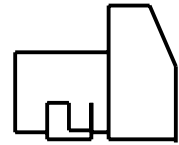


MARATHON ELECTRIC

GENERATORS

TYPICAL SUBMITTAL DATA



MODEL : 744FSL4062

BASE MODEL: 744FSL4062

Winding H-SG 740307

Submittal Data: 415 Volts*, 1520 kW, 1900 kVA, 0.8 P.F., 1500 RPM, 50 Hz, 3 Phase

10/25/2001

Kilowatt ratings at		1500 RPM	50 Hertz	4 BARS	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
440	1000 (1250)	1110 (1388)	1160 (1450)	1260 (1575)	1260 (1575)	1380 (1725)	1360 (1700)	1380 (1725)	1490 (1863)
415	1150 (1438)	1260 (1575)	1310 (1638)	1400 (1750)	1400 (1750)	1520 (1900)	1480 (1850)	1520 (1900)	1620 (2025)
400	1180 (1475)	1280 (1600)	1330 (1663)	1410 (1763)	1410 (1763)	1520 (1900)	1470 (1838)	1520 (1900)	1610 (2013)
380	1200 (1500)	1260 (1575)	1310 (1638)	1380 (1725)	1380 (1725)	1500 (1875)	1430 (1788)	1500 (1875)	1570 (1963)
346	1200 (1500)	1280 (1600)	1320 (1650)	1390 (1738)	1390 (1738)	1480 (1850)	1420 (1775)	1480 (1850)	1560 (1950)

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

British Standard Rating per BS 5000

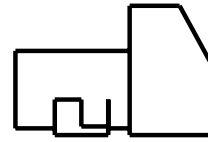
Submittal Data: 415 Volts*, 1520 kw, 1900 kVA, 0.8 P.F., 1500 RPM, 50 Hz, 3 Phase			STD. CONNECTION		
Mil-Std-705B			Mil-Std-705B		
Method	Description	Value	Method	Description	Value
301.1b	Insulation Resistance	>1.5 Meg	505.3b	Overspeed	1875 RPM
302.1a	High Potential Test		507.1c	Phase Sequence CCW-ODE	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)	5.0%
	Exciter Stator	1500 Volts	601.4a	L-L Harmonic Maximum - Single	3.0%
	Exciter Rotor	1500 Volts	601.1c	Deviation Factor	5.0%
	PMG Stator	1500 Volts	---	TIF (1960 Weightings)	< 50
401.1a	Stator Resistance, Line to Line		---	THF (IEC, BS & NEMA Weightings)	< 2 %
	High Wye Connection	0.0018 Ohms	652.1a	Shaft Current	< 0.1 ma
	Rotor Resistance	1.044 Ohms			
	Exciter Stator	22.1 Ohms			
	Exciter Rotor	0.066 Ohms	---	Main Stator Capacitance to ground	0.106 mfd
	PMG Stator	2.1 Ohms			
410.1a	No Load Exciter Field Amps at 415 Volts Line to Line	0.88 A DC			
420.1a	Short Circuit Ratio	0.580			
421.1a	Xd Synchronous Reactance	2.5 p.u.			
		0.227 ohms	--	Generator Frame	744
422.1a	X2 Negative Sequence React.	0.188 pu	--	Type	MAGNAMAXDVR
		0.017 ohms	--	Insulation	Class H
423.1a	X0 Zero Sequence Test Reactance	0.062 pu	--	Coupling - Single Bearing	Flexible
		0.006 ohms	--	Amortisseur Windings	Full
425.1a	X'd Transient Reactance	0.157 pu	--	Excitation	Ext. Voltage Regulated, Brushless
		0.014 ohms	--	Voltage Regulator	DVR2000
426.1a	X"d Subtransient Reactance	0.128 pu	--	Voltage Regulation	0.25%
		0.012 ohms			
--	Xq Quadrature Synch. React.	1 pu	--	Cooling Air Volume	2650 CFM
		0.091 ohms	--	Heat rejection rate	4135 Btu's/min
427.1a	T'd Transient Short Circuit Time Constant	0.196 sec.	--	Full load current	2643 amps
428.1a	T"d Subtransient Short Circuit Time Constant	0.012 sec.	--	Minimum Input hp required	2135.0
430.1a	T'do Transient Open Circuit Time Constant	3.4 sec.	--	Efficiency at rated load :	95.4%
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.024 sec.	--	Full load torque	7473 Lb-ft

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

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

MARATHON ELECTRIC GENERATORS

TYPICAL DYNAMIC CHARACTERISTICS



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BASE MODEL: 744FSL4062

Winding H-SG 740307

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