

MAGNAMAX[®]

TYPICAL SUBMITTAL DATA

BASE MODEL: 741RSL4044

Winding: 740062

Date: 01/13/22

Kilowatt ratings at	1800 RPM	60 Hertz	4 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
480	865 (1081)	1030 (1288)	1080 (1350)	1100 (1375)	1100 (1375)
440	840 (1050)	960 (1200)	1020 (1275)	1030 (1288)	1070 (1338)
416	810 (1013)	920 (1150)	970 (1213)	1000 (1250)	1020 (1275)
400	779 (974)	884 (1105)	911 (1139)	927 (1159)	938 (1173)
380	740 (925)	840 (1050)	840 (1050)	840 (1050)	840 (1050)

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: 480 Volts*, 1100 kW, 1375 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	0.00390	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.708	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	22	Ohms				
	Exciter Rotor	0.043	Ohms				
	PMG Stator	2.1	Ohms				
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.94	A DC	Additional Prototype Mil-Std Methods are Available on Request.			
420.1a	Short Circuit Ratio	0.596					
421.1a	Xd Synchronous Reactance	2.370	PU	--	Generator Frame	741	
		0.397	Ohms	--	Type	MagnaMax	
422.1a	X2 Negative Sequence React.	0.222	PU	--	Insulation	Class H	
		0.037	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.070	PU	--	Amortisseur Windings	Full	
		0.012	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.169	PU	--	Voltage Regulator	DVR2400	
		0.028	Ohms	--	Voltage Regulation	0.25%	
426.1a	X''d Subtransient Reactance	0.128	PU				
		0.021	Ohms				
--	Xq Quadrature Synchronous Reactance	1.120	PU	--	Cooling Air Volume	3505	CFM
		0.188	Ohms	--	Heat rejection rate	3363	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.171	Sec	--	Full load current	1653.9	Amps
				--	Minimum Input hp required	1553.8	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.01	Sec	--	Full load torque	4532	Lb-ft
				--	Efficiency at rated load :	94.9%	
430.1a	T'do Transient Open Circuit Time Constant	1.97	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.029	Sec	--	Weight	5490	lbs

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

www.regalrexnord.com/brands/Marathon-Generators



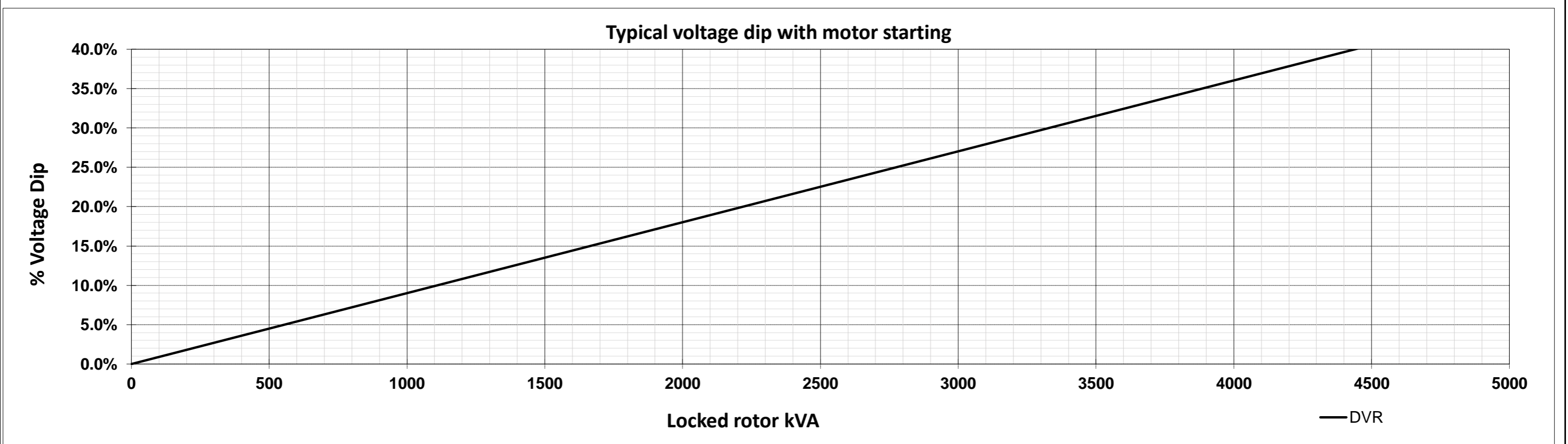
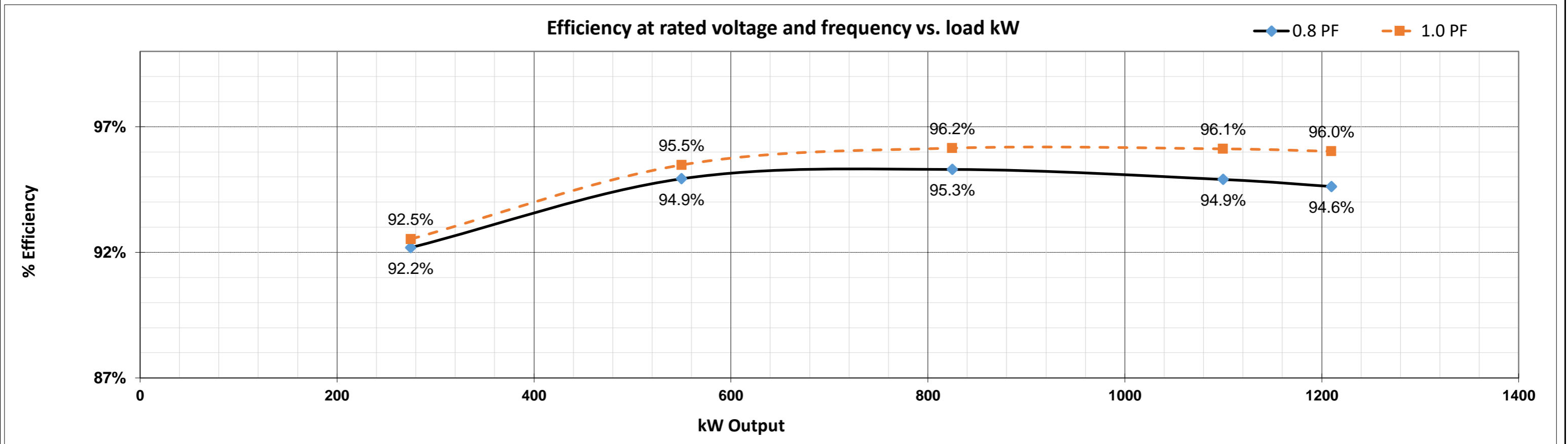
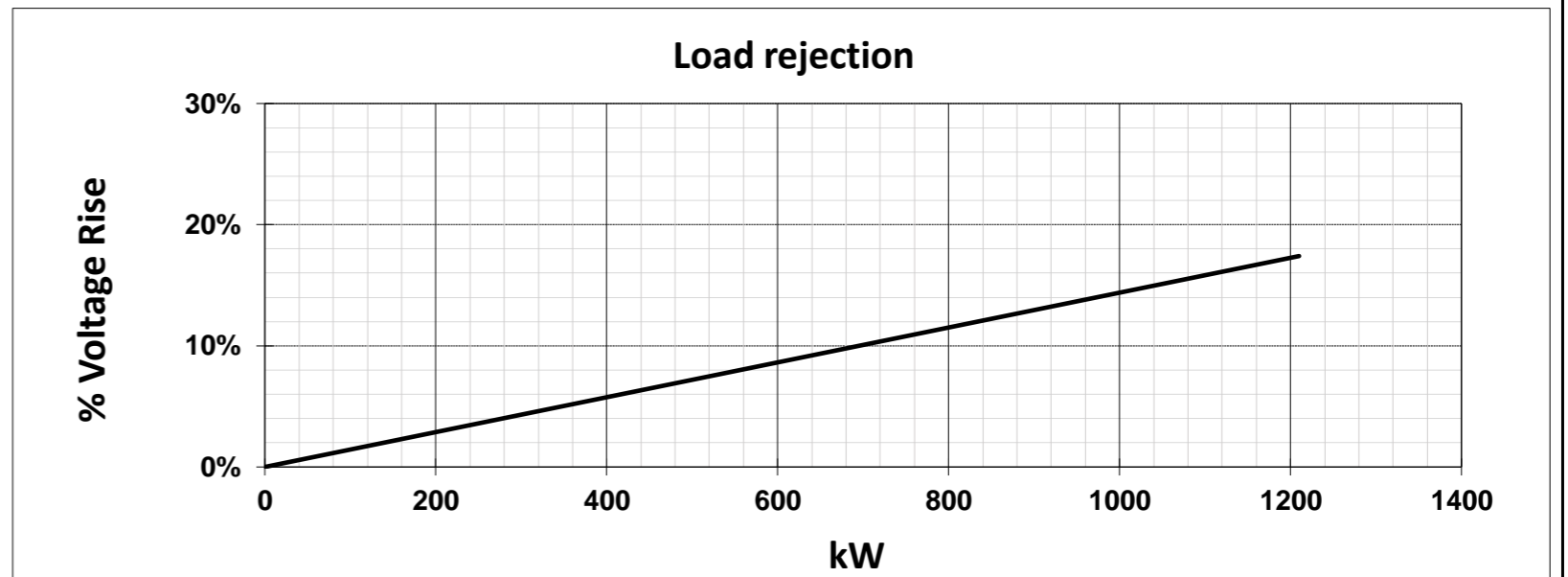
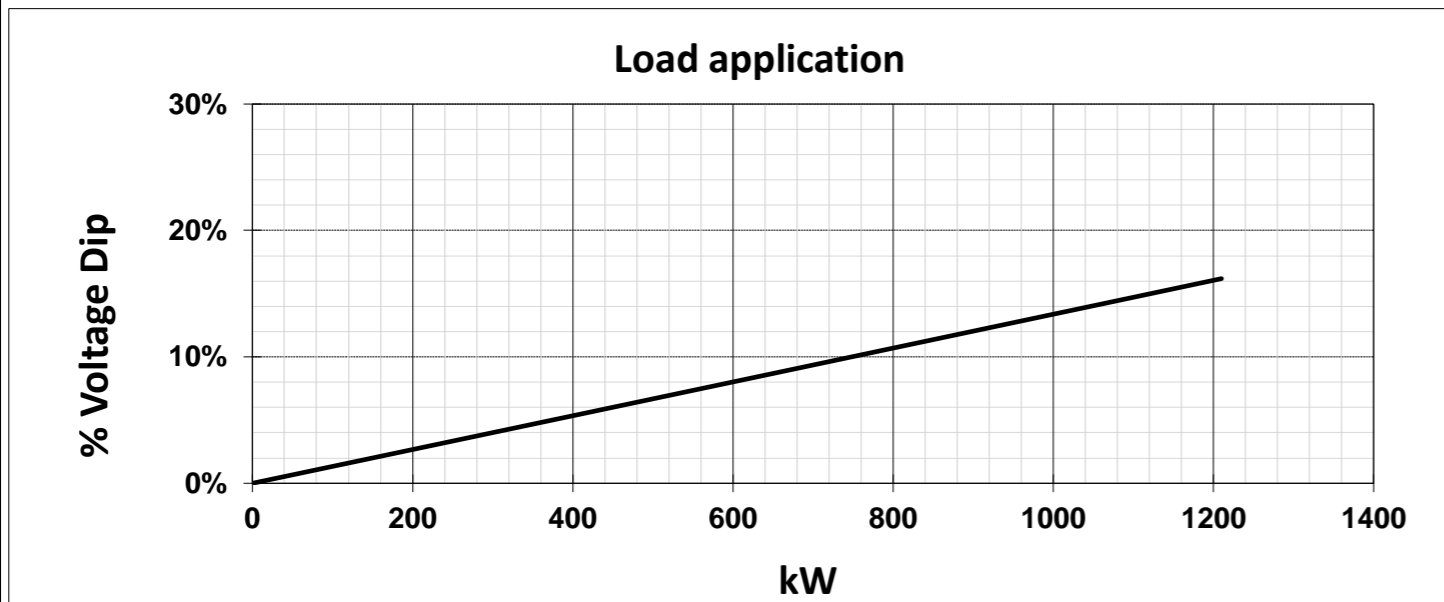
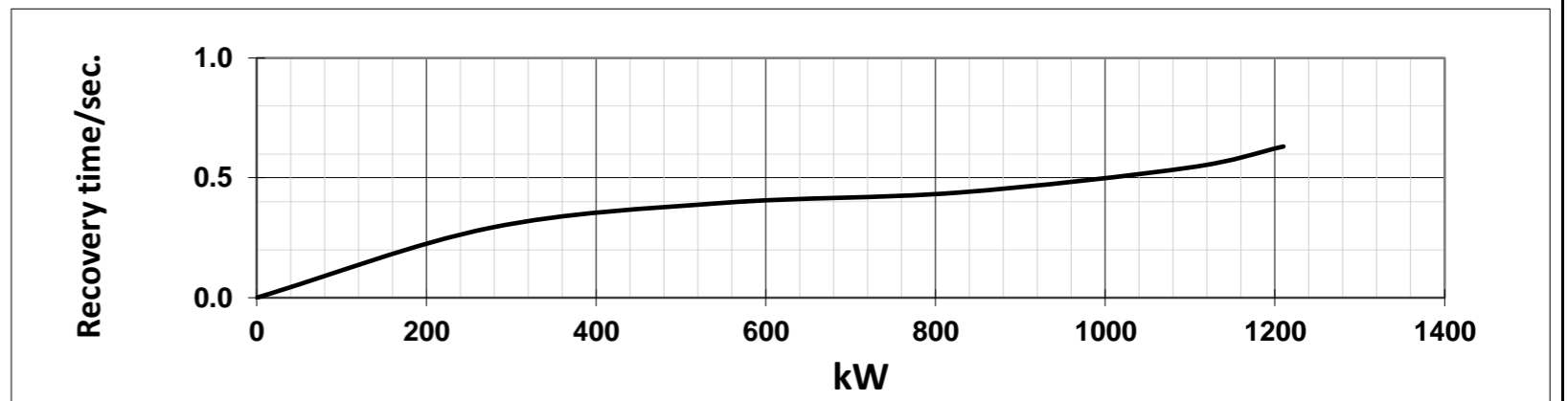
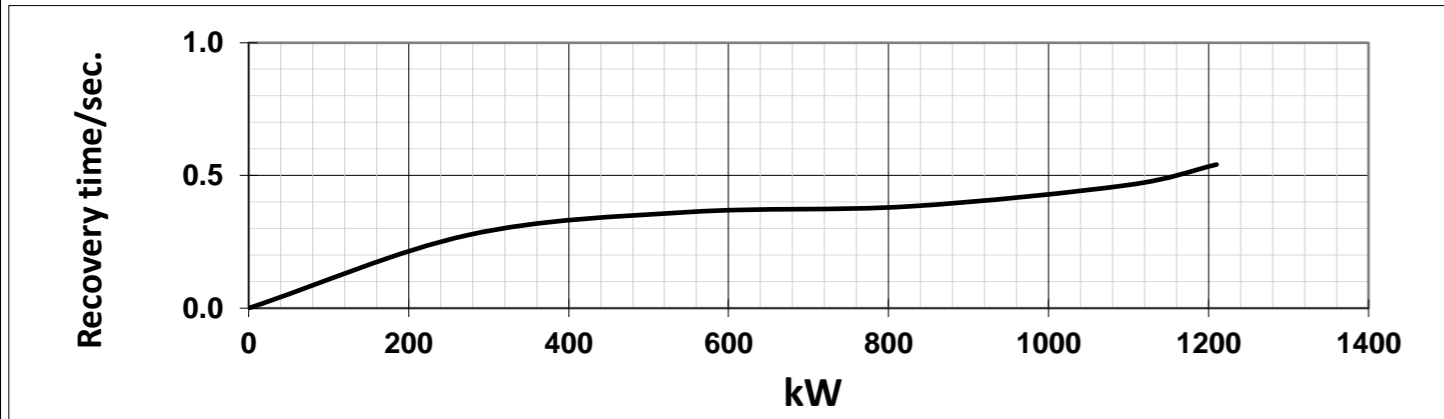
MAGNAMAX[®]

TYPICAL DYNAMIC CHARACTERISTICS

BASE MODEL: **741RSL4044**

Date: **01/13/22**

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DECREMENT CURVE

BASE MODEL: 741RSL4044

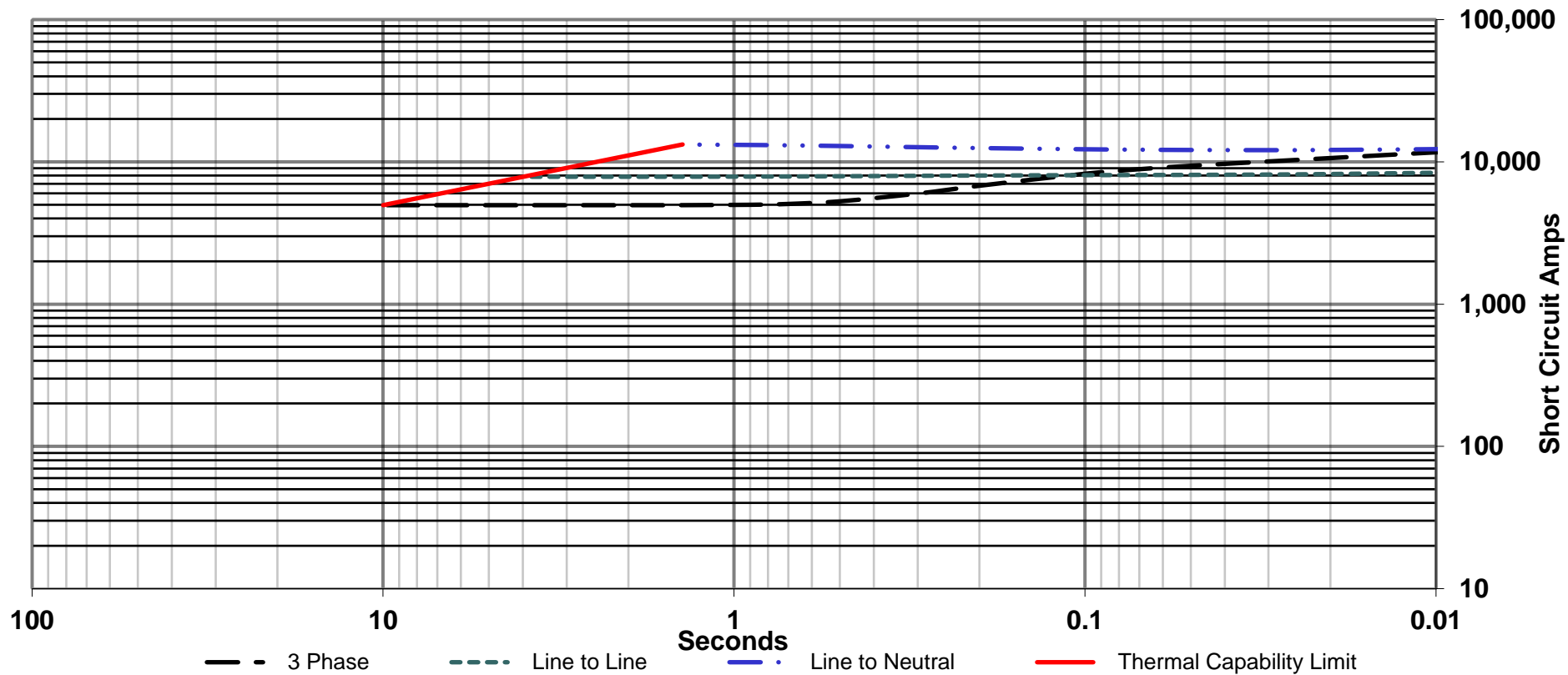
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Date : 01/13/22

Full Load Current : 1653.9 amps
Steady State S.C. Current : 4961.7 amps

Max. 3 ph. Symm. S.C. Current : 12921 amps
INCLUDES EXCITATION SUPPORT (PMG)

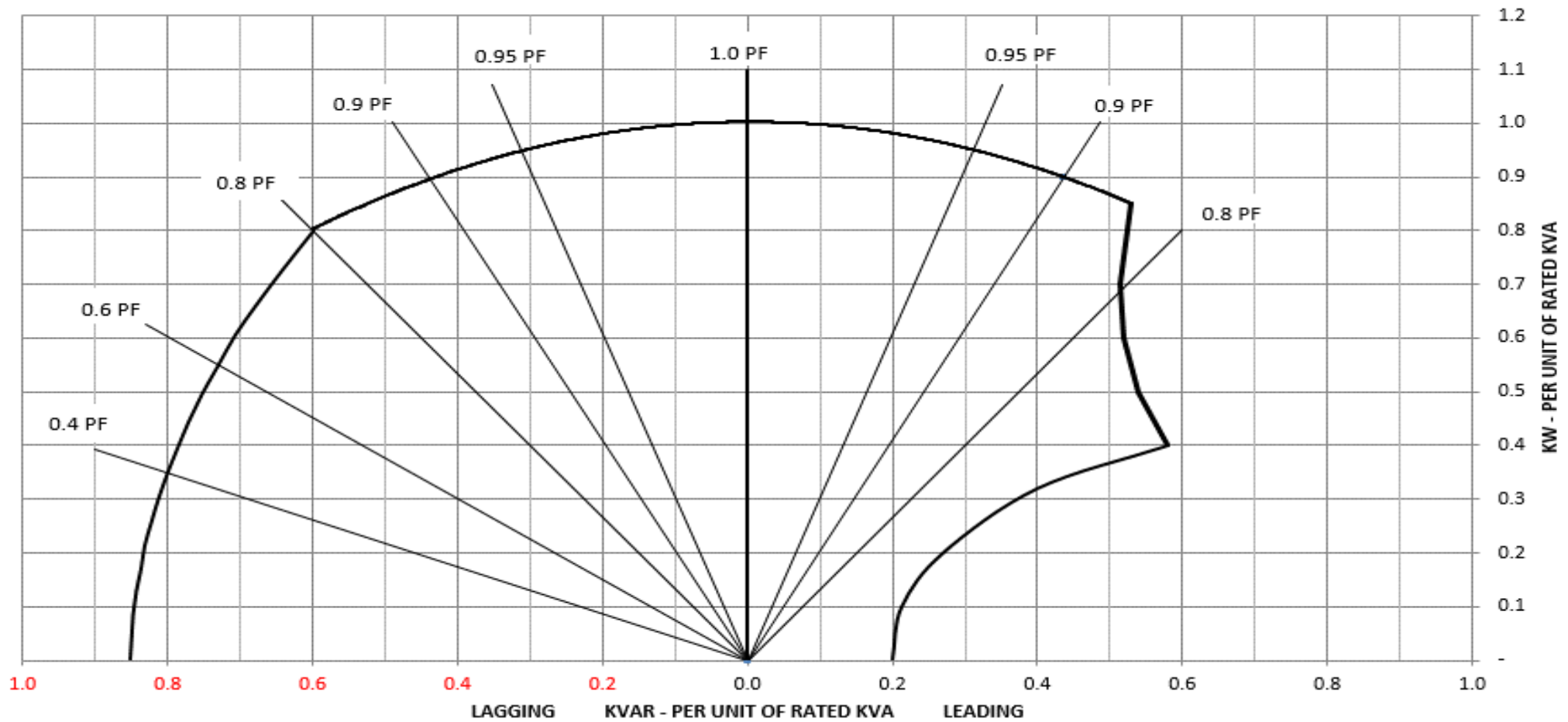
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



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Typical Reactive Capability Curve

Date : 01/13/22

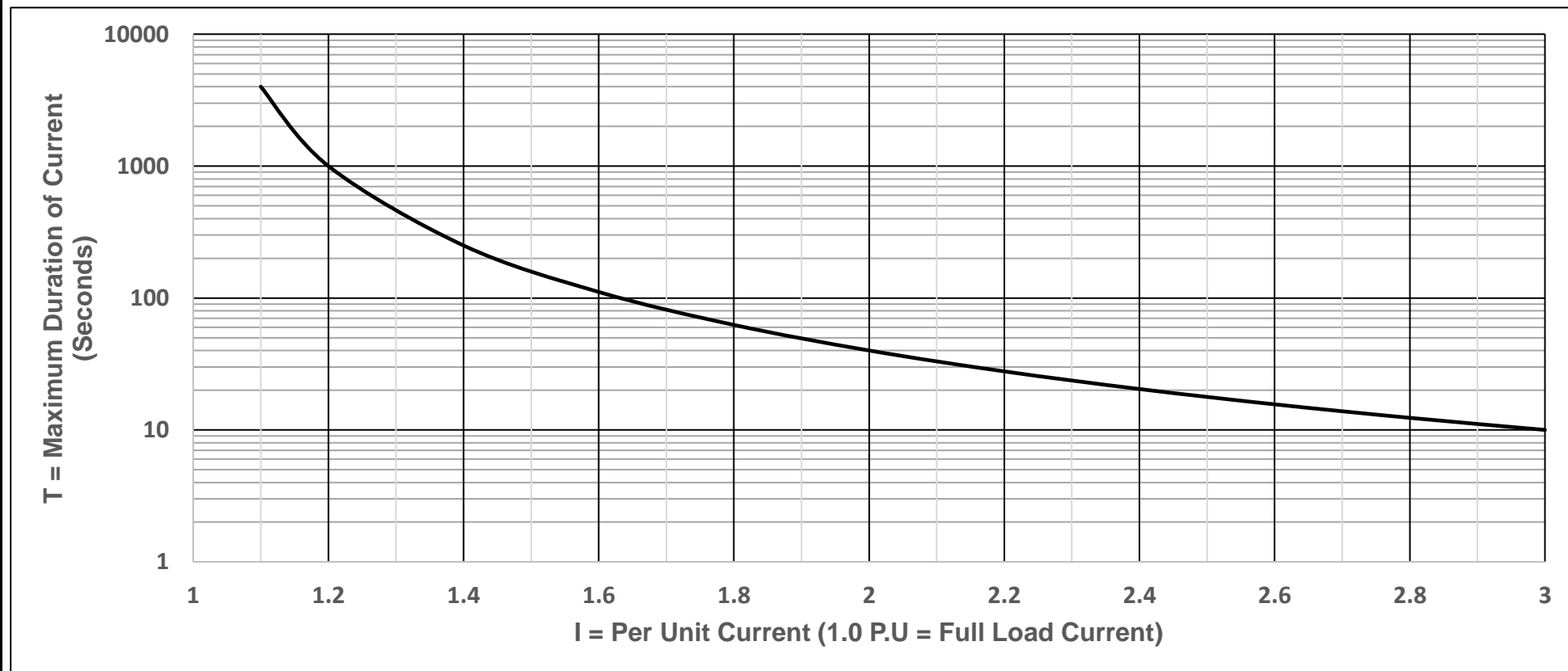


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THERMAL DAMAGE CURVE

Date : 01/13/22

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



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