



TYPICAL SUBMITTAL DATA

MODEL : 744RSL4054

BASE MODEL: 744RSL4054

Winding H-SG740046

Submittal Data: 480 Volts*, 2000 kW, 2500 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

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	1500 (1875)	1650 (2063)	1520 (1900)	1850 (2313)	1850 (2313)	2000 (2500)	1850 (2313)	1960 (2450)	2000 (2500)
460	1490 (1863)	1620 (2025)	1500 (1875)	1800 (2250)	1800 (2250)	1990 (2488)	1880 (2350)	1950 (2438)	1990 (2488)
440	1460 (1825)	1590 (1988)	1450 (1813)	1750 (2188)	1750 (2188)	1920 (2400)	1830 (2288)	1880 (2350)	1920 (2400)
416	1420 (1775)	1530 (1913)	1410 (1763)	1680 (2100)	1680 (2100)	1840 (2300)	1740 (2175)	1800 (2250)	1840 (2300)
380	1360 (1700)	1460 (1825)	1330 (1663)	1590 (1988)	1590 (1988)	1590 (1988)	1590 (1988)	1590 (1988)	1590 (1988)

① Rise by resistance method, Mil-Std-705, Method 680.1b.

② British Standard Rating per BS 5000

Submittal Data: 480 Volts*, 2000 kW, 2500 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase				STD. CONNECTION	
Mil-Std-705B		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	5.0%
	Exciter Stator	1500 Volts		(Distortion Factor)	
	Exciter Rotor	1500 Volts	601.4a	L-L Harmonic Maximum - Single	3.0%
	PMG Stator	1500 Volts	601.1c	Deviation Factor	5.0%
401.1a	Stator Resistance, Line to Line		---	TIF (1960 Weightings)	< 50
	High Wye Connection	0.0015 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	1.1 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	22.1 Ohms		Main Stator Capacitance to ground	0.12 mfd
	Exciter Rotor	0.048 Ohms			
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.84 A DC			
420.1a	Short Circuit Ratio	0.675		Additional Prototype Mil-Std Methods are Available on Request.	
421.1a	Xd Synchronous Reactance	2 pu	--	Generator Frame	744
		0.184 ohms	--	Type	MAGNAMAXDVR
422.1a	X2 Negative Sequence React.	0.19 pu	--	Insulation	Class H
		0.018 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.07 pu	--	Amortisseur Windings	Full
		0.006 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.115 pu	--	Voltage Regulator	DVR2000E+
		0.011 ohms	--	Voltage Regulation	0.25%
426.1a	X"d Subtransient Reactance	0.08 pu			
		0.007 ohms			
--	Xq Quadrature Synchronous	1 pu	--	Cooling Air Volume	3150 CFM
		0.092 ohms			
427.1a	T'd Transient Short Circuit Time Constant	0.187 sec.	--	Heat rejection rate	4840 Btu's/min
428.1a	T"d Subtransient Short Circuit Time Constant	0.011 sec.	--	Full load current	3007 amps
430.1a	T'do Transient Open Circuit Time Constant	2.93 sec.	--	Minimum Input hp required	2795.0
				Efficiency at rated load :	95.9%
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.031 sec.	--	Full load torque	8152 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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