MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 363PSL1607

BASE MODEL: 363PSL1607 **Winding WC- 1607**

Submittal Data: 415 Volts*, 100 kW, 125 kVA, 0.8 P.F., 1500 RPM, 50 Hz, 3 Phase

11/01/2001

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	69 (86.3)	72 (90)	72 (90)	81 (101)	81 (101)	90 (113)	90 (113)	90 (113)	95 (119)
415/208	77 (96.3)	80 (100)	80 (100)	90 (113)	90 (113)	104 (130)	100 (125)	104 (130)	106 (133)
400/200	77 (96.3)	80 (100)	80 (100)	90 (113)	90 (113)	104 (130)	100 (125)	104 (130)	106 (133)
380/190	77 (96.3)	80 (100)	80 (100)	90 (113)	90 (113)	100 (125)	100 (125)	104 (130)	106 (133)
346/173	69 (86.3)	72 (90)	72 (90)	81 (101)	81 (101)	90 (113)	90 (113)	90 (113)	95 (119)

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

Submittal Data: 415 Volts*, 100 kw, 125 kVA, 0.8 P.F., 1500 RPM, 50 Hz, 3 Phase **STD. CONNECTION**

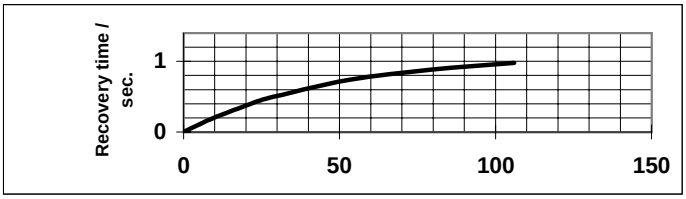
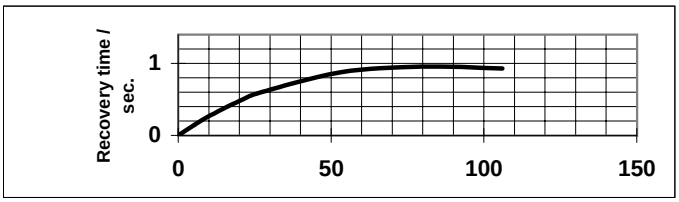
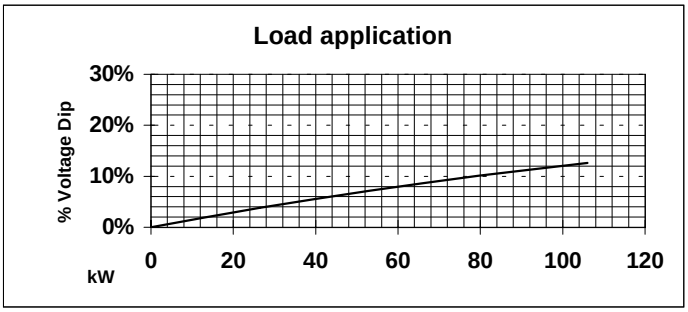
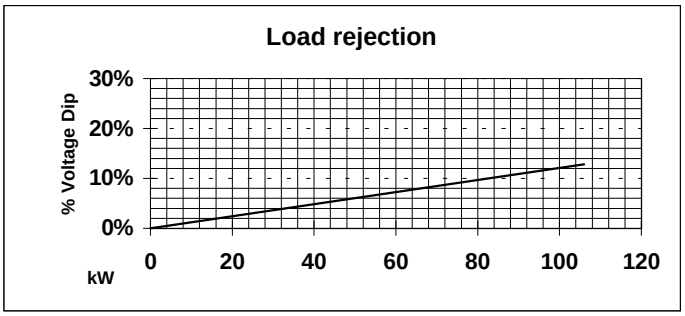
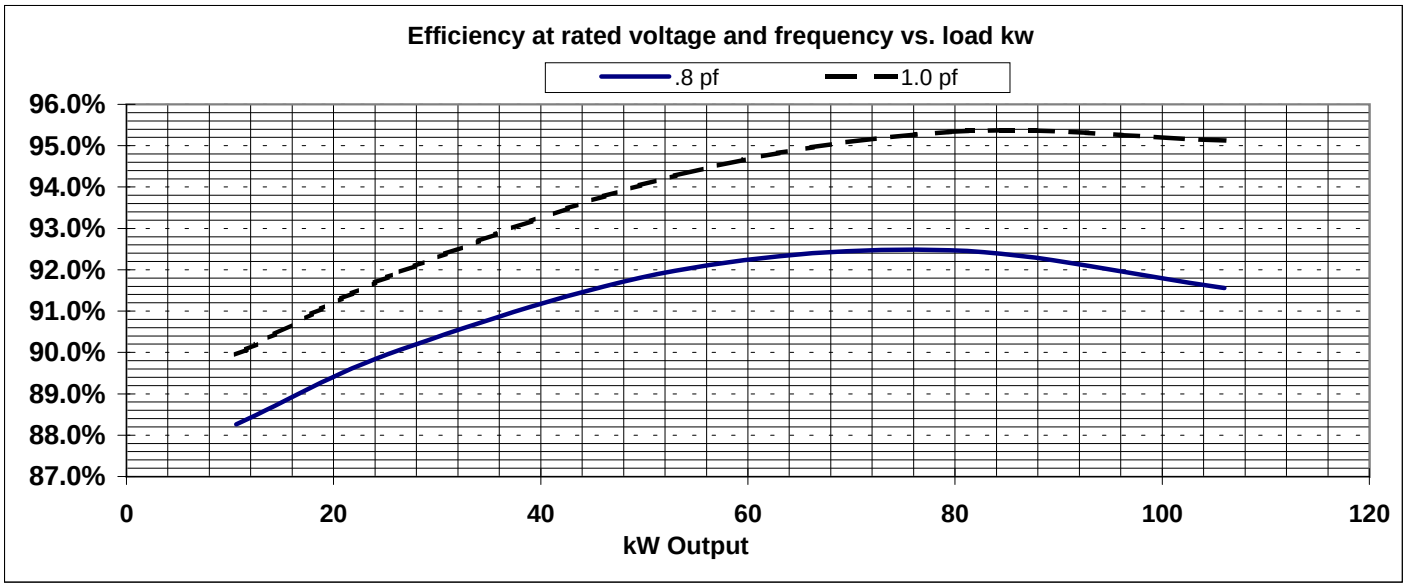
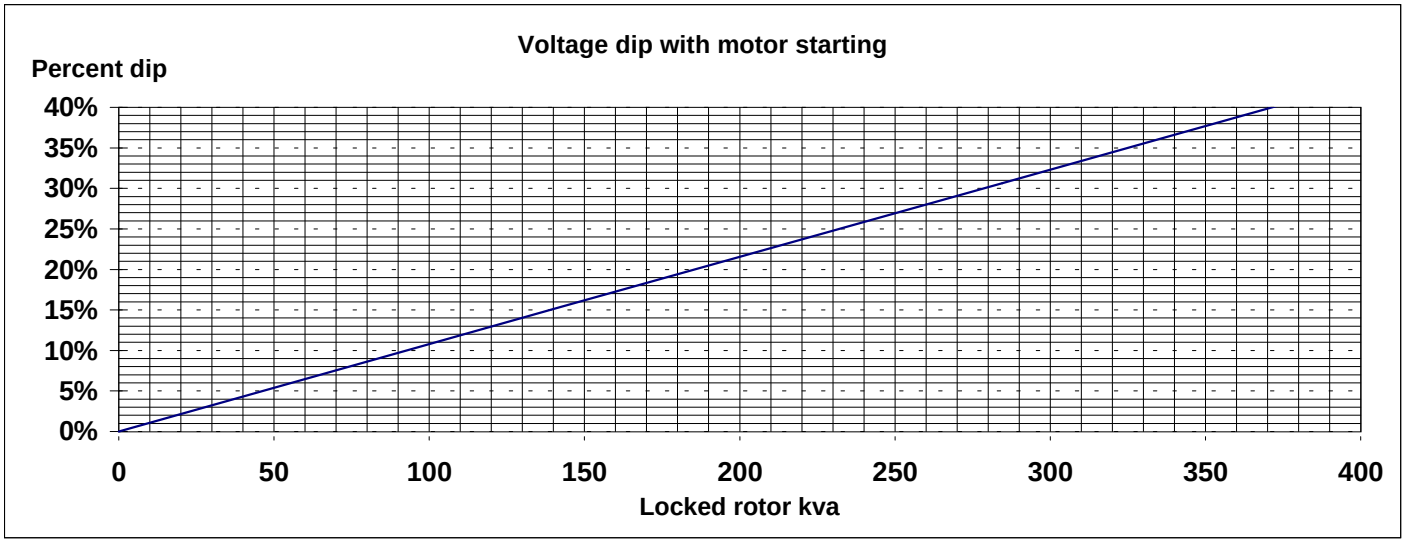
Mil-Std-705B Method	**Description**	**Value**
301.1b	Insulation Resistance	>1.5 Meg
302.1a	High Potential Test	
	Main Stator	2000 Volts
	Main Rotor	1500 Volts
	Exciter Stator	1500 Volts
	Exciter Rotor	1500 Volts
	PMG Stator	NS**
401.1a	Stator Resistance, Line to Line	
	High Wye Connection	0.0692 Ohms
	Rotor Resistance	1.365 Ohms
	Exciter Stator	23.5 Ohms
	Exciter Rotor	0.12 Ohms
	PMG Stator	NS**
410.1a	No Load Exciter Field Amps	0.62 A DC
	at 208/415 Volts Line to Line	
420.1a	Short Circuit Ratio	0.620
421.1a	Xd Synchronous Reactance	1.887 p.u.
		2.599 ohms
422.1a	X2 Negative Sequence React.	0.089 pu
		0.123 ohms
423.1a	X0 Zero Sequence Reactance	0.028 pu
		0.039 ohms
425.1a	X'd Transient Reactance	0.125 pu
		0.172 ohms
426.1a	X"d Subtransient Reactance	0.089 pu
		0.123 ohms
--	Xq Quadrature Synch. React.	Not Available
427.1a	T'd Transient Short Circuit	
	Time Constant	0.06 sec.
428.1a	T"d Subtransient Short Circuit	
	Time Constant	0.008 sec.
430.1a	T'do Transient Open Circuit	
	Time Constant	0.8 sec.
432.1a	Ta Short Circuit Time	
	Constant of Armature Winding	0.02 sec.

Mil-Std-705B Method	**Description**	**Value**
505.3b	Overspeed	1875 RPM
507.1c	Phase Sequence CCW-ODE	ABC
508.1c	Voltage Balance, L-L or L-N	0.20%
601.4a	L-L Harmonic Maximum - Total	3.5%
	(Distortion Factor)	
601.4a	L-L Harmonic Maximum - Single	2.5%
601.1c	Deviation Factor	7.0%
---	TIF (1960 Weightings)	< 50
---	THF (IEC, BS & NEMA Weightings)	< 2 %
652.1a	Shaft Current	< 0.1 ma
---	Main Stator Capacitance to ground	@NA mfd
	Additional Prototype Mil-Std Methods are Available on Request.	
--	Generator Frame	363
--	Type	MAGNAPLUS
--	Insulation	Class H
--	Coupling - Single Bearing	Flexible
--	Amortisseur Windings	Full
--	Excitation	Ext. Voltage Regulated, Brushless
--	Voltage Regulator	SE350
--	Voltage Regulation	1.00%
--	Cooling Air Volume	575 CFM
--	Heat rejection rate	502 Btu's/min
--	Full load current	174 amps
--	Minimum Input hp required	145.9
	Efficiency at rated load :	91.9%
--	Full load torque	511 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

MARATHON ELECTRIC GENERATORS

TYPICAL DYNAMIC CHARACTERISTICS

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