

MAGNAMAX®

TYPICAL SUBMITTAL DATA

BASE MODEL: **764RSL4063**

Winding: **740066**

Date: **02/11/22**

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	2000 (2500)	2250 (2813)	2400 (3000)	2500 (3125)	2650 (3313)
440	1830 (2288)	2070 (2588)	2210 (2763)	2300 (2875)	2440 (3050)
416	1730 (2163)	1950 (2438)	2080 (2600)	2170 (2713)	2300 (2875)
400	1655 (2069)	1870 (2338)	1995 (2494)	2070 (2588)	2195 (2744)
380	1580 (1975)	1770 (2213)	1890 (2363)	1970 (2463)	2090 (2613)

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*, 2170 kW, 2713 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	0.00120	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	1.245	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	19.44	Ohms				
	Exciter Rotor	0.071	Ohms				
	PMG Stator	2.1	Ohms				
410.1a	No Load Exciter Field Amps at 416 Volts Line to Line	0.79	A DC	Additional Prototype Mil-Std Methods are Available on Request.			
420.1a	Short Circuit Ratio	0.604					
421.1a	Xd Synchronous Reactance	2.420	PU	--	Generator Frame	764	
		0.154	Ohms	--	Type	MagnaMax	
422.1a	X2 Negative Sequence React.	0.222	PU	--	Insulation	Class H	
		0.014	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.175	PU	--	Amortisseur Windings	Full	
		0.011	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.160	PU	--	Voltage Regulator	DVR2400	
		0.010	Ohms	--	Voltage Regulation	0.25%	
426.1a	X''d Subtransient Reactance	0.137	PU				
		0.009	Ohms				
--	Xq Quadrature Synchronous Reactance	1.445	PU	--	Cooling Air Volume	4450	CFM
		0.092	Ohms	--	Heat rejection rate	4769	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.181	Sec	--	Full load current	3764.6	Amps
				--	Minimum Input hp required	3021.2	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.029	Sec	--	Full load torque	8812	Lb-ft
				--	Efficiency at rated load :	96.3%	
430.1a	T'do Transient Open Circuit Time Constant	3.267	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.022	Sec	--	Weight	9937	lbs

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

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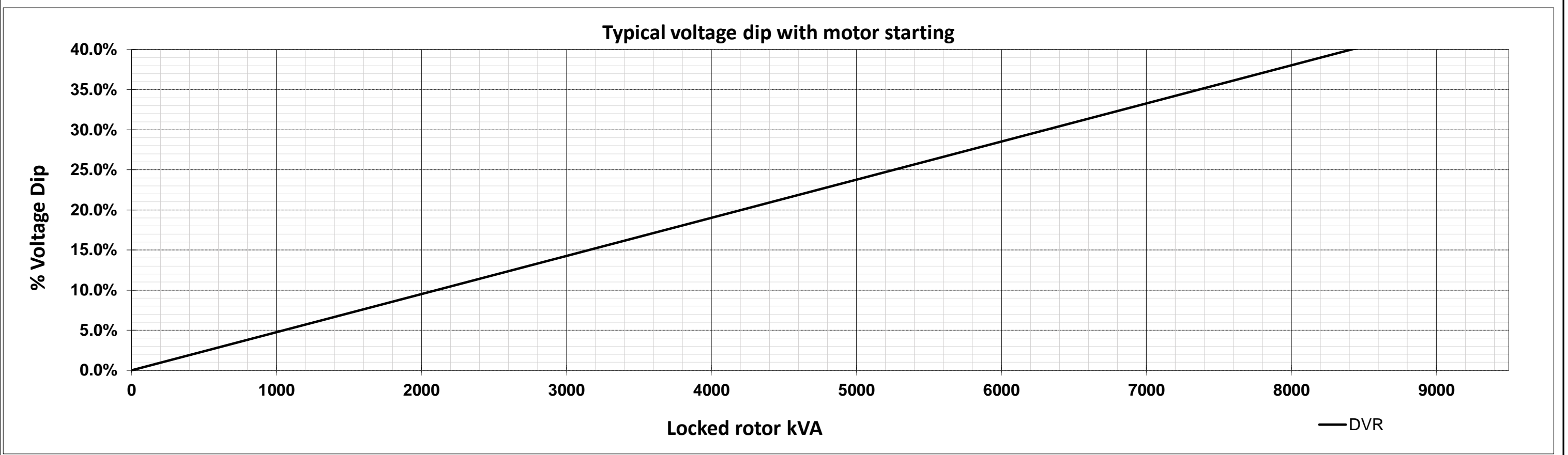
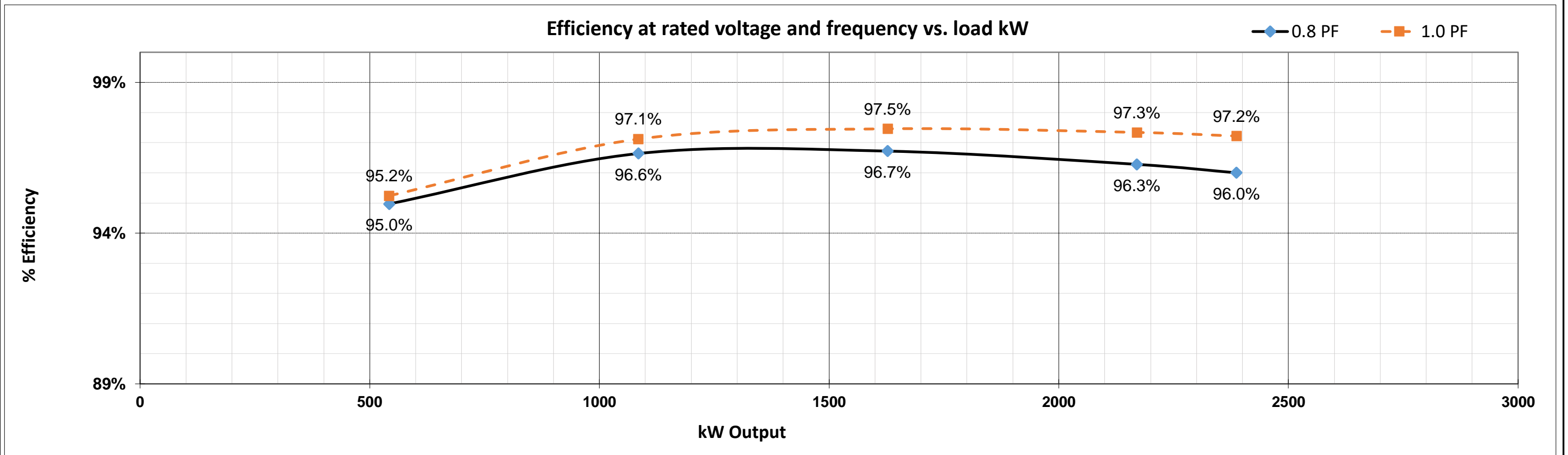
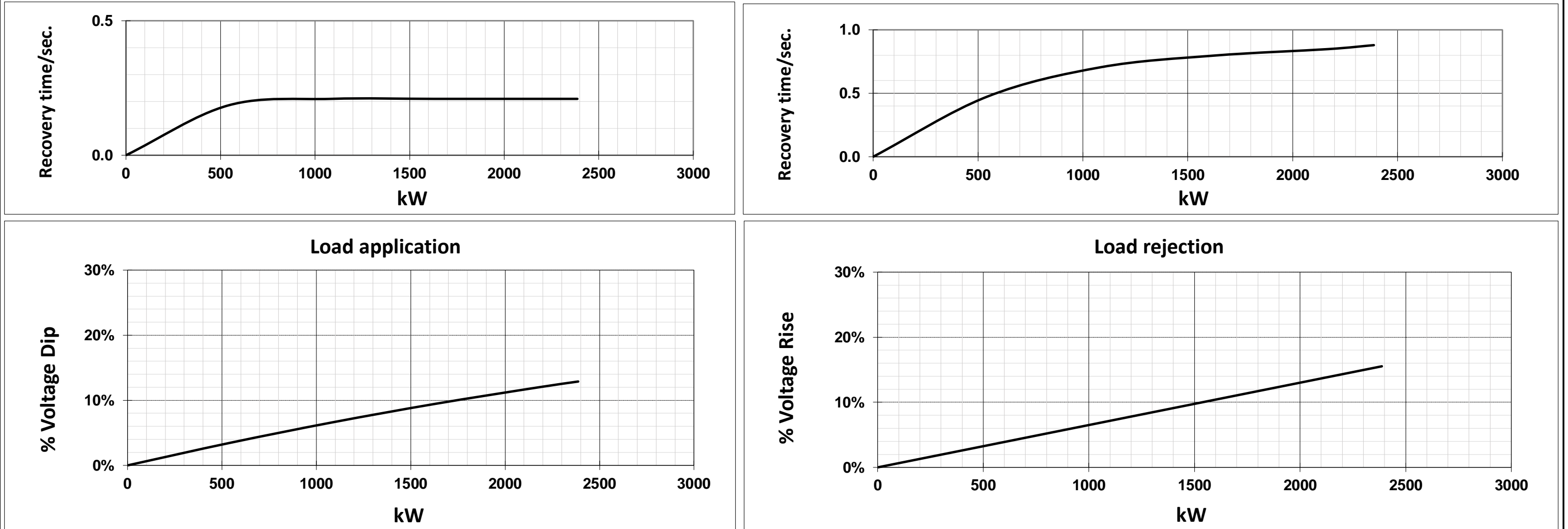
MAGNAMAX[®]

TYPICAL DYNAMIC CHARACTERISTICS

BASE MODEL: 764RSL4063

Date: 02/11/22

Submittal Data: 416 Volts*, 2170 kW, 2713 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase



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DECREMENT CURVE

BASE MODEL: 764RSL4063

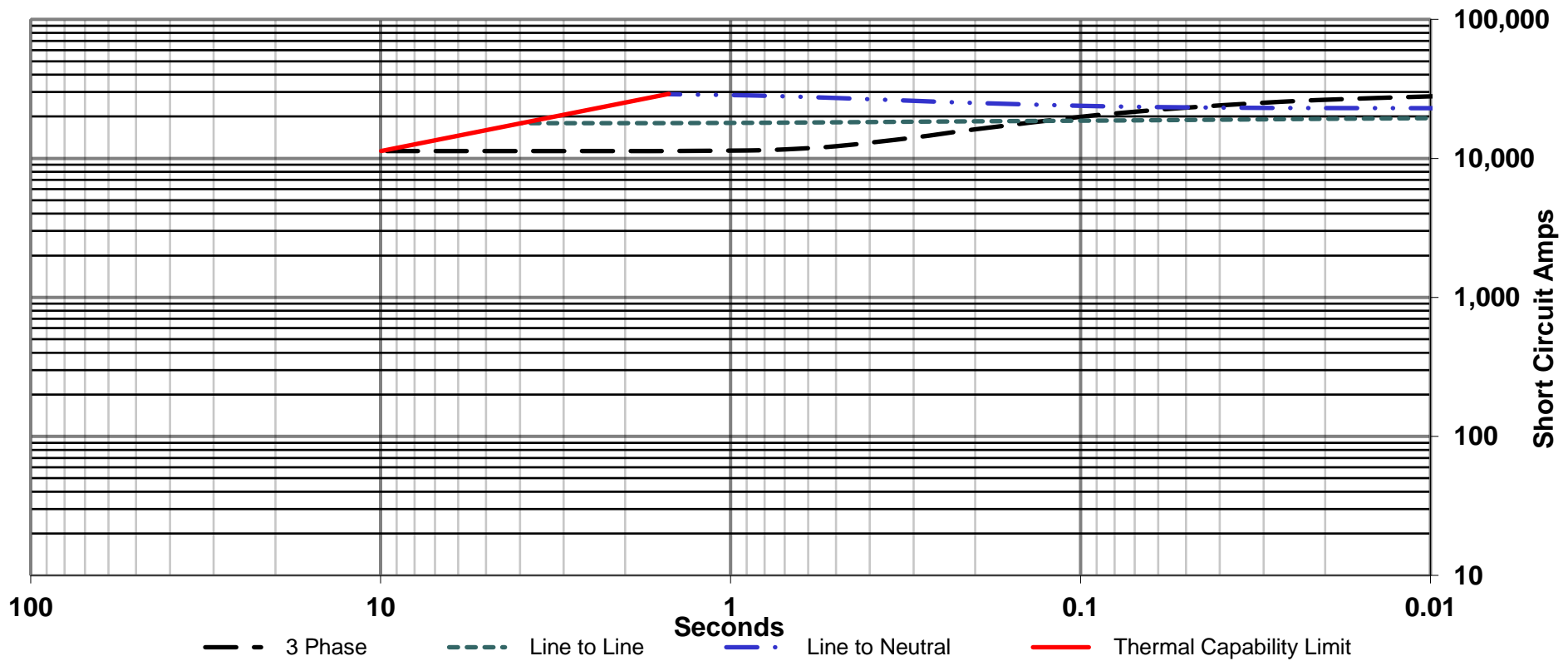
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Date : 02/11/22

Full Load Current : 3764.6 amps
Steady State S.C. Current : 11293.8 amps

Max. 3 ph. Symm. S.C. Current : 27427 amps
INCLUDES EXCITATION SUPPORT (PMG)

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



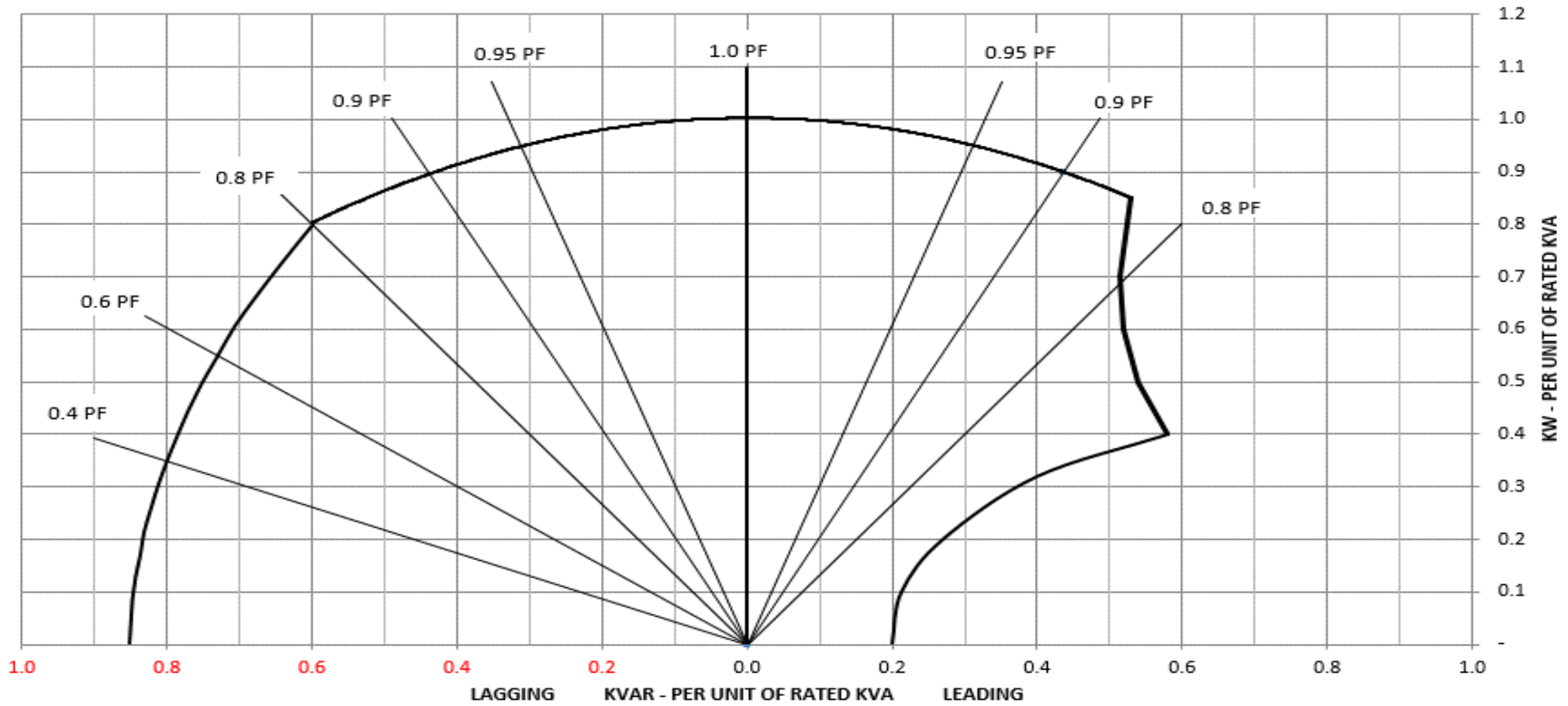
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Typical Reactive Capability Curve

Date : 02/11/22



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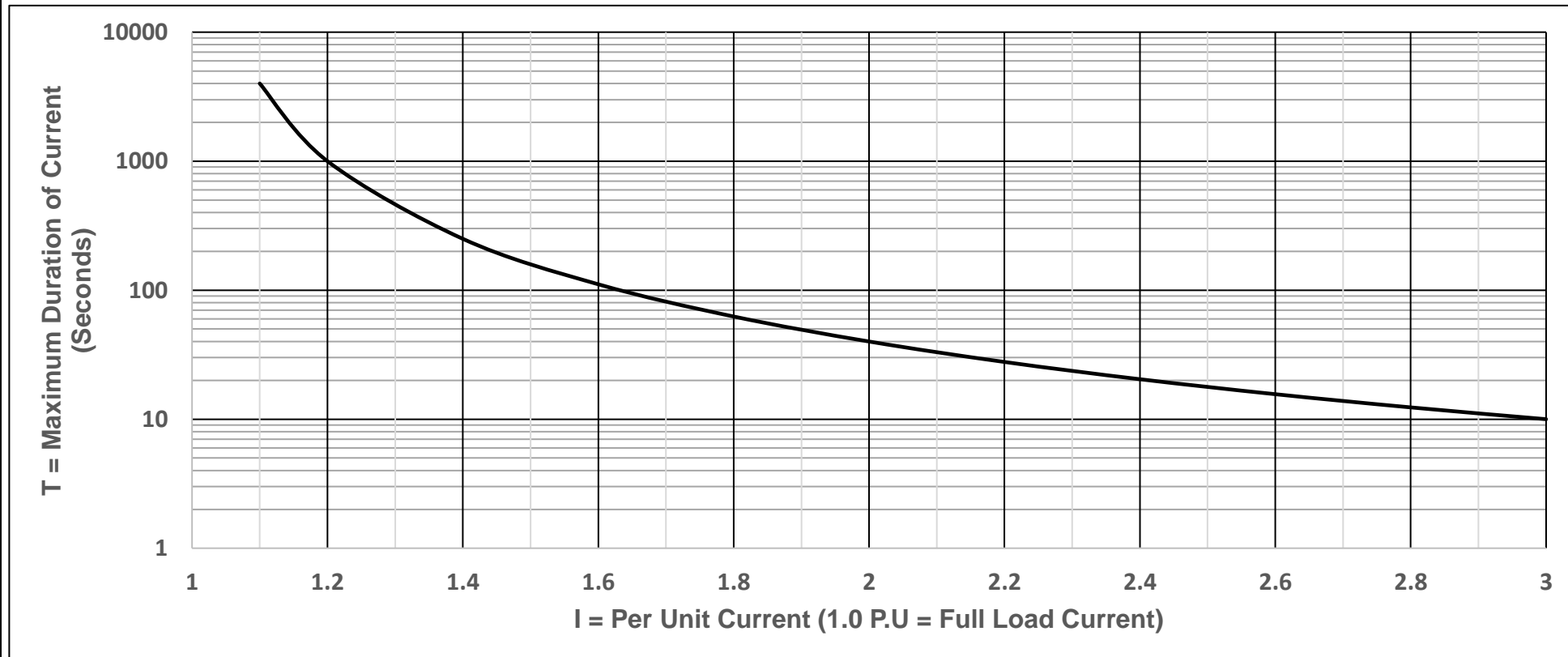
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THERMAL DAMAGE CURVE

Date : 02/11/22

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



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