



TYPICAL SUBMITTAL DATA

BASE MODEL: 1020FDL1108

Winding: 1000004

Date: 02/11/22

Kilowatt ratings at	1800 RPM	60 Hertz	6 Leads With 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	2340 (2925)	2800 (3500)	2900 (3625)	3000 (3750)	3000 (3750)
416	2550 (3188)	2850 (3563)	2850 (3563)	2850 (3563)	2850 (3563)
400	2540 (3175)	2740 (3425)	2740 (3425)	2740 (3425)	2740 (3425)
380	2530 (3163)	2600 (3250)	2600 (3250)	2600 (3250)	2600 (3250)

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*, 2850 kW, 3563 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	0.00079	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.732	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	19.5	Ohms	Additional Prototype Mil-Std Methods are Available on Request.			
	Exciter Rotor	0.044	Ohms				
PMG Stator	2.1	Ohms					
410.1a	No Load Exciter Field Amps at 416 Volts Line to Line	0.67	A DC				
420.1a	Short Circuit Ratio	0.439					
421.1a	Xd Synchronous Reactance	2.575	PU	--	Generator Frame	1020	
		0.125	Ohms	--	Type	MagnaPower	
422.1a	X2 Negative Sequence React.	0.266	PU	--	Insulation	Class H	
		0.013	Ohms	--	Coupling - Two Bearing	By Others	
423.1a	X0 Zero Sequence Reactance	0.042	PU	--	Amortisseur Windings	Full	
		0.002	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.276	PU	--	Voltage Regulator	DVR2400	
		0.013	Ohms	--	Voltage Regulation	0.25%	
426.1a	X''d Subtransient Reactance	0.258	PU				
		0.013	Ohms				
				--	Cooling Air Volume	7500	CFM
				--	Heat rejection rate	7072	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.278	Sec	--	Full load current	4944.3	Amps
				--	Minimum Input hp required	3987	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.025	Sec	--	Full load torque	11629	Lb-ft
				--	Efficiency at rated load :	95.8%	
430.1a	T'do Transient Open Circuit Time Constant	3.53	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.03	Sec	--	Weight	17400	lbs

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

www.regalrexnord.com/brands/Marathon-Generators



Not indicative of legal entity.



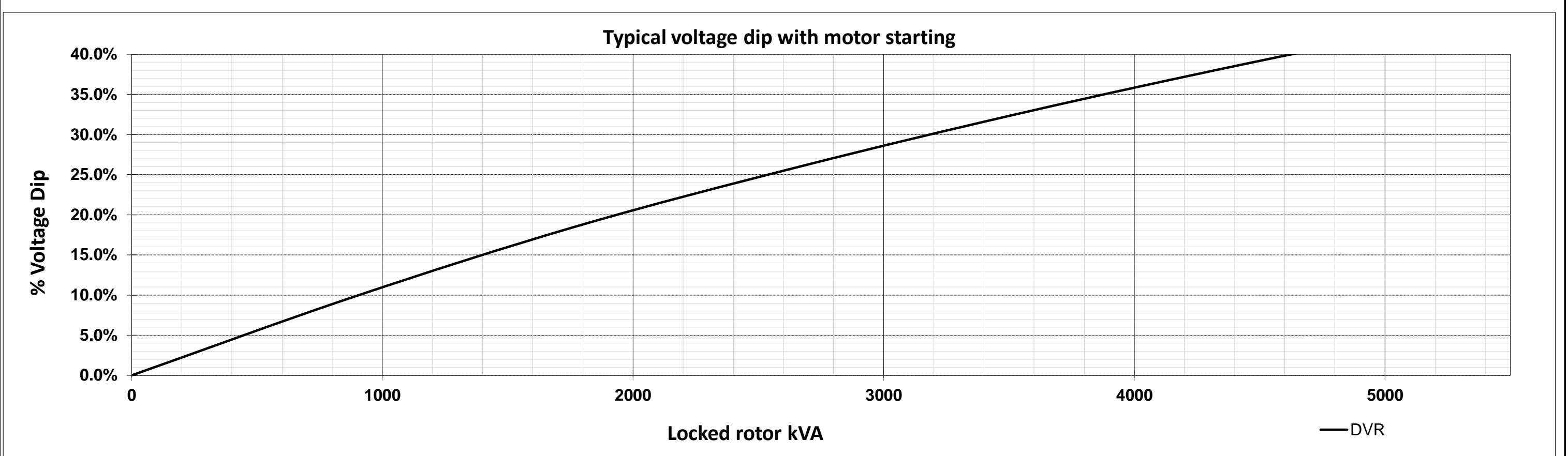
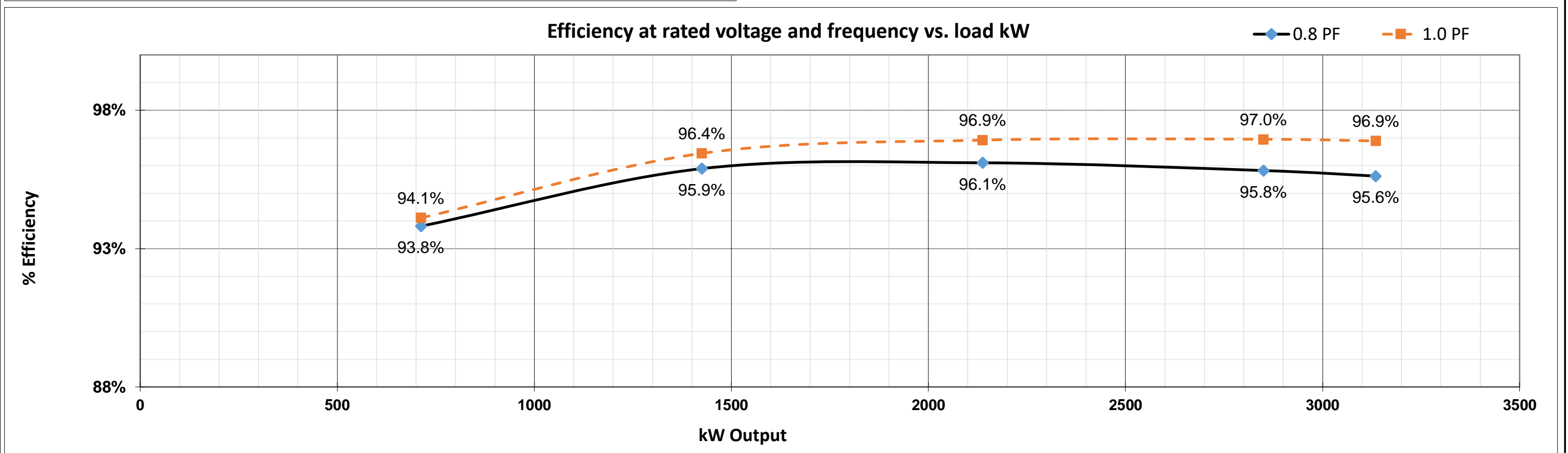
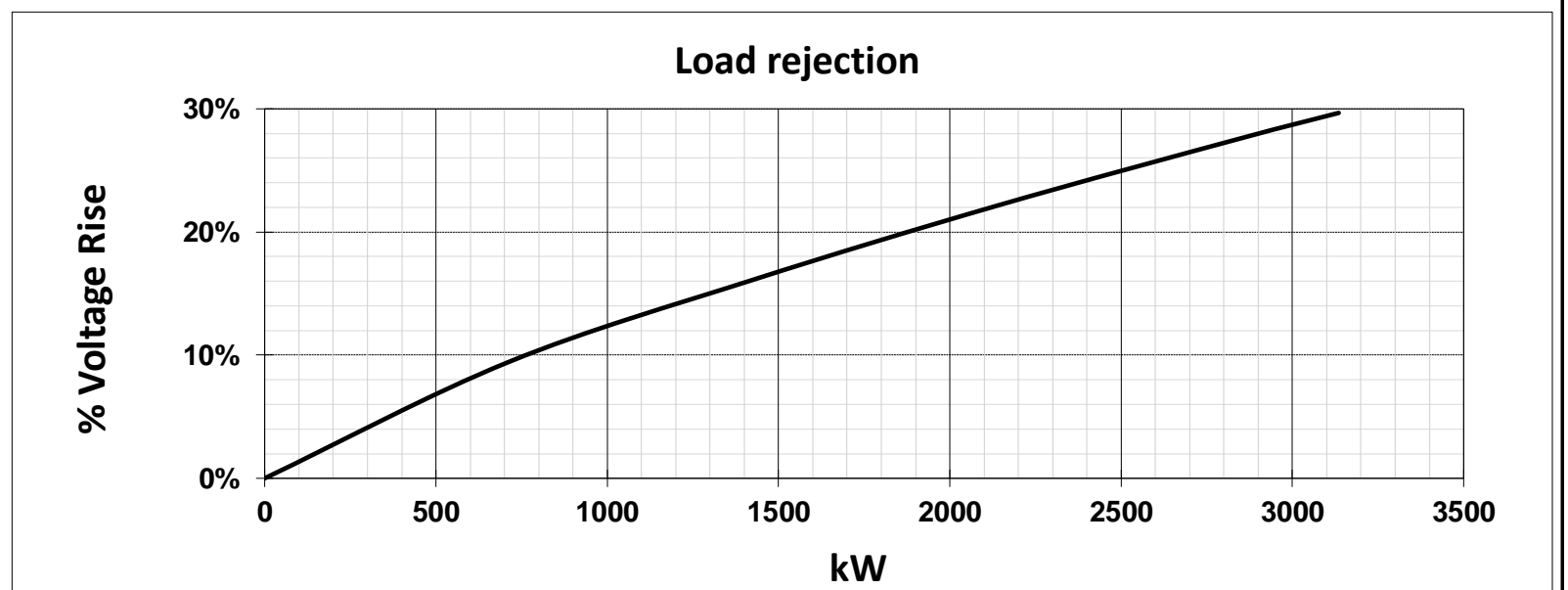
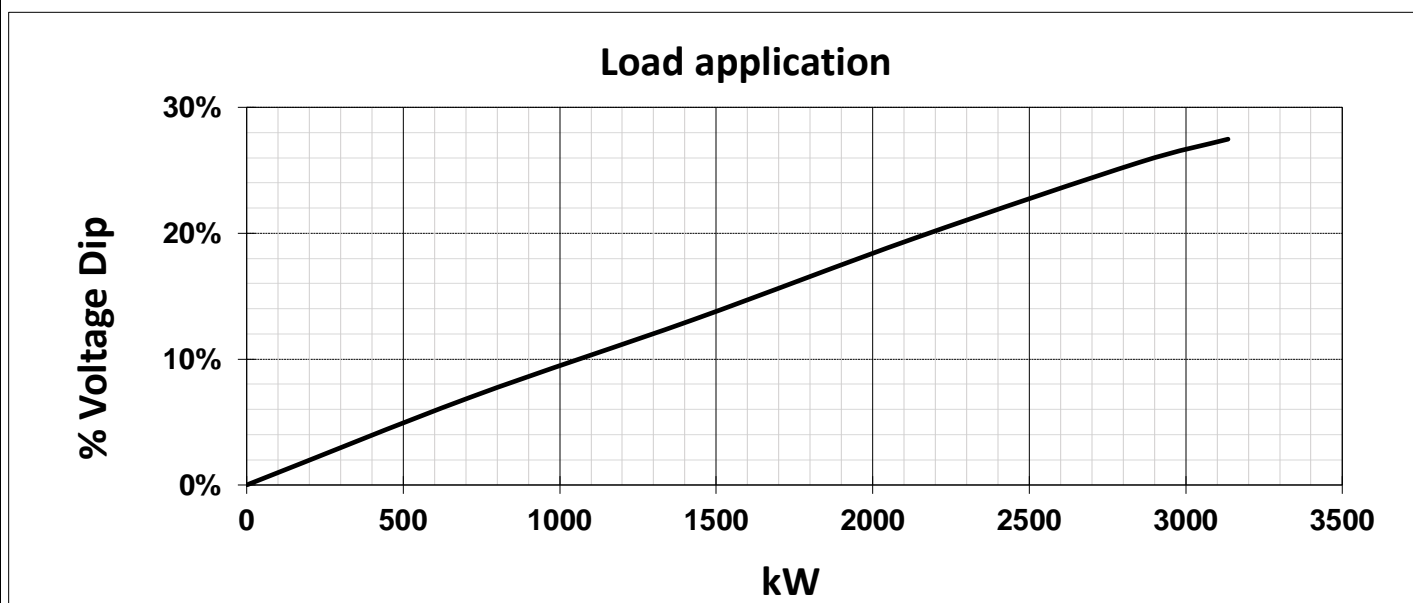
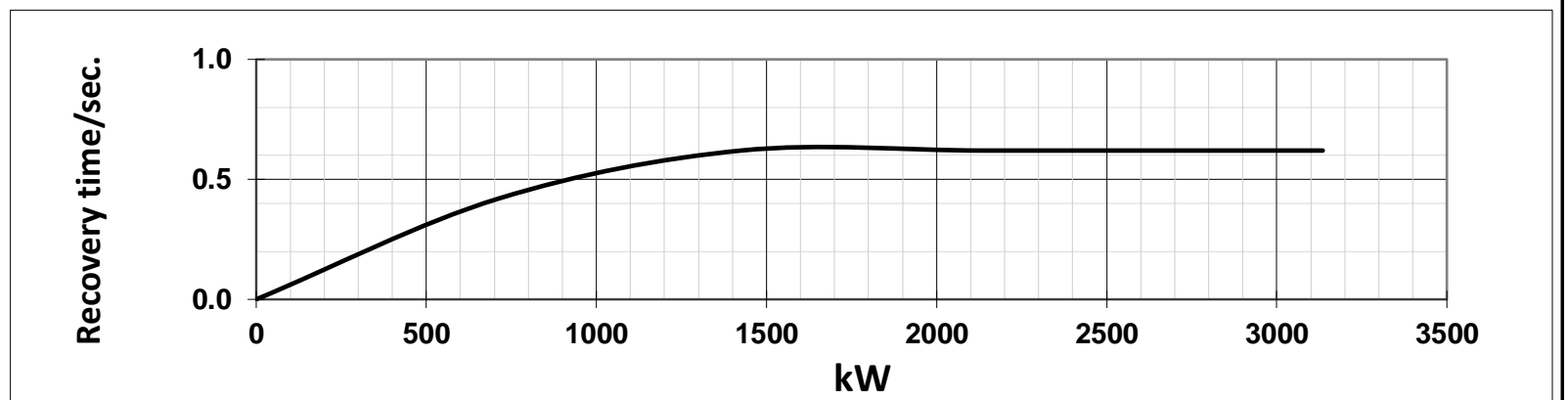
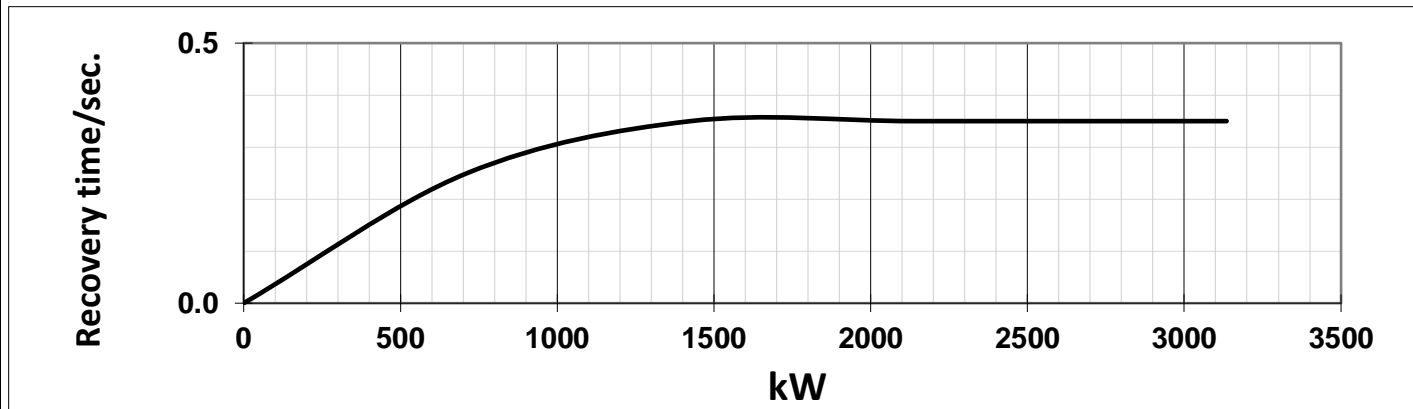
MAGNAPOWER®

TYPICAL DYNAMIC CHARACTERISTICS

BASE MODEL: **1020FDL1108**

Date: **02/11/22**

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DECREMENT CURVE

BASE MODEL: 1020FDL1108

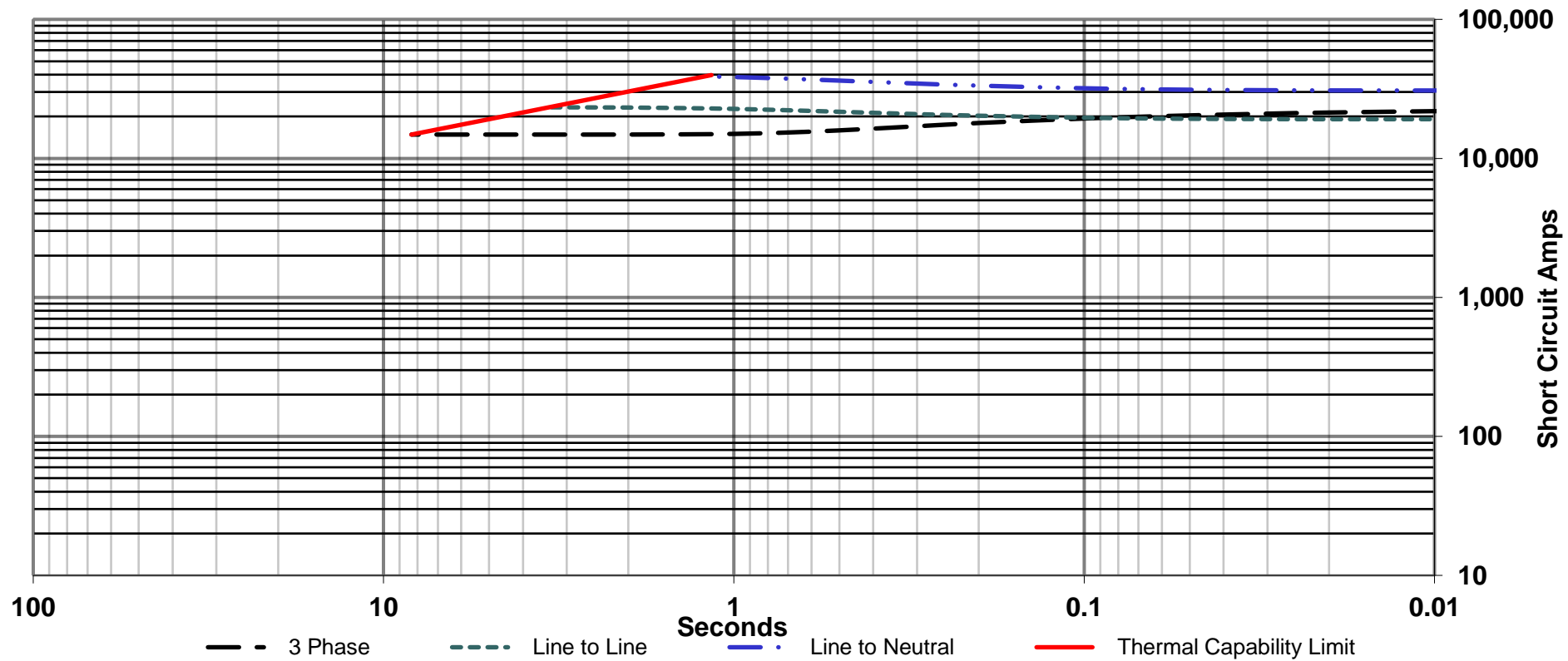
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Date : 02/11/22

Full Load Current : 4944.3 amps
Steady State S.C. Current : 14832.9 amps

Max. 3 ph. Symm. S.C. Current : 19163 amps
INCLUDES EXCITATION SUPPORT (PMG)

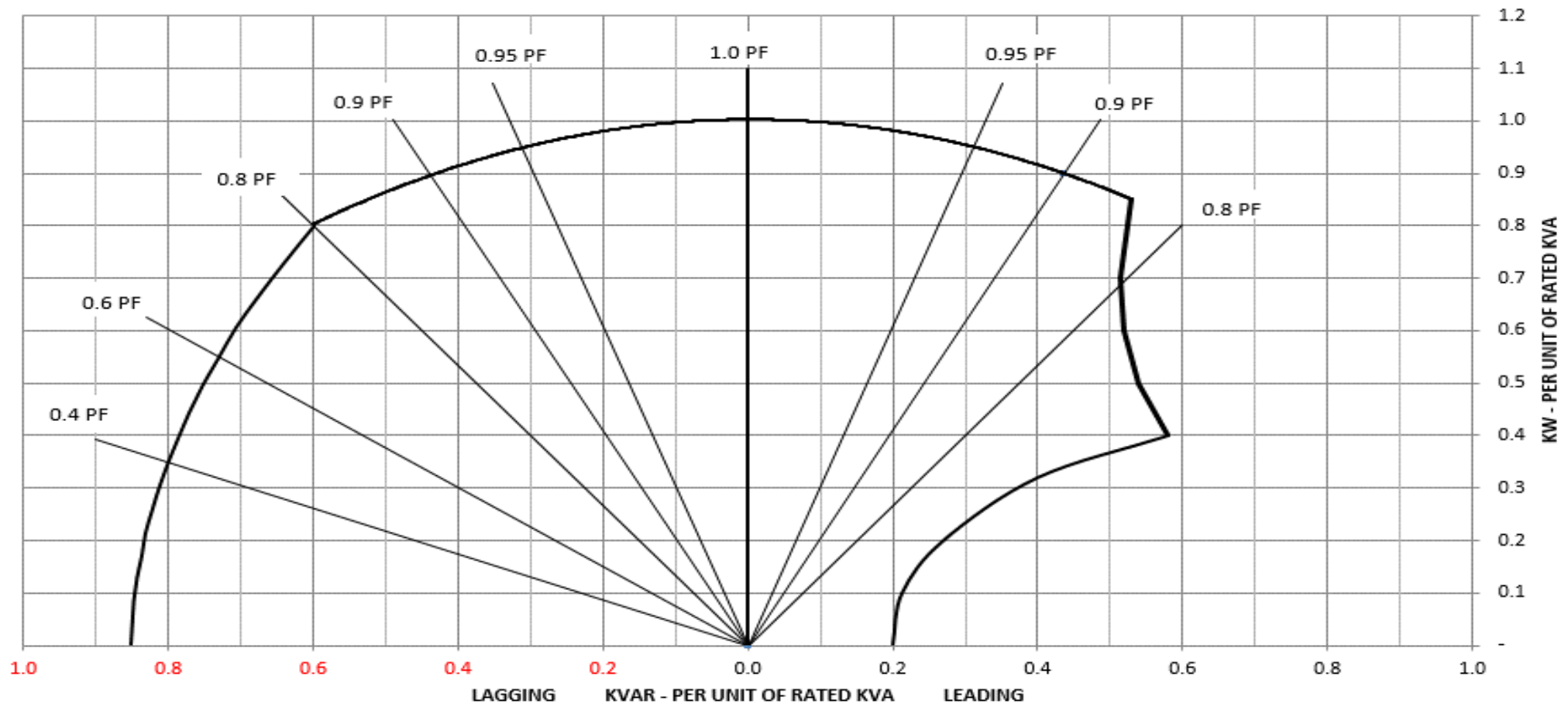
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



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Typical Reactive Capability Curve

Date : 02/11/22



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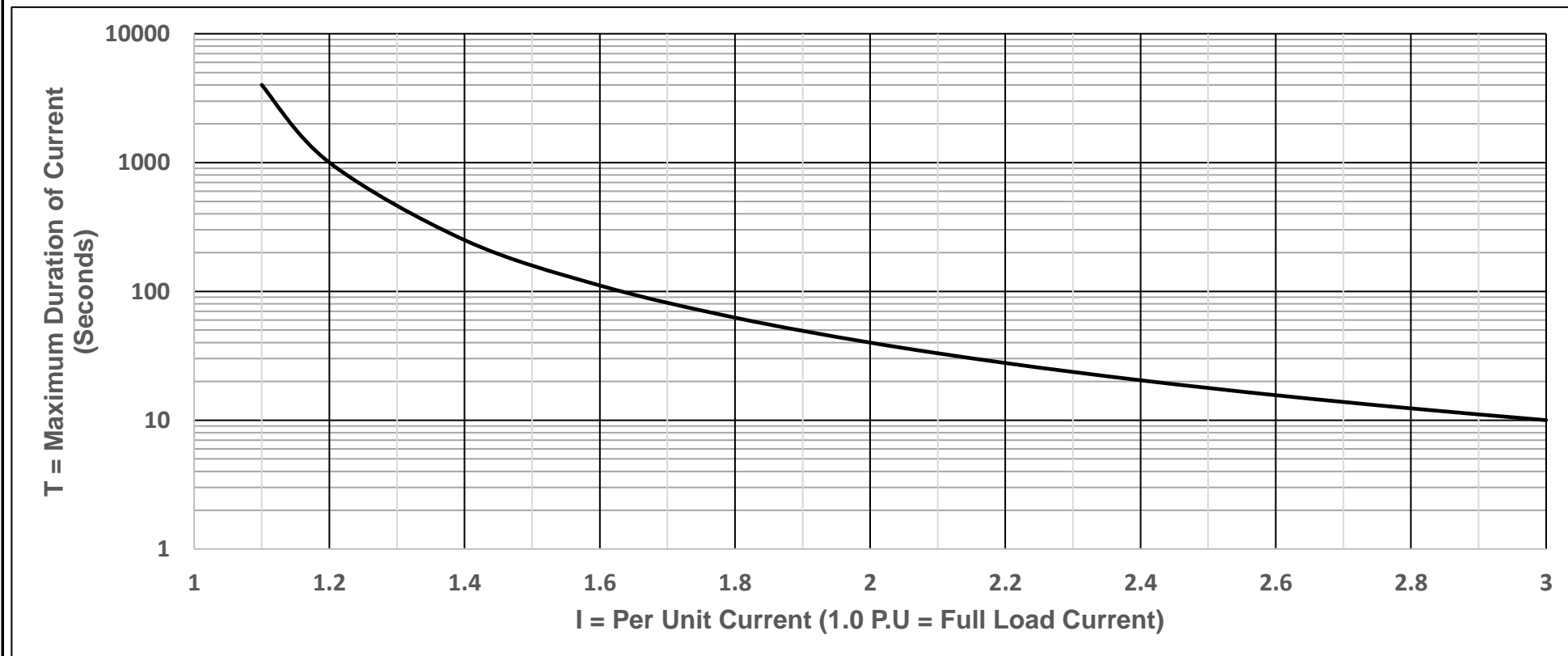
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THERMAL DAMAGE CURVE

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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