



TYPICAL SUBMITTAL DATA

BASE MODEL: 1020FDL1104

Winding: 1000001

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	2160 (2700)	2510 (3138)	2620 (3275)	2680 (3350)	2730 (3413)
416	2200 (2750)	2510 (3138)	2610 (3263)	2660 (3325)	2710 (3388)
400	2150 (2688)	2445 (3056)	2540 (3175)	2590 (3238)	2635 (3294)
380	2090 (2613)	2360 (2950)	2450 (3063)	2500 (3125)	2540 (3175)

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*, 2660 kW, 3325 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	0.00091	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.645	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	19.5	Ohms				
	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	Additional Prototype Mil-Std Methods are Available on Request.			
420.1a	Short Circuit Ratio	0.394					
421.1a	Xd Synchronous Reactance	3.051	PU	--	Generator Frame	1020	
		0.159	Ohms	--	Type	MagnaPower	
422.1a	X2 Negative Sequence React.	0.340	PU	--	Insulation	Class H	
		0.018	Ohms	--	Coupling - Two Bearing	By Others	
423.1a	X0 Zero Sequence Reactance	0.041	PU	--	Amortisseur Windings	Full	
		0.002	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.275	PU	--	Voltage Regulator	DVR2400	
		0.014	Ohms	--	Voltage Regulation	0.25%	
426.1a	X''d Subtransient Reactance	0.263	PU				
		0.014	Ohms				
				--	Cooling Air Volume	7500	CFM
				--	Heat rejection rate	6964	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.217	Sec	--	Full load current	4614.6	Amps
				--	Minimum Input hp required	3729.8	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.02	Sec	--	Full load torque	10879	Lb-ft
				--	Efficiency at rated load :	95.6%	
430.1a	T'do Transient Open Circuit Time Constant	3.607	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.104	Sec	--	Weight	16300	lbs

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

www.regalrexnord.com/brands/Marathon-Generators



Not indicative of legal entity.



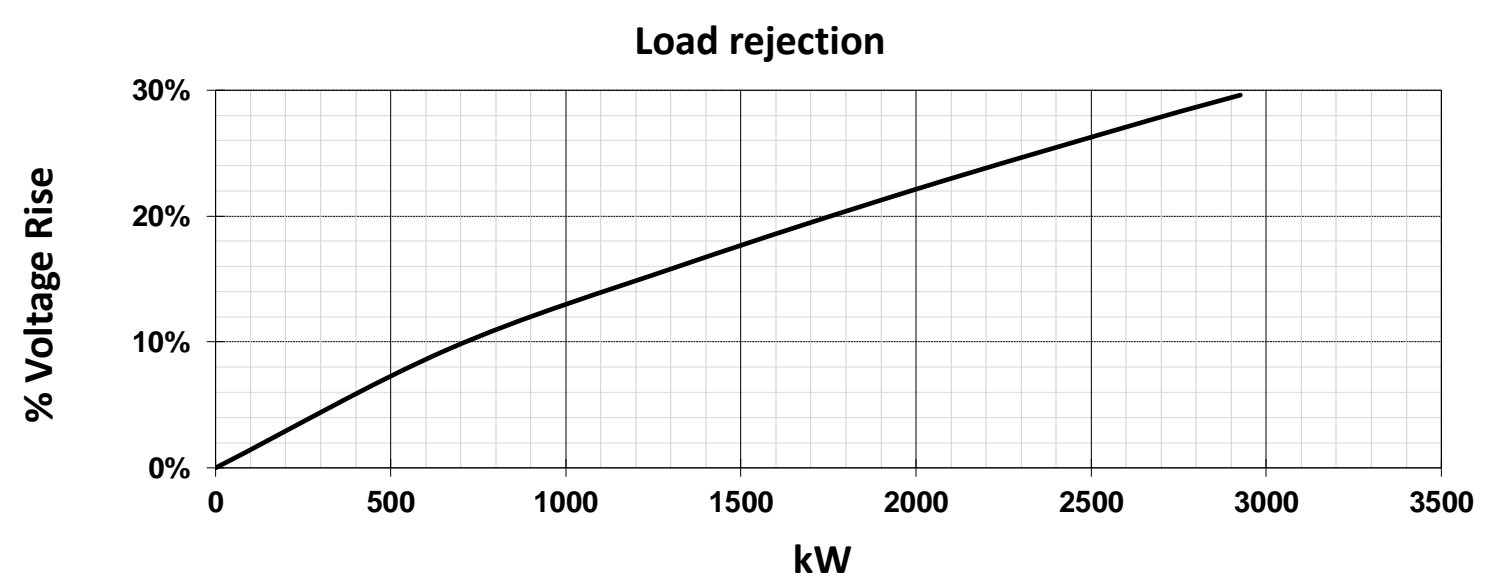
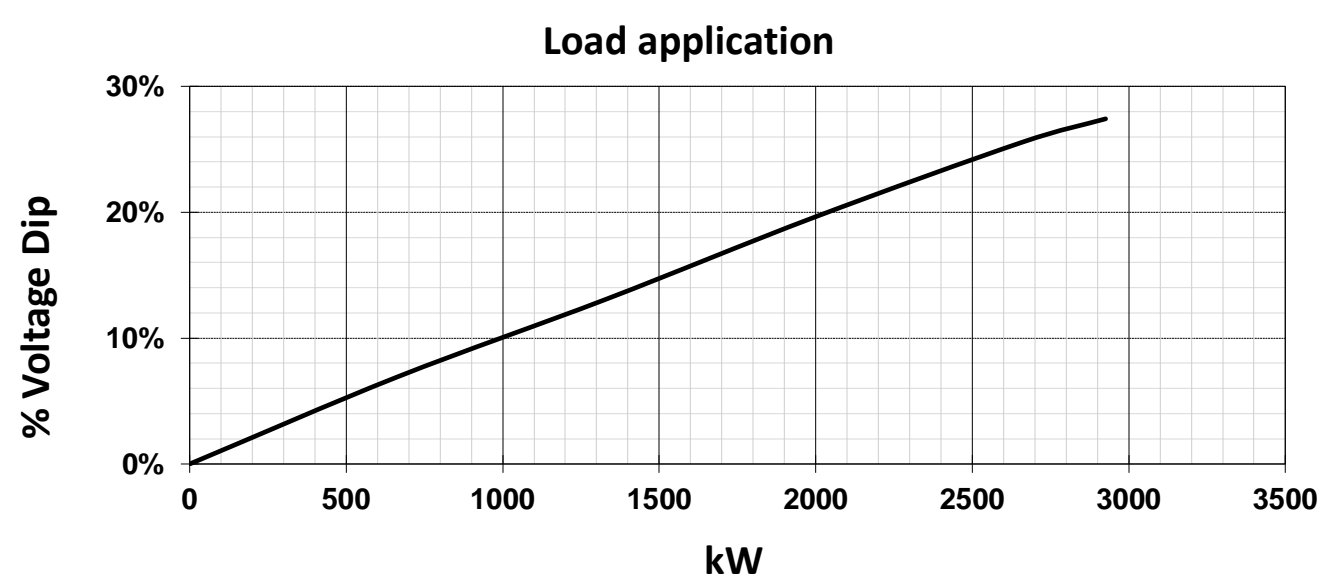
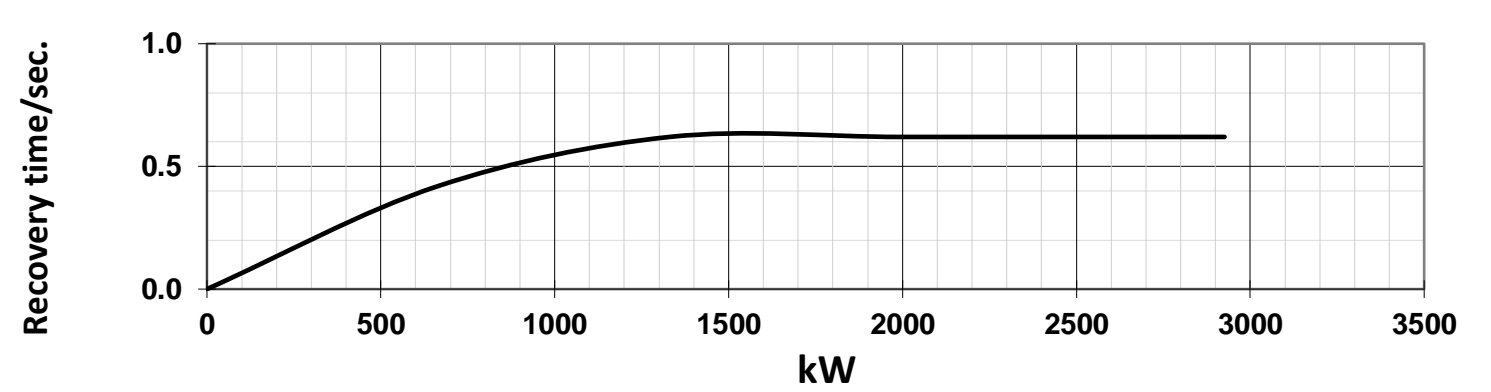
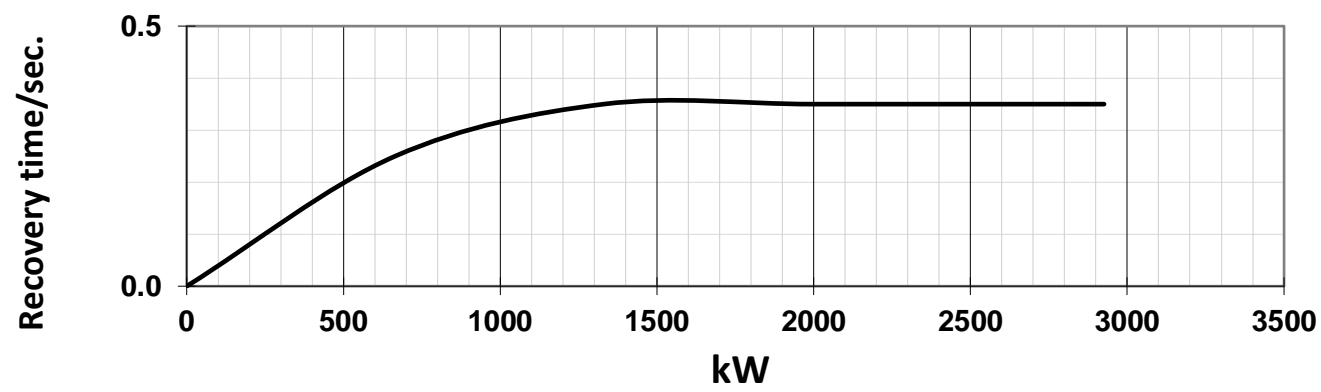
MAGNAPOWER®

TYPICAL DYNAMIC CHARACTERISTICS

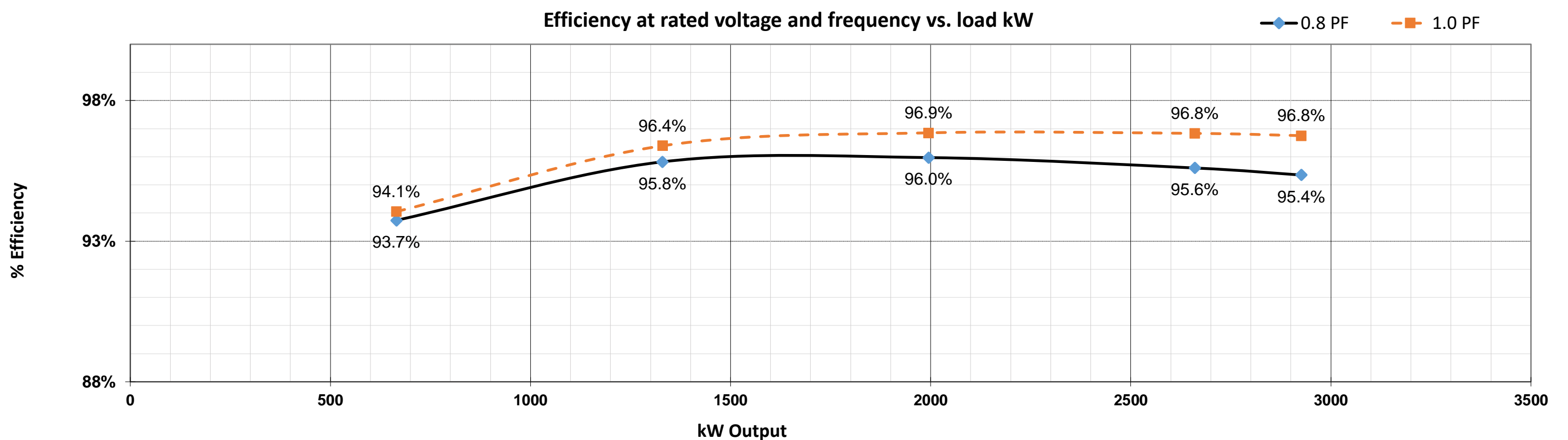
BASE MODEL: **1020FDL1104**

Date: **02/11/22**

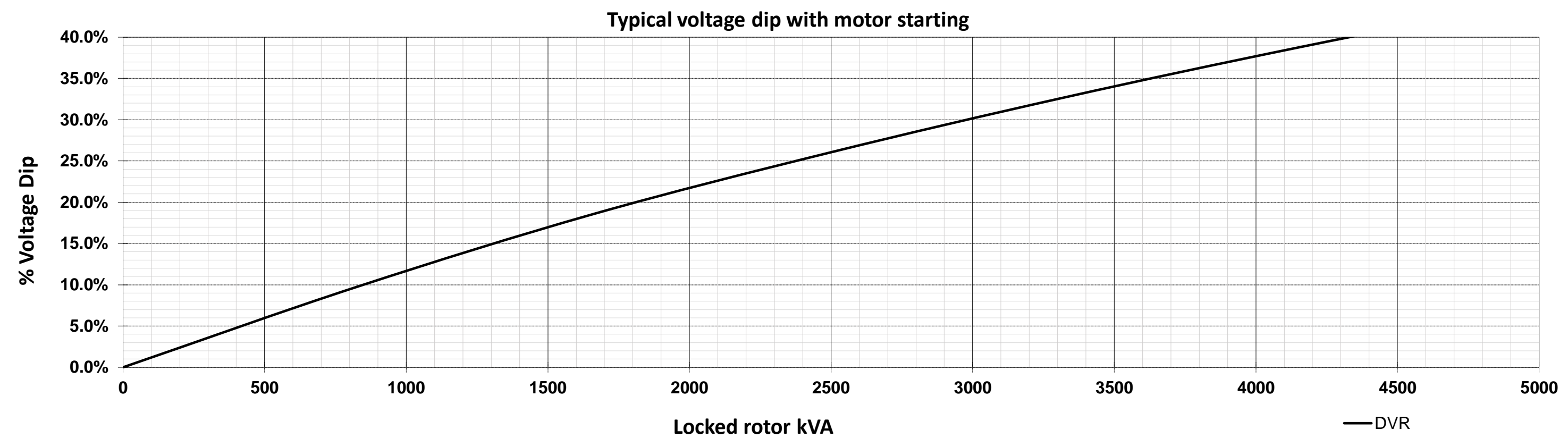
Submittal Data: 416 Volts*, 2660 kW, 3325 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase



Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting





DECREMENT CURVE

BASE MODEL: 1020FDL1104

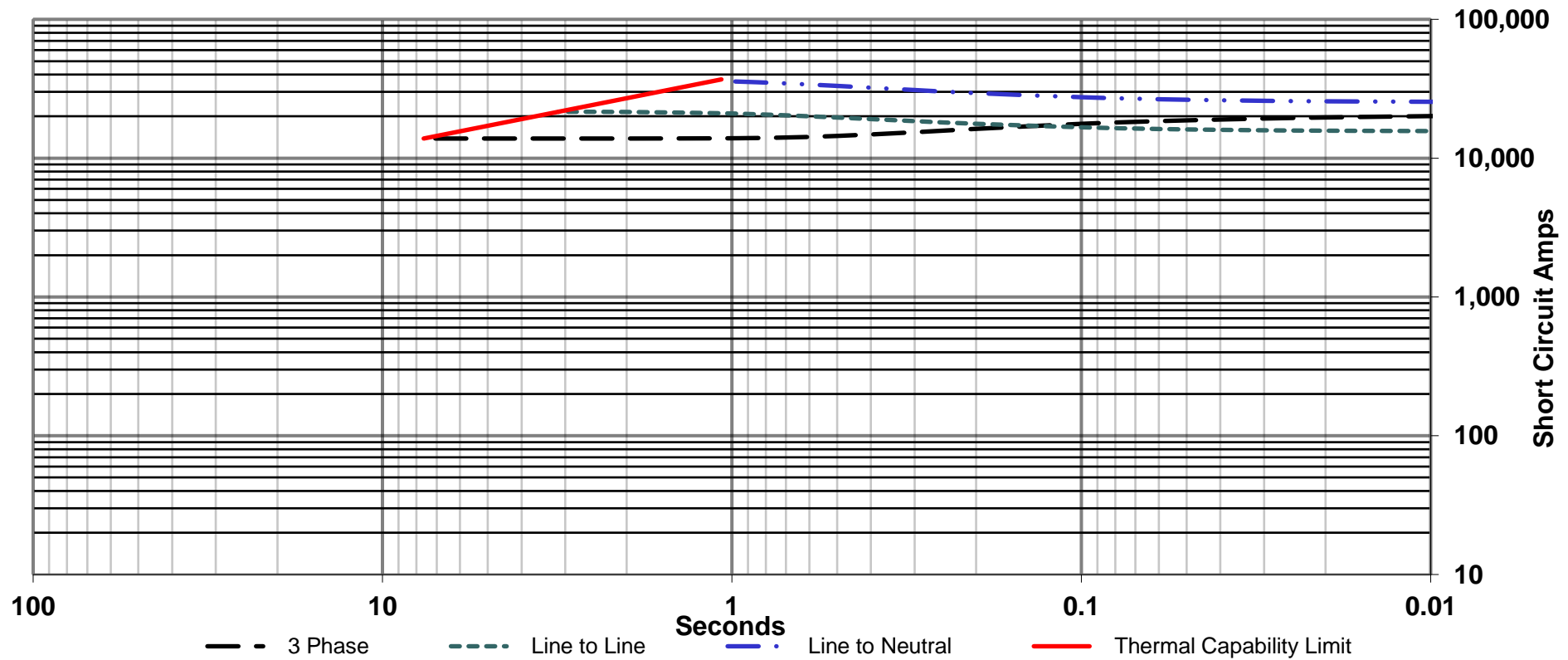
Submittal Data: 416 Volts*, 2660 kW, 3325 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

Date : 02/11/22

Full Load Current : 4614.6 amps
Steady State S.C. Current : 13843.8 amps

Max. 3 ph. Symm. S.C. Current : 17549 amps
INCLUDES EXCITATION SUPPORT (PMG)

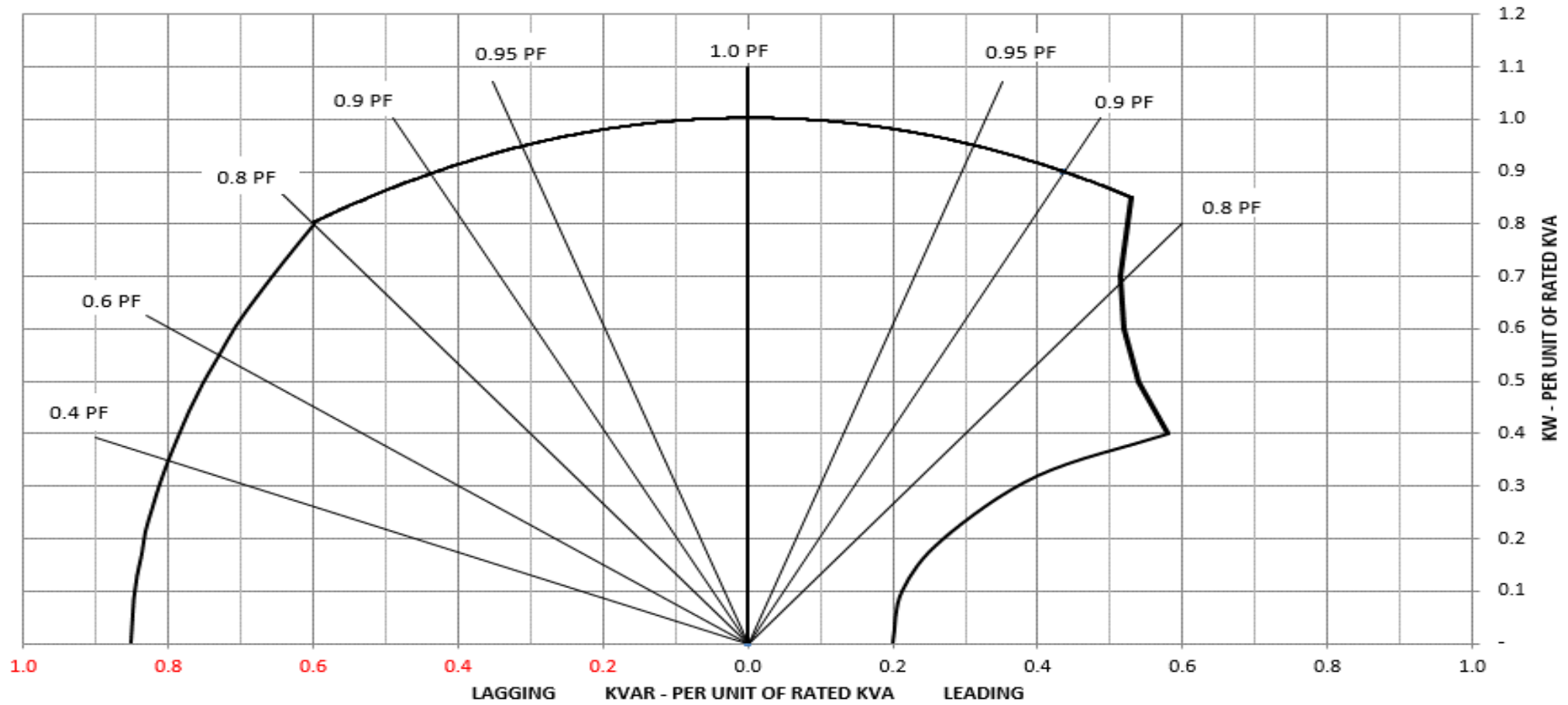
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



MAGNAPOWER®

Typical Reactive Capability Curve

Date : 02/11/22



RegalRexnord

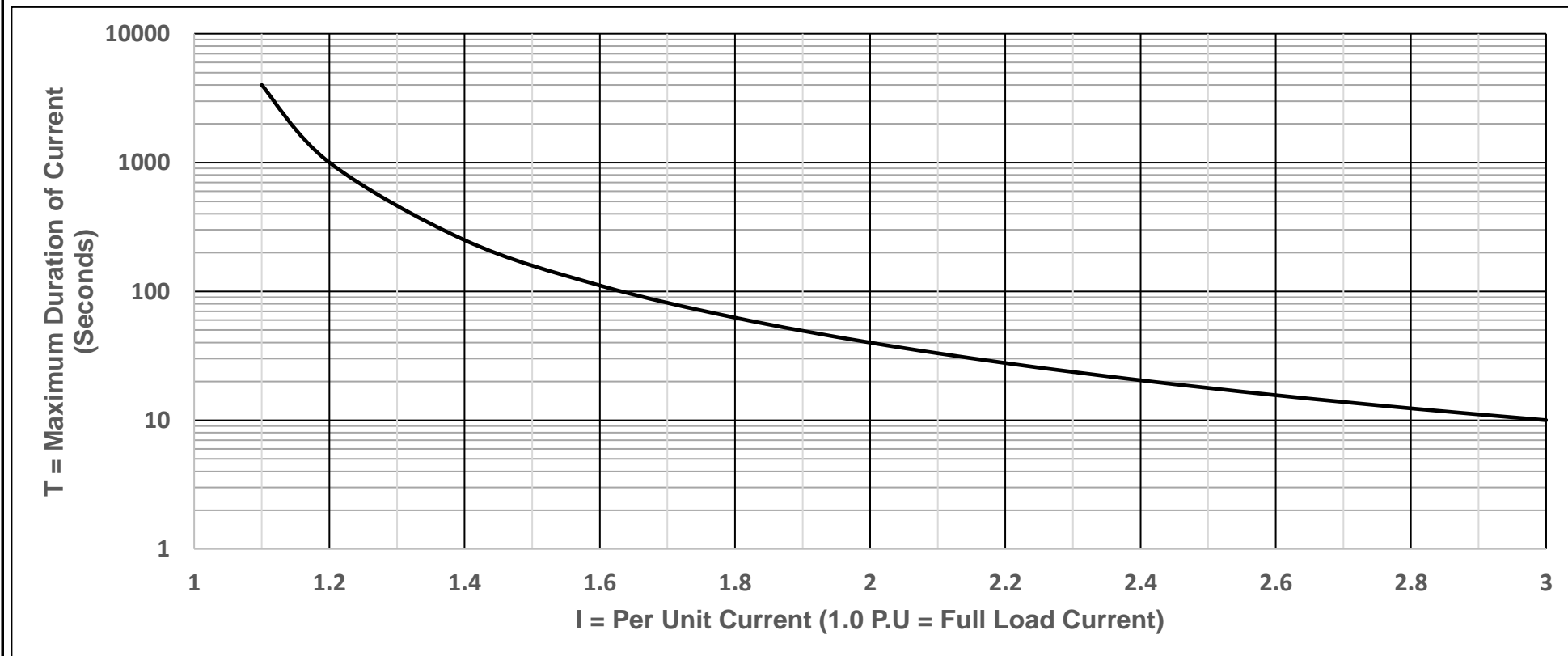
marathon
Generators

MAGNAPOWER®

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



RegalRexnord

marathon
Generators