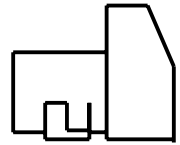


# MARATHON ELECTRIC

## GENERATORS

### TYPICAL SUBMITTAL DATA



MODEL : 440MSL0860

BASE MODEL: 440MSL0860

Winding WC- 860

Submittal Data: 415 Volts\*, 50 kW, 62.5 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

11/01/2001

Kilowatt ratings at		1800 RPM		60 Hertz		12 LEADS		Standard 3 phase	
kW (kVA)		3 Phase		0.8 Power Factor		Dripproof or Open Enclosure			
Voltage*	Class B		Class F				Class H		
	80° C Ⓞ Continuous	90° C Ⓞ Lloyds	95° C Ⓞ ABS	105° C British Standard	105° C Continuous	130° C Ⓞ Standby	125° C British Standard	125° C Continuous	150° C Ⓞ Standby
	415	50 (62.5)	50 (62.5)	50 (62.5)	50 (62.5)	50 (62.5)	50 (62.5)	50 (62.5)	

Ⓞ Rise by resistance method, Mil-Std-705, Method 680.1b.

British Standard Rating per BS 5000

Submittal Data: 415 Volts*, 50 kw, 62.5 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase			STD. CONNECTION		
<b>Mil-Std-705B</b>			<b>Mil-Std-705B</b>		
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 (Distortion Factor)	@NA
	Exciter Stator	1500 Volts	601.4a	L-L Harmonic Maximum - Single	@NA
	Exciter Rotor	1500 Volts	601.1c	Deviation Factor	@NA
	PMG Stator	NS**	---	TIF (1960 Weightings)	< @NA
401.1a	Stator Resistance, Line to Line High Wye Connection	0.0703 Ohms	---	THF (IEC, BS & NEMA Weightings)	@NA
	Rotor Resistance	0.64 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator				
	Exciter Rotor	0.114 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				
420.1a	Short Circuit Ratio	0.889			
421.1a	Xd Synchronous Reactance	1.55 p.u.	--	Generator Frame	440
		4.269 ohms	--	Type	LIMA MAC
422.1a	X2 Negative Sequence React.	0.079 pu	--	Insulation	Class F
		0.218 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.008 pu	--	Amortisseur Windings	Full
		0.022 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.105 pu	--	Voltage Regulator	NONE
		0.289 ohms	--	Voltage Regulation	4.00%
426.1a	X"d Subtransient Reactance	0.08 pu			
		0.22 ohms			
--	Xq Quadrature Synch. React.	Not Available	--	Cooling Air Volume	1800 CFM
427.1a	T'd Transient Short Circuit Time Constant	0.09 sec.	--	Heat rejection rate	300 Btu's/min
428.1a	T"d Subtransient Short Circuit Time Constant	0.035 sec.	--	Full load current	87 amps
430.1a	T'do Transient Open Circuit Time Constant	1.31 sec.	--	Minimum Input hp required	74.1
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.006 sec.	--	Efficiency at rated load :	90.5%
			--	Full load torque	216 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 : 440MSL0860

BASE MODEL: 440MSL0860

Winding WC- 860

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