

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	13205890		
		Catalog # :	65018ET3G588/9-W22		
Frame	: 588/9T	Cooling method	: IC411 - TEFC		
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	: 5226 lb		
Protection degree	: IP55	Moment of inertia (J)	: 301 sq.ft.lb		
Output [HP]	650	550	550	550	
Poles	4	4	4	4	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	460	380	400	415	
Rated current [A]	734	741	712	703	
L. R. Amperes [A]	5432	5187	5554	5905	
LRC [A]	7.4x(Code H)	7.0x(Code G)	7.8x(Code H)	8.4x(Code J)	
No load current [A]	235	230	257	280	
Rated speed [RPM]	1790	1490	1490	1490	
Slip [%]	0.56	0.67	0.67	0.67	
Rated torque [ft.lb]	1910	1940	1940	1940	
Locked rotor torque [%]	250	229	260	280	
Breakdown torque [%]	270	260	290	320	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	39s (cold) 22s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	
Noise level ²	81.0 dB(A)	76.0 dB(A)	76.0 dB(A)	76.0 dB(A)	
Efficiency (%)	25%	95.8	96.1	95.4	95.4
	50%	96.0	96.2	95.8	95.8
	75%	96.5	96.5	96.2	96.2
	100%	96.6	96.5	96.5	96.5
Power Factor	25%	0.48	0.49	0.44	0.41
	50%	0.71	0.72	0.68	0.64
	75%	0.81	0.81	0.78	0.76
	100%	0.85	0.85	0.84	0.82
Bearing type	: <u>Drive end</u> 6322 C3	<u>Non drive end</u> 6319 C3	Foundation loads		
Sealing	: Taconite	Taconite	Max. traction	: 10329 lb	
	Labyrinth	Labyrinth	Max. compression	: 15554 lb	
Lubrication interval	: 6000 h	8000 h			
Lubricant amount	: 60 g	45 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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DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : _____

Space heater information

Voltage: 200 - 240 V

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TORQUE AND CURRENT VS SPEED CURVE



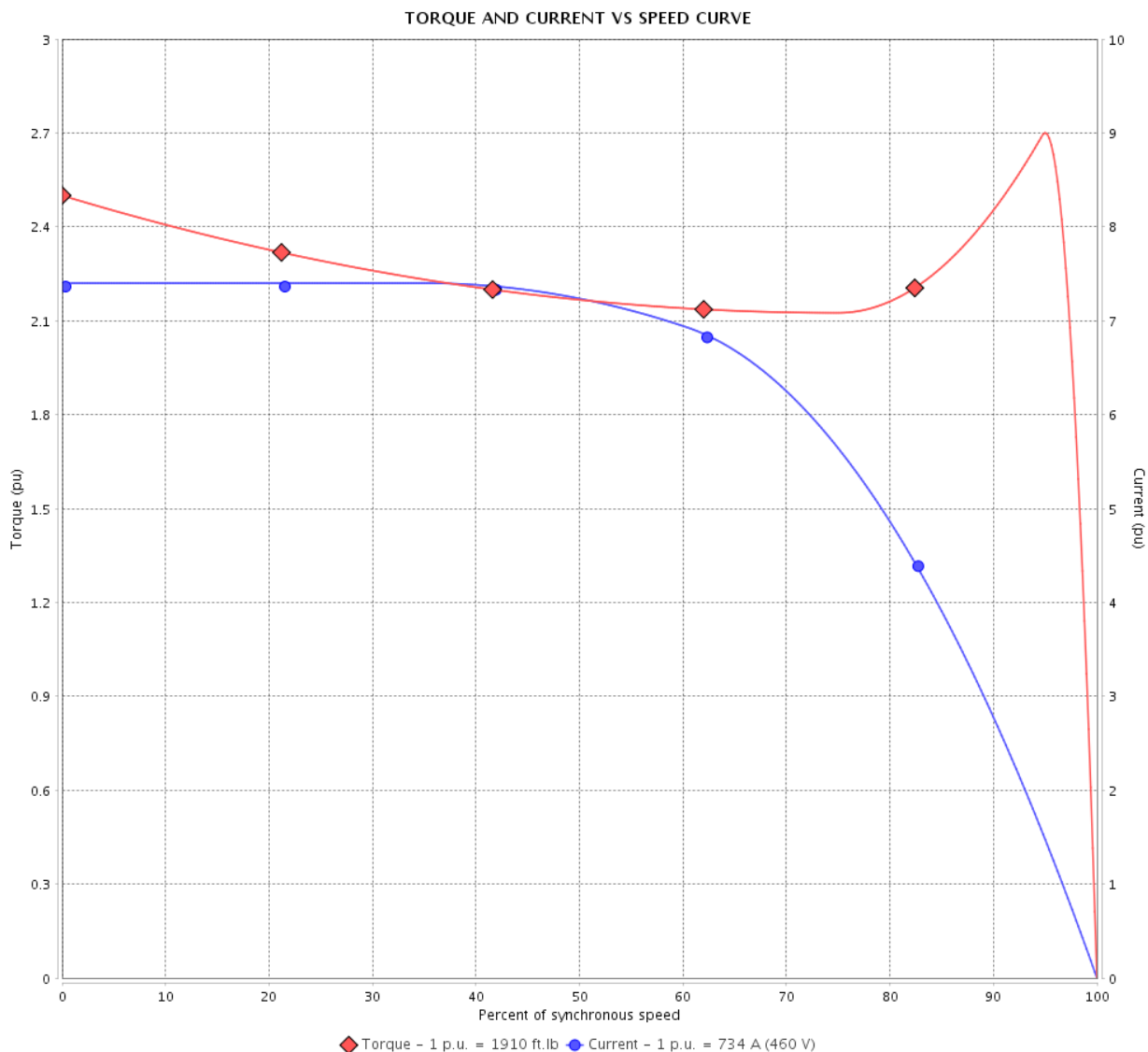
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13205890

Catalog # : 65018ET3G588/9-W22



Performance : 460 V 60 Hz 4P

Rated current	: 734 A	Moment of inertia (J)	: 301 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 1910 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1790 rpm		

Locked rotor time : 39s (cold) 22s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



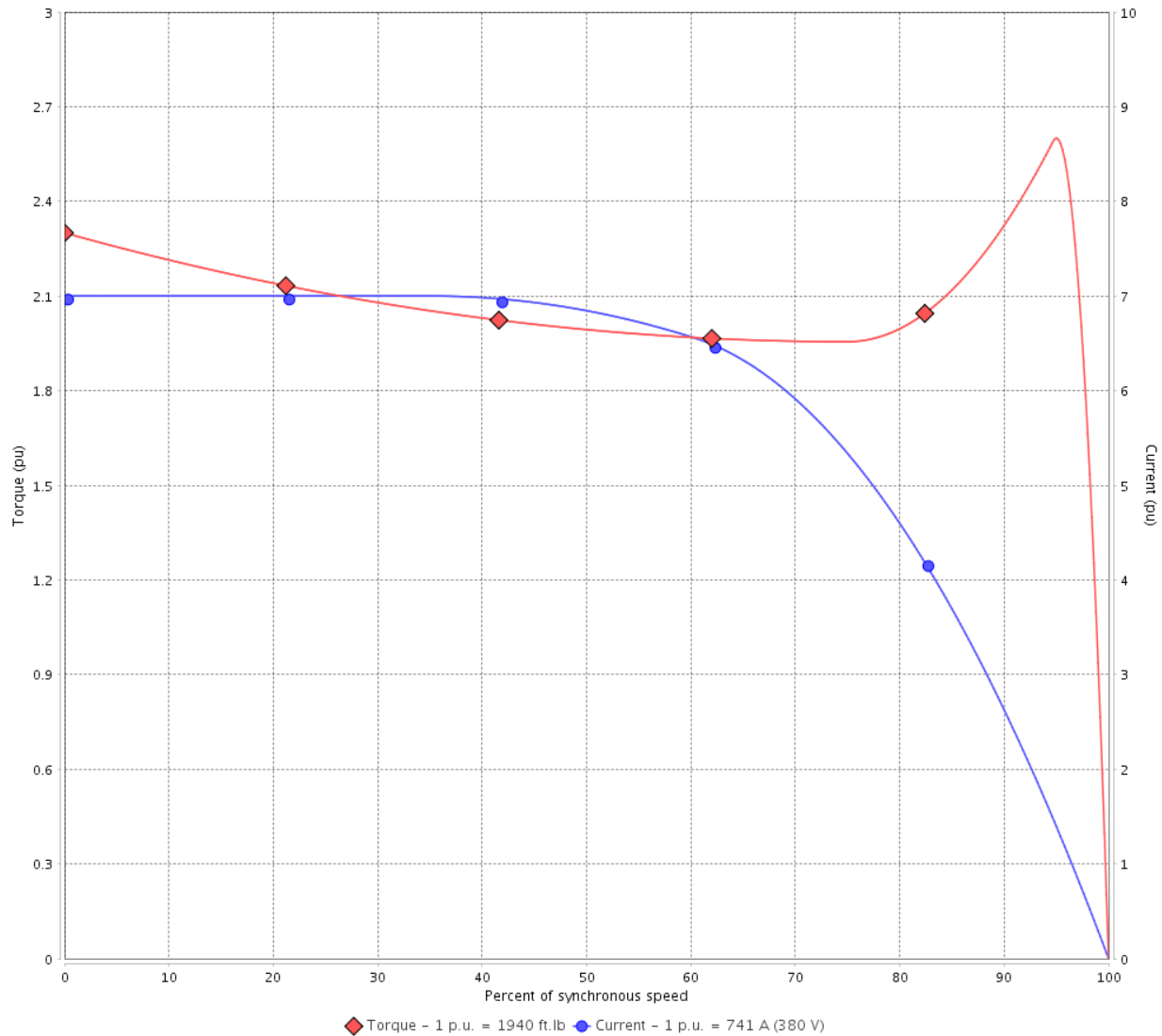
Customer :

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Product code : 13205890

Catalog # : 65018ET3G588/9-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE1

Rated current	: 741 A	Moment of inertia (J)	: 301 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 1940 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1490 rpm		

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



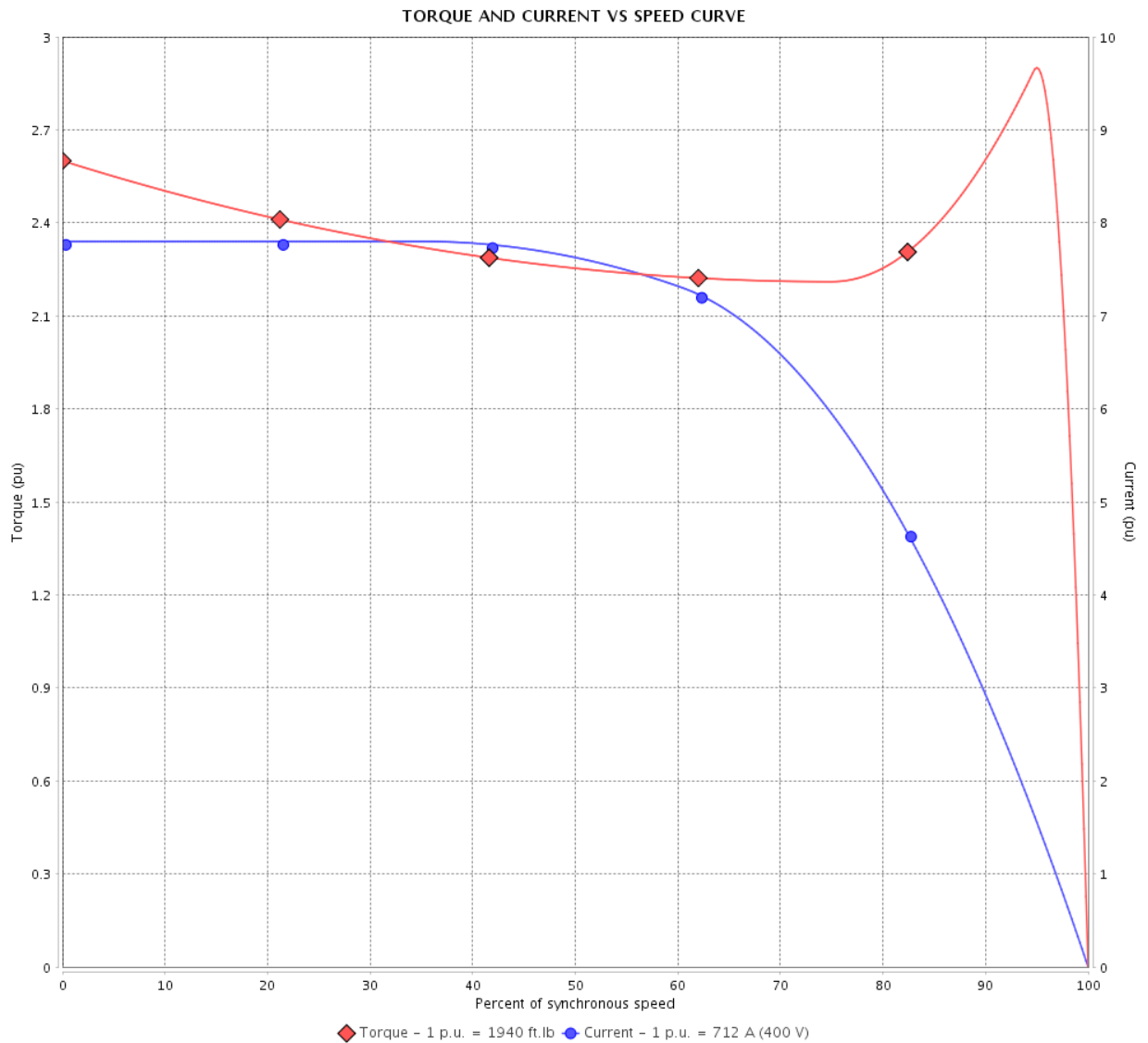
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13205890

Catalog # : 65018ET3G588/9-W22



Performance : 400 V 50 Hz 4P IE1

Rated current : 712 A
 LRC : 7.8
 Rated torque : 1940 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 290 %
 Rated speed : 1490 rpm

Moment of inertia (J) : 301 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



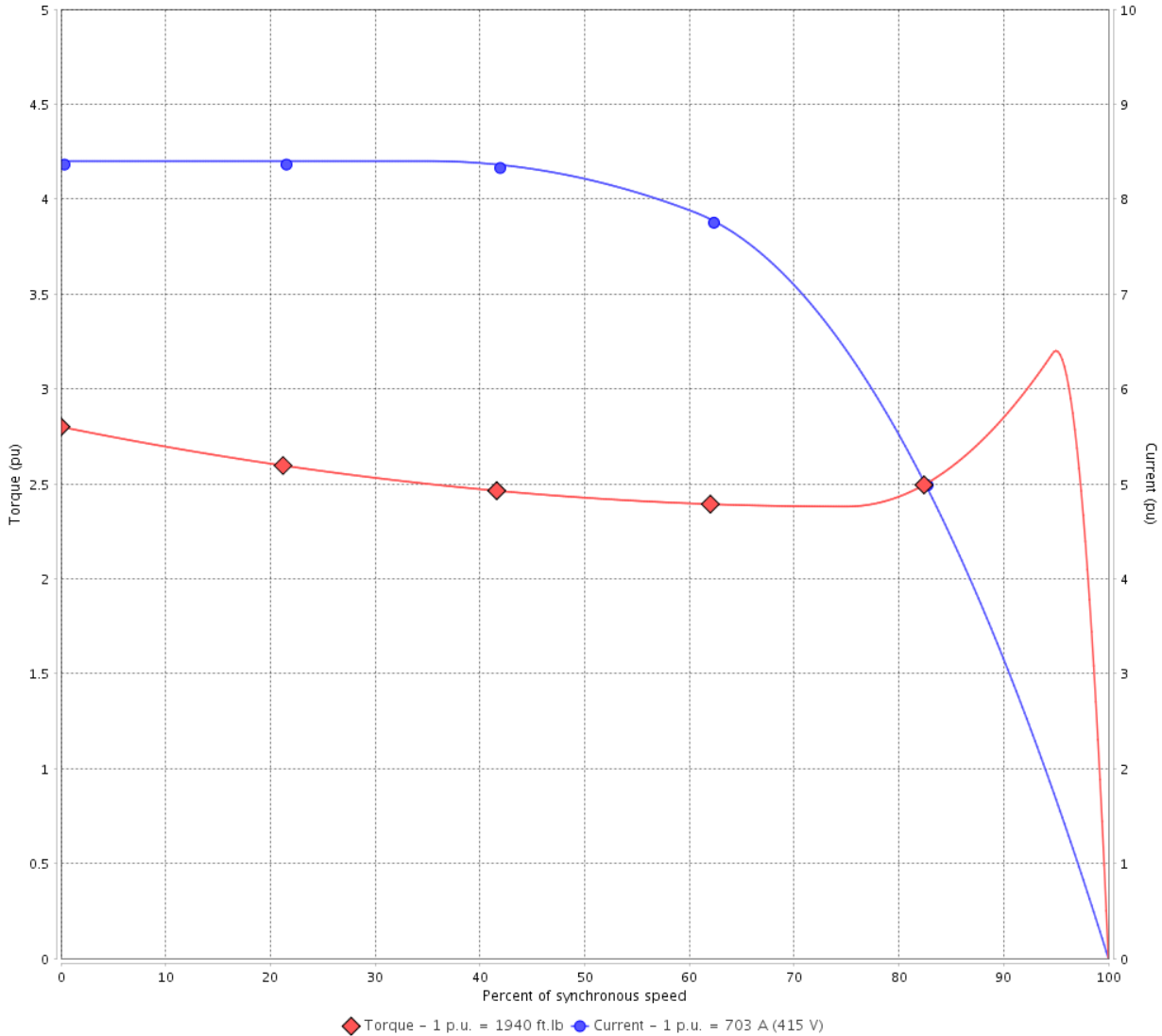
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Catalog # : 65018ET3G588/9-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE1

Rated current	: 703 A	Moment of inertia (J)	: 301 sq.ft.lb
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 1940 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1490 rpm		

Locked rotor time : 36s (cold) 20s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

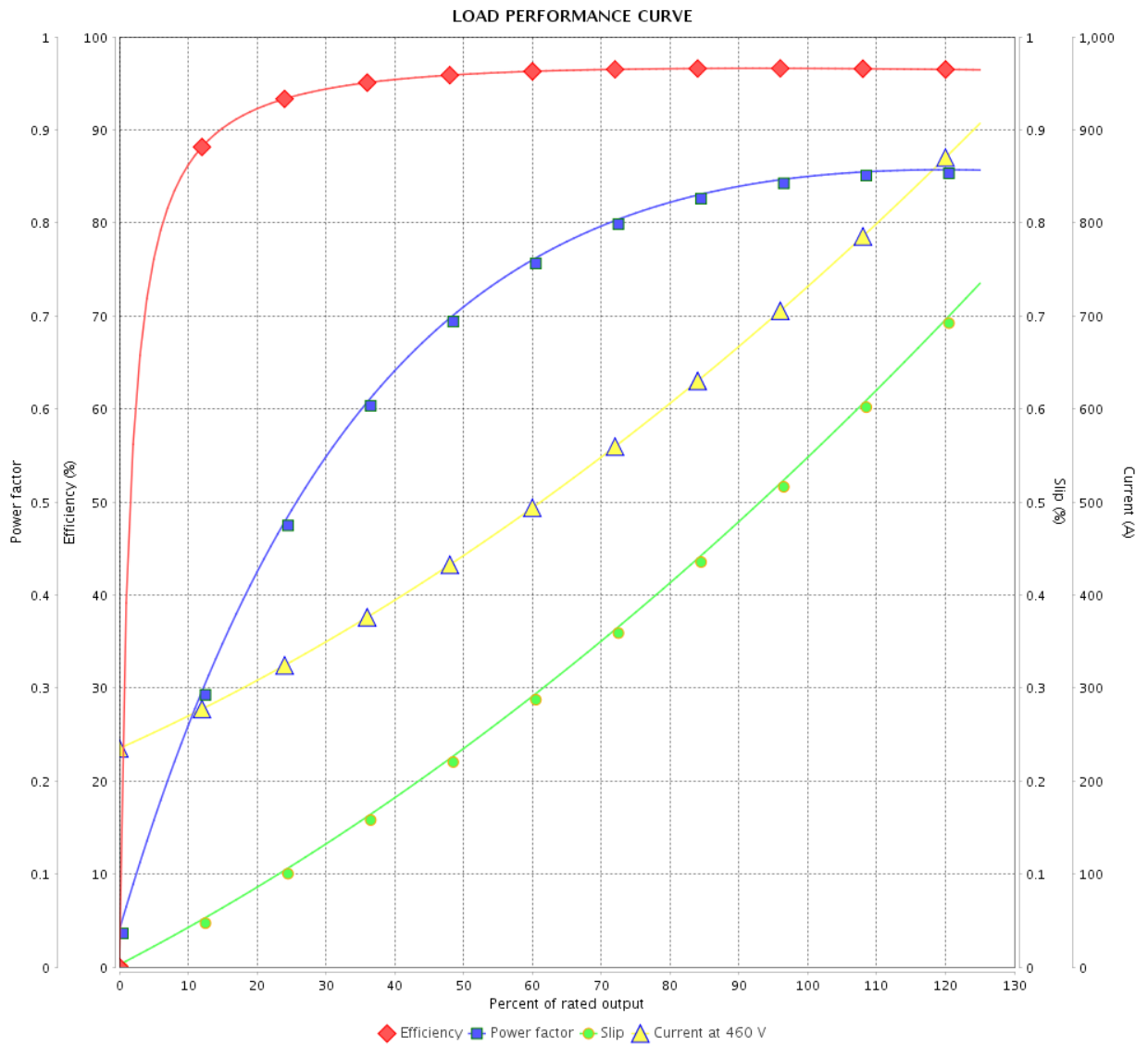


Customer :

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Performance : 460 V 60 Hz 4P

Rated current : 734 A
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 Rated torque : 1910 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Rated speed : 1790 rpm

Moment of inertia (J) : 301 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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Three Phase Induction Motor - Squirrel Cage



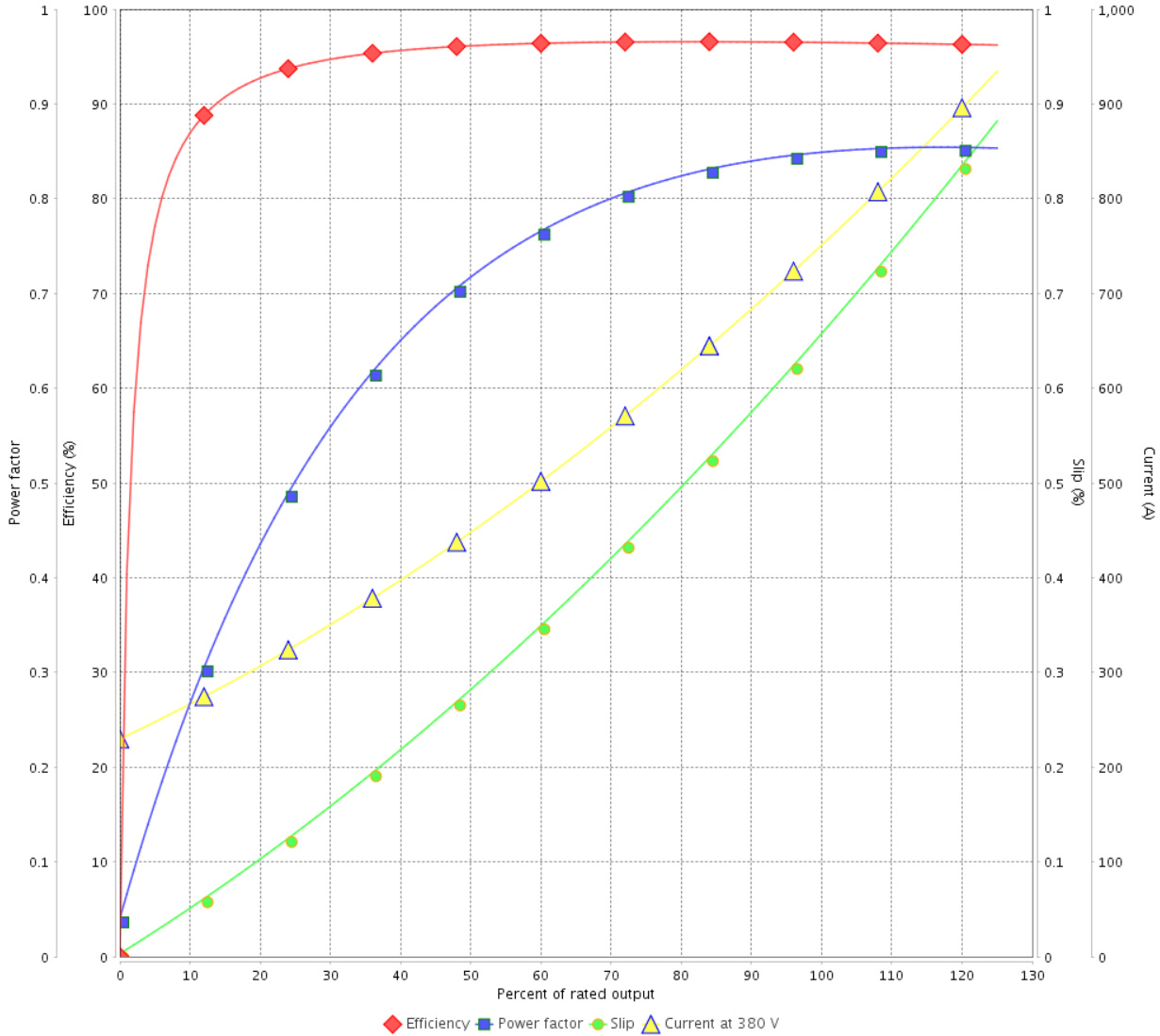
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Moment of inertia (J) : 301 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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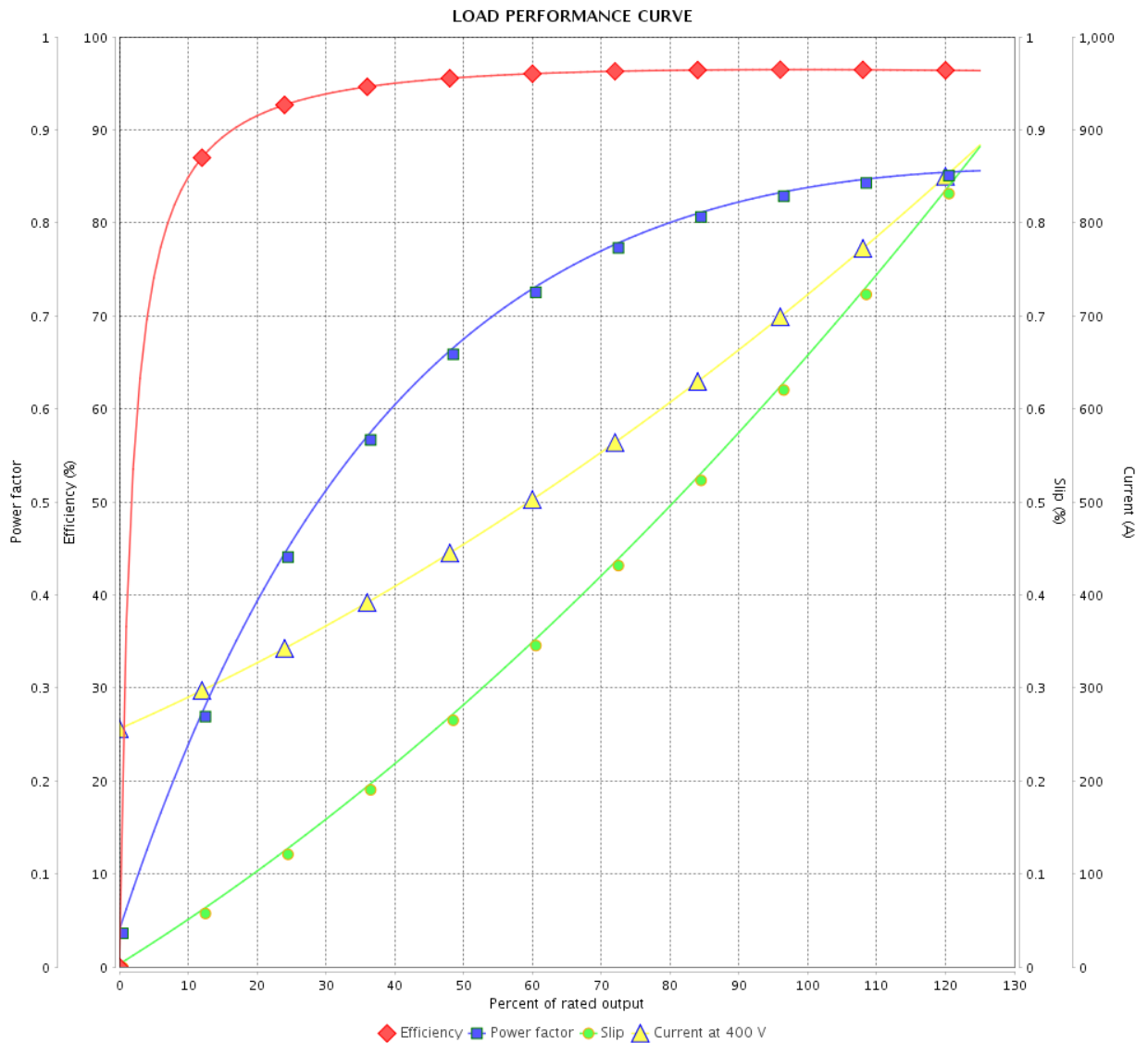


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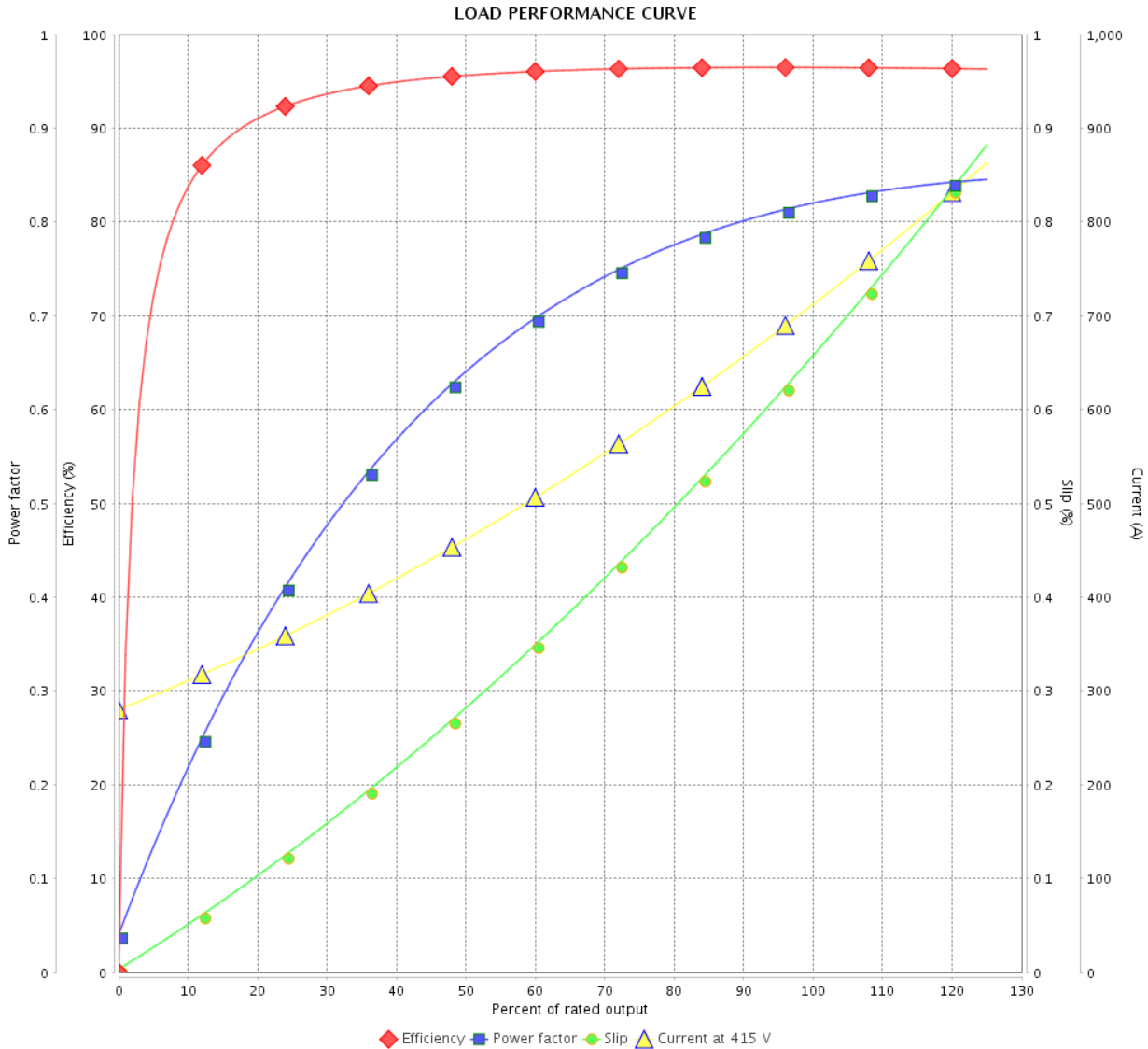


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

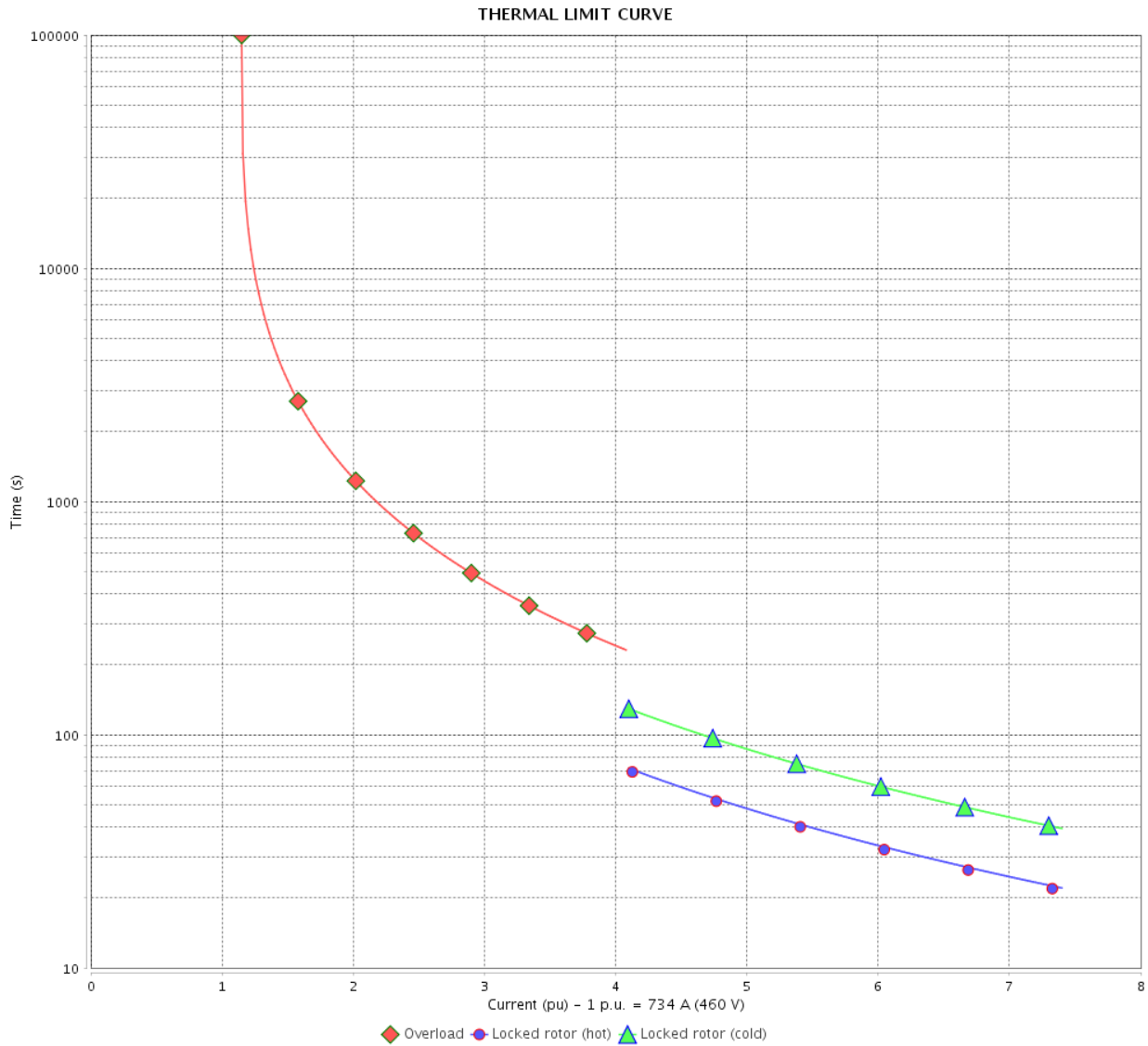
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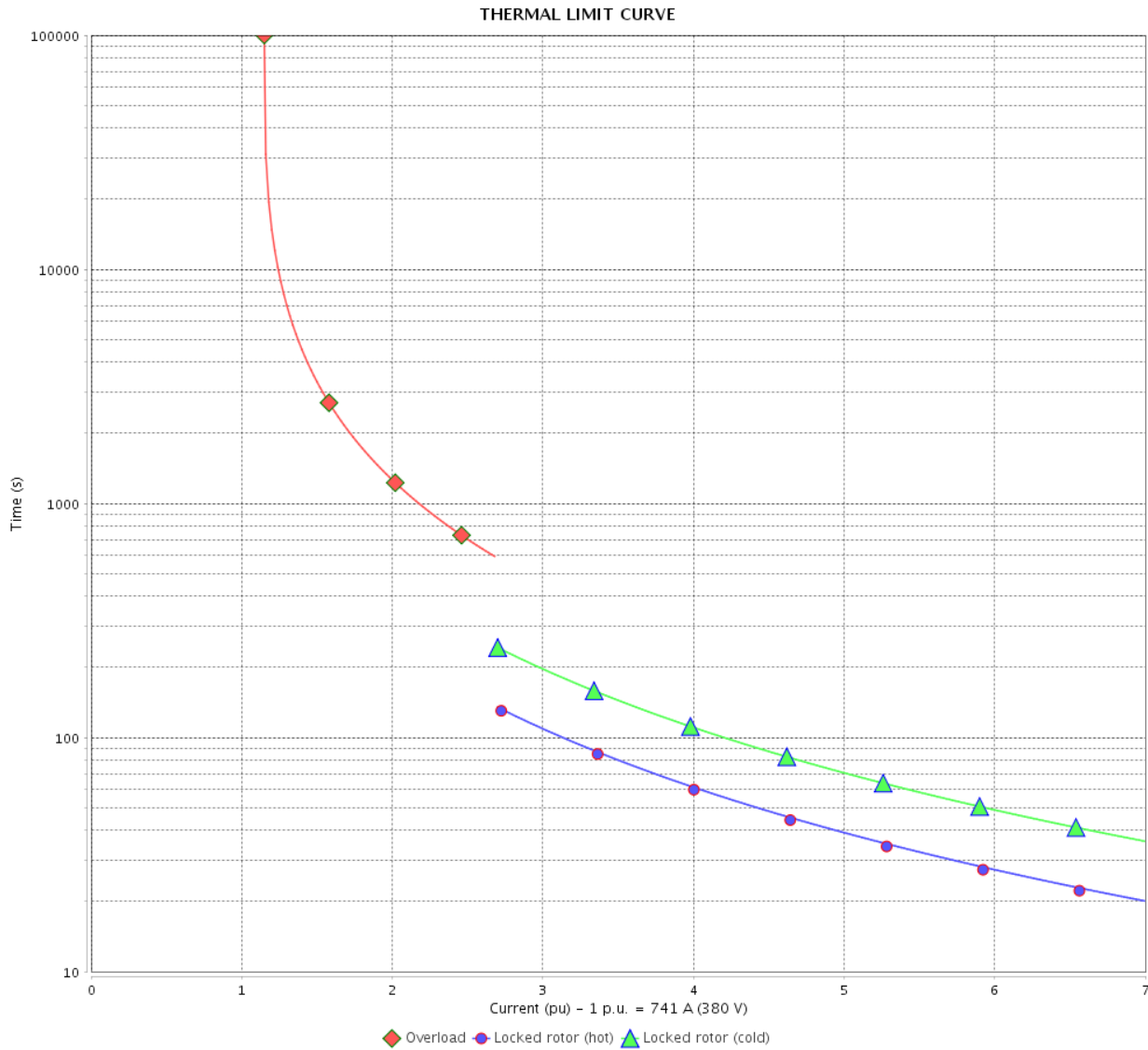
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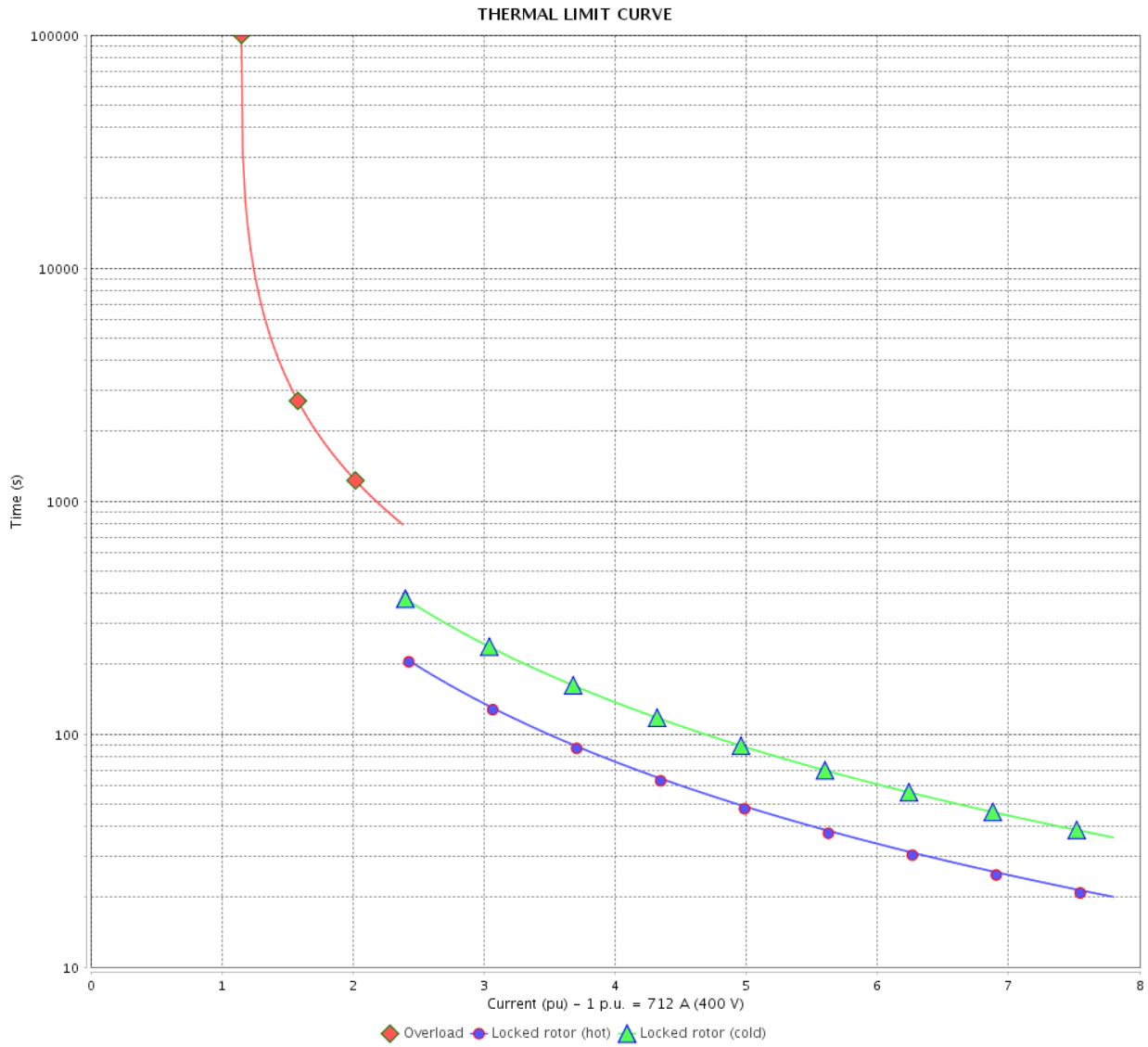
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Locked rotor torque : 280 %	Service factor : 1.00
Breakdown torque : 320 %	Temperature rise : 80 K
Rated speed : 1490 rpm	

Heating constant

Cooling constant

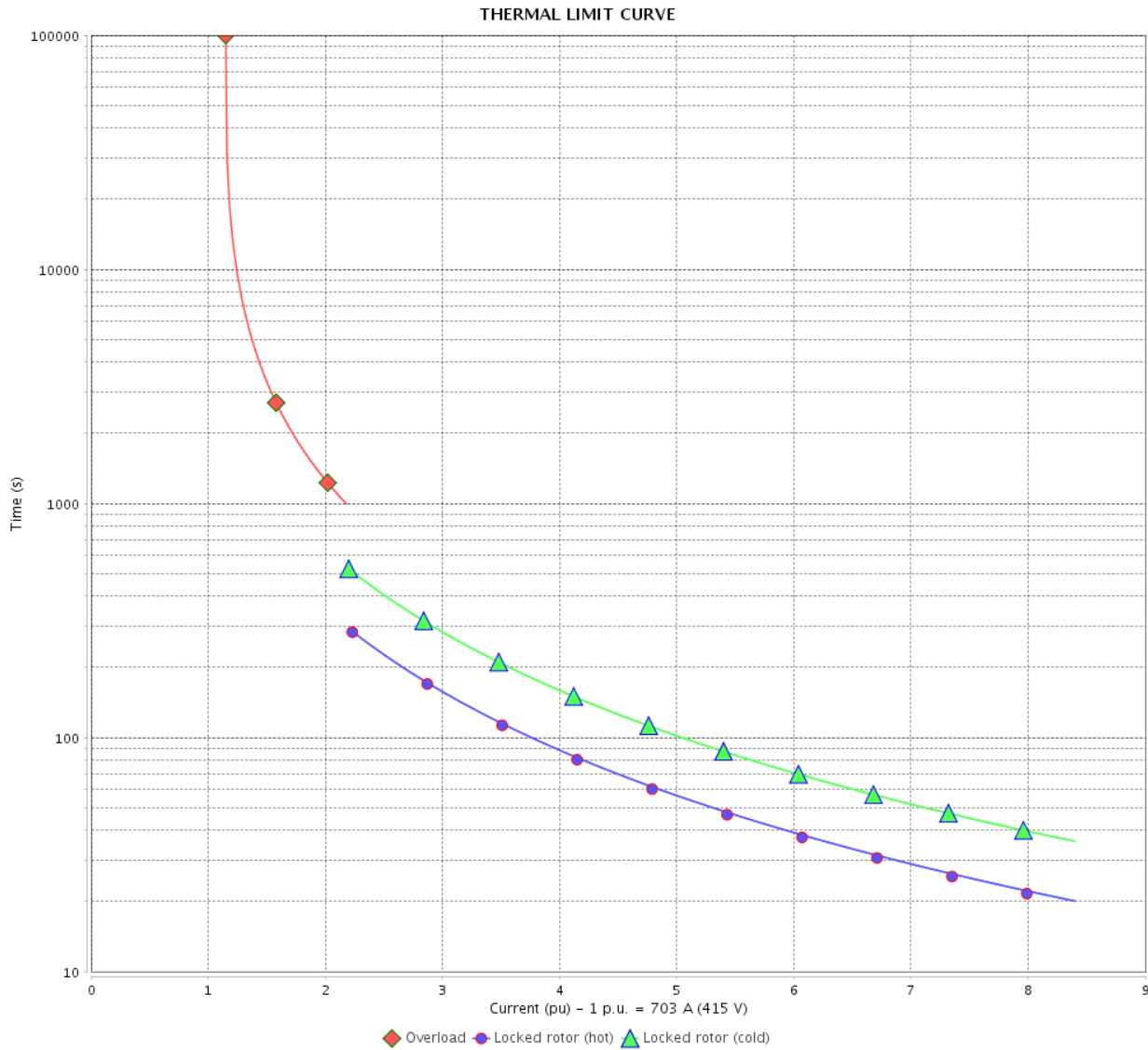
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

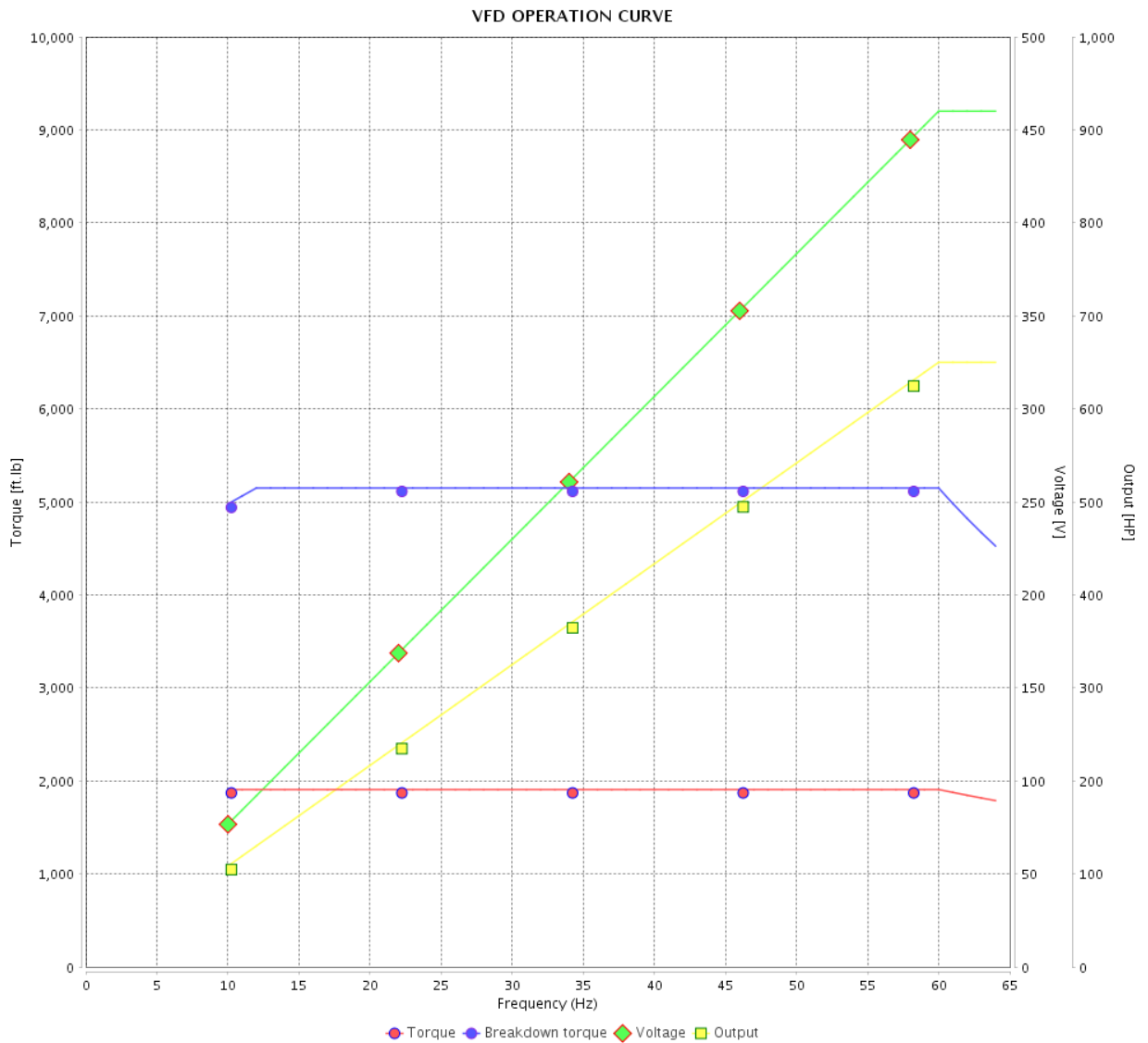


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Product code : 13205890

Catalog # : 65018ET3G588/9-W22



Performance : 460 V 60 Hz 4P

Rated current : 734 A
 LRC : 7.4
 Rated torque : 1910 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 270 %
 Rated speed : 1790 rpm

Moment of inertia (J) : 301 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



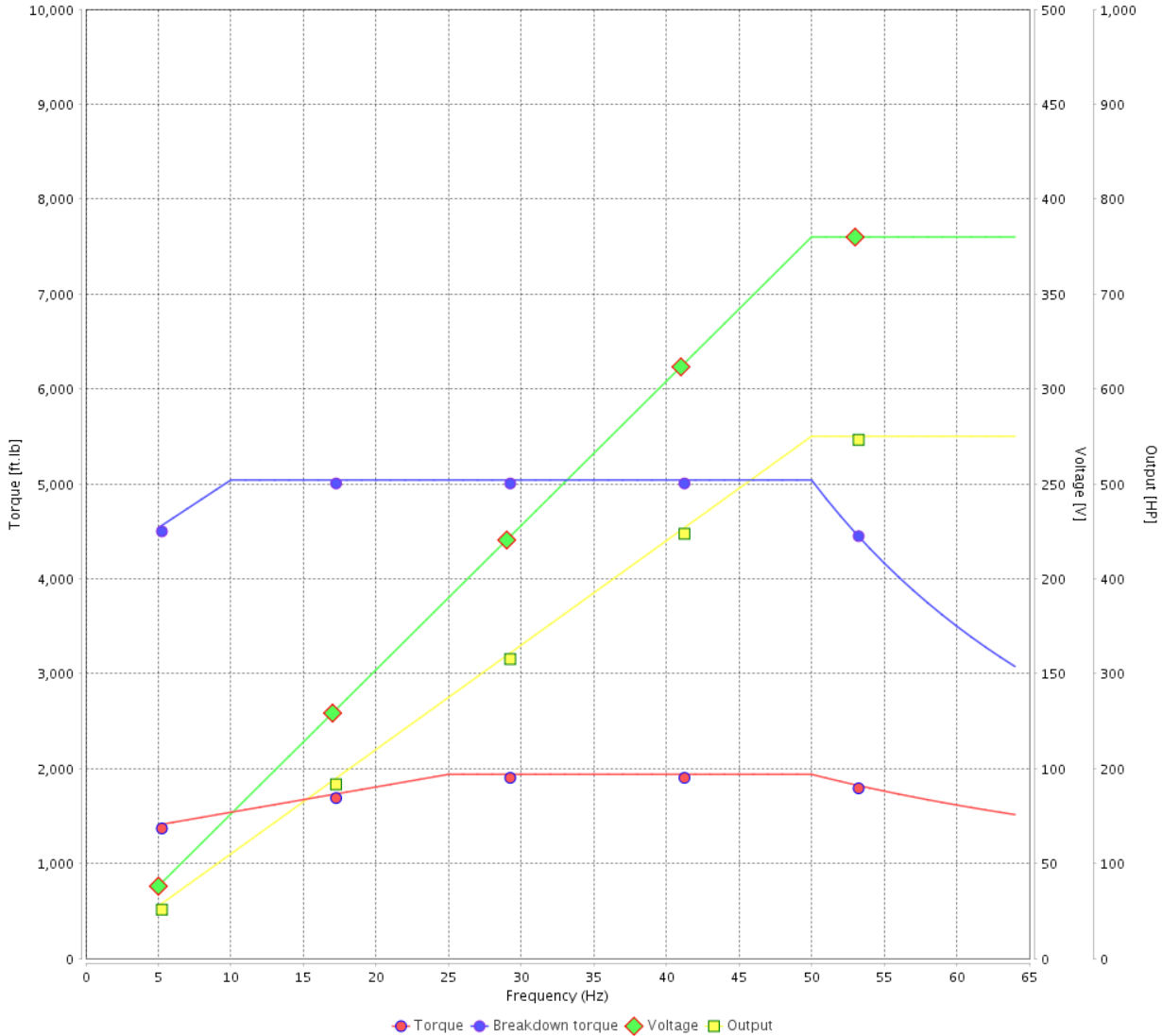
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 Temperature rise : 80 K

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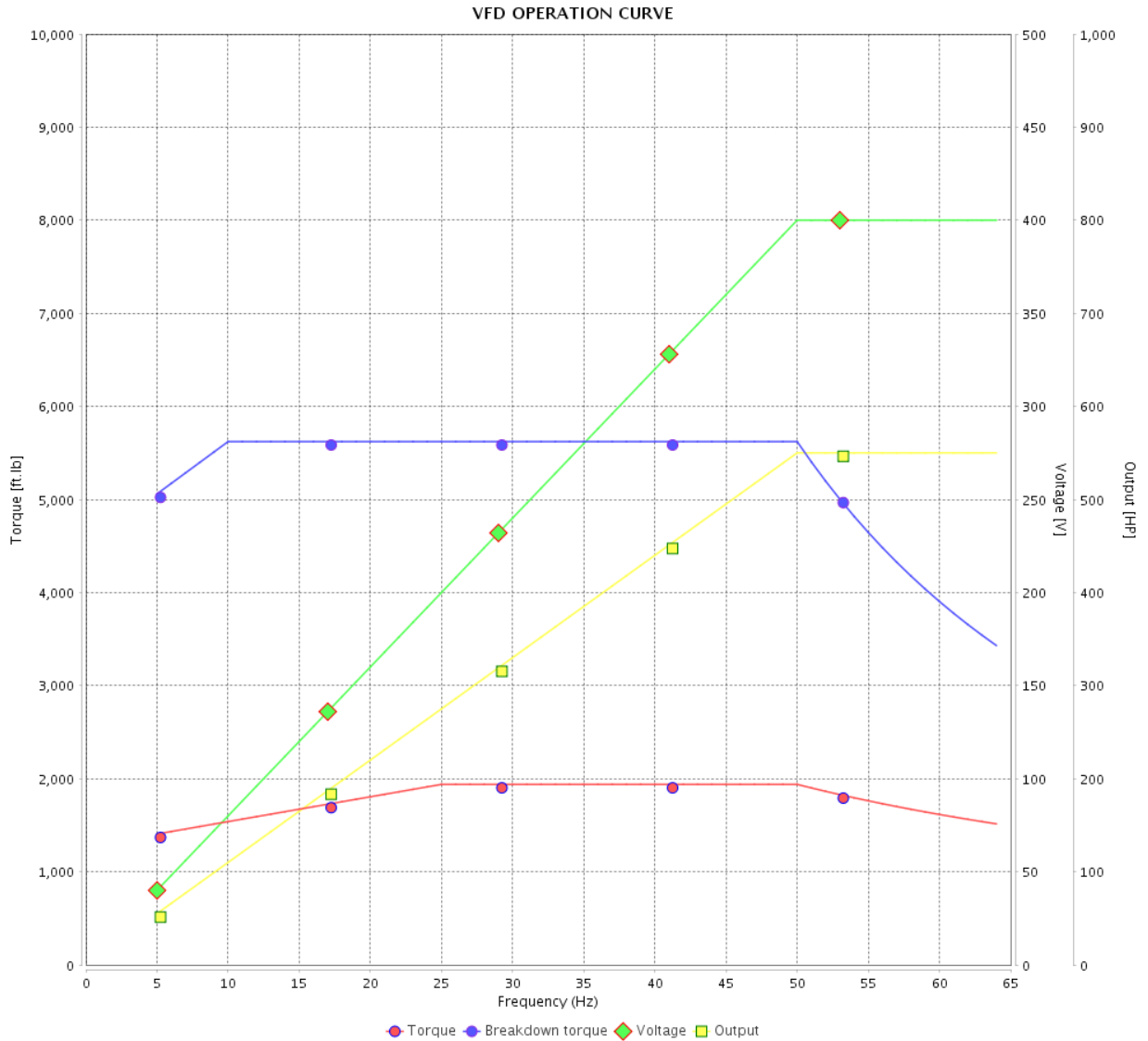
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 Breakdown torque : 290 %
 Rated speed : 1490 rpm

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 Temperature rise : 80 K

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



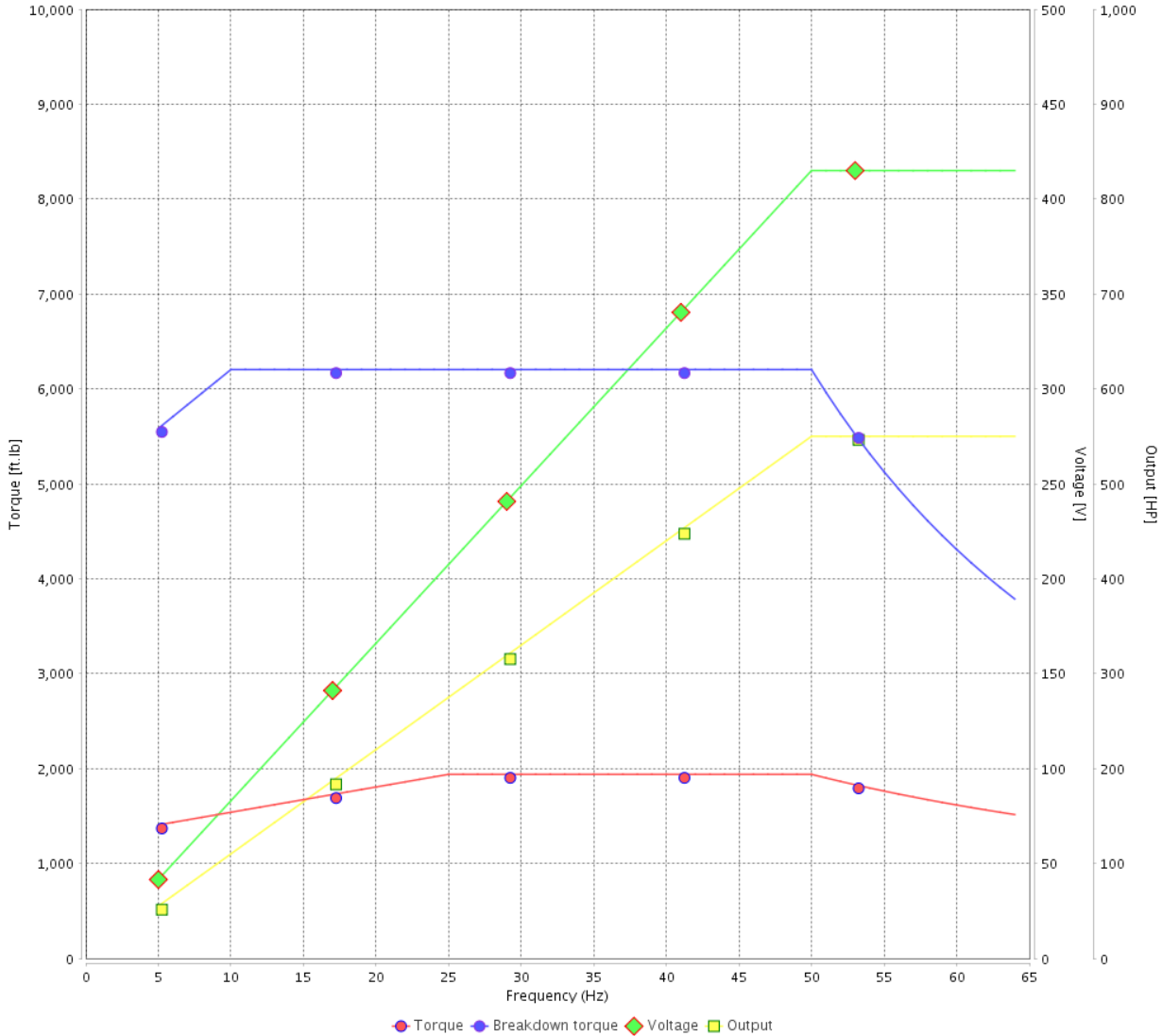
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VFD OPERATION CURVE

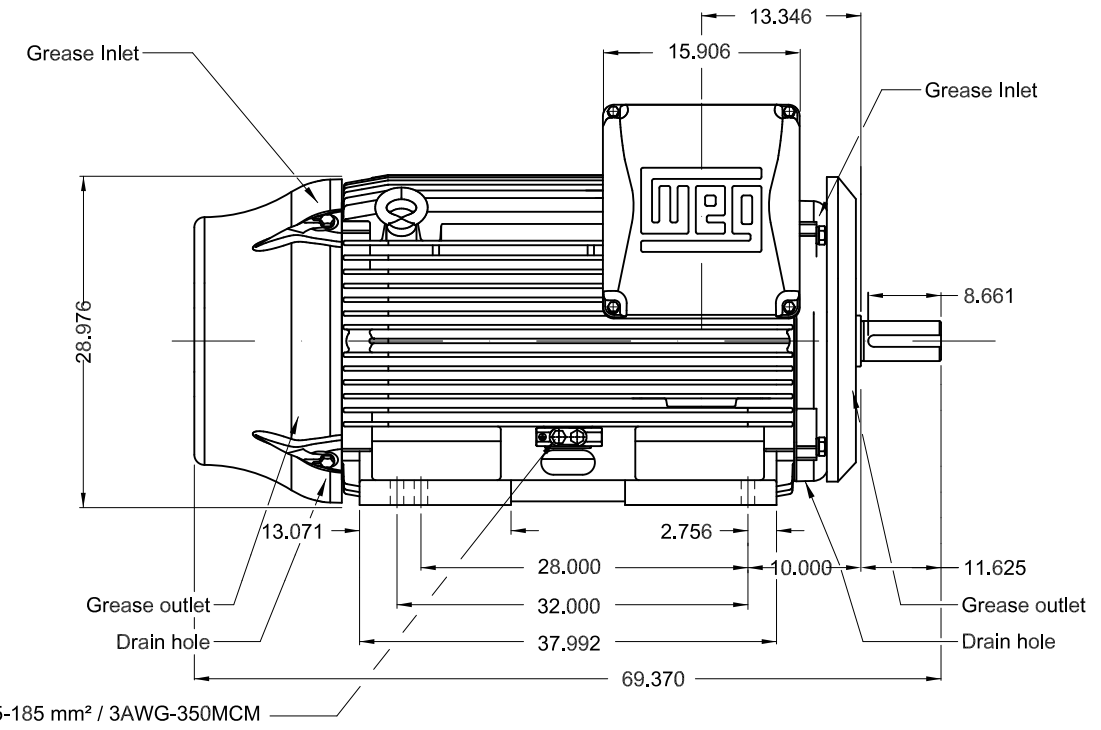
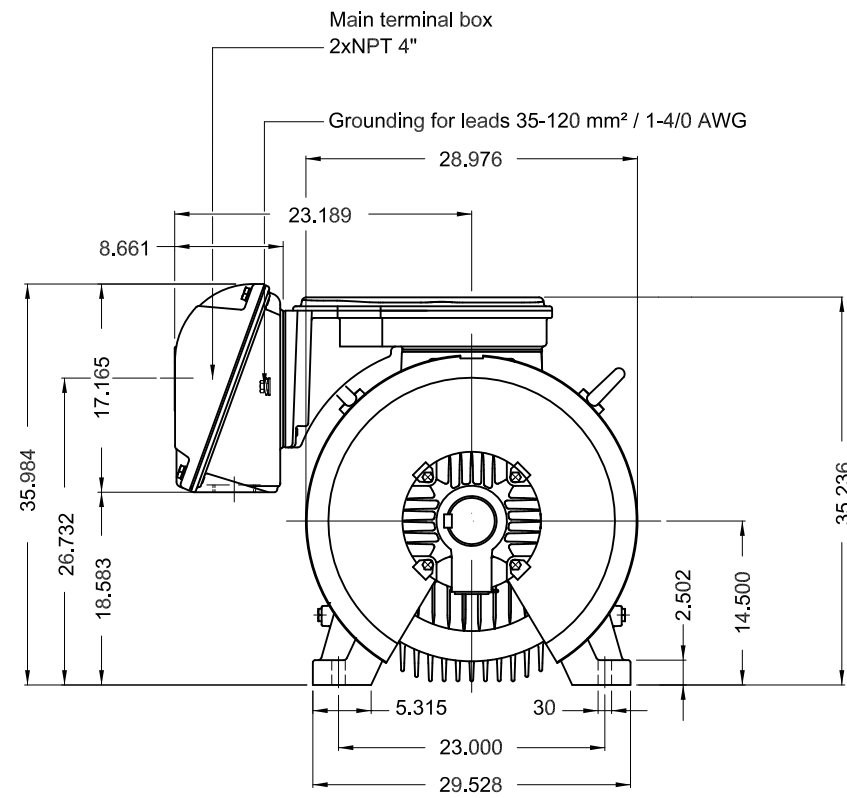


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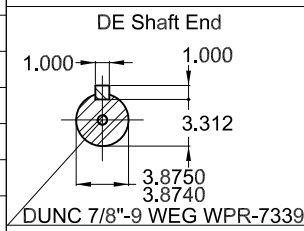
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650 HP 04 Poles 60 Hz

A

- Without vertical jackscrews
- NDE endshield with electrically insulated bearing hub
- Drive-End Air Deflector
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 PREM. EFF.					
CHECKED		FRAME 588/9T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
WDD



SHEET 1 / 1

MADE IN BRAZIL
13205890



FOR SAFE AREA
Mod.TE1BFOXON

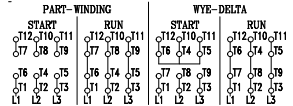




Class I, Div 2, Gr A, B, C and D - T2C
Class I, Zone 2, IIC - T2C
Class II, Div 2, Gr F and G - T4
For use on PWM: Gr. A, B, C and D,
VT 1000:1, CT 6:1, 1.00SF - T2B


MODEL 65018ET3G588/9-W22

Inverter Duty Motor
Severe Duty

PH3	60Hz	Fr. 588/9T	1000m.a.s.l.	IP55	TEFC	5225lb
V 460				A 734		
HP 650				kW 480		
SF 1.00				SFA -		
RPM 1790				PF 0.85		
AMB 40°C				INS cl. F DT80K	NEMA NOM EFF 96.6%	
DUTY CONT.				DES - Code H		



-  → 6322-C3 (60g)
-  → 6319-C3 (45g)

 MOBIL POLYREX EM (6000h)