

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : IE3 Three-Phase	Product code : 12867405				
Frame : 71 Insulation class : F Duty cycle : S1 Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Design : N	Cooling method : IC411 - TEFC Mounting : B3T Rotation <sup>1</sup> : Both (CW and CCW) Starting method : Direct On Line Approx. weight <sup>2</sup> : 26.0 lb Moment of inertia (J) : 0.0221 sq.ft.lb				
Output [kW]	0.25	0.25	0.25	0.25	
Poles	4	4	4	4	
Frequency [Hz]	50	50	50	60	
Rated voltage [V]	220/380	230/400	240/415	460	
Rated current [A]	1.21/0.698	1.19/0.682	1.19/0.686	0.642	
L. R. Amperes [A]	5.79/3.35	5.69/3.27	5.69/3.29	3.40	
LRC [A]	4.8	4.8	4.8	5.3	
No load current [A]	0.725/0.420	0.783/0.450	0.830/0.480	0.430	
Rated speed [RPM]	1400	1410	1420	1720	
Slip [%]	6.67	6.00	5.33	4.44	
Rated torque [ft.lb]	1.26	1.25	1.24	1.02	
Locked rotor torque [%]	210	240	250	270	
Breakdown torque [%]	200	240	260	290	
Service factor	1.00	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	54s (cold) 30s (hot)	
Noise level <sup>2</sup>	43.0 dB(A)	43.0 dB(A)	43.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%				
	50%	67.0	69.0	65.1	70.0
	75%	69.1	72.0	68.6	72.0
	100%	73.5	73.5	73.5	74.0
Power Factor	25%				
	50%	0.55	0.52	0.50	0.47
	75%	0.66	0.62	0.61	0.59
	100%	0.74	0.72	0.69	0.66
Losses at normative operating points (speed;torque), in percentage of rated output power					
Losses (%)	P1 (0,9;1,0)	36.0	36.0	36.0	35.1
	P2 (0,5;1,0)	34.9	34.9	34.9	34.0
	P3 (0,25;1,0)	34.2	34.2	34.2	33.3
	P4 (0,9;0,5)	19.1	19.1	19.1	18.6
	P5 (0,5;0,5)	15.0	15.0	15.0	14.6
	P6 (0,5;0,25)	11.3	11.3	11.3	11.0
	P7 (0,25;0,25)	8.9	8.9	8.9	8.7
Bearing type	: Drive end : 6202 ZZ	: Non drive end : 6202 ZZ	Foundation loads		
Sealing	: V'Ring	: V'Ring	Max. traction	: 19 lb	
Lubrication interval	: -	: -	Max. compression	: 45 lb	
Lubricant amount	: -	: -			
Lubricant type	: Mobil Polyrex EM				
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 IEC 60034-1.		
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## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

### Thermal protection

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

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# TORQUE AND CURRENT VS SPEED CURVE

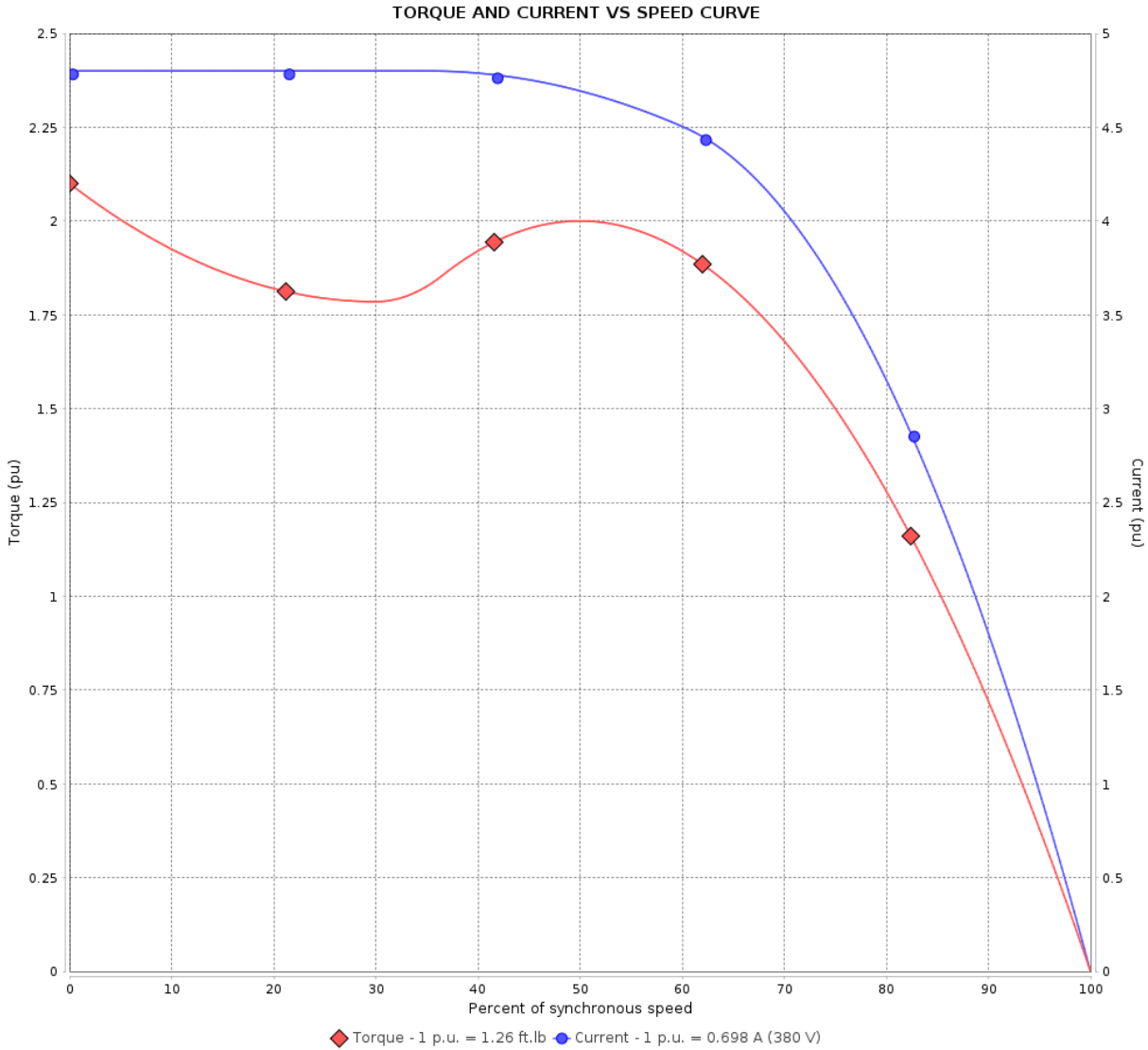
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : IE3 Three-Phase

Product code : 12867405



Performance : 220/380 V 50 Hz 4P

Rated current	: 1.21/0.698 A	Moment of inertia (J)	: 0.0221 sq.ft.lb
LRC	: 4.8	Duty cycle	: S1
Rated torque	: 1.26 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 80 K
Rated speed	: 1400 rpm	Design	: N

Locked rotor time : 54s (cold) 30s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

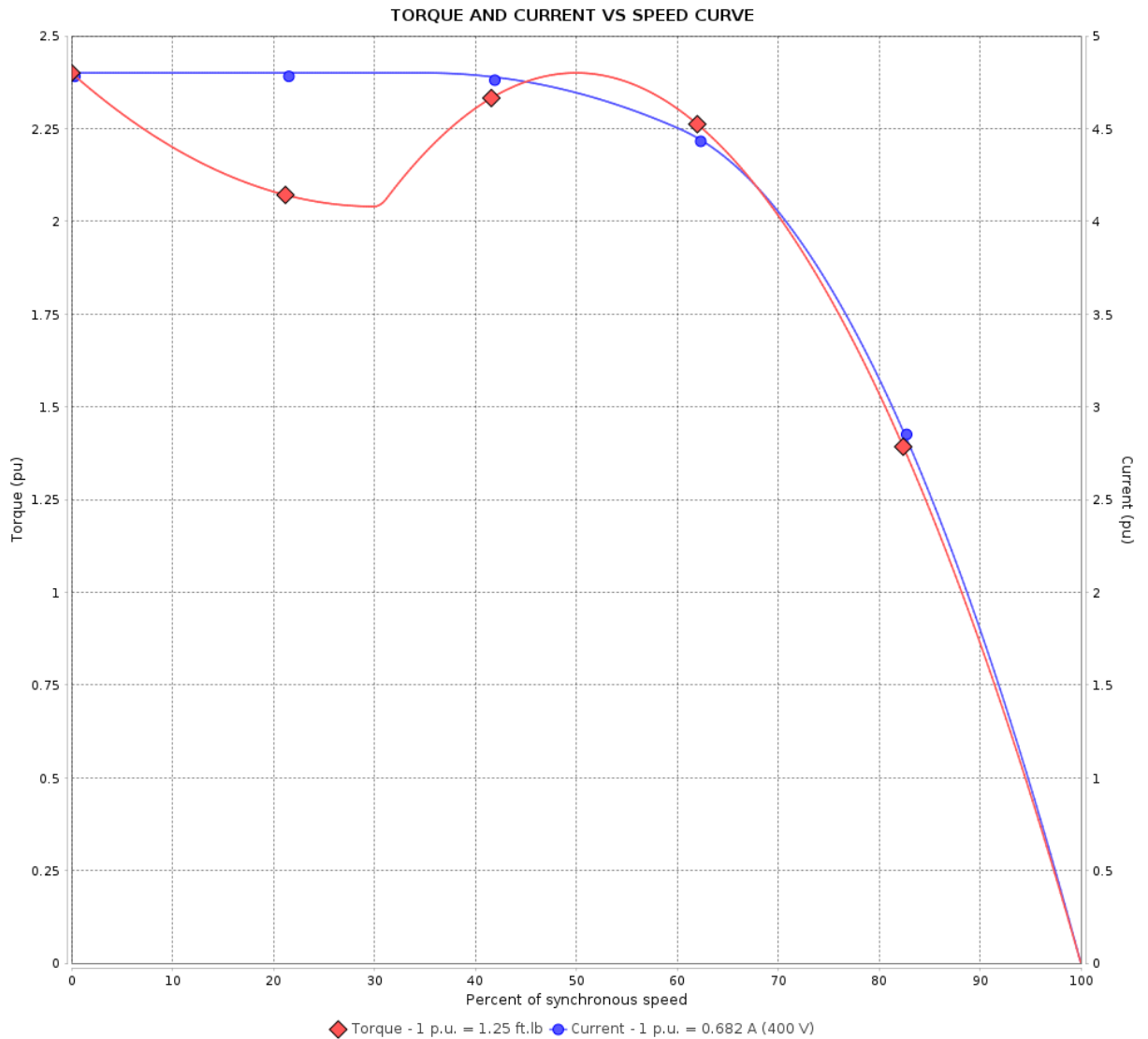
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : IE3 Three-Phase

Product code : 12867405



Performance : 230/400 V 50 Hz 4P

Rated current : 1.19/0.682 A  
 LRC : 4.8  
 Rated torque : 1.25 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1410 rpm

Moment of inertia (J) : 0.0221 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Locked rotor time : 54s (cold) 30s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

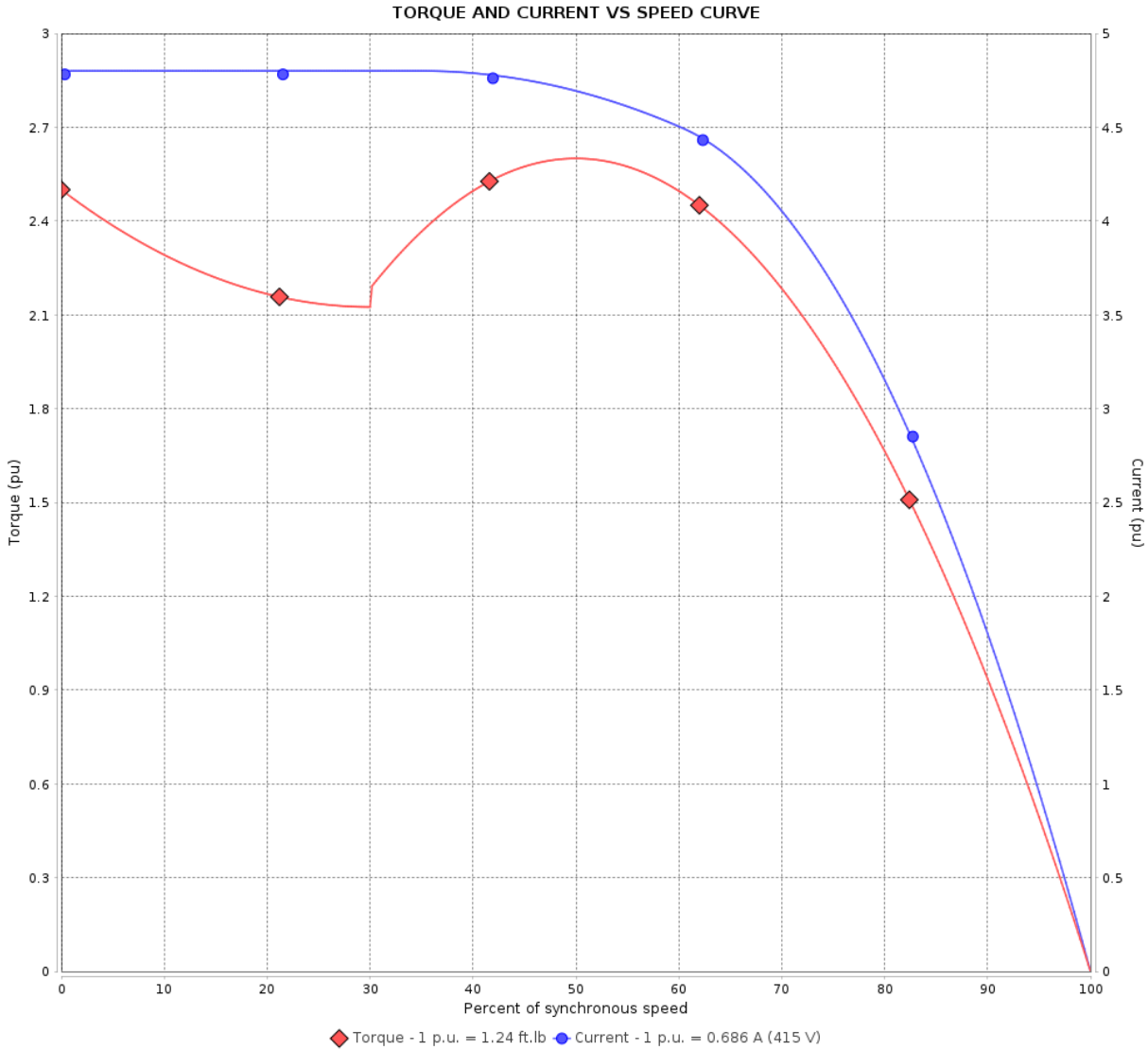
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

Product code : 12867405



Performance : 240/415 V 50 Hz 4P

Rated current	: 1.19/0.686 A	Moment of inertia (J)	: 0.0221 sq.ft.lb
LRC	: 4.8	Duty cycle	: S1
Rated torque	: 1.24 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1420 rpm	Design	: N

Locked rotor time : 54s (cold) 30s (hot)

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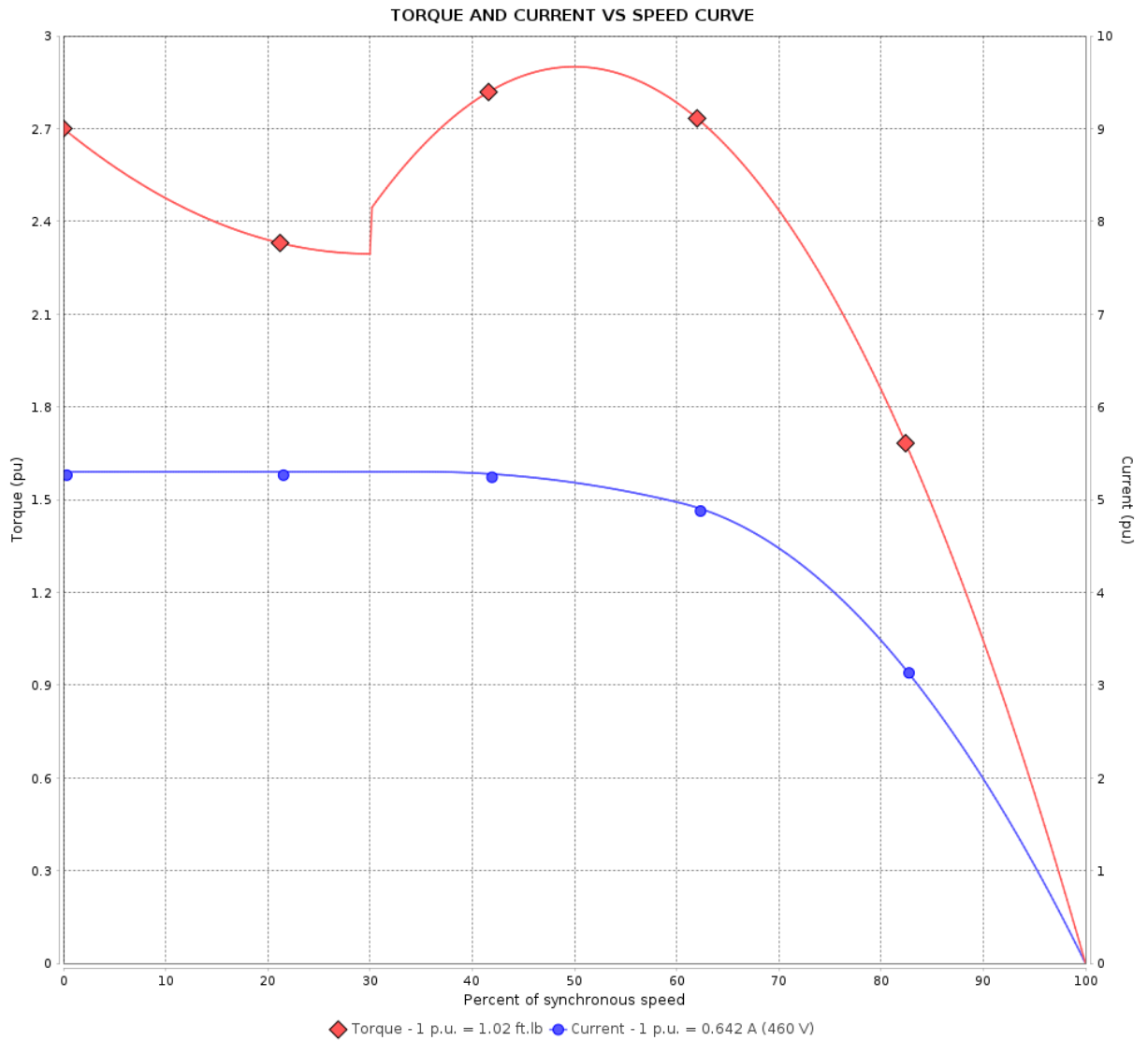
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

Product line : IE3 Three-Phase

Product code : 12867405



Performance : 460 V 60 Hz 4P

Rated current	: 0.642 A	Moment of inertia (J)	: 0.0221 sq.ft.lb
LRC	: 5.3	Duty cycle	: S1
Rated torque	: 1.02 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1720 rpm	Design	: N

Locked rotor time : 54s (cold) 30s (hot)

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# LOAD PERFORMANCE CURVE

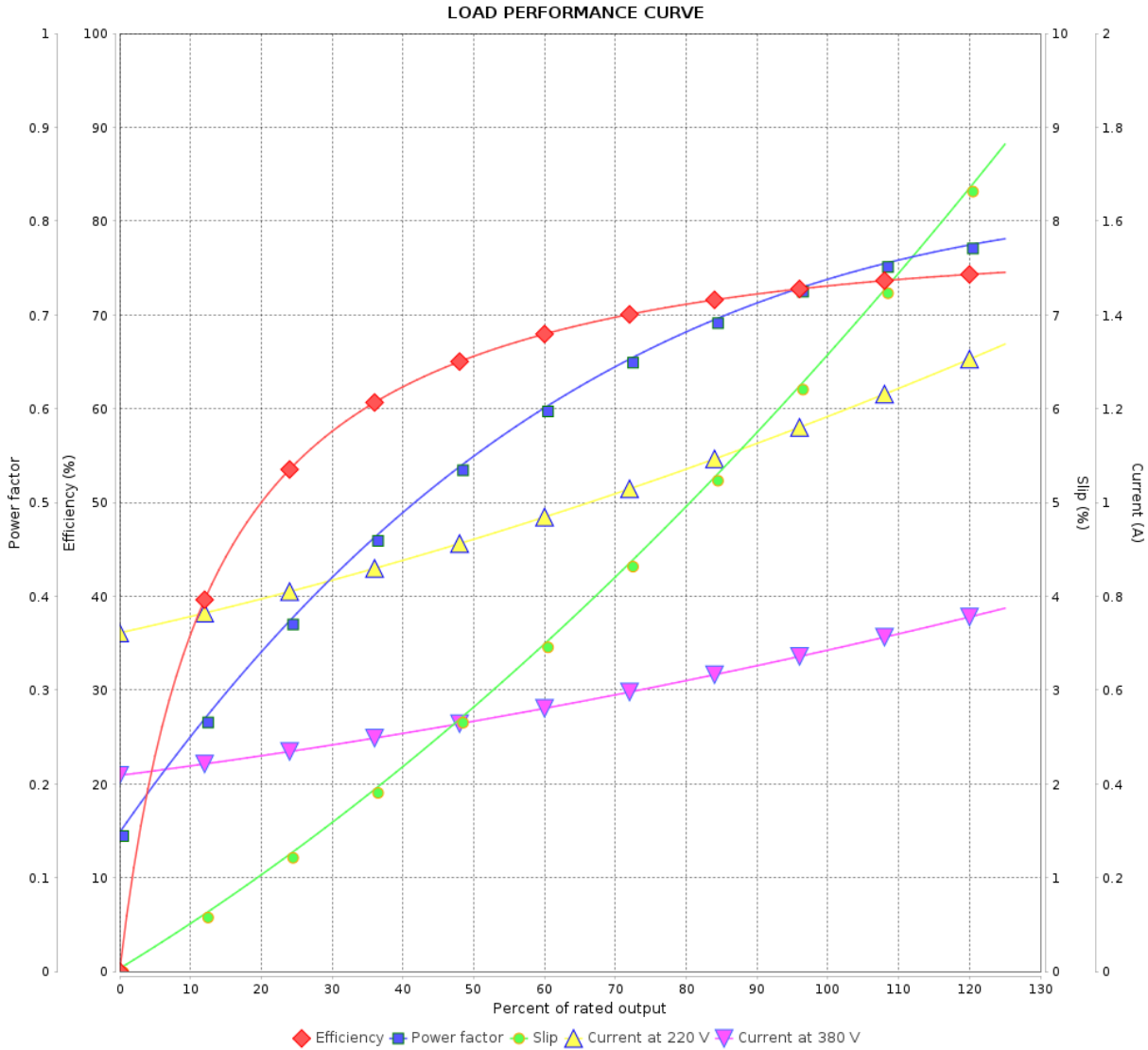
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : IE3 Three-Phase

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Performance : 220/380 V 50 Hz 4P

Rated current : 1.21/0.698 A  
 LRC : 4.8  
 Rated torque : 1.26 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 200 %  
 Rated speed : 1400 rpm

Moment of inertia (J) : 0.0221 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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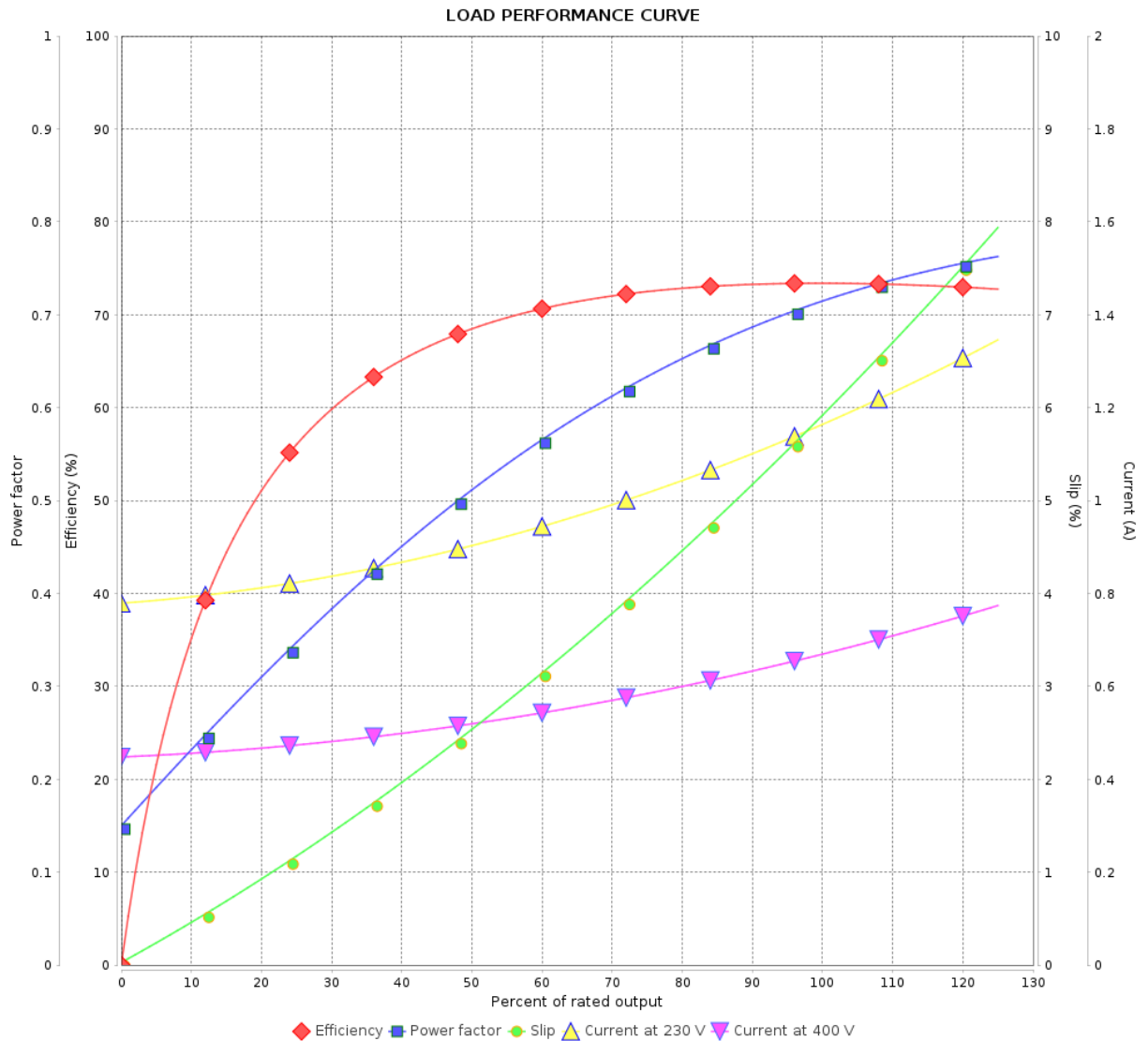
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Customer : \_\_\_\_\_

Product line : IE3 Three-Phase

Product code : 12867405



Performance : 230/400 V 50 Hz 4P

Rated current : 1.19/0.682 A  
 LRC : 4.8  
 Rated torque : 1.25 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 240 %  
 Rated speed : 1410 rpm

Moment of inertia (J) : 0.0221 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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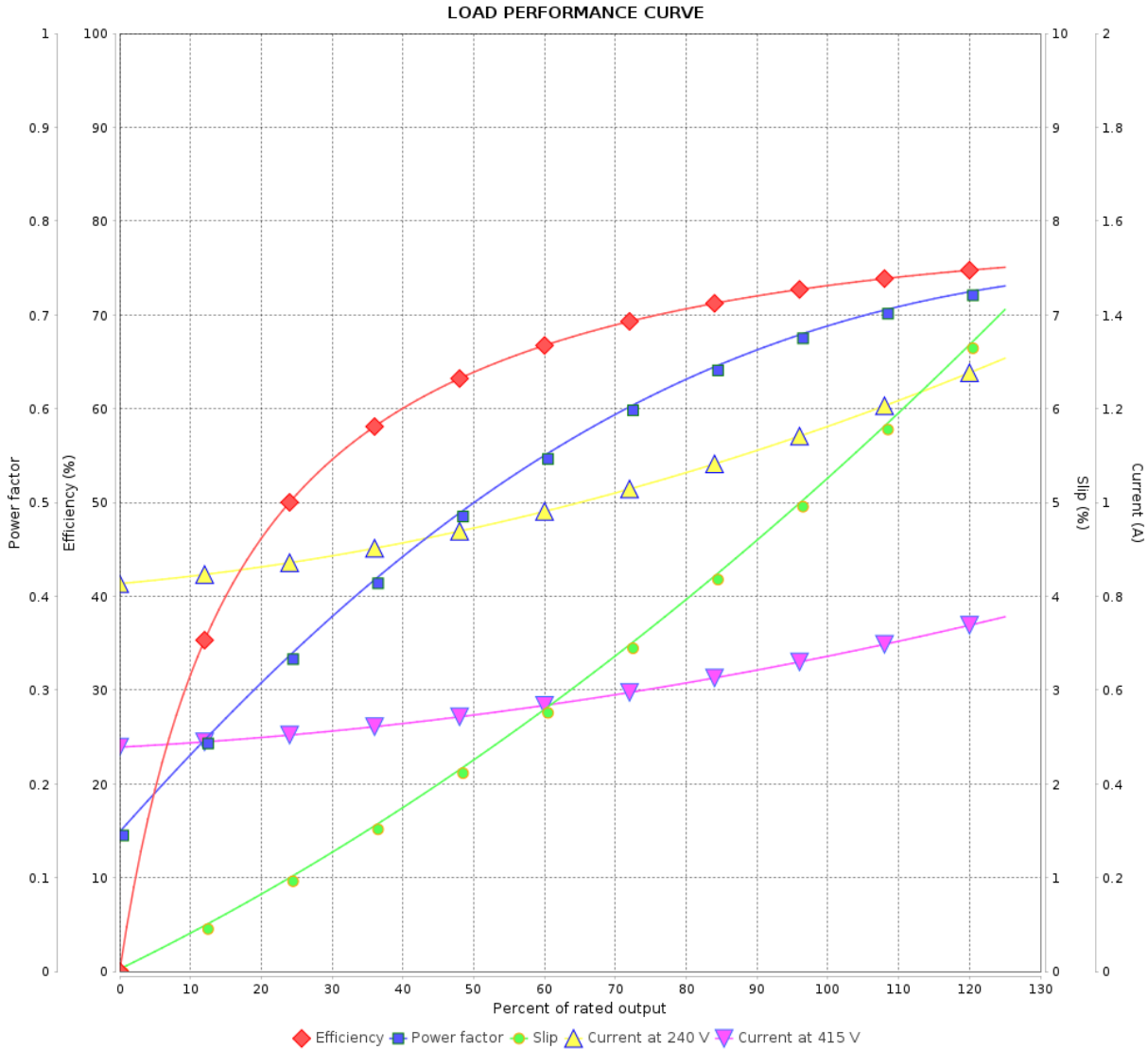
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 Rated speed : 1420 rpm

Moment of inertia (J) : 0.0221 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# LOAD PERFORMANCE CURVE

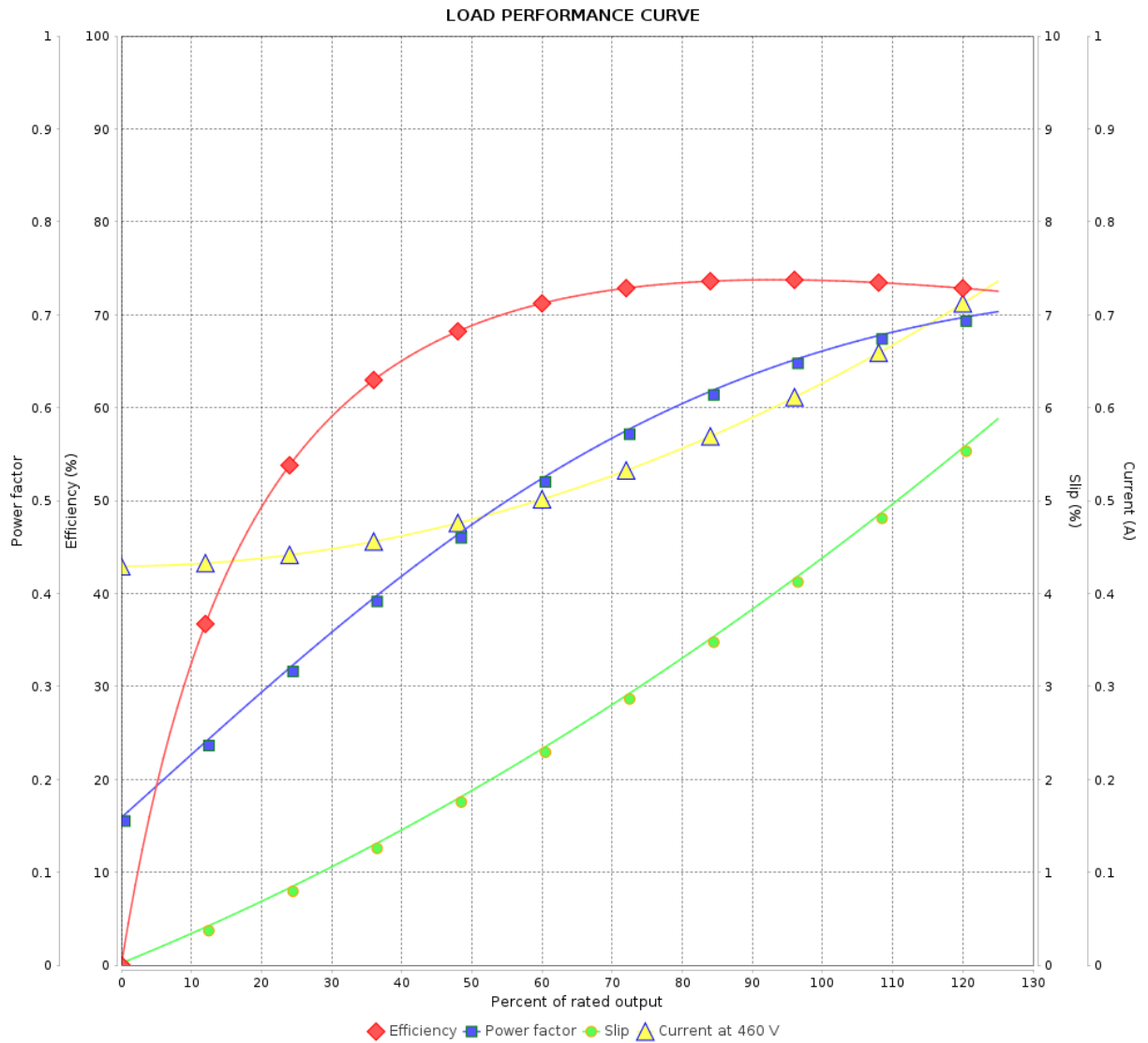
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 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

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# THERMAL LIMIT CURVE

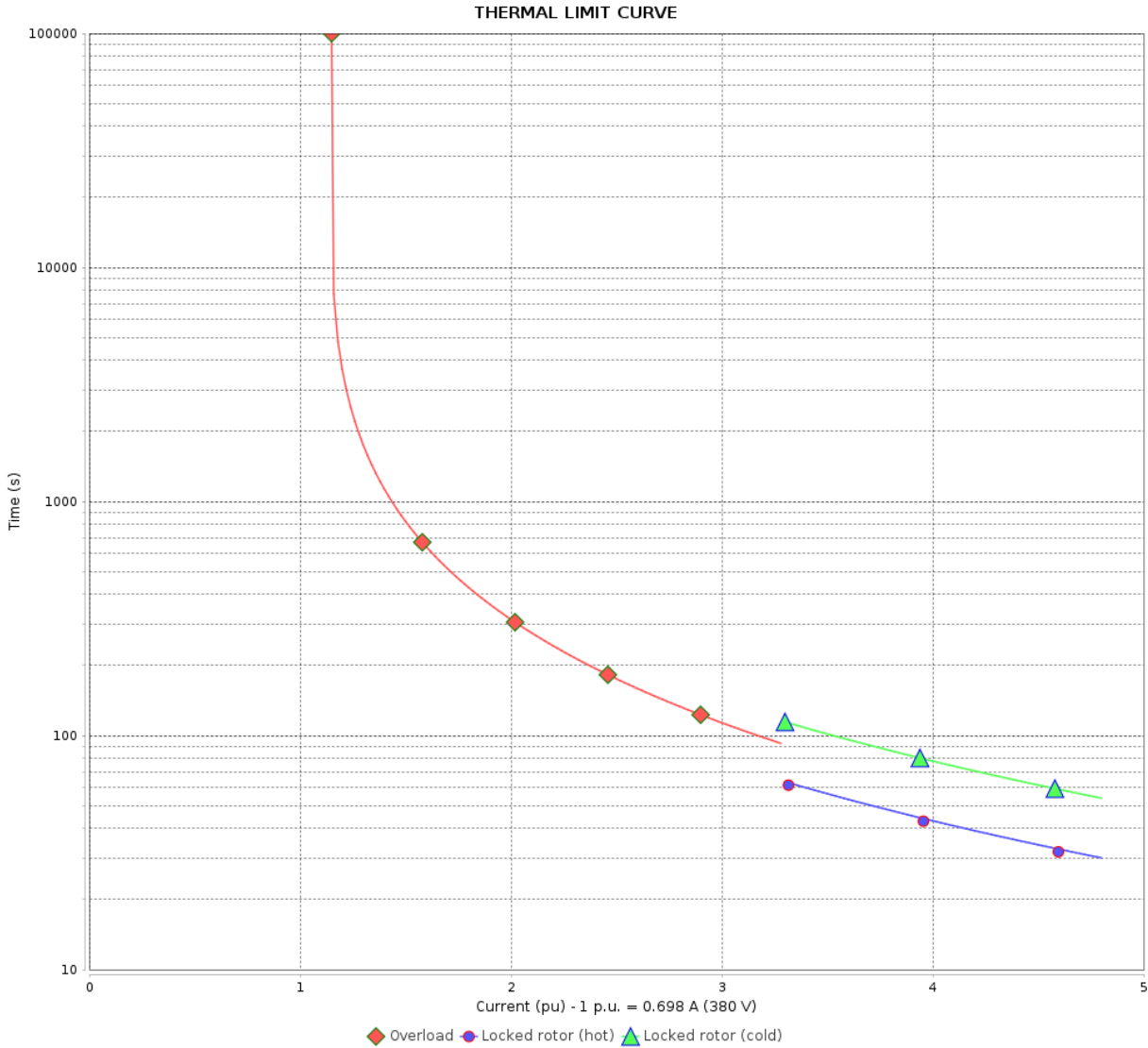
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Moment of inertia (J) : 0.0221 sq.ft.lb  
 Duty cycle : S1  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : N

Heating constant

Cooling constant

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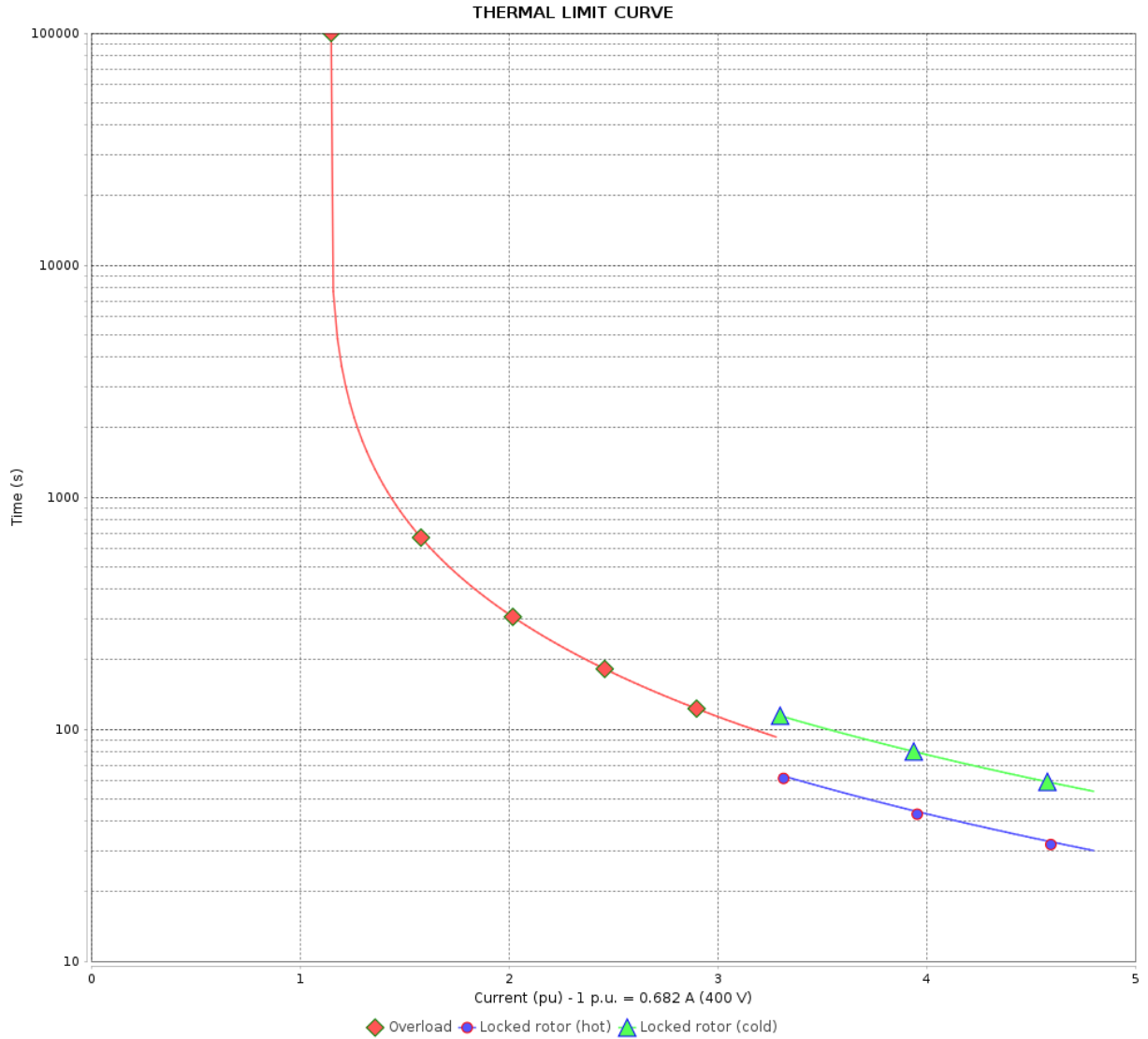
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 Temperature rise : 80 K  
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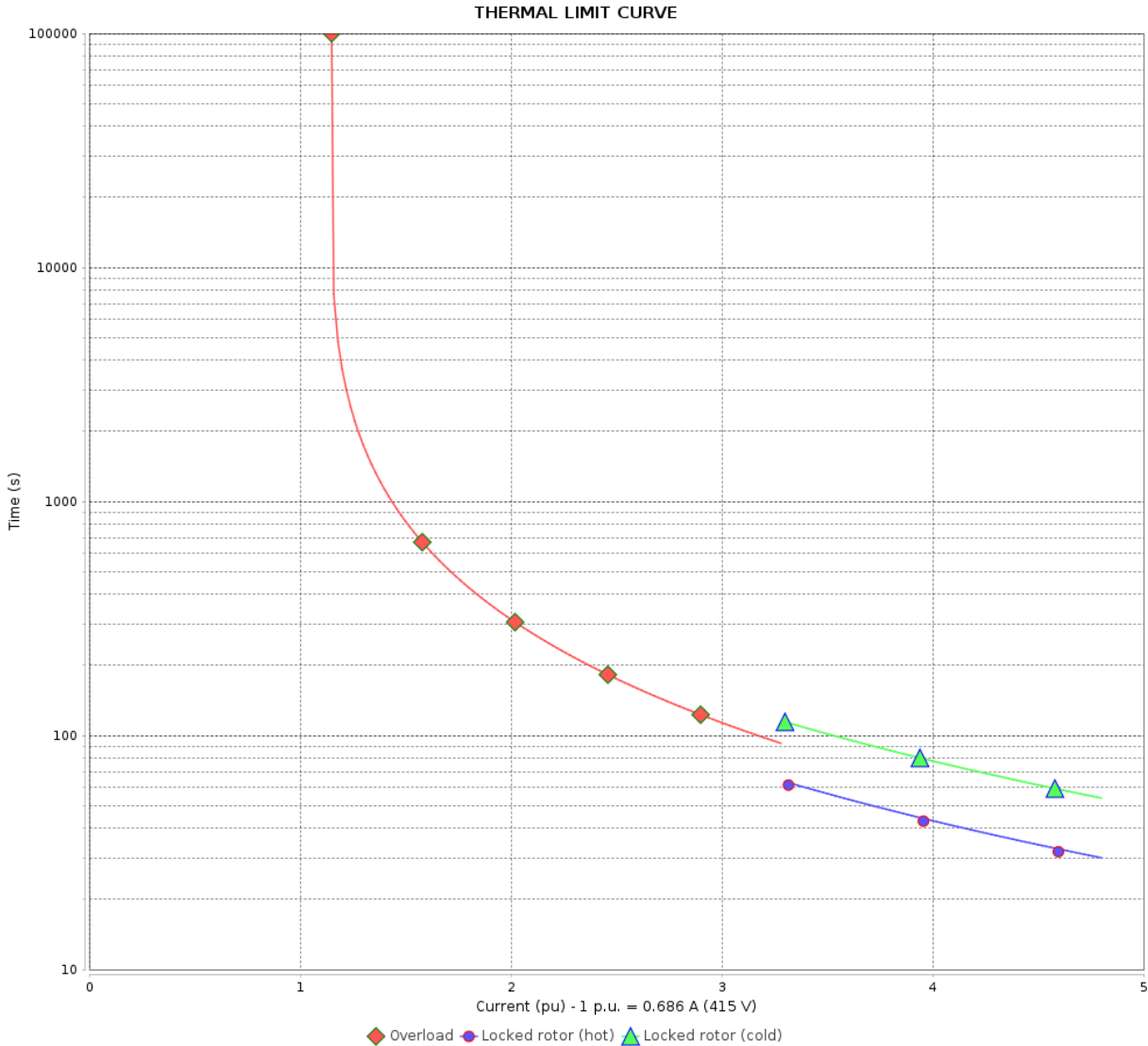
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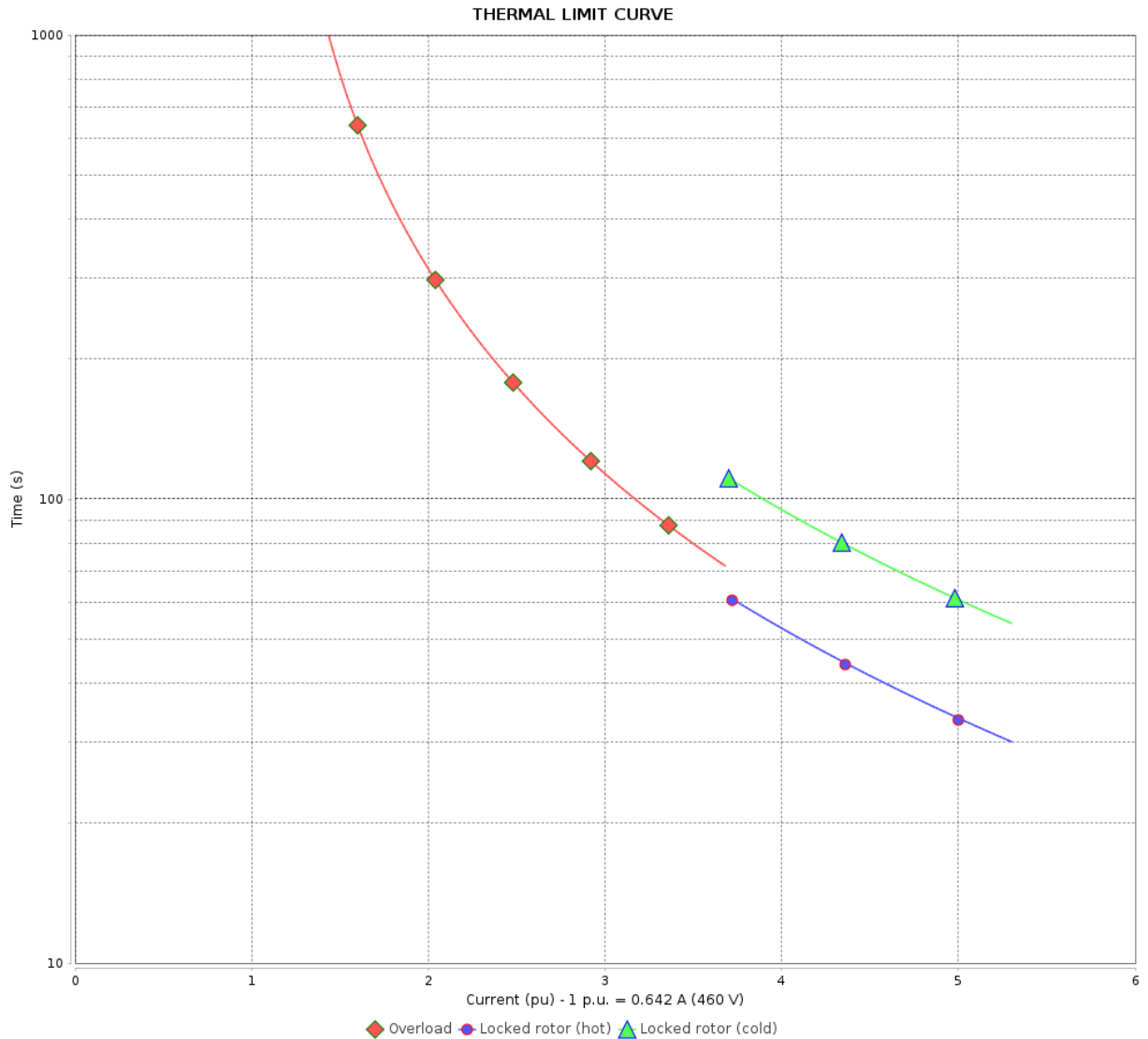
Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

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Performance : 460 V 60 Hz 4P

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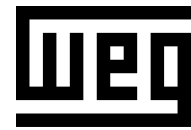
Heating constant

Cooling constant

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# VFD OPERATION CURVE

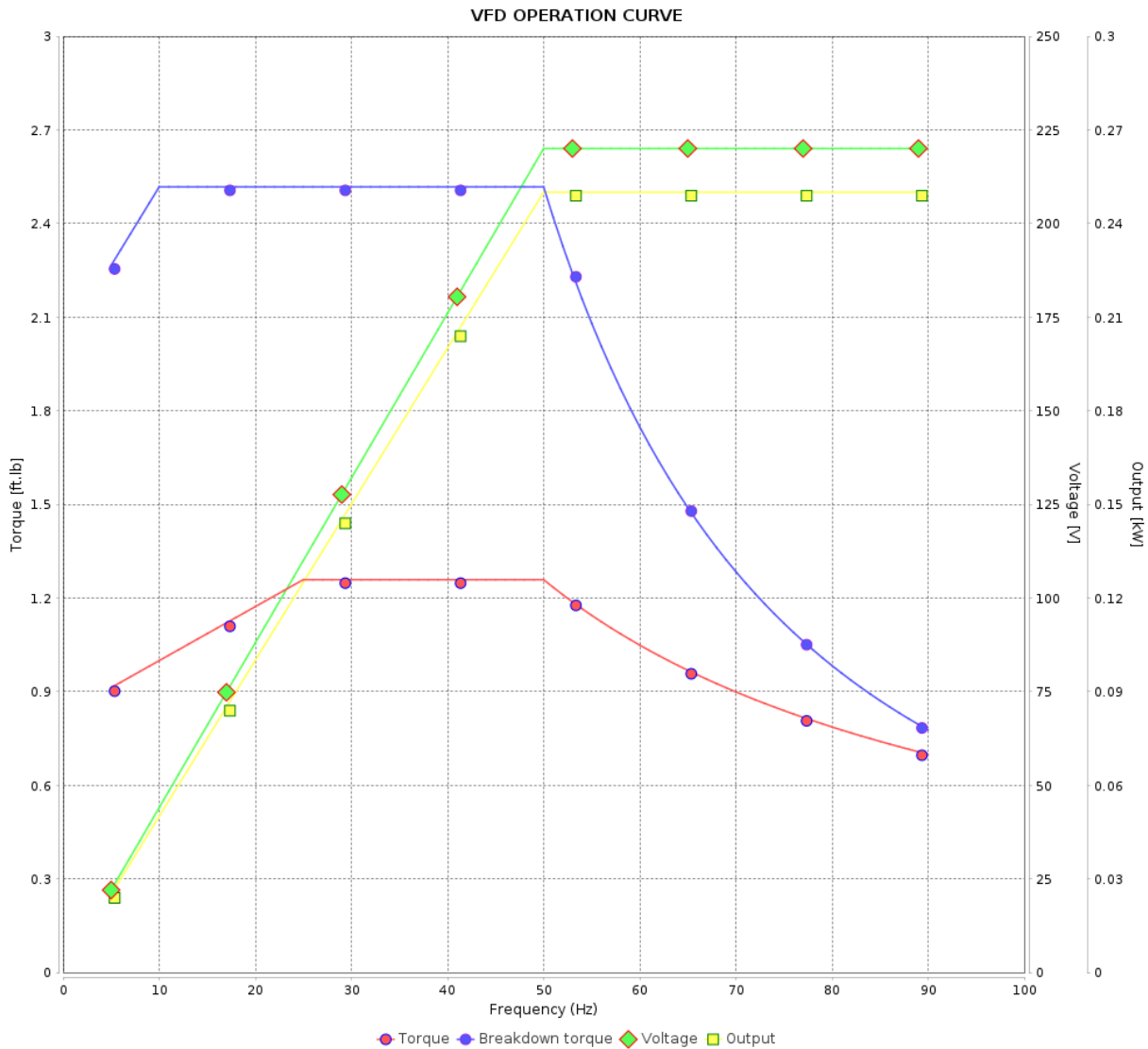
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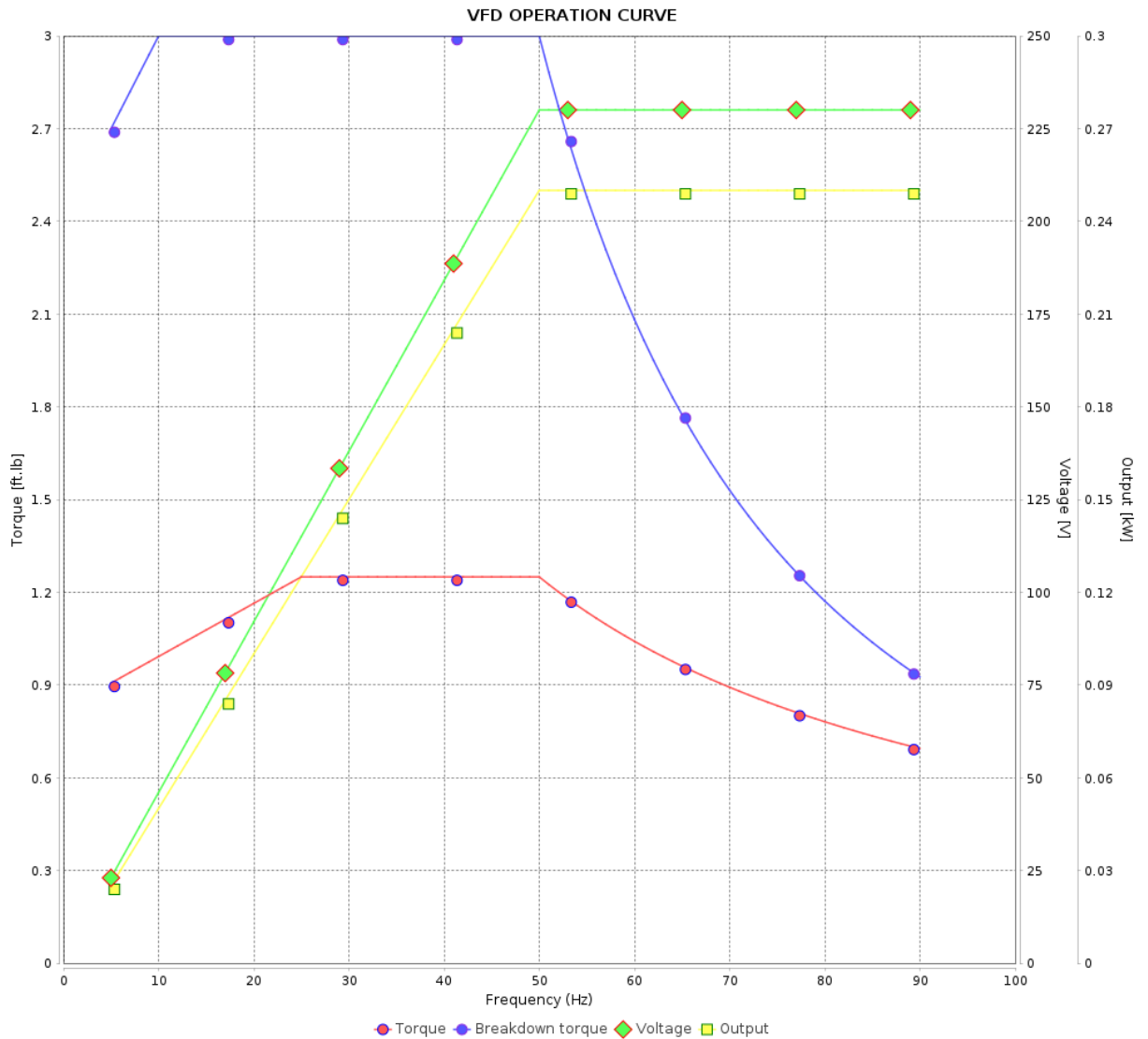
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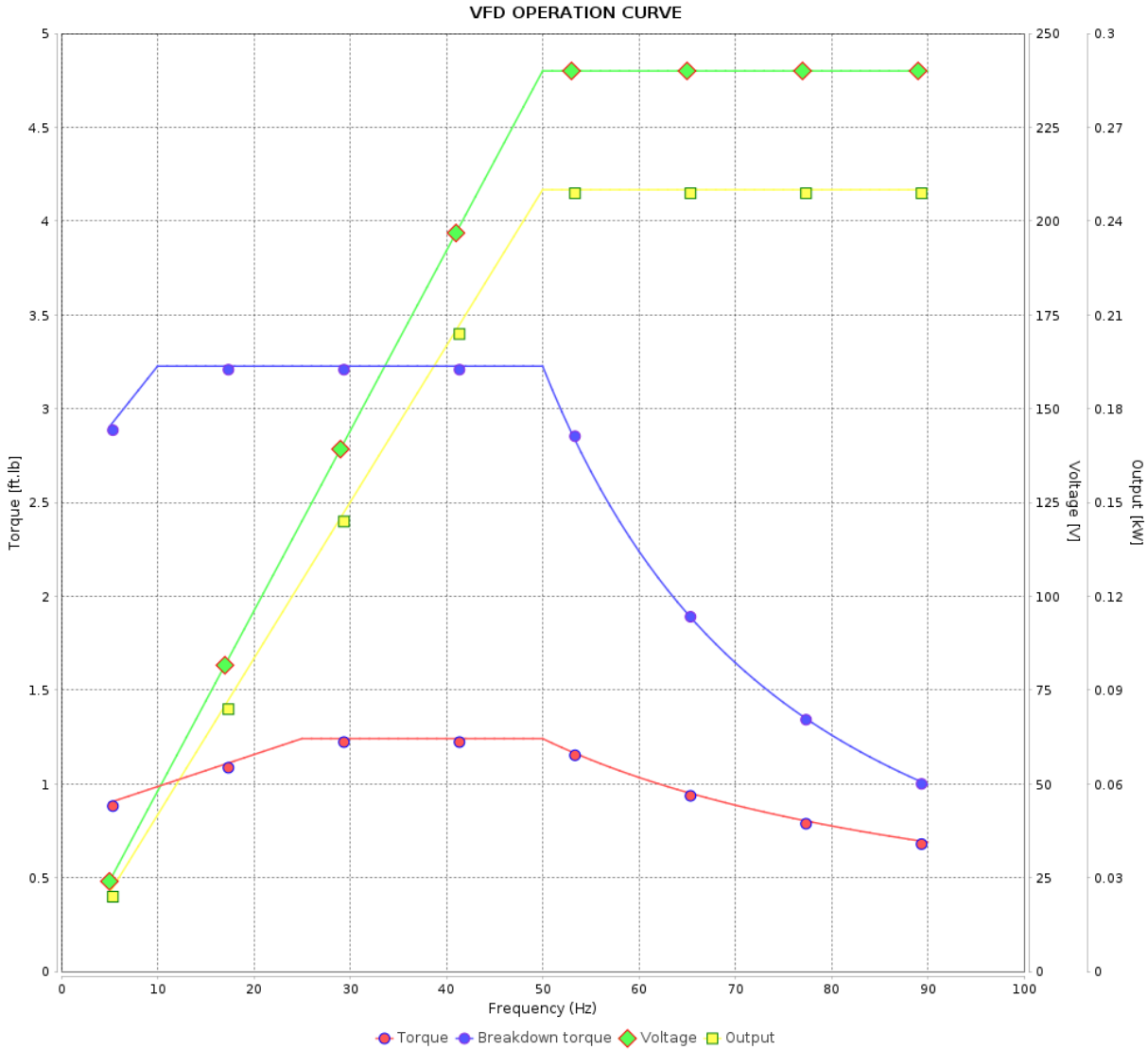
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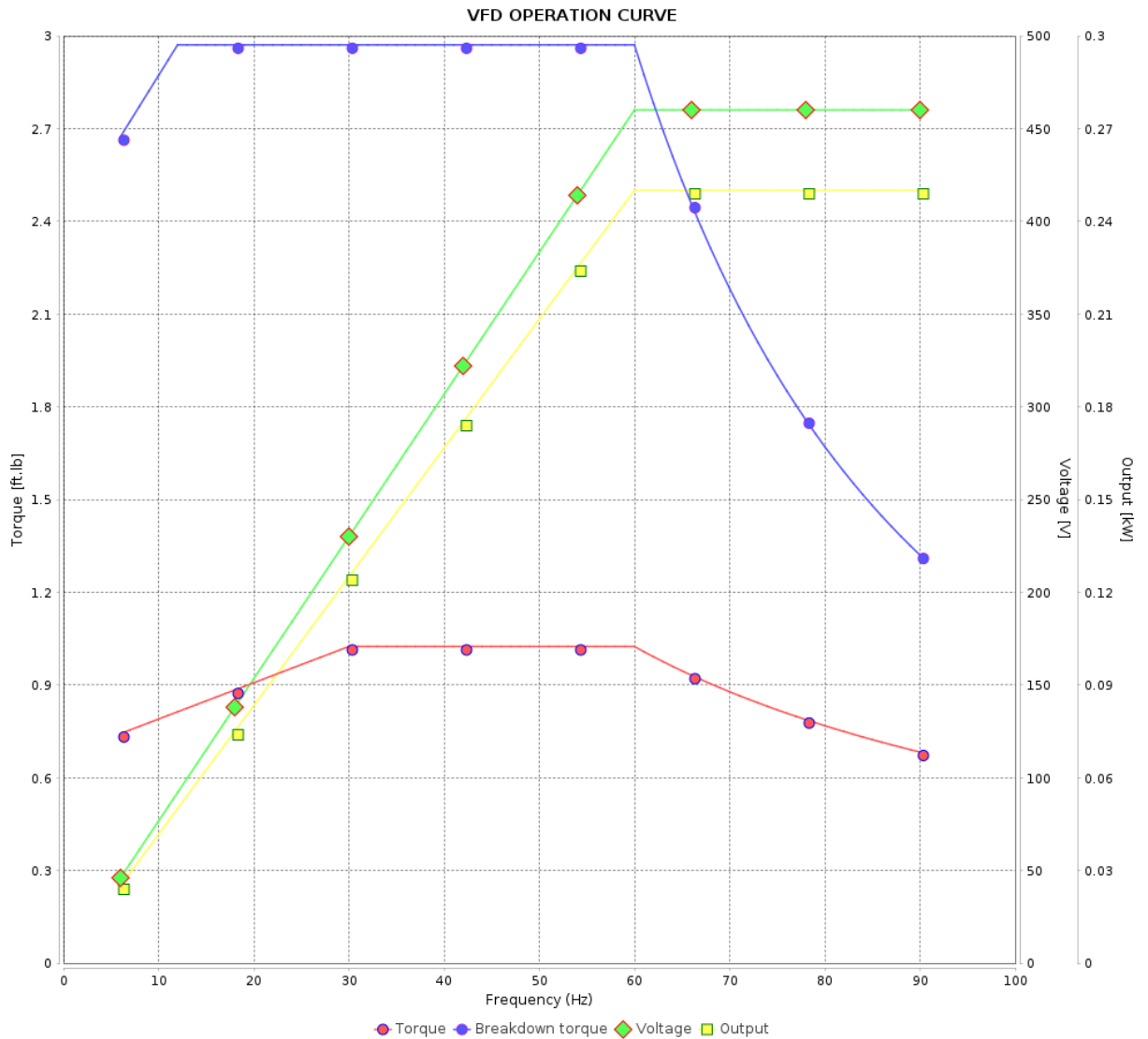
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