

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase		Product code : 12408381	
				Catalog # : 20018XT3G504	
Frame		: 504/5T		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 : 2448 lb	
Protection degree		: IP55		Moment of inertia (J) : 76.2 sq.ft.lb	
Design		: A			
Output [HP]	200	150	150	150	150
Poles	4	4	4	4	4
Frequency [Hz]	60	50	50	50	50
Rated voltage [V]	460	380	400	415	415
Rated current [A]	230	209	202	197	197
L. R. Amperes [A]	1587	1526	1616	1675	1675
LRC [A]	6.9x(Code G)	7.3x(Code H)	8.0x(Code H)	8.5x(Code J)	8.5x(Code J)
No load current [A]	74.0	73.0	77.0	81.0	81.0
Rated speed [RPM]	1780	1480	1485	1485	1485
Slip [%]	1.11	1.33	1.00	1.00	1.00
Rated torque [ft.lb]	589	530	530	529	529
Locked rotor torque [%]	229	240	280	300	300
Breakdown torque [%]	240	260	290	320	320
Service factor	1.15	1.00	1.00	1.00	1.00
Temperature rise	80 K	80 K	80 K	80 K	80 K
Locked rotor time	45s (cold) 25s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)
Noise level ²	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)	82.0 dB(A)
Efficiency (%)	25%	95.7	95.3	95.3	95.3
	50%	95.8	95.4	95.4	95.4
	75%	96.2	95.4	95.8	95.8
	100%	96.2	95.4	95.8	95.8
Power Factor	25%	0.47	0.44	0.41	0.38
	50%	0.70	0.67	0.63	0.61
	75%	0.80	0.78	0.75	0.73
	100%	0.85	0.84	0.82	0.81
Bearing type		Drive end : 6319 C3	Non drive end : 6316 C3	Foundation loads	
Sealing		: Viton Oil Seal Viton Seal		Max. traction : 2849 lb	
Lubrication interval		: 7038 h 8569 h		Max. compression : 5296 lb	
Lubricant amount		: 45 g 34 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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Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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TORQUE AND CURRENT VS SPEED CURVE



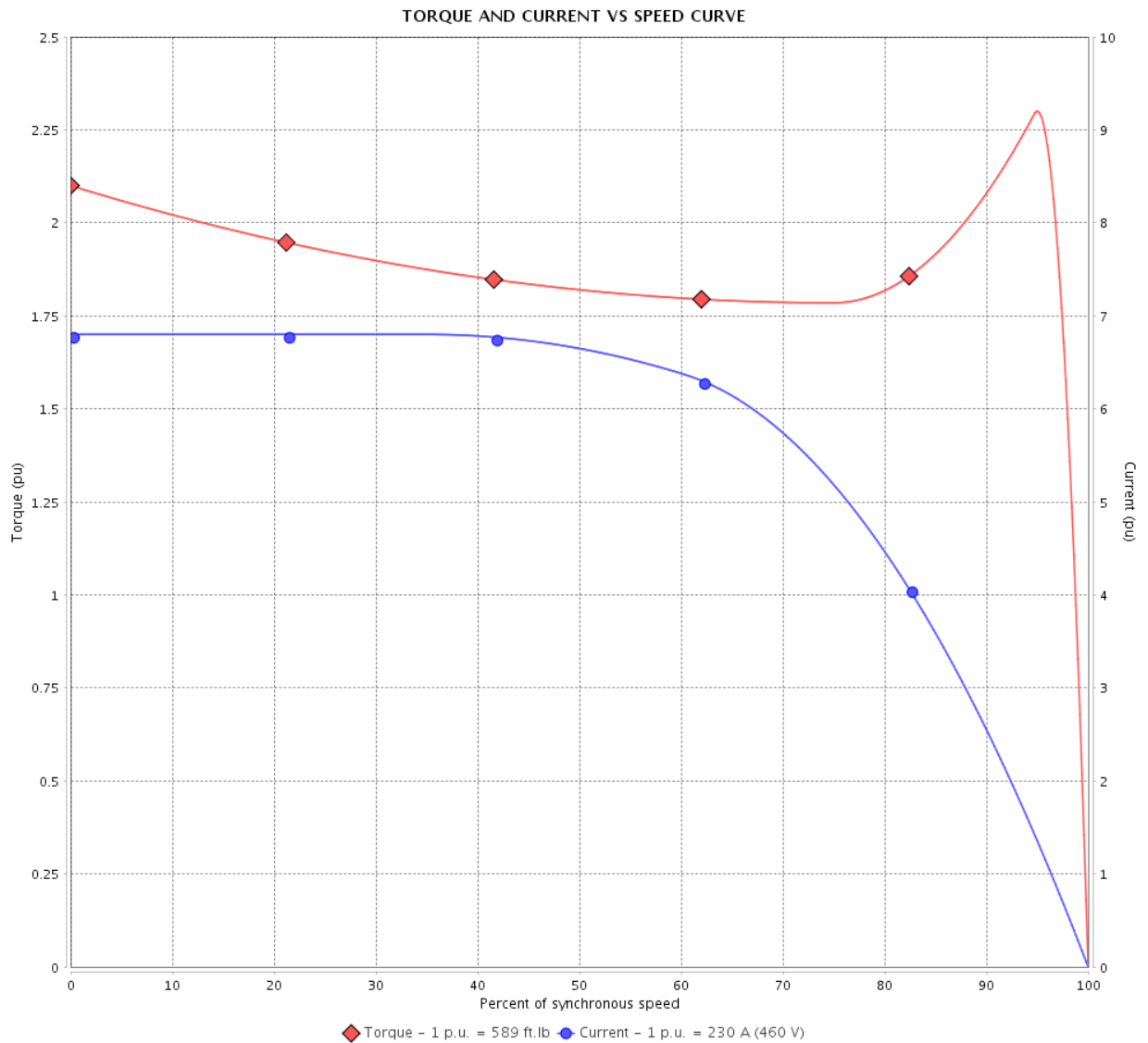
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408381

Catalog # : 20018XT3G504



Performance : 460 V 60 Hz 4P

Rated current	: 230 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 589 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: A

Locked rotor time : 45s (cold) 25s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



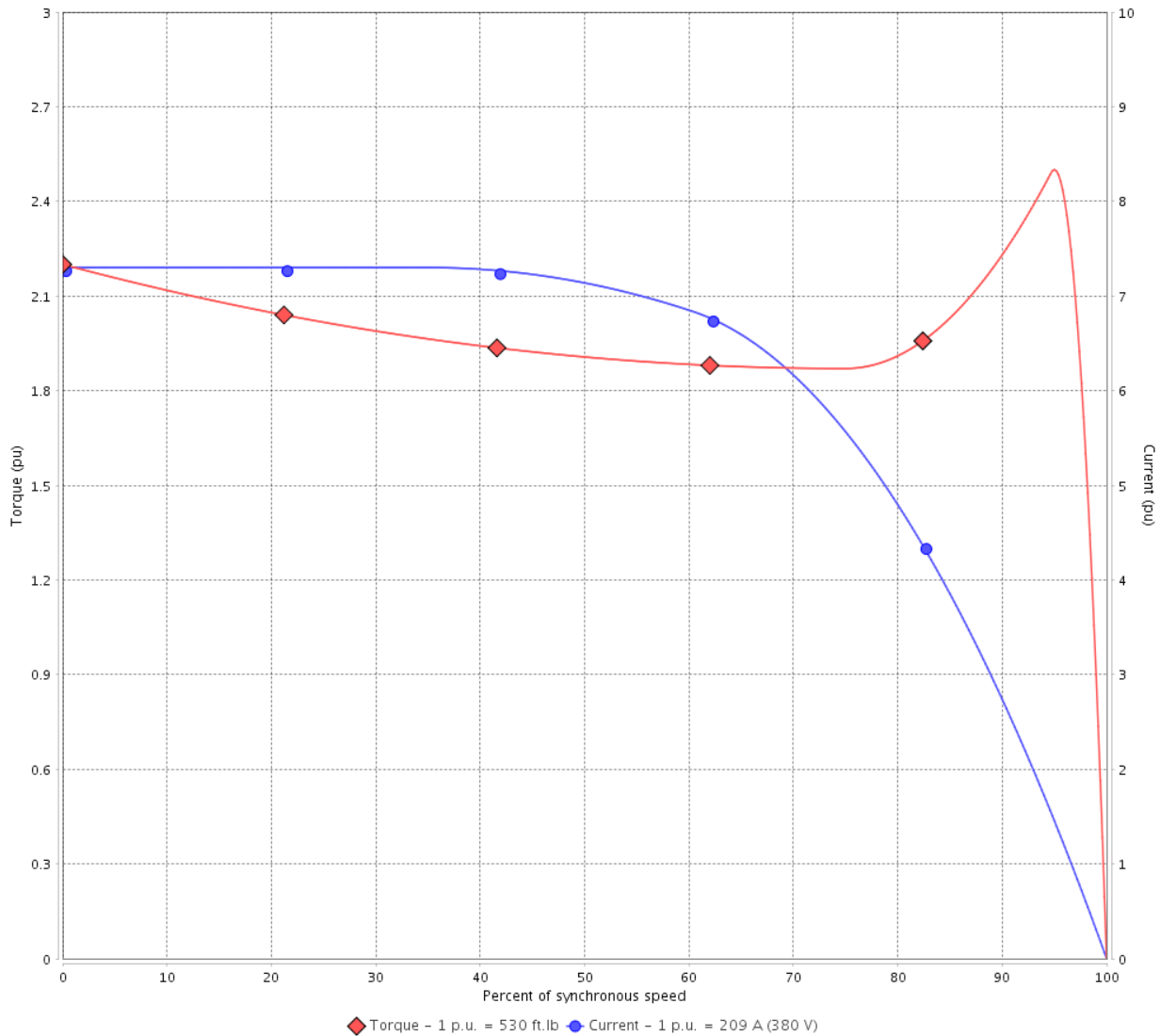
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408381

Catalog # : 20018XT3G504

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current	: 209 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 530 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	: A

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

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TORQUE AND CURRENT VS SPEED CURVE



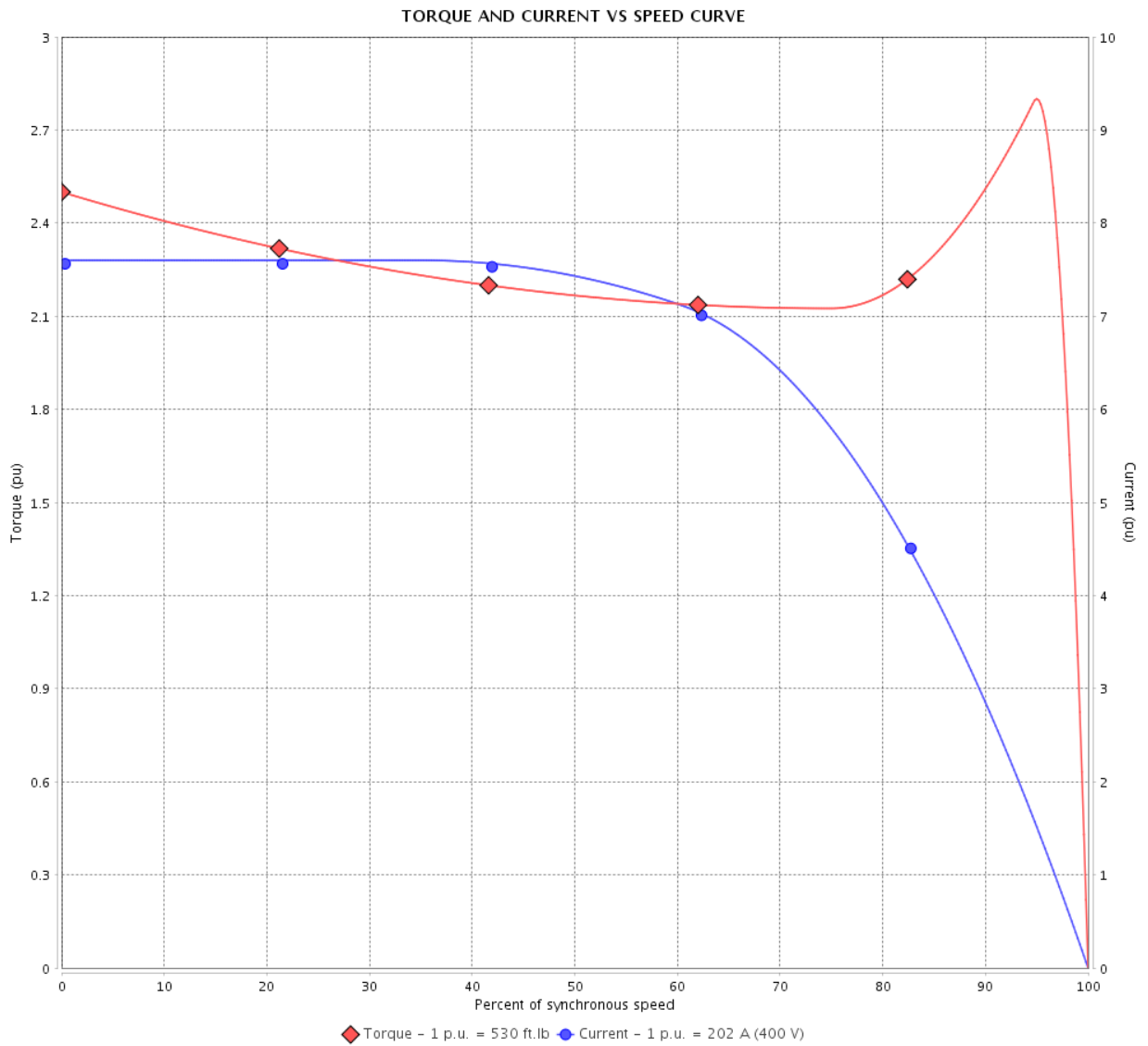
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12408381

Catalog # : 20018XT3G504



Performance : 400 V 50 Hz 4P IE3

Rated current	: 202 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 530 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: A

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

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TORQUE AND CURRENT VS SPEED CURVE

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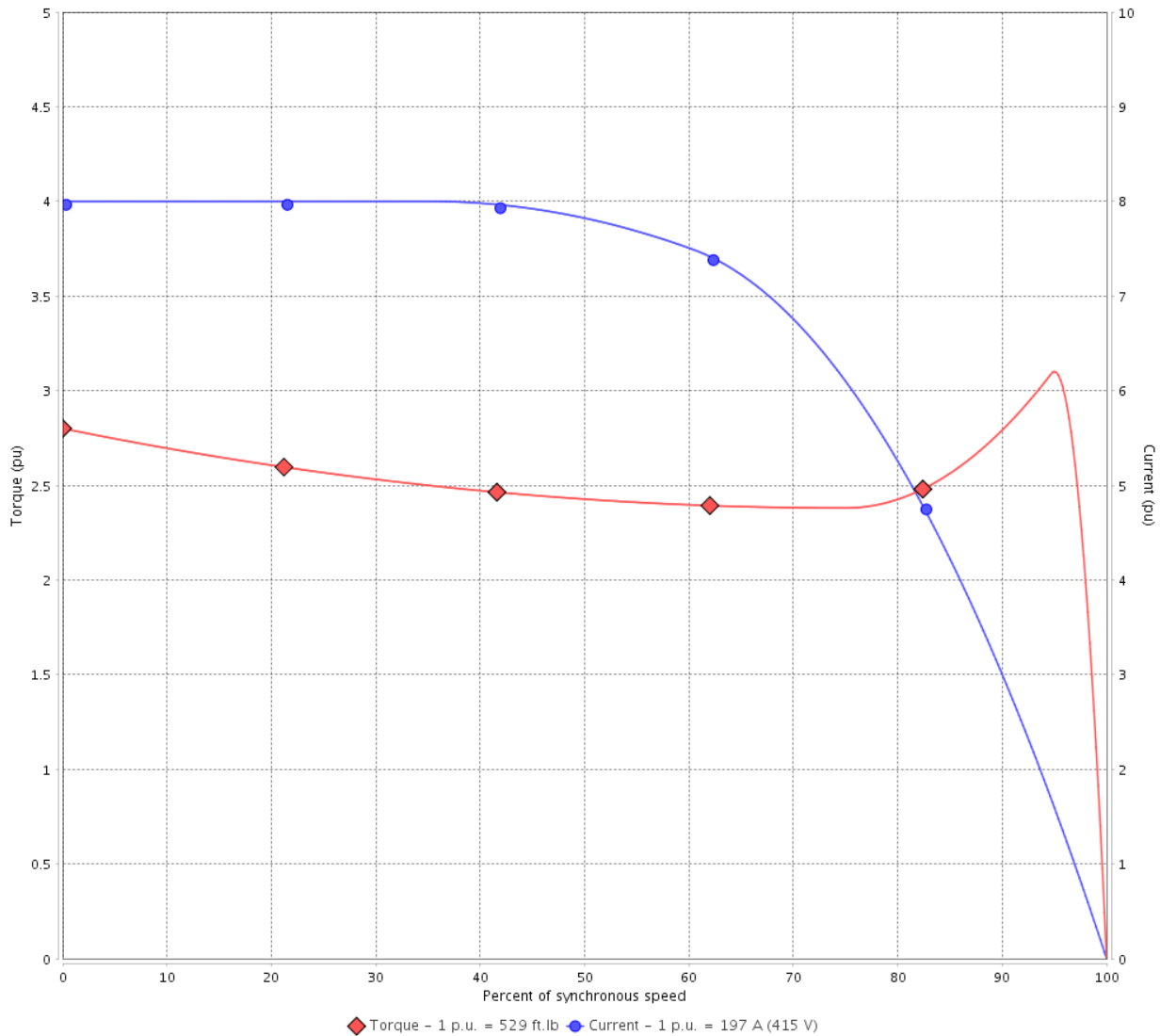
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE3

Rated current	: 197 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 8.5	Duty cycle	: Cont.(S1)
Rated torque	: 529 ft.lb	Insulation class	: F
Locked rotor torque	: 300 %	Service factor	: 1.00
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: A

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

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LOAD PERFORMANCE CURVE

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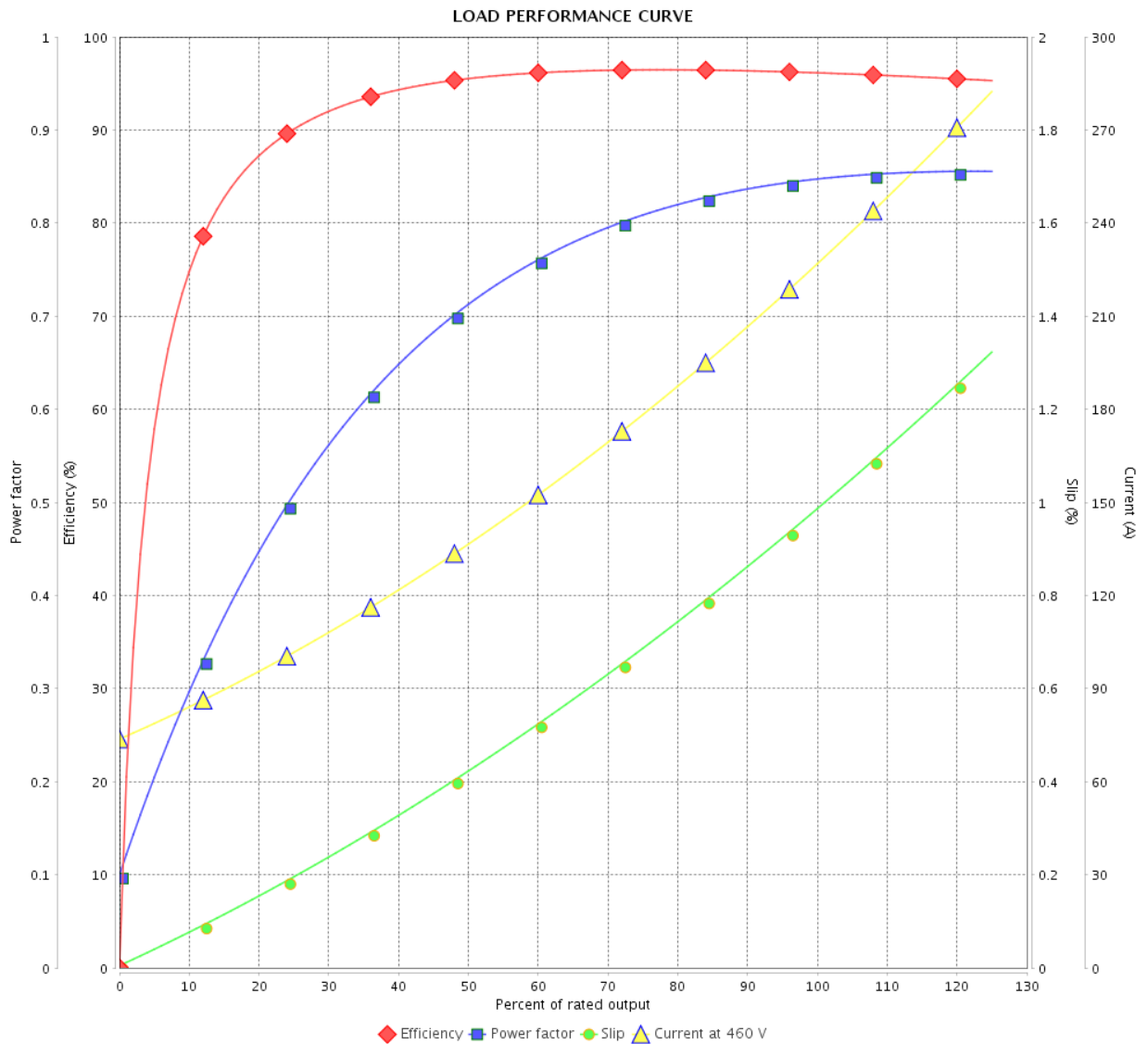


Customer :

Product line : NEMA Premium Efficiency Three-Phase

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Performance : 460 V 60 Hz 4P

Rated current : 230 A
 LRC : 6.9
 Rated torque : 589 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 240 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 76.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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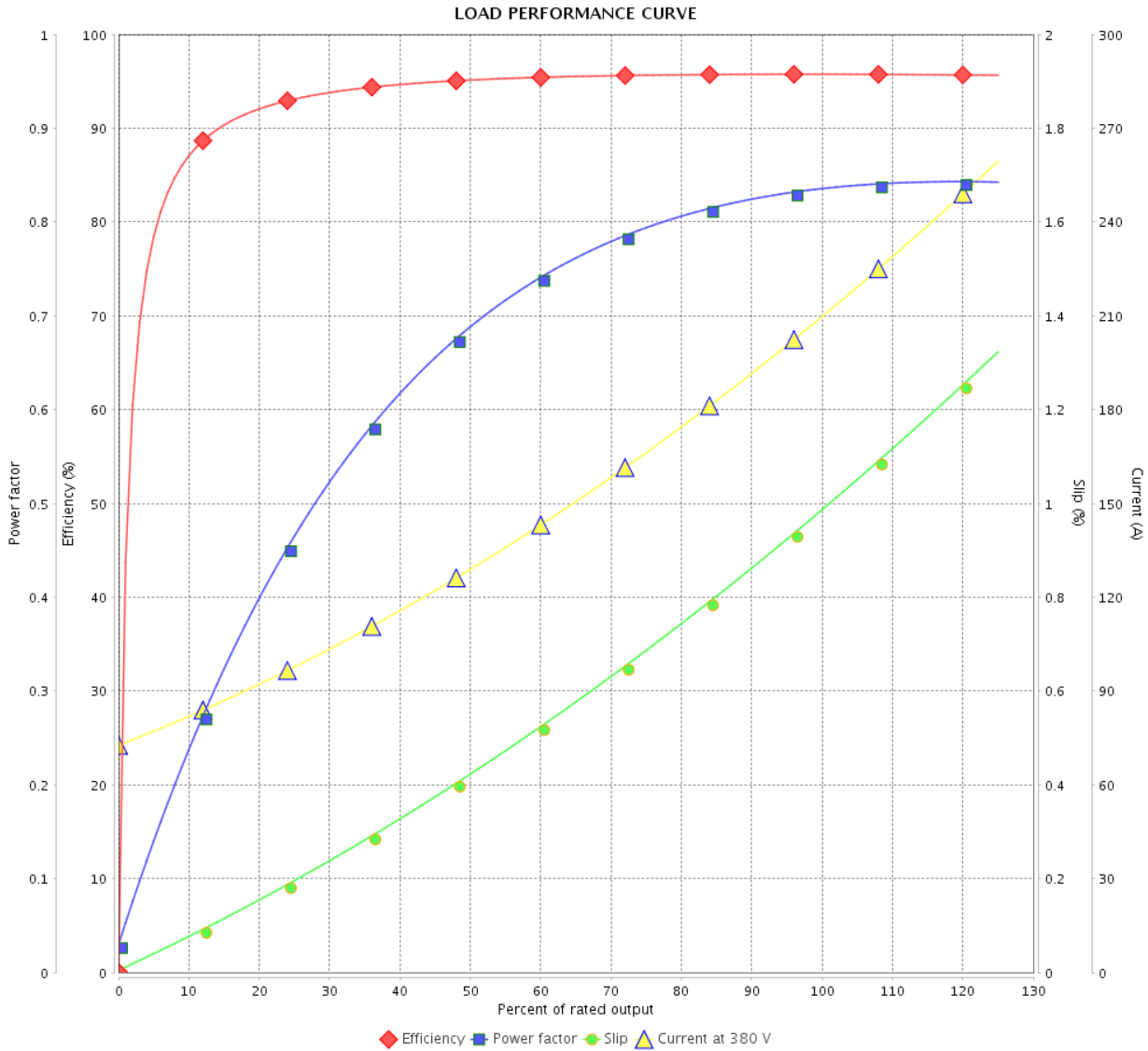


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Rated current	: 209 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 530 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: A

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Three Phase Induction Motor - Squirrel Cage

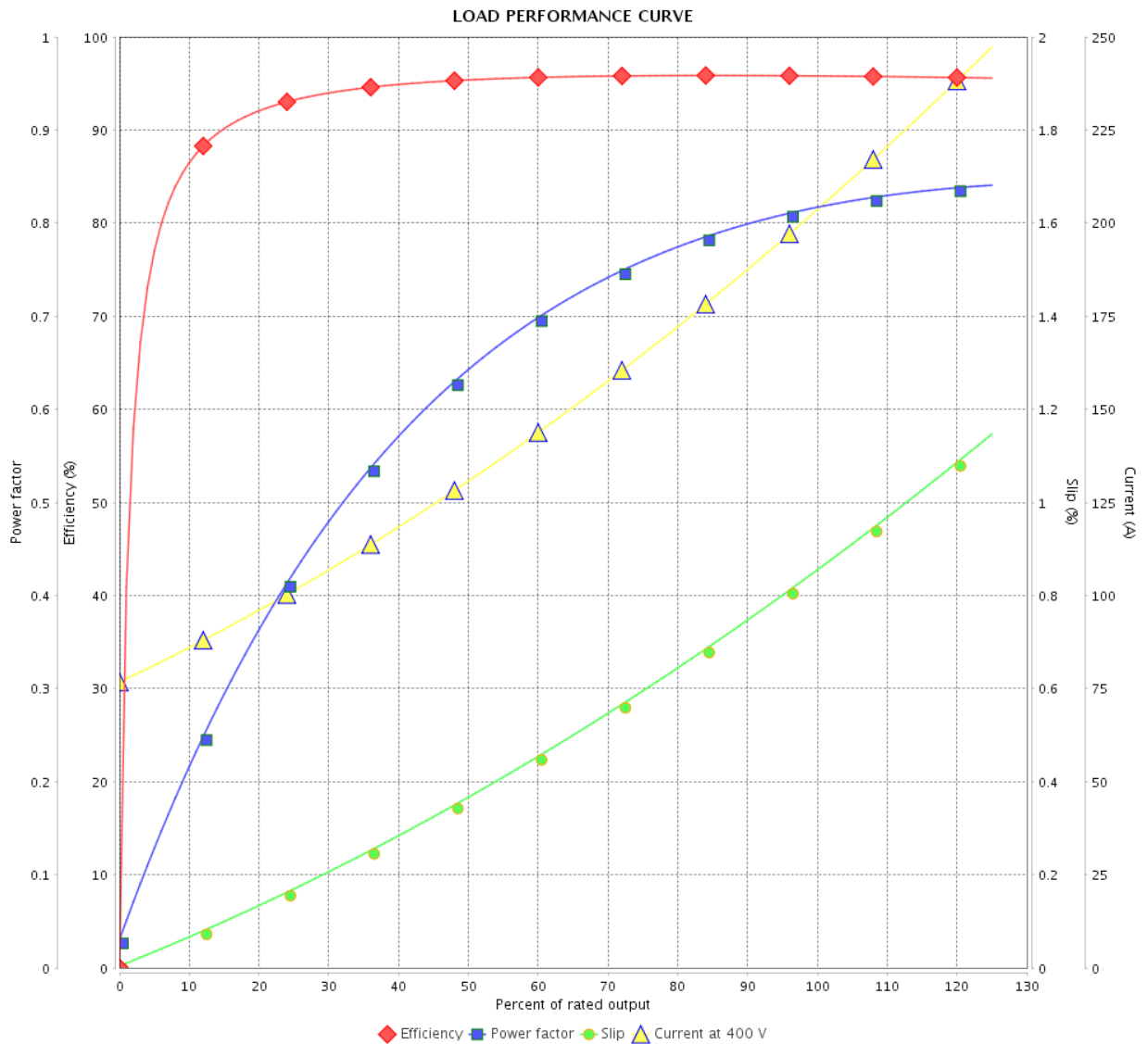


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Catalog # : 20018XT3G504



Performance : 400 V 50 Hz 4P IE3

Rated current : 202 A
 LRC : 8.0
 Rated torque : 530 ft.lb
 Locked rotor torque : 280 %
 Breakdown torque : 290 %
 Rated speed : 1485 rpm

Moment of inertia (J) : 76.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : A

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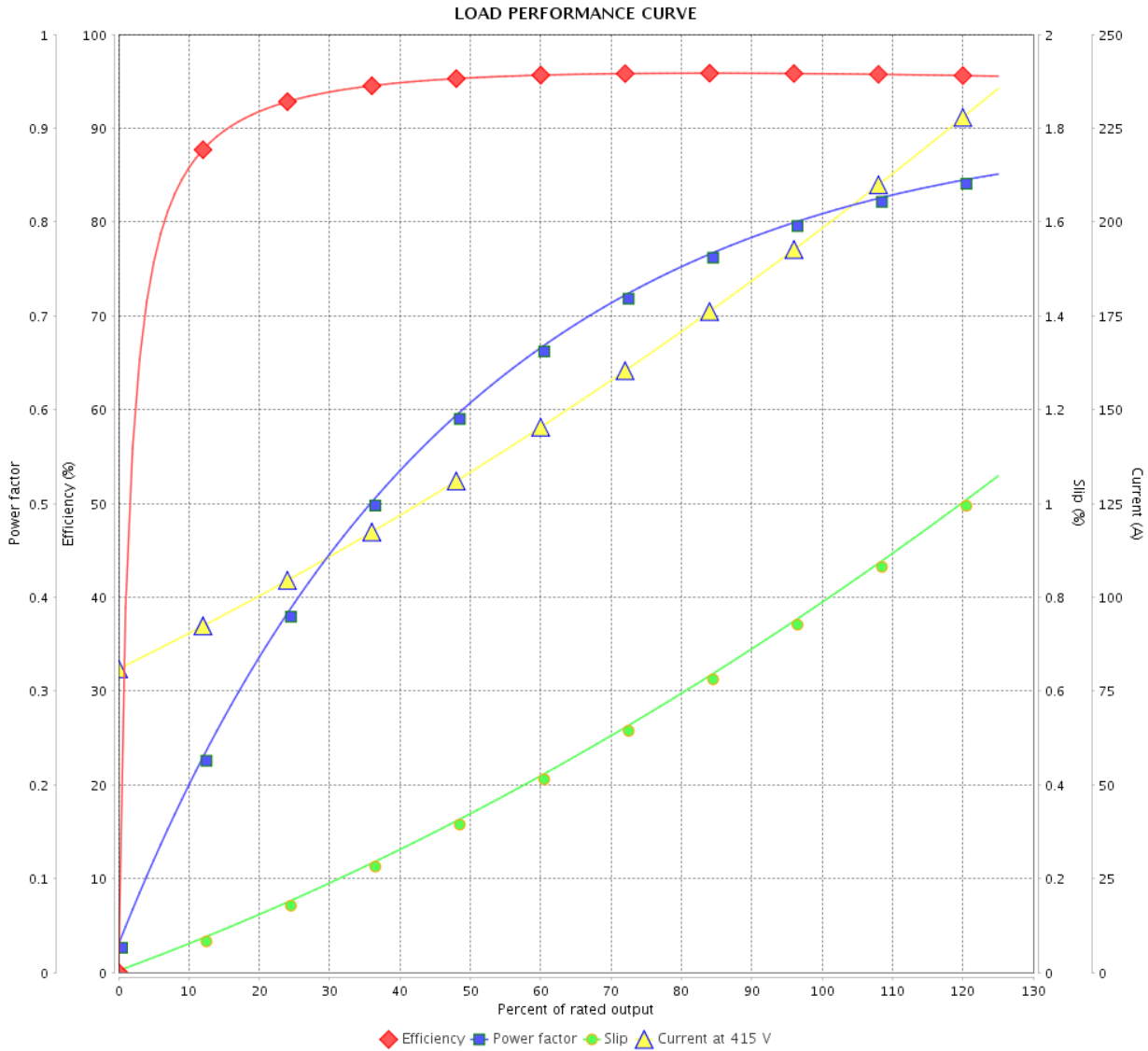


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 Insulation class : F
 Service factor : 1.00
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THERMAL LIMIT CURVE



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Locked rotor torque : 229 %	Service factor : 1.15
Breakdown torque : 240 %	Temperature rise : 80 K
Rated speed : 1780 rpm	Design : A

Heating constant

Cooling constant

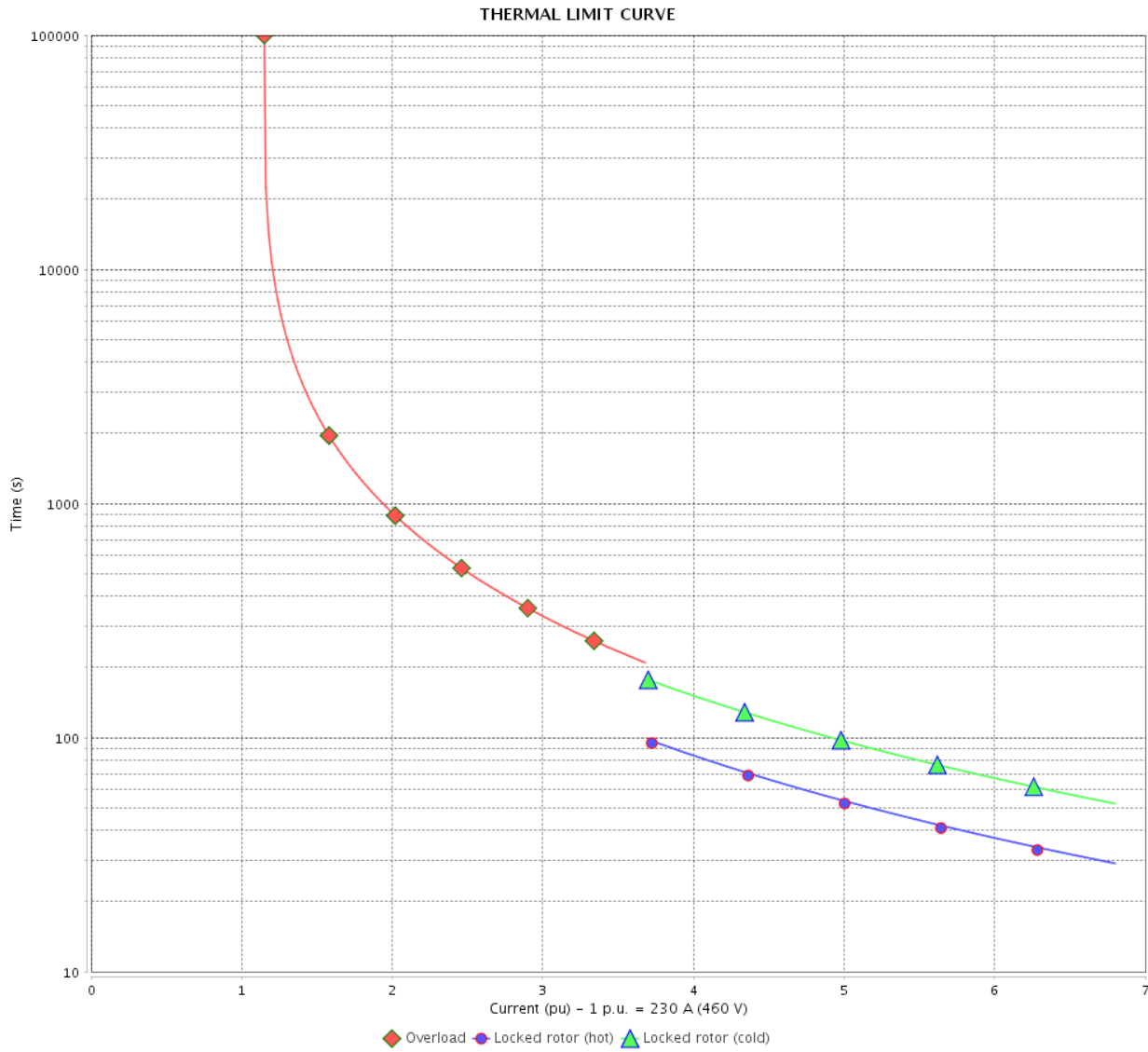
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Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1480 rpm	Design	: A

Heating constant

Cooling constant

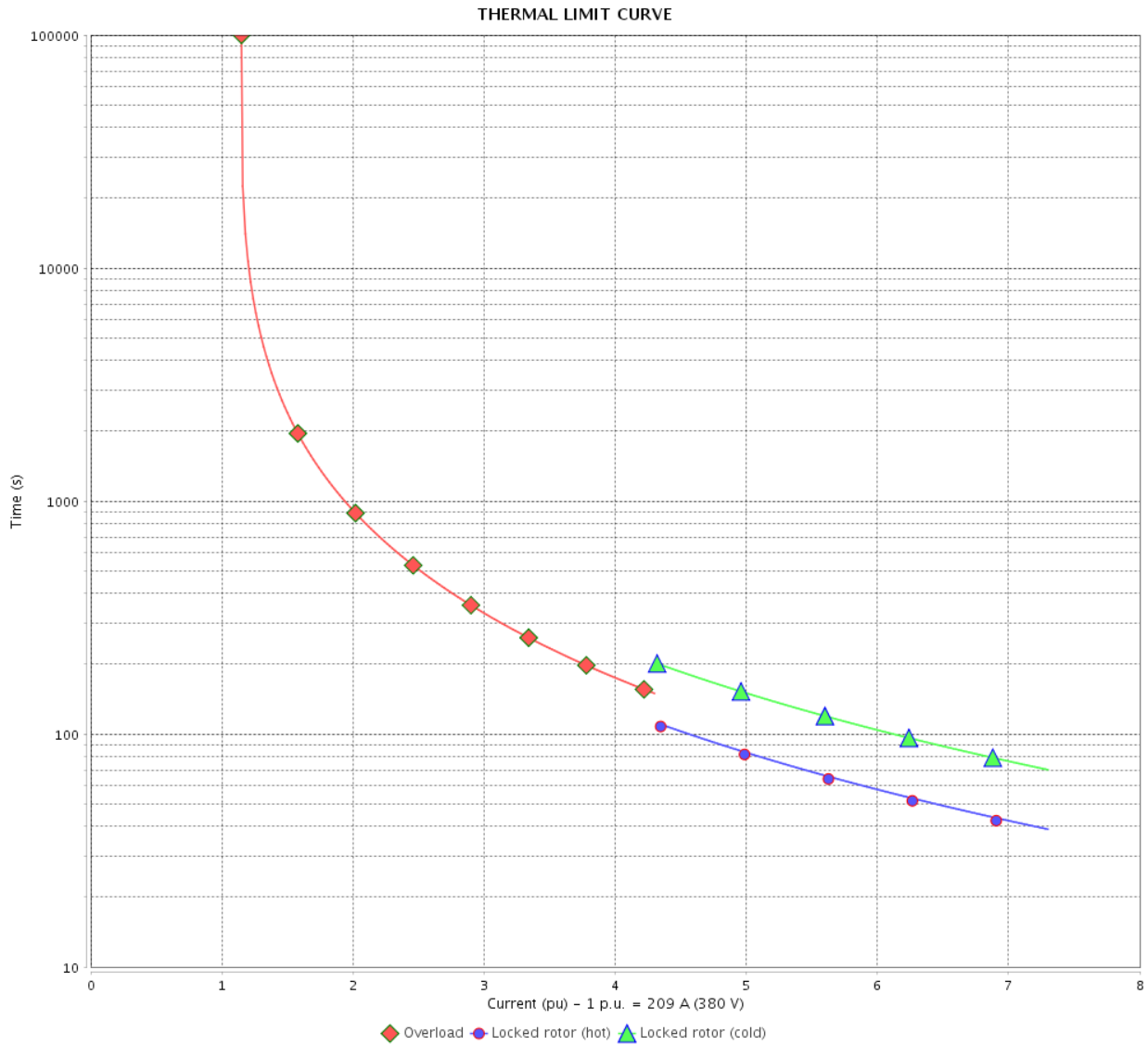
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LRC : 8.0	Duty cycle : Cont.(S1)
Rated torque : 530 ft.lb	Insulation class : F
Locked rotor torque : 280 %	Service factor : 1.00
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 1485 rpm	Design : A

Heating constant

Cooling constant

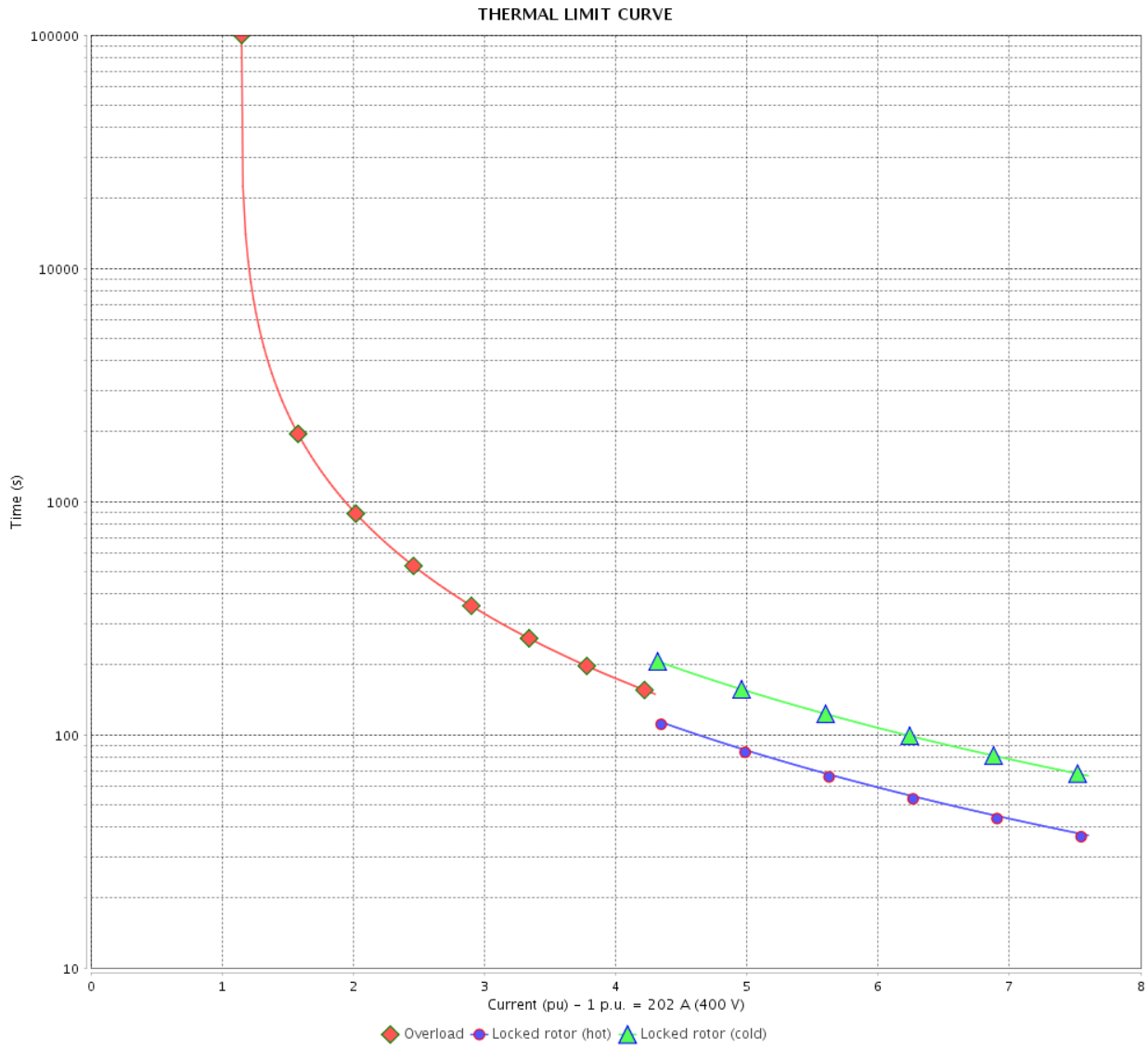
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LRC : 8.5	Duty cycle : Cont.(S1)
Rated torque : 529 ft.lb	Insulation class : F
Locked rotor torque : 300 %	Service factor : 1.00
Breakdown torque : 320 %	Temperature rise : 80 K
Rated speed : 1485 rpm	Design : A

Heating constant

Cooling constant

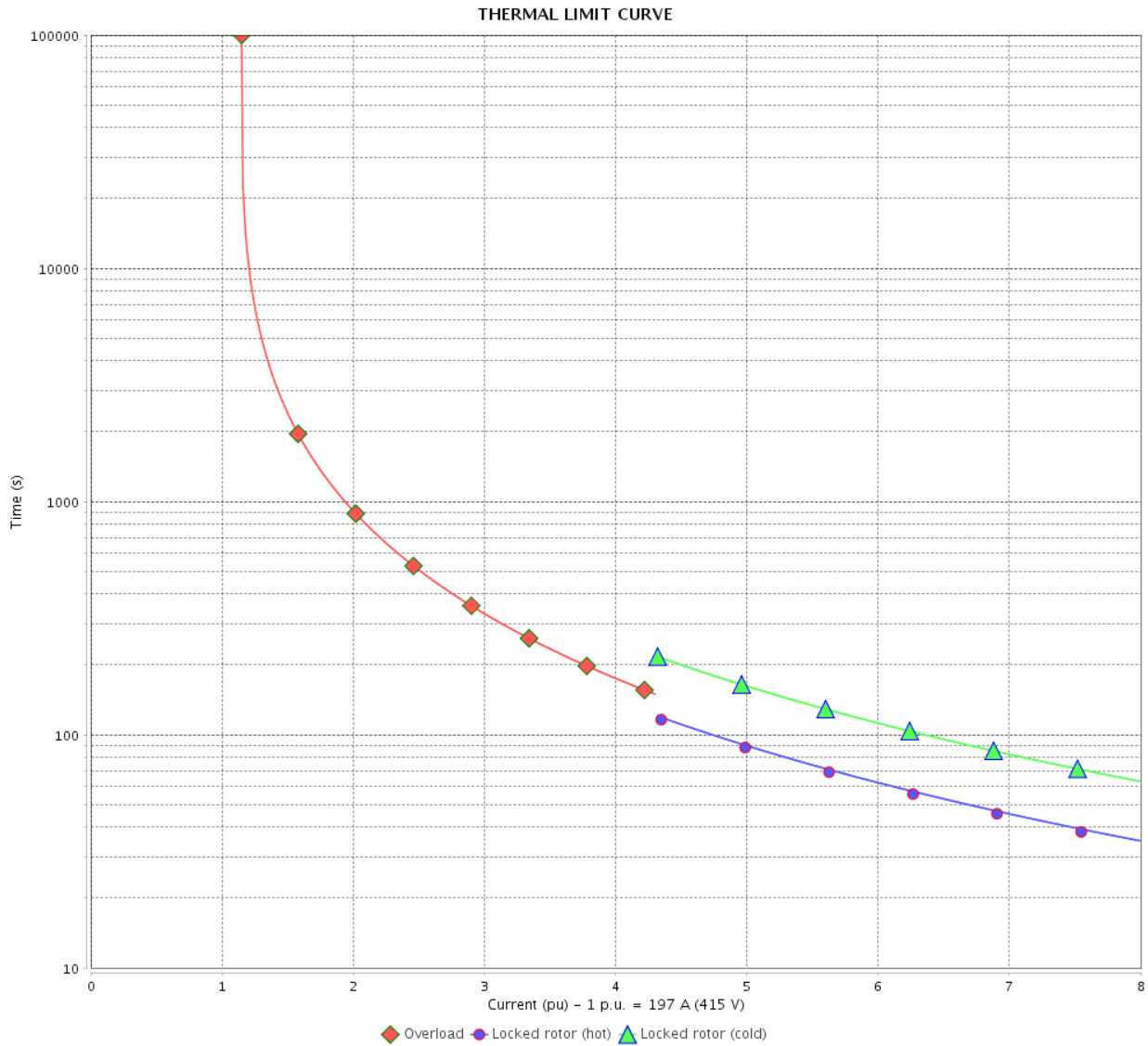
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Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

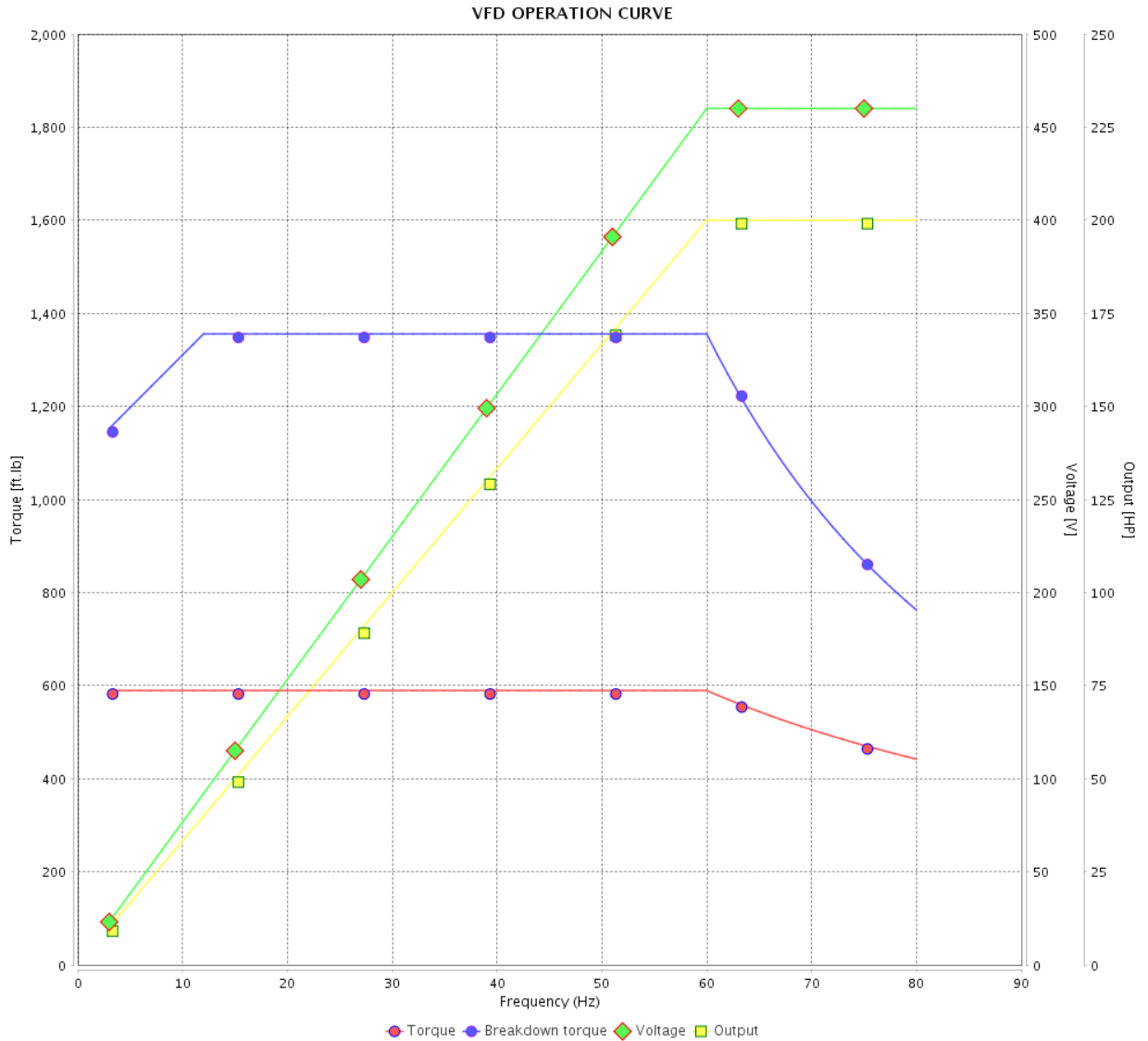


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Performance : 460 V 60 Hz 4P

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 Breakdown torque : 240 %
 Rated speed : 1780 rpm

Moment of inertia (J) : 76.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : A

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



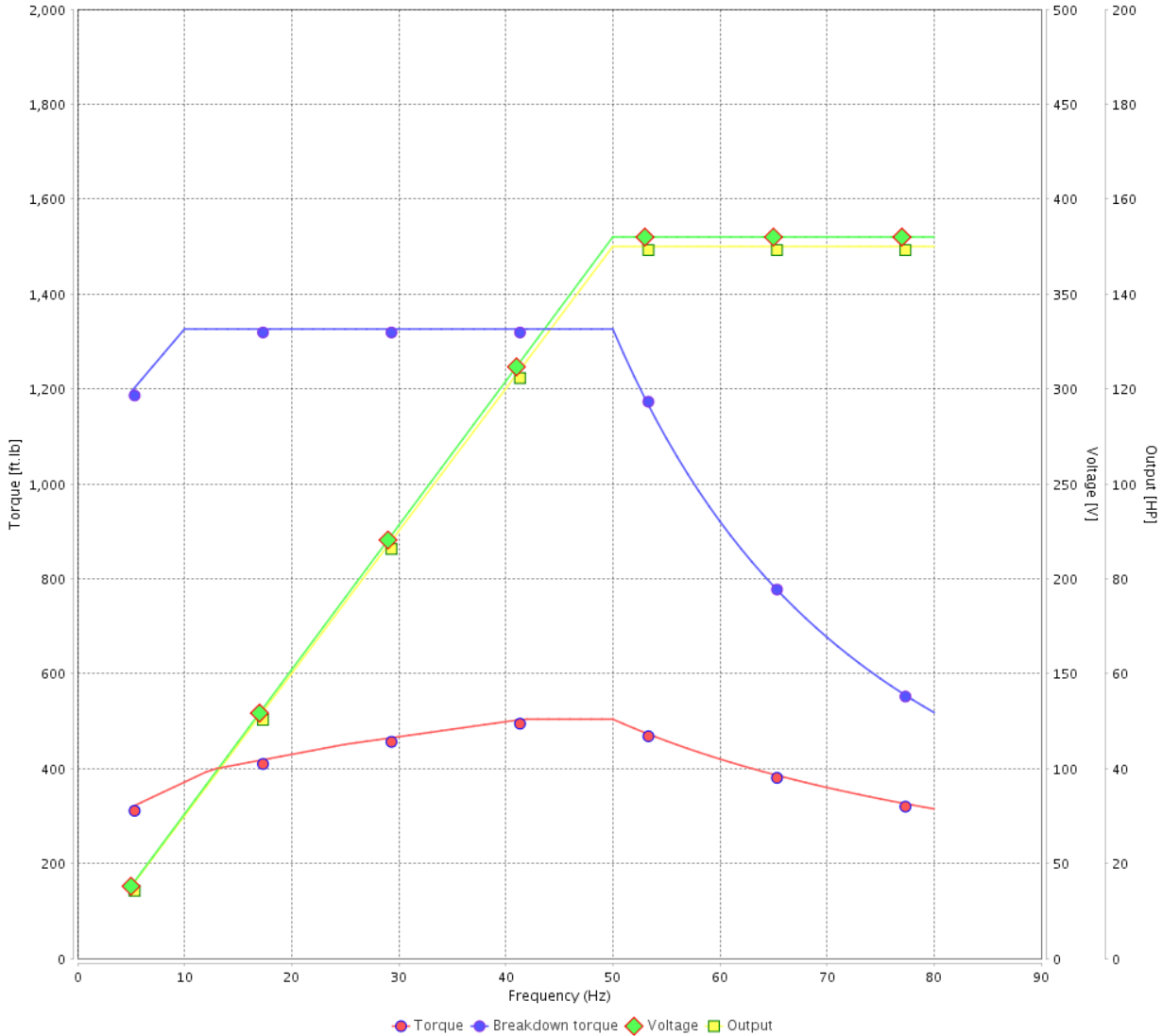
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VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE3

Rated current	: 209 A	Moment of inertia (J)	: 76.2 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 530 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	: A

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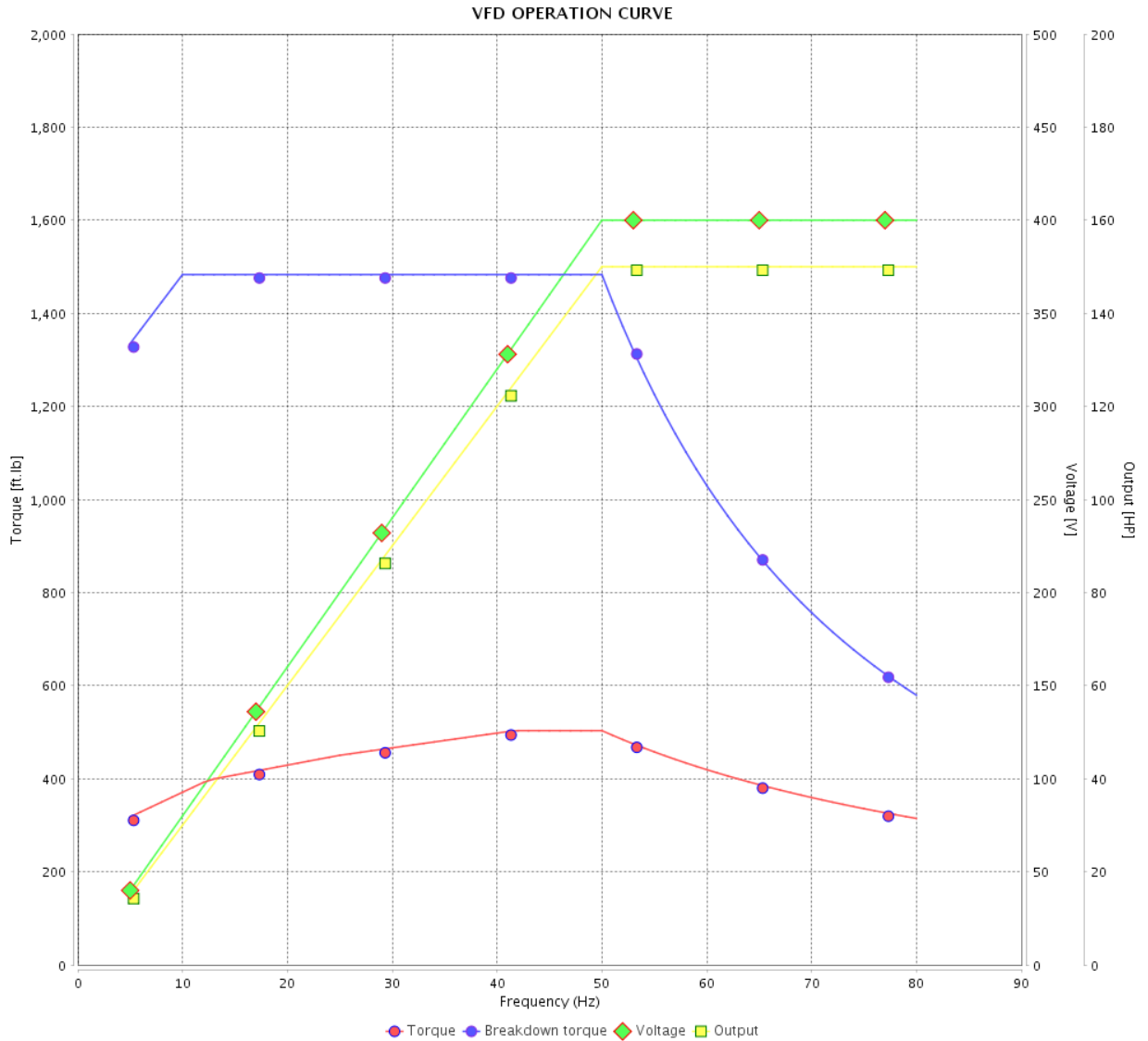
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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Rated torque	: 530 ft.lb	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1485 rpm	Design	: A

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

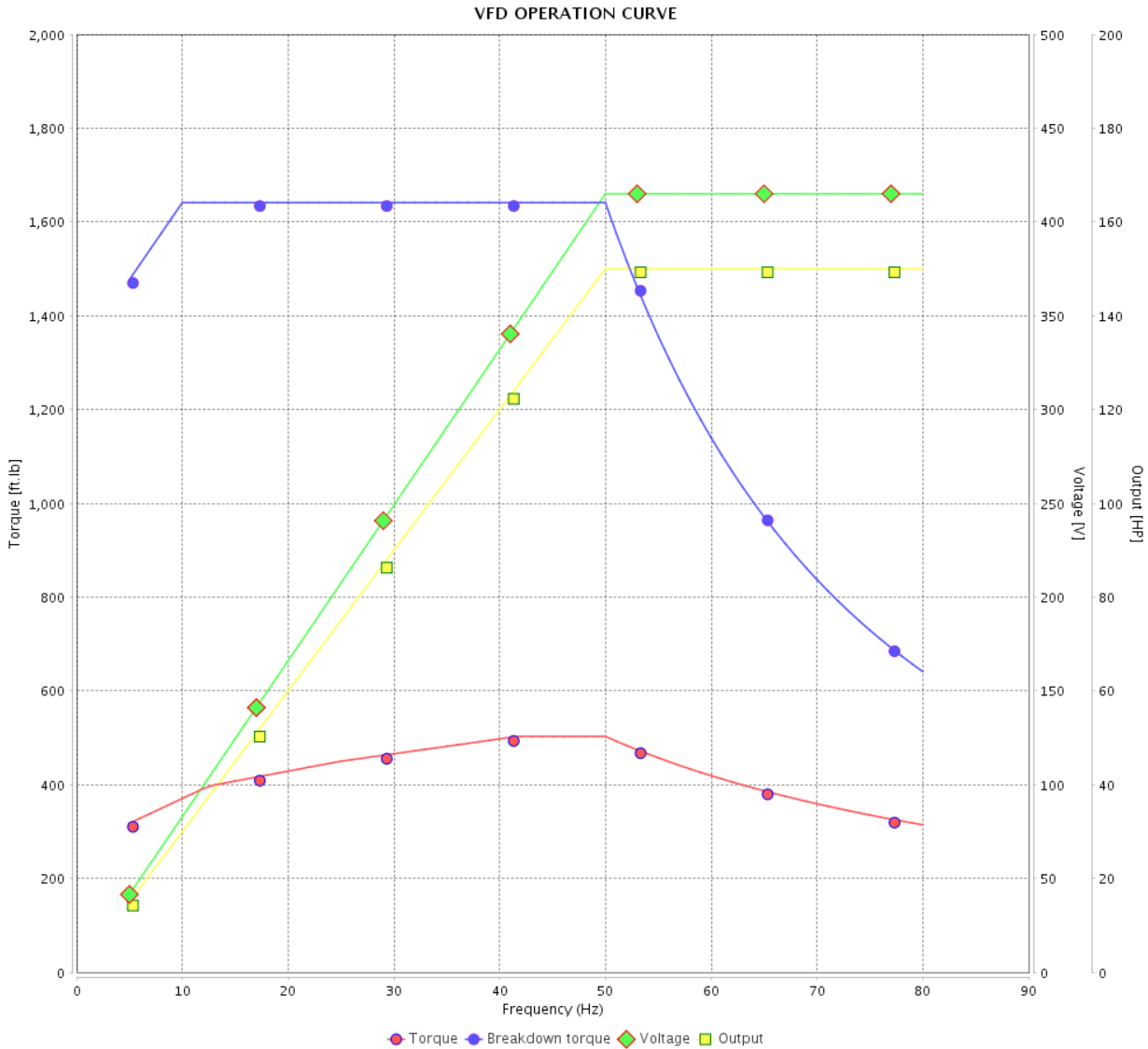


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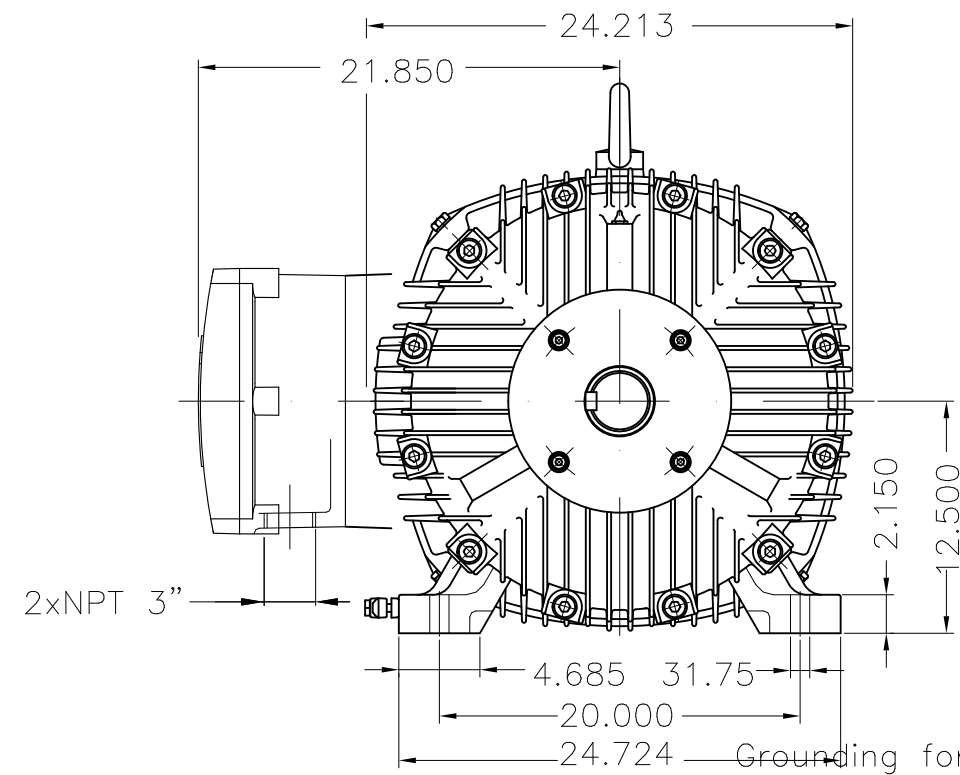
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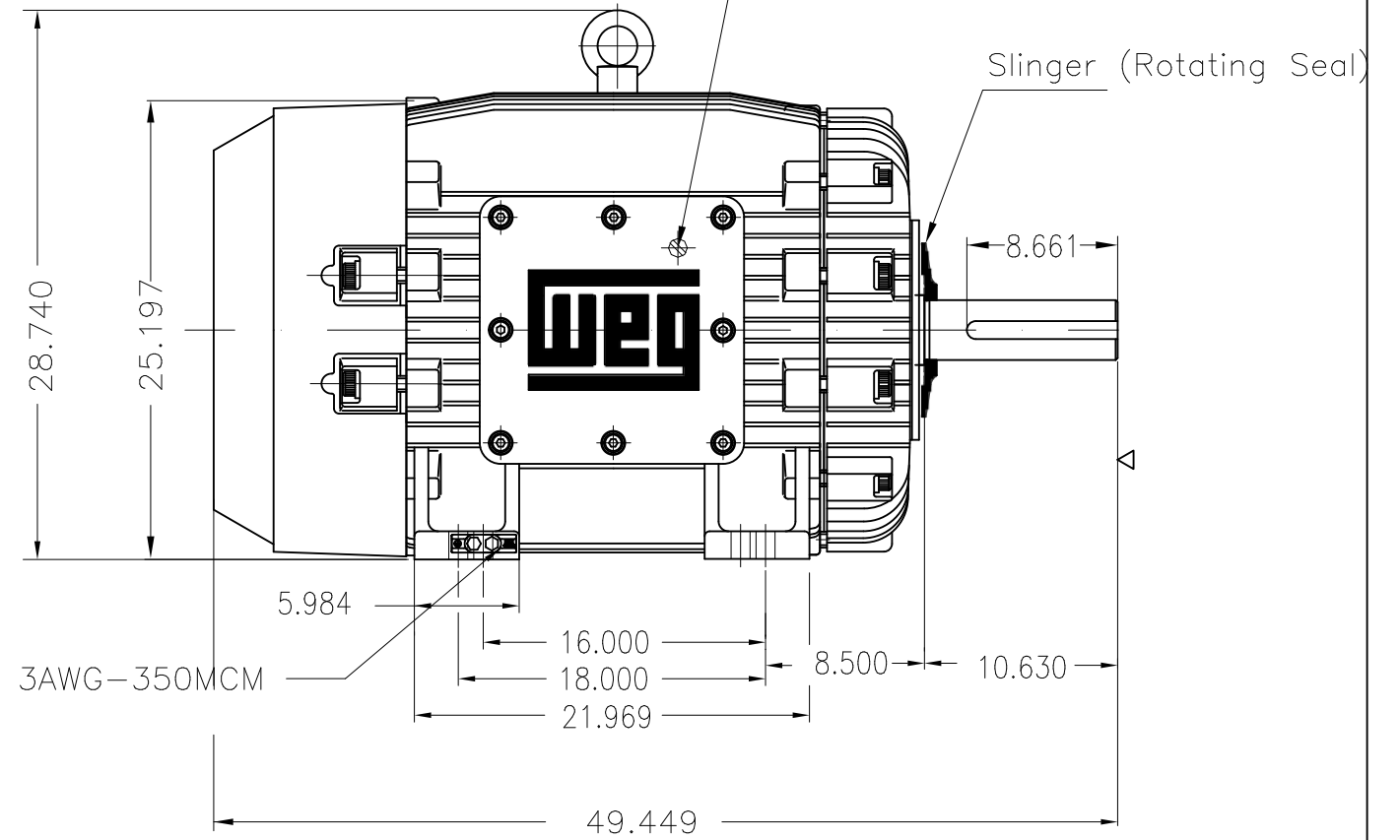
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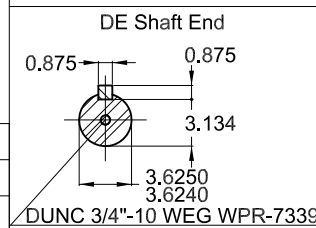
Grounding for leads 35-70 mm² / 1-2/0 AWG



Grounding for leads 25-185 mm² / 3AWG-350MCM

200 HP 04 Poles 60 Hz

A



Color RAL 5009
 Painting plan 202P
 Mounting B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 504/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW
 WDD



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