

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: Rolled Steel Premium Efficiency Three-Phase		Product code : 14799000	
Frame	: 56HC	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	: 17.2 kg		
Protection degree	: IP55	Moment of inertia (J)	: 0.0046 kgm ²		
Design	: B				
Output [HP]	1.5	1.5	1.5		
Poles	4	4	4		
Frequency [Hz]	60	50	50		
Rated voltage [V]	230/460	190-220/380	415		
Rated current [A]	4.04/2.02	4.82-4.16/2.41	2.27		
L. R. Amperes [A]	33.1/16.6	29.4-25.4/14.7	16.3		
LRC [A]	8.2x(Code K)	6.1x(Code H)	7.2x(Code J)		
No load current [A]	2.17/1.08	2.13-1.84/1.07	1.26		
Rated speed [RPM]	1750	1420	1435		
Slip [%]	2.78	5.33	4.33		
Rated torque [kgfm]	0.622	0.767	0.759		
Locked rotor torque [%]	270	210	260		
Breakdown torque [%]	300	250	300		
Service factor		1.15	1.15		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	37s (cold) 21s (hot)	36s (cold) 20s (hot)	32s (cold) 18s (hot)		
Noise level ²	52.0 dB(A)		49.0 dB(A)		
Efficiency (%)	25%	85.2	86.1	83.8	
	50%	85.5	84.7	83.5	
	75%	86.5	84.7	84.9	
	100%	86.5	82.7	84.1	
Power Factor	25%	0.35	0.41	0.34	
	50%	0.59	0.67	0.59	
	75%	0.72	0.78	0.72	
	100%	0.79	0.84	0.80	
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	: 64 kgf	
Lubrication interval	: -	-	Max. compression	: 82 kgf	
Lubricant amount	: -	-			
Lubricant type	: Mobil Polyrex EM				
Notes USABLE @208V 4.47A SF 1.00 SFA 4.47A					
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

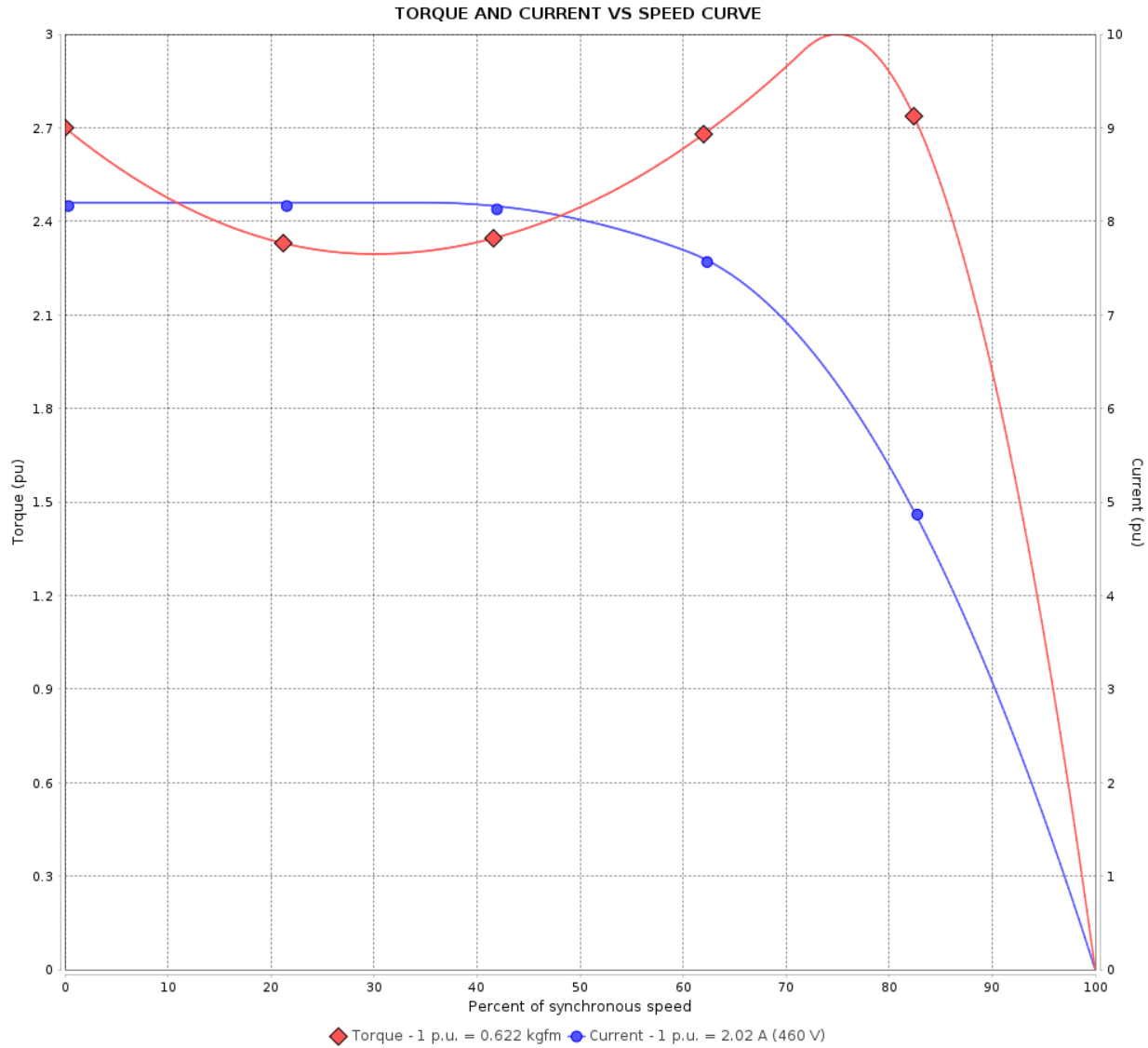
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Rolled Steel Premium Efficiency Three-Phase

Product code : 14799000



Performance : 230/460 V 60 Hz 4P

Rated current	: 4.04/2.02 A	Moment of inertia (J)	: 0.0046 kgm ²
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.622 kgfm	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1750 rpm	Design	: B

Locked rotor time : 37s (cold) 21s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

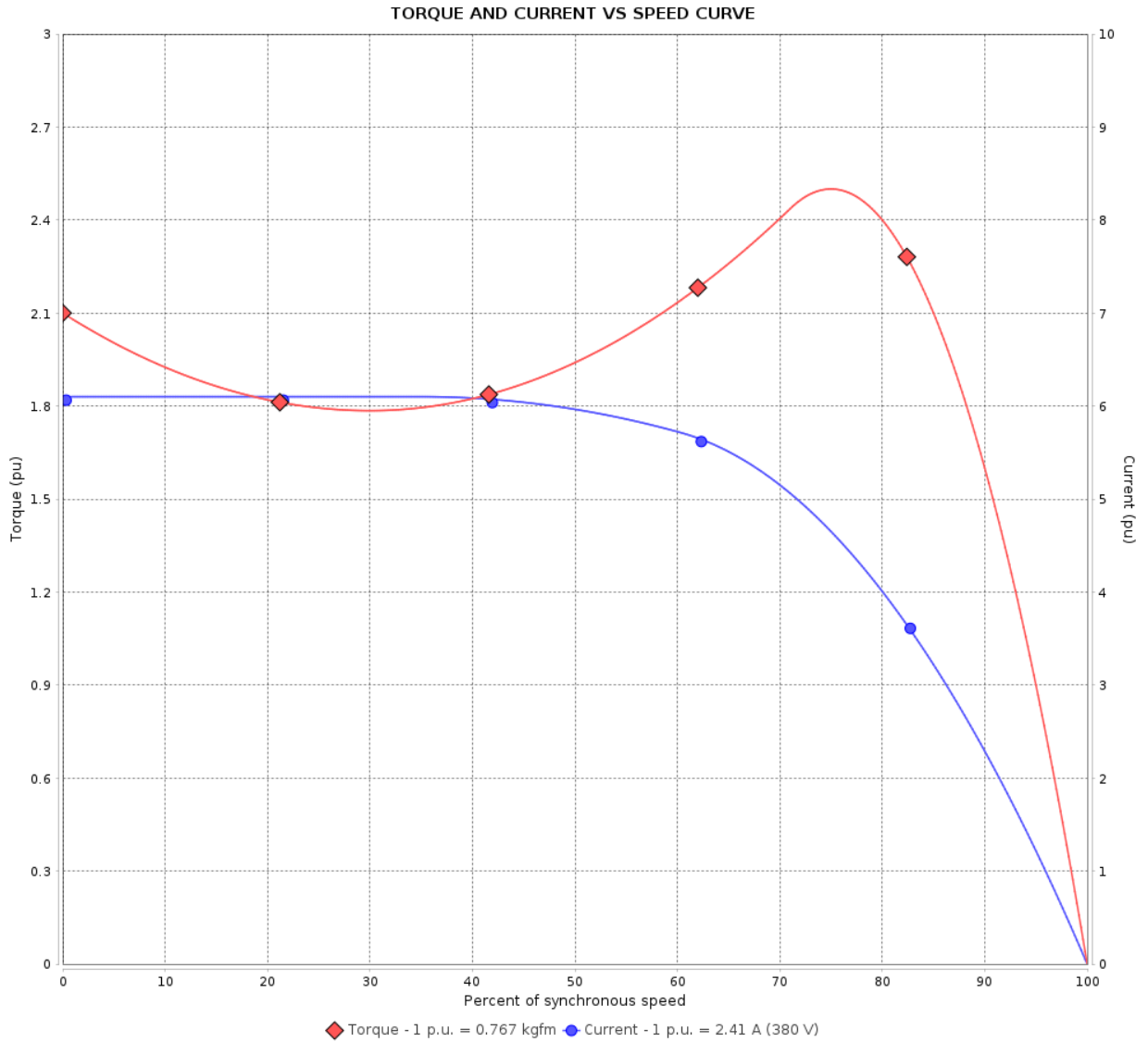
Three Phase Induction Motor - Squirrel Cage



Customer :

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Product code : 14799000



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

Rated current	: 4.82-4.16/2.41 A	Moment of inertia (J)	: 0.0046 kgm ²
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 0.767 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1420 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

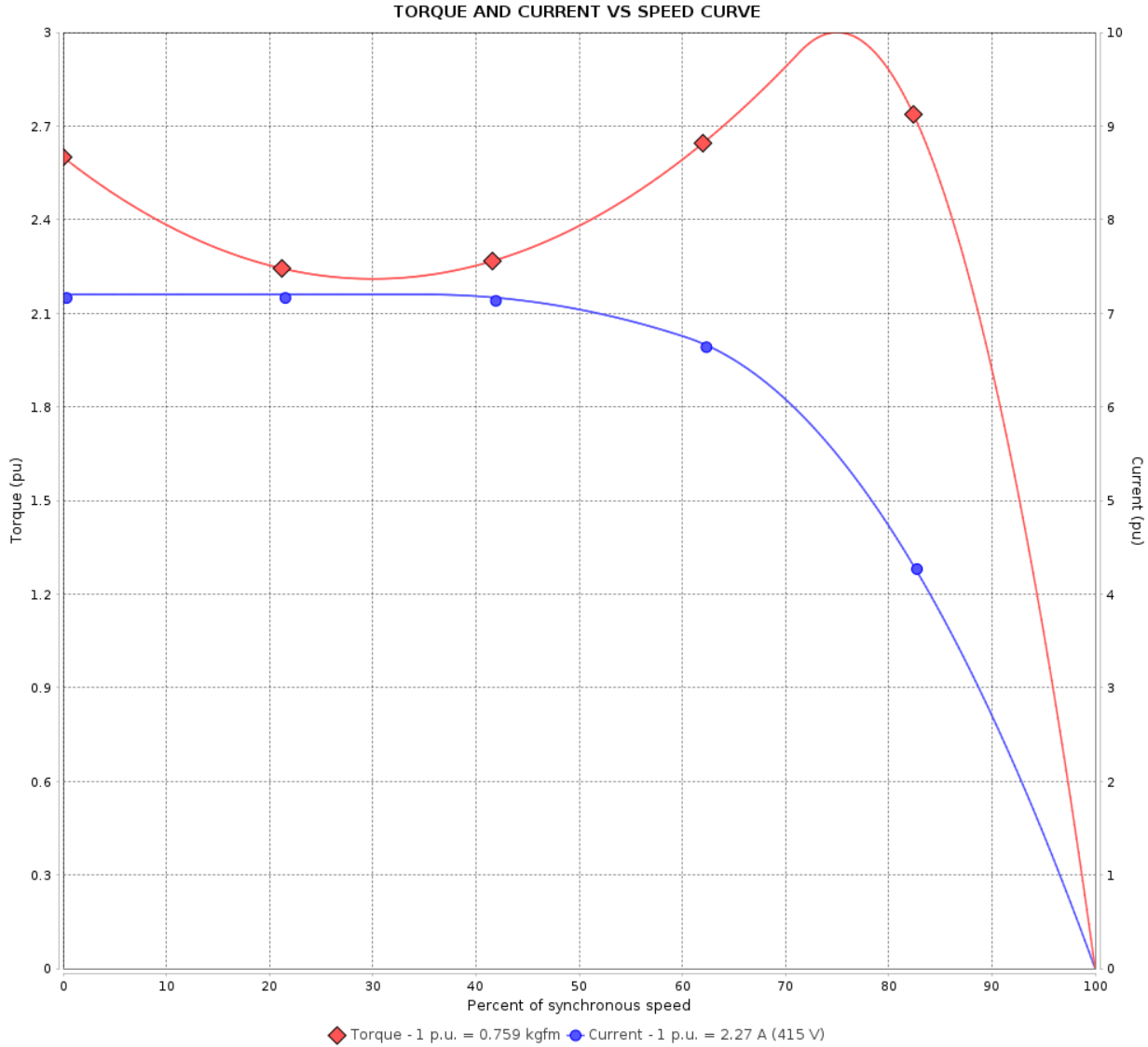
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Rolled Steel Premium Efficiency Three-Phase

Product code : 14799000



Performance : 415 V 50 Hz 4P

Rated current	: 2.27 A	Moment of inertia (J)	: 0.0046 kgm ²
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 0.759 kgfm	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1435 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

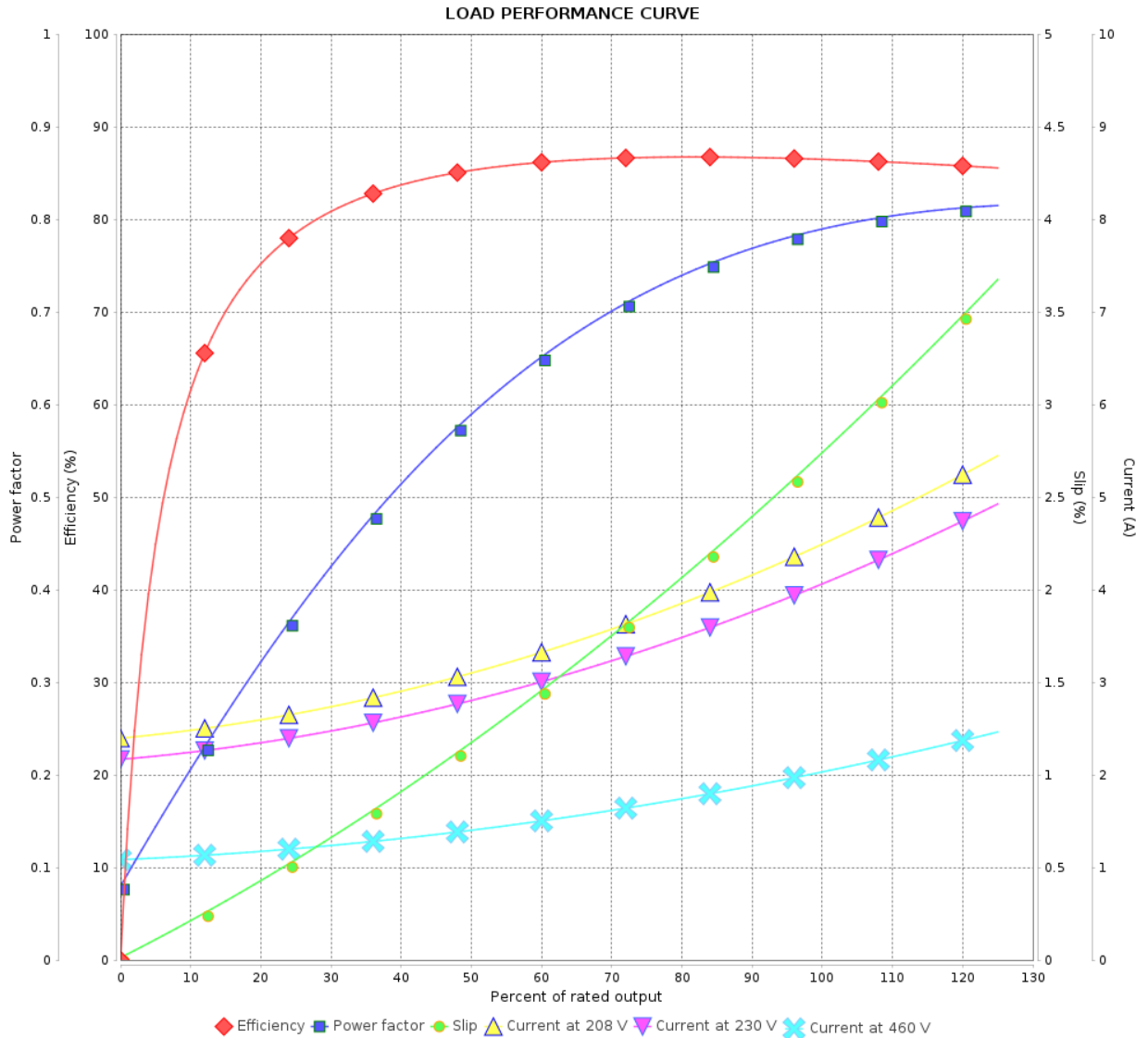
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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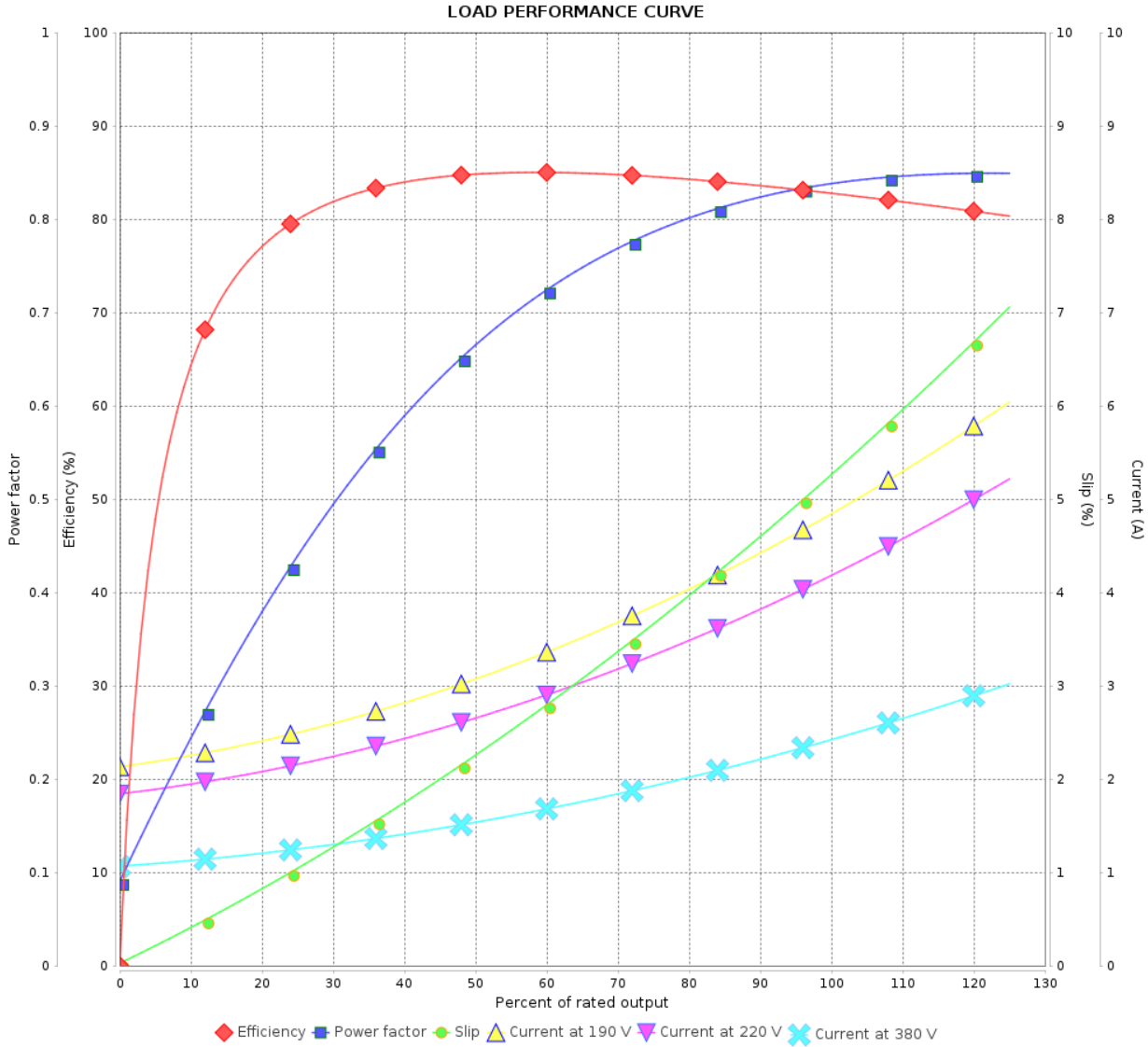
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Performance : 190-220/380 V 50 Hz 4P

Rated current : 4.82-4.16/2.41 A
 LRC : 6.1
 Rated torque : 0.767 kgfm
 Locked rotor torque : 210 %
 Breakdown torque : 250 %
 Rated speed : 1420 rpm

Moment of inertia (J) : 0.0046 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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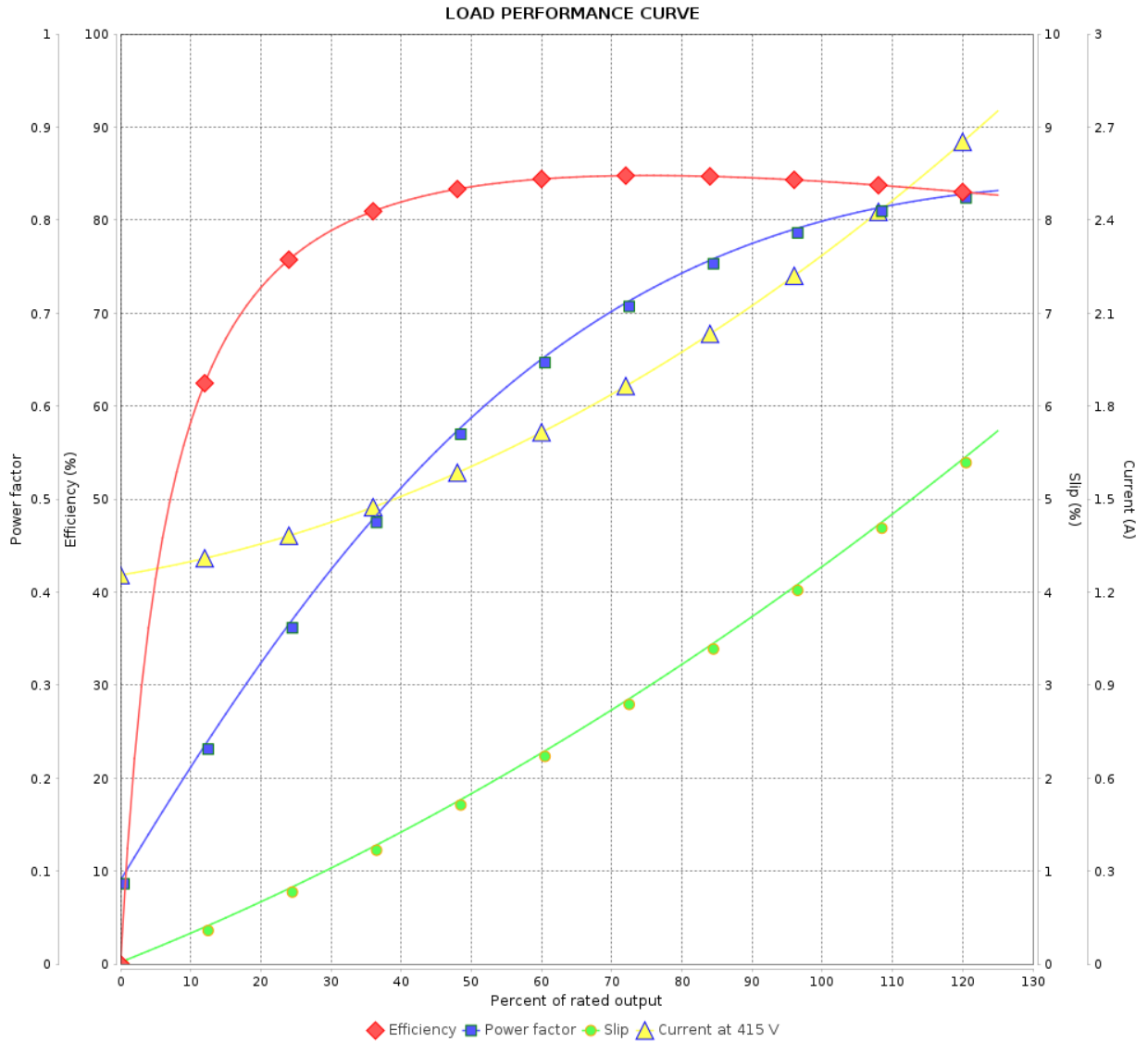
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THERMAL LIMIT CURVE

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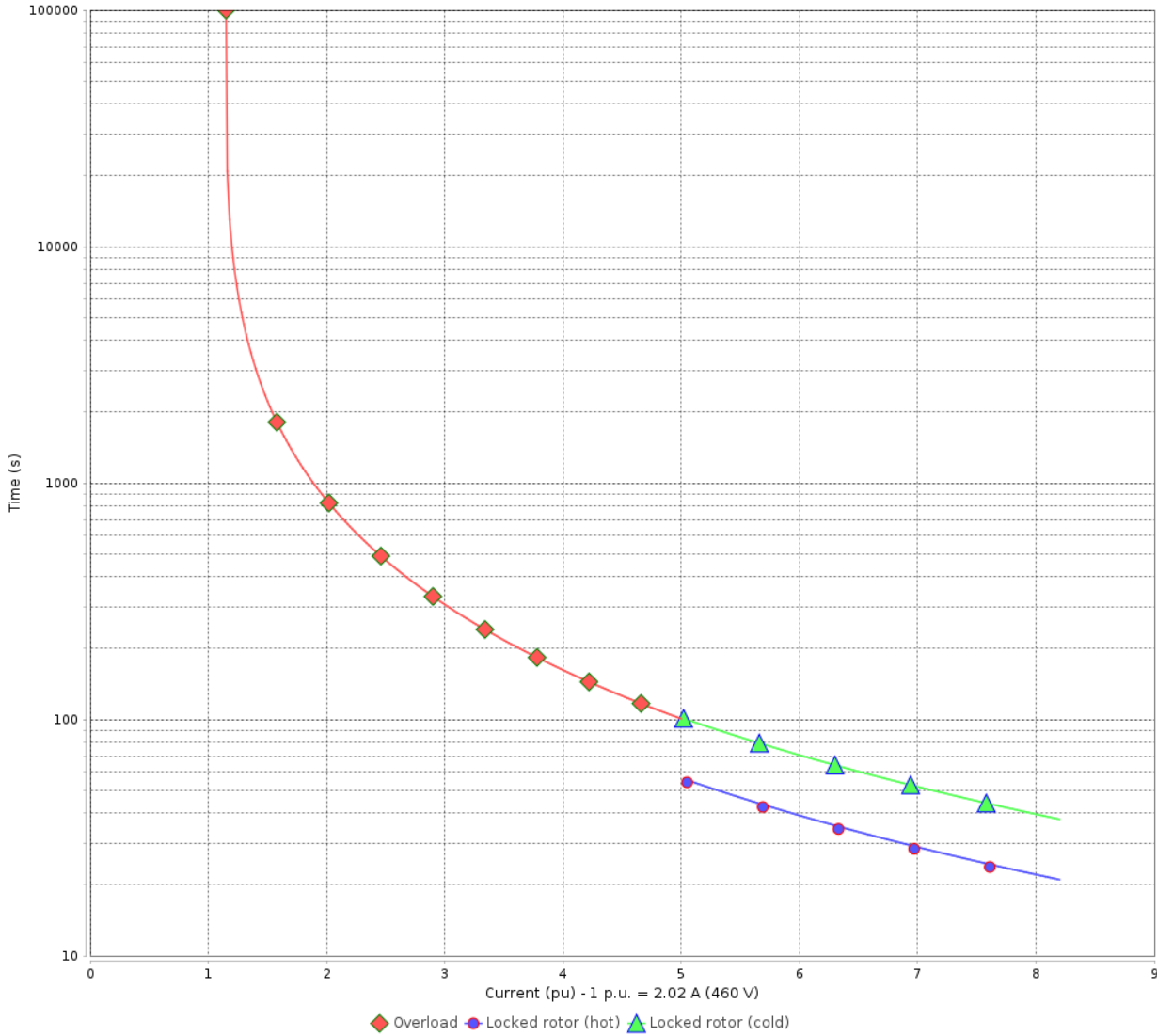


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

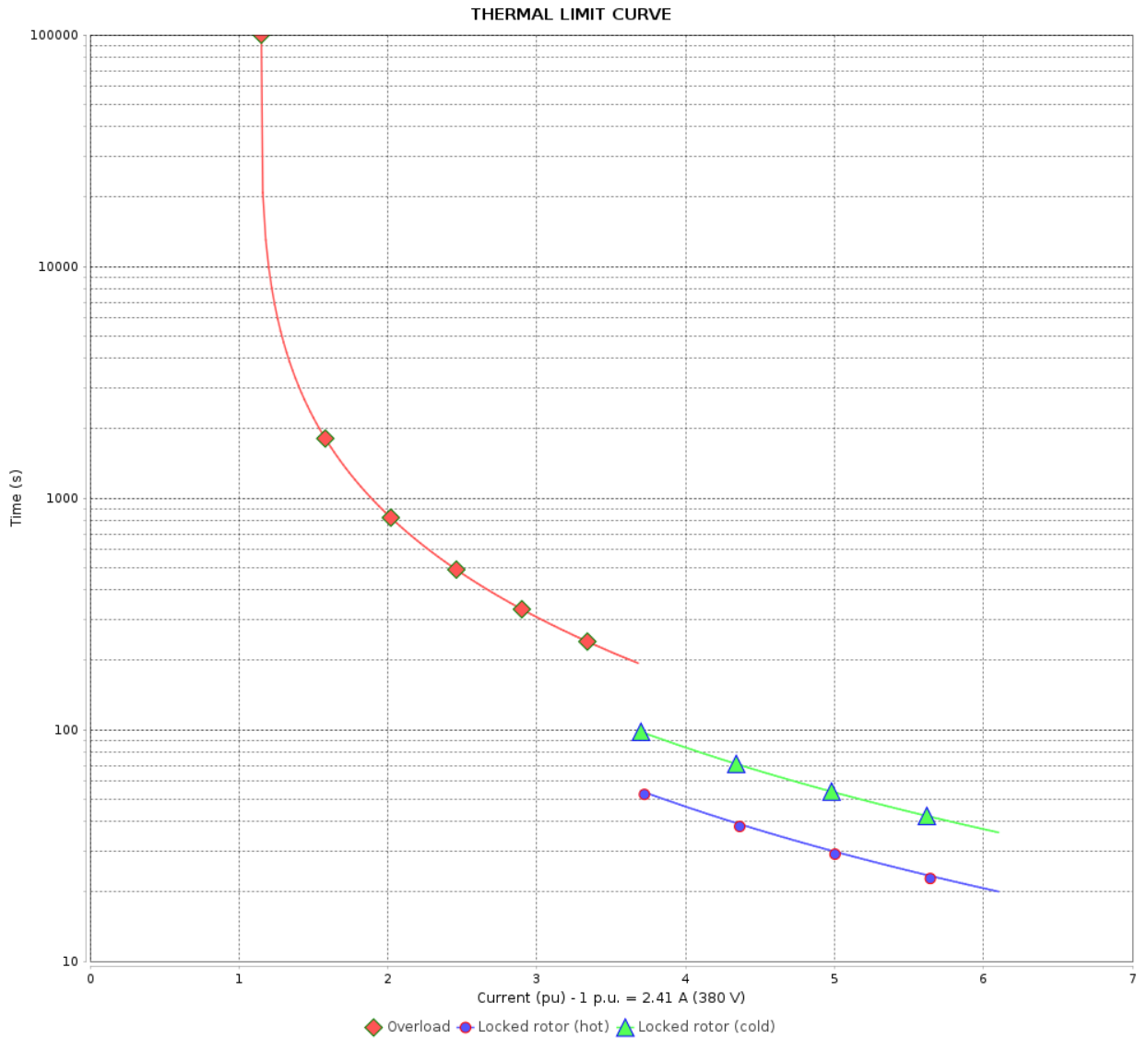
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Rated torque	: 0.767 kgfm	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1420 rpm	Design	: B

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

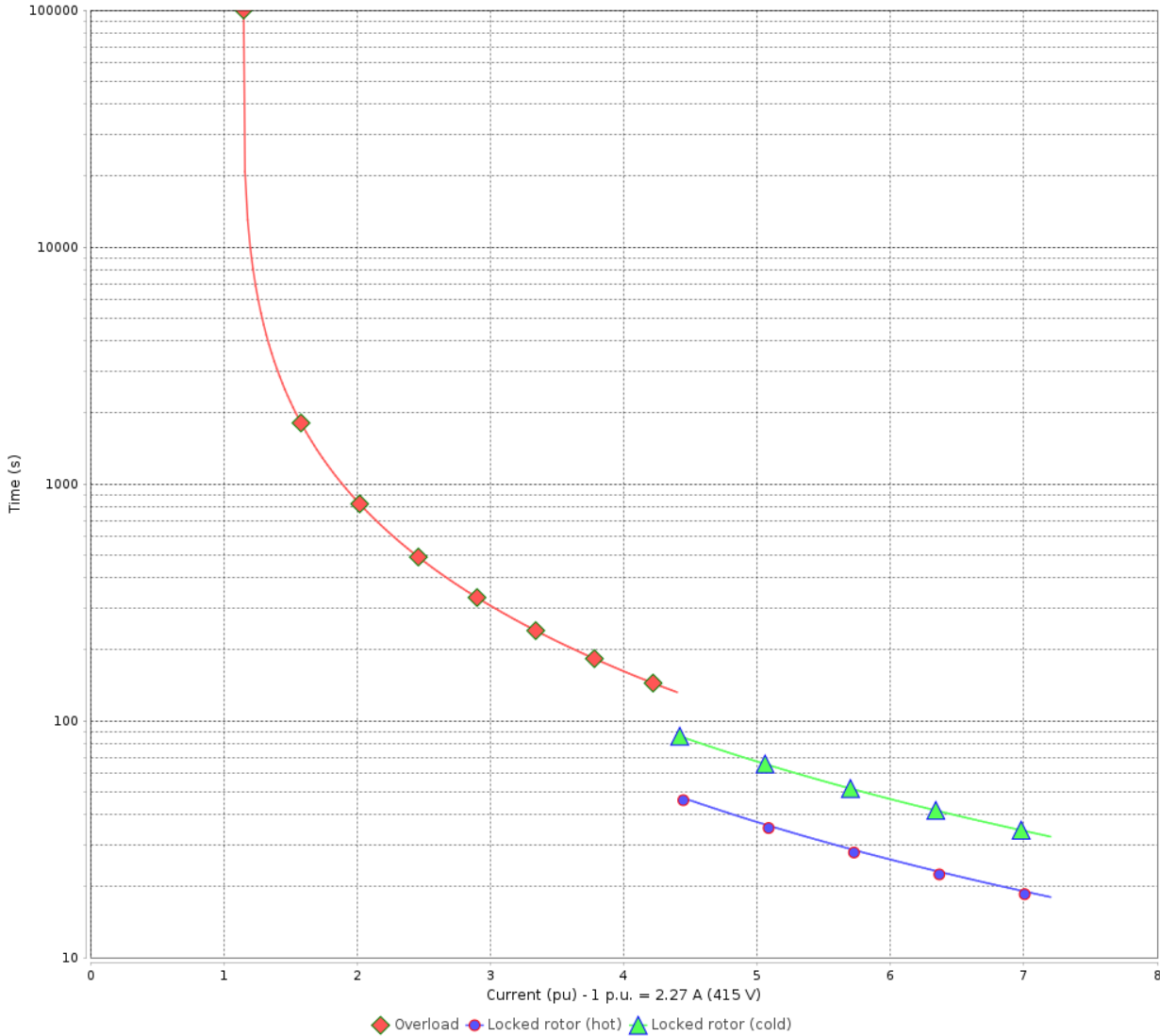


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VFD OPERATION CURVE

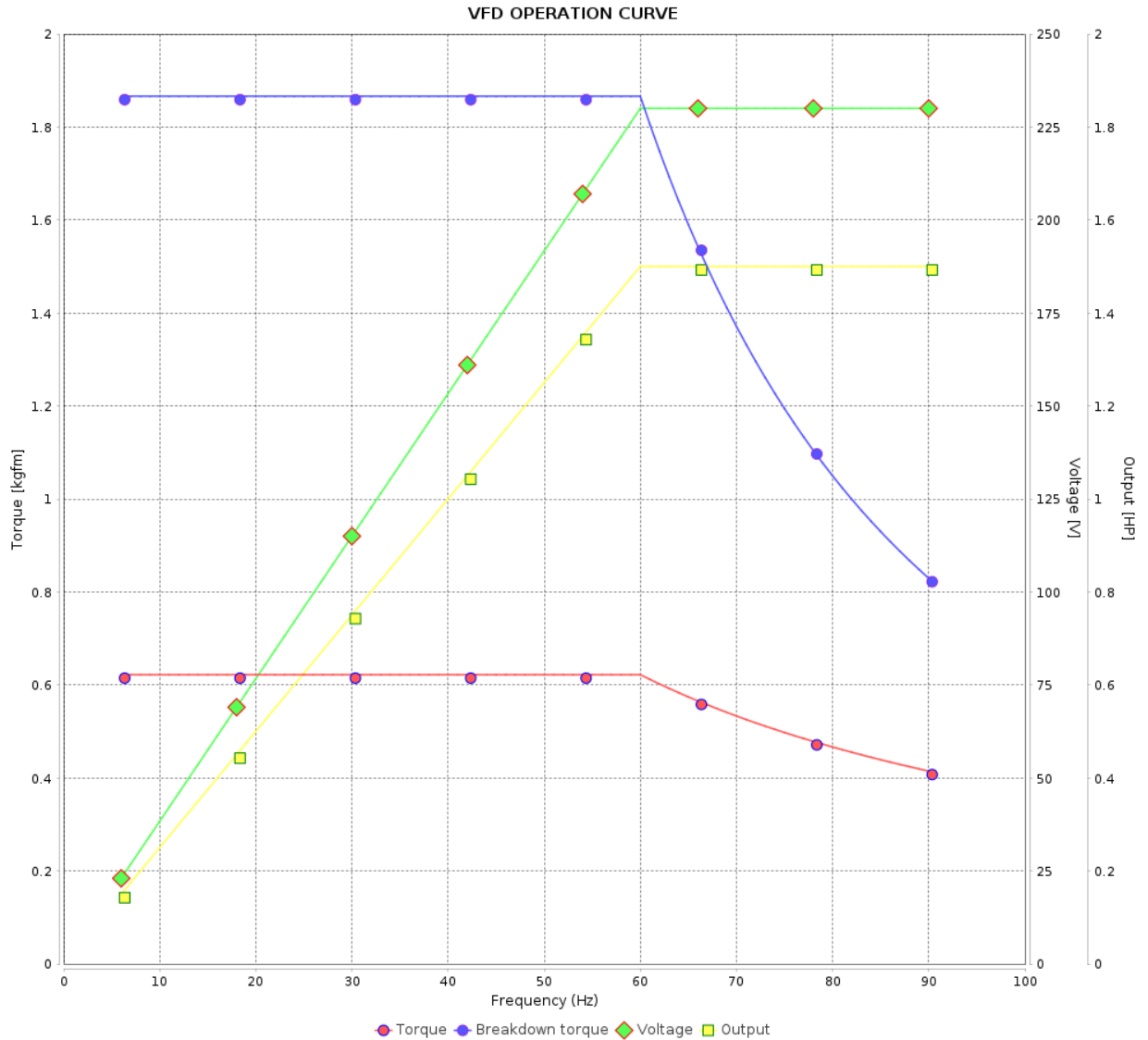
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 Service factor :
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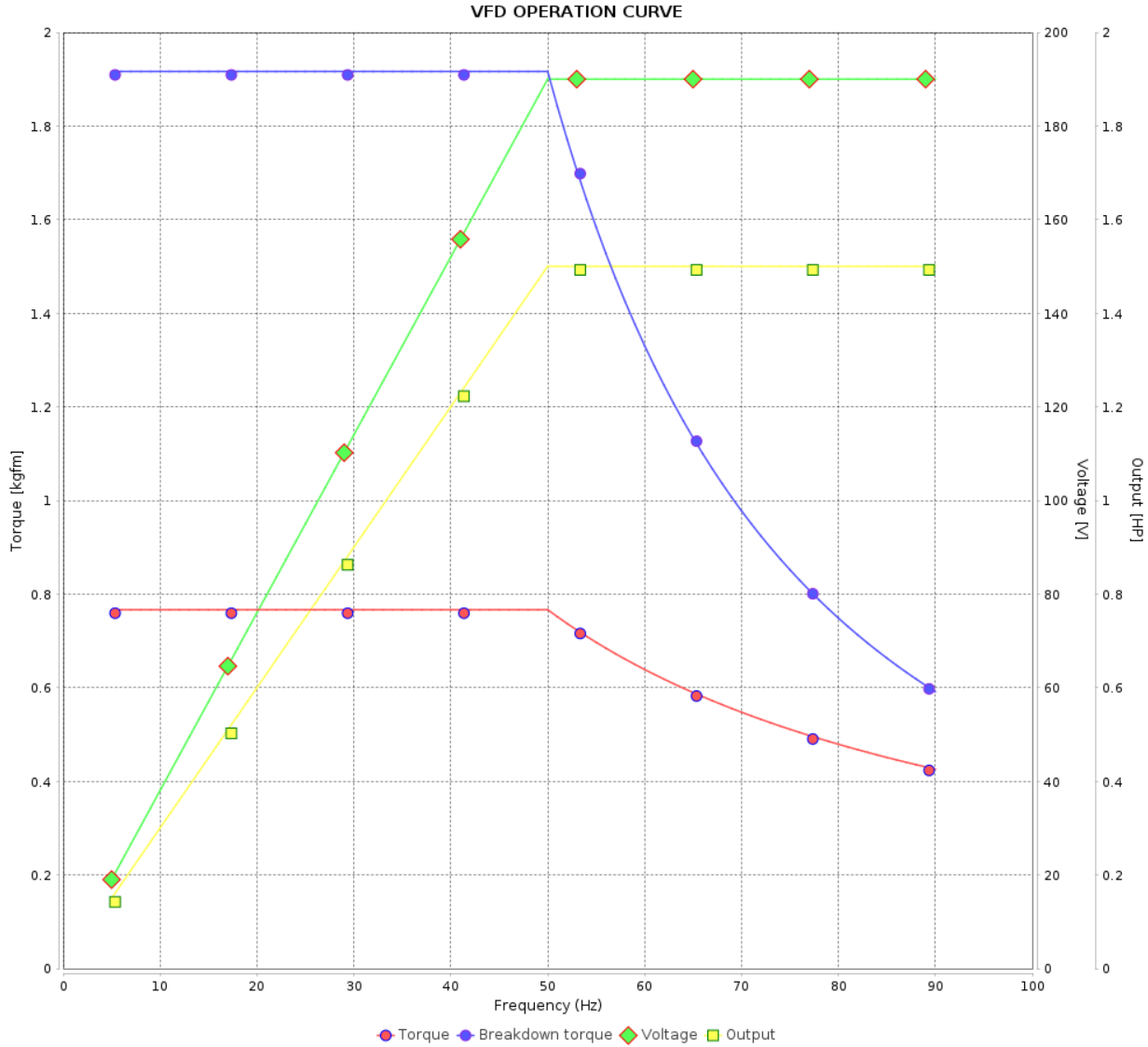
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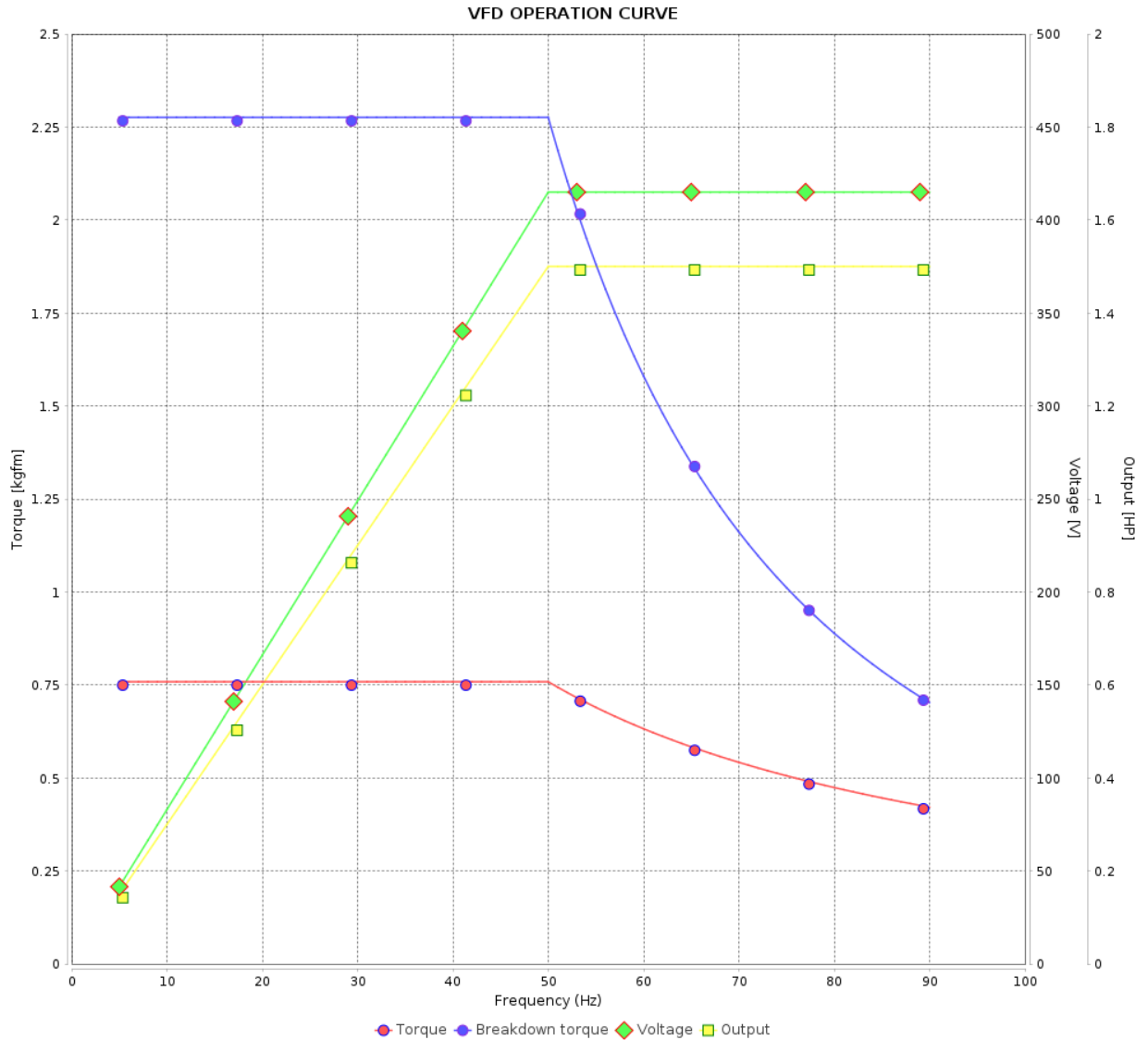
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