

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: W40 JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14484572		
		Catalog # :	02512OT3E324JM-W40		
Frame	: 324JM	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	: 466 lb		
Protection degree	: IP23	Moment of inertia (J)	: 7.69 sq.ft.lb		
Design	: B				
Output [HP]	25	20	20	20	
Poles	6	6	6	6	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	61.6/30.8	30.5	30.1	29.7	
L. R. Amperes [A]	382/191	201	205	205	
LRC [A]	6.2x(Code G)	6.6x(Code H)	6.8x(Code H)	6.9x(Code J)	
No load current [A]	28.4/14.2	14.0	15.5	16.7	
Rated speed [RPM]	1183	980	985	985	
Slip [%]	1.42	2.00	1.50	1.50	
Rated torque [ft.lb]	111	107	107	107	
Locked rotor torque [%]	210	170	229	210	
Breakdown torque [%]	250	250	290	310	
Service factor	1.25	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	32s (cold) 18s (hot)	23s (cold) 13s (hot)	25s (cold) 14s (hot)	25s (cold) 14s (hot)	
Noise level ²	62.0 dB(A)				
Efficiency (%)	25%	91.0	90.6	90.9	90.1
	50%	91.7	90.8	91.0	90.3
	75%	92.4	91.2	91.2	91.2
	100%	93.0	91.2	91.2	91.2
Power Factor	25%	0.39	0.39	0.35	0.32
	50%	0.65	0.65	0.60	0.56
	75%	0.76	0.76	0.73	0.70
	100%	0.81	0.82	0.79	0.77
Bearing type	: <u>Drive end</u> 6312 Z C3 <u>Non drive end</u> 6211 Z C3	Foundation loads			
Sealing	: Without Without	Max. traction			
	: Bearing Seal Bearing Seal	Max. compression			
Lubrication interval	: 20000 h 20000 h				
Lubricant amount	: 21 g 11 g				
Lubricant type	: Mobil Polyrex EM				
Notes					
USABLE @208V 68.1A SF 1.15 SFA 78.3A					
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



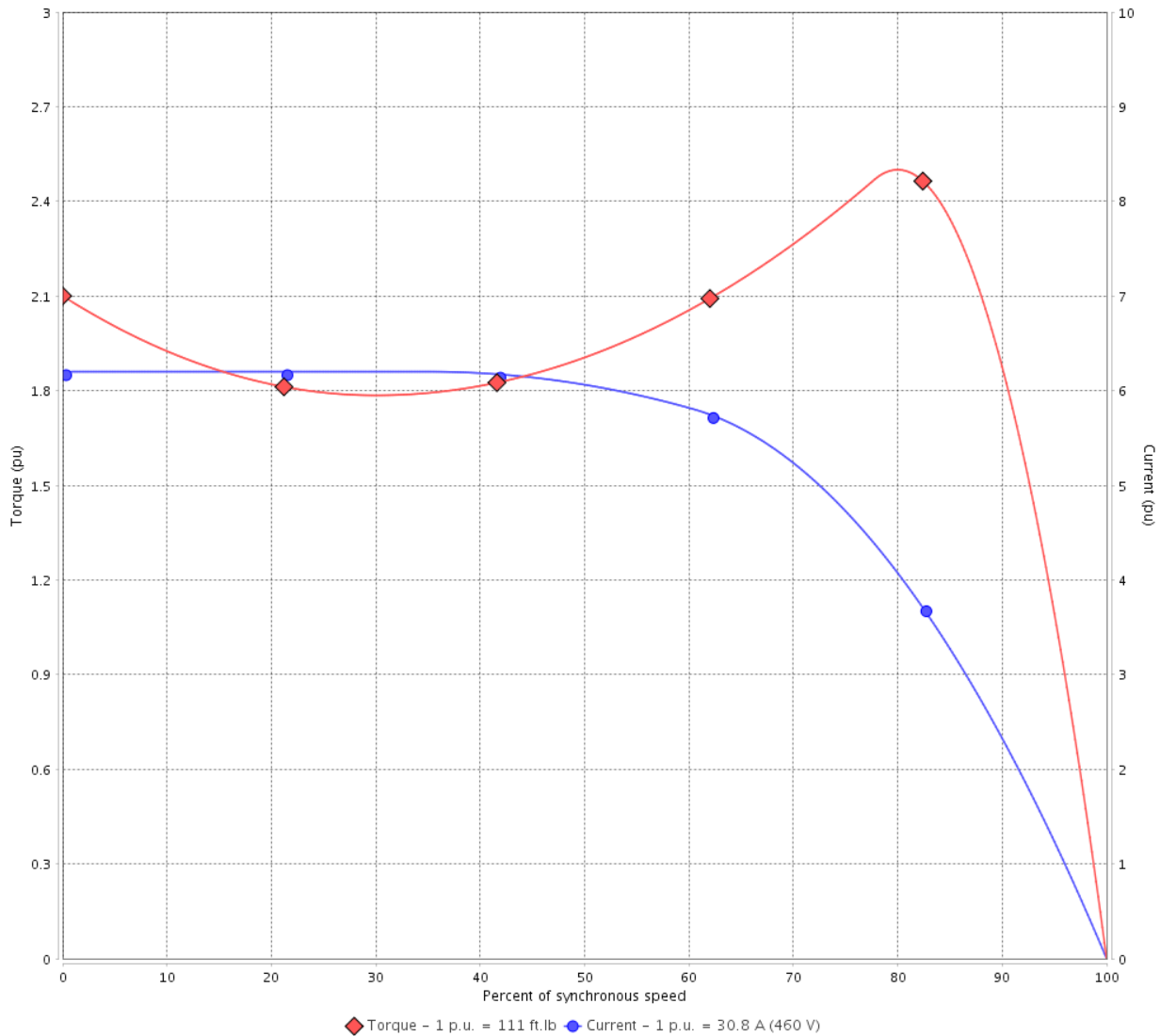
Customer :

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

Product code : 14484572

Catalog # : 025120T3E324JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 61.6/30.8 A	Moment of inertia (J)	: 7.69 sq.ft.lb
LRC	: 6.2	Duty cycle	: Cont.(S1)
Rated torque	: 111 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.25
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1183 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



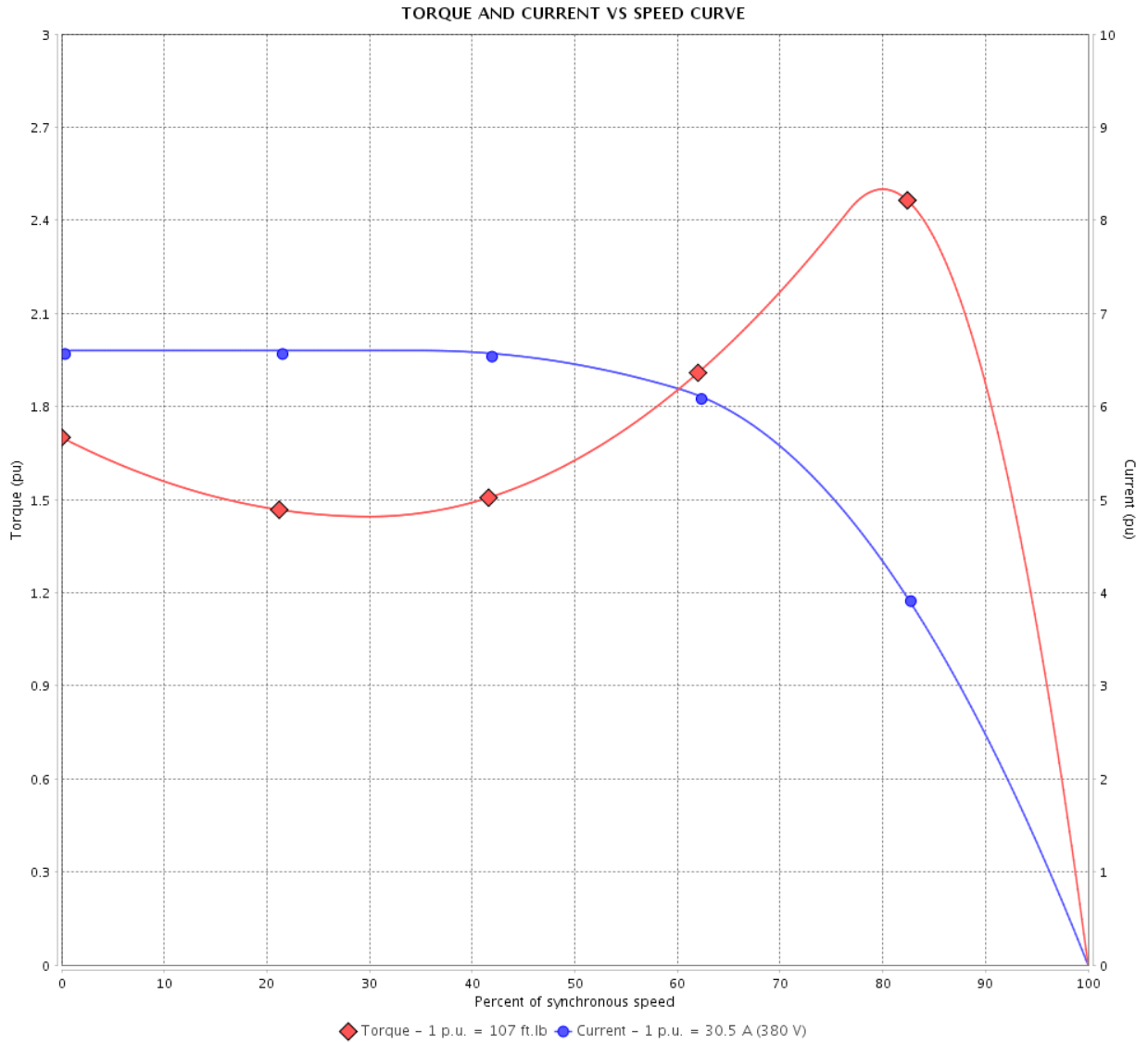
Three Phase Induction Motor - Squirrel Cage

Customer :

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

Product code : 14484572

Catalog # : 02512OT3E324JM-W40



Performance : 380 V 50 Hz 6P IE3

Rated current	: 30.5 A	Moment of inertia (J)	: 7.69 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 980 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



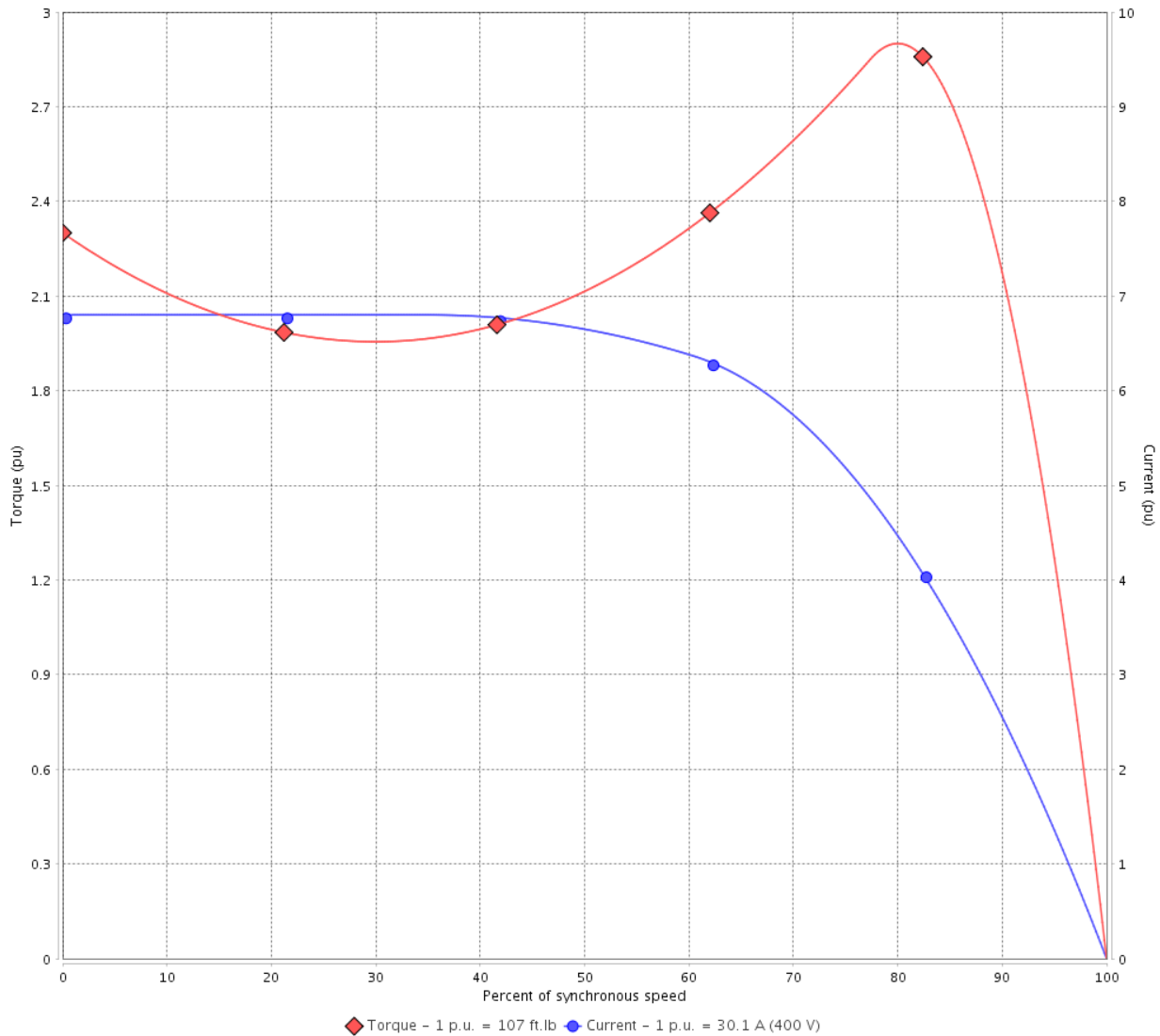
Customer :

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

Product code : 14484572

Catalog # : 025120T3E324JM-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 6P IE3

Rated current	: 30.1 A	Moment of inertia (J)	: 7.69 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	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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TORQUE AND CURRENT VS SPEED CURVE



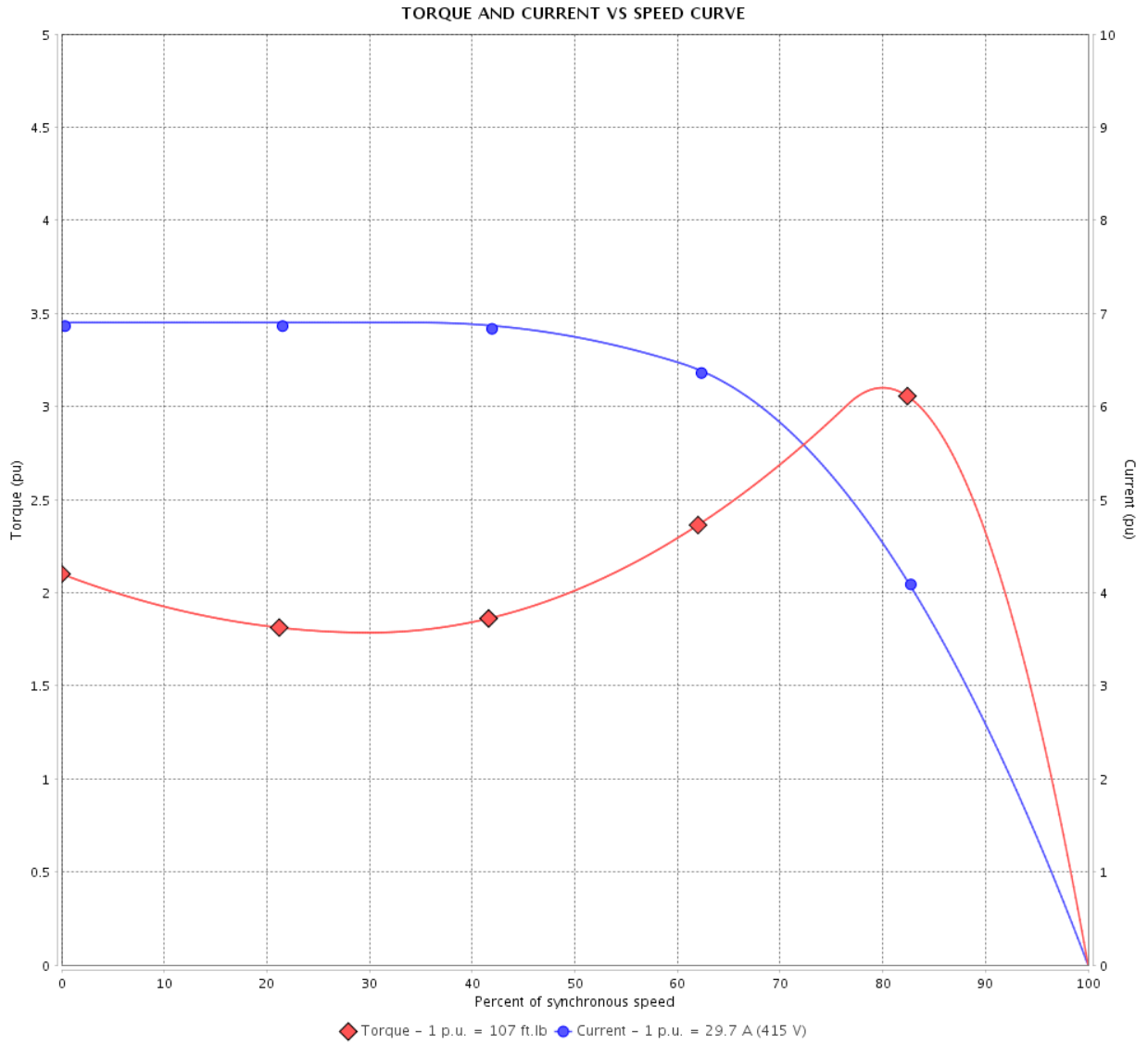
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LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 107 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 985 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



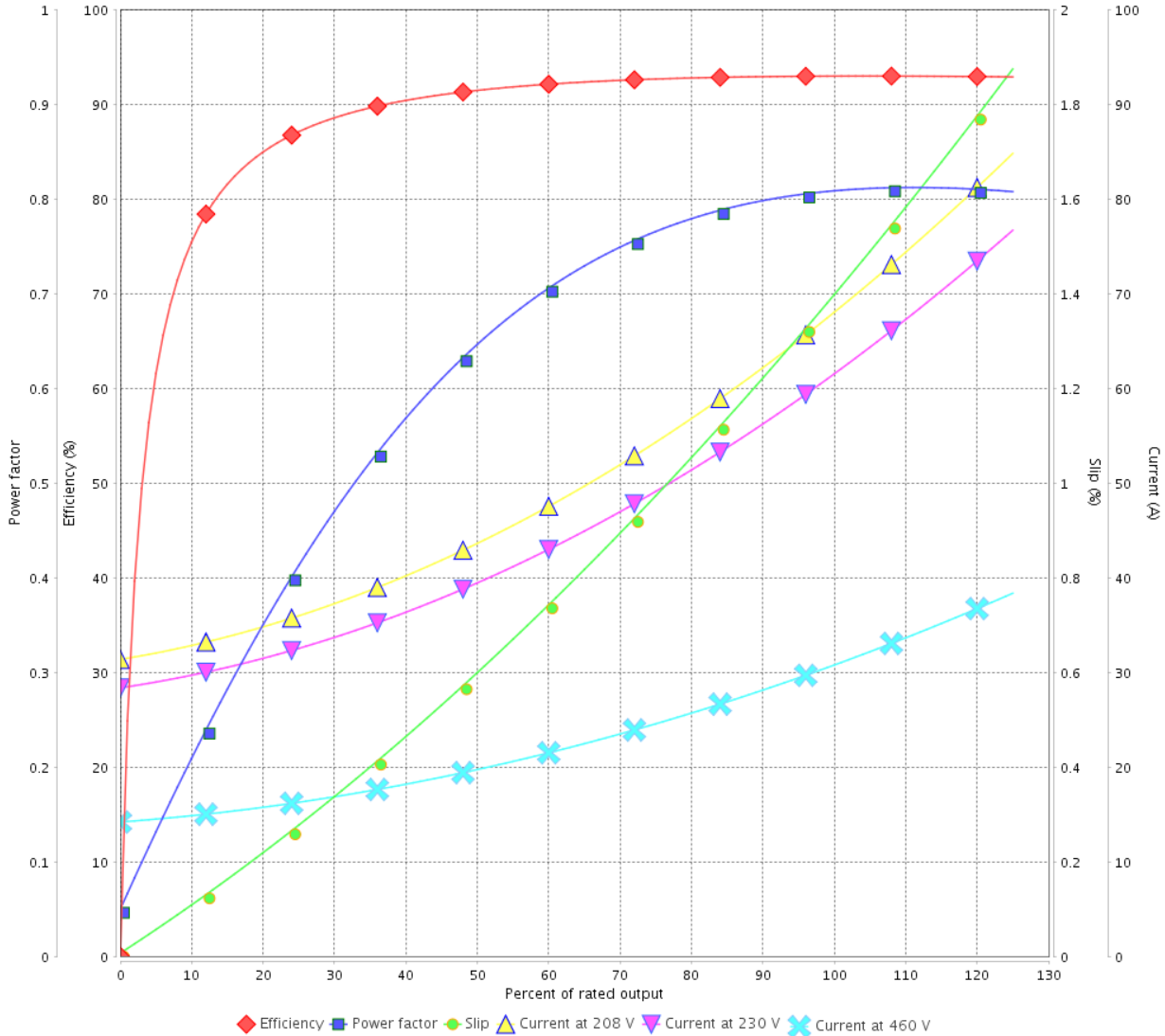
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Product code : 14484572

Catalog # : 025120T3E324JM-W40

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 61.6/30.8 A
 LRC : 6.2
 Rated torque : 111 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 250 %
 Rated speed : 1183 rpm

Moment of inertia (J) : 7.69 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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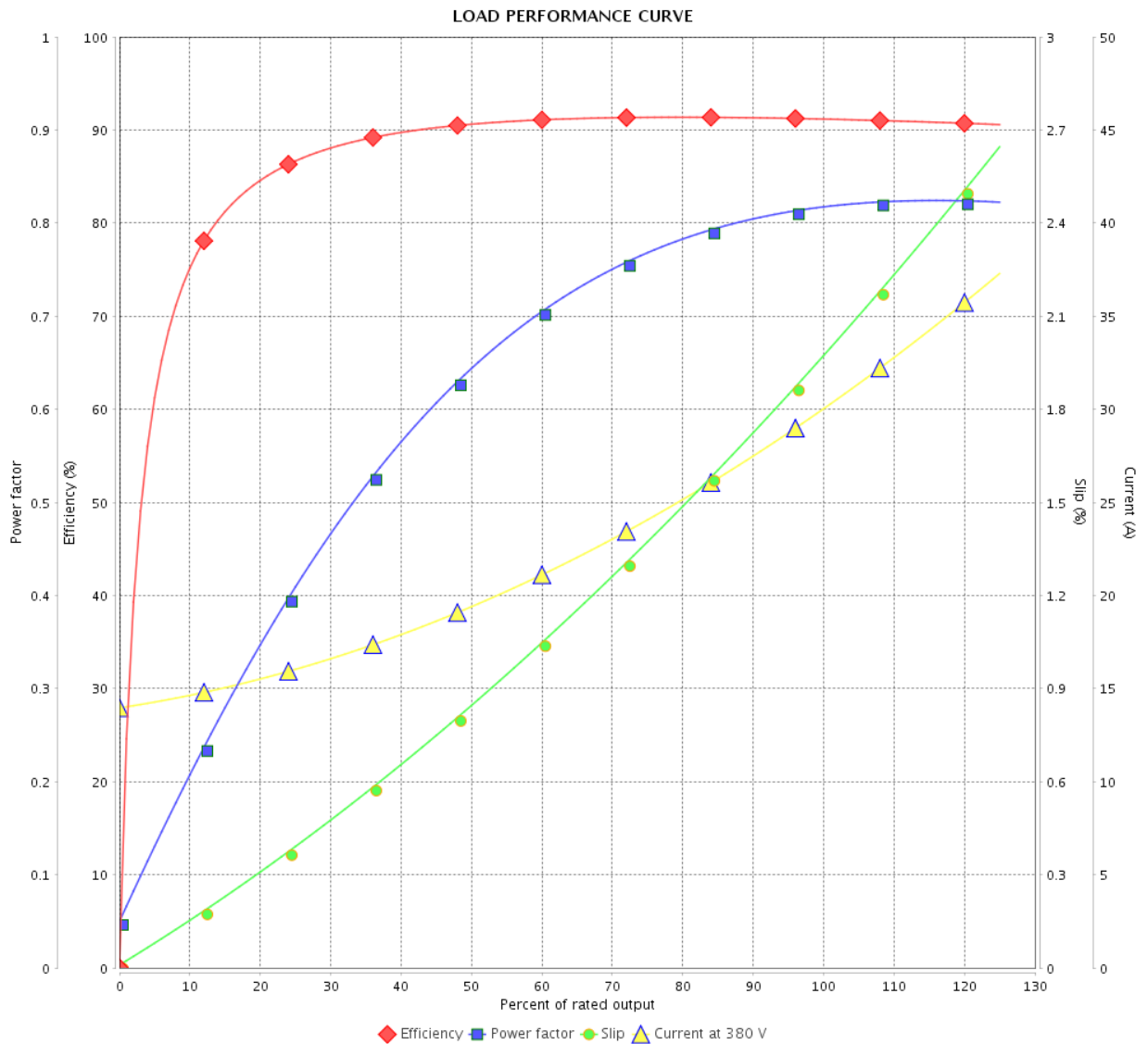


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Catalog # : 02512OT3E324JM-W40



Performance : 380 V 50 Hz 6P IE3

Rated current : 30.5 A
 LRC : 6.6
 Rated torque : 107 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 250 %
 Rated speed : 980 rpm

Moment of inertia (J) : 7.69 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



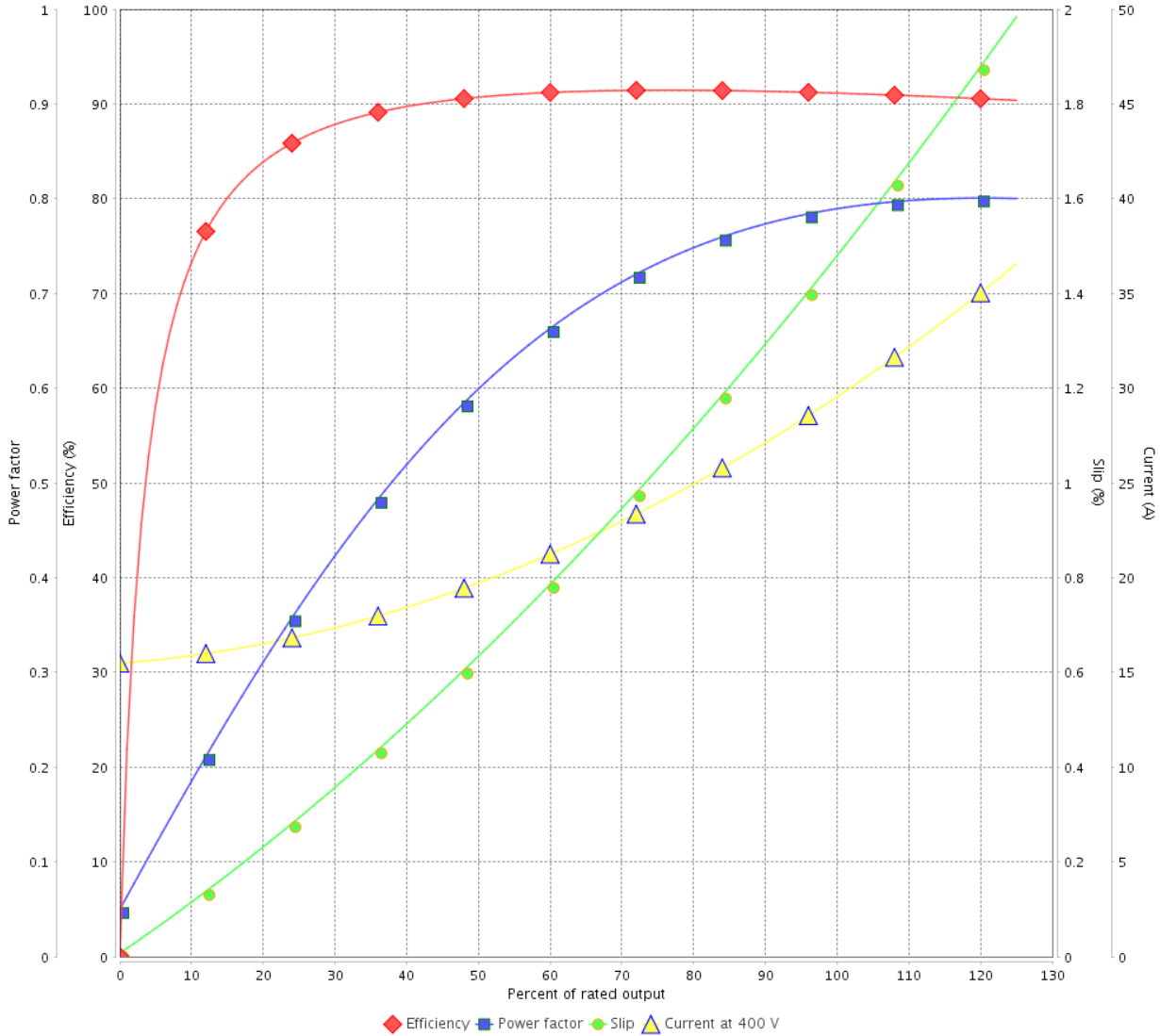
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Performance : 400 V 50 Hz 6P IE3

Rated current : 30.1 A
 LRC : 6.8
 Rated torque : 107 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 Rated speed : 985 rpm

Moment of inertia (J) : 7.69 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

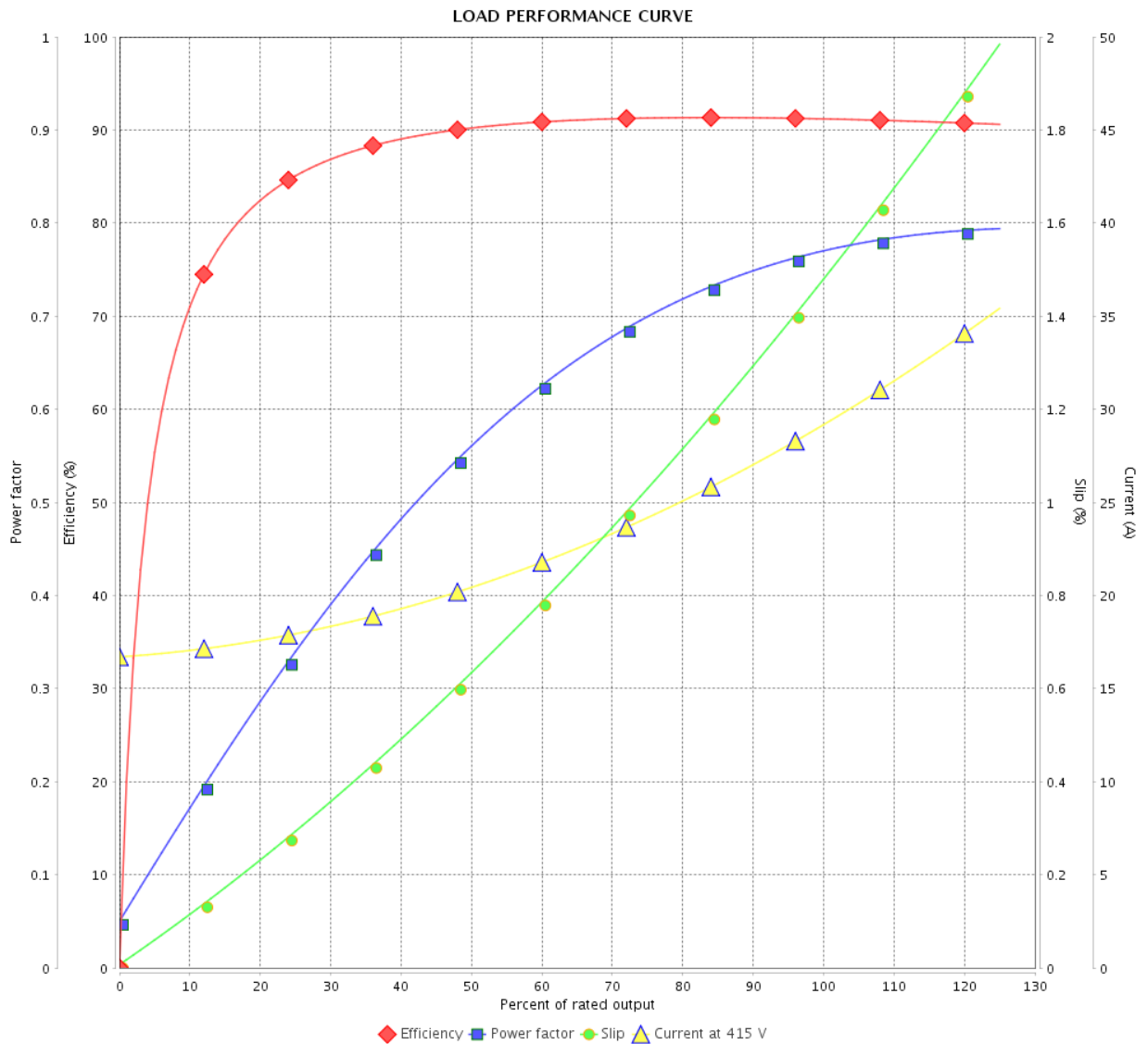


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

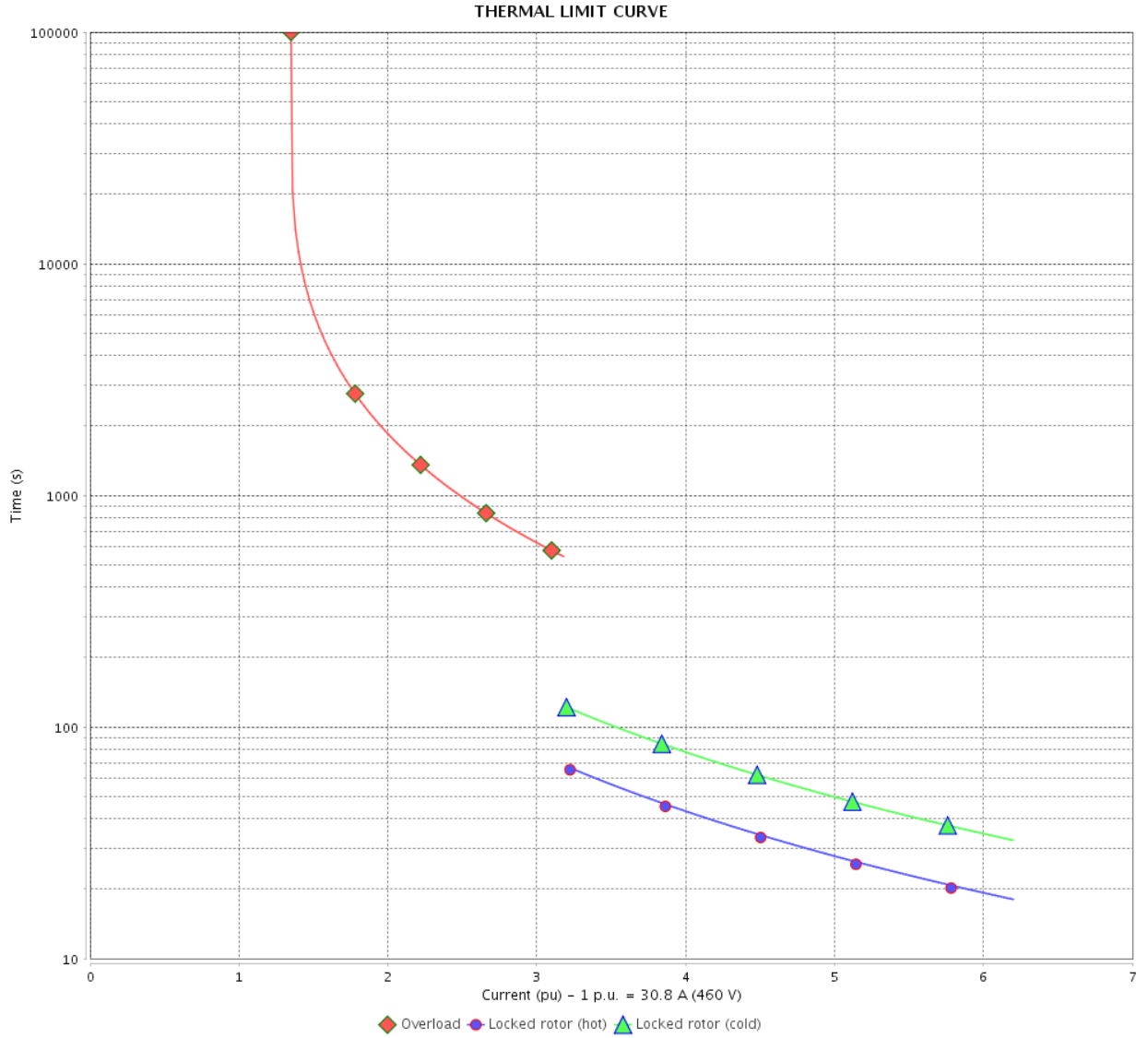
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Rated current : 30.5 A	Moment of inertia (J) : 7.69 sq.ft.lb
LRC : 6.6	Duty cycle : Cont.(S1)
Rated torque : 107 ft.lb	Insulation class : F
Locked rotor torque : 170 %	Service factor : 1.00
Breakdown torque : 250 %	Temperature rise : 80 K
Rated speed : 980 rpm	Design : B

Heating constant

Cooling constant

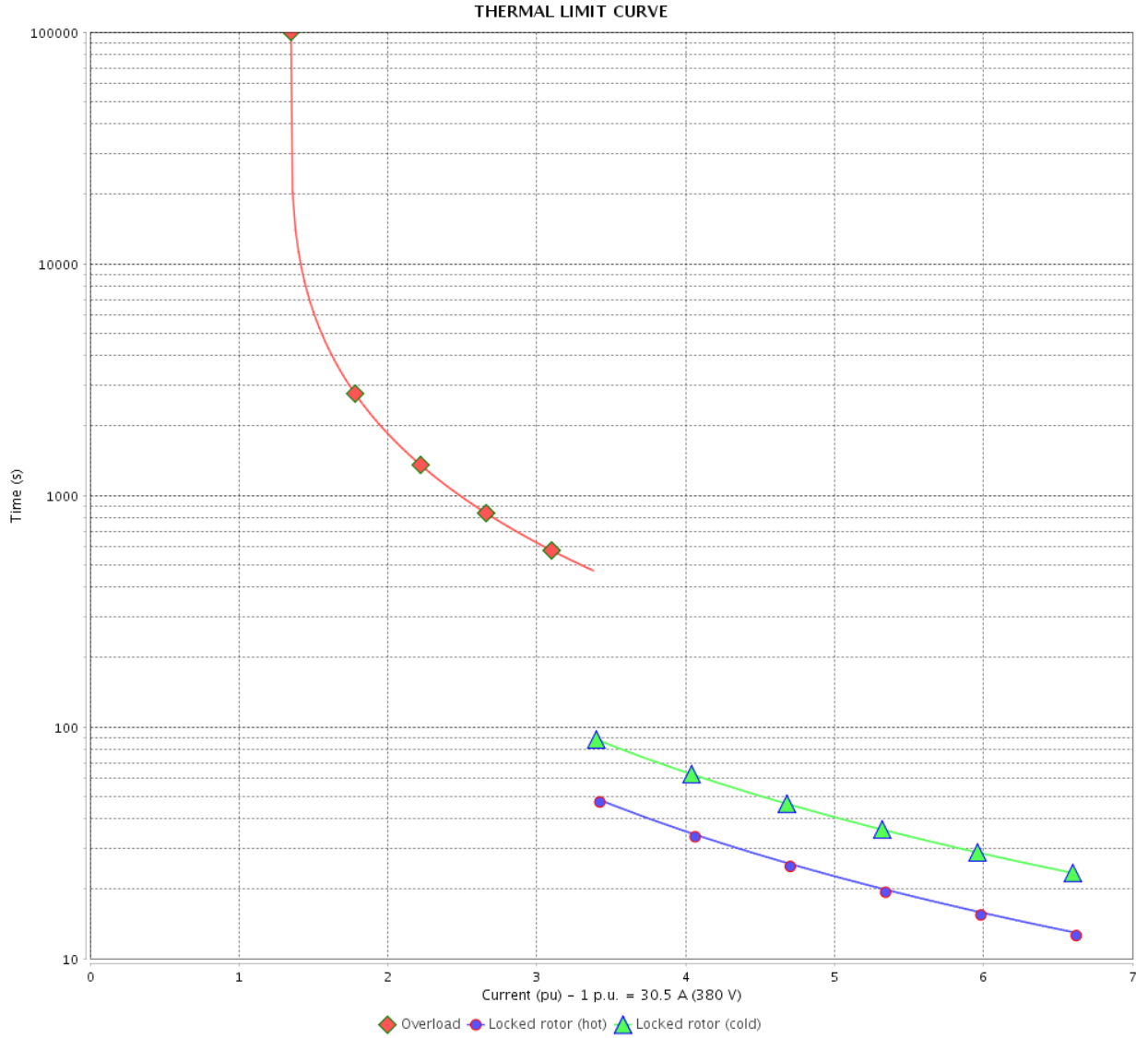
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LRC	: 6.8	Duty cycle	: Cont.(S1)
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Locked rotor torque	: 229 %	Service factor	: 1.00
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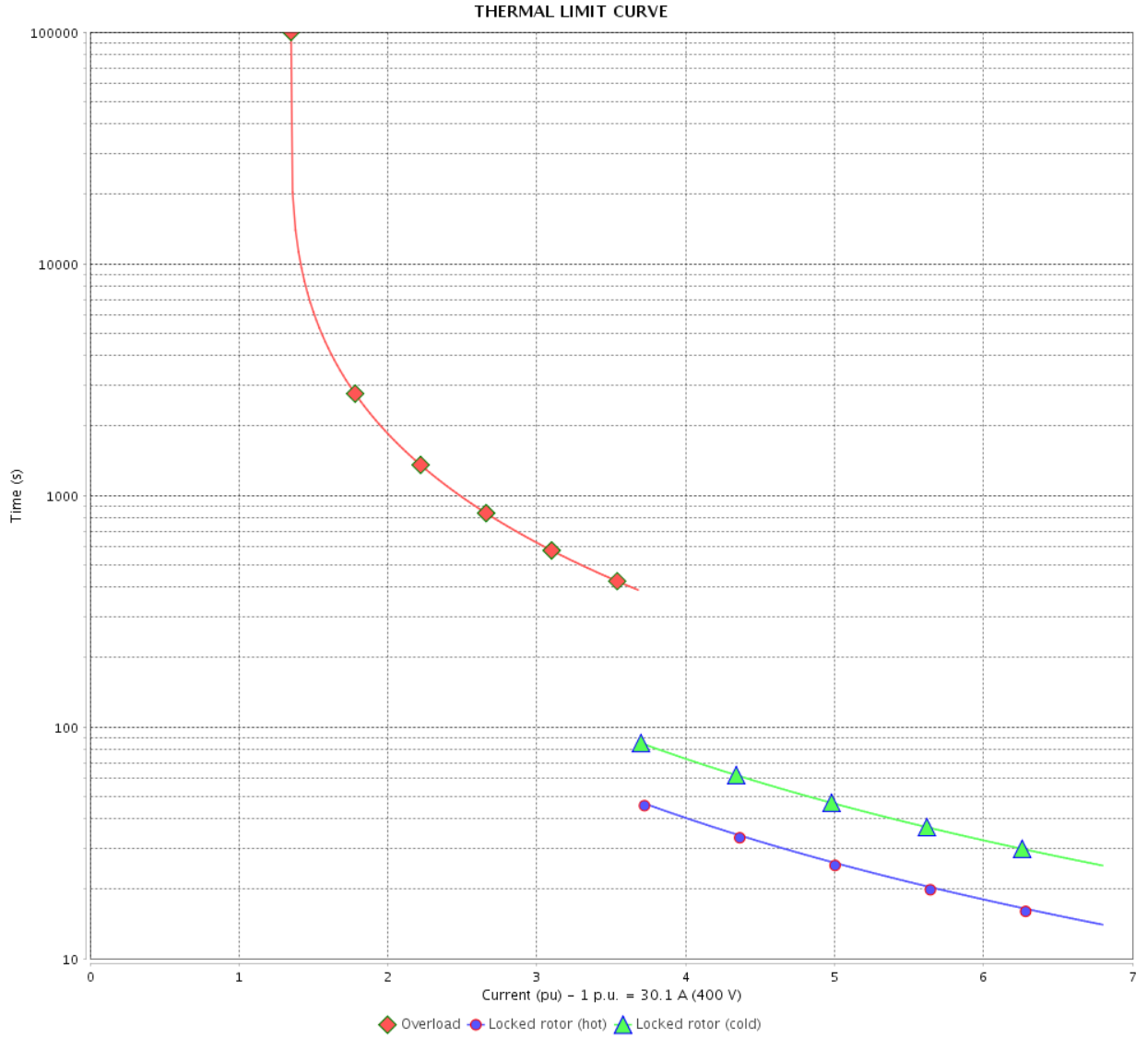
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Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE



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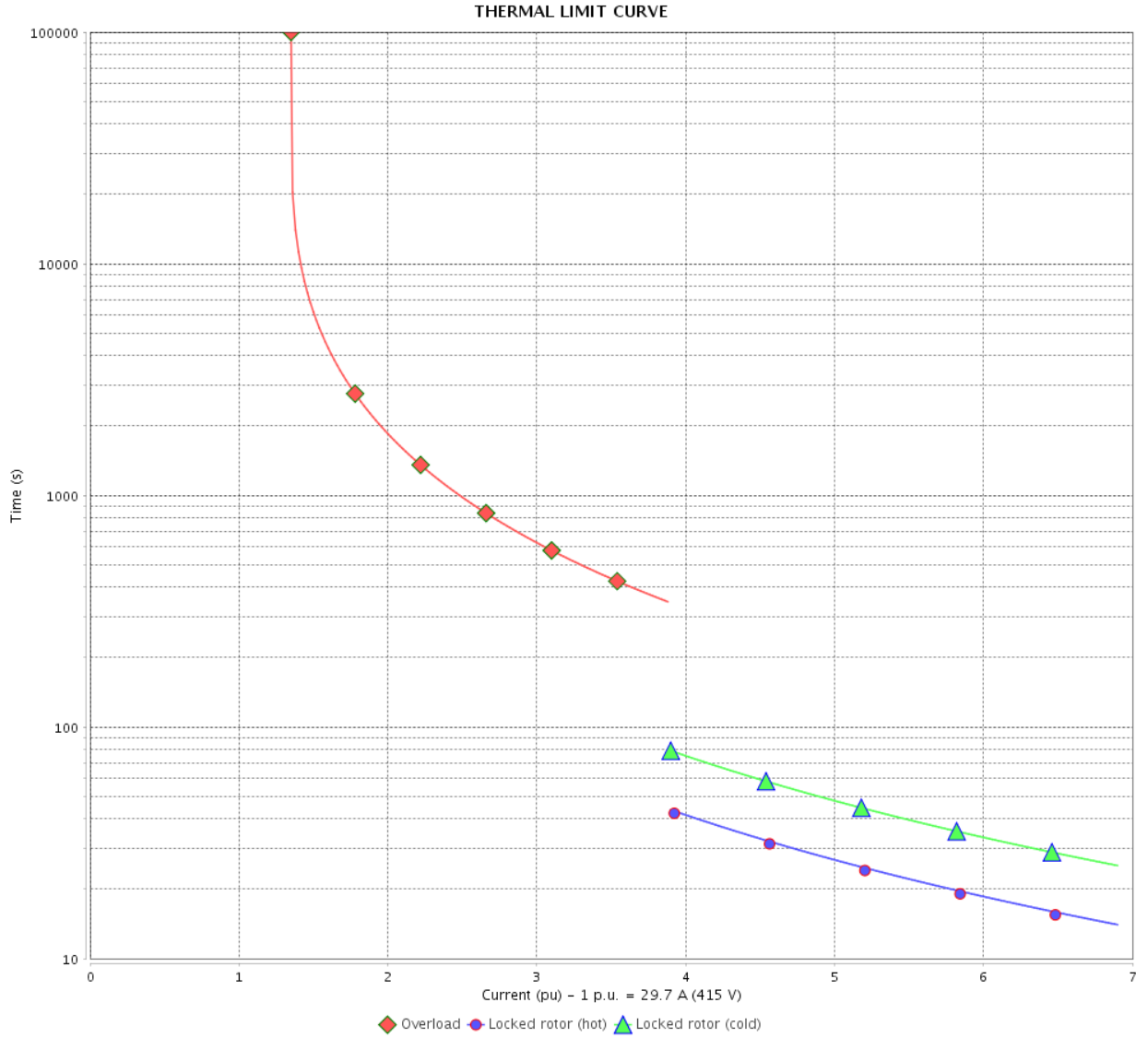
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Performed by				
Checked by			Page	Revision
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Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

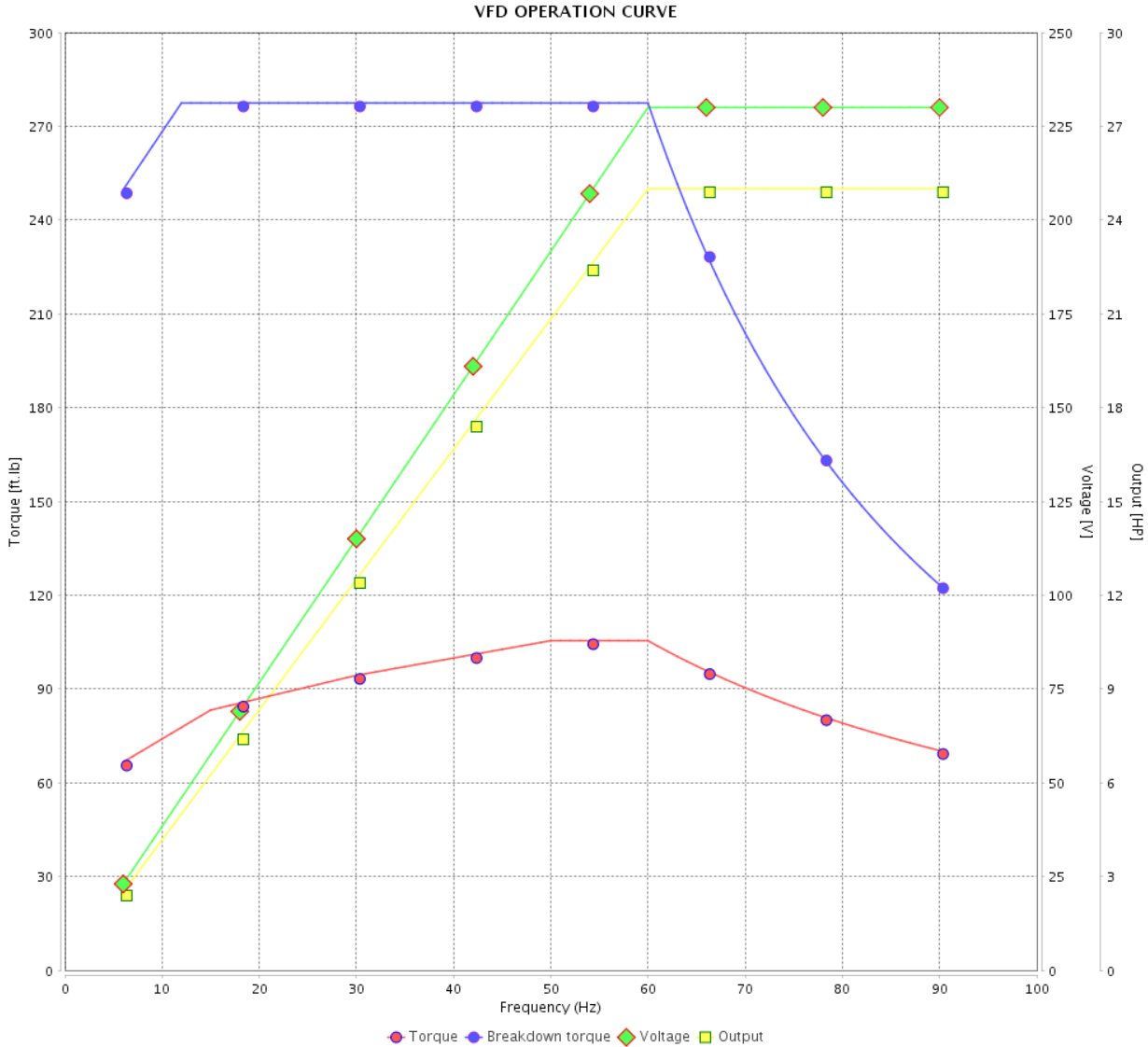


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Performance : 230/460 V 60 Hz 6P

Rated current : 61.6/30.8 A
 LRC : 6.2
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 Locked rotor torque : 210 %
 Breakdown torque : 250 %
 Rated speed : 1183 rpm

Moment of inertia (J) : 7.69 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

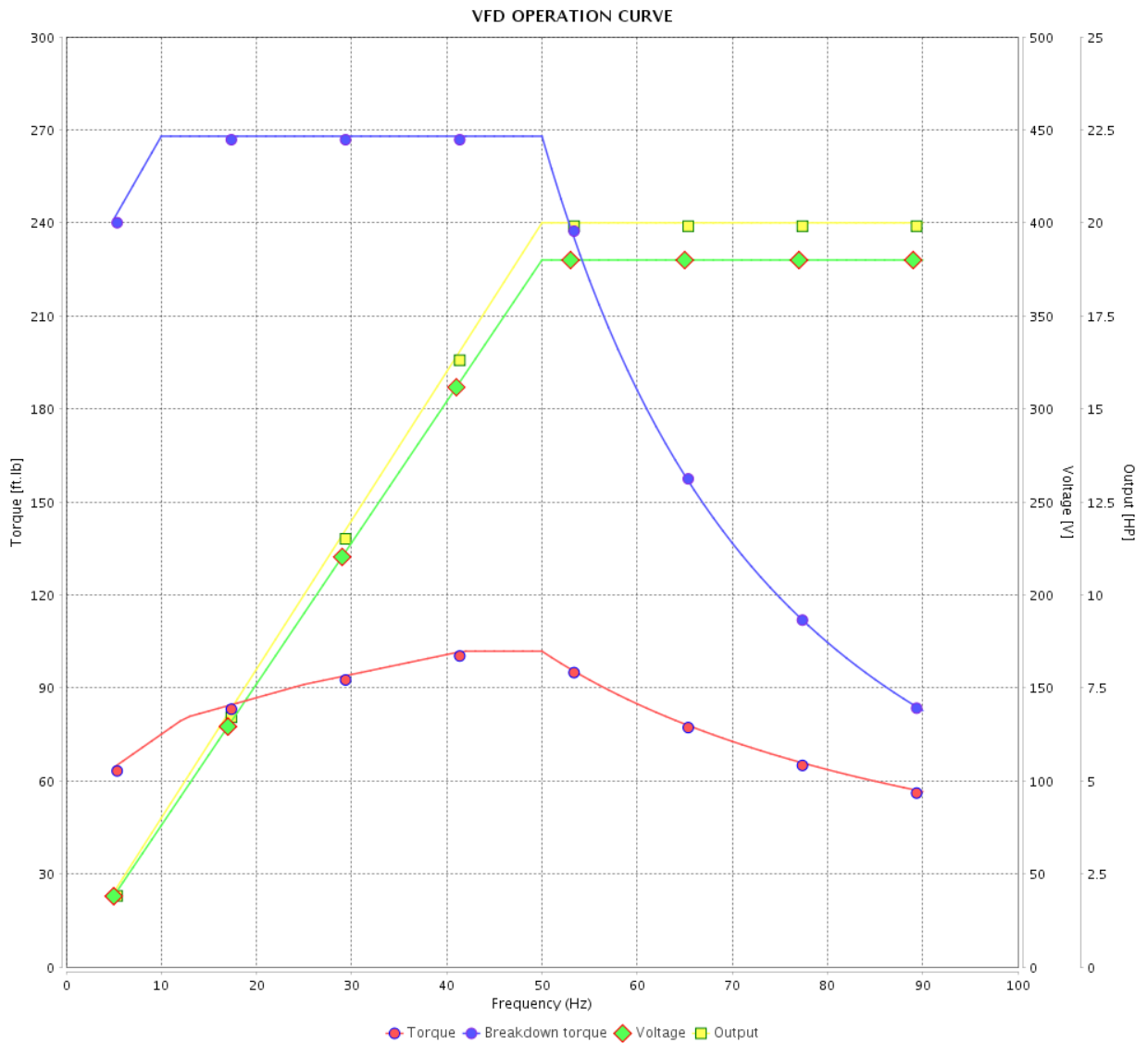


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Moment of inertia (J) : 7.69 sq.ft.lb
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 Insulation class : F
 Service factor : 1.00
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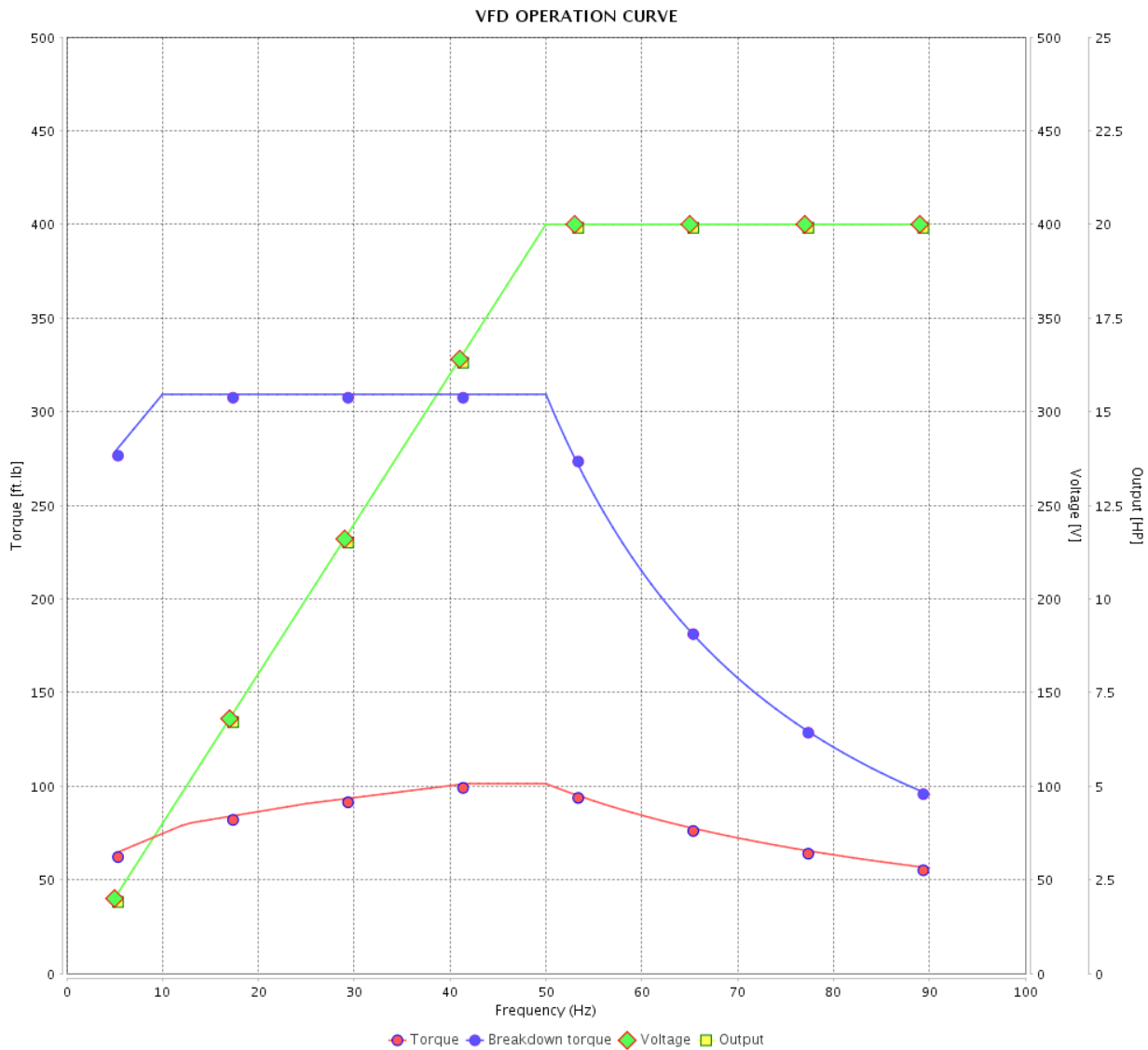


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VFD OPERATION CURVE

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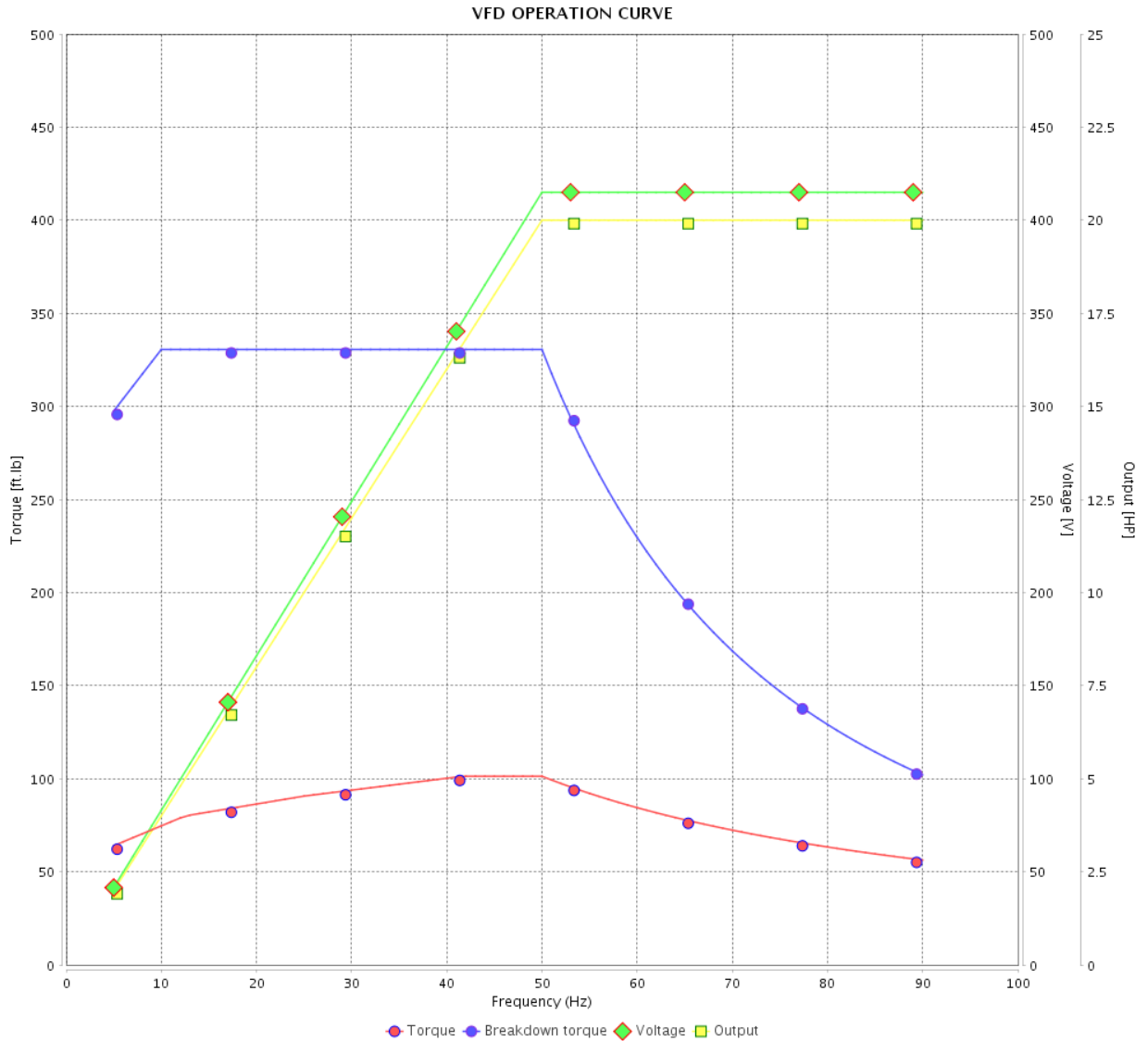


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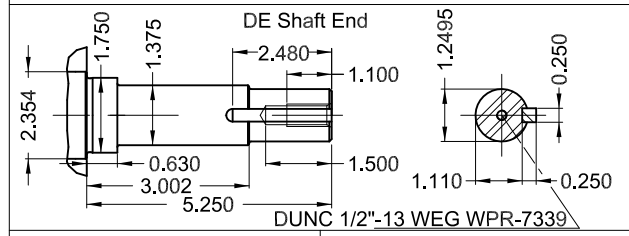
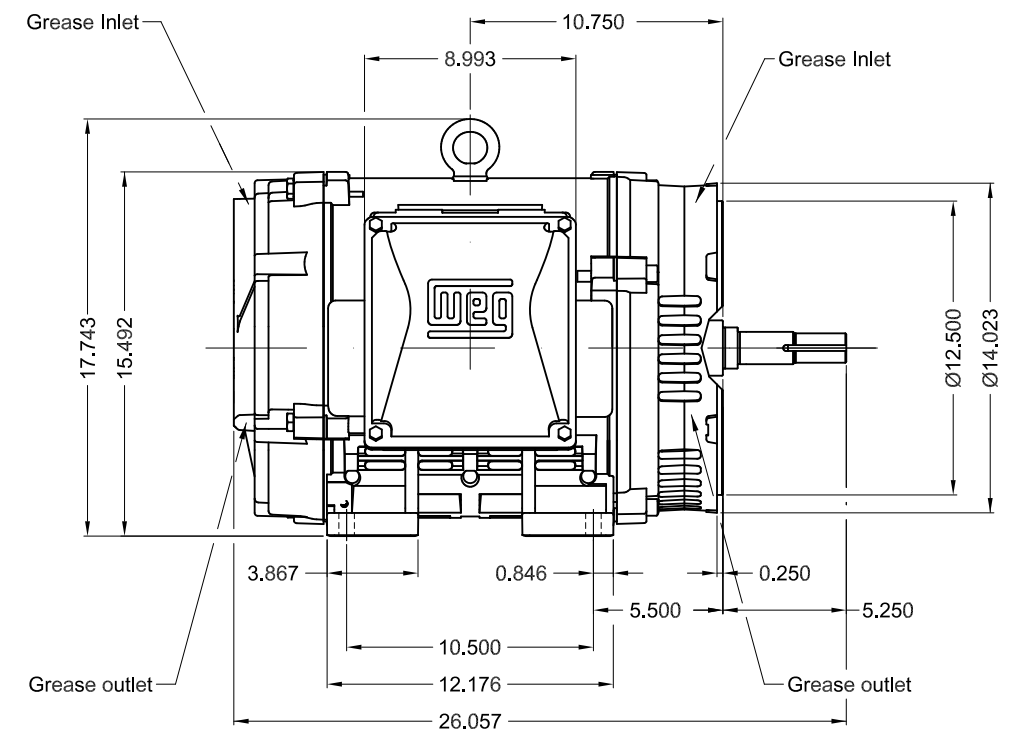
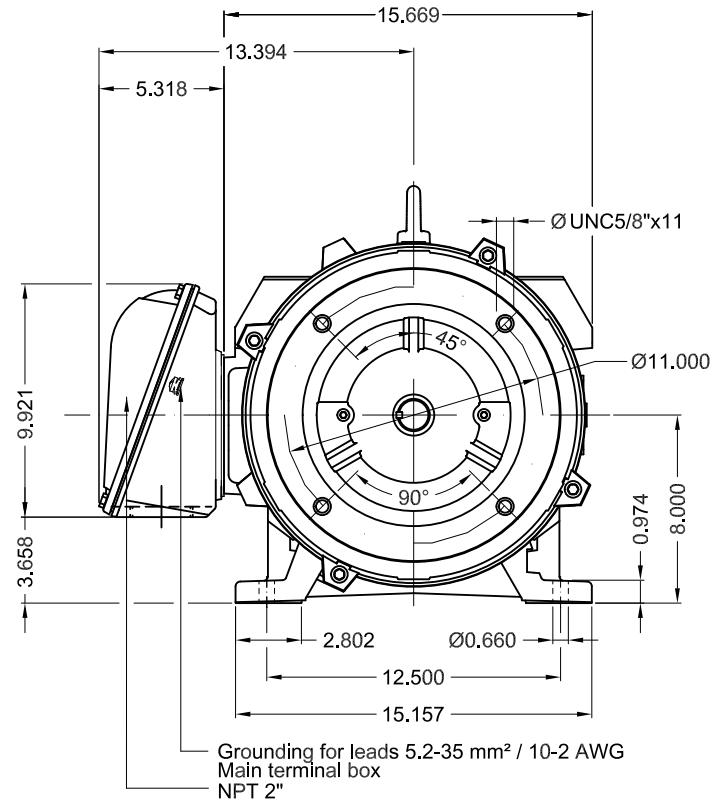


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25 HP 06 Poles 60 Hz A

1:8

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W40 CLOSE COUPLED PUMP JM TYPE PREM-EST.					
CHECKED		FRAME 324JM IP23 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

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

PREVIEW



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



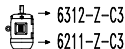
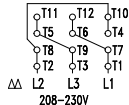
IEC 60034-1
 MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 3:1, 1.0SF

MODEL 025120T3E324JM-W40
 MADE IN BRAZIL
 14484572

PH 3	FR 324JM	HP(kW) 25.0(18.5)	Hz 60
V 230/460	A 61.6/30.8	RPM 1183	DES B
NEMA NOM EFF 93.0 %	INS. CL. F Δ T 80 K	IP23	
ENCL ODP	DUTY CONT.	AMB. 40°C	
CODE G	PF 0.81	SF 1.25	SFA 77.0/38.5
USABLE @208V	68.1 A	SF 1.15	SFA 78.3
20HP 15kW 50Hz 380V 30.5A 980RPM SF1.00 EFF 91.2% (IE3)	ALT 1000 m.a.s.l.		



MOBIL POLYREX EM
 21 g 20000 h

ALT 1000 m.a.s.l. 465 Lbs