MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 572RSL4030

BASE MODEL: 572RSL4030 **Winding H-SG 570074**

Submittal Data: 480 Volts*, 600 kW, 750 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	485 (606)	530 (663)	545 (681)	575 (719)	575 (719)	600 (750)	590 (738)	600 (750)	645 (806)
460/230	495 (619)	530 (663)	505 (631)	570 (713)	570 (713)	610 (763)	595 (744)	605 (756)	650 (813)
440/220	480 (600)	510 (638)	495 (619)	545 (681)	545 (681)	590 (738)	580 (725)	580 (725)	625 (781)
416/208	460 (575)	490 (613)	470 (588)	525 (656)	525 (656)	565 (706)	555 (694)	555 (694)	600 (750)
380/190	425 (531)	450 (563)	440 (550)	485 (606)	485 (606)	485 (606)	485 (606)	485 (606)	485 (606)

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

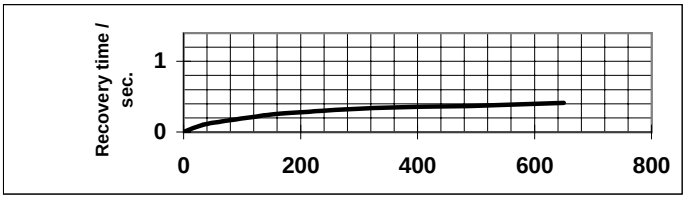
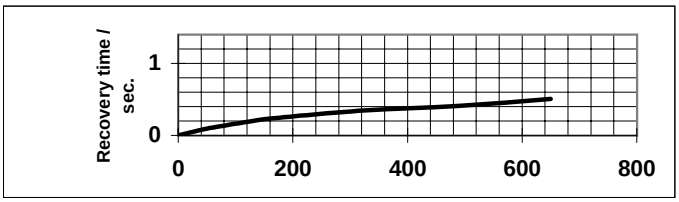
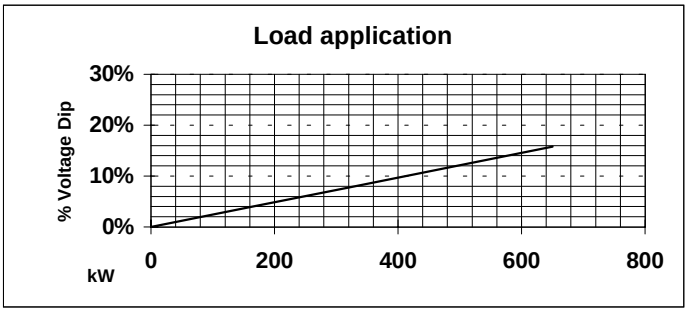
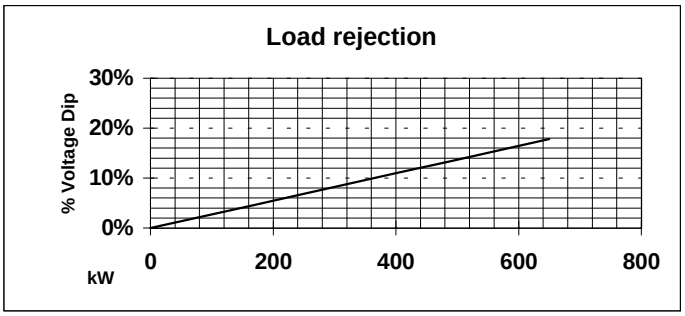
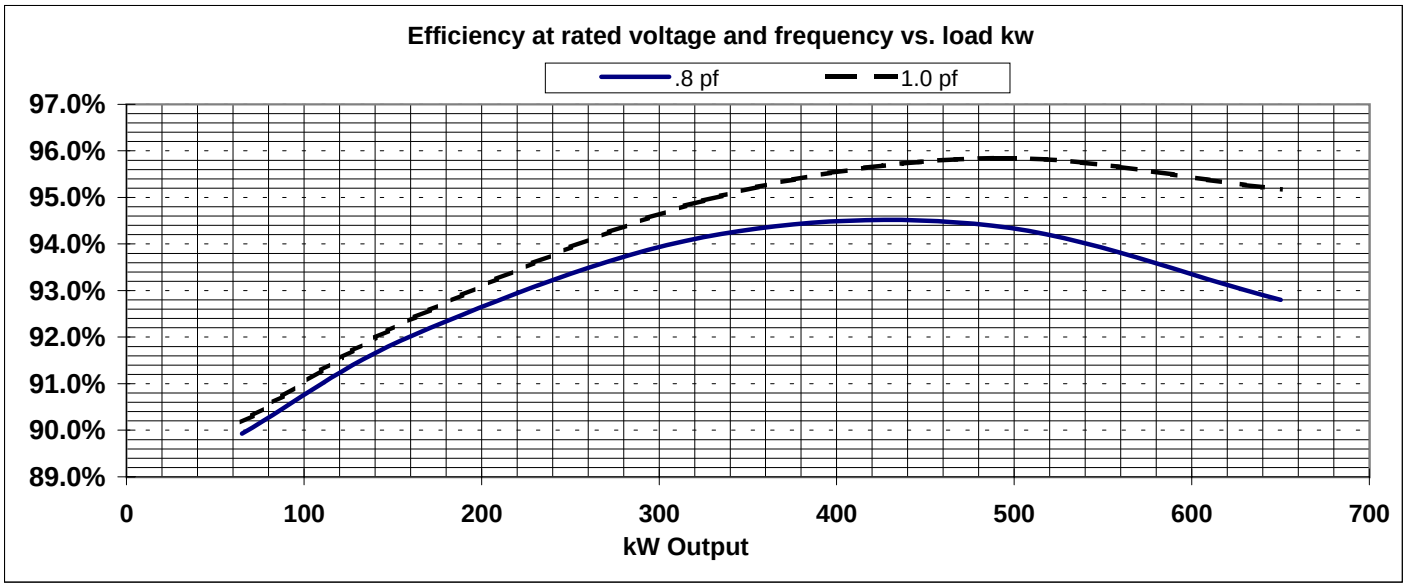
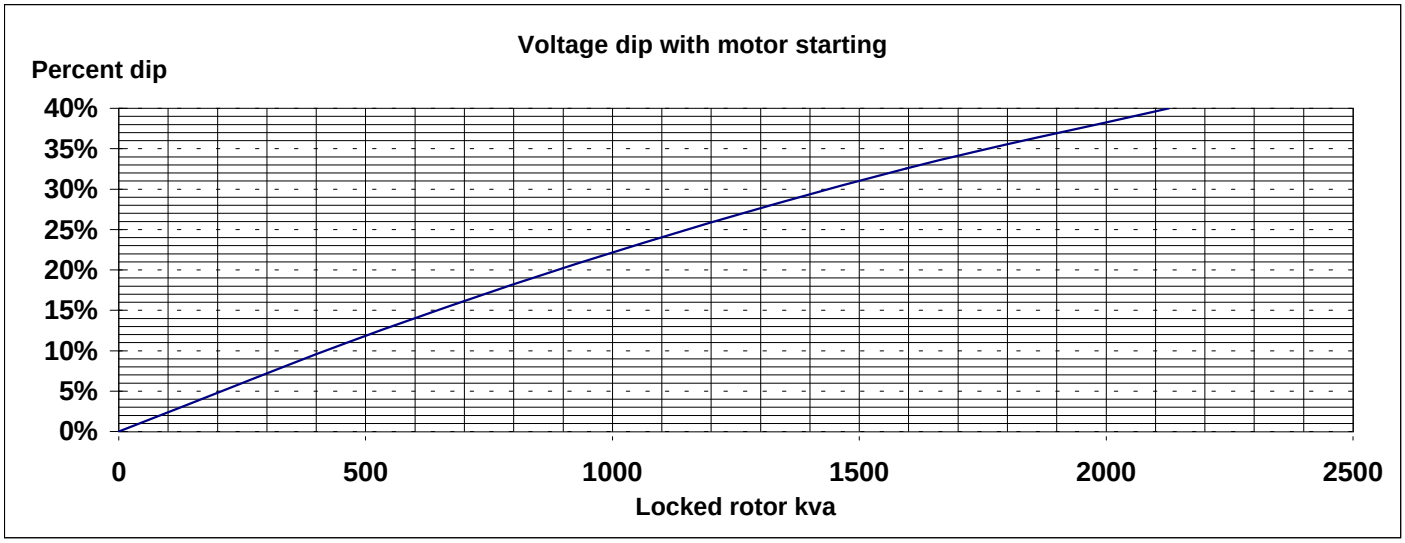
Submittal Data: 480 Volts*, 600 kw, 750 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase **STD. CONNECTION**

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	0.0089 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.426 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	23 Ohms			
	Exciter Rotor	0.045 Ohms	---	Main Stator Capacitance to ground	0.03 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps	0.66 A DC			
	at 240/480 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.528		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	2.89 p.u.	--	Generator Frame	572
		0.888 ohms	--	Type	MAGNAMAXDVR
422.1a	X2 Negative Sequence React.	0.227 pu	--	Insulation	Class H
		0.07 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.057 pu	--	Amortisseur Windings	Full
		0.018 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.162 pu	--	Voltage Regulator	DVR2000
		0.05 ohms	--	Voltage Regulation	0.25%
426.1a	X"d Subtransient Reactance	0.129 pu			
		0.04 ohms			
--	Xq Quadrature Synch. React.	1.23 pu	--	Cooling Air Volume	1470 CFM
		0.378 ohms			
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	2378 Btu's/min
	Time Constant	0.116 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	902 amps
	Time Constant	0.01 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	860.3
	Time Constant	2 sec.		Efficiency at rated load :	93.5%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.02 sec.	--	Full load torque	2509 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

MARATHON ELECTRIC GENERATORS

TYPICAL DYNAMIC CHARACTERISTICS

MODEL : 572RSL4030
BASE MODEL: 572RSL4030 **Winding H-SG 570074**
Submittal Data: 480 Volts*, 600 kW, 750 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase