

MAGNAMAX®

TYPICAL SUBMITTAL DATA

BASE MODEL: 574RSL6437

Winding: 570077

Date: 02/10/22

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 ^{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	670 (838)	800 (1000)	825 (1031)	825 (1031)	900 (1125)
220/440	660 (825)	760 (950)	805 (1006)	820 (1025)	875 (1094)
208/416	630 (788)	725 (906)	770 (963)	785 (981)	825 (1031)
200/400	612 (765)	701 (876)	725 (906)	733 (916)	754 (943)
190/380	590 (738)	670 (838)	670 (838)	670 (838)	670 (838)

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*, 785 kW, 981 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	0.00490	Ohms	---	TIF (1960 Weightings)	<50	
	Rotor Resistance	0.584	Ohms	---	THF (IEC, BS & NEMA Weightings)	<2%	
	Exciter Stator	23	Ohms		Winding Pitch	2/3	
	Exciter Rotor	0.045	Ohms				
	PMG Stator	2.1	Ohms				
410.1a	No Load Exciter Field Amps at 416 Volts Line to Line	0.54	A DC	Additional Prototype Mil-Std Methods are Available on Request.			
420.1a	Short Circuit Ratio	0.567					
421.1a	Xd Synchronous Reactance	2.901	PU	--	Generator Frame	574	
		0.512	Ohms	--	Type	MagnaMax	
422.1a	X2 Negative Sequence React.	0.232	PU	--	Insulation	Class H	
		0.041	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.068	PU	--	Amortisseur Windings	Full	
		0.012	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.165	PU	--	Voltage Regulator	PM500	
		0.029	Ohms	--	Voltage Regulation	0.50%	
426.1a	X''d Subtransient Reactance	0.150	PU				
		0.026	Ohms				
--	Xq Quadrature Synchronous Reactance	1.242	PU	--	Cooling Air Volume	1220	CFM
		0.219	Ohms	--	Heat rejection rate	2212	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.127	Sec	--	Full load current	1361.8	Amps
				--	Minimum Input hp required	1104.4	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.014	Sec	--	Full load torque	3221	Lb-ft
				--	Efficiency at rated load :	95.3%	
430.1a	T'do Transient Open Circuit Time Constant	2.33	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.02	Sec	--	Weight	4080	lbs

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

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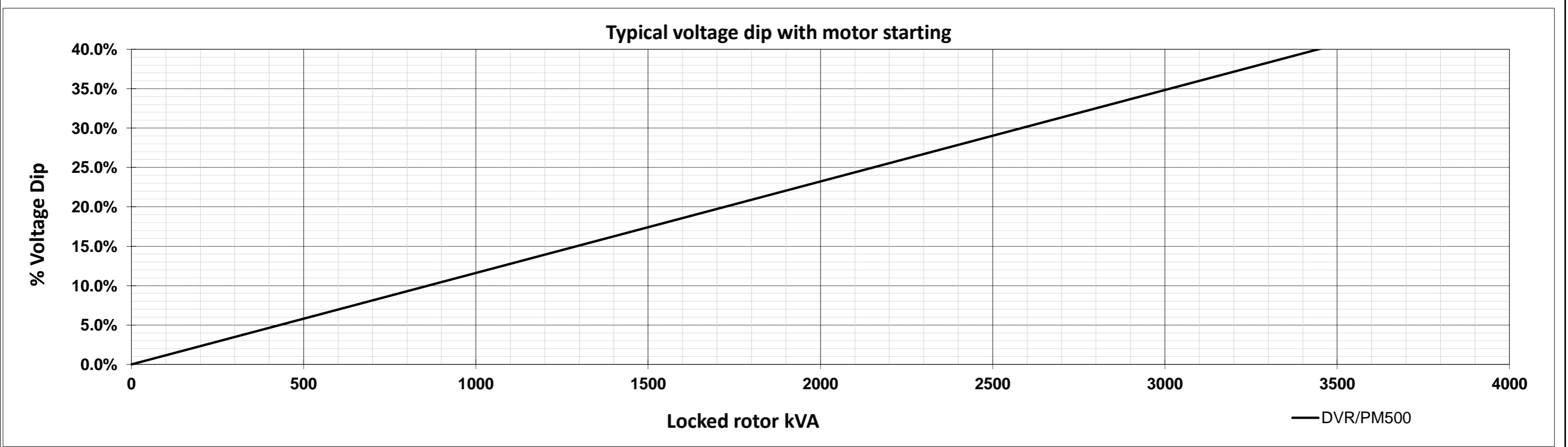
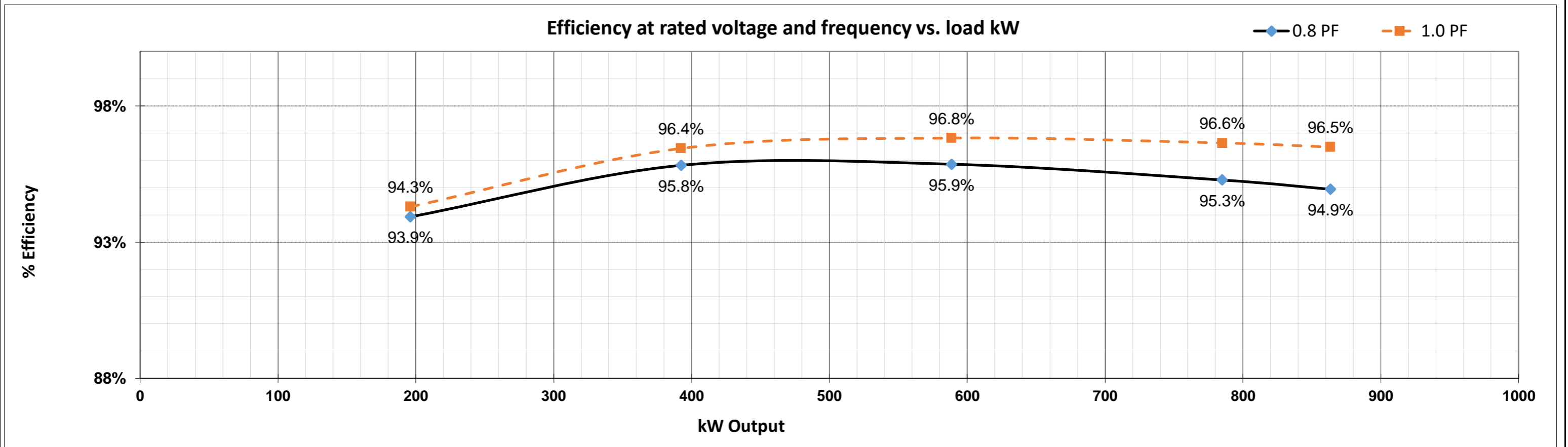
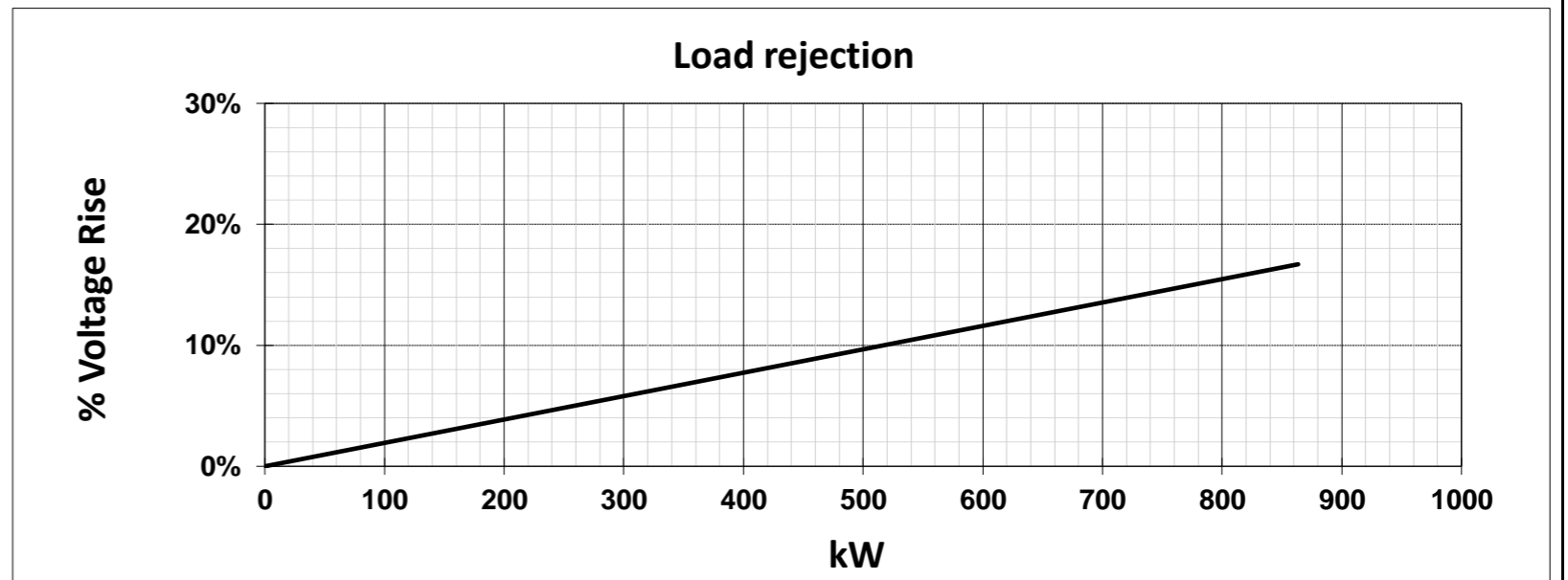
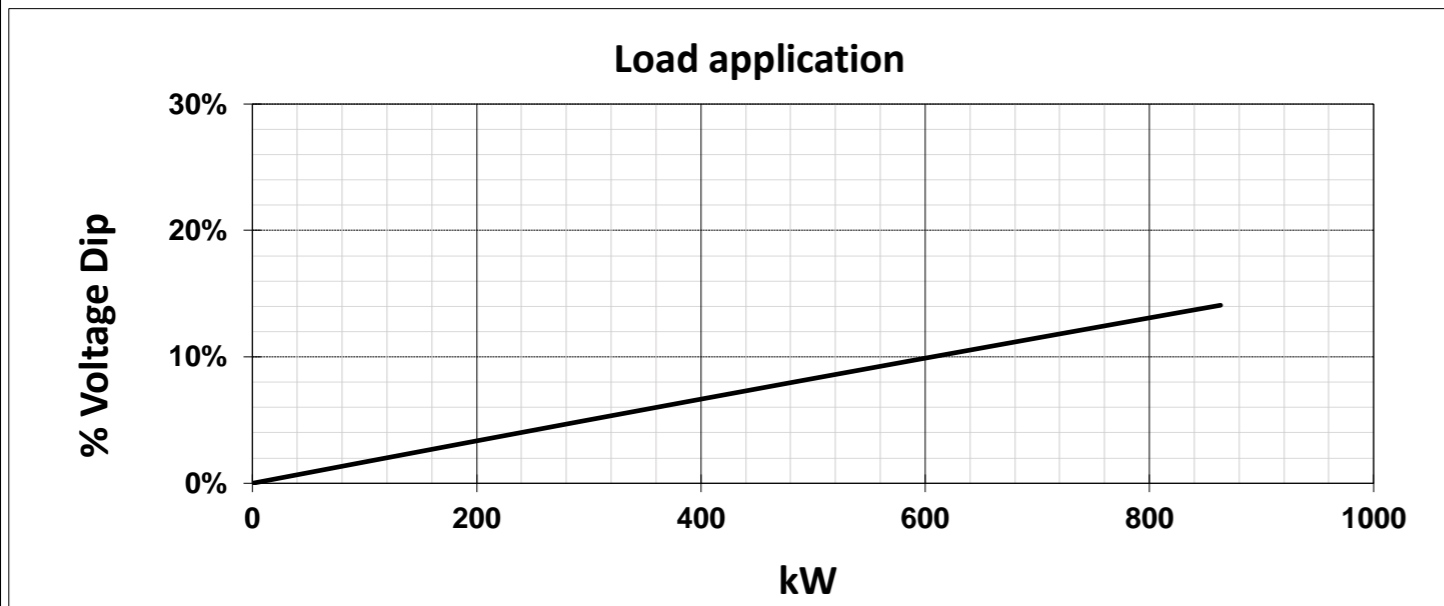
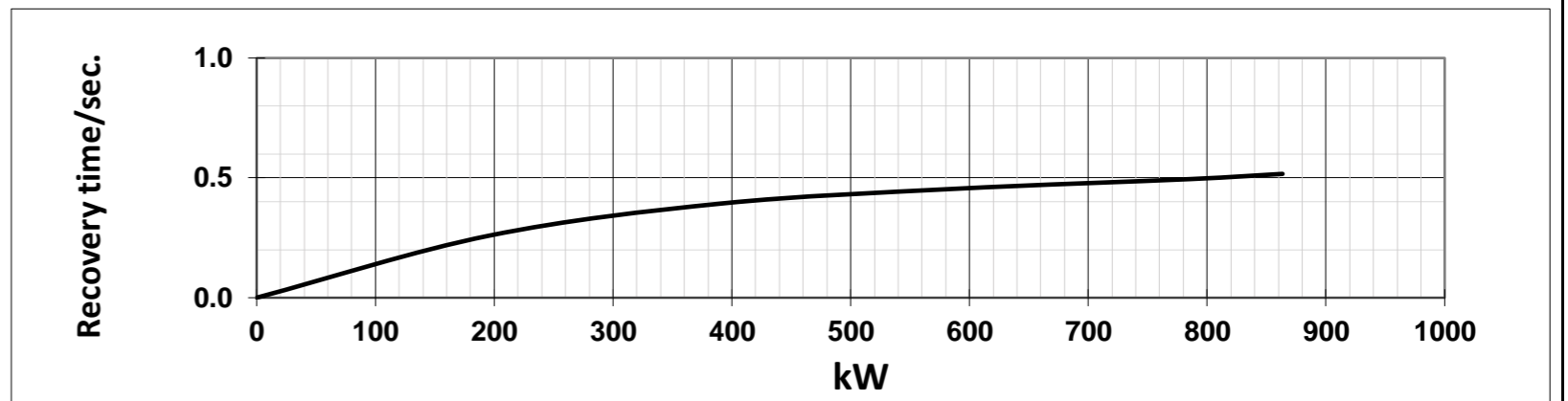
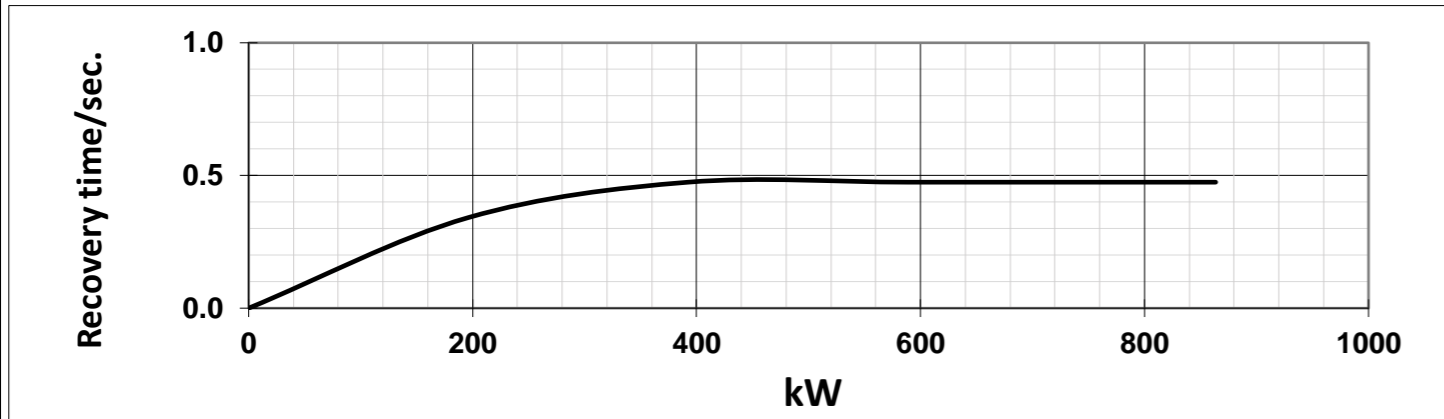
MAGNAMAX[®]

TYPICAL DYNAMIC CHARACTERISTICS

BASE MODEL: 574RSL6437

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DECREMENT CURVE

BASE MODEL: 574RSL6437

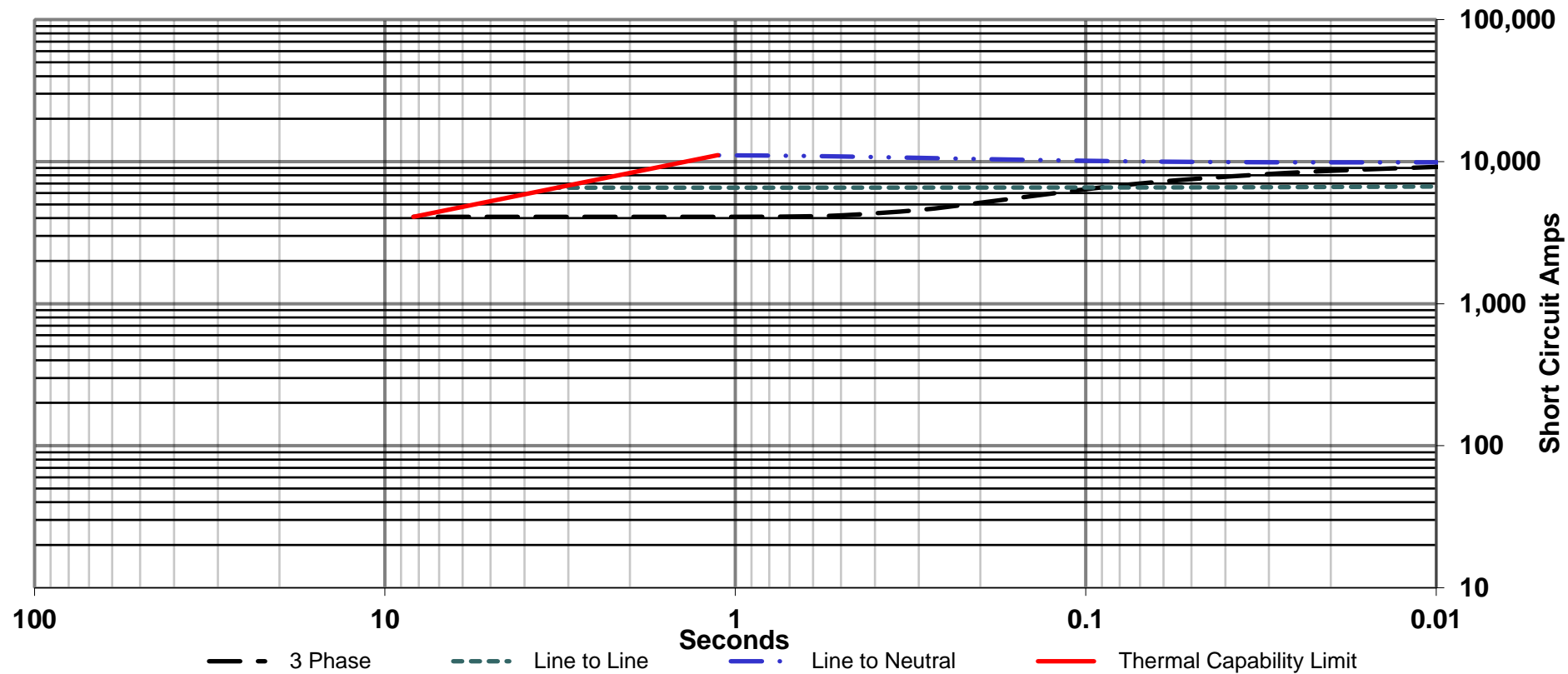
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Date : 02/10/22

Full Load Current : 1361.8 amps
Steady State S.C. Current : 4085.4 amps

Max. 3 ph. Symm. S.C. Current : 9110 amps
INCLUDES EXCITATION SUPPORT (PMG)

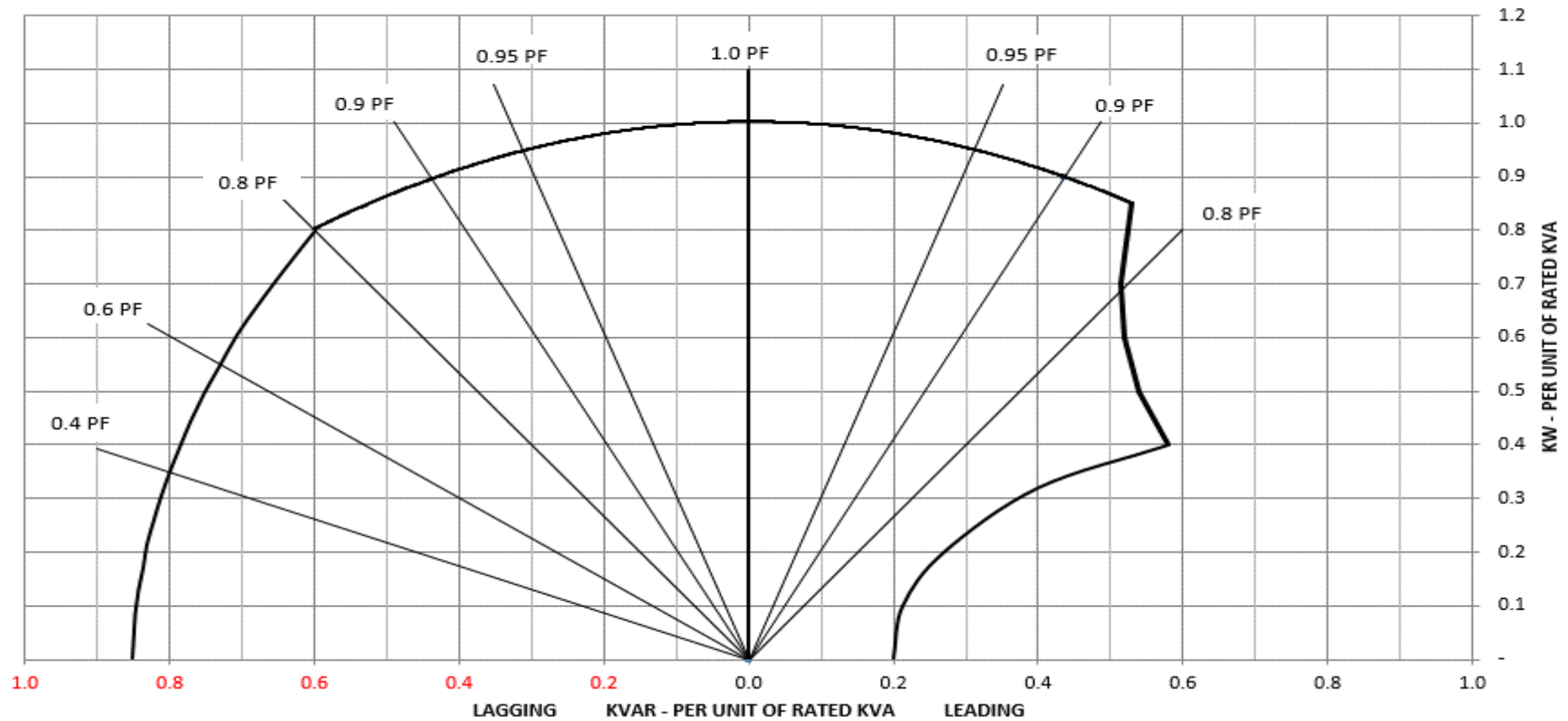
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



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Typical Reactive Capability Curve

Date : 02/10/22



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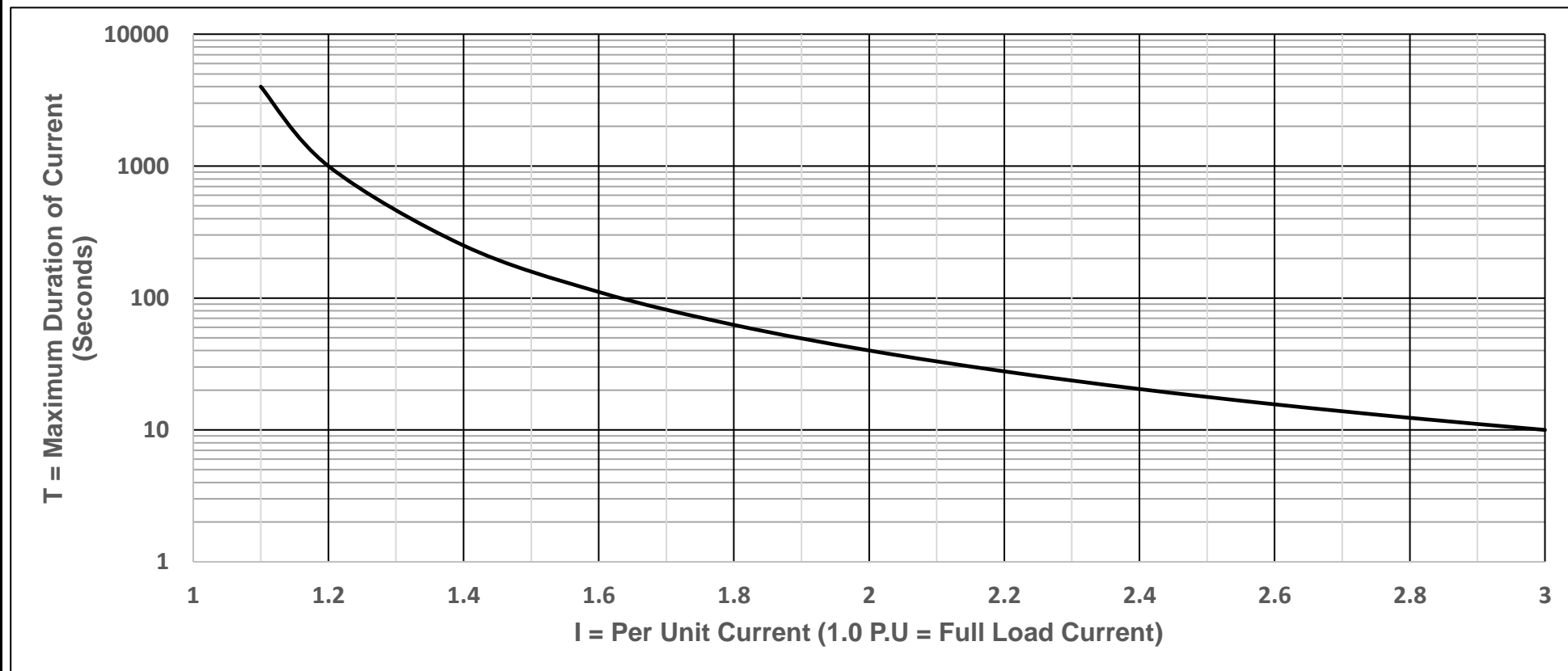
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THERMAL DAMAGE CURVE

Date : 02/10/22

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



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