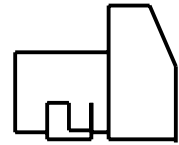


MARATHON ELECTRIC

GENERATORS

TYPICAL SUBMITTAL DATA



MODEL : 742RSL4048

BASE MODEL: 742RSL4048

Winding H-SG 740043

Submittal Data: 415 Volts*, 975.2 kW, 1219 kVA, 0.8 P.F., 1500 RPM, 50 Hz, 3 Phase

10/24/2001

Kilowatt ratings at		1500 RPM		50 Hertz		4 BARS		Standard 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
440	585 (731)	660 (825)	690 (863)	750 (938)	750 (938)	825 (1031)	810 (1013)	825 (1031)	890 (1113)
415	745 (931)	820 (1025)	850 (1063)	905 (1131)	905 (1131)	975 (1219)	960 (1200)	975 (1219)	1040 (1300)
400	800 (1000)	880 (1100)	870 (1088)	960 (1200)	960 (1200)	1030 (1288)	990 (1238)	1030 (1288)	1090 (1363)
380	840 (1050)	885 (1106)	860 (1075)	945 (1181)	945 (1181)	1010 (1263)	1000 (1250)	1000 (1250)	1070 (1338)
346	785 (981)	830 (1038)	800 (1000)	885 (1106)	885 (1106)	945 (1181)	930 (1163)	930 (1163)	1000 (1250)

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

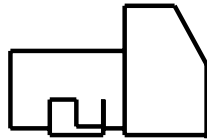
British Standard Rating per BS 5000

Submittal Data: 415 Volts*, 975.2 kw, 1219 kVA, 0.8 P.F., 1500 RPM, 50 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	1875 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		---	THF (IEC, BS & NEMA Weightings)	< 2 %
	High Wye Connection	0.003 Ohms	652.1a	Shaft Current	< 0.1 ma
	Rotor Resistance	0.776 Ohms			
	Exciter Stator	22 Ohms		Main Stator Capacitance to ground	0.047 mfd
	Exciter Rotor	0.043 Ohms			
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps at 415 Volts Line to Line	0.79 A DC			
420.1a	Short Circuit Ratio	0.617			
421.1a	Xd Synchronous Reactance	1.92 p.u.			
		0.271 ohms	--	Generator Frame	742
422.1a	X2 Negative Sequence React.	0.177 pu	--	Type	MAGNAMAXDVR
		0.025 ohms	--	Insulation	Class H
423.1a	X0 Zero Sequence Reactance	0.053 pu	--	Coupling - Single Bearing	Flexible
		0.007 ohms	--	Amortisseur Windings	Full
425.1a	X'd Transient Reactance	0.136 pu	--	Excitation	Ext. Voltage Regulated, Brushless
		0.019 ohms	--	Voltage Regulator	DVR2000
426.1a	X"d Subtransient Reactance	0.1 pu	--	Voltage Regulation	0.25%
		0.014 ohms			
--	Xq Quadrature Synch. React.	0.92 pu	--	Cooling Air Volume	2875 CFM
		0.13 ohms	--	Heat rejection rate	3164 Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.162 sec.	--	Full load current	1696 amps
428.1a	T"d Subtransient Short Circuit Time Constant	0.001 sec.	--	Minimum Input hp required	1381.8
430.1a	T'do Transient Open Circuit Time Constant	2.55 sec.	--	Efficiency at rated load :	94.6%
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.027 sec.	--	Full load torque	4836 Lb-ft

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

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

TYPICAL DYNAMIC CHARACTERISTICS



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Winding H-SG 740043

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