

MAGNAPLUS[®]

Generator Ratings:
kW 5 to 430 (60 Hertz)
kVA 5 to 420 (50 Hertz)



MARATHON ELECTRIC
GENERATORS

ISO 9001:2008 Certified

MAGNAPLUS®

Innovation Performance Reliability



MAGNAPLUS® offers a field-adaptable, permanent magnet generator, coupled with the PM300 or DVR®2000E voltage regulator, for installations requiring fault current support or for applications involving non-linear loads. These regulators enhance generator performance and offer additional features, meeting the needs of the most difficult applications.

What makes the Marathon Electric approach unique?

Proven top performers in every respect, **MAGNAPLUS®** generators offer powerful performance, reliable power generation, and easy installation. With a full range of voltage regulator configurations, **MAGNAPLUS®** provides application flexibility to meet unique installation requirements. Ruggedly constructed with solid state technology, Marathon's SE350 voltage regulator, included with all standard equipment, is a solid performer.

These unique design features make **MAGNAPLUS®** the ideal general purpose generator for standby and prime power markets such as:

- Agricultural
- Commercial
- Telecommunications
- Marine
- Construction
- Rental Markets

Marathon Electric: The experts in your field

As an independent manufacturer with more than fifty years of experience as a leading supplier to the generator market, Marathon Electric is dedicated to designing and manufacturing the highest quality electrical products.

Marathon's commitment to long term customer support and an intensive product development program means you get more:

- Design & Application Experience
- Advanced Testing Facilities
- Technical Support Staff
- Broad Product Line

MARATHON ELECTRIC
GENERATORS

**kW
Ratings**

60 Hertz
Three Phase,
12 Leads ④

1800 RPM
0.8 Power Factor
40°C Ambient

MAGNAPLUS® Standard Models

Base Model	Bolt-On PMG Option Avail.	kW Continuous Duty				kW Standby Duty			
		Class F 105°C		Class H 125°C		Class F 130°C		Class H 150°C	
		480Y/240Y	416Y/208Y	480Y/240Y	416Y/208Y	480Y/240Y	416Y/208Y	480Y/240Y	416Y/208Y
281CSL1502	No	12	10	13	11	13	11	14	12
282PSL1703②	②	13.5	12.5	14.5	13	15	13.5	15.5	14
282CSL1504	No	17.5	16	18	17	18	17	19	17.5
282CSL1505	No	22	21	24	22	24	22	25	23
283CSL1506	No	26	24	28	26	28	26	30	27
283CSL1507	No	31	27	33	30	33	30	35	32
284CSL1508	No	36	35	40	38	40	38	42	40
284CSL1542	No	40	36	43	40	43	40	46	41
361CSL1600④	Yes	45	40	48	42	48	42	50	45
361CSL1601④	Yes	55	50	60	55	60	55	65	58
361CSL1602④	Yes	65	60	70	65	70	65	76	68
362CSL1604④	Yes	84	72	90	80	90	80	95	85
362CSL1606④	Yes	96	90	105	100	105	100	113	105
363CSL1607④	Yes	125	110	135	125	135	125	150	135
431CSL6202④	Yes	142	140	151	147	155	151	160	155
431CSL6204④	Yes	170	165	180	175	181	176	190	182
431CSL6206④	Yes	200	191	211	202	215	210	225	217
431CSL6208④	Yes	211	203	226	216	230	225	240	227
432PSL6210④	Yes	260	260	275	275	280	280	291	287
432PSL6212④	Yes	275	260	300	276	300	280	310	300
433PSL6216④	Yes	342	343	375	366	380	375	400	387
433PSL6220④	Yes	375	362	403	385	411	400	430	417

MAGNAPLUS® Alternate Models®

281PSL1722	No	10	11	11	12	11	12	12	12.5
282PSL1704	②	15	15	16.5	16	16.5	16	17.5	17.5
282PSL1705	②	20	20	21	21	21	21	22	22
283PSL1706	②	25	23	27	25	27	25	29	28
283PSL1707	②	30	28	33	30	33	30	35	33
284PSL1708	Yes	32	32	35	35	35	35	40	40
284PSL1742	Yes	36	36	40	40	40	40	45	42
285PSL1700	Yes	43	40	45	45	45	45	50	47
286PSL1701	Yes	52	50	58	55	58	55	62	58
287PSL1702	Yes	58	55	62	60	62	60	67	63

- ① 361 to 431 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® models have linkboard as standard.

**kW
Ratings**

60 Hertz
Single Phase,
12 Leads ④

120 Volt[Ⓢ] or 120/240 Volt
1800 RPM
40°C Ambient

MAGNAPLUS[®] Standard Models

Base Model	Bolt-on PMG Option Avail.	kW Continuous Duty				kW Standby Duty			
		Class F 105°C		Class H 125°C		Class F 130°C		Class H 150°C	
		0.8 P.F.	1.0 P.F.	0.8 P.F.	1.0 P.F.	0.8 P.F.	1.0 P.F.	0.8 P.F.	1.0 P.F.
281CSL1502	No	6.8	8.5	7.5	9.5	7.5	9.5	7.7	10
282PSL1703 [Ⓢ]	②	7.8	10	8.1	11	8.2	11	8.5	12
282CSL1504	No	9.5	12	10	13	10	13	11	14
282CSL1505	No	12	16	13	17	13	17	14	18
283CSL1506	No	15	19	16	20	16	20	17	22
283CSL1507	No	17	22	18	25	18	25	20	26
284CSL1508	No	22	29	24	31	25	31	26	33
284CSL1542	No	23	29	24	32	24	32	27	33
361CSL1600 [Ⓢ]	Yes	28	36	30	28	30	39	32	40
361CSL1601 [Ⓢ]	Yes	33	42	35	45	35	45	37	48
361CSL1602 [Ⓢ]	Yes	40	51	42	55	42	55	45	60
362CSL1604 [Ⓢ]	Yes	47	61	50	66	51	66	54	71
362CSL1606 [Ⓢ]	Yes	55	76	59	78	60	79	64	85
363CSL1607 [Ⓢ]	Yes	66	90	72	95	73	97	78	100
431CSL6202 [Ⓢ]	Yes	90	115	95	120	96	121	100	125
431CSL6204 [Ⓢ]	Yes	100	125	106	133	107	135	110	140
431CSL6206 [Ⓢ]	Yes	120	150	130	165	132	166	135	175
431CSL6208 [Ⓢ]	Yes	120	150	130	165	132	166	136	175
432PSL6210 [Ⓢ]	Yes	147	185	158	200	161	201	165	206
432PSL6212 [Ⓢ]	Yes	147	175	158	200	161	201	165	206
433PSL6216 [Ⓢ]	Yes	175	220	190	240	193	241	200	250
433PSL6220 [Ⓢ]	Yes	175	220	190	240	193	241	200	250

MAGNAPLUS[®] Alternate Models[Ⓢ]

281PSL1722	No	7	9	7.5	10	7.5	10	7.8	10.5
282PSL1704	②	10	12.5	10.5	14	10.5	14	11	15
282PSL1705	②	12.5	16	13.5	17.5	13.5	17.5	14	18.5
283PSL1706	②	15	20	16	21	16	21	17	23
283PSL1707	②	17	22	18	25	18	25	20	26
284PSL1708	Yes	21	28	23	30	23	30	25	32
284PSL1742	Yes	23	30	25	32	25	32	27	35
285PSL1700	Yes	25	35	28	37	28	37	30	40
286PSL1701	Yes	28	38	32	42	32	42	34	45
287PSL1702	Yes	30	42	33	45	33	45	34	50

① 361 to 431 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[®] models have linkboard as standard.

⑤ For 120 volt only service, use an AVC63-4A, a VR63-4C, or a step-up transformer with the SE350 regulator.



60 Hertz
Dedicated
Single Phase,
4 Leads ③

120 Volt® or 120/240 Volt
1800 RPM
40°C Ambient

MAGNAPLUS® Standard Models

Base Model	Bolt-on PMG Option Avail.	kW Continuous Duty				kW Standby Duty			
		Class F 105°C		Class H 125°C		Class F 130°C		Class H 150°C	
		0.8 P.F.	1.0 P.F.	0.8 P.F.	1.0 P.F.	0.8 P.F.	1.0 P.F.	0.8 P.F.	1.0 P.F.
281PSL1513	No	6.6	10	7	10.5	7	10.5	7.5	11
282PSL1714③	②	7.7	12	8.4	13	8.5	13	9	13.5
282CSL1515	No	11	18	12	19	12	19	13	20
282PSL1716	②	14	20	15	22	15	22	16	25
283CSL1517	No	19	30	21	32	21	32	22	35
284CSL1518	No	16	30	18	32	18	32	20	35
284CSL1550	No	24	37	26	40	27	41	28	42
361PSL1611①	Yes	26	37	29	40	30	40	32	45
361PSL1612①	Yes	33	45	36	50	36	50	40	55
361CSL1613①	Yes	43	55	47	60	47	60	50	65
362CSL1615①	Yes	54	70	59	75	60	75	65	80
363CSL1617①	Yes	58	90	66	100	66	100	70	105
431PSL6222	Yes	68	110	73	115	73	115	78	125
431PSL6224	Yes	90	145	100	155	100	155	110	165
431PSL6226	Yes	100	155	110	175	110	175	115	185
432PSL6228	Yes	145	195	155	210	155	210	170	225

MAGNAPLUS® Alternate Models®

281PSL1763	②	7	12	7.5	13	7.5	13	8	13.5
282PSL1715	②	11	17	12	18	12	18	12.5	20
283PSL1717	②	17	25	18.5	27	18.5	27	20	30
283PSL1718	②	20	30	22	32	22	32	23	35
284PSL1750	Yes	26	38	27	41	27	41	30	45
285PSL1711	Yes	28	40	32	45	32	45	34	50
286PSL1712	Yes	33	50	36	52	36	52	38	55
287PSL1713	Yes	35	55	40	60	40	60	43	65

- ① 361 to 431 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® models have linkboard as standard.
- ⑤ For 120 volt only service, use an AVC63-4A, a VR63-4C, or a step-up transformer with the SE350 regulator.



50 Hertz
Three Phase,
12 Leads ④

1500 RPM
0.8 Power Factor
40°C Ambient

MAGNAPLUS Standard Models

Base Model	Bolt-On PMG Option Avail.	kVA Continuous Duty				kVA Standby Duty			
		Class F 105°C		Class H 125°C		Class F 130°C		Class H 150°C	
		415Y/208Y	380Y/190Y	415Y/208Y	380Y/190Y	415Y/208Y	380Y/190Y	415Y/208Y	380Y/190Y
281CSL1502	No	12	11.3	12.5	12	12.5	12	13.1	12.5
282PSL1703③	②	12	13.1	13.1	13.8	13.8	14.4	14.4	15
282CSL1504	No	16.3	16.3	17.5	17.5	17.5	17.5	18.8	18.8
282CSL1505	No	21.3	22.5	23.1	25	23.1	25	25	26.3
283CSL1506	No	23	25	25	26	25	26	28	29
283CSL1507	No	28	29	30	31	30	31	33	34
284CSL1508	No	31	36	35	40	35	40	38	43
284CSL1542	No	36	38	40	41	40	41	43	44
361CSL1600①	Yes	45	44	50	45	50	45	53	50
361CSL1601①	Yes	50	54	56	58	56	58	60	63
361CSL1602①	Yes	60	65	65	70	65	70	73	75
362CSL1604①	Yes	81	80	90	85	90	85	96	91
362CSL1606①	Yes	90	94	100	100	100	100	110	110
363CSL1607①	Yes	113	113	130	130	130	130	133	133
431CSL6202①	Yes	140	143	150	151	150	155	155	160
431CSL6204①	Yes	165	166	175	176	176	180	183	185
431CSL6206①	Yes	185	200	200	211	205	215	211	225
431CSL6208①	Yes	206	210	225	225	225	230	235	235
432CSL6210①	Yes	240	256	260	275	265	280	275	290
432CSL6212①	Yes	270	270	300	300	300	300	310	303
433CSL6216①	Yes	320	345	350	370	360	376	375	390
433PSL6220①	Yes	355	375	400	400	400	410	410	423

MAGNAPLUS Alternate Models®

281PSL1722	②	9	10.6	9.8	11.3	9.8	11.3	10.5	12
282PSL1704	②	12.5	14.4	13.8	16.3	13.8	16.3	15	17.5
282PSL1705	②	16.3	18.8	18.8	21.3	18.8	21.25	20	22.5
283PSL1706	②	23	25	25	28	25	28	26	29
283PSL1707	②	26	26	30	30	30	30	33	33
284PSL1708	Yes	29	33	33	35	33	35	35	39
284PSL1742	Yes	34	35	38	40	38	40	40	43
285PSL1700	Yes	38	41	43	46	43	46	45	50
286PSL1701	Yes	50	50	55	55	55	55	58	58
287PSL1702	Yes	53	54	60	60	60	60	62	62

① 361 to 431 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® models have linkboard as standard.

Product Features

Choice . . . abounds with more than 34 stock models ranging from 5–430 kW (60 Hz) and 5–420 kVA (50 Hz). All three-phase generators are 12-lead reconnectable, providing voltage and phase flexibility. For applications requiring price-sensible, dedicated single-phase generators, Marathon Electric stocks 26 models. Standard and optional conduit box designs are available to meet all customer requirements and to ease installation of accessories.

Easy Mount SAE Adapters . . . provided with every generator, are designed with easy drive disc access to simplify the mounting to all popular engines. Generator foot mounting location is unaffected by adapter changes. Special adaptations for automotive engines are available.

Class H Insulation System . . . utilizes an unsaturated polyester varnish for optimal insulation life and superior moisture protection. An epoxy overcoat is added for increased environmental protection. Field windings are wet wound with epoxy and designed to withstand overspeeds of 125%. All windings are 100% copper with class H insulation.

Linkboards . . . are standard to simplify voltage reconnection and support lead termination.

SE350 Voltage Regulator . . . is encapsulated for reliable performance in all environments. The SE350 regulator provides 1% regulation, underspeed protection, stability adjustment to optimize transient performance, and EMI filtering to commercial standards.

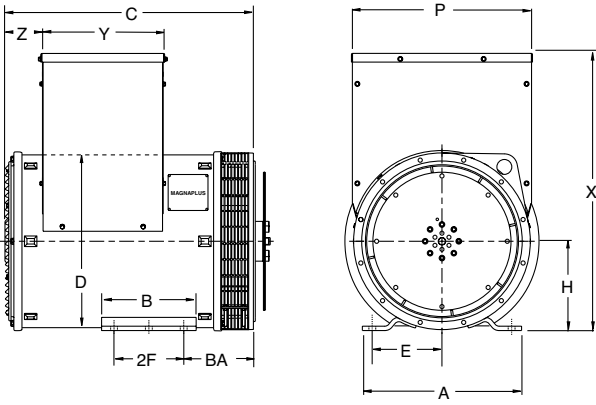
Optimized Electrical Design . . . with four-pole, brushless features, utilizes a 2/3 pitch winding to minimize harmonic distortion. The main rotor, utilizing Marathon Electric's unirotor construction, provides exceptional waveshape and voltage balance. The unirotor construction method incorporates full amortisseur windings facilitating parallel operation and non-linear loads.

Enhanced Ventilation . . . created by a high efficiency cast aluminum fan and optimized internal air flow patterns, maximizes heat transfer and minimizes hot spot differentials for extended winding life. Durable aluminum alloy fans avoid breakage problems associated with steel weldments or plastic fans.

Fully Guarded . . . for operator safety and generator protection. No rotating or electrically energized parts are exposed. All openings are covered by louvers or screens.

Heavy Duty Bearings . . . are double shielded and pre-lubricated for the life of the bearing. This helps resist contamination and ensures a maximum bearing life.

Design Specs and Agency Approvals . . . are important at Marathon. All MAGNAPLUS® units meet NEMA MG1-32, BS5000, and IEC 34-1 requirements. **MAGNAPLUS®** generators are also CE Certified, CSA Certified and fully UL Listed. Marine versions are available to meet American Bureau of Shipping, Lloyds, Det Norske Veritas, or Nippon Kaiji Kyokai requirements.



Dimensions in inches and (millimeters)

All dimensions are approximate.

Refer to dimension section of the Generator catalog for full dimensional data.

Frame Size	A	B	BA	C	C with PMG	D	E	2F	H	P	X	Y	Z
281PSL	14.00	7.00	6.56	15.95	N/A	13.75	6.25	5.00	8.00	13.55	18.56	6.86	3.50
	(356)	(178)	(167)	(405)		(349)	(159)	(127)	(203)	(344)	(471)	(174)	(89)
281CSL	14.00	7.00	6.56	16.34	N/A	13.75	6.25	5.00	8.00	13.55	18.56	6.86	3.50
	(356)	(178)	(167)	(415)		(349)	(159)	(127)	(203)	(344)	(471)	(174)	(89)
282PSL	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
	(356)	(178)	(167)	(470)	(587)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
282CSL	14.00	7.00	6.56	18.35	N/A	13.75	6.25	5.00	8.00	13.55	18.56	8.93	3.42
	(356)	(178)	(167)	(466)		(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
	(356)	(178)	(167)	(521)	(638)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
283CSL	14.00	7.00	6.56	20.83	N/A	13.75	6.25	5.00	8.00	13.55	18.56	8.93	3.42
	(356)	(178)	(167)	(529)		(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
	(356)	(178)	(167)	(578)	(696)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
284CSL	14.00	7.00	6.56	22.83	N/A	13.75	6.25	5.00	8.00	13.55	18.56	8.93	3.42
	(356)	(178)	(167)	(580)		(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
	(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
	(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
	(356)	(178)	(294)	(737)	(853)	(346)	(159)	(127)	(203)	(344)	(471)	(227)	(87)
361	16.00	9.50	7.00	24.96	30.06	17.35	7.00	7.00	9.00	18.19	27.85	12.44	3.52
	(406)	(241)	(178)	(634)	(764)	(441)	(178)	(178)	(229)	(462)	(707)	(316)	(89)
362	16.00	9.50	7.00	28.59	33.69	17.35	7.00	7.00	9.00	18.19	27.85	12.44	3.52
	(406)	(241)	(178)	(726)	(856)	(441)	(178)	(178)	(229)	(462)	(707)	(316)	(89)
363	16.00	9.50	10.50	31.72	36.81	17.35	7.00	7.00	9.00	18.19	27.85	12.44	3.52
	(406)	(241)	(267)	(806)	(935)	(441)	(178)	(178)	(229)	(462)	(707)	(316)	(89)
431	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
	(545)	(381)	(254)	(861)	(972)	(575)	(229)	(279)	(330)	(634)	(917)	(406)	(68)
432	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
	(545)	(381)	(254)	(950)	(1061)	(575)	(229)	(279)	(330)	(634)	(917)	(406)	(68)
433	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
	(545)	(381)	(254)	(1077)	(1188)	(575)	(229)	(279)	(330)	(634)	(917)	(406)	(68)



Your Independent Power Source for the 21st Century!

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