

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer						
Product line		: W40 JP Pump NEMA Premium Efficiency Three-Phase		Product code : 14270552		
				Catalog # : 12518OT3G405JP-W40		
Frame		: 404/5JP		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 : 1072 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 : 6314 C3	Non drive end : 6212 Z C3	Foundation loads		
Sealing		: Without	: Without	Max. traction : 2869 lb		
		Bearing Seal	Bearing Seal	Max. compression : 3941 lb		
Lubrication interval		: 20000 h	: 20000 h			
Lubricant amount		: 27 g	: 13 g			
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



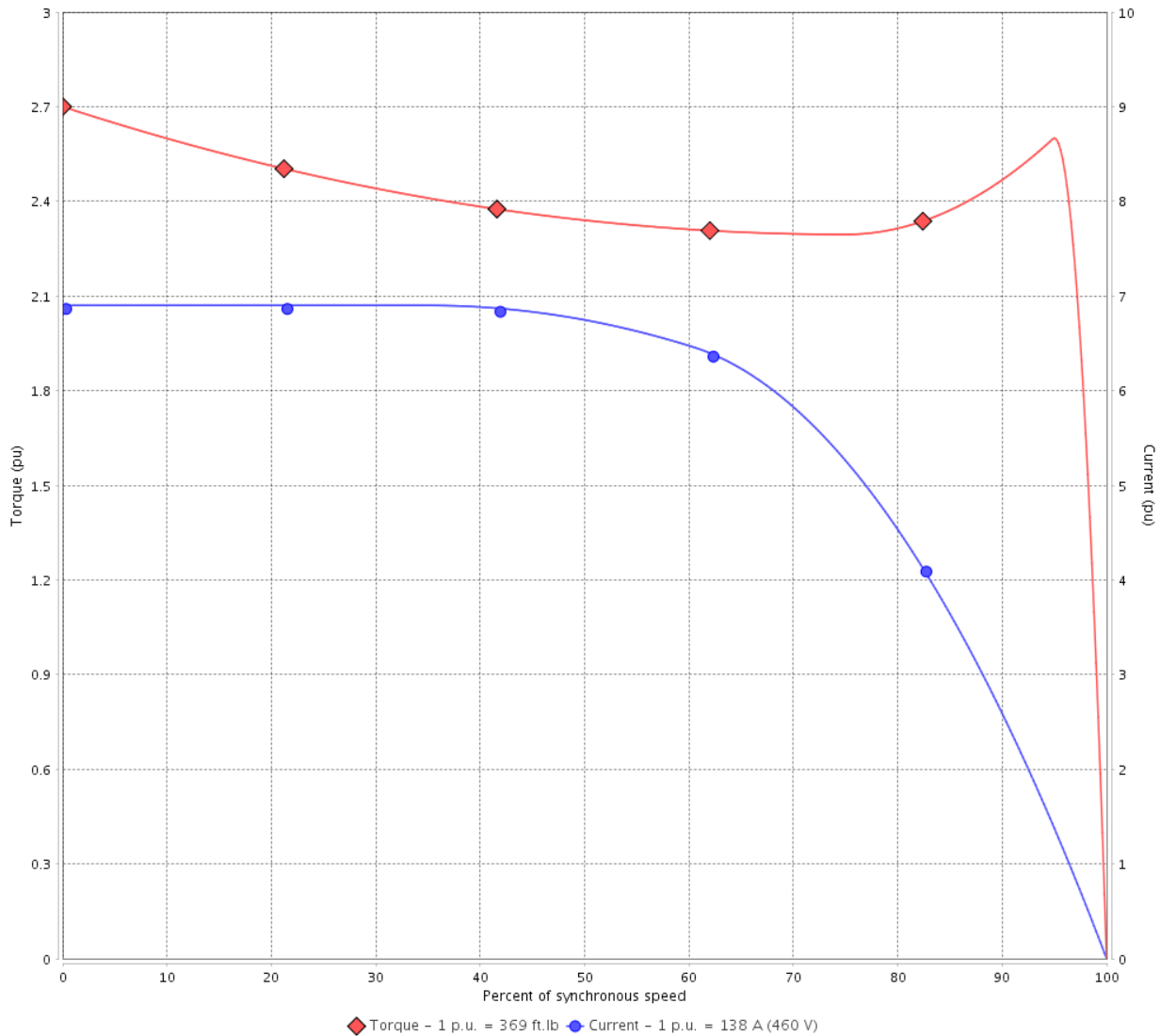
Customer :

Product line : W40 JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14270552

Catalog # : 12518OT3G405JP-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



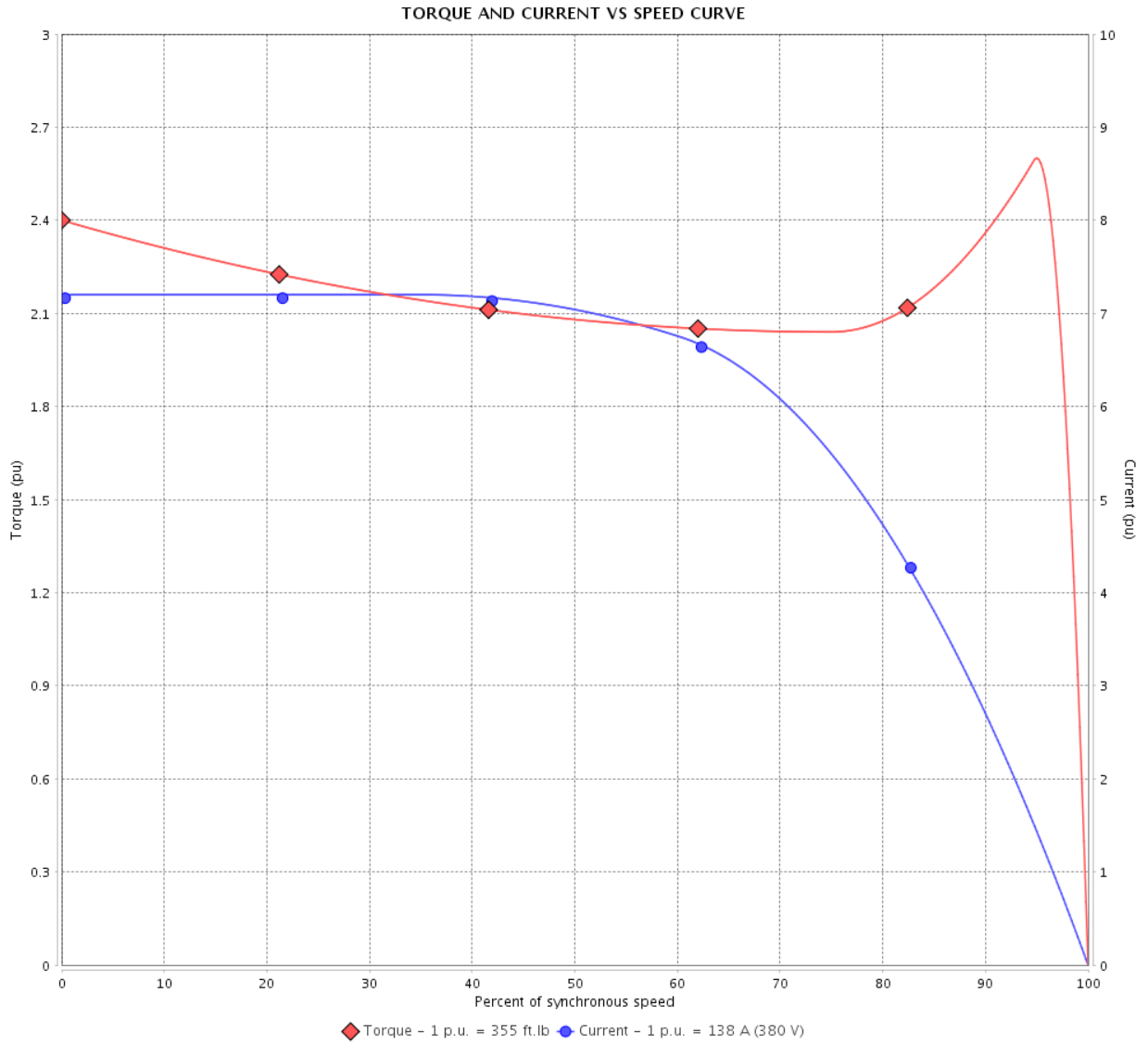
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14270552

Catalog # : 12518OT3G405JP-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



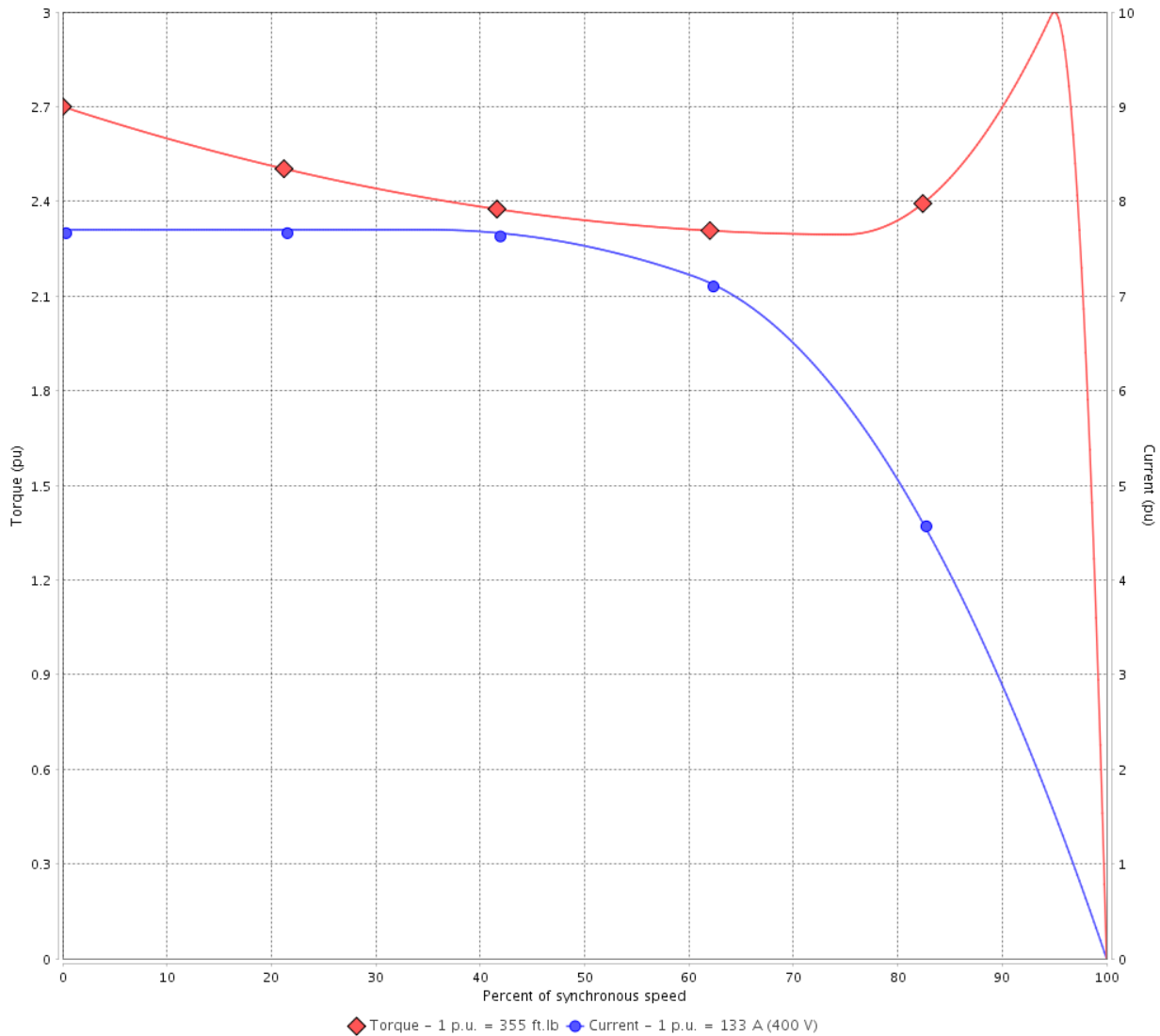
Customer :

Product line : W40 JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14270552

Catalog # : 12518OT3G405JP-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



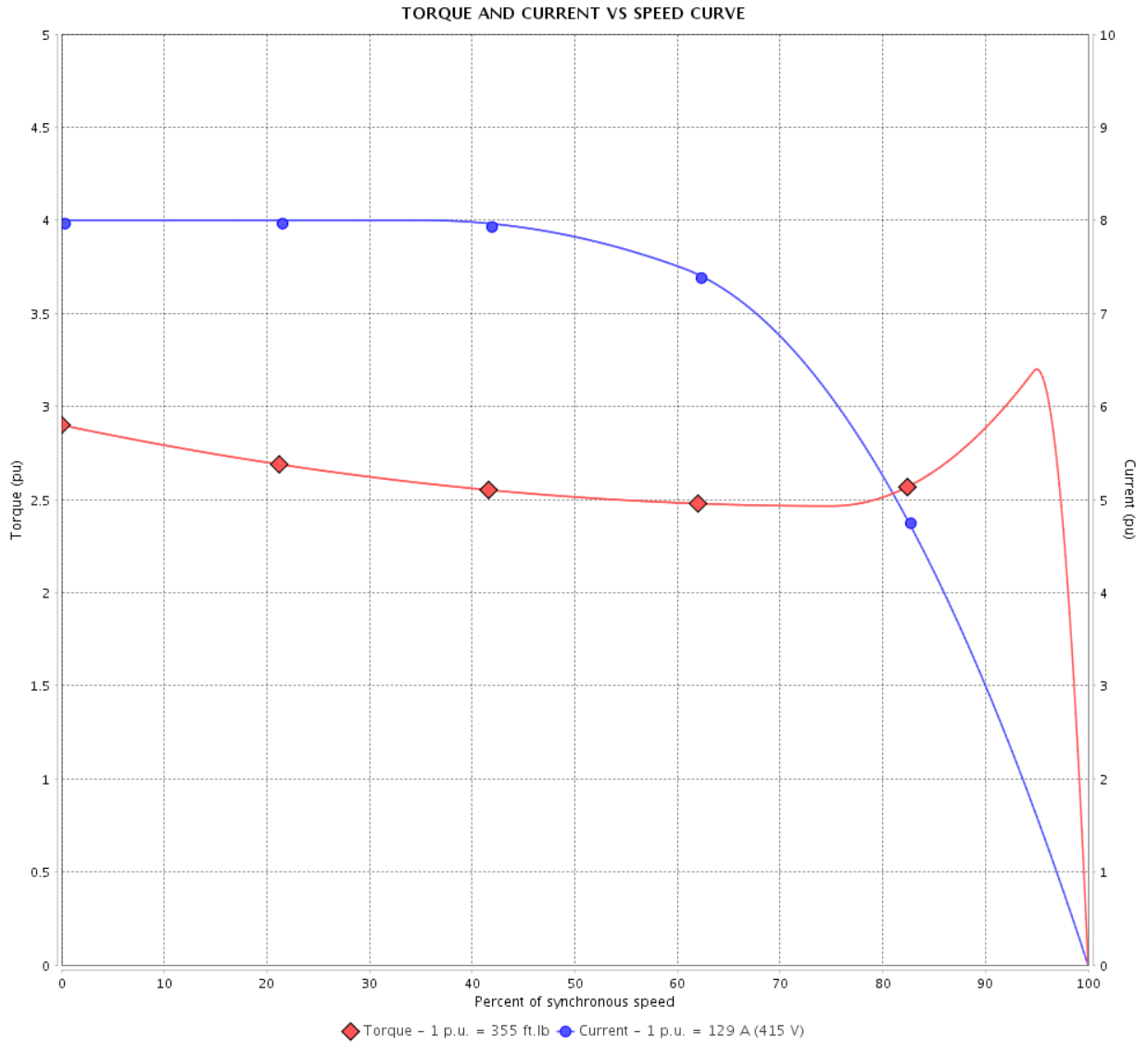
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Catalog # : 12518OT3G405JP-W40



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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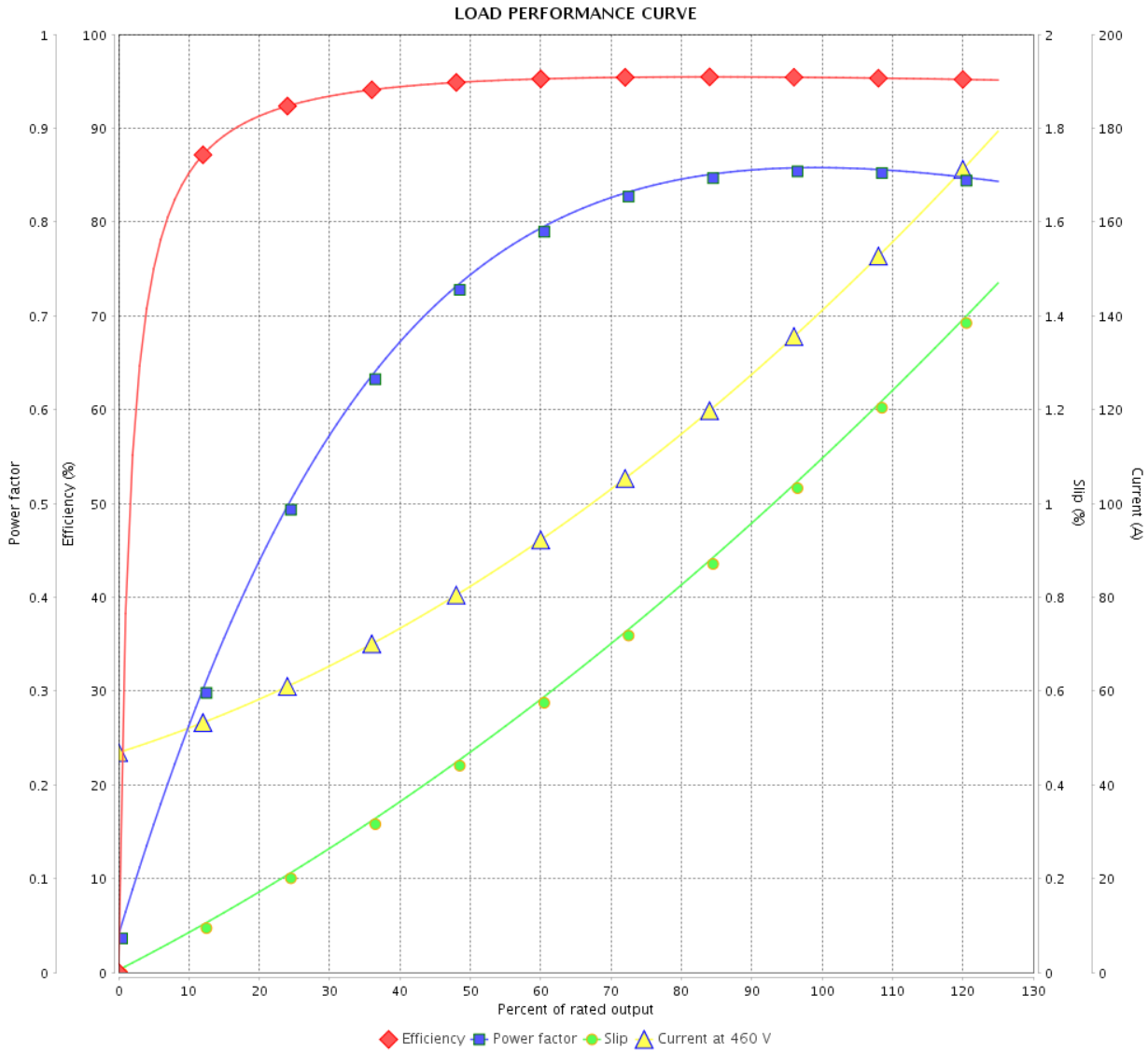


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Performance : 460 V 60 Hz 4P

Rated current : 138 A
 LRC : 6.9
 Rated torque : 369 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 260 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 25.5 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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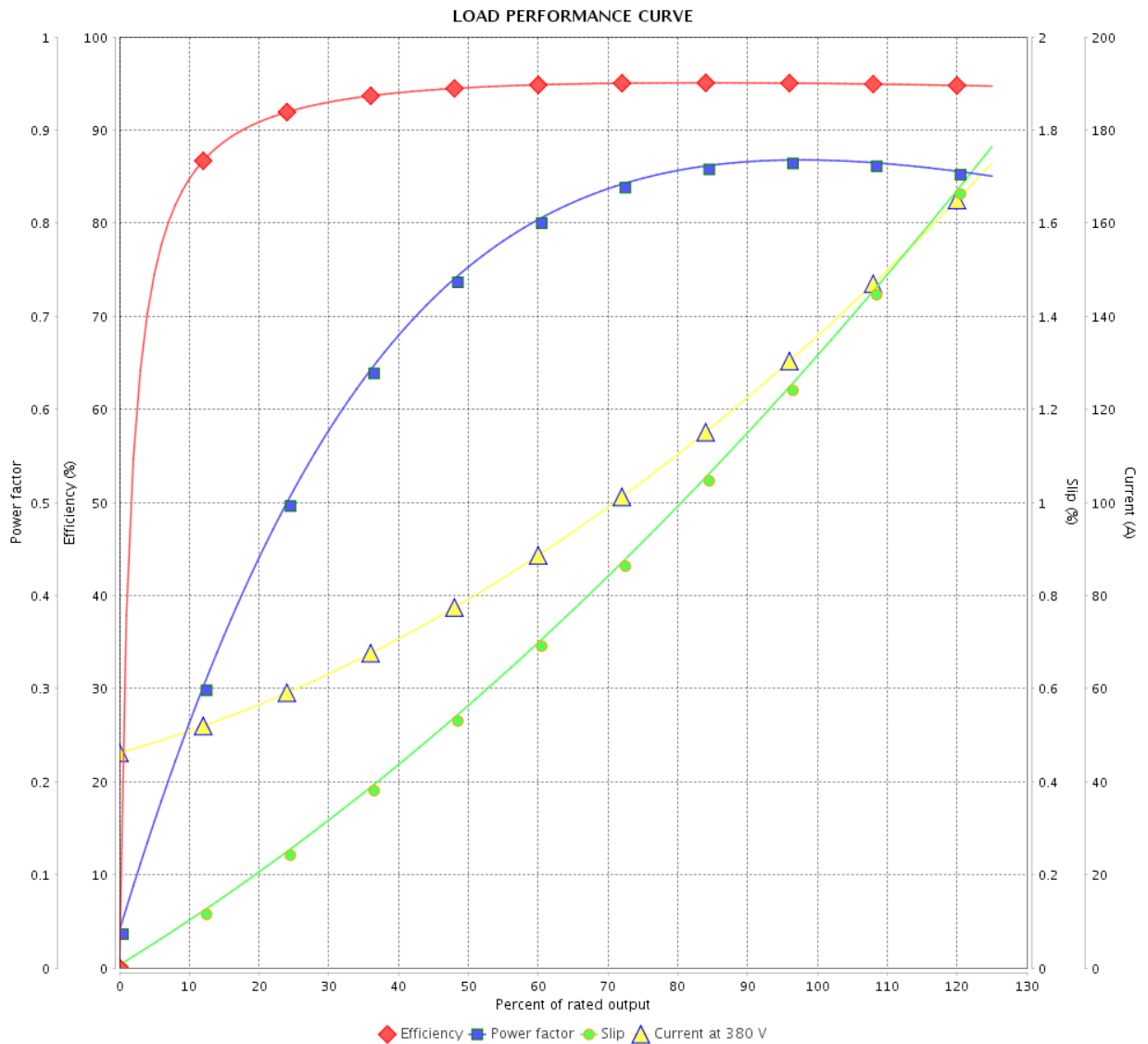


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Performance : 380 V 50 Hz 4P IE3

Rated current : 138 A
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 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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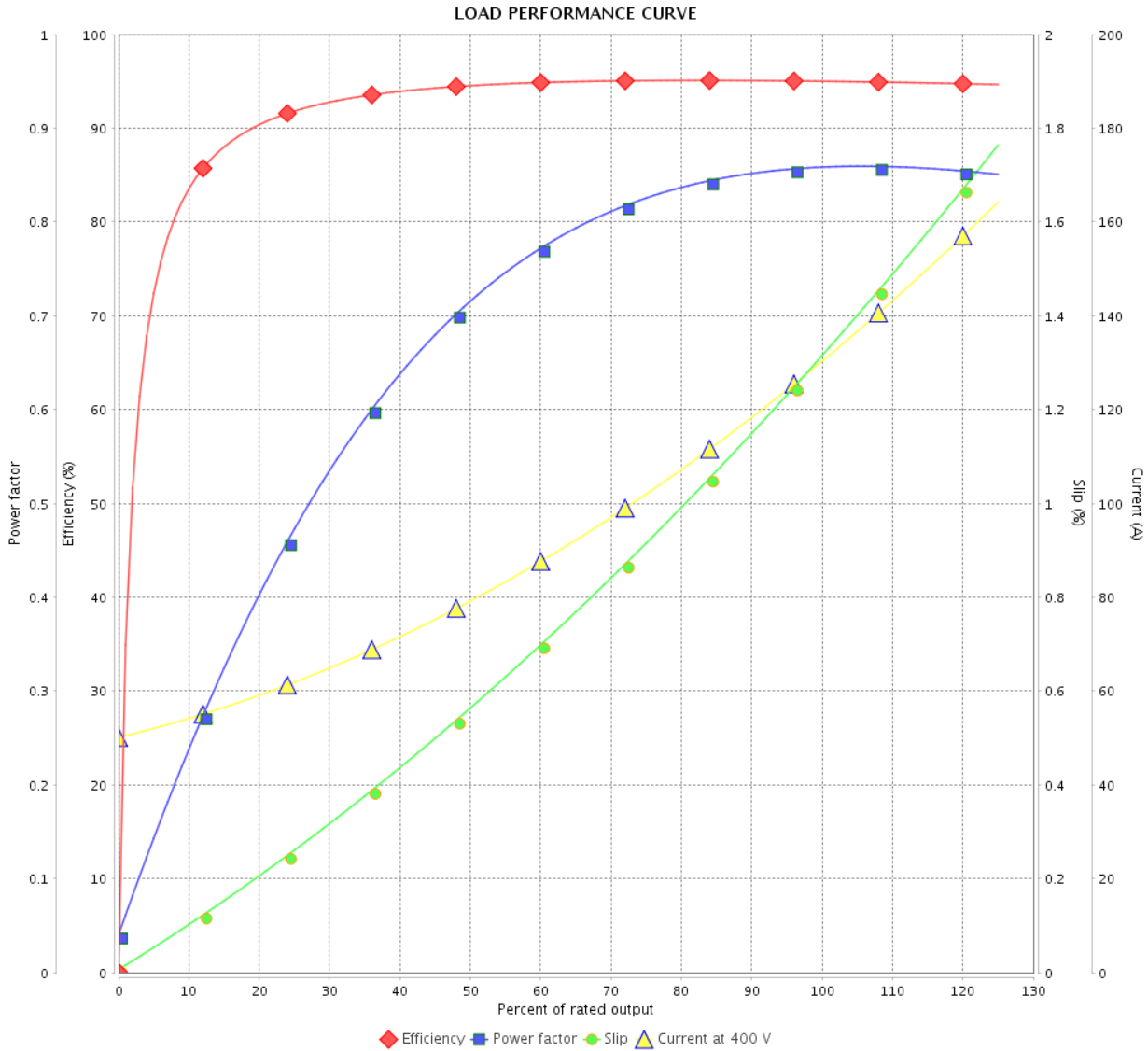


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Moment of inertia (J) : 25.5 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
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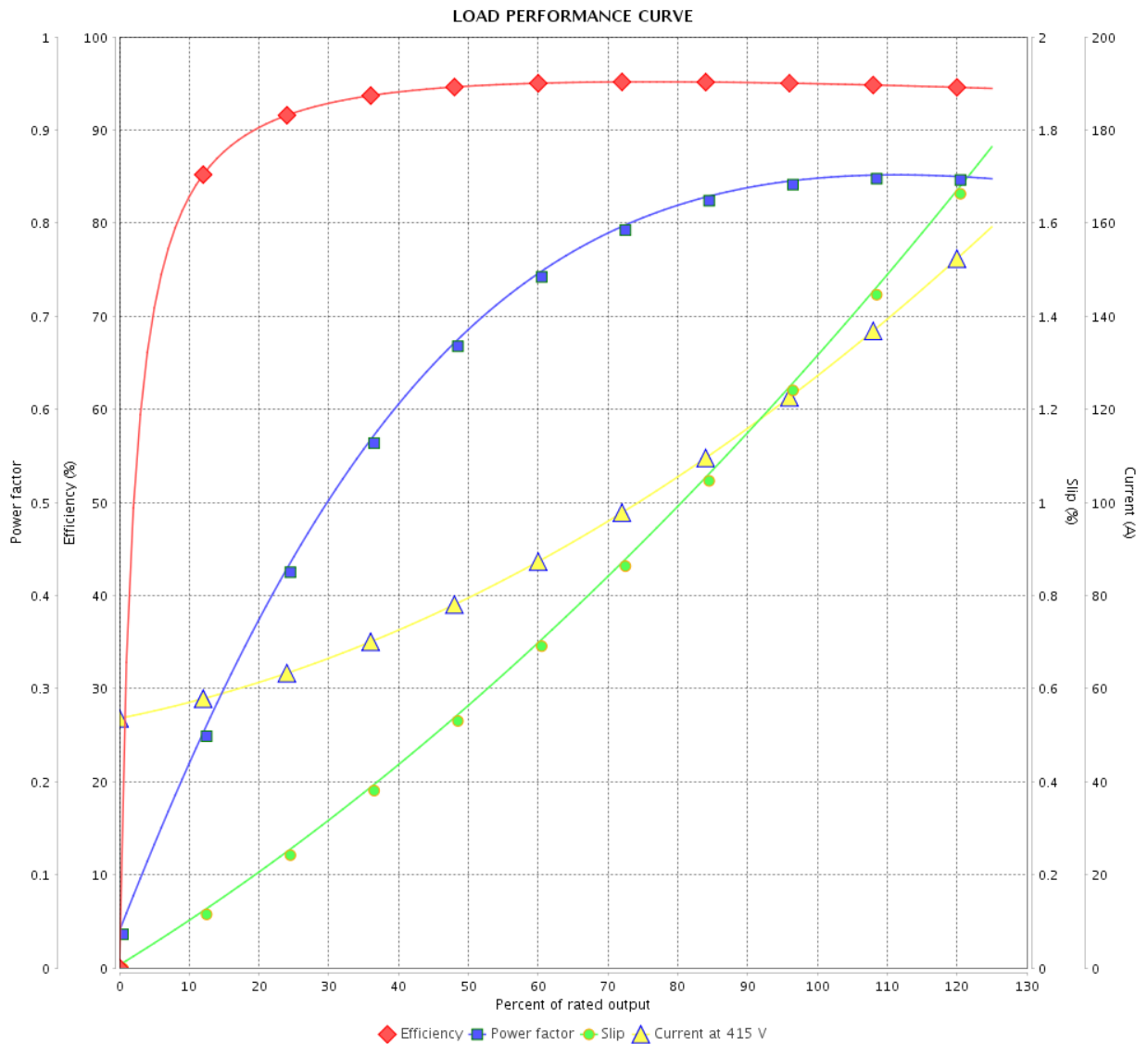


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 Service factor : 1.00
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THERMAL LIMIT CURVE



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Rated speed	: 1780 rpm	Design	: B

Heating constant

Cooling constant

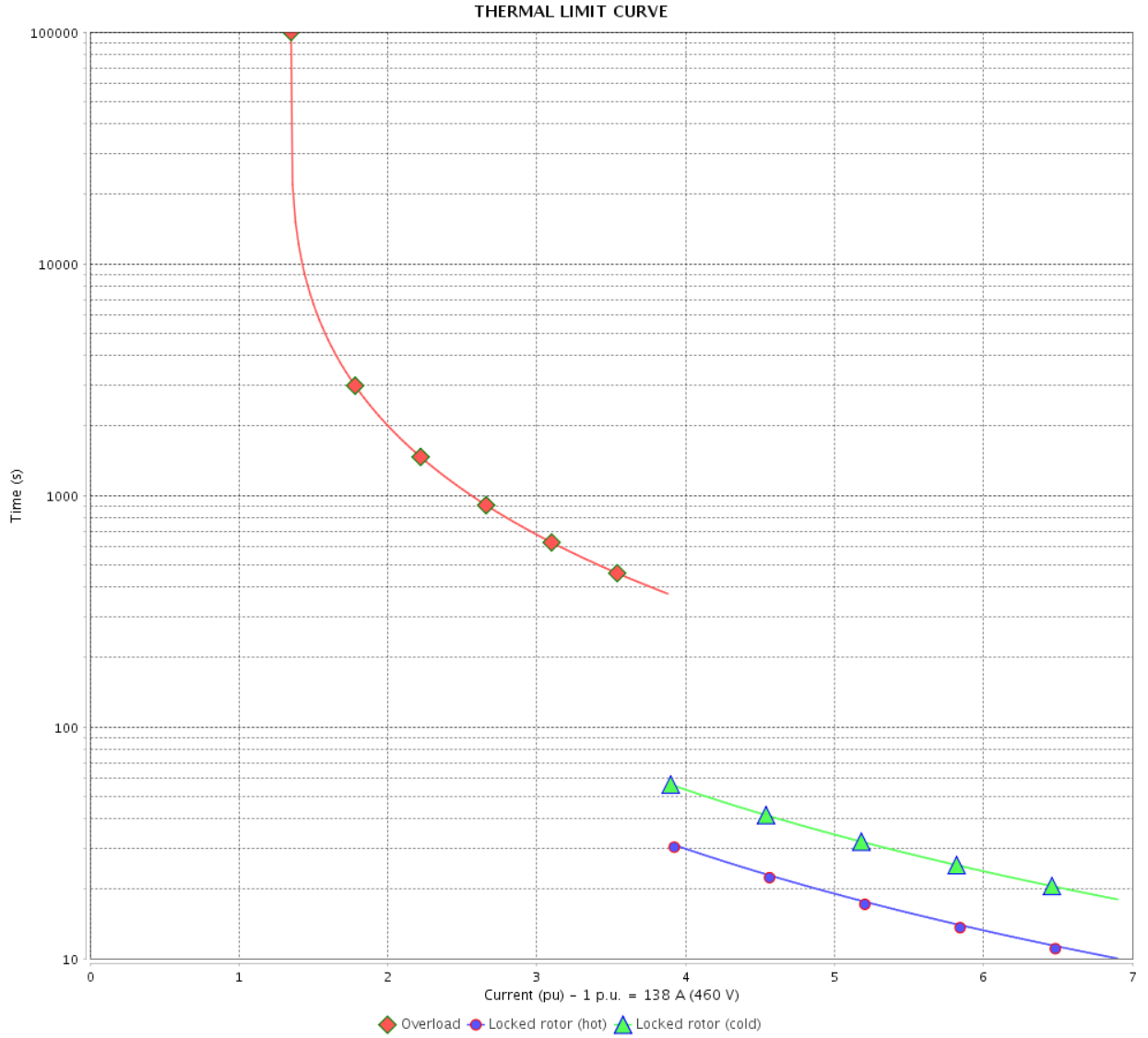
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Three Phase Induction Motor - Squirrel Cage



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Heating constant

Cooling constant

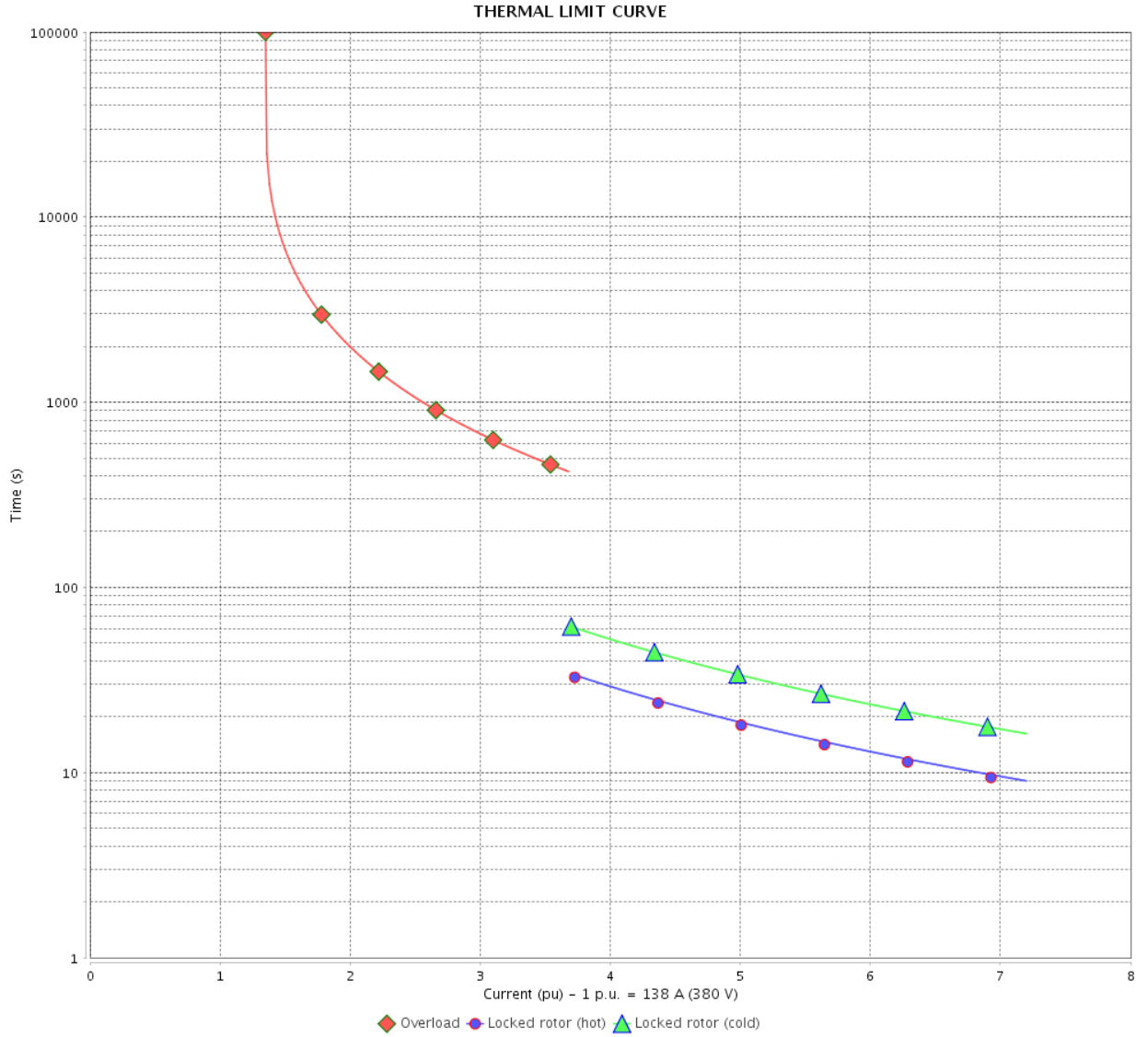
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Rated current	: 133 A	Moment of inertia (J)	: 25.5 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 355 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed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

Heating constant

Cooling constant

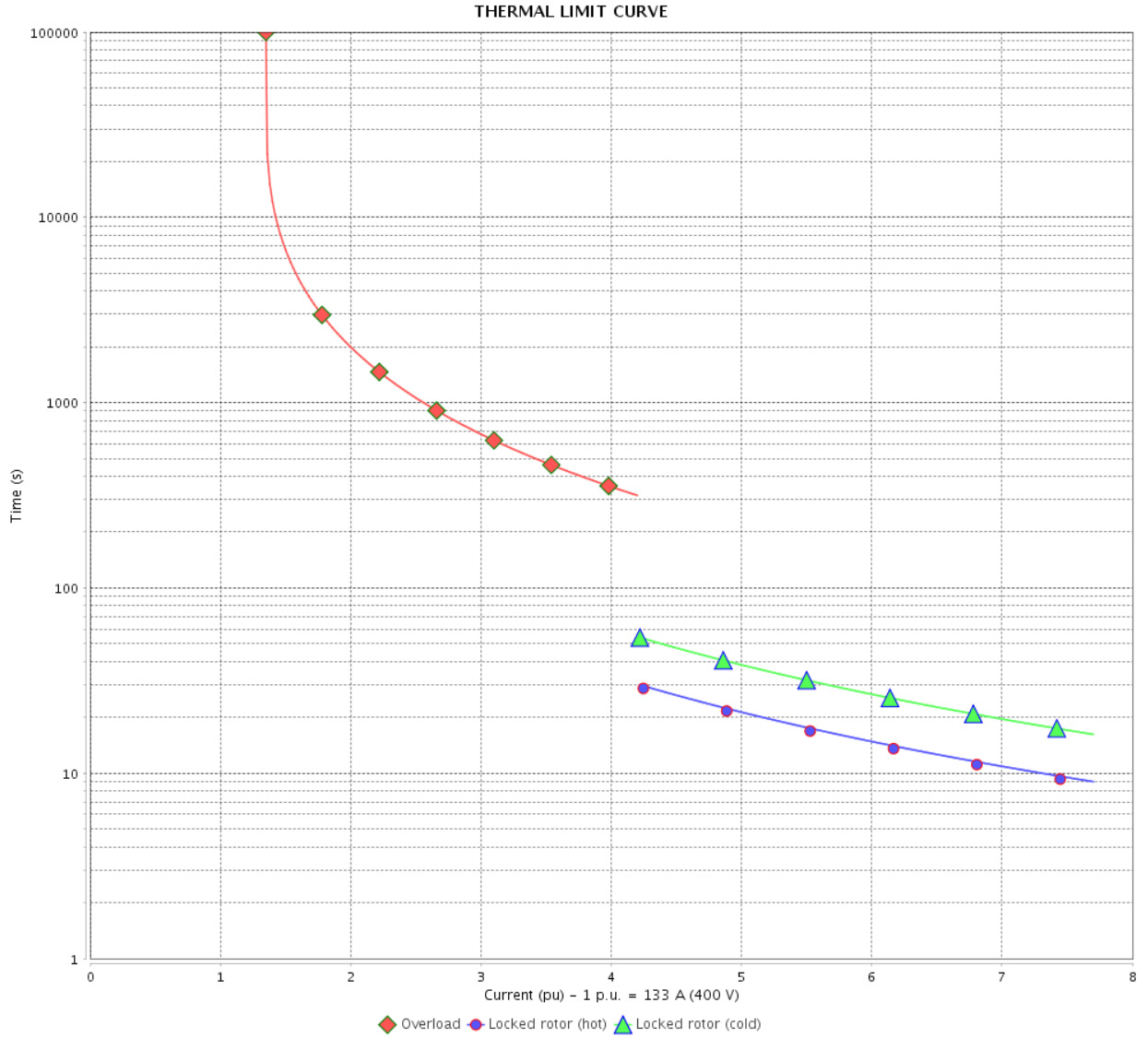
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LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 355 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Heating constant

Cooling constant

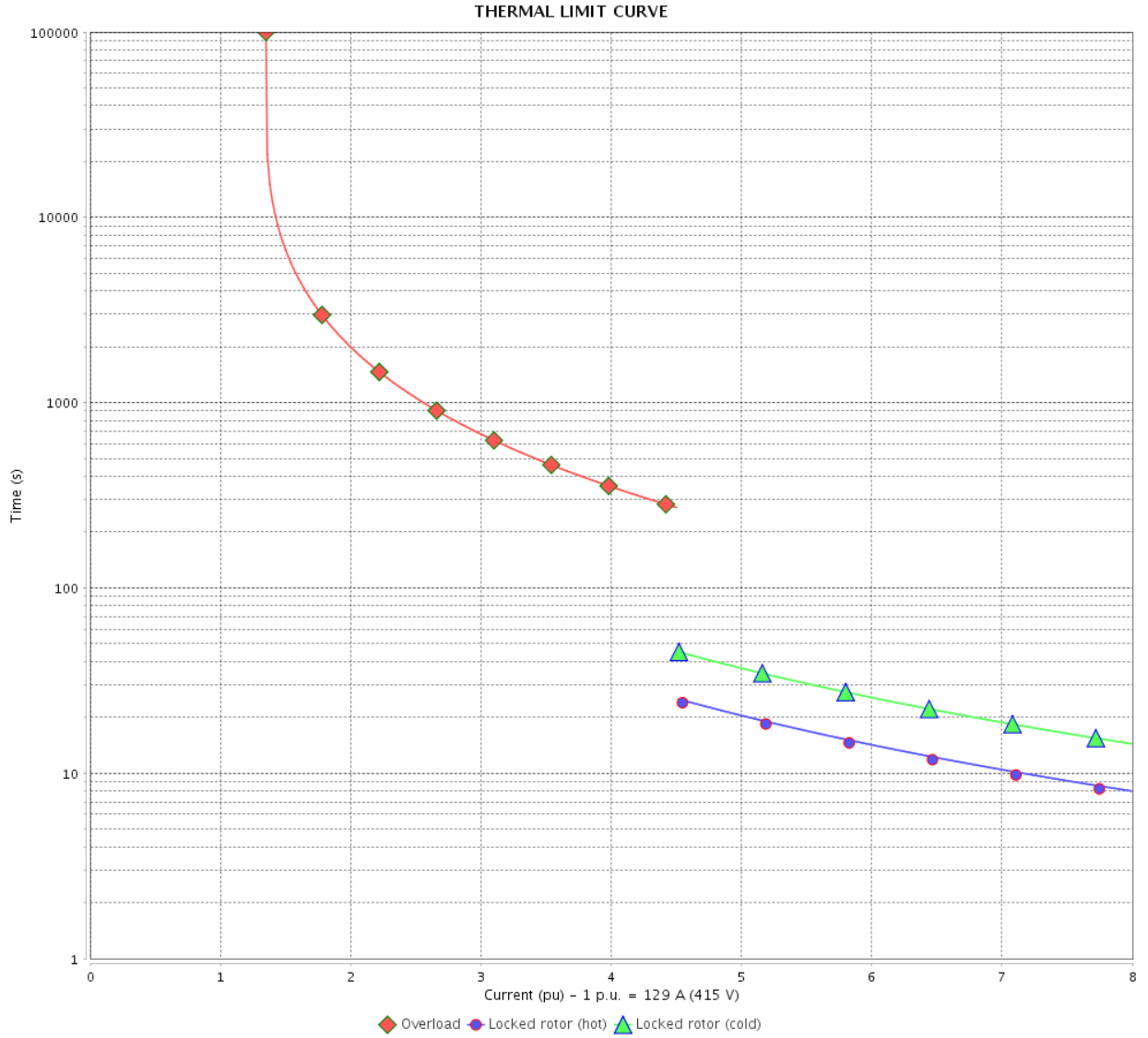
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Checked by			Page	Revision
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

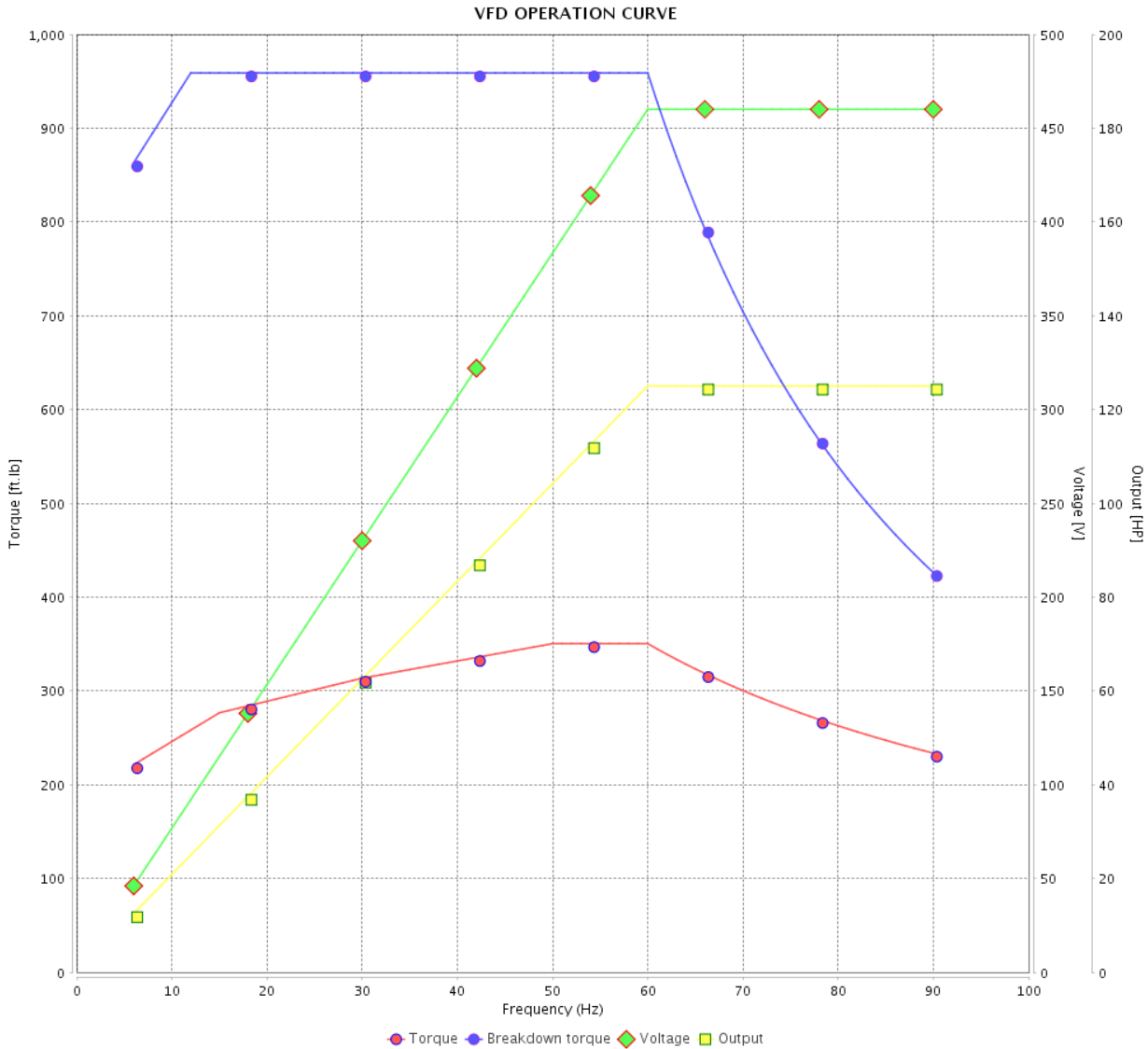


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Performance : 460 V 60 Hz 4P

Rated current : 138 A
 LRC : 6.9
 Rated torque : 369 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 260 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 25.5 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date		13/04/2022		

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

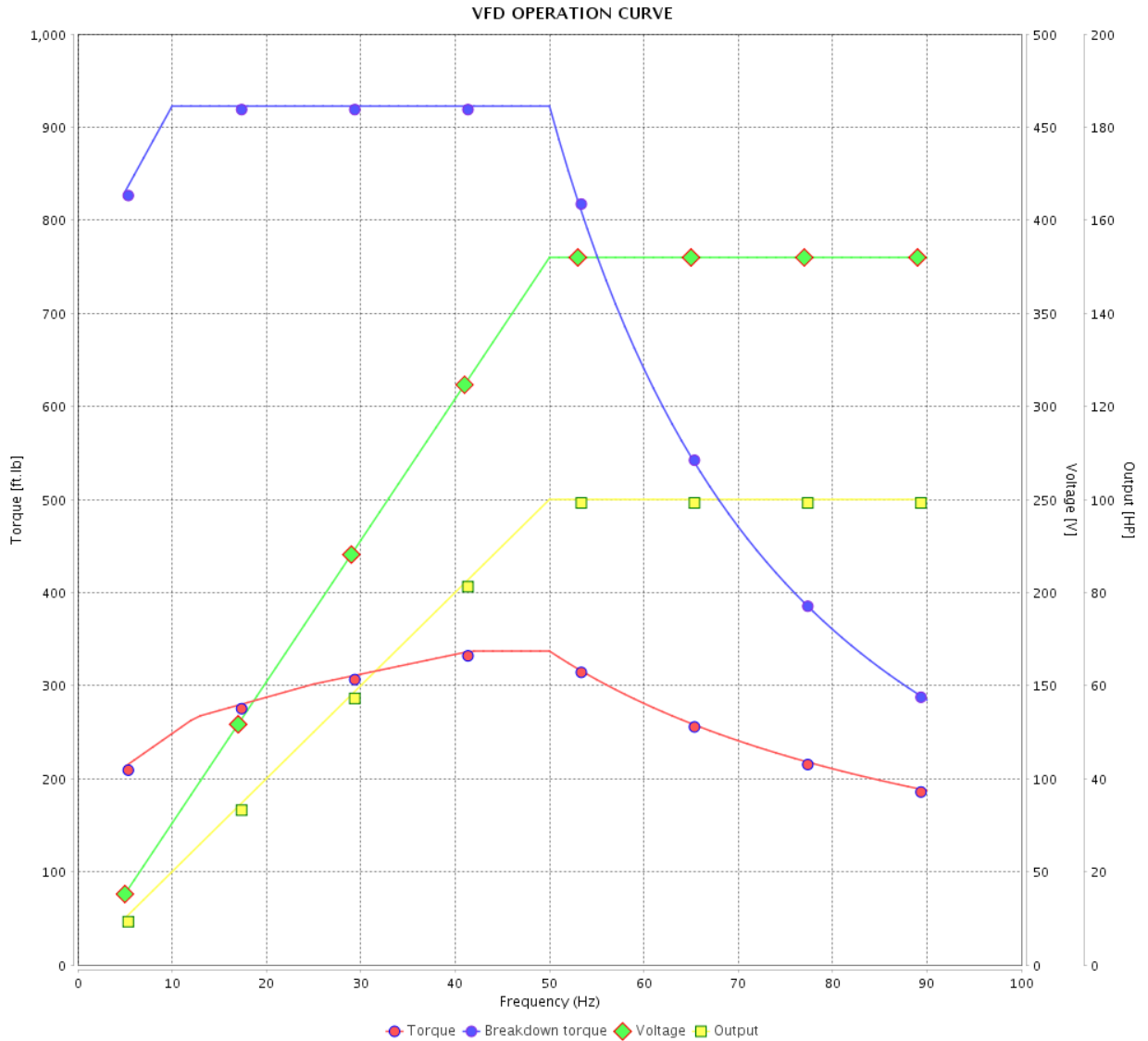


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Catalog # : 12518OT3G405JP-W40



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
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Rev.	Changes Summary	Performed	Checked	Date
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Date	13/04/2022			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



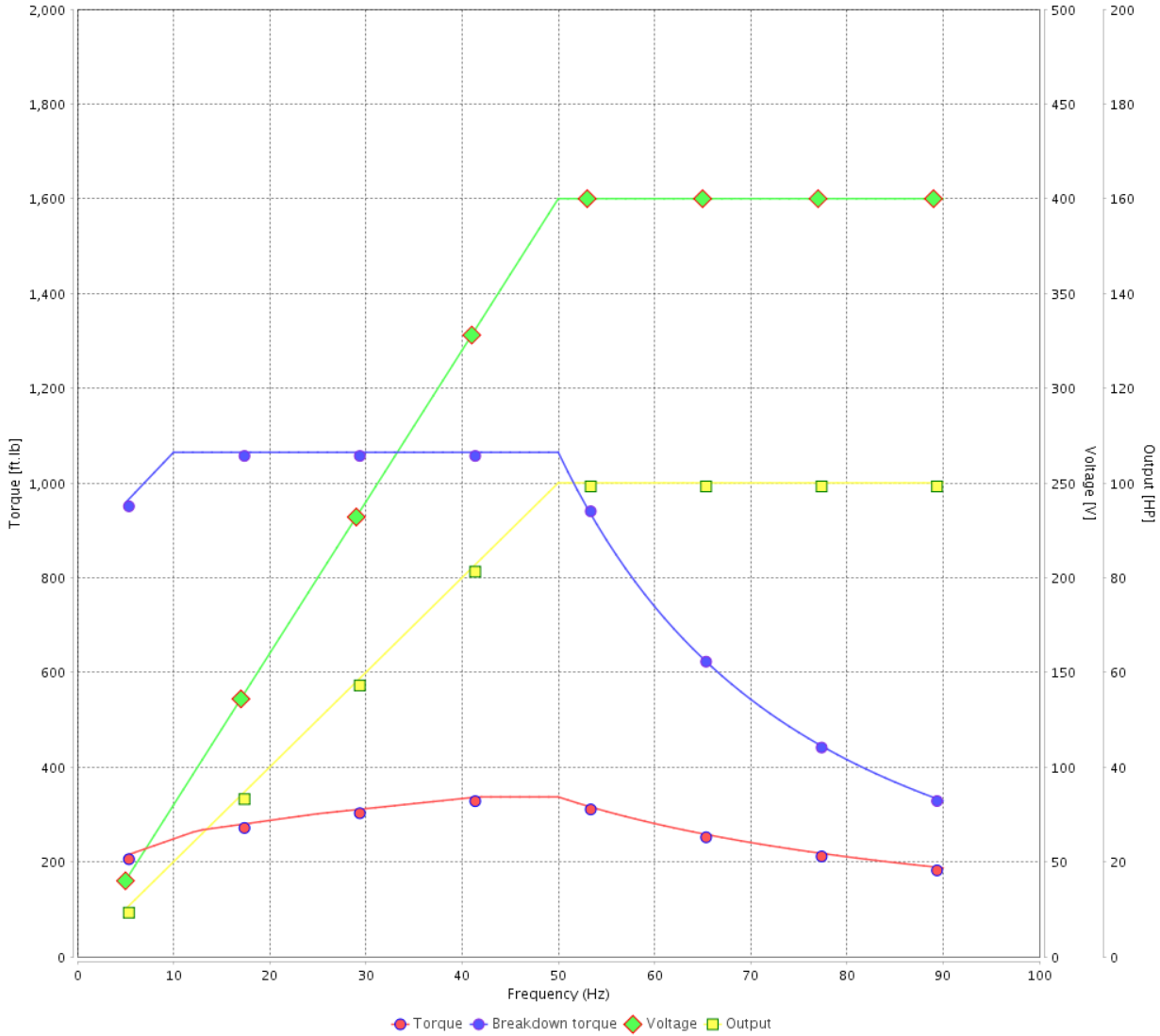
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VFD OPERATION CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current : 133 A
 LRC : 7.7
 Rated torque : 355 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 300 %
 Rated speed : 1480 rpm

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 Insulation class : F
 Service factor : 1.00
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 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

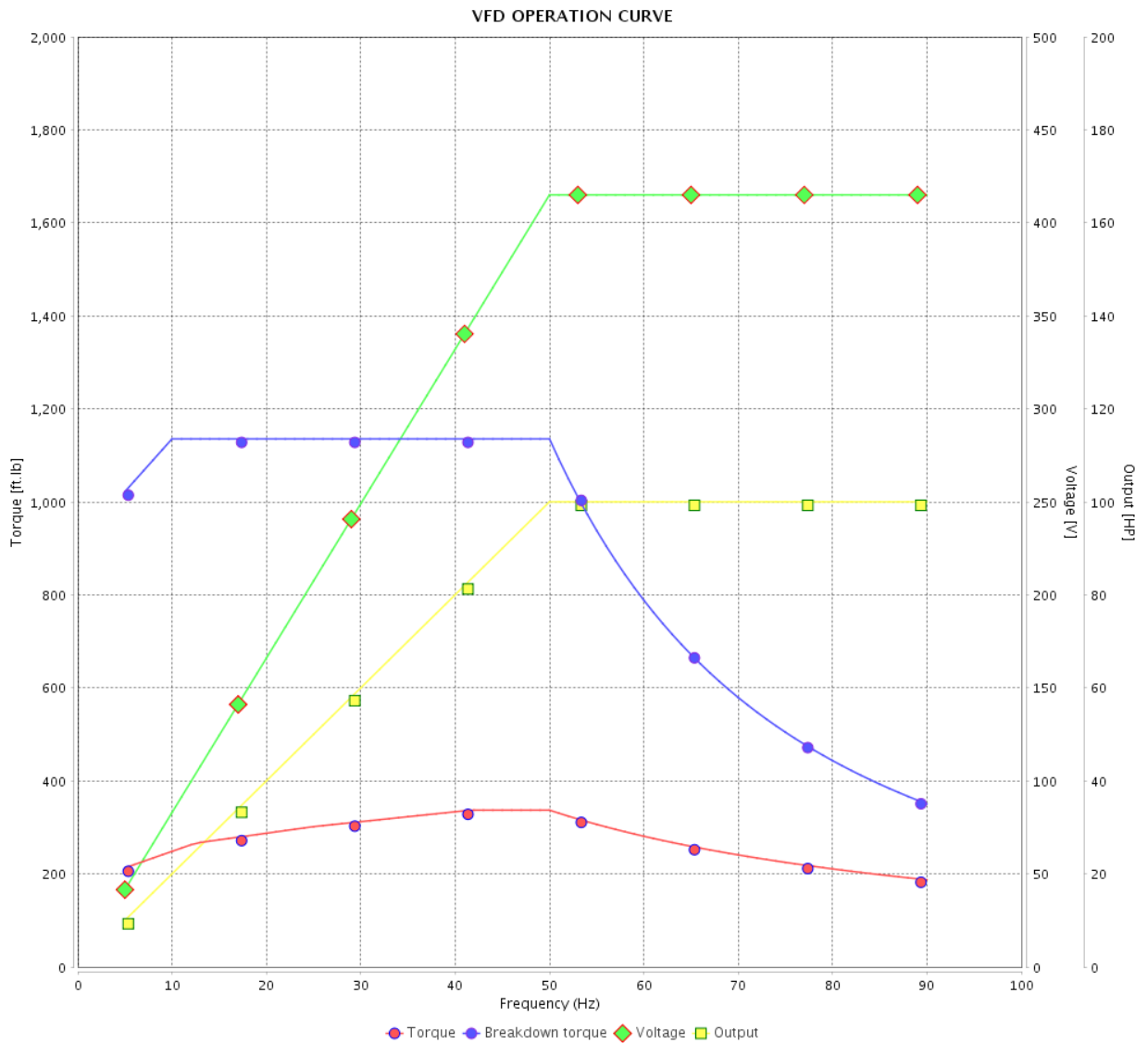


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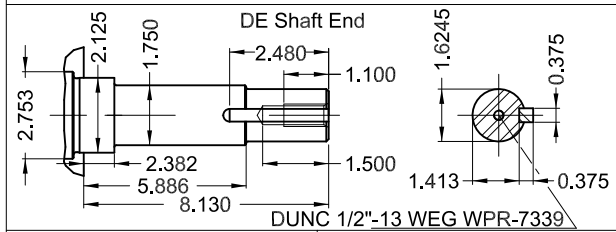
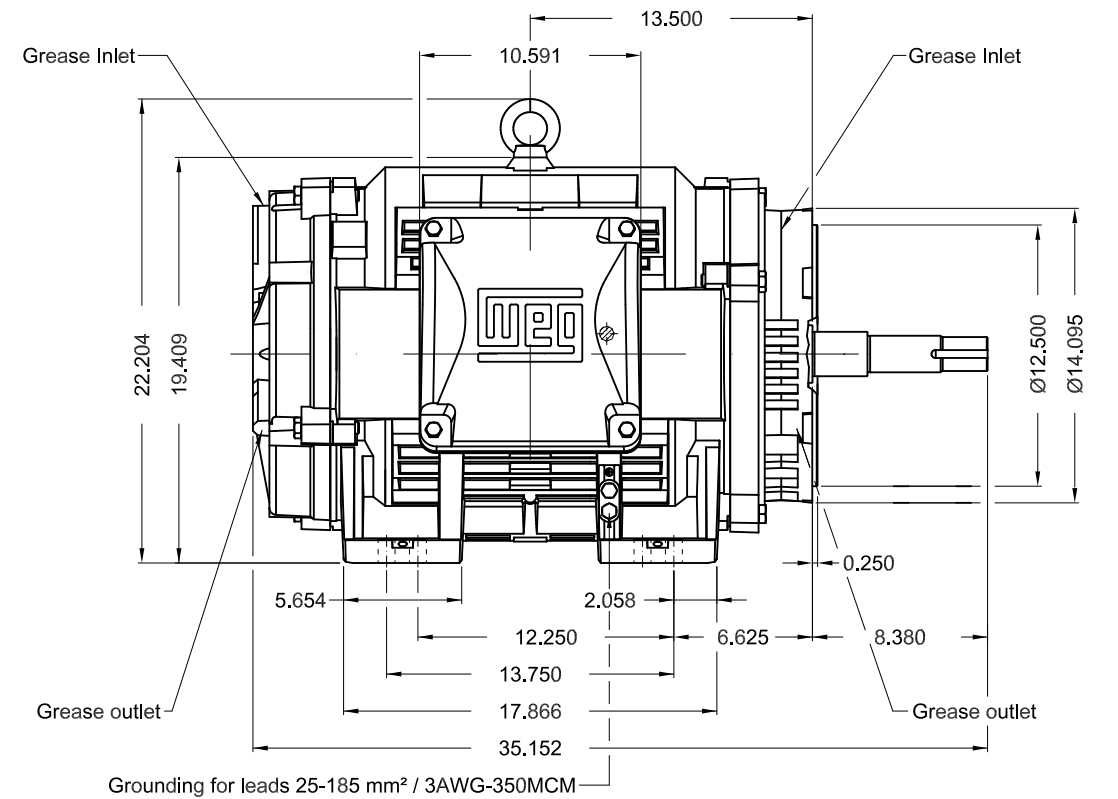
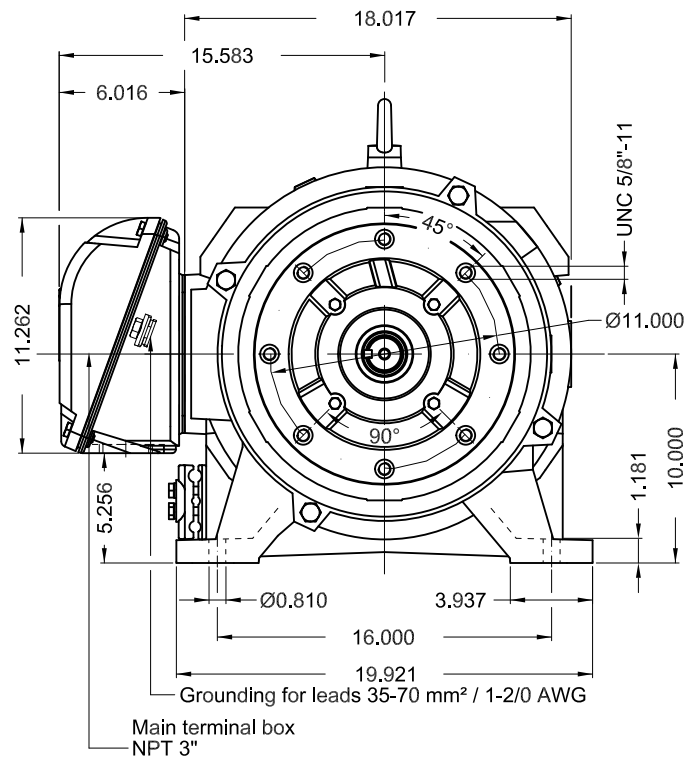


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125 HP 04 Poles 60 Hz

Dimensions in inches

1:9

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JP TYPE PREM. FT.					
CHECKED		FRAME 404/5JP IP23 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul					

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

PREVIEW
WDD



SHEET 1 / 1

MODEL 125180T3G405JP-W40
MADE IN BRAZIL
14270552

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

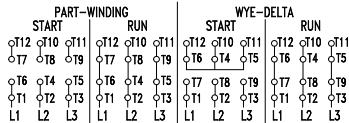



IEC 60034-1
MOD.T01#FOXON



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

PH 3	FR 404/5JP	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

1041 Lbs