MARATHON ELECTRIC
SYNCHRONOUS AC GENERATOR
TYPICAL SUBMITTAL DATA

Basic Model 362CSL1604 **Date: 4-27-05**

Kilowatt ratings at	**1800** RPM	**60** Hertz	**12** Leads
kW (kVA)	**3** Phase	**0.8** Power Factor	**Dripproof or Open** Enclosure

	Class B	**Class F**					**Class H**		
Voltage*	**80º C ① Continuous**	**90º C ① Lloyds**	**95º C ① ABS**	**105º C † British Standard**	**105º C ① Continuous**	**130º C ① Standby**	**125º C † British Standard**	**125º C ① Continuous**	**150º C ① Standby**
240/480	**75 (94)**	**77 (96)**	**77 (96)**	**84 (105)**	**84 (105)**	**90 (113)**	**90 (113)**	**90 (113)**	**95 (119)**
230/460	**71 (89)**	**73 (91)**	**73 (91)**	**80 (100)**	**80 (100)**	**86 (107)**	**86 (107)**	**86 (107)**	**90 (113)**
220/440	**68 (85)**	**70 (88)**	**70 (88)**	**76 (95)**	**76 (95)**	**84 (105)**	**84 (105)**	**84 (105)**	**89 (112)**
208/416	**65 (81)**	**67 (84)**	**67 (84)**	**72 (90)**	**72 (90)**	**80 (100)**	**80 (100)**	**80 (100)**	**85 (106)**
190/380	**60 (75)**	**60 (75)**	**60 (75)**	**65 (81)**	**65 (81)**	**72 (90)**	**72 (90)**	**72 (90)**	**77 (96)**

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

Submittal Data: 480 Volts, 100 kVA, 1800 RPM, 60 Hz, 3 Phase

Mil-Std-705B		
Method	**Description**	**Value**
301.1b	Insulation Resistance	> 1.5 Meg
302.1a	High Potential Test	
	Main Stator	2000 Volts
	Main Rotor	1500 Volts
	Exciter Stator	1500 Volts
	Exciter Rotor	1500 Volts
401.1a	Stator Resistance, Line to Line	
	High Wye Connection	0.138 Ohms
	Rotor Resistance	1.05 Ohms
	Exciter Stator	23.5 Ohms
	Exciter Rotor	0.12 Ohms
410.1a	No Load Exciter Field Amps	
	at 480 Volts Line to Line	0.52 A DC
420.1a	Short Circuit Ratio	0.634
421.1a	Xd Synchronous Reactance	1.864 pu
422.1a	X2 Negative Sequence	
	Reactance	0.148 pu
423.1a	X0 Zero Sequence Reactance	0.038 pu
425.1a	X'd Transient Reactance	0.127 pu
426.1a	X"d Subtransient Reactance	0.098 pu
427.1a	T'd Transient Short Circuit	
	Time Constant	0.05 sec.
428.1a	T"d Subtransient Short Circuit	
	Time Constant	0.007 sec.
430.1a	T'do Transient Open Circuit	
	Time Constant	0.8 sec.
432.1a	Ta Short Circuit Time	
	Constant of Armature Winding	0.01 sec.

Mil-Std-705B		
Method	**Description**	**Value**
505.3b	Overspeed	2250 RPM
507.1c	Phase Sequence CCW-ODE	ABC
601.4a	L-L Harmonic Maximum - Total	3.5%
	(Distortion Factor)	
601.4a	L-L Harmonic Maximum - Single	2.5%
601.1c	Deviation Factor	7.0%
---	TIF (1960 Weightings)	<50
	Additional Prototype Mil-Std Methods are Available on Request.	
--	Generator Frame	360
--	Type	Ext. Voltage Regulated, Brushless
--	Insulation	Class H
--	Coupling - Single Bearing	Flexible
--	Amortisseur Windings	Full
--	Cooling Air Volume	700 CFM
--	Exciter	Rotating
--	Voltage Regulator	SE350
--	Voltage Regulation	1%

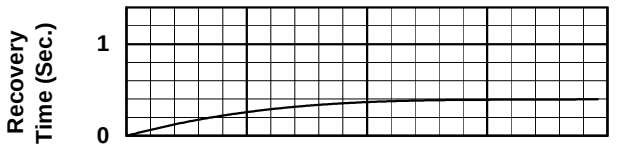
* Voltage refers to wye (star) connection, unless otherwise specified.

TAYLOR POWER SYSTEMS®

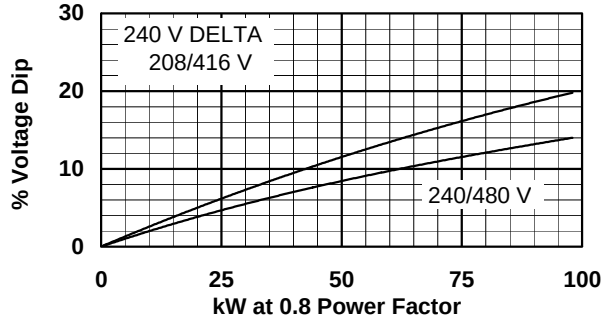
MARATHON ELECTRIC
SYNCHRONOUS AC GENERATOR
TYPICAL DYNAMIC CHARACTERISTICS

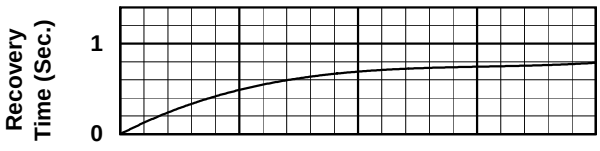
Basic Model 362CSL1604 **Date: 6-1-00**

60 HERTZ

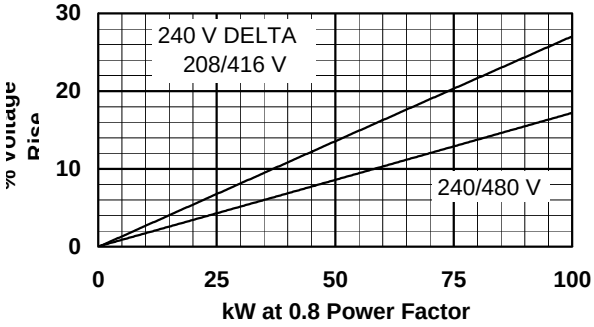


LOAD APPLICATION

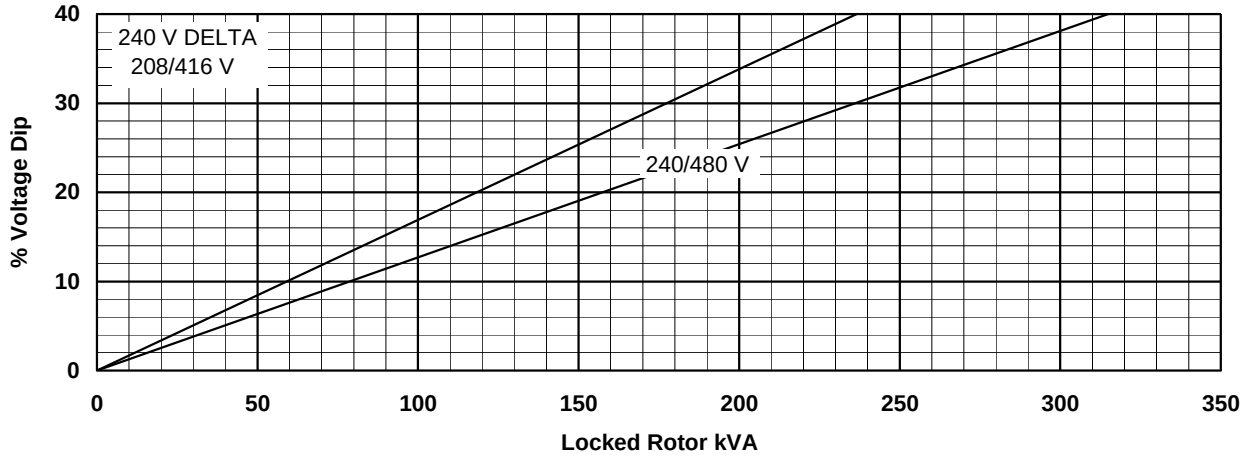




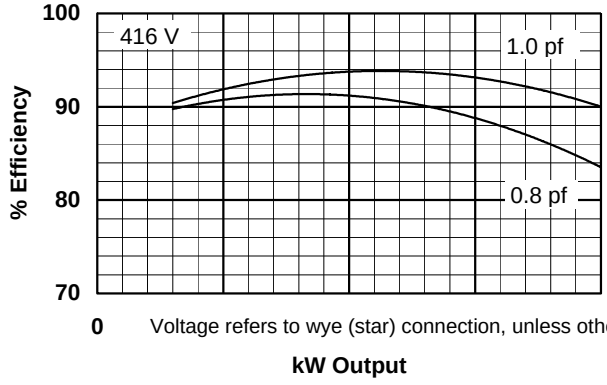
LOAD REJECTION

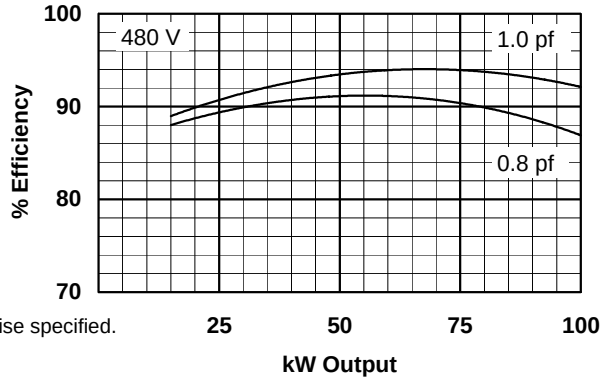


TYPICAL MOTOR STARTING CHARACTERISTICS



TYPICAL GENERATOR EFFICIENCY





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