



**TYPICAL SUBMITTAL DATA**

BASE MODEL: 1030FDL1110

Winding: 1000005

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 <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
480	2530 (3163)	3080 (3850)	3260 (4075)	3350 (4188)	3350 (4188)
416	2620 (3275)	3060 (3825)	3210 (4013)	3250 (4063)	3250 (4063)
400	2580 (3225)	3030 (3788)	3100 (3875)	3125 (3906)	3125 (3906)
380	2540 (3175)	3000 (3750)	3000 (3750)	3000 (3750)	3000 (3750)

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\*, 3250 kW, 4063 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	0.00059	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.83	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	22.4	Ohms				
	Exciter Rotor	0.067	Ohms				
PMG Stator	2.1	Ohms					
410.1a	No Load Exciter Field Amps at 416 Volts Line to Line	0.74	A DC	<b>Additional Prototype Mil-Std Methods are Available on Request.</b>			
420.1a	Short Circuit Ratio	0.463					
421.1a	Xd Synchronous Reactance	2.560	PU	--	Generator Frame	1030	
				--	Type	MagnaPower	
422.1a	X2 Negative Sequence React.	0.292	PU	--	Insulation	Class H	
				--	Coupling - Two Bearing	By Others	
423.1a	X0 Zero Sequence Reactance	0.038	PU	--	Amortisseur Windings	Full	
				--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.235	PU	--	Voltage Regulator	DVR2400	
				--	Voltage Regulation	0.25%	
426.1a	X''d Subtransient Reactance	0.214	PU				
				--	Cooling Air Volume	7500	CFM
				--	Heat rejection rate	7503	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.332	Sec	--	Full load current	5638.2	Amps
				--	Minimum Input hp required	4533.4	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.025	Sec	--	Full load torque	13222	Lb-ft
				--	Efficiency at rated load :	96.1%	
430.1a	T'do Transient Open Circuit Time Constant	3.85	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.042	Sec	--	Weight	20000	lbs

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

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



Not indicative of legal entity.



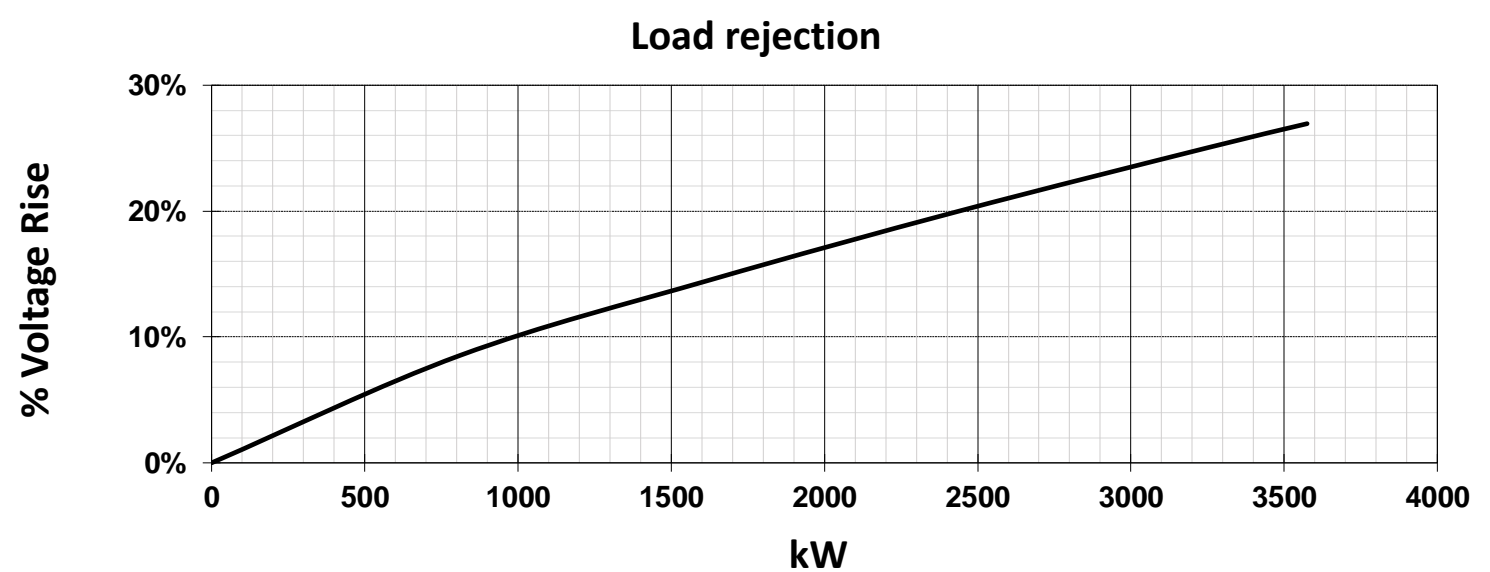
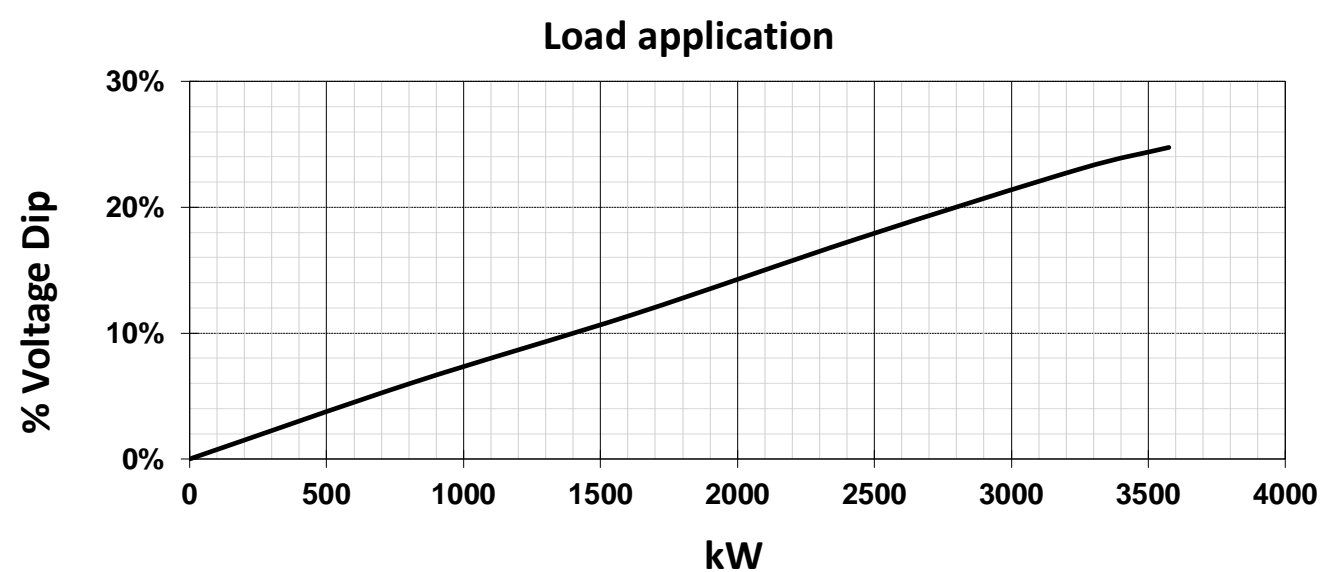
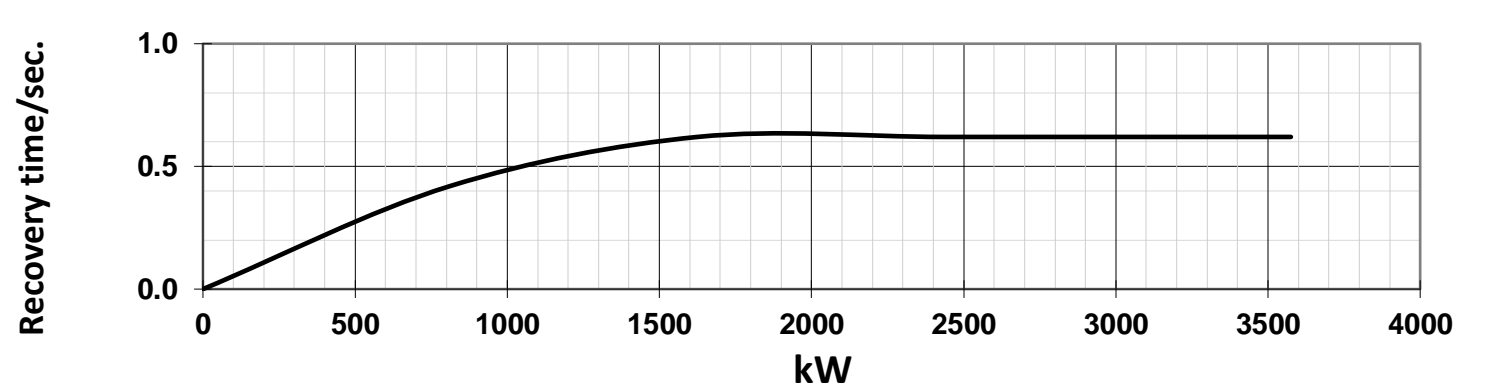
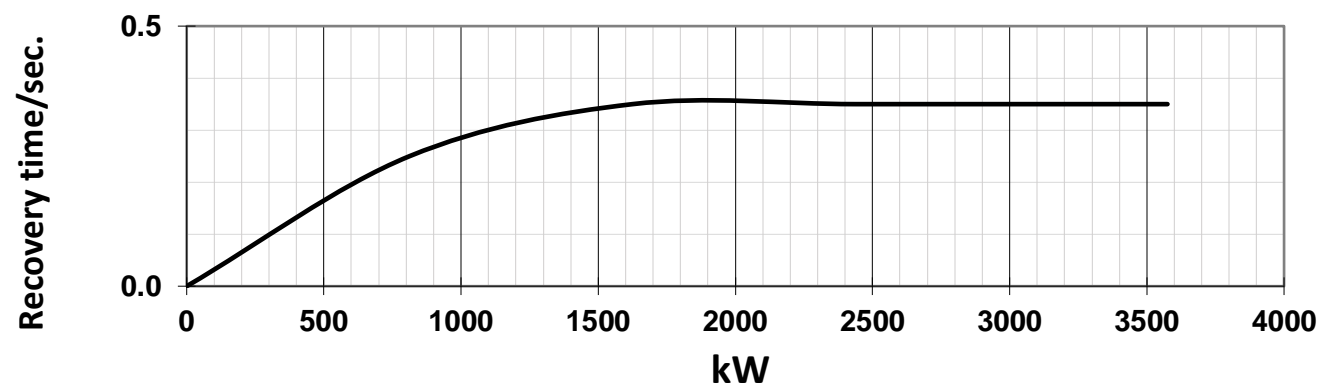
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## TYPICAL DYNAMIC CHARACTERISTICS

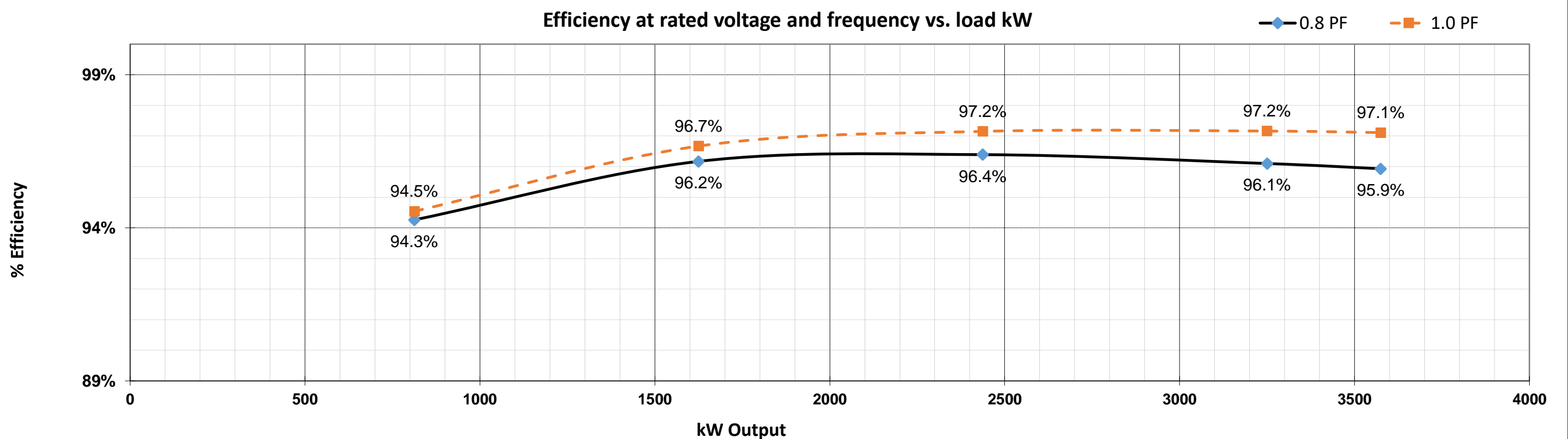
BASE MODEL: **1030FDL1110**

Date: **02/11/22**

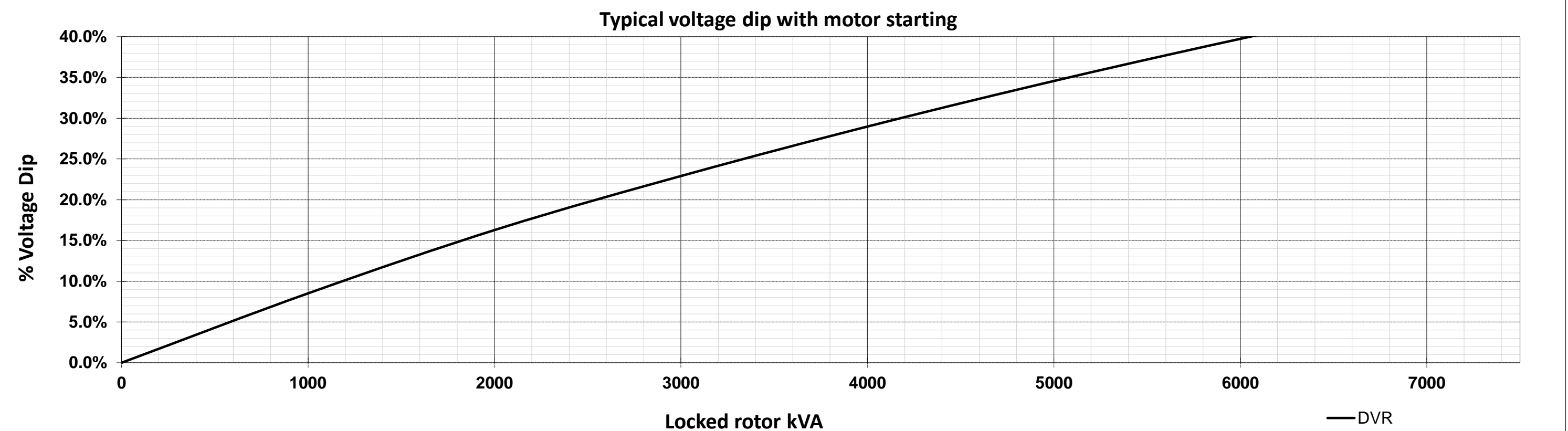
Submittal Data: 416 Volts\*, 3250 kW, 4063 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase



Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting



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## DECREMENT CURVE

BASE MODEL: 1030FDL1110

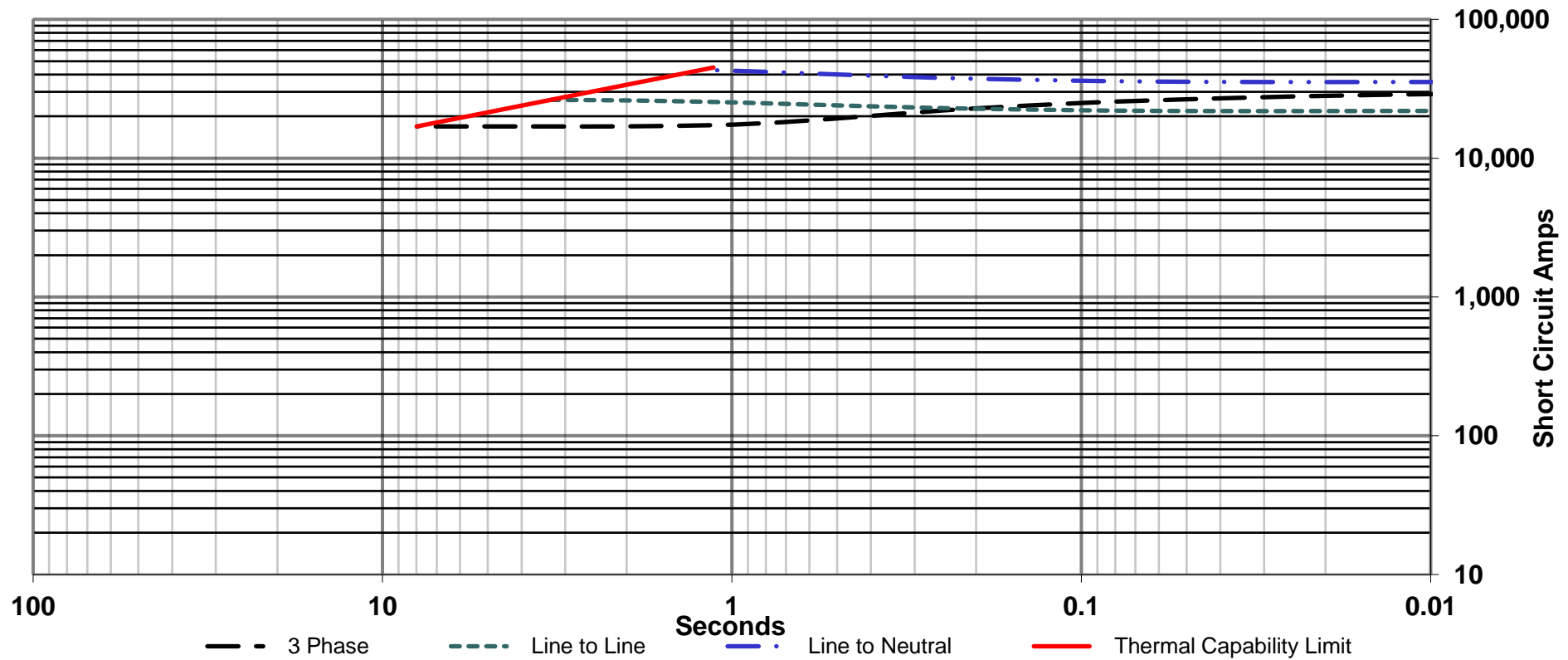
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Date : 02/11/22

Full Load Current : 5638.2 amps  
Steady State S.C. Current : 16914.6 amps

Max. 3 ph. Symm. S.C. Current : 26297 amps  
INCLUDES EXCITATION SUPPORT (PMG)

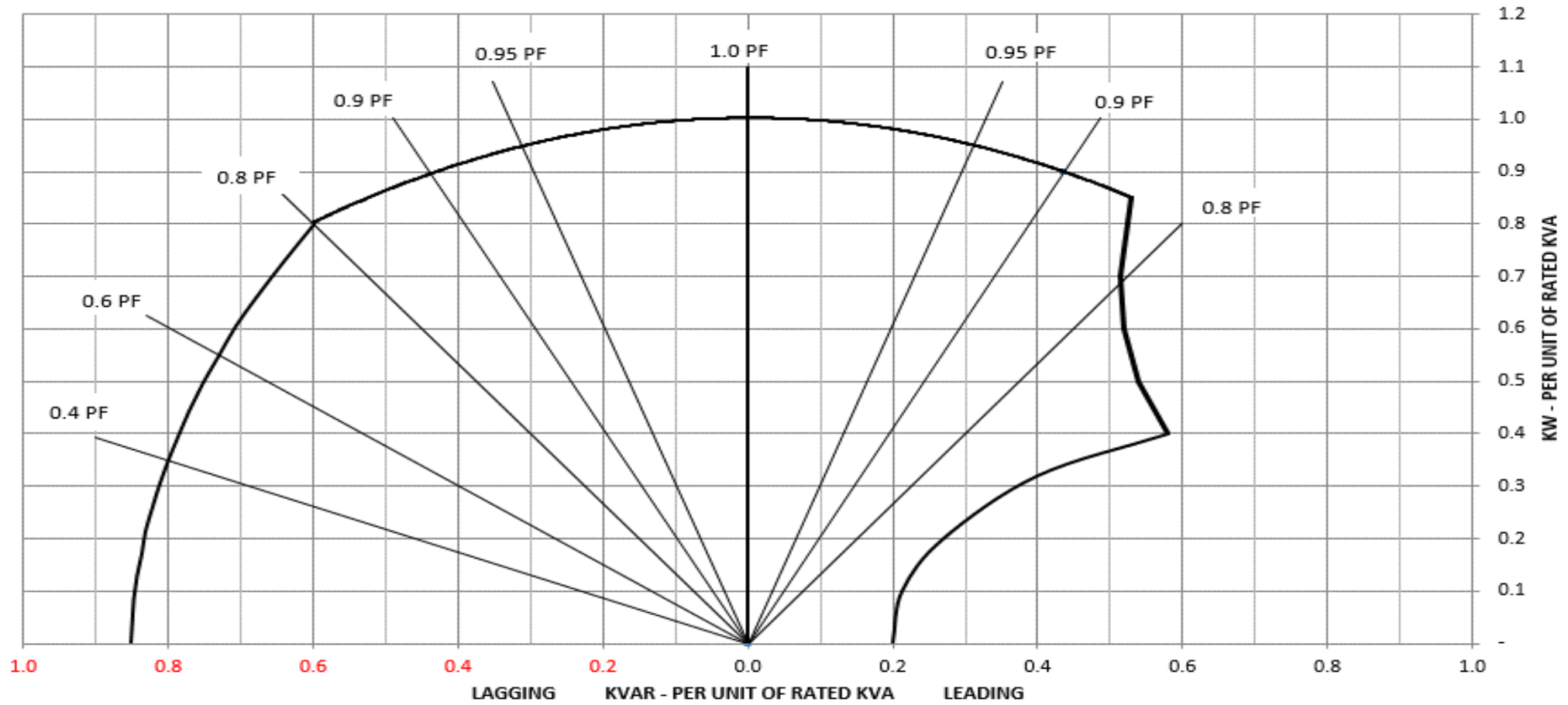
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



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## Typical Reactive Capability Curve

Date : 02/11/22



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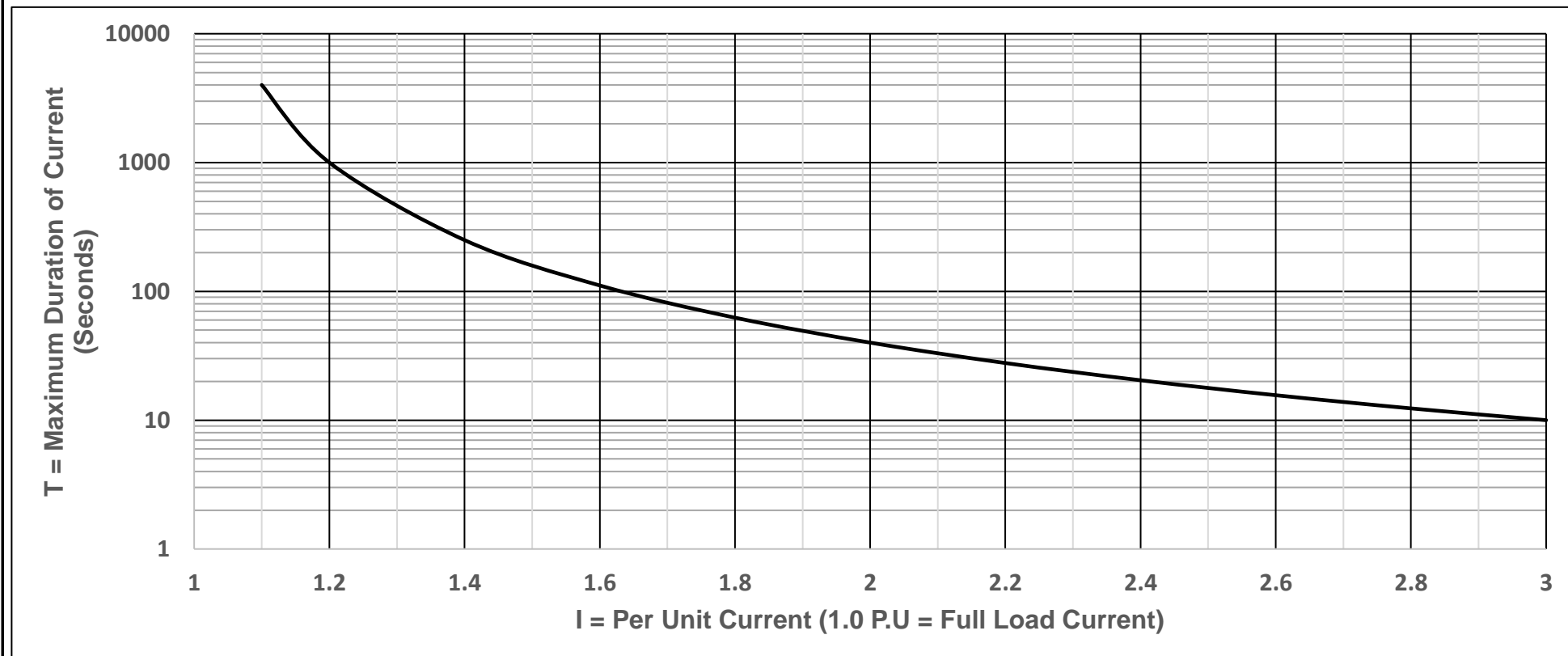
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## THERMAL DAMAGE CURVE

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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