

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: Rolled Steel NEMA Premium Efficiency Three-Phase	Product code :	12750585
		Catalog # :	002120T3E184TC-S
Frame	: 182/4TC	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>	: 35.4 kg
Design	: B	Moment of inertia (J)	: 0.0118 kgm <sup>2</sup>
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 [kgfm]	1.25	1.54	1.53
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	: 62 kgf
		Max. compression	: 97 kgf
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

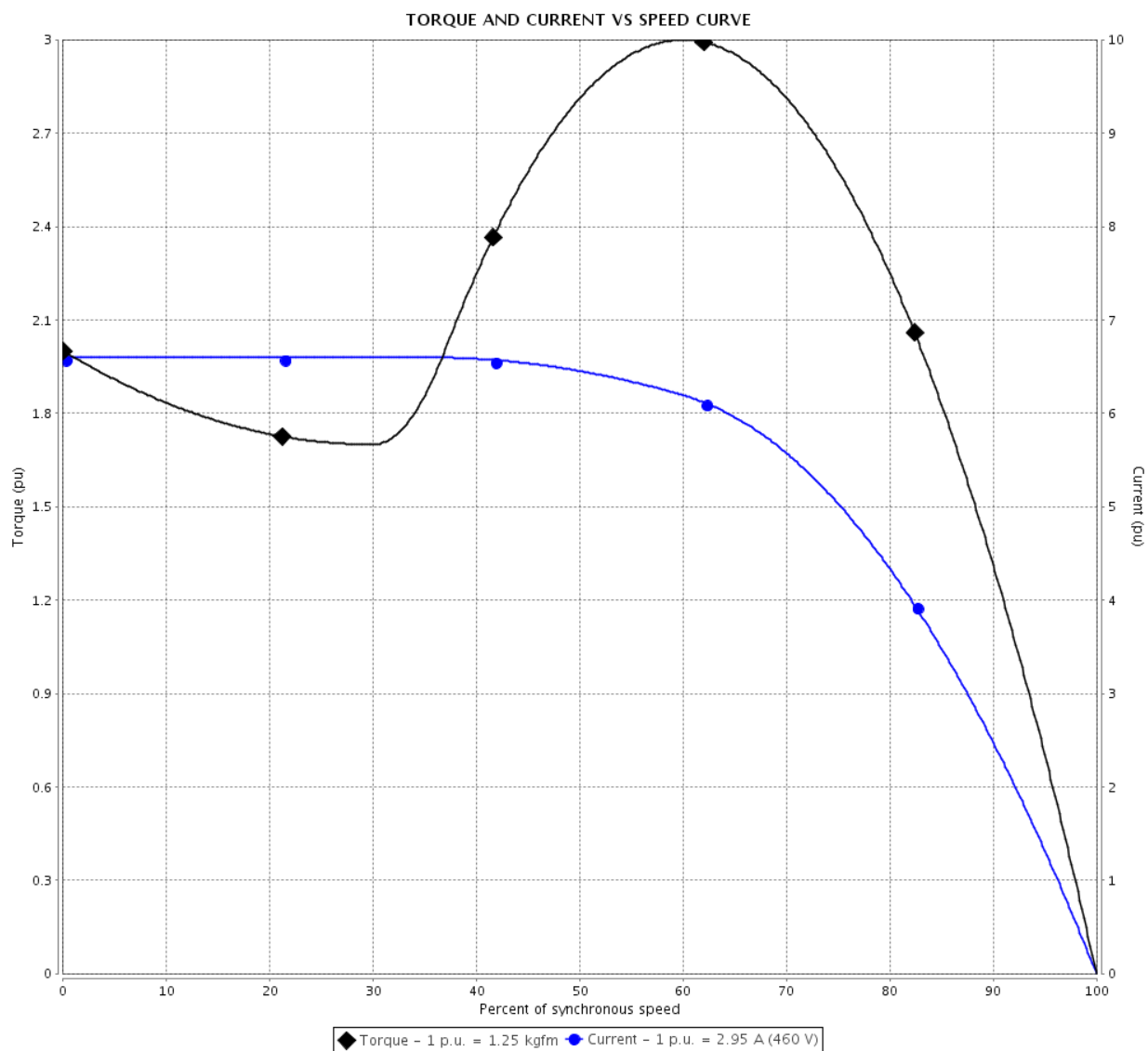


Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12750585

Catalog # : 002120T3E184TC-S



Performance : 230/460 V 60 Hz 6P

Rated current : 5.90/2.95 A  
 LRC : 6.6  
 Rated torque : 1.25 kgfm  
 Locked rotor torque : 200 %  
 Breakdown torque : 300 %  
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.0118 kgm<sup>2</sup>  
 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

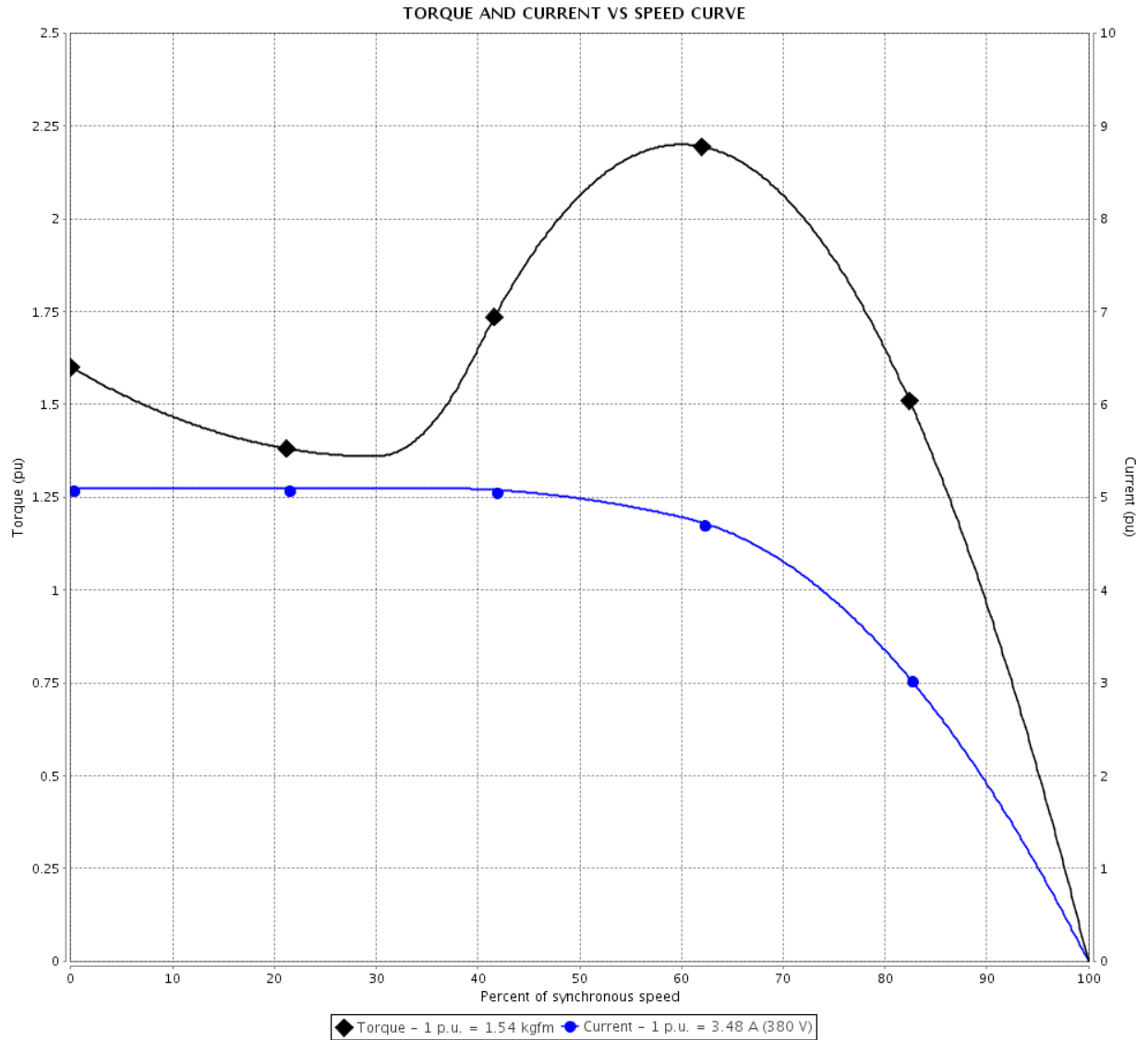


Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12750585

Catalog # : 002120T3E184TC-S



Performance : 190/380 V 50 Hz 6P

Rated current : 6.96/3.48 A  
 LRC : 5.1  
 Rated torque : 1.54 kgfm  
 Locked rotor torque : 160 %  
 Breakdown torque : 220 %  
 Rated speed : 945 rpm

Moment of inertia (J) : 0.0118 kgm<sup>2</sup>  
 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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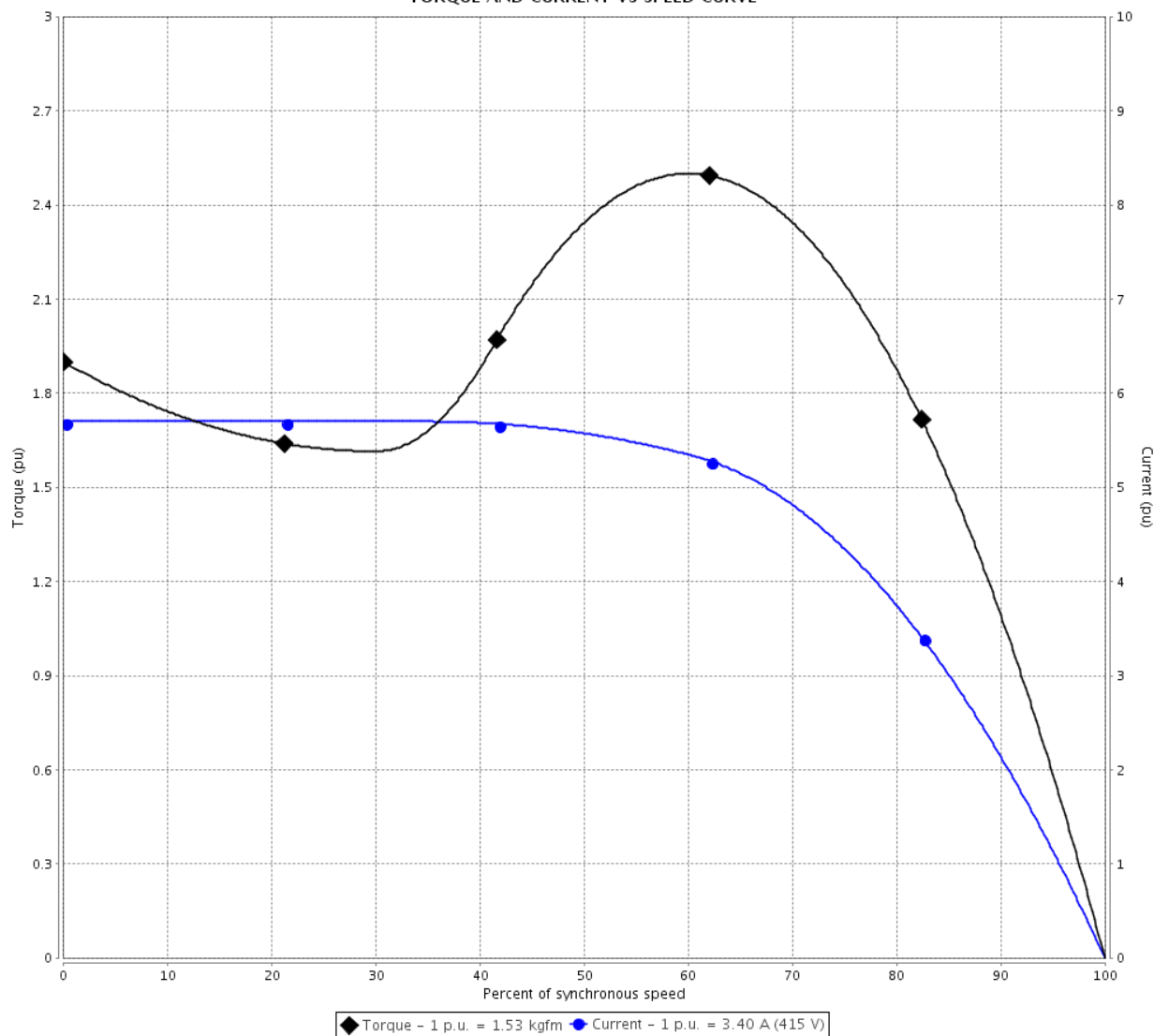
Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12750585

Catalog # : 002120T3E184TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 6.41/3.40 A	Moment of inertia (J)	: 0.0118 kgm <sup>2</sup>
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 1.53 kgfm	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

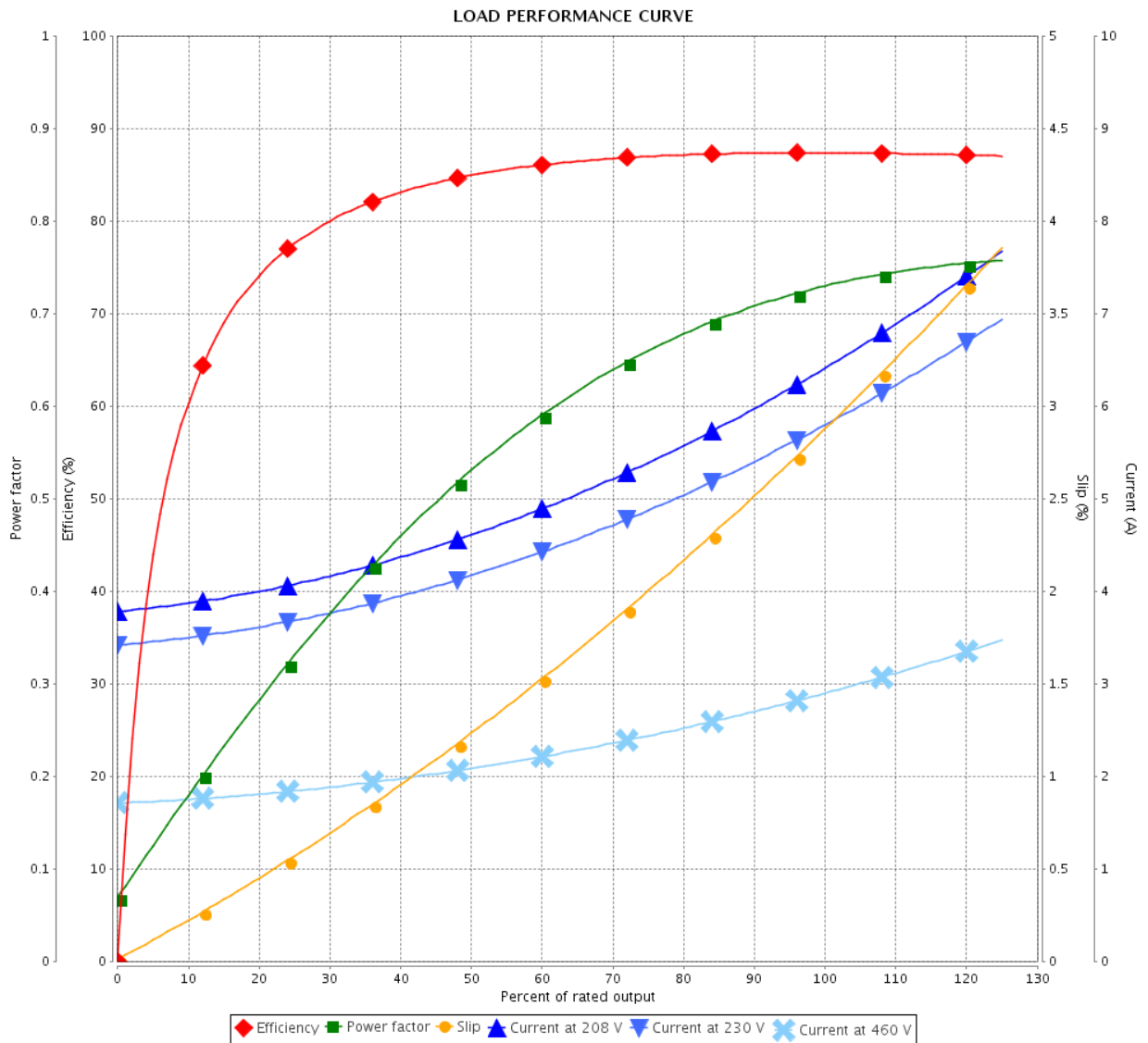


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 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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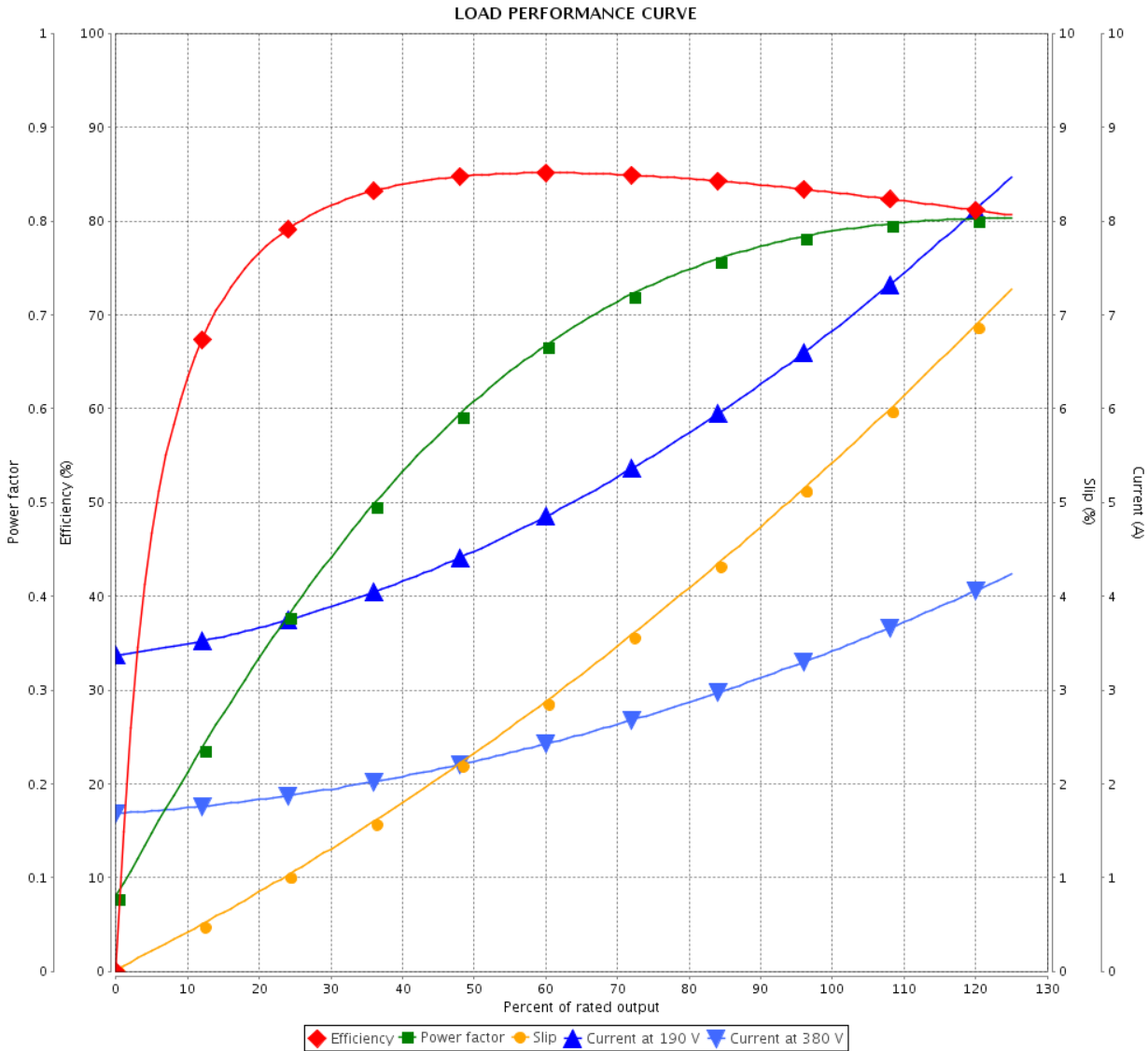


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Product line : Rolled Steel NEMA Premium  
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Product code : 12750585

Catalog # : 002120T3E184TC-S



Performance : 190/380 V 50 Hz 6P

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 Locked rotor torque : 160 %  
 Breakdown torque : 220 %  
 Rated speed : 945 rpm

Moment of inertia (J) : 0.0118 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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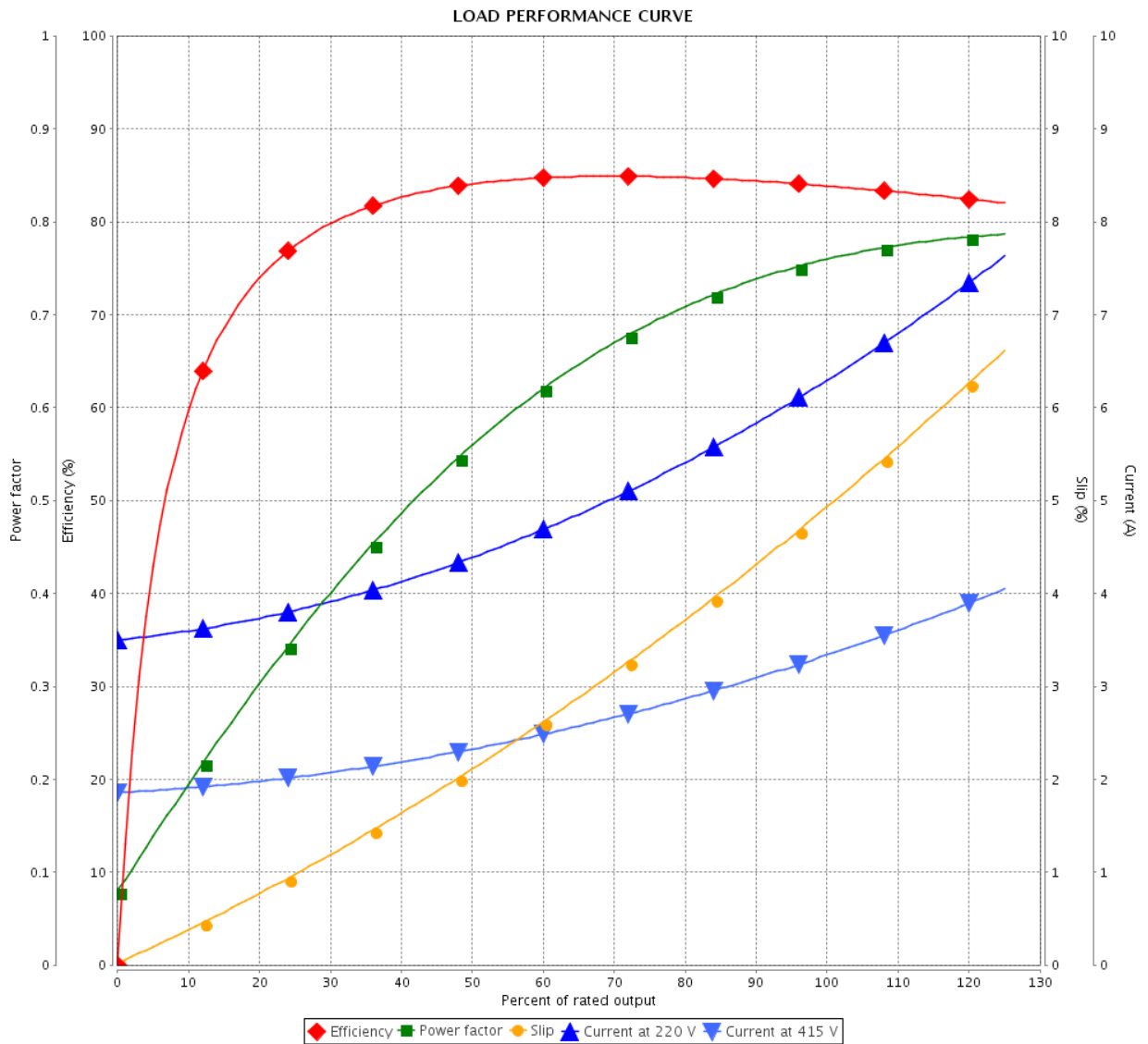


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Performance : 220/415 V 50 Hz 6P

Rated current : 6.41/3.40 A  
 LRC : 5.7  
 Rated torque : 1.53 kgfm  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 950 rpm

Moment of inertia (J) : 0.0118 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE



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Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

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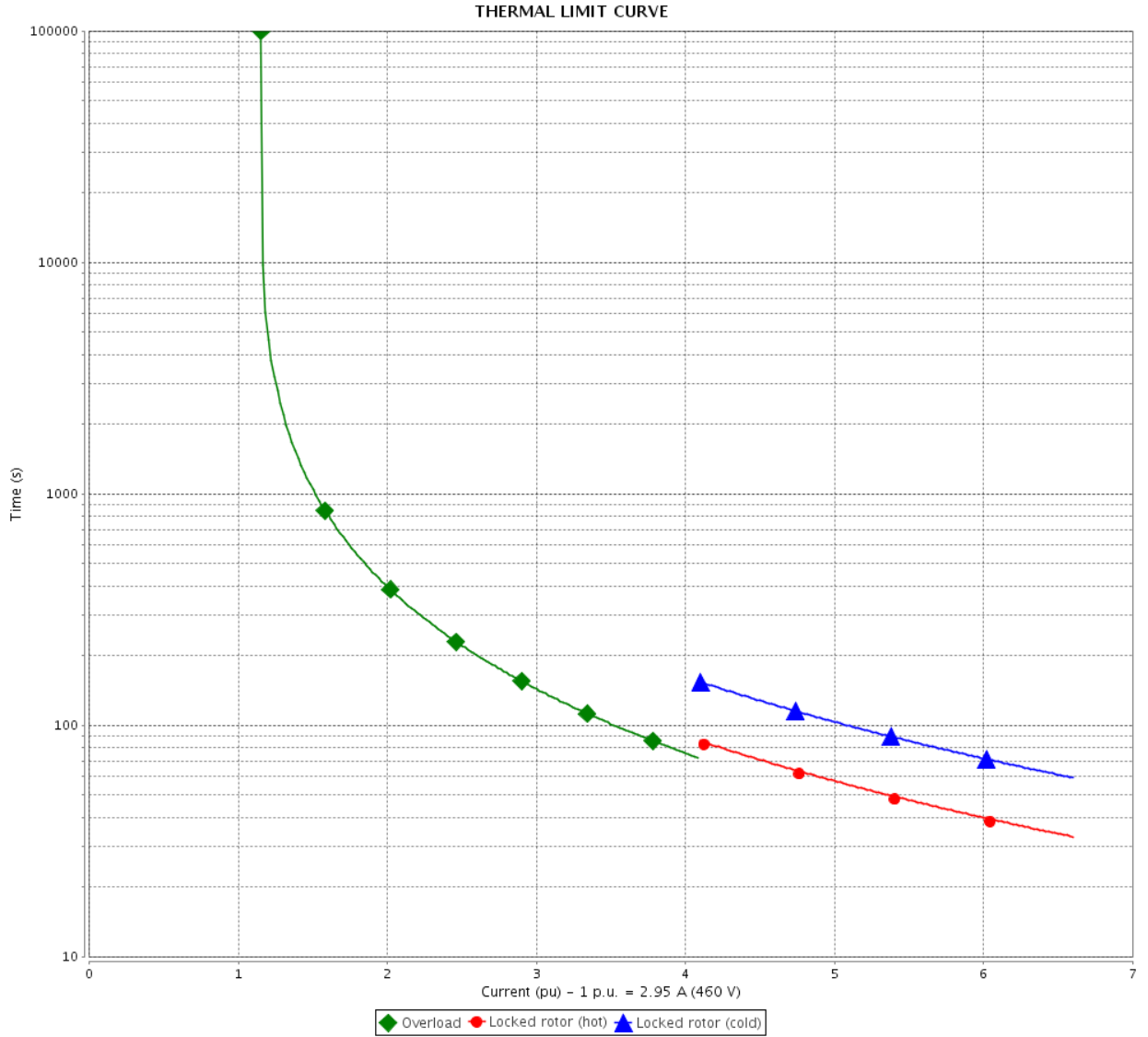


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Moment of inertia (J) : 0.0118 kgm<sup>2</sup>  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

Heating constant

Cooling constant

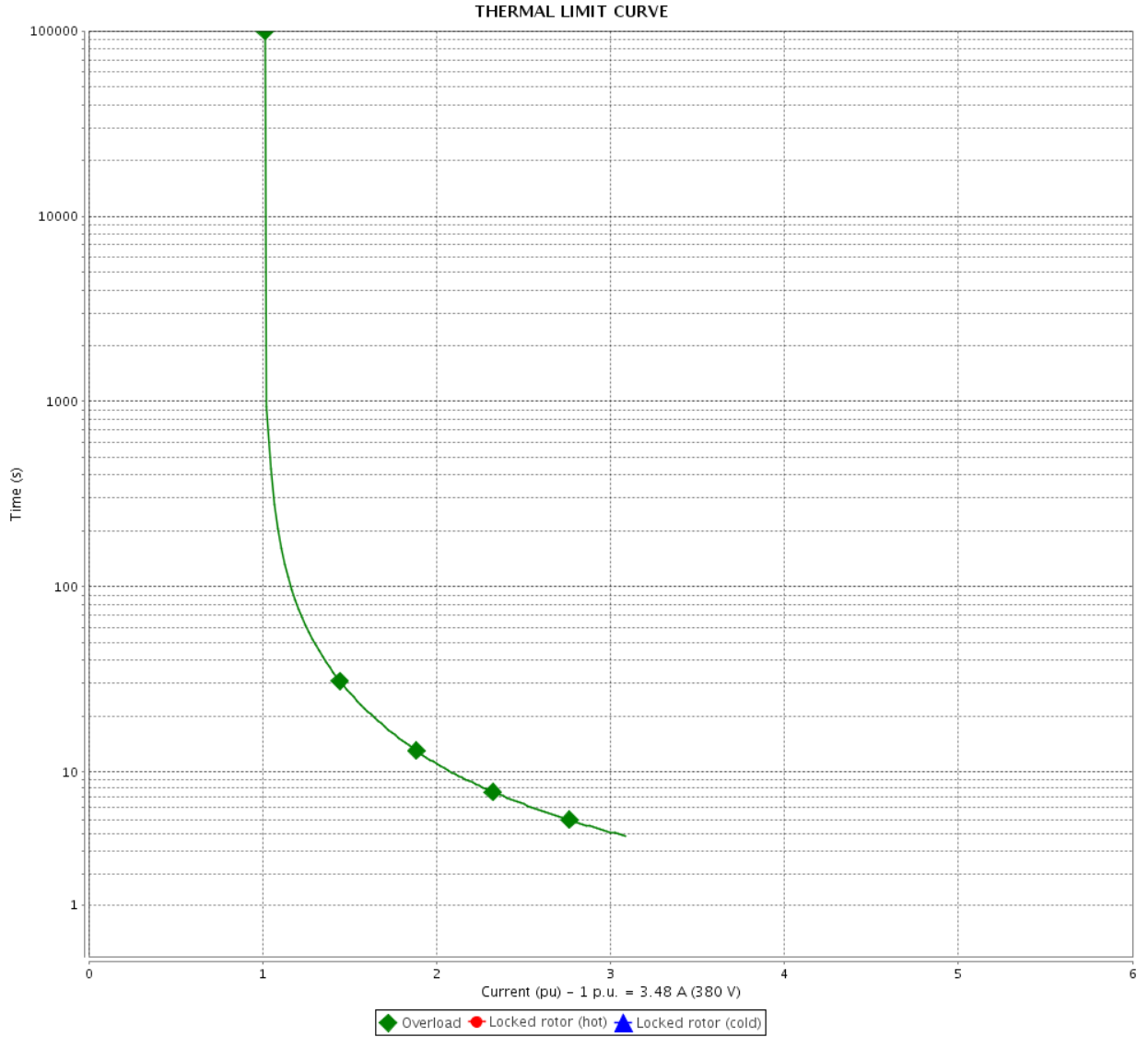
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Heating constant

Cooling constant

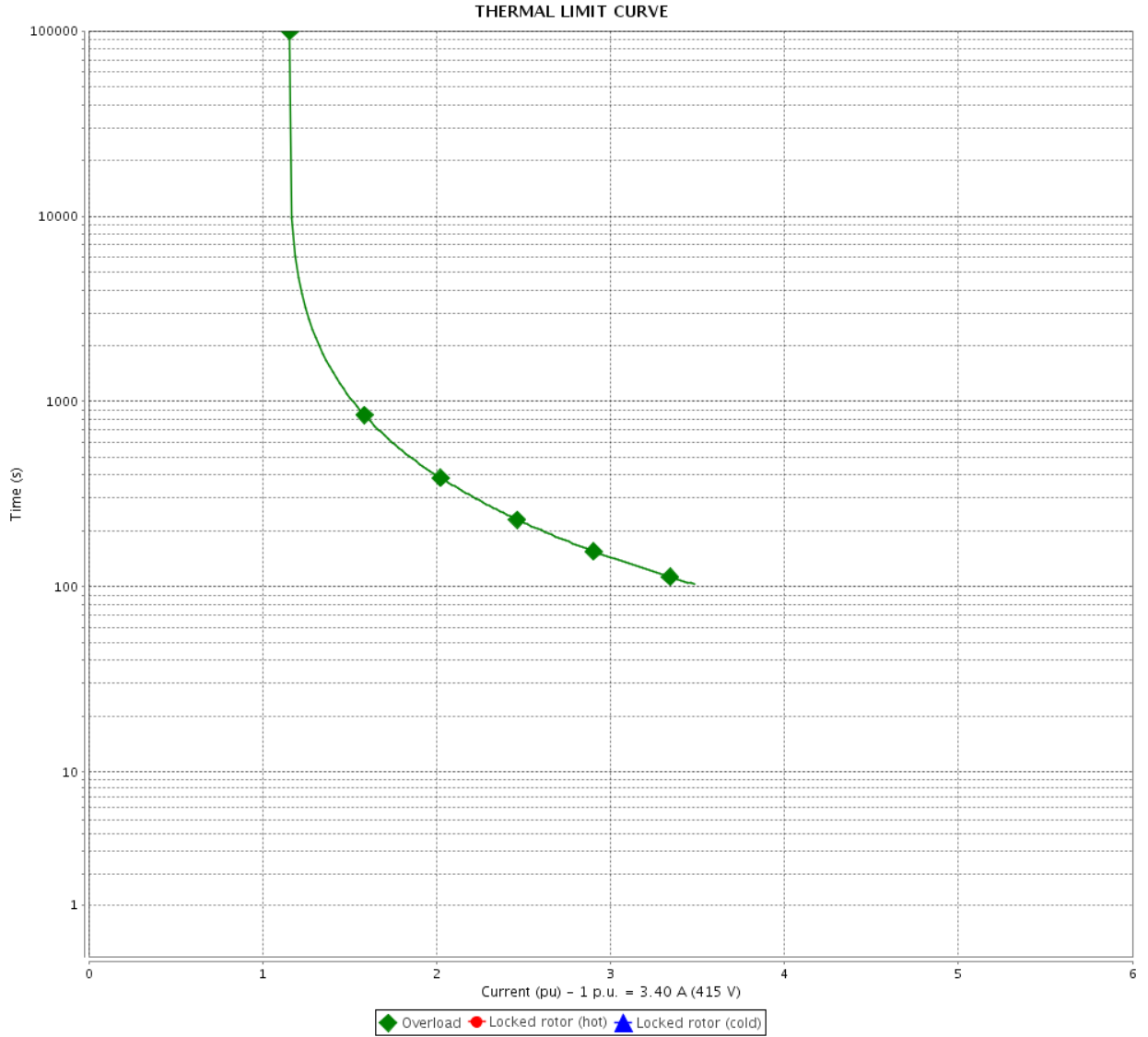
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

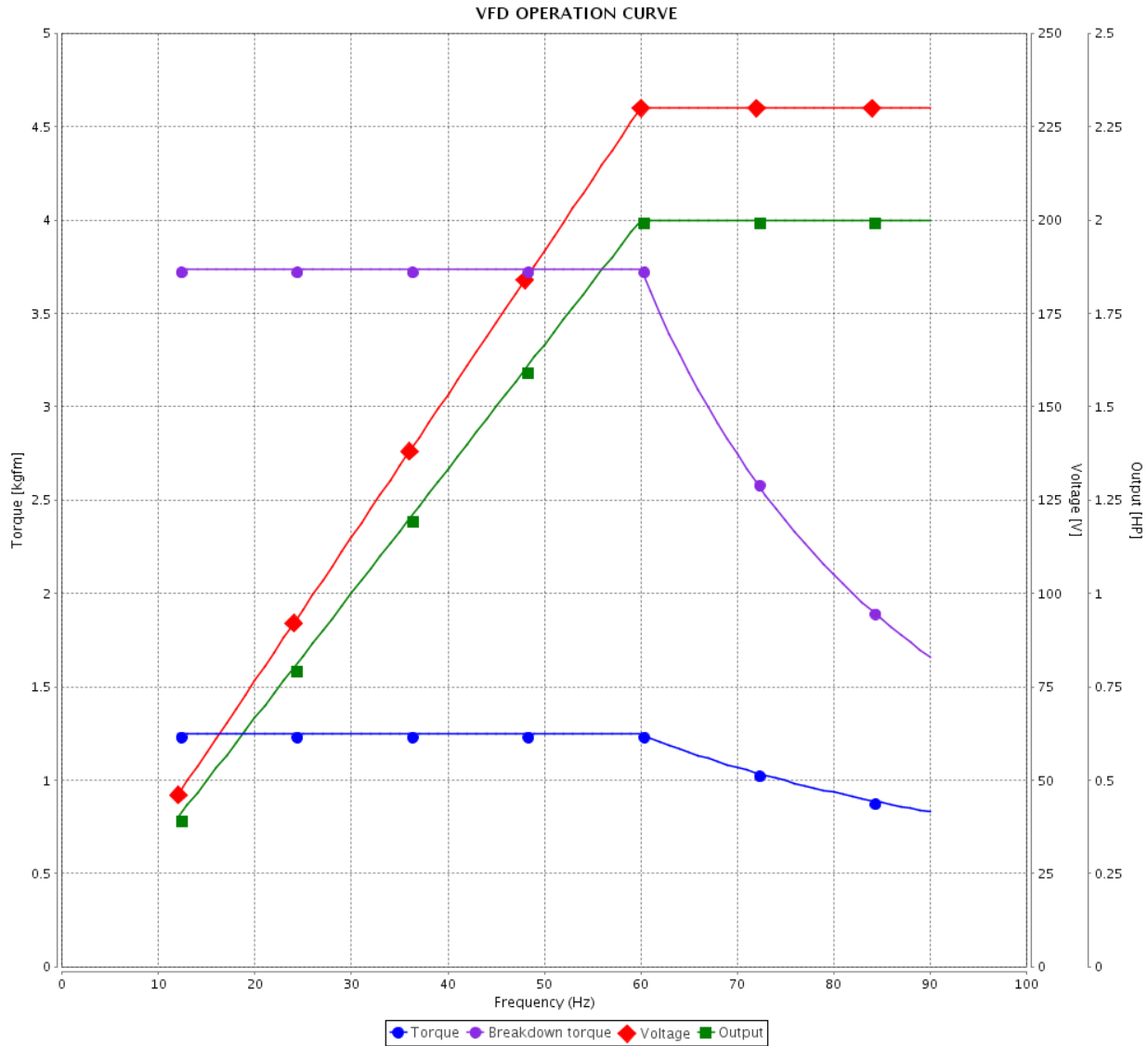


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Rated current : 5.90/2.95 A  
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 Breakdown torque : 300 %  
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.0118 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

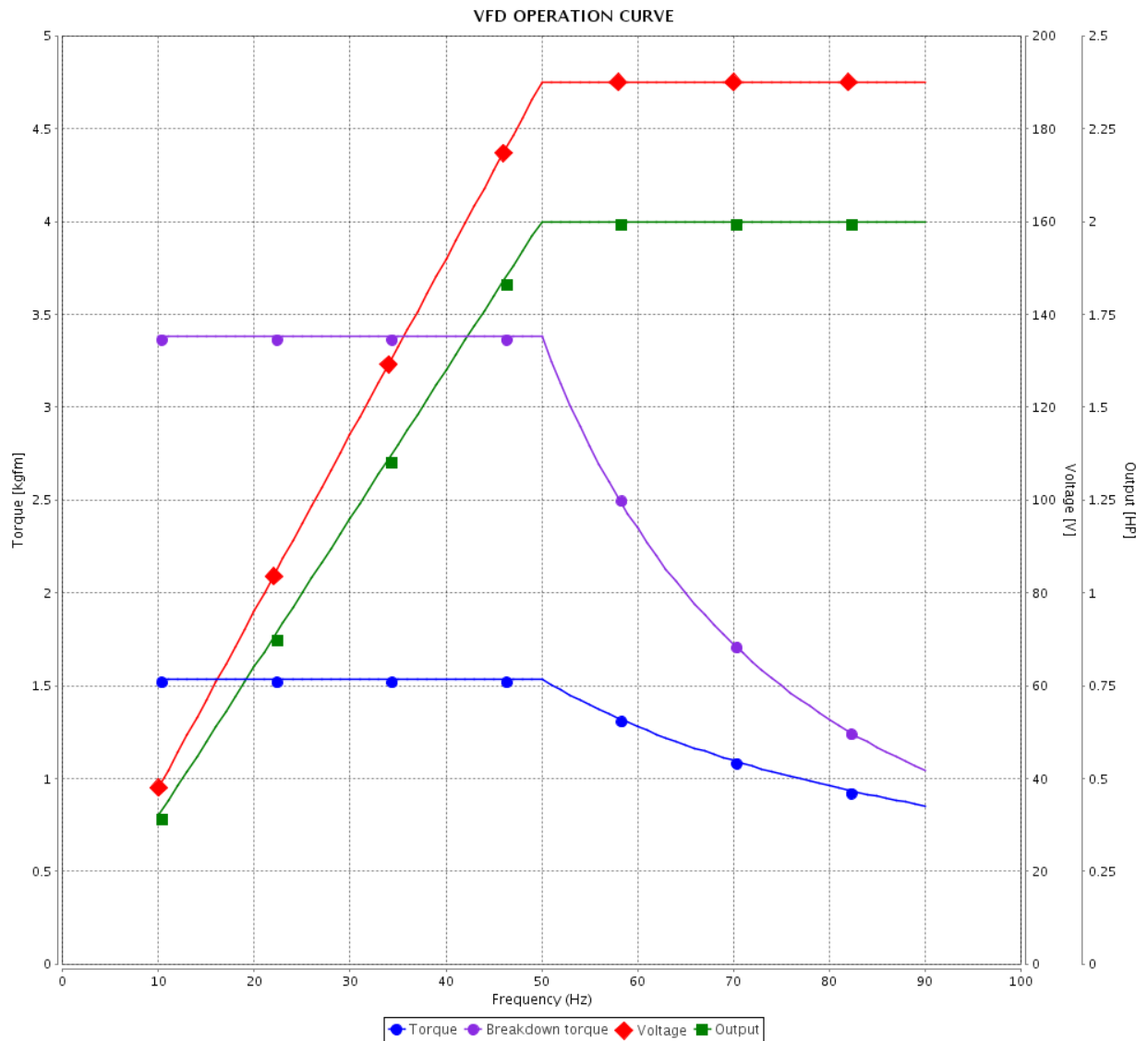


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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

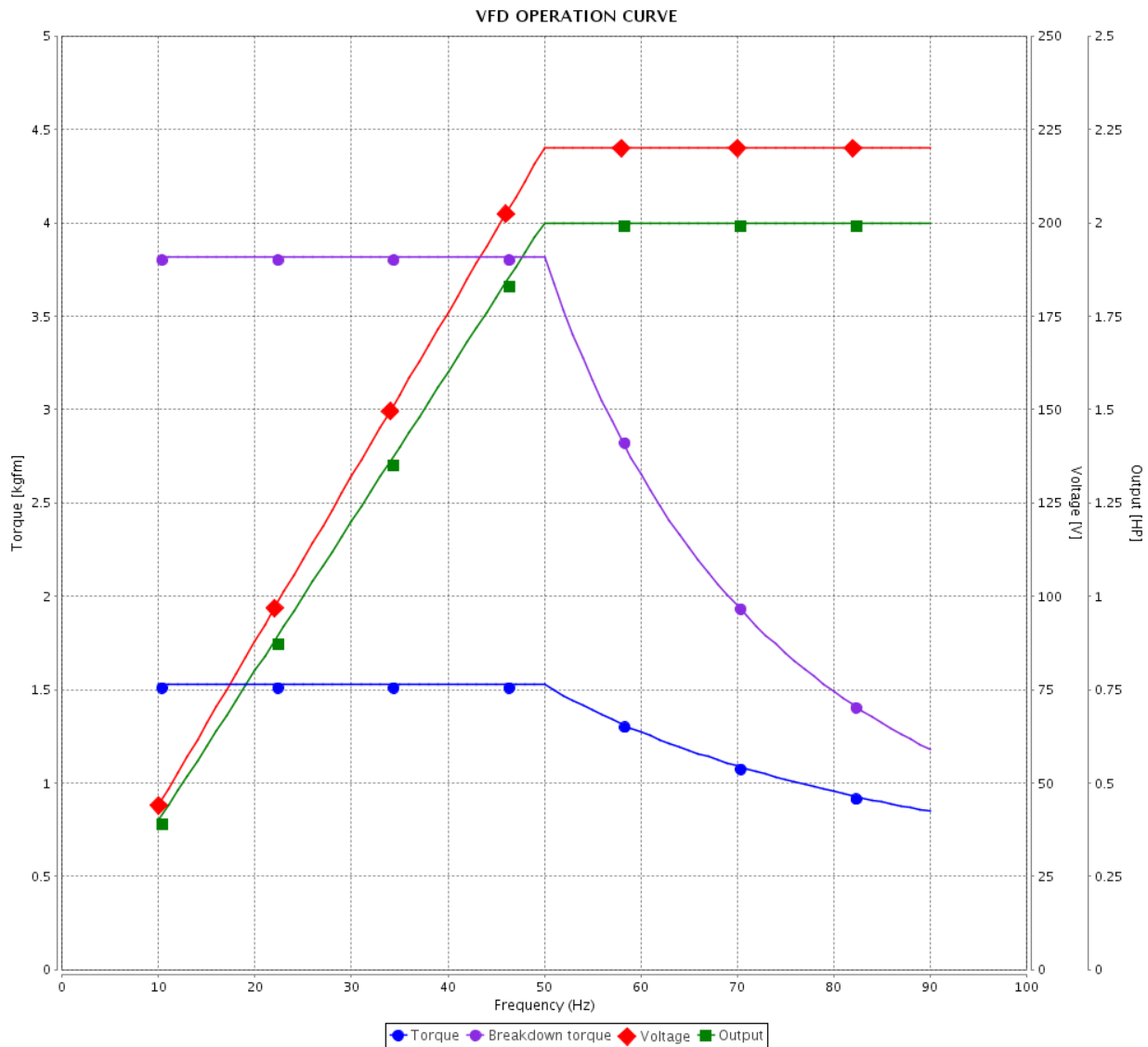


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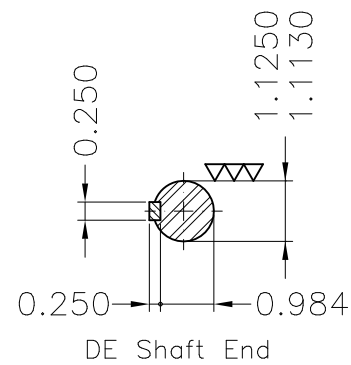
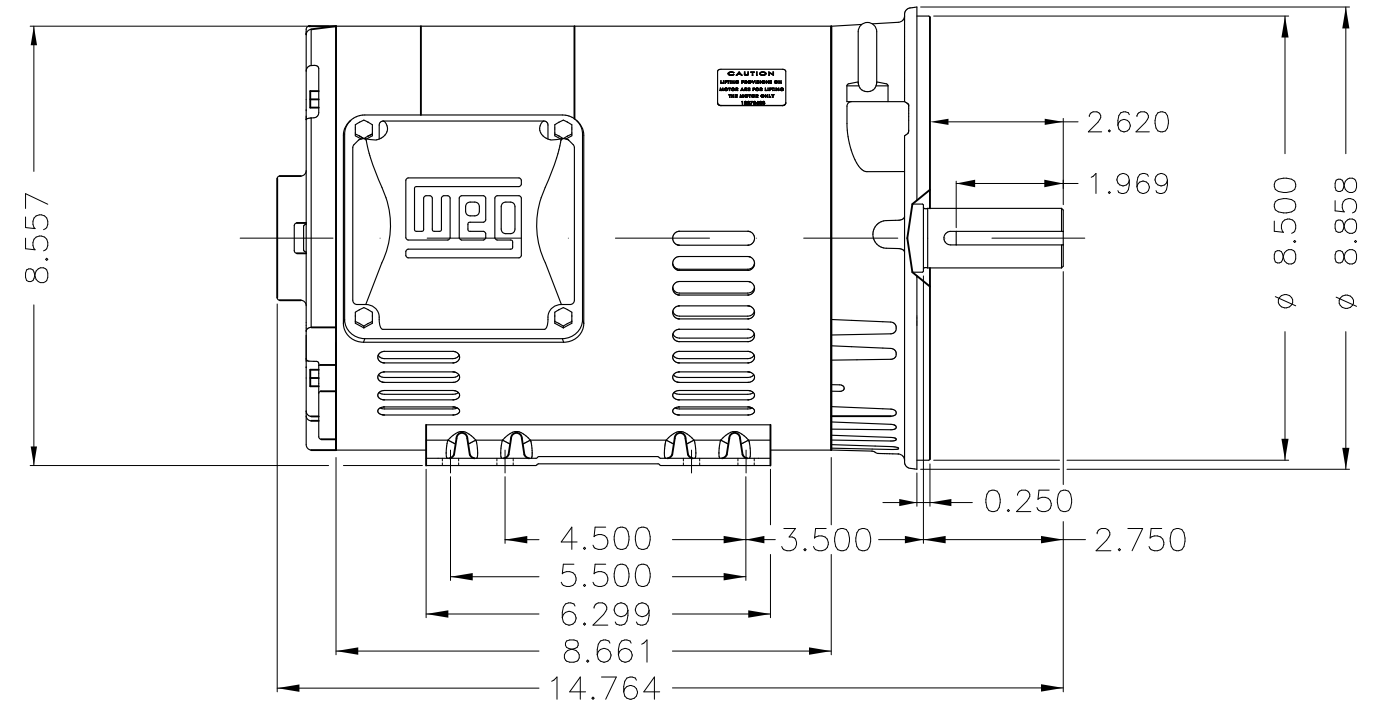
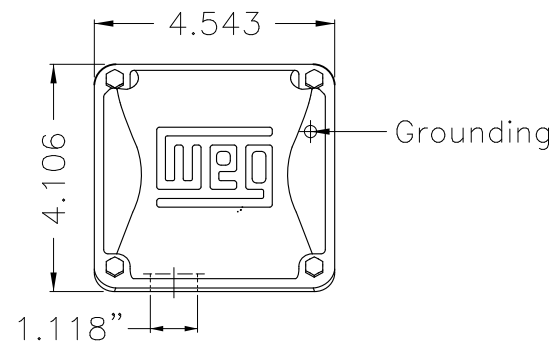
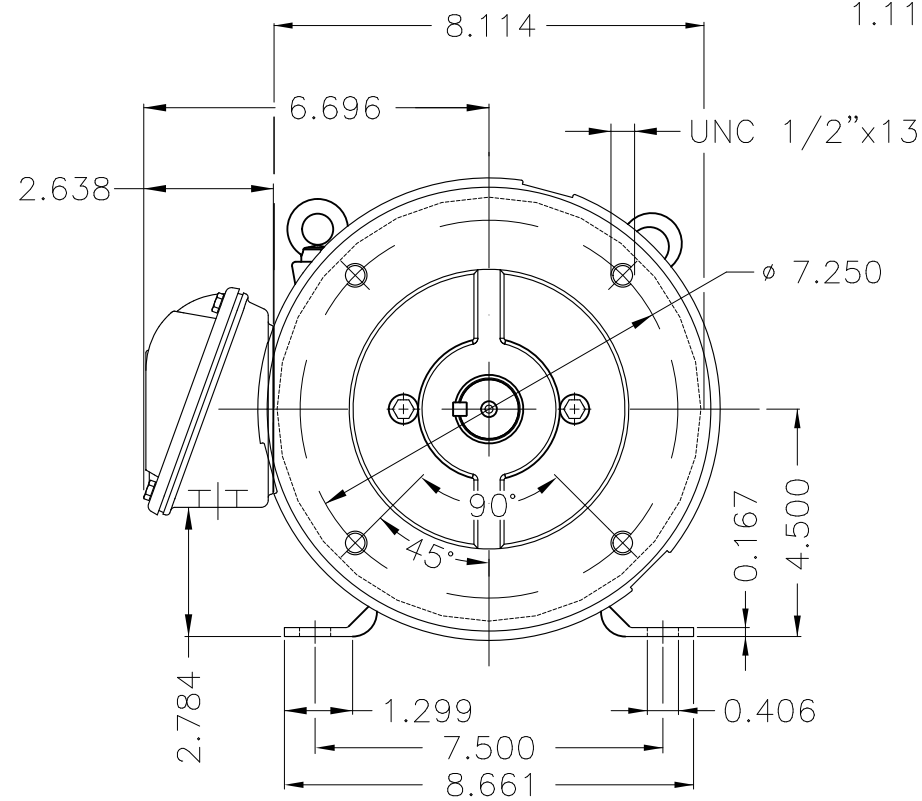


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EIXO  
 PADRÃO  
 OPCIONAL  
 ESPECIAL

Dimensões em polegada  
 Dimensions in inches

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.



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	USERADMIN	THREE P. MOTOR OPEN ROLLED STEEL NEMA PREM					
CHECKED		FRAME 182/4TC ODP					
RELEASED		WEG code: 12750585					
REL DT	25.08.2021	WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

2 HP 06 Poles 60Hz

A



ZME A3

**NEMA  
Premium**

MADE IN MEXICO

**MAT: 12750585 CC029A****W01.T00IC0X0N****MODEL 002120T3E184TC-S****09ABR2021 S/N:**

PH 3	Hz 60	HP 2.0
FR 182/4TC		KW 1.5
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 5.90/2.95
INS CL F AT 80K		SFA 6.79/3.39
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE J	PF 0.73
USABLE @ 208V 6.52A		RPM 1165
SF1.00		NEMA NOM. EFF 87.5%

**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**

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT

DE 6206-ZZ ODE 6205-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.

