

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Multimounting IE3 Three-Phase Product code : 13984021  
Catalog # : 00236ET3WAL90LFF-W22

Frame	: 90S/L	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B35L(E)
Duty cycle	: 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>	: 48.3 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.0617 sq.ft.lb
Design	: N		

Output [HP]	3	3	3
Poles	2	2	2
Frequency [Hz]	50	50	60
Rated voltage [V]	220/380	240/415	460
Rated current [A]	7.81/4.52	7.56/4.37	3.85
L. R. Amperes [A]	55.4/32.1	60.5/35.0	35.0
LRC [A]	7.1	8.0	9.1
No load current [A]	2.85/1.65	3.54/2.05	1.70
Rated speed [RPM]	2840	2875	3480
Slip [%]	5.33	4.17	3.33
Rated torque [ft.lb]	5.55	5.48	4.53
Locked rotor torque [%]	300	380	430
Breakdown torque [%]	310	380	459
Service factor	1.00	1.00	1.25
Temperature rise	80 K	80 K	80 K
Locked rotor time	21s (cold) 12s (hot)	21s (cold) 12s (hot)	25s (cold) 14s (hot)
Noise level <sup>2</sup>	62.0 dB(A)	62.0 dB(A)	68.0 dB(A)
Efficiency (%)	25%		
	50%	86.5	84.0
	75%	86.4	85.5
	100%	85.9	86.5
Power Factor	25%		
	50%	0.70	0.64
	75%	0.81	0.76
	100%	0.86	0.83

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6205 ZZ	6204 ZZ	Max. traction : 154 lb
Sealing	: V'Ring	V'Ring	Max. compression : 203 lb
Lubrication interval	: -	-	
Lubricant amount	: -	-	
Lubricant type	: Mobil Polyrex EM		

### Notes

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 :

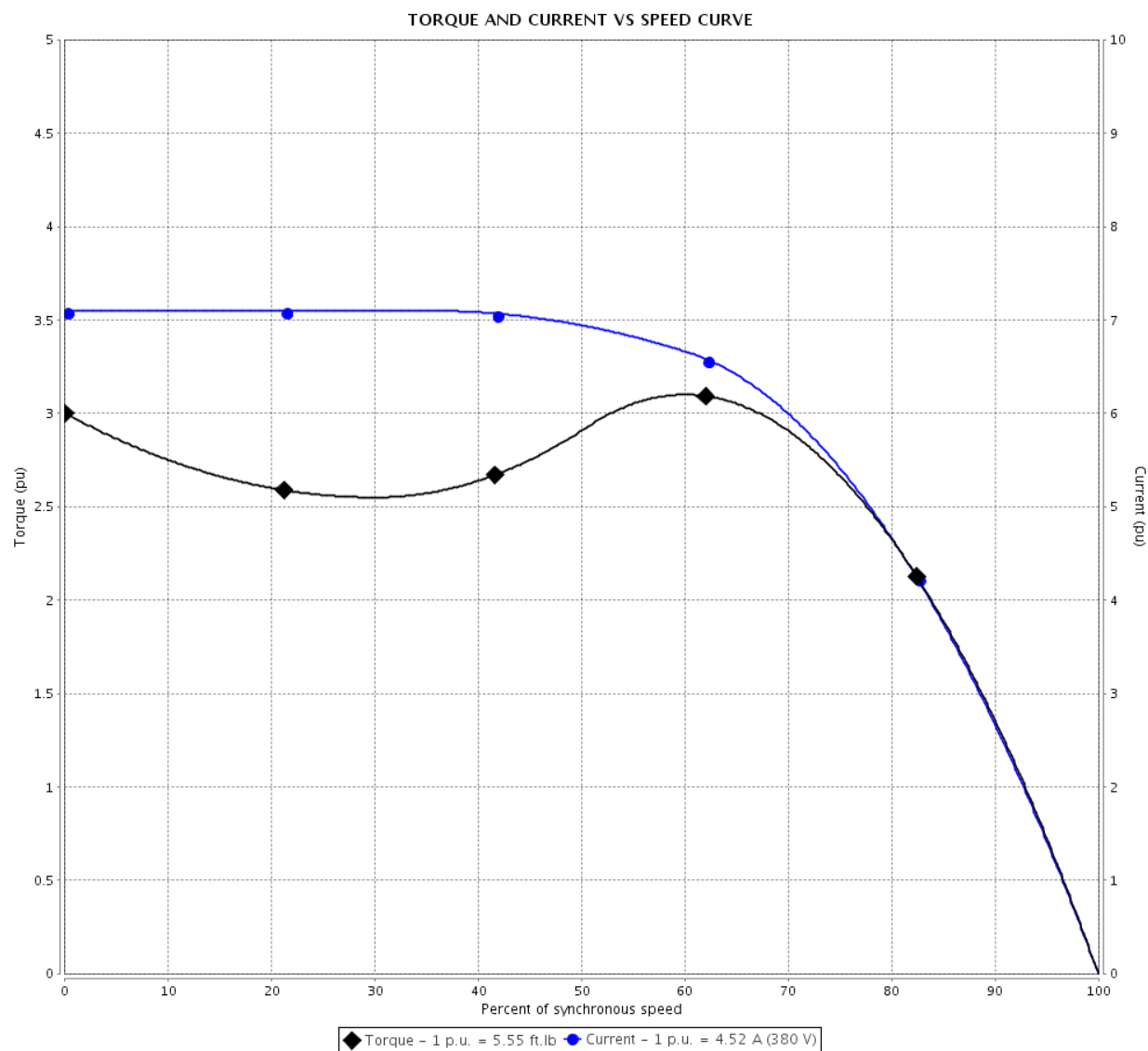
Product line : Multimounting IE3 Three-Phase

Product code :

13984021

Catalog # :

00236ET3WAL90LFF-W22



Performance : 220/380 V 50 Hz 2P

Rated current : 7.81/4.52 A  
LRC : 7.1  
Rated torque : 5.55 ft.lb  
Locked rotor torque : 300 %  
Breakdown torque : 310 %  
Rated speed : 2840 rpm

Moment of inertia (J) : 0.0617 sq.ft.lb  
Duty cycle : S1  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : N

Locked rotor time : 21s (cold) 12s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

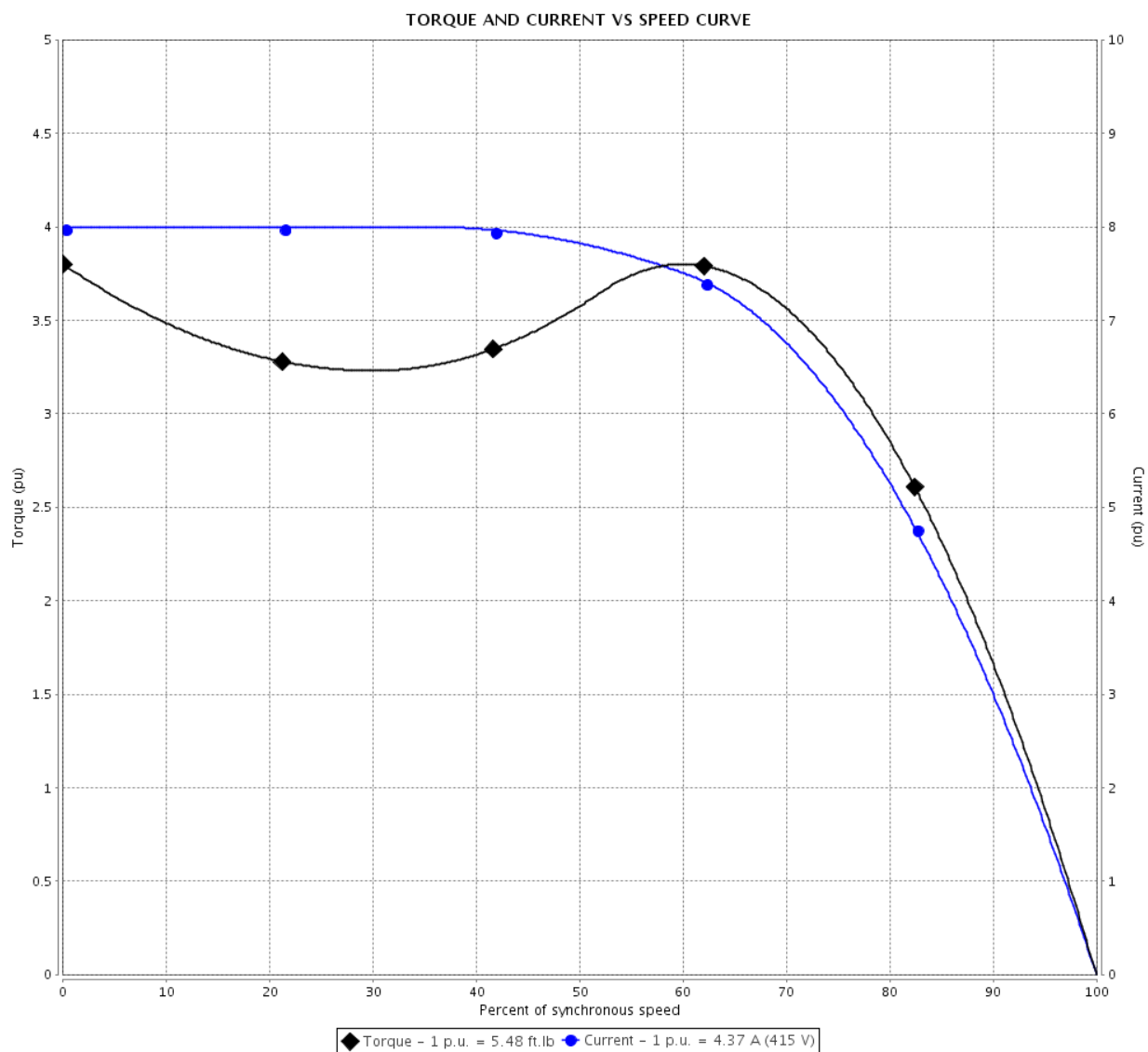
Product line : Multimounting IE3 Three-Phase

Product code :

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Catalog # :

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Performance : 240/415 V 50 Hz 2P

Rated current : 7.56/4.37 A  
 LRC : 8.0  
 Rated torque : 5.48 ft.lb  
 Locked rotor torque : 380 %  
 Breakdown torque : 380 %  
 Rated speed : 2875 rpm

Moment of inertia (J) : 0.0617 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Locked rotor time : 21s (cold) 12s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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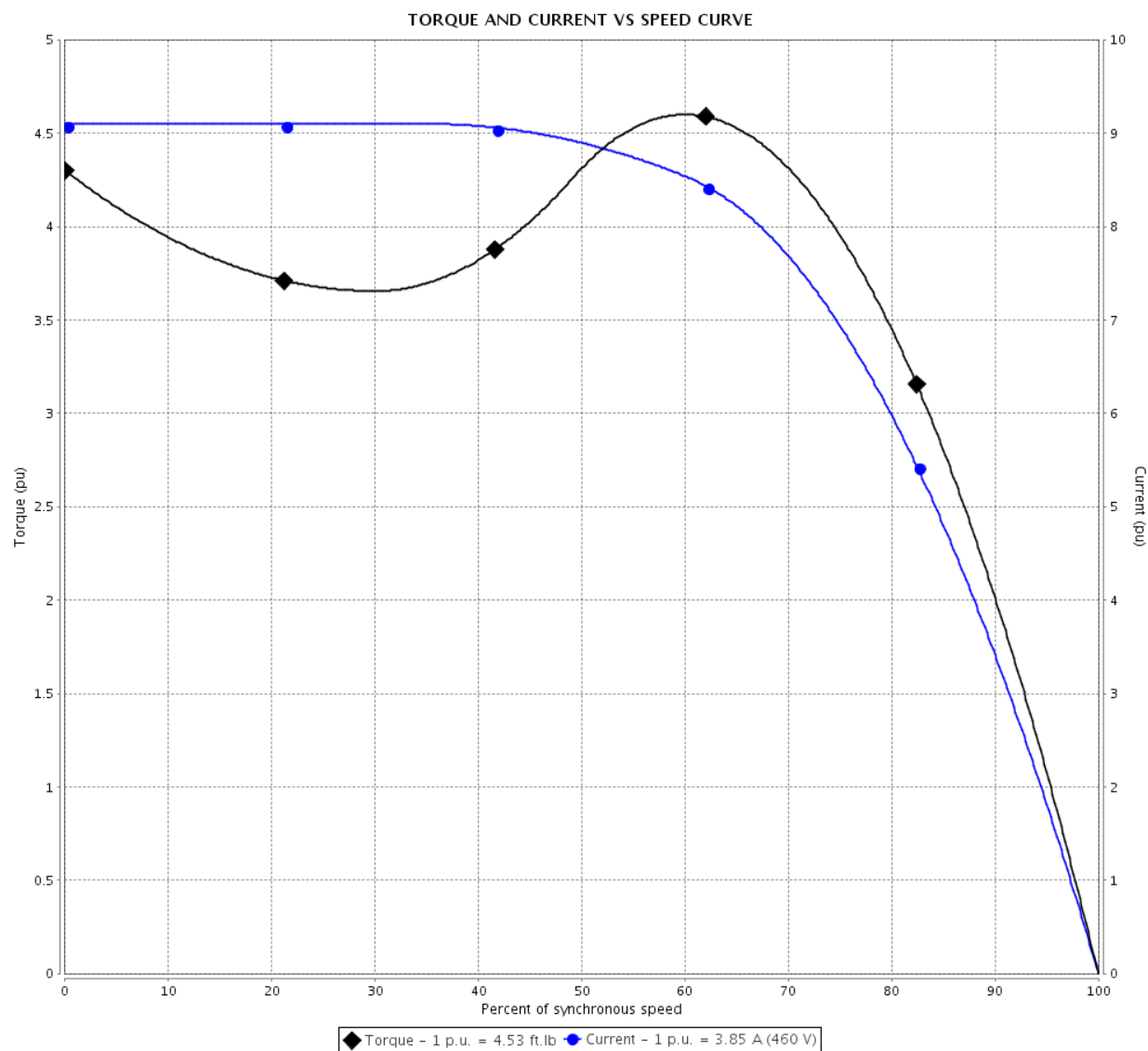
Product line : Multimounting IE3 Three-Phase

Product code :

13984021

Catalog # :

00236ET3WAL90LFF-W22



Performance : 460 V 60 Hz 2P

Rated current	: 3.85 A	Moment of inertia (J)	: 0.0617 sq.ft.lb
LRC	: 9.1	Duty cycle	: S1
Rated torque	: 4.53 ft.lb	Insulation class	: F
Locked rotor torque	: 430 %	Service factor	: 1.25
Breakdown torque	: 459 %	Temperature rise	: 80 K
Rated speed	: 3480 rpm	Design	: N

Locked rotor time : 25s (cold) 14s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

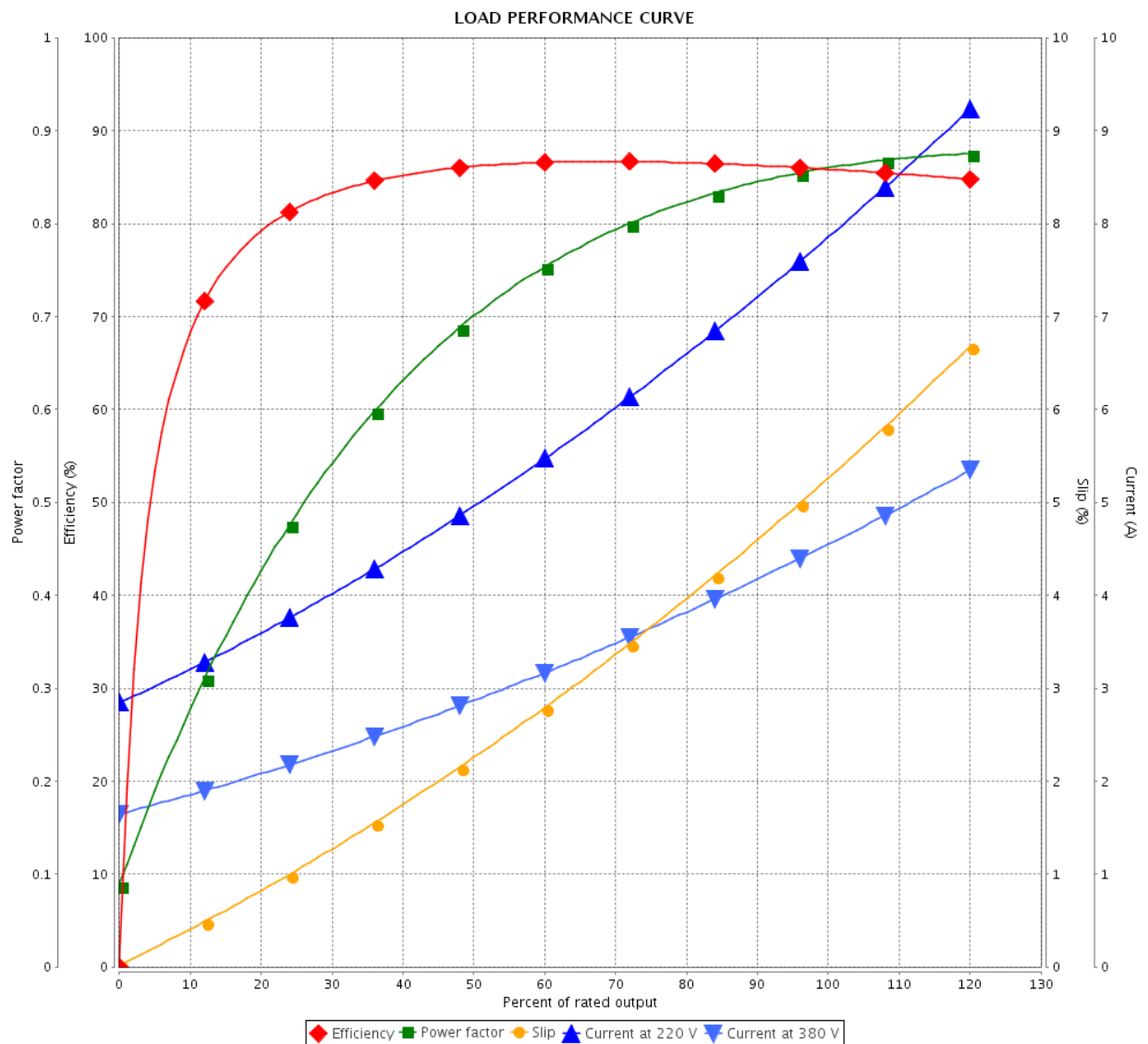
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Moment of inertia (J) : 0.0617 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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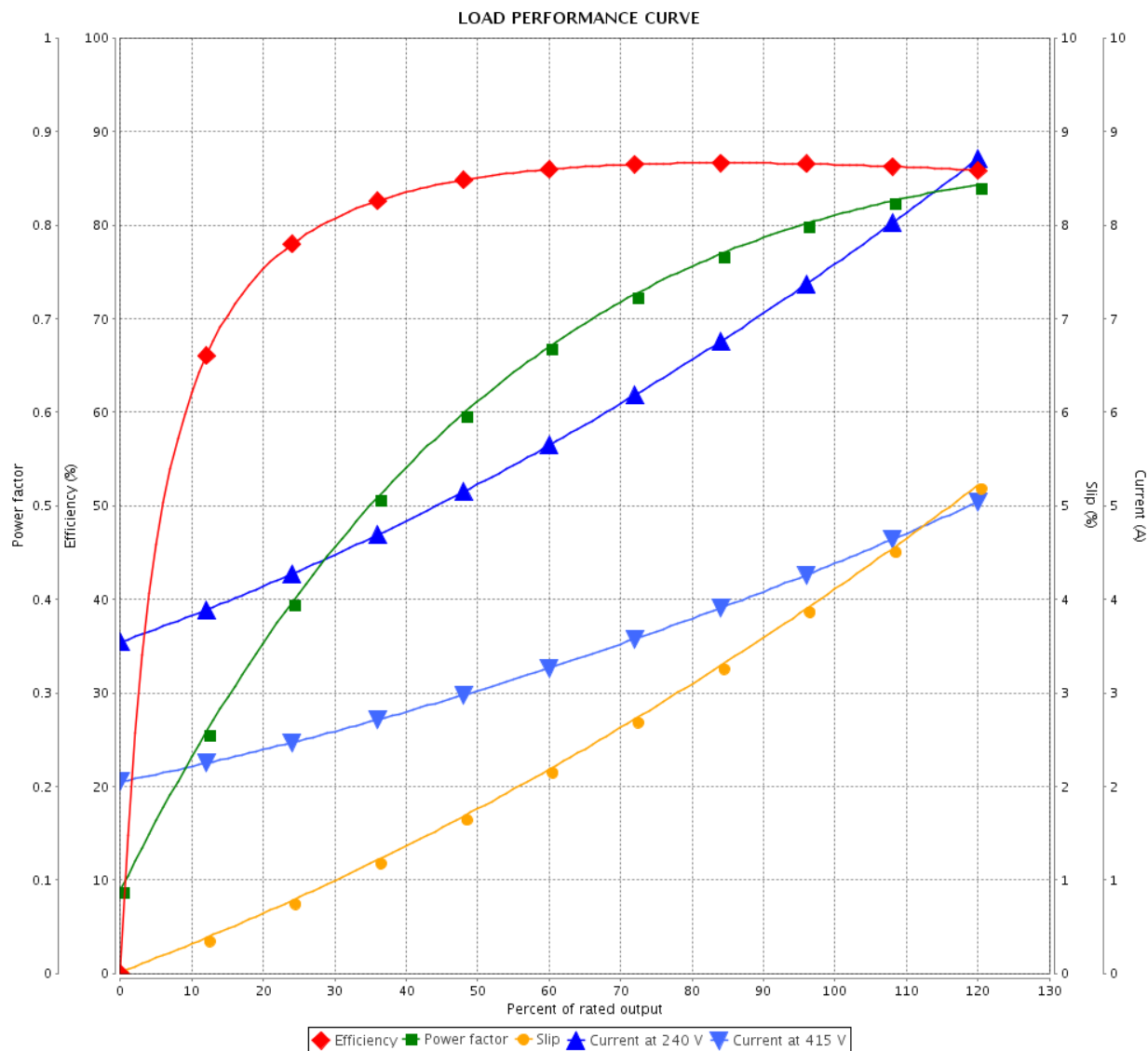
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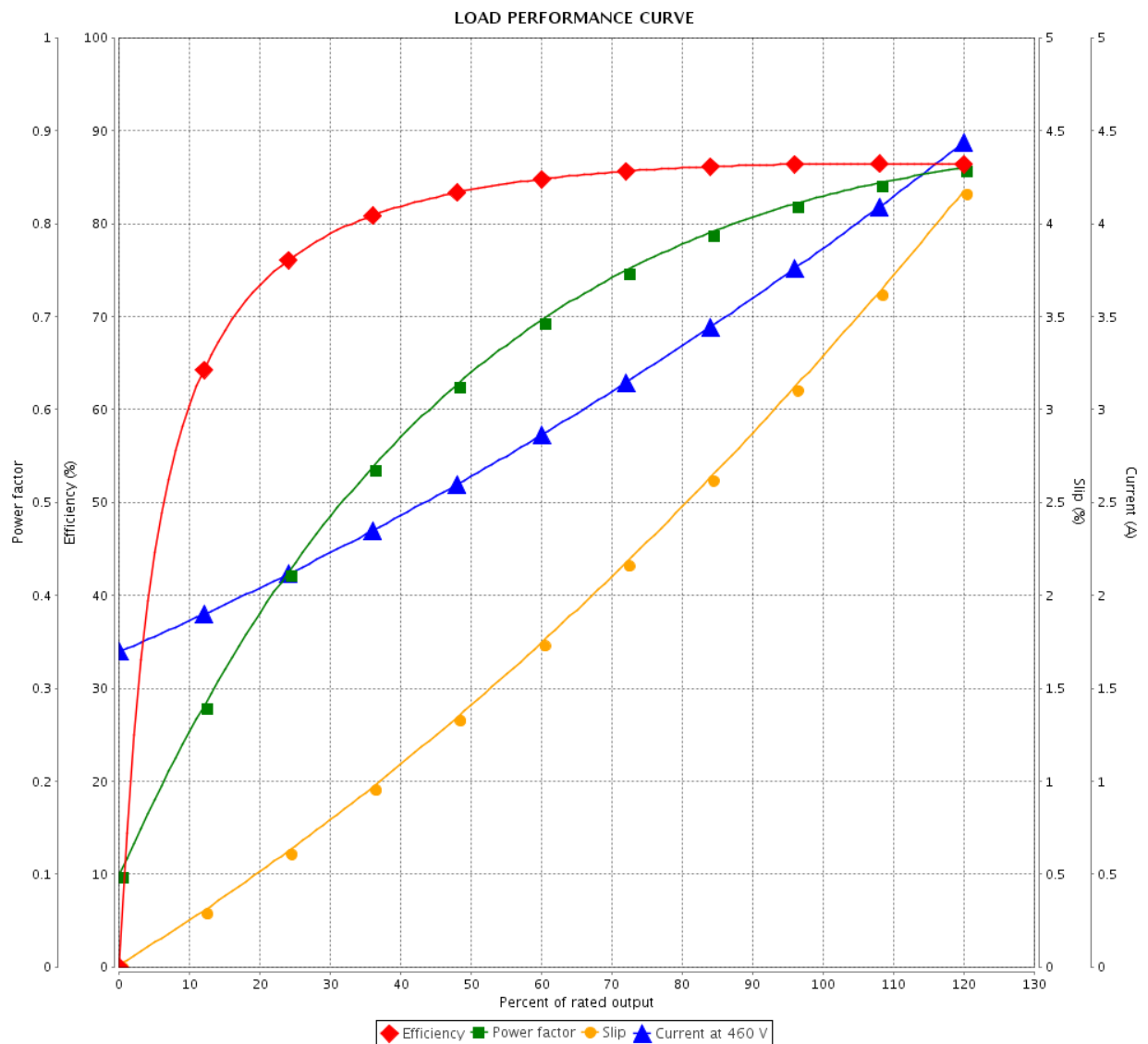
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 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

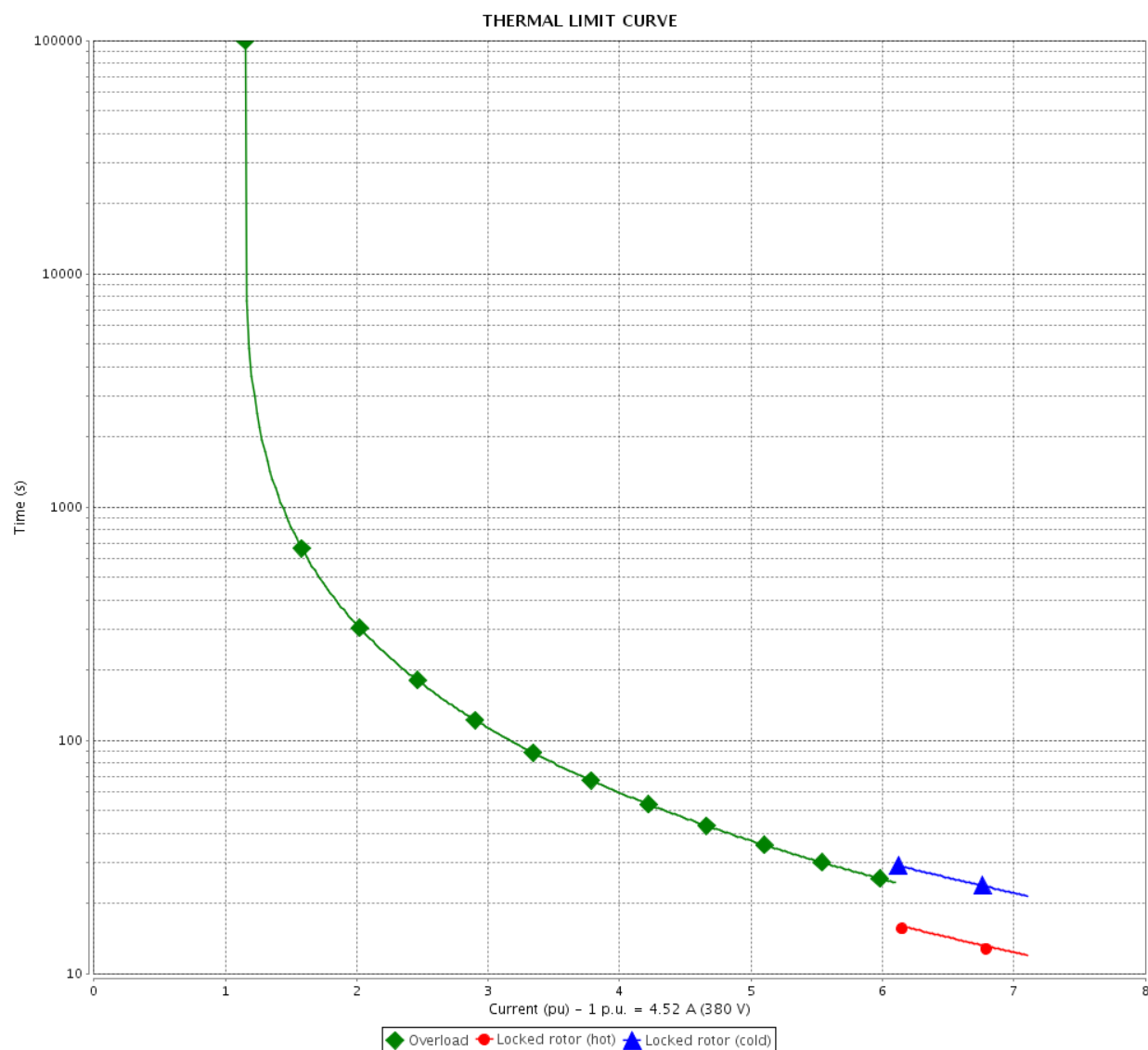
Product line : Multimounting IE3 Three-Phase

Product code :

13984021

Catalog # :

00236ET3WAL90LFF-W22



Performance : 220/380 V 50 Hz 2P

Rated current : 7.81/4.52 A

LRC : 7.1

Rated torque : 5.55 ft.lb

Locked rotor torque : 300 %

Breakdown torque : 310 %

Rated speed : 2840 rpm

Moment of inertia (J) : 0.0617 sq.ft.lb

Duty cycle : S1

Insulation class : F

Service factor : 1.00

Temperature rise : 80 K

Design : N

Heating constant

Cooling constant

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Customer :

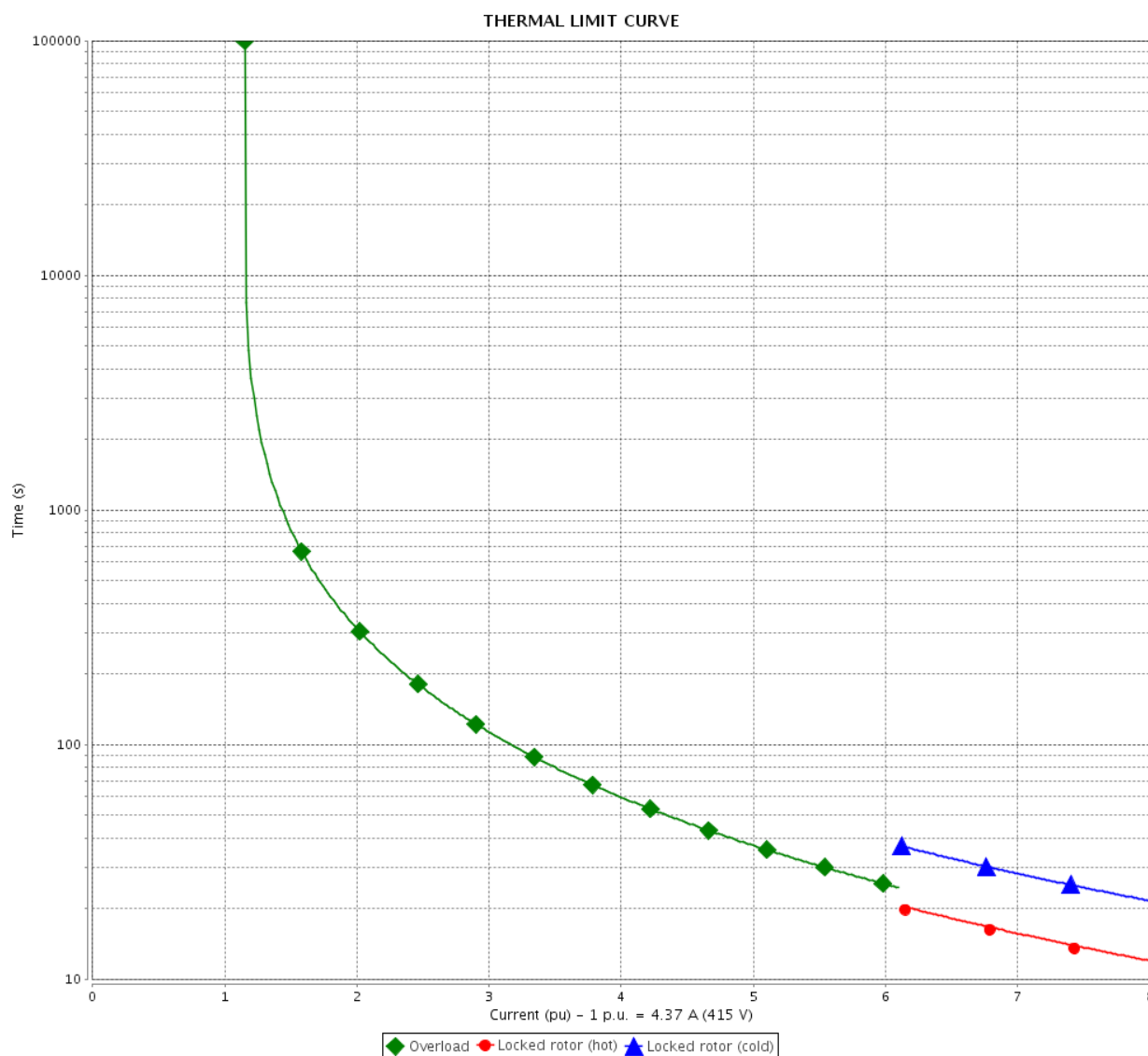
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Customer :

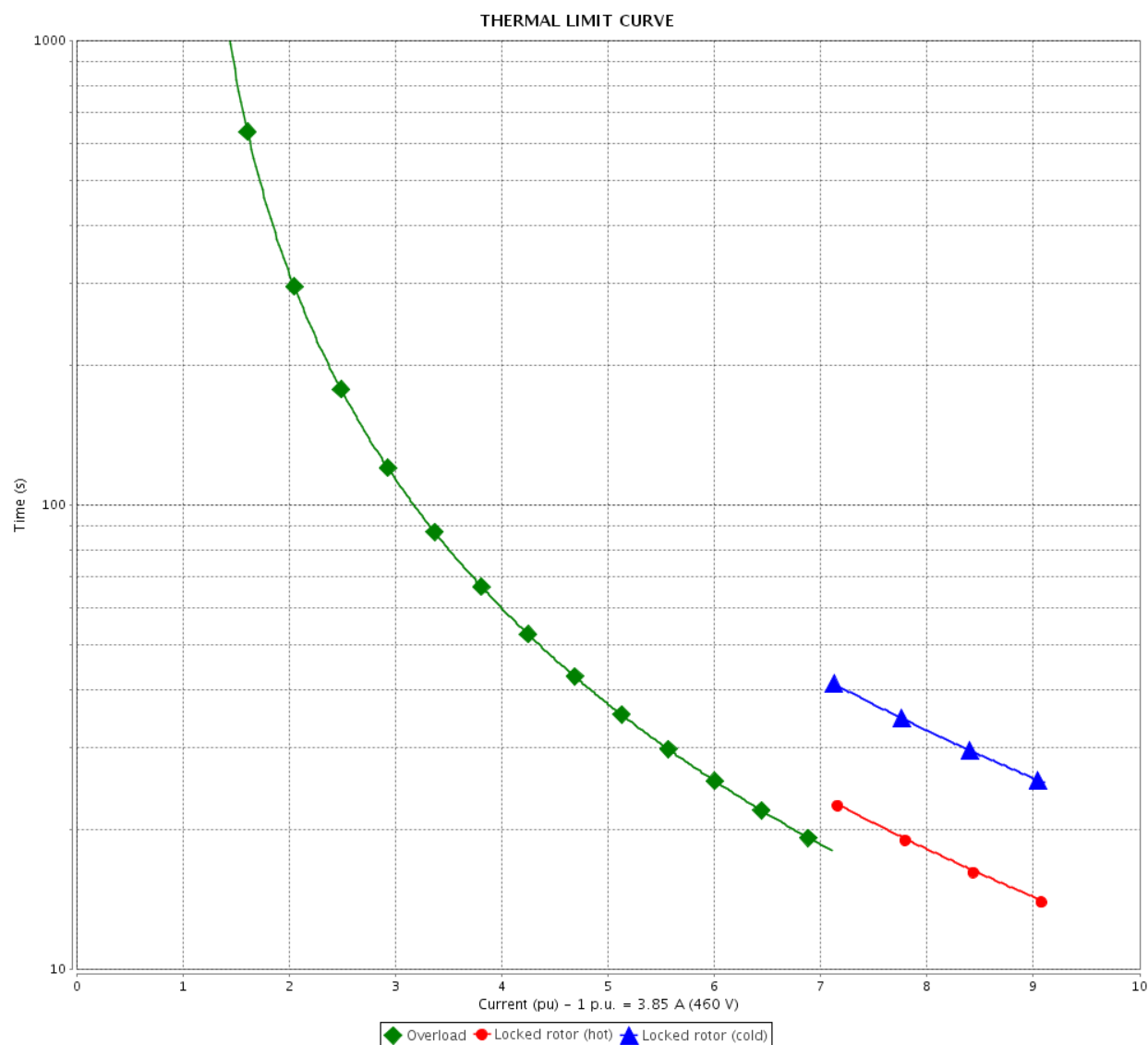
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 Rated speed : 3480 rpm

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 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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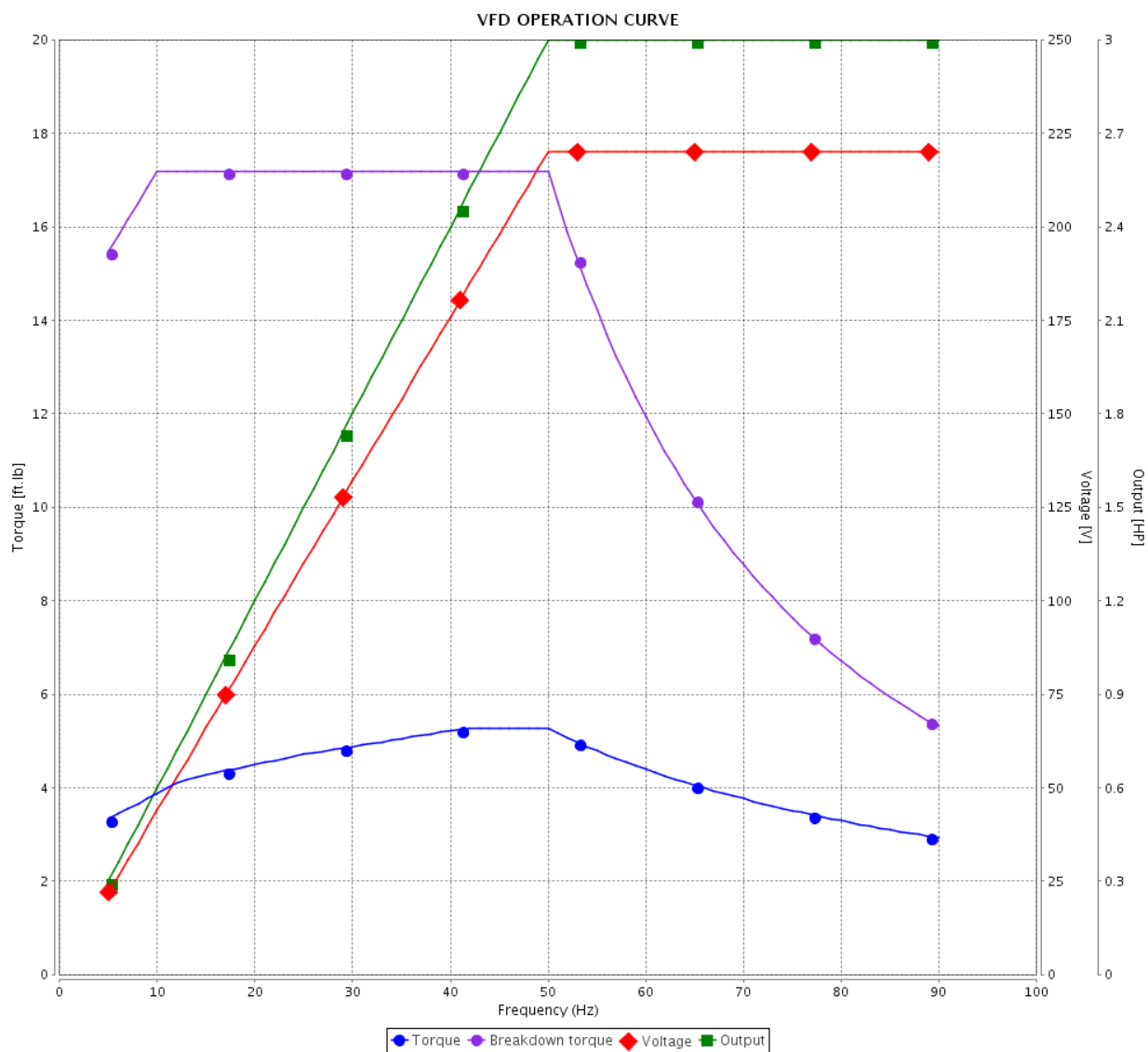
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Catalog # :

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Performance : 220/380 V 50 Hz 2P

Rated current : 7.81/4.52 A

LRC : 7.1

Rated torque : 5.55 ft.lb

Locked rotor torque : 300 %

Breakdown torque : 310 %

Rated speed : 2840 rpm

Moment of inertia (J) : 0.0617 sq.ft.lb

Duty cycle : S1

Insulation class : F

Service factor : 1.00

Temperature rise : 80 K

Design : N

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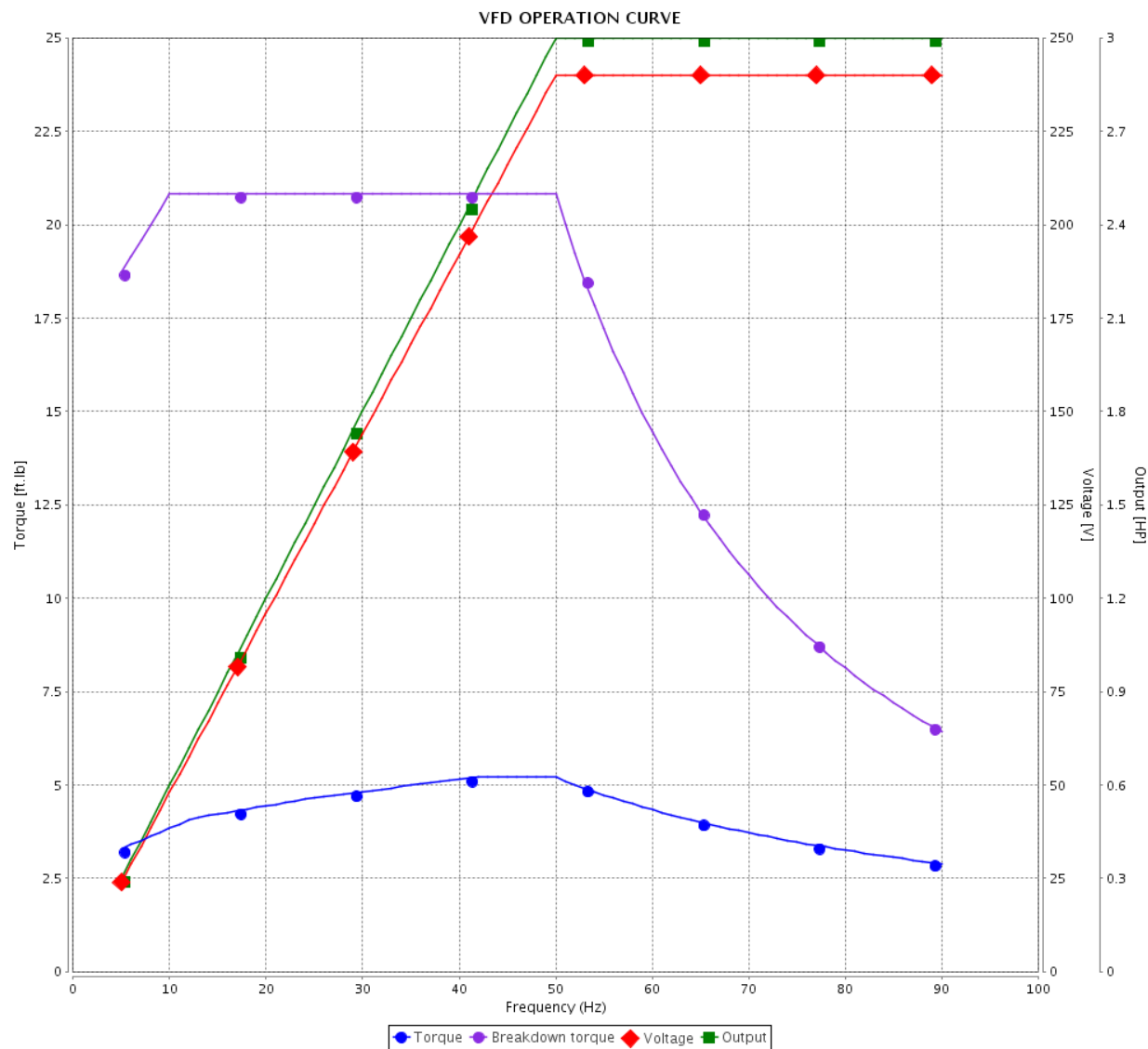
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 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
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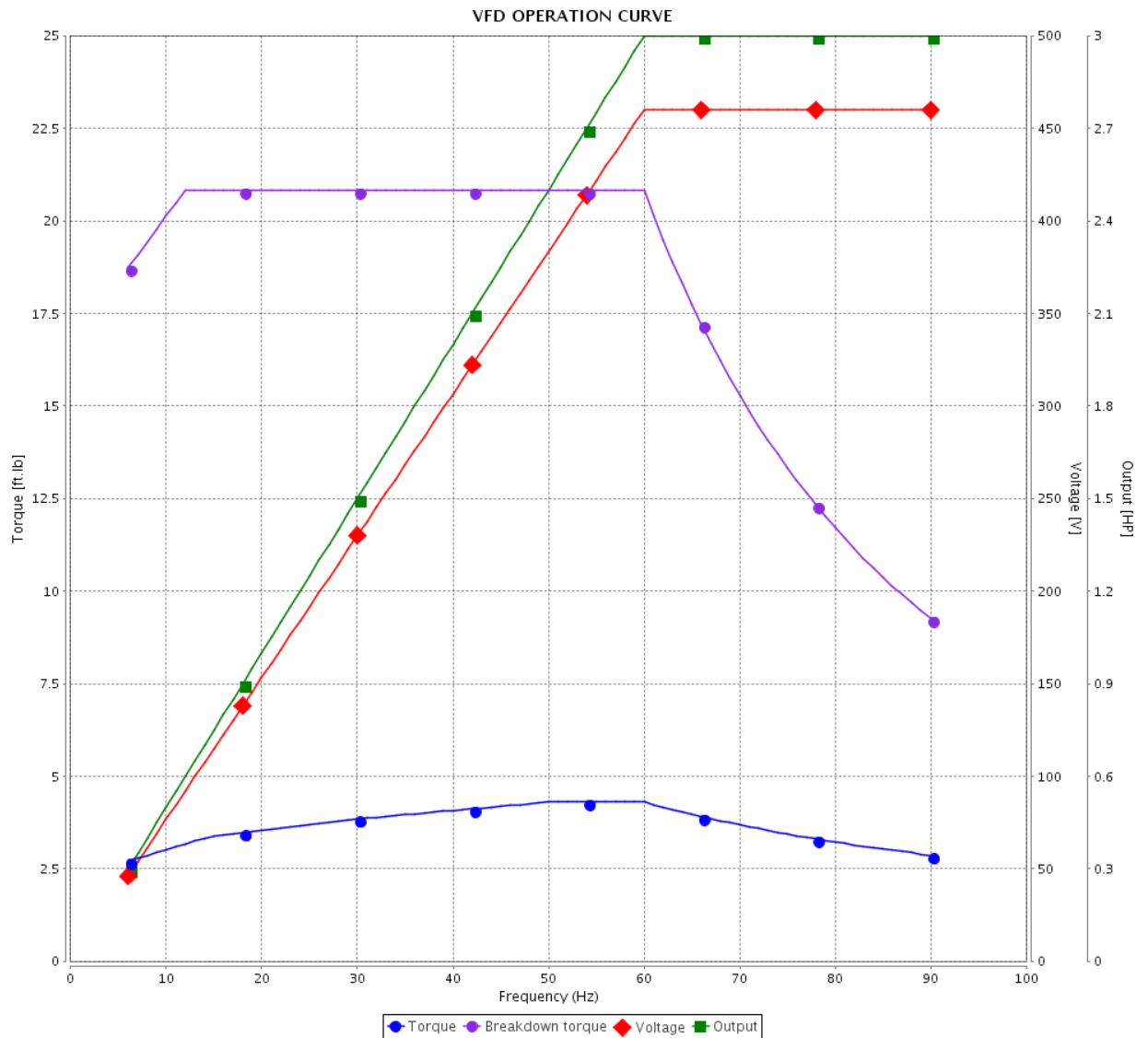
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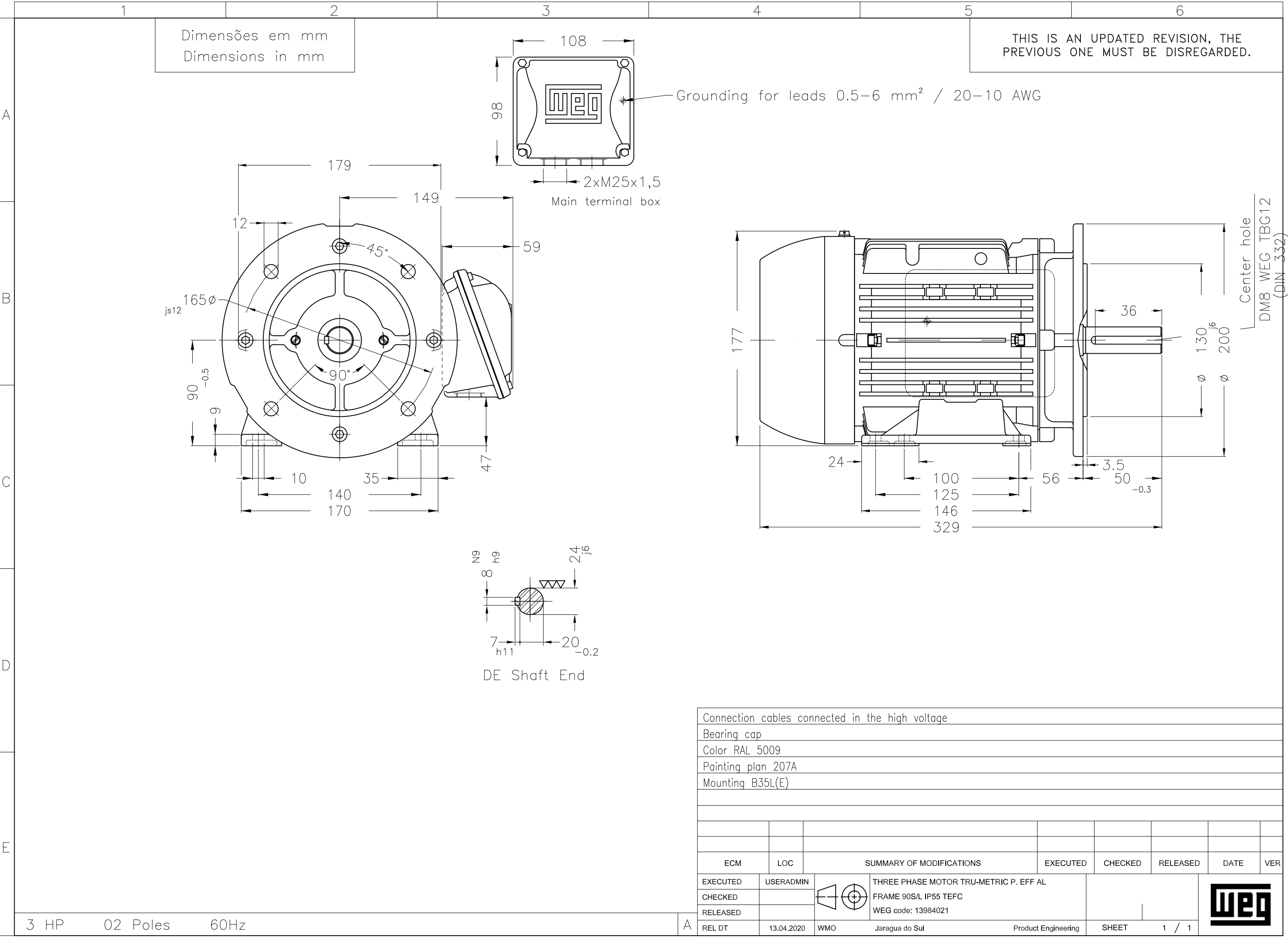
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CC029A  
Severe Duty

IE3-86.5%



IEC 60034-1

MODEL 00236ET3WAL90LFF-W22

3 ~ AL90S/L

AMB 40°C

INS CL. F ENCL TEFC TYPE ET IP55 DUTY CONT.

kW(HP)	Hz	VOLTS	RPM	AMPS	PF	SFA
2.2(3.0)	50	220/380	2840	7.81/4.52	0.86	-
		240/415	2875	7.56/4.37	0.81	-
	60	/460	3480	- /3.85	0.83	4.81

Hz SF CODE  $\Delta T$  (K) ALT 1000 m.a.s.l.

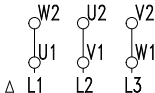
50 1.00 K 80

60 1.25 L 80

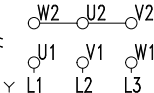
NEMA EFF 60Hz DES

NOM(%) 86.5 3/4(%) 85.5

220-240 V



380-415//460 V



→ 6205-ZZ

→ 6204-ZZ

MOBIL POLYREX EM

48 Lbs

TEMP CODE T3C

Class I, Div. 2, Gr. B, C and D ®

Class I, Zone 2, IIC

MOD.TE01A0X0\$0000102084



LR 38324

