

# MAGNAMAX<sup>®</sup>

## TYPICAL SUBMITTAL DATA

BASE MODEL: 573FSL4402

Winding: 570309

Date: 06/19/18

Kilowatt ratings at	1800 RPM	60 Hertz		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	450 (563)	525 (656)	575 (719)	575 (719)	600 (750)
440	410 (513)	480 (600)	530 (663)	530 (663)	550 (688)
416	390 (488)	460 (575)	500 (625)	500 (625)	520 (650)
400	380 (475)	440 (550)	480 (600)	480 (600)	500 (625)
380	360 (450)	420 (525)	460 (575)	460 (575)	480 (600)

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: 480 Volts*, 575 kW, 719 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase						STD. CONNECTION	
Mil-Std-705B Method	Description	Value	Units	Mil-Std-705B Method	Description	Value	Units
301.1b	Insulation Resistance	>10 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		L-L Harmonic Max - Single	3.0%	
	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	0.012	Ohms	---	TIF (1960 Weightings)	<50	
	Rotor Resistance	0.402	Ohms	---	THF (IEC, BS & NEMA Weightings)	<2%	
	Exciter Stator	21.1	Ohms				
	Exciter Rotor	0.043	Ohms				
	PMG Stator	2.1	Ohms				
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.7	A DC	<b>Additional Prototype Mil-Std Methods are Available on Request.</b>			
420.1a	Short Circuit Ratio	0.346					
421.1a	Xd Synchronous Reactance	3.527	PU	--	Generator Frame	573	
		1.131	Ohms	--	Type	MagnaMax	
422.1a	X2 Negative Sequence React.	0.276	PU	--	Insulation	Class H	
		0.088	Ohms	--	Coupling - Single Bearing	Flexible	
423.1a	X0 Zero Sequence Reactance	0.028	PU	--	Amortisseur Windings	Full	
		0.009	Ohms	--	Excitation	Ext. Voltage Regulated, Brushless	
425.1a	X'd Transient Reactance	0.222	PU	--	Voltage Regulator	DVR2000E+	
		0.071	Ohms	--	Voltage Regulation	0.25%	
426.1a	X''d Subtransient Reactance	0.198	PU				
		0.064	Ohms				
--	Xq Quadrature Synchronous	-	PU	--	Cooling Air Volume	1780	CFM
		-	Ohms	--	Heat rejection rate	1984	Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.155	Sec	--	Full load current	864.5	Amps
				--	Minimum Input hp required	817.5	HP
428.1a	T''d Subtransient Short Circuit Time Constant	0.014	Sec	--	Full load torque	2384	Lb-ft
				--	Efficiency at rated load :	94.3%	
430.1a	T'do Transient Open Circuit Time Constant	2.39	Sec				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.017	Sec	--	Weight	3400	lbs

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

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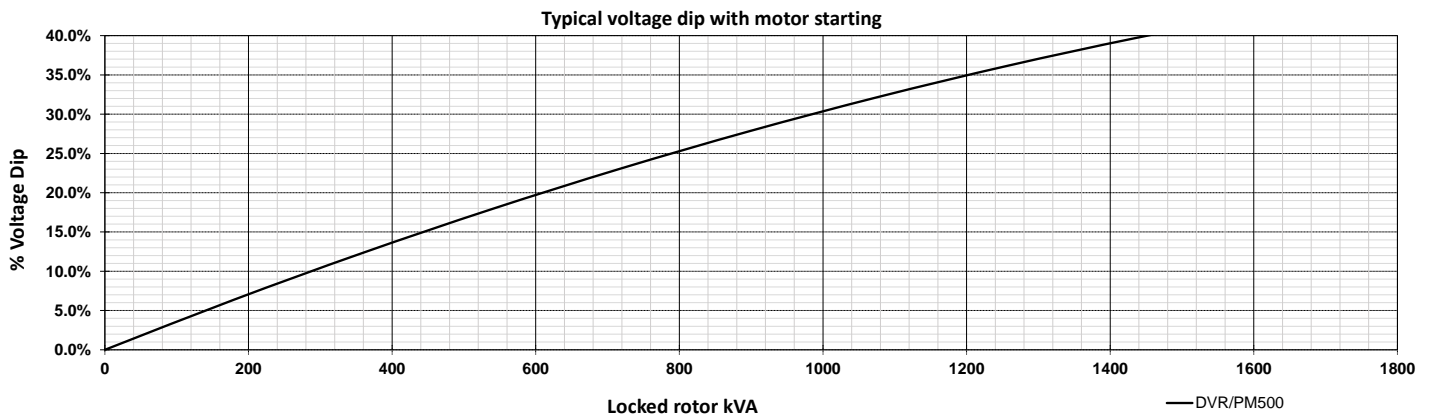
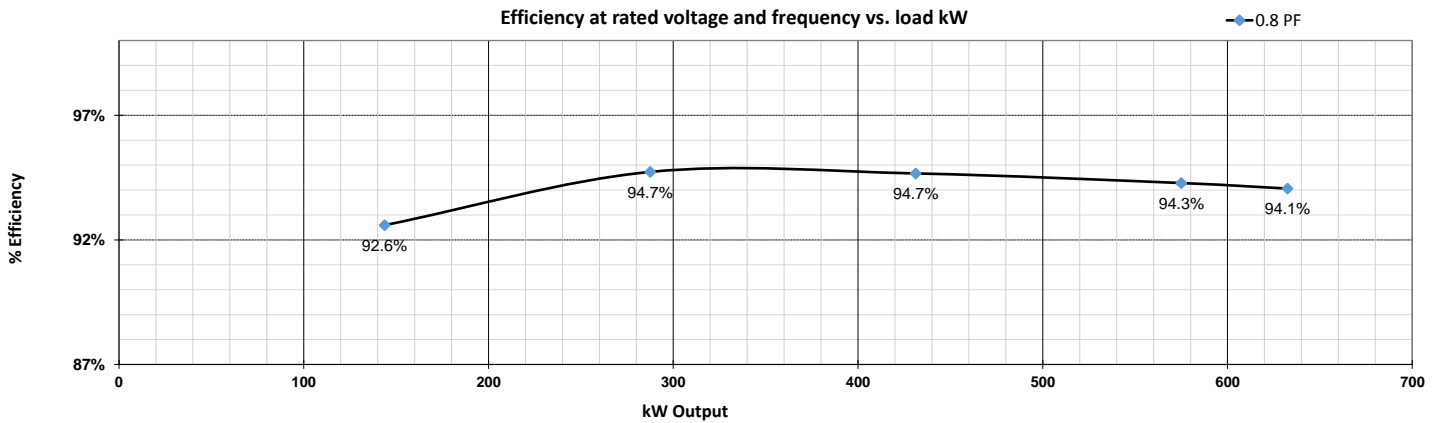
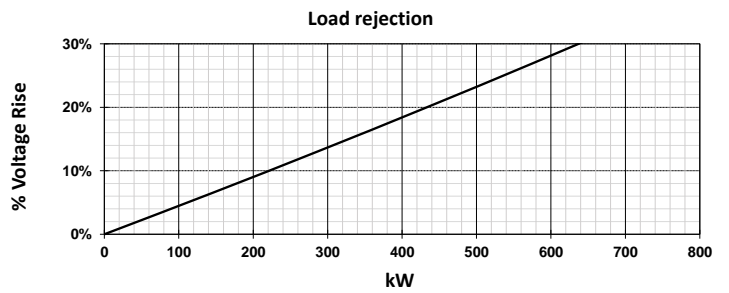
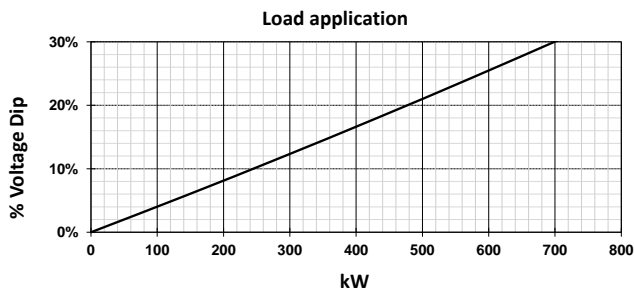
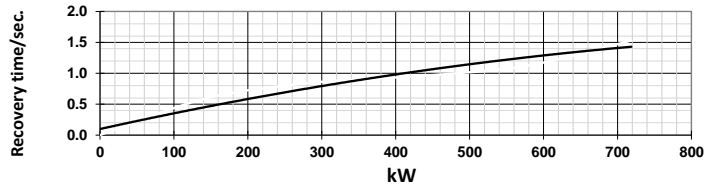
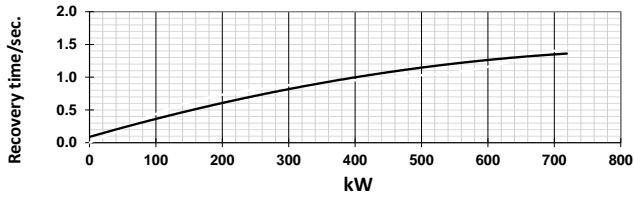
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## TYPICAL DYNAMIC CHARACTERISTICS

BASE MODEL: **573FSL4402**

Date: **06/19/18**

Submittal Data: **480 Volts\*, 575 kW, 719 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase**



**marathon<sup>®</sup>**  
Generators