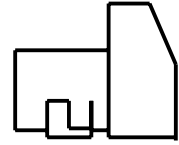


MARATHON ELECTRIC

GENERATORS

TYPICAL SUBMITTAL DATA



MODEL : 744RSL4058

BASE MODEL: 744RSL4058

Winding H-SG 740066

Submittal Data: 480 Volts*, 2060 kW, 2575 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

10/29/2001

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 Ⓞ 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
480	1760 (2200)	1910 (2388)	1980 (2475)	2100 (2625)	2100 (2625)	2320 (2900)	2150 (2688)	2270 (2838)	2370 (2963)
460	1730 (2163)	1870 (2338)	1940 (2425)	2050 (2563)	2050 (2563)	2260 (2825)	2200 (2750)	2210 (2763)	2420 (3025)
440	1690 (2113)	1820 (2275)	1880 (2350)	1990 (2488)	1990 (2488)	2180 (2725)	2125 (2656)	2140 (2675)	2340 (2925)
416	1640 (2050)	1760 (2200)	1820 (2275)	1920 (2400)	1920 (2400)	2090 (2613)	2035 (2544)	2050 (2563)	2240 (2800)
380	1550 (1938)	1650 (2063)	1700 (2125)	1790 (2238)	1790 (2238)	1950 (2438)	1910 (2388)	1910 (2388)	2070 (2588)

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

British Standard Rating per BS 5000

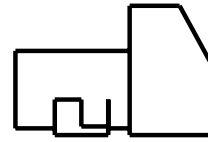
Submittal Data: 480 Volts*, 2060 kw, 2575 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase			STD. CONNECTION		
Mil-Std-705B			Mil-Std-705B		
Method	Description	Value	Method	Description	Value
301.1b	Insulation Resistance	>1.5 Meg	505.3b	Overspeed	2250 RPM
302.1a	High Potential Test		507.1c	Phase Sequence CCW-ODE	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 (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	0.0012 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	1.25 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	22.1 Ohms			
	Exciter Rotor	0.066 Ohms	---	Main Stator Capacitance to ground	0.15 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.92 A DC			
420.1a	Short Circuit Ratio	0.902			
421.1a	Xd Synchronous Reactance	1.594 p.u.			
		0.143 ohms	--	Generator Frame	744
422.1a	X2 Negative Sequence React.	0.155 pu	--	Type	MAGNAMAXDVR
		0.014 ohms	--	Insulation	Class H
423.1a	X0 Zero Sequence Reactance	0.102 pu	--	Coupling - Single Bearing	Flexible
		0.009 ohms	--	Amortisseur Windings	Full
425.1a	X'd Transient Reactance	0.095 pu	--	Excitation	Ext. Voltage Regulated, Brushless
		0.009 ohms	--	Voltage Regulator	DVR2000
426.1a	X"d Subtransient Reactance	0.072 pu	--	Voltage Regulation	0.25%
		0.006 ohms			
--	Xq Quadrature Synch. React.	1 pu	--	Cooling Air Volume	3000 CFM
		0.089 ohms	--	Heat rejection rate	5164 Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.215 sec.	--	Full load current	3097 amps
428.1a	T"d Subtransient Short Circuit Time Constant	0.011 sec.	--	Minimum Input hp required	2883.1
430.1a	T'do Transient Open Circuit Time Constant	2.75 sec.	--	Efficiency at rated load :	95.8%
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.031 sec.	--	Full load torque	8409 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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Winding H-SG 740066

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