TAYLOR POWER SYSTEMS

TYPICAL SUBMITTAL DATA

MODEL : 744RSL4058

BASE MODEL: 744RSL4058 **Winding H-SG740066**

Submittal Data: 480 Volts*, 2060 kW, 2575 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**		
	Class B	**Class F**					**Class H**		
Voltage*	**80° C ① Continuous**	**90° C ① Lloyds**	**95° C ① ABS**	**105° C ② British Standard**	**105° C ① Continuous**	**130° C ① Standby**	**125° C ② British Standard**	**125° C ① Continuous**	**150° C ① 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)

① *Rise by resistance method, Mil-Std-705, Method 680.1b.* ② *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	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	0.0012 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	0.92 A DC			
	at 480 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.902		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	1.594 pu	--	Generator Frame	744
		0.143 ohms	--	Type	MAGNAMAXDVR
422.1a	X2 Negative Sequence React.	0.155 pu	--	Insulation	Class H
		0.014 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.102 pu	--	Amortisseur Windings	Full
		0.009 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.095 pu	--	Voltage Regulator	DVR2000E+
		0.009 ohms	--	Voltage Regulation	0.25%
426.1a	X"d Subtransient Reactance	0.072 pu			
		0.006 ohms			
--	Xq Quadrature Synchronous	1 pu	--	Cooling Air Volume	3000 CFM
		0.089 ohms			
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	4628 Btu's/min
	Time Constant	0.215 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	3097 amps
	Time Constant	0.011 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	2870.4
	Time Constant	2.75 sec.		Efficiency at rated load :	96.2%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.031 sec.	--	Full load torque	8372 Lb-ft

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

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

TAYLOR POWER SYSTEMS

TYPICAL DYNAMIC CHARACTERISTICS

MODEL : 744RSL4058

BASE MODEL: 744RSL4058 **Winding H-SG740066**

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