



**MARATHON ELECTRIC
SYNCHRONOUS AC GENERATOR
TYPICAL SUBMITTAL DATA**

Basic Model 361CSL1601

Date: 4-27-05

kW (kVA)	1800 RPM		60 Hertz				12 Leads			
	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 ① Continuous	130° C ① Standby	125° C † British Standard	125° C ① Continuous	150° C ① Standby	
240/480	49 (61)	50 (63)	50 (63)	55 (69)	55 (69)	60 (75)	60 (75)	60 (75)	65 (81)	
230/460	50 (63)	50 (63)	50 (63)	54 (68)	54 (68)	60 (75)	60 (75)	60 (75)	62 (77)	
220/440	48 (60)	48 (60)	48 (60)	53 (66)	53 (66)	58 (72)	58 (72)	58 (72)	61 (76)	
208/416	45 (56)	46 (58)	46 (58)	50 (63)	50 (63)	55 (69)	55 (69)	55 (69)	58 (73)	
190/380	41 (51)	41 (52)	41 (52)	45 (56)	45 (56)	50 (62)	50 (62)	50 (62)	52 (65)	

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

† Rating per BS 5000.

Submittal Data: 480 Volts, 62.5 kVA, 1800 RPM, 60 Hz, 3 Phase					
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	601.4a	L-L Harmonic Maximum - Total (Distortion Factor)	3.5%
	Main Rotor	1500 Volts	601.4a	L-L Harmonic Maximum - Single	2.5%
	Exciter Stator	1500 Volts	601.1c	Deviation Factor	7.0%
	Exciter Rotor	1500 Volts	---	TIF (1960 Weightings)	<50
401.1a	Stator Resistance, Line to Line		Additional Prototype Mil-Std Methods are Available on Request.		
	High Wye Connection	0.264 Ohms			
	Rotor Resistance	0.81 Ohms			
	Exciter Stator	23.5 Ohms			
	Exciter Rotor	0.12 Ohms			
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.53 A DC	--	Generator Frame	360
420.1a	Short Circuit Ratio	0.72	--	Type	Ext. Voltage Regulated, Brushless
421.1a	Xd Synchronous Reactance	1.875 pu	--	Insulation	Class H
422.1a	X2 Negative Sequence Reactance	0.169 pu	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.04 pu	--	Amortisseur Windings	Full
425.1a	X'd Transient Reactance	0.133 pu	--	Cooling Air Volume	700 CFM
426.1a	X''d Subtransient Reactance	0.11 pu	--	Exciter	Rotating
427.1a	T'd Transient Short Circuit Time Constant	0.048 sec.	--	Voltage Regulator	SE350
428.1a	T''d Subtransient Short Circuit Time Constant	0.008 sec.	--	Voltage Regulation	1%
430.1a	T'do Transient Open Circuit Time Constant	0.68 sec.			
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.01 sec.			

* Voltage refers to wye (star) connection, unless otherwise specified.

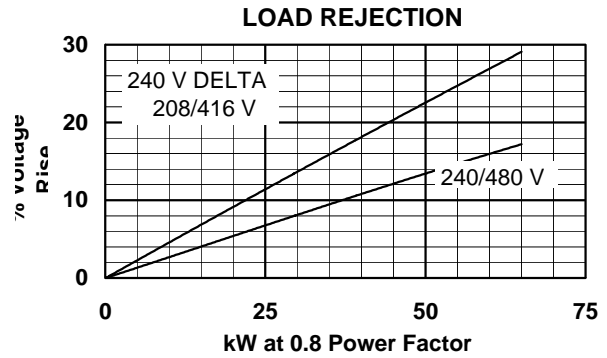
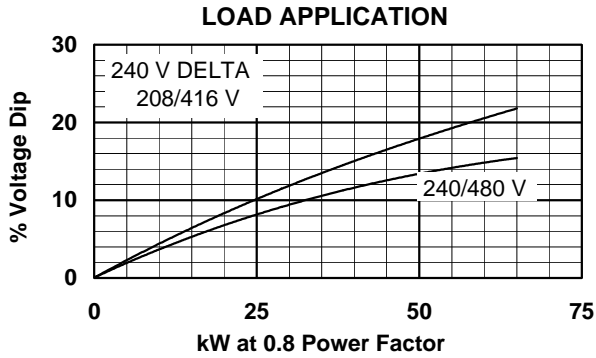
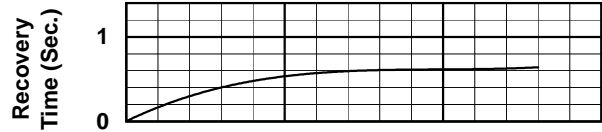
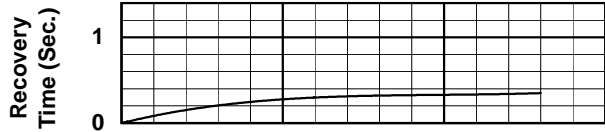


MARATHON ELECTRIC
SYNCHRONOUS AC GENERATOR
TYPICAL DYNAMIC CHARACTERISTICS

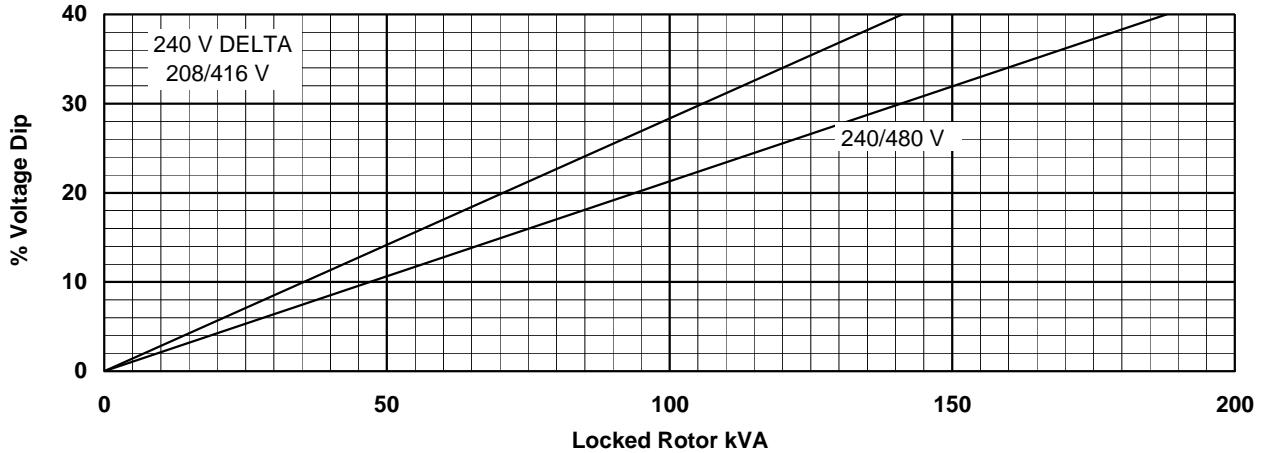
Basic Model 361CSL1601

Date: 4-27-05

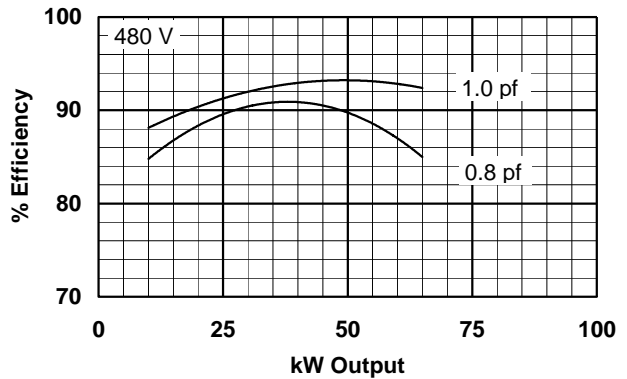
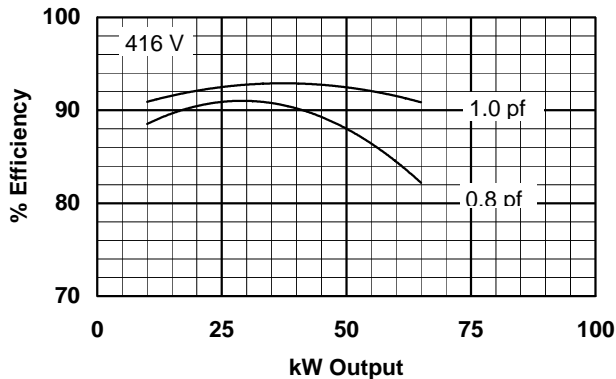
60 HERTZ



TYPICAL MOTOR STARTING CHARACTERISTICS



TYPICAL GENERATOR EFFICIENCY



Voltage refers to wye (star) connection, unless otherwise specified.