

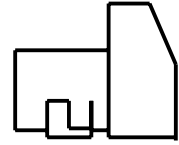
# MARATHON ELECTRIC

## GENERATORS

### TYPICAL SUBMITTAL DATA

Section 6000

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MODEL : 740RSL4046

BASE MODEL: 740RSL4046

Winding H-SG 570111A

Submittal Data: 480 Volts\*, 1200 kW, 1500 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

10/24/2001

Kilowatt ratings at		1800 RPM		60 Hertz		4 BARS		Standard 3 phase	
kW (kVA)		3 Phase		0.8 Power Factor		Dripproof or Open Enclosure			
Voltage*	Class B		Class F				Class H		
	80° C $\Phi$ Continuous	90° C $\Phi$ Lloyds	95° C $\Phi$ ABS	105° C British Standard	105° C Continuous	130° C $\Phi$ Standby	125° C British Standard	125° C Continuous	150° C $\Phi$ Standby
480	950 (1188)	1030 (1288)	970 (1213)	1120 (1400)	1120 (1400)	1220 (1525)	1170 (1463)	1200 (1500)	1250 (1563)
460	935 (1169)	1000 (1250)	950 (1188)	1090 (1363)	1090 (1363)	1190 (1488)	1150 (1438)	1170 (1463)	1250 (1563)
440	915 (1144)	980 (1225)	915 (1144)	1070 (1338)	1070 (1338)	1160 (1450)	1125 (1406)	1140 (1425)	1240 (1550)
416	880 (1100)	940 (1175)	870 (1088)	1020 (1275)	1020 (1275)	1110 (1388)	1070 (1338)	1090 (1363)	1180 (1475)
380	825 (1031)	875 (1094)	800 (1000)	945 (1181)	945 (1181)	945 (1181)	945 (1181)	945 (1181)	945 (1181)

$\Phi$ Rise by resistance method, Mil-Std-705, Method 680.1b.

British Standard Rating per BS 5000

Submittal Data: 480 Volts*, 1200 kw, 1500 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		---	THF (IEC, BS & NEMA Weightings)	< 2 %
	High Wye Connection	0.003 Ohms	652.1a	Shaft Current	< 0.1 ma
	Rotor Resistance	0.704 Ohms			
	Exciter Stator	23 Ohms			
	Exciter Rotor	0.7 Ohms	---	Main Stator Capacitance to ground	0.014 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.82 A DC			
420.1a	Short Circuit Ratio	0.515			
421.1a	Xd Synchronous Reactance	3.063 p.u.			
		0.471 ohms	--	Generator Frame	740
422.1a	X2 Negative Sequence React.	0.214 pu	--	Type	MAGNAMAXDVR
		0.033 ohms	--	Insulation	Class H
423.1a	X0 Zero Sequence Reactance	0.07 pu	--	Coupling - Single Bearing	Flexible
		0.011 ohms	--	Amortisseur Windings	Full
425.1a	X'd Transient Reactance	0.145 pu	--	Excitation	Ext. Voltage Regulated, Brushless
		0.022 ohms	--	Voltage Regulator	DVR2000
426.1a	X"d Subtransient Reactance	0.116 pu	--	Voltage Regulation	0.25%
		0.018 ohms			
--	Xq Quadrature Synch. React.	0.782 pu	--	Cooling Air Volume	1130 CFM
		0.12 ohms	--	Heat rejection rate	4084 Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.127 sec.	--	Full load current	1804 amps
428.1a	T"d Subtransient Short Circuit Time Constant	0.011 sec.	--	Minimum Input hp required	1704.8
430.1a	T'do Transient Open Circuit Time Constant	2.38 sec.	--	Efficiency at rated load :	94.4%
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.024 sec.	--	Full load torque	4972 Lb-ft

(3) Excitation support system or PMG required to sustain short circuit currents.

\* Voltages refer to wye (star) connection, unless otherwise specified.

Data rev. : 06/01/92

Version : 2001.2

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