

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line		: W40 NEMA Premium Efficiency Three-Phase		Product code : 14284974	
			Catalog # :	12518OT3G405TSC-W40	
Frame		: 404/5TSC		Cooling method	: IC01 - ODP
Insulation class		: F		Mounting	: F-1
Duty cycle		: Cont.(S1)		Rotation ¹	: Both (CW and CCW)
Ambient temperature		: -20°C to +40°C		Starting method	: Direct On Line
Altitude		: 1000 m.a.s.l.		Approx. weight ²	: 1036 lb
Protection degree		: IP23		Moment of inertia (J)	: 25.5 sq.ft.lb
Design		: B			
Output [HP]	125	100	100	100	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	138	138	133	129	
L. R. Amperes [A]	952	994	1024	1032	
LRC [A]	6.9x(Code G)	7.2x(Code H)	7.7x(Code H)	8.0x(Code J)	
No load current [A]	47.0	46.3	50.2	53.7	
Rated speed [RPM]	1780	1480	1480	1480	
Slip [%]	1.11	1.33	1.33	1.33	
Rated torque [ft.lb]	369	355	355	355	
Locked rotor torque [%]	270	240	270	290	
Breakdown torque [%]	260	260	300	320	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	18s (cold) 10s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)	14s (cold) 8s (hot)	
Noise level ²	69.0 dB(A)				
Efficiency (%)	25%	94.9	94.5	94.5	94.8
	50%	95.0	94.6	94.6	94.9
	75%	95.4	95.0	95.0	95.0
	100%	95.4	95.0	95.0	95.0
Power Factor	25%	0.50	0.50	0.46	0.43
	50%	0.75	0.76	0.72	0.69
	75%	0.83	0.84	0.82	0.80
	100%	0.86	0.87	0.86	0.85
Bearing type		Drive end	Non drive end	Foundation loads	
Sealing		6314 C3	6212 Z C3	Max. traction : 2887 lb	
Lubrication interval		Without	Without	Max. compression : 3923 lb	
Lubricant amount		Bearing Seal	Bearing Seal		
Lubricant type		20000 h	20000 h		
		27 g	13 g		
		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



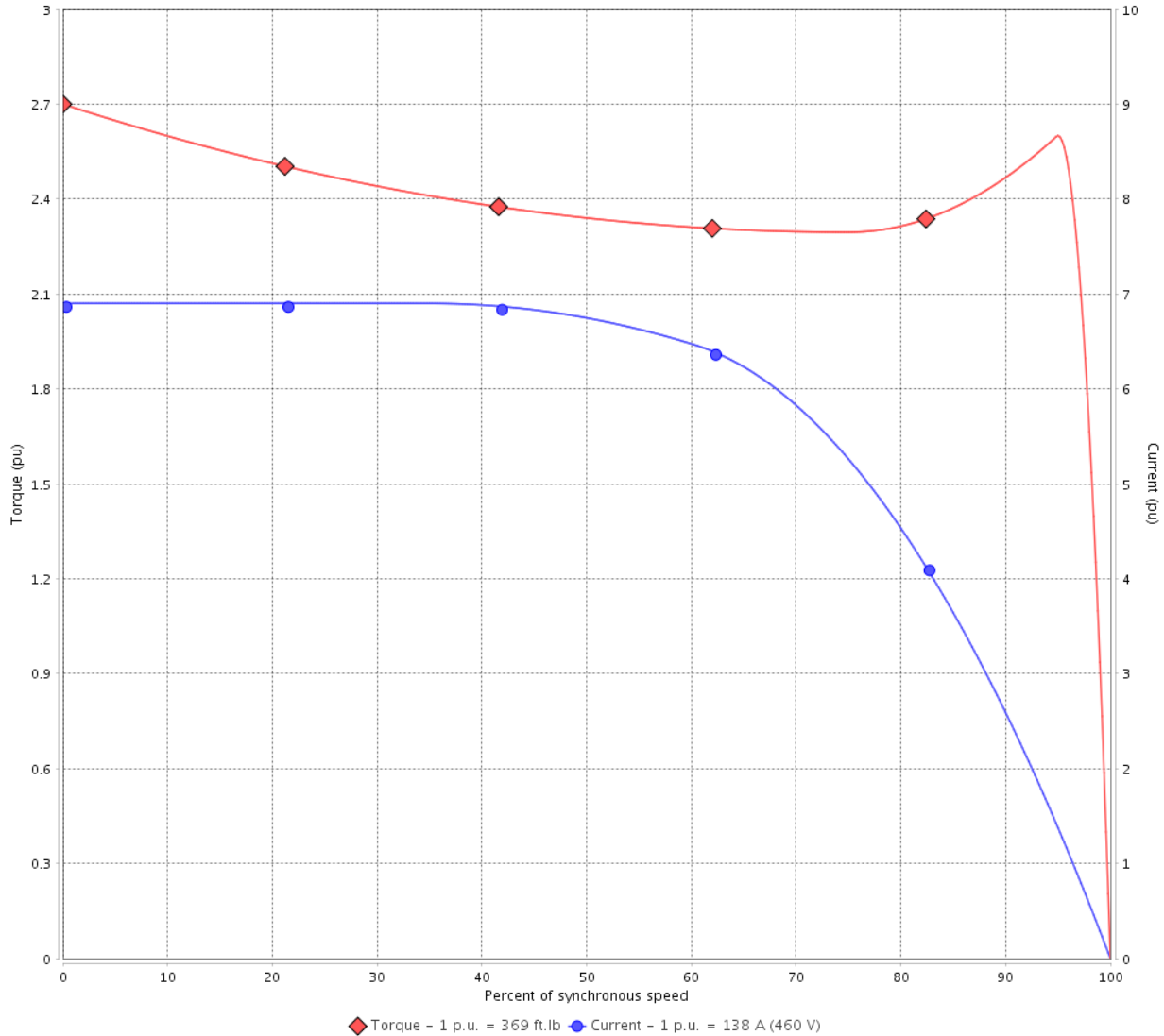
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14284974

Catalog # : 12518OT3G405TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 460 V 60 Hz 4P

Rated current	: 138 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 369 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 18s (cold) 10s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



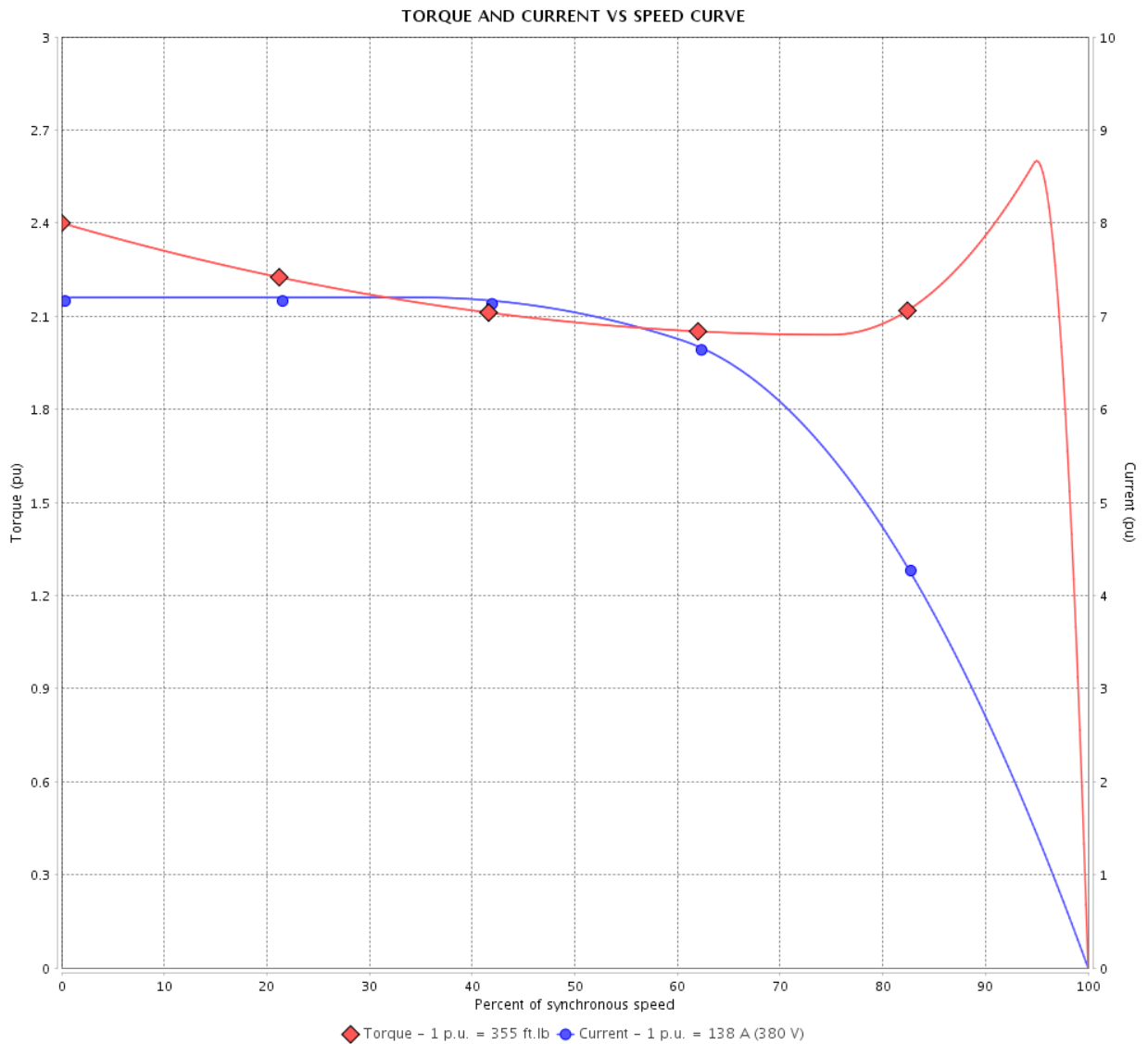
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14284974

Catalog # : 12518OT3G405TSC-W40



Performance : 380 V 50 Hz 4P IE3

Rated current	: 138 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 355 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 16s (cold) 9s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



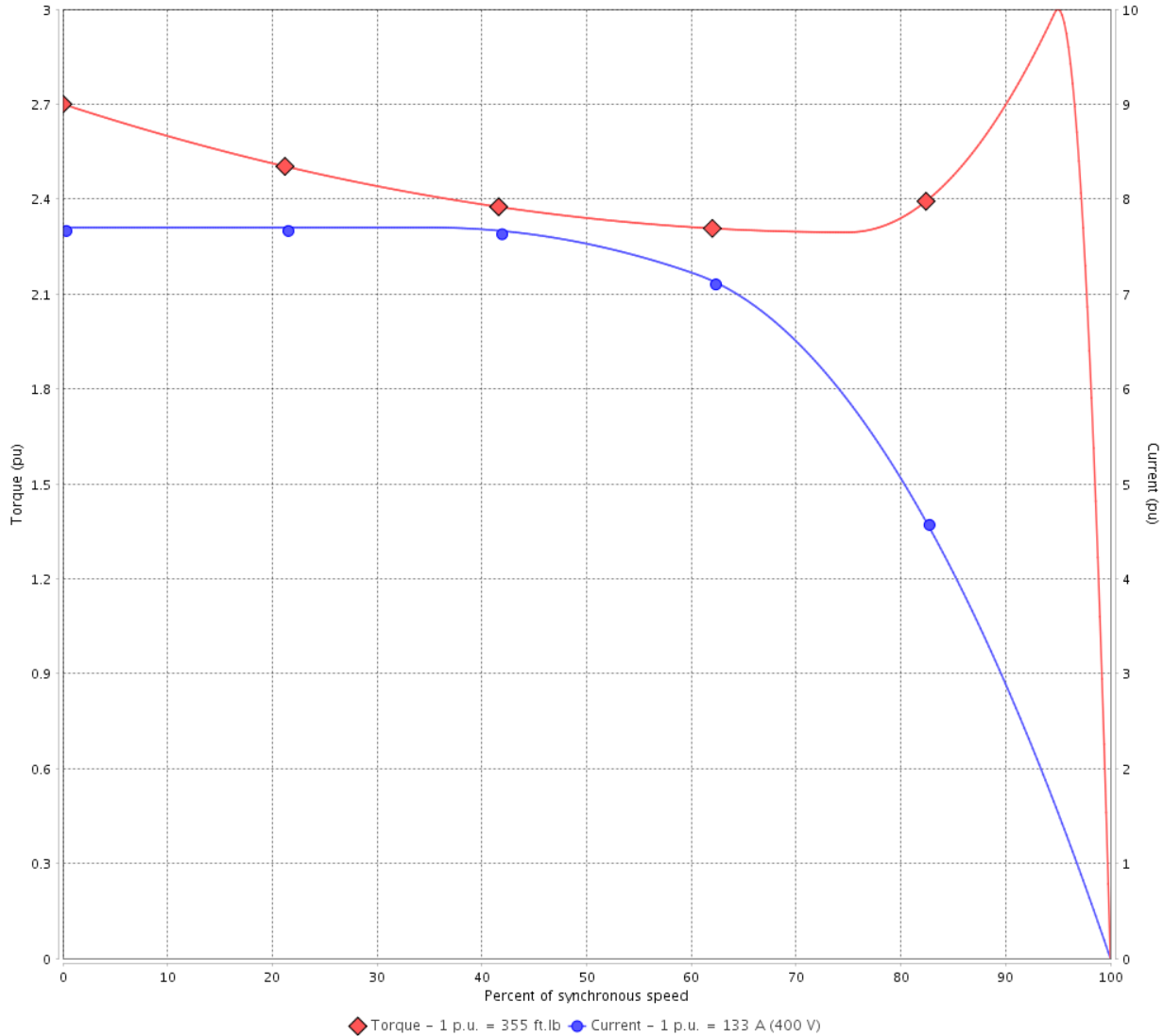
Customer :

Product line : W40 NEMA Premium Efficiency
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Product code : 14284974

Catalog # : 12518OT3G405TSC-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 133 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 355 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 16s (cold) 9s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



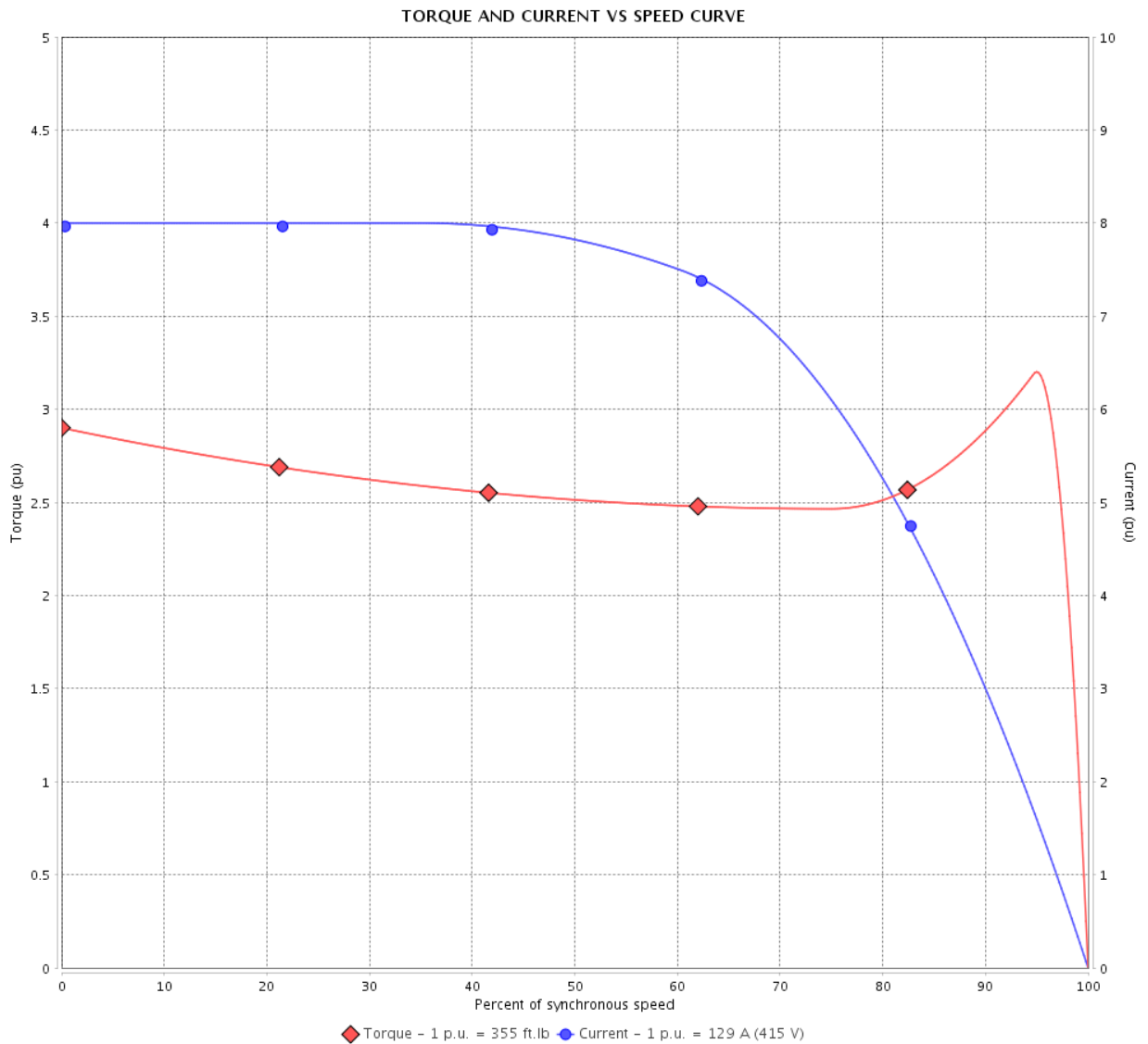
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Catalog # : 12518OT3G405TSC-W40



Performance : 415 V 50 Hz 4P IE3

Rated current	: 129 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 355 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 14s (cold) 8s (hot)

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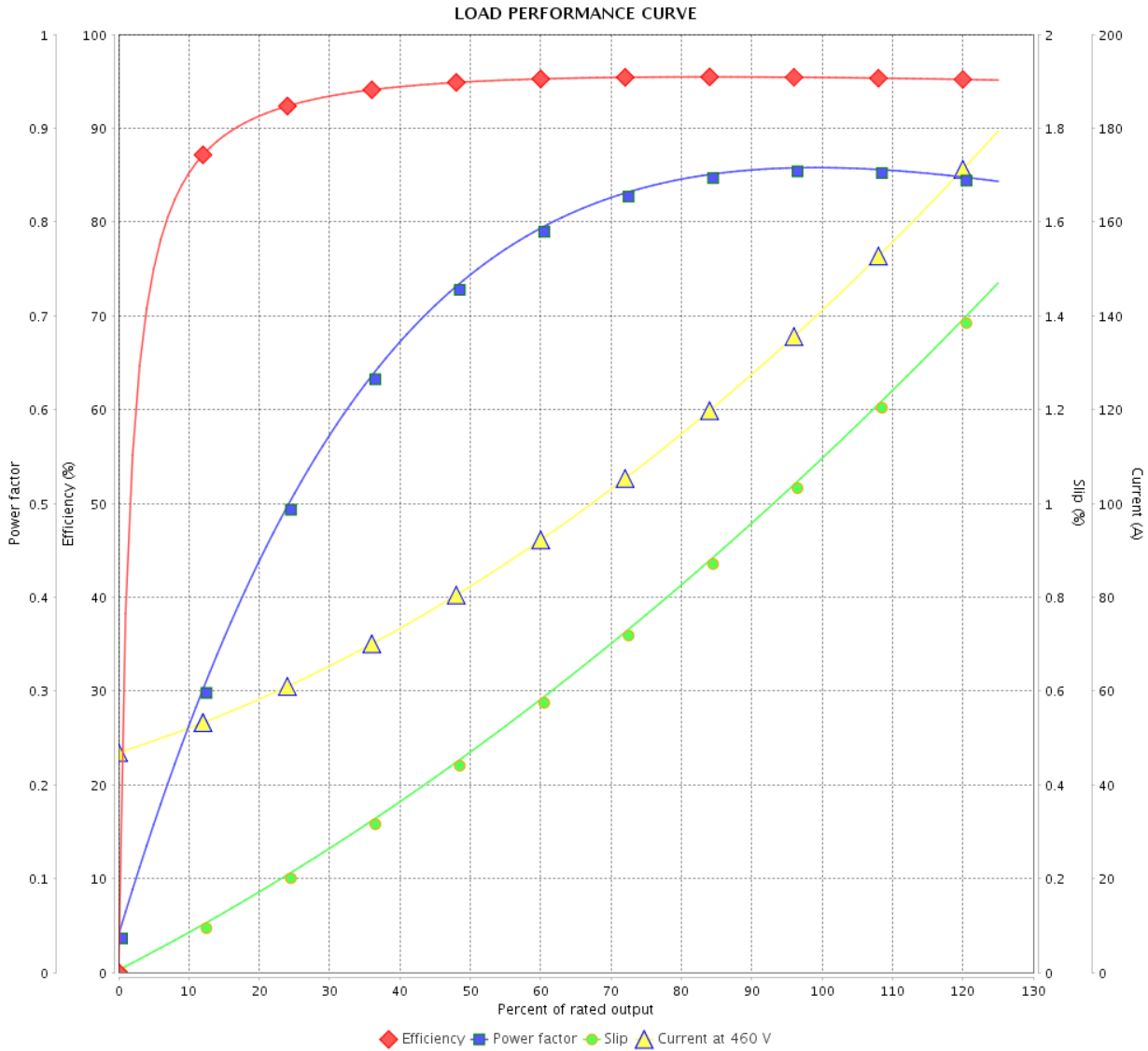


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Performance : 460 V 60 Hz 4P

Rated current	: 138 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 369 ft.lb	Insulation class	: F
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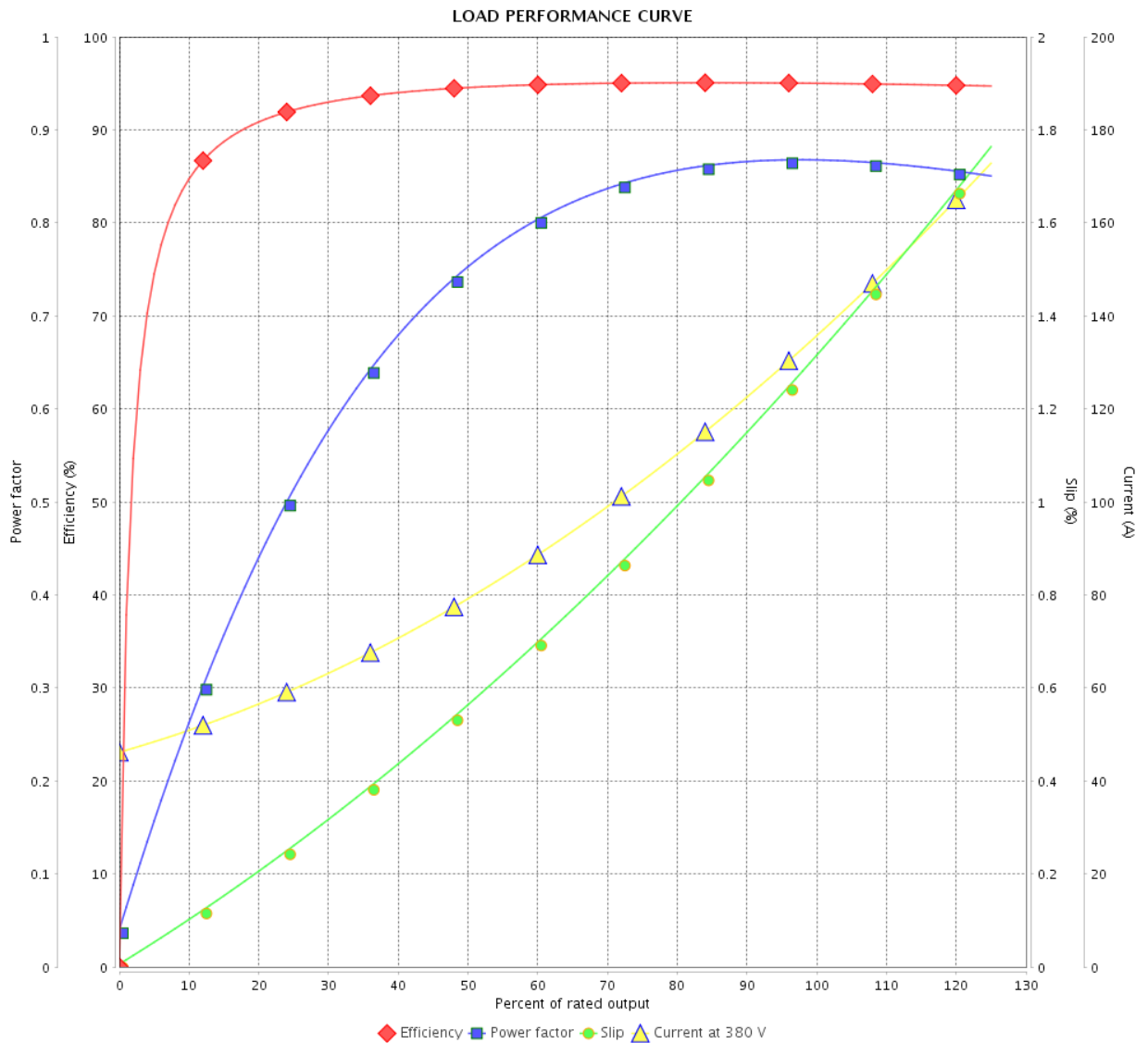


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Performance : 380 V 50 Hz 4P IE3

Rated current : 138 A
 LRC : 7.2
 Rated torque : 355 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 260 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 25.5 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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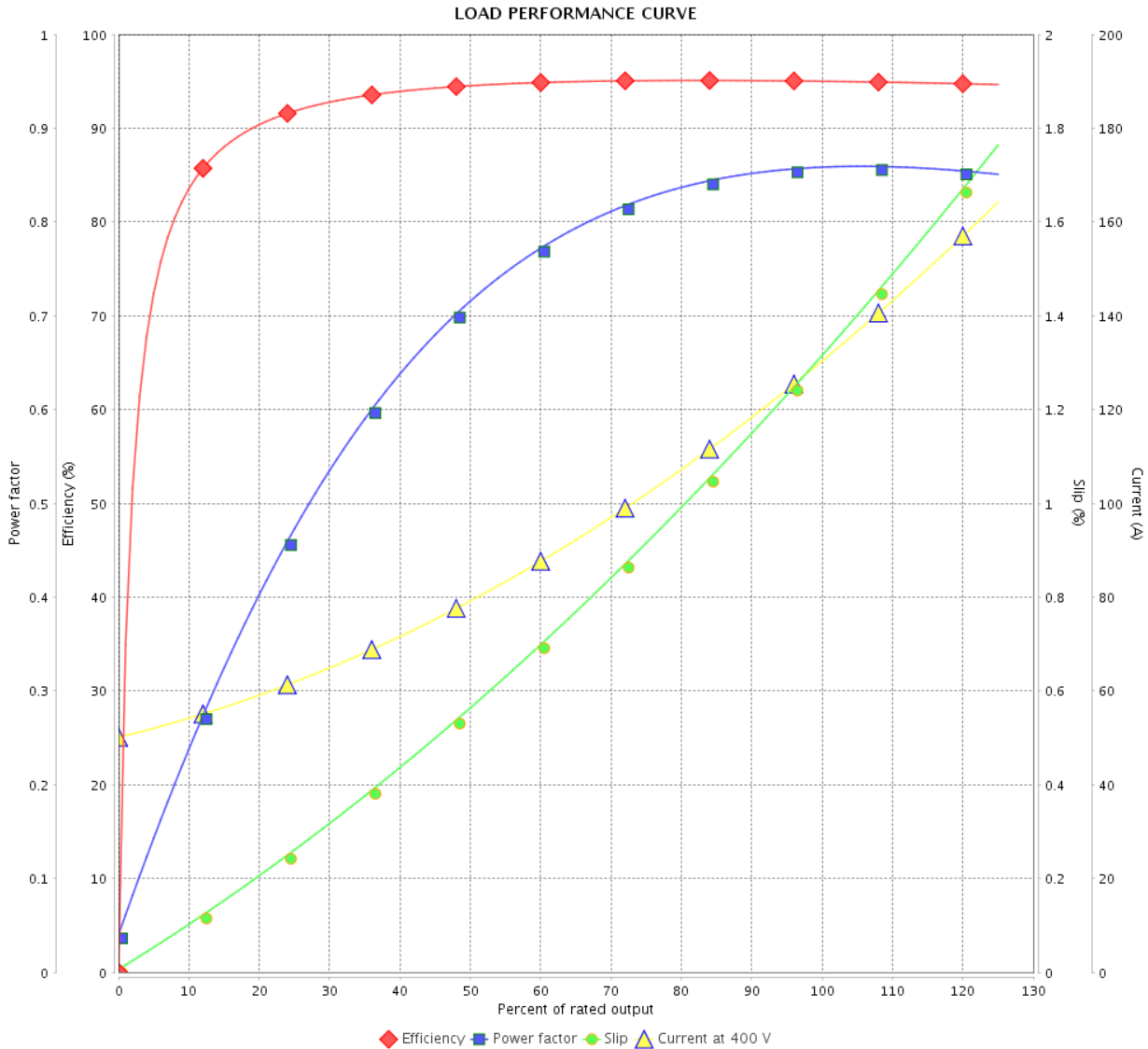


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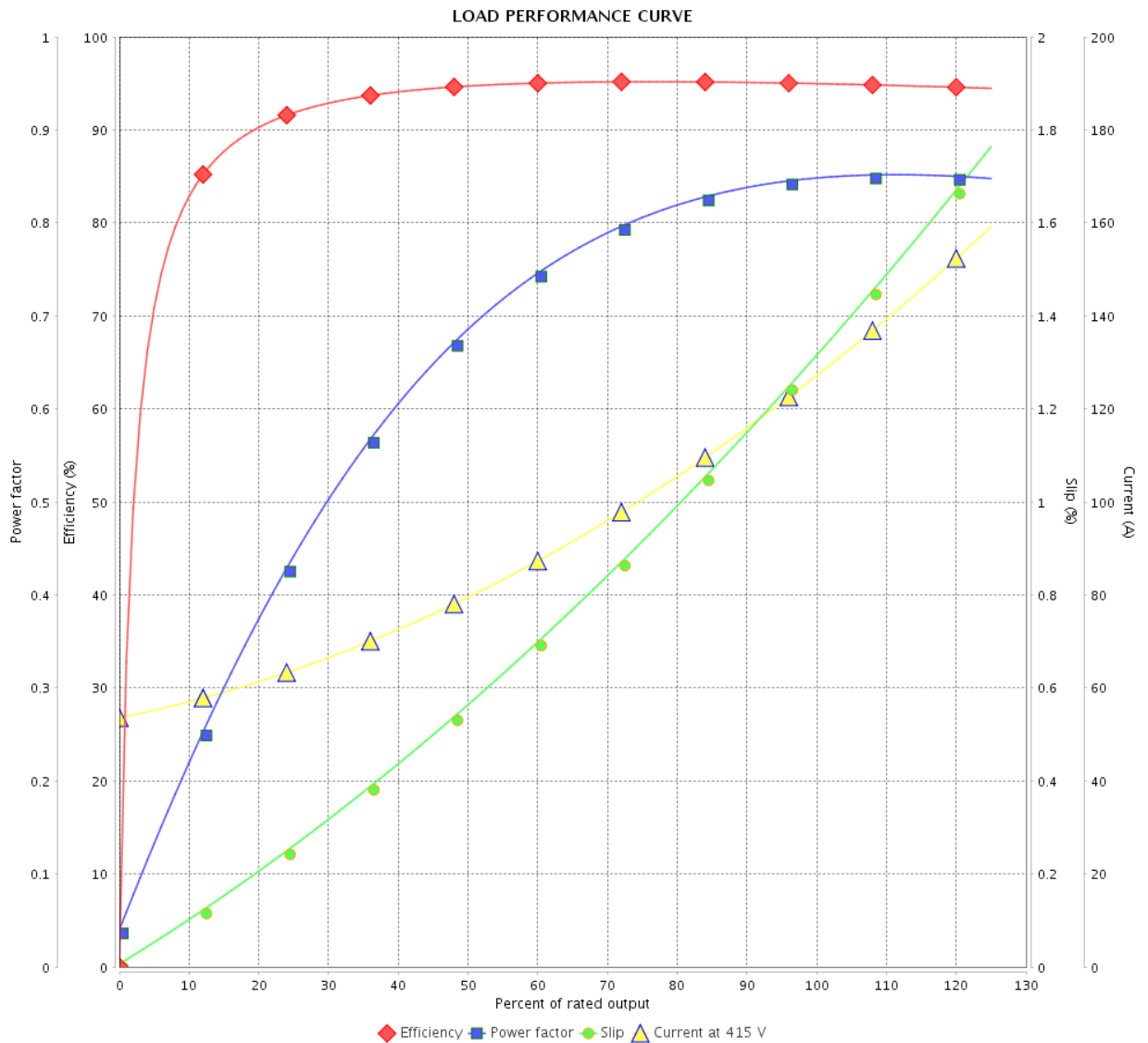


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Service factor : 1.00
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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

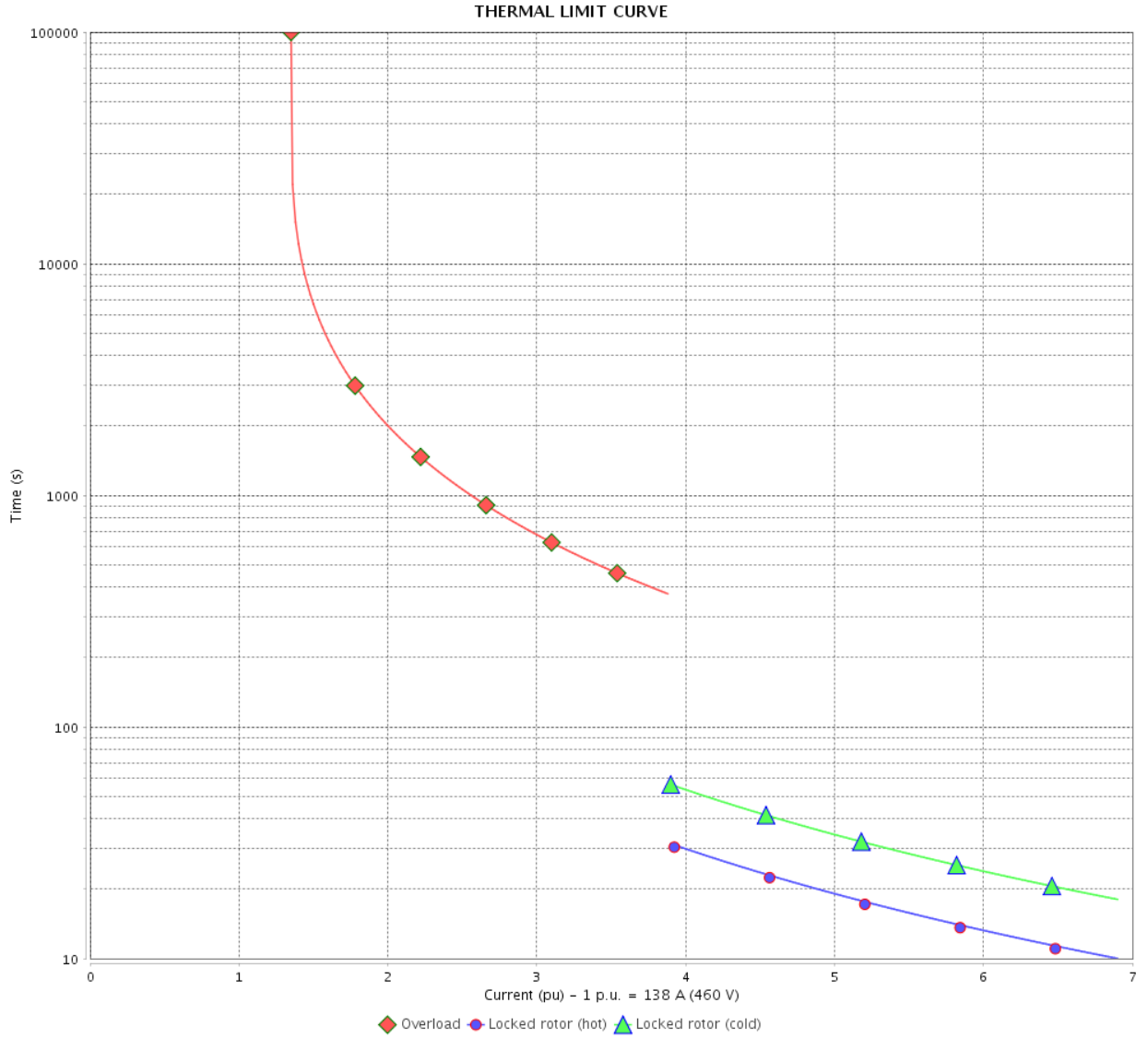
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Cooling constant

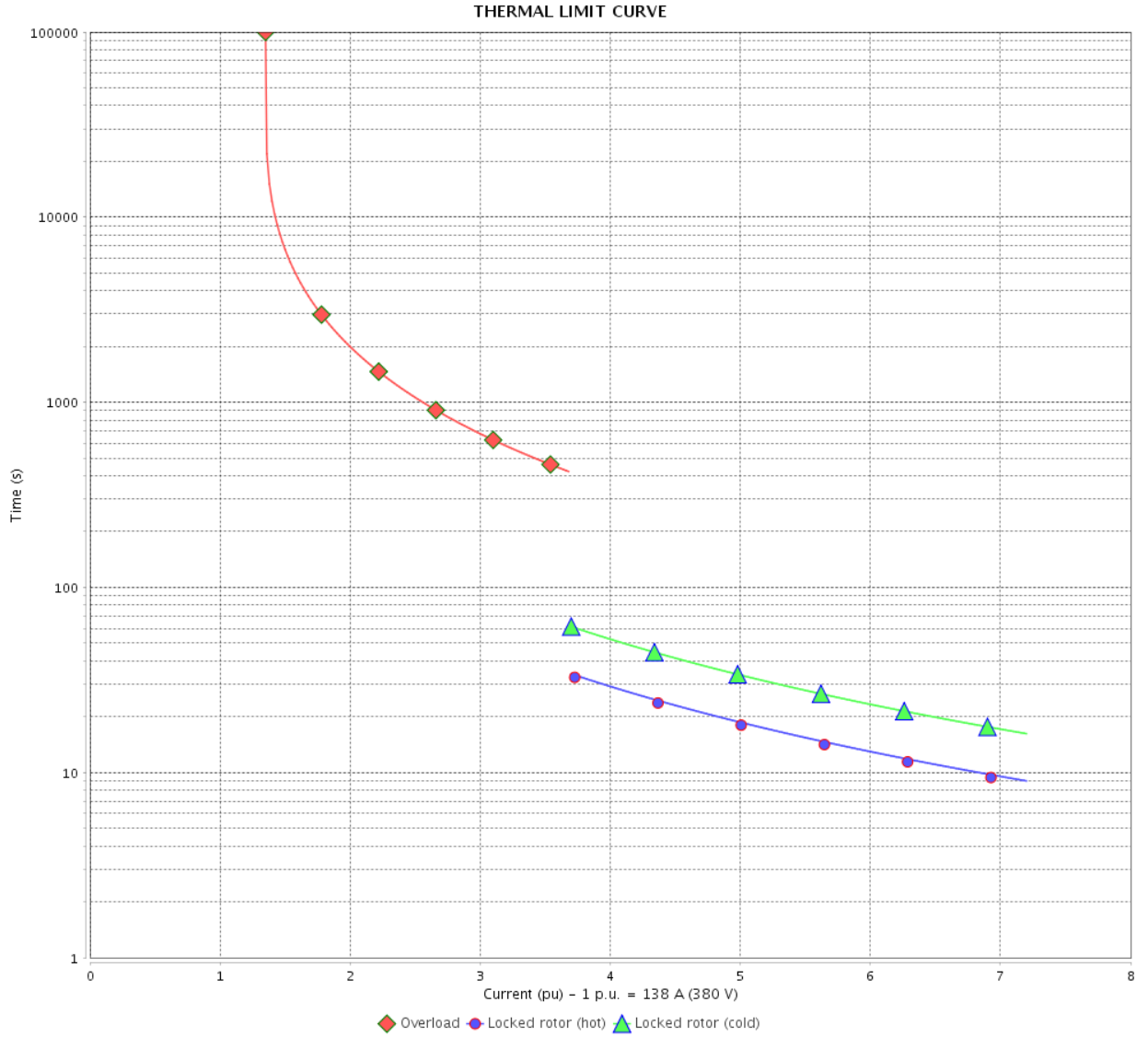
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Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
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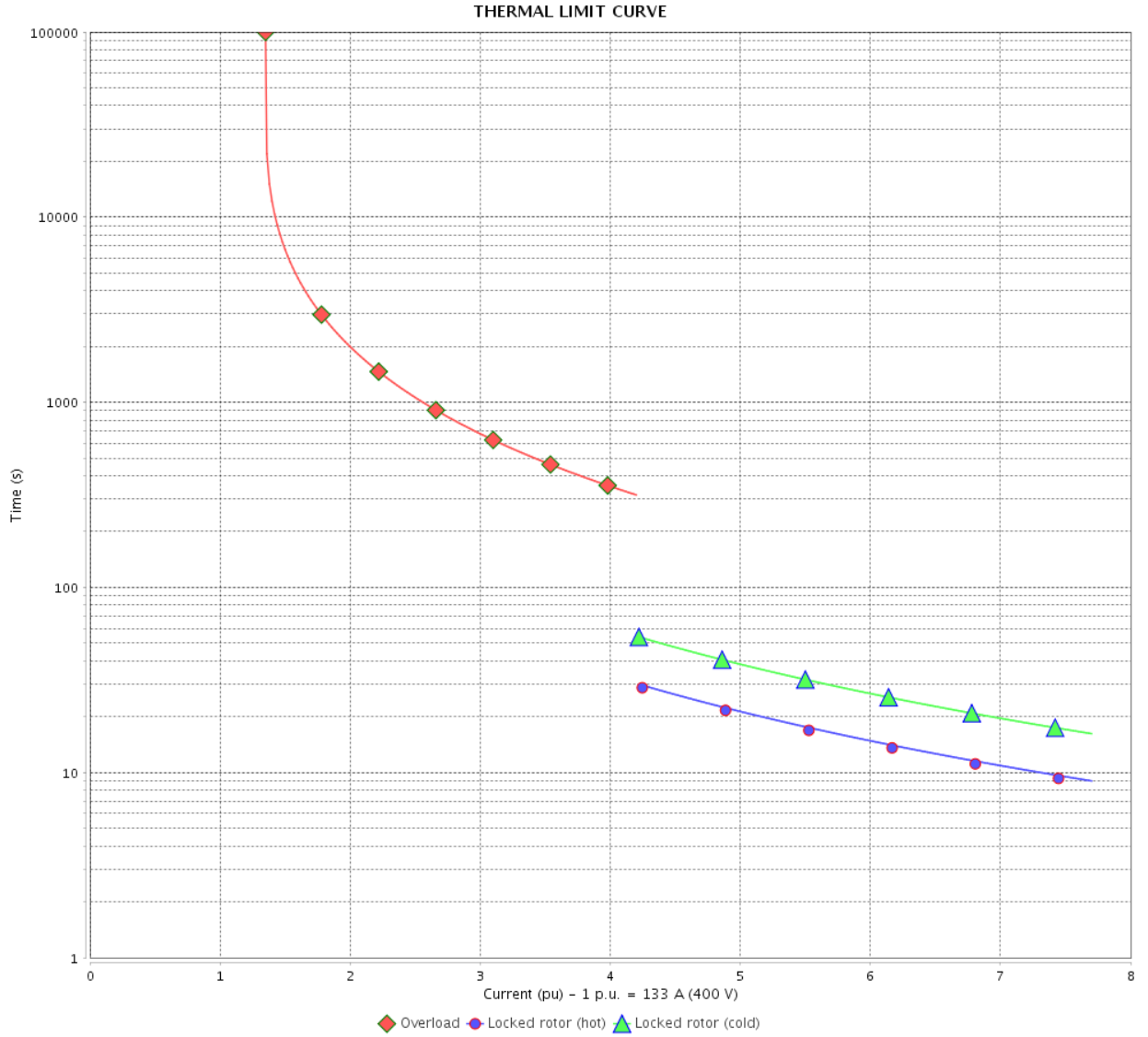
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Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Heating constant

Cooling constant

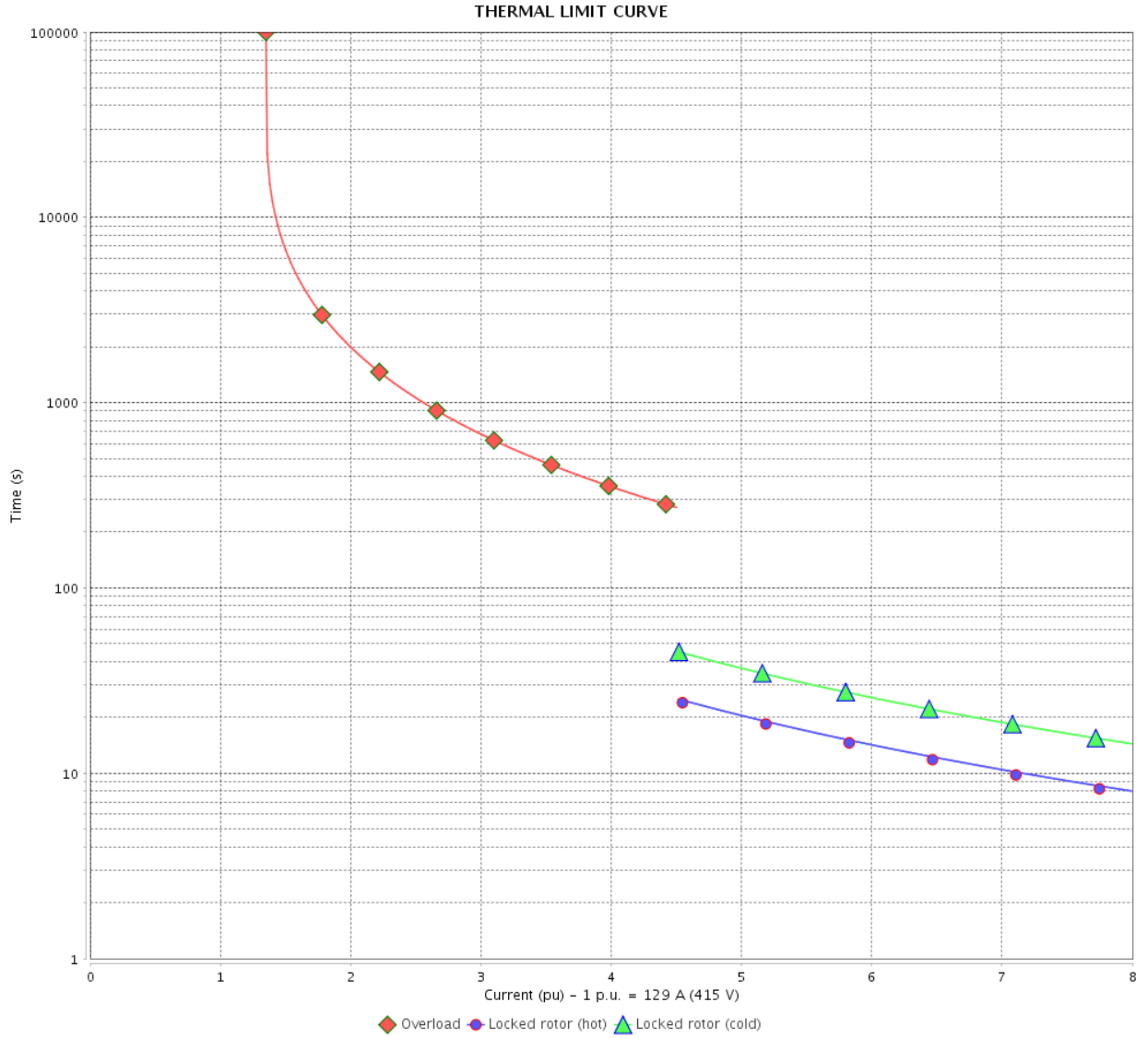
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Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

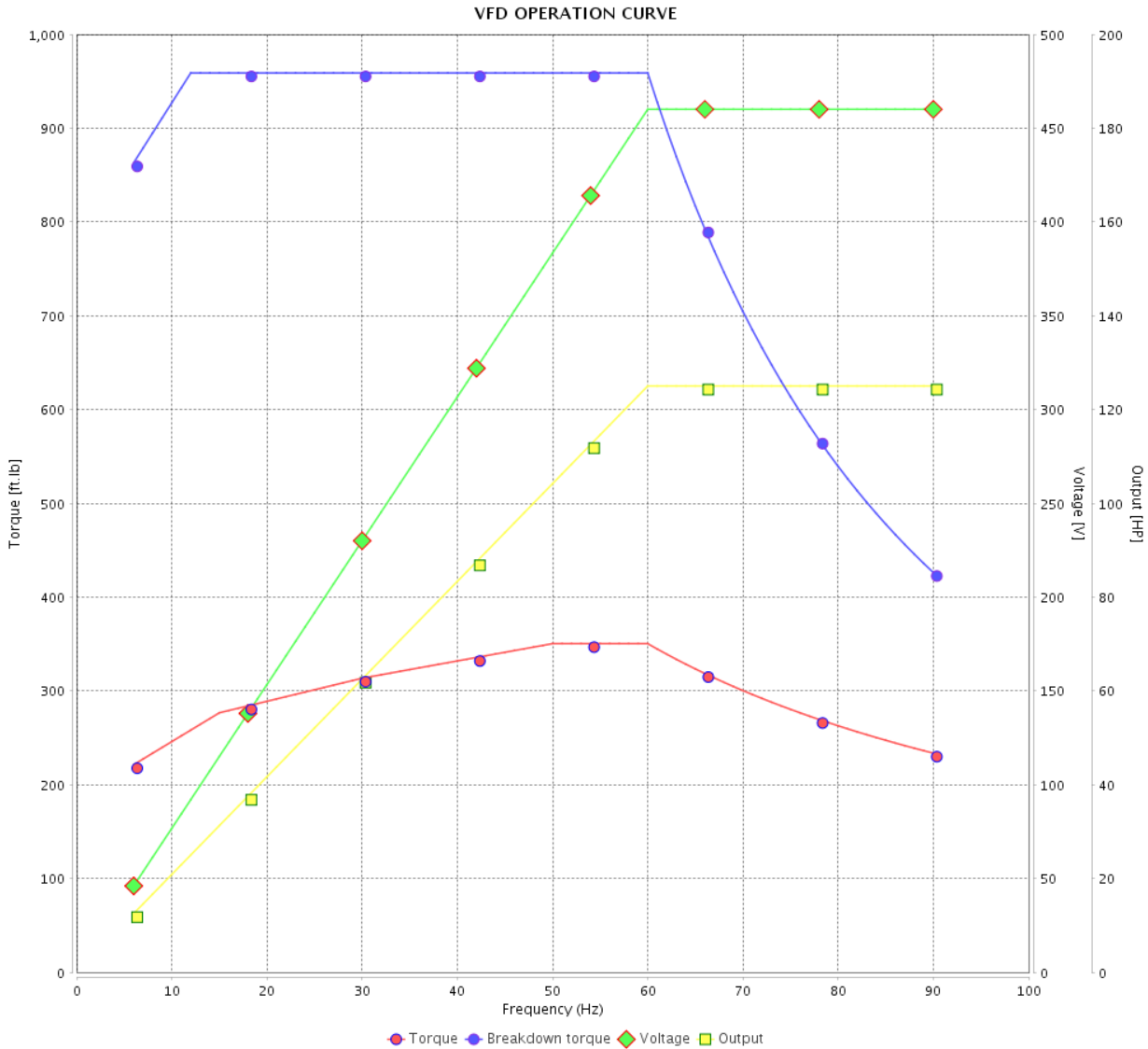


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 Service factor : 1.25
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Rev.	Changes Summary	Performed	Checked	Date
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

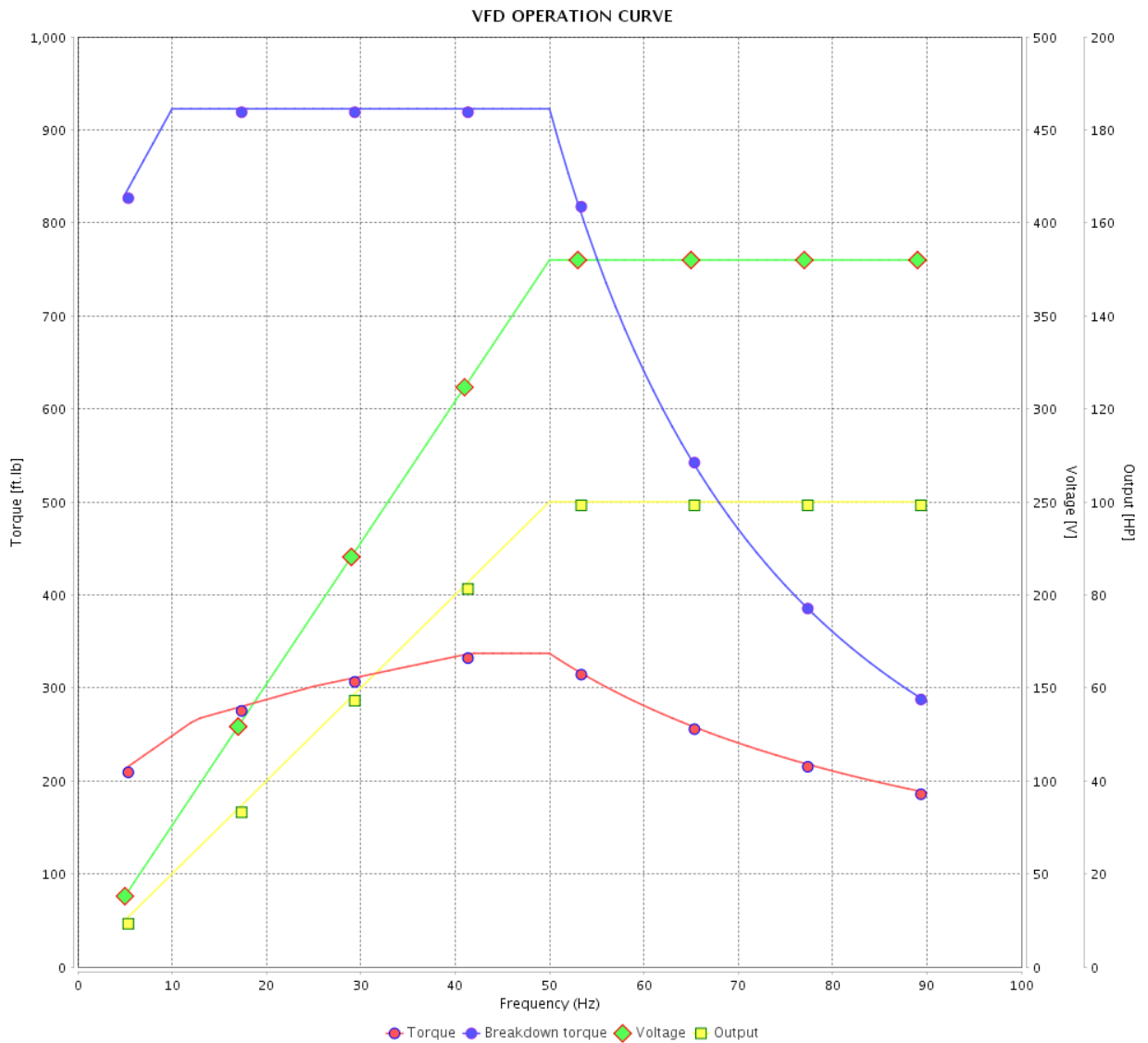


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Performance : 380 V 50 Hz 4P IE3

Rated current : 138 A
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Locked rotor torque : 240 %
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Moment of inertia (J) : 25.5 sq.ft.lb
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Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



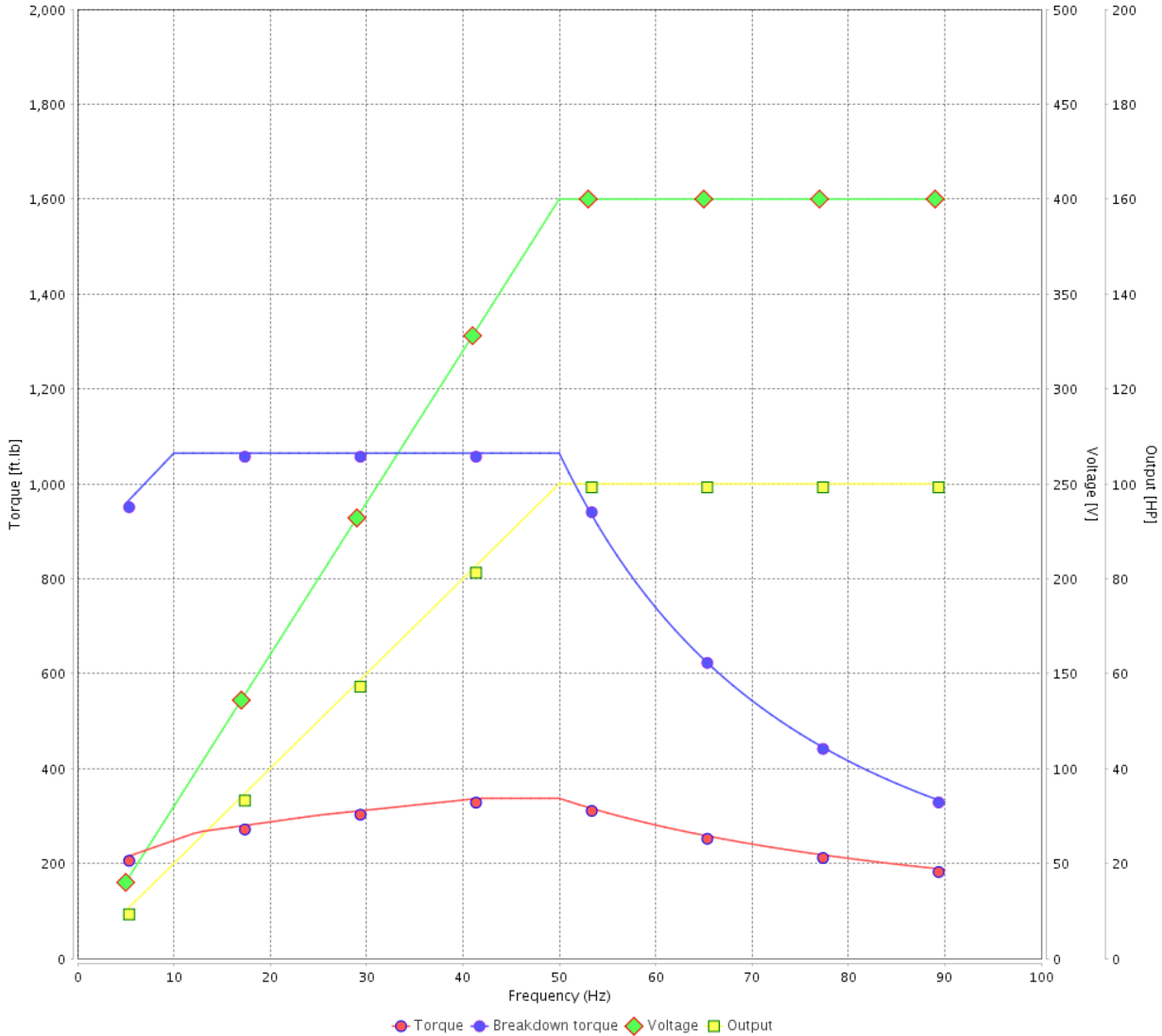
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VFD OPERATION CURVE



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Moment of inertia (J) : 25.5 sq.ft.lb
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VFD OPERATION CURVE

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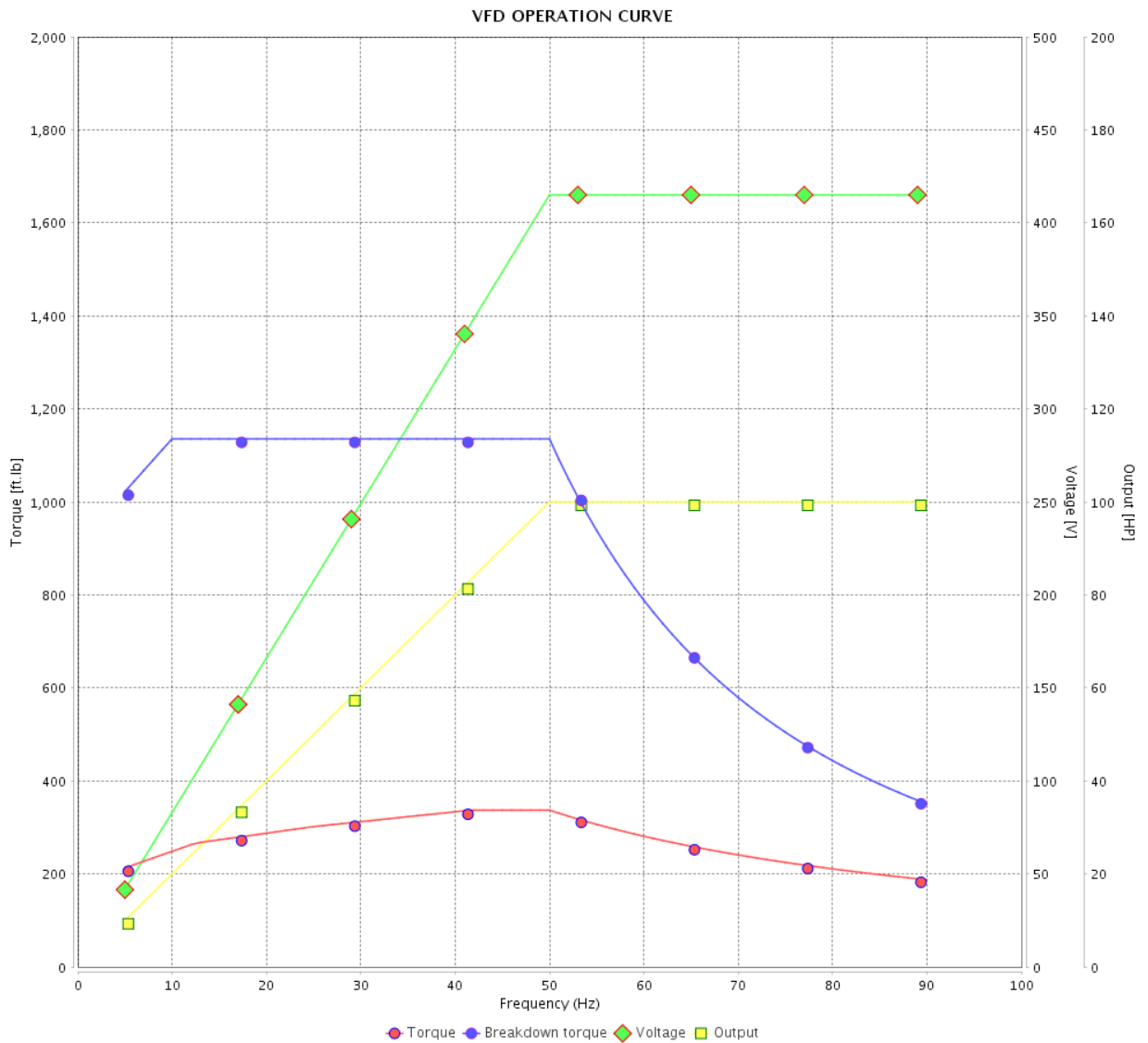


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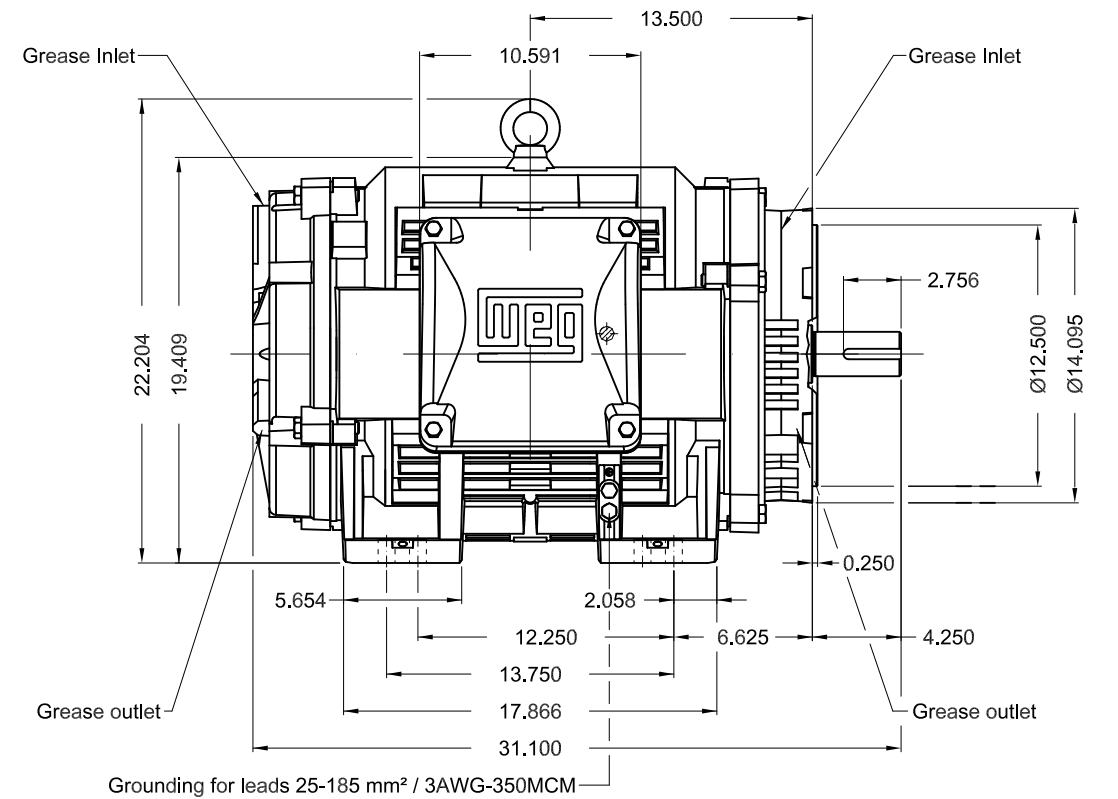
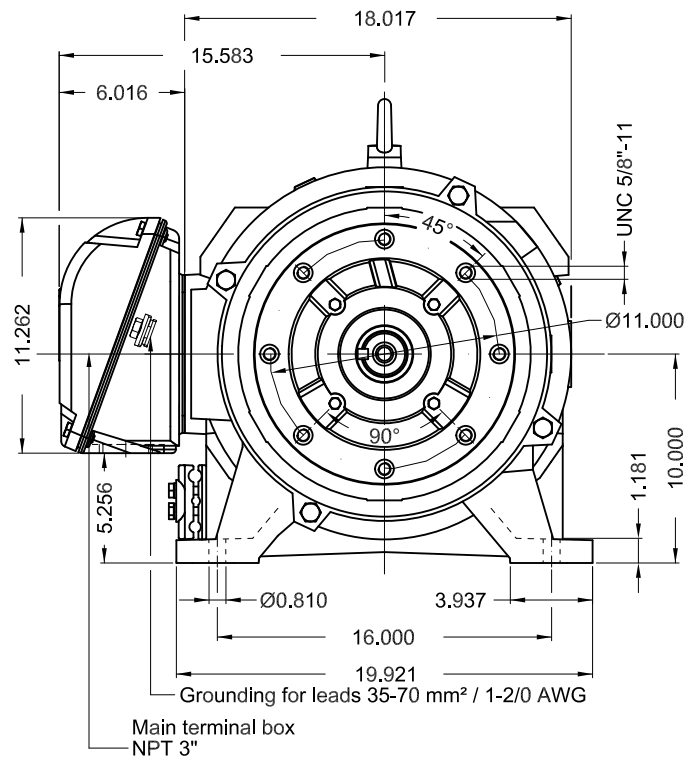


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Grounding for leads 35-70 mm² / 1-2/0 AWG
Main terminal box
NPT 3"

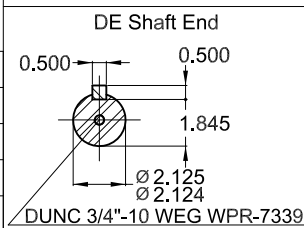
Grounding for leads 25-185 mm² / 3AWG-350MCM

125 HP 04 Poles 60 Hz

A

1:9

TS shaft end
Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B34R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 PREM. EFF.					
CHECKED		FRAME 404/5TSC IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW
WDD



MODEL 125180T3G405TSC-W40
MADE IN BRAZIL
14284974

WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor

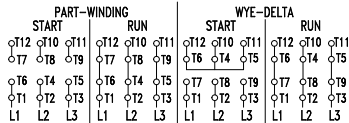



IEC 60034-1
MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 2:1, 1.0SF

PH 3	FR 404/5TSC	HP(kW) 125(90)	Hz 60
V 460	A 138		IP23
NEMA NOM EFF	95.4 %	RPM 1780	
ENCL ODP	DUTY CONT.	INS. CL. F ΔT 80 K	
PF 0.86	DES B	CODE G	AMB. 40°C
SF 1.25	SFA 173	ALT 1000 m.a.s.l.	
100HP 75kW 50Hz 380V 138A 1480RPM SF1.00 EFF 95.0% (IE3)			



 → 6314-C3(27g) MOBIL POLYREX EM
→ 6212-Z-C3(13g) 20000 h

1038 Lbs