

MAGNAMAX[®]

TYPICAL SUBMITTAL DATA

BASE MODEL: 574RSL6438

Winding: 570069

Date: 02/10/22

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	720 (900)	860 (1075)	915 (1144)	920 (1150)	970 (1213)
440	705 (881)	810 (1013)	860 (1075)	875 (1094)	930 (1163)
416	675 (844)	770 (963)	820 (1025)	835 (1044)	885 (1106)
400	651 (814)	741 (926)	768 (960)	776 (970)	802 (1003)
380	620 (775)	705 (881)	705 (881)	705 (881)	705 (881)

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*, 835 kW, 1044 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	0.00480	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.601	Ohms	---	Winding Pitch	2/3	
	Exciter Stator	23	Ohms				
	Exciter Rotor	0.045	Ohms				
	PMG Stator	2.1	Ohms				
410.1a	No Load Exciter Field Amps at 416 Volts Line to Line	0.46	A DC	Additional Prototype Mil-Std Methods are Available on Request.			
420.1a	Short Circuit Ratio	0.427					
421.1a	Xd Synchronous Reactance	3.239	PU	--	Generator Frame	574	
		0.537	Ohms	--	Type	MagnaMax	
422.1a	X2 Negative Sequence React.	0.250	PU	--	Insulation	Class H	
		0.041	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.063	PU	--	Amortisseur Windings	Full	
		0.010	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.190	PU	--	Voltage Regulator	PM500	
		0.031	Ohms	--	Voltage Regulation	0.50%	
426.1a	X''d Subtransient Reactance	0.147	PU				
		0.024	Ohms				
--	Xq Quadrature Synchronous Reactance	1.462	PU	--	Cooling Air Volume	1190	CFM
		0.242	Ohms	--	Heat rejection rate	2405	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.132	Sec	--	Full load current	1448.6	Amps
				--	Minimum Input hp required	1176	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.01	Sec	--	Full load torque	3430	Lb-ft
				--	Efficiency at rated load :	95.2%	
430.1a	T'do Transient Open Circuit Time Constant	2.4	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.023	Sec	--	Weight	4240	lbs

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

www.regalrexnord.com/brands/Marathon-Generators



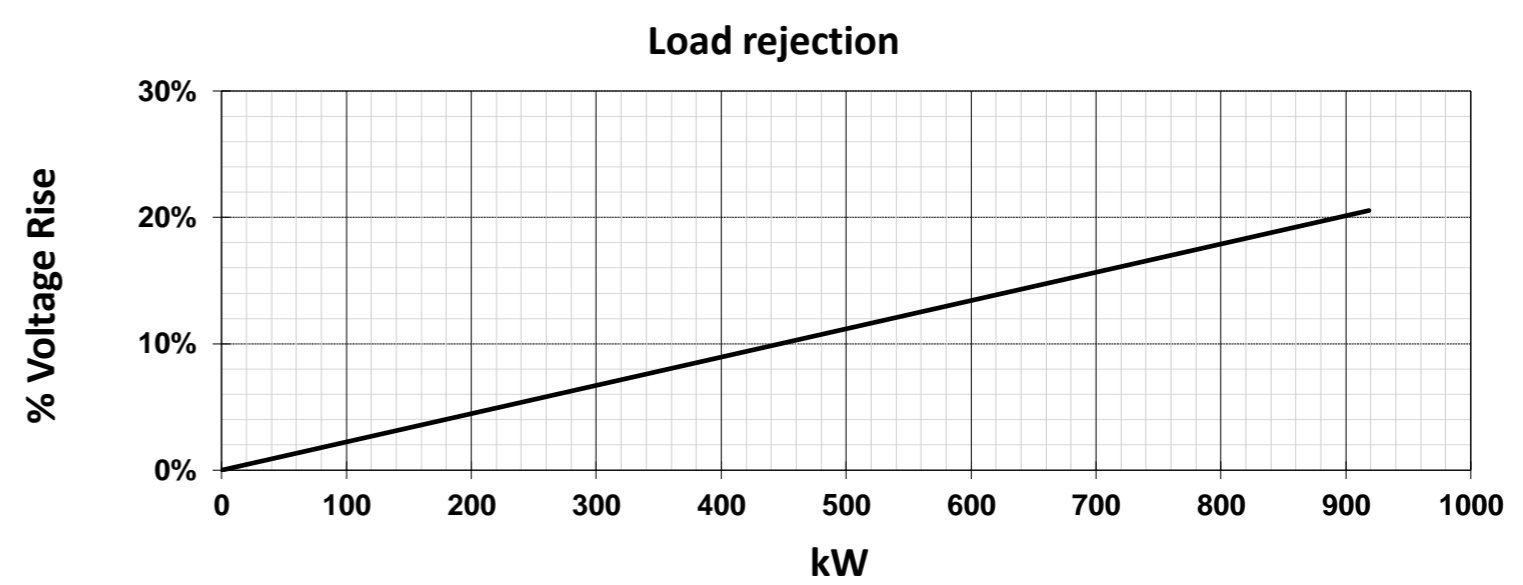
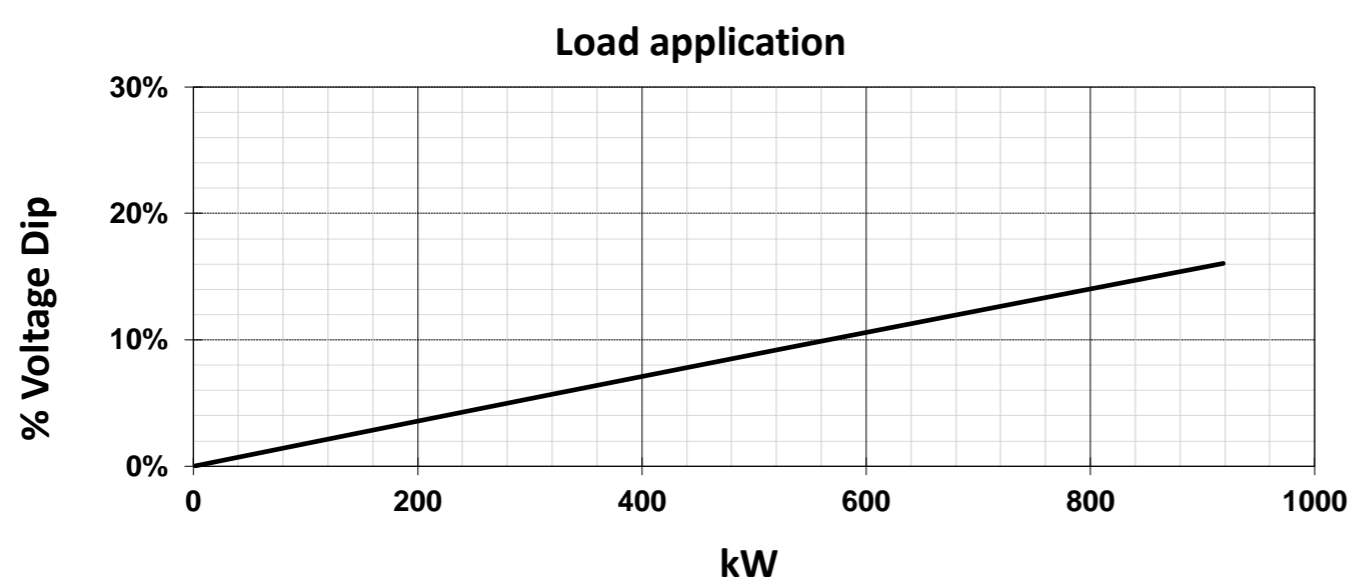
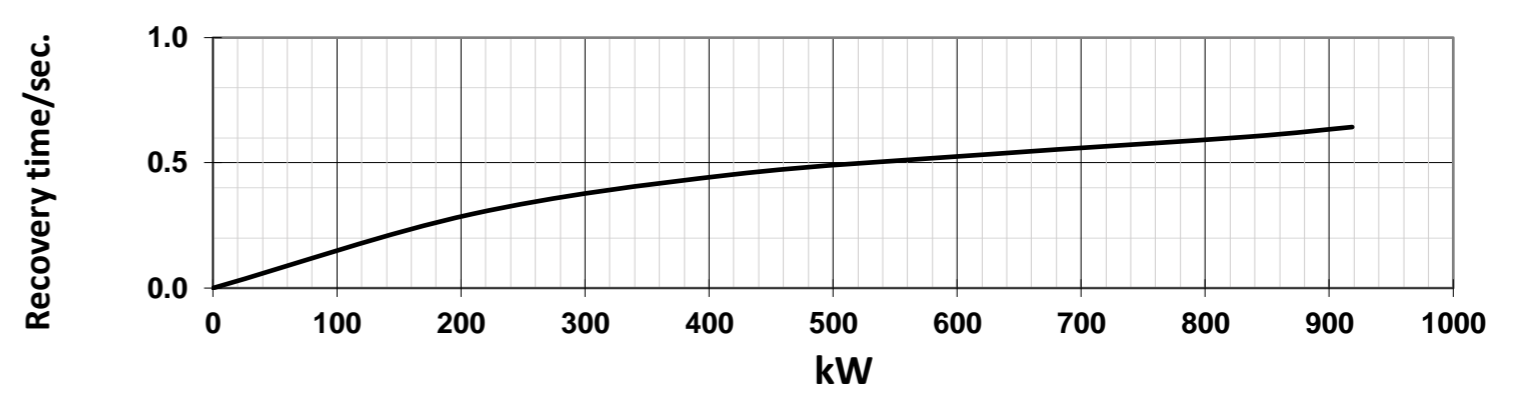
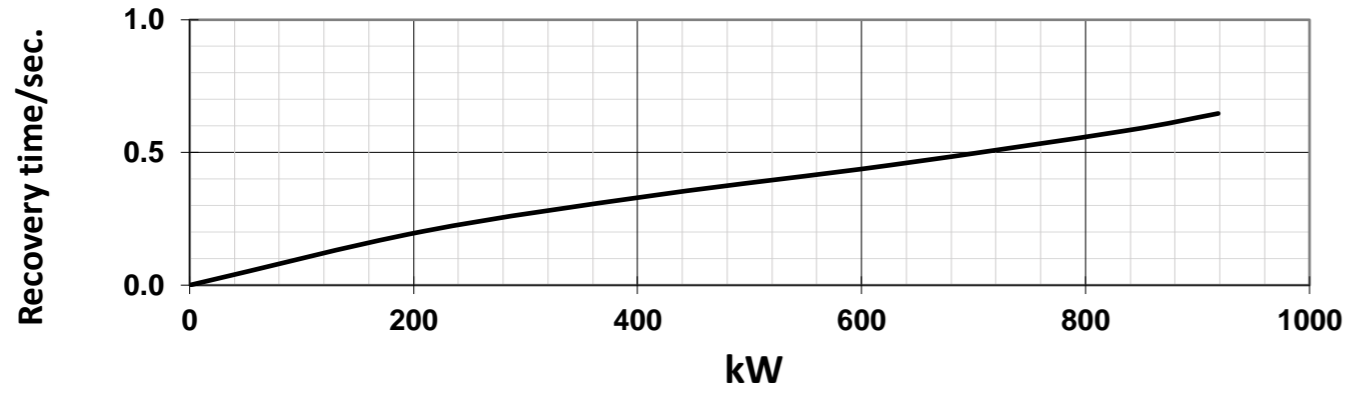
MAGNAMAX[®]

TYPICAL DYNAMIC CHARACTERISTICS

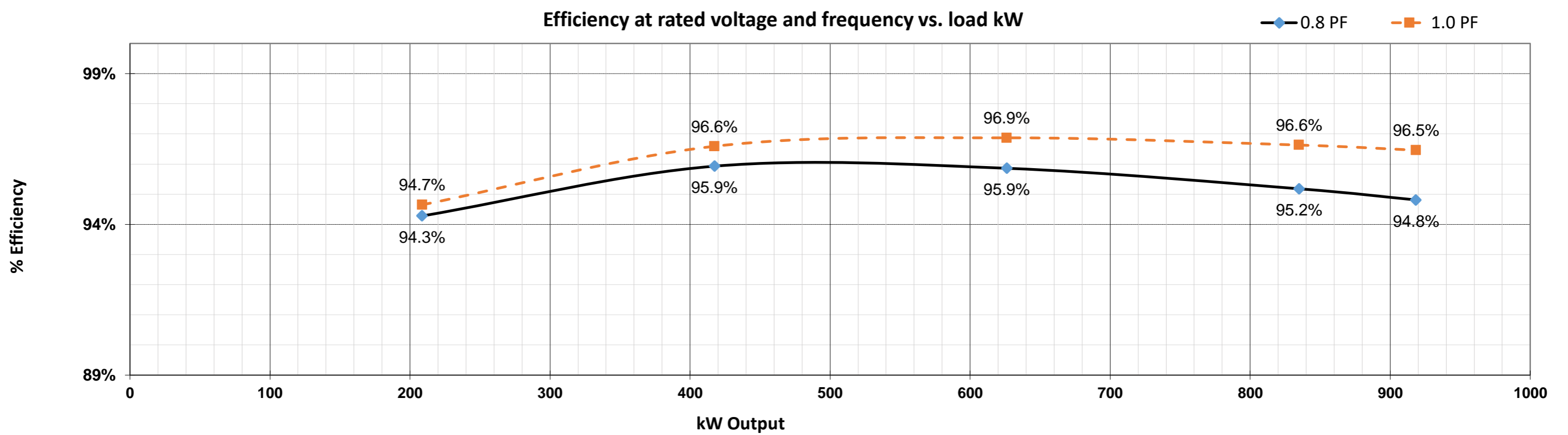
BASE MODEL: 574RSL6438

Date: 02/10/22

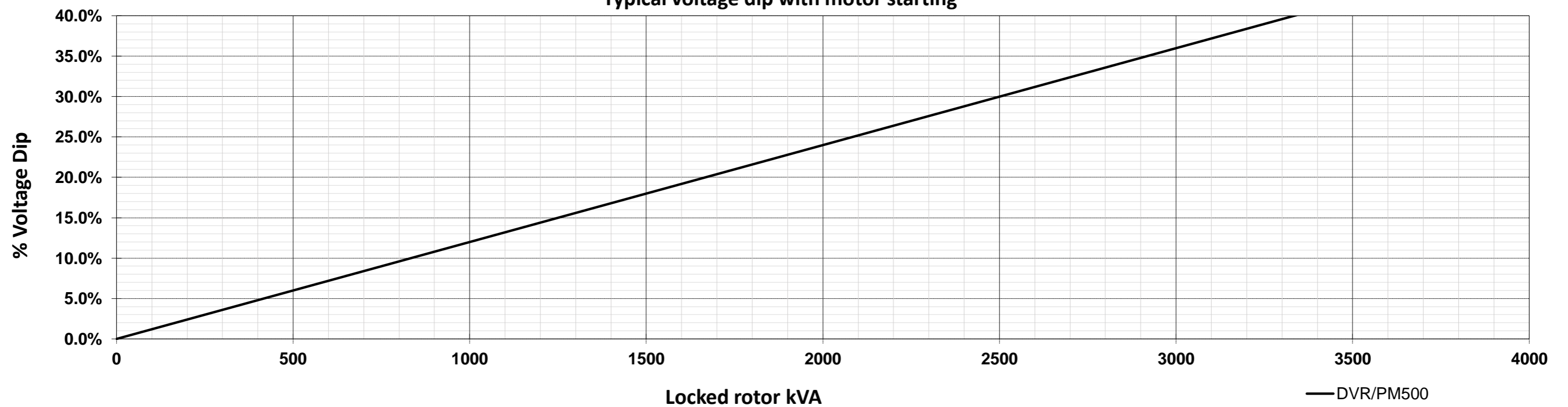
Submittal Data: 416 Volts*, 835 kW, 1044 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase



Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting



MAGNAMAX[®]

DECREMENT CURVE

BASE MODEL: 574RSL6438

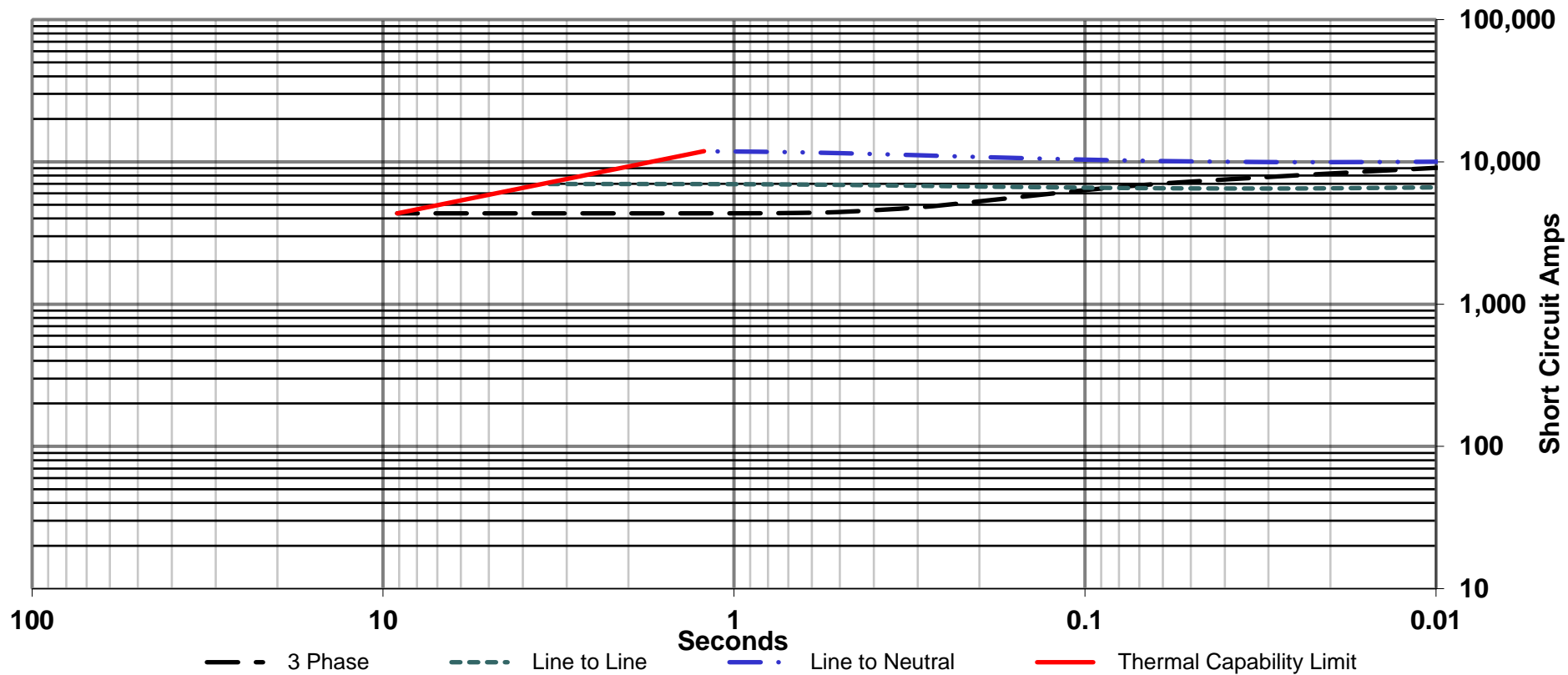
Submittal Data: 416 Volts*, 835 kW, 1044 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

Date : 02/10/22

Full Load Current : 1448.6 amps
Steady State S.C. Current : 4345.8 amps

Max. 3 ph. Symm. S.C. Current : 9826 amps
INCLUDES EXCITATION SUPPORT (PMG)

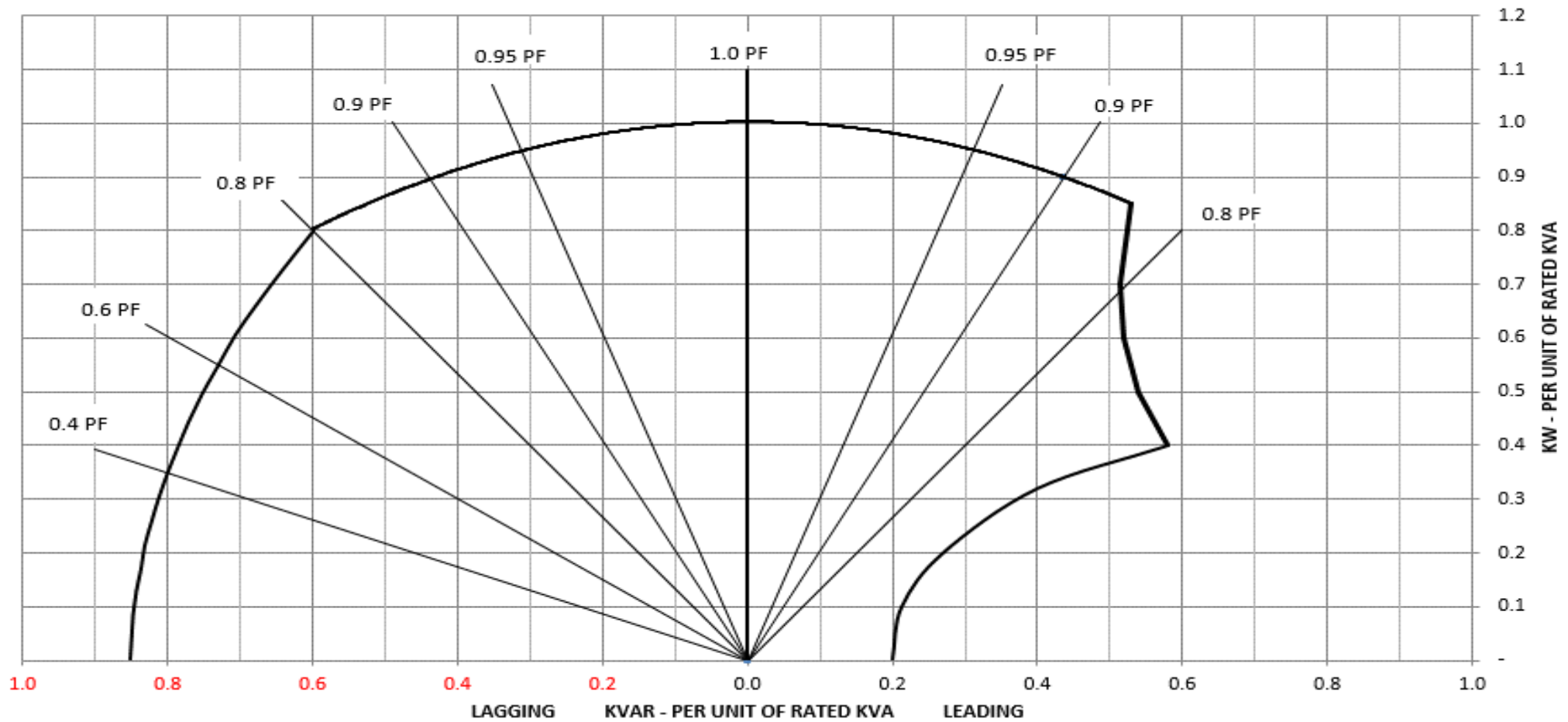
Symmetrical Component values, Maximum Asymmetrical Values Are 1.732 Times Symmetrical Values



MAGNAMAX[®]

Typical Reactive Capability Curve

Date : 02/10/22



RegalRexnord

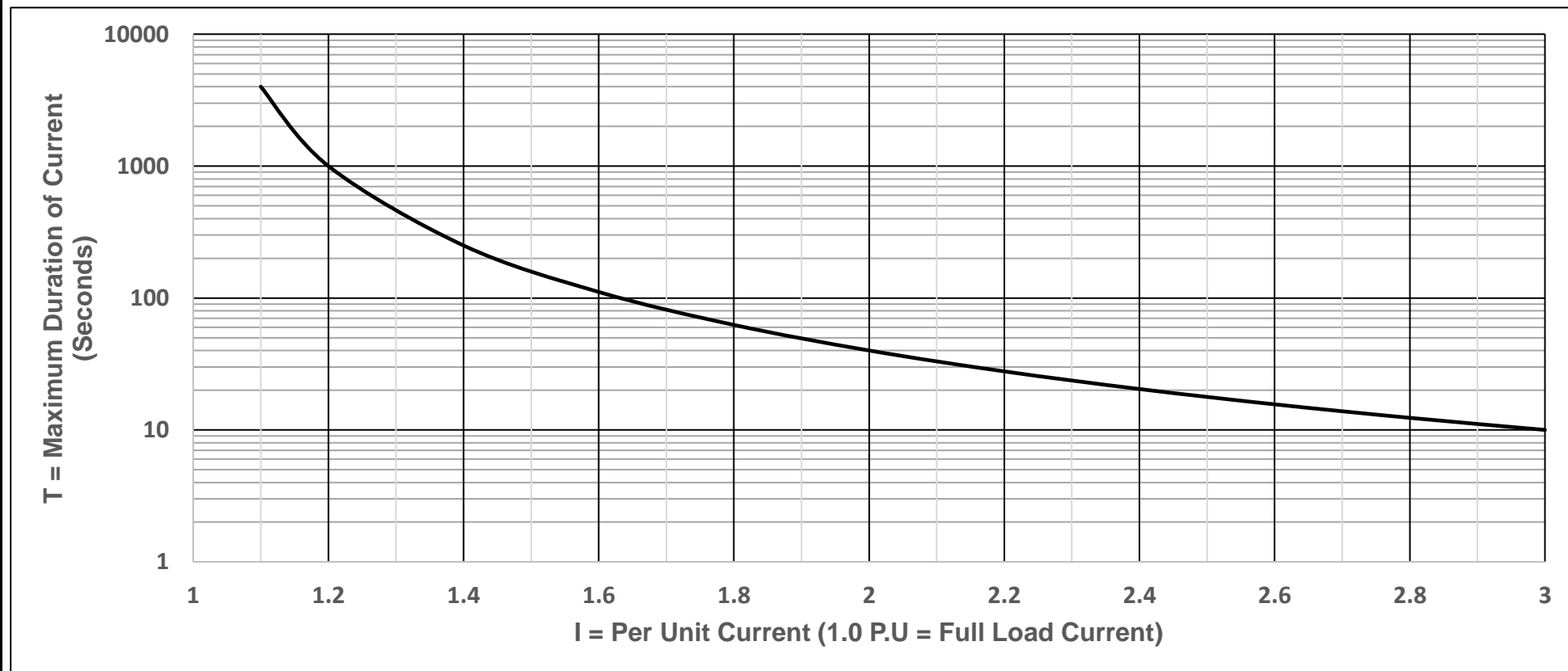
marathon[®]
Generators

MAGNAMAX[®]

THERMAL DAMAGE CURVE

Date : 02/10/22

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



RegalRexnord

marathon[®]
Generators