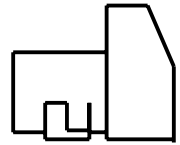


MARATHON ELECTRIC GENERATORS TYPICAL SUBMITTAL DATA



10/31/2001

MODEL : 280MSL0079

BASE MODEL: 280MSL0079

Winding 0 79

Submittal Data: 415 Volts*, 10 kW, 12.5 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			
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
	415	10 (12.5)	10 (12.5)	10 (12.5)	10 (12.5)	10 (12.5)	10 (12.5)	10 (12.5)	

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

British Standard Rating per BS 5000

Submittal Data: 415 Volts*, 10 kw, 12.5 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 (Distortion Factor)	@NA
	Exciter Stator	1500 Volts	601.4a	L-L Harmonic Maximum - Single	@NA
	Exciter Rotor	1500 Volts	601.1c	Deviation Factor	@NA
	PMG Stator	NS**	---	TIF (1960 Weightings)	< @NA
401.1a	Stator Resistance, Line to Line High Wye Connection	0.6793 Ohms	---	THF (IEC, BS & NEMA Weightings)	@NA
	Rotor Resistance	0.76 Ohms	652.1a	Shaft Current	< 0.1 ma
	Exciter Stator		---	Main Stator Capacitance to ground	@NA mfd
	Exciter Rotor	0.28 Ohms			
	PMG Stator	NS**			
410.1a	No Load Exciter Field Amps at 208/415 Volts Line to Line				
420.1a	Short Circuit Ratio	0.985			
421.1a	Xd Synchronous Reactance	1.27 p.u. 17.9 ohms	--	Generator Frame	280
422.1a	X2 Negative Sequence React.	0.381 pu	--	Type	LIMA MAC
423.1a	X0 Zero Sequence Reactance	5.37 ohms 0.022 pu	--	Insulation	Class F
425.1a	X'd Transient Reactance	0.31 ohms 0.127 pu	--	Coupling - Single Bearing	Flexible
426.1a	X"d Subtransient Reactance	1.79 ohms 0.127 pu	--	Amortisseur Windings	Full
--	Xq Quadrature Synch. React.	1.79 ohms Not Available	--	Excitation	Ext. Voltage Regulated, Brushless
427.1a	T'd Transient Short Circuit Time Constant	0.07 sec.	--	Voltage Regulator	NONE
428.1a	T"d Subtransient Short Circuit Time Constant	0.035 sec.	--	Voltage Regulation	4.00%
430.1a	T'do Transient Open Circuit Time Constant	0.66 sec.	--	Cooling Air Volume	750 CFM
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.015 sec.	--	Heat rejection rate	84 Btu's/min
			--	Full load current	17 amps
			--	Minimum Input hp required	15.4
			--	Efficiency at rated load :	87.1%
			--	Full load torque	45 Lb-ft

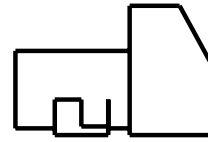
(3) Excitation support system or PMG required to sustain short circuit currents.

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

** Not supplied as standard equipment.

MARATHON ELECTRIC GENERATORS

TYPICAL DYNAMIC CHARACTERISTICS



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BASE MODEL: 280MSL0079

Winding 0 79

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