MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA

MODEL : 360MSL0082

BASE MODEL: 360MSL0082 **Winding WC- 82**

Submittal Data: 415 Volts*, 20 kW, 25 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**
415	20 (25)	20 (25)	20 (25)	20 (25)	20 (25)	20 (25)	20 (25)	20 (25)	

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

Submittal Data: 415 Volts*, 20 kw, 25 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	@NA
	Exciter Stator	1500 Volts		(Distortion Factor)	
	Exciter Rotor	1500 Volts	601.4a	L-L Harmonic Maximum - Single	@NA
	PMG Stator	NS**	601.1c	Deviation Factor	@NA
401.1a	Stator Resistance, Line to Line		---	TIF (1960 Weightings)	< @NA
	High Wye Connection	0.3218 Ohms	---	THF (IEC, BS & NEMA Weightings)	@NA
	Rotor Resistance	0.9 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator				
	Exciter Rotor	0.23 Ohms	---	Main Stator Capacitance to ground	@NA mfd
	PMG Stator	NS**			
410.1a	No Load Exciter Field Amps				
	at 208/415 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.929		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	1.4 p.u.	--	Generator Frame	360
		9.584 ohms	--	Type	LIMA MAC
422.1a	X2 Negative Sequence React.	0.094 pu	--	Insulation	Class F
		0.644 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.018 pu	--	Amortisseur Windings	Full
		0.123 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.127 pu	--	Voltage Regulator	NONE
		0.869 ohms	--	Voltage Regulation	4.00%
426.1a	X"d Subtransient Reactance	0.093 pu			
		0.637 ohms			
--	Xq Quadrature Synch. React.	Not Available	--	Cooling Air Volume	1020 CFM
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	178 Btu's/min
	Time Constant	0.07 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	35 amps
	Time Constant	0.035 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	31.0
	Time Constant	0.79 sec.		Efficiency at rated load :	86.5%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.004 sec.	--	Full load torque	90 Lb-ft

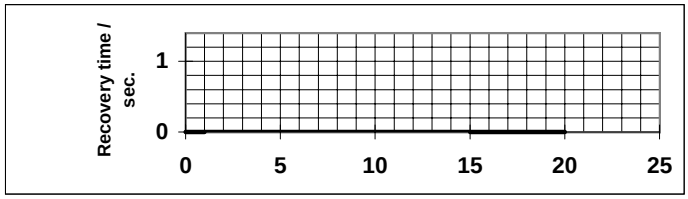
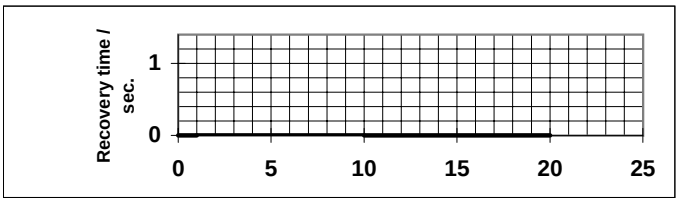
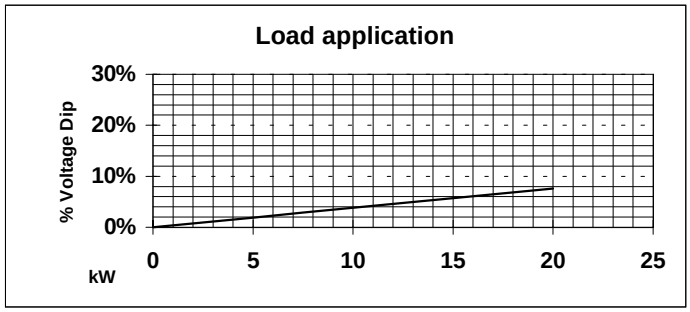
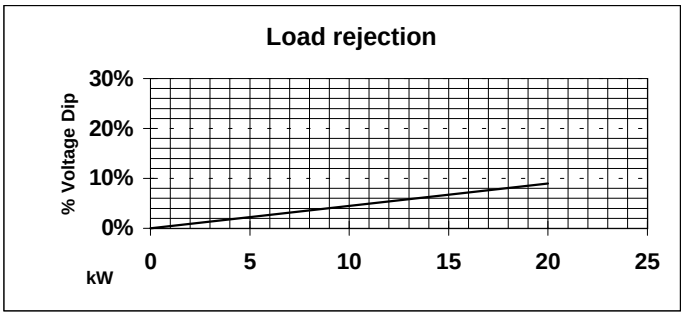
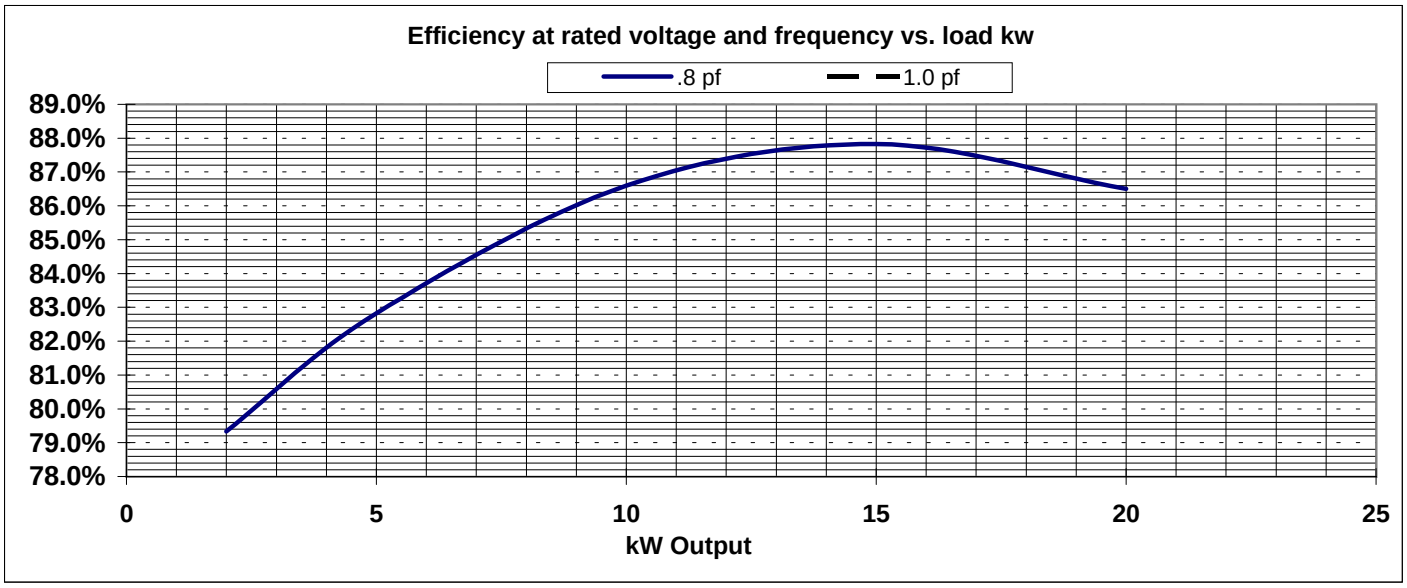
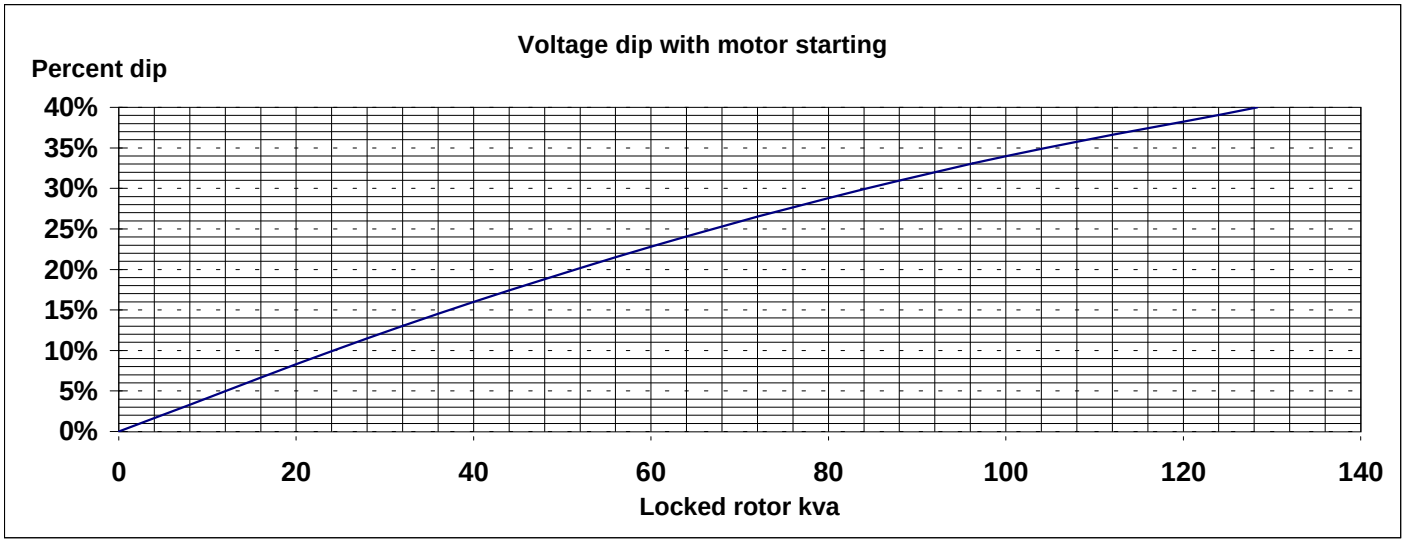
(3) Excitation support system or PMG required to sustain short circuit currents.
** Voltages refer to wye (star) connection, unless otherwise specified.*
*** Not supplied as standard equipment.*

Data rev. :
Version : 2001.2

MARATHON ELECTRIC GENERATORS

TYPICAL DYNAMIC CHARACTERISTICS

MODEL : 360MSL0082

BASE MODEL: 360MSL0082 **Winding WC- 82**

Submittal Data: 415 Volts*, 20 kW, 25 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase