

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line : Standard Efficiency Three-Phase		Product code : 14796938			
		Catalog # : .2536ES3E56-S			
Frame : 56	Insulation class : F	Cooling method : IC411 - TEFC			
Duty cycle : Cont.(S1)	Ambient temperature : -20°C to +40°C	Mounting : F-1			
Altitude : 1000 m.a.s.l.	Protection degree : IP55	Rotation <sup>1</sup> : Both (CW and CCW)			
		Starting method : Direct On Line			
		Approx. weight <sup>3</sup> : 17.8 lb			
		Moment of inertia (J) : 0.0389 sq.ft.lb			
Output [HP]	0.25	0.25	0.25		
Poles	2	2	2		
Frequency [Hz]	60	50	50		
Rated voltage [V]	208-230/460	190-220/380	415		
Rated current [A]	1.01-0.914/0.457	0.938-0.810/0.469	0.441		
L. R. Amperes [A]	6.46-5.85/2.92	5.07-4.37/2.53	2.78		
LRC [A]	6.4x(Code L)	5.4x(Code H)	6.3x(Code J)		
No load current [A]	0.431-0.500/0.250	0.420-0.363/0.210	0.234		
Rated speed [RPM]	3475	2860	2885		
Slip [%]	3.47	4.67	3.83		
Rated torque [ft.lb]	0.378	0.459	0.455		
Locked rotor torque [%]	250	190	240		
Breakdown torque [%]	300	250	310		
Service factor		1.15	1.15		
Temperature rise	80 K	80 K	80 K		
Locked rotor time	108s (cold) 60s (hot)	133s (cold) 74s (hot)	111s (cold) 62s (hot)		
Noise level <sup>2</sup>	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)		
Efficiency (%)	25%	42.6	52.9	51.5	
	50%	46.0	55.3	54.3	
	75%	52.5	62.0	61.7	
	100%	57.5	64.8	65.3	
Power Factor	25%	0.48	0.52	0.46	
	50%	0.75	0.79	0.73	
	75%	0.82	0.86	0.82	
	100%	0.86	0.90	0.87	
Bearing type : 6203 ZZ	Drive end	Non drive end	Foundation loads		
Sealing : V'Ring		Without Bearing Seal	Max. traction : 5 lb	Max. compression : 22 lb	
Lubrication interval : -	-	-			
Lubricant amount : -	-	-			
Lubricant type : Mobil Polyrex EM					
Notes USABLE @208V SF 1.00					
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 :

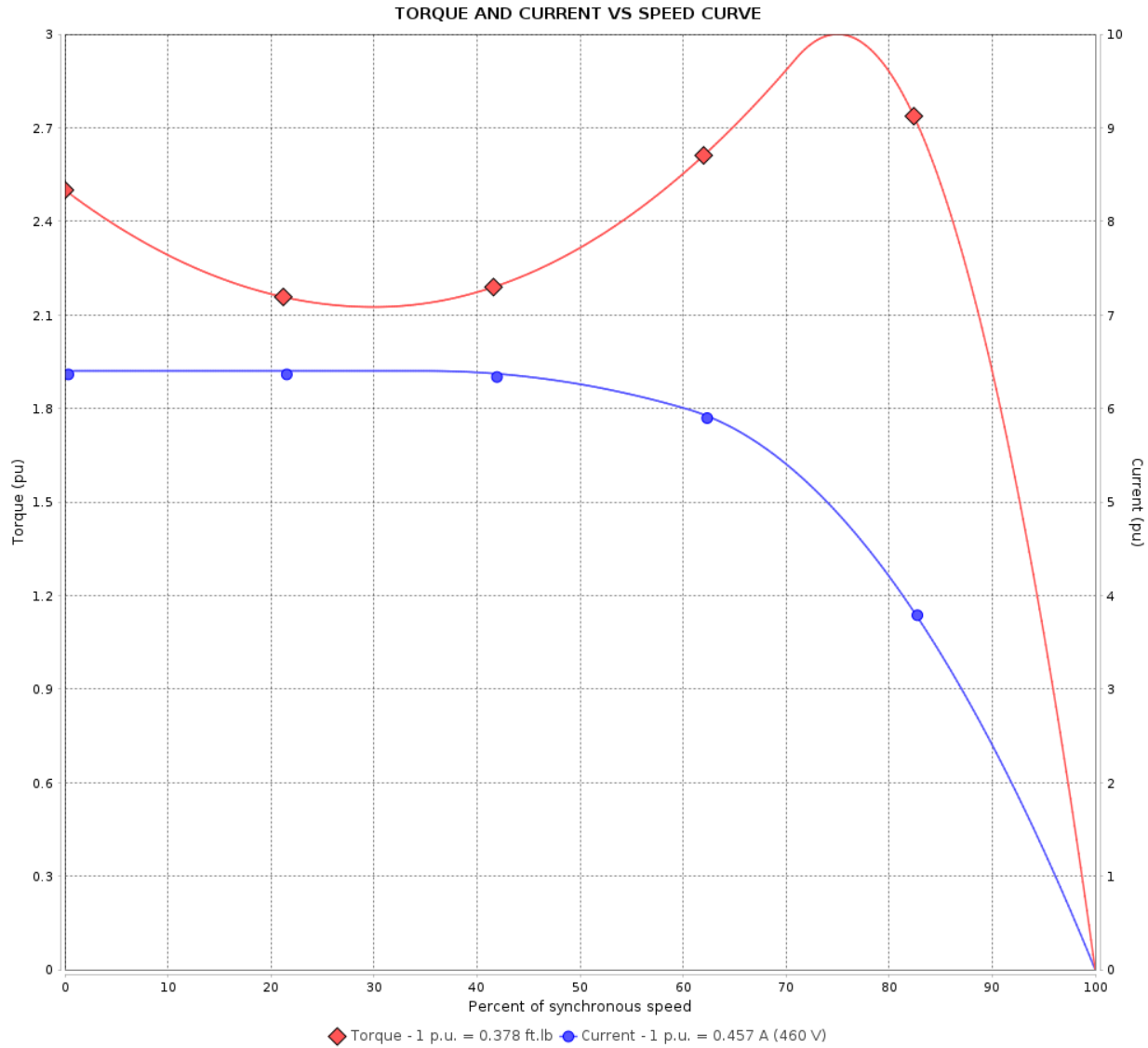
Product line : Standard Efficiency Three-Phase

Product code :

14796938

Catalog # :

.2536ES3E56-S



Performance : 208-230/460 V 60 Hz 2P

Rated current	: 1.01-0.914/0.457 A	Moment of inertia (J)	: 0.0389 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 0.378 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3475 rpm		

Locked rotor time : 108s (cold) 60s (hot)

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Customer :

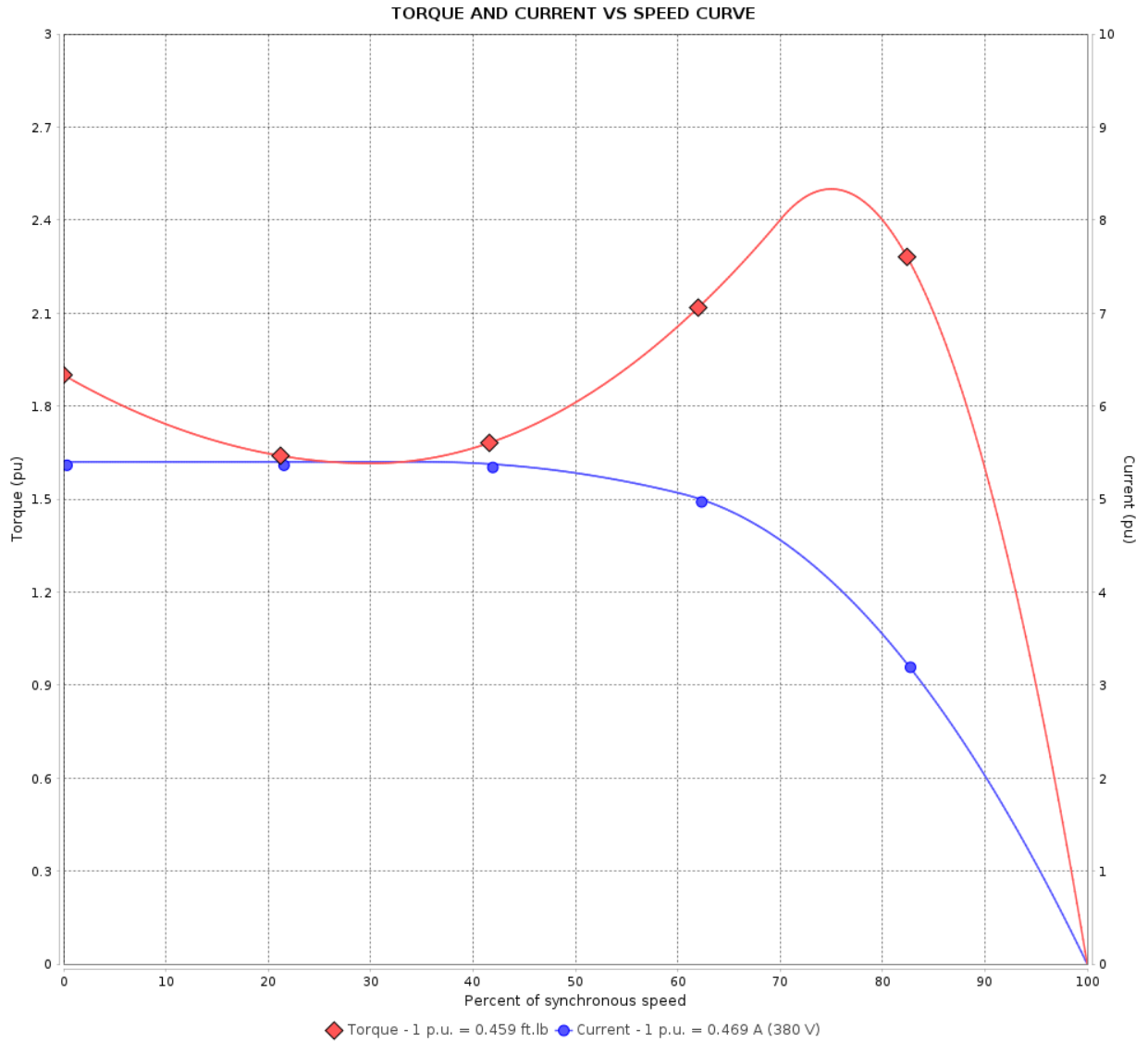
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Product code :

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Catalog # :

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Performance : 190-220/380 V 50 Hz 2P

Rated current	: 0.938-0.810/0.469 A	Moment of inertia (J)	: 0.0389 sq.ft.lb
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 0.459 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 2860 rpm		

Locked rotor time : 133s (cold) 74s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

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Customer :

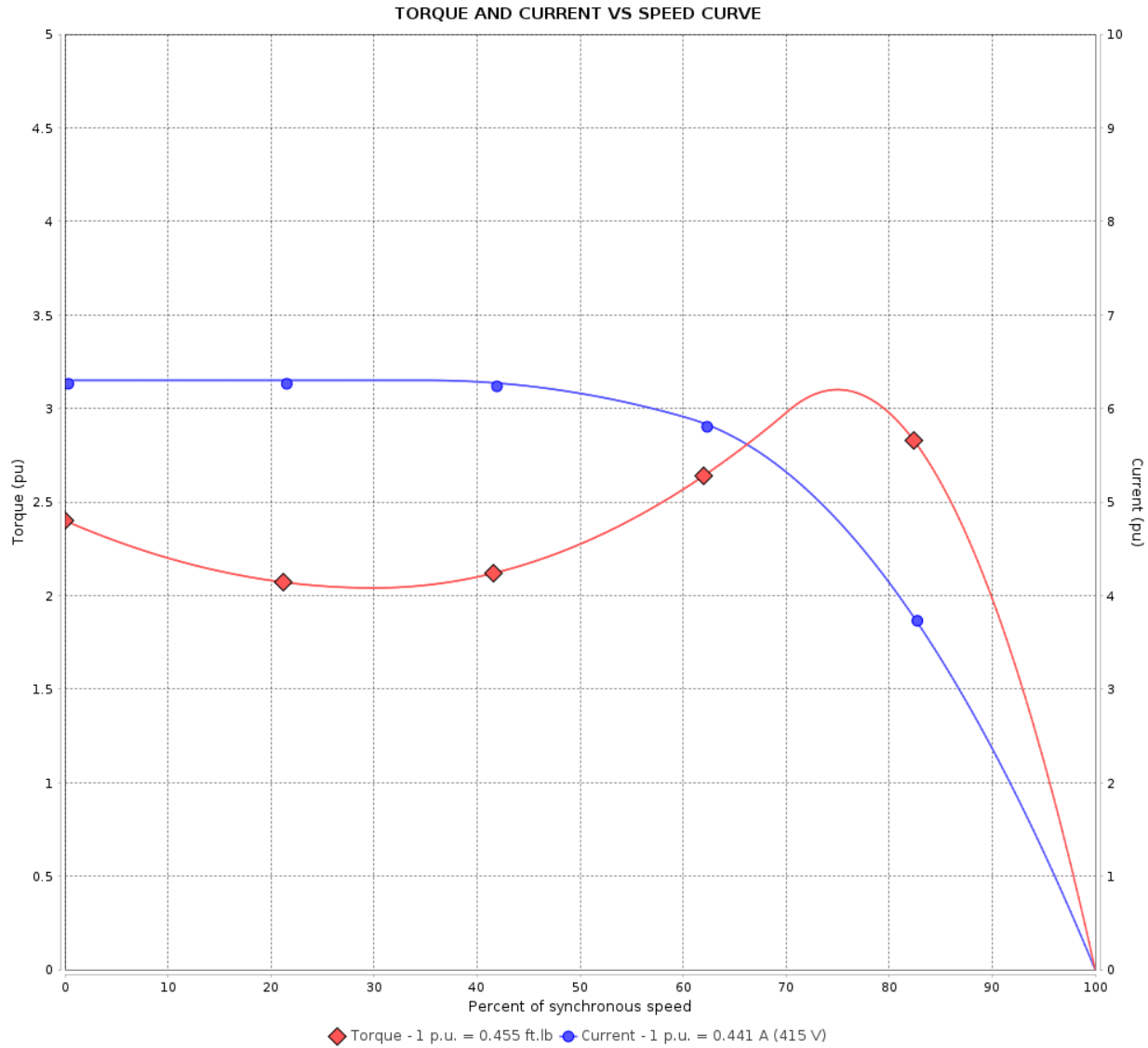
Product line : Standard Efficiency Three-Phase

Product code :

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Catalog # :

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Performance : 415 V 50 Hz 2P

Rated current	: 0.441 A	Moment of inertia (J)	: 0.0389 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 0.455 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 310 %	Temperature rise	: 80 K
Rated speed	: 2885 rpm		

Locked rotor time : 111s (cold) 62s (hot)

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# LOAD PERFORMANCE CURVE

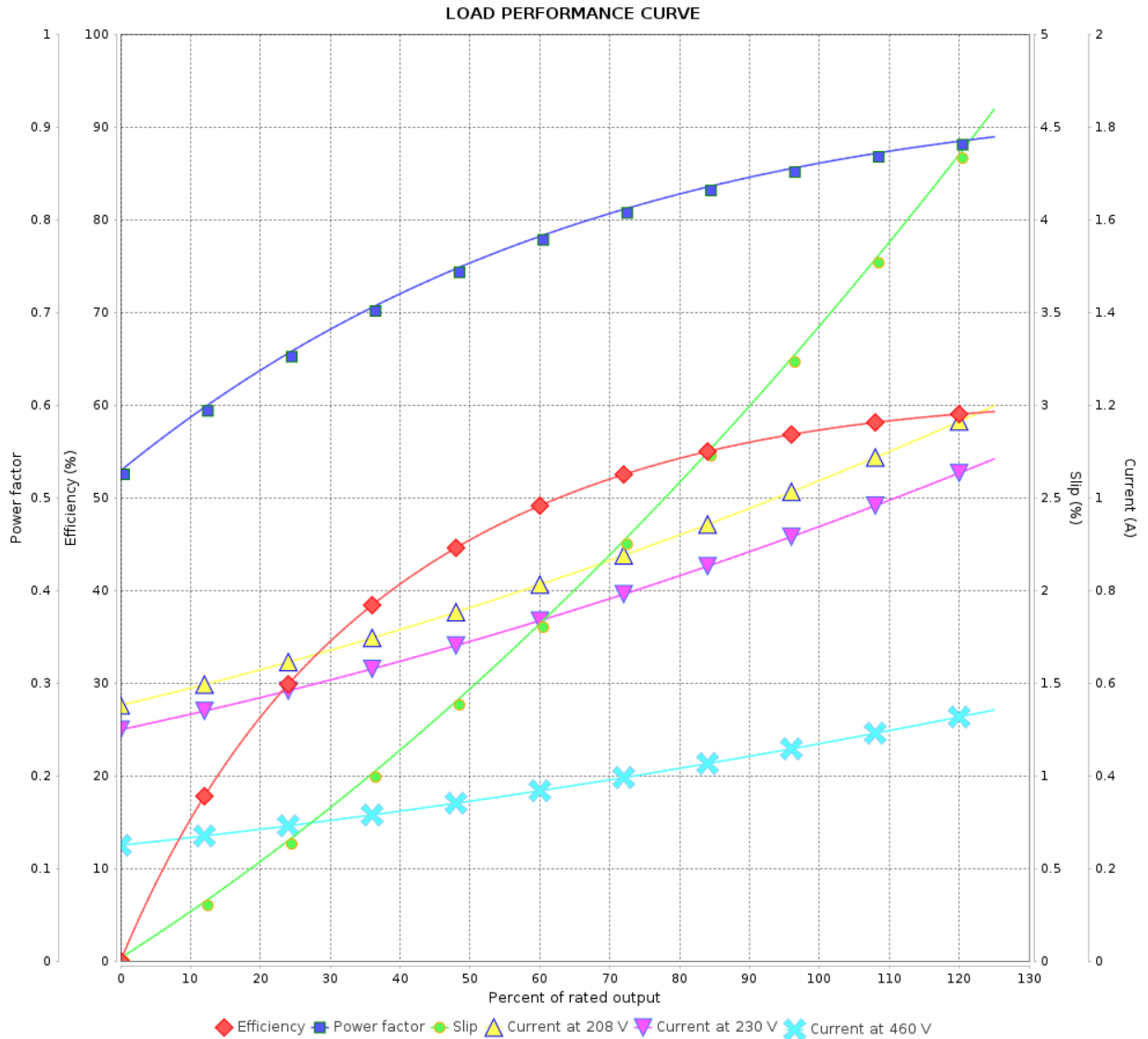
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Performance : 208-230/460 V 60 Hz 2P

Rated current : 1.01-0.914/0.457 A  
 LRC : 6.4  
 Rated torque : 0.378 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 3475 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

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Three Phase Induction Motor - Squirrel Cage



Customer :

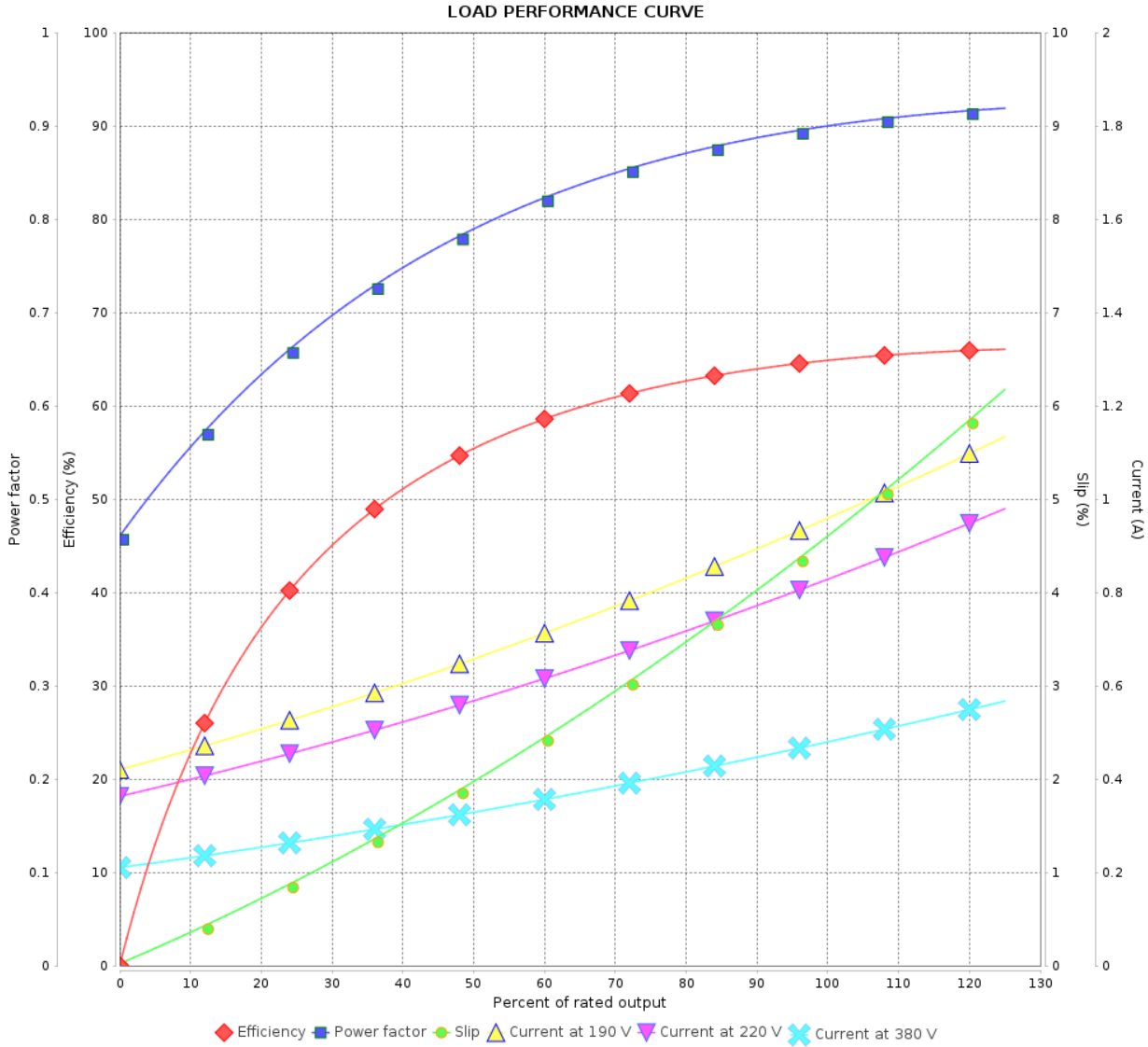
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Performance : 190-220/380 V 50 Hz 2P

Rated current : 0.938-0.810/0.469 A  
 LRC : 5.4  
 Rated torque : 0.459 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 2860 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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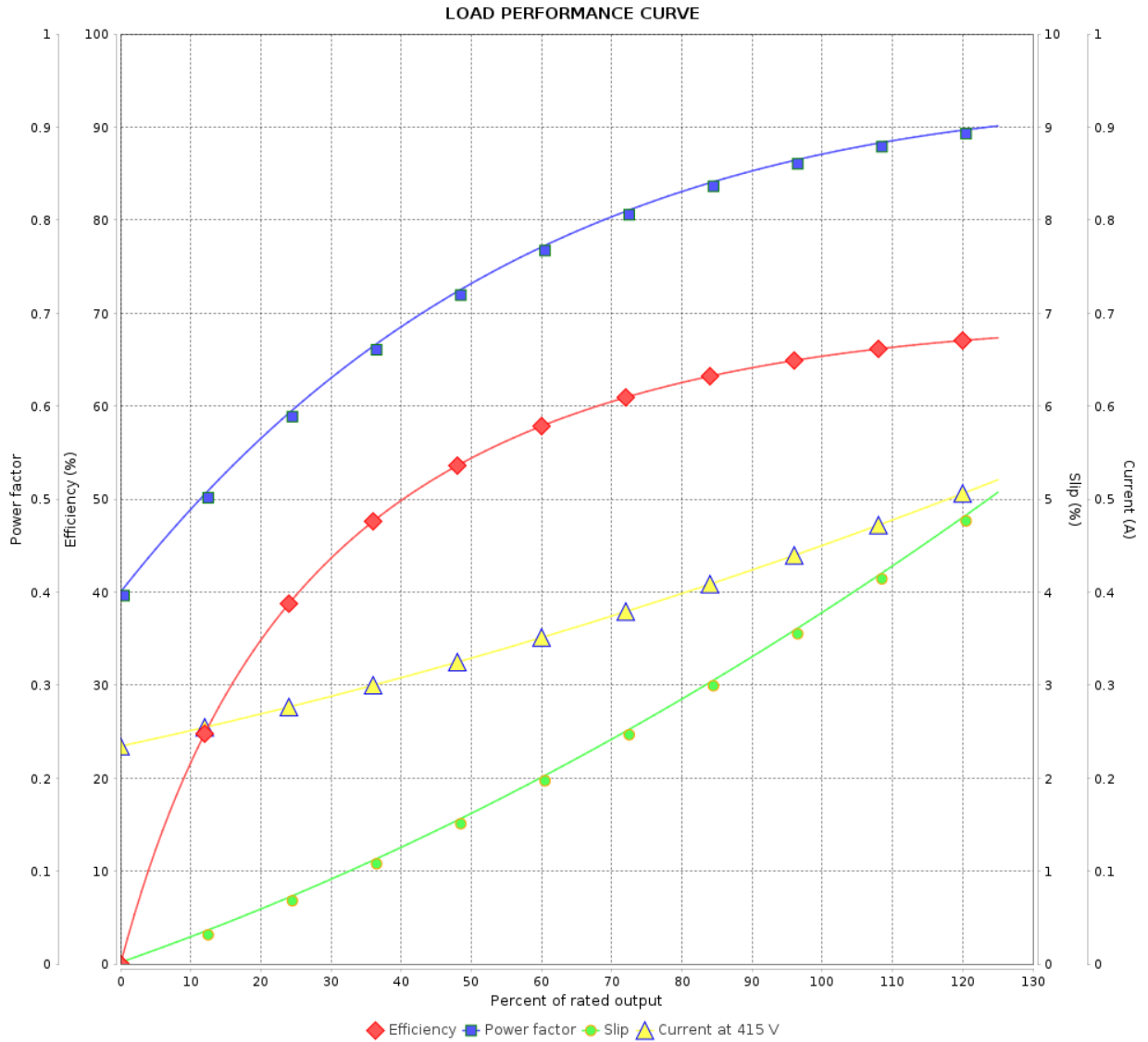


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Performance : 415 V 50 Hz 2P

Rated current : 0.441 A  
 LRC : 6.3  
 Rated torque : 0.455 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

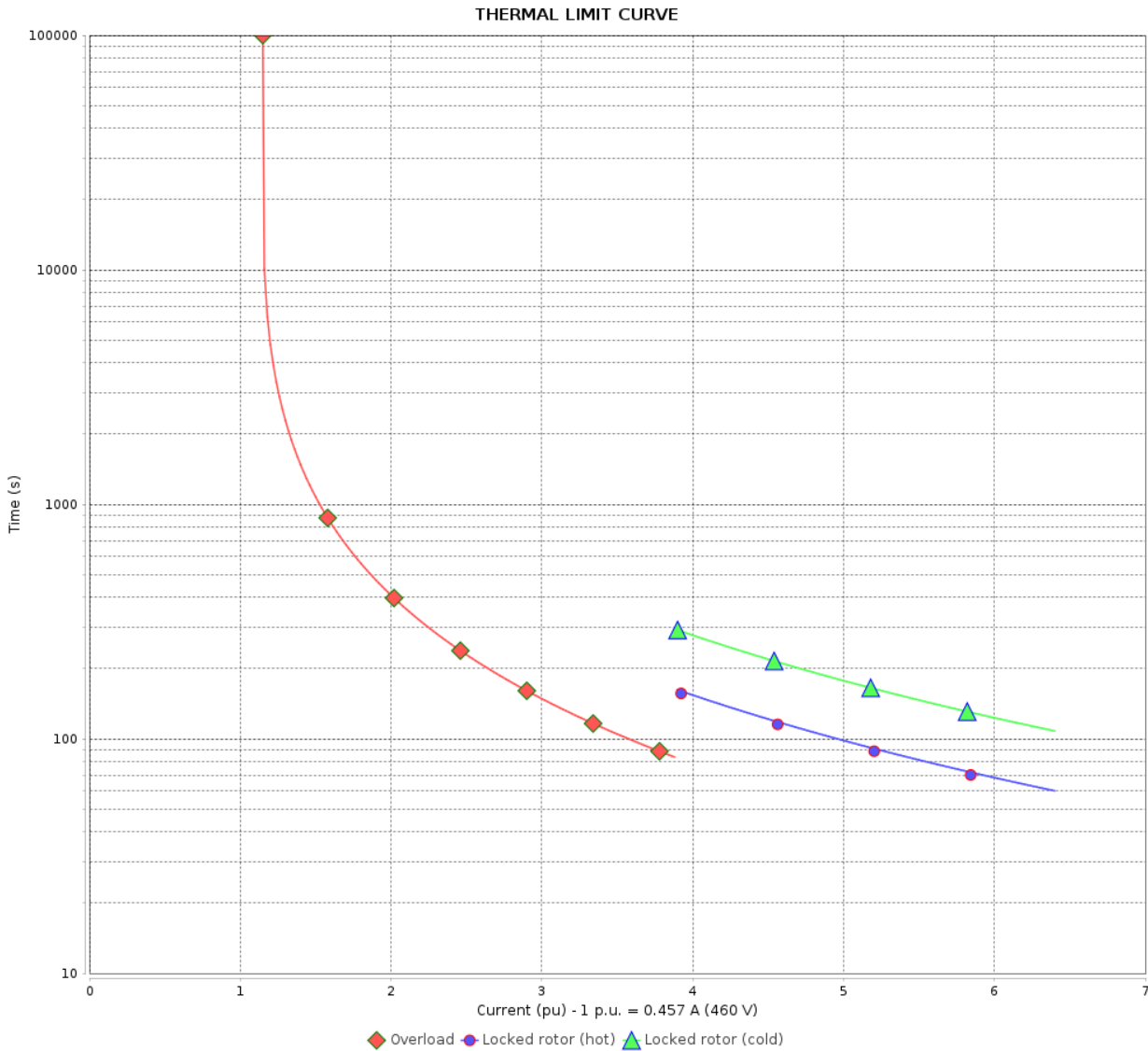
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Rated current : 1.01-0.914/0.457 A  
 LRC : 6.4  
 Rated torque : 0.378 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 3475 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

Heating constant

Cooling constant

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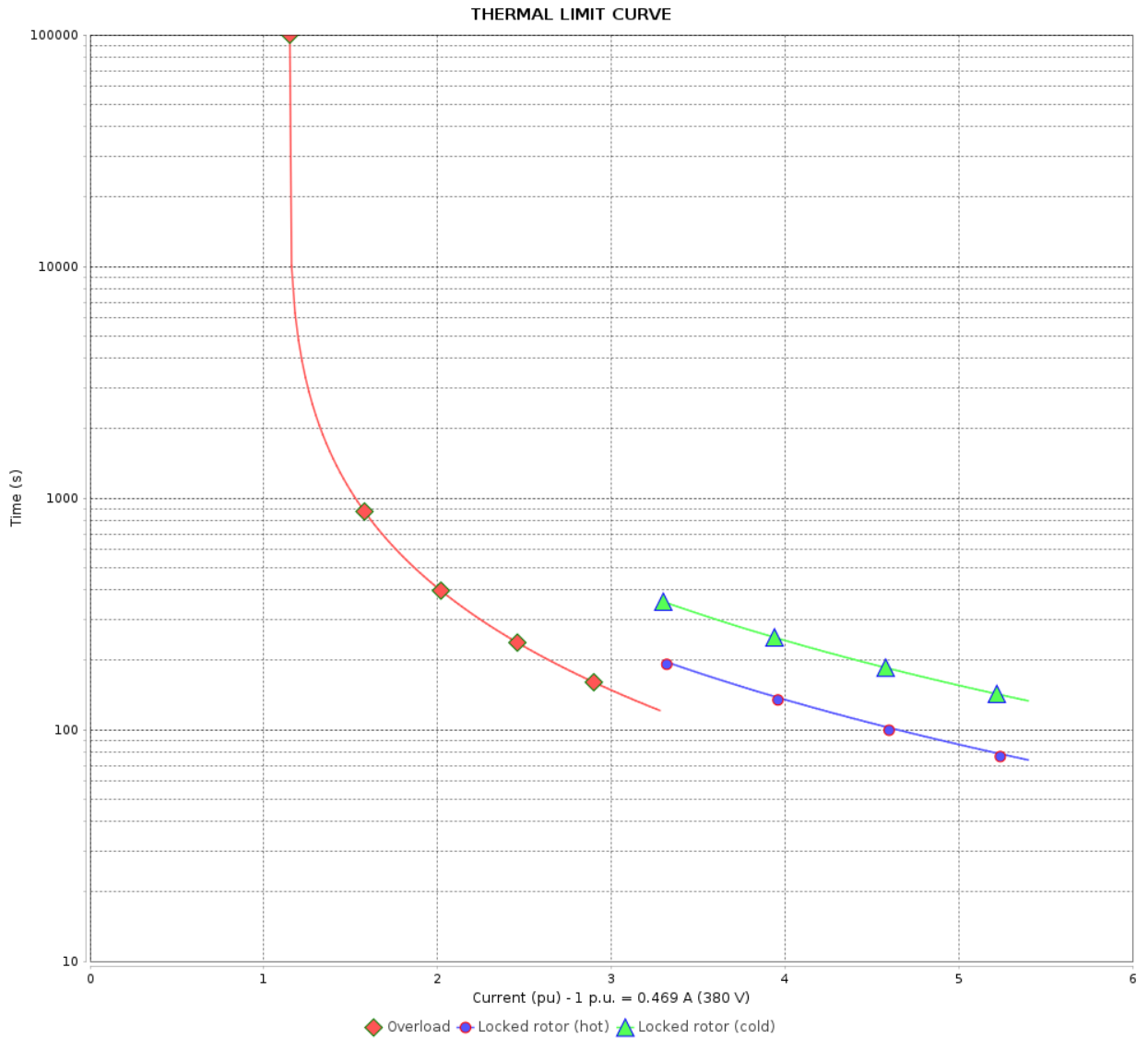
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 Rated torque : 0.459 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 2860 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
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Heating constant  
Cooling constant

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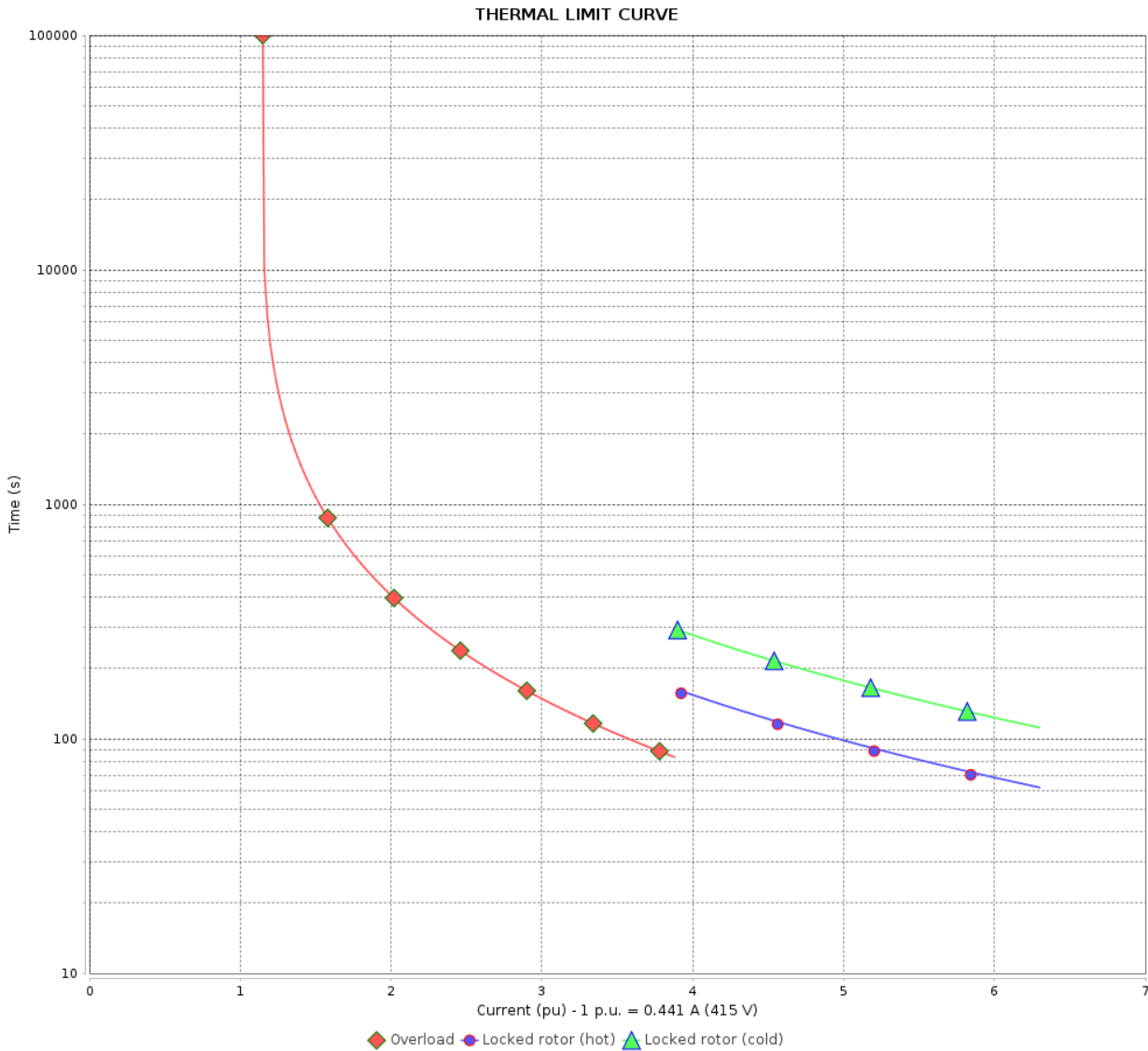
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 LRC : 6.3  
 Rated torque : 0.455 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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# VFD OPERATION CURVE

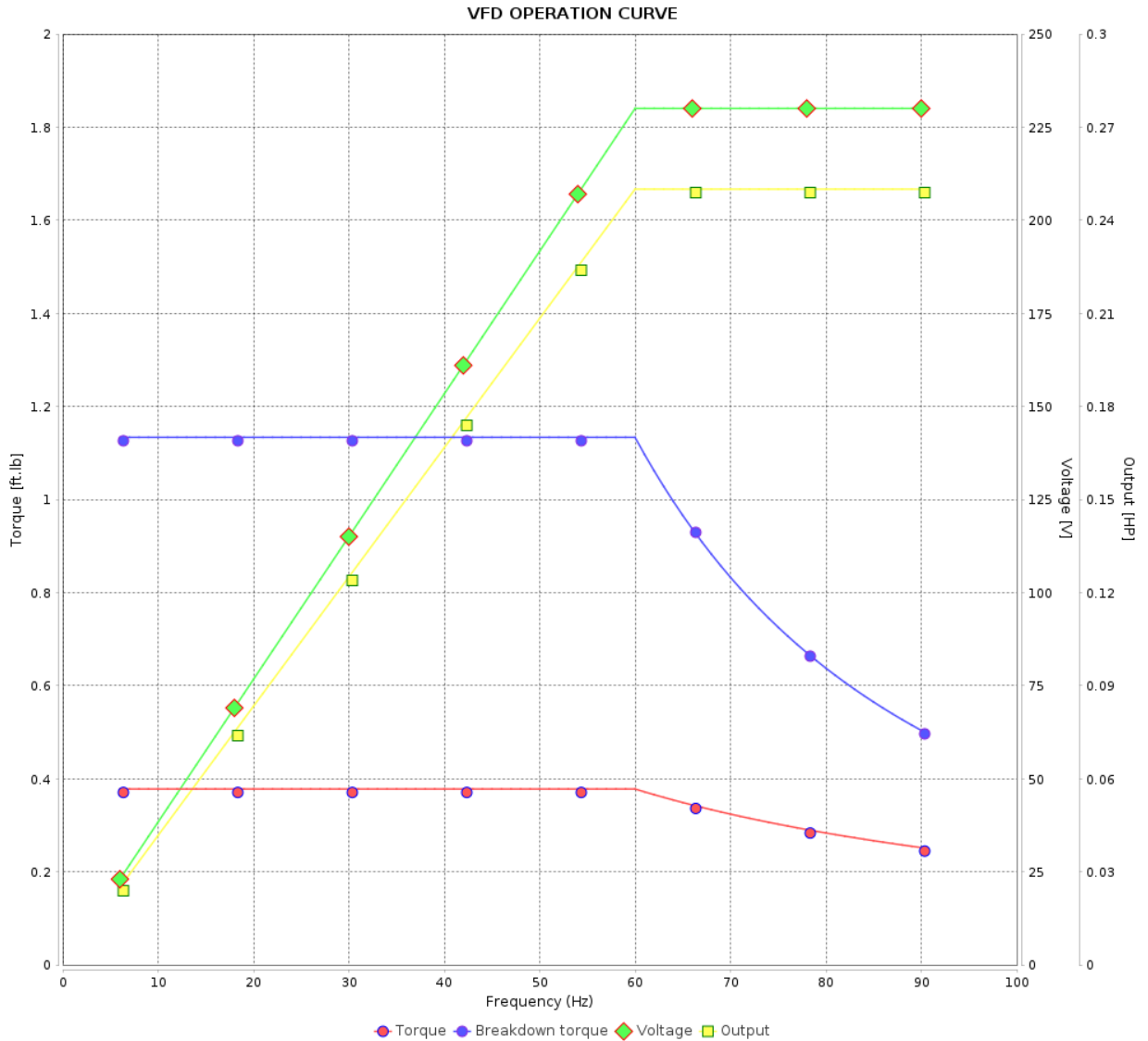
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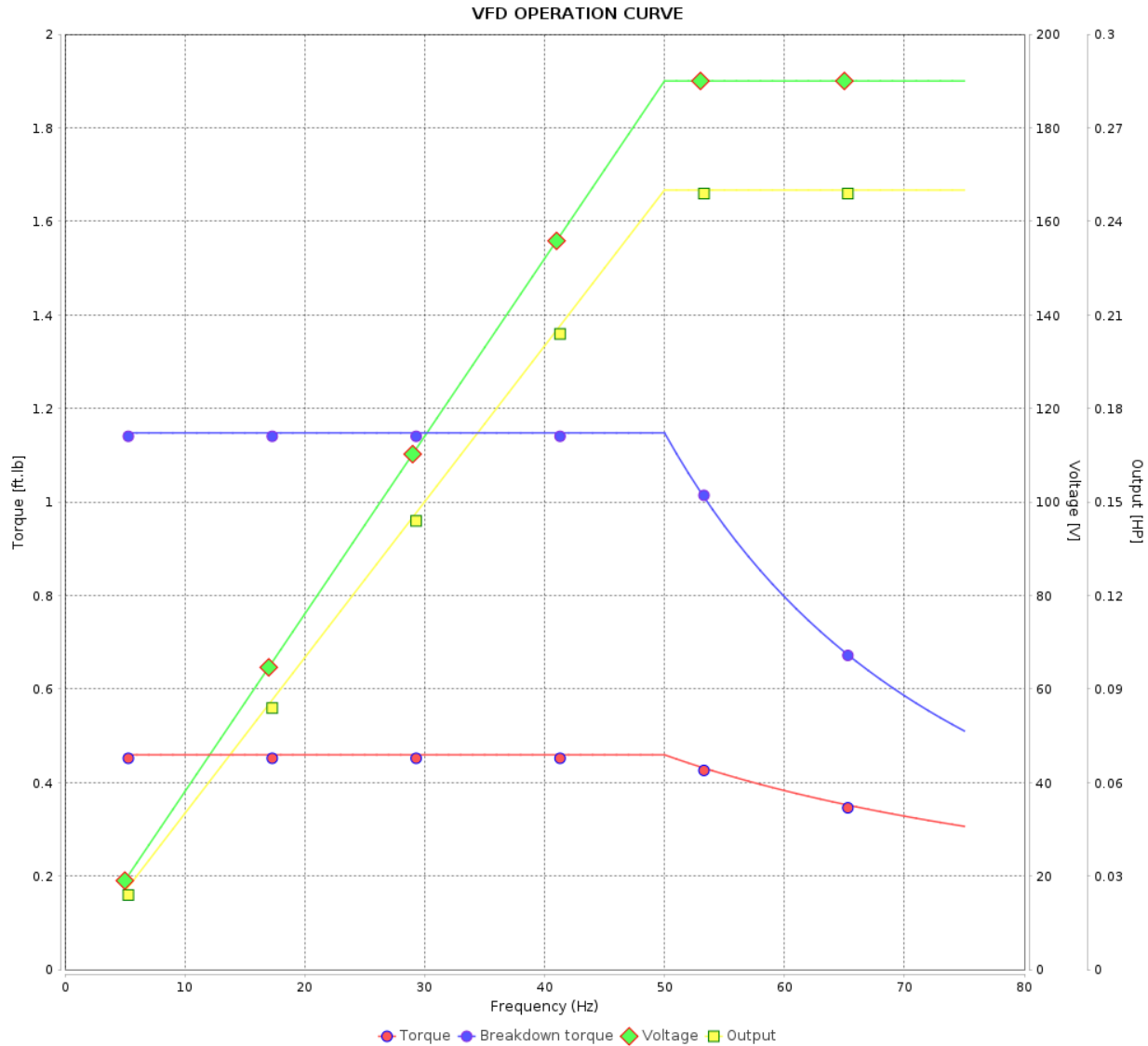
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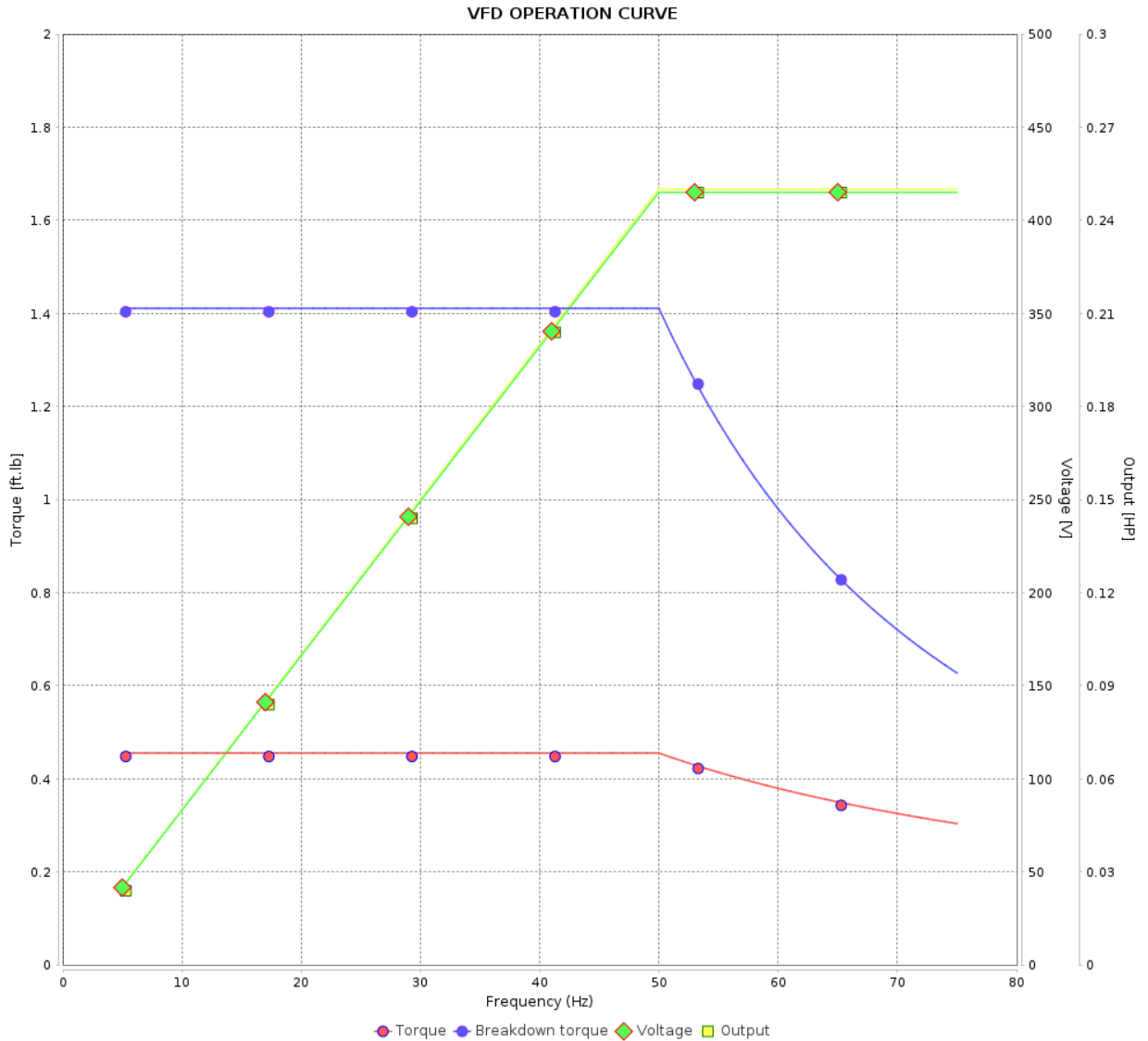
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