

# MARATHON ELECTRIC MAGNAPLUS® GENERATORS

Section 3600

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Basic Model 432PSL6210

Test Report No. WC1904

Date: 06-11-03

## TYPICAL SUBMITTAL DATA

kW (kVA)	1500 RPM			50 Hertz			12 Leads		
	3 Phase			0.8 Power Factor			Dripproof or Open Enclosure		
	Class B	Class F			Class H				
Voltage*	80° C ①	90° C ①	95° C ①	105° C ②	105° C ①	130° C ①	125° C ②	125° C ①	150° C ①
	Continuous	Lloyds	ABS	British Standard	Continuous	Standby	British Standard	Continuous	Standby
220/440	129 (161)	148 (185)	153 (191)	168 (210)	168 (210)	188 (235)	182 (228)	184 (230)	200 (250)
208/415	157 (196)	173 (216)	180 (225)	192 (240)	192 (240)	212 (265)	200 (250)	208 (260)	220 (275)
200/400	169 (211)	188 (235)	192 (240)	201 (251)	201 (251)	220 (275)	207 (259)	216 (270)	228 (285)
190/380	176 (220)	188 (235)	196 (245)	205 (256)	205 (256)	224 (280)	211 (264)	220 (275)	232 (290)
173/346	176 (220)	189 (236)	194 (243)	204 (255)	204 (255)	220 (275)	207 (259)	216 (270)	228 (285)

① Rise by resistance method, Mil-Std-705, Method 680.1b.

② Rating per BS 5000.

### Submittal Data: 208/415 Volts\*, 250 kVA, 1500 RPM, 50 Hz, 3 Phase

Mil-Std-705B			Mil-Std-705B		
Method	Description	Value	Method	Description	Value
301.1b	Insulation Resistance	> 1.5 Meg	505.3b	Overspeed	1875 RPM
302.1a	High Potential Test		507.1c	Phase Sequence CCW-ODE	ABC
	Main Stator	2000 Volts	508.1c	Voltage Balance, L-L or L-N	0.2%
	Main Rotor	1500 Volts	601.4a	L-L Harmonic Maximum - Total	5.0%
	Exciter Stator	1500 Volts		(Distortion Factor)	
	Exciter Rotor	1500 Volts	601.4a	L-L Harmonic Maximum - Single	3.0%
	PMG Stator	1500 Volts**	601.1c	Deviation Factor	5.0%
401.1a	Stator Resistance, Line to Line		---	TIF (1960 Weightings)	<50
	High Wye Connection	0.0214 Ohms	625.1c	Mechanical Strength (High Wye	
	Rotor Resistance	0.841 Ohms		Connection, Sustained 3 Phase	
	Exciter Stator	18.5 Ohms		Short Circuit Current) ③	< 250%
	Exciter Rotor	0.116 Ohms	652.1a	Shaft Current	< 0.1 ma
	PMG Stator	2.1 Ohms**	652.1a	Main Stator Capacitance to	
410.1a	No Load Exciter Field Amps			Ground	0.019 mfd
	at 415 Volts Line to Line	0.86 A DC			
420.1a	Short Circuit Ratio	0.7			
421.1a	Xd Synchronous Reactance	1.9 pu			
422.1a	X2 Negative Sequence				
	Reactance	0.153 pu	--	Generator Frame	432
423.1a	X0 Zero Sequence Reactance	0.029 pu	--	Type	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.093 pu	--	Insulation	Class H
426.1a	X''d Subtransient Reactance	0.084 pu	--	Coupling - Single Bearing	Flexible
--	Xq Quadrature Synchronous		--	Amortisseur Windings	Full
	Reactance	0.986 pu	--	Cooling Air Volume	850 CFM
427.1a	T'd Transient Short Circuit		--	Exciter	Rotating
	Time Constant	0.049 sec.	--	Voltage Regulator	SE350***
428.1a	T''d Subtransient Short Circuit		--	Voltage Regulation	1%***
	Time Constant	0.018 sec.	--	Sensing	1 Phase***
430.1a	T'do Transient Open Circuit				
	Time Constant	1.79 sec.			
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.017 sec.			

③ Excitation support system or PMG required to sustain short circuit currents.

\* Voltage refers to wye (star) connection, unless otherwise specified.

\*\*Not supplied as standard equipment.

\*\*\*DVR®2000 voltage regulator supplied with PMG option. DVR®2000 voltage regulation 1/4%, 1 or 3 Phase sensing.

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Section 3600

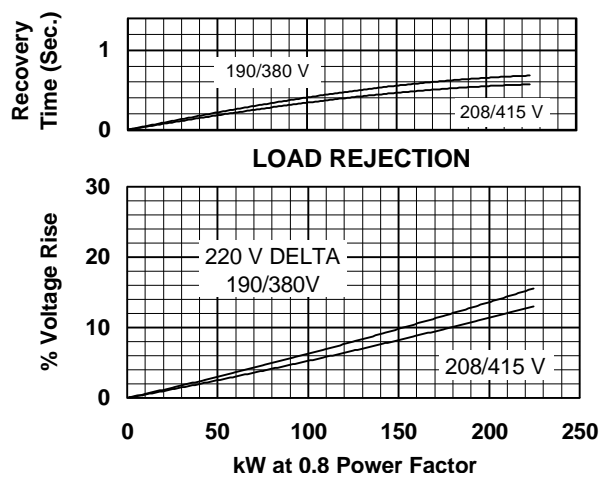
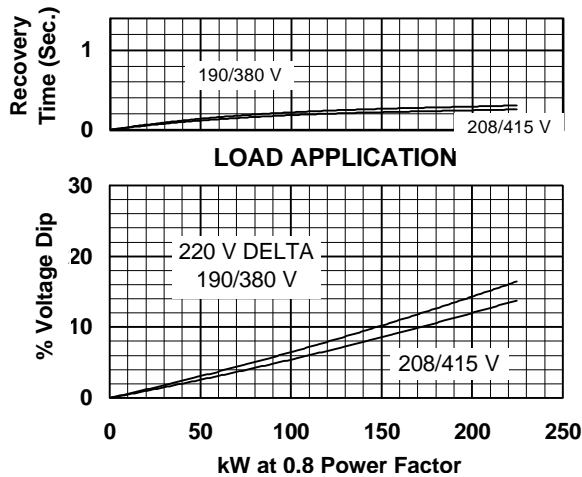
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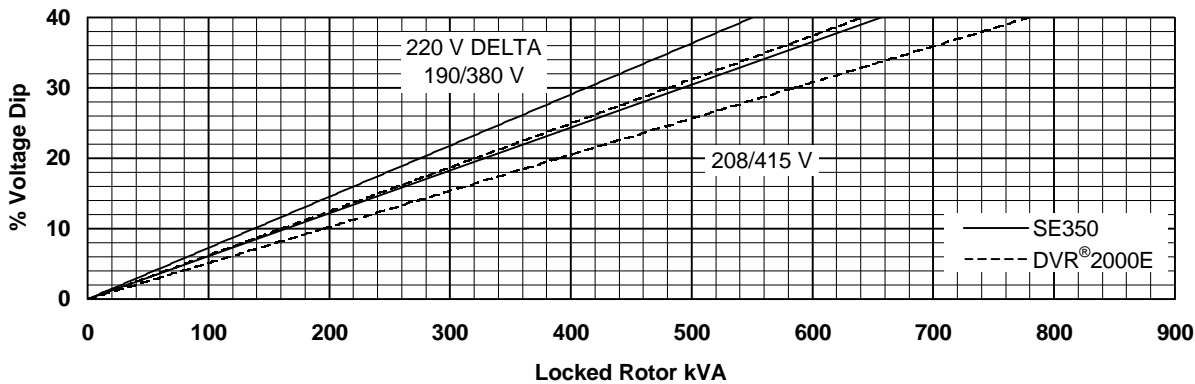
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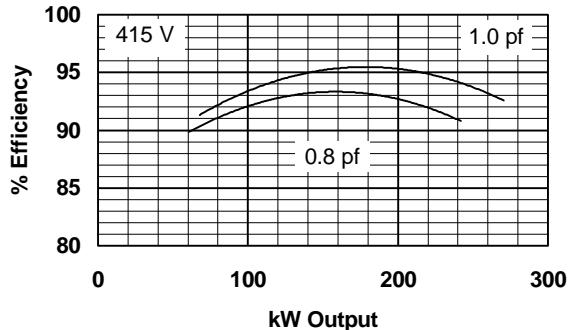
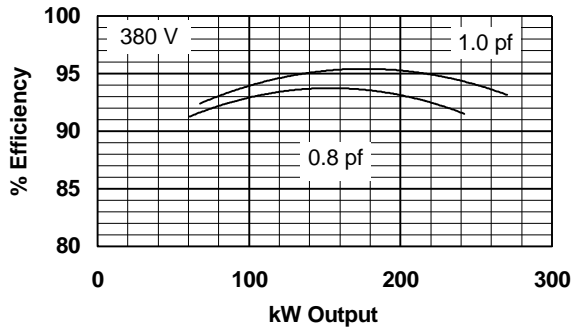
## TYPICAL DYNAMIC CHARACTERISTICS 50 HERTZ



## TYPICAL MOTOR STARTING CHARACTERISTICS



## TYPICAL GENERATOR EFFICIENCY



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