MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 360MSL0059

BASE MODEL: 360MSL0059 **Winding WC- 59**

Submittal Data: 480 Volts*, 30 kW, 37.5 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

10/31/2001

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	30 (37.5)	30 (37.5)	30 (37.5)	30 (37.5)	30 (37.5)	30 (37.5)	30 (37.5)	30 (37.5)	

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

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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	0.1773 Ohms
	Rotor Resistance	10.5 Ohms
	Exciter Stator	
	Exciter Rotor	0.23 Ohms
	PMG Stator	NS**
410.1a	No Load Exciter Field Amps	
	at 240/480 Volts Line to Line	
420.1a	Short Circuit Ratio	1.365
421.1a	Xd Synchronous Reactance	1.2 p.u.
		7.39 ohms
422.1a	X2 Negative Sequence React.	0.068 pu
		0.419 ohms
423.1a	X0 Zero Sequence Reactance	0.007 pu
		0.043 ohms
425.1a	X'd Transient Reactance	0.095 pu
		0.585 ohms
426.1a	X"d Subtransient Reactance	0.065 pu
		0.4 ohms
--	Xq Quadrature Synch. React.	Not Available
427.1a	T'd Transient Short Circuit	
	Time Constant	0.08 sec.
428.1a	T"d Subtransient Short Circuit	
	Time Constant	0.035 sec.
430.1a	T'do Transient Open Circuit	
	Time Constant	1 sec.
432.1a	Ta Short Circuit Time	
	Constant of Armature Winding	0.004 sec.

Mil-Std-705B Method	**Description**	**Value**
505.3b	Overspeed	2250 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	@NA
	(Distortion Factor)	
601.4a	L-L Harmonic Maximum - Single	@NA
601.1c	Deviation Factor	@NA
---	TIF (1960 Weightings)	< @NA
---	THF (IEC, BS & NEMA Weightings)	@NA
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	360
--	Type	LIMA MAC
--	Insulation	Class F
--	Coupling - Single Bearing	Flexible
--	Amortisseur Windings	Full
--	Excitation	Ext. Voltage Regulated, Brushless
--	Voltage Regulator	NONE
--	Voltage Regulation	4.00%
--	Cooling Air Volume	1020 CFM
--	Heat rejection rate	211 Btu's/min
--	Full load current	45 amps
--	Minimum Input hp required	45.2
	Efficiency at rated load :	89.0%
--	Full load torque	132 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. :
Version : 2001.2

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TYPICAL DYNAMIC CHARACTERISTICS

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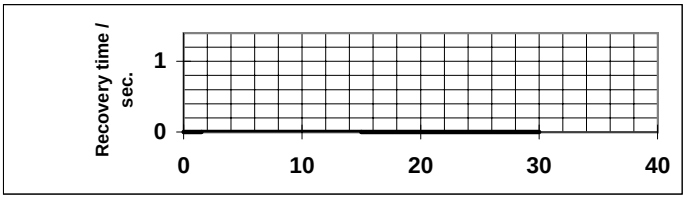
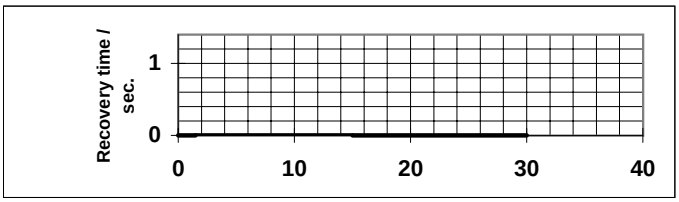
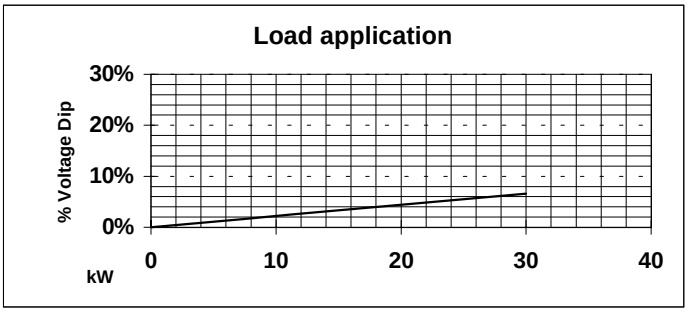
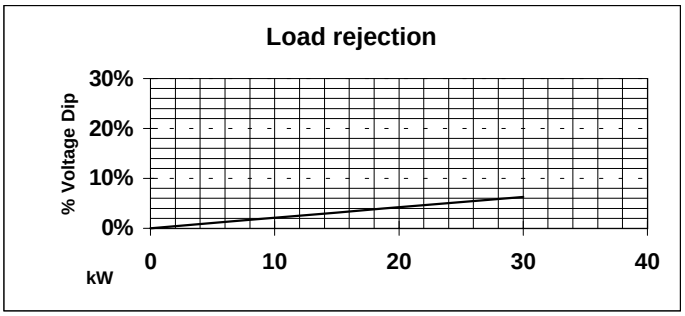
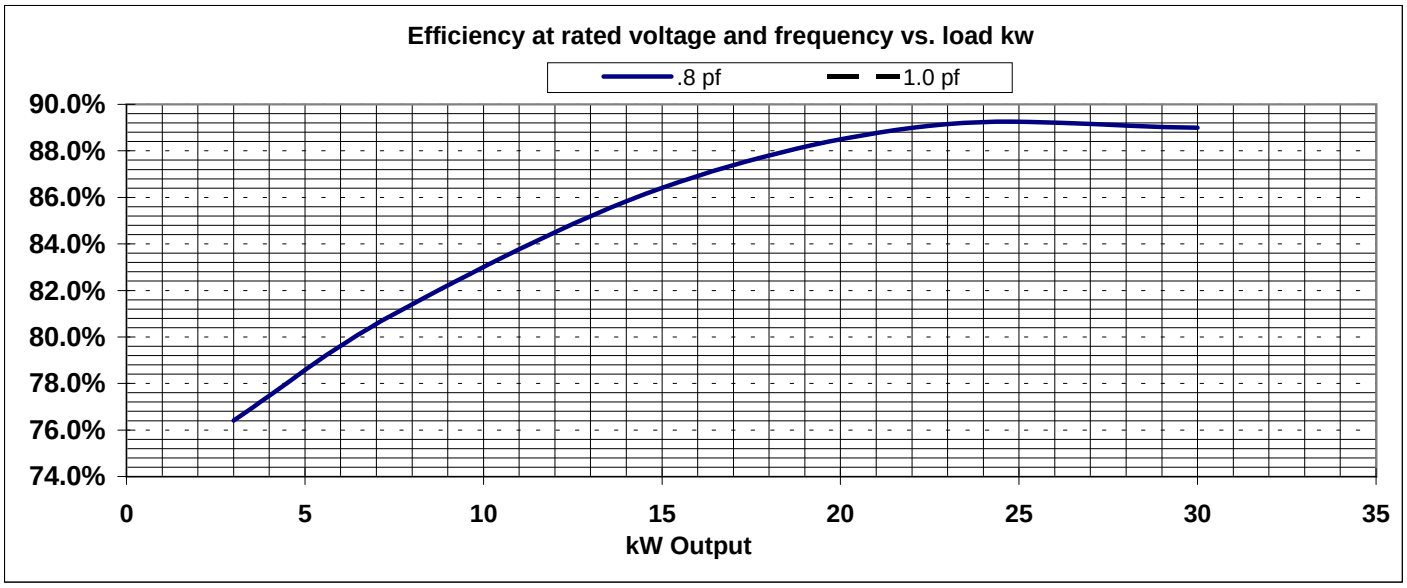
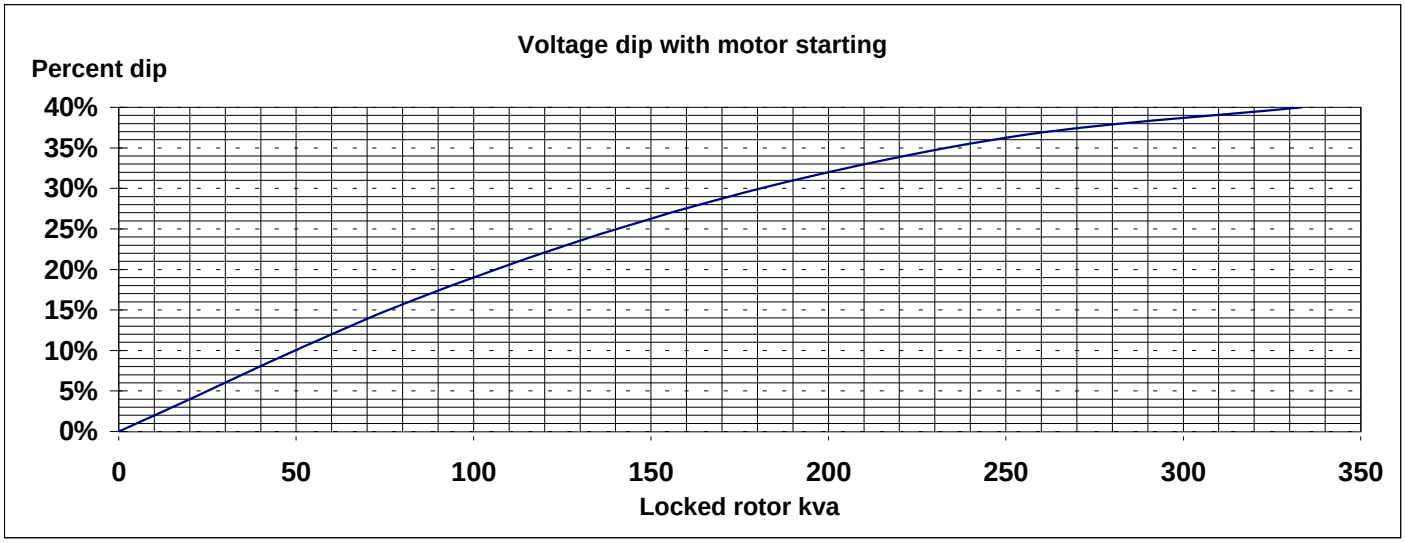
BASE MODEL: 360MSL0059 **Winding WC- 59**

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