

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :								
Product line	: ODP NEMA Premium Efficiency Three-Phase	Product code :	11047054					
		Catalog # :	10018OT3G404T					
Frame	: 404/5T	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	: 989 lb					
Protection degree	: IP23	Moment of inertia (J)	: 22.8 sq.ft.lb					
Design	: B							
Output [HP]	100	75	75	75	100	100	100	
Poles	4	4	4	4	4	4	4	
Frequency [Hz]	60	50	50	50	50	50	50	
Rated voltage [V]	460	380	400	415	380	400	415	
Rated current [A]	113	99.3	96.5	95.2	136	131	127	
L. R. Amperes [A]	757	804	859	904	830	878	927	
LRC [A]	6.7x(Code G)	8.1x(Code H)	8.9x(Code J)	9.5x(Code K)	6.1x(Code F)	6.7x(Code G)	7.3x(Code H)	
No load current [A]	42.0	38.6	42.2	45.8	38.6	42.2	45.8	
Rated speed [RPM]	1780	1480	1480	1485	1475	1475	1480	
Slip [%]	1.11	1.33	1.33	1.00	1.67	1.67	1.33	
Rated torque [ft.lb]	291	263	263	262	351	351	350	
Locked rotor torque [%]	229	270	280	290	200	210	220	
Breakdown torque [%]	270	320	360	400	240	270	300	
Service factor	1.15	1.15	1.15	1.15	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	80 K	80 K	80 K	80 K	
Locked rotor time	18s (cold) 10s (hot)	19s (cold) 11s (hot)	18s (cold) 10s (hot)	16s (cold) 9s (hot)	19s (cold) 11s (hot)	18s (cold) 10s (hot)	16s (cold) 9s (hot)	
Noise level ²	69.0 dB(A)							
Efficiency (%)	25%	94.9	91.4	91.0	90.8	93.7	93.7	93.7
	50%	95.0	92.2	91.9	91.7	93.9	93.9	93.9
	75%	95.4	93.9	93.9	93.9	94.0	94.0	94.0
	100%	95.4	94.6	94.6	94.6	94.1	94.1	94.1
Power Factor	25%	0.49	0.48	0.44	0.40	0.58	0.53	0.49
	50%	0.77	0.75	0.71	0.66	0.84	0.80	0.76
	75%	0.84	0.85	0.83	0.79	0.88	0.87	0.85
	100%	0.87	0.89	0.87	0.85	0.89	0.88	0.87
Bearing type	: Drive end 6316 C3	: Non drive end 6314 C3	Foundation loads					
Sealing	: Without	: Without	Max. traction : 2698 lb					
	Bearing Seal Bearing Seal		Max. compression : 3687 lb					
Lubrication interval	: 20000 h	: 20000 h						
Lubricant amount	: 34 g	: 27 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

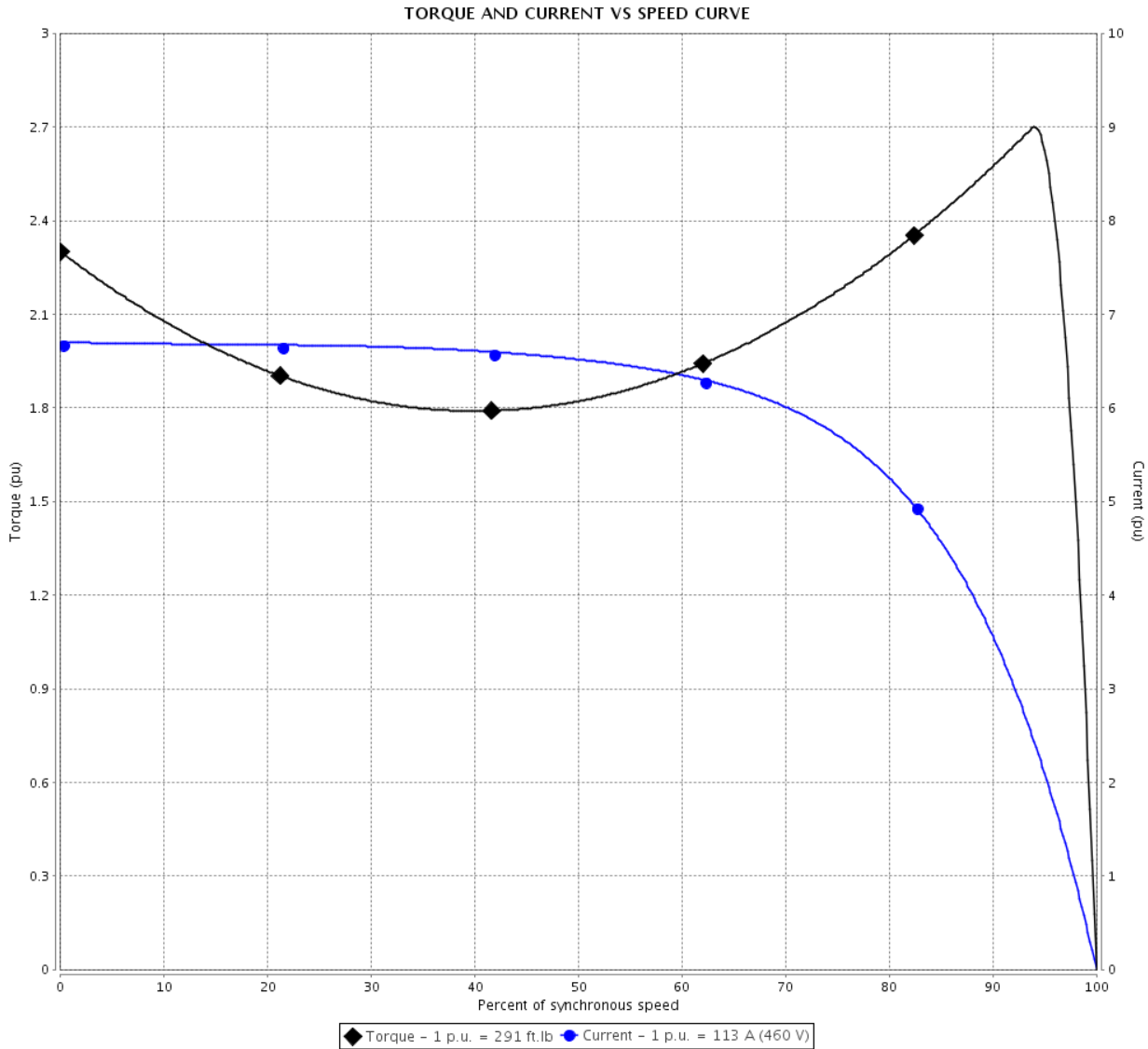


Customer :

Product line : ODP NEMA Premium Efficiency
Three-Phase

Product code : 11047054

Catalog # : 10018OT3G404T



Performance : 460 V 60 Hz 4P

Rated current	: 113 A	Moment of inertia (J)	: 22.8 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 291 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 270 %	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



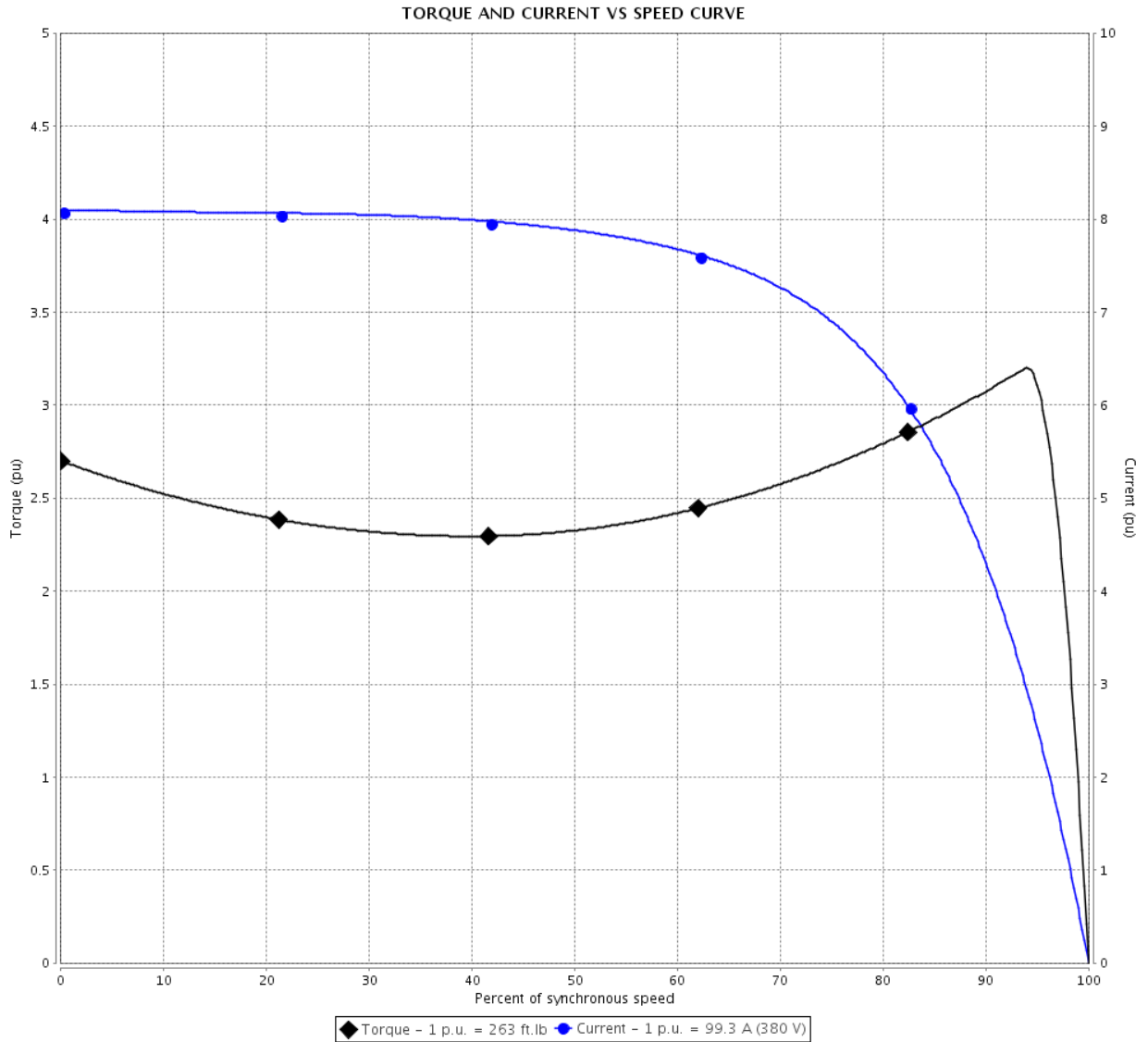
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Customer :

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Performance : 380 V 50 Hz 4P IE3

Rated current	: 99.3 A	Moment of inertia (J)	: 22.8 sq.ft.lb
LRC	: 8.1	Duty cycle	: Cont.(S1)
Rated torque	: 263 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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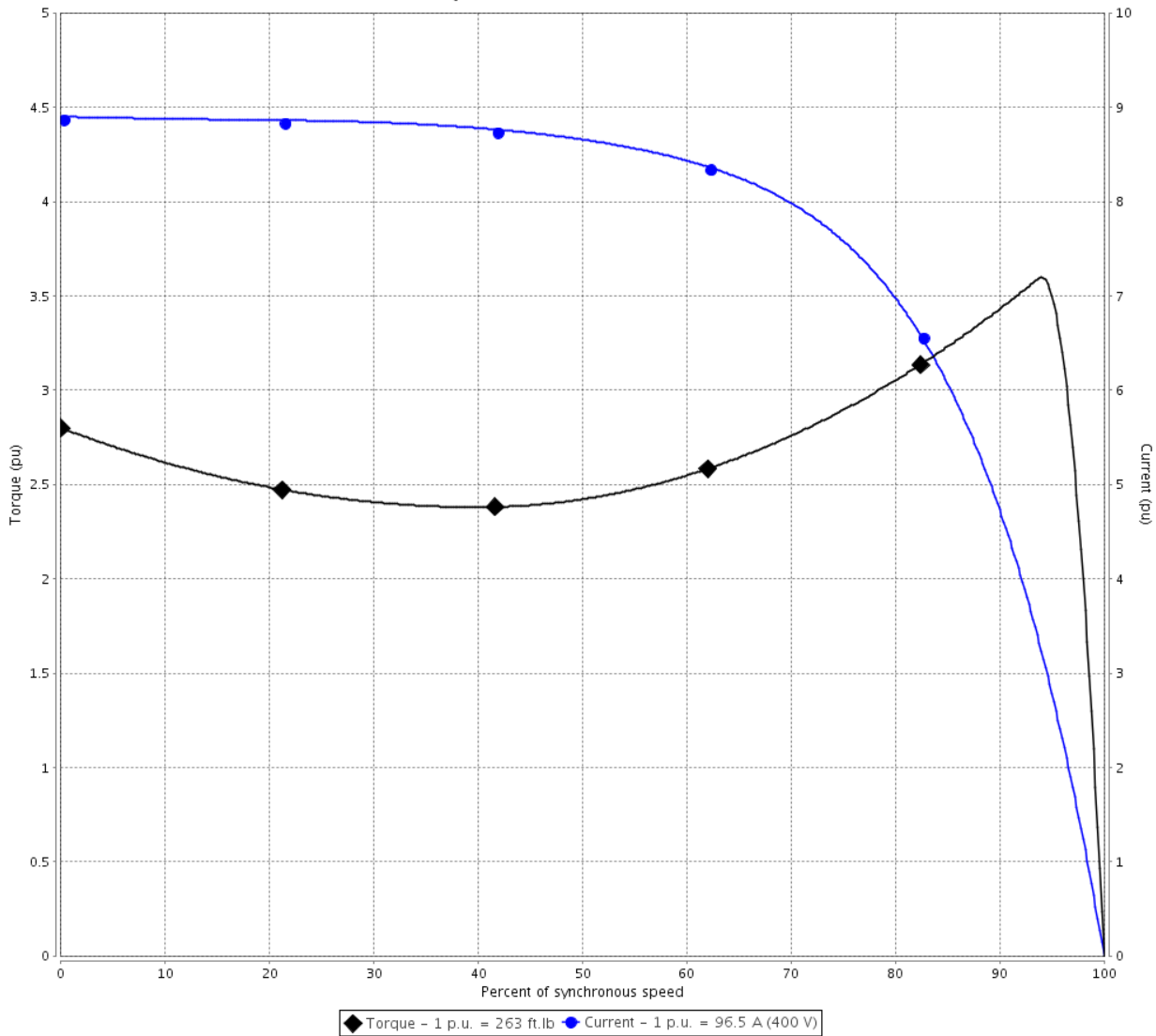
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

Rated current	: 96.5 A	Moment of inertia (J)	: 22.8 sq.ft.lb
LRC	: 8.9	Duty cycle	: Cont.(S1)
Rated torque	: 263 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.15
Breakdown torque	: 360 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



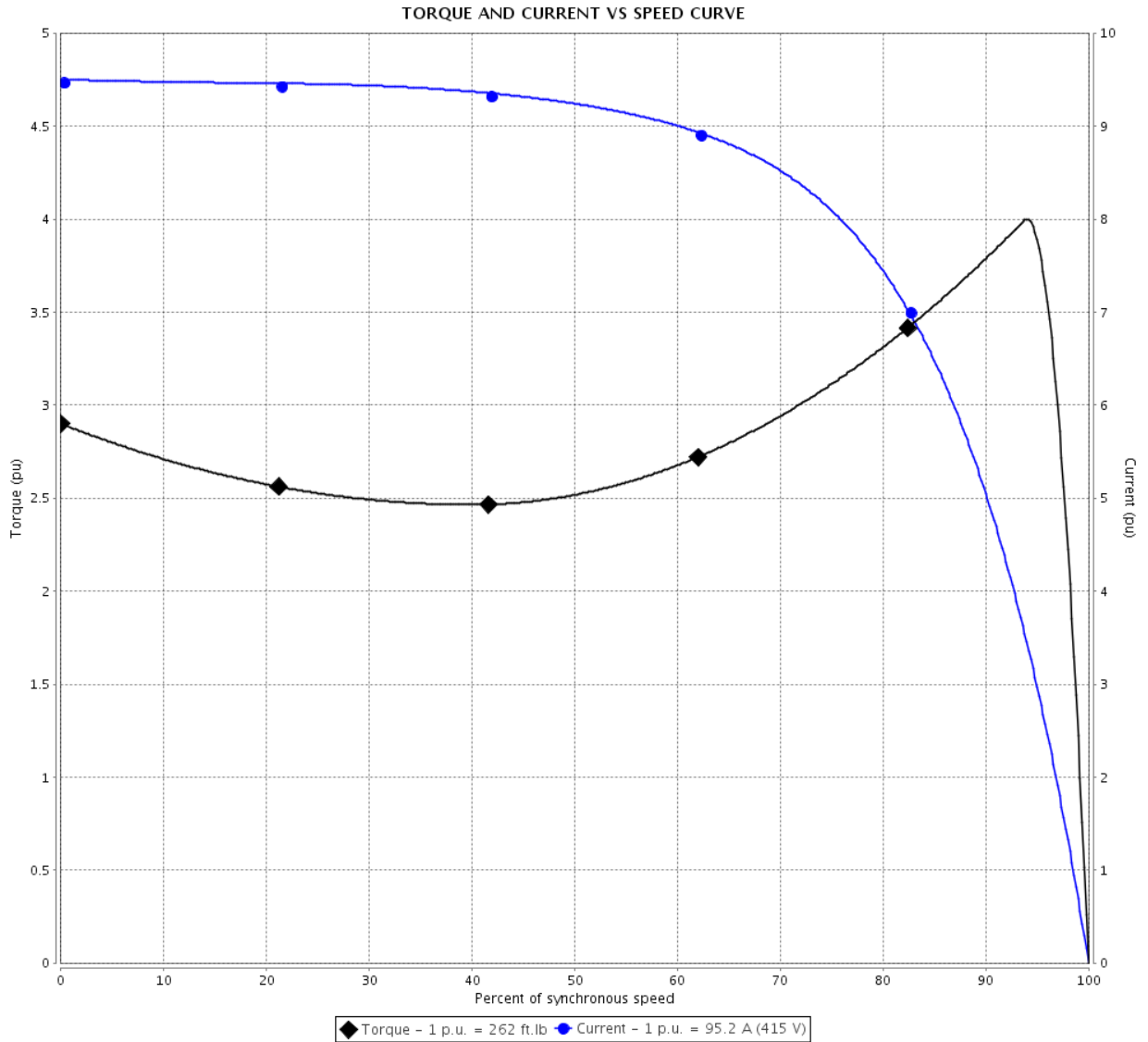
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Customer :

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Product code : 11047054

Catalog # : 10018OT3G404T



Performance : 415 V 50 Hz 4P IE3

Rated current	: 95.2 A	Moment of inertia (J)	: 22.8 sq.ft.lb
LRC	: 9.5	Duty cycle	: Cont.(S1)
Rated torque	: 262 ft.lb	Insulation class	: F
Locked rotor torque	: 290 %	Service factor	: 1.15
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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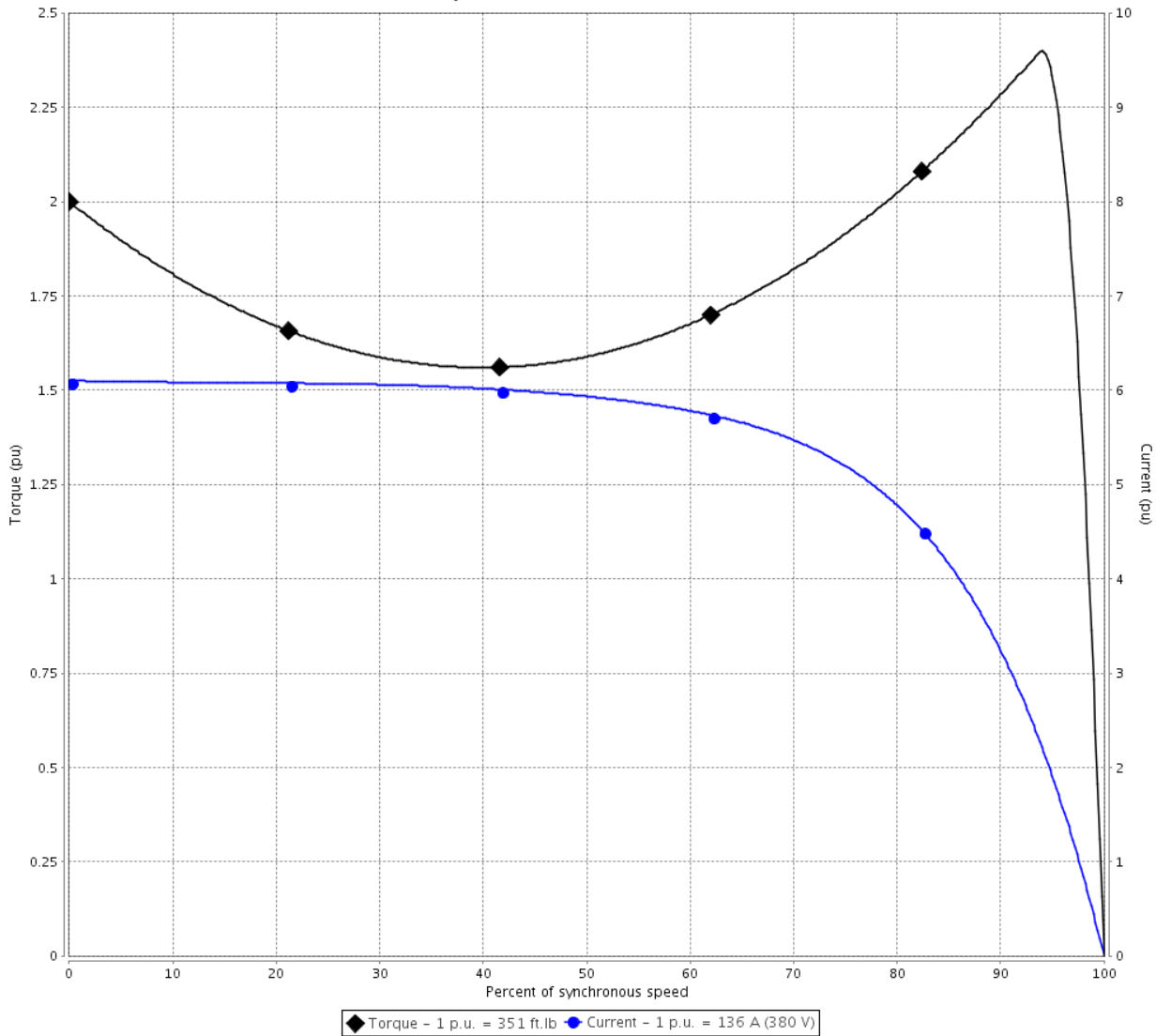
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE2

Rated current	: 136 A	Moment of inertia (J)	: 22.8 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 351 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

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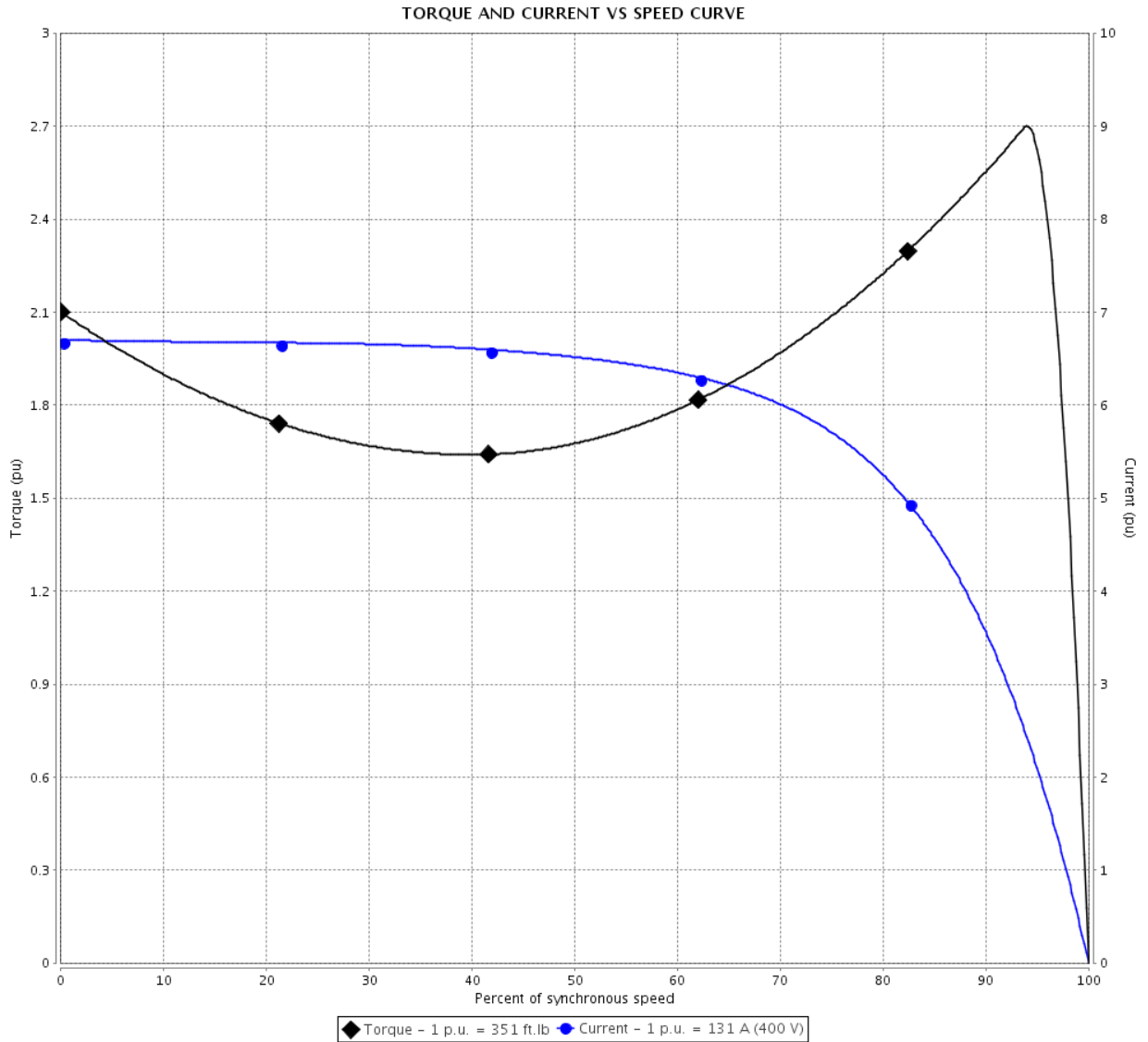
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Performance : 400 V 50 Hz 4P IE2

Rated current	: 131 A	Moment of inertia (J)	: 22.8 sq.ft.lb
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Rated torque	: 351 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1475 rpm	Design	: B

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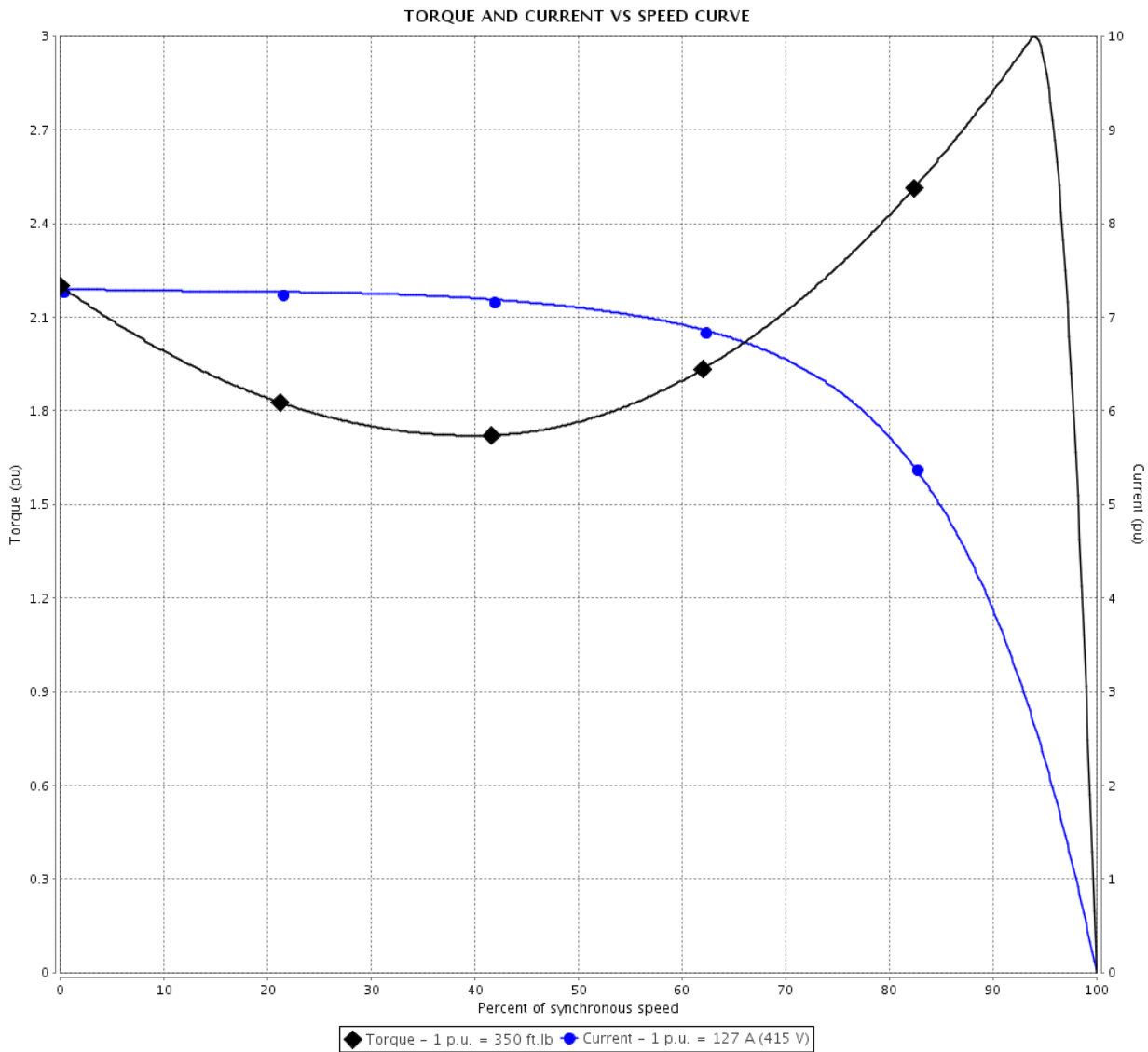


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Performance : 415 V 50 Hz 4P IE2

Rated current	: 127 A	Moment of inertia (J)	: 22.8 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 350 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

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

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Three Phase Induction Motor - Squirrel Cage

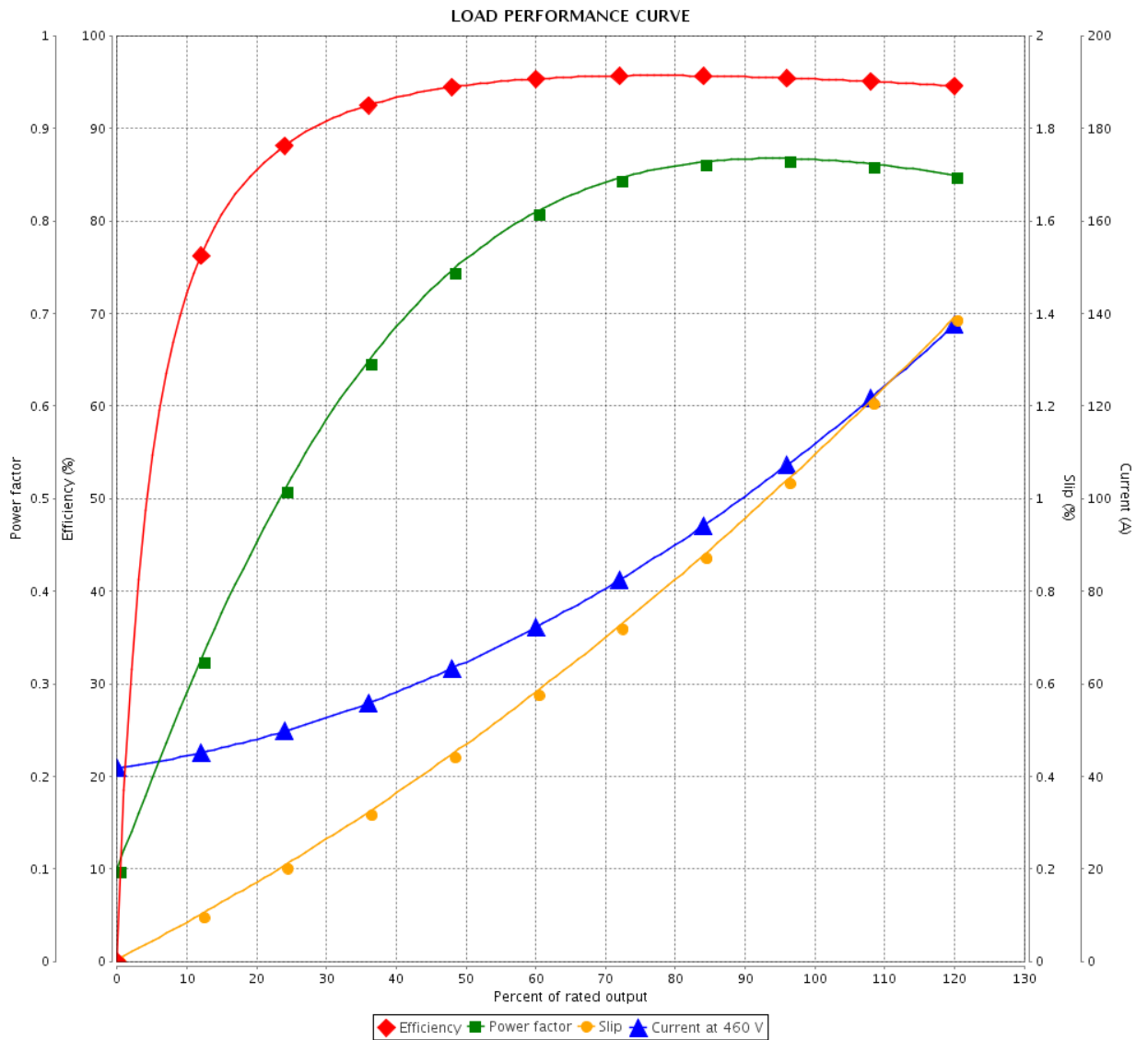


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Rated current : 113 A
 LRC : 6.7
 Rated torque : 291 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 270 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 22.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
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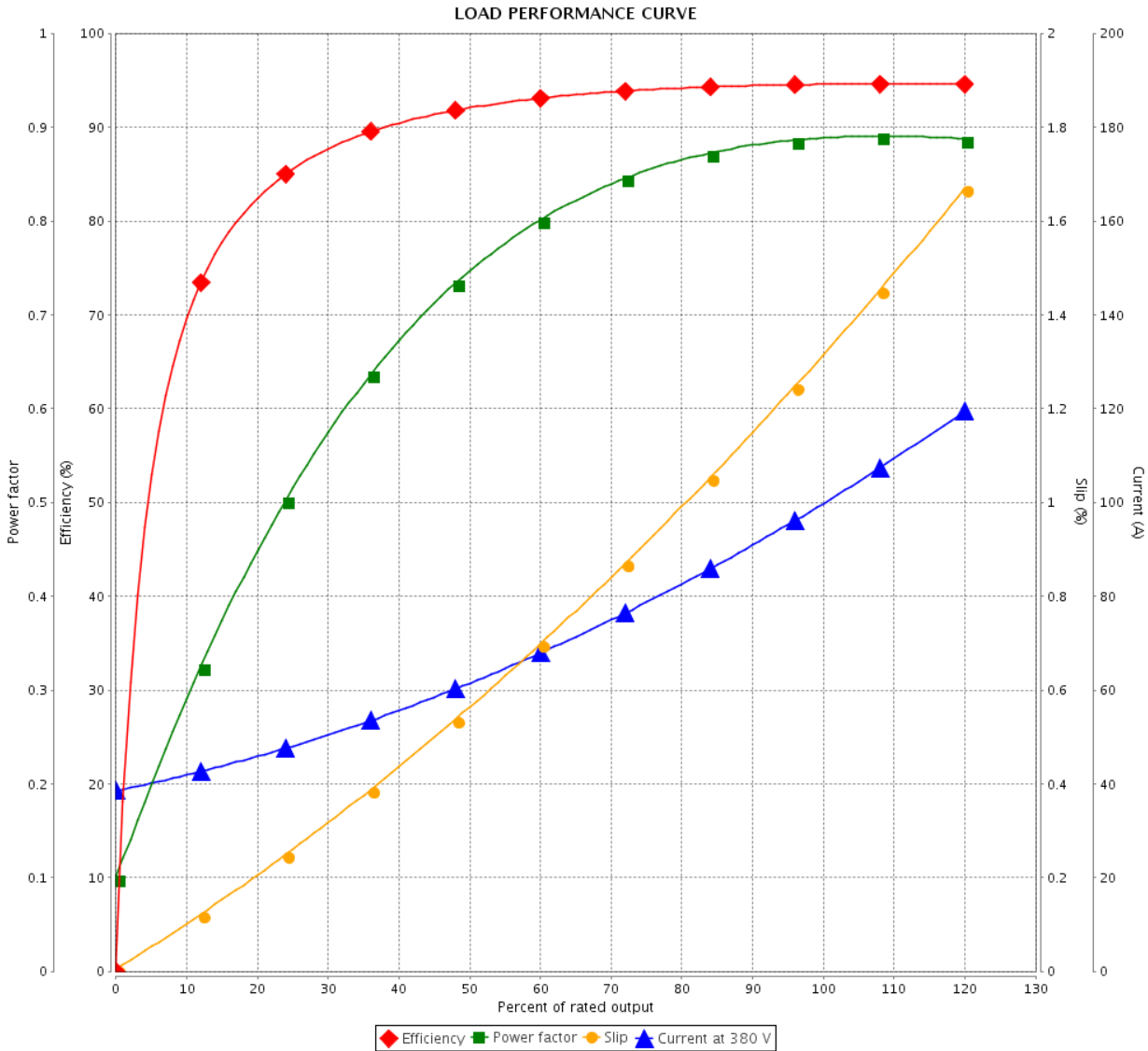


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Performance : 380 V 50 Hz 4P IE3

Rated current : 99.3 A
 LRC : 8.1
 Rated torque : 263 ft.lb
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 Breakdown torque : 320 %
 Rated speed : 1480 rpm

Moment of inertia (J) : 22.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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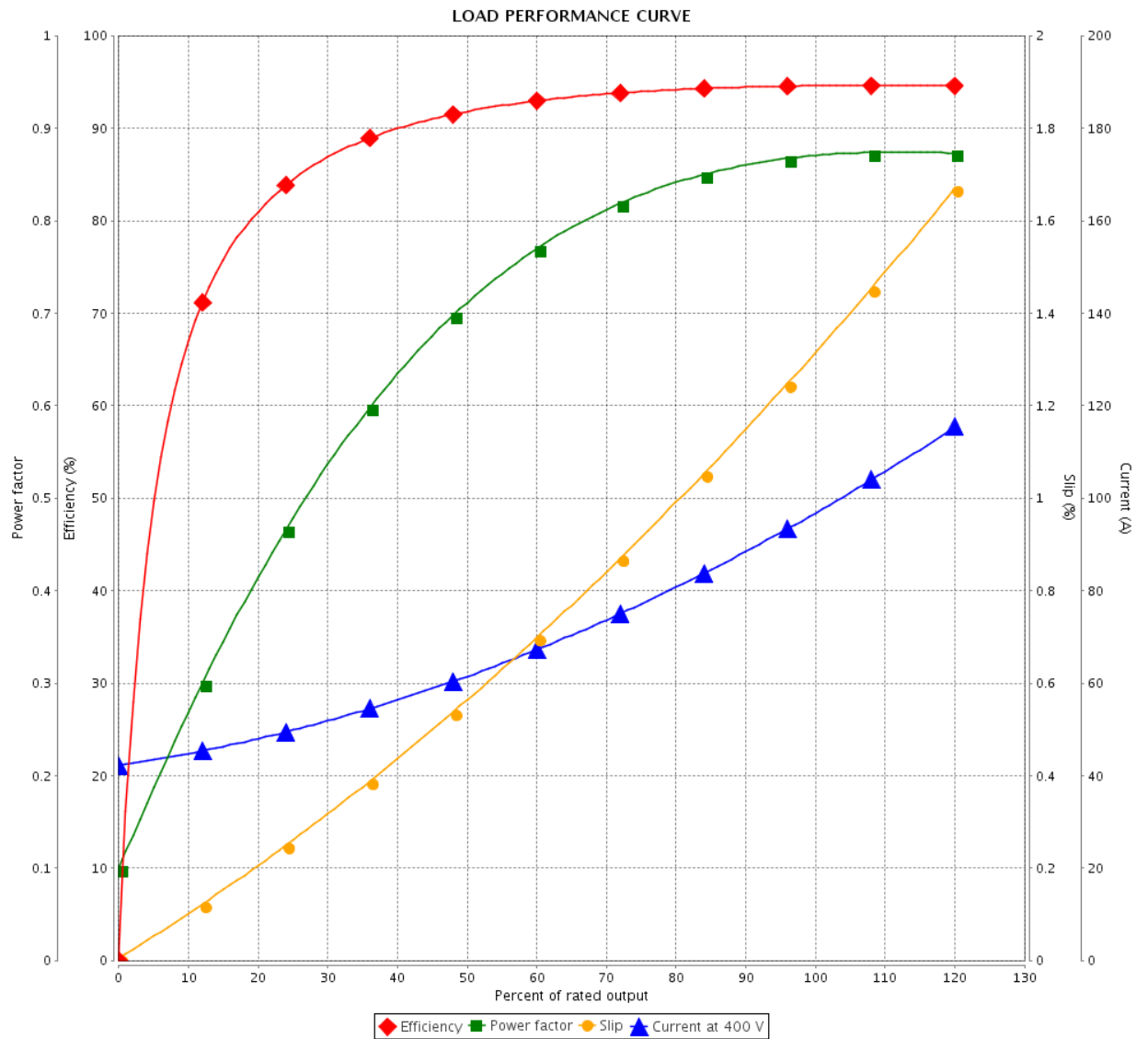


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Performance : 400 V 50 Hz 4P IE3

Rated current : 96.5 A
LRC : 8.9
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Locked rotor torque : 280 %
Breakdown torque : 360 %
Rated speed : 1480 rpm

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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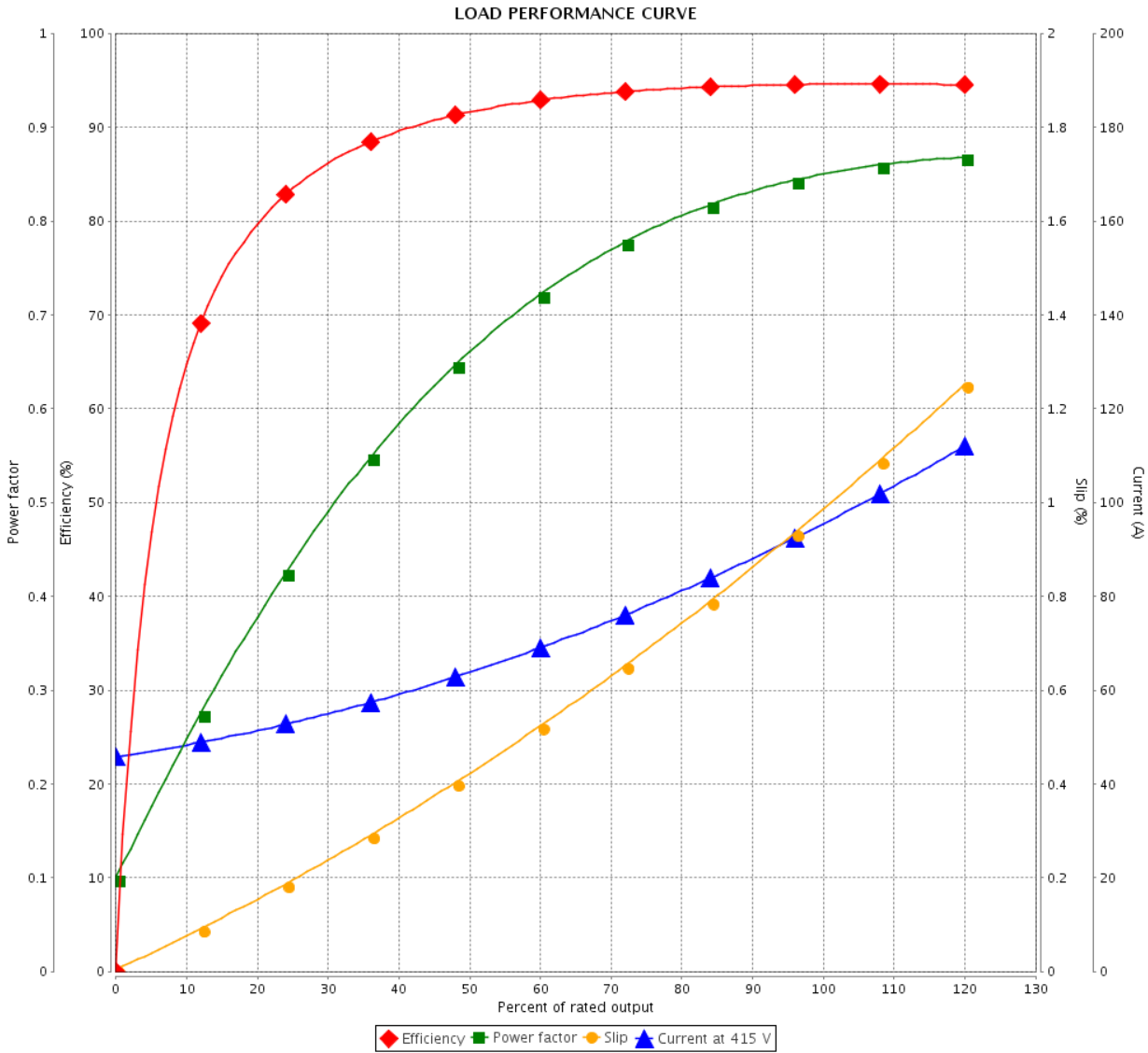


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Performance : 415 V 50 Hz 4P IE3

Rated current : 95.2 A
 LRC : 9.5
 Rated torque : 262 ft.lb
 Locked rotor torque : 290 %
 Breakdown torque : 400 %
 Rated speed : 1485 rpm

Moment of inertia (J) : 22.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

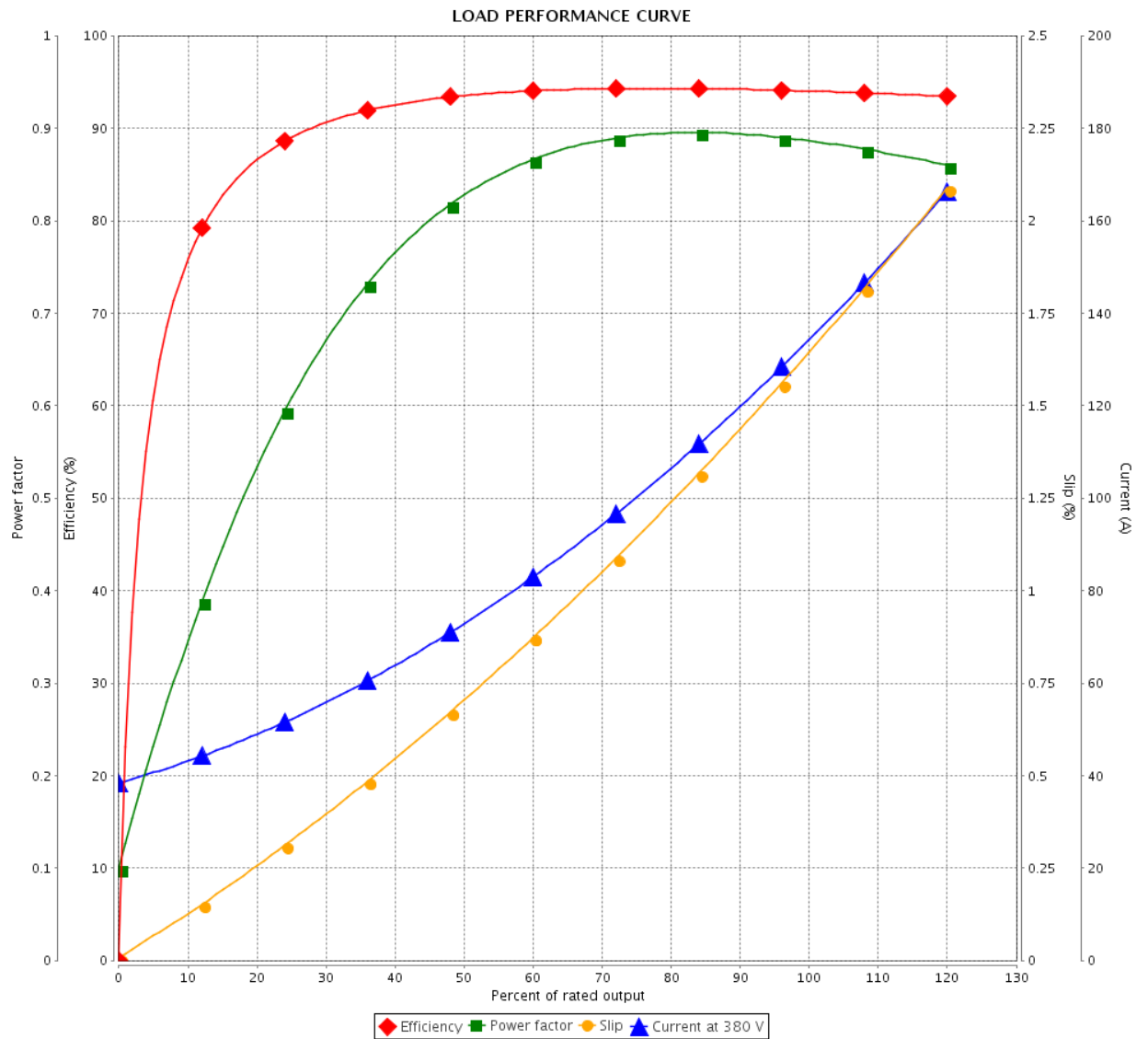


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Performance : 380 V 50 Hz 4P IE2

Rated current : 136 A
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 Rated torque : 351 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1475 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
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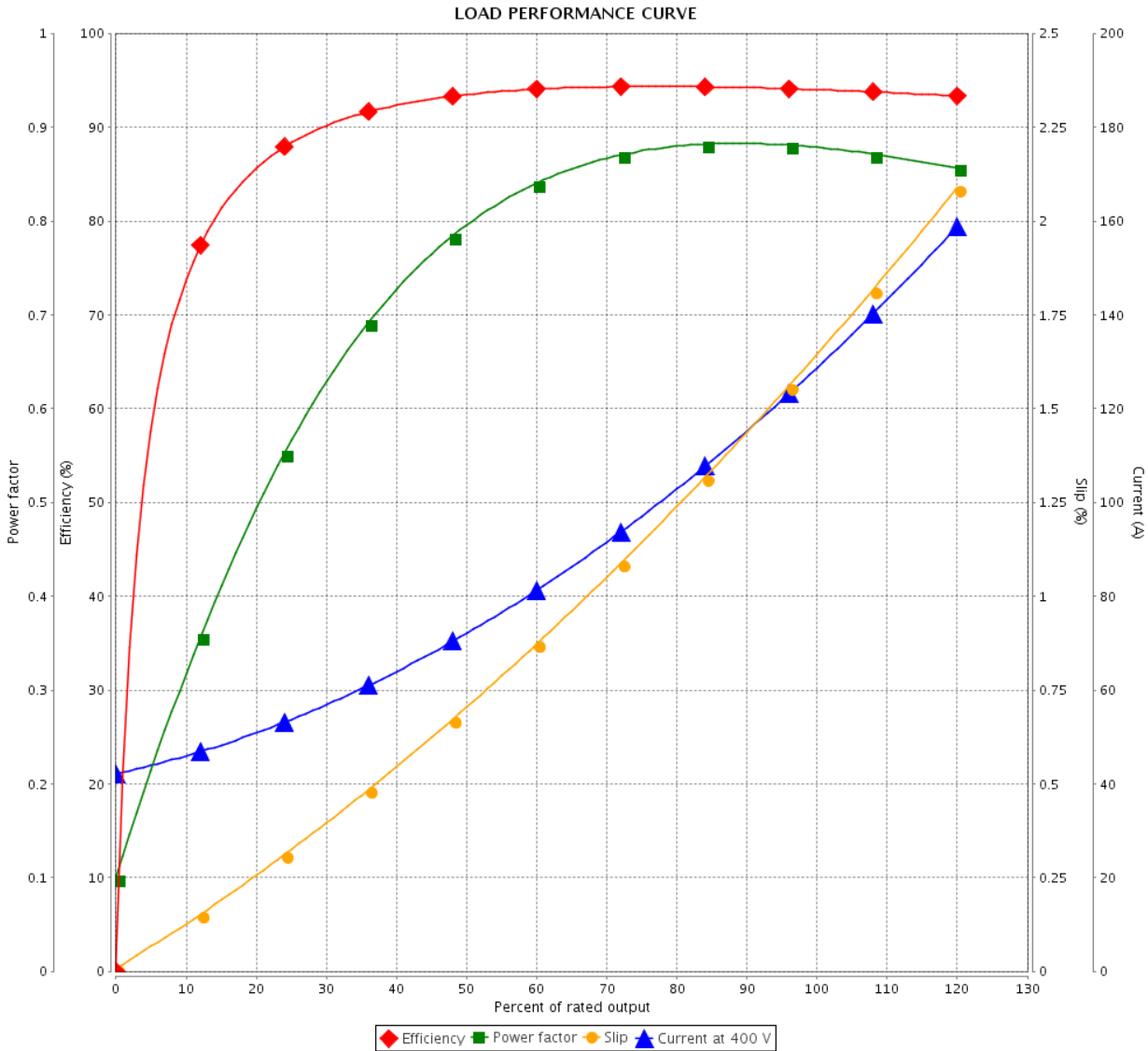


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Performance : 400 V 50 Hz 4P IE2

Rated current : 131 A	Moment of inertia (J) : 22.8 sq.ft.lb
LRC : 6.7	Duty cycle : Cont.(S1)
Rated torque : 351 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.15
Breakdown torque : 270 %	Temperature rise : 80 K
Rated speed : 1475 rpm	Design : B

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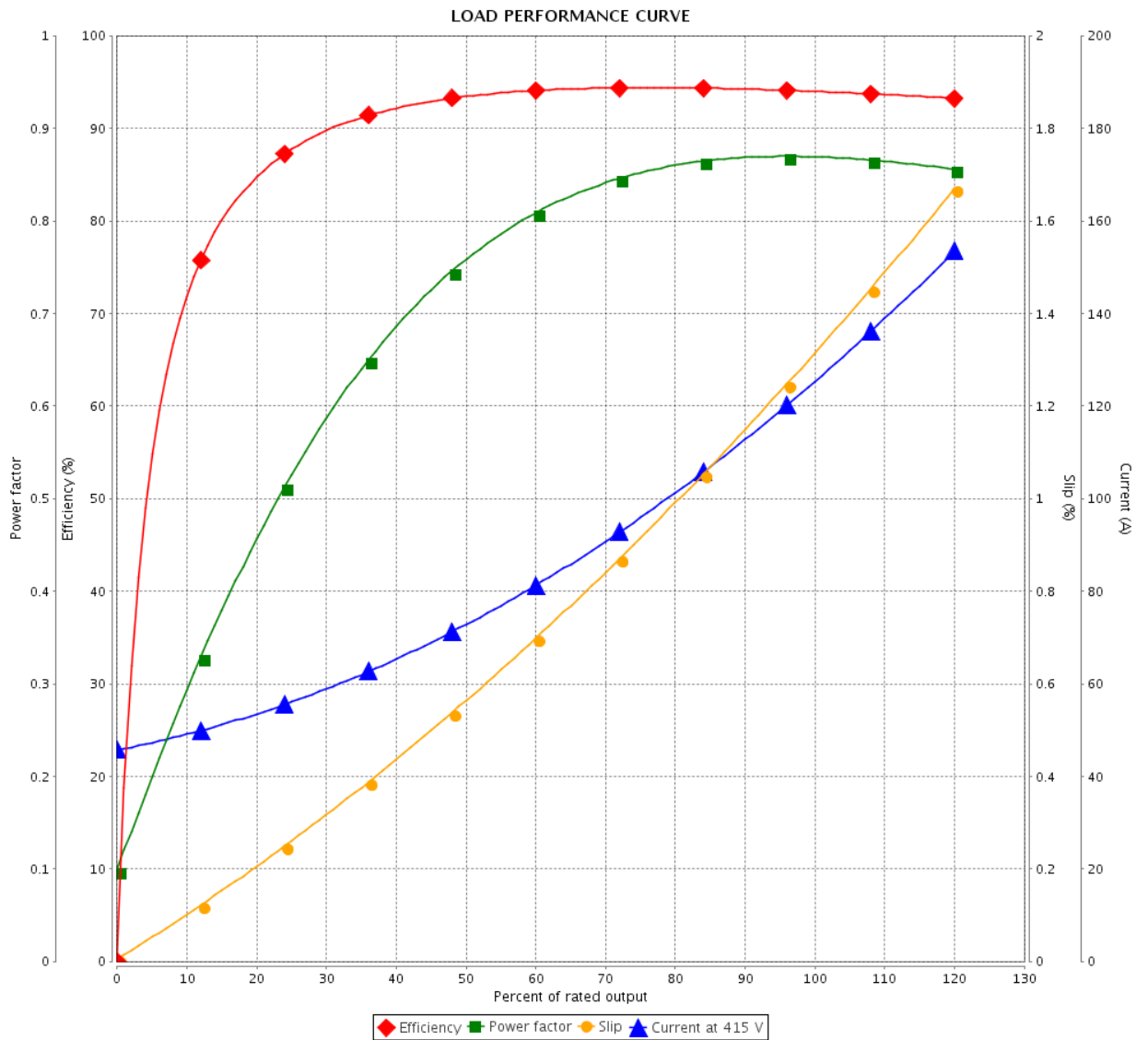


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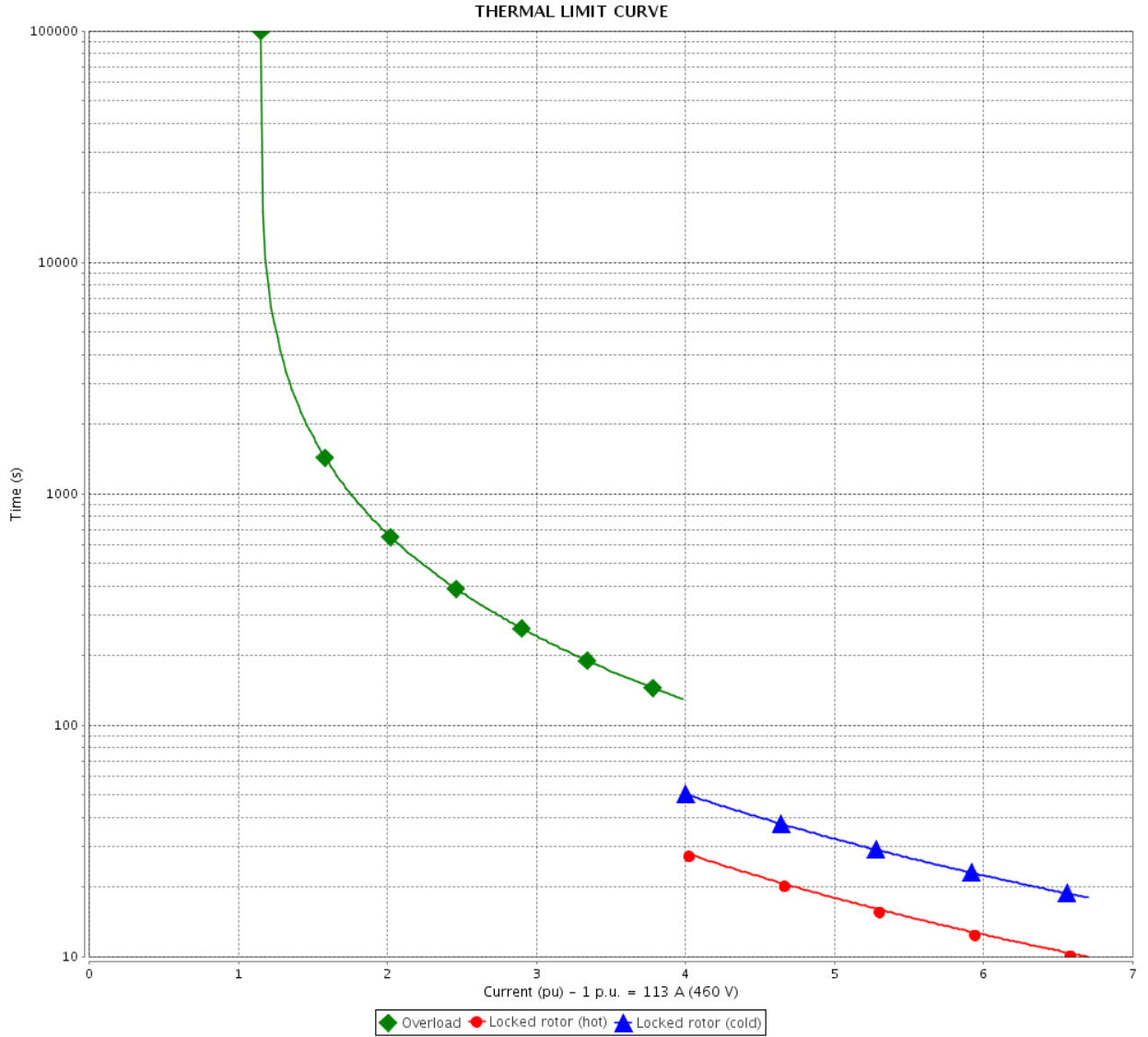
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



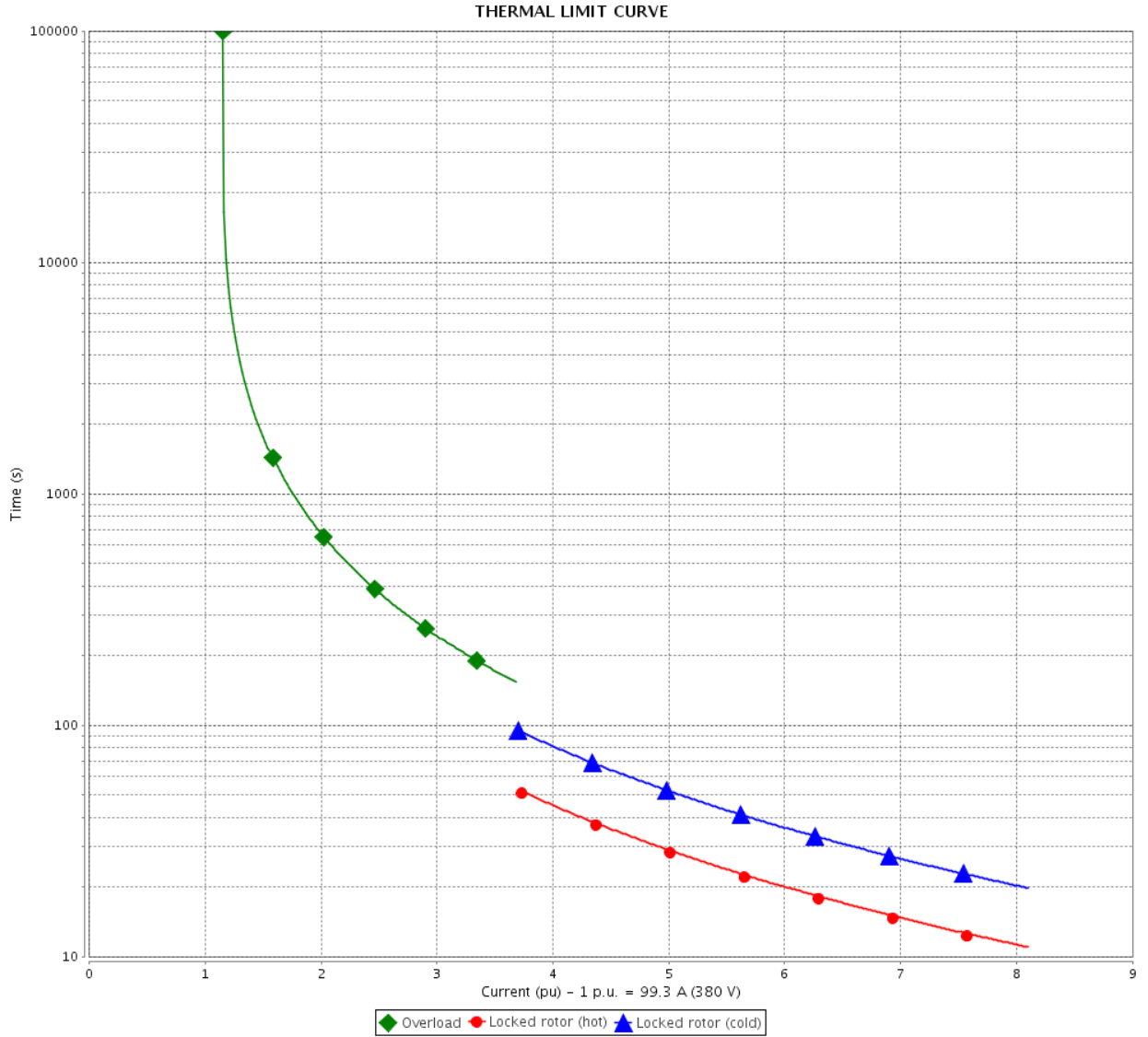
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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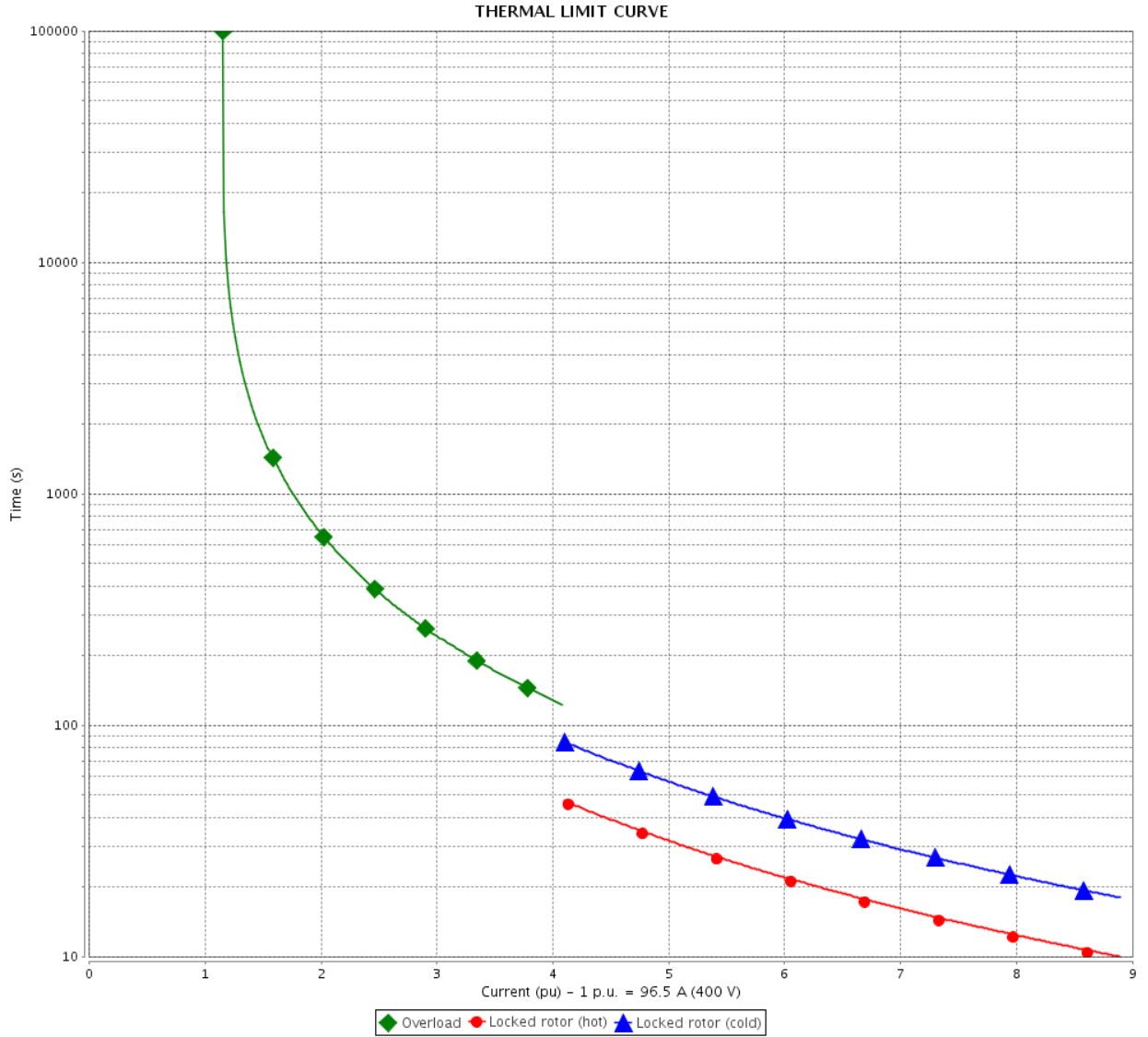
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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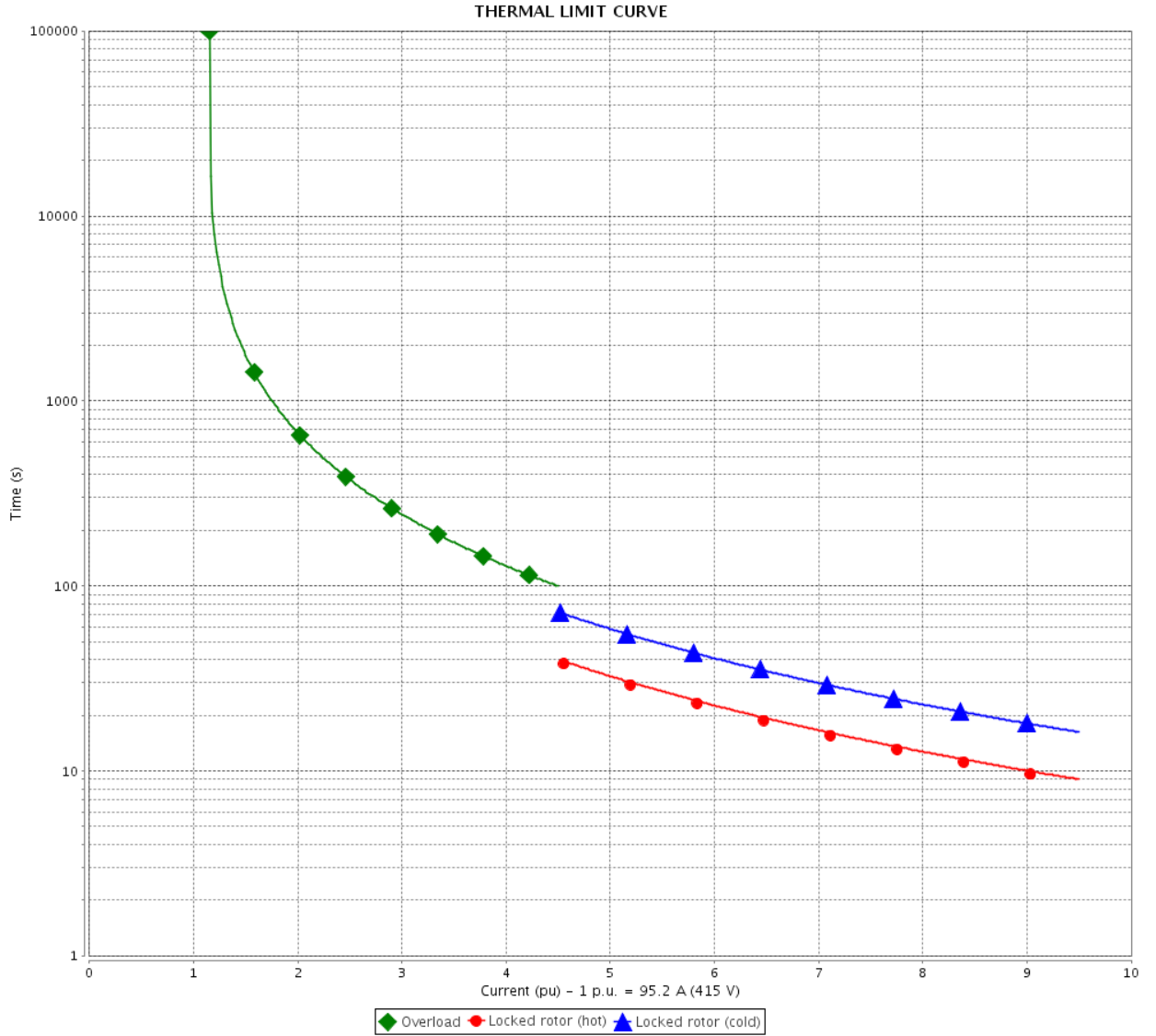
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Three Phase Induction Motor - Squirrel Cage



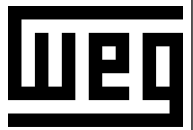
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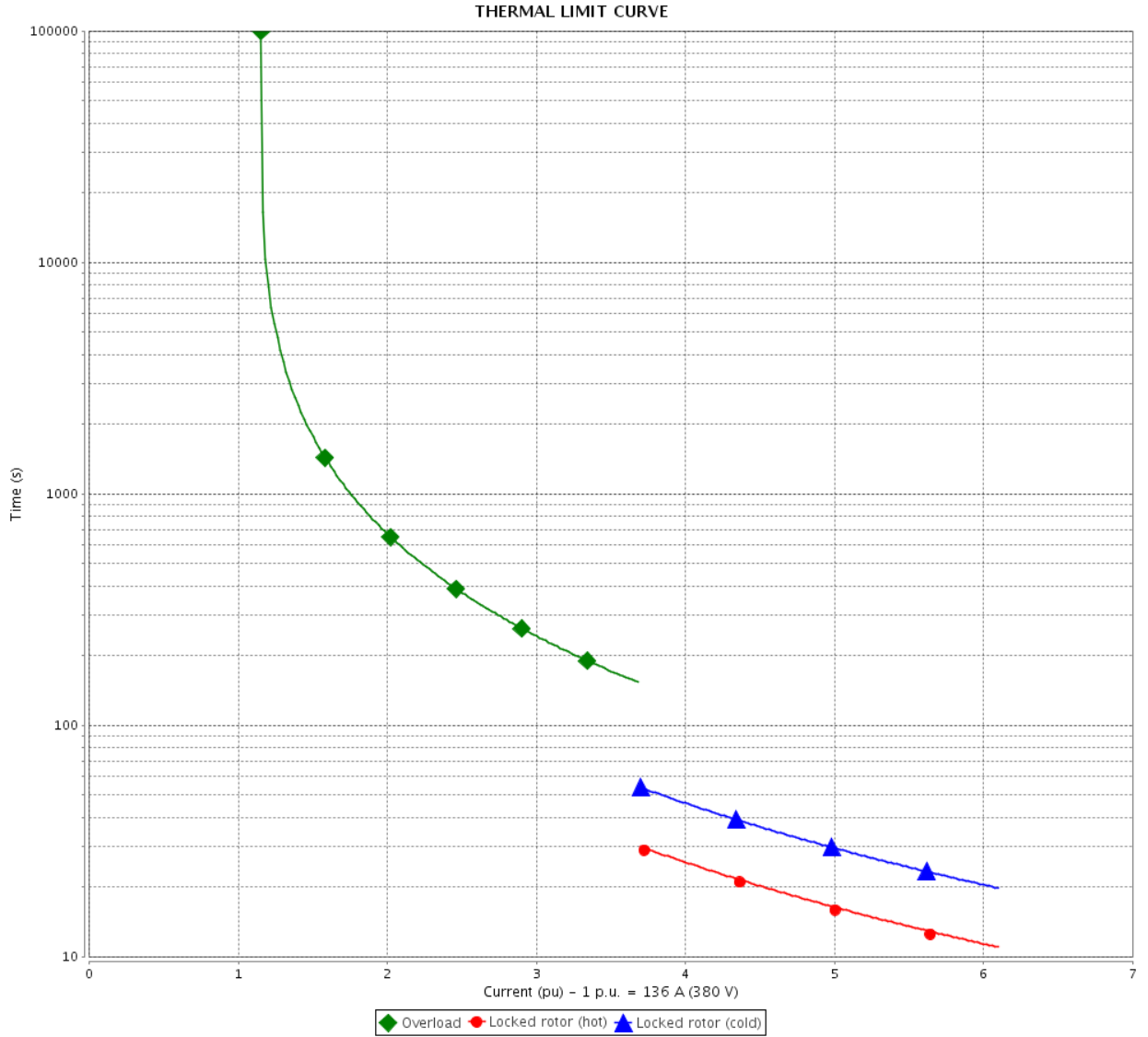
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Date				

THERMAL LIMIT CURVE

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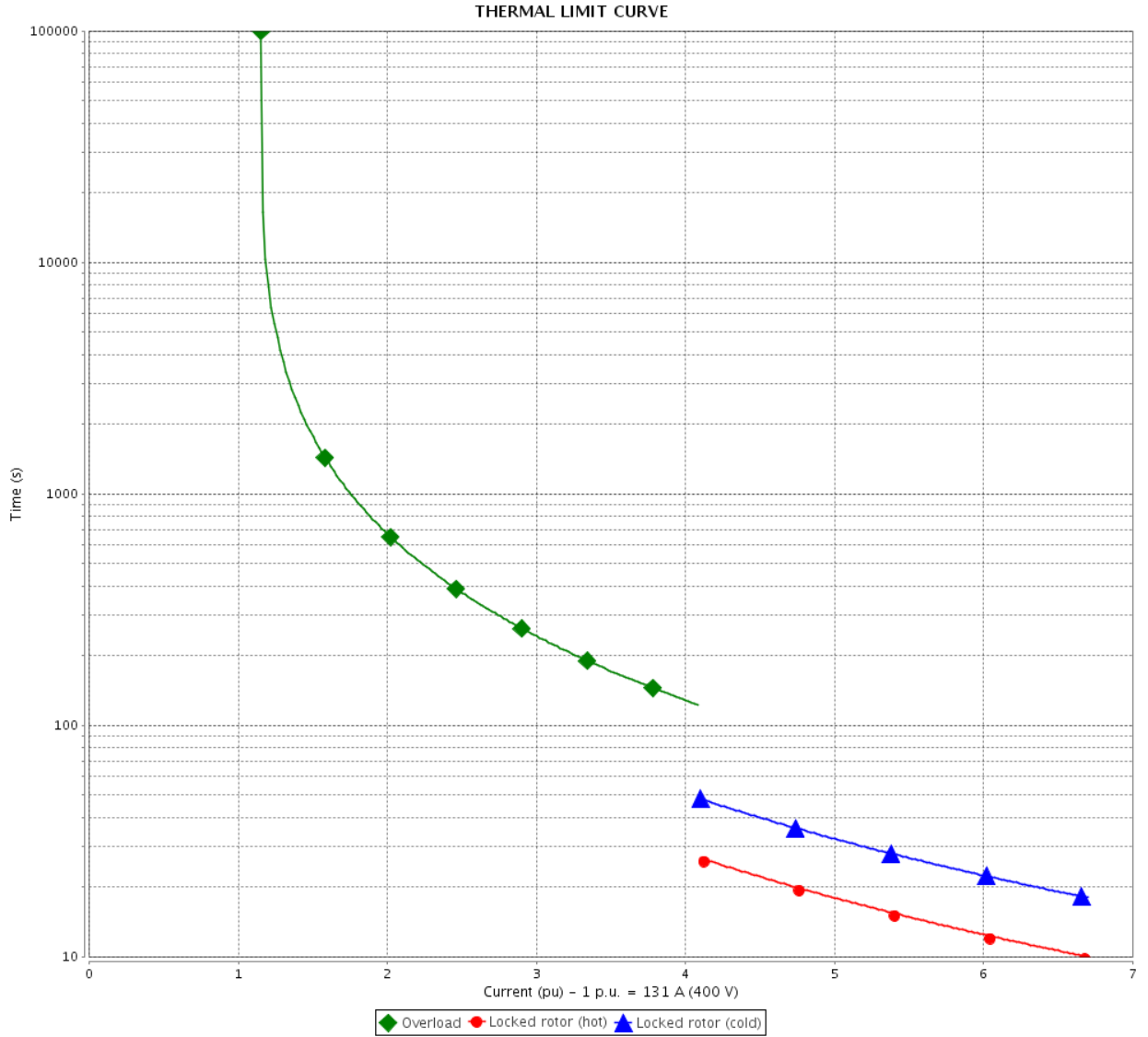
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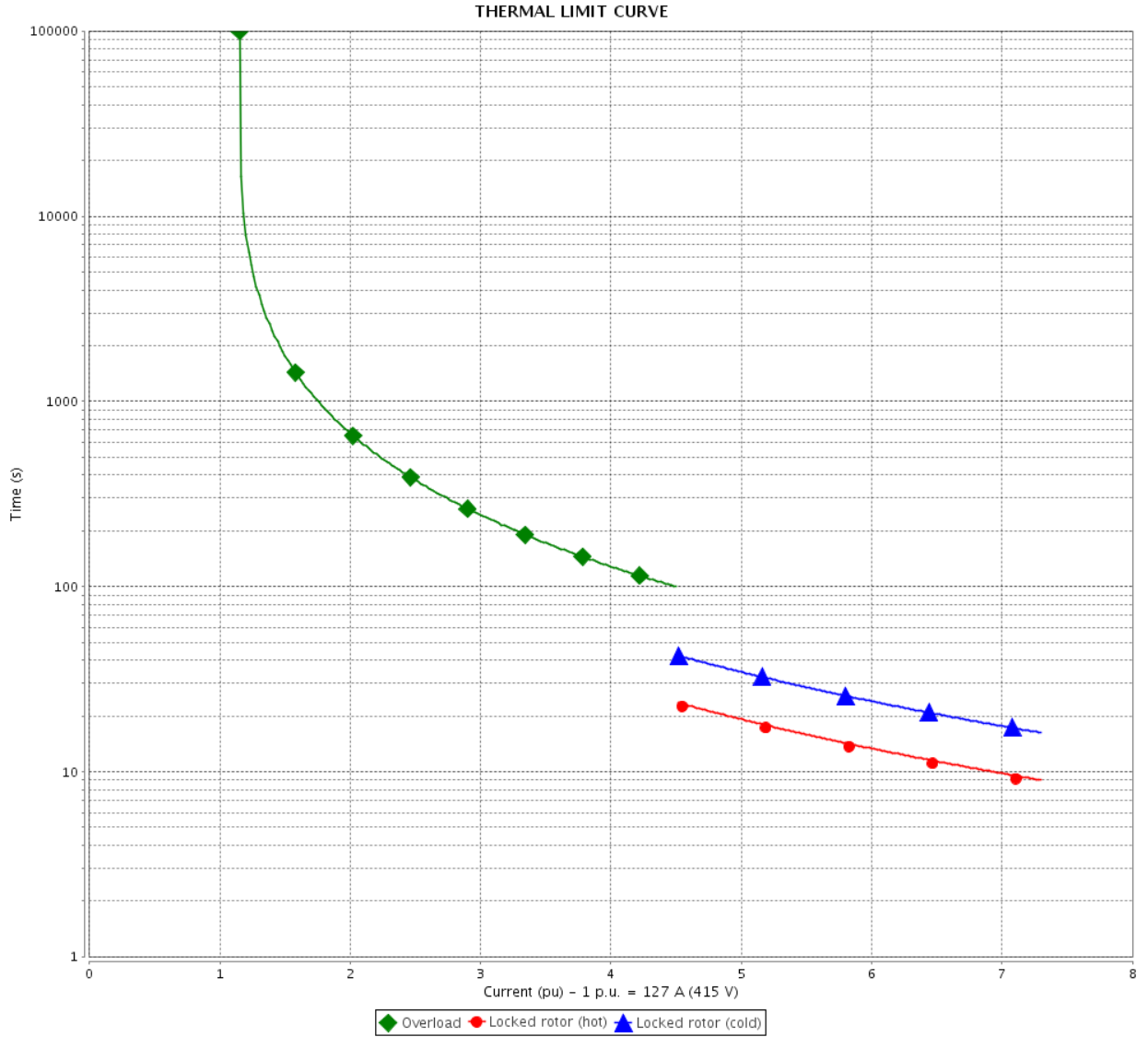
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THERMAL LIMIT CURVE

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

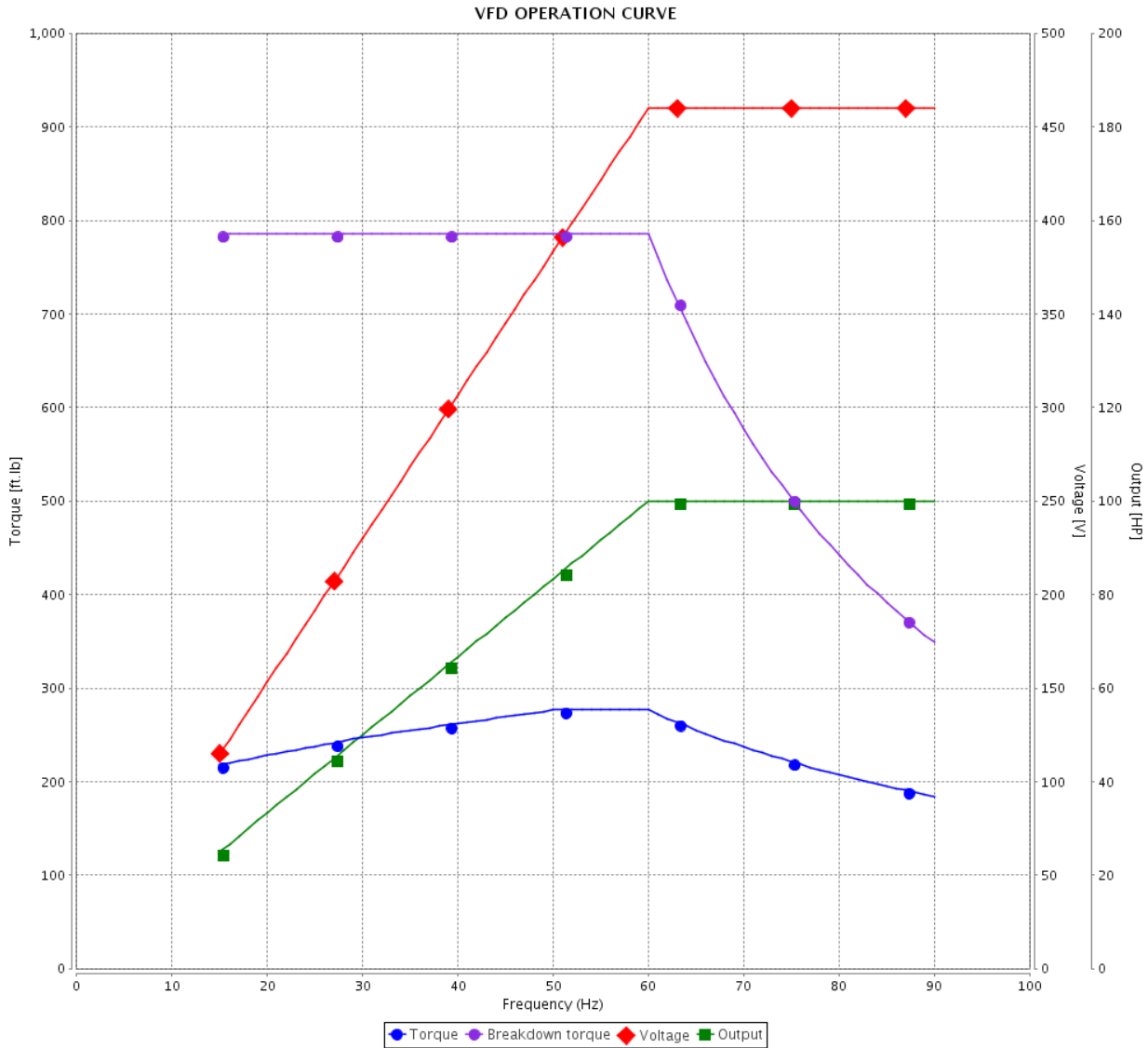


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Breakdown torque : 270 %
Rated speed : 1780 rpm

Moment of inertia (J) : 22.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

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VFD OPERATION CURVE

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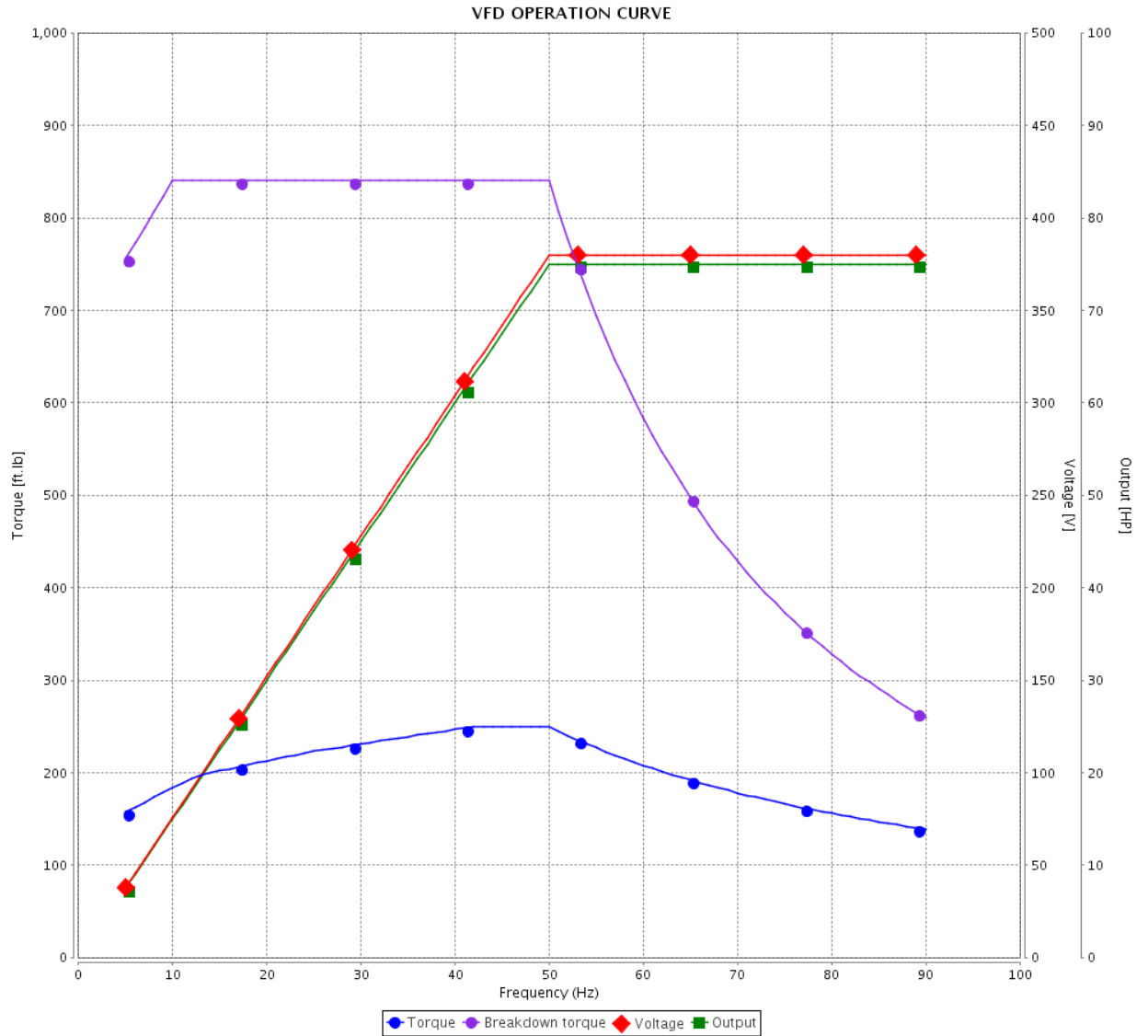


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 Design : B

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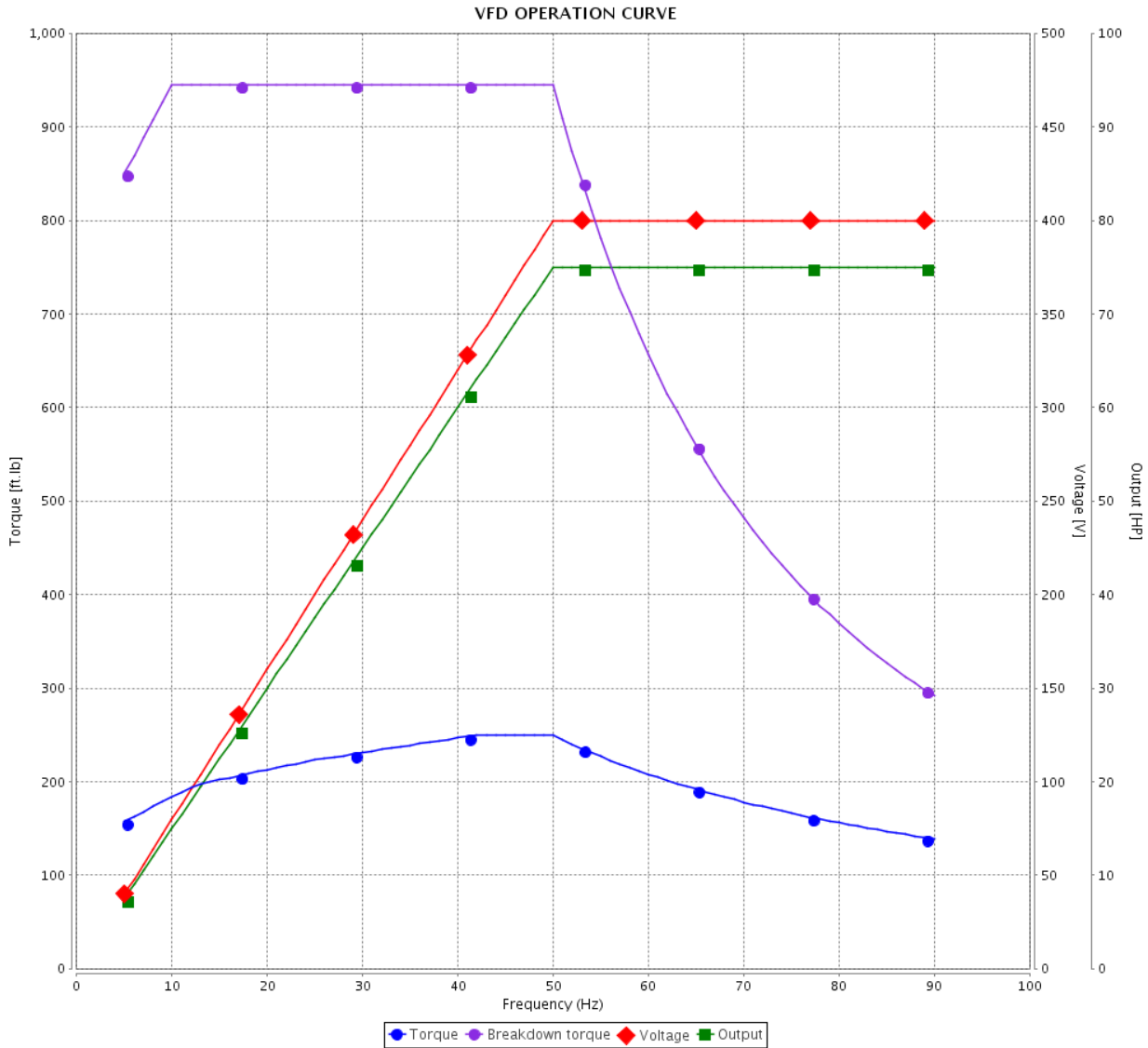


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Performance : 400 V 50 Hz 4P IE3

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 Locked rotor torque : 280 %
 Breakdown torque : 360 %
 Rated speed : 1480 rpm

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 Design : B

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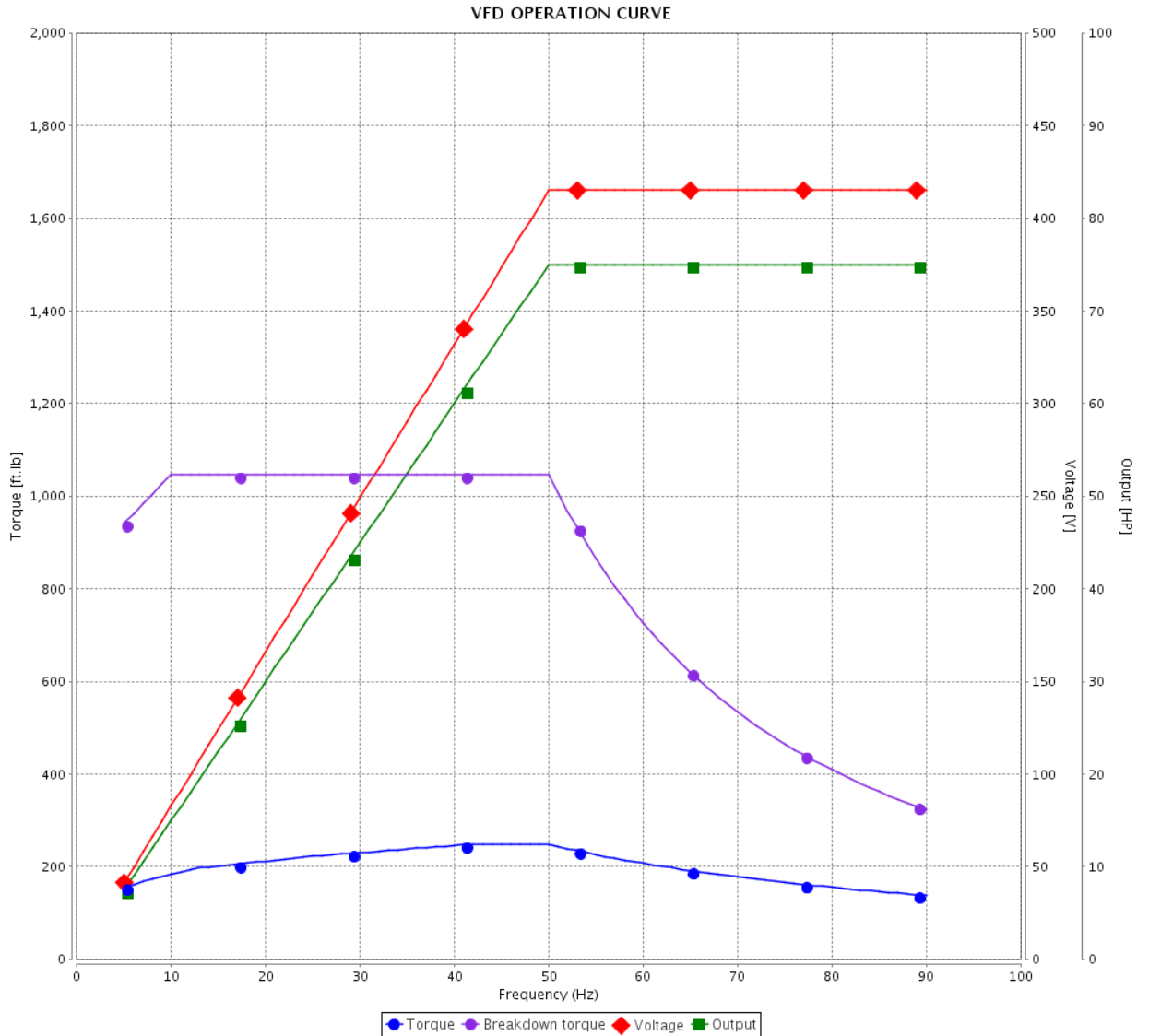


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Performance : 415 V 50 Hz 4P IE3

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Breakdown torque : 400 %
Rated speed : 1485 rpm

Moment of inertia (J) : 22.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 33 / 36	Revision
Checked by				
Date	06/11/2019			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

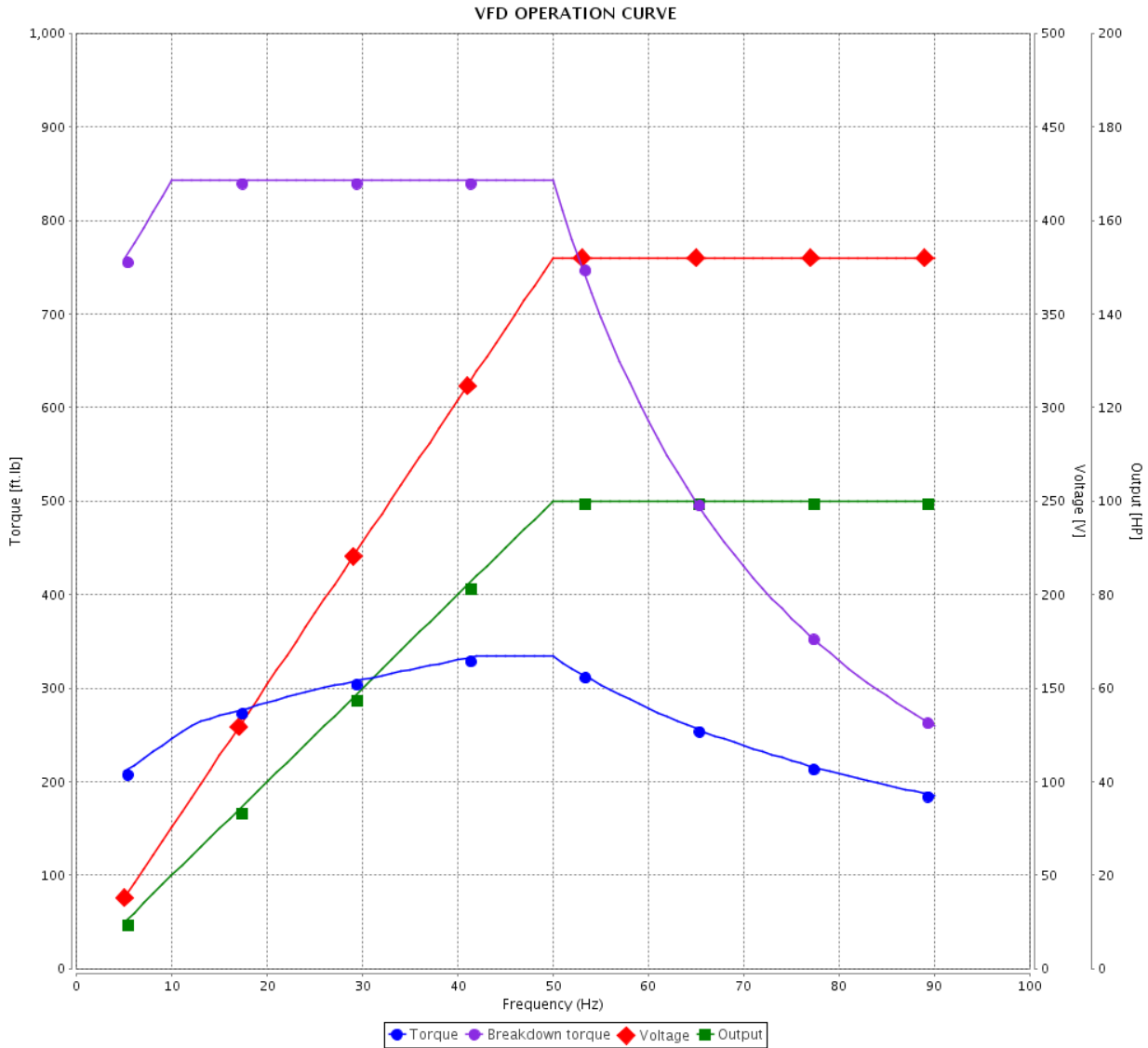


Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 11047054

Catalog # : 10018OT3G404T



Performance : 380 V 50 Hz 4P IE2

Rated current : 136 A
 LRC : 6.1
 Rated torque : 351 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 1475 rpm

Moment of inertia (J) : 22.8 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by				
Date				

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

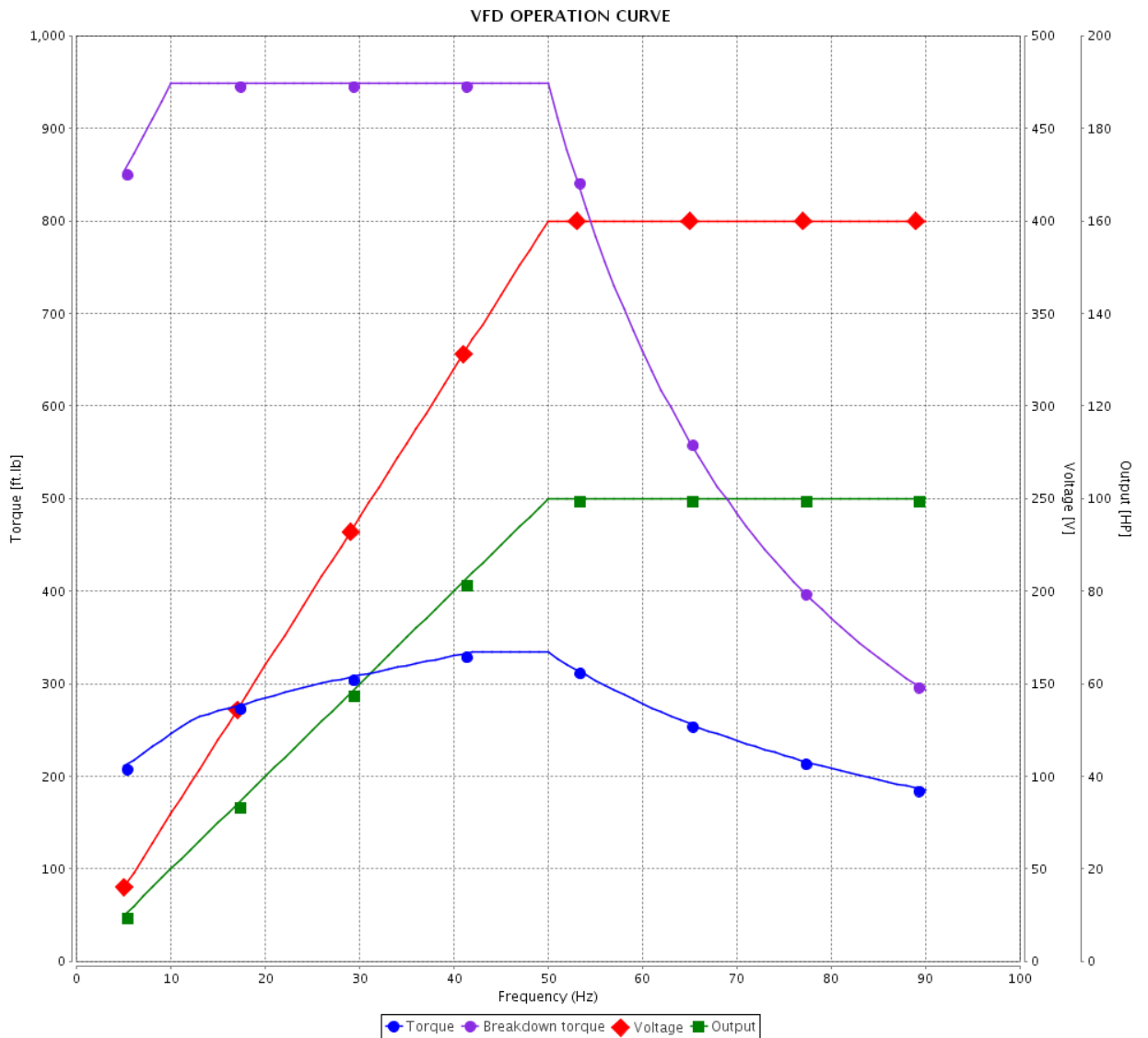


Customer :

Product line : ODP NEMA Premium Efficiency
Three-Phase

Product code : 11047054

Catalog # : 10018OT3G404T



Performance : 400 V 50 Hz 4P IE2

Rated current : 131 A
LRC : 6.7
Rated torque : 351 ft.lb
Locked rotor torque : 210 %
Breakdown torque : 270 %
Rated speed : 1475 rpm

Moment of inertia (J) : 22.8 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.15
Temperature rise : 80 K
Design : B

Rev.	Changes Summary	Performed	Checked	Date
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Date	06/11/2019			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

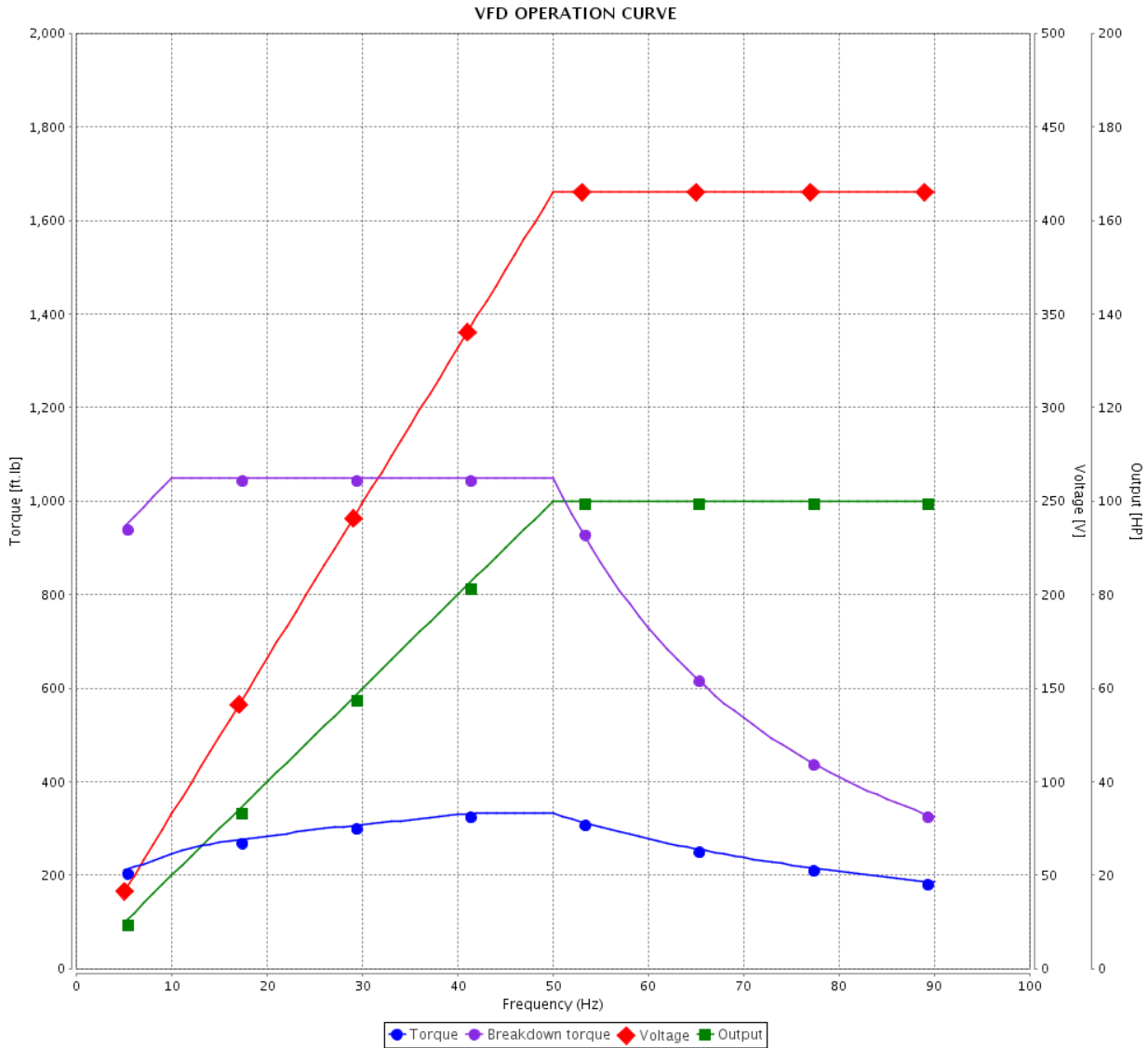


Customer :

Product line : ODP NEMA Premium Efficiency Three-Phase

Product code : 11047054

Catalog # : 10018OT3G404T



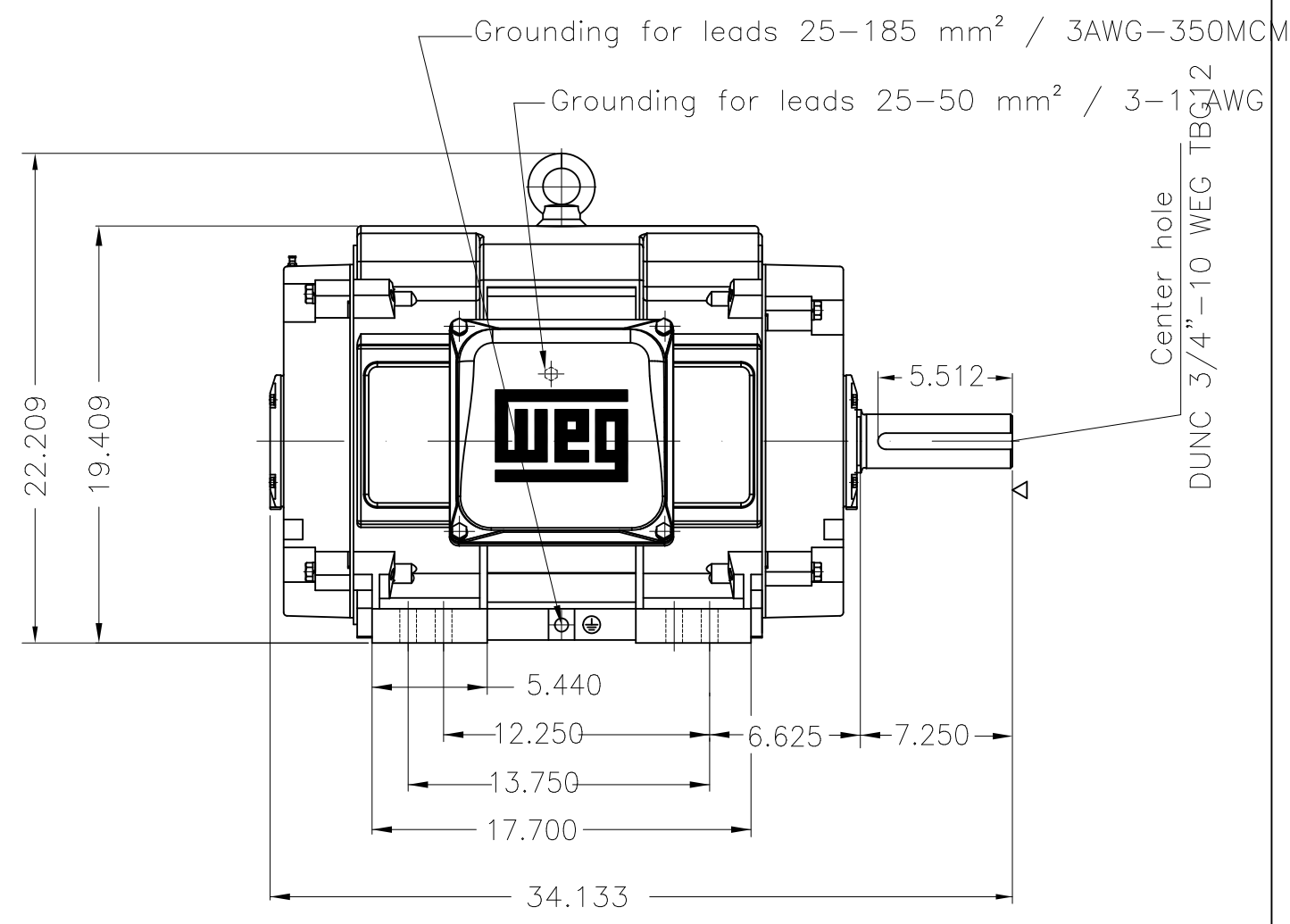
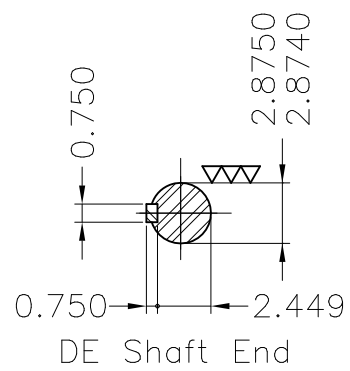
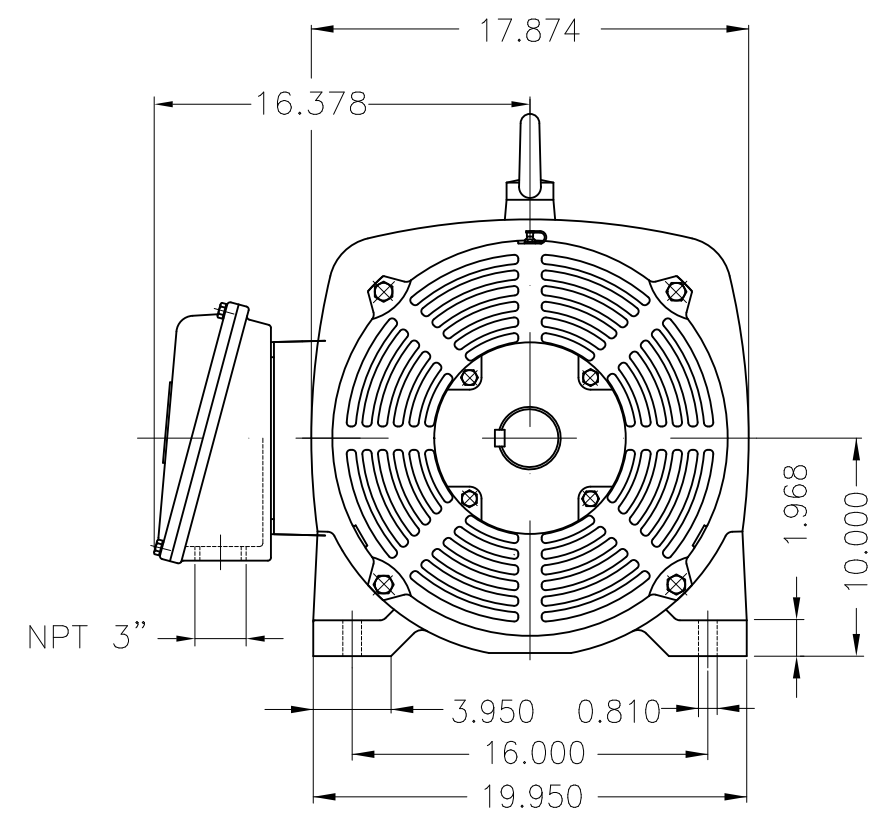
Performance : 415 V 50 Hz 4P IE2

Rated current	: 127 A	Moment of inertia (J)	: 22.8 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 350 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: B

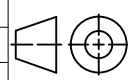
Rev.	Changes Summary	Performed	Checked	Date
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Date	06/11/2019			

Dimensões em polegada
Dimensions in inches

THIS IS AN UPDATED REVISION, THE
PREVIOUS ONE MUST BE DISREGARDED.



Color RAL 5009
Painting plan 203A
Mounting B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	USERADMIN	 THREE PHASE NEMA P. EFF MOTOR FRAME 404/5T IP23 ODP WEG code: 11047054					
CHECKED							
RELEASED							
REL DT	06.11.2019	WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

100 HP 04 Poles 60Hz

A

