

MAGNAMAX®

TYPICAL SUBMITTAL DATA

BASE MODEL: 572RSL6429

Winding: 570080

Date: 02/09/22

Kilowatt ratings at	1800 RPM	60 Hertz	12 Leads With 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
240/480	445 (556)	535 (669)	560 (700)	560 (700)	610 (763)
220/440	470 (588)	535 (669)	560 (700)	560 (700)	560 (700)
208/416	450 (563)	510 (638)	525 (656)	525 (656)	535 (669)
200/400	434 (543)	492 (615)	500 (625)	500 (625)	506 (633)
190/380	415 (519)	470 (588)	470 (588)	470 (588)	470 (588)

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*, 525 kW, 656 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	0.00920	Ohms	---	TIF (1960 Weightings)	<50	
				---	THF (IEC, BS & NEMA Weightings)	<2%	
	Rotor Resistance	0.423	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	0.51	A DC	Additional Prototype Mil-Std Methods are Available on Request.			
420.1a	Short Circuit Ratio	0.523					
421.1a	Xd Synchronous Reactance	3.345	PU	--	Generator Frame	572	
		0.882	Ohms	--	Type	MagnaMax	
422.1a	X2 Negative Sequence React.	0.266	PU	--	Insulation	Class H	
		0.070	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.064	PU	--	Amortisseur Windings	Full	
		0.017	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.180	PU	--	Voltage Regulator	PM500	
		0.047	Ohms	--	Voltage Regulation	0.50%	
426.1a	X''d Subtransient Reactance	0.151	PU				
		0.040	Ohms				
--	Xq Quadrature Synchronous Reactance	1.348	PU	--	Cooling Air Volume	1480	CFM
		0.356	Ohms	--	Heat rejection rate	1819	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.12	Sec	--	Full load current	910.8	Amps
				--	Minimum Input hp required	746.6	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.009	Sec	--	Full load torque	2178	Lb-ft
				--	Efficiency at rated load :	94.3%	
430.1a	T'do Transient Open Circuit Time Constant	1.95	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.021	Sec	--	Weight	3050	lbs

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

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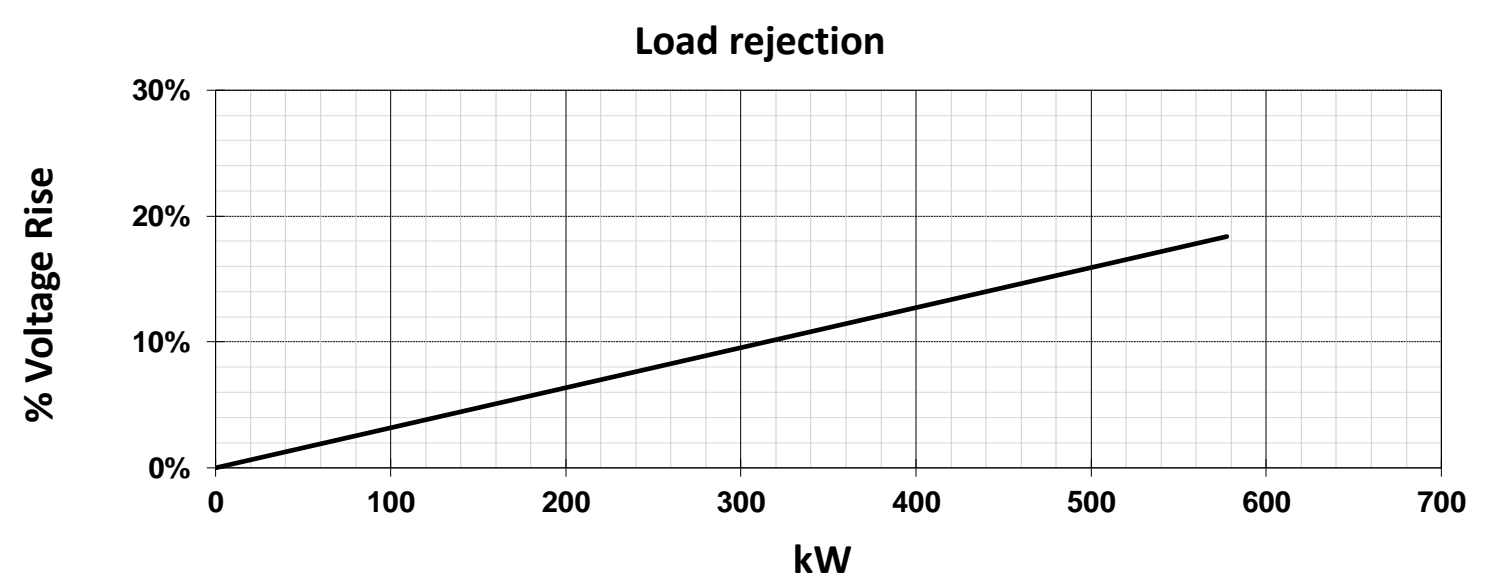
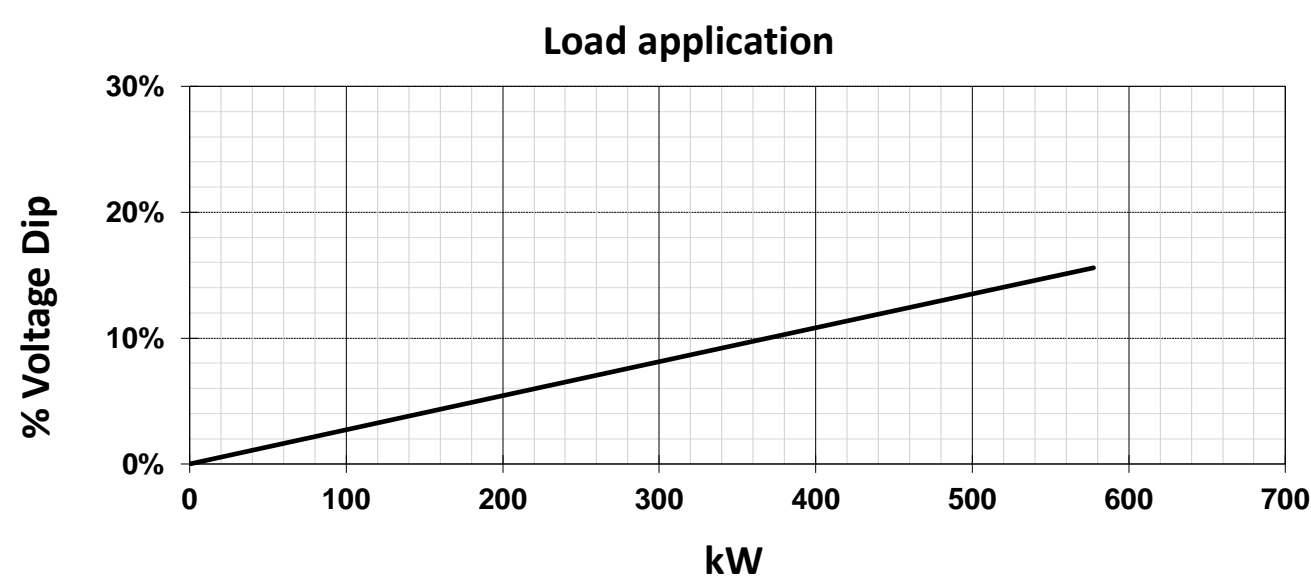
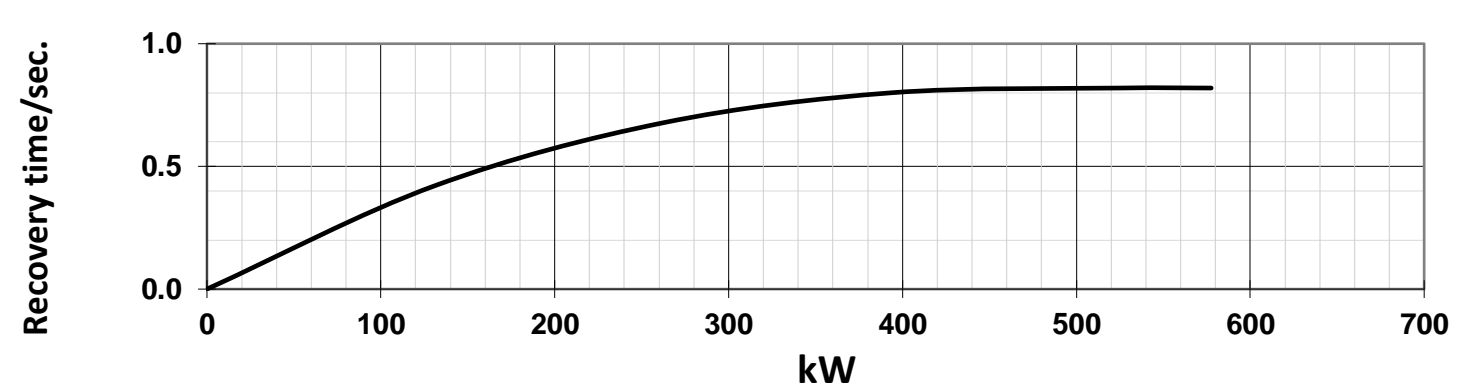
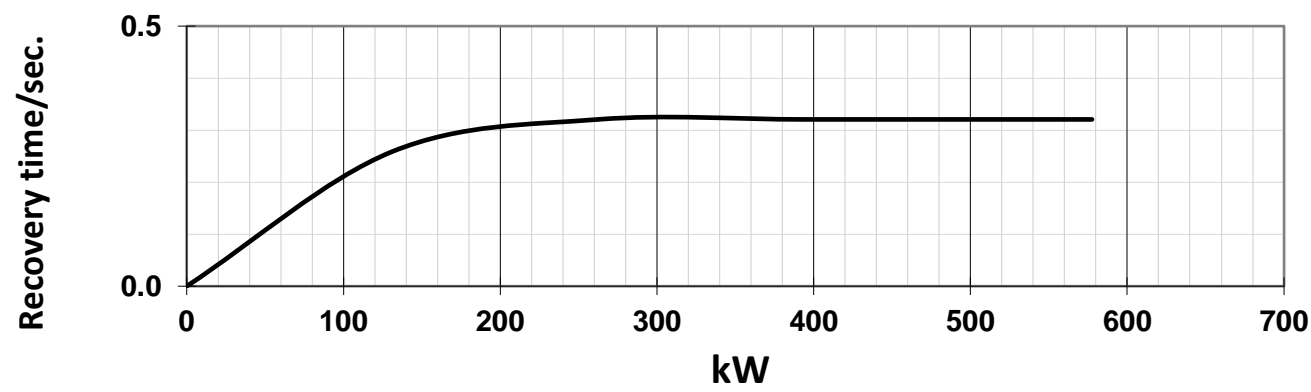
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TYPICAL DYNAMIC CHARACTERISTICS

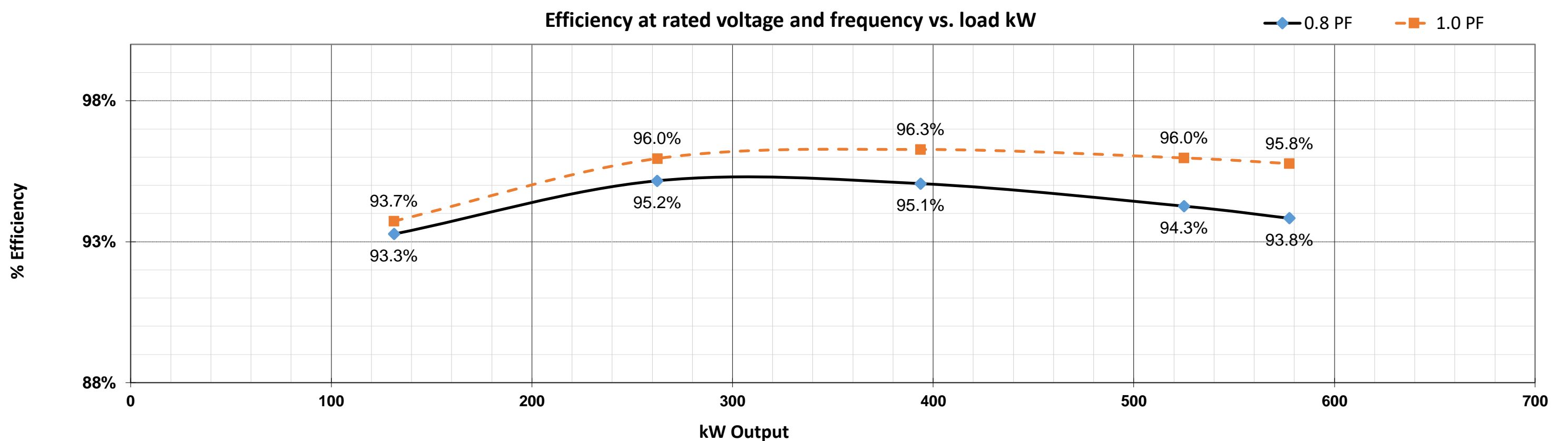
BASE MODEL: **572RSL6429**

Date: **02/09/22**

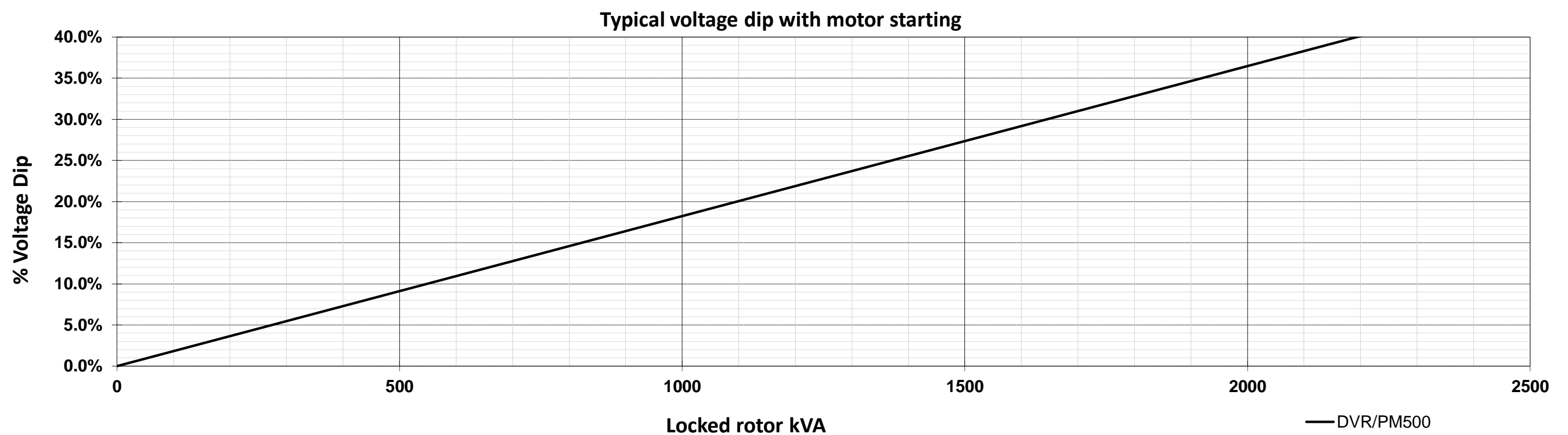
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Efficiency at rated voltage and frequency vs. load kW



Typical voltage dip with motor starting



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DECREMENT CURVE

BASE MODEL: 572RSL6429

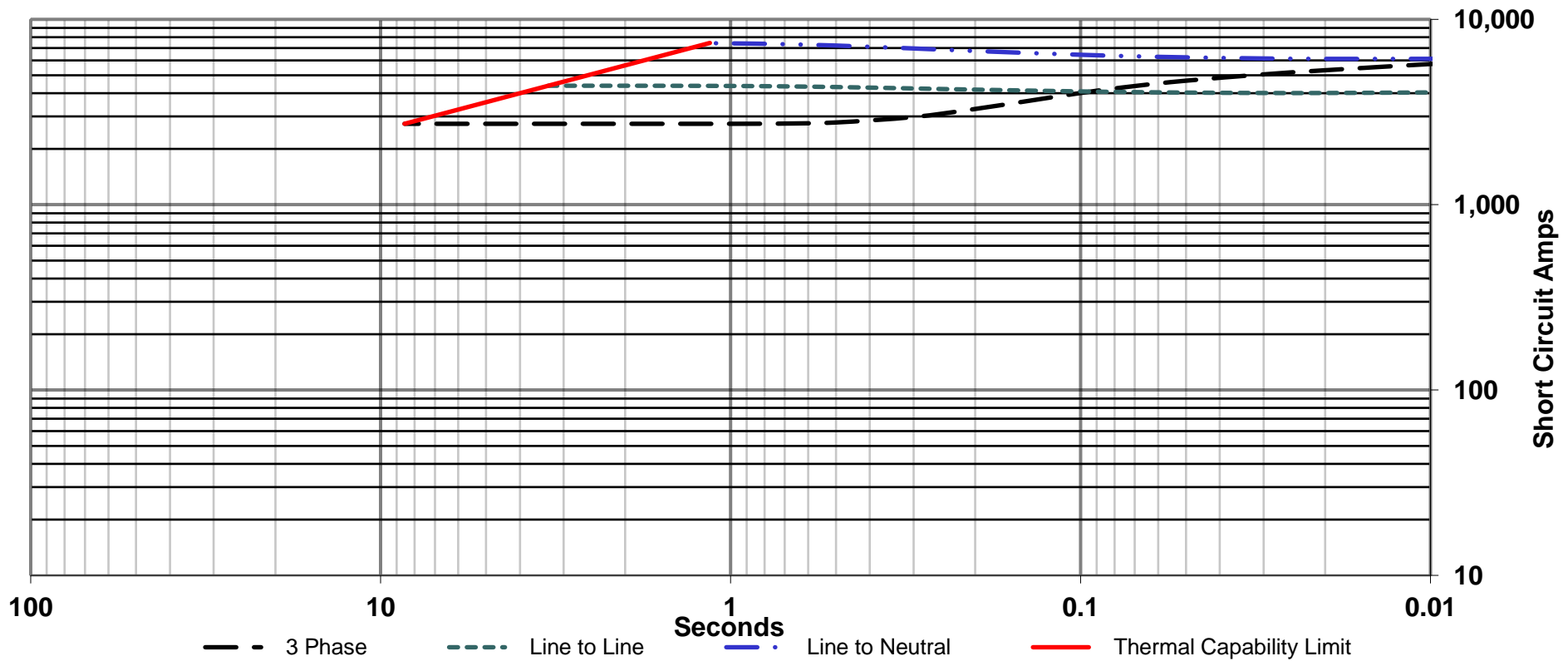
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Full Load Current : 910.8 amps
Steady State S.C. Current : 2732.4 amps

Max. 3 ph. Symm. S.C. Current : 6031 amps
INCLUDES EXCITATION SUPPORT (PMG)

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



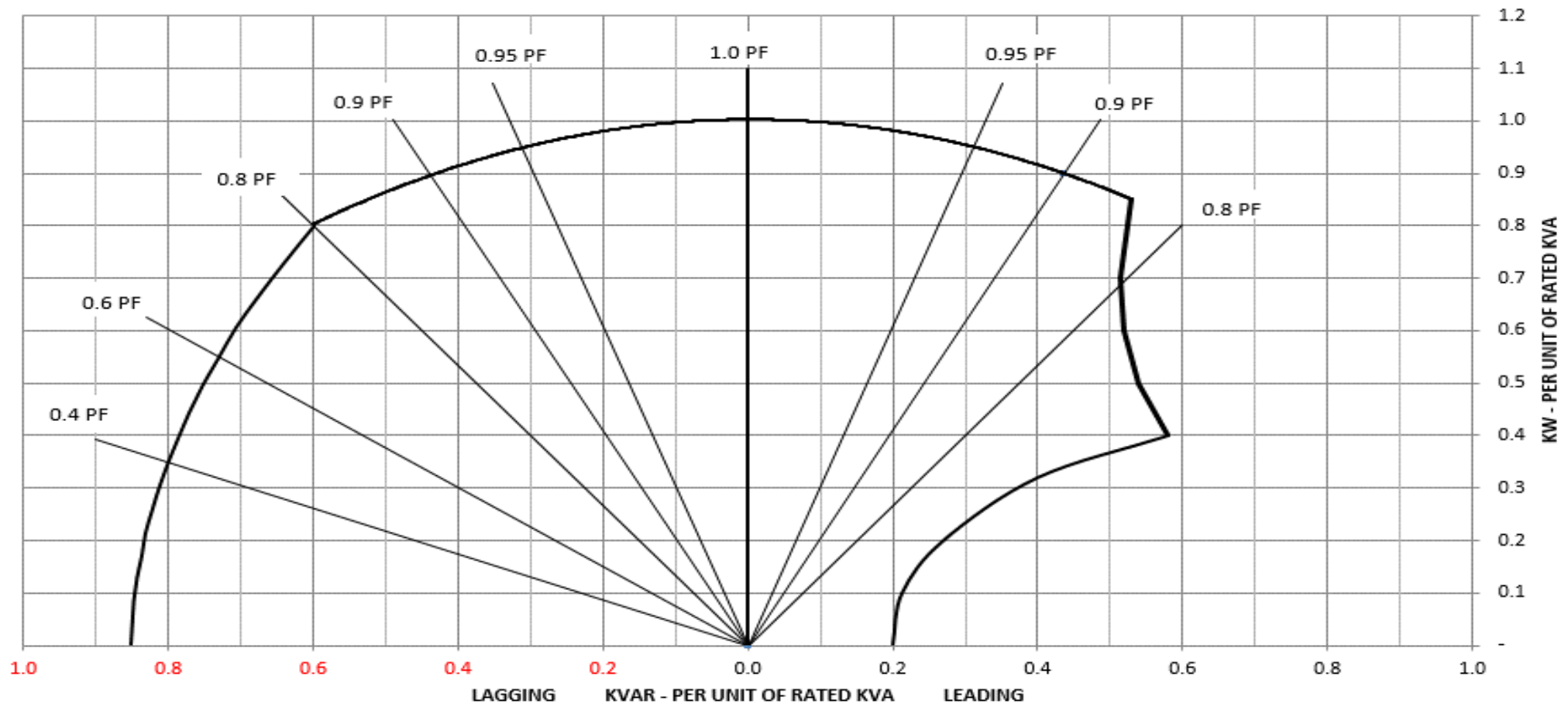
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Typical Reactive Capability Curve

Date : 02/09/22



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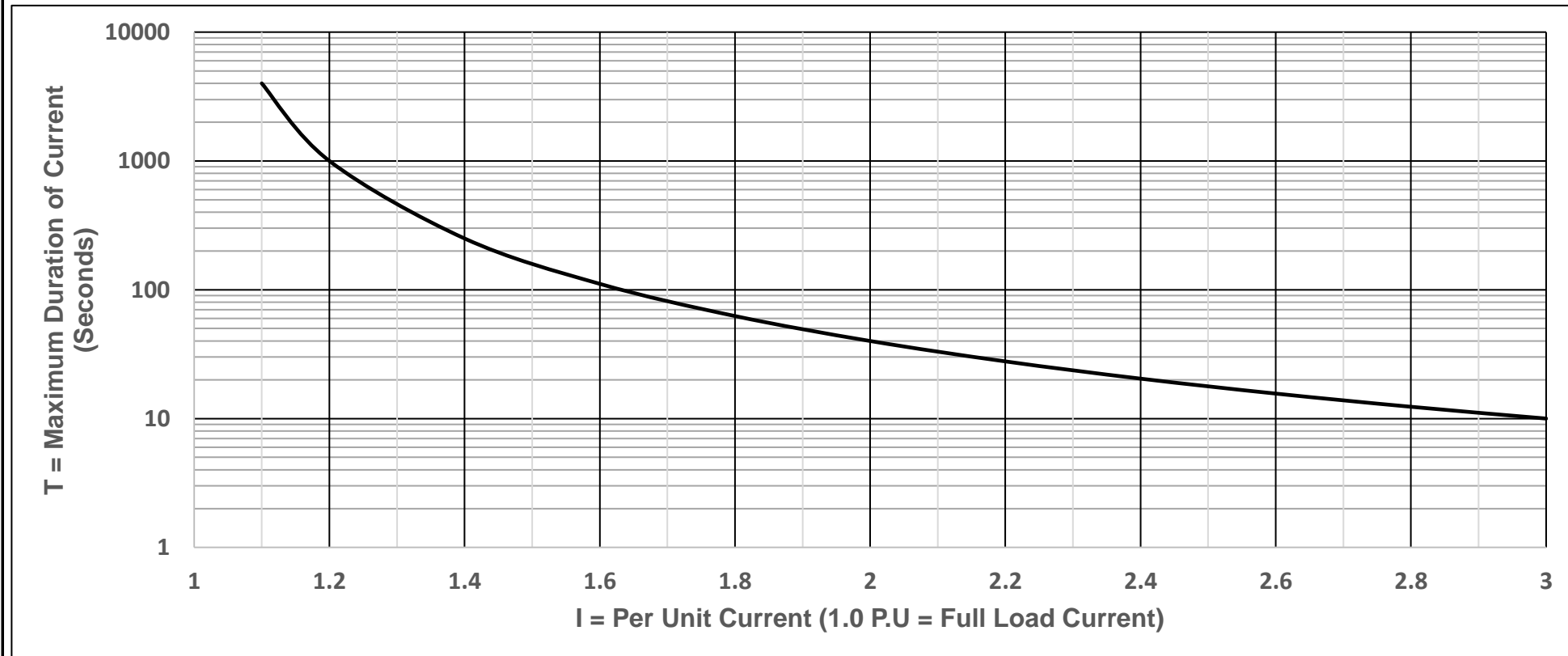
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THERMAL DAMAGE CURVE

Date : 02/09/22

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



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