MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 572RSL4025

BASE MODEL: 572RSL4025 **Winding H-SG 570078**

Submittal Data: 480 Volts*, 475.2 kW, 594 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

10/23/2001

Kilowatt ratings at	**1800 RPM**	**60 Hertz**	**12 LEADS**	**Standard 3 phase**
kW (kVA)	**3 Phase**	**0.8 Power Factor**		**Dripproof or Open Enclosure**

	Class B	**Class F**					**Class H**		
Voltage*	**80° C ① Continuous**	**90° C ① Lloyds**	**95° C ① ABS**	**105° C British Standard**	**105° C Continuous**	**130° C ① Standby**	**125° C British Standard**	**125° C Continuous**	**150° C ① Standby**
480/240	380 (475)	415 (519)	430 (538)	450 (563)	450 (563)	475 (594)	460 (575)	475 (594)	505 (631)
460/230	400 (500)	430 (538)	445 (556)	470 (588)	470 (588)	485 (606)	485 (606)	485 (606)	490 (613)
440/220	400 (500)	425 (531)	420 (525)	455 (569)	455 (569)	465 (581)	465 (581)	465 (581)	465 (581)
416/208	385 (481)	405 (506)	400 (500)	435 (544)	435 (544)	440 (550)	440 (550)	440 (550)	450 (563)
380/190	350 (438)	370 (463)	370 (463)	400 (500)	400 (500)	400 (500)	400 (500)	400 (500)	400 (500)

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	0.0132 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.376 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	23 Ohms			
	Exciter Rotor	0.045 Ohms	---	Main Stator Capacitance to ground	0.019 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps	0.7 A DC			
	at 240/480 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.547		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	3.05 p.u.	--	Generator Frame	572
		1.184 ohms	--	Type	MAGNAMAXDVR
422.1a	X2 Negative Sequence React.	0.234 pu	--	Insulation	Class H
		0.091 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.056 pu	--	Amortisseur Windings	Full
		0.022 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.176 pu	--	Voltage Regulator	DVR2000
		0.068 ohms	--	Voltage Regulation	0.25%
426.1a	X"d Subtransient Reactance	0.148 pu			
		0.057 ohms			
--	Xq Quadrature Synch. React.	1.14 pu	--	Cooling Air Volume	1550 CFM
		0.442 ohms			
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	2082 Btu's/min
	Time Constant	0.121 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	714 amps
	Time Constant	0.012 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	686.1
	Time Constant	1.77 sec.		Efficiency at rated load :	92.8%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.021 sec.	--	Full load torque	2001 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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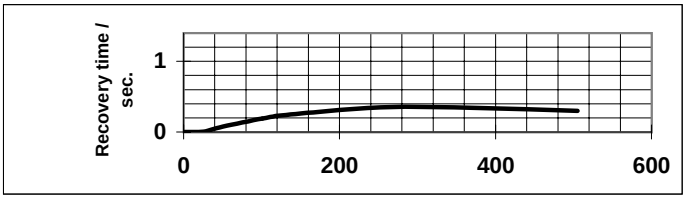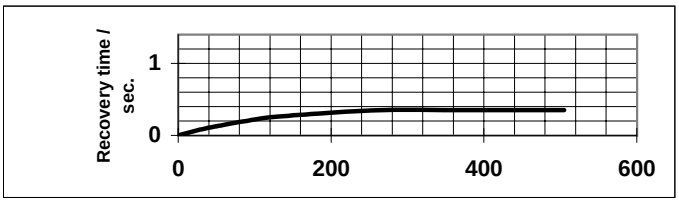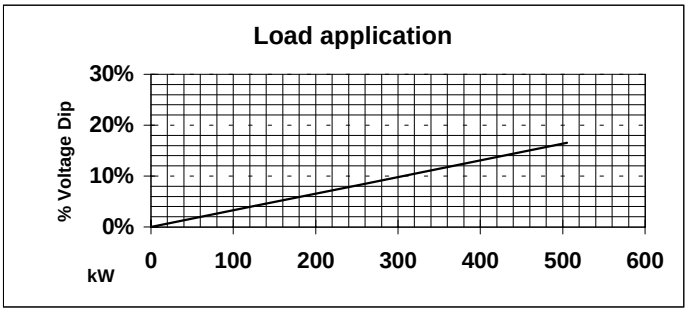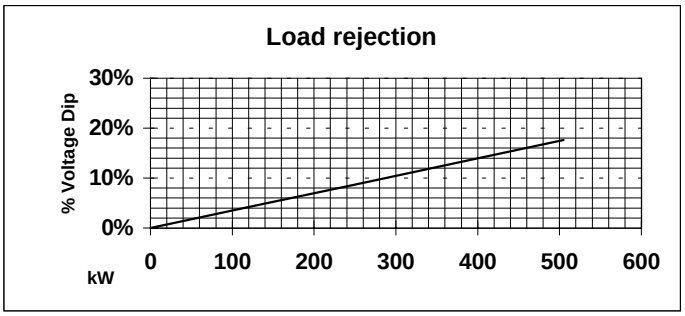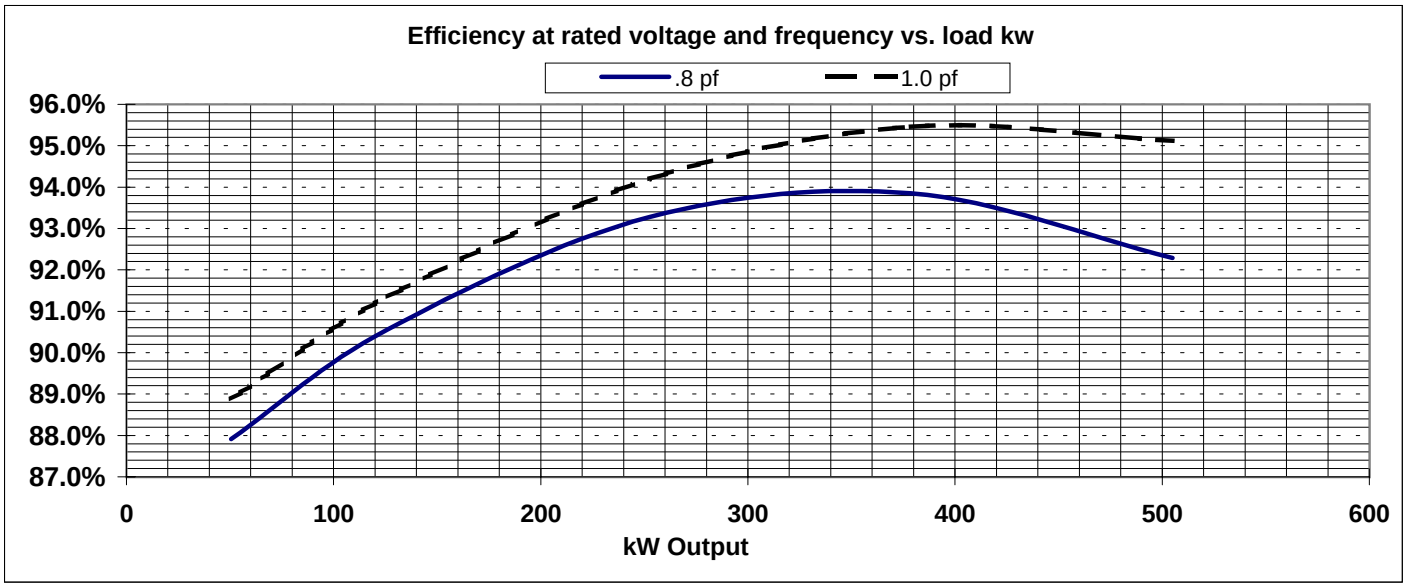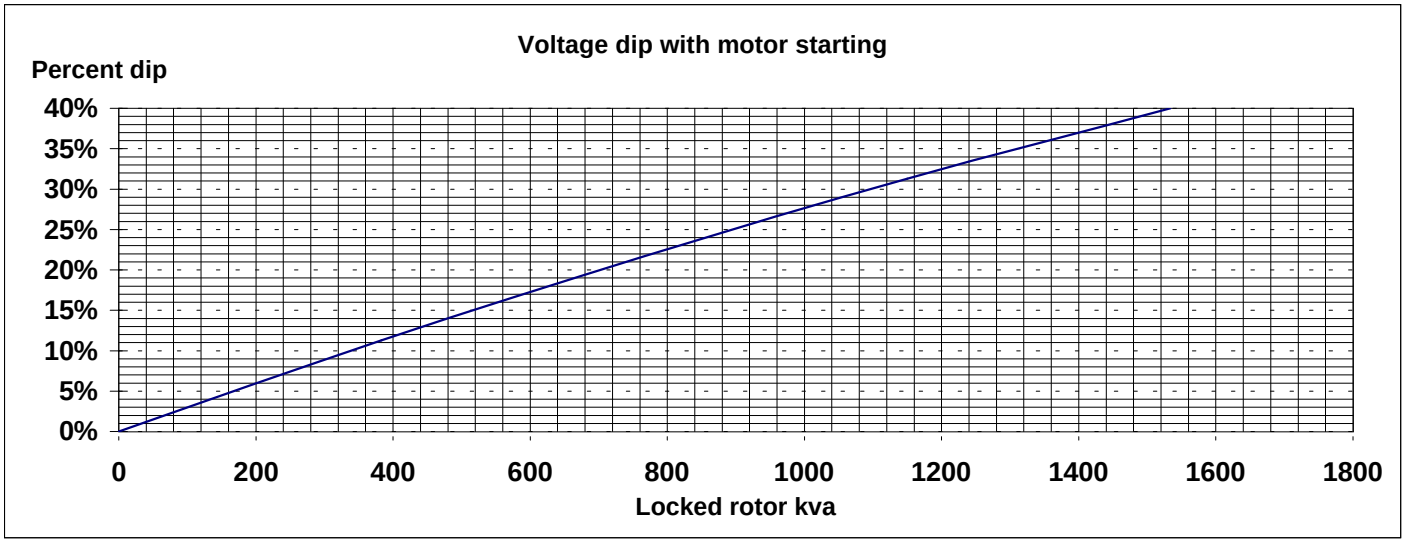
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