MAGNAPLUS®

TYPICAL SUBMITTAL DATA

BASE MODEL: 431PSL6208 **Winding:** 1903 **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	180 (225)	211 (264)	226 (283)	230 (288)	240 (300)
220/440	180 (225)	210 (263)	221 (276)	225 (281)	233 (291)
208/416	176 (220)	203 (254)	216 (270)	225 (281)	227 (284)
200/400	172 (215)	198 (248)	210 (263)	217 (271)	221 (276)
190/380	167 (209)	192 (240)	203 (254)	207 (259)	213 (266)

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*, 225 kW, 281 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)	5.0%	
	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	0.00870	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.709	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	18.5	Ohms				
	Exciter Rotor	0.116	Ohms				
410.1a	No Load Exciter Field Amps at 208 Volts Line to Line	0.45	A DC	**Additional Prototype Mil-Std Methods are Available on Request.**			
420.1a	Short Circuit Ratio	0.307					
421.1a	Xd Synchronous Reactance	3.949	PU	--	Generator Frame	431	
		0.607	Ohms	--	Type	MagnaPlus	
422.1a	X2 Negative Sequence React.	0.283	PU	--	Insulation	Class H	
		0.043	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.053	PU	--	Amortisseur Windings	Full	
		0.008	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.218	PU	--	Voltage Regulator	SE350	
		0.033	Ohms	--	Voltage Regulation	1.00%	
426.1a	X''d Subtransient Reactance	0.203	PU				
		0.031	Ohms				
--	Xq Quadrature Synchronous Reactance	1.886	PU	--	Cooling Air Volume	1100	CFM
		0.290	Ohms	--	Heat rejection rate	1209	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.064	Sec	--	Full load current	780.7	Amps
				--	Minimum Input hp required	330.1	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.019	Sec	--	Full load torque	963	Lb-ft
				--	Efficiency at rated load :	91.4%	
430.1a	T'do Transient Open Circuit Time Constant	1	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.016	Sec	--	Weight	1455	lbs

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

www.regalrexnord.com/brands/Marathon-Generators

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Not indicative of legal entity.

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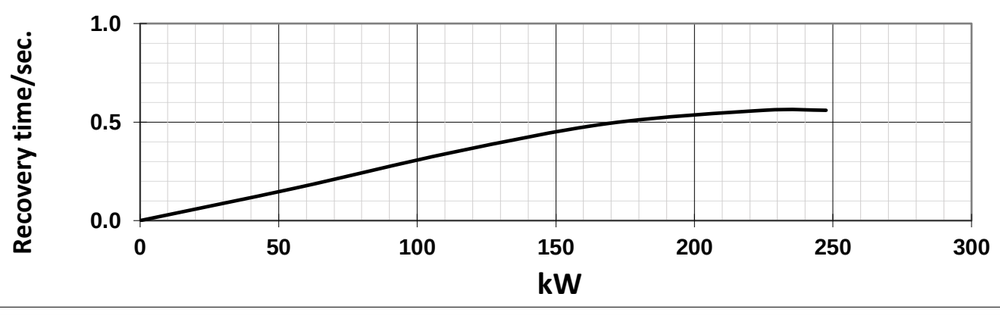
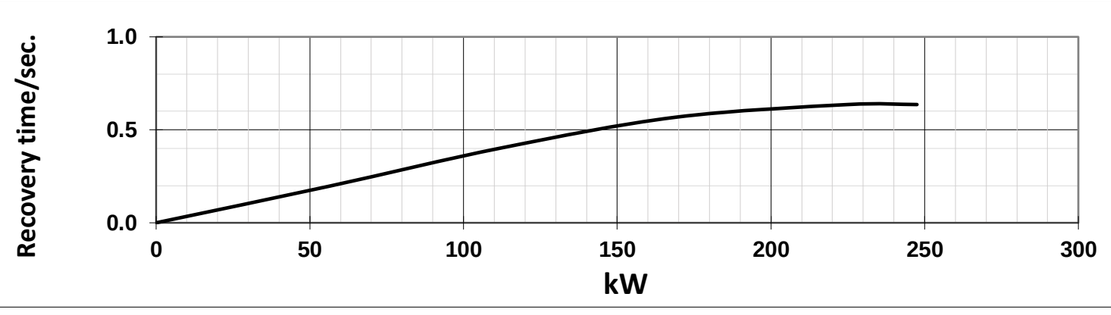
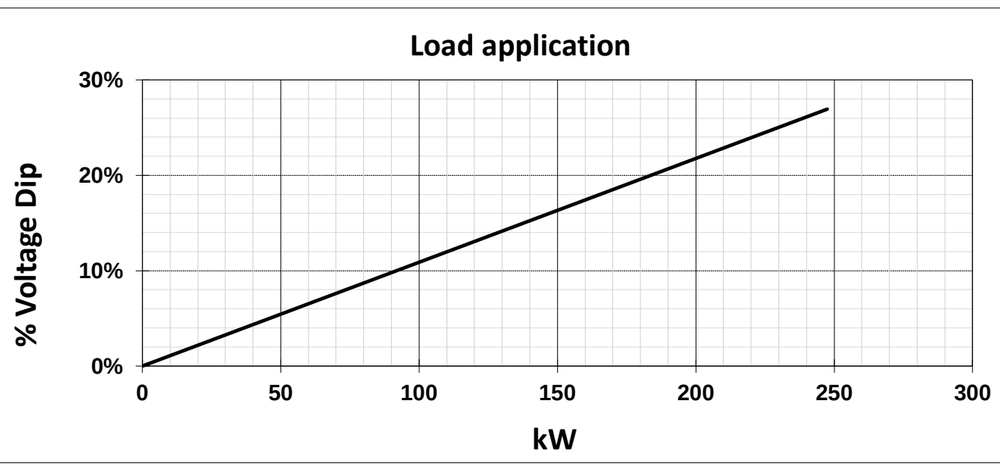
TYPICAL DYNAMIC CHARACTERISTICS

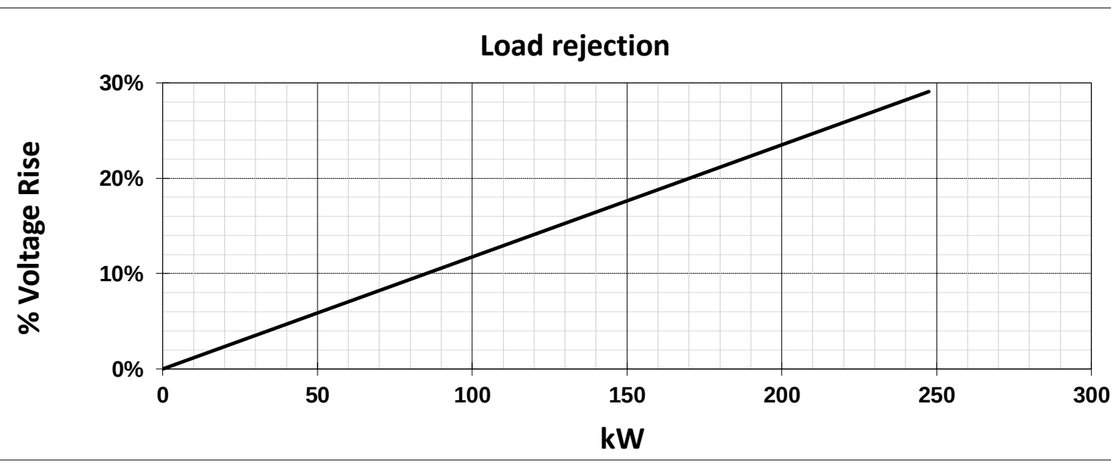
BASE MODEL: 431PSL6208 **Date:** 01/28/22

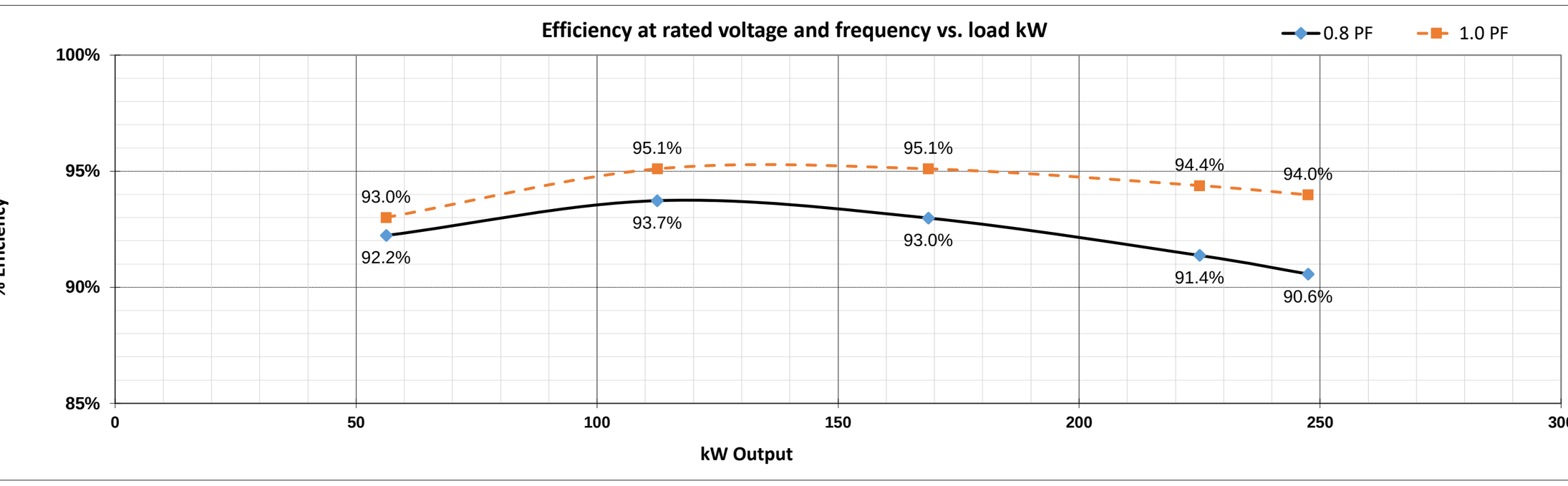
Submittal Data: 208 Volts*, 225 kW, 281 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

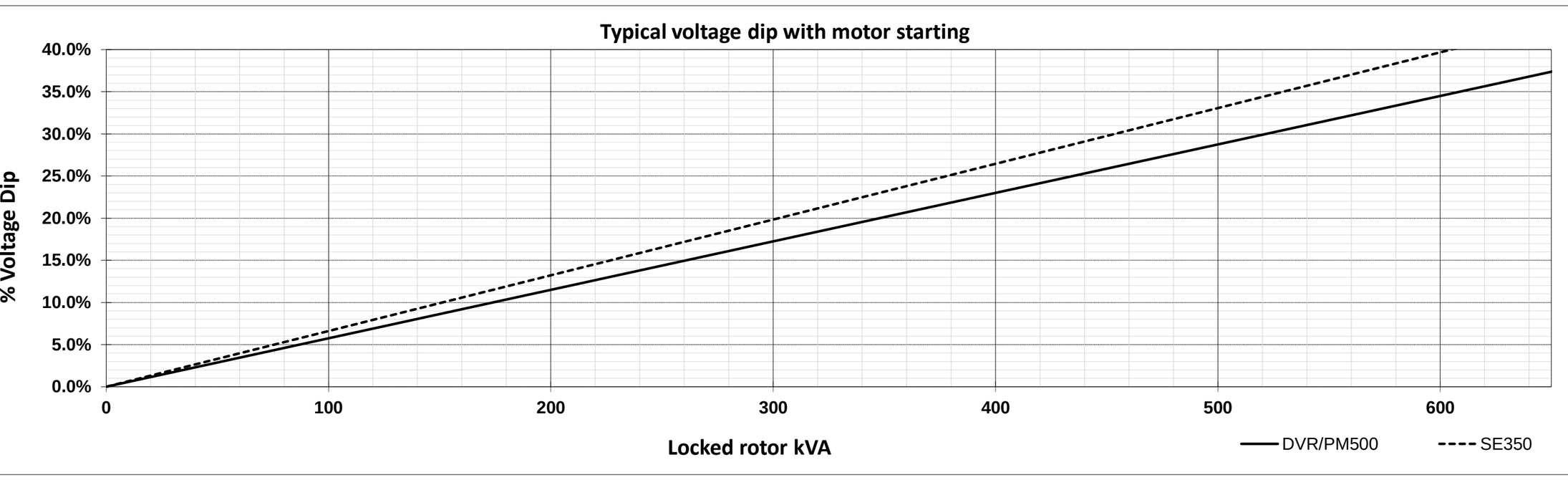












DECREMENT CURVE

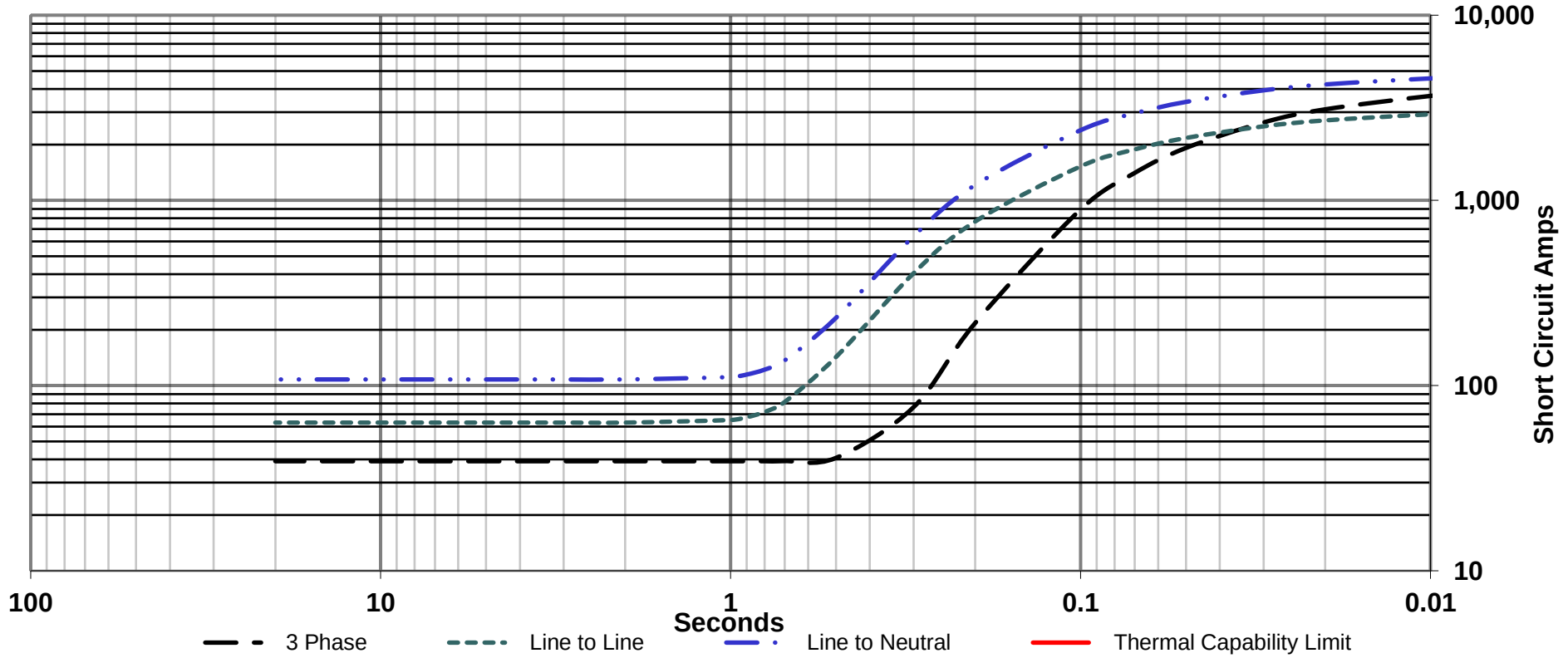
BASE MODEL: 431PSL6208

Submittal Data: 208 Volts*, 225 kW, 281 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase **Date : 01/28/22**

Full Load Current : 780.7 amps
Steady State S.C. Current : 39.04 amps

Max. 3 ph. Symm. S.C. Current : 3843 amps

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



DECREMENT CURVE

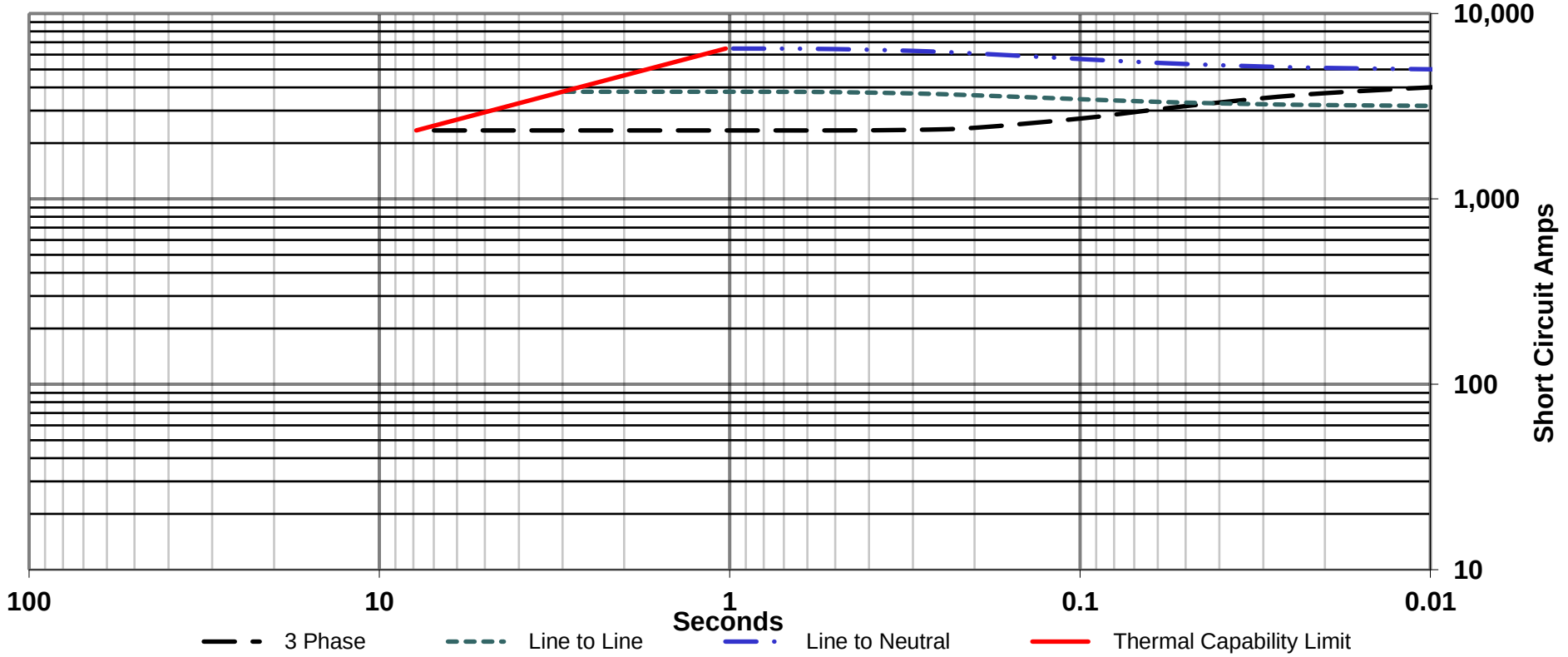
BASE MODEL: 431PSL6208

Submittal Data: 208 Volts*, 225 kW, 281 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase **Date : 01/28/22**

Full Load Current : 780.7 amps
Steady State S.C. Current : 2342.1 amps

Max. 3 ph. Symm. S.C. Current : 3843 amps
INCLUDES EXCITATION SUPPORT (PMG)

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



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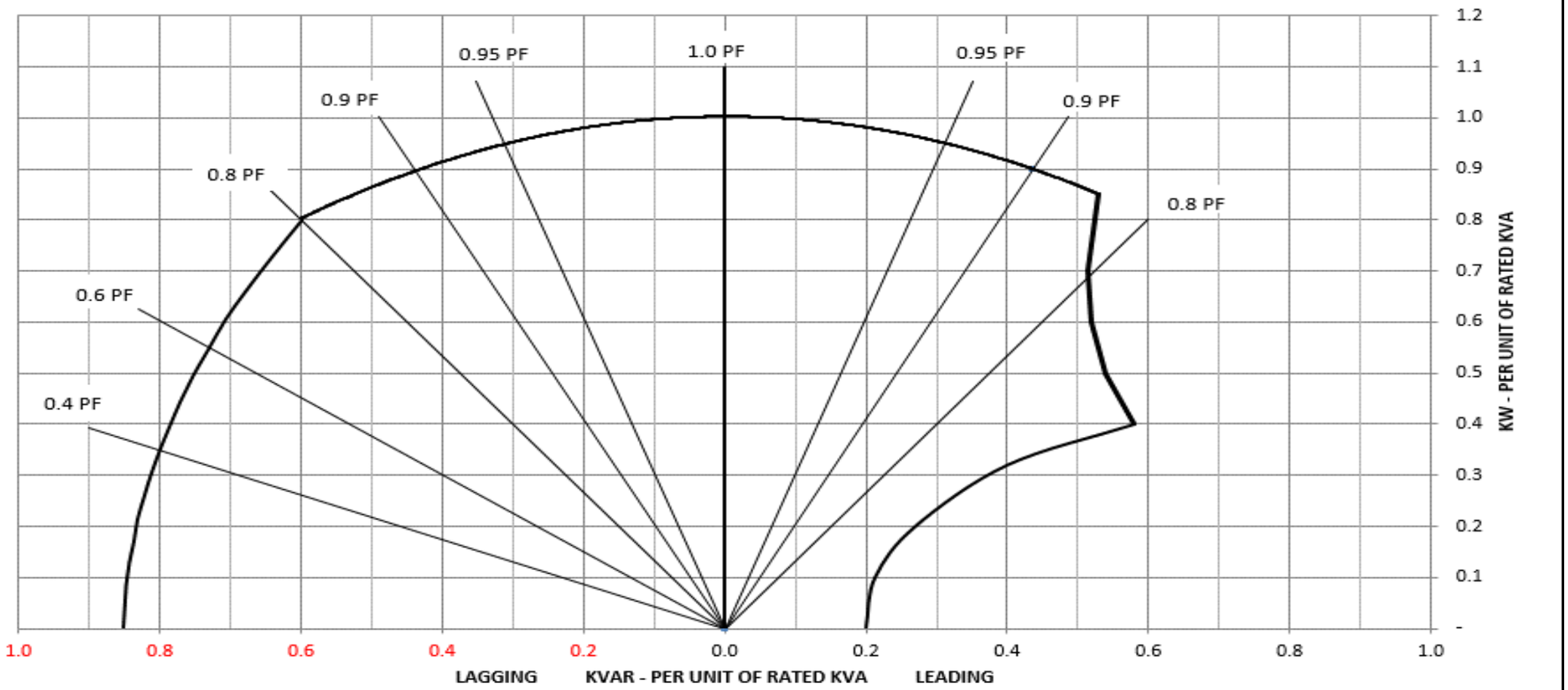
Typical Reactive Capability Curve

Date : 01/28/22



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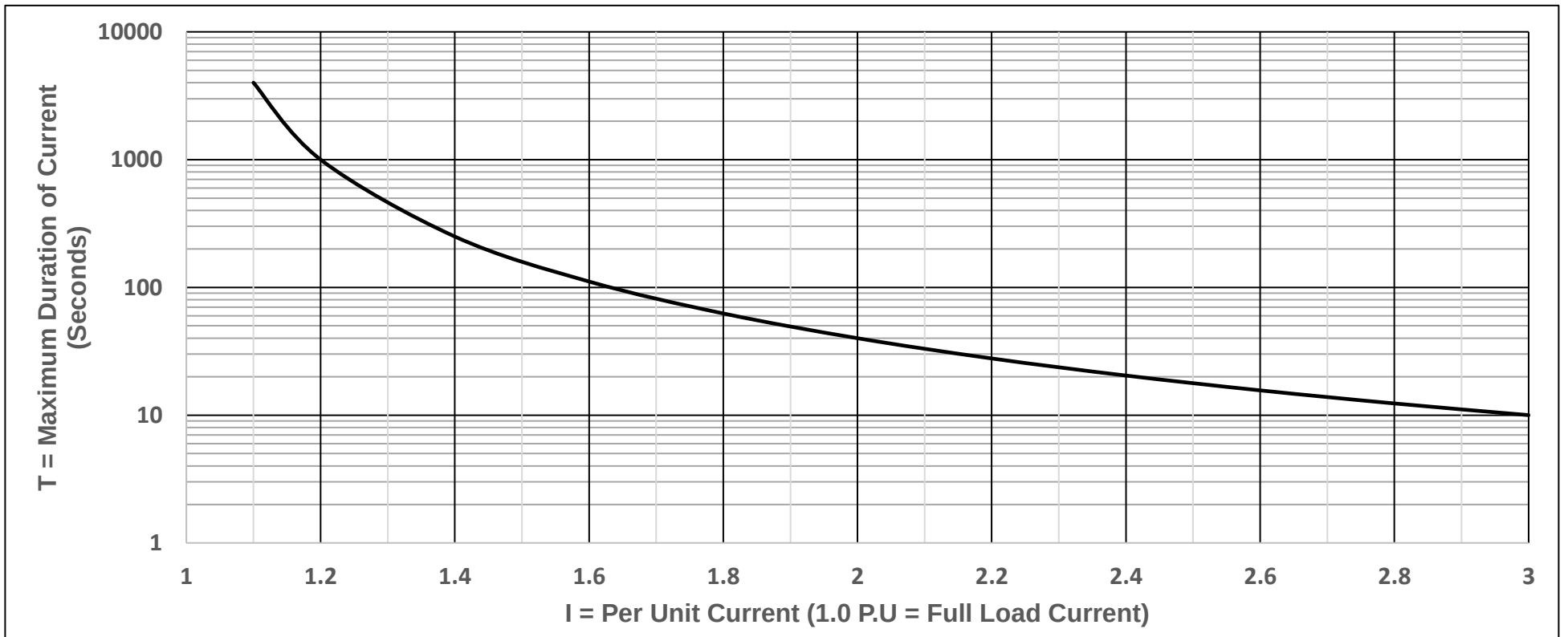
THERMAL DAMAGE CURVE

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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