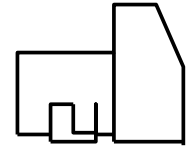


# MARATHON ELECTRIC GENERATORS

## TYPICAL SUBMITTAL DATA



MODEL : 572RSL4027

BASE MODEL: 572RSL4027

Winding H-SG570072

Submittal Data: 480 Volts\*, 515.2 kW, 644 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 Ⓞ 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	
480/240	440 (550)	465 (581)	475 (594)	500 (625)	500 (625)	515 (644)	515 (644)	515 (644)	560 (700)	
460/230	425 (531)	450 (563)	460 (575)	480 (600)	480 (600)	515 (644)	505 (631)	505 (631)	545 (681)	
440/220	410 (513)	430 (538)	440 (550)	460 (575)	460 (575)	500 (625)	485 (606)	485 (606)	520 (650)	
416/208	400 (500)	415 (519)	415 (519)	445 (556)	445 (556)	475 (594)	470 (588)	470 (588)	505 (631)	
380/190	360 (450)	380 (475)	390 (488)	405 (506)	405 (506)	405 (506)	405 (506)	405 (506)	405 (506)	

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

② British Standard Rating per BS 5000

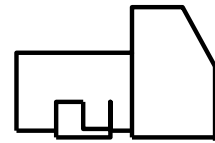
Submittal Data: 480 Volts*, 515.2 kW, 644 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase					STD. CONNECTION				
Mil-Std-705B					Mil-Std-705B				
Method	Description	Value	Method	Description	Value	Method	Description	Value	
301.1b	Insulation Resistance	>1.5 Meg	505.3b	Overspeed	2250 RPM				
302.1a	High Potential 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	0.0126 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %				
	Rotor Resistance	0.398 Ohms	652.1a	Shaft Current	< 0.1 ma				
	Exciter Stator	23 Ohms		Main Stator Capacitance to ground	0.03 mfd				
	Exciter Rotor	0.045 Ohms							
	PMG Stator	2.1 Ohms							
410.1a	No Load Exciter Field Amps at 240/480 Volts Line to Line	0.7 A DC							
420.1a	Short Circuit Ratio	0.591		<b>Additional Prototype Mil-Std Methods are Available on Request.</b>					
421.1a	Xd Synchronous Reactance	2.67 pu	--	Generator Frame	572				
		0.955 ohms	--	Type	MAGNAMAXDVR				
422.1a	X2 Negative Sequence React.	0.226 pu	--	Insulation	Class H				
		0.081 ohms	--	Coupling - Single Bearing	Flexible				
423.1a	X0 Zero Sequence Reactance	0.056 pu	--	Amortisseur Windings	Full				
		0.02 ohms	--	Excitation	Ext. Voltage Regulated, Brushless				
425.1a	X'd Transient Reactance	0.162 pu	--	Voltage Regulator	DVR2000E+				
		0.058 ohms	--	Voltage Regulation	0.25%				
426.1a	X"d Subtransient Reactance	0.137 pu							
		0.049 ohms	--	Cooling Air Volume	1520 CFM				
--	Xq Quadrature Synchronous	1.1 pu							
		0.393 ohms	--	Heat rejection rate	2034 Btu's/min				
427.1a	T'd Transient Short Circuit Time Constant	0.114 sec.	--	Full load current	775 amps				
428.1a	T"d Subtransient Short Circuit Time Constant	0.01 sec.							
430.1a	T'do Transient Open Circuit Time Constant	1.68 sec.	--	Minimum Input hp required	738.5				
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.017 sec.		Efficiency at rated load :	93.5%				
			--	Full load torque	2154 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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