

MAGNAPLUS®

TYPICAL SUBMITTAL DATA

BASE MODEL: 361PSL1601

Winding: 1601

Date: 01/28/22

Kilowatt ratings at	1800 RPM	60 Hertz	12 Leads		
kW (kVA)	3 Phase	0.8 Power Factor		Dripproof or Open Enclosure	
	CONTINUOUS ^{1, 2}			STANDBY ^{1, 2}	
Voltage*	NEMA B / 80 °C	NEMA F / 105 °C	NEMA H / 125 °C	NEMA F / 130 °C	NEMA H / 150 °C
240/480	49 (61)	55 (69)	60 (75)	60 (75)	65 (81)
220/440	48 (60)	53 (66)	58 (73)	58 (73)	61 (76)
208/416	45 (56)	50 (63)	55 (69)	55 (69)	58 (73)
200/400	43 (54)	48 (60)	53 (66)	53 (66)	55 (69)
190/380	41 (51)	45 (56)	50 (63)	50 (63)	52 (65)

① Rise by resistance method, Mil-Std-705, Method 680.1b.

② Machine rated for Max Ambient of 40 °C, Max Altitude 3300 ft

Submittal Data: 208 Volts*, 55 kW, 69 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase **Low Wye CONNECTION**

Mil-Std-705B Method	Description	Value	Units	Mil-Std-705C Method	Description	Value	Units
301.1b	Insulation Resistance	>1.5 Meg	Ohms	505.3b	Overspeed	2250	RPM
302.1a	High Potential Test			507.1c	Phase Sequence CCW-ODE	ABC	
	Main Stator	1960	Volts	508.1c	Voltage Balance, L-L or L-N	0.2%	
	Main Rotor	1500	Volts	601.4a	L-L Harmonic Max - Total (Distortion Factor)	3.5%	
	Exciter Stator	1500	Volts				
	Exciter Rotor	1500	Volts	601.4a	L-L Harmonic Max - Single	2.5%	
			601.1c	Deviation Factor	7.0%		
401.1a	Stator Resistance, Line to Line Low Wye Connection	0.06600	Ohms	---	TIF (1960 Weightings)	<50	
	Rotor Resistance	0.81	Ohms	---	THF (IEC, BS & NEMA Weightings)	<2%	
	Exciter Stator	23.5	Ohms	---	Winding Pitch	2/3	
	Exciter Rotor	0.12	Ohms				
410.1a	No Load Exciter Field Amps at 208 Volts Line to Line	0.63	A DC	Additional Prototype Mil-Std Methods are Available on Request.			
420.1a	Short Circuit Ratio	0.492					
421.1a	Xd Synchronous Reactance	2.746	PU	--	Generator Frame	361	
		1.728	Ohms	--	Type	MagnaPlus	
422.1a	X2 Negative Sequence React.	0.248	PU	--	Insulation	Class H	
		0.156	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.059	PU	--	Amortisseur Windings	Full	
		0.037	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.195	PU	--	Voltage Regulator	SE350	
		0.123	Ohms	--	Voltage Regulation	1.00%	
426.1a	X''d Subtransient Reactance	0.161	PU				
		0.101	Ohms				
				--	Cooling Air Volume	700	CFM
				--	Heat rejection rate	417	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.048	Sec	--	Full load current	190.8	Amps
				--	Minimum Input hp required	83.5	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.008	Sec	--	Full load torque	244	Lb-ft
				--	Efficiency at rated load :	88.3%	
430.1a	T'do Transient Open Circuit Time Constant	0.68	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.01	Sec	--	Weight	569	lbs

* Voltages refer to wye (star) connection, unless otherwise specified.

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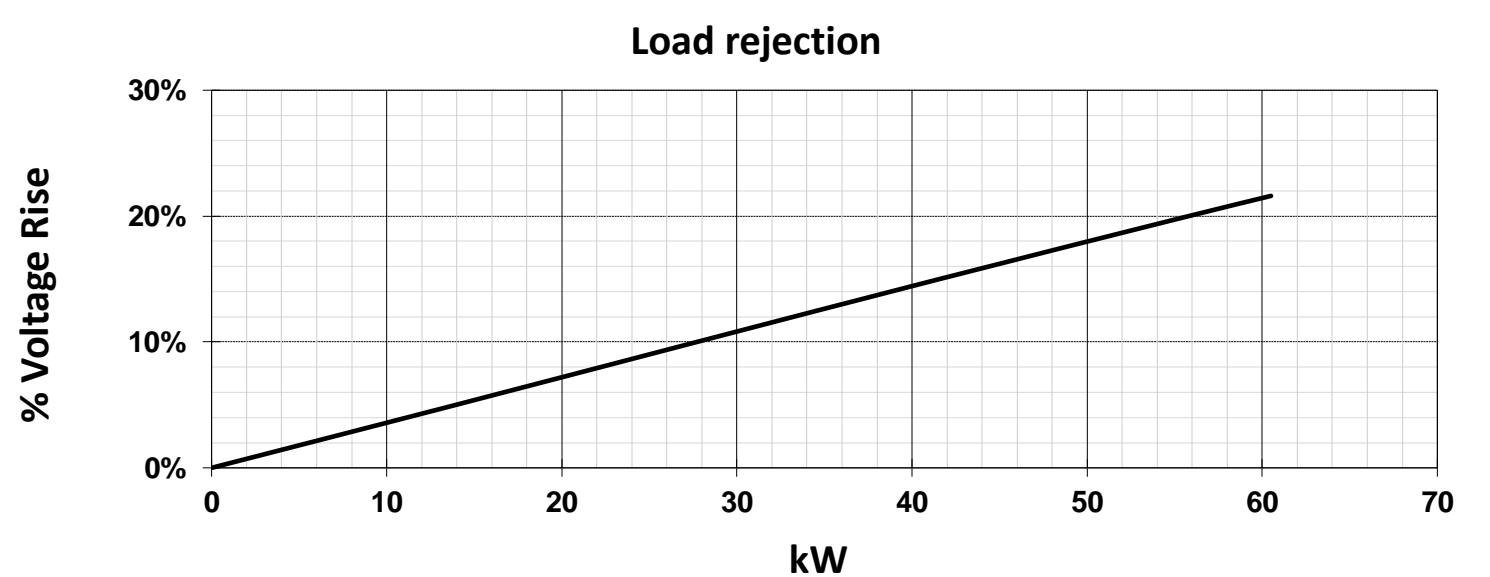
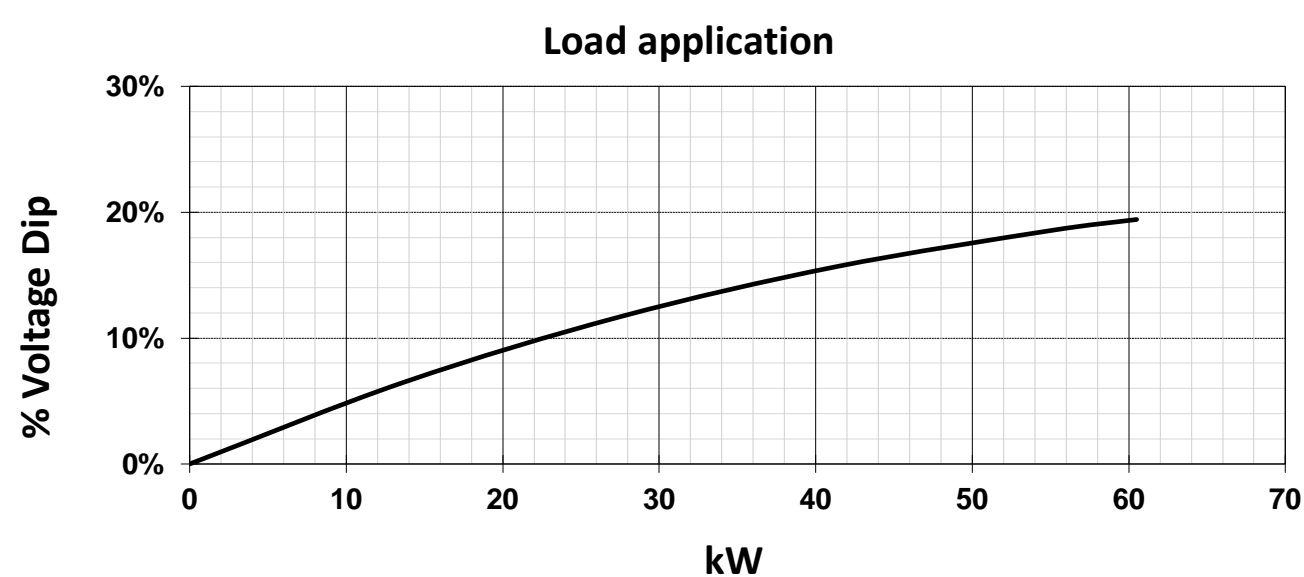
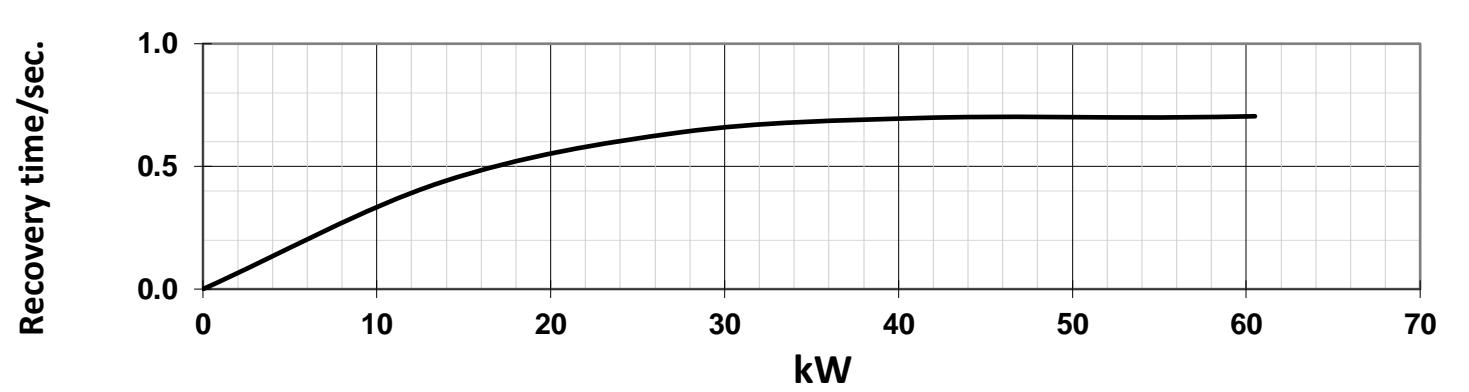
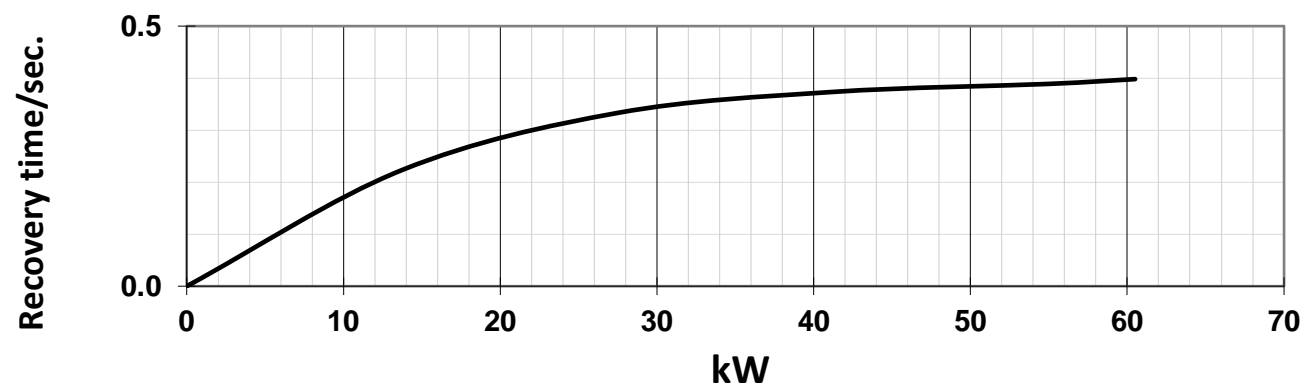
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TYPICAL DYNAMIC CHARACTERISTICS

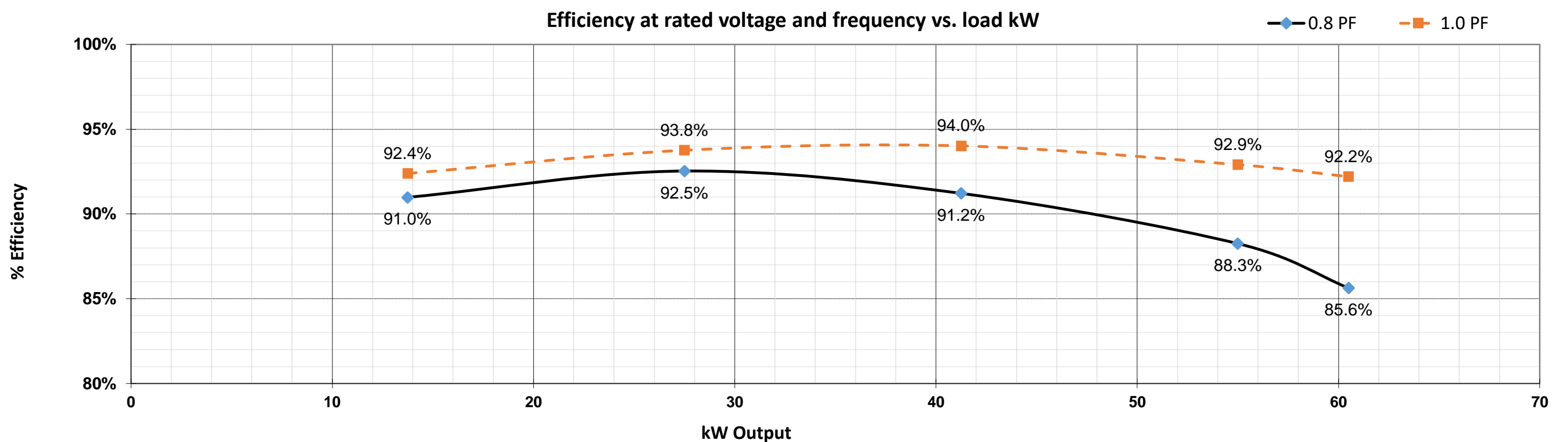
BASE MODEL: **361PSL1601**

Date: **01/28/22**

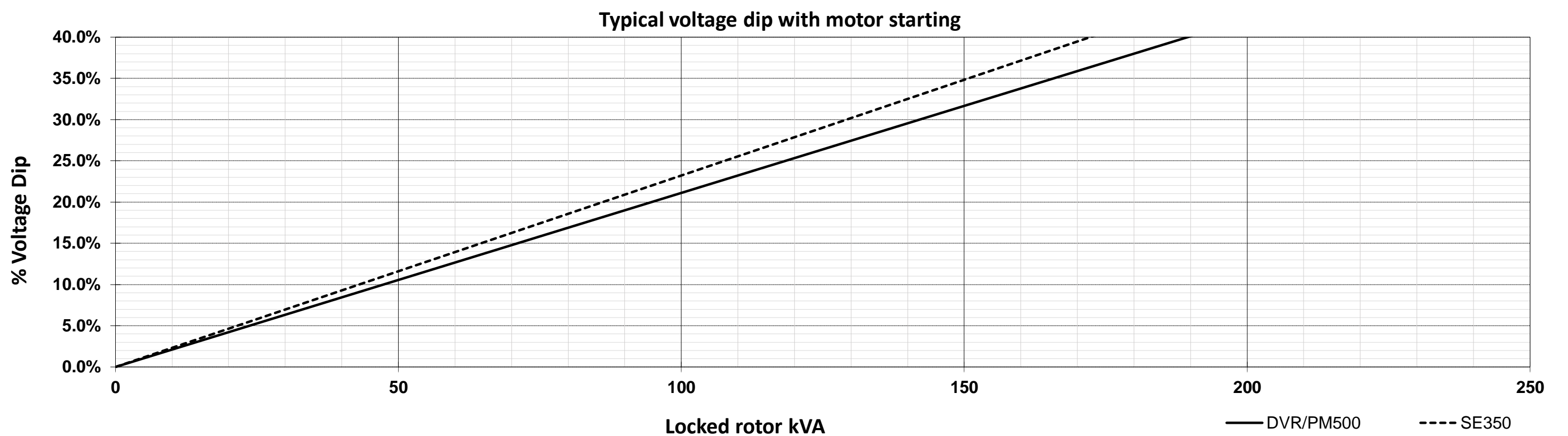
Submittal Data: 208 Volts*, 55 kW, 69 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase



Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting



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DECREMENT CURVE

BASE MODEL: 361PSL1601

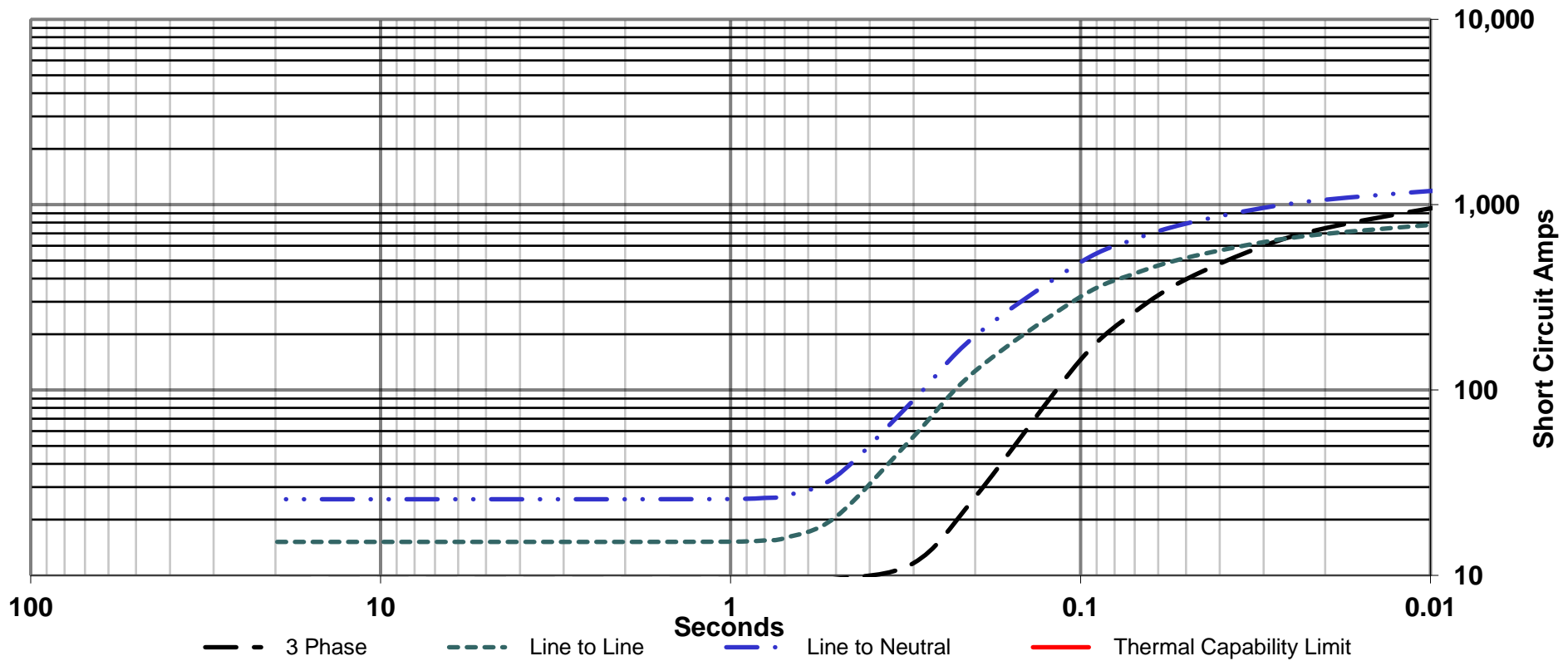
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Date : 01/28/22

Full Load Current : 190.8 amps
Steady State S.C. Current : 9.54 amps

Max. 3 ph. Symm. S.C. Current : 1184 amps

Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



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DECREMENT CURVE

BASE MODEL: 361PSL1601

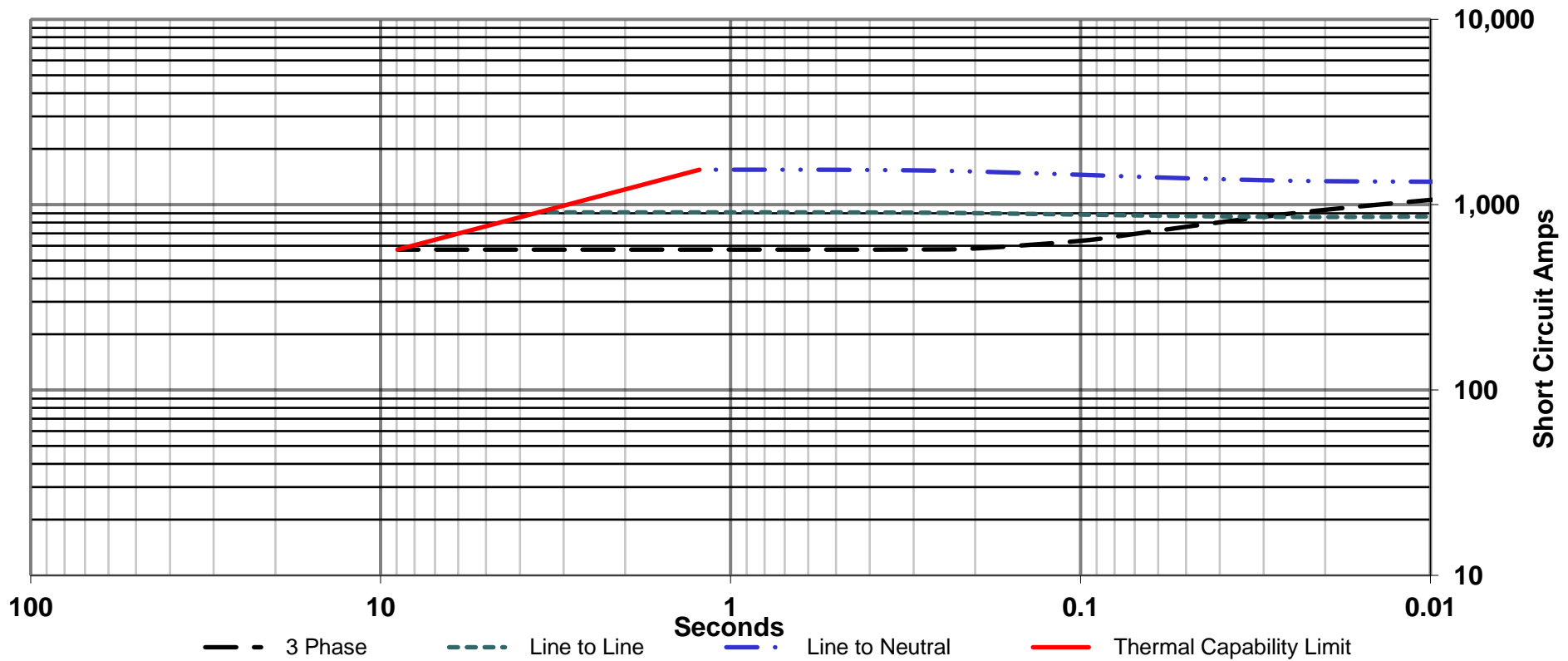
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Date : 01/28/22

Full Load Current : 190.8 amps
Steady State S.C. Current : 572.4 amps

Max. 3 ph. Symm. S.C. Current : 1184 amps
INCLUDES EXCITATION SUPPORT (PMG)

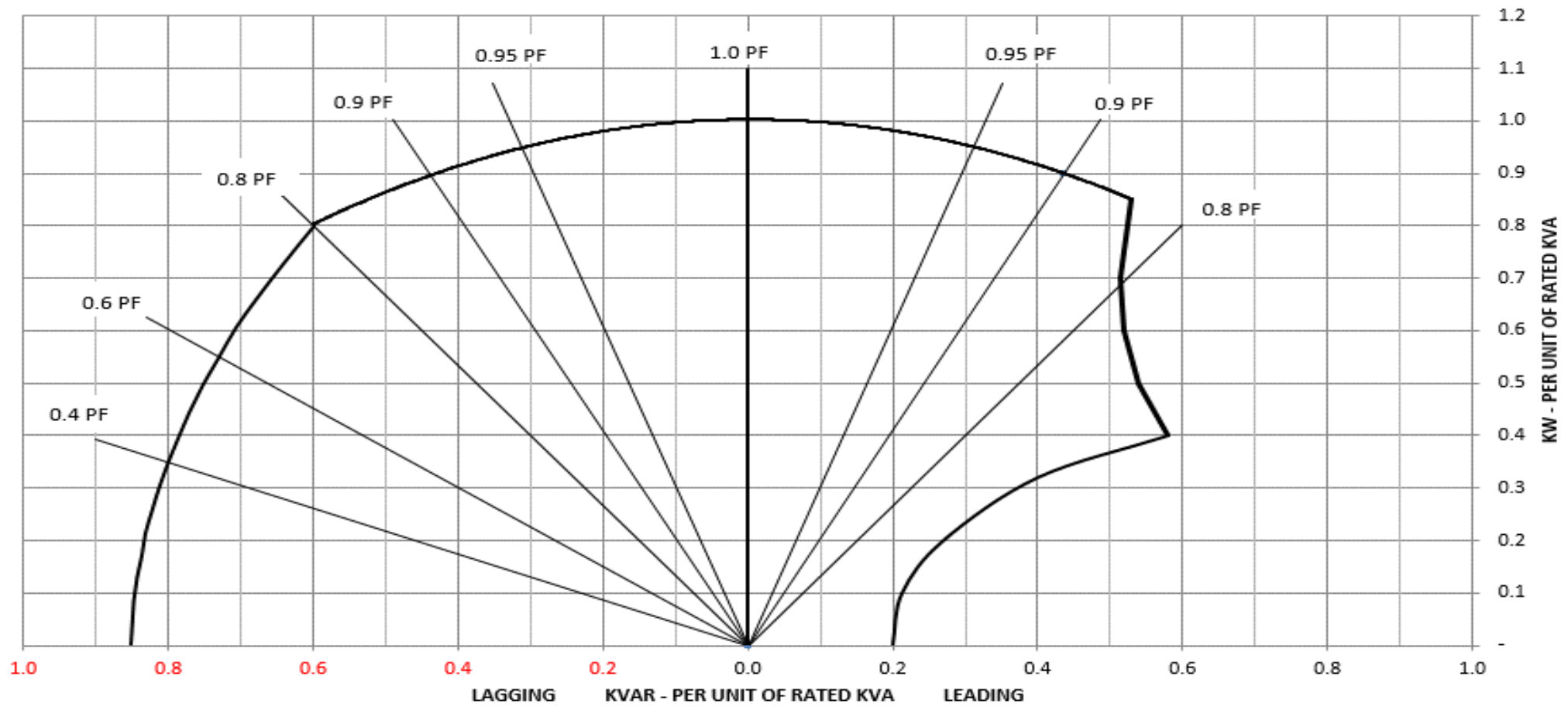
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Typical Reactive Capability Curve

Date : 01/28/22



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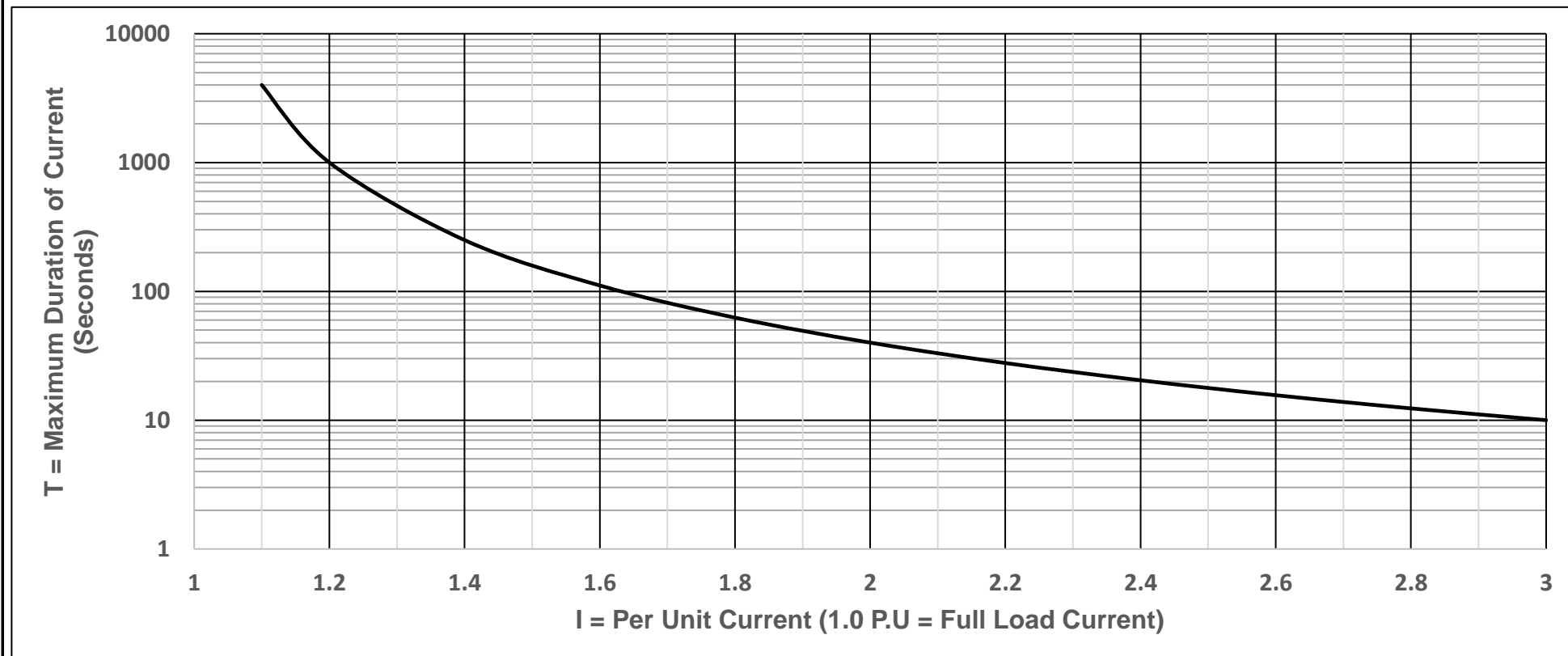
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THERMAL DAMAGE CURVE

Date : 01/28/22

Base is 3.0 P.U. current for 10 seconds from $T = 40/(I-1)^2$
Windings at operating temperature



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