MAGNAPLUS®

TYPICAL SUBMITTAL DATA

BASE MODEL: 283PSL1706 **Winding:** 1706 **Date:** 03/16/22

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	22 (28)	25 (31)	27 (34)	27 (34)	29 (36)
220/440	21 (26)	24 (30)	26 (33)	26 (33)	28 (35)
208/416	21 (26)	23 (29)	25 (31)	25 (31)	28 (35)
200/400	20 (25)	22 (28)	24 (30)	24 (30)	27 (34)
190/380	19 (24)	21 (26)	23 (29)	23 (29)	26 (33)

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*, 25 kW, 31 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)	3.0%	
	Exciter Stator	1500	Volts				
	Exciter Rotor	1500	Volts	601.4a	L-L Harmonic Max - Single	3.0%	
				601.1c	Deviation Factor	5.0%	
401.1a	Stator Resistance, Line to Line Low Wye Connection	0.12500	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.41	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	17.5	Ohms				
	Exciter Rotor	0.12	Ohms				
410.1a	No Load Exciter Field Amps at 208 Volts Line to Line	0.52	A DC	**Additional Prototype Mil-Std Methods are Available on Request.**			
420.1a	Short Circuit Ratio	0.571					
421.1a	Xd Synchronous Reactance	2.663	PU	--	Generator Frame	283	
		3.688	Ohms	--	Type	MagnaPlus	
422.1a	X2 Negative Sequence React.	0.213	PU	--	Insulation	Class H	
		0.295	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.048	PU	--	Amortisseur Windings	Full	
		0.067	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.133	PU	--	Voltage Regulator	SE350	
		0.184	Ohms	--	Voltage Regulation	1.00%	
426.1a	X''d Subtransient Reactance	0.122	PU				
		0.169	Ohms				
				--	Cooling Air Volume	250	CFM
				--	Heat rejection rate	184	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.023	Sec	--	Full load current	86.7	Amps
				--	Minimum Input hp required	37.9	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.013	Sec	--	Full load torque	111	Lb-ft
				--	Efficiency at rated load :	88.5%	
430.1a	T'do Transient Open Circuit Time Constant	0.585	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.017	Sec	--	Weight	336	lbs

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

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Not indicative of legal entity.

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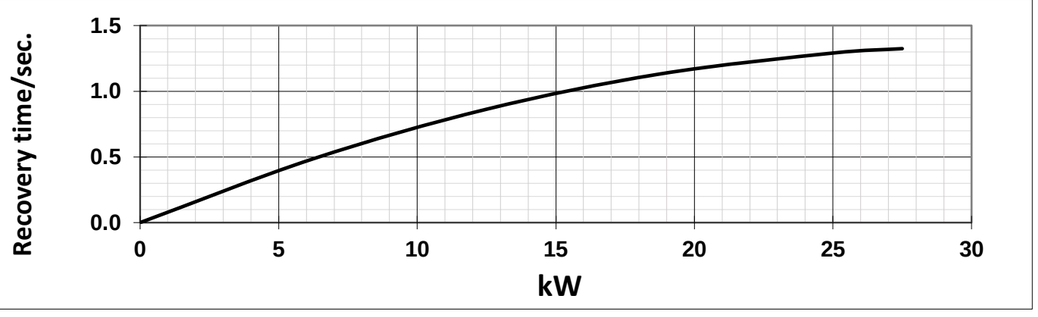
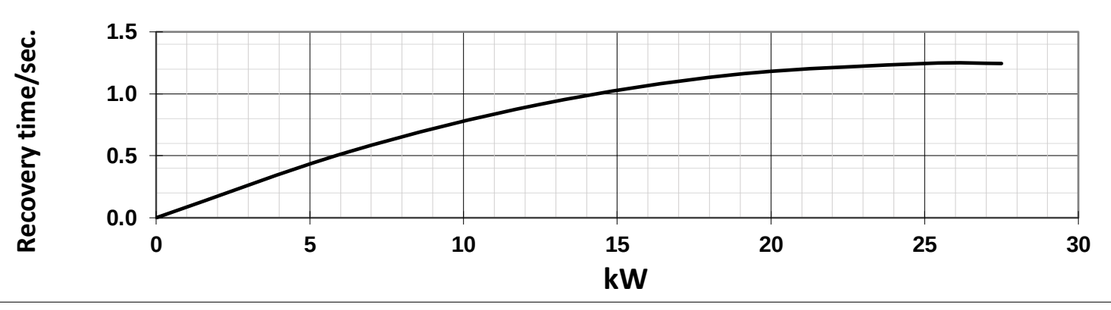
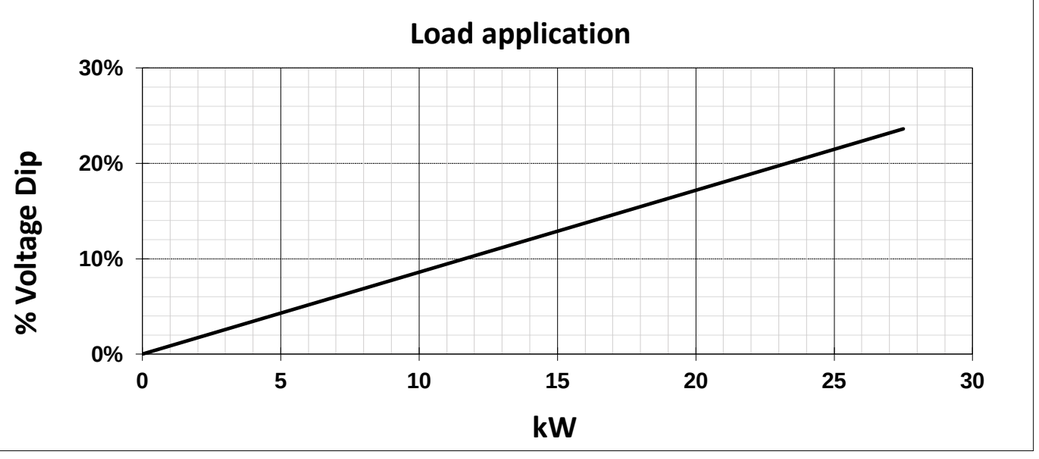
TYPICAL DYNAMIC CHARACTERISTICS

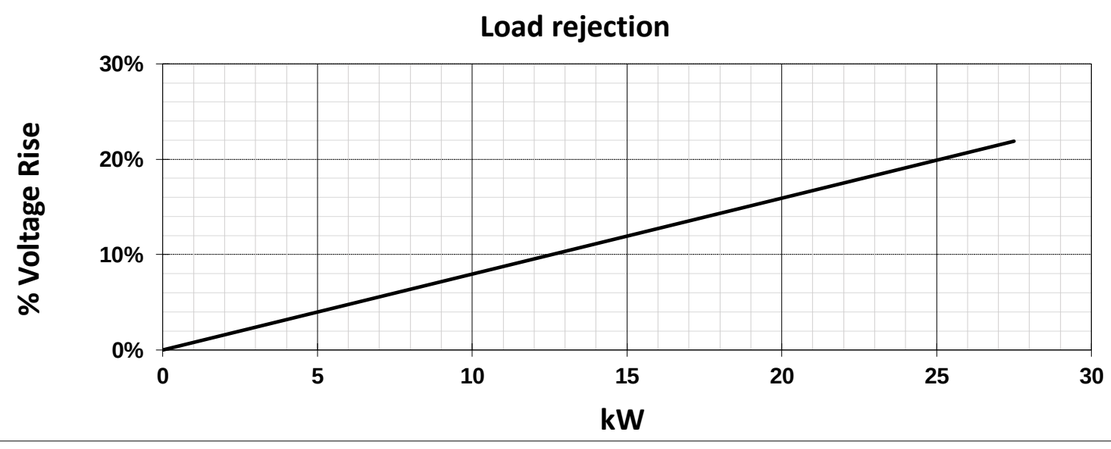
BASE MODEL: 283PSL1706 **Date:** 03/16/22

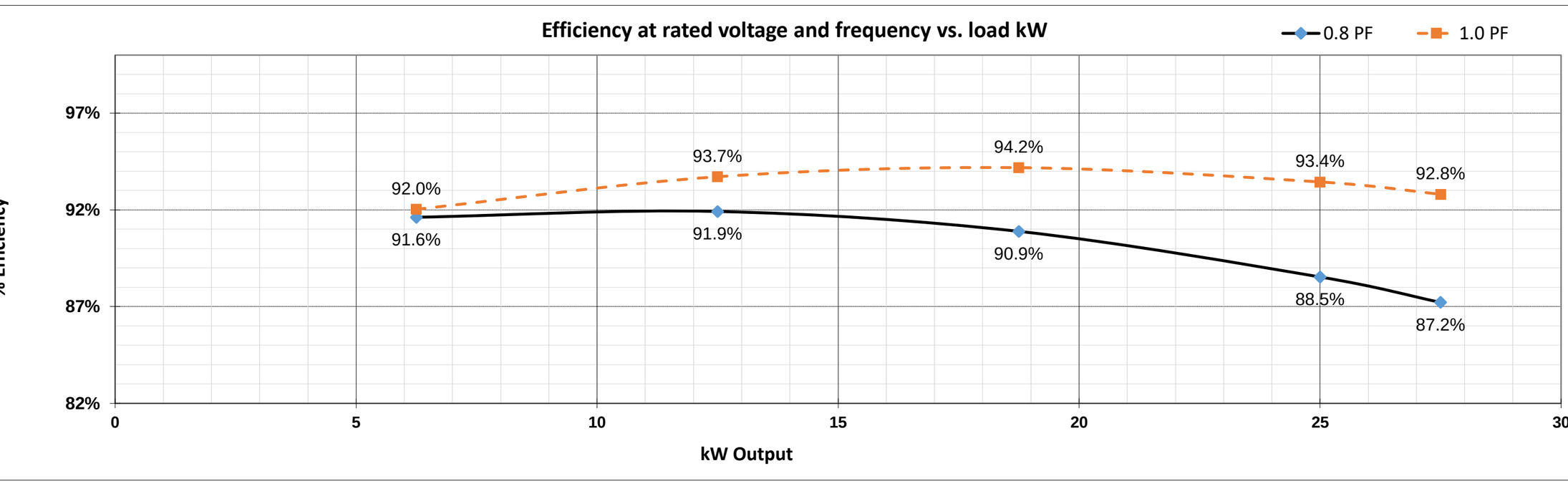
Submittal Data: 208 Volts*, 25 kW, 31 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

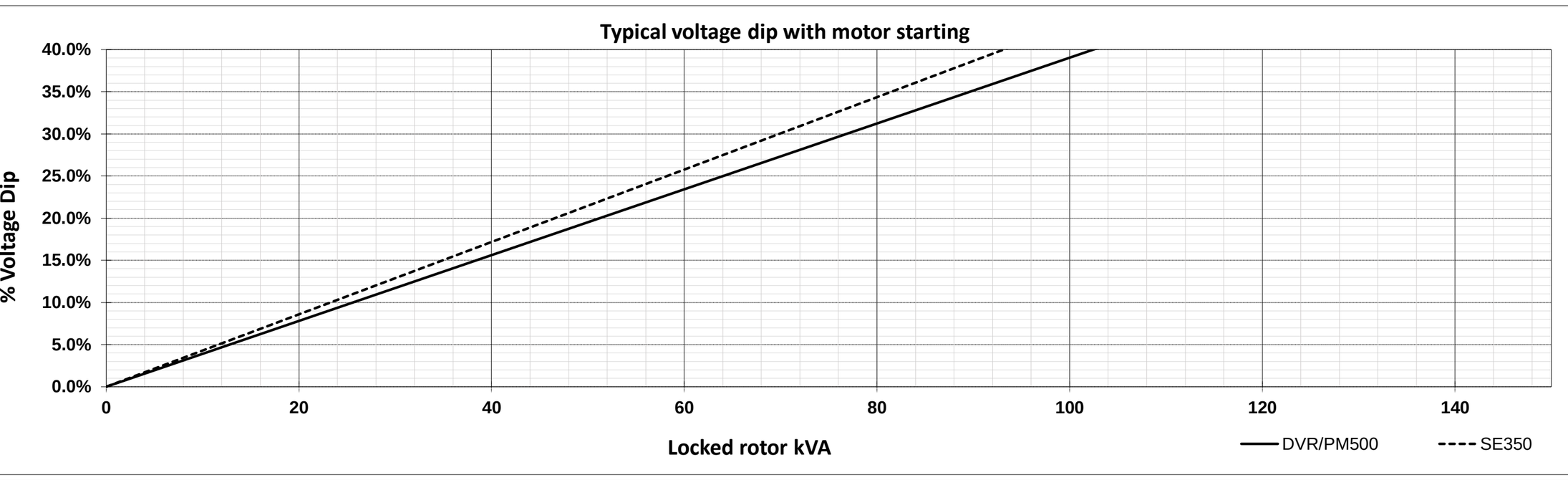












DECREMENT CURVE

BASE MODEL: 283PSL1706

Submittal Data: 208 Volts*, 25 kW, 31 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

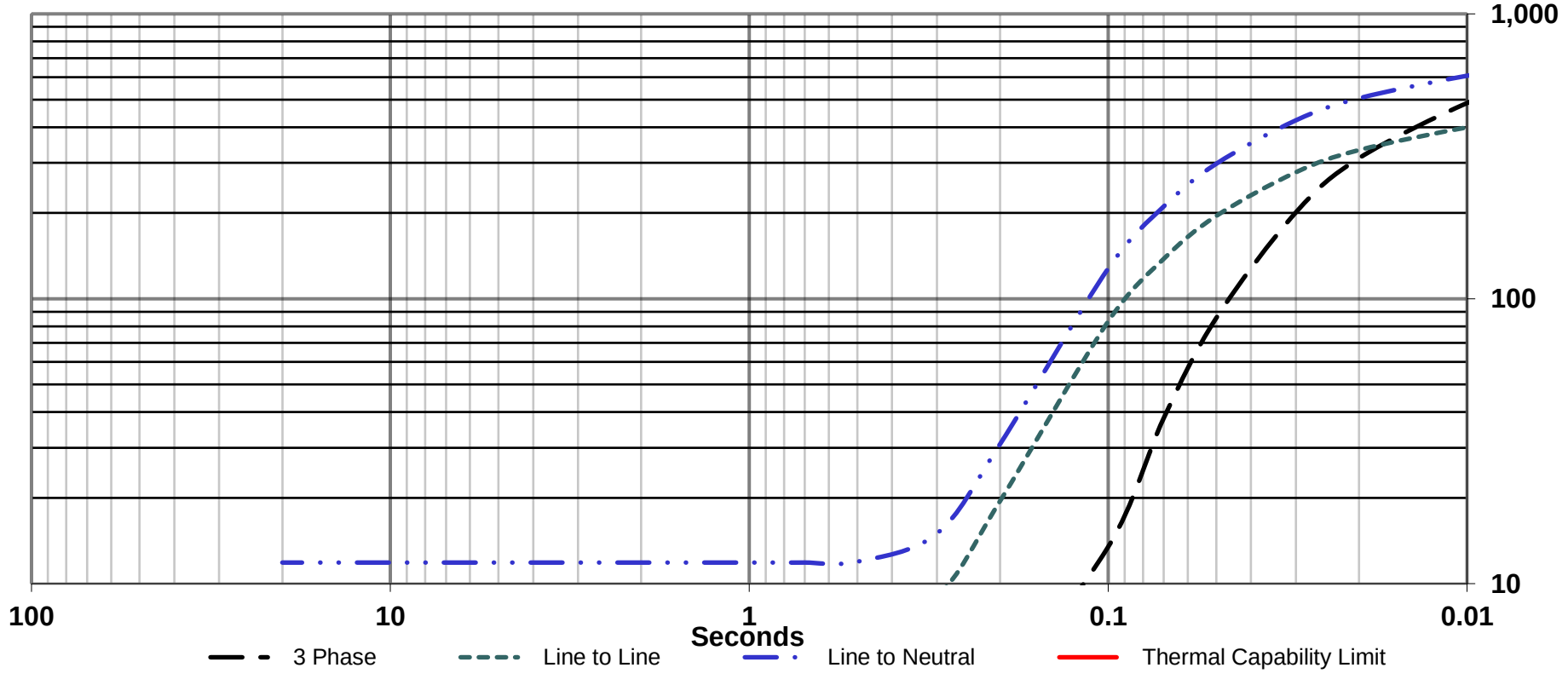
Date : 03/16/22

Full Load Current : 86.7 amps

Steady State S.C. Current : 4.34 amps

Max. 3 ph. Symm. S.C. Current : 710 amps

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



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DECREMENT CURVE

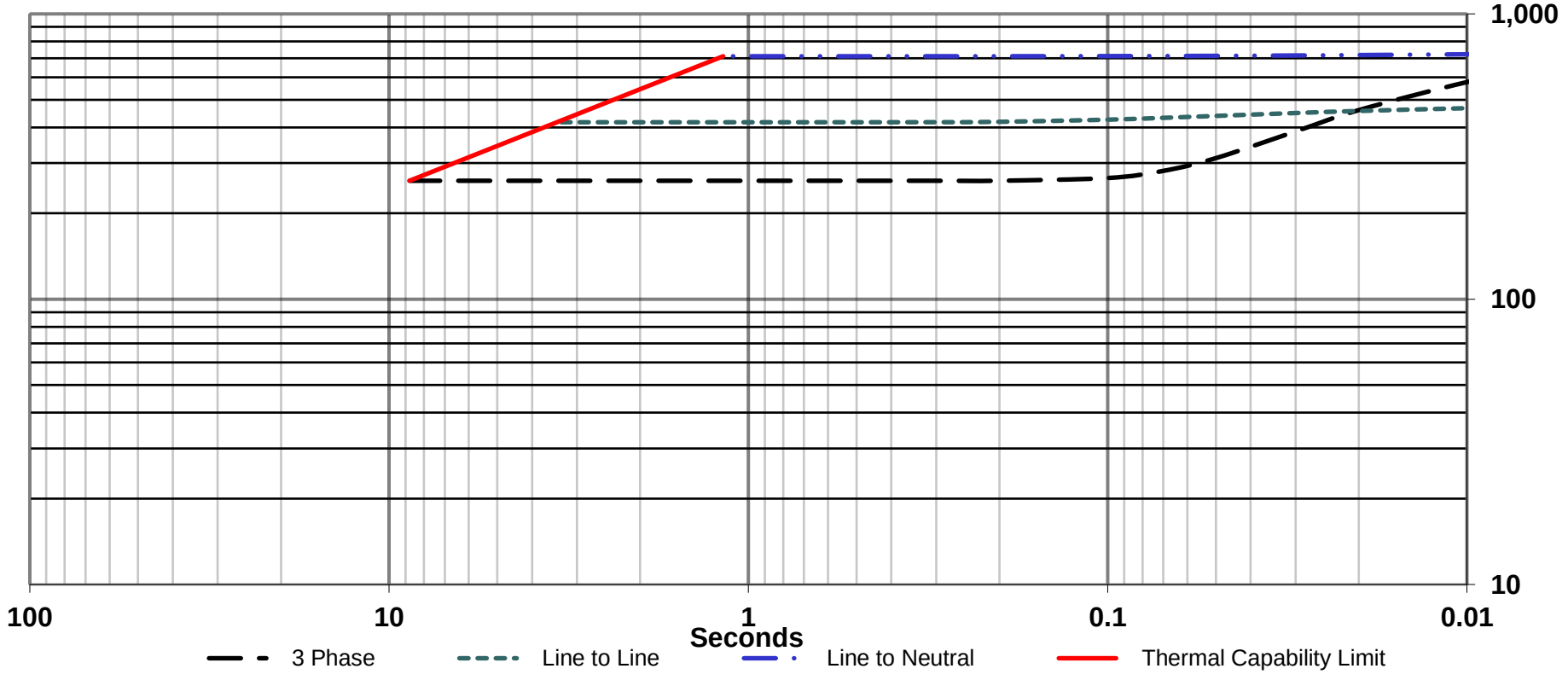
BASE MODEL: 283PSL1706

Submittal Data: 208 Volts*, 25 kW, 31 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase **Date : 03/16/22**

Full Load Current : 86.7 amps
Steady State S.C. Current : 260.1 amps

Max. 3 ph. Symm. S.C. Current : 710 amps
INCLUDES EXCITATION SUPPORT (PMG)

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



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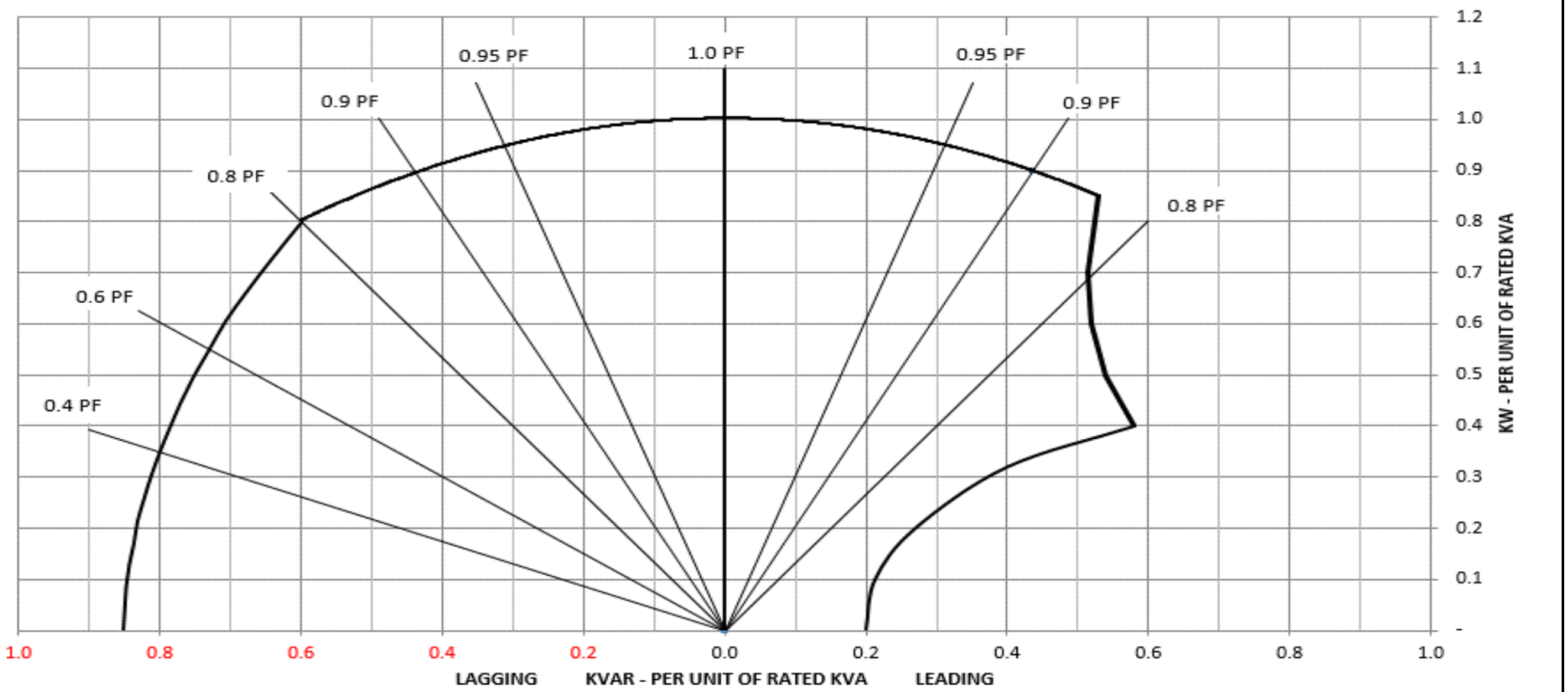
Typical Reactive Capability Curve

Date : 03/16/22



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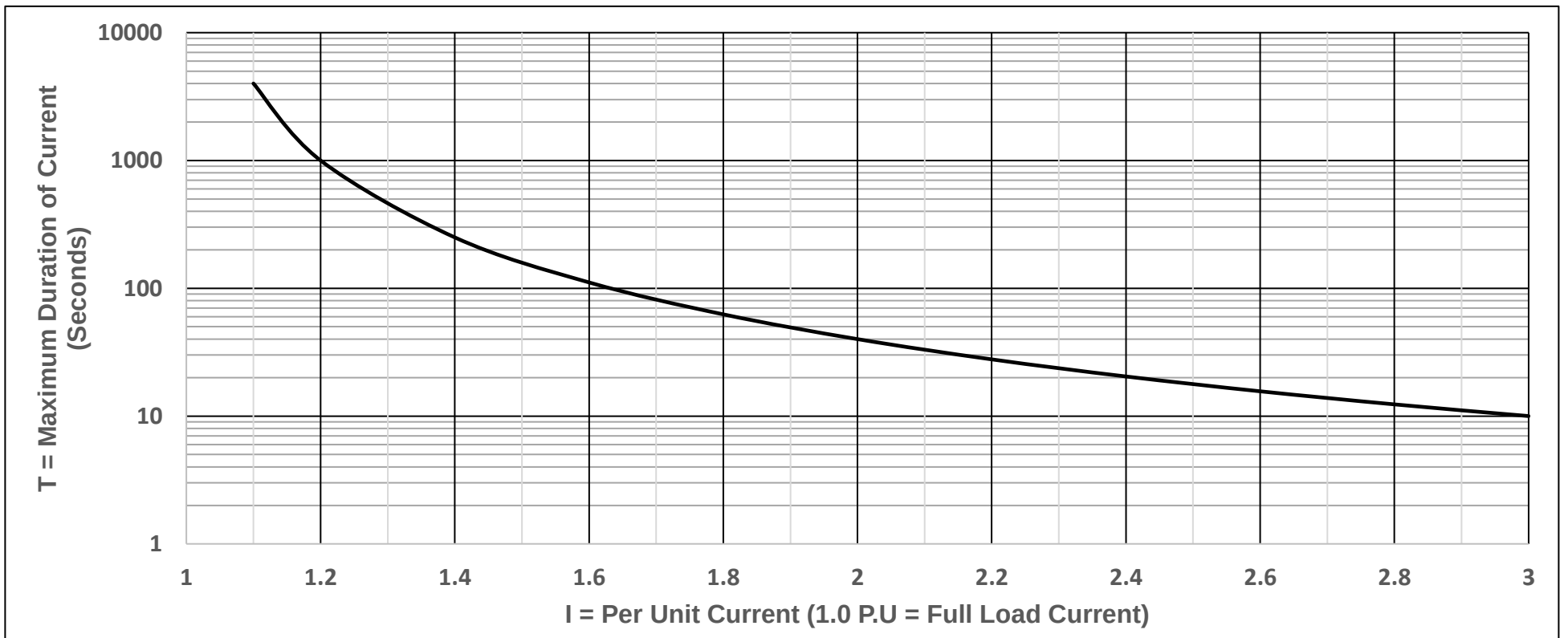
THERMAL DAMAGE CURVE

Date : 03/16/22

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



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