MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 573RSL4034

BASE MODEL: 573RSL4034 **Winding H-SG 570076**

Submittal Data: 480 Volts*, 749.6 kW, 937 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

10/23/2001

Kilowatt ratings at	**1800 RPM**	**60 Hertz**	**10 LEADS**	**Standard 3 phase**
kW (kVA)	**3 Phase**	**0.8 Power Factor**		**Dripproof or Open Enclosure**

	Class B	**Class F**					**Class H**		
Voltage*	**80º C ① Continuous**	**90º C ① Lloyds**	**95º C ① ABS**	**105º C British Standard**	**105º C Continuous**	**130º C ① Standby**	**125º C British Standard**	**125º C Continuous**	**150º C ① Standby**
480/240	585 (731)	645 (806)	670 (838)	710 (888)	710 (888)	750 (938)	735 (919)	750 (938)	810 (1013)
460/230	615 (769)	670 (838)	660 (825)	735 (919)	735 (919)	785 (981)	760 (950)	780 (975)	800 (1000)
440/220	620 (775)	660 (825)	645 (806)	715 (894)	715 (894)	765 (956)	760 (950)	760 (950)	765 (956)
416/208	590 (738)	630 (788)	605 (756)	680 (850)	680 (850)	725 (906)	720 (900)	720 (900)	725 (906)
380/190	545 (681)	580 (725)	565 (706)	625 (781)	625 (781)	625 (781)	625 (781)	625 (781)	625 (781)

①Rise by resistance method, Mil-Std-705, Method 680.1b. *British Standard Rating per BS 5000*

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Mil-Std-705B			**Mil-Std-705B**		
Method	**Description**	**Value**	**Method**	**Description**	**Value**
301.1b	Insulation Resistance	>1.5 Meg	505.3b	Overspeed	2250 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	0.20%
	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	0.0059 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.507 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	23 Ohms			
	Exciter Rotor	0.045 Ohms	---	Main Stator Capacitance to ground	0.043 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps	0.74 A DC			
	at 240/480 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.617		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	2.55 p.u.	--	Generator Frame	573
		0.627 ohms	--	Type	MAGNAMAXDVR
422.1a	X2 Negative Sequence React.	0.196 pu	--	Insulation	Class H
		0.048 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.049 pu	--	Amortisseur Windings	Full
		0.012 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.131 pu	--	Voltage Regulator	DVR2000
		0.032 ohms	--	Voltage Regulation	0.25%
426.1a	X"d Subtransient Reactance	0.087 pu			
		0.021 ohms			
--	Xq Quadrature Synch. React.	1.1 pu	--	Cooling Air Volume	1340 CFM
		0.27 ohms			
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	2453 Btu's/min
	Time Constant	0.119 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	1127 amps
	Time Constant	0.009 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	1062.6
	Time Constant	2.27 sec.		Efficiency at rated load :	94.6%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.02 sec.	--	Full load torque	3099 Lb-ft

(3) Excitation support system or PMG required to sustain short circuit currents.
** Voltages refer to wye (star) connection, unless otherwise specified.*

Data rev. : 06/01/92
Version : 2001.2

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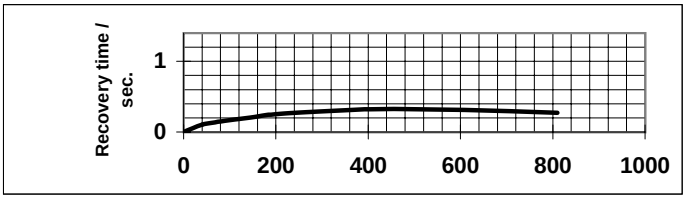
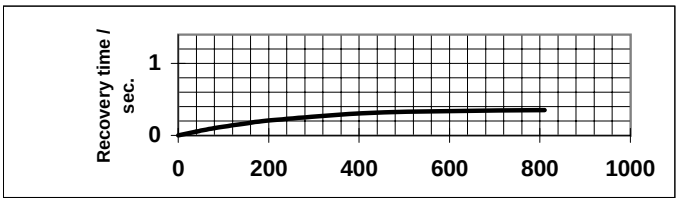
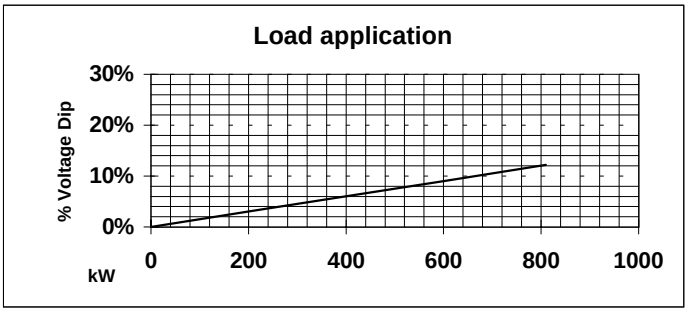
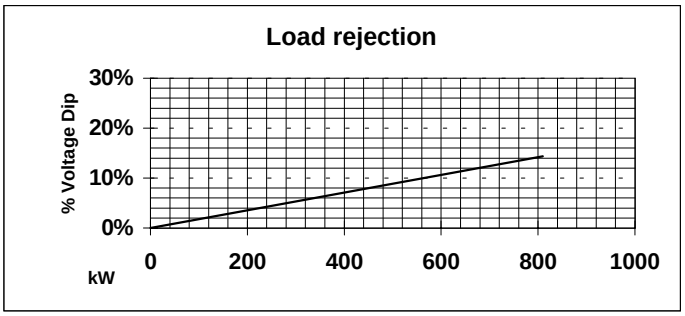
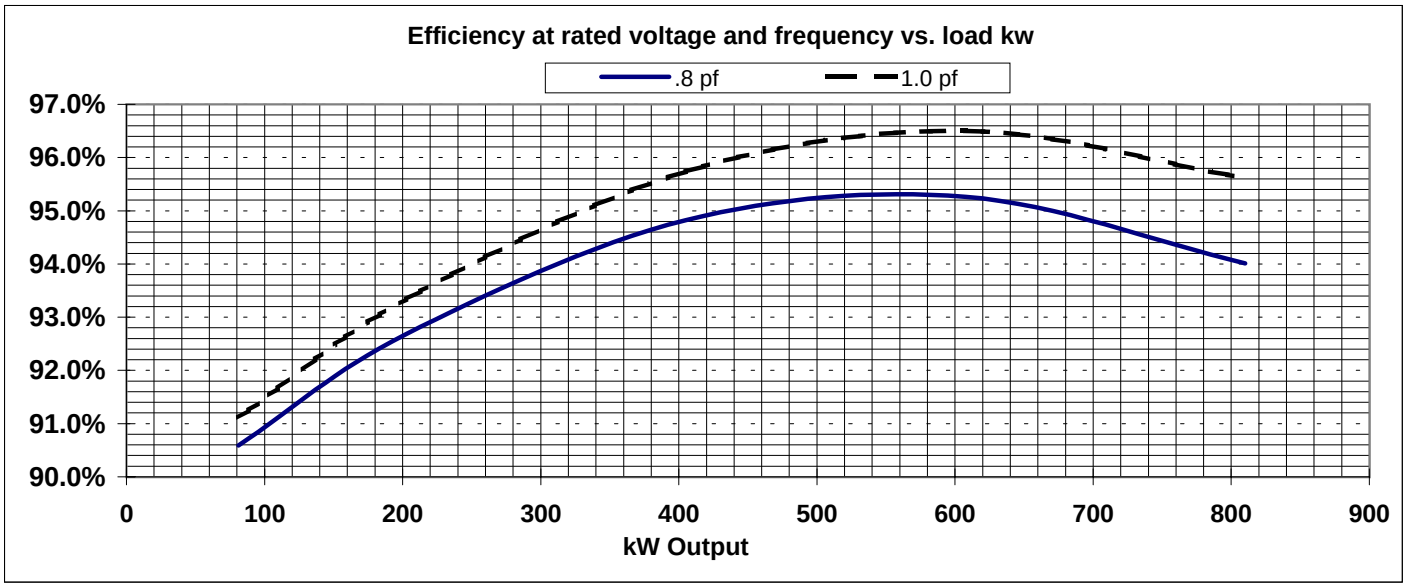
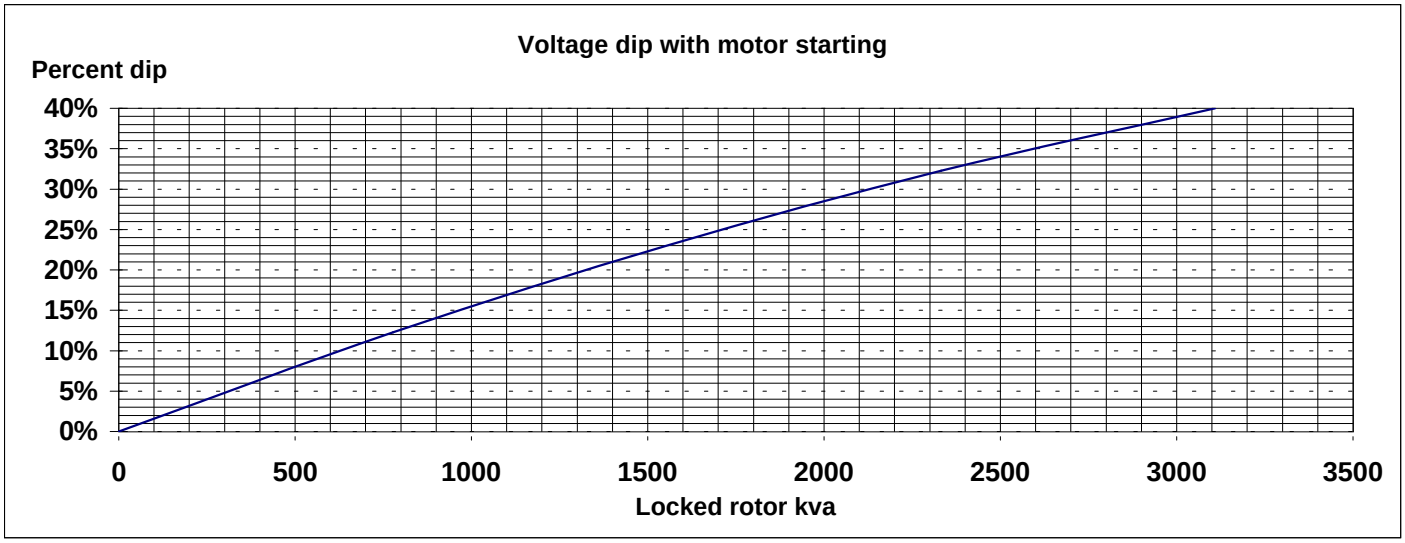
TYPICAL DYNAMIC CHARACTERISTICS

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