

# MAGNAPLUS®

**Power Generation for the 21st Century**



Generator Ratings:

**kW** 5 to 430 (60 Hertz)

**kVA** 5 to 420 (50 Hertz)

ISO 9002 Certified

**MARATHON**  
**ELECTRIC**®

*A Subsidiary of Regal-Beloit Corporation*

# MAGNAPLUS®

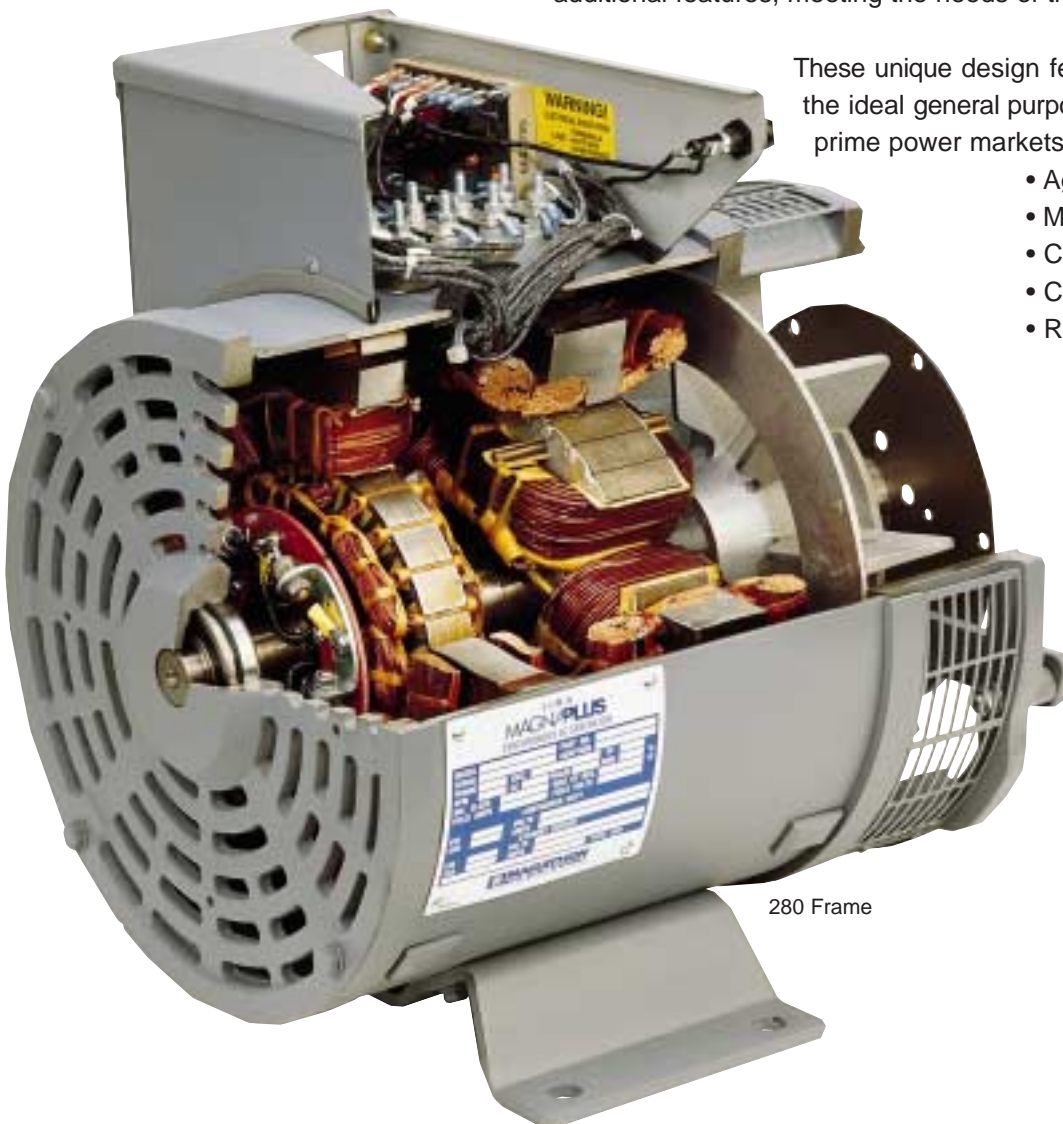
innovation,

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.

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

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

- Agricultural
- Marine
- Commercial
- Construction
- Rental Markets



280 Frame

# performance & reliability . . .

## Product Features

**Choice . . .** abounds with more than 20 stock models ranging from 5–430 kW (60 Hz) and 5–425 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 17 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. A tropical insulation is added for increased environmental protection. Field windings are wet wound with epoxy and designed to withstand over-speeds 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, brush-less 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 distorting 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 minimum B-10 life of 100,000 hours.

**Design Specs and Agency Approvals . . .** are important at Marathon. All MAGNAPLUS® units meet NEMA MG1-22, BS5000, CSA C22.2 and IEC 34-1 requirements. Marine versions are available to meet American Bureau of Shipping, Lloyds, Det Norske Veritas, or Nippon Kaiji Kyokai requirements.

## 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
- Availability



430 Frame with oversized conduit box

Your Independent  
Generator Source  
**MARATHON**  
ELECTRIC®

**kW  
ratings**

**MAGNAPLUS**

**60 Hertz**

**Single Phase**

**12 Leads**

- 120 Volt\* or 120/240 Volt
- 1800 RPM
- 40°C Ambient

Model Number	kW Continuous Duty				kW Standby Duty			
	Class F 105°C		Class H 125°C		Class F 130°C		Class H 150°C	
	0.80 P.F.	1.0 P.F.	0.80 P.F.	1.0 P.F.	0.80 P.F.	1.0 P.F.	0.80 P.F.	1.0 P.F.
281PSL1500	3.6	5.5	3.8	5.7	3.8	5.8	4.0	6.0
281PSL1501	4.5	6.8	4.8	7.1	4.8	7.2	5.0	7.5
281PSL1502	6.0	8.0	6.2	8.5	6.3	8.6	6.6	9.0
282PSL1503	7.8	10.0	8.1	11.0	8.2	11.0	8.5	12.0
282PSL1504	8.8	12.0	9.3	12.5	9.5	13.0	10.0	13.5
282PSL1505	10.0	14.0	11.0	15.0	11.0	15.5	12.0	16.0
283PSL1506	12.5	17.0	14.0	18.0	14.0	18.5	15.0	20.0
283PSL1507	14.0	18.0	15.0	20.0	15.0	20.0	16.0	21.5
284PSL1508	17	22	20	25	20	25	21	27
284CSL1542	23	29	24	32	24	32	27	33
361PSL1600	25	31	27	34	27	34	30	36
361PSL1601	30	40	32	43	32	43	35	45
361PSL1602	33	45	36	50	36	50	38	52
362PSL1604	44	55	48	60	48	60	50	65
362PSL1606	48	60	53	66	53	66	55	70
363PSL1607	55	70	60	75	60	75	63	80
431PSL6202	90	115	95	120	96	121	100	125
431PSL6204	100	125	106	133	107	135	110	140
431PSL6206	120	150	130	165	132	166	135	175
431PSL6208	120	150	130	165	132	166	136	175
432PSL6210	147	185	158	200	161	201	165	206
432PSL6212	147	175	158	200	161	201	165	206
433PSL6216	175	220	190	240	193	241	200	250
433PSL6220	175	220	190	240	193	241	200	250

**kW  
ratings**

**MAGNAPLUS**

**60 Hertz**

**Dedicated Single Phase**

**4 Leads**

- 120 Volt\* or 120/240 Volt
- 1800 RPM
- 40°C Ambient

Model Number	kW Continuous Duty				kW Standby Duty			
	Class F 105°C		Class H 125°C		Class F 130°C		Class H 150°C	
	0.80 P.F.	1.0 P.F.	0.80 P.F.	1.0 P.F.	0.80 P.F.	1.0 P.F.	0.80 P.F.	1.0 P.F.
281PSL1511	4.0	6.0	4.2	6.5	4.2	6.5	4.4	6.8
281PSL1512	4.8	7.7	5.1	8.2	5.1	8.2	5.3	8.5
281PSL1513	6.6	10.0	7.0	10.5	7.0	10.5	7.5	11.0
282PSL1514	7.7	12.0	8.4	13.0	8.5	13.0	9.0	13.5
282PSL1515	11.0	17.0	12.0	18.0	12.0	18.0	12.5	19.0
283PSL1516	12.5	20.0	14.0	22.0	14.0	22.0	15.0	23.0
283PSL1517	17.0	25.0	18.5	27.0	18.5	27.0	20.0	30.0
284PSL1518	20	30	21	32	22	32	23	35
361PSL1611	26	37	29	40	30	40	32	45
361PSL1612	33	45	36	50	36	50	40	55
361PSL1613	43	55	47	60	47	60	50	65
362PSL1615	54	70	59	75	60	75	65	80
363PSL1617	58	90	66	100	66	100	70	105
431PSL6222	68	110	73	115	73	115	78	125
431PSL6224	90	145	100	155	100	155	110	165
431PSL6226	100	155	110	175	110	175	115	185
432PSL6228	145	195	155	210	155	210	170	225

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

**kW  
ratings****MAGNAPLUS****60 Hertz****Three Phase****12 Leads**

- 1800 RPM
- 0.8 Power Factor
- 40°C Ambient

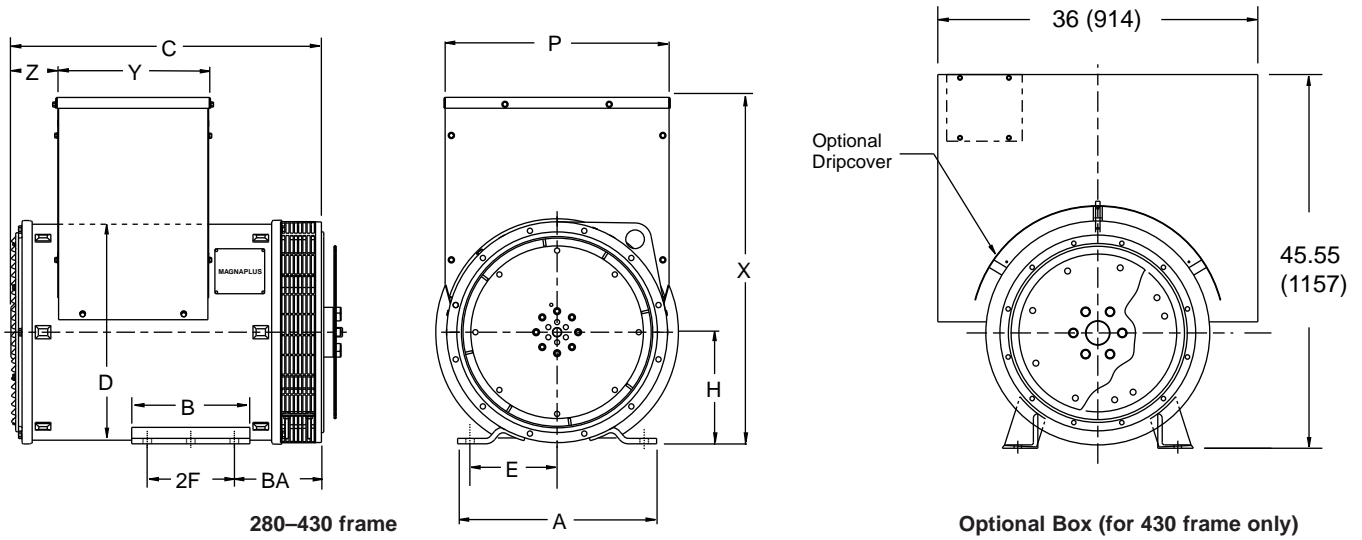
Model Number	kW Continuous Duty				kW Standby Duty			
	Class F 105°C		Class H 125°C		Class F 130°C		Class H 150°C	
	480Y/240Y	416Y/208Y	480Y/240Y	416Y/208Y	480Y/240Y	416Y/208Y	480Y/240Y	416Y/208Y
281PSL1500	6.0	6.4	6.5	6.9	6.6	7.0	7.0	7.4
281PSL1501	7.5	8.0	8.1	8.6	8.2	8.7	8.7	9.2
281PSL1502	10.5	10.0	11.0	10.5	11.0	10.5	12.0	11.0
282PSL1503	13.5	12.5	14.5	13.0	15.0	13.5	15.5	14.0
282PSL1504	15.0	14.5	16.0	15.5	16.5	15.5	17.0	16.5
282PSL1505	20.0	19.0	21.0	20.0	22.0	20.0	23.0	21.0
283PSL1506	23	23	25	25	25	25	27	26
283PSL1507	28	28	30	30	30	30	33	31
284PSL1508	32	32	35	35	35	35	38	37
284CSL1542	40	36	43	40	43	40	46	41
361PSL1600	45	40	48	42	48	42	50	45
361PSL1601	55	50	60	55	60	55	65	58
361PSL1602	65	60	70	65	70	65	76	68
362PSL1604	84	72	90	80	90	80	95	85
362PSL1606	96	90	105	100	105	100	113	105
363PSL1607	125	110	135	125	135	125	150	135
431PSL6202	142	140	151	147	155	151	160	155
431PSL6204	170	165	180	175	181	176	190	182
431PSL6206	200	191	211	202	215	210	225	217
431PSL6208	211	203	226	216	230	225	240	227
432PSL6210	260	260	275	275	280	280	291	287
432PSL6212	275	260	300	276	300	280	310	300
433PSL6216	342	343	375	366	380	375	400	387
433PSL6220	375	362	403	385	411	400	430	417

**kVA  
ratings****MAGNAPLUS****50 Hertz****Three Phase****12 Leads**

- 1500 RPM
- 0.8 Power Factor
- 40°C Ambient

Model Number	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
281PSL1500	5.6	6.3	6.3	6.6	6.3	6.9	6.6	7.3
281PSL1501	6.8	7.5	7.5	8.0	7.5	8.3	8.0	8.8
281PSL1502	10.0	10.6	10.8	11.3	10.9	11.4	11.4	12.0
282PSL1503	12.0	13.8	13.1	13.8	13.8	14.4	14.4	15.0
282PSL1504	13.8	15.0	15.0	15.6	15.0	15.6	16.3	16.9
282PSL1505	18.8	20.0	20.6	21.3	21.3	21.3	22.5	22.5
283PSL1506	22.5	23.1	25.0	25.0	25.0	25.0	26.3	26.3
283PSL1507	26.3	26.3	30.0	30.0	30.0	30.0	31.3	31.3
284PSL1508	31.3	31.3	35.0	35.0	35.0	35.0	37.5	37.5
284CSL1542	36.3	37.5	40.0	41.3	40.0	41.3	42.5	43.8
361PSL1600	45	44	50	45	50	45	53	50
361PSL1601	50	54	56	58	56	58	60	63
361PSL1602	60	65	65	70	65	70	73	75
362PSL1604	81	80	90	85	90	85	96	91
362PSL1606	90	94	100	100	100	100	110	110
363PSL1607	113	113	130	130	125	125	133	133
431PSL6202	140	143	150	151	150	155	155	160
431PSL6204	165	166	175	176	176	180	183	185
431PSL6206	185	200	200	211	205	215	211	225
431PSL6208	206	210	225	225	225	230	235	235
432PSL6210	240	256	260	275	265	280	275	290
432PSL6212	270	270	300	300	300	300	310	303
433PSL6216	320	345	350	370	360	376	375	390
433PSL6220	355	375	400	400	400	410	410	423





## 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	D	E	2F	H	P	X	Y	Z
<b>281</b>	14.00 (356)	7.00 (178)	6.56 (167)	15.95 (405)	13.75 (349)	6.25 (159)	5.00 (127)	8.00 (203)	13.42 (341)	18.56 (471)	6.86 (174)	3.50 (89)
<b>282</b>	14.00 (356)	7.00 (178)	6.56 (167)	17.94 (456)	13.75 (349)	6.25 (159)	5.00 (127)	8.00 (203)	13.42 (341)	18.56 (471)	6.86 (174)	3.50 (89)
<b>283</b>	14.00 (356)	7.00 (178)	6.56 (167)	20.44 (519)	13.75 (349)	6.25 (159)	5.00 (127)	8.00 (203)	13.42 (341)	18.56 (471)	6.86 (174)	3.50 (89)
<b>284</b>	14.00 (356)	7.00 (178)	6.56 (167)	22.44 (570)	13.75 (349)	6.25 (159)	5.00 (127)	8.00 (203)	13.42 (341)	18.56 (471)	6.86 (174)	3.50 (89)
<b>361</b>	16.00 (406)	9.50 (241)	7.00 (178)	24.88 (632)	17.35 (441)	7.00 (178)	7.00 (178)	9.00 (229)	18.19 (462)	27.85 (707)	12.44 (316)	3.52 (89)
<b>362</b>	16.00 (406)	9.50 (241)	7.00 (178)	28.50 (724)	17.35 (441)	7.00 (178)	7.00 (178)	9.00 (229)	18.19 (462)	27.85 (707)	12.44 (316)	3.52 (89)
<b>363</b>	16.00 (406)	9.50 (241)	10.50 (267)	31.62 (803)	17.35 (441)	7.00 (178)	7.00 (178)	9.00 (229)	18.19 (462)	27.85 (707)	12.44 (316)	3.52 (89)
<b>431</b>	21.46 (545)	15.00 (381)	10.00 (254)	34.19 (868)	22.64 (575)	9.00 (229)	11.00 (279)	13.00 (330)	24.36 (619)	36.10 (917)	16.00 (406)	2.66 (68)
<b>432</b>	21.46 (545)	15.00 (381)	10.00 (254)	37.69 (957)	22.64 (575)	9.00 (229)	11.00 (279)	13.00 (330)	24.36 (619)	36.10 (917)	16.00 (406)	2.66 (68)
<b>433</b>	21.46 (545)	15.00 (381)	10.00 (254)	42.69 (1084)	22.64 (575)	9.00 (229)	11.00 (279)	13.00 (330)	24.36 (619)	36.10 (917)	16.00 (406)	2.66 (68)

Please Note: Connection boxes shown are furnished as standard product. Consult factory for optional connection boxes.



This brochure is printed on recycled paper because Marathon Electric shares in the concern for our environment.

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100 E. Randolph Street • P.O. Box 8003  
Wausau, WI 54402-8003 U.S.A.

Phone: (715) 675-3359

Fax: (715) 675-8026

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**MAGNAPLUS®**  
. . . the leader in the race for quality, reliability, and value.