

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14267795		
		Catalog # :	05012OT3E365JM-W40		
Frame	: 364/5JM	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	: 820 lb		
Protection degree	: IP23	Moment of inertia (J)	: 23.9 sq.ft.lb		
Design	: B				
Output [HP]	50	40	40	40	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	116/58.1	57.1	54.8	53.5	
L. R. Amperes [A]	779/389	400	395	412	
LRC [A]	6.7x(Code G)	7.0x(Code H)	7.2x(Code H)	7.7x(Code J)	
No load current [A]	40.8/20.4	20.2	21.7	23.0	
Rated speed [RPM]	1185	985	985	985	
Slip [%]	1.25	1.50	1.50	1.50	
Rated torque [ft.lb]	222	213	213	213	
Locked rotor torque [%]	220	200	229	250	
Breakdown torque [%]	240	240	270	290	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	27s (cold) 15s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level ²	68.0 dB(A)				
Efficiency (%)	25%	93.5	92.4	92.4	92.4
	50%	93.6	92.5	92.5	92.5
	75%	94.1	92.9	92.9	92.9
	100%	94.1	92.9	92.9	92.9
Power Factor	25%	0.48	0.48	0.44	0.42
	50%	0.74	0.74	0.70	0.68
	75%	0.82	0.83	0.80	0.79
	100%	0.85	0.86	0.85	0.84
Bearing type	: Drive end : 6314 C3	Non drive end : 6212 Z C3	Foundation loads		
Sealing	: Without	Without	Max. traction	: 1709 lb	
	Bearing Seal	Bearing Seal	Max. compression	: 2529 lb	
Lubrication interval	: 20000 h	20000 h			
Lubricant amount	: 27 g	13 g			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 128A SF 1.15 SFA 148A					
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



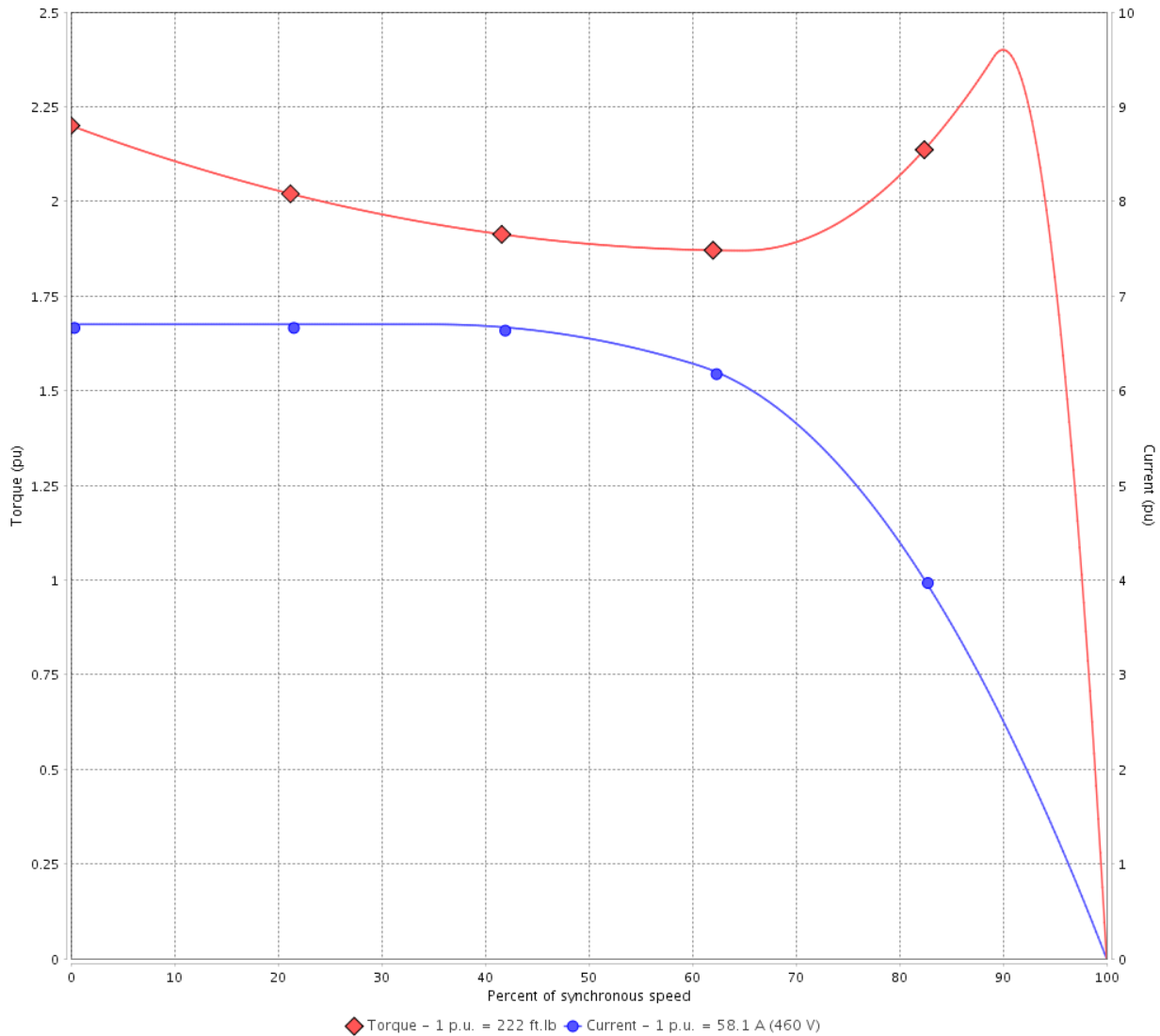
Customer :

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

Product code : 14267795

Catalog # : 05012OT3E365JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 116/58.1 A	Moment of inertia (J)	: 23.9 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 222 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.25
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1185 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



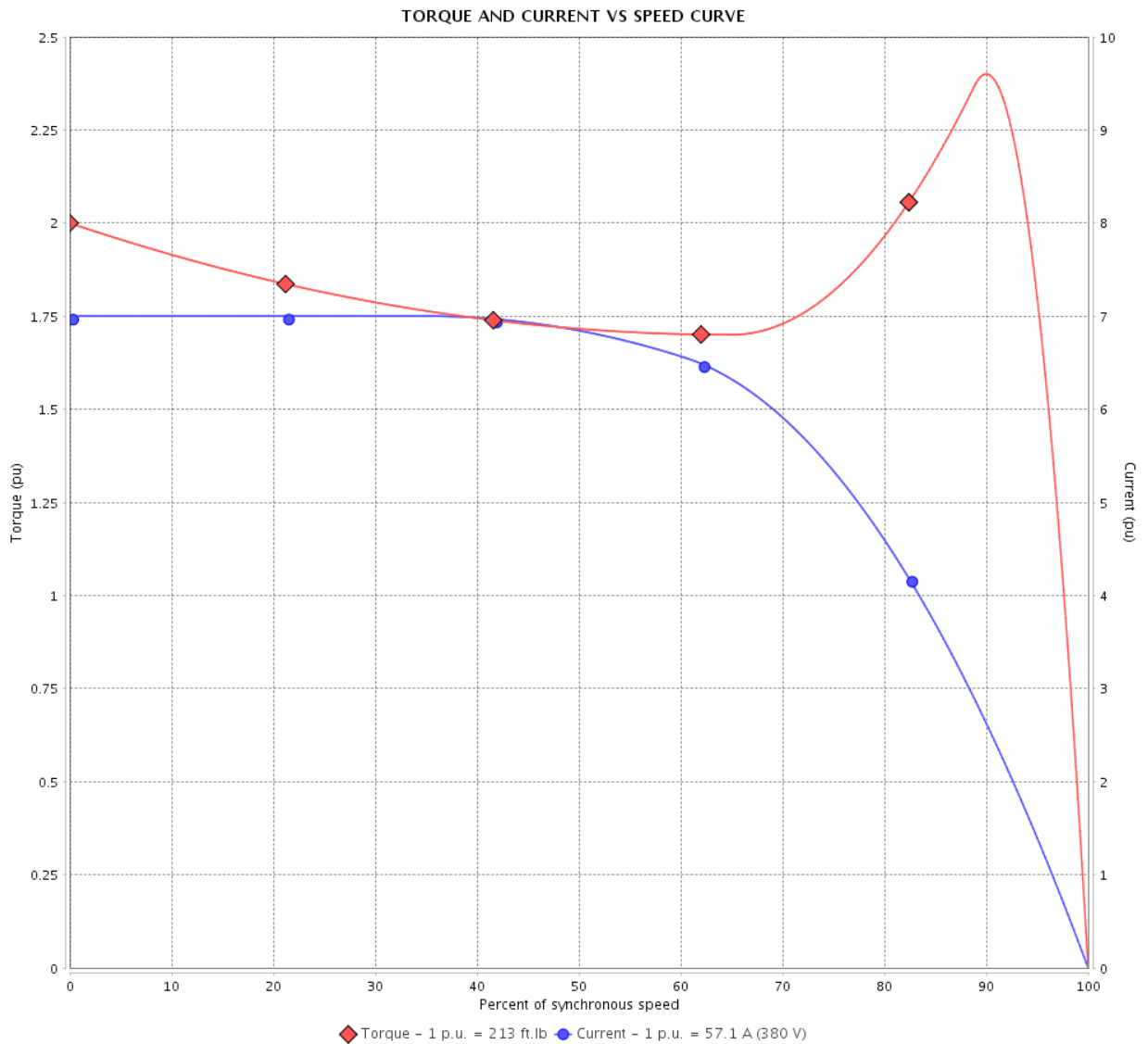
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14267795

Catalog # : 05012OT3E365JM-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 57.1 A	Moment of inertia (J)	: 23.9 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 213 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



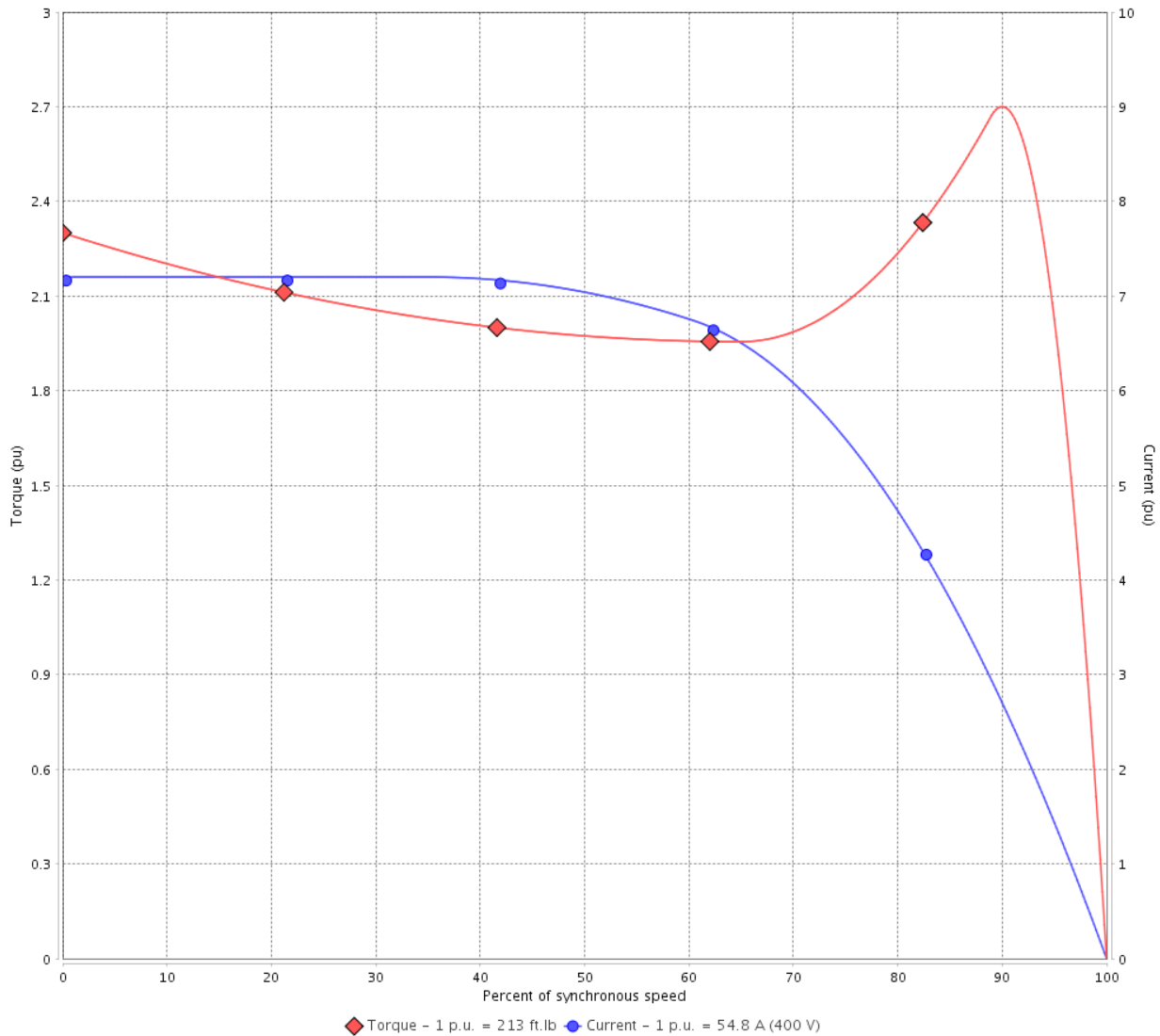
Customer :

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

Product code : 14267795

Catalog # : 05012OT3E365JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 54.8 A	Moment of inertia (J)	: 23.9 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 213 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



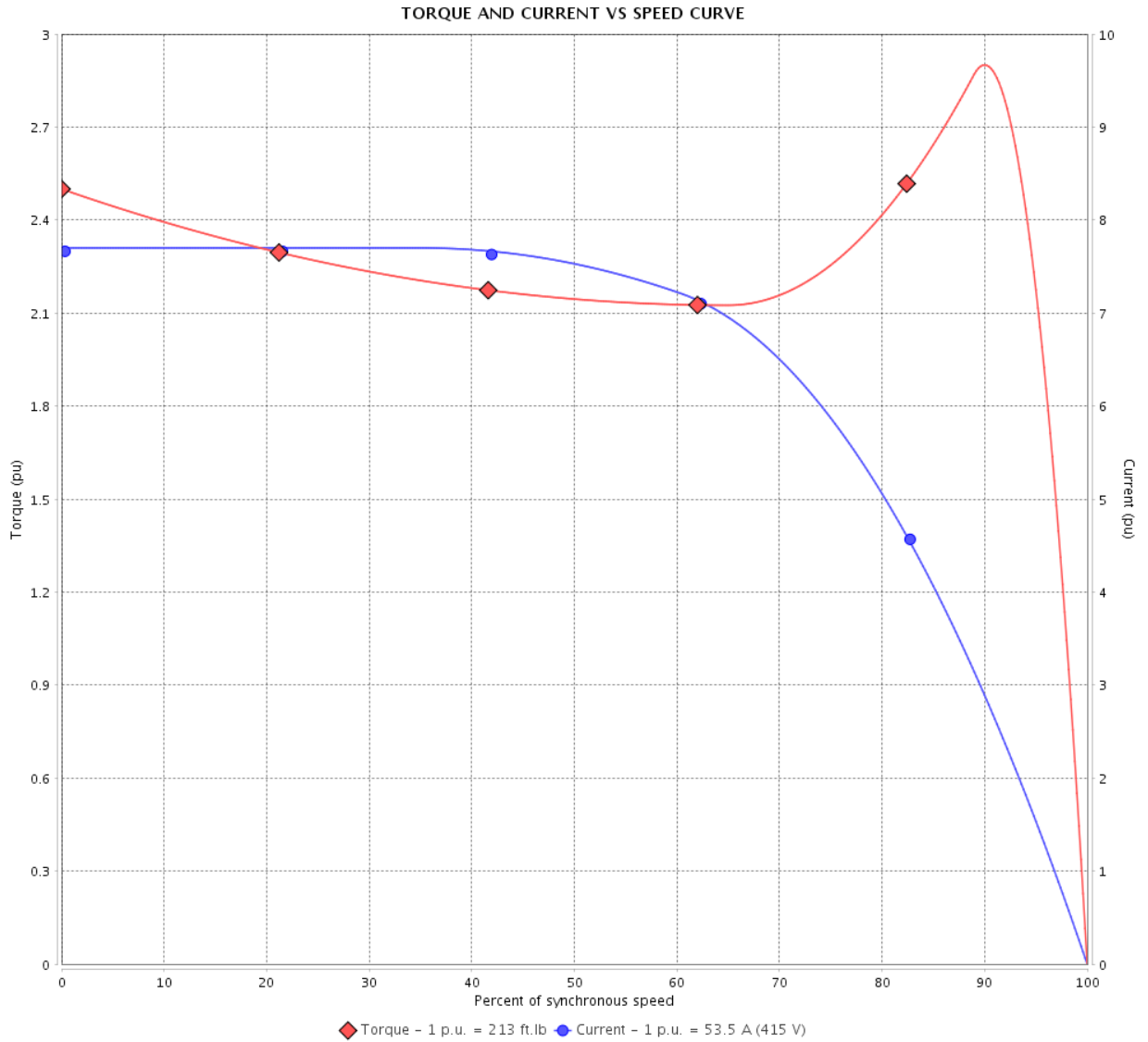
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Product code : 14267795

Catalog # : 05012OT3E365JM-W40



Performance : 415 V 50 Hz 6P IE3

Rated current	: 53.5 A	Moment of inertia (J)	: 23.9 sq.ft.lb
LRC	: 7.7	Duty cycle	: Cont.(S1)
Rated torque	: 213 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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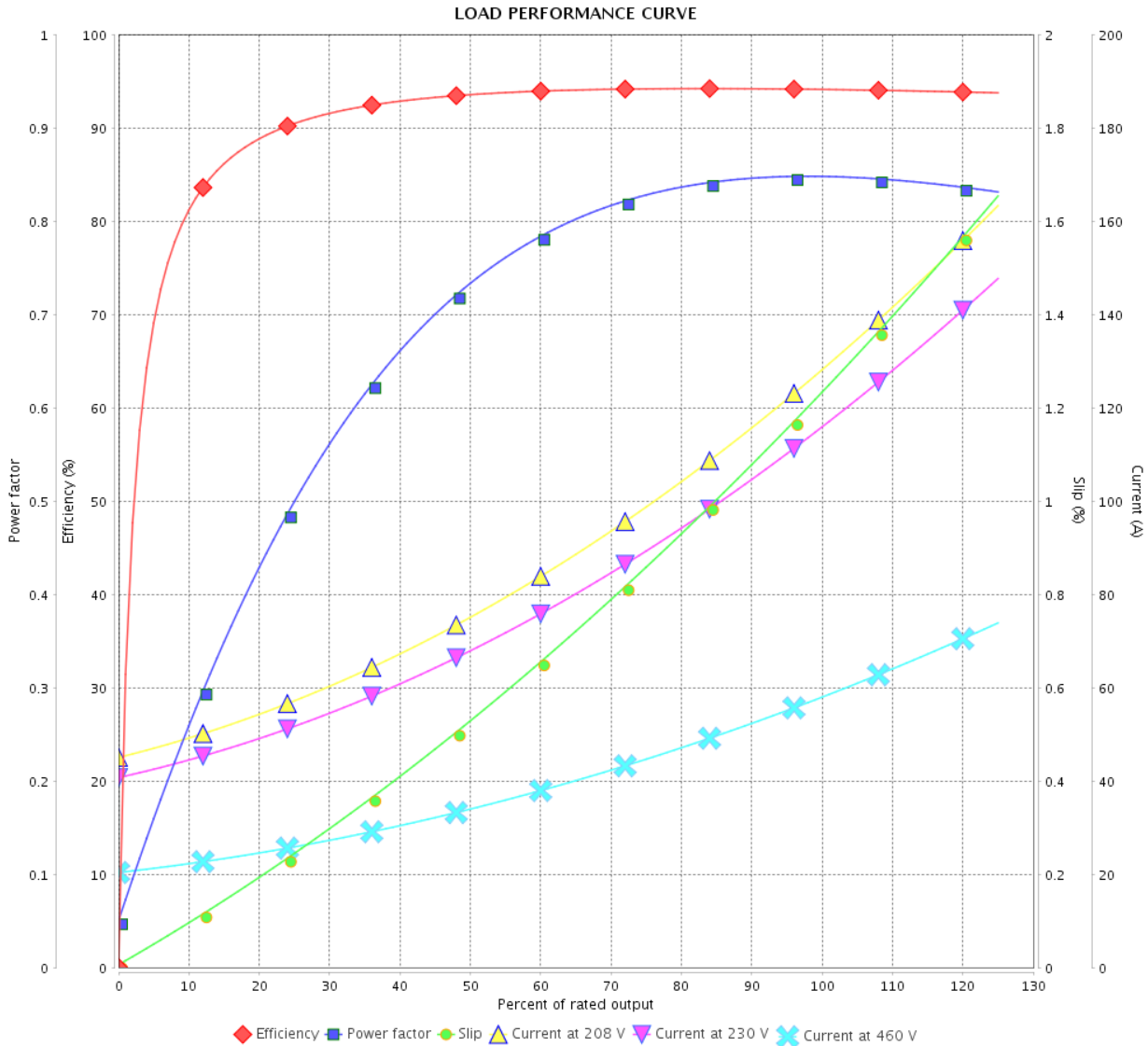


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Product code : 14267795

Catalog # : 05012OT3E365JM-W40



Performance : 230/460 V 60 Hz 6P

Rated current : 116/58.1 A
 LRC : 6.7
 Rated torque : 222 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 23.9 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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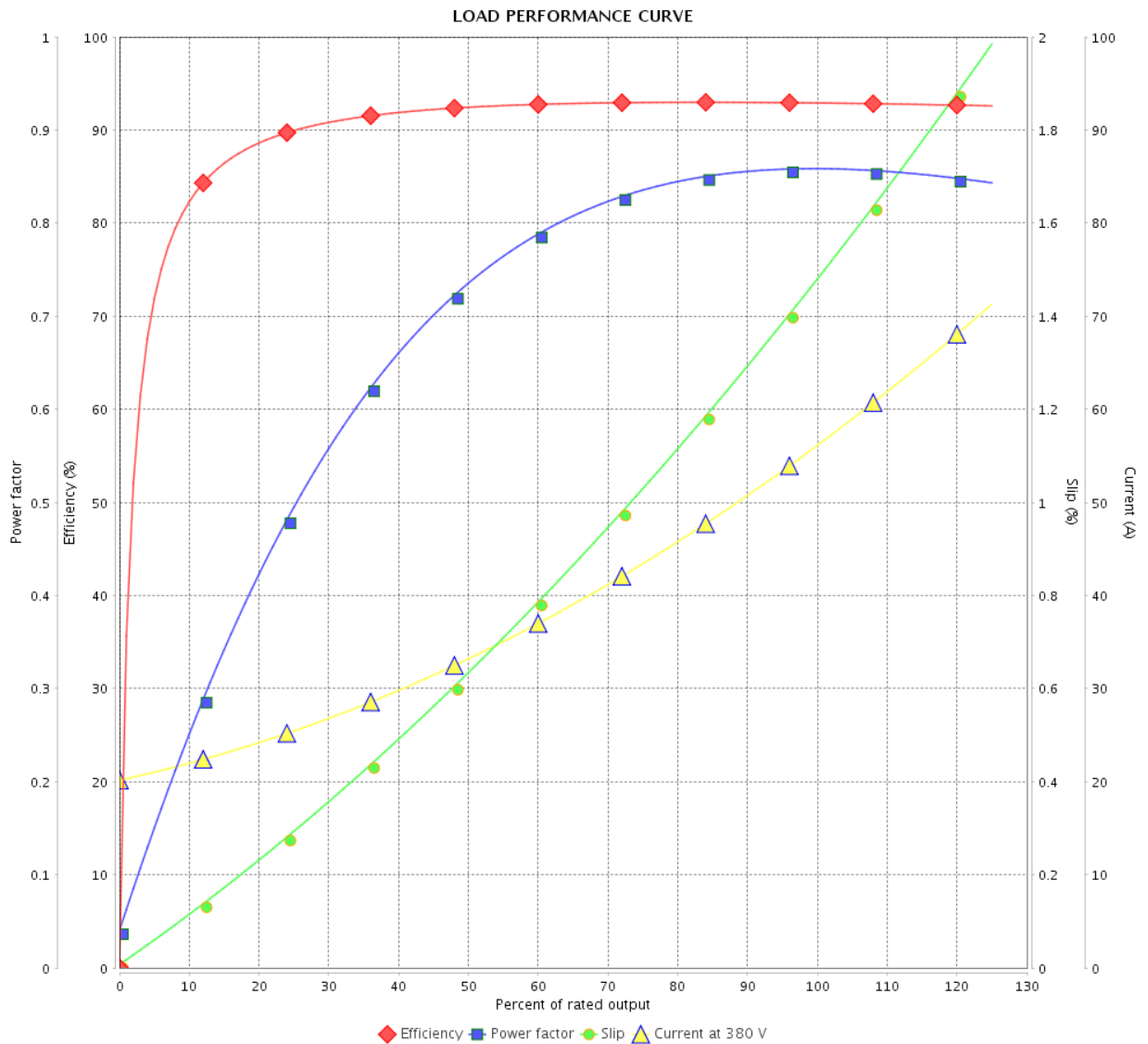


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Performance : 380 V 50 Hz 6P IE3

Rated current : 57.1 A
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 Breakdown torque : 240 %
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 Service factor : 1.00
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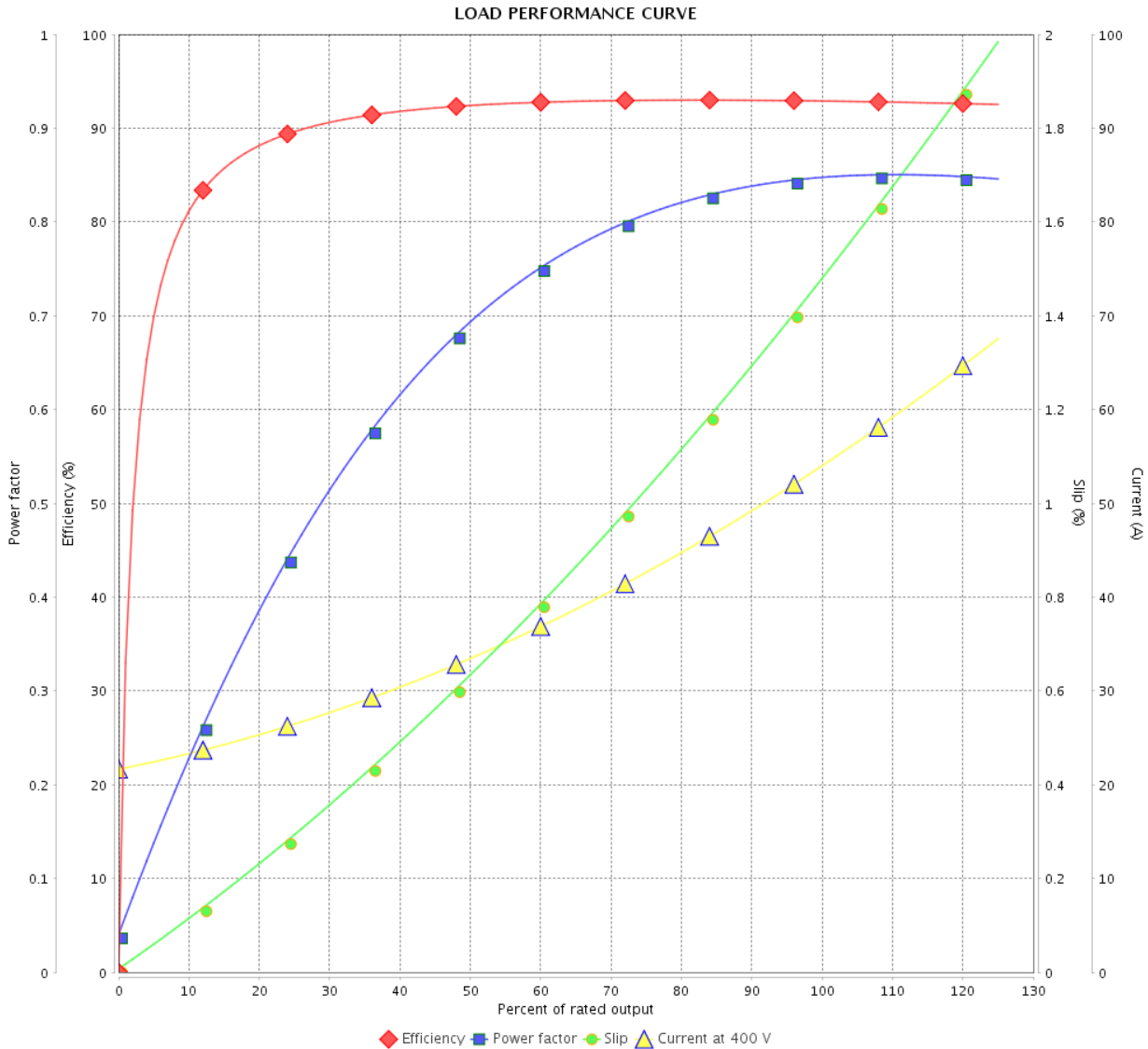


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Performance : 400 V 50 Hz 6P IE3

Rated current	: 54.8 A	Moment of inertia (J)	: 23.9 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 213 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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Three Phase Induction Motor - Squirrel Cage

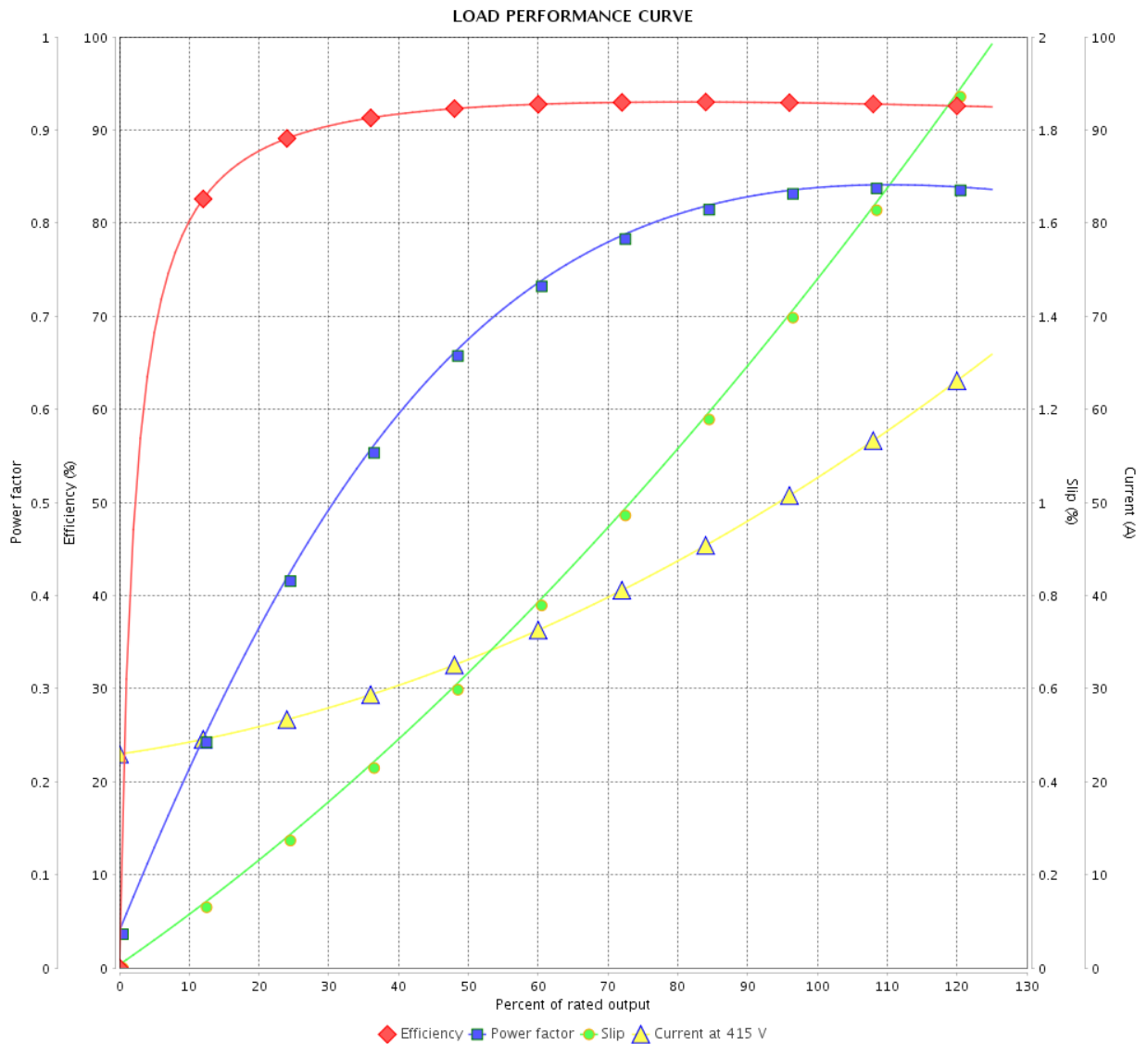


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Performance : 415 V 50 Hz 6P IE3

Rated current : 53.5 A
 LRC : 7.7
 Rated torque : 213 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 290 %
 Rated speed : 985 rpm

Moment of inertia (J) : 23.9 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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THERMAL LIMIT CURVE

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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

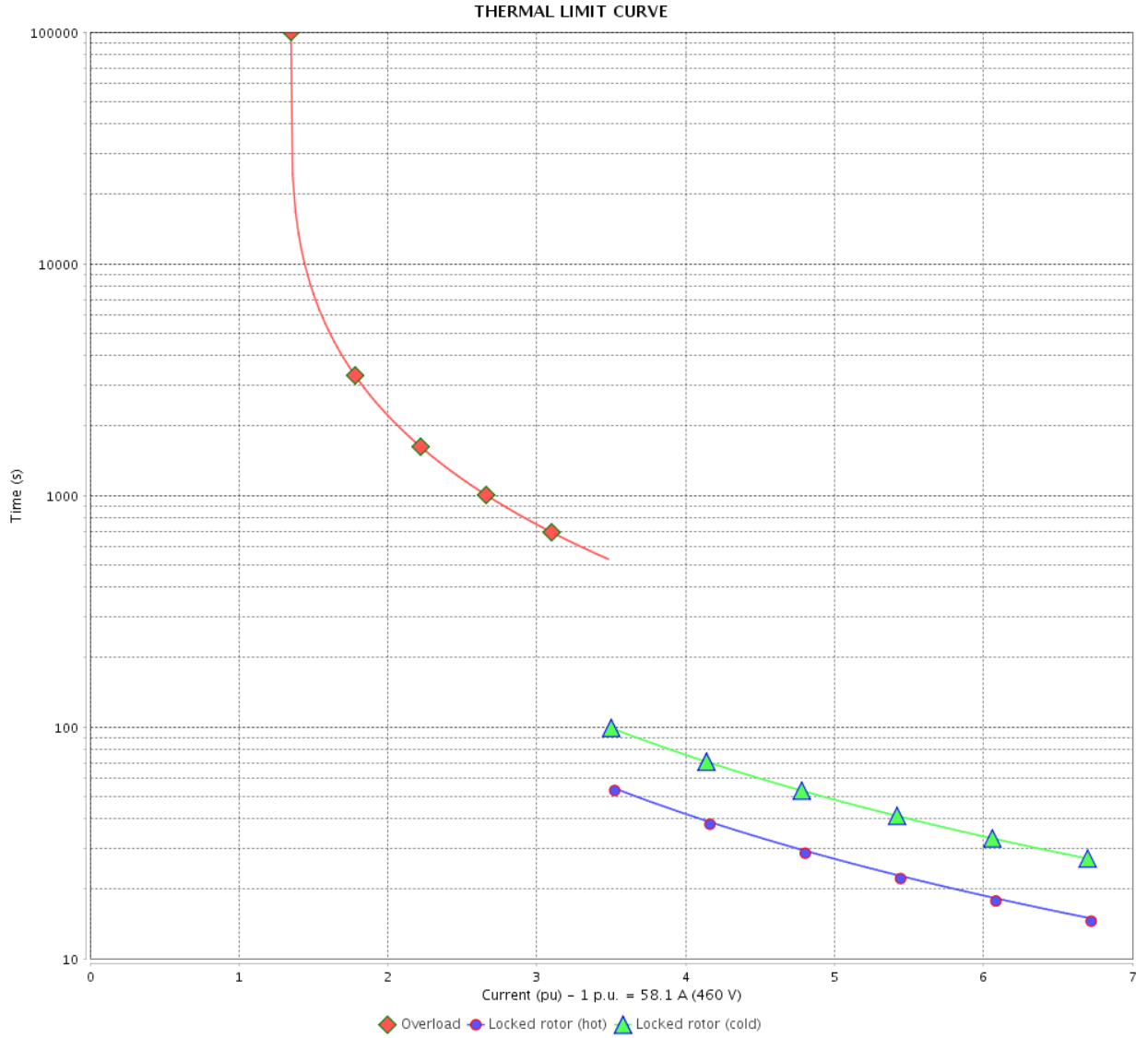
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LRC : 7.0	Duty cycle : Cont.(S1)
Rated torque : 213 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.00
Breakdown torque : 240 %	Temperature rise : 80 K
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Heating constant

Cooling constant

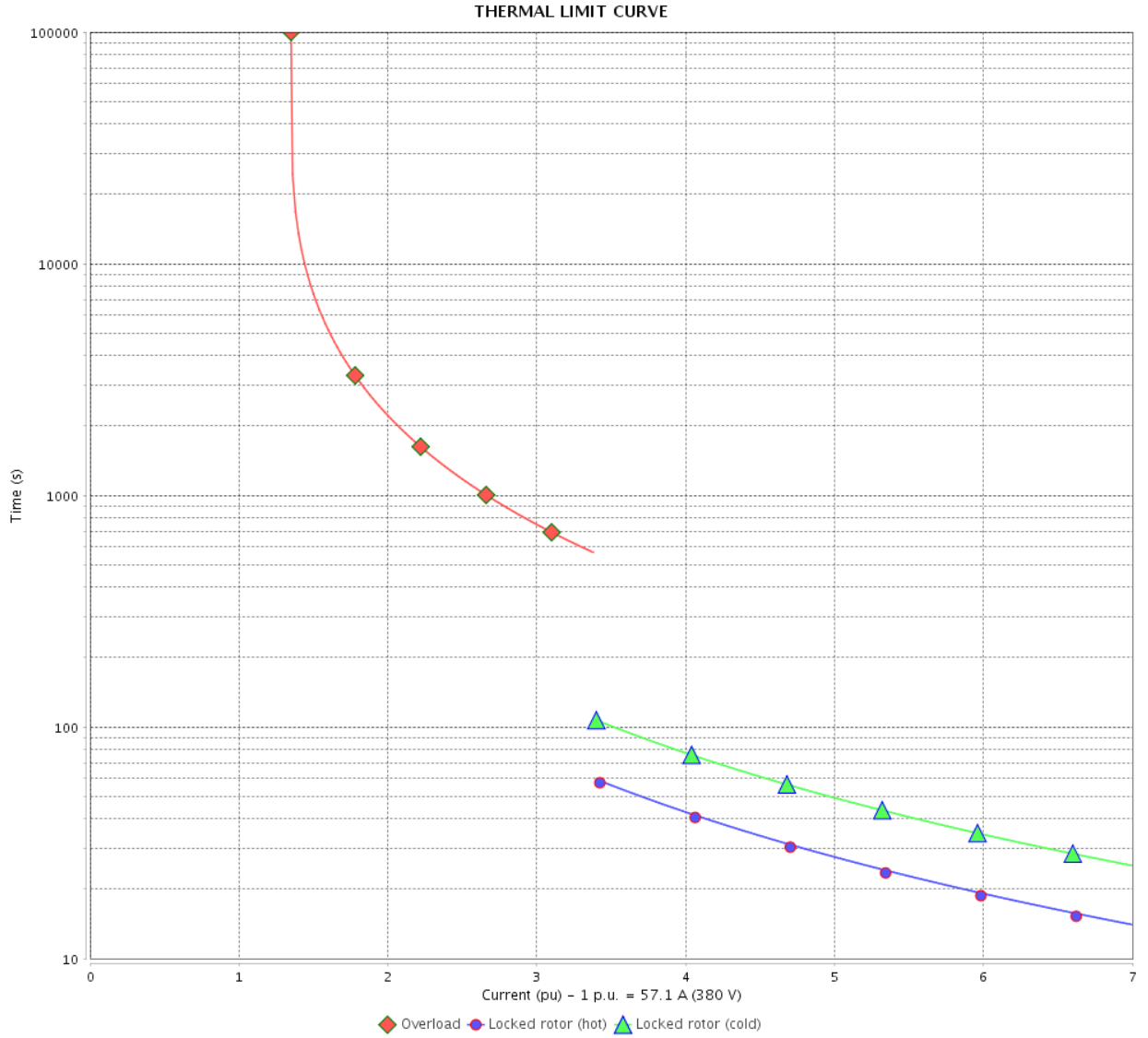
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LRC : 7.2	Duty cycle : Cont.(S1)
Rated torque : 213 ft.lb	Insulation class : F
Locked rotor torque : 229 %	Service factor : 1.00
Breakdown torque : 270 %	Temperature rise : 80 K
Rated speed : 985 rpm	Design : B

Heating constant

Cooling constant

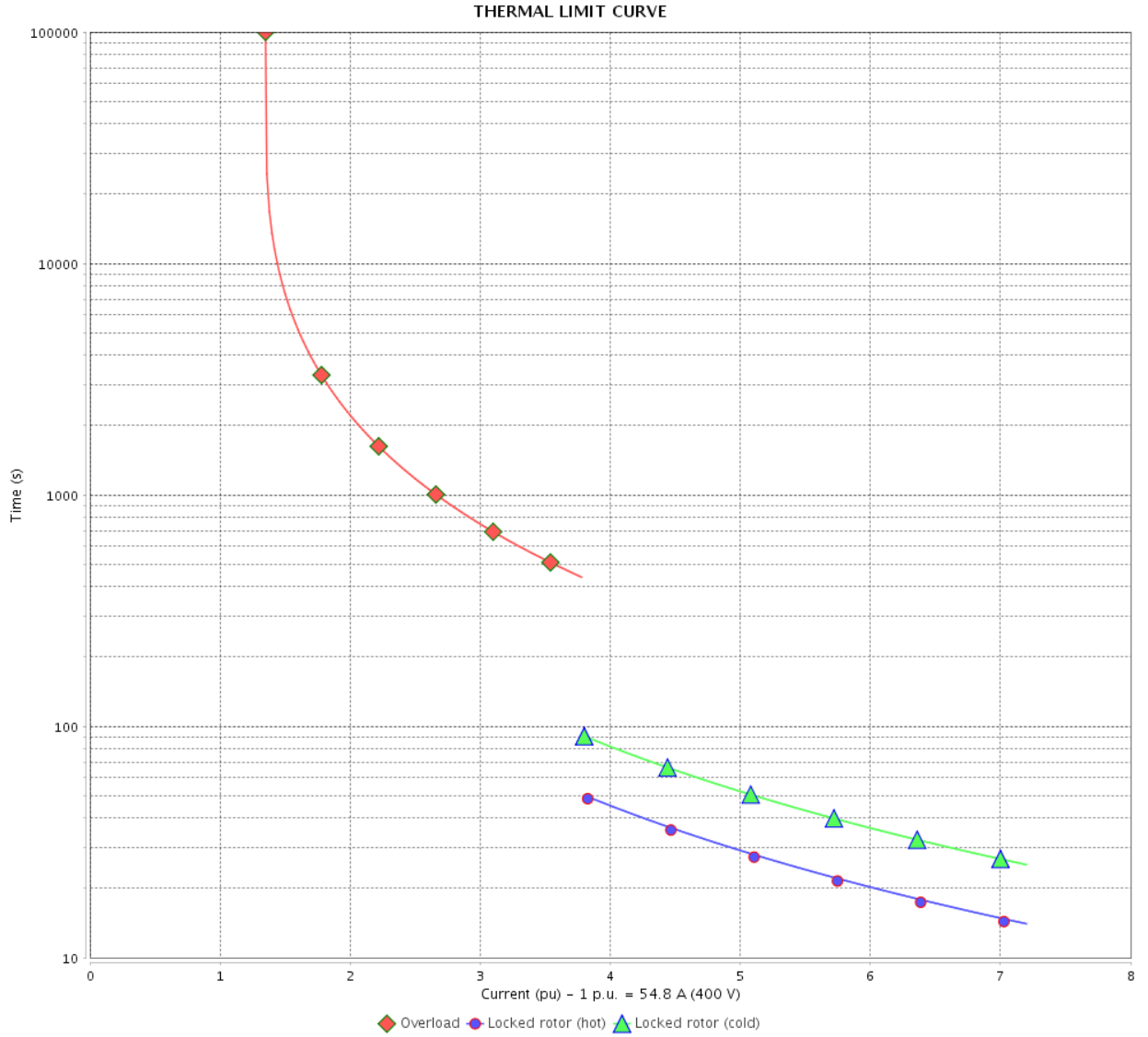
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Performance : 415 V 50 Hz 6P IE3

Rated current : 53.5 A
LRC : 7.7
Rated torque : 213 ft.lb
Locked rotor torque : 250 %
Breakdown torque : 290 %
Rated speed : 985 rpm

Moment of inertia (J) : 23.9 sq.ft.lb
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Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

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Cooling constant

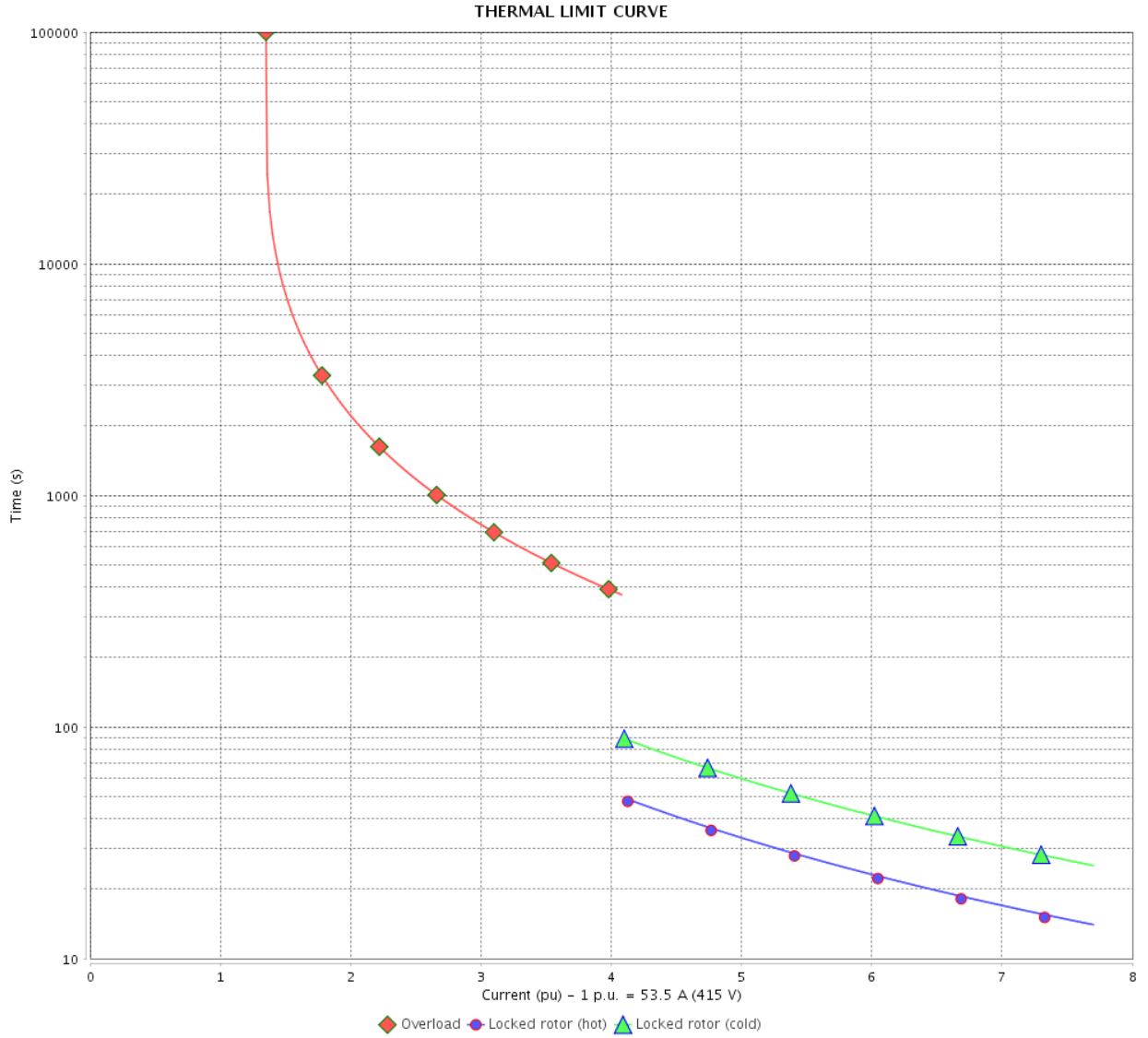
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



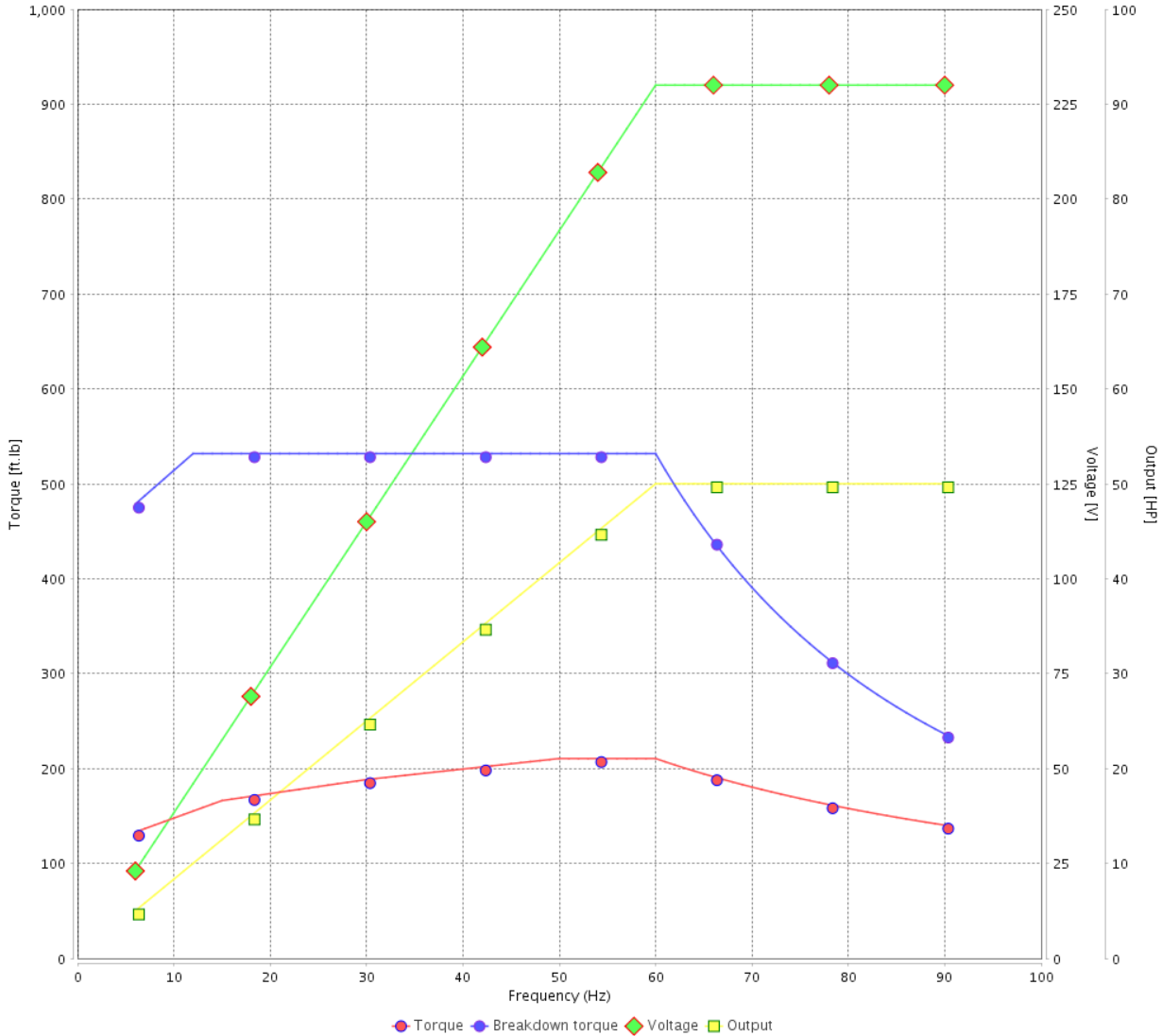
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VFD OPERATION CURVE



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 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 1185 rpm

Moment of inertia (J) : 23.9 sq.ft.lb
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 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

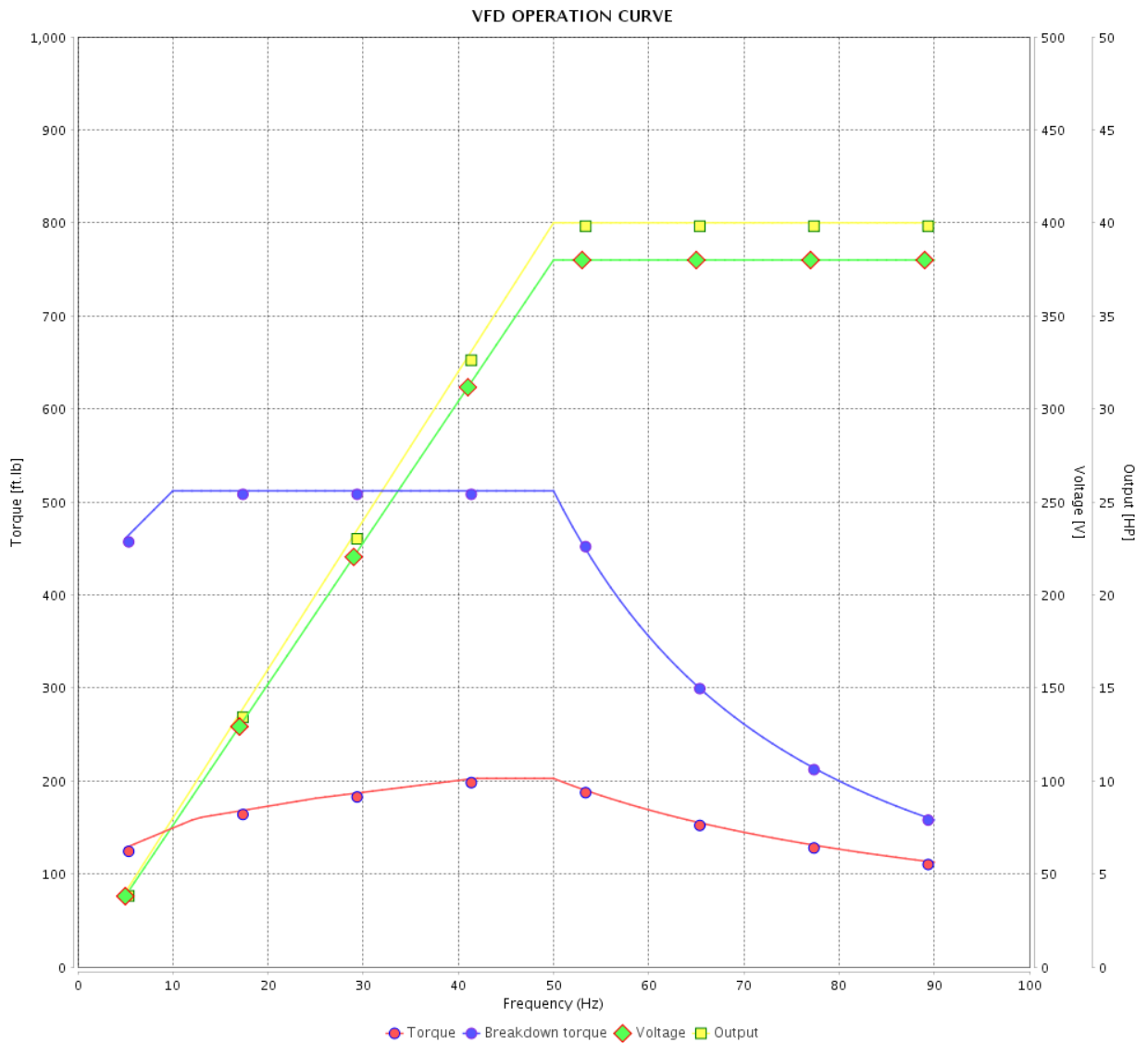


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Performance : 380 V 50 Hz 6P IE3

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 Rated speed : 985 rpm

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 Insulation class : F
 Service factor : 1.00
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



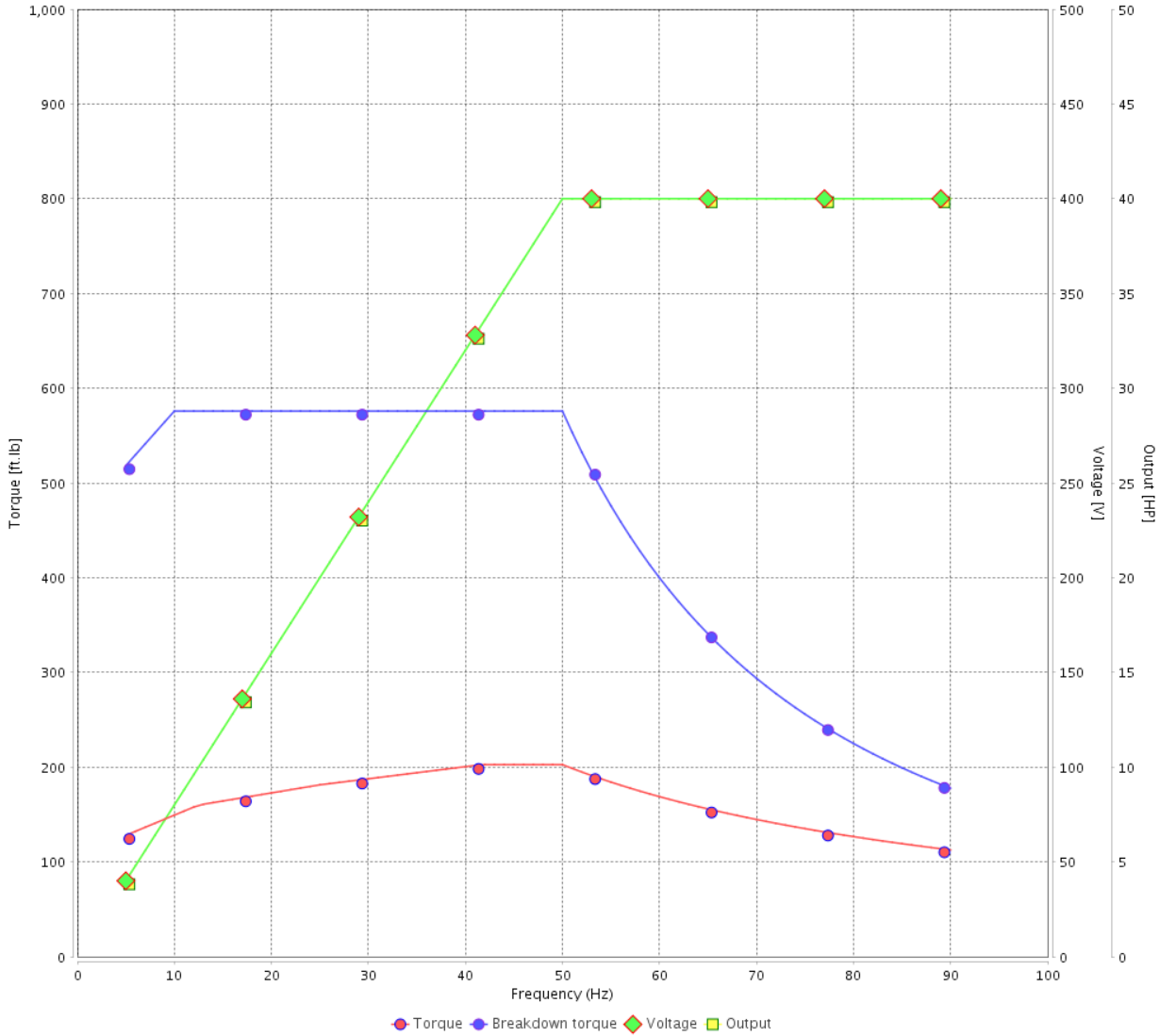
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VFD OPERATION CURVE

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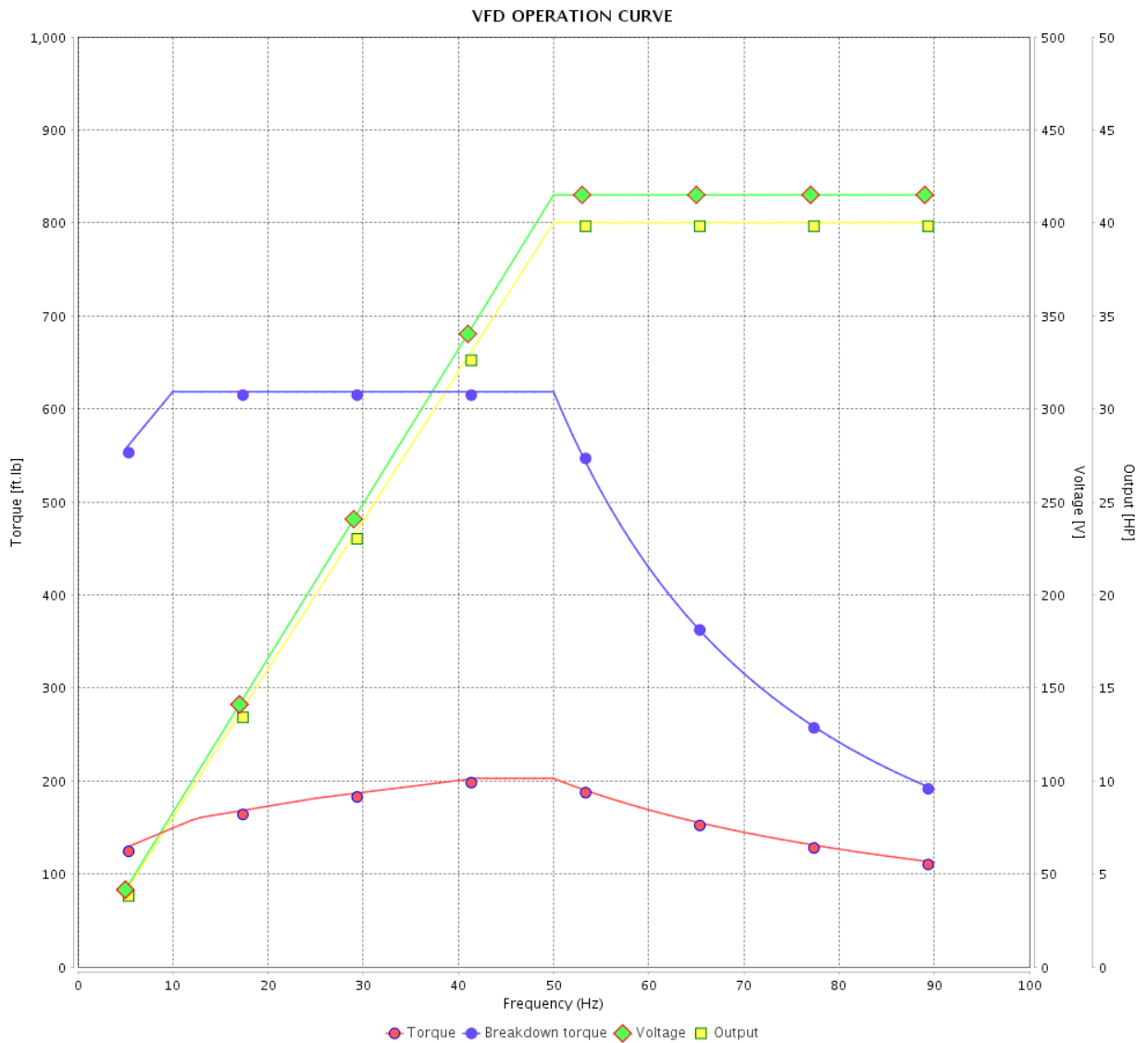


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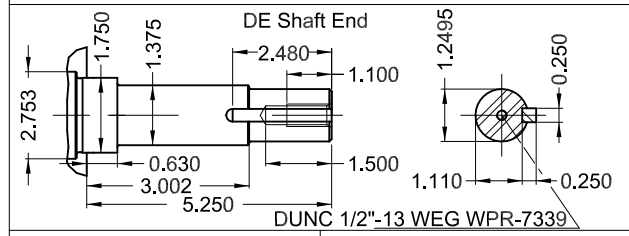
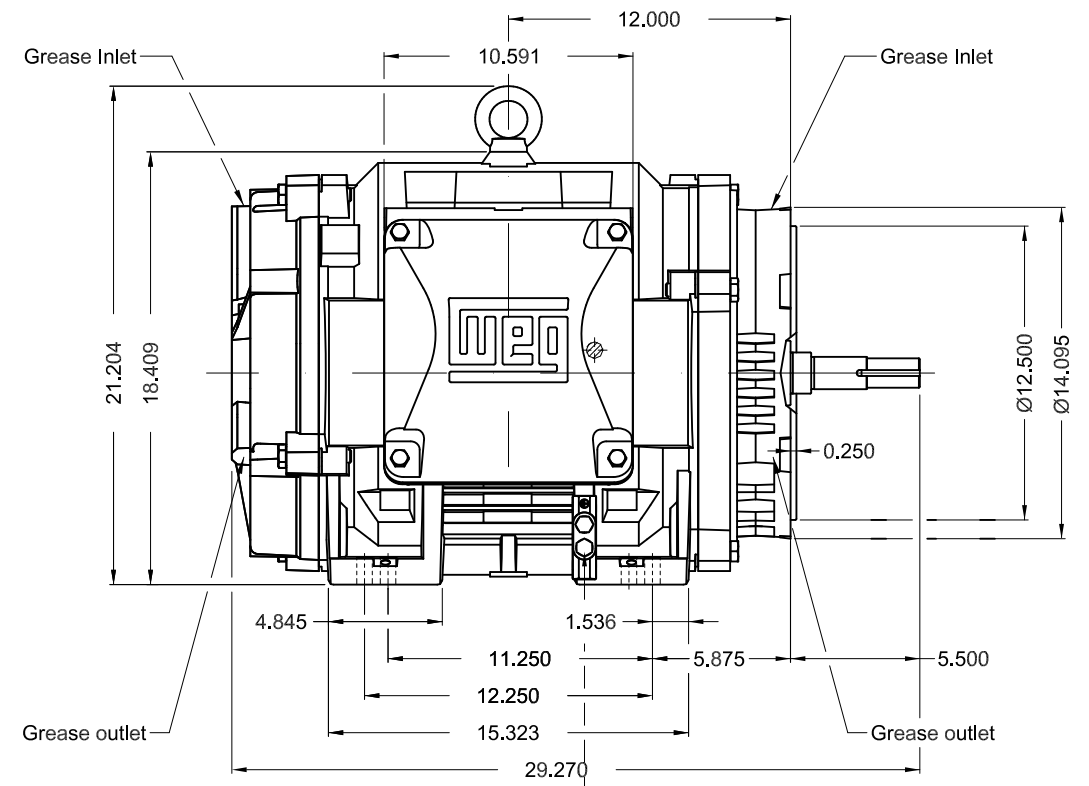
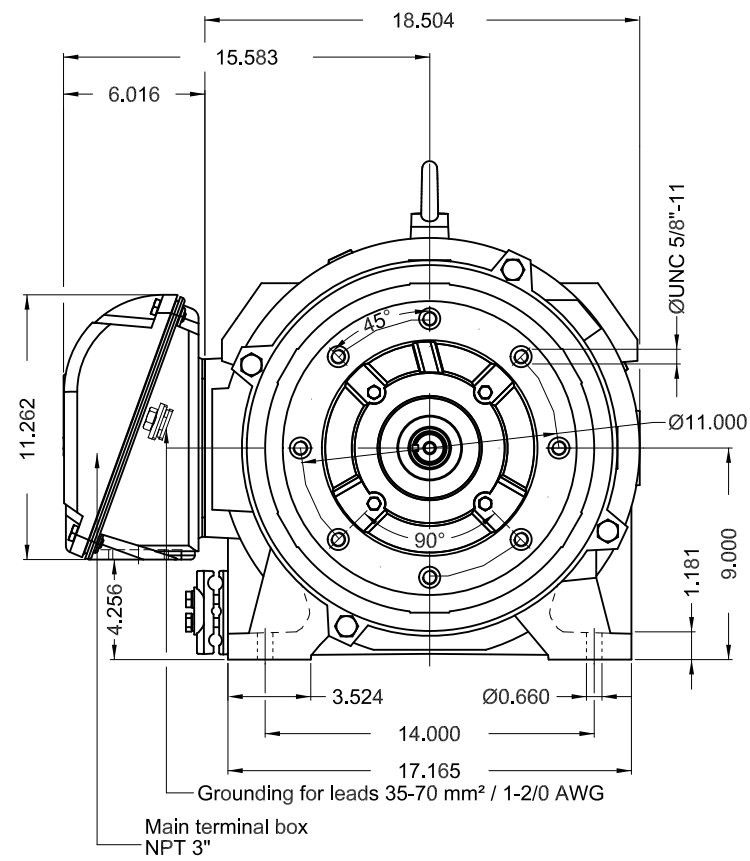


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50 HP 06 Poles 60 Hz A

1:8

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JM TYPE PREM-EST.					
CHECKED		FRAME 364/5JM IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

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

PREVIEW

WDD

