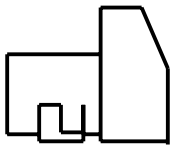
MARATHON ELECTRIC GENERATORS

TYPICAL SUBMITTAL DATA



MODEL : 431PSL6230

BASE MODEL: 431PSL6230 **Winding WC- 1918**

Submittal Data: 380 Volts*, 150 kW, 187.5 kVA, 0.8 P.F., 1800 RPM, 60 Hz, 3 Phase

11/01/2001

Kilowatt ratings at	**1800 RPM**		**60 Hertz**		**4 LEADS**	**Dedicated voltage 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 British Standard**	**105° C Continuous**	**130° C ① Standby**	**125° C British Standard**	**125° C Continuous**	**150° C ① Standby**
380	125 (156)	130 (163)	135 (169)	140 (175)	140 (175)	155 (194)	150 (188)	150 (188)	160 (200)

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

Submittal Data: 380 Volts*, 150 kw, 187.5 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	NS**	601.1c	Deviation Factor	5.0%
401.1a	Stator Resistance, Line to Line		---	TIF (1960 Weightings)	< 50
	High Wye Connection	0.103 Ohms	---	THF (IEC, BS & NEMA Weightings)	< 2 %
	Rotor Resistance	0.598 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator	18.5 Ohms			
	Exciter Rotor	0.116 Ohms	---	Main Stator Capacitance to ground	0.015 mfd
	PMG Stator	NS**			
410.1a	No Load Exciter Field Amps	0.42 A DC			
	at 380 Volts Line to Line			**Additional Prototype Mil-Std Methods**	
420.1a	Short Circuit Ratio	0.254		**are Available on Request.**	
421.1a	Xd Synchronous Reactance	1.131 p.u.	--	Generator Frame	431
		0.871 ohms	--	Type	MAGNAPLUS
422.1a	X2 Negative Sequence React.	0.346 pu	--	Insulation	Class H
		0.266 ohms	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.064 pu	--	Amortisseur Windings	Full
		0.049 ohms	--	Excitation	Ext. Voltage Regulated, Brushless
425.1a	X'd Transient Reactance	0.245 pu	--	Voltage Regulator	SE350
		0.189 ohms	--	Voltage Regulation	1.00%
426.1a	X"d Subtransient Reactance	0.235 pu			
		0.181 ohms			
--	Xq Quadrature Synch. React.	1.911 pu	--	Cooling Air Volume	1200 CFM
		1.471 ohms			
427.1a	T'd Transient Short Circuit		--	Heat rejection rate	1158 Btu's/min
	Time Constant	0.048 sec.			
428.1a	T"d Subtransient Short Circuit		--	Full load current	285 amps
	Time Constant	0.005 sec.			
430.1a	T'do Transient Open Circuit		--	Minimum Input hp required	228.4
	Time Constant	1.34 sec.		Efficiency at rated load :	88.1%
432.1a	Ta Short Circuit Time				
	Constant of Armature Winding	0.014 sec.	--	Full load torque	666 Lb-ft

(3) Excitation support system or PMG required to sustain short circuit currents.
** Voltages refer to wye (star) connection, unless otherwise specified.*
*** Not supplied as standard equipment.*

Data rev. : 01/01/00
Version : 2001.2

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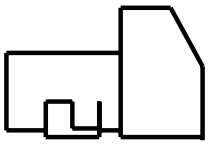
TYPICAL DYNAMIC CHARACTERISTICS



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