

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: Rolled Steel Premium Efficiency Three-Phase	Product code : 14797786		
Frame	: 56C	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 ³	: 17.1 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0052 kgm ²		
Design	: B				
Output [HP]	1	1	1		
Poles	4	4	4		
Frequency [Hz]	60	50	50		
Rated voltage [V]	230/460	190-220/380	415		
Rated current [A]	2.94/1.47	3.40-2.94/1.70	1.62		
L. R. Amperes [A]	25.3/12.6	22.1-19.1/11.0	12.2		
LRC [A]	8.6x(Code M)	6.5x(Code J)	7.5x(Code K)		
No load current [A]	1.78/0.890	1.76-1.52/0.879	0.988		
Rated speed [RPM]	1765	1450	1460		
Slip [%]	1.94	3.33	2.67		
Rated torque [kgfm]	0.411	0.501	0.497		
Locked rotor torque [%]	280	200	250		
Breakdown torque [%]	300	270	330		
Service factor		1.00	1.00		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	34s (cold) 19s (hot)	32s (cold) 18s (hot)	28s (cold) 16s (hot)		
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)		
Efficiency (%)	25%	81.0	82.5	80.4	
	50%	82.5	82.2	80.9	
	75%	84.0	83.7	83.5	
	100%	85.5	82.9	83.7	
Power Factor	25%	0.30	0.36	0.31	
	50%	0.52	0.62	0.55	
	75%	0.66	0.74	0.68	
	100%	0.75	0.81	0.77	
Bearing type	: <u>Drive end</u> 6204 ZZ	<u>Non drive end</u> 6202 ZZ	Foundation loads		
Sealing	: V'Ring	Without Bearing Seal	Max. traction	: 44 kgf	
Lubrication interval	: -	-	Max. compression	: 61 kgf	
Lubricant amount	: -	-			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 3.25A SF 1.00 SFA 3.25A					
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

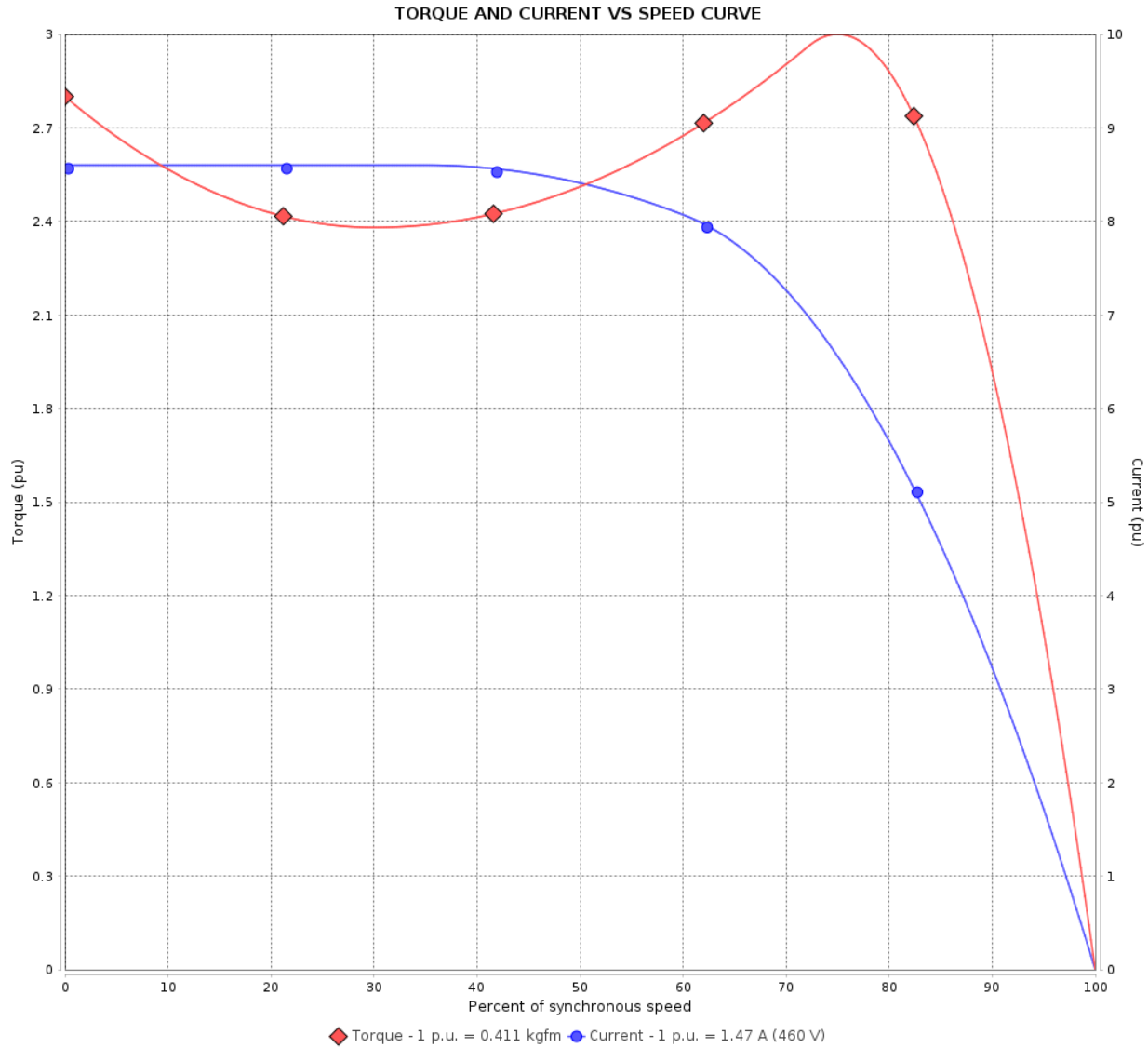
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Rolled Steel Premium Efficiency Three-Phase

Product code : 14797786



Performance : 230/460 V 60 Hz 4P

Rated current	: 2.94/1.47 A	Moment of inertia (J)	: 0.0052 kgm ²
LRC	: 8.6	Duty cycle	: Cont.(S1)
Rated torque	: 0.411 kgfm	Insulation class	: F
Locked rotor torque	: 280 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

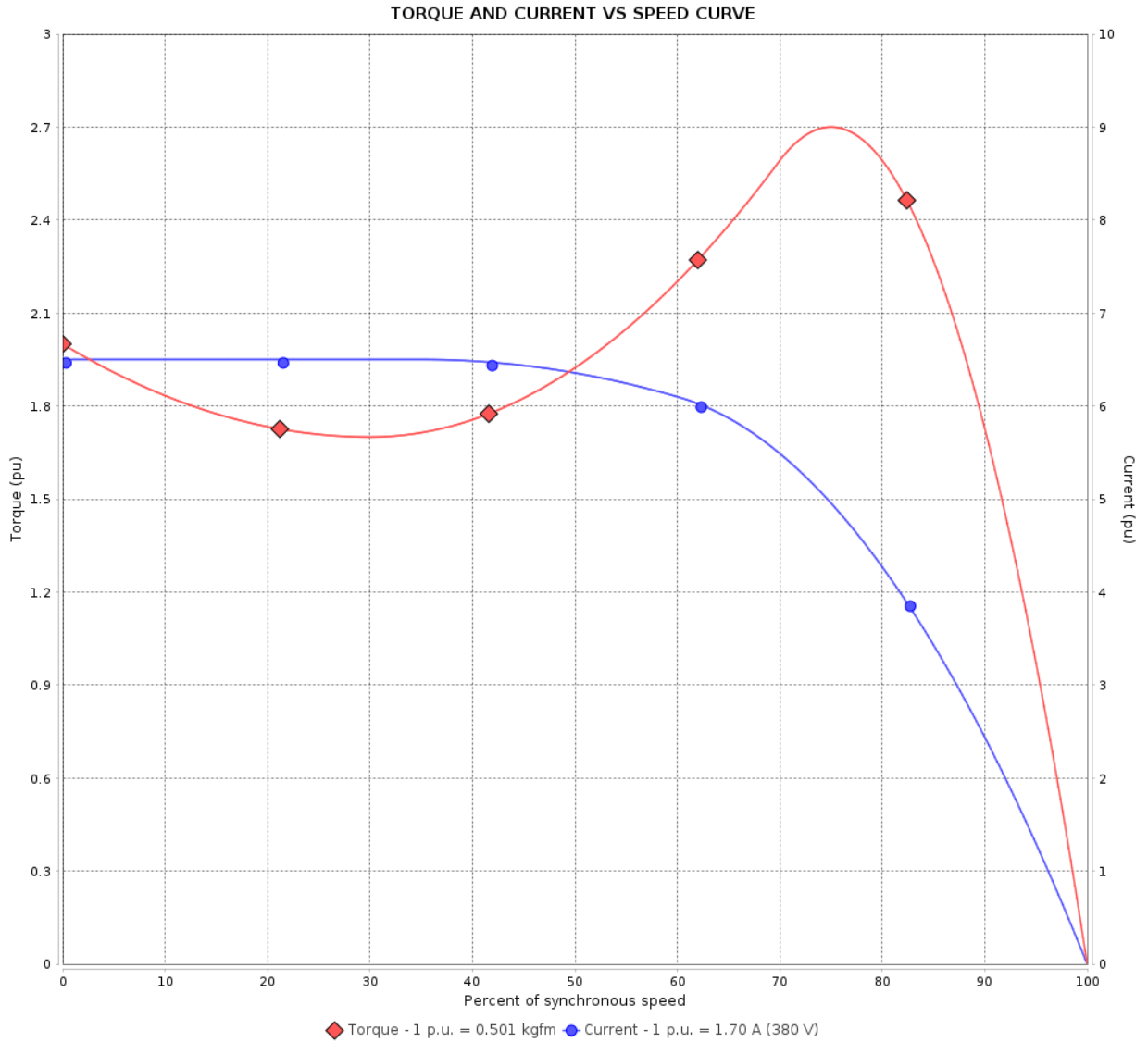
Three Phase Induction Motor - Squirrel Cage



Customer :

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Performance : 190-220/380 V 50 Hz 4P

Rated current	: 3.40-2.94/1.70 A	Moment of inertia (J)	: 0.0052 kgm ²
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 0.501 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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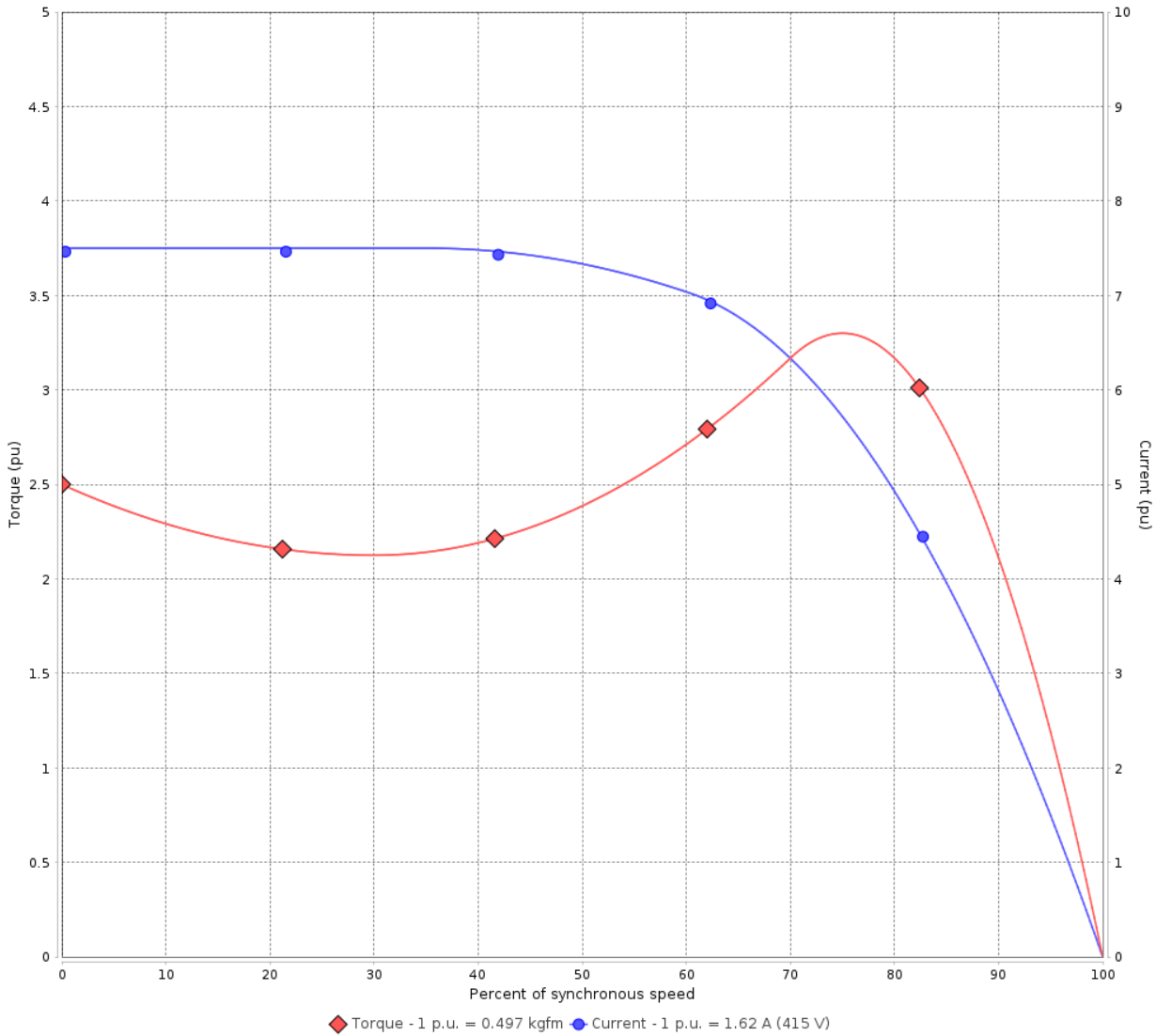


Customer :

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P

Rated current	: 1.62 A	Moment of inertia (J)	: 0.0052 kgm ²
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 0.497 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

Locked rotor time : 28s (cold) 16s (hot)

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LOAD PERFORMANCE CURVE

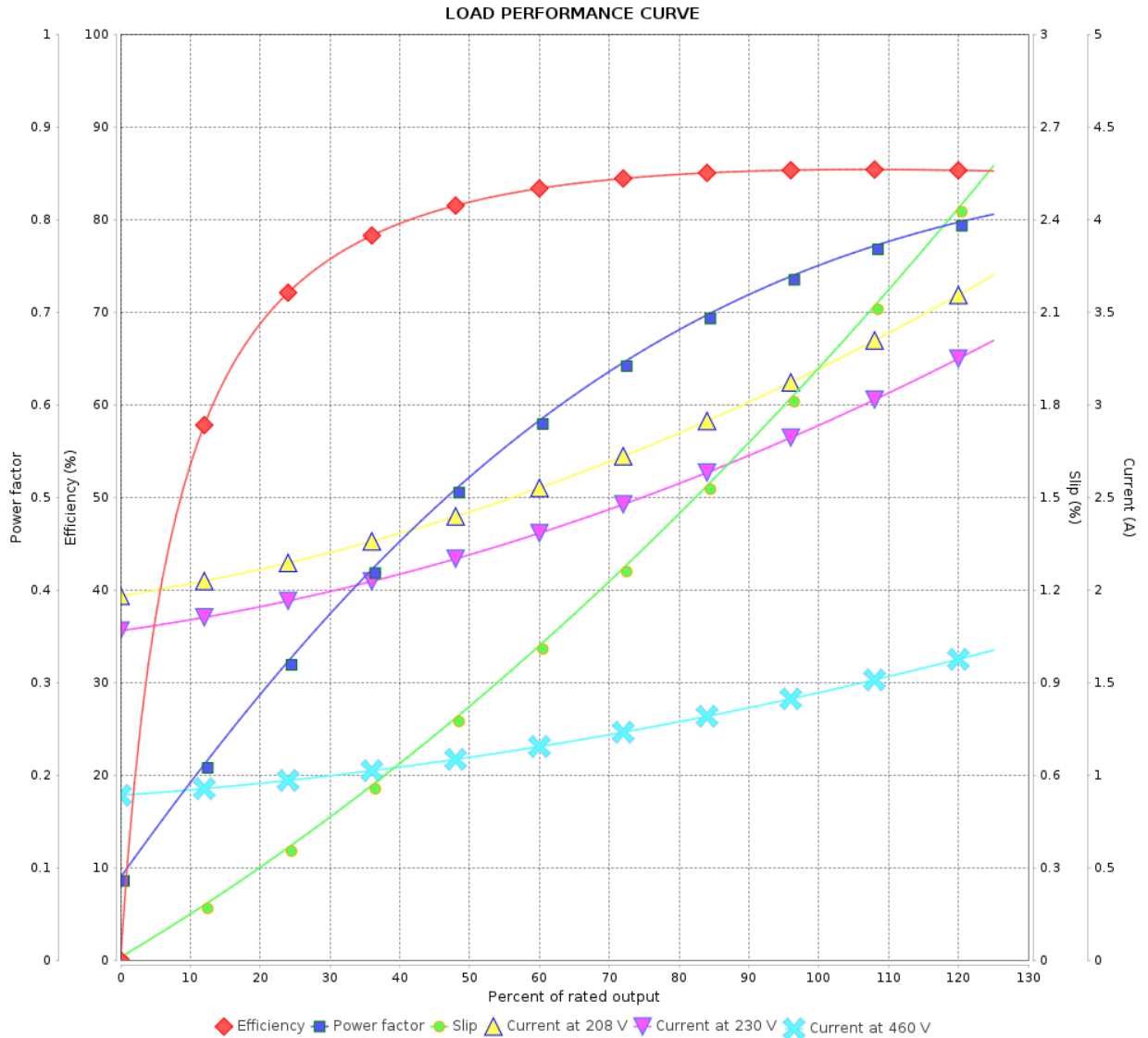
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 Locked rotor torque : 280 %
 Breakdown torque : 300 %
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.0052 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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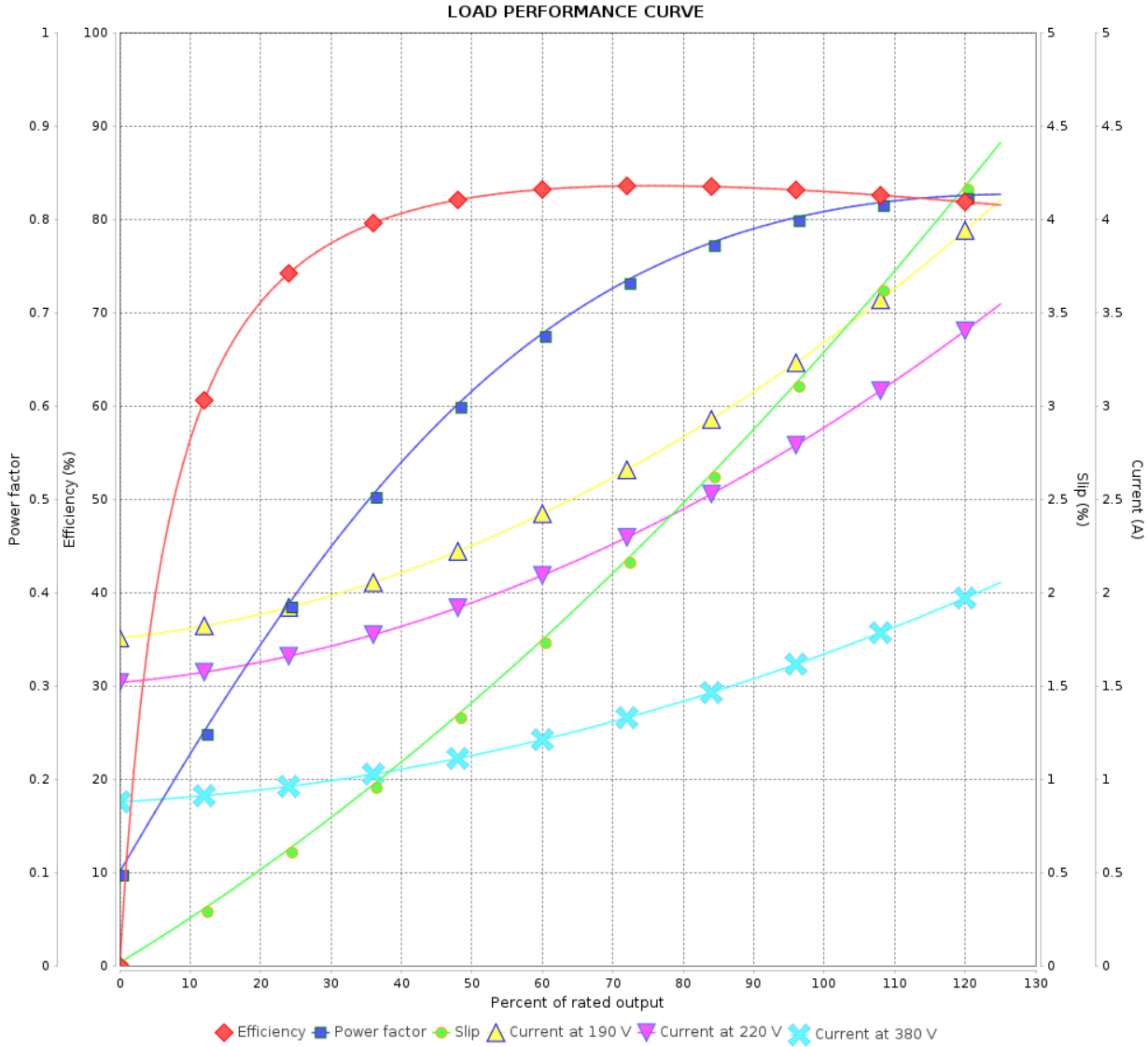
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 Breakdown torque : 270 %
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0052 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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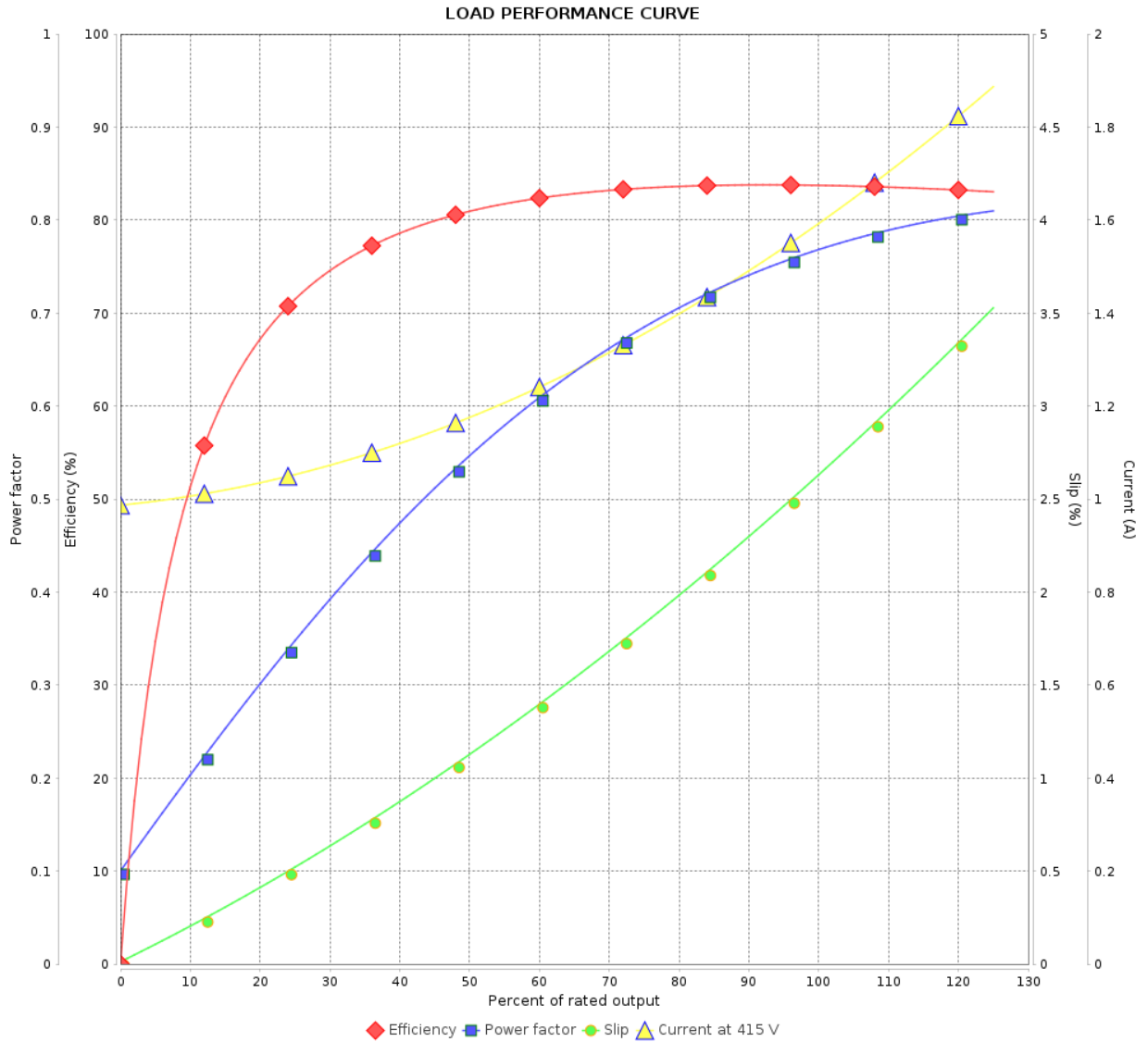
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THERMAL LIMIT CURVE

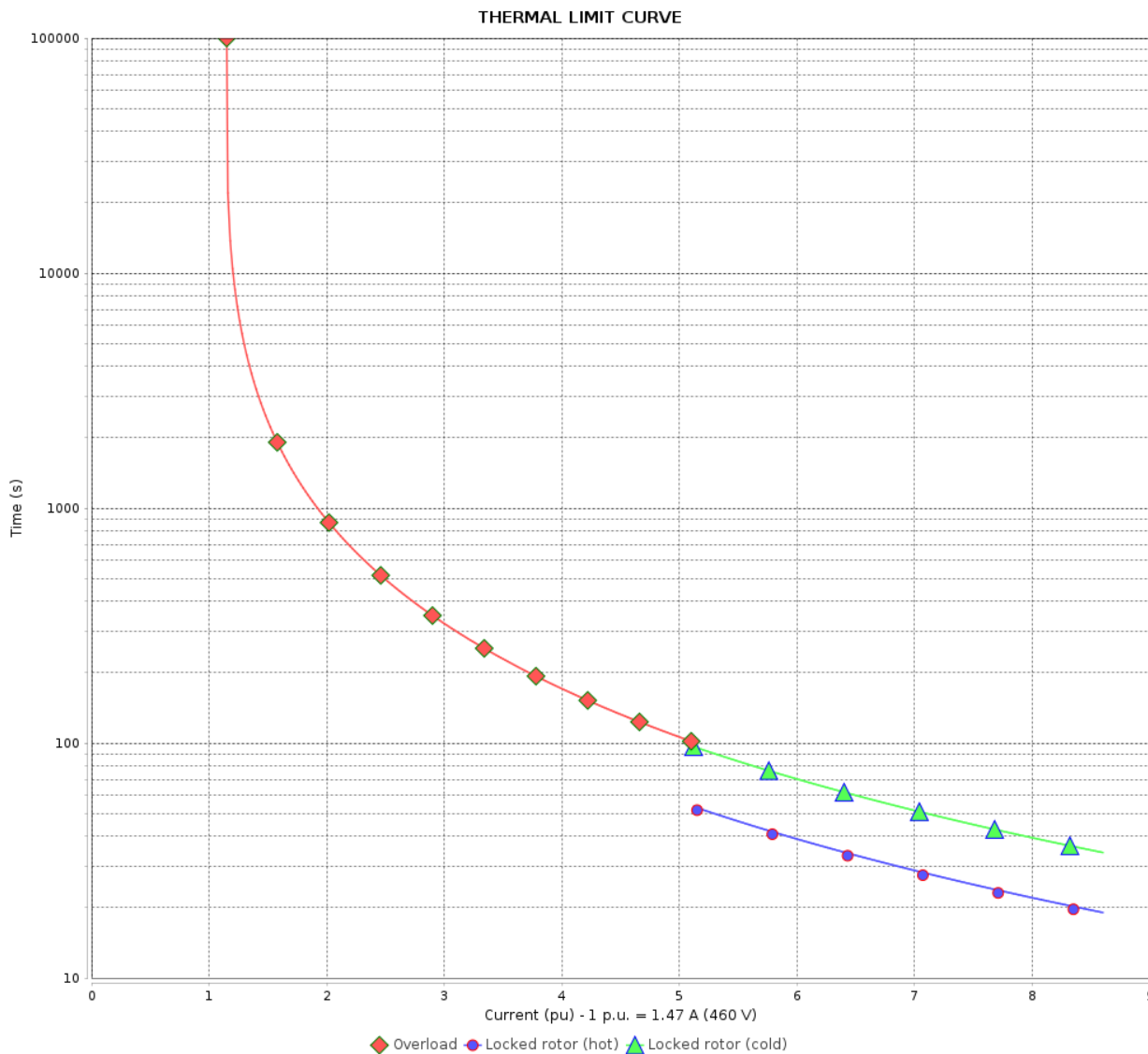
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Moment of inertia (J) : 0.0052 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

Heating constant
 Cooling constant

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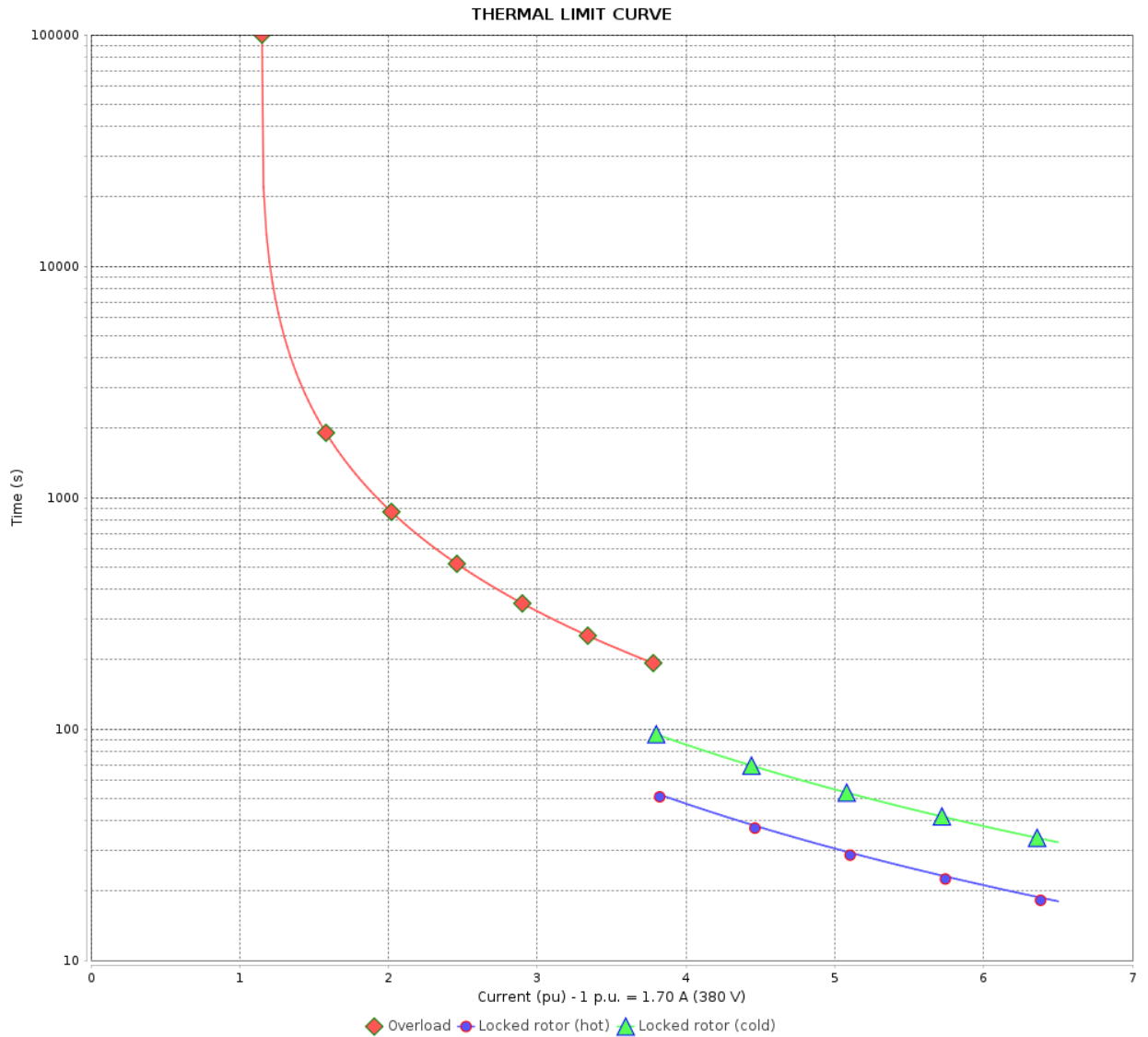
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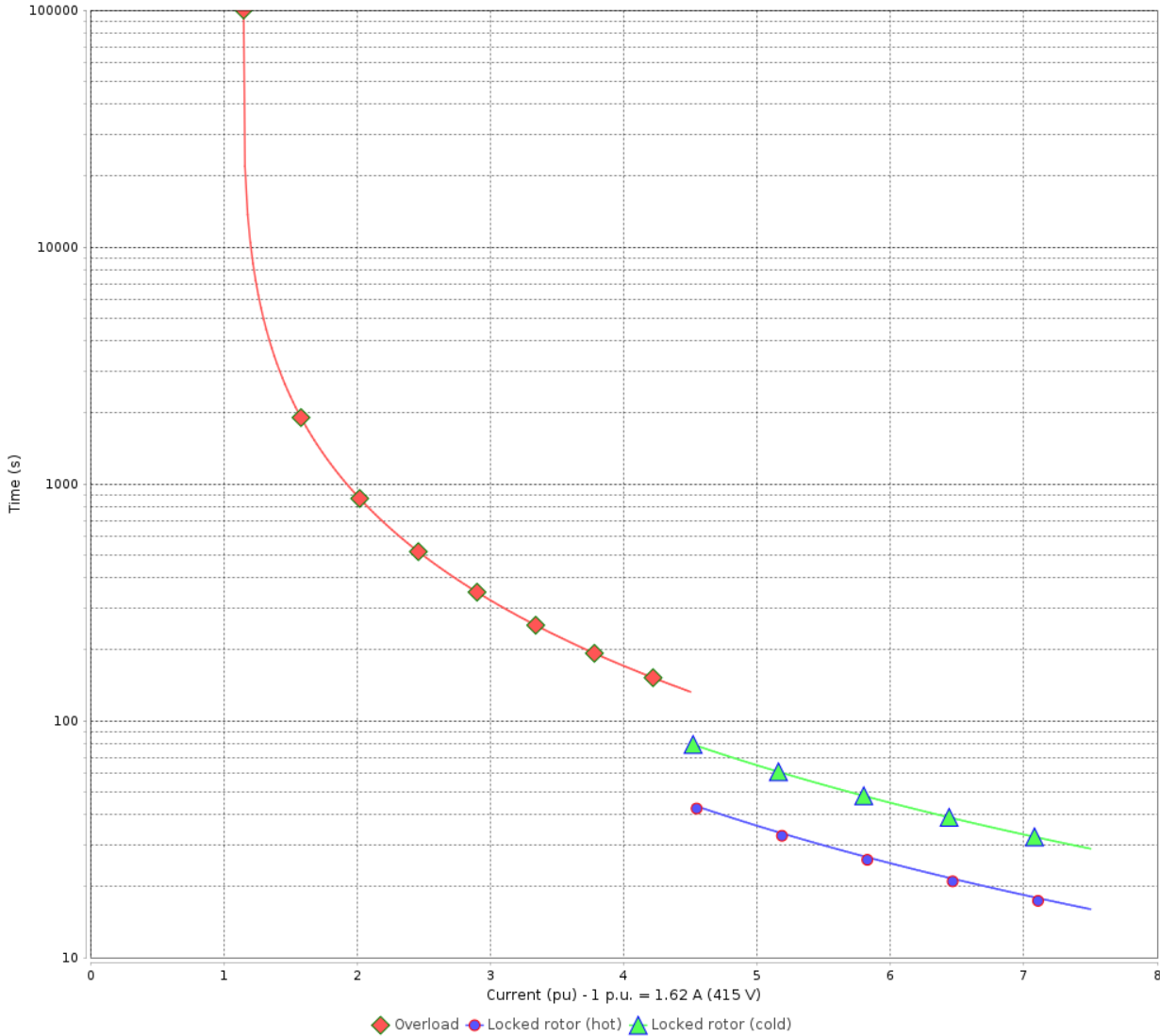


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VFD OPERATION CURVE

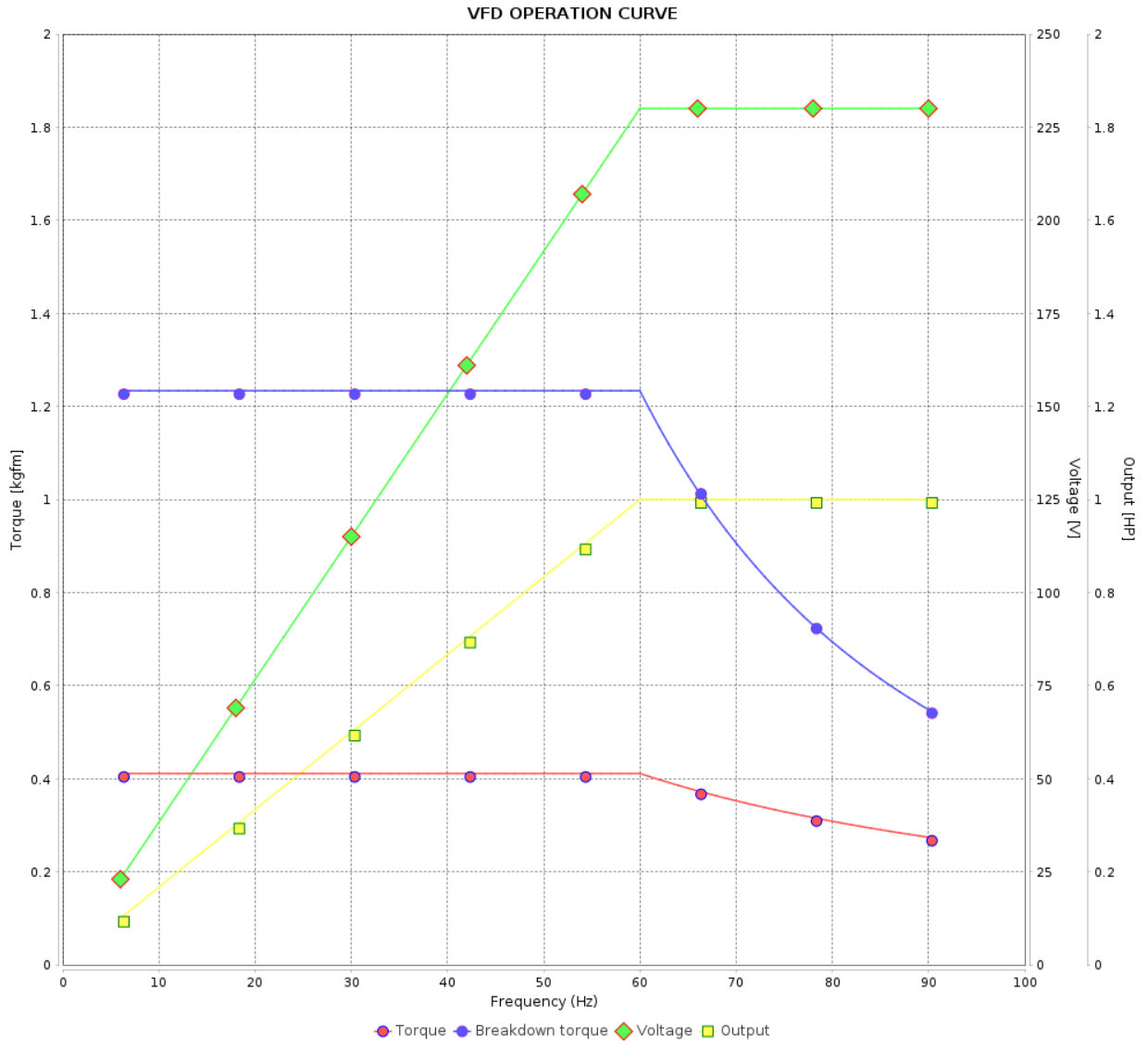
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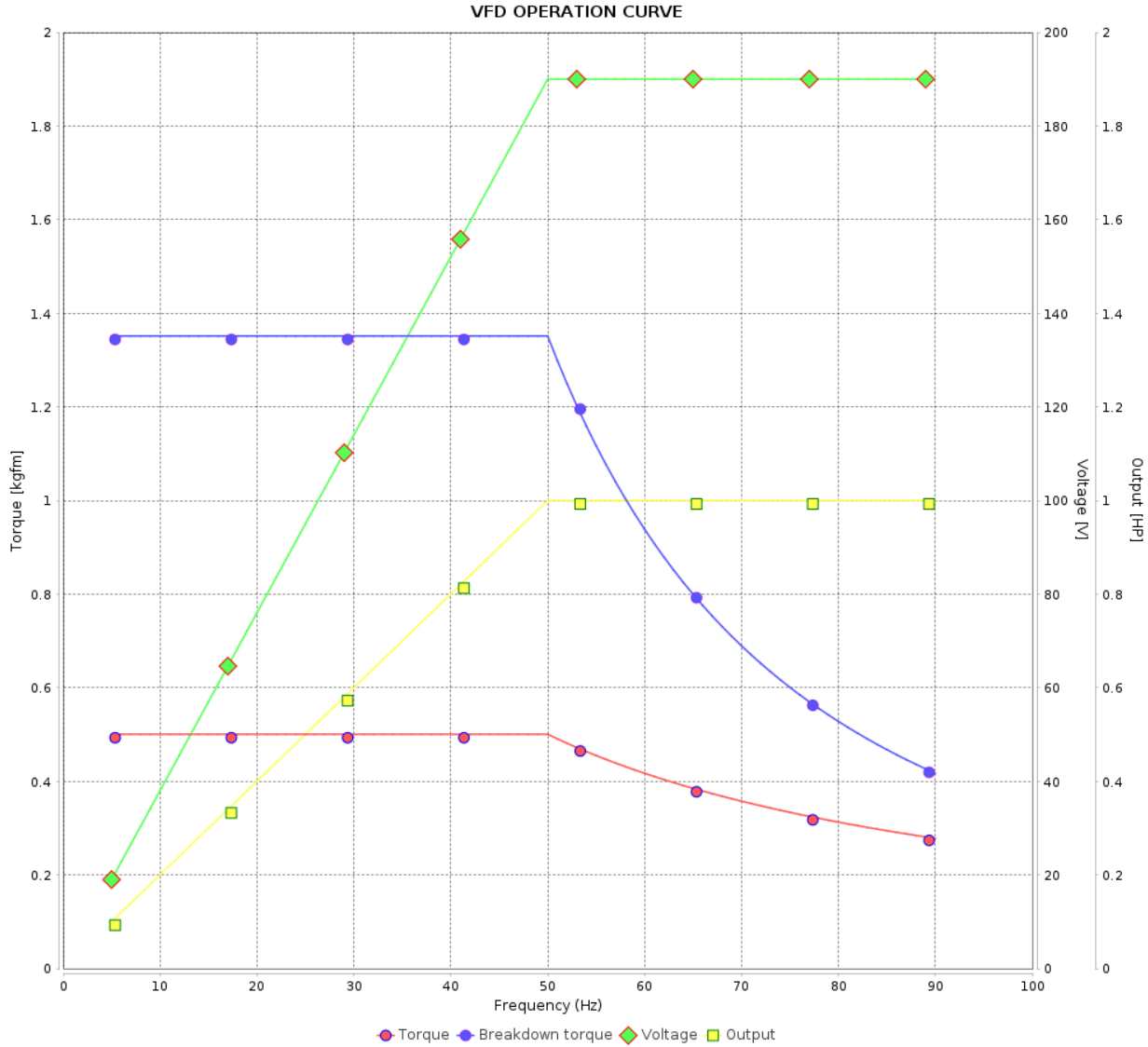
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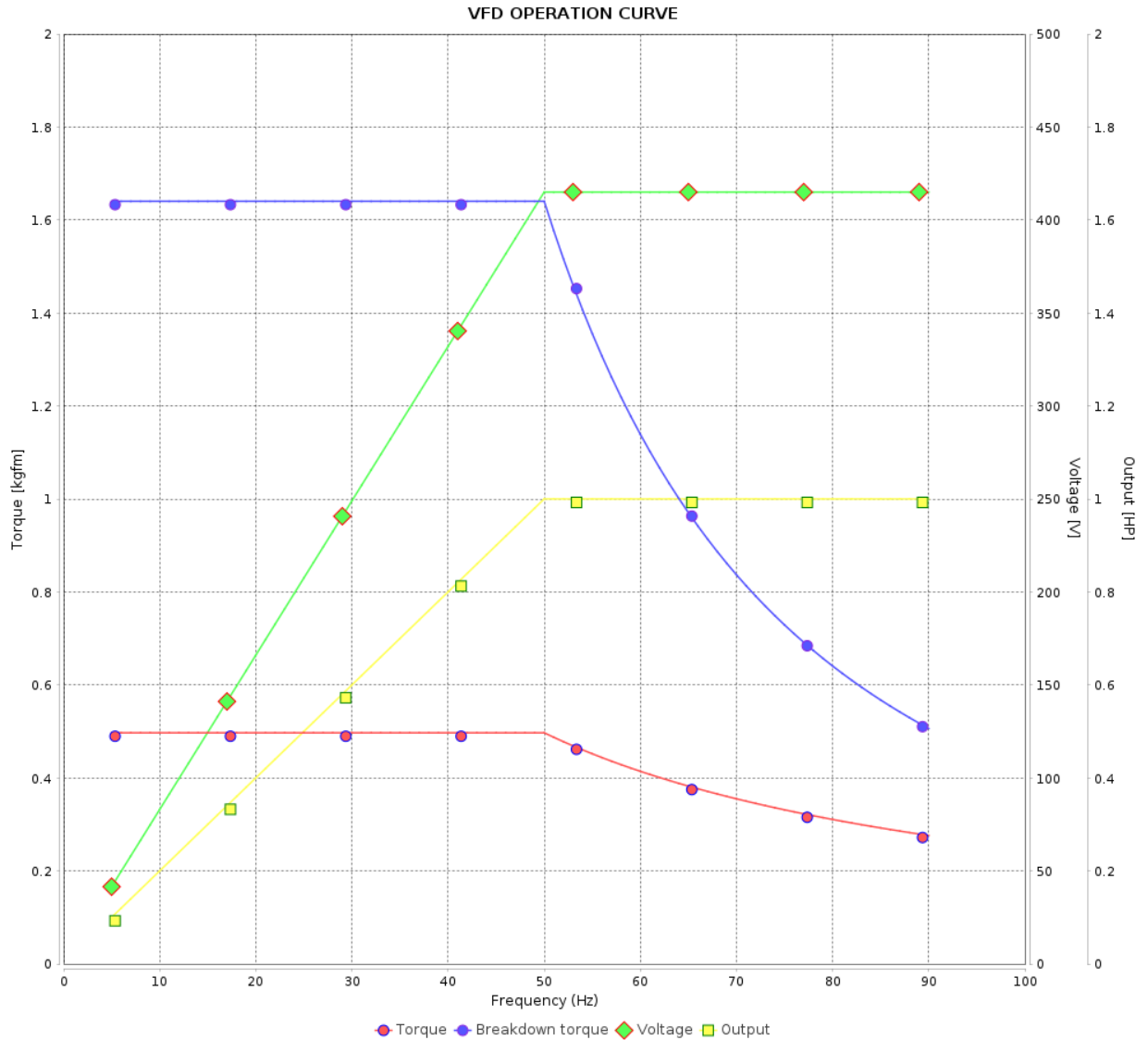
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