

# MAGNAPLUS®

## TYPICAL SUBMITTAL DATA

BASE MODEL: **432PSL6210**

Winding: **1904**

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 <sup>1, 2</sup>			STANDBY <sup>1, 2</sup>	
Voltage*	NEMA B / 80 °C	NEMA F / 105 °C	NEMA H / 125 °C	NEMA F / 130 °C	NEMA H / 150 °C
240/480	220 (275)	260 (325)	275 (344)	280 (350)	291 (364)
220/440	221 (276)	261 (326)	278 (348)	283 (354)	292 (365)
208/416	220 (275)	260 (325)	275 (344)	280 (350)	287 (359)
200/400	217 (271)	253 (316)	268 (335)	273 (341)	282 (353)
190/380	213 (266)	245 (306)	260 (325)	265 (331)	275 (344)

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\*, 280 kW, 350 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	0.00535	Ohms	---	TIF (1960 Weightings)	<50	
	Rotor Resistance	0.841	Ohms	---	THF (IEC, BS & NEMA Weightings)	<2%	
	Exciter Stator	18.5	Ohms	---	Winding Pitch	2/3	
	Exciter Rotor	0.116	Ohms				
410.1a	No Load Exciter Field Amps at 208 Volts Line to Line	0.52	A DC	<b>Additional Prototype Mil-Std Methods are Available on Request.</b>			
420.1a	Short Circuit Ratio	0.382					
421.1a	Xd Synchronous Reactance	3.484	PU	--	Generator Frame	432	
		0.431	Ohms	--	Type	MagnaPlus	
422.1a	X2 Negative Sequence React.	0.249	PU	--	Insulation	Class H	
		0.031	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.121	PU	--	Amortisseur Windings	Full	
		0.015	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.170	PU	--	Voltage Regulator	SE350	
		0.021	Ohms	--	Voltage Regulation	1.00%	
426.1a	X''d Subtransient Reactance	0.139	PU				
		0.017	Ohms				
--	Xq Quadrature Synchronous Reactance	1.652	PU	--	Cooling Air Volume	1020	CFM
		0.204	Ohms	--	Heat rejection rate	1258	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.065	Sec	--	Full load current	971.5	Amps
				--	Minimum Input hp required	405	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.013	Sec	--	Full load torque	1181	Lb-ft
				--	Efficiency at rated load :	92.7%	
430.1a	T'do Transient Open Circuit Time Constant	1.79	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.017	Sec	--	Weight	1685	lbs

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

[www.regalrexnord.com/brands/Marathon-Generators](http://www.regalrexnord.com/brands/Marathon-Generators)



Not indicative of legal entity.



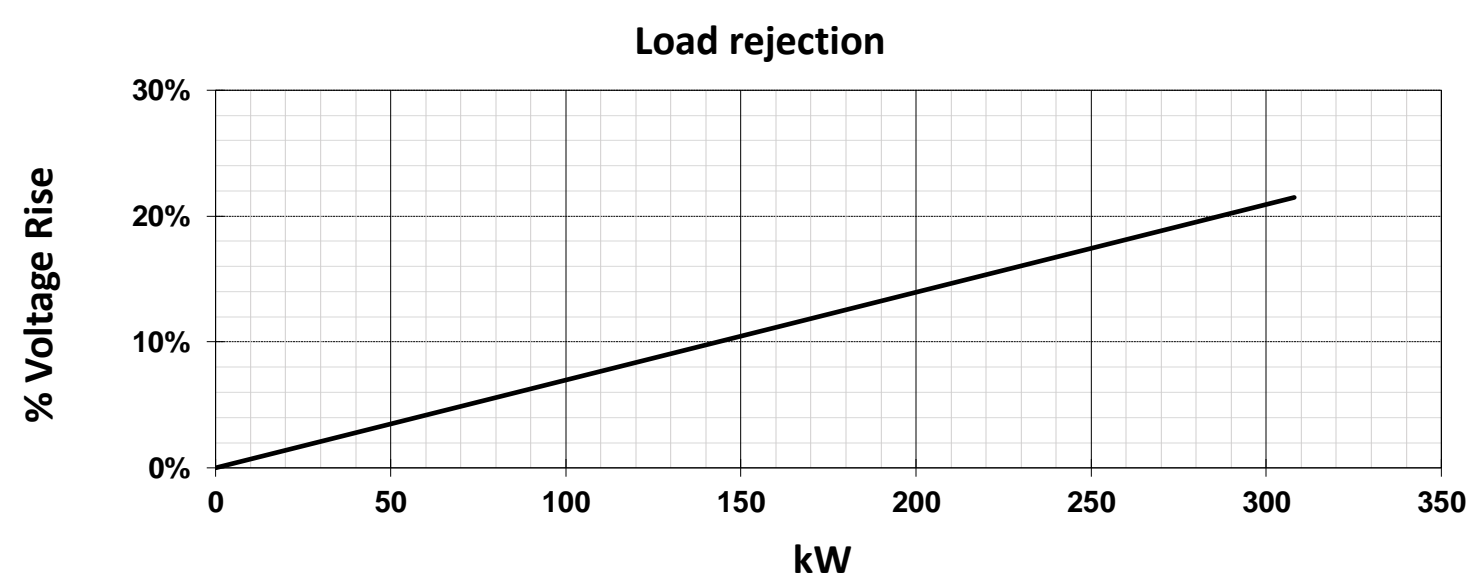
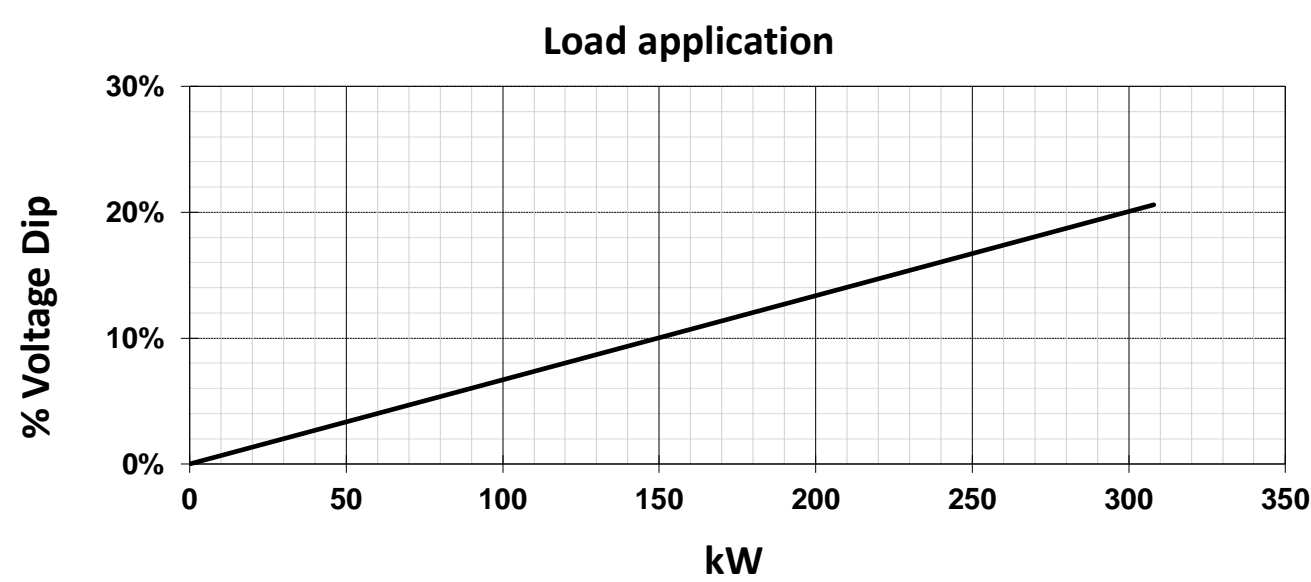
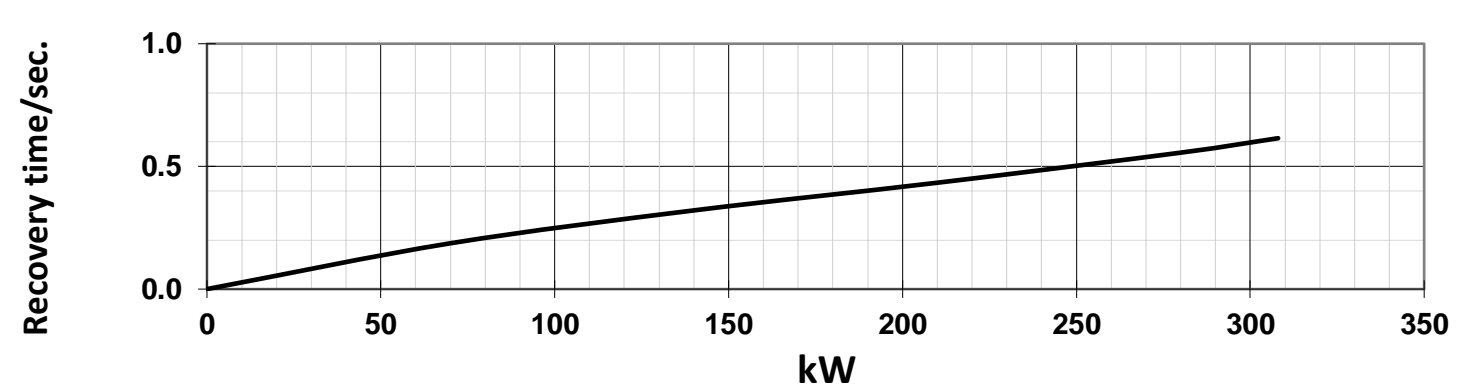
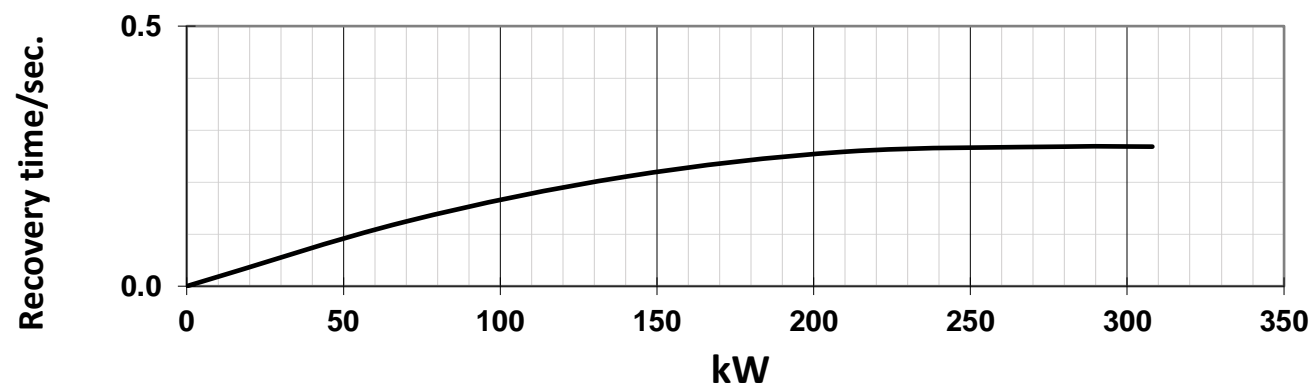
# MAGNAPLUS®

## TYPICAL DYNAMIC CHARACTERISTICS

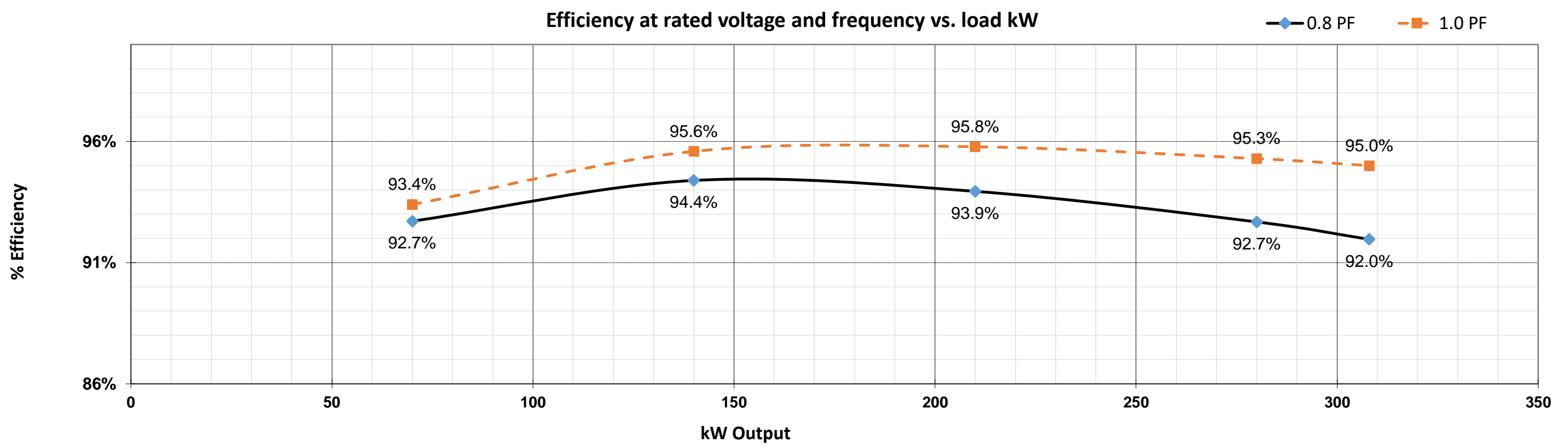
BASE MODEL: **432PSL6210**

Date: **01/28/22**

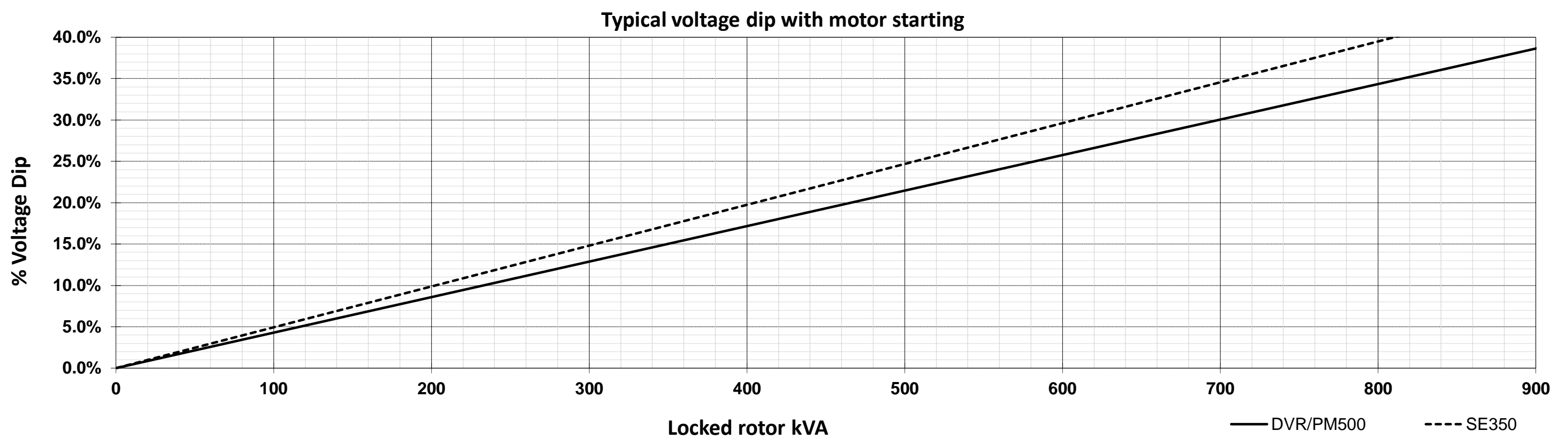
Submittal Data: 208 Volts\*, 280 kW, 350 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase



Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting



# MAGNAPLUS®

## DECREMENT CURVE

BASE MODEL: 432PSL6210

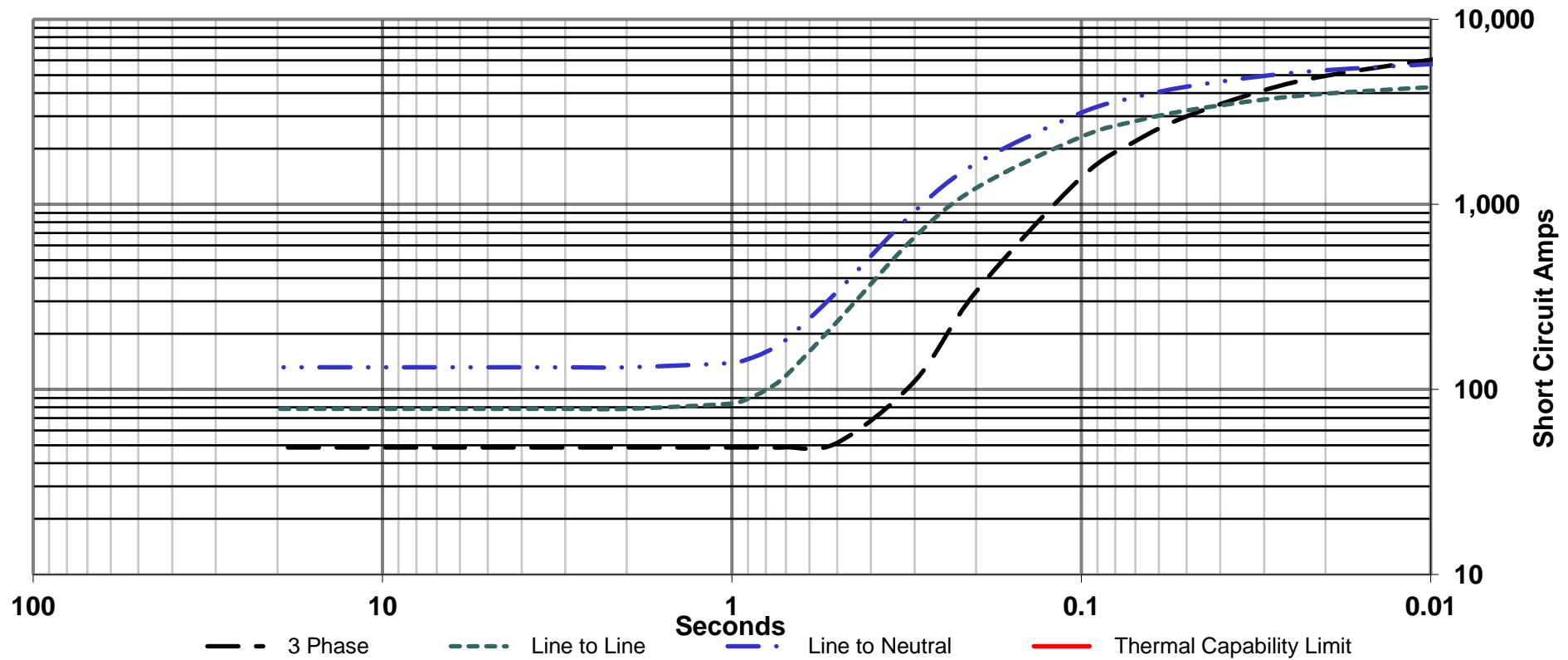
Submittal Data: 208 Volts\*, 280 kW, 350 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

Date : 01/28/22

Full Load Current : 971.5 amps  
Steady State S.C. Current : 48.58 amps

Max. 3 ph. Symm. S.C. Current : 7016 amps

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



# MAGNAPLUS®

## DECREMENT CURVE

BASE MODEL: 432PSL6210

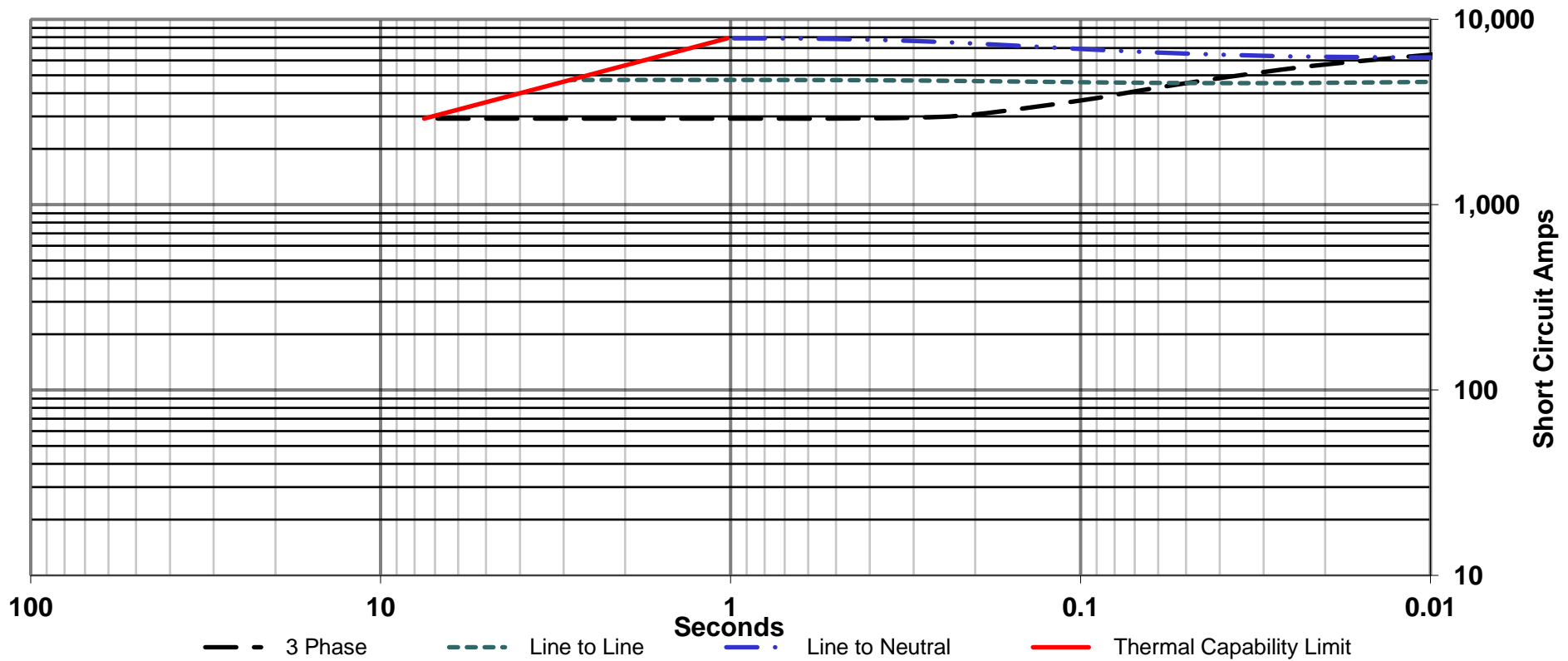
Submittal Data: 208 Volts\*, 280 kW, 350 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

Date : 01/28/22

Full Load Current : 971.5 amps  
Steady State S.C. Current : 2914.5 amps

Max. 3 ph. Symm. S.C. Current : 7016 amps  
INCLUDES EXCITATION SUPPORT (PMG)

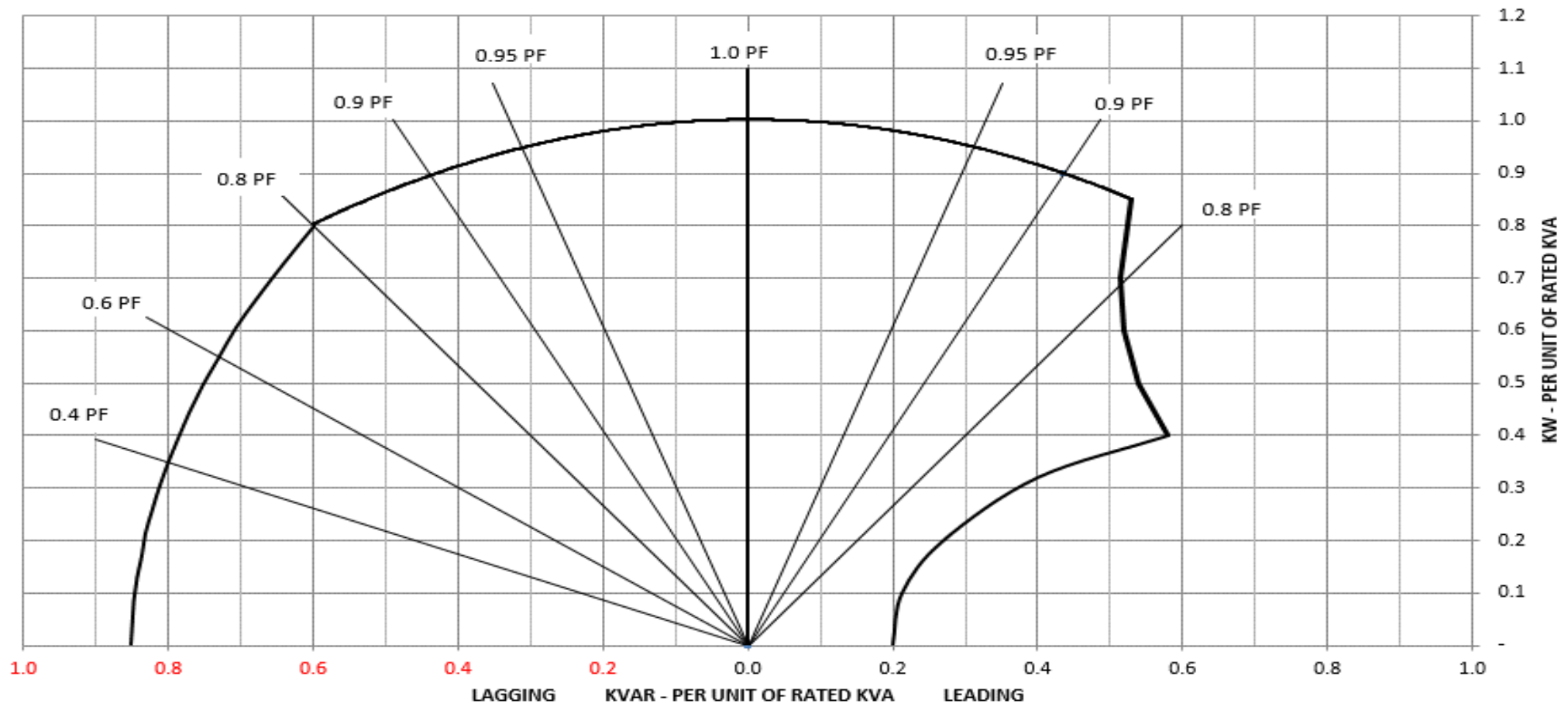
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



# MAGNAPLUS®

## Typical Reactive Capability Curve

Date : 01/28/22



**RegalRexnord**

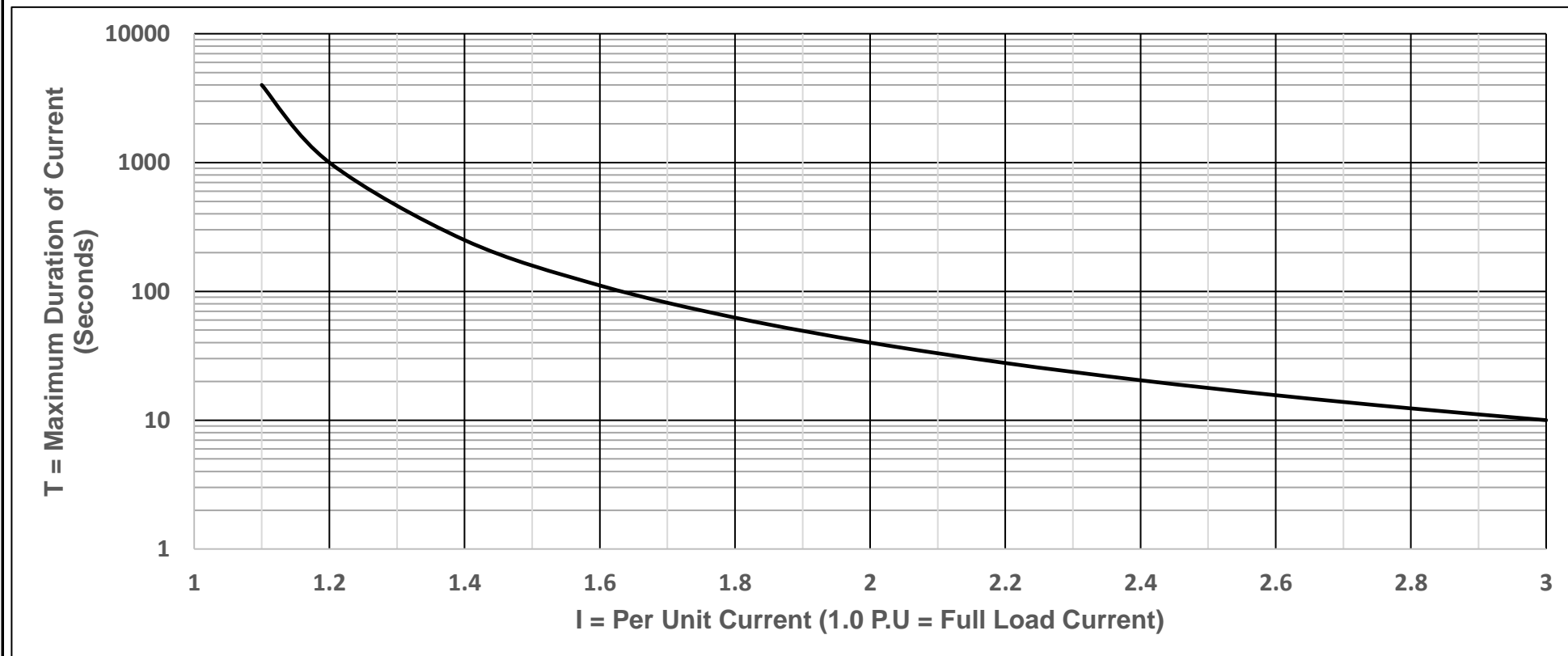
**marathon**  
Generators

# MAGNAPLUS®

## 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



**RegalRexnord**

**marathon**  
Generators