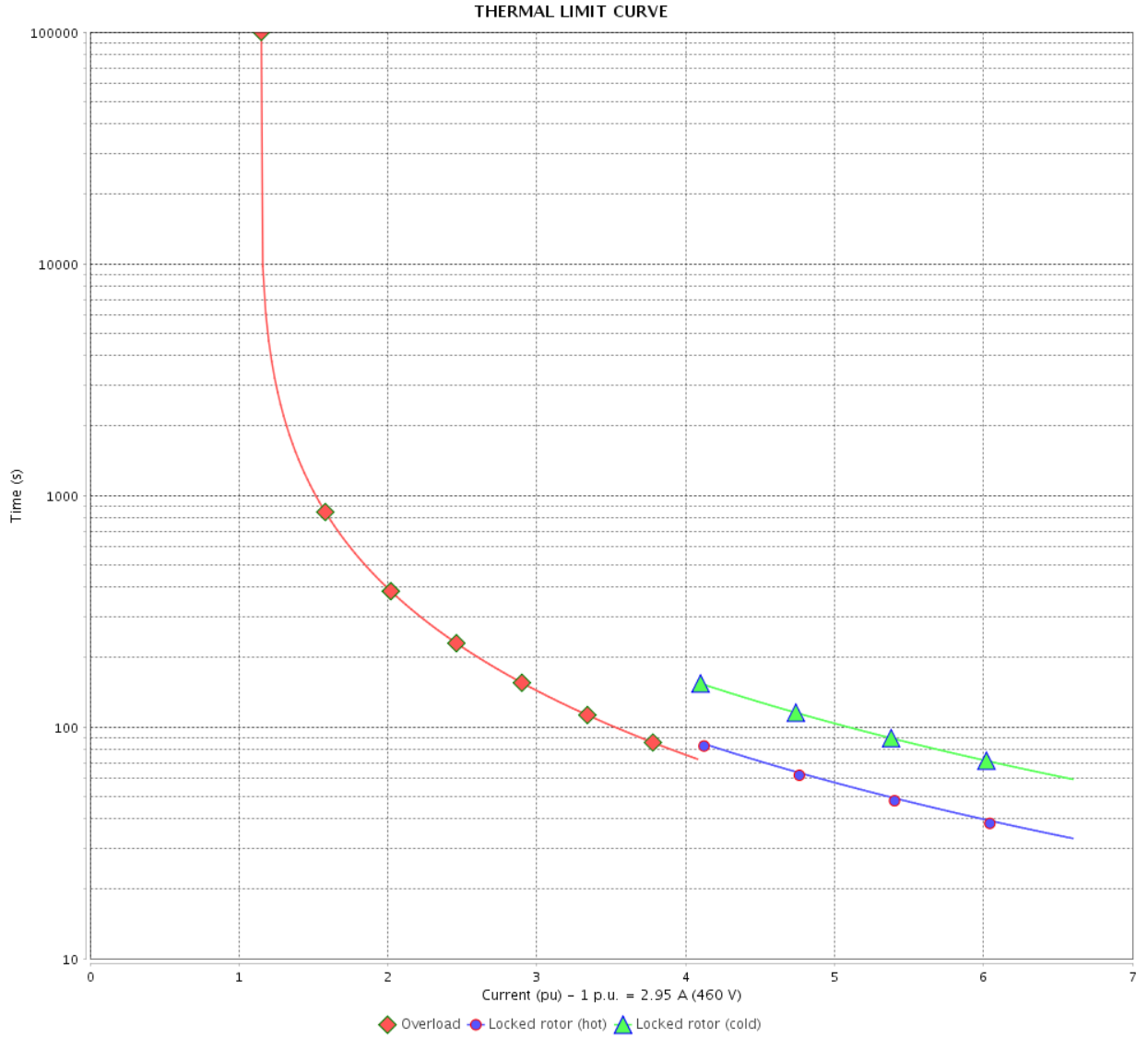


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Three Phase Induction Motor - Squirrel Cage



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



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Performance : 190/380 V 50 Hz 6P

Rated current	: 6.96/3.48 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 220 %	Temperature rise	: 105 K
Rated speed	: 945 rpm	Design	: B

Heating constant

Cooling constant

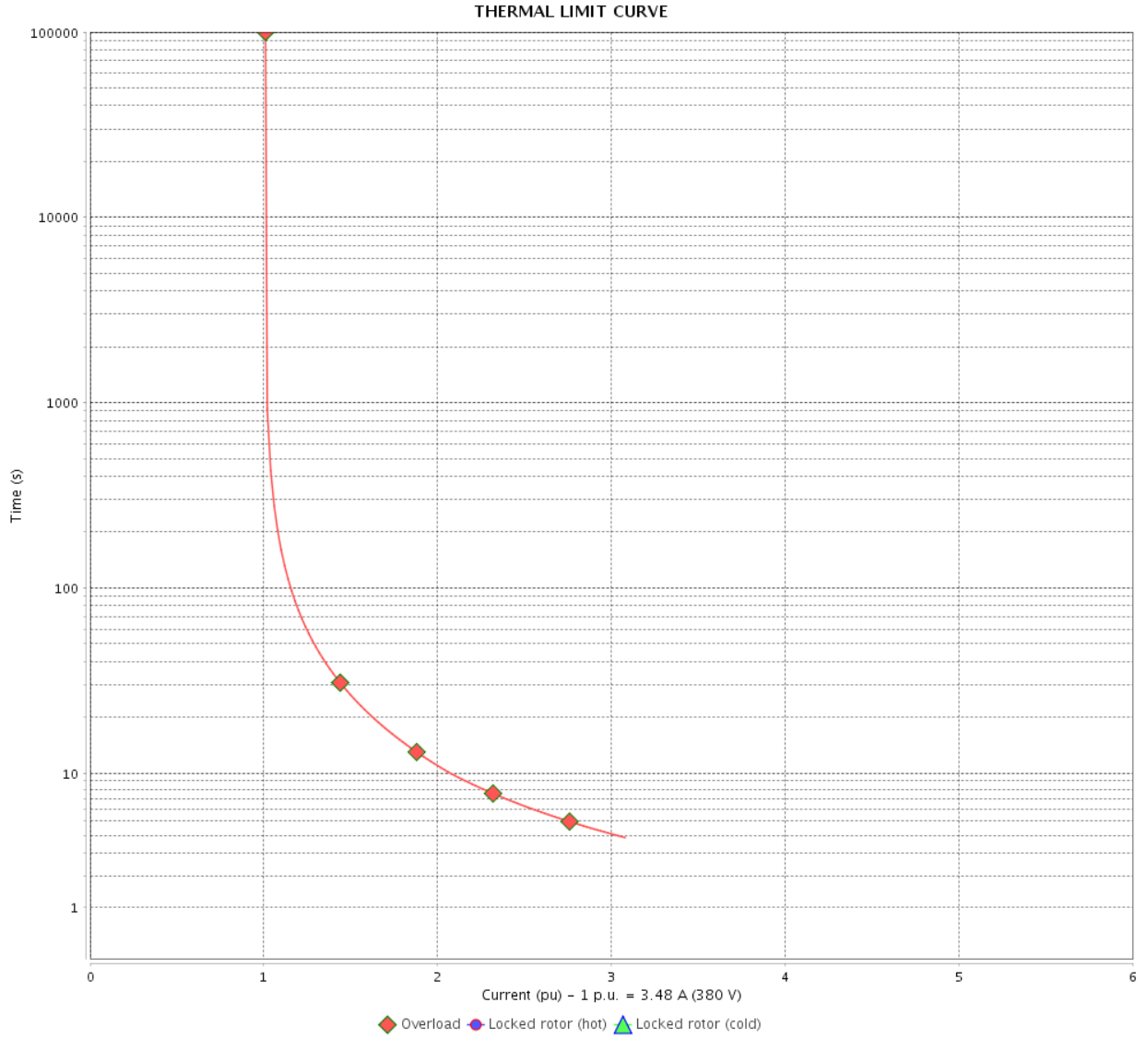
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Rated current	: 6.41/3.40 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
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Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: B

Heating constant

Cooling constant

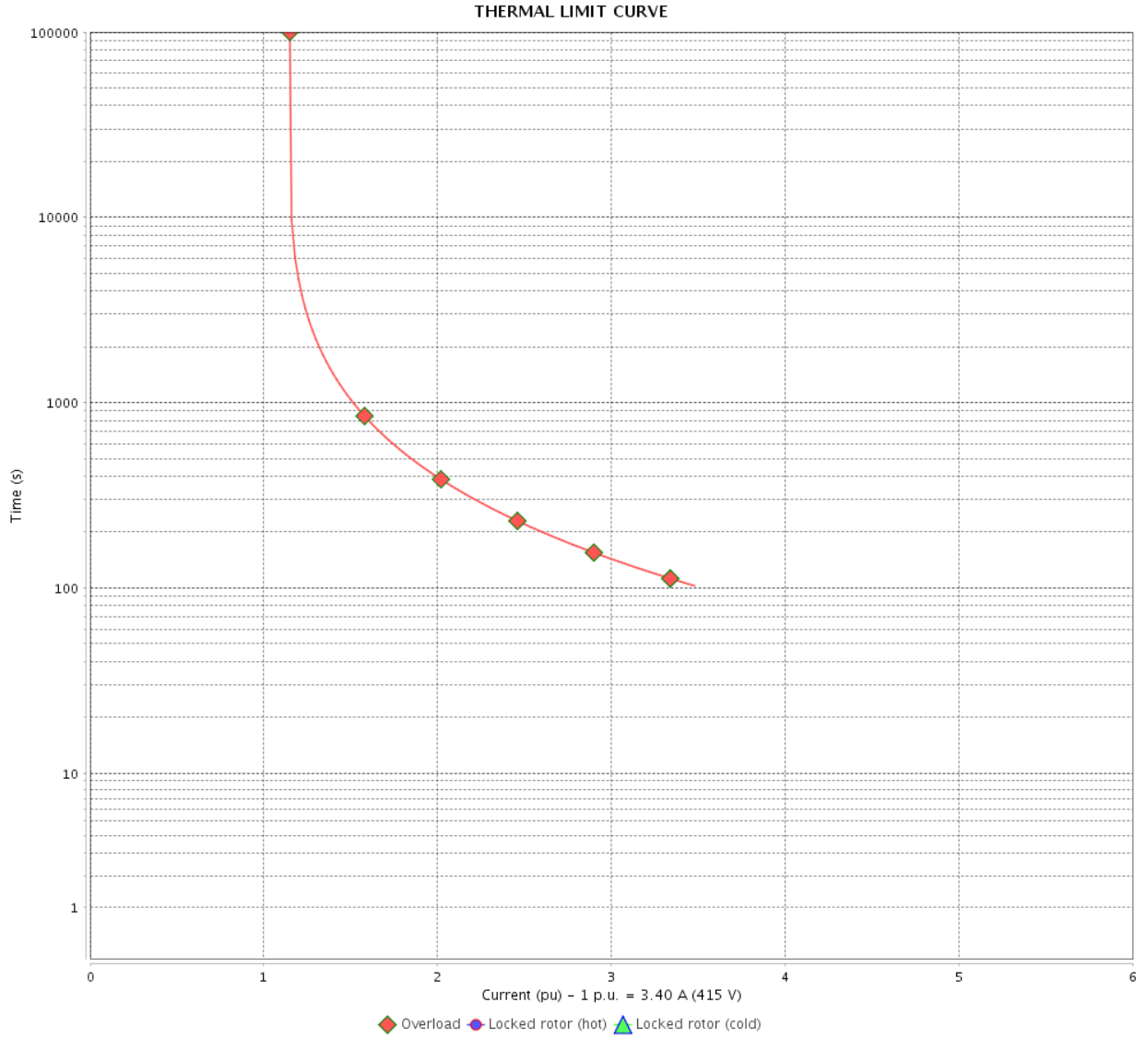
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Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

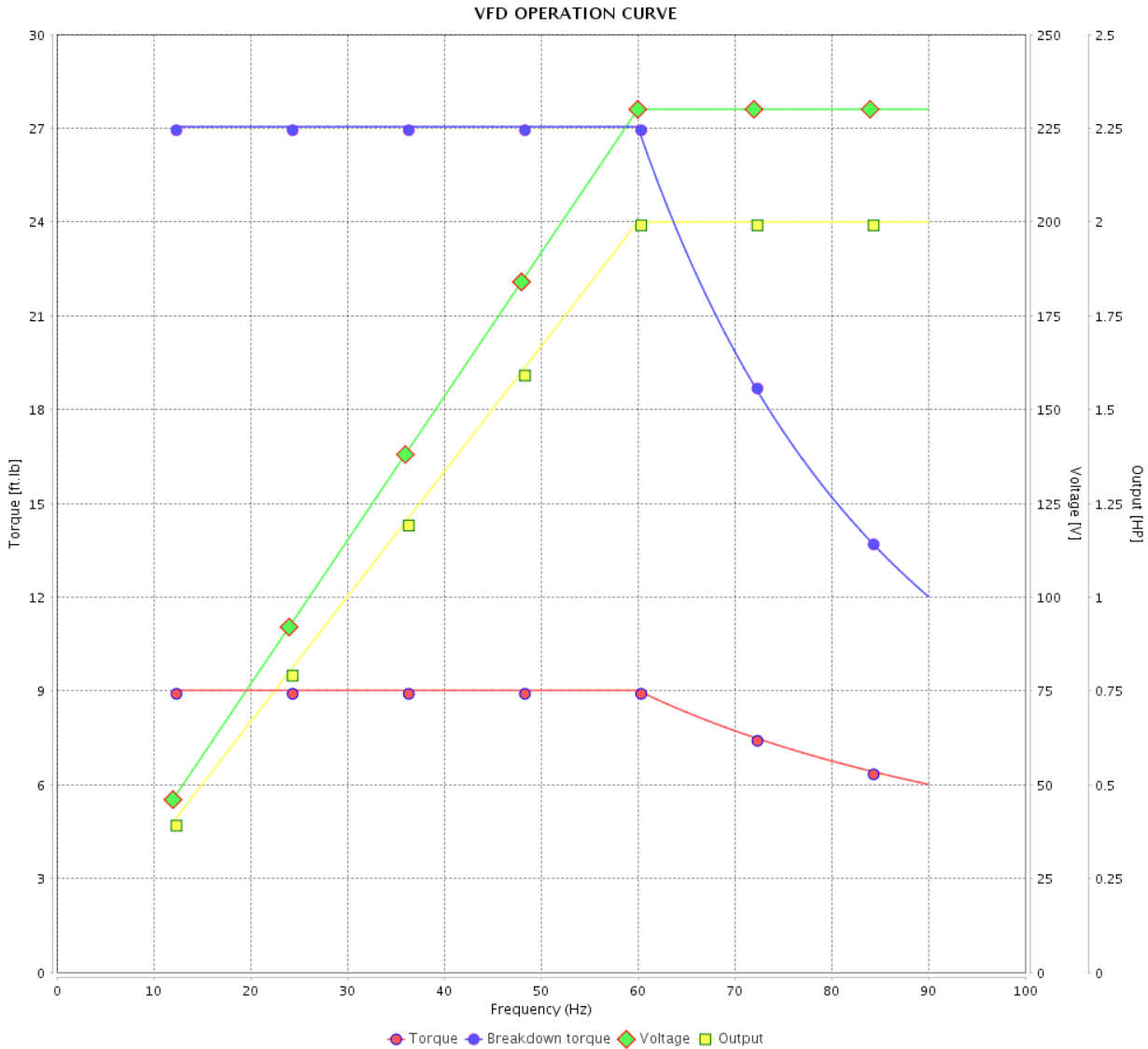


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 Breakdown torque : 300 %  
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.2800 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

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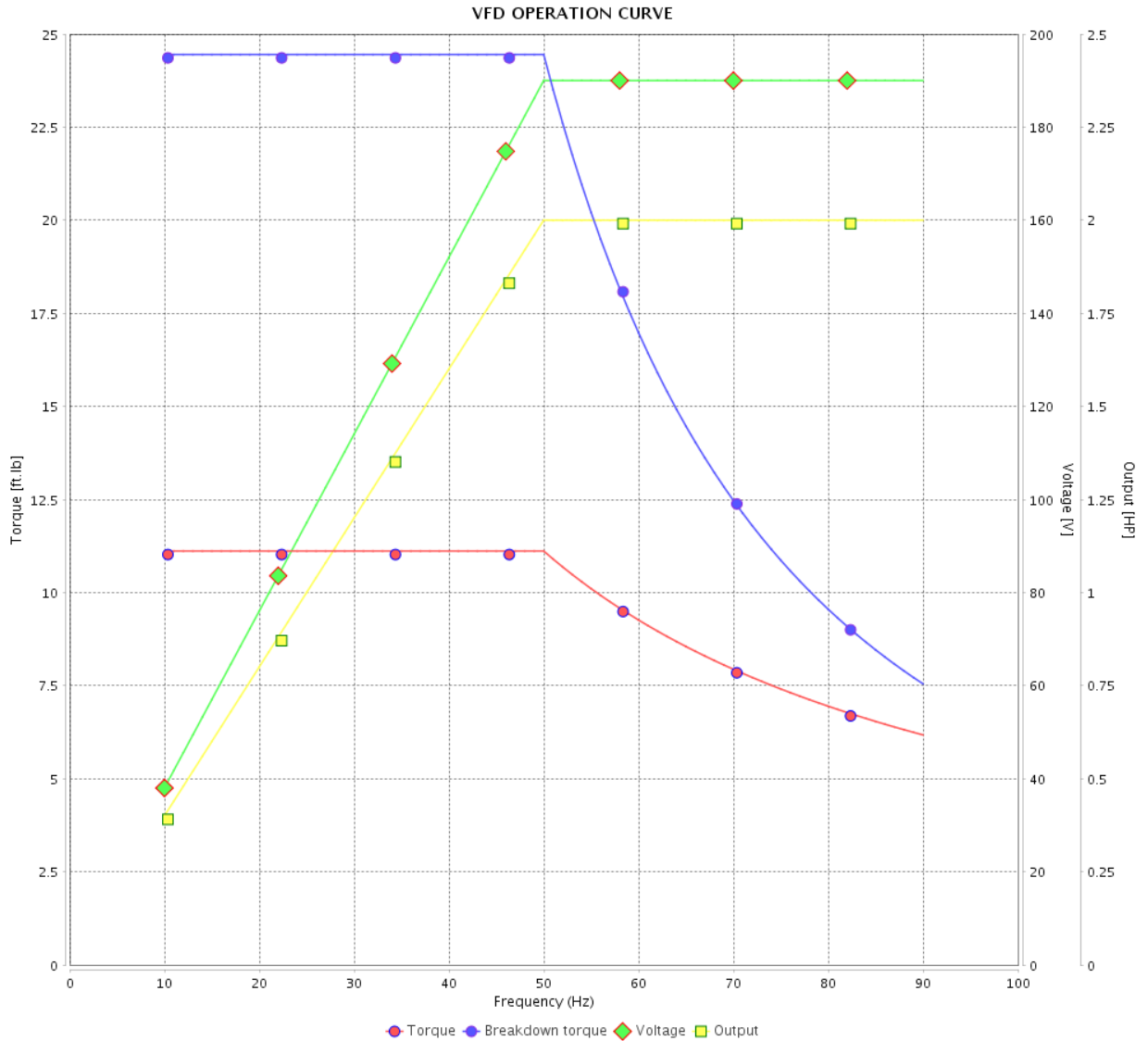


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 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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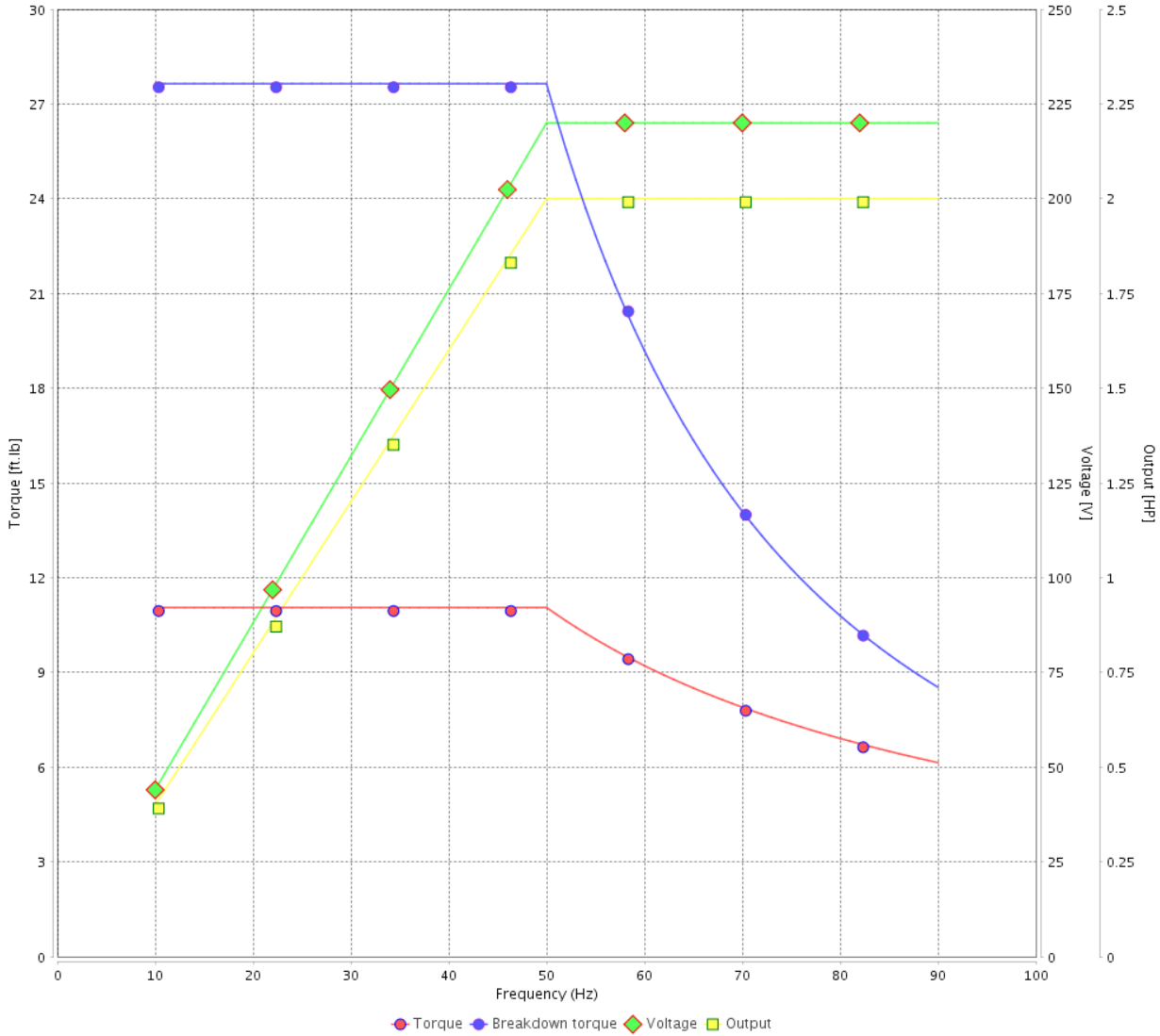
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 Insulation class : F  
 Service factor : 1.00  
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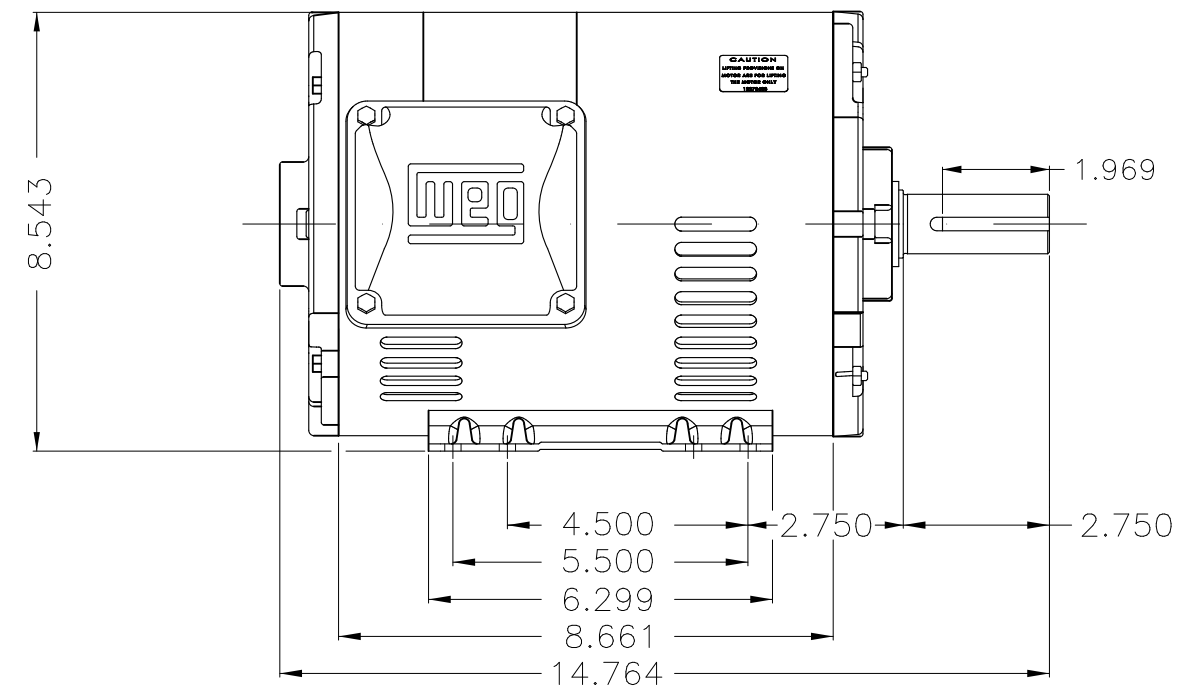
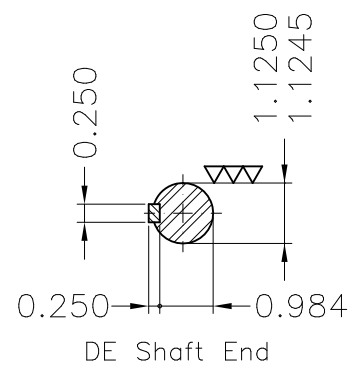
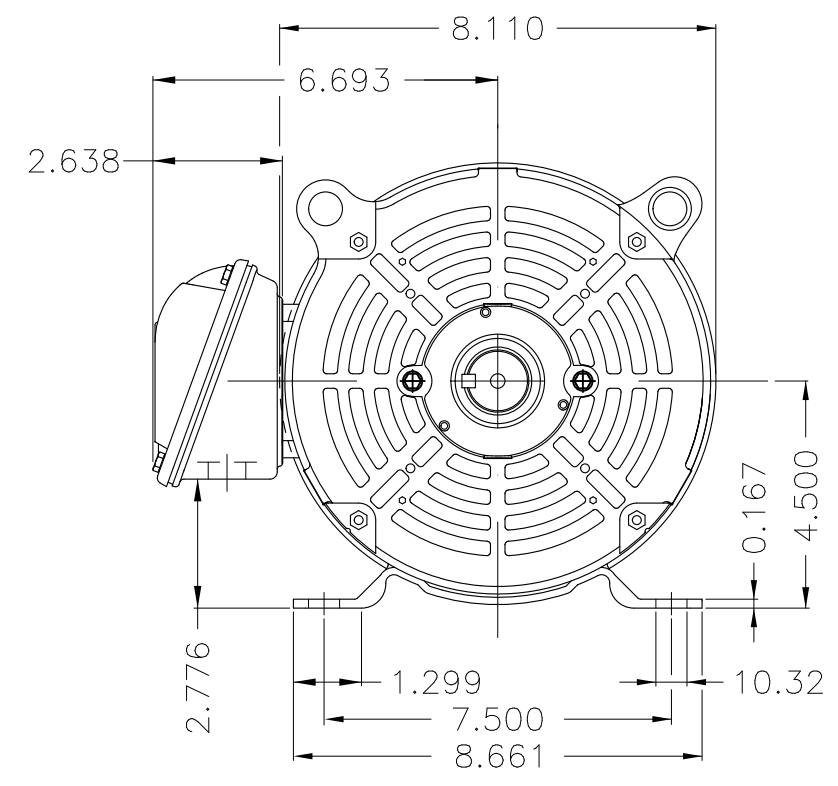
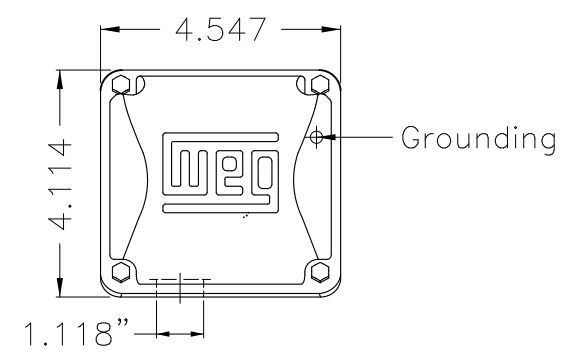
A

B

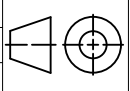
C

D

E



- Bearing cap
- Internal AEGIS ground ring on the DE
- 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 182/4T IP21 ODP					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

2 HP 06 Poles 60 Hz

A

PREVIEW  
WDD



**WEG**  
**NEMA**  
**Premium**3PT9  
C US LISTED

Energy Verified



MADE IN MEXICO

MAT: 12735309 CC029A

W01.T00IC0X0N

MODEL 002120T3E184T-SG

13DEZ2019 S/N:

PH 3 FR 182/4T HP(KW) 2.0(1.5) Hz 60

V 230/460 RPM 1165

A 5.90/2.95 DUTY CONT.

SFA 6.79/3.39 CODE J DES B

SF 1.15 INS CL F AT 80K AMB 40°C ENCL ODP

PF 0.73 NEMA NOM.EFF. 87.5%

ALT 1000 m.a.s.l. USABLE @ 208V 6.52A SF1.00

ALTERNATE RATING: 2.0HP 50Hz 190-220/380-415V SF1.00

6.96-6.34/3.48-3.36A 945RPM EFF 83.0% (IE3) IEC 60034-1



INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 5:1 CT

DE: 6206-ZZ ODE: 6205-ZZ MOBIL POLYREX EM

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.

