MARATHON ELECTRIC
SYNCHRONOUS AC GENERATOR
TYPICAL SUBMITTAL DATA

Basic Model: 361PSL1600 / 361CSL1600 **Date: 07/16/08**

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	**40 (50)**	**41 (51)**	**41 (51)**	**45 (56)**	**45 (56)**	**48 (60)**	**48 (60)**	**48 (60)**	**50 (63)**
230/460	**38 (48)**	**40 (50)**	**40 (50)**	**43 (53)**	**43 (53)**	**46 (57)**	**46 (57)**	**46 (57)**	**48 (59)**
220/440	**37 (46)**	**40 (50)**	**40 (50)**	**42 (53)**	**42 (53)**	**45 (56)**	**45 (56)**	**45 (56)**	**47 (59)**
208/416	**35 (44)**	**37 (46)**	**37 (46)**	**40 (50)**	**40 (50)**	**42 (53)**	**42 (53)**	**42 (53)**	**45 (56)**
190/380	**32 (39)**	**33 (42)**	**33 (42)**	**36 (45)**	**36 (45)**	**38 (47)**	**38 (47)**	**38 (47)**	**41 (51)**

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

Submittal Data: 480 Volts, 50 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	0.381 Ohms
	Rotor Resistance	0.75 Ohms
	Exciter Stator	23.5 Ohms
	Exciter Rotor	0.12 Ohms
410.1a	No Load Exciter Field Amps	
	at 480 Volts Line to Line	0.5 A DC
420.1a	Short Circuit Ratio	0.781
421.1a	Xd Synchronous Reactance	1.684 pu
422.1a	X2 Negative Sequence	
	Reactance	0.18 pu
423.1a	X0 Zero Sequence Reactance	0.048 pu
425.1a	X'd Transient Reactance	0.163 pu
426.1a	X"d Subtransient Reactance	0.132 pu
427.1a	T'd Transient Short Circuit	
	Time Constant	0.053 sec.
428.1a	T"d Subtransient Short Circuit	
	Time Constant	0.008 sec.
430.1a	T'do Transient Open Circuit	
	Time Constant	0.55 sec.
432.1a	Ta Short Circuit Time	
	Constant of Armature Winding	0.011 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%
--	Heat Rejection Rate	340 BTU/min
--	Full Load Current	69.6 A
--	Minimum Input Hp Required	61.6 Hp
--	Efficiency at Rated Load	87%
--	Full Load Torque	216 ft*lb

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

TAYLOR POWER SYSTEMS®

MARATHON ELECTRIC
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TYPICAL DYNAMIC CHARACTERISTICS

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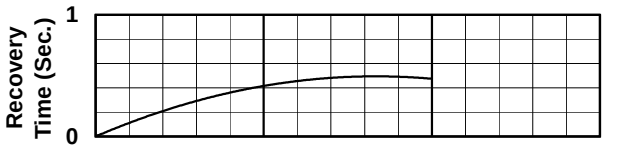
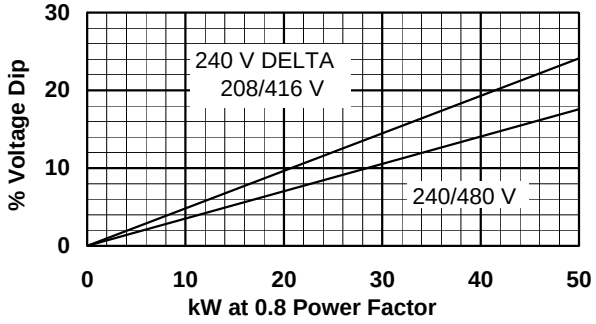
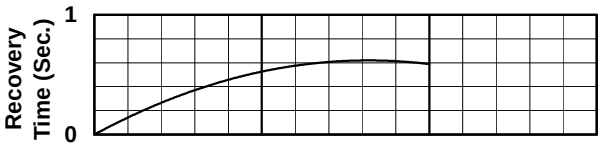
60 HERTZ



LOAD APPLICATION





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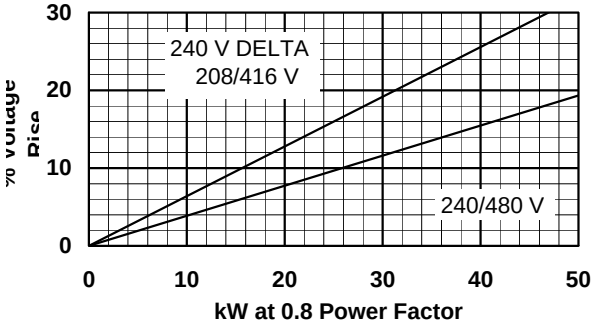
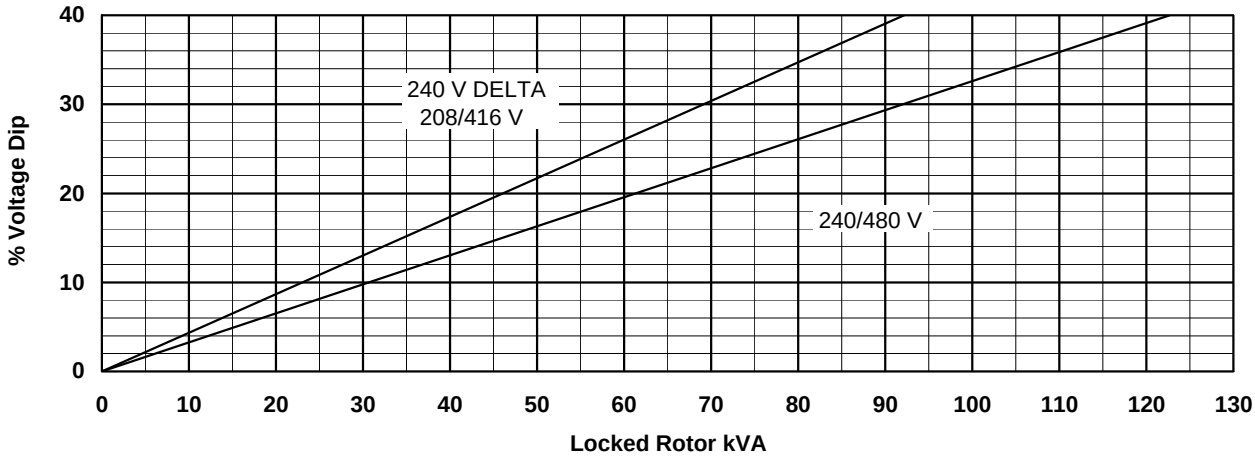
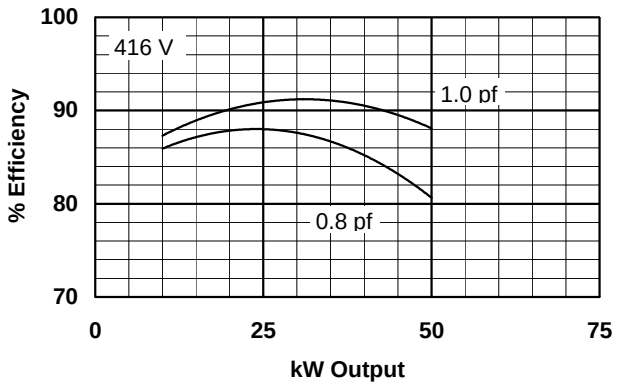
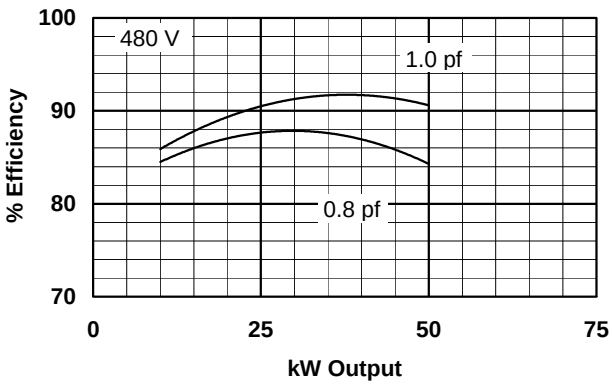


TYPICAL MOTOR STARTING CHARACTERISTICS



TYPICAL GENERATOR EFFICIENCY





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