TAYLOR POWER SYSTEMS

TYPICAL SUBMITTAL DATA

MODEL : 742RSL4049

BASE MODEL: 742RSL4049 **Winding H-SG740063**

Submittal Data: 480 Volts*, 1300 kW, 1625 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

Kilowatt ratings at	**1800 RPM**		**60 Hertz**			**12 LEADS**	**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**
480/240	1000 (1250)	1100 (1375)	1040 (1300)	1200 (1500)	1200 (1500)	1300 (1625)	1200 (1500)	1260 (1575)	1300 (1625)
460/230	1020 (1275)	1100 (1375)	1020 (1275)	1190 (1488)	1190 (1488)	1290 (1613)	1210 (1513)	1260 (1575)	1290 (1613)
440/220	1000 (1250)	1060 (1325)	1000 (1250)	1140 (1425)	1140 (1425)	1240 (1550)	1220 (1525)	1220 (1525)	1280 (1600)
416/208	950 (1188)	1010 (1263)	940 (1175)	1100 (1375)	1100 (1375)	1180 (1475)	1160 (1450)	1160 (1450)	1250 (1563)
380/190	900 (1125)	955 (1194)	890 (1113)	1030 (1288)	1030 (1288)	1030 (1288)	1030 (1288)	1030 (1288)	1030 (1288)

① *Rise by resistance method, Mil-Std-705, Method 680.1b.* ② *British Standard Rating per BS 5000*

Submittal Data: 480 Volts*, 1300 kW, 1625 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	0.003 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.776 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	22 Ohms			
	Exciter Rotor	0.043 Ohms	---	Main Stator Capacitance to ground	0.047 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps	0.79 A DC			
	at 240/480 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.617		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	2.25 pu	--	Generator Frame	742
		0.319 ohms	--	Type	MAGNAMAXDVR
422.1a	X2 Negative Sequence React.	0.212 pu	--	Insulation	Class H
		0.03 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.063 pu	--	Amortisseur Windings	Full
		0.009 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.163 pu	--	Voltage Regulator	DVR2000E+
		0.023 ohms	--	Voltage Regulation	0.25%
426.1a	X"d Subtransient Reactance	0.119 pu			
		0.017 ohms			
--	Xq Quadrature Synchronous	1.1 pu	--	Cooling Air Volume	3430 CFM
		0.156 ohms			
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	3689 Btu's/min
	Time Constant	0.162 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	1955 amps
	Time Constant	0.011 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	1829.6
	Time Constant	2.55 sec.		Efficiency at rated load :	95.2%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.027 sec.	--	Full load torque	5336 Lb-ft

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

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

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TYPICAL DYNAMIC CHARACTERISTICS

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