

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: Rolled Steel NEMA Premium Efficiency Three-Phase	
Product code :	12502805	
Catalog # :	01518OT3E254T-S	
Frame	: 254/6T	
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 <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 189 lb	
Moment of inertia (J)	: 1.82 sq.ft.lb	
Output [HP]	15	
Poles	4	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	37.2/18.6	
L. R. Amperes [A]	249/125	
LRC [A]	6.7x(Code H)	
No load current [A]	19.0/9.50	
Rated speed [RPM]	1775	
Slip [%]	1.39	
Rated torque [ft.lb]	44.4	
Locked rotor torque [%]	240	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	30s (cold) 17s (hot)	
Noise level <sup>2</sup>	64.0 dB(A)	
Efficiency (%)	25%	91.0
	50%	91.7
	75%	92.4
	100%	93.0
Power Factor	25%	0.36
	50%	0.62
	75%	0.73
	100%	0.80
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	
Sealing	: Without Without	
	: Bearing Seal Bearing Seal	
Lubrication interval	: 20000 h 20000 h	
Lubricant amount	: 13 g 8 g	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 548 lb	
	Max. compression : 737 lb	
Notes USABLE @208V 41.1A SF 1.00 SFA 41.1A		
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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22/03/2021		
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

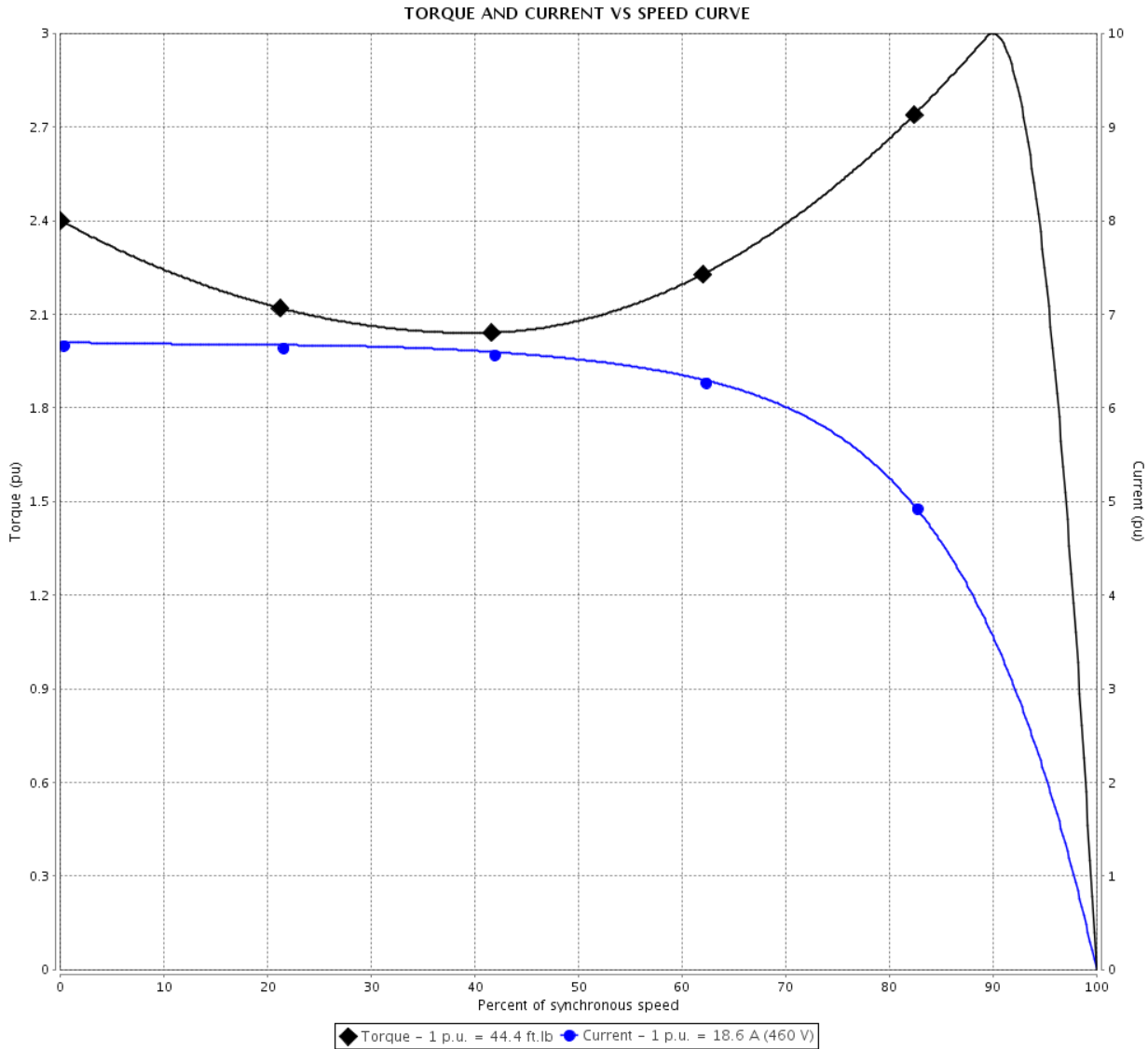


Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12502805

Catalog # : 01518OT3E254T-S



Performance : 230/460 V 60 Hz 4P

Rated current	: 37.2/18.6 A	Moment of inertia (J)	: 1.82 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 44.4 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1775 rpm	Design	: B

Locked rotor time : 30s (cold) 17s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



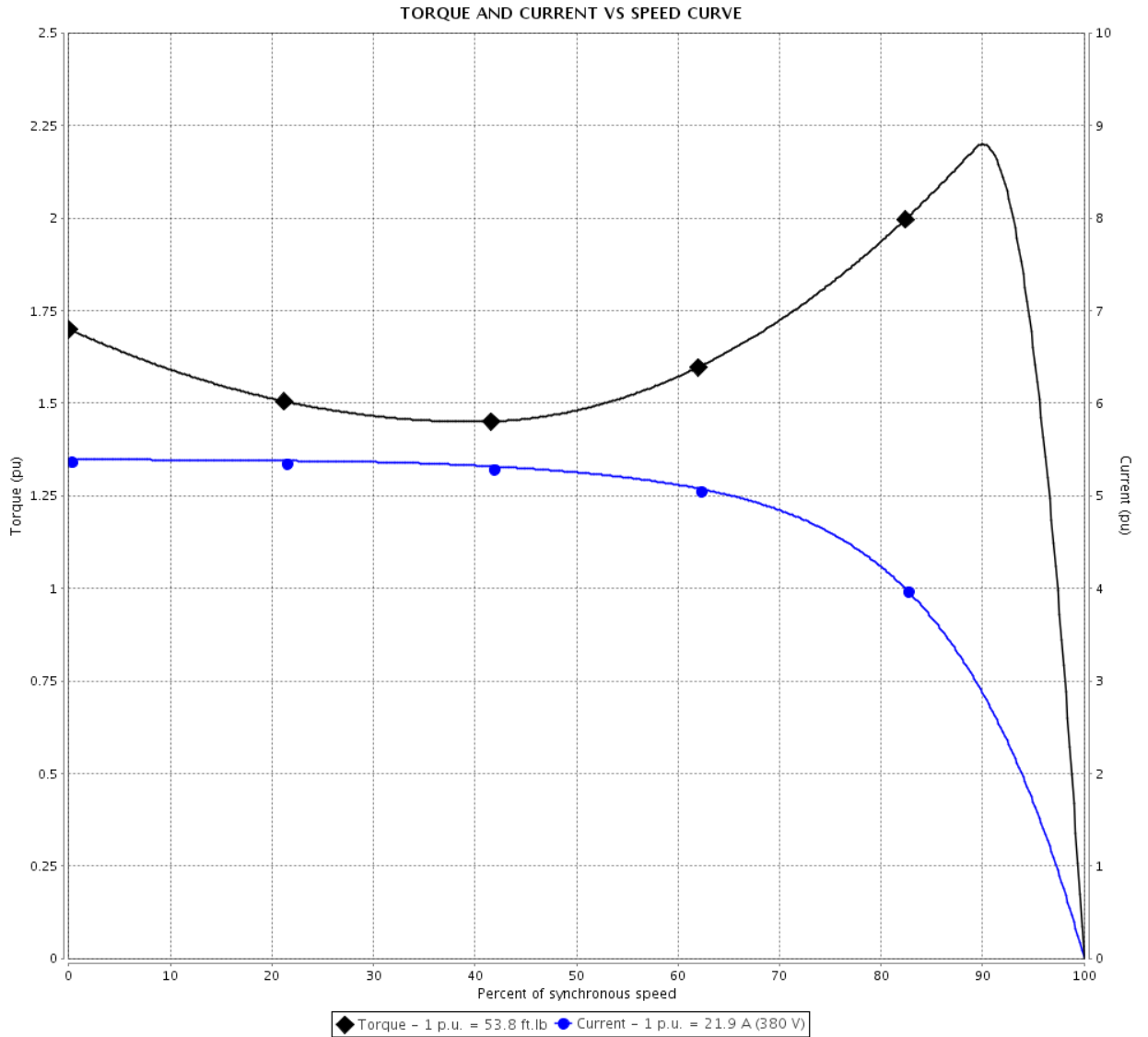
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 12502805

Catalog # : 01518OT3E254T-S



Performance : 190/380 V 50 Hz 4P

Rated current : 43.8/21.9 A  
 LRC : 5.4  
 Rated torque : 53.8 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 220 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 1.82 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



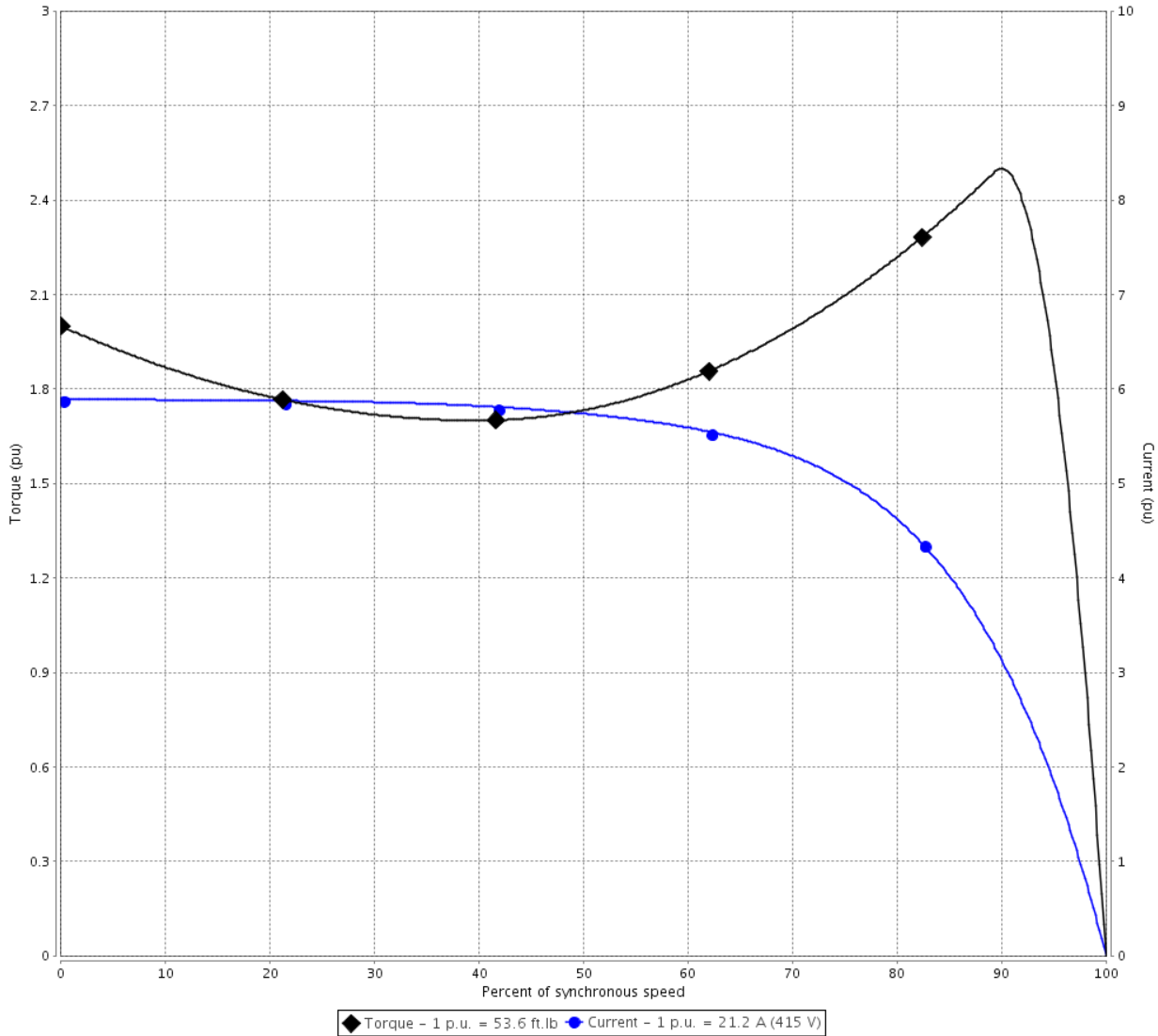
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Product code : 12502805

Catalog # : 01518OT3E254T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 40.0/21.2 A	Moment of inertia (J)	: 1.82 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 53.6 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1470 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

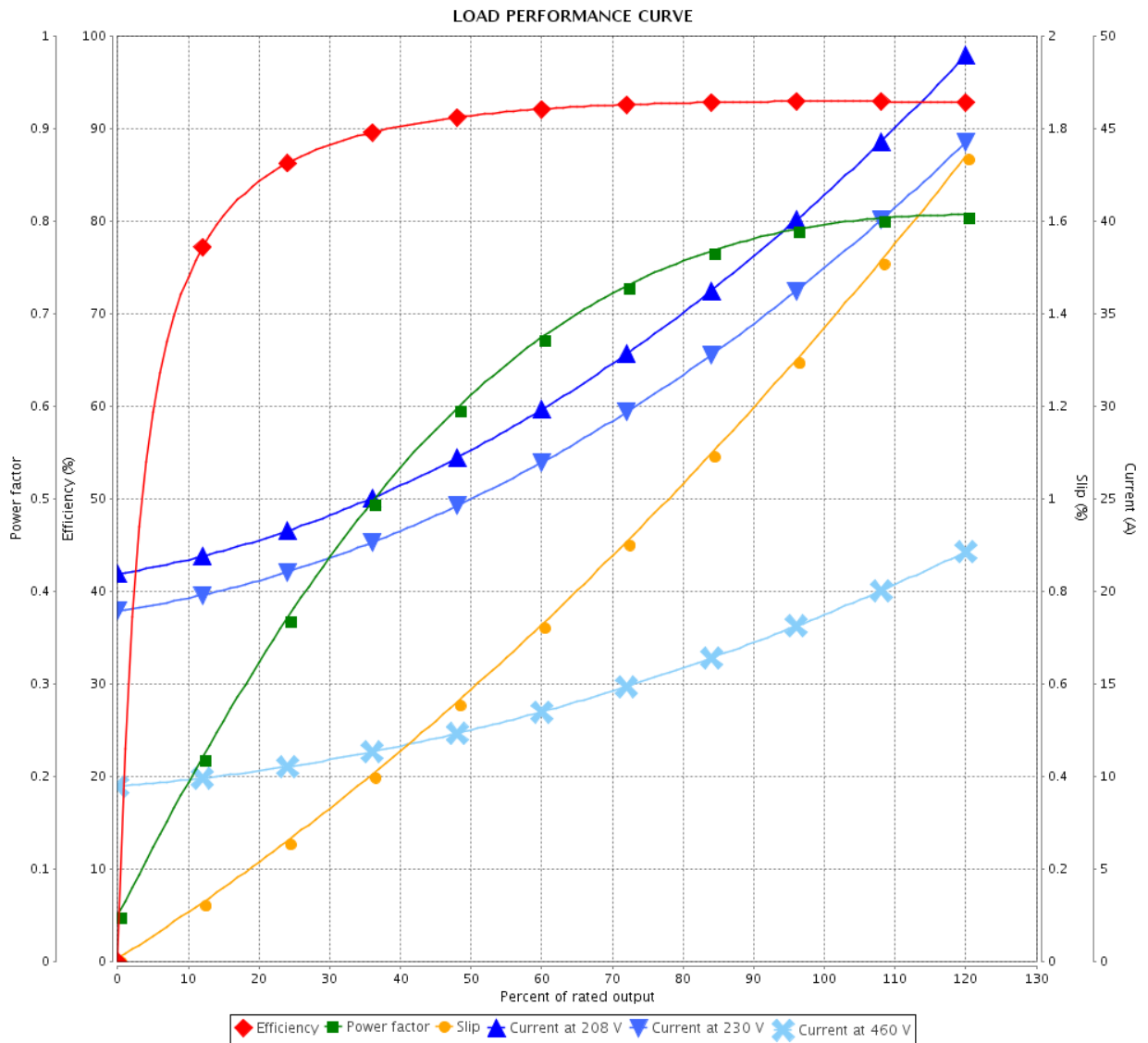


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 Locked rotor torque : 240 %  
 Breakdown torque : 300 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 1.82 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
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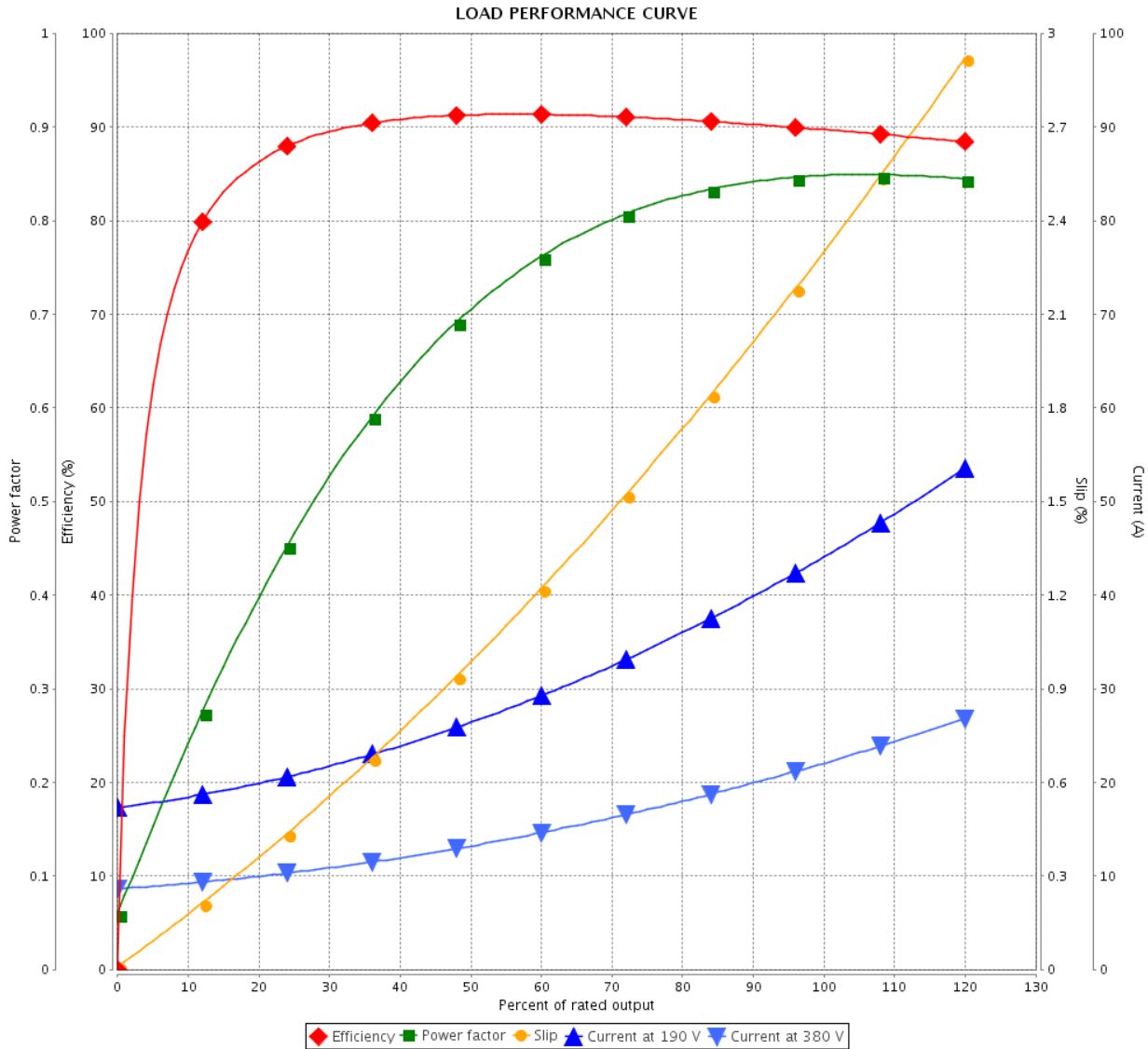


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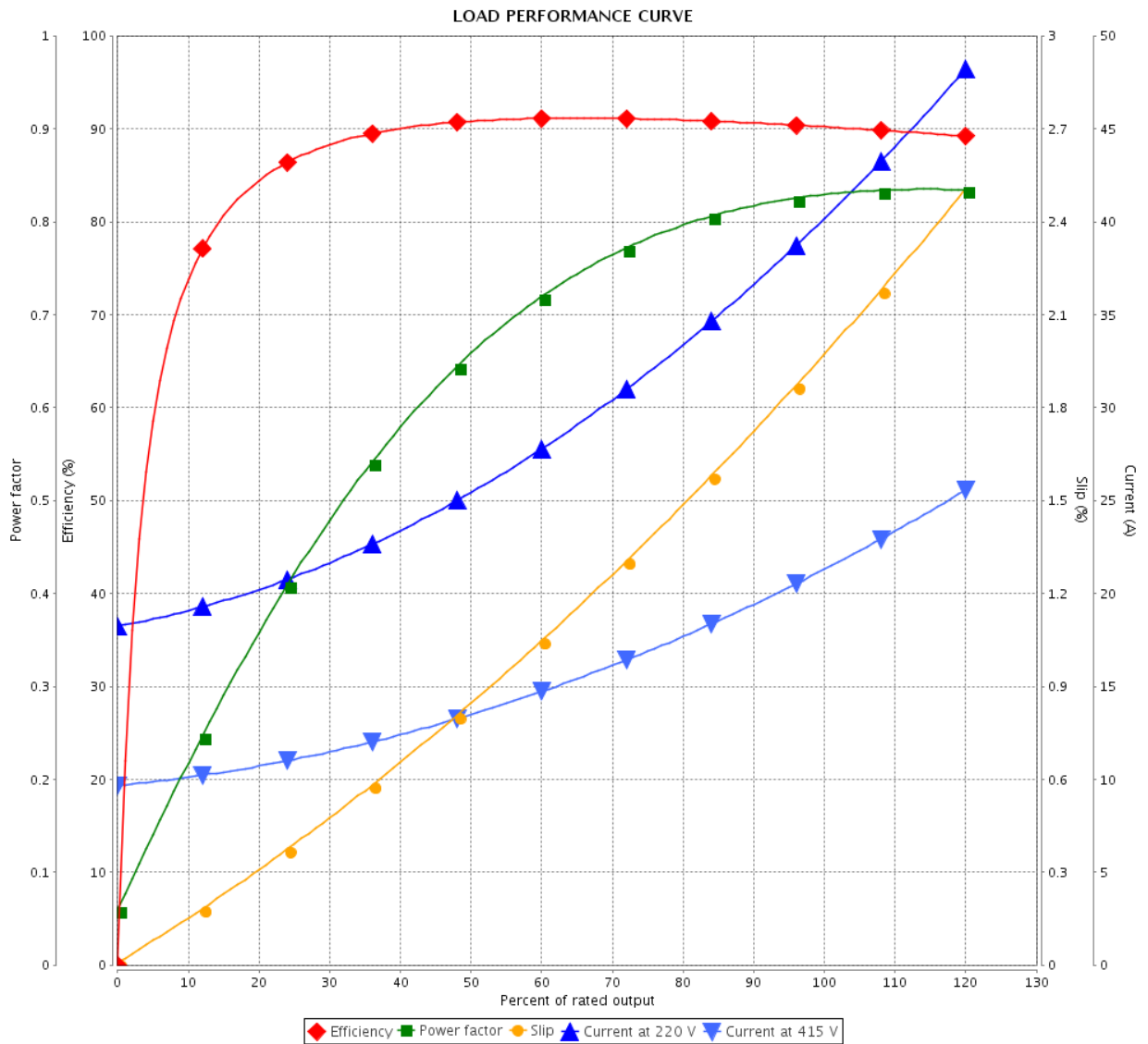


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# THERMAL LIMIT CURVE



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Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

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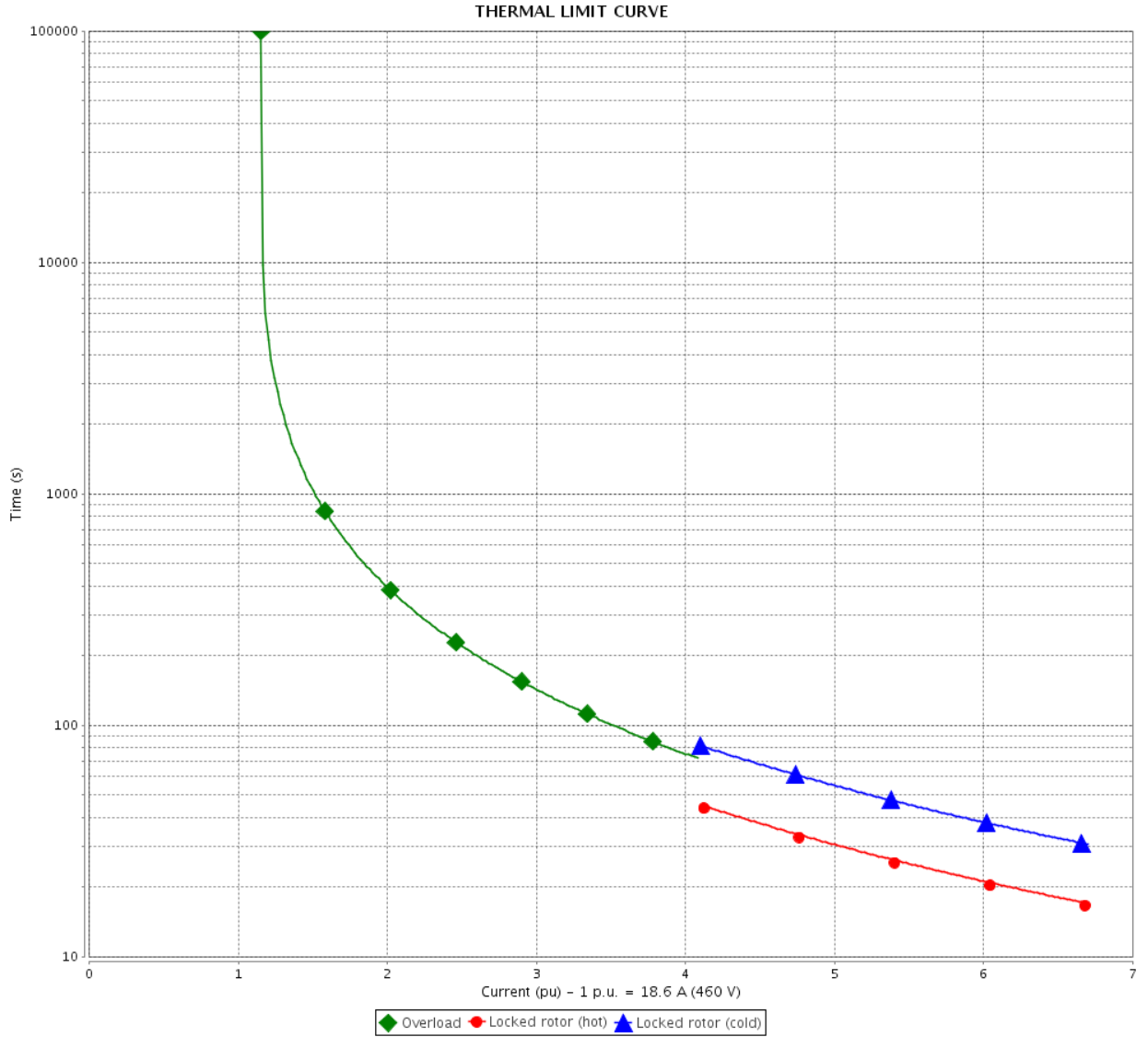


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Three Phase Induction Motor - Squirrel Cage



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



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Cooling constant

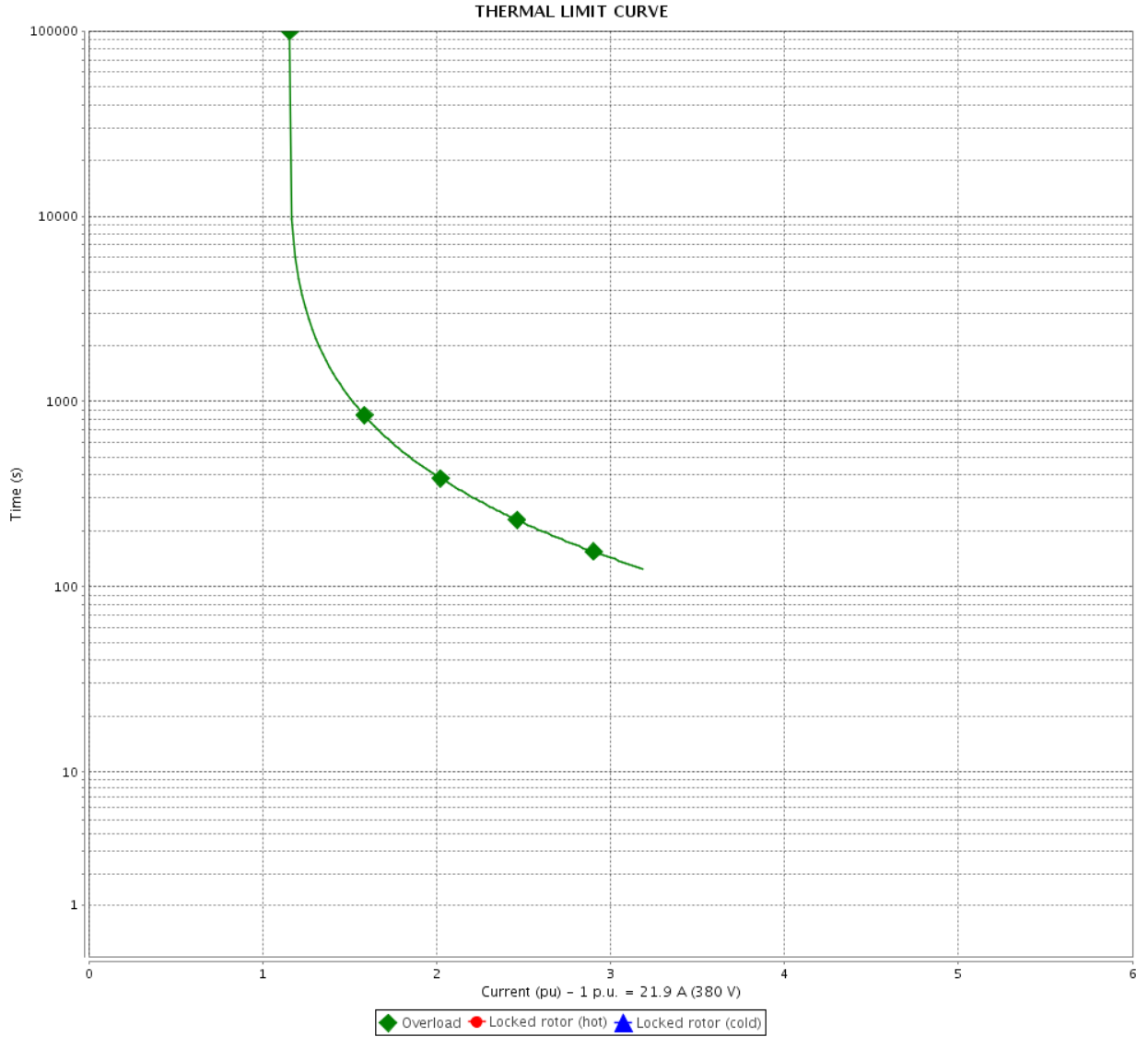
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Cooling constant

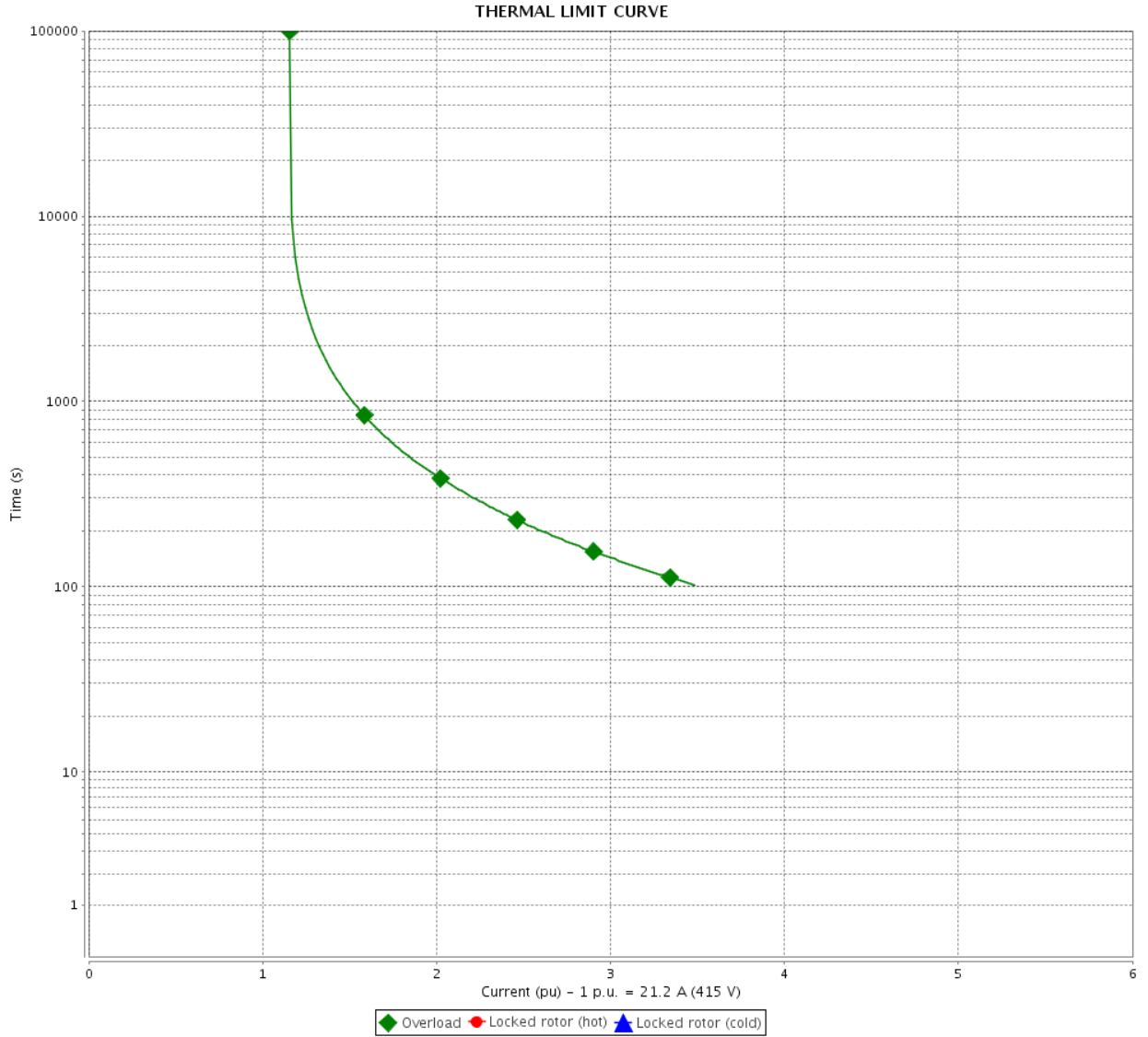
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

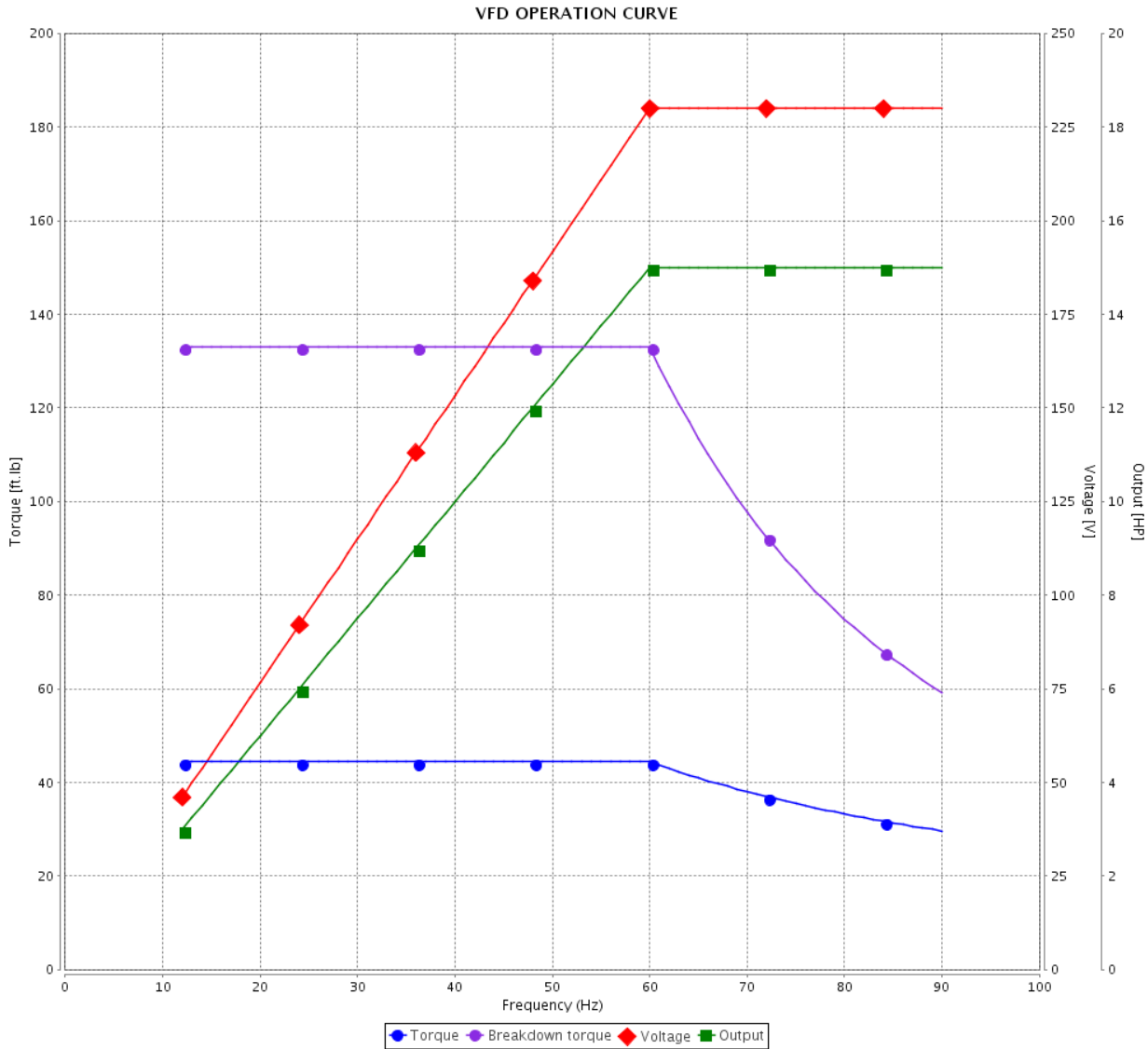


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 Locked rotor torque : 240 %  
 Breakdown torque : 300 %  
 Rated speed : 1775 rpm

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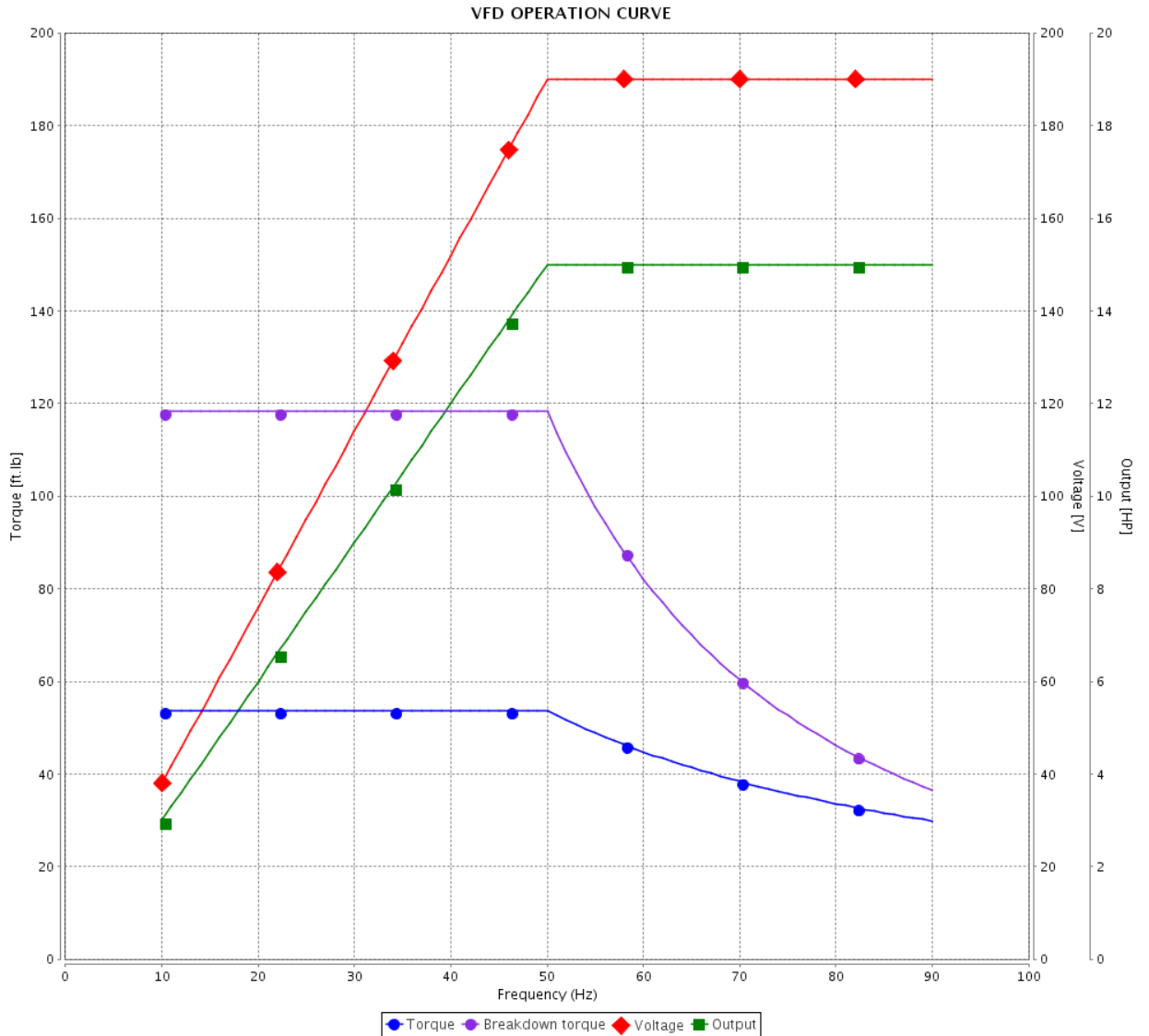


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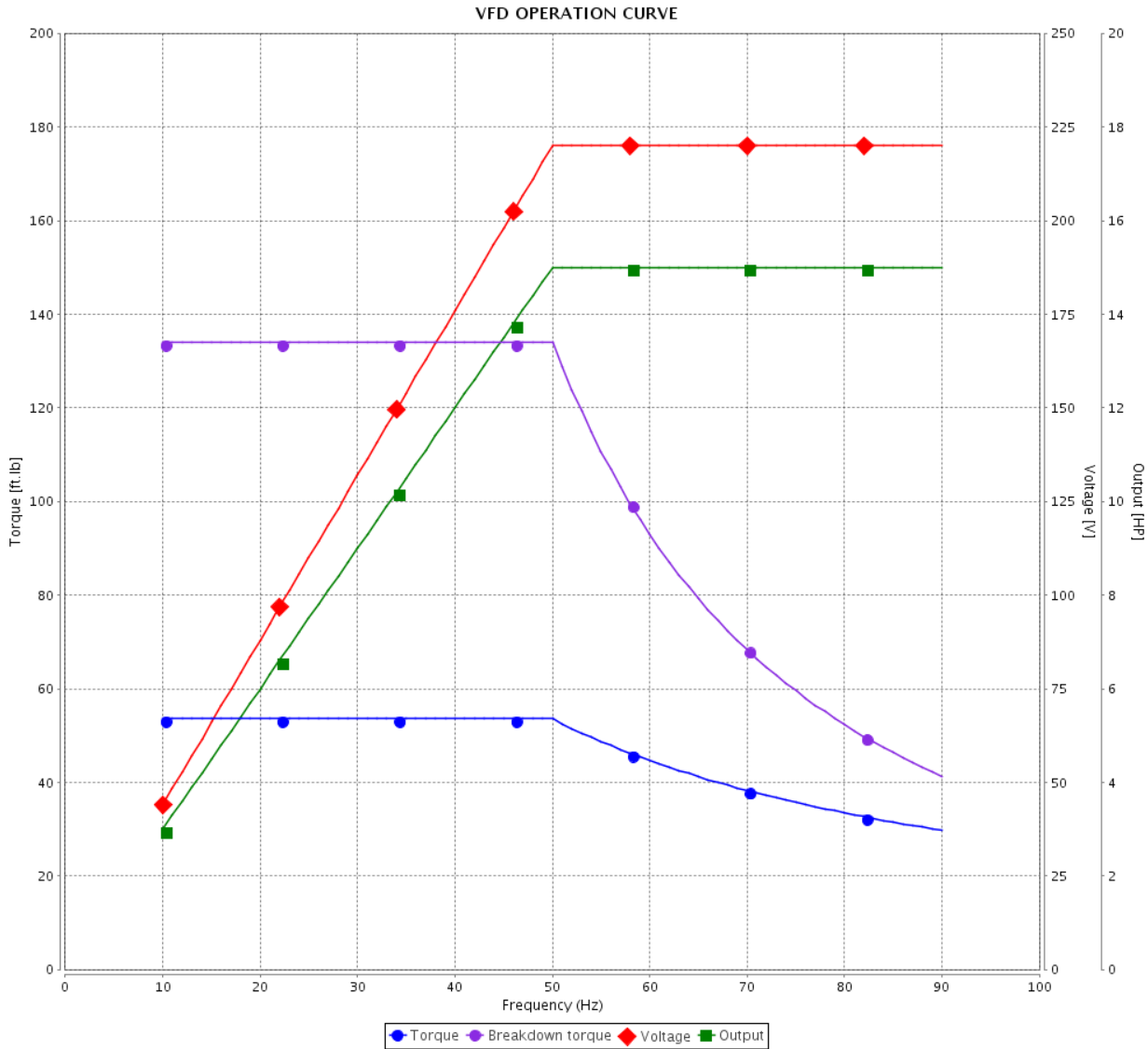


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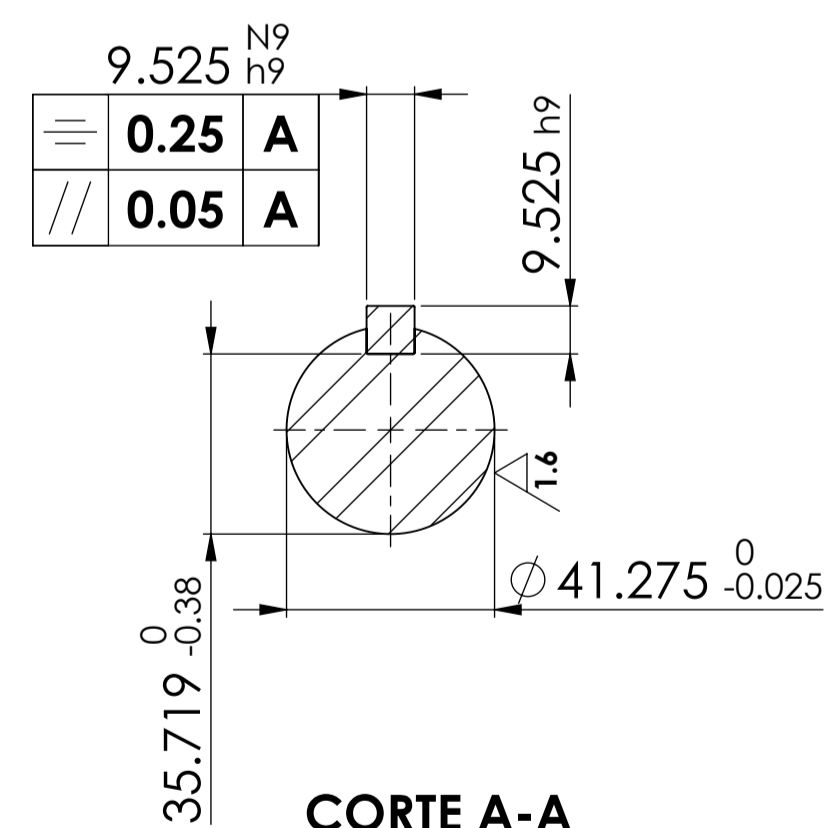
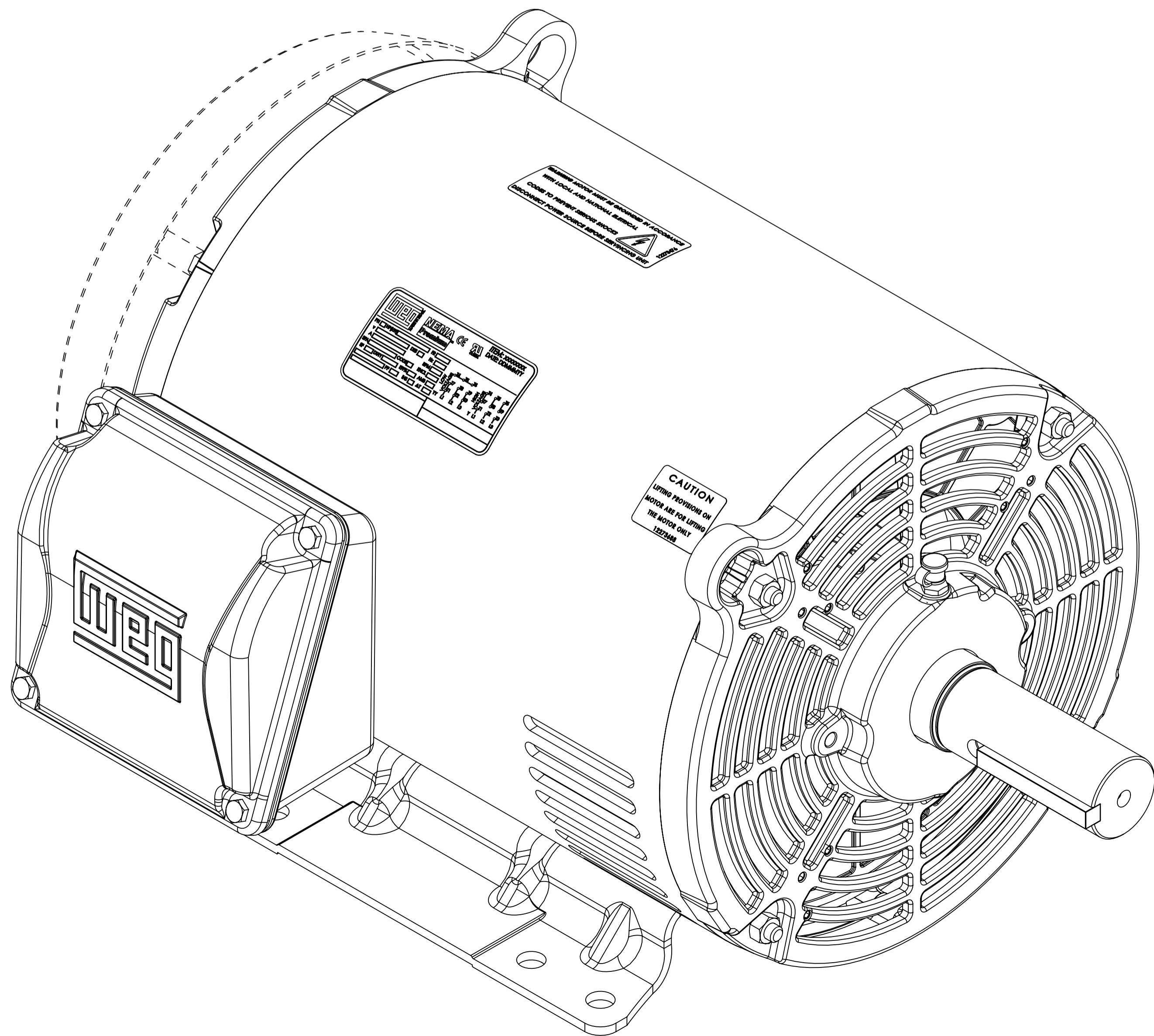
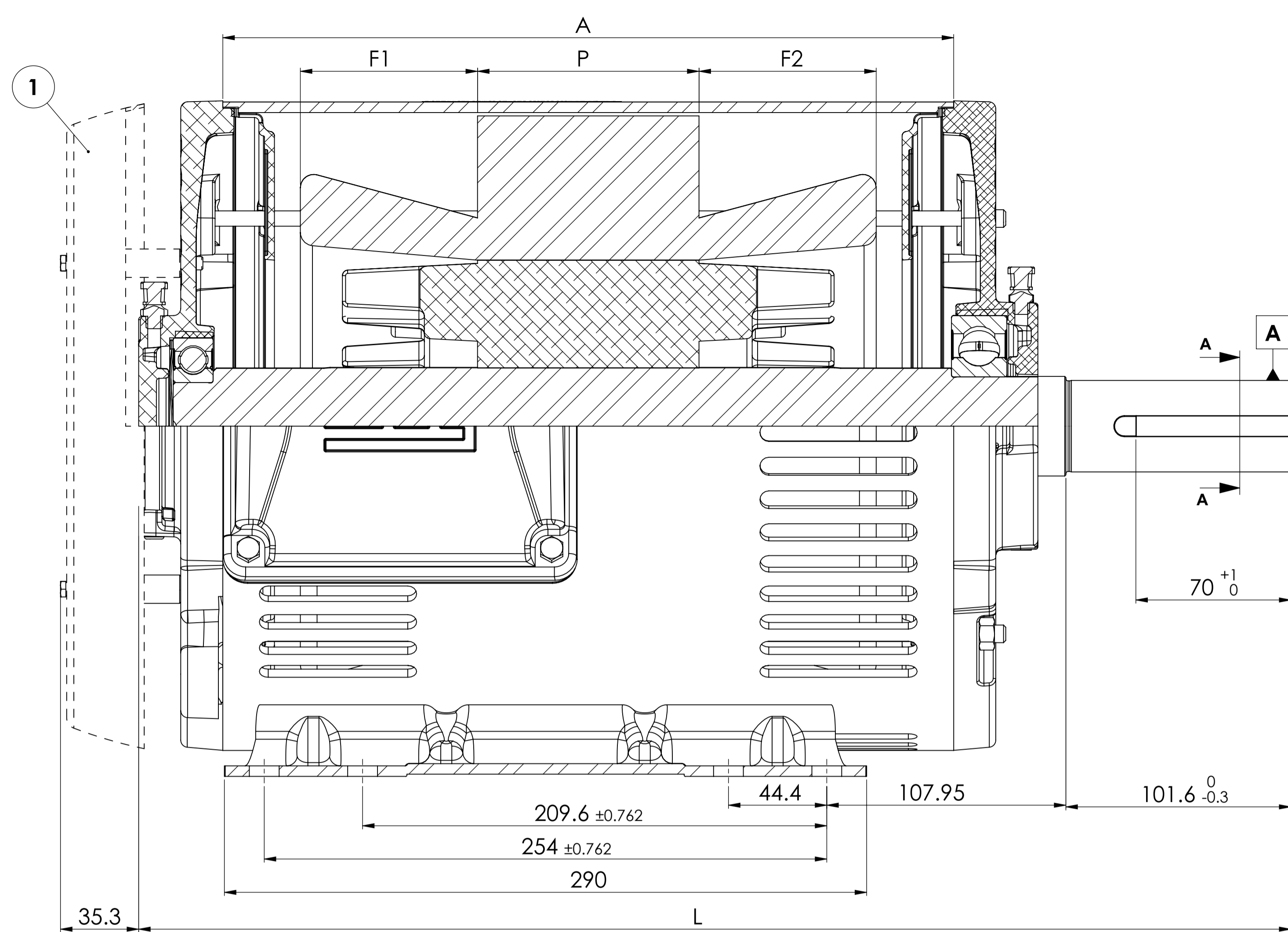
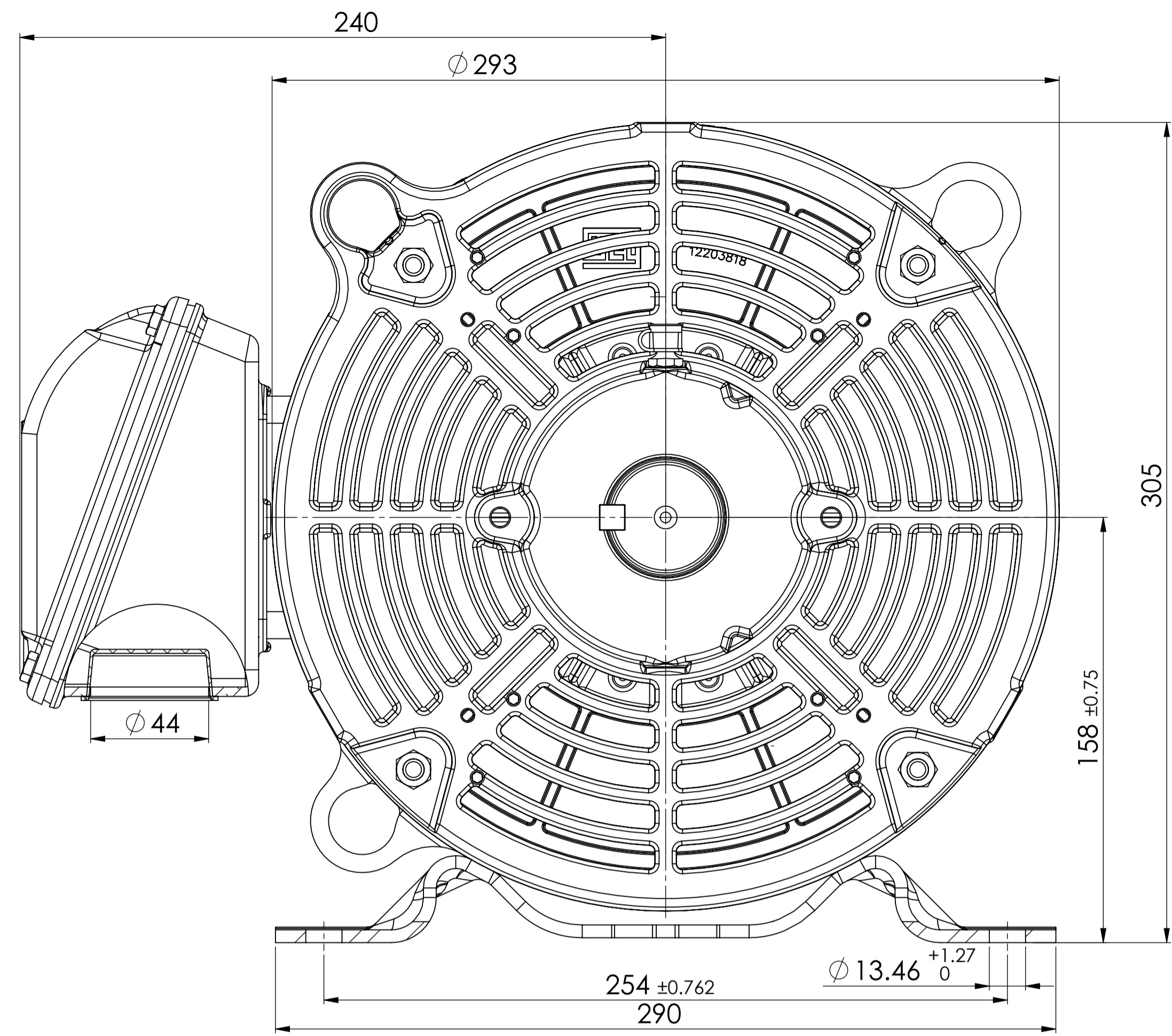
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Cabeça de Bobina	F1	F2
II	80	80
IV - VI	65	65

Cotas / Carcaça	330
A	330
P	80-150
L	520

1. SOMENTE QUANDO INDICADO NA LISTA TÉCNICA DO MOTOR

MASSA BRUTA/GROSS WEIGHT	MASSA LÍQUIDA/NET WEIGHT	ESCALA/SCALE	1:5
500001081712	REVISÃO NORMA CABEÇA BOBINA	JROPELATO	JHONATANP
500000886238	ALT. CONF. CLAIM 413416105	PMAUERBERG	ALISSON
ECM	LOC	RESUMO DE MODIFICAÇÕES SUMMARY OF MODIFICATIONS	EXECUTADO CHECKED
EXEC	RAFAELLOPES	DIMENSIONAL 254 GDP TPA NORMAL	10002035853
VERIFICADO	JTOGNERI		000 05
LIBERADO	24.04.2013	WMO JARAGUÁ DO SUL	DESENVOLVIMENTO DE PRODUTO
DT LIBER/REL DT	24.04.2013	WMO	JARAGUÁ DO SUL

**NEMA  
Premium**

3PT9



Energy Verified

MADE IN MEXICO

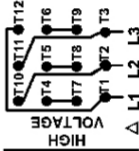
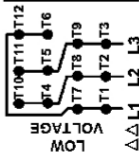
**MAT: 12502805 CC029A**  
**W01.T00IC0X0N**  
**MODEL 015180T3E254T-S**  
**24MAR2021 S/N:**

PH 3	Hz 60	HP 15
FR 254/6T		KW 11
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 37.2/18.6
INS CL F AT 80K		SFA 42.8/21.4
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE H	PF 0.80
USABLE @ 208V 41.1A		RPM 1775
SF1.00		NEMA NOM. EFF 93.0%

**ALTERNATE RATING: 15HP 50Hz 190-220/380-415V SF1.15**  
**43.8-39.4/21.9-20.9A 1465RPM EFF 89.7% (IE1) IEC 60034-1**

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

DE 6309-Z-C3 ODE 6208-Z-C3 MOBIL POLYREX EM 20000h



T1-BLU T2-WHT  
 T3-ORG T4-YEL  
 T5-BLK T6-GRY  
 T7-PNK T8-RED  
 T9-BRK RED  
 T10-CURRY  
 T11-GRN T12-VLT

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.

