MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 361PSL1600

BASE MODEL: 361PSL1600 **Winding WC- 1600**

Submittal Data: 415 Volts*, 32 kW, 40 kVA, 0.8 P.F., 1500 RPM, 50 Hz, 3 Phase

10/31/2001

Kilowatt ratings at	**1500 RPM**		**50 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**
440/220	30 (37.5)	31 (38.8)	31 (38.8)	32 (40)	32 (40)	36 (45)	36 (45)	36 (45)	38 (47.5)
415/208	32 (40)	34 (42.5)	34 (42.5)	36 (45)	36 (45)	40 (50)	40 (50)	40 (50)	42 (52.5)
400/200	31 (38.8)	33 (41.3)	33 (41.3)	36 (45)	36 (45)	38 (47.5)	38 (47.5)	38 (47.5)	41 (51.3)
380/190	30 (37.5)	31 (38.8)	32 (40)	35 (43.8)	35 (43.8)	36 (45)	36 (45)	36 (45)	40 (50)
346/173	27 (33.8)	28 (35)	29 (36.3)	32 (40)	32 (40)	32 (40)	32 (40)	32 (40)	36 (45)

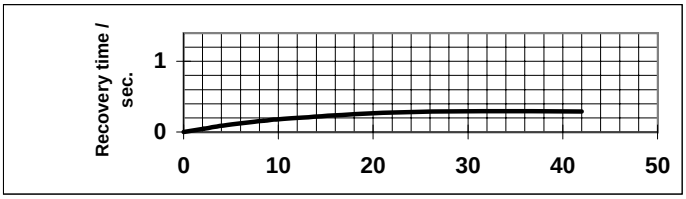
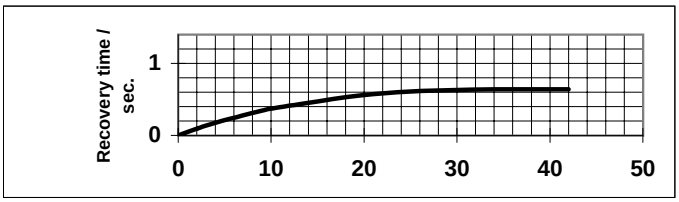
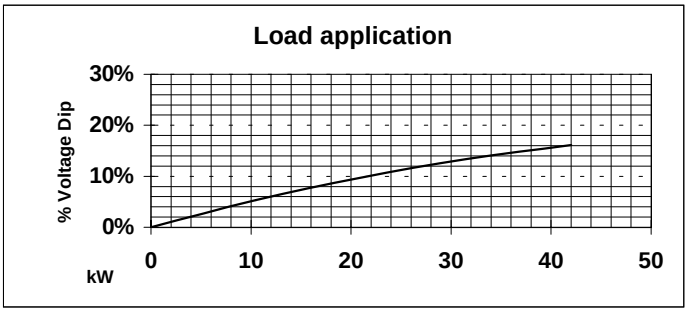
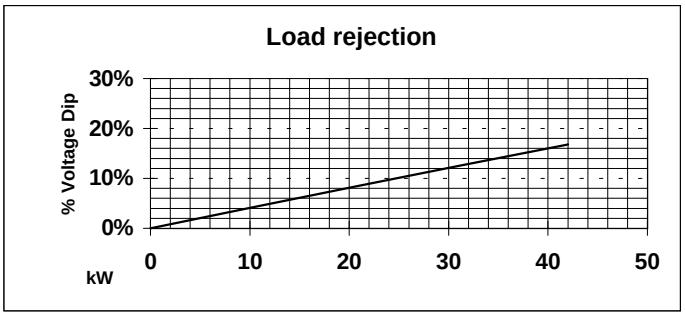
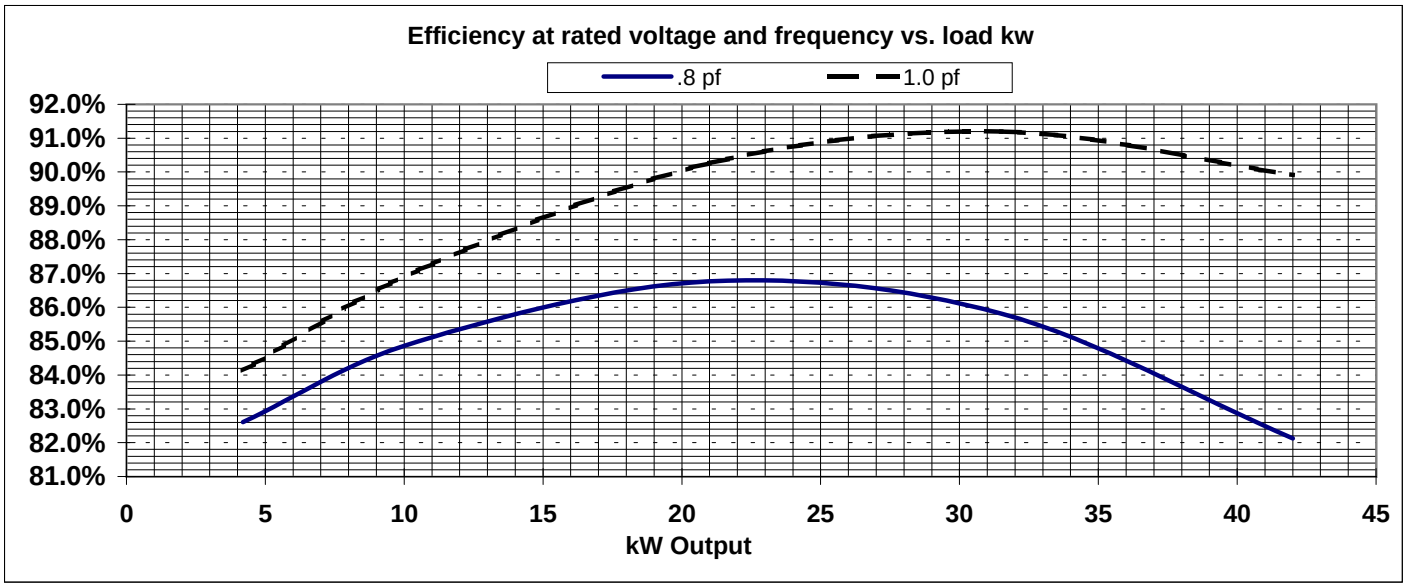
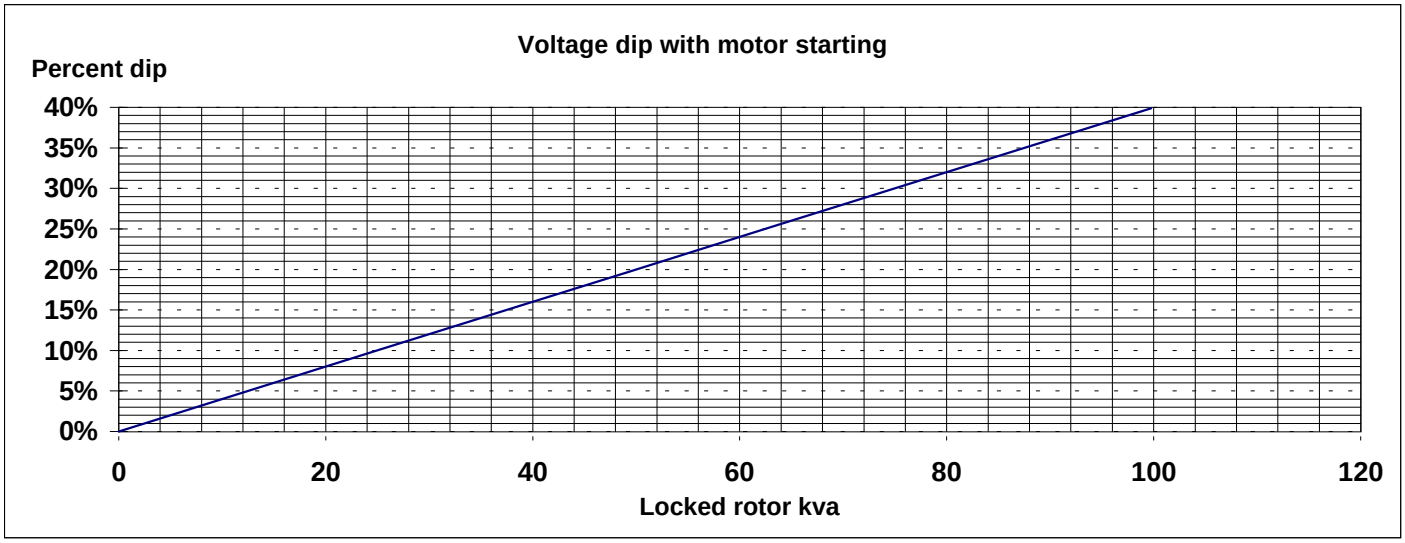
①Rise by resistance method, Mil-Std-705, Method 680.1b. *British Standard Rating per BS 5000*

Submittal Data: 415 Volts*, 32 kw, 40 kVA, 0.8 P.F., 1500 RPM, 50 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	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	0.20%
	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	0.381 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.75 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	23 Ohms			
	Exciter Rotor	0.12 Ohms	---	Main Stator Capacitance to ground	@NA mfd
	PMG Stator	NS**			
410.1a	No Load Exciter Field Amps	0.54 A DC			
	at 208/415 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.876		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	1.502 p.u.	--	Generator Frame	361
		6.427 ohms	--	Type	MAGNAPLUS
422.1a	X2 Negative Sequence React.	0.161 pu	--	Insulation	Class H
		0.689 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.043 pu	--	Amortisseur Windings	Full
		0.184 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.145 pu	--	Voltage Regulator	SE350
		0.62 ohms	--	Voltage Regulation	1.00%
426.1a	X"d Subtransient Reactance	0.118 pu			
		0.505 ohms			
--	Xq Quadrature Synch. React.	Not Available	--	Cooling Air Volume	575 CFM
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	304 Btu's/min
	Time Constant	0.053 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	56 amps
	Time Constant	0.008 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	50.1
	Time Constant	0.55 sec.		Efficiency at rated load :	85.7%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.011 sec.	--	Full load torque	175 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.*

MARATHON ELECTRIC GENERATORS

TYPICAL DYNAMIC CHARACTERISTICS

MODEL : 361PSL1600
BASE MODEL: 361PSL1600 **Winding WC- 1600**
Submittal Data: 415 Volts*, 32 kW, 40 kVA, 0.8 P.F., 1500 RPM, 50 Hz, 3 Phase