

# **SELECTION AND PRICING CATALOG**

**50 HERTZ AND SPECIALTY GENERATORS** 

REGAL

PRICING EFFECTIVE JANUARY 1, 2018



DATAMAX<sup>™</sup> Generators
364 frame 12 lead and 4 lead models
570 frame reconnectable with bus bars models
744 frame, new low voltage models
764 frame, new low and medium voltage models
860 frame high voltage
Expanded form coil offering, low voltage models
ATEX expanded offering
Mariner<sup>®</sup> Agency Certified generator stocking program
201 frame, 50 hertz, light tower

## THE MARATHON® GENERATOR ADVANTAGE

#### Worldwide Availability

Thousands of generators available modified or customized to your order.



**Marathon Reliability** Proven and reliable designs even in the harshest environments.



**Custom Designs** 

Highly engineered products designed specifically to your needs.





**Technical Support/Customer Care** Experienced and knowledgeable technical and customer care representatives with a combined 100 years experience. Best of the Best Sales Organization

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4-Pole Three Phase Generators 190Y or 380Y Volts 220 or 110 Volts Delta (12 Leads) 1500 RPM NEMA Class H Insulation 40°C Ambient 0.8 Power Factor Lagging Shunt (Non-PMG) Excitation SE350E AVR

### MAGNAPLUS® Standard Models

				Continuous Standby											
	Net Wt.	No. of		Bolt-on PMG Option	NEN 80°C			/IA F C R/R		/IA H C R/R	NEN 130°0		NEN 150°	1A H C R/R	
Base Model	(lbs.)	Leads @	Voltage	Avail.	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
281CSL1502	220	12	190Y/380Y	Yes	10	8	11.3	9	12	9.6	12	9.6	12.5	10	\$2,954
282PSL17033	240	12	190Y/380Y	2	10.3	8.2	12	9.6	13.1	10.5	13.1	10.5	14.4	11.5	\$3,108
282CSL1504	250	12	190Y/380Y	Yes	15	12	16.3	13	17.5	14	17.5	14	18.8	15	\$3,269
282CSL1505	275	12	190Y/380Y	Yes	20	16	22.5	18	25	20	25	20	26.3	21	\$3,516
283CSL1506	310	12	190Y/380Y	Yes	22.5	18	25	20	26	21	26	21	28	23	\$3,912
283CSL1507	350	12	190Y/380Y	Yes	25	20	28	23	31	25	31	25	33	27	\$4,227
284CSL1508	405	12	190Y/380Y	Yes	31	25	36	29	40	32	40	32	42	34	\$4,623
284CSL1542	420	12	190Y/380Y	Yes	33	27	37	30	41	33	41	33	43	35	\$4,794
361CSL16000	518	12	190Y/380Y	Yes	38	30	44	35	45	36	45	36	50	40	\$4,859
361CSL1601®	569	12	190Y/380Y	Yes	47	38	53	43	57	46	57	46	62	50	\$5,265
361CSL1602①	620	12	190Y/380Y	Yes	57	46	65	52	70	56	70	56	75	60	\$5,982
362CSL1604①	706	12	190Y/380Y	Yes	70	57	80	64	85	68	85	68	91	73	\$6,464
362CSL1606①	796	12	190Y/380Y	Yes	81.3	65	93.8	75	100	80	100	80	110	88	\$7,416
363CSL1607①	943	12	190Y/380Y	Yes	96.3	77	113	90	130	104	125	100	133	106	\$7,978
364CSL1608	1086	12	190Y/380Y	Yes	125	100	143	114	155	124	155	124	160	128	\$8,388
364CSL1609	1096	12	190Y/380Y	Yes	125	100	156	125	169	135	169	135	180	144	\$9,210
431CSL62060	1415	12	190Y/380Y	Yes	166	133	200	160	211	169	215	172	225	180	\$10,942
431CSL62080	1455	12	190Y/380Y	Yes	180	144	210	168	225	180	230	184	235	188	\$11,563
432CSL62100	1685	12	190Y/380Y	Yes	220	176	256	205	275	220	280	224	290	232	\$12,210
432CSL6212①	1760	12	190Y/380Y	Yes	230	184	270	216	300	240	300	240	303	242	\$13,810
433CSL6216①	2235	12	190Y/380Y	Yes	285	228	345	276	370	296	376	301	390	312	\$15,480
433CSL62200	2245	12	190Y/380Y	Yes	315	252	375	300	400	320	410	328	423	338	\$16,426

### MAGNAPLUS® Alternate Models 3

281PSL1722	225	12	190Y/380Y	2	9.4	7.5	10.6	8.5	11.3	9	11.3	9	12	9.6	\$2,954
282PSL1704	270	12	190Y/380Y	2	12.5	10	14.4	11.5	16.3	13	16.3	13	17.5	14	\$3,269
282PSL1705	295	12	190Y/380Y	2	16.3	13	18.8	15	21.3	17	21.3	17	22.5	18	\$3,516
283PSL1706	336	12	190Y/380Y	Yes	21	17	25	20	27	22	27.5	22	28	23	\$3,912
283PSL1707	366	12	190Y/380Y	Yes	22	18	26	21	30	24	30	24	32	26	\$4,227
284PSL1708	405	12	190Y/380Y	Yes	28	23	32	26	35	28	35	28	38	31	\$4,623
284PSL1742	436	12	190Y/380Y	Yes	30	24	35	28	40	32	40	32	42	34	\$4,794
285PSL1700	480	12	190Y/380Y	Yes	35	28	43	33	46	37	46	37	50	40	\$4,859
286PSL1701	600	12	190Y/380Y	Yes	41	33	50	40	55	44	55	44	58	47	\$5,265
287PSL1702	670	12	190Y/380Y	Yes	46	37	53	43	60	48	60	48	62	50	\$5,982
431CSL62020	1220	12	190Y/380Y	Yes	125	100	143	114	151	121	155	124	160	128	\$9,280
431CSL6204①	1310	12	190Y/380Y	Yes	144	115	166	133	176	141	180	144	185	148	\$10,191

① 361 to 433 PSL (single bearing) or PDL (double bearing) models are the alternate to CSL models and have equivalent performance and dimensions.

<sup>(2)</sup> PMG Option available as build-up only.

③ Specialty and two bearing orders utilize these windings in place of 280 frame CSL models.

④ All MAGNAPLUS<sup>®</sup> models have linkboard as standard.



1500 RPM NEMA Class H Insulation 40°C Ambient 0.8 Power Factor Lagging Includes PMG Excitation

#### 190Y or 380Y Volts 220 or 110 Volts Delta (12 Leads) 380Y Volts (4-6 Leads)





### MAGNAMAX<sup>®</sup> Standard Models

							Conti	nuous				Star	ndby		
	Net				NEN			/IA F	NEN	1A H	NEN	/IA F	NEN		
	Wt.	No. of			80°C	R/R	105°(	C R/R	125°(	C R/R	130°(	CR/R	150°	C R/R	
Base Model	(lbs.)	Leads	Voltage	Regulator	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
572RSL64250@	2730	12	190Y/380Y	PM500	406	325	469	375	500	400	500	400	506	405	\$19,295
572RSL64270@	2840	12	190Y/380Y	PM500	419	335	475	380	500	400	513	410	544	435	\$19,626
572RSL64290@	3050	12	190Y/380Y	PM500	475	380	550	440	588	470	594	475	600	480	\$21,852
572RSL64310@	3110	12	190Y/380Y	PM500	500	400	563	450	600	480	613	490	644	515	\$22,660
573RSL64330@	3400	12	190Y/380Y	PM500	613	490	700	560	750	600	756	605	775	620	\$26,480
573RSL64350@	3620	12	190Y/380Y	PM500	625	500	738	590	781	625	800	640	819	655	\$28,872
574RSL64370@	4080	12	190Y/380Y	PM500	675	540	769	615	819	655	831	665	888	710	\$30,798
741RSL4045	5490	12	190Y/380Y	DVR®2000E+	875	700	1000	800	1056	845	1075	860	1144	915	\$39,573
742RSL4049	6300	12	190Y/380Y	DVR®2000E+	1050	840	1181	945	1250	1000	1263	1010	1338	1070	\$49,472
						e Volta									
574RSL6438@	4240	4	380Y Only	PM500	731	585	831	665	888	710	900	720	956	765	\$31,906
575RSL4044	5000	4 Bars	380Y Only	DVR®2000E+	806	645	963	770	1031	825	1056	845	1138	910	\$35,753
741RSL4044	5490	4 Bars	380Y Only	DVR®2000E+	875	700	1000	800	1056	845	1075	860	1144	915	\$37,176
740RSL4046	5200	4 Bars	380Y Only	DVR®2000E+	969	775	1125	900	1200	960	1219	975	1300	1040	\$41,971
742RSL4048	6300	4 Bars	380Y Only	DVR®2000E+	1050	840	1181	945	1250	1000	1263	1010	1338	1070	\$46,278
742RSL4050	7230	4 Bars	380Y Only	DVR®2000E+	1188	950	1363	1090	1463	1170	1500	1200	1563	1250	\$50,585
743RSL4052	7800	4 Bars	380Y Only	DVR®2000E+	1388	1110	1650	1320	1775	1420	1775	1420	1850	1480	\$59,040
744RSL4054	8600	4 Bars	380Y Only	DVR®2000E+	1500	1200	1750	1400	1875	1500	1913	1530	1988	1590	\$63,823
744RSL4056	9740	4 Bars	380Y Only	DVR®2000E+	1763	1410	2063	1650	2200	1760	2238	1790	2400	1920	\$71,801
744RSL4057	9740	4 Bars	380Y Only	DVR®2000E+	1725	1380	2013	1610	2150	1720	2188	1750	2338	1870	\$74,995
744RSL4059	9740	4 Bars	380Y Only	DVR®2000E+	1725	1380	2013	1610	2275	1820	2313	1850	2550	2040	\$97,307
764RSL4063	9937	4 Bars	380Y Only	DVR®2000E+	1875	1500	2200	1760	2400	1920	2500	2000	2650	2120	\$109,470
				F	orm Wo	ound Co	oil Desig	gns							
573FSL4402	3400	4 Bars	380Y Only	DVR®2000E+	425	340	500	400	550	440	550	440	575	460	\$35,234
574FSL4404	3650	4 Bars	380Y Only	DVR®2000E+	550	440	638	510	713	570	713	570	738	590	\$39,054
742FSL4408	5900	4 Bars	380Y Only	DVR®2000E+	763	610	950	760	1050	840	1075	860	1113	890	\$47,883
743FSL4410	6500	4 Bars	380Y Only	DVR®2000E+	850	680	1050	840	1138	910	1163	930	1213	970	\$52,662
743FSL4412	6900	4 Bars	380Y Only	DVR®2000E+	975	780	1188	950	1263	1010	1288	1030	1313	1050	\$55,855
744FSL4060	7300	4 Bars	380Y Only	DVR®2000E+	1225	980	1450	1160	1563	1250	1563	1250	1650	1320	\$62,233
744FSL4062	8300	4 Bars	380Y Only	DVR®2000E+	1500	1200	1725	1380	1875	1500	1875	1500	1963	1570	\$68,617
744FSL4414	8300	4 Bars	380Y Only	DVR®2000E+	1725	1380	2025	1620	2163	1730	2213	1770	2288	1830	\$76,851

## MAGNAPOWER® Standard Models 3

861RSL86002	11060	6	380Y Only	DVR®2000E+	2000	1600	2275	1820	2500	2000	2500	2000	2625	2100	\$158,984
862RSL86004	12220	6	380Y Only	DVR®2000E+	2175	1740	2475	1980	2700	2160	2700	2160	2850	2280	\$167,281
862RSL86006	13,780	6	380Y Only	DVR <sup>®</sup> 2000E+	1875	1500	2200	1760	2400	1920	2500	2000	2650	2120	\$181,153
				F	orm Wo	ound Co	oil Desig	jns							
1020FDL1100	15000	6	380Y Only	DVR®2000E+	1938	1550	2225	1780	2225	1780	2225	1780	2225	1780	\$165,149
1020FDL1102	15900	6	380Y Only	DVR®2000E+	2000	1600	2300	1840	2300	1840	2300	1840	2300	1840	\$181,912
1020FDL1104	16300	6	380Y Only	DVR®2000E+	2225	1780	2550	2040	2550	2040	2550	2040	2550	2040	\$185,556
1020FDL1106	17000	6	380Y Only	DVR®2000E+	2250	1800	2813	2250	2850	2280	2850	2280	2850	2280	\$190,687
863FSL86056	14500	6	380Y Only	DVR®2000E+	2525	2020	2813	2250	3125	2500	3125	2500	3375	2700	\$218,290
1020FDL1108	17400	6	380Y Only	DVR®2000E+	2450	1960	2900	2320	2925	2340	2925	2340	2925	2340	\$229,779
1030FDL1110	20500	6	380Y Only	DVR®2000E+	2625	2100	3125	2500	3263	2610	3338	2670	3338	2670	\$264,195

① 12 lead reconnectable via bus bars.

② Painted black, PM500 standard (see modification section for DVR<sup>®</sup>2000E+ regulator option).

③ All 860 & 1000 frame generators have 4 bus bars, with the capability of differential protection.





4-Pole **Three Phase** Generators

200Y or 400Y Volts 230 or 115 Volts Delta (12 Leads)

1500 RPM **NEMA Class H Insulation** 40°C Ambient 0.8 Power Factor Lagging Shunt (Non-PMG) Excitation SE350E AVR



							Conti	nuous				Star	ndby		
	Net Wt.	No. of		Bolt-on PMG Option	NEN 80°C			/IA F C R/R	NEN 125°(	1A H C R/R	NEN 130°0		NEN 150°0	1A H C R/R	
Base Model	(lbs.)	Leads ④	Voltage	Avail.	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
281CSL1502	220	12	200Y/400Y	Yes	10.3	8.2	11.7	9.3	12.3	9.8	12.3	9.8	12.9	10.3	\$2,954
282PSL17033	240	12	200Y/400Y	2	10.6	8.5	12.5	10	13.8	11	13.8	11	15	12	\$3,108
282CSL1504	250	12	200Y/400Y	Yes	15	12	16.3	13	17.5	14	17.5	14	18.8	15	\$3,269
282CSL1505	275	12	200Y/400Y	Yes	19.6	15.7	21.8	17.4	23.9	19.1	23.9	19.1	25	20	\$3,516
283CSL1506	310	12	200Y/400Y	Yes	21.9	17.5	25	20	26	21	26	21	28	23	\$3,912
283CSL1507	350	12	200Y/400Y	Yes	25	20	28	22	30	24	30	24	33	26	\$4,227
284CSL1508	405	12	200Y/400Y	Yes	30	24	33	27	37	30	37	30	40	32	\$4,623
284CSL1542	420	12	200Y/400Y	Yes	33	27	37	30	41	33	42	34	45	36	\$4,794
361CSL16000	518	12	200Y/400Y	Yes	39	31	44	36	48	38	48	38	51	41	\$4,859
361CSL1601①	569	12	200Y/400Y	Yes	46	37	52	42	57	46	57	46	61	49	\$5,265
361CSL1602①	620	12	200Y/400Y	Yes	53	43	62	50	67	54	68	54	75	60	\$5,982
362CSL1604①	706	12	200Y/400Y	Yes	70	57	81	65	88	70	88	70	94	75	\$6,464
362CSL1606①	796	12	200Y/400Y	Yes	78	63	93	75	100	80	100	80	110	88	\$7,416
363CSL1607①	943	12	200Y/400Y	Yes	96	77	113	90	130	104	130	104	133	106	\$7,978
364CSL1608	1086	12	200Y/400Y	Yes	123	98	141	113	153	122	153	122	160	128	\$8,388
364CSL1609	1096	12	200Y/400Y	Yes	125	100	156	125	169	135	169	135	180	144	\$9,210
431CSL6206①	1415	12	200Y/400Y	Yes	161	129	193	154	206	165	210	168	220	176	\$10,942
431CSL62080	1455	12	200Y/400Y	Yes	180	144	210	168	225	180	230	184	235	188	\$11,563
432CSL62100	1685	12	200Y/400Y	Yes	211	169	251	201	270	216	275	220	285	228	\$12,210
432CSL6212①	1760	12	200Y/400Y	Yes	230	184	271	217	300	240	300	240	306	245	\$13,810
433CSL6216①	2235	12	200Y/400Y	Yes	270	216	331	265	360	288	370	296	385	308	\$15,480
433CSL62201	2245	12	200Y/400Y	Yes	305	244	368	294	400	320	405	324	420	336	\$16,426

### MAGNAPLUS® Alternate Models®

281PSL1722	225	12	200Y/400Y	2	8.8	7	9.8	7.8	10.4	8.3	10.4	8.3	11.1	8.9	\$2,954
282PSL1704	270	12	200Y/400Y	2	11.7	9.3	13.8	11	15	12	15	12	16.3	13	\$3,269
282PSL1705	295	12	200Y/400Y	2	15	12	17.5	14	20	16	20	16	21.3	17	\$3,516
283PSL1706	336	12	200Y/400Y	Yes	20.6	16.5	23	19	26	21	26	21	27	22	\$3,912
283PSL1707	366	12	200Y/400Y	Yes	22	18	26	21	30	24	30	24	32	26	\$4,227
284PSL1708	405	12	200Y/400Y	Yes	27	22	30	24	33	27	33	27	36	29	\$4,623
284PSL1742	436	12	200Y/400Y	Yes	28	23	33	27	38	31	38	31	41	33	\$4,794
285PSL1700	480	12	200Y/400Y	Yes	35	28	40	32	43	35	43	35	47	38	\$4,859
286PSL1701	600	12	200Y/400Y	Yes	41	33	50	40	55	44	55	44	58	47	\$5,265
287PSL1702	670	12	200Y/400Y	Yes	46	37	53	43	60	48	30	48	62	50	\$5,982
431CSL62020	1220	12	200Y/400Y	Yes	123	98	141	113	150	120	153	122	160	128	\$9,280
431CSL6204®	1310	12	200Y/400Y	Yes	141	113	165	132	175	140	180	144	185	148	\$10,191

© 361 to 433 PSL (single bearing) or PDL (double bearing) models are the alternate to CSL models and have

equivalent performance and dimensions.

<sup>©</sup> PMG Option available as build-up only.

③ Specialty and two bearing orders utilize these windings in place of 280 frame CSL models.

All MAGNAPLUS<sup>®</sup> models have linkboard as standard.



1500 RPM **NEMA Class H Insulation** 40°C Ambient 0.8 Power Factor Lagging **Includes PMG Excitation** 

200Y or 400Y Volts 230 or 115 Volts Delta (12 Leads) 400Y Volts (4-6 Leads)





### MAGNAMAX<sup>®</sup> Standard Models

							Conti	nuous				Star	ndby		
					NEN	1A F	NEN	/IA F	NEM	1A H	NEM	ЛА Н	NEN	1A H	
	Net	NIn of			80°C	R/R	105°(	C R/R	125°(	C R/R	130°(	C R/R	150°(	CR/R	
Base Model	Wt. (lbs.)	No.of Leads	Voltage	Regulator	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
			<u> </u>	Ŭ											
572RSL64250@	2730	12	200Y/400Y	PM500	381	305	450	360	475	380	488	390	506	405	\$19,295
572RSL64270@	2840	12	200Y/400Y	PM500	413	330	494	395	519	415	531	425	550	440	\$19,626
572RSL64290@	3050	12	200Y/400Y	PM500	438	350	531	425	569	455	581	465	600	480	\$21,852
572RSL643100	3110	12	200Y/400Y	PM500	469	375	563	450	600	480	613	490	638	510	\$22,660
573RSL64330@	3400	12	200Y/400Y	PM500	594	475	688	550	725	580	738	590	763	610	\$26,480
573RSL64350@	3620	12	200Y/400Y	PM500	594	475	706	565	750	600	769	615	794	635	\$28,872
574RSL64370@	4080	12	200Y/400Y	PM500	669	535	794	635	850	680	863	690	894	715	\$30,798
741RSL4045	5490	12		DVR®2000E+	869	695	1038	830	1100	880	1113	890	1181	945	\$39,573
742RSL4049	6300	12	200Y/400Y	DVR®2000E+	1000	800	1200	960	1288	1030	1288	1030	1363	1090	\$49,472
					Single	e Voltag	e Only								
574RSL6438@	4240	4	400Y Only	PM500	713	570	850	680	913	730	931	745	963	770	\$31,906
575RSL4044	5000	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	788	630	963	770	1038	830	1063	850	1144	915	\$35,753
741RSL4044	5490	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	869	695	1038	830	1100	880	1113	890	1181	945	\$37,176
740RSL4046	5200	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	988	790	1150	920	1225	980	1250	1000	1338	1070	\$41,971
742RSL4048	6300	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	1000	800	1200	960	1288	1030	1288	1030	1363	1090	\$46,278
742RSL4050	7230	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	1238	990	1450	1160	1550	1240	1563	1250	1638	1310	\$50,585
743RSL4052	7800	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	1275	1020	1550	1240	1688	1350	1688	1350	1813	1450	\$59,040
744RSL4054	8600	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	1513	1210	1788	1430	1925	1540	1925	1540	2038	1630	\$63,823
744RSL4056	9740	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	1763	1410	2113	1690	2288	1830	2338	1870	2450	1960	\$71,801
744RSL4057	9740	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	1788	1430	2088	1670	2238	1790	2275	1820	2438	1950	\$74,995
744RSL4059	9740	4 Bars	400Y Only	DVR <sup>®</sup> 2000E+	1788	1430	2088	1670	2275	1820	2313	1850	2550	2040	\$97,307
764RSL4063	9937	4 Bars	400Y Only	DVR®2000E+	1875	1500	2200	1760	2400	1920	2500	2000	2650	2120	\$109,470
						ound Co		ins							
573FSL4402	3400	4 Bars	400Y Only	DVR®2000E+	450	360	525	420	575	460	575	460	600	480	\$35,234
574FSL4404	3650	4 Bars	<u> </u>	DVR <sup>®</sup> 2000E+	575	460	675	540	750	600	750	600	775	620	\$39,054
742FSL4408	5900	4 Bars	/	DVR®2000E+	700	560	1000	800	1100	880	1125	900	1175	940	\$47,883
743FSL4410	6500	4 Bars	/	DVR®2000E+	800	640	1100	880	1200	960	1225	980	1275	1020	\$52,662
743FSL4412	6900	4 Bars	/	DVR®2000E+	900	720	1250	1000	1325	1060	1350	1080	1375	1100	\$55,855
744FSL4060	7300	4 Bars	/	DVR <sup>®</sup> 2000E+	1200	960	1438	1150	1550	1240	1550	1240	1663	1330	\$62,233
744FSL4062	8300	4 Bars	/	DVR®2000E+	1475	1180	1763	1410	1900	1520	1900	1520	2013	1610	\$68,617
744FSL4414	8300	4 Bars	400Y Only	DVR®2000E+	1663	1330	1975	1580	2125	1700	2175	1740	2250	1800	\$76,851
	0000		1.001 Only	200021					2.20		2.70	1	1 2200		\$7.5,001

### MAGNAPOWER® Standard Models 3

	1														
861RSL86002	11060	6	400Y Only	DVR®2000E+	2125	1700	2500	2000	2625	2100	2625	2100	2750	2200	\$158,984
862RSL86004	12220	6	400Y Only	DVR®2000E+	2250	1800	2625	2100	2800	2240	2800	2240	3000	2400	\$167,281
862RSL86006	13780	6	400Y Only	DVR®2000E+	2438	1950	2750	2200	3000	2400	3000	2400	3188	2550	\$181,153
				F	orm Wo	ound Co	oil Desig	Ins							
1020FDL1100	15000	6	400Y Only	DVR®2000E+	1888	1510	2200	1760	2200	1760	2200	1760	2200	1760	\$165,149
1020FDL1102	15900	6	400Y Only	DVR®2000E+	1944	1550	2278	1820	2278	1820	2278	1820	2278	1820	\$181,912
1020FDL1104	16300	6	400Y Only	DVR®2000E+	2163	1730	2525	2020	2525	2020	2525	2020	2525	2020	\$185,556
1020FDL1106	17000	6	400Y Only	DVR®2000E+	2150	1765	2700	2160	2740	2190	2740	2190	2740	2190	\$190,687
863FSL86056	14500	6	400Y Only	DVR®2000E+	2525	2020	2813	2250	3125	2500	3125	2500	3375	2700	\$218,290
1020FDL1108	17400	6	400Y Only	DVR®2000E+	2338	1870	2788	2230	2813	2250	2813	2250	2813	2250	\$229,779
1030FDL1110	20500	6	400Y Only	DVR®2000E+	2550	2040	3050	2440	3250	2600	3288	2630	3288	2630	\$264,195

① 12 lead reconnectable via bus bars.

② Painted black, PM500 standard (see modification section for DVR®2000E+ regulator option).

③ All 860 & 1000 frame generators have 4 bus bars, with the capability of differential protection.





4-Pole **Three Phase** Generators

208Y or 415Y Volts 240 or 120 Volts Delta (12 Leads)

1500 RPM **NEMA Class H Insulation** 40°C Ambient 0.8 Power Factor Lagging Shunt (Non-PMG) Excitation SE350E AVR



				Bolt-on Continuous Standby											
	Net Wt.	No. of		PMG Option	NEN 80°C	/IA F CR/R		/IA F C R/R		/IA H C R/R		1A H C R/R	NEN 150°	/IA H C R/R	
Base Model	(lbs.)	Leads ④	Voltage	Avail.	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
281CSL1502	220	12	208Y/415Y	Yes	10.8	8.6	12	9.6	12.5	10	12.5	10	13.1	10.5	\$2,954
282PSL17033	240	12	208Y/415Y	2	9.6	7.7	12	9.6	13.1	10.5	13.1	10.5	14.4	11.5	\$3,108
282CSL1504	250	12	208Y/415Y	Yes	15	12	16.3	13	17.5	14	17.5	14	18.8	15	\$3,269
282CSL1505	275	12	208Y/415Y	Yes	18.8	15	21.3	17	23.1	18.5	23.1	18.5	25	20	\$3,516
283CSL1506	310	12	208Y/415Y	Yes	20	16	22	18	25	20	25	20	27	22	\$3,912
283CSL1507	350	12	208Y/415Y	Yes	25	20	27	22	30	24	30	24	32	26	\$4,227
284CSL1508	405	12	208Y/415Y	Yes	27	22	31	25	35	28	35	28	37	30	\$4,623
284CSL1542	420	12	208Y/415Y	Yes	32	26	36	29	40	32	40	32	42	34	\$4,794
361CSL1600①	518	12	208Y/415Y	Yes	40	32	45	36	50	40	50	40	53	42	\$4,859
361CSL1601①	569	12	208Y/415Y	Yes	45	36	50	40	56	45	56	45	60	48	\$5,265
361CSL1602①	620	12	208Y/415Y	Yes	50	40	60	48	65	52	65	52	73	58	\$5,982
362CSL1604①	706	12	208Y/415Y	Yes	70	57	81	65	90	72	90	72	96	77	\$6,464
362CSL1606①	796	12	208Y/415Y	Yes	75	60	90	72	100	80	100	80	110	88	\$7,416
363CSL1607①	943	12	208Y/415Y	Yes	96	77	113	90	130	104	130	104	133	106	\$7,978
364CSL1608	1086	12	208Y/416Y	Yes	118	94	140	112	150	120	150	120	155	124	\$8,388
364CSL1609	1096	12	208Y/416Y	Yes	125	100	150	120	163	130	163	130	175	140	\$9,210
431CSL6206①	1415	12	208Y/415Y	Yes	153	122	185	148	200	160	205	164	211	169	\$10,942
431CSL6208①	1455	12	208Y/415Y	Yes	175	140	206	165	225	180	225	180	235	188	\$11,563
432CSL62100	1685	12	208Y/415Y	Yes	196	157	240	192	260	208	265	212	275	220	\$12,210
432CSL6212①	1760	12	208Y/415Y	Yes	230	184	270	216	300	240	300	240	310	248	\$13,810
433CSL6216①	2235	12	208Y/415Y	Yes	251	201	320	256	350	280	360	288	375	300	\$15,480
433CSL62200	2245	12	208Y/415Y	Yes	286	229	355	284	400	320	400	320	410	328	\$16,426

### MAGNAPLUS® Alternate Models (

281PSL1722	225	12	208Y/415Y	2	7.5	6	9	7.2	9.8	7.8	9.8	7.8	10.5	8.4	\$2,954
282PSL1704	270	12	208Y/415Y	2	10	8	12.5	10	13.8	11	13.8	11	15	12	\$3,269
282PSL1705	295	12	208Y/415Y	2	14.4	11.5	16.3	13	18.8	15	18.8	15	20	16	\$3,516
283PSL1706	336	12	208Y/415Y	Yes	19.4	15.5	22	18	25	20	25	20	26	21	\$3,912
283PSL1707	366	12	208Y/415Y	Yes	22	18	26	21	30	24	30	24	32	26	\$4,227
284PSL1708	405	12	208Y/415Y	Yes	25	20	28	23	32	26	32.5	26	35	28	\$4,623
284PSL1742	436	12	208Y/415Y	Yes	28	23	33	27	37	30	37.5	30	40	32	\$4,794
285PSL1700	480	12	208Y/415Y	Yes	32.5	26	37	30	42.5	34	42.5	34	45	36	\$4,859
286PSL1701	600	12	208Y/415Y	Yes	41	33	50	40	55	44	55	44	58	47	\$5,265
287PSL1702	670	12	208Y/415Y	Yes	46	37	53	43	60	48	60	48	62	50	\$5,982
431CSL62020	1220	12	208Y/415Y	Yes	118	94	140	112	150	120	150	120	155	124	\$9,280
431CSL6204①	1310	12	208Y/415Y	Yes	140	112	165	132	175	140	176	141	183	146	\$10,191

© 361 to 433 PSL (single bearing) or PDL (double bearing) models are the alternate to CSL models and have

equivalent performance and dimensions. 2 PMG Option available as build-up only.

3 Specialty and two bearing orders utilize these windings in place of 280 frame CSL models.

④ All MAGNAPLUS<sup>®</sup> models have linkboard as standard.



1500 RPM NEMA Class H Insulation 40°C Ambient 0.8 Power Factor Lagging Includes PMG Excitation

#### 208Y or 415Y Volts 240 or 120 Volts Delta (12 Leads) 415Y Volts (4-6 Leads)

4-Pole Three Phase Generators



### MAGNAMAX<sup>®</sup> Standard Models

							Conti	nuous				Star	ndby		
	Net				NEM	1A B	NEN	/IA F	NEM	1A H	NEN	/IA F	NEN	1A H	
	Net Wt.	No. of			80°C	R/R	105°(	C R/R	125°(	C R/R	130°(	C R/R	150°0	C R/R	
Base Model	(lbs.)	Leads	Voltage	Regulator	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
572RSL64250@	2730	12	208Y/415Y	PM500	344	275	413	330	444	355	456	365	475	380	\$19,295
572RSL642700	2840	12	208Y/415Y	PM500	388	310	469	375	500	400	513	410	531	425	\$19,626
572RSL64290@	3050	12	208Y/415Y	PM500	406	325	500	400	531	425	544	435	563	450	\$21,852
572RSL64310@	3110	12	208Y/415Y	PM500	444	355	550	440	581	465	600	480	625	500	\$22,660
573RSL64330@	3400	12	208Y/415Y	PM500	550	440	650	520	700	560	713	570	738	590	\$26,480
573RSL64350@	3620	12	208Y/415Y	PM500	538	430	669	535	713	570	731	585	756	605	\$28,872
574RSL643700	4080	12	208Y/415Y	PM500	600	480	731	585	788	630	800	640	838	670	\$30,798
741RSL4045	5490	12	208Y/415Y	DVR®2000E+	800	640	969	775	1038	830	1038	830	1106	885	\$39,573
742RSL4049	6300	12	208Y/415Y	DVR®2000E+	931	745	1131	905	1219	975	1219	975	1300	1040	\$49,472
					Single	e Voltag	e Only								
574RSL6438@	4240	4	415Y Only	PM500	688	550	825	660	888	710	906	725	938	750	\$31,906
575RSL4044	5000	4 Bars	415Y Only	DVR®2000E+	796	615	963	770	1013	810	1025	820	1056	845	\$35,753
741RSL4044	5490	4 Bars	415Y Only	DVR®2000E+	800	640	969	775	1038	830	1038	830	1106	885	\$37,176
740RSL4046	5200	4 Bars	415Y Only	DVR®2000E+	919	735	1106	885	1188	950	1219	975	1275	1020	\$41,971
742RSL4048	6300	4 Bars	415Y Only	DVR®2000E+	931	745	1131	905	1219	975	1219	975	1300	1040	\$46,278
742RSL4050	7230	4 Bars	415Y Only	DVR®2000E+	1188	950	1438	1150	1538	1230	1538	1230	1638	1310	\$50,585
743RSL4052	7800	4 Bars	415Y Only	DVR®2000E+	1169	935	1500	1200	1600	1280	1600	1280	1725	1380	\$59,040
744RSL4054	8600	4 Bars	415Y Only	DVR®2000E+	1438	1150	1725	1380	1875	1500	1875	1500	2013	1610	\$63,823
744RSL4056	9740	4 Bars	415Y Only	DVR®2000E+	1625	1300	1963	1570	2125	1700	2175	1740	2275	1820	\$71,801
744RSL4057	9740	4 Bars	415Y Only	DVR®2000E+	1638	1310	2038	1630	2225	1780	2288	1830	2400	1920	\$74,995
744RSL4059	9740	4 Bars	415Y Only	DVR®2000E+	1638	1310	2038	1630	2250	1800	2288	1830	2438	1950	\$97,307
764RSL4063	9937	4 Bars	415Y Only	DVR®2000E+	1800	1440	2113	1690	2300	1840	2400	1920	2550	2040	\$109,470
				F	orm Wo	ound Co	oil Desig	ins							
573FSL4402	3400	4 Bars	415Y Only	DVR®2000E+	438	350	513	410	563	450	563	450	588	470	\$35,234
574FSL4404	3650	4 Bars	415Y Only	DVR®2000E+	563	450	663	530	738	590	738	590	763	610	\$39,054
742FSL4408	5900	4 Bars	415Y Only	DVR®2000E+	788	630	988	790	1075	860	1100	880	1150	920	\$47,883
743FSL4410	6500	4 Bars	415Y Only	DVR®2000E+	888	710	1075	860	1175	940	1200	960	1250	1000	\$52,662
743FSL4412	6900	4 Bars	415Y Only	DVR®2000E+	1013	810	1225	980	1300	1040	1325	1060	1350	1080	\$55,855
744FSL4060	7300	4 Bars	415Y Only	DVR®2000E+	1150	920	1425	1140	1550	1240	1550	1240	1650	1320	\$62,233
744FSL4062	8300	4 Bars	415Y Only	DVR®2000E+	1438	1150	1750	1400	1900	1520	1900	1520	2025	1620	\$68,617
744FSL4414	8300	4 Bars	415Y Only	DVR®2000E+	1588	1270	1913	1530	2050	1640	2100	1680	2188	1750	\$76,851

## MAGNAPOWER® Standard Models 3

861RSL86002	11060	6	415Y Only	DVR®2000E+	2000	1600	2275	1820	2500	2000	2500	2000	2625	2100	\$158,984
862RSL86004	12220	6	415Y Only	DVR <sup>®</sup> 2000E+	2200	1760	2500	2000	2725	2180	2725	2180	2863	2290	\$167,281
862RSL86006	13780	6	415Y Only	DVR <sup>®</sup> 2000E+	2375	1900	2656	2125	2900	2320	2900	2320	3075	2460	\$181,153
				F	orm Wo	ound Co	oil Desig	Ins							
1020FDL1100	15000	6	415Y Only	DVR®2000E+	1825	1460	2138	1710	2138	1710	2138	1710	2138	1710	\$165,149
1020FDL1102	15900	6	415Y Only	DVR <sup>®</sup> 2000E+	1876	1500	2210	1770	2210	1770	2210	1770	2210	1770	\$181,912
1020FDL1104	16300	6	415Y Only	DVR®2000E+	2088	1670	2450	1960	2450	1960	2450	1960	2450	1960	\$185,556
1020FDL1106	17000	6	415Y Only	DVR®2000E+	2078	1660	2630	2100	2668	2130	2668	2130	2668	2130	\$190,687
863FSL86056	14500	6	415Y Only	DVR <sup>®</sup> 2000E+	2425	1940	2700	2160	3000	2400	3000	2400	3225	2580	\$218,290
1020FDL1108	17400	6	415Y Only	DVR®2000E+	2263	1810	2713	2170	2738	2190	2738	2190	2738	2190	\$229,779
1030FDL1110	20500	6	415Y Only	DVR <sup>®</sup> 2000E+	2450	1960	3000	2400	3163	2530	3238	2590	3238	2590	\$264,195

12 lead reconnectable via bus bars.

② Painted black, PM500 standard (see modification section for DVR<sup>®</sup>2000E+ regulator option).

③ All 860 & 1000 frame generators have 4 bus bars, with the capability of differential protection.





4-Pole Three Phase Generators 220Y or 440Y Volts (12 Leads)

1500 RPM NEMA Class H Insulation 40°C Ambient 0.8 Power Factor Lagging Shunt (Non-PMG) Excitation SE350E AVR

### MAGNAPLUS® Standard Models

							Conti	nuous				Star	ndby		
	Net			Bolt-on PMG			NEN				NEN				
	Wt.	No. of		Option	80°C	, K/K	105%	CR/R	125%	CR/R	130°0	CR/R	150%	CR/R	
Base Model	(lbs.)	Leads ④	Voltage	Avail.	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
281CSL1502	220	12	220Y/440Y	Yes	8.6	6.9	9.6	7.7	10	8	10	8	10.5	8.4	\$2,954
282PSL17033	240	12	220Y/440Y	2	7.6	6.1	9.8	7.8	10.3	8.2	10.3	8.2	11	8.8	\$3,108
282CSL1504	250	12	220Y/440Y	Yes	12	9.6	13	10.4	14	11.2	14	11.2	15	12	\$3,269
282CSL1505	275	12	220Y/440Y	Yes	15	12	17	13.6	18.5	14.8	18.5	14.8	20	16	\$3,516
283CSL1506	310	12	220Y/440Y	Yes	16	12.8	18	14.4	20	16	20	16	22	17.6	\$3,912
283CSL1507	350	12	220Y/440Y	Yes	20	16	22	17.6	24	19.2	24	19.2	26	20	\$4,227
284CSL1508	405	12	220Y/440Y	Yes	21	16.8	25	20	27	22	27	22	30	24	\$4,623
361CSL1600①	518	12	220Y/440Y	Yes	38	30	41	32	45	36	45	36	47	36	\$4,859
361CSL1601①	569	12	220Y/440Y	Yes	40	32	45	36	51	41	51	41	54	43	\$5,265
361CSL1602①	620	12	220Y/440Y	Yes	43	35	51	41	56	45	56	45	60	48	\$5,982
362CSL1604①	706	12	220Y/440Y	Yes	63	50	75	60	81	65	81	65	88	77	\$6,464
362CSL1606①	796	12	220Y/440Y	Yes	68.8	55	81.3	65	90	72	90	72	100	80	\$7,416
363CSL1607①	943	12	220Y/440Y	Yes	86.3	69	101	81	113	90	113	90	119	95	\$7,978
364CSL1608	1086	12	220Y/440Y	Yes	106	85	125	100	138	110	138	110	144	115	\$8,388
364CSL1609	1096	12	220Y/440Y	Yes	108	86	130	104	141	113	141	113	150	120	\$9,210
431CSL6206①	1415	12	220Y/440Y	Yes	128	102	161	129	176	141	181	145	190	152	\$10,942
431CSL62081	1455	12	220Y/440Y	Yes	160	128	195	156	210	168	215	172	225	180	\$11,563
432CSL6210①	1685	12	220Y/440Y	Yes	161	129	210	168	230	184	235	188	250	200	\$12,210
432CSL6212①	1760	12	220Y/440Y	Yes	213	170	260	208	280	224	286	229	300	240	\$13,810
433CSL6216①	2235	12	220Y/440Y	Yes	195	156	265	212	300	240	310	248	326	261	\$15,480
433CSL62200	2245	12	220Y/440Y	Yes	236	189	310	248	343	274	343	274	371	297	\$16,426

### MAGNAPLUS® Alternate Models®

281PSL1722	225	12	220Y/440Y	2	5.7	4.6	6.9	5.5	7.5	6	7.5	6	7.9	6.3	\$2,954
282PSL1704	270	12	220Y/440Y	2	8	6.4	10	8	10.5	8.4	10.5	8.4	11.5	9.2	\$3,269
282PSL1705	295	12	220Y/440Y	2	11.5	9.2	12.5	10	15	12	15	12	15.6	12.5	\$3,516
283PSL1706	336	12	220Y/440Y	Yes	15	12	17.5	14	20	16	20	16	20.6	16.5	\$3,912
283PSL1707	366	12	220Y/440Y	Yes	18.7	15	22.5	18	25	20	25	20	26.3	21	\$4,227
284PSL1708	405	12	220Y/440Y	Yes	20	16	22	18	25	20	25	20	35	28	\$4,623
284PSL1742	436	12	220Y/440Y	Yes	24	19	27	22	31	25	31	25	32	26	\$4,794
285PSL1700	480	12	220Y/440Y	Yes	27	22	31	25	35	28	35	28	38	31	\$4,859
286PSL1701	600	12	220Y/440Y	Yes	37	30	45	36	50	40	50	40	52	42	\$5,265
287PSL1702	670	12	220Y/440Y	Yes	41	33	47.5	38	54	43	54	43	56	45	\$5,982
431CSL62020	1220	12	220Y/440Y	Yes	108	86	130	104	140	112	141	113	150	120	\$9,010
431CSL6204①	1310	12	220Y/440Y	Yes	125	100	151	121	163	130	166	133	173	138	\$9,894

0 361 to 433 PSL (single bearing) or PDL (double bearing) models are the alternate to CSL models and have

equivalent performance and dimensions. © PMG Option available as build-up only.

③ Specialty and two bearing orders utilize these windings in place of 280 frame CSL models.

All MAGNAPLUS<sup>®</sup> models have linkboard as standard.



1500 RPM NEMA Class H Insulation 40°C Ambient 0.8 Power Factor Lagging Includes PMG Excitation 220Y or 440Y Volts (12 Leads) 440Y Volts (4 Leads)

Continuous

4-Pole Three Phase Generators



Standby



Net Standard Wodels

	Net Wt.	No. of			NEN 80°C		NEN 105°0		NEM 125°(		NEN 130°(	/IA F C R/R		1A H C R/R	
Base Model	(lbs.)	Leads	Voltage	Regulator	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
572RSL64250@	2730	12	220Y/440Y	PM500	256	205	331	265	363	290	375	300	394	315	\$19,295
572RSL64270@	2840	12	220Y/440Y	PM500	306	245	381	305	419	335	425	340	444	355	\$19,626
572RSL64290@	3050	12	220Y/440Y	PM500	296	215	363	290	406	325	419	335	444	355	\$21,852
572RSL643100	3110	12	220Y/440Y	PM500	363	290	469	375	519	415	531	425	563	450	\$22,660
573RSL64330@	3400	12	220Y/440Y	PM500	450	360	556	445	606	485	625	500	656	525	\$26,480
573RSL643500	3620	12	220Y/440Y	PM500	394	315	513	410	569	455	588	470	619	495	\$28,872
574RSL643700	4080	12	220Y/440Y	PM500	438	350	569	455	631	505	650	520	688	550	\$30,798
741RSL4045	5490	12	220Y/440Y	DVR®2000E+	631	505	806	645	888	710	888	710	963	770	\$39,573
742RSL4049	6300	12	220Y/440Y	DVR®2000E+	731	585	938	750	1031	825	1031	825	1113	890	\$49,472
					Single	e Voltag	je Only								
574RSL6438@	4240	4	440Y Only	PM500	581	465	725	580	794	635	813	650	850	680	\$31,906
575RSL4044	5000	4 Bars	440Y Only	DVR®2000E+	463	370	681	545	781	625	813	650	875	700	\$35,753
741RSL4044	5490	4 Bars	440Y Only	DVR®2000E+	631	505	806	645	888	710	888	710	963	770	\$37,176
740RSL4046	5200	4 Bars	440Y Only	DVR®2000E+	694	555	913	730	1000	800	1038	830	1094	875	\$41,971
742RSL4048	6300	4 Bars	440Y Only	DVR®2000E+	731	585	938	750	1031	825	1031	825	1113	890	\$46,278
742RSL4050	7230	4 Bars	440Y Only	DVR®2000E+	1088	870	1350	1080	1463	1170	1463	1170	1563	1250	\$50,585
743RSL4052	7800	4 Bars	440Y Only	DVR®2000E+	806	645	1119	895	1263	1010	1263	1010	1388	1110	\$59,040
744RSL4054	8600	4 Bars	440Y Only	DVR®2000E+	988	790	1363	1090	1550	1240	1550	1240	1713	1370	\$63,823
744RSL4056	9740	4 Bars	440Y Only	DVR®2000E+	1146	917	1575	1260	1763	1410	1825	1460	1925	1540	\$71,801
744RSL4057	9740	4 Bars	440Y Only	DVR®2000E+	1121	897	1538	1230	1725	1380	1775	1420	1875	1500	\$74,995
764RSL4063	9937	4 Bars	440Y Only	DVR®2000E+	1250	1000	1600	1280	1788	1430	1875	1500	2000	1600	\$109,470
				F	orm Wo	ound Co	oil Desig	Ins				-			
573FSL4402	3400	4 Bars	440Y Only	DVR®2000E+	425	340	500	400	550	440	550	440	575	460	\$35,234
574FSL4404	3650	4 Bars	440Y Only	DVR®2000E+	550	440	638	510	713	570	713	570	738	590	\$39,054
742FSL4408	5900	4 Bars	440Y Only	DVR®2000E+	763	610	950	760	1050	840	1075	860	1125	900	\$47,883
743FSL4410	6500	4 Bars	440Y Only	DVR®2000E+	863	690	1050	840	1150	920	1163	930	1213	970	\$52,662
743FSL4412	6900	4 Bars	440Y Only	DVR®2000E+	975	780	1188	950	1263	1010	1288	1030	1313	1050	\$55,855
744FSL4060	7300	4 Bars	440Y Only	DVR <sup>®</sup> 2000E+	1075	860	1350	1080	1475	1180	1475	1180	1588	1270	\$62,233
744FSL4062	8300	4 Bars	440Y Only	DVR®2000E+	1250	1000	1575	1260	1725	1380	1725	1380	1863	1490	\$68,617
744FSL4414	8300	4 Bars	440Y Only	DVR®2000E+	1413	1130	1781	1425	1925	1540	1969	1575	2088	1670	\$76,851

① 12 lead reconnectable via bus bars.

② Painted black, PM500 standard (see modification section for DVR<sup>®</sup>2000E+ regulator option).





4-Pole **Three Phase Broad Range** Generators

190Y-208Y or 380Y-415Y Volts (12 Leads)

1500 RPM **NEMA Class H Insulation** 40°C Ambient **0.8 Power Factor Lagging** Shunt (Non-PMG) Excitation SE350E AVR

### MAGNAPLUS® Standard Models

							Conti	านอนร				Star	ndby		
	Net			Bolt-on PMG	NEN		NEN		NEM			/IA F		1A H	
	Wt.	No. of		Option	80 C	° R/R	105°(	C R/R	125°(	C R/R	130 C	C° R/R	150°0	C R/R	
Base Model	(lbs.)	Leads ④	Voltage	Avail.	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
281CSL1502	220	12	190Y-208Y/380Y-415Y	Yes	10	8	11.3	9	12	9.6	12	9.6	12.5	10	\$2,954
282PSL17033	240	12	190Y-208Y/380Y-415Y	2	9.6	7.7	12	9.6	13.1	10.5	13.1	10.5	14.4	11.5	\$3,108
282CSL1504	250	12	190Y-208Y/380Y-415Y	Yes	15	12	16.3	13	17.5	14	17.5	14	18.8	15	\$3,269
282CSL1505	275	12	190Y-208Y/380Y-415Y	Yes	18.8	15	21.3	17	23.1	18.5	23.1	18.5	25	20	\$3,516
283CSL1506	310	12	190Y-208Y/380Y-415Y	Yes	20	16	22	18	25	20	25	20	27	22	\$3,912
283CSL1507	350	12	190Y-208Y/380Y-415Y	Yes	25	20	27	22	30	24	30	24	32	26	\$4,227
284CSL1508	405	12	190Y-208Y/380Y-415Y	Yes	27	22	31	25	35	28	35	28	37	30	\$4,623
284CSL1542	420	12	190Y-208Y/380Y-415Y	Yes	33	27	36	29	40	32	40	32	42	34	\$4,794
361CSL1600®	518	12	190Y-208Y/380Y-415Y	Yes	38	30	44	35	45	36	45	36	50	40	\$4,859
361CSL1601	569	12	190Y-208Y/380Y-415Y	Yes	45	36	50	40	56	45	56	45	60	48	\$5,265
361CSL1602①	620	12	190Y-208Y/380Y-415Y	Yes	50	40	60	48	65	52	65	52	73	58	\$5,982
362CSL1604①	706	12	190Y-208Y/380Y-415Y	Yes	70	57	80	64	85	68	85	68	91	73	\$6,464
362CSL1606①	796	12	190Y-208Y/380Y-415Y	Yes	75	60	90	72	100	80	100	80	110	88	\$7,416
363CSL1607①	943	12	190Y-208Y/380Y-415Y	Yes	96	77	113	90	130	104	125	100	133	106	\$7,978
364CSL1608	1086	12	190Y-208Y/380Y-415Y	Yes	118	94	140	112	150	120	150	120	155	124	\$8,388
364CSL1609	1096	12	190Y-208Y/380Y-415Y	Yes	125	100	156	125	169	135	169	135	180	144	\$9,210
431CSL6206®	1415	12	190Y-208Y/380Y-415Y	Yes	153	122	185	148	200	160	205	164	211	169	\$10,942
431CSL6208①	1455	12	190Y-208Y/380Y-415Y	Yes	175	140	206	165	225	180	230	184	235	188	\$11,563
432CSL6210①	1685	12	190Y-208Y/380Y-415Y	Yes	196	157	240	192	260	208	265	212	275	220	\$12,210
432CSL6212①	1760	12	190Y-208Y/380Y-415Y	Yes	230	184	270	216	300	240	300	240	303	242	\$13,810
433CSL6216①	2235	12	190Y-208Y/380Y-415Y	Yes	251	201	320	256	350	280	360	288	375	300	\$15,480
433CSL62200	2245	12	190Y-208Y/380Y-415Y	Yes	286	229	355	284	400	320	400	320	410	328	\$16,426

### MAGNAPLUS® Alternate Models 3

281PSL1722	225	12	190Y-208Y/380Y-415Y	2	7.5	6	9	7.2	9.8	7.8	9.8	7.8	10.5	8.4	\$2,954
282PSL1704	270	12	190Y-208Y/380Y-415Y	2	10	8	12.5	10	13.8	11	13.8	11	15	12	\$3,269
282PSL1705	295	12	190Y-208Y/380Y-415Y	2	14.4	11.5	16.3	13	18.8	15	18.8	15	20	16	\$3,516
283PSL1706	336	12	190Y-208Y/380Y-415Y	Yes	19.4	15.5	22	18	25	20	25	20	26	21	\$3,912
283PSL1707	366	12	190Y-208Y/380Y-415Y	Yes	22.5	18	26	21	30	24	30	24	32	26	\$4,227
284PSL1708	405	12	190Y-208Y/380Y-415Y	Yes	25	20	28	23	32	26	32	26	35	28	\$4,623
284PSL1742	436	12	190Y-208Y/380Y-415Y	Yes	28	23	33	27	37	30	37	30	40	32	\$4,794
285PSL1700	480	12	190Y-208Y/380Y-415Y	Yes	32	26	37	30	42	34	42	34	45	36	\$4,859
286PSL1701	600	12	190Y-208Y/380Y-415Y	Yes	41	33	50	40	55	44	55	44	58	47	\$5,265
287PSL1702	670	12	190Y-208Y/380Y-415Y	Yes	46	37	53	43	60	48	60	48	62	50	\$5,982
431CSL62021	1220	12	190Y-208Y/380Y-415Y	Yes	118	94	140	112	150	120	150	120	155	124	\$9,280
431CSL6204①	1310	12	190Y-208Y/380Y-415Y	Yes	140	112	165	132	175	140	176	141	183	146	\$10,191

© 361 to 433 PSL (single bearing) or PDL (double bearing) models are the alternate to CSL models and have equivalent performance and dimensions.

② PMG Option available as build-up only.

3 Specialty and two bearing orders utilize these windings in place of 280 frame CSL models.

④ All MAGNAPLUS<sup>®</sup> models have linkboard as standard.



1500 RPM **NEMA Class H Insulation** 40°C Ambient **0.8 Power Factor Lagging Includes PMG Excitation** 

190Y-208Y or 380Y-415Y Volts (12 Leads)

4-Pole **Three Phase Broad Range** Generators





							Conti	nuous				Star	ndby		
	Net Wt.	No. of				/IA F C R/R		/IA F C R/R	NEN 125°(		NEN 130°0		NEN 150°(	IA H C R/R	
Base Model	(lbs.)	Leads	Voltage	Regulator	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
572RSL64250@	2730	12	190Y-208Y/380Y-415Y	PM500	344	275	413	330	444	355	456	365	475	380	\$19,295
572RSL64270@	2840	12	190Y-208Y/380Y-415Y	PM500	388	310	469	375	500	400	513	410	531	425	\$19,626
572RSL64290@	3050	12	190Y-208Y/380Y-415Y	PM500	406	325	500	400	531	425	544	435	563	450	\$21,852
572RSL64310@	3110	12	190Y-208Y/380Y-415Y	PM500	444	355	550	440	581	465	600	480	625	500	\$22,660
573RSL64330@	3400	12	190Y-208Y/380Y-415Y	PM500	550	440	650	520	700	560	713	570	738	590	\$26,480
573RSL64350@	3620	12	190Y-208Y/380Y-415Y	PM500	538	430	669	535	713	570	731	585	756	605	\$28,872
574RSL64370@	4080	12	190Y-208Y/380Y-415Y	PM500	600	480	731	585	788	630	800	640	838	670	\$30,798
741RSL4045	5490	12	190Y-208Y/380Y-415Y	DVR®2000E+	800	640	969	775	1038	830	1038	830	1106	885	\$39,573
742RSL4049	6300	12	190Y-208Y/380Y-415Y	DVR®2000E+	931	745	1131	905	1219	975	1219	975	1300	1040	\$49,472

12 lead reconnectable via bus bars.

<sup>®</sup> Painted black, PM500 standard (see modification section for DVR<sup>®</sup>2000E+ regulator option).





4-Pole **Single Phase** Generators

#### 220/110 Volts 440/220 Volts **110 Volts Delta** (12 Leads)

1500 RPM **NEMA Class H Insulation** 40°C Ambient

## MAGNAPLUS® Standard Models®®, SE350E AVR with Shunt (Non-PMG) Excitation

		Bolt-on		Ratings	@ 0.8 Pov	ver Factor	Lagging		Rating	s @ 1.0 Power I	Factor	
	Net Wt.	PMG		F Cont. C R/R	NEMA 125°(	H Cont. C R/R		H Stby. C R/R	NEMA F Cont. 105°C R/R	NEMA H Cont. 125°C R/R	NEMA H Stby. 150°C R/R	
Base Model	(lbs.)	Avail.	kVA	kW	kVA	kW	kVA	kW	kVA/kW	kVA/kW	kVA/kW	List Price
281CSL1502	220	Yes	6.9	5.5	7.5	6	7.8	6.2	7.5	8	8.5	\$2,954
282PSL17033	240	2	7.5	6	7.9	6.3	8.1	6.5	8.7	9.3	9.7	\$3,108
282CSL1504	250	Yes	9.4	7.5	10	8	10.6	8.5	10	11	11.5	\$3,269
282CSL1505	275	Yes	12.8	10.2	13.8	11	14.4	11.5	13	14	15	\$3,516
283CSL1506	310	Yes	14.4	11.5	16.3	13	16.9	13.5	16	18	19	\$3,912
283CSL1507	350	Yes	16.3	13	16.9	13.5	17.5	14	19	20	21	\$4,227
284CSL1508	405	Yes	20	16	22.5	18	25	20	24	26	28	\$4,623
284CSL1542	420	Yes	22.5	18	25	20	26.3	21	25	27	29	\$4,794
361CSL1600 <sup>①</sup>	518	Yes	25	20	26	21	29	23	28	30	32	\$4,859
361CSL1601®	569	Yes	29	23	31	25	34	27	33	35	38	\$5,265
361CSL1602①	620	Yes	33	26	35	28	39	31	37	40	43	\$5,982
362CSL1604①	706	Yes	44	35	48	38	53	42	46	50	54	\$6,464
362CSL1606 <sup>①</sup>	796	Yes	51	41	56	45	60	48	56	60	65	\$7,416
363CSL16071	943	Yes	58	46	63	50	66	53	60	65	70	\$7,978
364CSL1609	1096	Yes	81	65	94	75	100	80	95	100	105	\$9,210
431CSL6206①	1415	Yes	120	96	130	104	135	108	120	130	135	\$10,942
431CSL6208 <sup>①</sup>	1455	Yes	125	100	140	112	145	116	125	140	145	\$11,563
432CSL62101	1685	Yes	150	120	165	132	170	136	150	165	170	\$12,210
432CSL62121	1760	Yes	150	120	165	132	170	136	150	165	170	\$13,810
433CSL6216①	2235	Yes	190	152	200	160	215	172	190	200	215	\$15,480
433CSL62201	2245	Yes	190	152	200	160	215	172	190	200	215	\$16,426

### MAGNAPLUS® Alternate Models®®®, SE350E AVR with Shunt (Non-PMG) Excitation

281PSL1722	225	2	6	4.8	6.3	5	6.5	5.2	8	8.5	9	\$2,954
282PSL1704	270	2	9.1	7.3	9.8	7.8	10	8	12	13	14	\$3,269
282PSL1705	295	2	11.3	9	12.5	10	13.1	10.5	13.5	15	16	\$3,516
283PSL1706	336	Yes	13.8	11	15	12	16.3	13	17	18	20	\$3,912
283PSL1707	366	Yes	16.9	13.5	18.1	14.5	18.8	15	19	21	23	\$4,227
284PSL1708	405	Yes	20	16	21.3	17	22.5	18	25	26	28	\$4,623
284PSL1742	436	Yes	23.8	19	26.3	21	27.5	22	27	30	32	\$4,794
285PSL1700	480	Yes	25	20	28	22	30	24	28	31	33	\$4,859
286PSL1701	600	Yes	28	22	31	25	34	27	32	35	37	\$5,265
287PSL1702	670	Yes	31	25	34	27	36	29	35	37	40	\$5,982
431CSL62021	1220	Yes	90	72	95	76	100	80	90	95	100	\$9,010
431CSL6204①	1310	Yes	100	80	110	88	115	92	100	110	115	\$9,894

1 361 to 433 PSL (single bearing) or PDL (double bearing) models are the alternate to CSL models and have equivalent performance and dimensions.

2 PMG Option available as build-up only.

3 Specialty and two bearing orders utilize these windings in place of 280 frame CSL models.

④ All MAGNAPLUS<sup>®</sup> models have linkboard as standard.

⑤ For 110 volt only service, use an SE350EL voltage regulator to replace the standard SE350E regulator. See Modification Section for price adder.



220/110 or 110 Volts (4 Leads)

1500 RPM NEMA Class H Insulation 40°C Ambient Shunt (Non-PMG) Excitation SE350EL AVR

4-Pole Dedicated Single Phase Generators





		Bolt-on		Ratings (	2 0.8 Pov	ver Facto	r Lagging		Rating	s @ 1.0 Power	Factor	
	Net Wt.	PMG		F Cont. C R/R		H Cont. C R/R		H Stby. C R/R	NEMA F Cont. 105°C R/R	NEMA H Cont. 125°C R/R	NEMA H Stby. 150°C R/R	
Base Model	(lbs.)	Avail.	kVA	kW	kVA	kW	kVA	kW	kVA/kW	kVA/kW	kVA/kW	List Price
281CSL1513	216	Yes	6.6	5.3	7.1	5.7	7.5	6	9.5	10	10.5	\$2,985
282PSL17143	236	2	6.5	5.2	7.5	6	7.9	6.3	9	9.7	10.5	\$3,125
282CSL1515	250	Yes	9.4	7.5	10	8	10.6	8.5	13	14	15	\$3,210
282PSL1716	288	2	10.6	8.5	11.3	9	12.5	10	16	17.5	18.5	\$3,601
283CSL1517	349	Yes	15.6	12.5	16.9	13.5	18.1	14.5	22	24	25	\$4,035
361CSL16110	513	Yes	N/A	N/A	N/A	N/A	N/A	N/A	28	31	35	\$5,201
361CSL16120	578	Yes	24	19	26	21	30	24	37	40	45	\$5,576
361CSL1613®	626	Yes	39	31	44	35	46	37	50	54	58	\$6,078
362CSL1615 <sup>①</sup>	779	Yes	39	31	44	35	46	37	55	60	65	\$6,464
431PSL6222	1070	Yes	60	48	63	50	70	56	86	93	100	\$8,781
431PSL6224	1280	Yes	81	65	88	70	95	76	115	125	135	\$9,739
432PSL6228	1720	Yes	145	116	156	125	170	136	170	185	195	\$11,493

### MAGNAPLUS® Alternate Models 34

281PSL1763	220	2	5	4	5.6	4.5	6	4.8	8	8.5	9	\$2,985
282PSL1715	265	2	8.1	6.5	8.8	7	9.4	7.5	12.5	13.5	14	\$3,210
283PSL1717	331	2	12	9.6	13.1	10.5	13.8	11	18	20	22	\$4,035
283PSL1718	360	2	15	12	16.3	13	17.5	14	23	25	27	\$4,356
284PSL1750	430	Yes	20	16	22	18	23	19	30	33	35	\$4,944
285PSL1711	470	Yes	21	17	25	20	26	21	30	33	37	\$5,201
286PSL1712	590	Yes	26	21	27	22	30	24	37	40	43	\$5,576
287PSL1713	660	Yes	27	22	28	23	31	25	40	43	45	\$6,078

① 361 to 433 PSL (single bearing) or PDL (double bearing) models are the alternate to CSL models and have equivalent performance and dimensions.

<sup>©</sup> PMG Option available as build-up only.

③ Specialty and two bearing orders utilize these windings in place of 280 frame CSL models.

④ All MAGNAPLUS<sup>®</sup> models have linkboard as standard.





4-Pole Three Phase Medium Voltage Generators 3300Y/1905 Volts 1905 Volts Delta (6 Leads)①② 1500 RPM NEMA Class H Insulation 40°C Ambient 0.8 Power Factor Lagging DVR®2000E+ AVR w/PMG Excitation

### MAGNAMAX<sup>®</sup> Standard Models

					Cont	inuous		•		Sta	ndby		
	Net Wt.	No. of		MA B C R/R		ЛА F C R/R		/IA H C R/R		/IA F C R/R		∕IA H C R/R	
Base Model	(lbs.)	Leads	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
573FSM4352	2890	6	350	280	425	340	456	365	469	375	488	390	\$44,673
573FSM4354	3030	6	388	310	475	380	519	415	531	425	550	440	\$47,386
574FSM4356	3530	6	500	400	625	500	663	530	681	545	706	565	\$51,227
574FSM4358	4050	6	588	470	731	585	788	630	806	645	838	670	\$55,369
741FSM43603	5300	6	769	615	913	730	981	785	981	785	1038	830	\$59,832
742FSM43643	6100	6	963	770	1156	925	1250	1000	1250	1000	1325	1060	\$69,104
742FSM43663	6900	6	1163	930	1400	1120	1500	1200	1500	1200	1600	1280	\$76,910
743FSM43683	7500	6	1300	1040	1550	1240	1675	1340	1675	1340	1788	1430	\$81,539
743FSM43703	8200	6	1425	1140	1750	1400	1900	1520	1900	1520	2050	1640	\$87,751
744FSM43743	9300	6	1525	1220	1813	1450	2000	1600	2000	1600	2188	1750	\$111,700
744FSM43753	9300	6	1750	1400	2050	1640	2275	1820	2338	1870	2463	1970	\$127,651
764FSM43773	9500	6	1875	1500	2250	1800	2500	2000	2563	2050	2688	2150	\$139,140

## MAGNAPOWER® Standard Models @

1020FDM11803	14200	6	2156	1725	2563	2050	2750	2200	2813	2250	2813	2250	\$178,707
1020FDM11823	15700	6	2250	1800	2625	2100	2813	2250	2875	2300	2875	2300	\$186,690
1020FDM11843	15900	6	2500	2000	2800	2240	3000	2400	3000	2400	3000	2400	\$199,463
1030FDM11863	16900	6	2650	2120	3000	2400	3000	2400	3000	2400	3000	2400	\$219,388
1030FDM11883	17100	6	2650	2120	3000	2400	3300	2640	3350	2680	3350	2680	\$252,086
1030FDM11903	17900	6	2813	2250	3250	2600	3438	2750	3500	2800	3500	2800	\$276,047
1030FDM11923	18100	6	2938	2350	3375	2700	3650	2920	3750	3000	3750	3000	\$302,276
1040FDM11943	20000	6	3300	2640	3800	3040	4150	3320	4250	3400	4250	3400	\$347,531

<sup>①</sup> Medium voltage sensing potential transformers (P/Ts) are not included. For three phase sensing, a three phase PT is required.

See Modification Section for price adder.

② All medium voltage generators incorporate form wound coils and VPI insulation systems.

③ All 740, 760 and 1000 frame generators on this page have 100 ohm platinum winding RTDs as standard equipment.

Ill 1000 frame generators have 4 bus bars, with the capability of differential protection.



1500 RPM 40°C Ambient 0.8 Power Factor Lagging DVR®2000E+ AVR w/PMG Excitation



#### 6300Y/3637 Volts or 3637 Volts Delta (6 Leads) 023

M	AGNA		® Sta	andarc	l Mode	ls	NEN	/IA Class	H Insula	ition		E: 740 & 70 T employ		units ounded neutral.
		Net Wt.	No. of		MA B C R/R	NEN	inuous MA F C R/R		IA H C R/R		Star /IA F C R/R		IA H C R/R	
	Base Model	(lbs.)	Leads	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
	742FSM4460	6100	6	950	760	1150	920	1250	1000	1250	1000	1325	1060	\$96,537
	742FSM4462	6900	6	1213	970	1425	1140	1550	1240	1575	1260	1625	1300	\$102,123
	743FSM4464	7500	6	1313	1050	1563	1250	1675	1340	1688	1350	1725	1380	\$105,317
	743FSM4466	8200	6	1450	1160	1775	1420	1875	1500	1900	1520	2000	1600	\$112,504
	744FSM4470	9300	6	1550	1240	1850	1480	2000	1600	2025	1620	2100	1680	\$138,829
	744FSM4471	9300	6	1750	1400	2063	1650	2250	1800	2344	1875	2344	1875	\$141,895
	764FSM4473	9500	6	1906	1525	2281	1825	2531	2025	2688	2150	2688	2150	\$156,894



**NEMA Class F Insulation** 

1020FDH1220	13000	6	1813	1450	2125	1700	N/A	N/A	2313	1850	N/A	N/A	\$229,779
1020FDH1222	13600	6	2025	1620	2350	1880	N/A	N/A	2563	2050	N/A	N/A	\$250,524
1020FDH1224	14200	6	2100	1680	2438	1950	N/A	N/A	2650	2120	N/A	N/A	\$271,263
1020FDH1226	14700	6	2213	1770	2563	2050	N/A	N/A	2788	2230	N/A	N/A	\$303,340
1020FDH1228	16400	6	2625	2100	3050	2440	N/A	N/A	3325	2660	N/A	N/A	\$351,202
1030FDH1230	17300	6	2825	2260	3288	2630	N/A	N/A	3575	2860	N/A	N/A	\$393,349
1040FDH1232	18600	6	3013	2410	3513	2810	N/A	N/A	3825	3060	N/A	N/A	\$430,723
1040FDH1234	19500	6	3425	2740	3988	3190	N/A	N/A	4350	3480	N/A	N/A	\$482,411

① Medium voltage sensing potential transformers (P/Ts) are not included. For three phase sensing, a three phase PT is required. See Modification Section for price adder.

② All medium voltage generators incorporate form wound coils and VPI insulation systems.

3 All 740, 760 and 1000 frame generators on this page have 100 ohm platinum winding RTDs as standard equipment.

(a) All 1000 frame generators have 4 bus bars, with the capability of differential protection.





4-Pole **Three Phase Medium Voltage** Generators

1500 RPM 40°C Ambient 0.8 Power Factor Lagging DVR®2000E+ AVR w/PMG Excitation

#### 6600Y/3811 Volts or 3811 Volts Delta (6 Leads) 023

MAGNA		® Sta	andarc	d Mode	ls	NEMA	Class H	Insulatio	on		740 & 760 employ so		ts ded neutral.
	Net Wt.	No. of		MA B C R/R	NEN	tinuous MA F C R/R		IA H C R/R		Star 1A F C R/R	ndby NEM 150°0	C R/R	
Base Model	(lbs.)	Leads	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
742FSM4460	6100	6	963	770	1156	925	1250	1000	1250	1000	1325	1060	\$96,537
742FSM4462	6900	6	1163	930	1400	1120	1500	1200	1500	1200	1600	1280	\$102,123
743FSM4464	7500	6	1300	1040	1550	1240	1675	1340	1675	1340	1788	1430	\$105,317
743FSM4466	8200	6	1425	1140	1750	1400	1900	1520	1900	1520	2050	1640	\$112,504
744FSM4470	9300	6	1525	1220	1788	1430	2000	1600	2000	1600	2125	1700	\$138,829
744FSM4471	9300	6	1750	1400	2050	1640	2275	1820	2338	1870	2463	1970	\$141,895
764FSM4473	9500	6	1875	1500	2250	1800	2500	2000	2563	2050	2688	2150	\$156,894

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1020FDH1220	13000	6	1750	1400	2063	1650	N/A	N/A	2250	1800	N/A	N/A	\$229,779
1020FDH1222	13600	6	1950	1560	2288	1830	N/A	N/A	2513	2010	N/A	N/A	\$250,524
1020FDH1224	14200	6	2038	1630	2413	1930	N/A	N/A	2625	2100	N/A	N/A	\$271,263
1020FDH1226	14700	6	2200	1760	2550	2040	N/A	N/A	2763	2210	N/A	N/A	\$303,340
1020FDH1228	16400	6	2600	2080	3038	2430	N/A	N/A	3325	2660	N/A	N/A	\$351,202
1030FDH1230	17300	6	2763	2210	3238	2590	N/A	N/A	3550	2840	N/A	N/A	\$393,349
1040FDH1232	18600	6	2925	2340	3438	2750	N/A	N/A	3763	3010	N/A	N/A	\$430,723
1040FDH1234	19500	6	3263	2610	3875	3100	N/A	N/A	4238	3390	N/A	N/A	\$482,411

① Medium voltage sensing potential transformers (P/Ts) are not included. For three phase sensing, a three phase PT is required. See Modification Section for price adder.

② All medium voltage generators incorporate form wound coils and VPI insulation systems.

③ All 740, 760 and 1000 frame generators on this page have 100 ohm platinum winding RTDs as standard equipment.

④ All 1000 frame generators have 4 bus bars, with the capability of differential protection.



1500 RPM 40°C Ambient 0.8 Power Factor Lagging DVR<sup>®</sup>2000E+ AVR w/PMG Excitation



#### 6900Y/3984 Volts or 3984 Volts Delta (6 Leads)003

MAGNA		® Sta	andarc	l Mode	ls	NE	MA Clas	s H Insul	lation		: 740 & 760 employ s		nits Inded neutral.
	Net Wt.	No. of		MA B C R/R	NEN	tinuous /IA F C R/R		1A H C R/R	NEN 130°0		ndby NEM 150°0	IA H C R/R	
Base Model	(lbs.)	Leads	eads kVA 6 900	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	List Price
742FSM4460	6100	6	900	720	1100	880	1200	960	1200	960	1225	980	\$96,537
742FSM4462	6900	6	1150	920	1400	1120	1500	1200	1525	1220	1550	1240	\$102,123
743FSM4464	7500	6	1225	980	1475	1180	1600	1280	1600	1280	1675	1340	\$105,317
743FSM4466	8200	6	1375	1100	1675	1340	1800	1440	1825	1460	1925	1540	\$112,504
744FSM4470	9300	6	1500	1200	1775	1420	1950	1560	2000	1600	2075	1660	\$138,829
744FSM4471	9300	6	1719	1375	2000	1600	2188	1750	2313	1850	2313	1850	\$141,895
764FSM4473	9500	6	1875	1500	2188	1750	2438	1950	2625	2100	2625	2100	\$156,894

### MAGNAPOWER® Standard Models

NEMA Class F Insulation

1020FDH1220	13000	6	1563	1250	1875	1500	N/A	N/A	2063	1650	N/A	N/A	\$229,779
1020FDH1222	13600	6	1838	1470	2200	1760	N/A	N/A	2425	1940	N/A	N/A	\$250,524
1020FDH1224	14200	6	2000	1600	2375	1900	N/A	N/A	2588	2070	N/A	N/A	\$271,263
1020FDH1226	14700	6	2063	1650	2525	2020	N/A	N/A	2750	2200	N/A	N/A	\$303,340
1020FDH1228	16400	6	2638	2110	3100	2480	N/A	N/A	3388	2710	N/A	N/A	\$351,202
1030FDH1230	17300	6	2775	2220	3275	2620	N/A	N/A	3588	2870	N/A	N/A	\$393,349
1040FDH1232	18600	6	2913	2330	3450	2760	N/A	N/A	3788	3030	N/A	N/A	\$430,723
1040FDH1234	19500	6	3038	2430	3688	2950	N/A	N/A	4063	3250	N/A	N/A	\$482,411

 Medium voltage sensing potential transformers (P/Ts) are not included. For three phase sensing, a three phase PT is required. See Modification Section for price adder.

② All medium voltage generators incorporate form wound coils and VPI insulation systems.

③ All 740, 760 and 1000 frame generators on this page have 100 ohm platinum winding RTDs as standard equipment.

⊕ All 1000 frame generators have 4 bus bars, with the capability of differential protection.





4-Pole **Three Phase High Voltage** Generators

1500 RPM **NEMA Class F Insulation** 40°C Ambient 0.8 Power Factor Lagging DVR®2000E+ AVR w/PMG Excitation

	R® Standard M	lodels	100	00Y/57	74 Volt	s or 57	74 Volts	belta	(6 Leads)
				Cont	inuous		Sta	ndby	
			NEN	ЛА В	NEN	/IA F	NEM	MA F	1
		No. of	80°C	CR/R	105°	C R/R	130°	C R/R	
Base Model	Net Wt. (lbs.)	Leads	kVA	kW	kVA	kW	kVA	kW	List Price
861FSH86152	10582	6	1075	860	1250	1000	1338	1070	\$138,660
862FSH86154	11784	6	1281	1025	1481	1185	1600	1280	\$163,871
862FSH86156	12897	6	1488	1190	1719	1375	1838	1470	\$189,082
863FSH86158	13173	6	1700	1360	1956	1565	2075	1660	\$201,437
863FSH86160	14947	6	1875	1500	2169	1735	2313	1850	\$239,452
863FSH86162	15650	6	2050	1640	2375	1900	2500	2000	\$250,126
1020FDH1240	14000	6	1500	1200	1725	1380	1881	1505	\$189,082
1020FDH1242	14200	6	1775	1420	2038	1630	2200	1760	\$212,229
1020FDH1244	14475	6	1788	1430	2050	1640	2213	1770	\$222,598
1020FDH1246	14900	6	1825	1460	2063	1650	2225	1780	\$232,973
1020FDH1248	15500	6	2063	1650	2375	1900	2575	2060	\$263,290
1030FDH1250	16200	6	2188	1750	2525	2020	2725	2180	\$301,585
1030FDH1252	17700	6	2188	1750	2525	2020	2725	2180	\$312,961
1030FDH1254	18000	6	2363	1890	2775	2220	3025	2420	\$352,796
1040FDH1256	19750	6	2500	2000	3125	2500	3500	2800	\$411,274
1040FDH1258	20250	6	2900	2320	3413	2730	3725	2980	\$450,356
1040FDH1260	21500	6	3138	2510	3775	3020	4163	3330	\$493,129

MAGNAPOWE	<b>R</b> <sup>®</sup> Standard M	odels	105	00Y/60	62 Volt	s or 60	62 Volts	Delta	(6 Leads)
861FSH86152	10582	6	1131	905	1313	1050	1413	1130	\$138,660
862FSH86154	11784	6	1350	1080	1563	1250	1688	1350	\$163,871
862FSH86156	12897	6	1563	1250	1813	1450	1938	1550	\$189,082
863FSH86158	13173	6	1788	1430	2063	1650	2188	1750	\$201,437
863FSH86160	14947	6	1975	1580	2288	1830	2500	2000	\$239,452
863FSH86162	15650	6	2162	1730	2500	2000	2625	2100	\$250,126
1020FDH1240	14000	6	1563	1250	1781	1425	1925	1540	\$189,082
1020FDH1242	14200	6	1850	1480	2100	1680	2250	1800	\$212,229
1020FDH1244	14475	6	1888	1510	2125	1700	2288	1830	\$222,598
1020FDH1246	14900	6	1900	1520	2150	1720	2325	1860	\$232,973
1020FDH1248	15500	6	2075	1660	2388	1910	2588	2070	\$263,290
1030FDH1250	16200	6	2288	1830	2638	2110	2838	2270	\$301,585
1030FDH1252	17700	6	2288	1830	2638	2110	2838	2270	\$312,961
1030FDH1254	18000	6	2425	1940	2863	2290	3138	2510	\$352,796
1040FDH1256	19750	6	2500	2000	3125	2500	3500	2800	\$411,274
1040FDH1258	20250	6	2925	2340	3438	2750	3763	3010	\$450,356
1040FDH1260	21500	6	3163	2530	3775	3020	4150	3320	\$493,129

MAGNAPOWE	<b>R</b> <sup>®</sup> Standard M	lodels	110	00Y/63	51 Volt	s or 63	51 Volts	Delta	(6 Leads)
861FSH86152	10582	6	1131	905	1313	1050	1413	1130	\$138,660
862FSH86154	11784	6	1350	1080	1563	1250	1688	1350	\$163,871
862FSH86156	12897	6	1563	1250	1813	1450	1813	1550	\$189,082
863FSH86158	13173	6	1788	1430	2063	1650	2188	1750	\$201,437
863FSH86160	14947	6	1975	1580	2288	1830	2500	2000	\$239,452
863FSH86162	15650	6	2162	1730	2500	2000	2625	2100	\$250,126
1020FDH1240	14000	6	1500	1200	1750	1400	1875	1500	\$189,082
1020FDH1242	14200	6	1775	1420	2063	1650	2188	1750	\$212,229
1020FDH1244	14475	6	1838	1470	2175	1740	2363	1890	\$222,598
1020FDH1246	14900	6	1900	1520	2250	1800	2425	1940	\$232,973
1020FDH1248	15500	6	1975	1580	2375	1900	2588	2070	\$263,290
1030FDH1250	16200	6	2150	1720	2500	2000	2813	2250	\$301,585
1030FDH1252	17700	6	2188	1750	2550	2040	2875	2300	\$312,961
1030FDH1254	18000	6	2500	2000	2913	2330	3200	2560	\$352,796
1040FDH1256	19750	6	2500	2000	3125	2500	3500	2800	\$411,274
1040FDH1258	20250	6	2888	2310	3425	2740	3750	3000	\$450,356
1040FDH1260	21500	6	2950	2360	3650	2920	4025	3220	\$493,129

High voltage sensing potential transformers (P/Ts) are not included. For three phase sensing, a three phase PT is required.
All 860 and 1000 frame generators on this page have 100 ohm platinum winding RTDs as standard equipment.
All high voltage generators incorporate form wound coils and VPI insulation systems.

All 860 and 1000 frame generators have 4 bus bars, with the capability of differential protection.
Consult factory for altitude above 3300 fasl.



1500 RPM 40°C Ambient 0.8 Power Factor Lagging DVR<sup>®</sup>2000E+ AVR with PMG Excitation

400Y/230 Volts

4-Pole **Three Phase** Generators



#### **FEATURES:**

- Low Reactance Designs (\*Contact factory for other custom reactance value designs)

- 5 Year Warranty

	Standard Models
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	Net	Nia of		80	Р°С	10	5°C	12	5°C	130	О°С	15	О°С	
Base Model	Wt. (lbs.)	No. of Leads	Winding	kVA	X"d*	List Price								
743RSL1352	7800	4 Bars	Random	1275	0.078	1550	0.095	1688	0.103	1688	0.103	1813	0.111	\$63,763
744RSL1354	8600	4 Bars	Random	1513	0.061	1788	0.072	1925	0.077	1925	0.077	2038	0.082	\$68,929
744RSL1356	9740	4 Bars	Random	1763	0.083	2113	0.099	2288	0.108	2338	0.11	2450	0.115	\$77,545
744RSL1359	9740	4 Bars	Random	1788	0.06	2088	0.07	2275	0.077	2313	0.078	2550	0.086	\$105,092
764RSL1364	9937	4 Bars	Random	1875	0.061	2200	0.072	2400	0.079	2500	0.082	2650	0.087	\$121,942
862RSL13006 <sup>①</sup>	13780	6	Random	2438	0.091	2750	0.103	3000	0.112	3000	0.112	3188	0.119	\$195,645
863FSL130560	14500	6	Form	2525	0.095	2813	0.105	3125	0.117	3125	0.117	3375	0.126	\$235,753
1020FDL13000	15000	6	Form	1888	0.109	2200	0.127	2200	0.127	2200	0.127	2200	0.127	\$178,361
1020FDL13020	15900	6	Form	1950	0.095	2275	0.111	2275	0.111	2275	0.111	2275	0.111	\$196,465
1020FDL1306 <sup>①</sup>	17000	6	Form	2206	0.09	2700	0.111	2738	0.112	2738	0.112	2738	0.112	\$205,942
1020FDL13080	17400	6	Form	2338	0.096	2788	0.114	2813	0.115	2813	0.115	2813	0.115	\$248,161
1030FDL13100	20000	6	Form	2550	0.083	3050	0.099	3250	0.105	3288	0.106	3288	0.106	\$285,331

40°C Ambient 0.8 Power Factor Lagging **DVR®2000E+ AVR with PMG Excitation** 

1500 RPM 11000Y/6351Y Volts



#### **FEATURES:**

- Low Reactance Designs (\*Contact factory for other custom reactance value designs)
- 5 Year Warranty

### DATAMAX<sup>™</sup> Standard Models 0230

	Net			80	°C	10	5°C	130	0°C	
Base Model	Wt. (lbs.)	No. of Leads	Winding	kVA	X"d*	kVA	X"d*	kVA	X"d*	List Price
861FSH14152	10582	6	Form	1131	0.114	1313	0.132	1413	0.142	\$149,753
862FSH14154	11784	6	Form	1350	0.115	1563	0.133	1688	0.144	\$176,981
862FSH14156	12897	6	Form	1563	0.104	1813	0.121	1938	0.129	\$204,209
863FSH14158	13173	6	Form	1788	0.094	2063	0.108	2188	0.115	\$217,552
863FSH14160	14947	6	Form	1975	0.106	2288	0.123	2500	0.134	\$258,608
863FSH14162	15650	6	Form	2162	0.122	2500	0.141	2625	0.148	\$270,136
1020FDH1440	14000	6	Form	1500	0.086	1750	0.101	1875	0.108	\$204,209
1020FDH1442	14200	6	Form	1775	0.102	2063	0.119	2188	0.126	\$229,208
1020FDH1444	14475	6	Form	1838	0.106	2175	0.125	2363	0.136	\$240,406
1020FDH1446	14900	6	Form	1900	0.097	2250	0.115	2425	0.124	\$251,611
1020FDH1448	15500	6	Form	1975	0.096	2375	0.115	2588	0.125	\$284,354
1030FDH1452	17700	6	Form	2188	0.086	2550	0.101	2875	0.113	\$337,997
1030FDH1454	18000	6	Form	2500	0.084	2913	0.097	3200	0.107	\$381,020
1040FDH1456	19750	6	Form	2500	0.069	3125	0.086	3500	0.096	\$444,176
1040FDH1458	20250	6	Form	2888	0.079	3425	0.094	3750	0.103	\$486,384

① All 860 & 1000 frame generators have 4 bus bars, with the capability of differential protection.

② Include 100 ohm platinum winding RTDs as standard equipment.

③ Consult factory for altitude above 3300 fasl.

④ High voltage sensing potential transformers (P/Ts) are not included. For three phase sensing, a three phase PT is required.







#### FEATURES:

- Reinforced windings with multiple D/B cycles on main stator to handle high moisture salt-laden marine applications.
- Wrapped and polybutadiene coated exciter stator for maximum environmental protection.
- Heavy duty rectifier assembly designed to handle extreme voltage transient surges and over-current situations.

						kVA R	atings @ 50	)°C Ambient, (	Cont.		
Base model	Net Wt. (lbs.)	No. of Leads ①	Regulator	PMG Available	220Y 95°C R/R	220Y 110°C R/R	380Y 95°C R/R	380Y 110°C R/R	400Y 95°C R/R	400Y 110°C R/R	List Price
281PSL28040	225	12	SE350E	Yes	6	7.9	9.8	11.6	8.6	10.8	\$3,922
282PSL28041	240	12	SE350E	Yes	7.8	10.8	10.8	13	11.3	13.5	\$4,077
282PSL28042	270	12	SE350E	Yes	8.1	11	13.1	14.4	12.2	14.8	\$4,238
282PSL28043	295	12	SE350E	Yes	12	13.5	16.9	19.8	15.6	18.5	\$4,484
283PSL28044	336	12	SE350E	Yes	15.6	18.5	21	26	20	24	\$4,880
283PSL28045	366	12	SE350E	Yes	20	23	23	28	23	28	\$5,195
284PSL28046	405	12	SE350E	Yes	20	24	30	33	27	31	\$5,591
284PSL28047	436	12	SE350E	Yes	25	29	31	37	30	35	\$5,762
285PSL28048	480	12	SE350E	Yes	30	32	37	43	36	41	\$5,674
286PSL28049	600	12	SE350E	Yes	40	46	42	51	42	51	\$6,059
287PSL28050	670	12	SE350E	Yes	42	48	47	55	47	55	\$6,768
361PSL3120	518	12	SE350E	Yes	38	40	40	44	41	45	\$5,827
361PSL3121	569	12	SE350E	Yes	43	45	50	53	50	52	\$6,223
361PSL3122	620	12	SE350E	Yes	45	51	60	65	56	62	\$6,950
362PSL3124	706	12	SE350E	Yes	65	75	75	80	73	81	\$7,416
362PSL3126	796	12	SE350E	Yes	73	81	82	94	81	94	\$8,390
363PSL3127	943	12	SE350E	Yes	90	101	100	113	100	113	\$8,935
431PSL6252	1220	12	SE350E	Yes	121	130	140	143	135	141	\$10,134
431PSL6254	1310	12	SE350E	Yes	143	151	160	166	160	165	\$11,007
431PSL6256	1415	12	SE350E	Yes	150	161	186	200	183	193	\$12,044
431PSL6258	1455	12	SE350E	Yes	183	195	200	210	200	210	\$12,692
432PSL6260	1685	12	SE350E	Yes	191	210	235	256	240	251	\$13,326
432PSL6262	1760	12	SE350E	Yes	245	260	256	270	256	271	\$14,917
433PSL6266	2235	12	SE350E	Yes	241	265	325	245	310	331	\$16,598
433PSL6270	2245	12	SE350E	Yes	285	310	355	375	350	368	\$17,545
572RSL6325	2730	12	DVR2000E+	Std	306	331	438	469	425	450	\$20,578
572RSL6327	2840	12	DVR2000E+	Std	356	363	450	475	463	494	\$20,911
572RSL6329	3050	12	DVR2000E+	Std	331	381	506	550	506	531	\$23,137
572RSL6331	3110	12	DVR2000E+	Std	431	469	513	563	525	563	\$23,944
573RSL6333	3400	12	DVR2000E+	Std	519	556	669	700	656	688	\$27,765
573RSL6335	3620	12	DVR2000E+	Std	469	513	663	738	669	706	\$30,157
574RSL6337	4080	12	DVR2000E+	Std	519	569	700	769	725	794	\$32,082

#### 1500 RPM, 50Hz

① All 360 and 430 frame Mariner Models have linkboard as standard







#### FEATURES:

- Reinforced windings with multiple D/B cycles on main stator to handle dust-laden and/or harsh industrial applications.
- Wrapped and polybutadiene coated exciter stator for maximum environmental protection.
- Heavy duty rectifier assembly designed to handle extreme voltage transient surges and over-current situations.

200Y or 400Y, 1500 RPM, 50H	00Y (	or 400Y,	1500	RPM,	50Hz
-----------------------------	-------	----------	------	------	------

	Net Wt.	No. of		PMG		F Cont. C R/R		H Cont. °C R/R		H Standby °C R/R	
Base model	(lbs.)	Leads ①	Regulator	Available	kVA	kW	kVA	kW	kVA	kW	List Price
281PSL28040	225	12	SE350E	Yes	9.8	7.8	10.4	8.3	11.1	8.9	\$3,922
282PSL28041	240	12	SE350E	Yes	12.5	10	13.8	11	15	12	\$4,077
282PSL28042	270	12	SE350E	Yes	13.8	11	15	12	16.3	13	\$4,238
282PSL28043	295	12	SE350E	Yes	17.5	14	20	16	21.3	17	\$4,484
283PSL28044	336	12	SE350E	Yes	23	19	26	21	27	22	\$4,880
283PSL28045	366	12	SE350E	Yes	26	21	30	24	32	26	\$5,195
284PSL28046	405	12	SE350E	Yes	30	24	33	27	36	29	\$5,591
284PSL28047	436	12	SE350E	Yes	33	27	38	31	41	33	\$5,674
285PSL28048	480	12	SE350E	Yes	40	32	43	35	47	38	\$5,762
286PSL28049	600	12	SE350E	Yes	50	40	55	44	58	47	\$6,059
287PSL28050	670	12	SE350E	Yes	53	43	60	48	62	50	\$6,768
361PSL3120	518	12	SE350E	Yes	44	36	48	38	51	41	\$5,827
361PSL3121	569	12	SE350E	Yes	52	42	57	46	61	49	\$6,223
361PSL3122	620	12	SE350E	Yes	63	50	68	54	75	60	\$6,950
362PSL3124	706	12	SE350E	Yes	81	65	88	70	94	75	\$7,416
362PSL3126	796	12	SE350E	Yes	94	75	100	80	110	88	\$8,390
363PSL3127	943	12	SE350E	Yes	113	90	130	104	133	106	\$8,935
431PSL6252	1220	12	SE350E	Yes	141	113	150	120	160	128	\$10,134
431PSL6254	1310	12	SE350E	Yes	165	132	175	140	185	148	\$11,007
431PSL6256	1415	12	SE350E	Yes	193	154	206	165	220	176	\$12,044
431PSL6258	1455	12	SE350E	Yes	210	168	225	180	235	188	\$12,692
432PSL6260	1685	12	SE350E	Yes	251	201	270	216	285	228	\$13,326
432PSL6262	1760	12	SE350E	Yes	271	217	300	240	306	245	\$14,917
433PSL6266	2235	12	SE350E	Yes	331	265	360	288	385	308	\$16,598
433PSL6270	2245	12	SE350E	Yes	368	294	400	320	420	336	\$17,545
572RSL6325	2730	12	DVR2000E+	Std	450	360	475	380	506	405	\$20,578
572RSL6327	2840	12	DVR2000E+	Std	494	395	519	415	550	440	\$20,911
572RSL6329	3050	12	DVR2000E+	Std	531	425	569	455	600	480	\$23,137
572RSL6331	3110	12	DVR2000E+	Std	563	450	600	480	638	510	\$23,944
573RSL6333	3400	12	DVR2000E+	Std	688	550	725	580	763	610	\$27,765
573RSL6335	3620	12	DVR2000E+	Std	706	565	750	600	794	635	\$30,157
574RSL6337	4080	12	DVR2000E+	Std	794	635	850	680	894	715	\$32,082

① 280 - 430 frame units include Linkboard as standard.





1500 RPM NEMA Class H Insulation 0.8 Power Factor Lagging Dripcover as Required by Marine Agency DVR<sup>®</sup>2000E+ AVR with PMG

### **Marine Agency Certified Generators**

- 430 frame MARINER® ABS / Lloyd's Register / DNV-GL Pre-Certified Generators now in stock for rapid response
- NEMA Class H Non-hygroscopic Insulation Systems
- Space Heaters standard on all frame sizes
- DNV-GL List Pricing shown. Includes all DNV-GL Agency Fees
- All generators include PMG excitation support
- For certification by other Marine Agencies, contact factory for availability and pricing



			NEMA Class F				NEMA Class H		
	Net Wt.	No. of	kVA Ratings @	95°C R/R over	50°C Ambient	kVA Ratings @	110°C R/R over	45°C Ambient	DNV-GL
Base model	(lbs.)	Leads	220Y	380Y	400Y	220Y	380Y	400Y	List Price
431PSL6252	1220	12®	121	140	135	130	143	141	\$21,488
431PSL6254	1310	12®	143	160	160	151	166	165	\$22,523
431PSL6256	1415	12①	150	186	183	161	200	193	\$23,716
431PSL6258	1455	12®	183	200	200	195	210	210	\$24,444
432PSL6260	1685	12®	191	235	240	210	256	251	\$25,316
432PSL6262	1760	12®	245	256	256	260	270	271	\$26,981
433PSL6266	2235	12®	241	325	310	265	245	331	\$28,944
433PSL6270	2245	12®	285	355	350	310	375	368	\$30,023
572RSL6325	2730	12	306	438	425	331	469	450	\$34,416
572RSL6327	2840	12	356	450	463	363	475	494	\$34,915
572RSL6329	3050	12	331	506	506	381	550	531	\$37,249
572RSL6331	3110	12	431	513	525	469	563	563	\$38,090
573RSL6333	3400	12	519	669	656	556	700	688	\$42,337
573RSL6335	3620	12	469	663	669	513	738	706	\$44,805
574RSL6337	4080	12	519	700	725	569	769	794	\$46,822

### MAGNAMAX<sup>®</sup> Models

574RSL4038	4240	4		713	738		831	850	\$46,792
575RSL4044	5000	4 Bars		900	900	]	963	963	\$50,971
741RSL4045	5490	12		913	938	]	1000	1113	\$55,721
740RSL4046	5200	4 Bars	N	981	1000	]	1125	1150	\$58,197
742RSL4048	6300	4 Bars	Not	1075	1088	Not	1181	1200	\$62,678
742RSL4050	7230	4 Bars	Normally Used	1200	1250	Normally Used	1363	1450	\$67,407
743RSL4052	7800	4 Bars	0360	1513	1450	0360	1650	1550	\$78,851
744RSL4054	8600	4 Bars		1525	1575	]	1750	1788	\$84,086
744RSL4056	9740	4 Bars		1859	1909	]	2063	2113	\$92,348
744RSL4058	9740	4 Bars		1913	1975		2013	2088	\$95,690

• Marine Agency Certification may not be required for units rated below 100 kW.

• Required information at time of order placement: Vessel Name/Hull Number, shipyard, nameplate ratings, and mounting arrangements.

• Winding RTD's are required on Mobil Offshore Drilling Units (MODU) for units rated 400 kW (500 kVA) and above. See Modification Section for pricing.

Winding RTD's are required on all units rated 1000 Volts and above. See Modification Section for pricing.

1 430 frame models have linkboard as standard



# Marine Agency Classification Requirements for Certification of Shipboard Generators

Subject	American Bureau Of Shipping (ABS)	Lloyd's Register Of Shipping	DNV • GL	Bureau Veritas
Minimum Rating Requiring Certification	100 kW	100 kW	100 kW	100 kW
Ambient Temperature	45° C	45° C	45° C	45° C
Temperature Rise	110° C	110° C	110° C	110° C
Embedded ③ Temperature Detectors	Required for all units 1 kV and over	Required for propulsion systems only	Required for all units 1000 kW and over	Required for all units 1000 kW and over
Space Heaters	Required	Not Specified ①	Required	Required
Sustain Short Circuit Current in Percent (%) Rated F.L. Current	300% for 2 Sec.	300% for 2 Sec.	300% for 2 Sec.	300% for 2 Sec.
Drip Cover or Minimum Enclosure Required	IP22	IP23	IP23	IP23
Fixed Termination of Load Leads ©	Not Specified	Required	Required	Required
Shaft Material Test 3	Propulsion Only	Required	Required	Required

Notes: 1 Not required by Agency Rules, but strongly advised.

© Generator load leads must be terminated on a fixed terminal such as a bus bar, link board or insulated stand-off.

③ Requires generator to be a build-up

• For generators requiring certification by agencies other than those listed in the above table, please consult factory.

Designed for Marine Diesel Electric Propulsion and Ship Service applications.



4-Pole Three Phase Generators



#### FEATURES AND BENEFITS:

- 450 kVA 2500 kVA w/Engine Specific Power Nodes
- Supports SCR and IGBT Propulsion Systems
- Fully Taped, Form Coil, 100% VPI, 4kV, Class H, Non-hygroscopic Insulation System
- Exciter Assembly Over Dimensioned for Durability
- Hardened Steel Surge Ring with Coil Spacers
- Rotor Design Lowers Rotor Temperatures
- Bolt-in, Replaceable Bearing Well
- Subtransient Reactance of 12% 14%
- Enclosures: IP23 + SOLAS, and IP54 TEWAC
- Design: IMB20 / IM 1101 raised foot
- Shaft end: Cylindrical shaft suitable for mounting customers coupling
- Three differential CT's mounted on Generator Neutral, 5 amp secondary, C100 class
- Oversized Terminal Box
- Space heater single phase, 110 or 220V

- Marathon<sup>®</sup> DVR<sup>®</sup>2000E+ AVR, 3 phase sensing with Mil RFI Suppression (supplied loose)
- Manual Voltage Control (supplied loose)
- Cross Current CT (supplied loose)
- Stator RTD's, 2 per phase, 100 ohm Platinum
- Bearing RTD's, 1 per bearing, 100 ohm Platinum
- PMG 300% short circuit Fault Clearing
- Anti-friction Bearings on DE / NDE, Re-greasable, L10 life of 40,000 hrs
- Marine Certification for ABS/ Coast Guard, DNV, BV, Lloyds
- IP54 TEWAC features:
  - Double Tube Cooler with Leak Detector for 38°C salt water, with 10°C rise
  - Cooling air RTD, 100 ohm platinum
  - Exhaust air RTD, 100 ohm platinum



### **HAZARDOUS DUTY GENERATORS**

## MAGNAPLUS® Models, Shunt (Non-PMG) Excitation SE350E Voltage regulator shipped loose

#### Dedicated Single Phase,

Hertz

4 Leads, 110 Volt or 220/110 Volt

	kva f		
	80°C R/R @	40°C Amb.	
Base model	0.8 P.F.	1.0 P.F.	List Price
282PDL1715	6.9	10.5	\$4,414
282PDL1716	9	14	\$4,805
283PDL1717	10	16	\$5,238
283PDL1718	13	20	\$5,559
284PDL1750	18	26	\$6,148
285PDL1711	19	27	\$6,404
286PDL1712	24	33	\$6,779

#### Three Phase, 12 Leads 0.8 Power Factor

	kva f	Rating						
	80°C R/R @	40°C Amb.						
Base model	400Y/200Y	190Y	List Price					
282PDL1704	11.7	12.5	\$4,472					
282PDL1705	15	16.3	\$4,719					
283PDL1706	20.6	21.3	\$5,115					
283PDL1707	22.5	22.5	\$5,431					
284PDL1708	27.5	28.8	\$5,826					
284PDL1742	28.8	30	\$5,998					
285PDL1700	35	35	\$6,062					
286PDL1701	41.3	41.3	\$6,469					
287PDL1702	46.2	46.2	\$7,186					

Note: 12 lead generators can be reconnected for single phase service. Consult factory for ratings.

#### **STANDARD FEATURES:**

- Dual Certification
  - ATEX Zone 2, Ex II 3 D Ex nA IIC T3
  - CSA Class I, Div 2, Groups A, B, C, & D, Temp Code T3 (200°C)

4-Pole

Generators

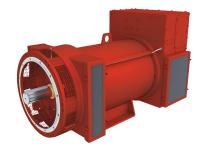
- Two Bearing and Single Bearing Designs
- · Polybutadiene coated windings for use in harsh industrial or environmental applications

#### **OPTIONAL FEATURES:**

- Integral Hydraulic Adaption See MODIFICATION Section, p.43 for List Add. - Limited to ≤ 34kW due to mechanical limitations
- Contact factory for Pricing and Availability of Optional Certification - IECEx Zone 2, Temperature Code T3 (200°C), nA nC

#### MAGNAMAX® Models, PMG Excitation DVR<sup>®</sup>2000E+ AVR w/ PMG Excitation

	Net	No.	kVA F	lating	
Base model	Wt. (lbs.)	of Leads	Voltage	80°C R/R @ 40°C Amb.	List Price
431RDL4007	1907	12	200Y/400Y	123	\$33,032
432RDL4017	2367	12	200Y/400Y	204	\$36,943
433RDL4021	2902	12	200Y/400Y	286	\$39,581
572RDL4031	3530	12	200Y/400Y	389	\$45,362
573RDL4035	4040	12	200Y/400Y	493	\$51,574
574RDL4038	4660	6	400Y Only	550	\$54,608
742RDL4049	6985	12	200Y/400Y	871	\$79,260
743RDL4052	8485	6 Bar	400Y Only	1084	\$88,827
744RDL4058	10425	6 Bar	400Y Only	1355	\$104,782



#### **STANDARD FEATURES:**

- 80°C Maximum Rise by Resistance at 40°C Ambient
- Two Bearing Close-Coupled Adapter
- 100 Ohm Platinum Winding and Bearing RTDs
- Current Transformers for Metering (3) and Paralleling (1)

#### **Triple Certification:**

ATEX Zone 2, Temperature Code T3, nA nC IECEx Zone 2, Temperature Code T3, nA nC CSA Class 1 Group A, B, C, D, Division 2/Zone 2, Group IIA, IIB, IIC Temperature Code T3

#### **OPTIONS:**

- Voltages: 110 thru 1000V
- IP23 Single Bearing or IP23 or IP44 Double Bearing
- Random or Form Wound available
- · 6-Pole Ratings also available upon request

#### **Optional Certification:**

Marine (ex. ABS, DNV-GL, Lloyds)





Shown with optional Hydraulic Adaption

24-Pole Three Phase Generators

208Y or 416Y Volts (10 Leads)<sup>o</sup>

2000 RPM 40°C Ambient 0.8 Power Factor Lagging Shunt (Non-PMG) Excitation AVC63-12B2 Voltage Regulator

		Net Wt.	kW Rating @ 2	208 or 416 Volts	
Туре	Base model	(lbs.)	80°C R/R	105°C R/R	List Price
LIMA®SER	360SSL1311	450	25	30	\$11,659
LIMA®SER	360SSL1312	570	30	35	\$12,601
LIMA®SER	360SSL1313	590	40	50	\$13,569
MAGNAPLUS®	430PSL1314	1200	60	70	\$16,919
MAGNAPLUS®	430PSL1315	1220	75	90	\$18,358
MAGNAPLUS®	430PSL1316	1240	100	120	\$20,578
MAGNAPLUS®	432PSL1821	1575	108	144	\$25,538

NEMA Class F Insulation 40°C Ambient 1.0 Power Factor Light Tower Applications<sup>©</sup> (4 Leads) Single Phase Capacitor Designs

Generators

Pancake

lertz

Hertz

lertz

Hertz

Base model	rpm	Voltage	kW @ 80°C R/R	kW @ 105°C R/R	Length (in.)	Weight (lbs.)	List Price
201CSA5411	1800	240/120 or 120	5.4	6	9.72	110	\$2,007
201CSA5420	1800	240/120 or 120	7.2	8	10.71	127	\$2,354
201CSA5422	1500	220/110 or 110	5.4	6	10.71	127	\$2,354

1000 RPM NEMA Class H Insulation 40°C Ambient 0.8 Power Factor Lagging DVR®2000E+ AVR w/PMG Exitation 200Y or 400Y Volts (12 Leads) 400Y Volts (6 Leads) Generator

MAGNAMAX<sup>® 365</sup>

			Continuous						Star	ndby			
	Net		NEN	NEMA B		NEMA F		NEMA H		1A F	NEN	1A H	
	Wt.	No. of	80°C	CR/R	105°	105°C R/R		125°C R/R		C R/R	150°(	C R/R	
Base model	(lbs.)	Leads	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	List Price
572RSL0120	2050	12	128	160	144	180	160	200	160	200	170	213	\$20,688
572RSL0122	2204	12	160	200	185	231	200	250	200	250	210	263	\$22,268
572RSL0124	2502	12	200	250	230	288	250	313	250	313	260	325	\$29,567
573RSL0126	2976	12	240	300	275	344	300	375	300	375	315	394	\$31,320
573RSL0128	3417	12	320	400	365	456	400	500	400	500	420	525	\$35,327
574RSL0130	4144	12	400	500	460	575	500	625	500	625	525	656	\$46,808
742RSL0132	6488	6	480	600	550	688	600	750	600	750	630	788	\$51,969
742RSL0134	7438	6	640	800	735	919	800	1000	800	1000	840	1050	\$64,356
743RSL0136	8708	6	800	1000	915	1144	1000	1250	1000	1250	1050	1313	\$83,301
744RSL0138	9340	6	960	1200	1100	1375	1200	1500	1200	1500	1260	1575	\$91,053

① Consult factory for availability of 12 leads.

© CSA models are SAE 5, CSB models are SAE 4.

③ Contact your sales representative for lead time on 570-740 frame 6 pole product.

④ UL not available on 570-740 frame 6 pole product.

S Field CSA approval available upon request.





### DRILL RIG DUTY GENERATORS®

### MAGNAMAX<sup>®</sup> Standard Models

Hertz

### 400Y/230 Volts (4 Leads)

			kVA Ra						
				NEMA B					
	Net Wt.	No.	80°C	R/R					
Base model	(lbs.)	of Leads	0.7 P.F. Lagging	0.8 P.F. Lagging	List Price				
573FSL4202	3400	4 Bar	400	450	\$36,385				
574FSL4204	3650	4 Bar	500	575	\$40,205				
742FSL4208	5900	4 Bar	700	800	\$49,472				
743FSL4210	6500	4 Bar	800	900	\$54,251				
743FSL4212	6900	4 Bar	900	1025	\$57,444				
744FSL4214	7300	4 Bar	1000	1138	\$63,823				
744FSL4216	8300	4 Bar	1200	1375	\$70,206				
744FSL4218	8900	4 Bar	1300	1500	\$89,774				

① Models include VPI insulation (on main stator, exciter stator, exciter rotor, and PMG stator), form wound main stator coil construction, PMG excitation support, IP22 dripcover, and space heaters as standard equipment. All models are specially designed to accept heavy SCR (Thyristor) loading.



4-Pole Three Phase Generators

### CRANE DUTY GENERATORS

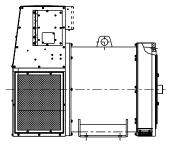
Marathon<sup>®</sup> Crane Duty AC generators are designed for Rubber Tired Gantry Cranes or other mobile/stationary crane applications.

### MAGNAMAX<sup>®</sup> Standard Models

STANDARD FEATURES:

- Form wound main stator coils with special VPI insulation system (VPI also on exciter stator, exciter rotor, and PMG stator).
- Epoxy overcoat for humid and salt air environments.
- Intake air filters with pressure shut-off switches.
- IP23 weather protected enclosures and space heaters.
- Heavy duty ball bearings with a B-10 life of 40,000 hours.
- Low sub-transient (X"d) reactance and low voltage dip.
- PMG excitation support system and three phase, true RMS sensing voltage regulator.
- Single or optional two bearing close-coupled engine mounting.

Ratings for all units on this page are very application specific and require an application review for proper sizing. Please contact factory for application assistance.





### RAIL DUTY GENERATORS

4-Pole Three Phase Generators



### Head end power (Constant speed), 50 Hz, 1500 RPM, 200/400 V 0.8 Power Factor Lagging

Frame	kVA @ 105°C R/R
431-433	145-380
571-575	495-975
741-744	1030-1800

#### **MECHANICAL DESIGN**

- Variable Speed / Constant speed
- Compact size
- Customized



#### **ELECTRICAL DESIGN**

- Optimized for the drive system
  - Active / Passive rectification
  - AC / DC Drive systems
  - Constant engine speed 1500 or 1800 RPM
  - Variable engine speed 900 to 2100 RPM
  - Voltage / Current range optimization
- Rail duty optimized insulation systems

### MANUFACTURING RAIL GENERATORS FOR OVER 50 YEARS



Propulsion power, 50 Hz, 1500 RPM, 200/400 V 0.8 Power Factor Lagging

Frame	Max kVA @ 105°C R/R
571-575	up to 975
741-744	up to 1800
1020-1030	up to 3000



### Modification Section: Generators

All prices shown are list prices

Modification	Description	List Price	*Build To Order
Custom Build to Order Setup Charge	250 - 440 frame sizes (quantity 1 - 4) This charge is in addition to all other modification charges.	\$600	*
Adapters	Two bearing close-coupled adapters - 360 frame size - 430 frame size - 570 frame size - 740 frame size One bearing direct couple Lister** TR2 & TS2 Engines - 250 LIMA®MAC & 280 fr MAGNAPLUS® models only Automotive adapters models: GM*** 7.4/5.7 L, 280 & 360 fr MAGNAPLUS® models Automotive adapters models: Chrysler**** 2.8 L Automotive adapters models: GM 8.1 L Turbo, PSI 8.8L, 430 fr MagnaPLUS models, SAE #3 Only Automotive adapters models: GM 7.4/5.7L Adaptor, LIMA®MAC 360 models Automotive adapters models: GM 7.4/5.7L Adaptor, LIMA®MAC 440 models	\$1,065 \$1,439 \$1,927 \$3,210 N/C \$439 \$439 \$814 \$551 \$776	* * * *
Air Filters	Washable filters and pressure switch - MAGNAMAX® models (Specify end or side mounted) Catalog ratings must be reduced by 5% for units equipped with filters	\$1,611	
Altitude / Ambient	See Altitude / Ambient Rating Adjustment Chart on Page 40		
Bus Bar Kits	480 Volt (7 Bus Bars) - 572-574 frame size MAGNAMAX® 480-3300 Volt (4 Bus Bars) - 571-574 frame size 480-3300 Volt (6 Bus Bars) - 571-574 frame size 480-3300 Volt (4 Bus Bars) - 575; 740-744 frame size 480-3300 Volt (6 Bus Bars) - 740-744 frame size (Available on 4 bus bar generators only!) 3300-6600 Volt (4 Bus Bars) - 573-574 frame size 3300-6600 Volt (4 Bus Bars) - 741-744 frame size 3300-6600 Volt (6 Bus Bars) - 741-744 frame size	standard \$1,675 \$2,526 standard \$1,333 \$1,300 \$1,579 \$2,413	* * * * *
Circuit Breakers Three Pole 80% Rated	Contact factory for price and availability on Three Pole Circuit Breakers.		*
Conduit Box (consult factory for optional boxes)	Oversized conduit box - 280 MAGNAPLUS® frame sizes (except 281fr) Low profile conduit box - 360 MAGNAPLUS® frame sizes Oversized conduit box - 360 LIMA®MAC frame sizes Support bar for circuit breaker extension box - 430 MAGNAPLUS® frame sizes Oversized conduit box - 430 MAGNAPLUS® frame sizes M-5 Rectangular Style Conduit Box (570 fr MAGNAMAX® models, box only) M-7 Rectangular Style Conduit Box (740 fr MAGNAMAX® models, box only) Circuit breaker extension box - 570 through 740 frame size	\$220 \$220 \$300 \$95 \$335 \$1,563 \$2,379 \$2,178	
Documentation	If required, two certified copies of production test reports, outline drawings, rotor weight & WK <sup>2</sup> drawings and connection diagrams, and service manuals available upon receipt of purchase order. Performance data sheets, obsolete drawings, or drawings and additional technical data that is not available on website, a handling charge will apply. Decrement curves (calculated)	N/C \$140 \$230	
Dripcover	IP22 standards - Standard on all LIMA®MAC models IP22 standards - 280 to 740 frame size (MAGNAPLUS® 360 frame series with SAE #1 flywheel housing adaptor must use IP23 drip cover, see below) IP23 standards - 280 frame size (all), 360 MAGNAPLUS® models, 430 frame size (all) IP23 standards - 570 frame size IP23 standards - 740 frame size	N/C \$118 \$374 \$444 \$529	

\* Build-to-Order modifications require normal lead time, and cannot be performed on stock generators. The base model number of generators may change when build-to-order modifications are made.

 Please allow five to ten business days from P.O. receipt date for drawing delivery. Production test reports are not available until after generator shipment.

\*\* Lister is believed to be a trademark of Lister Petter Power Systems Limited and is not owned or controlled by Regal Beloit Corporation.

- \*\*\* GM is a trademark of General Motors and is not owned or controlled by Regal Beloit Corporation.
- \*\*\*\* Chrysler is a trademark of Fiat Chrysler Automobiles and is not owned or controlled by Regal Beloit Corporation.



#### All prices shown are list prices

### Modification Section: Generators

Modification	Description	List Price	*Build To Order
Export Crating	250, 280, 330, 360 frame sizes 430, 440, 570, 580 frame sizes 740 - 744 frame sizes 860 and 1000 frame sizes Note: Freight not included, see page 49 for freight policy. Typical delivery; add up to two weeks to lead time.	\$761 \$1,572 \$2,145 N/A	
Extended Leads	MAGNAPLUS® models 280 frame - up to 36" total lead length exiting frame, no linkboard MAGNAPLUS® models 360 frame - up to 36" total lead length exiting frame, no linkboard MAGNAPLUS® models 430 frame - up to 36" total lead length exiting frame, no linkboard 570 frame - up to 48" total lead length exiting frame, no bus bars	\$285 \$370 \$475 \$1,250	* * * *
Foot Options	MAGNAPLUS <sup>®</sup> , low rise feet on 360 & 430 frame sizes MAGNAMAX <sup>®</sup> , CAT <sup>®</sup> ** feet on 570 frame sizes MAGNAMAX <sup>®</sup> , CAT <sup>®</sup> feet on 740 frame sizes Consult factory for additional options. Details required for CAT <sup>®</sup> feet (ie. CAT <sup>®</sup> engine, Shaft height, Foot width)	\$664 \$824 \$1,241	* * *
Hazardous Duty	CSA Certified for Class I, Group A, B, C, D, Div. 2 / Zone 2 Group IIA, IIB, IIC; Temperature Code T3. Generator must be selected at 80°C rise. Generators equipped with space heaters will be temperature code T2B. Regulator shipped loose for remote mounting. 280-430 frame sizes 570 frame sizes 740 frame sizes	\$722 \$1,204 \$1,606	
Hydraulic Drive	MAGNAPLUS <sup>®</sup> 281-284 frame - Standard SAE A, B, or C mounting flange with 13 tooth (0.88"-13T) or 14 tooth (1.25"-14T) internal splined shaft. 34kW mechanical limit.	\$1,359	*
Instrument Panel 4-Lead Single Phase Generators	Meter panel with voltmeter, ammeter and frequency meter and selector switch including current transformers. (MAGNAPLUS® frames 280, 360 and 430 only) Panel not suited for 110 V only applications.	\$1,300	*
Instrument Panel Three Phase Generators	Meter panel with voltmeter, ammeter and frequency meter and selector switch including current transformers (not available on MAGNAMAX® models) 440 volts and lower	\$1,300	*
Pilot Shaft (for use with CAT <sup>®</sup> Engine)	Pilot diameters (3.148", 3.935", 4.723", and 5.116") Not available on 280-430 frame models	\$696	
PMG Excitation MAGNAPLUS® Units	Permanent Magnet Generator & PM300E Regulator Permanent Magnet Generator & PM500 Regulator Permanent Magnet Generator & DVR®2000E+ Regulator (280 Frame requires the oversized conduit box with the PM500 & DVR®2000E+ regulators)	\$668 \$824 \$1,107	
Space Heaters 220/110 Volt	LIMA®MAC 250 & 280 frame sizes - (250: 105 watt; 280: 126 watt) MAGNAPLUS® 280 & 360 frame sizes - (280: 71 watt; 360: 210 watt) LIMA®MAC 360 & 440 frame sizes - (360: 210 watt; 440: 294 watt) MAGNAPLUS® and MAGNAMAX® 430 & 570 frame sizes - (430: 210 watt; 570: 420 watt) MAGNAMAX® 740 frame sizes - (840 watt) MAGNAPOWER® 1000 frame sizes - (1050 watt)	\$278 \$374 \$348 \$562 \$1,000 consult factory	*

\* Build-to-Order modifications require normal lead time and cannot be performed on stock generators. The base model number of generators may change when build-to-order modifications are made.

\*\* CAT is a registered trademark of Caterpillar Inc. and is not owned or controlled by Regal Beloit Corporation;



### Modification Section: Generators

Modification	Description	List Price	*Build To Order						
Special Insulation	MAGNAPLUS® and LIMA®MAC models								
	MAGNAPLUS <sup>®</sup> & MAGNAMAX <sup>®</sup> Harsh Duty Generators: Special insulation system consisting of extra lacing and multiple dips and bakes of 100% solids varnish, wrapped and polybutadiene coated exciter stators, see pages 20-21.	standard on Harsh Duty							
	All Others         Harsh         VPI         VPI         Toroidally         VPI         Standardistication and the standardistion and the standardistication and the standardisticatis and the standardistication and the standardistication and the st	see description	*						
	transport prior to first startup of generator. 250, 280, 360, 430 & 440 frame sizes 570 & 580 frame sizes 680 & 740 frame sizes 1000 frame sizes	\$364 \$589 \$770 consult factory	* * * *						
Special Painting	280 - 430 frame sizes 570 frame sizes 740 frame sizes Consult factory for available finishes. Additional charges may apply.	\$250 \$705 \$970	* * *						
Special Windings	Special windings are available for MAGNAPLUS®, MAGNAMAX® and MAGNAPOWER® products. Consult factory for ratings and pricing.	consult factory							
Standoff Assembly	For terminating generator leads in low or high wye connections MAGNAMAX <sup>®</sup> models 570 frame - 8-post standoff assembly	\$652							
Temperature Detectors	Consult factory for possible RTD generator rating adjustment Winding RTDs, (2 per phase) 100 ohm platinum standard, others optional. Thermocouples, Iron Constantan, Type J Thermostats, specify normally open or normally closed Thermistors (1 per phase) must specify operating temperature Bearing RTD, 100 ohm platinum standard, others optional - MAGNAMAX <sup>®</sup> models only.	\$1,760 \$797 \$797 \$797 \$797 \$1,183	* * * *						
Two Bearing	MAGNAPLUS <sup>®</sup> , MAGNAMAX <sup>®</sup> , and LIMA <sup>®</sup> MAC generators are available in two bearing at same list price as single bearing. Generator shaft coupling not included.	N/C							
1000 Frame	Consult factory with your requirements.								

\* Build-to-Order modifications require normal lead time and cannot be performed on stock generators. The base model number of generators may change when build-to-order modifications are made.



## Modification Section: Voltage Regulators & Accessories

All prices shown are list prices

Modification	Description	List Price	*Build To Order
Current Transformers	MAGNAMAX <sup>®</sup> and MAGNAPLUS <sup>®</sup> generators only: <b>Paralleling CT:</b> Requires (1) per generator. factory will size the primary current at 1.25 times the generator nameplate rating with a 5 amp secondary current.		
	MAGNAMAX <sup>®</sup> generators only: <b>Metering CT:</b> Requires (3) per generator. Must specify required ratio; otherwise factory will size the primary current at 1.25 times the generator nameplate rating with a 5 amp secondary current. Note: 6 Bus bars may be required at an additional charge - Consult factory.		*
	<b>Differential CT:</b> Requires (3) mounted, and (3) loose or (3) by others, per generator. Must specify required ratio; otherwise factory will size the primary current at 1.25 times the generator nameplate rating with a 5 amp secondary current. Note: 6 or 12 lead generators only. Note: 6 Bus bars may be required at an additional charge - Consult factory.	\$685 (per CT)	*
	All CTs are 600 V Class. CT's will be mounted in the neutral leads for generators with voltages greater than 600 V. CT type, Vendor, accuracy, primary and secondary current are factory's choice. An additional adder may apply for special CT requirements (ie. preferred vendor or non-standard sizing). Subject to verification of capabilities.		
Dual Regulators	Two DVR®2000E+ Regulators with change-over switch (570 & 740 MAGNAMAX® models only) (includes one additional regulator to be used with one existing regulator)	\$3,040	*
lsolation / Step Down Transformer	<b>SE350E Regulators:</b> 312 VA, 240 V secondary, 240/480/600 V primary	\$712	
	APR125-5 Regulators: 1000 VA, 120/240 V secondary, 208/240/416/480 V primary 1000 VA, 120/240 V secondary, 600 V primary 1000 VA, 120/240 V secondary, 2400/3300/4160 V primary	\$915 \$915 \$2,205	
Manual Voltage Control Module	MVC 300 for APR125-5 and DVR®2000E+ regulators	\$1,611	
Paralleling Module (includes C/T)	APM 2000 for SE350E, PM300E, and APR125-5 regulators (three phase systems only)	\$787	
Sensing Transformer	Medium voltage potential transformer used for regulator sensing only - will not support additional accessories. 15 VA up to 4160 V, with 240 V secondary for DVR®2000E+ (Single Phase) Regulators A 3 phase 15 VA/phase up to 7200 V, with 230 V secondary for DVR®2000E+ (Three Phase) Regulators A 3 phase 15 VA/phase up to 7200 V, with 120 V secondary for DVR®2000E+ (Three Phase) Regulators Consult factory for voltages greater than 7200 V.	\$594 \$1,193 \$1,563	
Voltage Adjust Rheostat	SE350E, SE350EL, PM500, PM300E, AVC63-12, APR-125-5	\$128	
Voltage Adjust Switch	For DVR®2000E+ regulator only	\$38	
Voltage Regulators List Price Adder (for substituting AVR for standard unit)	SE350E - MAGNAPLUS® models and Pancake No regulator - MAGNAPLUS® models and Pancake SE350EL - MAGNAPLUS® models (110 Volt systems only) APR125-5 - MAGNAPLUS® models AVC63-12B1 50/60 Hz AVC63-12B2 - 400 Hertz only DVR®2000E+ - 740 and 760 frame MAGNAMAX® and all MAGNAPOWER® models. DVR®2000E+ - 570 frame MAGNAMAX® models PM500 - 740 and 760 frame MAGNAMAX® and all MAGNAPOWER® models. No regulator - MAGNAMAX® and MAGNAPOWER® models DVR®2000EC+ - MAGNAMAX® and MAGNAPOWER® models (with VAR/PF controller installed)	standard deduct \$25 net \$118 \$1,123 \$845 standard \$625 deduct \$25 net deduct \$115 net \$572	

\* Build-to-Order modifications require normal lead time and cannot be performed on stock generators. The base model number of generators may change when build-to-order modifications are made.



### Modification Section: Testing

All prices shown are list prices

Special Testing* MIL-STD-705C	Description         Basic setup charge         High potential test on all windings (no basic setup charge required)         Open Circuit Saturation Curve         Synchronous Impedance Curve - Short-Circuit Saturation Curve         Zero-Power Factor Saturation Curve - 1400 kVA maximum @ 380 volts         Rated Load Current Saturation Curve - 1400 kVA maximum @ 380 volts         Summation of Losses - (efficiency)         Short Circuit Ratio         Direct-Axis Synchronous Reactance (Xd) - unsaturated         Negative Sequence Reactance (X2) - saturated         Zero-Sequence Reactance (X0) - saturated         Direct-Axis Transient Reactance (X'd) - saturated         Direct-Axis Transient Short Circuit Time Constant (T'd)         Direct-Axis Transient Open Circuit Time Constant (T'do)         Short Circuit Time Constant of Armature Windings (Ta)	List Pr	ice by fra	me size
MIL-STD-705C Method	Description	280-430		743-1040
-		\$1,850	\$2,550	\$3,700
302.1a	High potential test on all windings (no basic setup charge required)	\$500	\$500	\$500
410.1		\$465	\$465	\$465
411.1	Synchronous Impedance Curve - Short-Circuit Saturation Curve	\$465	\$925	\$1,150
412.1	Zero-Power Factor Saturation Curve - 1400 kVA maximum @ 380 volts	\$465	\$925	\$1,150
413.1	Rated Load Current Saturation Curve - 1400 kVA maximum @ 380 volts	\$465	\$925	\$1,150
415.0	Summation of Losses - (efficiency)	\$1,855***	\$1,855***	\$1,855
420.1	Short Circuit Ratio	\$900	\$1,390	\$1,615
421.1	Direct-Axis Synchronous Reactance (Xd) - unsaturated	\$900	\$1,390	\$1,615
422.1	Negative Sequence Reactance (X2) - saturated	\$620	\$620	\$930
423.1	Zero-Sequence Reactance (X0) - saturated	\$620	\$1,235	\$1,850
425.1	Direct-Axis Transient Reactance (X'd) - saturated	\$1,235	\$3,700	\$4,950
426.1	Direct-Axis Subtransient Reactance (X"d) - saturated	\$880	\$1,100	\$1,320
427.1	Direct-Axis Transient Short Circuit Time Constant (T'd)	\$1,160	\$1,450	\$1,740
430.1	Direct-Axis Transient Open Circuit Time Constant (T'do)	\$720	\$900	\$1,080
432.1	Short Circuit Time Constant of Armature Windings (Ta)	\$1,160	\$1,450	\$1,740
505.1	Overspeed	\$500***	\$500***	\$500
511.1	Voltage Regulator Range - 1400 kVA maximum @ 380 volts	\$930	\$1,380	\$1850**
601.1		\$850	\$850	\$850
601.1	Voltage Waveform (Deviation Factor) - run in conjunction with 601.4	N/C	N/C	N/C
601.4	Voltage Waveform (Harmonic Analysis)	\$600	\$600	\$600
611.1		\$750	\$750	\$750
615.1	Inherent Voltage Regulation (generator only) - 840 kVA maximum @ 380 volts	\$750	\$750	\$750**
619.1	Voltage Dip for Low Power Factor Load - 1400 kVA maximum @ 380 volts	\$1,850	\$1,850	N/A
619.2	Voltage Dip and Rise for Rated Load (Load App/Rej) - 1400 kVA maximum @ 380 volts	\$1,390	\$1,390	N/A
620.1	Voltage Unbalance with Unbalanced Load (Line-to-Line Load)	\$695	\$695	\$695***
620.2	Voltage Unbalance with Unbalanced Load (Line-to-Neutral Load)	\$695	\$695	\$695***
625.1	Short Circuit (Mech. Strength) - 3 phase only, 7000 amp maximum, for LV, 600 A max. for MV/HV**	\$1,855	\$2,775	\$3,700
680.1	Temperature Rise (generator only) - Heat Run	\$1,390	\$2,315	\$3,250
Standard	Winding resistance, 401.1a		N/C	· · · ·
Testing*	Insulation resistance of all windings, 301.1b		N/C	
	High potential test on all windings, 302.1a		N/C	
	Exciter field current - Open circuit		N/C	
	Voltage balance - Open circuit		N/C	
	Current balance - Short circuit		N/C	
	Overspeed (1 Min.)		N/C	
Witness Testing	Additional daily charge for witnessing by customer or customer's agents		\$1,000	
•	re available on all generators. Please contact factory for details.	1		

\* Not all tests are available on all generators. Please contact factory for details.

\*\* MIL Standard is a reference only, not exactly to standard.

\*\*\* May require a double basic setup charge, assuming the test is available for the requested frame size.

### General Notes (Applicable to price on pages 2 through 27)

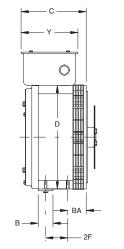
- A. All base models listed (except 1000 frame MAGNAPOWER® models) are single bearing with two bearings available as a no-charge option. Pricing includes flexible drive discs, SAE adapter, standard voltage regulator, and full guarding. Drip covers are optional. All voltage regulators have underspeed protection, EMI filtering, and are encapsulated for moisture protection.
- B. MAGNAPLUS® and MAGNAMAX® products have Class H insulation. LIMA®MAC products have Class H insulation on the rotor, and Class F insulation on the stator. MAGNAPOWER® products have Class H insulation for 4160V and below, and Class F insulation for above 4160V. Pancake products have Class F insulation. Rating columns headed NEMA B, F, and H indicate that generators operated at the specified ratings will not exceed the temperature rise limitation for the specified class of insulation specified in NEMA MG1-32.6. The rating columns do not specify the class of insulation used in the generator's construction.
- C. The frame size for each model is the first 3 or 4 digits of the model number.
- D. All generator ratings listed in this publication are based upon temperature rises measured by the resistance method as defined by MIL-STD-705C and IEEE STD 115, Method 6.4.4. For ratings at rises as measured by embedded temperature detectors, consult factory.
- E. Pancake AVR and MAGNAPLUS<sup>®</sup> products are shunt-excited (non-PMG) generators. The automatic voltage regulator derives input power from the generator's output leads.
- F. MAGNAMAX<sup>®</sup> and MAGNAPOWER<sup>®</sup> generators incorporate a permanent magnet generator (PMG) as the input power source for the voltage regulator.
- G. MAGNAMAX<sup>®</sup> and MAGNAPOWER<sup>®</sup> form wound coil generators include VPI insulation on main stator only. See Special Insulation on page 30 for options on other windings.

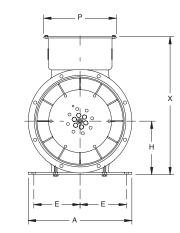


## Dimensions in inches and (millimeters)

### Pancake (AVR and Capacitor)

ALL DIMENSIONS ARE APPROXIMATE: Contact factory for full dimensional data







BA

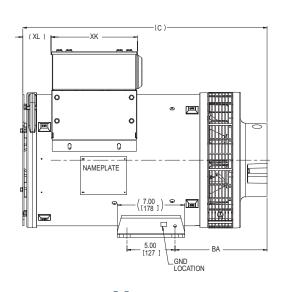
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**Capacitor Ratings 201 Frames** 

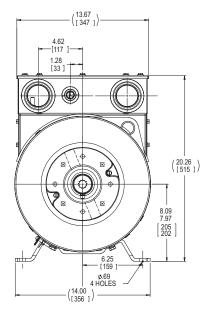
Туре	Fra Siz		А	В	С	D	E	Н	Р	Х	Y	BA	2F
	33	81	14.0 (356)	6.25 (159)	10.6 (269)	14.0 (356)	6.25 (159)	7.95 (202)	11.3 (287)	19.0 (483)	5.8 (147)	1.17 (30)	5.0 (127)
icake VR	33	32	14.0 (356)	6.25 (159)	11.6 (295)	14.0 (356)	6.25 (159)	7.95 (202)	11.3 (287)	19.0 (483)	5.8 (147)	1.17 (30)	5.0 (127)
Pancal	33	3	14.0 (356)	6.25 (159)	14.0 (356)	14.0 (356)	6.25 (159)	7.95 (202)	11.3 (287)	19.0 (483)	5.8 (147)	1.28 (33)	5.0 (127)
	33	34	14.0 (356)	6.25 (159)	14.4 (366)	14.0 (356)	6.25 (159)	7.95 (202)	11.3 (287)	19.0 (483)	5.8 (147)	1.28 (33)	5.0 (127)
ke tor	201 6k\	V 60Hz	8.17 (208)	4.0 (102)	9.72 (247)	10.75 (273)	3.3 (84)	6.92 (176)	8.62 (219)	15.69 (399)	4.15 (113)	2.5 (63.5)	3.0 (76)
Pancake Capacitor	201 8k\	V 60Hz	8.17 (208)	4.0 (102)	10.71 (272)	10.75 (273)	3.3 (84)	6.92 (176)	8.62 (219)	15.69 (399)	4.15 (113)	2.5 (63.5)	3.0 (76)
Pa Cal	201 6k\	V 50Hz	8.17 (208)	4.0 (102)	10.71 (272)	10.75 (273)	3.3 (84)	6.92 (176)	8.62 (219)	15.69 (399)	4.15 (113)	2.5 (63.5)	3.0 (76)

### Dimensions in inches and (millimeters) **ATEX Hydraulic MAGNAPLUS® Generators**



Generators

marat

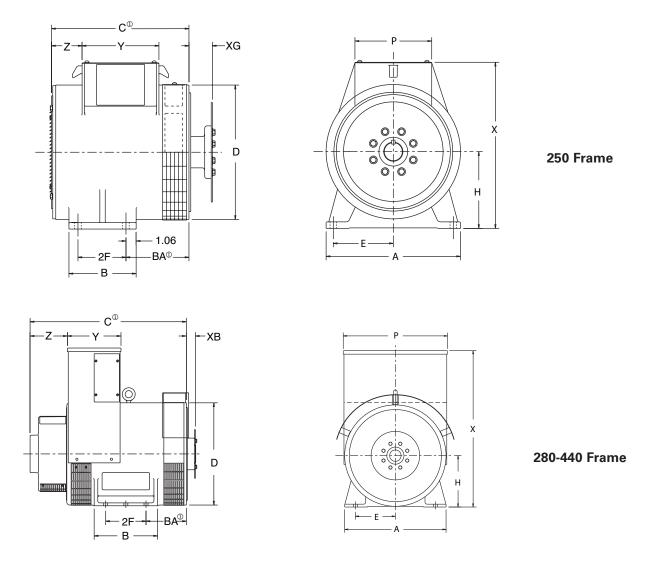


ALL DIMENSIONS ARE APPROXIMATE: Contact factory for full dimensional data

Frame Size	С	BA	XL	XK 6.86 (174)		
281	18.44 (468)	9.57 (243)	3.14 (80)			
282	21.13	9.57	3.05	8.93		
	(537)	(243)	(77)	(227)		
283	23.13	9.57	3.05	8.93		
	(588)	(243)	(77)	(227)		
284	25.38	9.57	3.05	8.93		
	(645)	(243)	(77)	(227)		

### Dimensions in inches and (millimeters) LIMA®SER Generators LIMA®MAC Generators

ALL DIMENSIONS ARE APPROXIMATE: Refer to Dimension Section of the Generator Catalog for full dimensional data



#### 280 LIMA®MAC Generator has split side-mount connection box.

Frame Size	А	В	BA①	C①	D	E	2F	Н	Р	Х	Y	Z
250	14.00 (356)	7.00 (178)	6.56 (167)	14.31 (363)	14.00 (356)	6.25 (159)	5.00 (127)	8.00 (203)	8.00 (203)	17.31 (440)	8.00 (203)	3.18 (81)
280	14.00 (356)	7.00 (178)	6.56 (167)	20.88 (530)	13.00 (330)	6.25 (159)	5.00 (127)	8.00 (203)	18.38 (467)	25.06 (637)	9.37 (238)	3.94 (100)
360	17.75 (451)	11.00 (279)	7.00 (178)	27.12 (689)	17.75 (451)	7.00 (178)	7.00 (178)	9.00 (229)	18.38 (467)	27.38 (695)	9.31 (236)	6.47 (164)
440	21.25 (540)	14.00 (356)	6.63 (168)	31.50 (800)	21.75 (552)	9.00 (229)	11.00 (279)	11.00 (279)	22.25 (565)	32.21 (818)	12.31 (313)	6.34 (161)

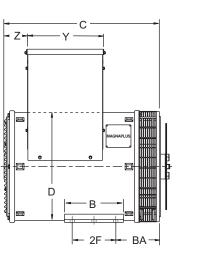
Notes:  ${\ensuremath{\mathbb O}}$  This dimension will vary dependent upon adaption used.

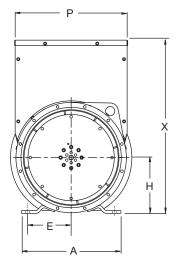


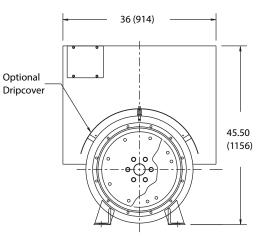
Dimensions in inches and (millimeters)

## MAGNAPLUS<sup>®</sup> Generators

ALL DIMENSIONS ARE APPROXIMATE: Contact factory for full dimensional data







#### 280-430 frame

#### **Optional Box (for 430 frame only)**

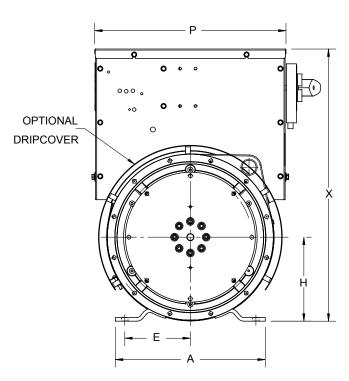
Frame Size	А	В	BA	С	C with PMG	D	E	2F	Н	Р	Х	Y	Z
201001	14.00	7.00	6.56	15.95	N1/A	13.64	6.25	5.00	8.00	13.55	18.56	6.86	3.50
281PSL	(356)	(178)	(167)	(405)	N/A	(349)	(159)	(127)	(203)	(344)	(471)	(174)	(89)
001001	14.00	7.00	6.56	16.34	N1/A	13.75	6.25	5.00	8.00	13.55	18.56	6.86	3.50
281CSL	(356)	(178)	(167)	(415)	N/A	(349)	(159)	(127)	(203)	(344)	(471)	(174)	(89)
202001	14.00	7.00	6.56	18.50	23.10	13.64	6.25	5.00	8.00	13.55	18.56	8.93	3.42
282PSL	(356)	(178)	(167)	(470)	(587)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
202001	14.00	7.00	6.56	18.35	N1/A	13.75	6.25	5.00	8.00	13.55	18.56	8.93	3.42
282CSL	(356)	(178)	(167)	(466)	N/A	(349)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
283PSL	14.00	7.00	6.56	20.50	25.10	13.64	6.25	5.00	8.00	13.55	18.56	8.93	3.42
203P3L	(356)	(178)	(167)	(521)	(638)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
202001	14.00	7.00	6.56	20.83	N1/A	13.75	6.25	5.00	8.00	13.55	18.56	8.93	3.42
283CSL	(356)	(178)	(167)	(529)	N/A	(349)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
284PSL	14.00	7.00	6.56	22.75	27.40	13.64	6.25	5.00	8.00	13.55	18.56	8.93	3.42
204F3L	(356)	(178)	(167)	(578)	(696)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
204001	14.00	7.00	6.56	22.83	N1/A	13.75	6.25	5.00	8.00	13.55	18.56	8.93	3.42
284CSL	(356)	(178)	(167)	(580)	N/A	(349)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
285PSL	14.00	7.00	11.56	25.00	29.60	13.64	6.25	5.00	8.00	13.55	18.56	8.93	3.42
ZOOFSL	(356)	(178)	(294)	(635)	(752)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
286PSL	14.00	7.00	11.56	27.00	31.60	13.64	6.25	5.00	8.00	13.55	18.56	8.93	3.42
ZOUFSL	(356)	(178)	(294)	(686)	(803)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
287PSL	14.00	7.00	11.56	29.00	33.60	13.64	6.25	5.00	8.00	13.55	18.56	8.93	3.42
20/PSL	(356)	(178)	(294)	(737)	(853)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
201	16.00	9.50	7.00	24.96	27.56	17.35	7.00	7.00	9.00	18.19	27.85	12.44	3.52
361	(406)	(241)	(178)	(634)	(700)	(441)	(178)	(178)	(229)	(462)	(707)	(316)	(89)
202	16.00	9.50	7.00	28.59	31.18	17.35	7.00	7.00	9.00	18.19	27.85	12.44	3.52
362	(406)	(241)	(178)	(726)	(792)	(441)	(178)	(178)	(229)	(462)	(707)	(316)	(89)
202	16.00	9.50	10.50	31.72	34.29	17.35	7.00	7.00	9.00	18.19	27.85	12.44	3.52
363	(406)	(241)	(267)	(806)	(871)	(441)	(178)	(178)	(229)	(462)	(707)	(316)	(89)
004	16.00	9.50	10.50	34.92	37.28	17.35	7.00	7.00	9.00	18.19	27.85	12.44	3.52
364	(406)	(241)	(267)	(887)	(947)	(441)	(178)	(178)	(229)	(462)	(707)	(316)	(89)
401	21.46	15.00	10.00	33.89	38.27	22.64	9.00	11.00	13.00	24.97	36.10	16.00	2.66
431	(545)	(381)	(254)	(861)	(972)	(575)	(229)	(279)	(330)	(634)	(917)	(406)	(68)
422	21.46	15.00	10.00	37.39	41.77	22.64	9.00	11.00	13.00	24.97	36.10	16.00	2.66
432	(545)	(381)	(254)	(950)	(1061)	(575)	(229)	(279)	(330)	(634)	(917)	(406)	(68)
400	21.46	15.00	10.00	42.39	46.77	22.64	9.00	11.00	13.00	24.97	36.10	16.00	2.66
433	(545)	(381)	(254)	(1077)	(1188)	(575)	(229)	(279)	(330)	(634)	(917)	(406)	(68)
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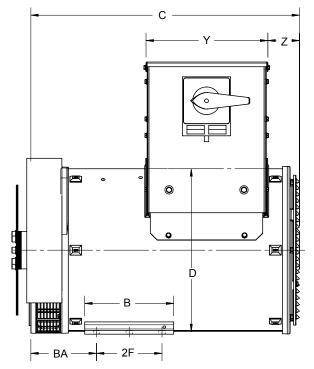
Must have minimum clearance of 6 inches for air flow in to the generator. Additional clearance may be required for servicing.



## Dimensions in inches and (millimeters) MAGNASELECT<sup>®</sup> Generators

ALL DIMENSIONS ARE APPROXIMATE: Contact factory for full dimensional data STANDARD LH SWITCH POSITION SHOWN





Frame Size	А	В	BA	С	C with PMG	D	E	2F	Н	Р	Х	Y	Z
202	14.00	7.00	6.56	18.50	23.10	13.64	6.25	5.00	8.00	14.98	26.24	8.97	3.37
282	(356)	(178)	(167)	(470)	(587)	(346)	(159)	(127)	(203)	(380)	(666)	(228)	(86)
283	14.00	7.00	6.56	20.50	25.10	13.64	6.25	5.00	8.00	14.98	26.24	8.97	3.37
203	(356)	(178)	(167)	(521)	(638)	(346)	(159)	(127)	(203)	(380)	(666)	(228)	(86)
284	14.00	7.00	6.56	22.75	27.40	13.64	6.25	5.00	8.00	14.98	26.24	8.97	3.37
204	(356)	(178)	(167)	(578)	(696)	(346)	(159)	(127)	(203)	(380)	(666)	(228)	(86)
285	14.00	7.00	11.56	25.00	29.60	13.64	6.25	5.00	8.00	14.98	26.24	8.97	3.37
200	(356)	(178)	(294)	(635)	(752)	(346)	(159)	(127)	(203)	(380)	(666)	(228)	(86)
361	16.00	9.50	7.00	24.96	27.56	17.35	7.00	7.00	9.00	20.42	29.06	13.01	3.49
301	(406)	(241)	(178)	(634)	(700)	(441)	(178)	(178)	(229)	(519)	(738)	(330)	(89)
362	16.00	9.50	7.00	28.59	31.18	17.35	7.00	7.00	9.00	20.42	29.06	13.01	3.49
302	(406)	(241)	(178)	(726)	(792)	(441)	(178)	(178)	(229)	(519)	(738)	(330)	(89)
363	16.00	9.50	10.50	31.72	34.29	17.35	7.00	7.00	9.00	20.42	29.06	13.01	3.49
303	(406)	(241)	(267)	(806)	(871)	(441)	(178)	(178)	(229)	(519)	(738)	(330)	(89)
431	21.46	15.00	10.00	33.89	38.27	22.64	9.00	11.00	13.00	30.10	37.08	16.81	2.20
431	(545)	(381)	(254)	(861)	(972)	(575)	(229)	(279)	(330)	(765)	(942)	(427)	(56)
432	21.46	15.00	10.00	37.39	41.77	22.64	9.00	11.00	13.00	30.10	37.08	16.81	2.20
432	(545)	(381)	(254)	(950)	(1061)	(575)	(229)	(279)	(330)	(765)	(942)	(427)	(56)
433	21.46	15.00	10.00	42.39	46.77	22.64	9.00	11.00	13.00	30.10	37.08	16.81	2.20
433	(545)	(381)	(254)	(1077)	(1188)	(575)	(229)	(279)	(330)	(765)	(942)	(427)	(56)

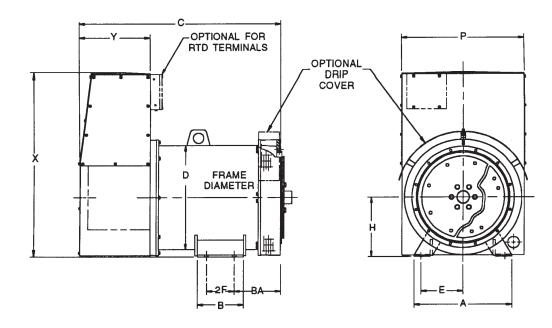
Must have minimum clearance of 6 inches for air flow in to the generator. Additional clearance may be required for servicing.



**Dimensions** in inches and (millimeters)

### MAGNAMAX<sup>®</sup> Generators

ALL DIMENSIONS ARE APPROXIMATE: Contact factory for full dimensional data



Frame Size	А	В	BA	С	D	E	2F	Н	Р	Х	Y
431	21.00 (533)	10.00 (254)	10.00 (254)	38.40 (975)	22.64 (575)	9.00 (229)	6.00 (152)	13.00 (330)	26.51 (673)	39.77 (1010)	15.21 (386)
432	21.00 (533)	10.00 (254)	10.00 (254)	43.40 (1102)	22.64 ( 575)	9.00 (229)	6.00 (152)	13.00 (330)	26.51 (673)	39.77 (1010)	15.21 (386)
433	21.00 (533)	15.00 (381)	10.00 (254)	49.40 (1255)	22.64 (575)	9.00 (229)	11.00 (279)	13.00 (330)	26.51 (673)	39.77 (1010)	15.21 (386)
572	22.50 (572)	15.00 (381)	11.50 (292)	51.52 (1308)	27.64 (702)	10.00 (254)	11.00 (279)	15.50 (394)	30.77 (782)	42.64 (1083)	17.21 (437)
573	22.50 (572)	24.00 (610)	11.50 (292)	58.02 (1474)	27.64 (702)	10.00 (254)	20.00 (508)	15.50 (394)	30.77 (782)	42.64 (1083)	17.21 (437)
574	22.50 (572)	24.00 (610)	11.50 (292)	65.02 (1651)	27.64 (702)	10.00 (254)	20.00 (508)	15.50 (394)	30.77 (782)	42.64 (1083)	17.21 (437)
575	22.50 (572)	24.00 (610)	11.50 (292)	69.27 (1759)	27.64 (702)	10.00 (254)	20.00 (508)	15.50 (394)	30.77 (782)	42.64 (1083)	19.21 (488)
740	33.00 (838)	27.00 (686)	12.00 (305)	71.37 (1813)	27.64 (702)	15.00 (381)	23.00 (584)	19.00 (483)	30.77 (782)	51.45 (1307)	19.21 (488)
741	33.00 (838)	27.00 (686)	12.00 (305)	65.81 (1672)	34.24 (870)	15.00 (381)	23.00 (584)	19.00 (483)	38.08 (967)	51.45 (1307)	21.24 (539)
742	33.00 (838)	27.00 (686)	12.00 (305)	72.81 (1849)	34.24 (870)	15.00 (381)	23.00 (584)	19.00 (483)	38.08 (967)	51.45 (1307)	21.24 (539)
743	33.00 (838)	41.00 (1041)	12.00 (305)	79.31 (2014)	34.24 (870)	15.00 (381)	37.00 (940)	19.00 (483)	38.08 (967)	51.45 (1307)	21.24 (539)
744	33.00 (838)	41.00 (1041)	12.00 (305)	85.81 (2180)	34.24 (870)	15.00 (381)	37.00 (940)	19.00 (483)	38.08 (967)	51.45 (1307)	21.24 (539)
764	33.00 (838)	41.00 (1041)	14.52 (369)	87.32 (2218)	34.24 (870)	15.00 (381)	37.00 (940)	19.00 (483)	38.27 (972)	51.57 (1310)	22.76 (578)

Notes: • Connection boxes shown are furnished as standard product. Consult factory for optional connection boxes.

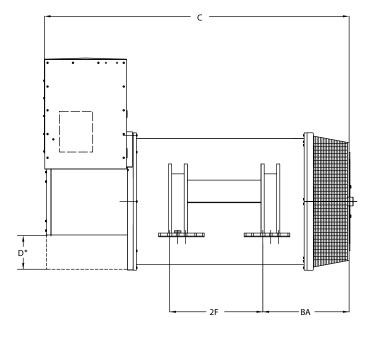
• Must have a minimum clearance of 6 inches for air flow into the conduit box. However, additional clearance may be required for servicing.

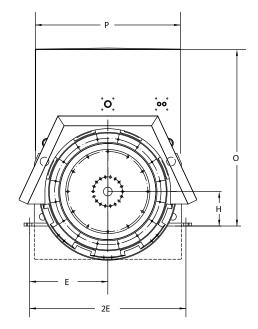


# Dimensions in inches and (millimeters)

## MAGNAPOWER® Generators

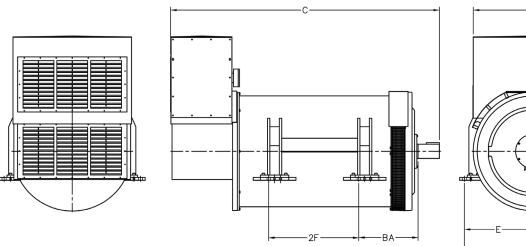
ALL DIMENSIONS ARE APPROXIMATE: Contact factory for full dimensional data

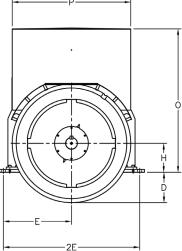




Frame Size	С	BA	2F	E	2E	Н	0	Р	D*
861	96.0 (2438)	27.2 (691)	29.3 (745)	24.6 (625)	49.2 (1250)	10.9 (276)	56.1 (1425)	45.7 (1161)	29.33 (2661)
862	102.7 (2608)	27.2 (691)	34.3 (870)	24.6 (625)	49.2 (1250)	10.9 (276)	56.1 (1425)	45.7 (1161)	29.33 (2661)
863	108.9 (2766)	27.2 (691)	39.4 (1000)	24.6 (625)	49.2 (1250)	10.9 (276)	56.1 (1425)	45.7 (1161)	29.33 (2661)
									NI TAGE ONI Y

LOW VOLTAGE ONLY

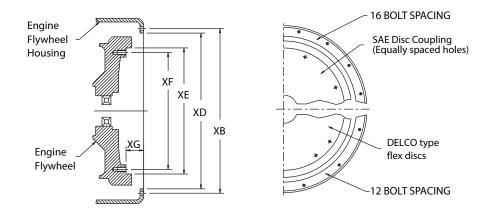




Frame Size	BA	С	D	E	2E	2F	Н	0	Р
1020	25.03 (636)	107.89 (2740)	12.78 (325)	28.75 (730)	57.50 (1460)	31.00 (787)	12.25 (311)	60.47 (1536)	50.00 (1270)
1030	25.03 (636)	113.36 (2879)	12.78 (325)	28.75 (730)	57.50 (1460)	38.00 (965)	12.25 (311)	60.47 (1536)	50.00 (1270)
1040	23.51 (597)	127.05 (3227)	12.78 (325)	28.75 (730)	57.50 (1460)	45.00 (1143)	12.25 (311)	63.42 (1610)	63.54 (1613)

Notes: • Connection boxes shown are furnished as standard product. Consult factory for optional connection boxes. • Must have a minimum clearance of 6 inches for air flow into the conduit box. However, additional clearance may be required for servicing.





Standard SAE Dimensions in inches and (millimeters)

	Engine Fl	ywheel Housin	g Dimensions	
SAE	XD	ХВ	Таррес	d Holes
No.	, AD	ΛD	Qty.	Size
00	31.000 (787)	33.50 (851)	16	1/2-13
0	25.500 (648)	26.75 (679)	16	1/2-13
1/2	23.000 (584)	24.38 (619)	12	1/2-13
1	20.125 (511)	20.88 (530)	12	7/16-14
2	17.625 (448)	18.38 (467)	12	3/8-16
3	16.125 (410)	16.88 (429)	12	3/8-16
4	14.250 (362)	15.00 (381)	12	3/8-16
5	12.375 (314)	13.12 (333)	8	3/8-16
6	10.500 (267)	11.25 (286)	8	3/8-16

	Engine Flywheel Dimensions							
Size	XE	XF	XG	Tapped Holes				
SIZE			٨G	Qty.	Size			
SAE 21	26.500 (673)	25.25 (641)	0 (0)	12	5/8-11			
SAE 18	22.500 (572)	21.38 (543)	.62 (16)	6	5/8-11			
SAE 14	18.375 (467)	17.25 (438)	1.00 (25)	8	1/2-13			
SAE 11-1/2	13.875 (352)	13.12 (333)	1.56 (40)	8	3/8-16			
SAE 10	12.375 (314)	11.62 (295)	2.12 (54)	8	3/8-16			
SAE 8	10.375 (264)	9.62 (244)	2.44 (62)	6	3/8-16			
SAE 7-1/2	9.500 (241)	8.75 (222)	1.19 (30)	8	5/16-18			
SAE 6-1/2	8.500 (216)	7.88 (200)	1.19 (30)	6	5/16-18			
ACDelco®* 17.75	17.755 (451)	15.50 (394)	.72 (18)	8	5/8-11			
ACDelco 15.50	15.500 (394)	13.88 (353)	.72 (18)	8	5/8-11			
ACDelco 12.75	12.750 (324)	11.00 (279)	0 (0)	4	1/2-13			

## **Technical Data**

Mounting Arrangement Cross Reference

Adapter	Coupling							le in Fram	ie Sizes					
Size	Size	MAG	NAPLUS® an	id MAGN	IAMAX®	Generato	ors	Pancake		LIMA®SEF	R and LIM	IA®MAC G	Generators	
SIZE	3128	280	360	430	570	740	760	330	250	280	360	440	580	680
5	6.5	Std.						Std.	Std.	Std.	Std.			
5	7.5	Std.						Std.	Std.	Std.	Std.			
5	8	Std.						Std.	Std.	Std.	Std.			
5	Lister** Al								Build-up	Build-up				
4	6.5	Std.						Std.	Std.	Std.	Std.			
4	7.5	Std.	Std.					Std.	Std.	Std.	Std.			
4	8	Std.	Std.					Std.	Std.	Std.	Std.			
4	10	Std.	Std.					Std.	Std.	Std.	Std.	Std.		
4	Lister TS	Build-up						Build-up	Build-up					
3	8	Std.	Std.					Std.1		Std.	Std.			
3	10	Std.	Std.	Std.				Std.1		Std.	Std.	Std.		
3	11.5	Std.	Std.	Std.						Std.	Std.	Std.		
3	ACDelco 12.75	Build-up	Build-up							Std.1	Std.1			
2	10	Std. 1	Std.	Std.						Std.	Std.	Std.		
2	11.5	Std. 1	Std.	Std.						Std.	Std.	Std.	Std.	
2	ACDelco 15.50		Build-up	Std.						Std.	Std.	Std.		
1	11.5		Std.	Std.							Std.	Std.	Std.	
1	14		Build-up	Std.	Std.						Std.	Std.	Std.	Std.
1	ACDelco 17.75		Build-up	Std.	Std.						Std.	Std.	Std.	Std.
1/2	ACDelco 17.75			Std.	Std.							Std.	Std.	Std.
1/2	14			Std.	Std.							Std.	Std.	Std.
0	ACDelco 17.75			Std.	Std.	Std.	Std.					Std.1	Std.	Std.
0	14			Std.	Std.							Std.1	Std.	Std.
0	18			Std.	Std.	Std.	Std.						Std.	Std.
00	18				Std.	Std.	Std.							
00	21				Std.	Std.	Std.							

Notes:

Std. = Standard adaption available at no additional cost. Std.1 = Adaption is available for standard units, but at extra cost. Consult factory for pricing. Build-up = Requires non-standard shaft. Consult factory for lead times.

\* ACDelco is believed to be a trademark of General Motors Company and is not owned or controlled by Regal Beloit Corporation.

\*\* Lister is believed to be a trademark of Lister Petter Power Systems Limited and is not owned or controlled by Regal Beloit Corporation



**Environmental and Special Considerations** 

Once the size of the generator has been determined, it is important to review the environmental and special conditions which may affect the life of the generator. Some of the most common conditions which may require special attention are outlined below.

**ALTITUDE / AMBIENT** - For applications over 3300 feet elevation or where the temperature of the ventilating air to the generator exceeds 40°C (104°F), derating of the generator will be necessary. To determine the derating, use the chart below by moving vertically on the specified altitude to the horizontal line that matches the required ambient temperature, then select the derating required.

**Note:** When a NEMA class of insulation is specified, additional derating of kW available may be necessary.

Per NEMA MG 1-2011, Part 32.6: For successful operation of generators in ambient temperatures higher than 40°C, the temperature rises... shall be reduced by the number of degrees that the ambient temperature exceeds 40°C.

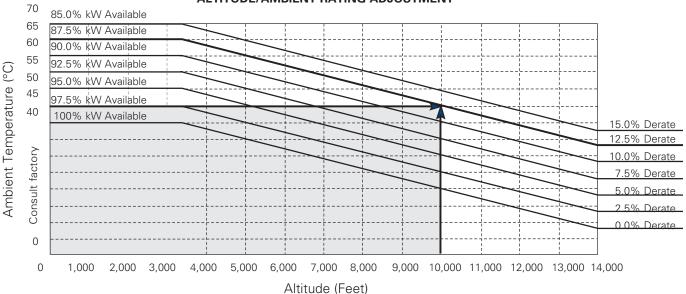
**ABRASIVE DUSTS** - When it is possible that airborne abrasive dusts will be introduced to the generator with the ventilating air, additional protection is recommended. Dirt, sand, volcanic ash, gravel, rock dust, etc. are typical of this type of application. Although the generator windings are protected against abrasive environments, severe conditions may warrant protection by means of baffles, housings and filters, or other suitable means. Refer to factory for recommendations.

**HIGH HUMIDITY AND TROPICAL CLIMATE** - In moist or humid areas such as the Tropics, coastal areas, and all marine service, additional protection is recommended. Although the standard windings are humidity and moisture resistant, space heaters are required for these environments.

**OUTDOOR APPLICATION** - All generators for outdoor application must be protected from the elements by sheet metal housings with the proper openings for ventilation. This protection should be designed to prevent the direct contact of wind driven rain, snow, or dust with the generator. Space heaters are recommended depending on location and type of service. Refer to factory for recommendations on enclosure requirements.

**NON-LINEAR LOADING** - Solid state electronic control devices which utilize thyristors or SCR firing circuits (such as variable frequency induction motor controls, precision motor speed controls, no-break powered battery chargers, etc.) can introduce high frequency harmonics which adversely affect the normal waveform of the generator. This creates additional heat in the generator stator and rotor and can cause overheating. These devices can and do present problems to non-utility power generating equipment or any limited power bus system. The problems which can occur are not limited to the generator itself, but can affect the solid state control device, the equipment it controls, other associated loads, monitoring devices or a number of combinations over the entire system.

It is important that the control manufacturer, the generator manufacturer, and the systems engineer work together to insure the proper selection of all components. Please refer to factory for application assistance.



ALTITUDE/AMBIENT RATING ADJUSTMENT

Example: Elevation: 10,000 feet Ambient: 45°C Required Derate: 12.5% Catalog Rating x .875

#### Example:

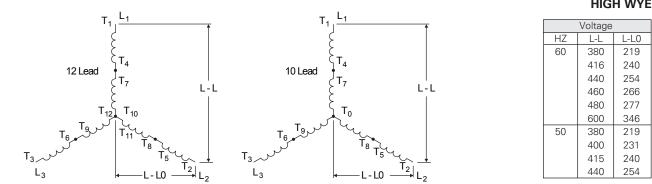
NEMA B class of insulation is specified in a 45°C ambient. Maximum allowable temperature rise is reduced from 80°C to 75°C.



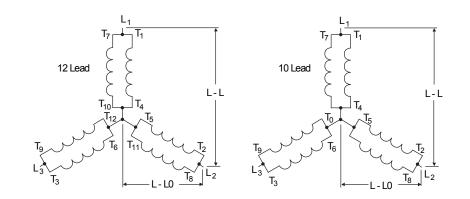
**CONNECTION DIAGRAMS** 

## SERIES



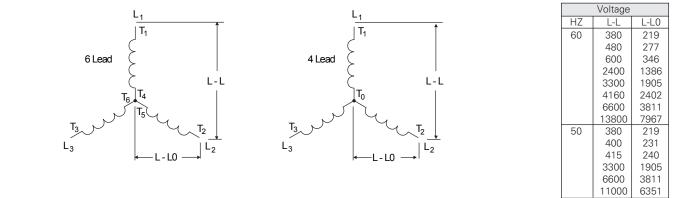


#### PARALLEL LOW WYE



	Voltage							
HZ	L-L	L-LO						
60	190	110						
	208	120						
	220	127						
	230	133						
	240	139						
50	190	110						
	200	115						
	208	120						
	220	127						

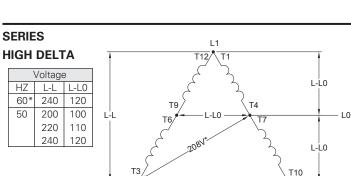
WYE



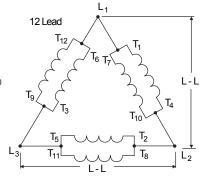
### PARALLEL

LOW DELTA

Vol	tage
ΗZ	L-L
60	110
	120
50	100
	110



Τ8 Τ5 T2 L2





L3 T11

SERIES

ΗZ

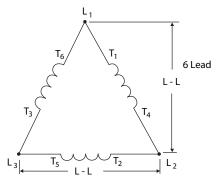
60\*

50

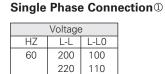
CONNECTION DIAGRAMS

#### DELTA

Voltage					
ΗZ	L-L				
60	2402				
	7967				
50	1905				
	6351				



### DOUBLE DELTA

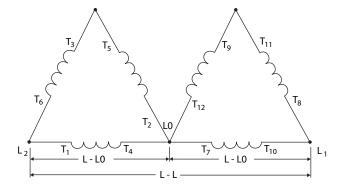


240

220

120

110

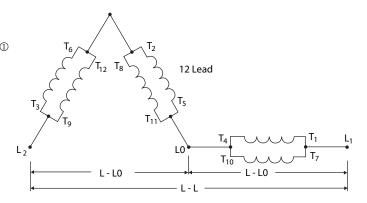


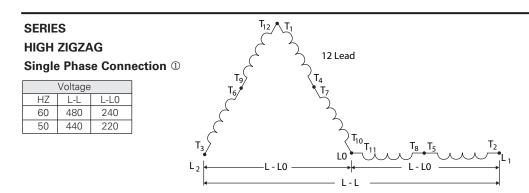
### PARALLEL

50

LOW ZIGZAG Single Phase Connection ①

Voltage							
ΗZ	L-L	L-LO					
60	200	100					
	220	110					
	240	120					
50	220	110					





③Single phase kW/kVA ratings are approximately equal to 50% of the generator's three phase ratings.



**Automatic Voltage Regulator Features** 

	STANDARD MODELS			SPECIAL (OPTIONAL) MODELS				
Feature	SE350E	SE350EL	DVR®2000E+	AVC63-12	DVR®2000EC+	PM300E	PM500	APR125-5
Analog Input	No	No	Yes	Yes	Yes	No	Yes	No
Min. Exciter Field Resistance Ohms	15.0	15.0	18.0	5.25	18.0	21.0	15.0	25.0
Voltage Regulation No Load to Full Load	1.0%	1.0%	0.25%	0.5%	0.25%	1.0%	0.5%	0.25%
Underspeed Protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overexcitation Protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EMI / RFI Filtering ①	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit Mounted Voltage Adjust	Std.	Std.	Std.	Std.	Std.	Std.	Std.	Std.
Overvoltage Protection	No	No	Std.	No	Std.	No	Std.	Opt.
Encapsulated	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Paralleling ③	Opt⊕	Opt@	Std.	Std.	Std.	Opt@	Std.	Opt@
Line Drop Compensation	No	No	No	Yes	No	No	No	No
VAR/PF Controller	No	No	No	Opt©	Yes	No	No	No
Input Power - VAC	240	120 or 240@	PMG	120	PMG	PMG	PMG	240
Cont. Output - ADC	3.5	3.5	3.0	12.0	3.0	3.0	5.0	5.0
Cont. Output - VDC	63	63	75	63	75	63	85	125
Sensing Input - VAC	190-240	85-120 190-240②	100-600	<u>Option B</u> : 180-264	100-600	190-240	175-280 330-515 420-660	190-277 380-480
Sensed Voltage	Average	Average	RMS	Average	RMS	Average	Average	Average
Sensing Frequency (Hz)	50/60	50/60	50/60	<u>Option</u> 1: 50/60 2: 400	50/60	50/60	50/60	50/60
Generator Current Limiting Protection	No	No	No	No	No	No	No	No
AVR Condition LEDs	No	No	Yes	No	Yes	No	No	No
3 Phase Sensing	No	No	Yes	Yes	Yes	No	Yes	No
1 Phase Sensing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loss of Sensing Protection	Yes ©	Yes ©	Yes	No	Yes	No	No	No
300% Short Circuit Protection	No	No	Yes	No	Yes	No	Yes	No

① With regulator mounted in generator conduit box.

② Depends on switch position.

Bequires the addition of a paralleling current transformer.
Requires the addition of a paralleling module along with a paralleling current transformer.

S Requires the addition of VAR/PF Module.

Protection is inherent. Sensing and power input share the same two leads.
 A loss of sensing (open in the sensing circuit) results in an open in the input power circuit, and the regulator will shut down.



## **General Formulas**

### **Generator Formulas** ①

Desired Data	Single Phase	Three Phase				
Kilo Volt Amperes (kVA)	$\frac{\text{Volts x Amps}}{1000}  \text{or}  \frac{\text{kW}}{\text{P.F.}}$	$\frac{\sqrt{3} \times \text{Volts } \times \text{Amps}}{1000}  \text{or}  \frac{\text{kW}}{\text{P.F.}}$				
Kilowatts (kW)	$\frac{\text{Volts x Amps x P.F.}}{1000} \text{ or } kVA x P.F.$	$\frac{\sqrt{3} \times \text{Volts x Amps x P.F.}}{1000} \text{ or } kVA \times P.F.$				
Power Factor (P.F.)	- <u>kW</u> kVA	kW kVA				
Amperes When kW is Known	<u>kW x 1000</u> Volts x P.F.	$\frac{kW \times 1000}{\sqrt{3} \times Volts \times P.F.}$				
Amperes When kVA is Known	kVA x 1000 Volts	$\frac{\text{kVA x 1000}}{\sqrt{3} \text{ x Volts}}$				
Minimum HP Required for Prime Mover	kW Alternator Efficiency x 0.746					
Frequency (Hz)	Number of Poles x RPM 120					
Revolutions Per Minute (RPM)	Hz x 120 Number of Poles					
Number of Poles	Hz x 120 RPM					

① P.F. = Power Factor



## **Agency Information**

#### Matrix of Generator and AVR Approvals & Markings

MAGNAPLUS® Generator	CE	CSA	UL	MAGNAPOWER® Generator	CE		CSA	UL
281-287	Y	Y	Y	1020 - 1030 LV Y		Y	Υ	
361-363	Y	Y	Y	1020 - 1040 MV	Ν		Y	Ν
431-433	Y	Y	Y	1020 - 1040 HV	Ν		Y	Ν
431-433	ř	ř	ř					
				LIMA®MAC Generator	CE		CSA	UL
MAGNAMAX <sup>®</sup> Generator	CE	CSA	UL	250-440	Y		Y	Y
431-433 LV	Y	Y	Y					
572-575 LV	Y	Y	Y				UL	UL
740-764 LV	Y	Y	Y	AVR	CE		Certified for Canada Component	<sup>la</sup> Recognized
				SE350E Regulator	N	Y	N	Y
	1			SE350EL Regulator	Y	N	Y	Y
MAGNAMAX® Generator	CE	CSA	UL	SE350P Regulator	Y	N	Y	Y
431-433 MV	Ν	Y	N	PM300E Regulator	Y	N	Y	Y
572-575 MV	N	Y	N	PM500 Regulator	Y	N	Y	Y
741-764 MV	Ν	Y	N	DVR <sup>®</sup> 2000E+ Regulator	Y	Y	N	Y
				DVR <sup>®</sup> 2000EC+ Regulator	Y	Y	N	Y
				APR125-5 Regulator	N	Y	N	Y
Pancake	CE	CSA	UL	AVC63-12 B1 & B2 Regulator	Y	Y	Ν	Y
AVR 332-337	Ν	Y	N	DVR <sup>®</sup> 2400 Regulator	Y	Y	N	Y
Capacitor 332-337	N	Y	N	DVR <sup>®</sup> 2500 Regulator	V	V	N	Y



UL Listing Mark - MAGNAMAX<sup>®</sup> and MAGNAPLUS<sup>®</sup> units complete with regulator and conduit box and rated 40KW or larger and 600 volts max. Our UL Certification file number is E218422. Go to www.ul.com and select the link to their online certifications directory and enter E218422 in the file number search box and click on JZGZ.E218422 for a complete product listing.



UL Recognized Component Mark - 1) MAGNAMAX<sup>®</sup> and MAGNAPLUS<sup>®</sup> units complete with regulator and conduit box and rated less than 40 KW. 2) MAGNAMAX<sup>®</sup> and MAGNAPLUS<sup>®</sup> units rated 40 KW or larger but without conduit box and/or regulator. 3) MAGNAPOWER<sup>®</sup> units with or without regulator This applies to units rated 600 V or less. Our UL Certification File number is E218422. Go to www.ul.com and select the link to their online certifications directory and enter E218422 in the file number search box and click on JZGZ2. E218422 for a complete product listing. 4) Voltage regulators - search the UL online certifications directory using file number E222903.



CSA Certification Mark - Applies to majority of MAGNAPOWER®, MAGNAMAX® and MAGNAPLUS® units. Our CSA Certification File number is LR2025 for MAGNAMAX® and MAGNAPOWER® units and LR9401 for MagnaPlus units. Go to www.csagroup.org and select the Certified Product Listing link and enter either 002025 or 009401 in the file number search box, Class 4211-01 covers generators, Class 3211-06 covers voltage regulators.



CSA Certification Mark for Canada and the US - Applies to certain MAGNAMAX<sup>®</sup>, MAGNAPLUS<sup>®</sup>, and MAGNAPOWER<sup>®</sup> units that are specifically Certified for Class 1, Division 2 hazardous locations. Our CSA Certification File number is LR21839. Go to www.csagroup.org and select the Certified Product Listing link and enter 021839 in the file number search box and select the link under CSA Class No. 4228-81.



ATEX symbol - Signifies compliance to the European ATEX Directive which applies to equipment for use in potentially explosive atmospheres. Special construction; available for Zone 2 only. Applies to 282-287 MAGNAPLUS® and 431-744 MAGNAMAX® generators. Third party certification is through SIRA/CSA Group Testing UK Ltd., generators are nameplated "ExnA" (non-sparking protection method) and IIC (covers Gas Groups IIA, IIB, IIC) and "T3" (Operating Temperature Code (T3= surface temperatures less than 200°C).



CE Marking - An acronym for the French "Conformite Europeene"; this marking is required on certain equipment imported to European Union countries based on individual Directives (Laws). MAGNAMAX<sup>®</sup>, MAGNAPLUS<sup>®</sup>, and LIMA<sup>®</sup>MAC units complete in every aspect of construction, and rated 1000 volts or less, carry the CE marking, based on the Low Voltage Directive.



For the full version of the Terms and Conditions of Sales with Supplements A and B - Visit http://www.regalbeloit.com/what-we-do/products-brands/



#### ALL QUOTATIONS ARE OFFERED AND ALL PURCHASE ORDERS ARE ACCEPTED BY SELLER SUBJECT ONLY TO THESE TERMS AND CONDITIONS.

Regal STCS Rev 5-14

1. DEFINITIONS: "Buyer" means the entity to which Seller is selling Products or Services under a Contract. "Contract" means the agreement between Buyer and Seller governing the sale of Products and/or Services by Seller to Buyer. These Terms and Conditions, the Quotation (if one is issued by Seller), any purchase order acknowledgement (if one is issued by Seller), any purchase order acknowledgement (if one is issued by Seller), any purchase order acknowledgement (if one is issued by Seller), and Buyer's purchase order (except to the extent that it conflicts with these Terms and Conditions, the Quotation, and/or the order acknowledgement) constitute the Contract. "Products" means the equipment, parts, materials, supplies, and other goods that Seller has agreed to supply under the Contract. References in these Terms and Conditions to the purchase and sale of Products may mean, where applicable, the licensing of Software loaded on or provided with the Products. "Quotation" means Seller's statement identifying the Products and Services, together with any quantity, price, delivery schedule, and/or other terms and conditions (in addition to or different from these Terms and Conditions, Nether or not Seller provides a complete copy of these Terms and Conditions to Buyer with the Quotation, with a purchase order acknowledgement, or with an invoice. Where there is a conflict between these Terms and Conditions and other provisions of the Quotation, the latter shall control. "Services" means software loaded on or provided with the Product. "Software" means software loaded on or provided with the Products and Conditions and other provides a complete copy of these Terms and Conditions to Buyer with the Quotation. "Software" means software loaded on or provided with the Products. "Software" means software loaded on or provided with the Products. "Seller 'software" means software loaded on or provided with the Products. "Seller 'software" means software loaded on or provided with the Products. "Seller" or an RBC subsidiary

2. CONTRACT FORMATION: No agreement or understanding, oral or written, purporting to modify these Terms and Conditions shall be binding on Seller unless it is made in writing, specifically stating that it is a modification of these Terms and Conditions and it is signed by Seller's authorized representative. No course of dealing, usage of trade, or course of performance shall be relevant to explain or supplement any of these Terms and Conditions. If these Terms and Conditions are deemed an offer, Buyer's acceptance of Seller's offer is expressly limited to acceptance of any of Buyer's terms and conditions and these Terms and Conditions. Fulfillment of Buyer's order does not constitute acceptance of any of Buyer's purchase order for the purchase of Products and/or for the performance of Services shall constitute Buyer's assent to these Terms and Conditions. Any terms and conditions contained in Buyer's purchase order or other form of communication from Buyer that are additional to or different from these Terms and Conditions, shall be deemed rejected by Seller, unless expressly accepted in writing by Seller's authorized representative. Alternatively, if these Terms and Conditions are deemed to be a response to, an acceptance of or therse Terms and Conditions. Buyer's assent to these Terms and Conditions. Buyer's assent to these Terms and Conditions. Buyer's assent to these Terms and Conditions. Alternatively, if these Terms and Conditions. Buyer's acceptance is expressly conditioned upon Buyer's assent to these Terms and Conditions. All proposals, negotiations and representations, if any, made prior to or with reference hereto are hereby superseded by these Terms and Conditions. References in this Section to "these Terms and Conditions.

3. ACCEPTANCE OF PURCHASE ORDERS: No Buyer purchase order shall be binding on Seller until accepted in writing by Seller, and Seller shall have no liability to Buyer with respect to purchase orders that are not accepted. Shipment against a purchase order shall be deemed to constitute Seller's acceptance thereof, subject to these Terms and Conditions. All purchase orders shall be subject to these Terms and Conditions, whether or not the purchase orders so state. Purchase orders accepted by Seller may not be cancelled or modified by Buyer without the prior written consent of Seller.

4. QUOTATIONS: Quotations shall expire and shall be void thirty (30) days from date of the Quotation, unless otherwise specified in the Quotation. The Quotation may be modified or withdrawn by Seller at any time before Seller's receipt of Buyer's conforming acceptance.

5. PRICES; PRICE CHANGES: (a) Products. The price of the Products sold pursuant to the Contract shall be as set forth in the Quotation. If price is not specified in the Quotation, price shall be based upon Seller's prices in effect at the time of shipment. Published prices are for Products of Seller's current standard design and constructed of standard materials. Variation from the standard design and/or materials requires special pricing. Seller reserves the right at any time, and without incurring any obligation, to discontinue the manufacture of any model, to withdraw products from sale, to make changes in design, and/or to add improvements to products. Price also shall be based on freight rates in effect at the time of shipment. Where applicable, in the event of an increase in the applicable freight rates before the shipment of Products, such changes will be for the account of Buyer. Price advances, discounts, extras and other terms and conditions are subject to change without notice. Unless otherwise provided in the Quotation, price is based on delivery in accordance with the "Delivery" section below. Prices include Seller's standard pacing. (b) Services. Services prices are based on normal business hours (8 AM to 5 PM Monday through Friday). Overtime and Saturday hours will be billed at two (2) times the normal business hours hourly rate; holiday hours will be billed at the e(3) times the normal business hours hourly rate.

6.TAXES, DUTIES AND FEES: Seller shall be responsible for taxes measured on Seller's net income based upon performance of, or payment for, work under the Contract ("Seller Taxes"). Buyer shall be responsible for all other taxes, duties, fees or other charges of any kind (including, but not limited to any manufacturer's tax, retailers' occupation tax, use tax, sales tax, excise tax, duty, custom, inspection or testing fee, value added tax, or any other tax, fee or charge of any nature whatsoever) imposed by any governmental authority against Buyer, Seller or Seller's suppliers and/or contractors, based upon the Contract between Seller and Buyer. In the event Seller is required to pay any such tax, fee or charge, regardless whether such tax, fee or charge is imposed before or after Seller's delivery of the Products and/or Buyer's payment under the Contract, Buyer shall reimburse Seller therefor. In lieu of such reimbursement, Buyer shall provide Seller, at the time the order is submitted, with an exemption certificate or other document acceptable

to the authority imposing such tax, fee or charge. If Seller's prices include any taxes, duties or fees (other than SellerTaxes), any change in such taxes, duties and/or fees shall be the basis for a price adjustment.

7. TERMS OF PAYMENT: (a) Terms. Terms of payment are cash in full, without set-off or discount, in U.S. dollars, and by wire transfer, no later than thirty (30) days from date of invoice. (b) Payment Default. If Buyer defaults in any payment when due, or in the event that any voluntary or involuntary bankruptcy or insolvency proceedings involving Buyer are initiated by or against Buyer, then the whole Contract price shall immediately become due and payable upon demand, or Seller, at its option and without prejudice to its other lawful remedies, may defer delivery or cancel the Contract. Where delivery is deferred and Seller does not demand immediate payment of the full Contract price, pro-rata payments shall become due as shipments are made. (c) Buyer Financial Condition. If, during the period of performance of the Contract, the financial condition of Buyer is determined by Seller not to justify the terms of payment specified, Seller may demand full or partial pay-ment in advance before proceeding with the work, or satisfactory security or guarantees that invoices will be promptly paid when due, or, at its option, without prejudice to other lawful remedies, may defer delivery or cancel the Contract. (d) Delay. If delivery is delayed by Buyer, which delay must be consented to by Seller, Seller may store the Products in accordance with subsection 8(e) "Storage" below and Seller may submit a new estimate of cost for completion based on prevailing conditions. Payments shall become due from the date on which Seller is prepared to deliver the Products and storage shall be the Buyer's risk and expense as provided in subsection 8(g) "Storage" below. If manufacture is delayed by Buyer for any cause, a partial payment based upon the proportion of the order completed shall become due from the date on which Seller is notified of the delay. (e) Late Payment Charge. Buyer shall pay a late payment charge on all amounts not paid in full when due at the rate of one and one half percent (1.5%) per month or at the maximum legally permissible rate, whichever is lower. (f) Exceptions. Supplement A to these Terms and Conditions lists Seller business units for which payment terms vary from payment terms set forth in this Section 7.

#### 8. DELIVERY; TITLE TRANSFER; RISK OF LOSS/DAMAGE:

(a) Delivery - U.S. Buyer. For sales in the U.S. that do not involve export from the U.S., Seller shall deliver Products to Buyer EXW Seller's U.S. point of shipment (Incoterms® 2010). The point of shipment shall be the shipping dock of Seller's factory, warehouse or other facility that Seller designates as its discretion as point of shipment from time to time. (b) Sales Involving Exports from U.S. (1) Delivery - U.S. Buyer; Subsequent Drop Shipment to Location Outside U.S. For sales, in the U.S. to a U.S. Buyer, which involve drop shipment at Buyer's request and/or on Buyer's behalf, to a location outside the U.S., Seller shall deliver the Products to Buyer EXW Seller's U.S. point of shipment (Incoterms® 2010). The point of shipment shall be the shipping dock of Seller's factory, warehouse or other facility that Seller designates at its discretion as its point of shipment from time to time. Buyer is responsible for all transportation charges incurred after delivery of the Products to the carrier or Buyer at the point of shipment and shall reimburse Seller for any transit insurance or freight pre-paid for the Products by Seller. Buyer shall bear the risk of loss and/or damage in transportation. Buyer is responsible for filing any export documents required for export from the U.S. (2) Delivery - Non-U.S. Buyer; Routed Export Transactions. For sales in the U.S. to a non-U.S. Buyer, Seller shall deliver Products to Buyer's freight forwarder EXW Seller's U.S. point of shipment (Incoterms® 2010). The point of shipment shall be the shipping dock of Seller's factory, warehouse or other facility that Seller designates at its discretion as its point of shipment from time to time. In a "Routed Export Transaction," as defined in the U.S. Census regulations, 15 CFR Section 30.3, where Buyer is a non-U.S. entity, Buyer shall authorize Buyer's designated freight forwarder or Seller to facilitate the export of the Products from the U.S. and to prepare and file export documentation with respect to such export transaction (hereafter, to "Facilitate the Export"). If Buyer authoriz-es its designated freight forwarder to Facilitate the Export, Buyer's freight forwarder shall provide Seller with a copy of the final export documentation and proof of filing. If Buyer authorizes Seller to Facilitate the Export, Buyer shall cause Buyer's freight forwarder to provide Seller the information needed by Seller to Facilitate the Export. Buyer shall give timely notice to Seller identifying whom it has designated to Facilitate the Export. (c) Delivery Dates. Delivery dates are approximate, are not guaranteed and are based upon prompt receipt by Seller from Buyer of all necessary shipping and other information. Seller may deliver in advance of the delivery schedule. Seller reserves the right to make de-livery in installments, with all installments to be separately invoiced and paid for by Buyer when due per invoice, without regard to subsequent deliveries. Delivery of the Products to a commercial carrier at the shipping point shall constitute delivery to Buyer. (d) Title Transfer. Title to Products shall pass to Buyer upon the earlier of delivery of the Products to the carrier or Buyer at the point of shipment in accordance with subsection (a) above, except that, for Routed Export Transactions, title shall transfer to Buyer upon delivery to Buyer's designated freight forwarder. Subject to applicable law, Seller, upon notice to Buyer, may retain title to the Products until such time as Seller receives payment in full from Buyer. Title to Software shall not pass to Buyer and is subject to the applicable license. (e) Risk of Loss/Damage. Risk of loss and/or damage shall pass to Buyer upon delivery in accordance with subsection (a) above, except that, for Routed Export Transactions, risk of loss and/or damage shall pass upon delivery of the Products to Buyer's designated freight forwarder. (f) Delivery by Seller's Carrier. Where the parties agree that delivery shall be made at a location other than Seller's point of shipment, where Seller will deliver using its carrier or Seller's privately owned or leased trucks, unloading at the agreed location shall constitute delivery to Buyer. Freight and handling charges by Seller may not reflect actual freight charges prepaid to the carrier by Seller due to incentive discounts earned by Seller based upon Seller's aggregate volume of freight tendered to a carrier or when a carrier must be used which charges a rate which is different than the rate upon which Seller's freight and handling charges were based. When shipments are delivered in Seller's privately owned or leased trucks, Buyer will be charged an amount approximating the prevailing common carrier rate. (g) Storage. In the event that Buyer is unable to accept delivery of the Products at time of shipment, Seller shall invoice Buyer for the full purchase price as if shipment had been made and: (i) if Seller is able to store such Products in its own facilities, Buyer will pay Seller the reasonable handling and storage charges for the period of such storage, or (ii) if Seller is unable to store such goods at its own facility, Seller reserves the right to arrange handling and storage in a suitable bonded warehouse for Buyer at



Buyer's expense. In cases where handling and storage become necessary, it shall be Buyer's responsibility to notify Seller when shipment is to be made. Seller will make necessary arrangements for shipment at Buyer's expense.

9. EXCUSABLE DELAYS; FORCE MAJEURE: (a) Excuse of Performance. Seller shall not be liable for any ordinary, incidental, or consequential loss or damage as a result of Seller's delay in or failure of delivery, or installation of Products or performance of Services due to (i) any cause beyond Seller's reasonable control, (ii) an act of God, act of Buyer, embargo or other government act, authority, regulation or request, fire, theft, accident, strike, slowdown or other labor disturbance, war, armed conflict, act or threat of terrorism, riot, epidemic, delay in transportation, or (iii) inability to obtain necessary labor, materials, components, or facilities. Should any of the aforementioned events occur, Seller, at its option, may cancel Buyer's order with respect to any undelivered Products or incomplete Services or extend the delivery date for a period equal to the time lost because of delay. Notice of such election shall be given promptly to Buyer. In the event Seller elects to so cancel the Contract, Seller shall be released of and from all liability for failure to deliver the Products or to perform the Services, including, but not limited to, any and all claims on behalf of Buyer for lost profits, or any other claim of any nature which Buyer might have. If shipping or progress of the work is delayed or interrupted by Buyer, directly or indirectly, Buyer shall bay Seller for all additional charges resulting therefrom. (b) Allocation. If Seller determines that its ability to meet the demand for products, including the Products, or to obtain labor, materials, components or facilities is hindered, limited or made impracticable due to cause set forth in subsection (a) above, Seller may allocate its available supply of products, including the Products, among itself and its purchasers on such basis as Seller determines to be equitable without to for any ratifure of performance which may result therefrom.

10. LIMITED WARRANTY. (a) Scope and Period. (1) Products. Seller warrants that the Products shall be delivered free from defects in material, workmanship and title and shall conform to Seller's specification agreed upon in a written and signed agreement by Buyer and Seller, if applicable, for the Products. This warranty shall expire twelve (12) months from first use of the Product or eighteen (18) months from date of manufacture of the Product, whichever occurs first. (2) Repaired and/or Replaced Products and/or Parts of Products. Seller warrants that the repaired or replaced Products or parts of Products shall be delivered free from defects in material, workmanship and title. In the case of repaired or replaced Products or parts of Products comprising warranty remedies for Products, this warranty shall expire upon expiration of the warranty period ap-plicable to the Products originally supplied by Seller. In the case of other repaired or replaced Products or parts of Products, this warranty shall expire twelve (12) months from the date of repair or manufacture of the Products or parts of the Products. (3) Services. Seller warrants that the Services shall be performed in a competent and diligent manner in accordance with any mutually agreed specification. This warranty shall expire ninety (90) days from the date of completion of such Services. (4) Software. Seller warrants that the Software shall execute, at time of delivery, in accordance with the specification agreed upon in a written and signed agreement by Buyer (as licensee) and Seller (as licensor) when properly installed in the Products. The warranty shall expire six (6) months from date of manufacture of the first Product in which the Software is loaded. (5) Applicability. This warranty shall apply to any Products and/or Software bought, acquired, and/or used by an entity that, or person who, acquires the Products and/or Software from Buyer (a "Transferee"), except that any claim made against Seller pursuant to this warranty shall be made by Buyer only. Seller shall not be bound by this Section 10 to satisfy a claim under this Section made against Seller by a Transferee, whether such Transferee is a direct or indirect Transferee of Buyer, Buyer shall provide any Transferee of a Product or Software written conspicuous notice of Sections 10 and 11 hereof. (6) Exceptions. Supplement B to these Terms and Conditions lists Seller Products, parts, Services and Software for which Seller's warranties vary from the warranties set forth in this subsection 10(a). (b) Remedies. (1) Products. If, prior to expiration of the warranty period set forth in subsection 10(a)(1), above, any Products shall be proved to Seller's satisfaction to be defective or nonconforming with the warranty set forth therein, Seller will repair or replace such defective Products or components thereof, FCA Seller's fac-tory, warehouse or other facility that Seller designates at its discretion as point of shipment from time to time (Incoterms® 2010), or will refund or provide Buyer with a credit in the amount of the purchase price paid therefor by Buyer, at Seller's sole option. Buy-er's exclusive remedy and Seller's sole obligation under this warranty shall be limited to such repair or replacement, FCA factory, warehouse or other facility that Seller desig-nates at its discretion as point of shipment from time to time (Incoterms® 2010), or re-fund or credit by Seller, and shall be conditioned upon Seller's receiving written notice of any defect and/or nonconformance within a reasonable period of time, but in no event more than thirty (30) days, after it was discovered or by reasonable care should have been discovered. All claims not made in writing and received by Seller within such thirty (30) day period shall be deemed waived. In no event shall Seller's liability for such defec-tive or nonconforming Products exceed the purchase price paid by Buyer for such Products. With prior approval from Seller, Buyer shall return the alleged defective Product of part, freight prepaid, for Seller's inspection, and no other Products shall be returned to any Seller office, factory, warehouse, authorized service center or other facility, without Seller's written consent. (2) Repaired and/or Replacement Products and/or Parts of Products. If prior to the expiration of the applicable warranty period set forth in subsection 10(a)(2) above, any replacement Products and/or parts of Products shall be proved to Seller's satisfaction to be defective or nonconforming with the warranty set forth there-in, the remedy set forth in subsection 10(b)(1) above shall apply to such replacement Products and/or parts of Products. (3) Services. If, prior to expiration of the warranty period set forth in subsection 10(a)(3), above, any Services shall be proved to Seller's satisfaction to be nonconforming with the warranty set forth therein, Seller will re-per-form such nonconforming Services. If the Services cannot be re-performed, Seller, at its option, shall refund or credit monies paid by Buyer for such nonconforming Services. (4) Software. If, prior to expiration of the warranty period set forth in subsection 10(a)(4) above, (i) Buyer provides, in writing, a complete description of the claimed nonconfor-mance in the Software, and (ii) the Software is proven to Seller's satisfaction to be so nonconforming with the warranty set forth therein, Seller will correct the nonconformance by, at its option: (i) modifying or making available to Buyer instructions for modifying the program causing such nonconformance, or (ii) making available a corrected or replacement program FCA Seller's factory, warehouse or other facility that Seller designates at its discretion as point of shipment from time to time (Incoterms® 2010). (c) Exclusions - The warranties set forth in this Section 10 do not cover: (1) shipping ex-penses to and from Seller's office, factory, warehouse, authorized service center or other destination designated by Seller for repair or replacement of defective Products or any tax, duty, custom, inspection or testing fee, or any other charge of any nature re-lated thereto; (2) costs of removing defective Products from, and/or disassembling,



equipment in which Products are assembled or reinstalling Products and/or reassembling such equipment, or testing repaired or replaced Products and/or the equipment; (3) field service travel and living costs and expenses; (4) Products subjected to abuse, ne-glect, negligence, misuse, misapplication, accident, damages by circumstances beyond Seller's control, improper installation (if by anyone other than Seller), improper operation (including, but not limited to, operation in excess of rated capacity or otherwise not in accordance with installation, maintenance, or operating instructions or requirements) improper maintenance, improper storage, and/or any other than normal use or service; (5) Products maintained, serviced, repaired or altered by anyone other than Seller or Seller's authorized service agencies; (6) Products and/or parts not manufactured by Seller; for Products furnished by Seller, but manufactured by others, Seller will assign to Buyer the written warranty, if any, of the manufacturer, if assignment is reasonably practicable; however, Seller does not adopt or guarantee or represent that the manufacturer will comply with any of the terms of the warranty of such manufacturer; but, in no event shall Seller's obligations be greater than those provided under Seller's warranty set forth in this Section 10; and/or (7) failures of the Software to be interruption-free or errorfree or to meet Buyer's or any other party's requirements; and, problems caused by use of the Software in conjunction with third-party software, hardware, or products. (d) DISCLAIMER: THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES, ADISING DY OF LAW, OR OTHER EXPRESS AND IMPLIED WARRANTIES, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHETHER OR NOT THE PURPOSE OR USE HAS BEEN DISCLOSED TO SELLER IN SPECIFICATIONS, DRAWINGS, OR OTHERWISE AND WHETHER OR NOT SELLER'S PRODUCTS ARE SPECIFICALLY DESIGNED AND/OR MANUFACTURED BY SELLER FOR BUYER'S USE OR PURPOSE. NO EMPLOYEE, REPRESENTATIVE, OR AGENT OF SELLER FOR BUTER'S USE OF PORPOSE. NO EMPLOYEE, AUTHORIZED TO ALTER OR MODIFY ANY PROVISION OF THIS SECTION 10 OR TO MAKE ANY GUARANTEE, WARRANTY, OR REPRESENTATION, EXPRESS OR IM-PLIED, ORALLY OR IN WRITING, WHICH IS CONTRARY TO THE FOREGOING. Except where Buyer and Seller agree in a written and signed agreement upon the specifications applicable to the Products, Software, and/or Services, any description of the Products, Software, and/or Services, whether in writing or made orally by Seller or Seller's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with Buyer's order are for the sole purpose of identifying the Products and shall not be construed as an express or implied warranty. Any suggestions by Seller or Seller's agents regarding use, application or suitability of the Products shall not be construed as an express or implied warranty unless confirmed to be such in writing by Seller's authorized officer.

11. LIMITATIONS OF REMEDY AND LIABILITY: (a) Breach of Warranty Claims. Buyer's only remedy for breach of any warranty under the Contract, other than the warranty provided under Section 13 "Intellectual Property Indemnity," shall be the applicable remedy set forth in Section 10 "Limited Warranty" above. Seller's total liability for any and all breach of warranty claims under the Contract shall not exceed the purchase price allocable to the Product, Software or Service or part thereof which gives rise to the claim. (b) Other Claims. Seller's liability for any claim other than a breach of warranty claim under Section 10 "Limited Warranty," whether in contract, negligence, tort, strict liability, indemnity or otherwise for any loss or damage arising out of, connected with, or resulting from the Contract or the performance or breach thereof, or from the design, manufacture, sale, delivery, resale, repair, replacement, installation, technical direction of installation, inspection, operation or use of any Products covered by or furnished under the Contract or from Services rendered under the Contract, shall in no case (except as provided in Section 13 "Intellectual Property Indemnity") exceed five percent (5%) of the purchase price allocable to the Products or part thereof or Services giving rise to the claim. (c) Consequential Damage Disclaimer. SELLER SHALL NOT BE LIABLE FOR AND DISCLAIMS ALL CONSEQUENTIAL, INCIDENTAL, CONTINGENT, SPECIAL OR PUNITIVE DAMAGES WHATSOEVER. Seller shall not be liable for lost profits or revenues, loss of use of the Products, software or any related equipment or systems, cost of capital, cost of substitute products, cost of facilities or services, business interruption, downtime, shutdown, or slowdown costs, any other types of economic loss, penalties, special or punitive damages, and claims of Buyer's customers for any such damages. (d) Expiration of Claims. All claims against Seller arising out of or related to the Contract or the performance or breach thereof shall expire unless made

**12. INDEMNITY:** (a) Third party claims. Each of Buyer and Seller (each an "Indemnified Party" and an "Indemnifying Party") shall indemnify the other party from and against claims brought by a third party, for bodily injury or damage to the third party's tangible property, to the extent such injury and/or damage is caused by the negligence of the Indemnifying Party, provided that the Indemnified Party gives the Indemnifying Party prompt notice of any such claim and all necessary information and assistance so that the lademnifying Party, at its option, may defend or settle such claim and the Indemnified Party does not take any adverse posi–tion in connection with such claim. In the event that the injury or damage is caused by joint or concurrent negligence of suggingence. For purposes of Seller's indemnity obligations hereunder, Products shall not be considered third party property and the facility in which a Product or Software is used and/or the Services are performed shall not be considered third party property. (b) Indemnity by Buyer for Third Party Warranty Claims. If Buyer supplies Products or Services to a third party, and/or transfers Products and/or Software to a third party, Buyer shall indemnify and defend Seller from and against any and all claims by, and liability to, any such third party in excess of the limitations set forth in Sections 10 "Limited Warranty" and 11 "Limitations of Remedy and Liabilities." For purposes of this subsection (b), "Seller" means Seller, its affiliates, suppliers, contractors, licensors and their employees.

13. INTELLECTUAL PROPERTY INDEMNITY: Seller warrants that, to the best of its knowledge, Products, Services and/or Software furnished hereunder, and any part thereof, (each a "Delivered Item") shall be delivered free of any rightful claim of any third party not affiliated with Buyer for infringement of any U.S. patent, any trademark

registered in the U.S. Patent and Trademark Office and/or any copyright registered in the U.S. Copyright Office. Seller will, at its own expense, defend or settle any suits that may be instituted against Buyer for alleged infringement by the Delivered Item of any U.S. patent, any trademark registered in the U.S. Patent and Trademark Office and/or any copyright registered in the U.S. Copyright Office provided that: (a) such alleged infringement consists of the use of the Delivered Item for (i) any of the purposes for which Buyer informed Seller such Delivered Items would be used, or (ii) if Buyer did not so inform Seller, any of the purposes for which Buyer reasonably believed such Delivered Items would be used; (b) Buyer shall have made all payments for such Delivered Items suit and transmit to Seller immediately upon receipt of all processes and papers served upon Buyer; (d) Buyer does not take any position adverse to Seller in connection with such claim; and (e) Buyer shall permit Seller through Seller's counsel, either in the name of Buyer or in the name of Seller, to defend such suit(s) and give all needed information, assistance and authority to enable Seller to do so.

In case of a final award of damages in any such suit, Seller will pay such award but will not be responsible for any compromise or settlement made without its written consent. In case the Delivered Item itself is in such suit held to infringe any valid patent issued in the United States and/or a trademark and/or copyright registered in the United States, and its use is enjoined, or in the event of a settlement or compromise approved by Seller which shall preclude future use of the Delivered Item, Seller shall, at its own expense and at its sole option, either: (a) procure rights to continue using such Delivered Item with a non-infringing Product and/or Software; or (d) refund the purchase price paid by Buyer for the Delivered Item after return of the Delivered Item to Seller (less reasonable depreciation for any period of use). Notwithstanding the foregoing, Seller shall not be held responsible for claims of infringement of any patents covering the use of the Delivered Item in combination with other goods or materials not furnished by Seller.

The foregoing states the entire liability of Seller for intellectual property infringement, and IN NO EVENT SHALL SELLER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES ATTRIBUTABLE TO AN INTELLECTUAL PROPERTY INFRINGEMENT. Buyer, at its own expense, shall defend Seller against, and/or settle, (a) any patent, trademark, copyright or other intellectual property infringement claim pertaining to a Delivered Item furnished by Seller to Buyer manufactured in accordance with designs, drawings or other descriptions proposed or furnished by Buyer; and (b) any claim against Seller of contributory infringement resulting from the use or resale by Buyer of a Delivered Item sold hereunder. Buyer shall indemnify Seller for any award against Seller or settlement by Seller regarding any such claims and attorneys' fees and defense costs incurred in defense of such claims.

14. SOFTWARE LICENSE: (a) License Grant: Seller grants Buyer a nonexclusive, royalty-free, perpetual, limited license to use the Software in the U.S. and solely in conjunction with (a) the operation of the Products purchased and sold under the Contract and/ or other product meeting Seller's specifications; and (b) any other purpose agreed upon in a written and signed agreement between Buyer and Seller. (b) Scope of License: Upon Seller's prior written approval, Buyer may make a reasonable number of copies of Software as necessary for backup, configuration, installation, and restoration of the Products. Also upon Seller's prior written approval, Buyer may authorize a third-party contractor or service provider to exercise these rights on Buyer's behalf and for Buyer's benefit. Buyer may transfer possession of Software and its media to another party only in conjunction with the transfer of the Products on which the Software is loaded and only upon agreement of the other party to the terms and conditions of the Contract. Upon such transfer, Buyer shall destroy all Buyer's copies of Software and related documentation. All licenses and grants pursuant to the Contract shall immediately terminate once Buyer no longer rightfully owns or possesses the Products. No other rights under this license are granted. Upon Seller's request, Buyer shall provide Seller with written notice of any such transfer providing the name, address, and contact information of the subsequent Buyer within 15 days of such transfer. (c) Use Restrictions: Buyer shall not (a) copy, display, transfer, adapt, modify, or distribute in any form the Software except as set forth in the Contract or in Seller documentation provided by Seller to Buyer with the Software; (b) reverse engineer, disassemble, decompile, or otherwise translate the Software's object code, unless expressly permitted by applicable law without the possibility of contractual waiver; or (c) sublicense or lease the Software or any copy thereof except with the transfer of the Products on which the Software is loaded. Except as provided under the terms of Seller's standard escrow agreement between Seller and Buyer, if applicable, Buyer shall not to make available to any party, without prior written consent from Seller or its authorized agent, source code for the Software. Buyer shall not, directly or indirectly, export or re-export, or knowingly permit the export or re-export of, the Products, or any technical information about the Products, to any country for which the United States Export Administration Act, any regulation thereunder, or any similar United States law or regulation, requires an export license or other United States Government approval, unless Buyer obtains the appropriate export license and obtains written approval from Seller. (d) Maintenance and Support: Seller may offer to Buyer the option to purchase from Seller annual Software maintenance and support services under the terms and conditions of Seller's then-standard maintenance and support agreement. Buyer may renew this maintenance term at Seller's then-current maintenance rates. In the event Buyer purchases additional Software licenses, maintenance fees for such licenses shall be prorated to be coterminous with Buyer's existing maintenance period. In no event shall Seller be responsible for providing maintenance services for a period during which maintenance coverage is lapsed.

15. SECURITY AGREEMENT AND FINANCING STATEMENTS: As security for payment of the purchase price under the Contract, Buyer hereby irrevocably grants Seller a security interest in the Products purchased by Buyer, together with all accessories, attachments and replacement parts and all substitutions, replacements and proceeds thereof to secure payment of the purchase price and of all monies which may be due under the Contract. Buyer hereby authorizes Seller to file all financing statements, any amendments and continuations thereof, or any other documents necessary or reasonably required, for the perfection and protection of a security interest under applicable law, and to deliver notice to prior holders of security interests, of Seller's security interest.

16. INSURANCE: Until payment in full of the purchase price, Buyer shall maintain insurance covering all Products sold by Seller to Buyer in such amounts and against such risks as is customary by companies engaged in the same or similar business and similarly located, and shall, upon Seller's request, furnish evidence of such insurance satisfactory to Seller. 17. DRAWINGS; OTHER DESIGN DATA: All specifications, drawings, designs, data, information, ideas, methods, product samples, tools, gages, dies, fistures, patterns and/or inventions made, conceived, developed or acquired by Seller in connection with procuring and/or executing the Contract will vest in and inure to Seller's sole benefit notwithstanding any charges therefor which may have been or may be imposed by Seller on Buyer. Buyer shall not give, loan, exhibit, sell or transfer to any person who is not a Buyer employee and authorized to receive such information, or to any organization or reproduction thereof which may enable such person, organization or entity to furnish similar products or parts therefor.

**18. RETURN OF PRODUCTS:** No Product or part shall be returned to Seller without written authorization and shipping instructions first having been obtained from Seller.

19. ASSIGNMENT AND SUBCONTRACTING: None of Buyer's rights under the Contract shall be assigned by Buyer to any other person, whether by operation of law or otherwise, without Seller's prior written approval. Seller may, without the necessity of obtaining Buyer's prior written consent, assign the Contract or subcontract the production of all or any portion of the Products and/or performance of the Services.

20. CANCELLATION: No purchase order submitted to Seller may be cancelled by Buyer without the prior written consent of Seller, which consent will at all times be conditioned on Buyer's agreement to pay Seller's cancellation charge. For a finished Product that, in Seller's judgment, is readily reselable to others, the cancellation charge shall be 15% of the invoice price of the Product. For all other cancellations, the cancellation charge shall amount to all cost and expenses incurred by Seller and arising out of or in connection with Buyer's purchase order plus reasonable profit. In no event shall the cancellation charge be less than 10% of the invoice price of the Product or more than the invoice price.

21. HIGH RISK APPLICATION USE DISCLAIMER: PRODUCTS AND SERVICES SOLD BY SELLER ARE NOT INTENDED FOR USE IN CONNECTION WITH ANY NUCLEAR FACILITY OR ACTIVITY, CRITICAL SAFETY SYSTEM, MEDICAL DEVICE, MILITARY DE-VICE, SATELLITE, AVIATION EQUIPMENT, AIR TRAFFIC CONTROL EQUIPMENT, OR OTHER HIGH RISK APPLICATIONS (COLLECTIVELY, "HIGH RISK APPLICATIONS"). SELLER SHALL NOT USE OR PERMIT OTHERS TO USE PRODUCTS OR SERVICES FOR SUCH HIGH RISK APPLICATIONS WITHOUT SELLER'S PRIOR WRITTEN CON-SENT. IF SO USED WITHOUT SELLER'S PRIOR WRITTEN CONSENT, SELLER DIS-CLAIMS ALL LIABILITY FOR ANY DAMAGE, INJURY OR CONTAMINATION, AND BUY-R SHALL INDEMNIFY AND HOLD SELLER, ITS OFFICERS, AGENTS, EMPLOYEES, SUCCESSORS, ASSIGNS AND CUSTOMERS HARMLESS FROM AND AGAINST ANY AND ALL SSUCH LIABILITY. SELLER'S CONSENT, IF ANY, WILL BE CONDITIONED UPON ADDITIONAL TERMS AND CONDITIONS ACCEPTABLE TO SELLER.

22. GOVERNING LAW; VENUE: These Terms and Conditions and the Contract shall be governed by and construed in accordance with the laws of the State of Wisconsin. Seller and Buyer irrevocably submit to the exclusive jurisdiction of the state of wisconsin and the federal courts located in Rock County, State of Wisconsin and the federal courts located in the State of Wisconsin, and Seller and Buyer waive any objection to venue or forum non conveniens, for the resolution of any dispute relating to these Terms and Conditions or the Contract. The rights and obligations of Seller and Buyer shall not be governed by the provisions of the United Nations Convention on Contracts for the Internal Sale of Goods.

23. EXPORT/IMPORT: Buyer shall comply, in the receipt and use of the Products and the Software, with all applicable import and export control laws, regulations, orders and requirements of the jurisdictions in which the Seller and Buyer are established or from which Products and Software are provided. Buyer shall not transfer, release, import, or export Products and/or or Software in violation of such applicable laws, regulations or other legal requirements. Buyer shall provide a completed end-user certification in a form satisfactory to Seller upon Seller's request.

24. ATTORNEYS' FEES: Buyer agrees to pay all of Seller's costs and expenses of collection and related litigation, including but not limited to attorneys' fees and costs.

**25. SALVATORY CLAUSE:** The invalidity, in whole or in part, of any of the provisions of these Terms and Conditions, shall not affect the enforceability of any of the other provisions thereof.

**26. APPLICABILITY:** These Terms and Conditions as stated herein are applicable as of the date of this printing and until such time as changed by Seller.

For the full version of the Terms and Conditions of Sales with Supplements A and B - Visit http://www.regalbeloit.com/what-we-do/products-brands/

Regal STCS Rev 5-14

LIMITED WARRANTY - EXCEPTION FOR STANDBY GENERATORS: TERMS & CONDITIONS OF SALE SUPPLEMENT B - Limited Warranty-

**Exceptions:** The following table sets forth substitute language for Section 10(a) (1) "Products" applicable to certain Products of certain business units. If products are **standby generators**, substitute section 10(a)(1) with the following: Seller warrants that the Products shall be delivered free from defects in material, workmanship and title and shall conform to Seller's written specification agreed upon by Buyer and Seller in a written and signed agreement, if applicable, for the Products. This warranty shall expire twenty-four (24)months from first use of the Product, thirty (30) months from date of manufacture of the Product, or upon one thousand (1000) hours in use of the Product, whichever occurs first.



## **Freight Policy**

All prices are quoted F.O.B. Regal's factory or warehouse in Monterry, Mexico; McAllen, TX; Wausau, WI; or Indianapolis, IN, dependent upon plant of manufacture. Customers may use any one of the following methods for shipment:

- Pick up generators at our plant of manufacture on their own carrier
- Allow us to ship the generators freight collect
- Allow us to ship via our carriers

Regal will ship the generator on our approved corporate freight carriers at the following percentage (%) adders applied to the net generator and accessory price:

Alabama 6%	Indiana6%	Nebraska6%	South Carolina 6%
Alaska refer to factory	lowa 6%	Nevada 6%	South Dakota 6%
Arizona 6%	Kansas6%	New Hampshire 6%	Tennessee 6%
Arkansas6%	Kentucky6%	New Jersey 6%	Texas 6%
California6%	Louisiana6%	New Mexico6%	Utah 6%
Colorado6%	Maine 6%	New York 6%	Vermont 6%
Connecticut 6%	Maryland6%	North Carolina6%	Virginia 6%
Delaware6%	Massachusetts 6%	North Dakota6%	Washington
Florida6%	Michigan6%	Ohio 6%	West Virginia 6%
Georgia6%	Minnesota6%	Oklahoma 6%	Wisconsin
Hawaii refer to factory	Mississippi 6%	Oregon 6%	Wyoming 6%
Idaho6%	Missouri 6%	Pennsylvania6%	Eastern Canada 6%
Illinois 6%	Montana 6%	Rhode Island6%	Western Canada6%

### Need a generator in a hurry?

### Ask for our ONE DAY SERVICE (\$210 Net Adder Per Generator)

- 1) Generator must be in stock and be ordered with standard adaption, standard voltage regulator, and standard primer paint overcoat.
- 2) Customer must have pre-approved credit with factory, or request C.O.D. shipment.
- 3) Orders must be phoned in to factory by 12:00 p.m. Central Time to allow the generator to ship the next business day.
- 4) Complete adaption, regulator, regulator nameplate data and shipping information must be received at the time of order entry.



WARNING

## **IMPORTANT INFORMATION**



### **Please Read Carefully**

This catalog is not intended to provide operational instructions. Appropriate Marathon<sup>®</sup> generator instructions provided with the generator and precautions attached to the generator should be read carefully prior to installation, operations and/or maintenance of the equipment. Injury to personnel or generator failure may be caused by improper installation, maintenance or operation.

The following WARNING and CAUTION information is supplied for your protection and to provide you with many years of trouble free and safe operation of your Marathon generator.

"WARNING" indicates a hazardous situation that, if not avoided, could result in death or serious injury and "CAUTION" indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

#### WARNING

• Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which Buyer shall apply the product. The application by Buyer shall not be subject to any implied warranty of fitness for a particular purpose.

- For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.
- Hot oil can cause severe burns. Use extreme care when removing lubrication plugs.
- Disconnect power and lock out drive equipment before working on a generator.
- Always keep hands and clothing away from moving parts.
- The lifting eyes on the generator are not to be used to lift the entire generator set. Only the generator may be safely lifted by the lifting eyes. Do not use the conduit box for lifting or support of the generator.
- Install and ground the generator per local and national codes.
- Discharge all capacitors before servicing the generator.
- Misapplication of a generator in a hazardous environment can cause fire or an explosion and result in serious injury.
- Never attempt to measure the temperature rise of a generator by touch. Temperature rise must be measured by thermometer, resistance, imbedded detector or thermocouple.
- Operation of a generator at higher than its nameplate ratings may result in fire, damage to equipment or serious injury to personnel.
- Do not apply any force to the generator fan when rotating the generator rotor.

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• Mounting bolts should be routinely checked to ensure that the unit is firmly anchored for proper operation.

- Consult qualified personnel with questions. All electrical repairs must be performed by trained and qualified personnel only.
- · Generators should not be operated faster than their rated speed.
- · For inverter applications, follow the inverter manufacturer's installation guidelines.
- Make sure the generator is properly secured and aligned before operation.
- When installing the generator, insure that loose parts or tools do not fall inside the generator.
- When connecting the generator, be sure to follow the correct wiring diagram for the desired voltage. Insure that the voltage regulator is connected per the wiring diagram.

#### **RESALE OF GOODS**

In the event of the resale of any of the goods, in whatever form, Resellers/Buyers will include the following language in a conspicuous place and in a conspicuous manner in a written agreement covering such sale:

The manufacturer makes no warranty or representations, express or implied, by operation of law or otherwise, as to the merchantability or fitness for a particular purpose of the goods sold hereunder. Buyer acknowledges that it alone has determined that the goods purchased hereunder will suitably meet the requirements of their intended use. In no event will the manufacturer be liable for consequential, incidental or other damages. Even if the repair or replacement remedy shall be deemed to have failed of its essential purpose under Section 2-719 of the Uniform Commercial Code, the manufacturer shall have no liability to Buyer for consequential damages.

Resellers/Buyers agree to also include this entire document including the cautions and warnings above in a conspicuous place and in a conspicuous manner in writing to instruct users on the safe usage of the product.

This information should be read together with all other printed information supplied by Regal.

For more information contact: Regal, Regal Beloit America, Inc., 100 E. Randolph St., Wausau, WI 54401 Phone: 715-675-3359 or Fax: 715-675-8026



## Notes:



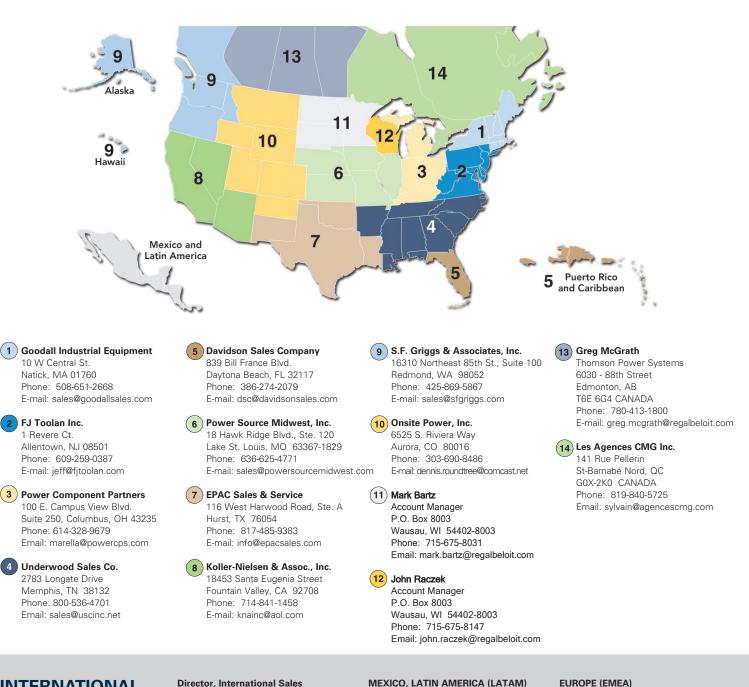


## Notes:





## **MARATHON® GENERATORS SALES TEAM AND REPRESENTATIVES**



### INTERNATIONAL **SALES TEAM**

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#### CHINA

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www.regalbeloit.com

#### APPLICATION CONSIDERATIONS

The proper selection and application of generator products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and/or its affiliates ("Regal") with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

For a copy of our Standard Terms and Conditions of Sale, please visit http://www.regalbeloit.com (please see link at bottom of page to "Standard Terms and Conditions of Sale"). These terms and conditions of sale, disclaimers and limitations of liability apply to any person who may buy, acquire or use a Regal product referred to herein, including any person who buys from a licensed distributor of these branded products.

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