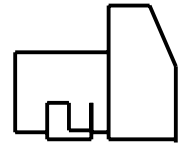


# MARATHON ELECTRIC

## GENERATORS

### TYPICAL SUBMITTAL DATA



10/24/2001

MODEL : 743FSS4232

BASE MODEL: 743FSS4232

Winding H-SG 740322

Submittal Data: 600 Volts\*, 914.4 kW, 1143 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

Kilowatt ratings at	1800 RPM	60 Hertz	4 BARS	SCR Duty 3 phase					
kW (kVA)	3 Phase	0.8 Power Factor	Dripproof or Open Enclosure						
	Class B		Class F				Class H		
Voltage*	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
600	900 (1125)								

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

British Standard Rating per BS 5000

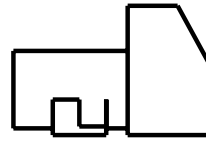
**Submittal Data: 600 Volts\*, 914.4 kw, 1143 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase** **STD. CONNECTION**

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	2200 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)	5.0%
	Exciter Stator	1500 Volts	601.4a	L-L Harmonic Maximum - Single	3.0%
	Exciter Rotor	1500 Volts	601.1c	Deviation Factor	5.0%
	PMG Stator	1500 Volts	---	TIF (1960 Weightings)	< 50
401.1a	Stator Resistance, Line to Line High Wye Connection	0.0059 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.771 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	22 Ohms			
	Exciter Rotor	0.066 Ohms	---	Main Stator Capacitance to ground	0.014 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps at 600 Volts Line to Line	0.63 A DC			
420.1a	Short Circuit Ratio	0.631	<b>Additional Prototype Mil-Std Methods are Available on Request.</b>		
421.1a	Xd Synchronous Reactance	1.805 p.u.	--	Generator Frame	743
		0.568 ohms	--	Type	MAGNAMAXDVR
422.1a	X2 Negative Sequence React.	0.18 pu	--	Insulation	Class H
		0.057 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.028 pu	--	Amortisseur Windings	Full
		0.009 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.149 pu	--	Voltage Regulator	DVR2000
		0.047 ohms	--	Voltage Regulation	0.25%
426.1a	X"d Subtransient Reactance	0.132 pu			
		0.042 ohms			
--	Xq Quadrature Synch. React.	Not Available	--	Cooling Air Volume	1130 CFM
427.1a	T'd Transient Short Circuit Time Constant	0.232 sec.	--	Heat rejection rate	2963 Btu's/min
428.1a	T"d Subtransient Short Circuit Time Constant	0.012 sec.	--	Full load current	1100 amps
430.1a	T'do Transient Open Circuit Time Constant	2.95 sec.	--	Minimum Input hp required	1295.6
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.043 sec.	--	Efficiency at rated load :	94.6%
			--	Full load torque	3779 Lb-ft

(3) Excitation support system or PMG required to sustain short circuit currents.  
\* Voltages refer to wye (star) connection, unless otherwise specified.

# MARATHON ELECTRIC GENERATORS

## TYPICAL DYNAMIC CHARACTERISTICS



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BASE MODEL: 743FSS4232

Winding H-SG 740322

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