MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 361PSL1601

BASE MODEL: 361PSL1601 **Winding WC- 1601**

Submittal Data: 480 Volts*, 50 kW, 62.5 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

10/31/2001

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*	**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	49 (61.3)	50 (62.5)	50 (62.5)	55 (68.8)	55 (68.8)	60 (75)	60 (75)	60 (75)	65 (81.3)
460/230	50 (62.5)	50 (62.5)	50 (62.5)	54 (67.5)	54 (67.5)	60 (75)	60 (75)	60 (75)	62 (77.5)
440/220	48 (60)	48 (60)	48 (60)	53 (66.3)	53 (66.3)	58 (72.5)	58 (72.5)	58 (72.5)	61 (76.3)
416/208	45 (56.3)	46 (57.5)	46 (57.5)	50 (62.5)	50 (62.5)	55 (68.8)	55 (68.8)	55 (68.8)	58 (72.5)
380/190	41 (51.3)	41 (51.3)	41 (51.3)	45 (56.3)	45 (56.3)	50 (62.5)	50 (62.5)	50 (62.5)	52 (65)

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	3.5%
	Exciter Stator	1500 Volts		(Distortion Factor)	
	Exciter Rotor	1500 Volts	601.4a	L-L Harmonic Maximum - Single	2.5%
	PMG Stator	NS**	601.1c	Deviation Factor	7.0%
401.1a	Stator Resistance, Line to Line		---	TIF (1960 Weightings)	< 50
	High Wye Connection	0.264 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.81 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	23.5 Ohms			
	Exciter Rotor	0.12 Ohms	---	Main Stator Capacitance to ground	@NA mfd
	PMG Stator	NS**			
410.1a	No Load Exciter Field Amps	0.53 A DC			
	at 240/480 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.720		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	1.875 p.u.	--	Generator Frame	361
		6.928 ohms	--	Type	MAGNAPLUS
422.1a	X2 Negative Sequence React.	0.169 pu	--	Insulation	Class H
		0.624 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.04 pu	--	Amortisseur Windings	Full
		0.148 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.133 pu	--	Voltage Regulator	SE350
		0.491 ohms	--	Voltage Regulation	1.00%
426.1a	X"d Subtransient Reactance	0.11 pu			
		0.406 ohms			
--	Xq Quadrature Synch. React.	Not Available	--	Cooling Air Volume	700 CFM
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	335 Btu's/min
	Time Constant	0.048 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	75 amps
	Time Constant	0.008 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	74.9
	Time Constant	0.68 sec.		Efficiency at rated load :	89.5%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.01 sec.	--	Full load torque	218 Lb-ft

(3) Excitation support system or PMG required to sustain short circuit currents.
** Voltages refer to wye (star) connection, unless otherwise specified.*
*** Not supplied as standard equipment.*

Data rev. : 09/01/98
Version : 2001.2

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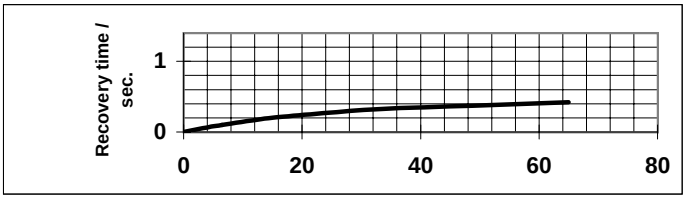
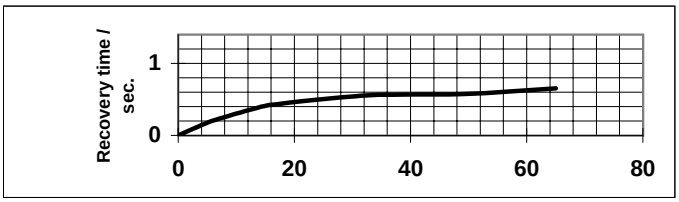
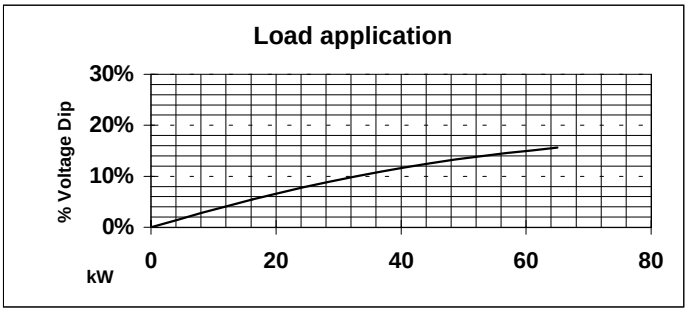
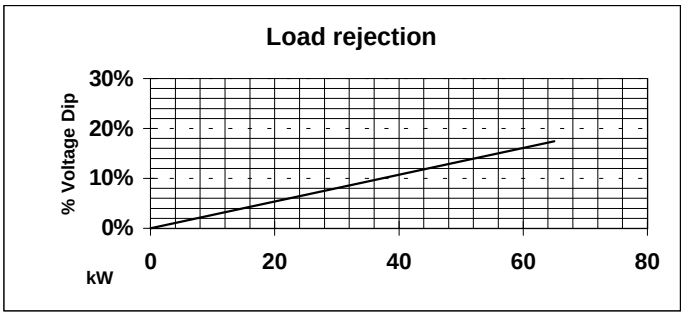
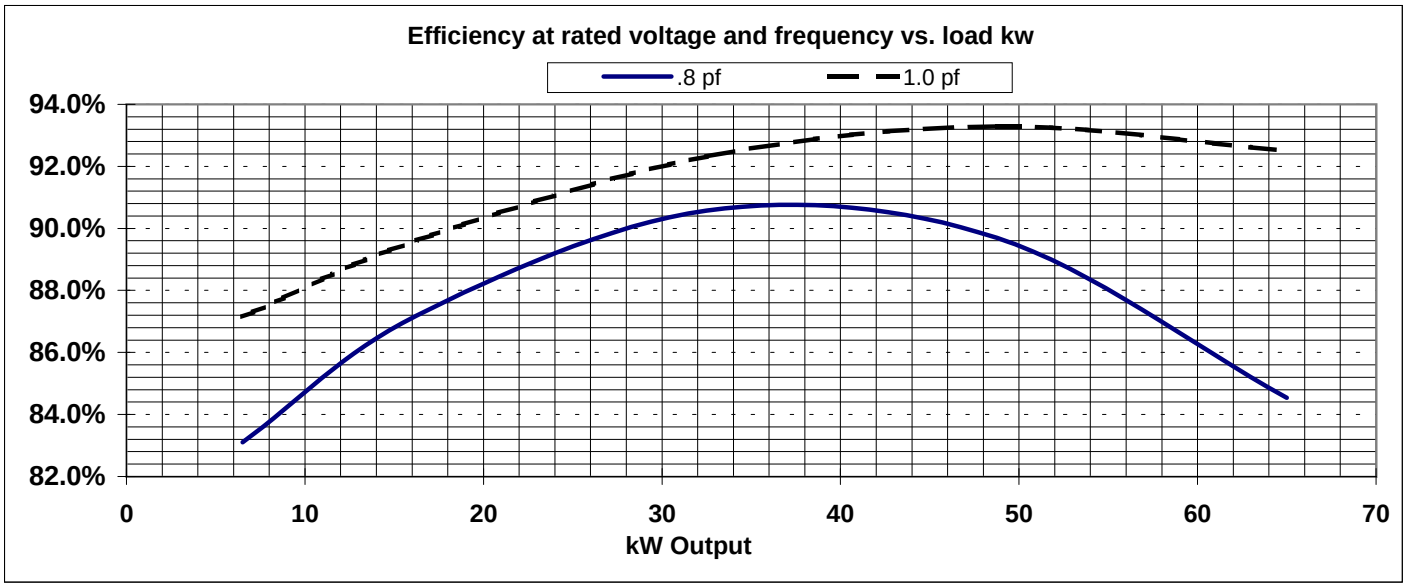
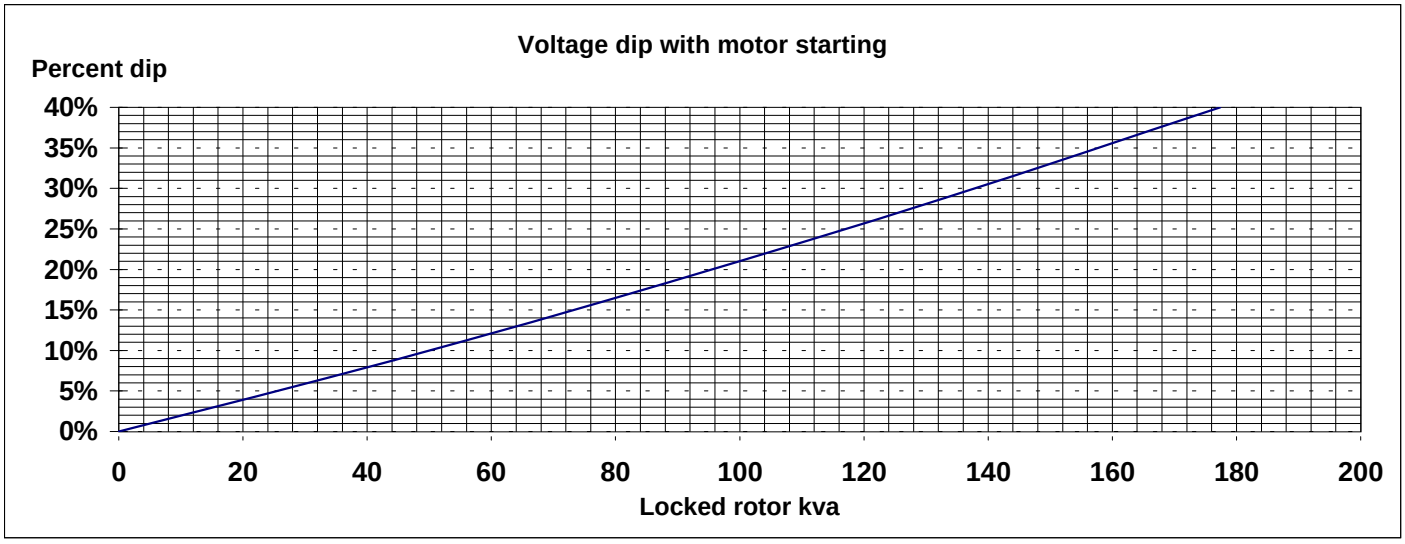
TYPICAL DYNAMIC CHARACTERISTICS

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