

# MAGNAMAX®

## TYPICAL SUBMITTAL DATA

BASE MODEL: 573RSL6433

Winding: 570075

Date: 02/09/22

Kilowatt ratings at	1800 RPM	60 Hertz	12 Leads With Bus Bars		
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	570 (713)	680 (850)	700 (875)	700 (875)	765 (956)
220/440	595 (744)	680 (850)	725 (906)	730 (913)	765 (956)
208/416	570 (713)	650 (813)	685 (856)	700 (875)	725 (906)
200/400	550 (688)	626 (783)	644 (805)	652 (815)	666 (833)
190/380	525 (656)	595 (744)	595 (744)	595 (744)	595 (744)

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: 416 Volts\*, 700 kW, 875 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase** **High 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%	
PMG Stator	1500	Volts	601.1c	Deviation Factor	5.0%		
401.1a	Stator Resistance, Line to Line High Wye Connection	0.00740	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.472	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	23	Ohms				
	Exciter Rotor	0.045	Ohms				
	PMG Stator	2.1	Ohms				
410.1a	No Load Exciter Field Amps at 416 Volts Line to Line	0.45	A DC	<b>Additional Prototype Mil-Std Methods are Available on Request.</b>			
420.1a	Short Circuit Ratio	0.367					
421.1a	Xd Synchronous Reactance	4.114	PU	--	Generator Frame	573	
		0.814	Ohms	--	Type	MagnaMax	
422.1a	X2 Negative Sequence React.	0.289	PU	--	Insulation	Class H	
		0.057	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.077	PU	--	Amortisseur Windings	Full	
		0.015	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.204	PU	--	Voltage Regulator	PM500	
		0.040	Ohms	--	Voltage Regulation	0.50%	
426.1a	X''d Subtransient Reactance	0.176	PU				
		0.035	Ohms				
--	Xq Quadrature Synchronous Reactance	1.664	PU	--	Cooling Air Volume	1400	CFM
		0.329	Ohms	--	Heat rejection rate	2393	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.127	Sec	--	Full load current	1214.4	Amps
				--	Minimum Input hp required	994.7	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.009	Sec	--	Full load torque	2901	Lb-ft
				--	Efficiency at rated load :	94.3%	
430.1a	T'do Transient Open Circuit Time Constant	1.67	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.015	Sec	--	Weight	3400	lbs

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

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



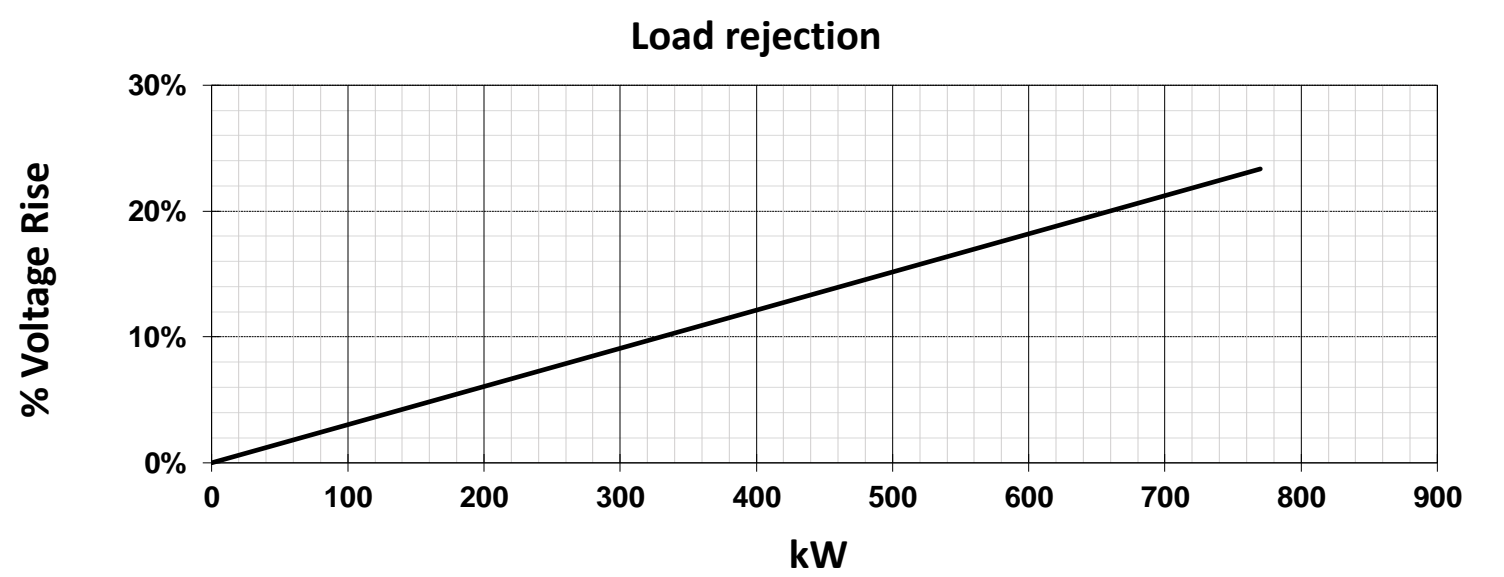
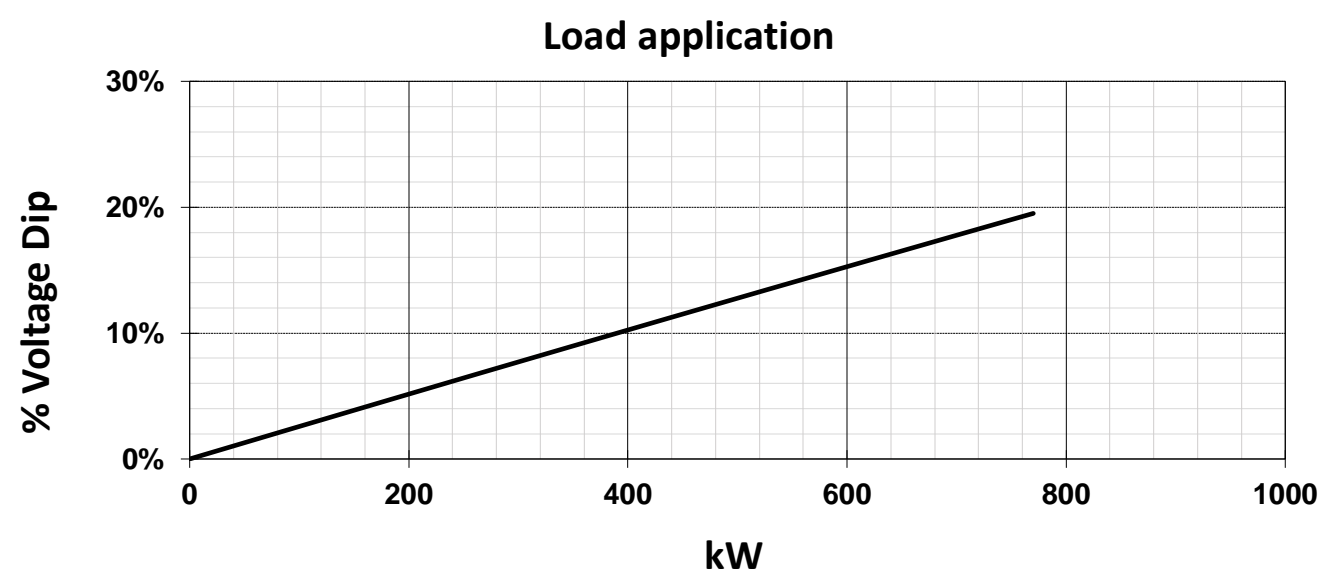
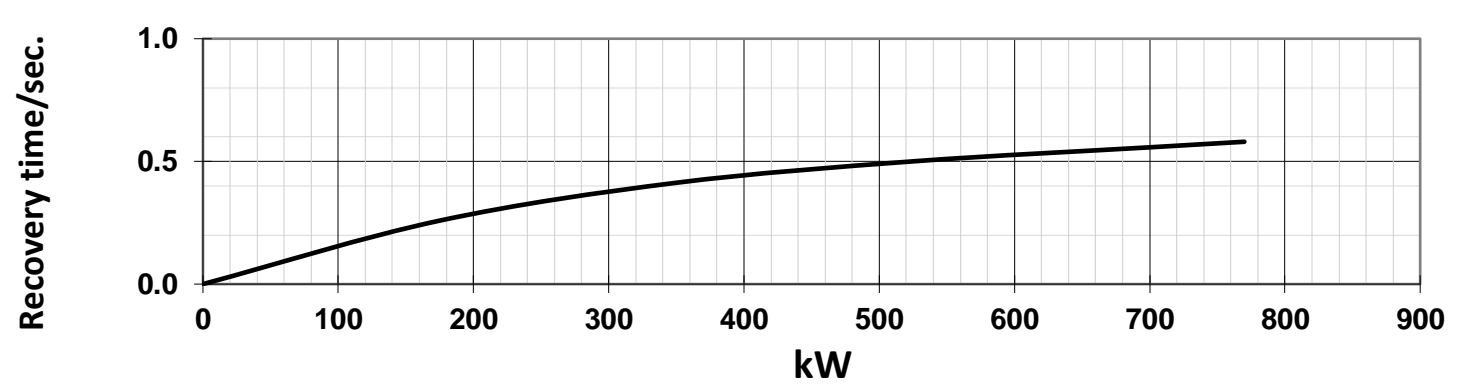
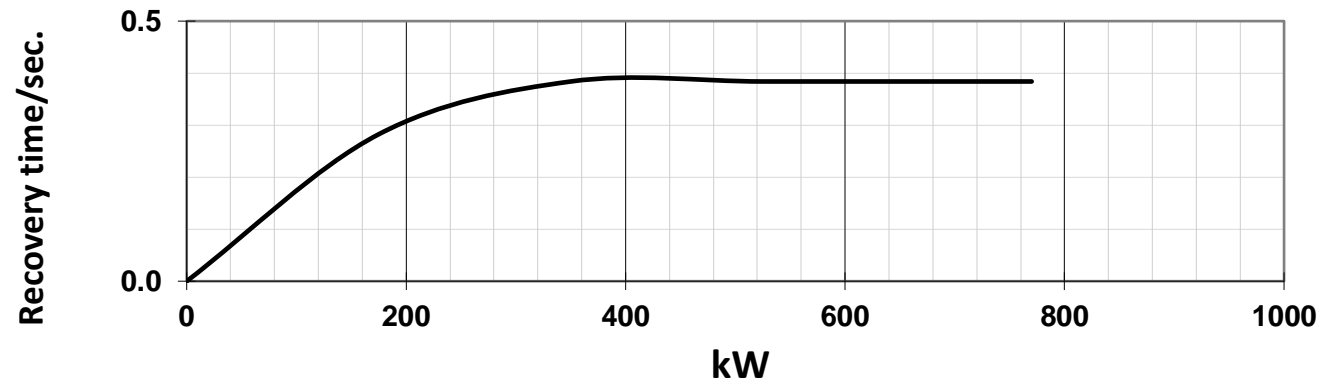
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## TYPICAL DYNAMIC CHARACTERISTICS

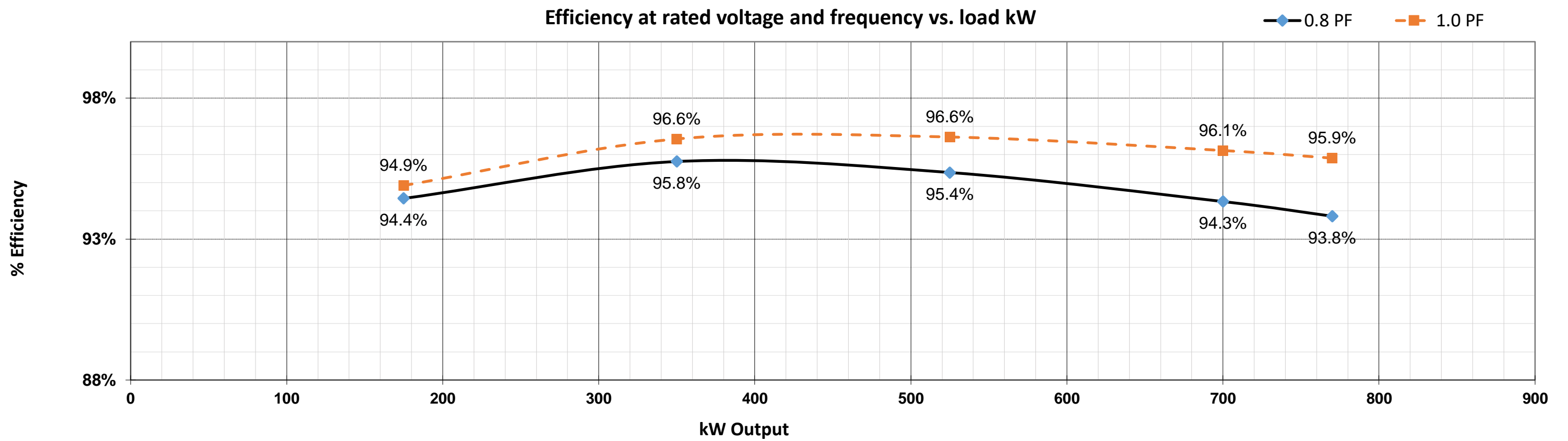
BASE MODEL: **573RSL6433**

Date: **02/09/22**

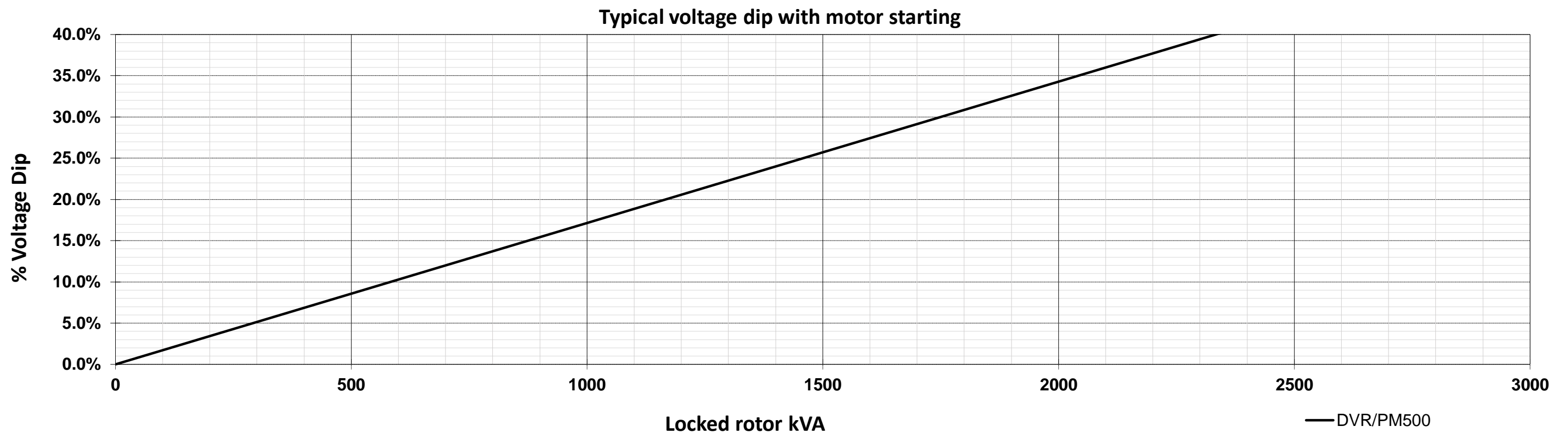
Submittal Data: 416 Volts\*, 700 kW, 875 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase



Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting



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## DECREMENT CURVE

BASE MODEL: 573RSL6433

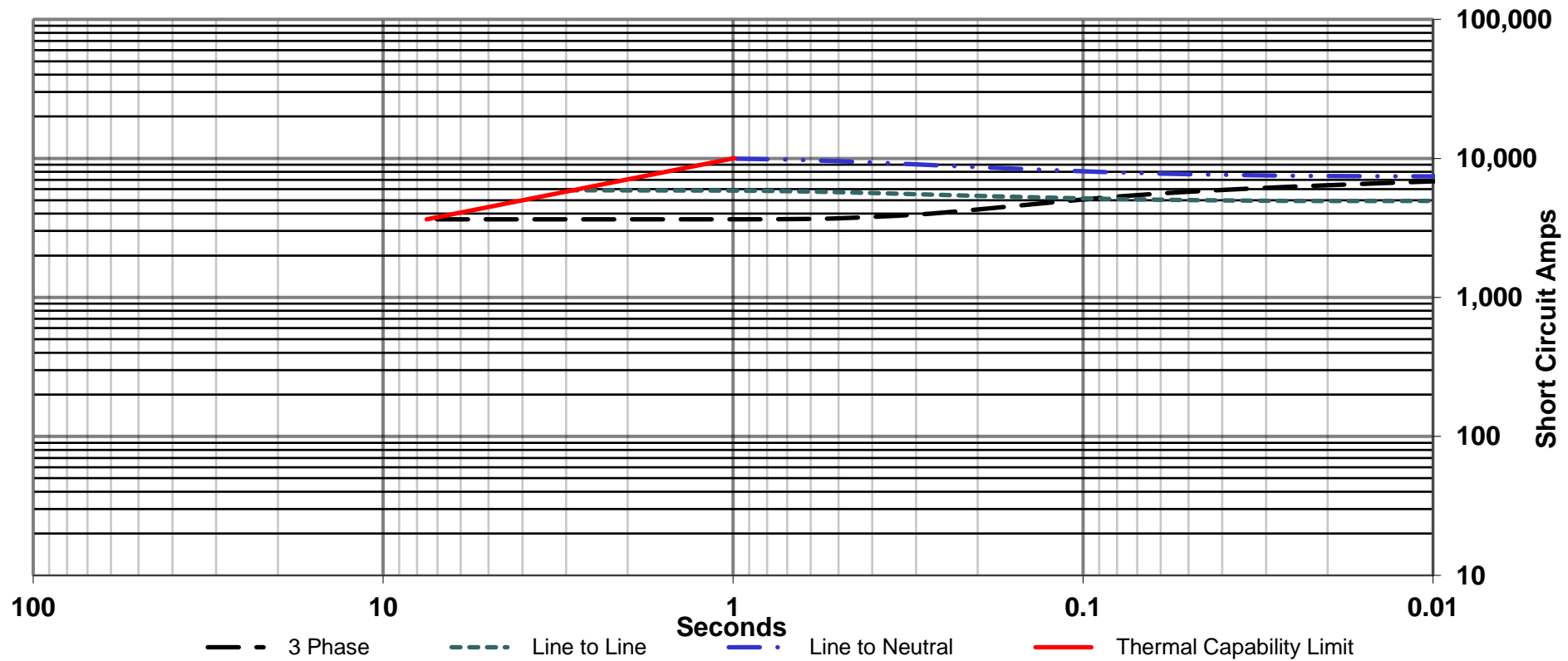
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Date : 02/09/22

Full Load Current : 1214.4 amps  
Steady State S.C. Current : 3643.2 amps

Max. 3 ph. Symm. S.C. Current : 6910 amps  
INCLUDES EXCITATION SUPPORT (PMG)

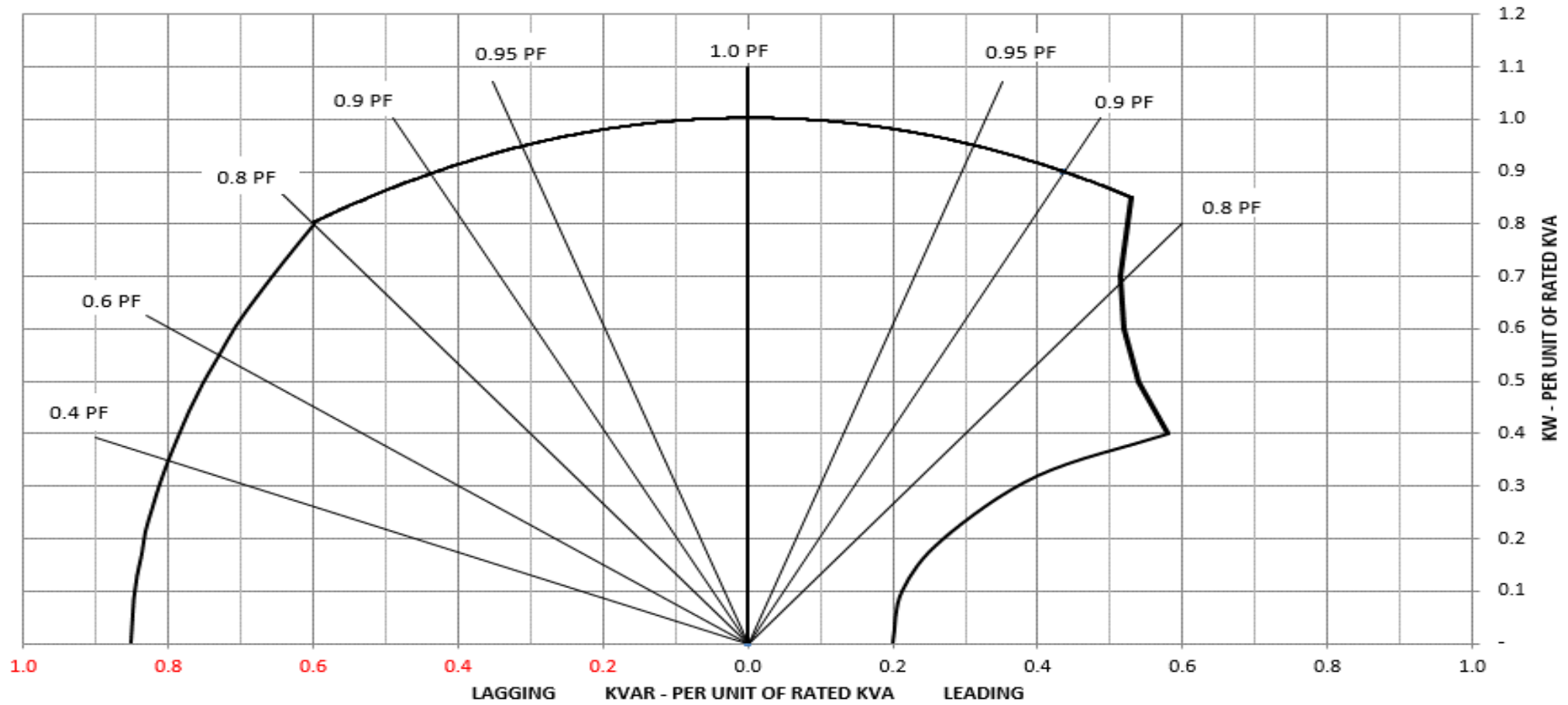
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



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## Typical Reactive Capability Curve

Date : 02/09/22



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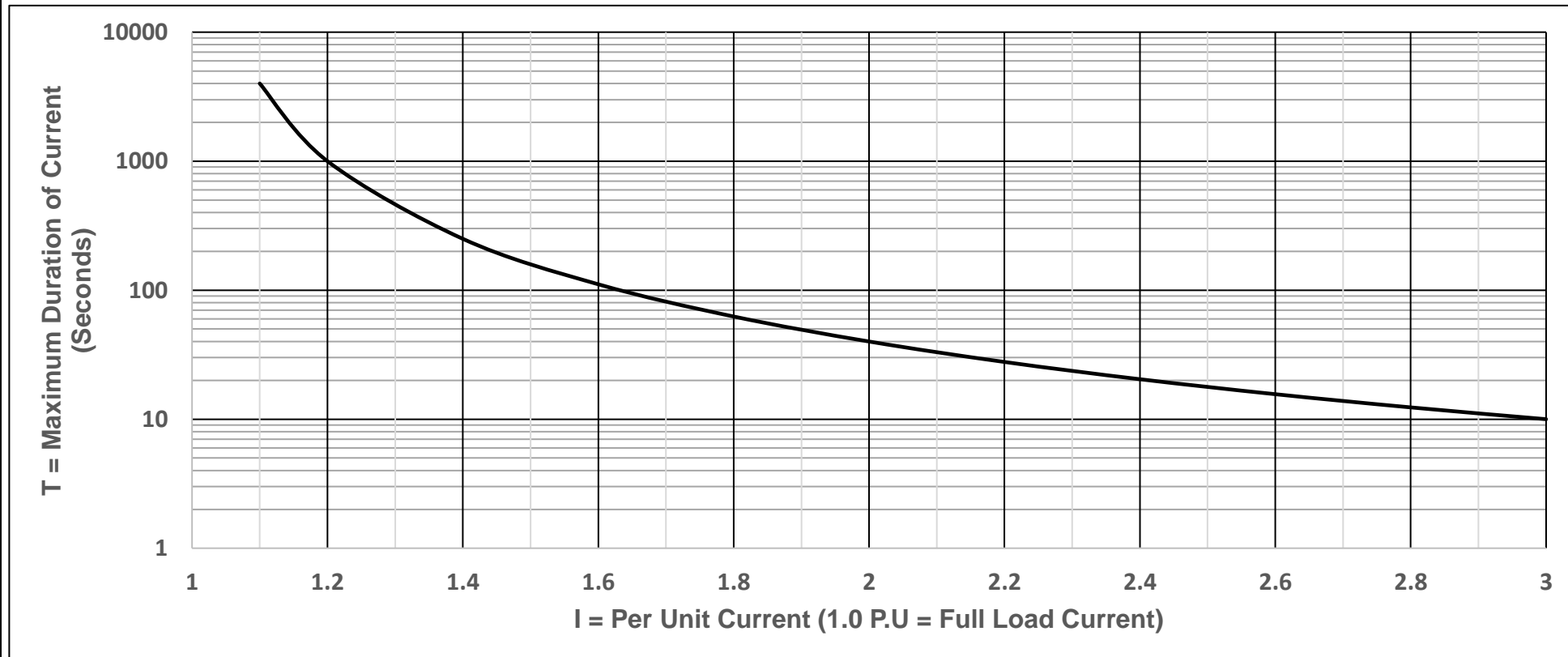
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## THERMAL DAMAGE CURVE

Date : 02/09/22

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



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