



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

Model MP-128-4A
Basic Model: 431CSL6202/431PSL6202

Date: 3/28/13

Kilowatt ratings at		1500 RPM		60 Hertz		12 Leads				
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 Ⓚ Continuou s	130° C Ⓚ Standby	125° C † British Standard	125° C Ⓚ Continuous	150° C Ⓚ Standby	
	240/480	125 (156)	131 (164)	135 (169)	142 (178)	142 (178)	155 (194)	145 (181)	151 (189)	160 (200)
	230/460	125 (156)	132 (165)	136 (170)	143 (179)	143 (179)	155 (194)	145 (181)	152 (190)	160 (200)
	220/440	125 (156)	132 (165)	136 (170)	143 (179)	143 (179)	153 (191)	145 (181)	151 (189)	160 (200)
	208/416	125 (156)	130 (163)	133 (166)	140 (175)	140 (175)	151 (189)	141 (176)	147 (184)	155 (194)
190/380	115 (144)	120 (150)	123 (154)	130 (163)	130 (163)	140 (175)	132 (165)	135 (169)	145 (181)	

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

† Rating per BS 5000.

Submittal Data: 240/480 Volts*, 194 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	508.1c	Voltage Balance, L-L or L-N	0.2%
	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		625.1c	Mechanical Strength (High Wye Connection, Sustained 3 Phase Short Circuit Current) ⁽³⁾	< 300%
	High Wye Connection	0.0718 Ohms	652.1a	Shaft Current	< 0.1 ma
	Rotor Resistance	0.598 Ohms	652.1a	Main Stator Capacitance to Ground	0.015 mfd
	Exciter Stator	18.5 Ohms	Additional Prototype Mil-Std Methods are Available on Request.		
	Exciter Rotor	0.116 Ohms			
	PMG Stator	2.1 Ohms**			
410.1a	No Load Exciter Field Amps at 480 Volts Line to Line	0.6 A DC	--	Generator Frame	431
420.1a	Short Circuit Ratio	0.405	--	Type Ext. Voltage Regulated, Brushless	
421.1a	Xd Synchronous Reactance	3.195 pu	--	Insulation	Class H
422.1a	X2 Negative Sequence Reactance	0.268 pu	--	Coupling - Single Bearing	Flexible
423.1a	X0 Zero Sequence Reactance	0.05 pu	--	Amortisseur Windings	Full
425.1a	X'd Transient Reactance	0.19 pu	--	Cooling Air Volume	1280 CFM
426.1a	X"d Subtransient Reactance	0.182 pu	--	Exciter	Rotating
--	Xq Quadrature Synchronous Reactance	1.478 pu	--	Voltage Regulator	SE350***
427.1a	T'd Transient Short Circuit Time Constant	0.048 sec.	--	Voltage Regulation	1%***
428.1a	T"d Subtransient Short Circuit Time Constant	0.005 sec.	--	Sensing	1 Phase***
430.1a	T'do Transient Open Circuit Time Constant	1.34 sec.			
432.1a	Ta Short Circuit Time Constant of Armature Winding	0.014 sec.			

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

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

**Not supplied as standard equipment.

***DVR®2000E+ voltage regulator supplied with PMG option. DVR®2000E+ voltage regulation 1/4%, 1 or 3 Phase sensing.

www.marathonelectric.com

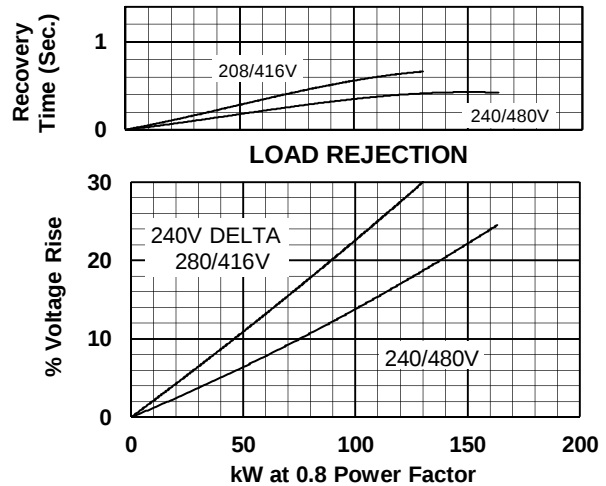
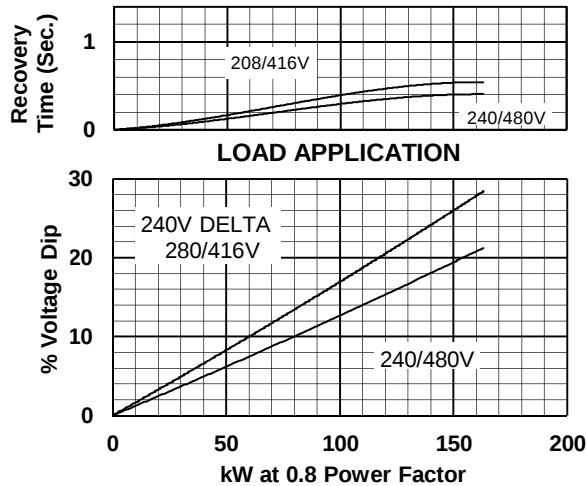


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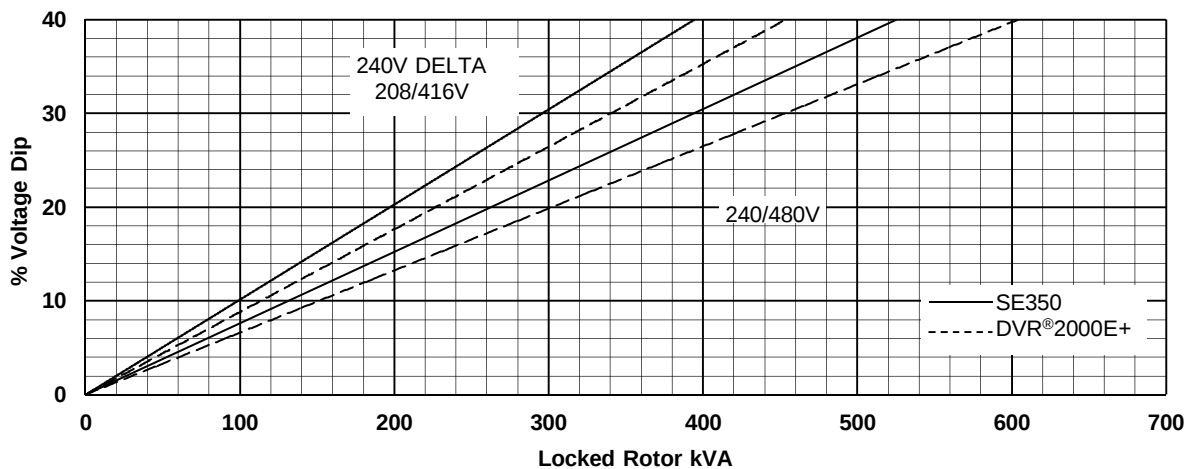
Basic Model: **431CSL6202/431PSL6202**

Date: **3/28/13**

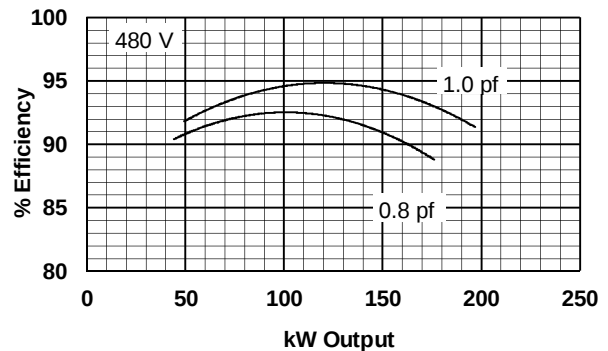
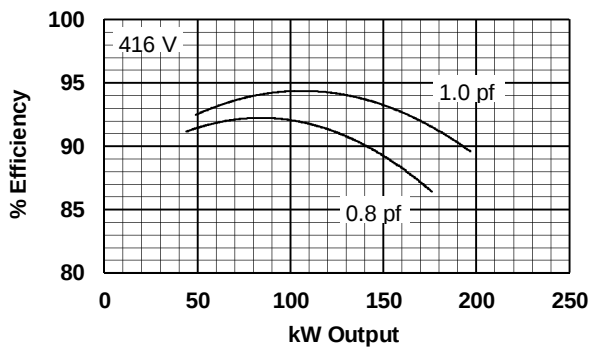
60 HERTZ



TYPICAL MOTOR STARTING CHARACTERISTICS



TYPICAL GENERATOR EFFICIENCY



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