

MARINER®

marathon®
Generators



MARINER® GENERATORS

DEPENDABLE POWER FOR THE HARSHTEST MARINE APPLICATIONS
10KW TO 800KW, 60HZ AND 50HZ

REGAL®



WITH OVER 50 YEARS OF EXPERIENCE IN THE MARINE MARKET, MARATHON® GENERATORS DELIVER THE LONG LIFE AND RELIABILITY THAT HARSH MARINE APPLICATIONS DEMAND.

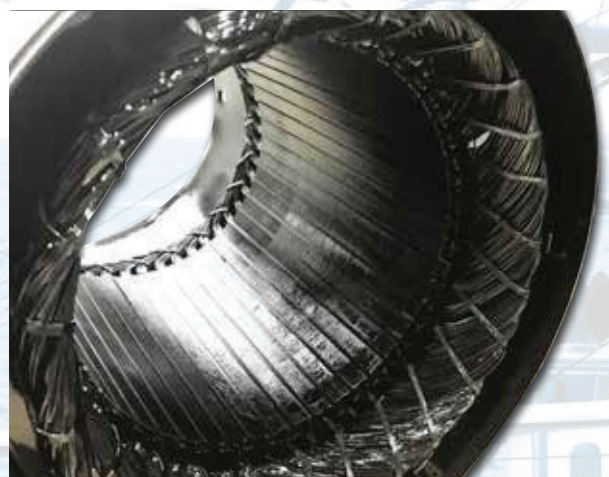
HARSH DUTY EXCITER

The ultimate in HARSH DUTY exciter stator construction. Coils are toroidally wrapped in fiberglass tape, fully encapsulating the winding and jumper sleeve ends. All coil to coil jumpers are fully sleeved. The windings are then fully submerged to ensure they are completely encased in 100% solid varnish. Finally, the complete exciter stator is coated with a 2 component, anti-tracking top coat finish varnish for maximum protection in harsh, high moisture, salt-laden marine applications.



REINFORCED MAIN STATOR WINDINGS

Main stator windings receive multiple Dip & Bake cycles using 100% solid varnish. The main stator is then coated with a 2 component, anti-tracking top coat finish varnish for maximum protection in harsh, high moisture, salt-laden marine applications.



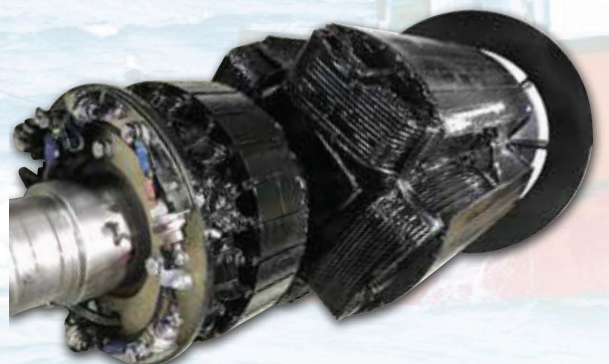
WET WOUND ROTOR CONSTRUCTION

Because marine applications demand 100% uptime and reliability is critical, MARINER® Generators utilize single piece laminations and wet layer winding processes to provide the most reliable rotor construction on the market today.

HEAVY DUTY RECTIFIER ASSEMBLY

MARINER generators often see harsh electrical applications including paralleling Make-Before-Break-Transfers, large motor starting loads and highly non-linear loads. Marathon® Generator's heavy duty rectifier assemblies are designed to handle extreme voltage transient surges and over-current situations with diodes selected with ratings of 300% beyond worst case design requirements. Diodes are hermetically sealed, welded case stud type for maximum environmental protection.

Selenium surge suppressors are standard on models 360 frame size and larger. Selenium suppressors have self-healing characteristics and heat-sink capacity to handle up to 40x more power than a Metal Oxide Varistor (MOV) to better protect diodes during extreme loading conditions encountered during Make-Before-Break-Transfers and other transient conditions.



GLOBAL TECHNICAL SUPPORT

With highly qualified teams of engineers and technical support staff in the United States, Asia and Europe; Regal can promptly respond to all technical inquiries our customers may have including specification review, custom design needs, 3D STEP files and application review.

PMG EXCITATION SUPPORT SYSTEMS - OPTIONAL

MARINER® Generators can be supplied with the proven Digital Voltage Regulator (DVR). The DVR provides ¼ % voltage regulation utilizing an isolated PMG power supply to assure maximum motor starting capacity and reliable voltage output independent of the load on the generator. The DVR also offers 14 different protective features, many customizable to your specific application, 300% short circuit support and many other features to ensure long, reliable service life.

The PM500 provides advanced voltage regulation and generator protection in a robust package. With ¼ % voltage regulation, the PM500 provides superior, full-wave dynamic performance, 300% short circuit support and 6 different protective features in an easy-to-use analog control package.

MARINE AGENCY CERTIFIED GENERATORS

Marine Agency certification available (ABS®* / Lloyd's Register®* / DNV GL®*) for generators up to 2100kW. All models use NEMA®* Class H Non-hygroscopic insulation systems and include drip covers, space heaters and PMG excitation support systems as required by specific agency rules. For certification by other Marine Agencies, contact Regal for availability.

RAPID RESPONSE

100 - 375kW MARINER Pre-Certified Generators now in stock.



MARINE AGENCY CLASSIFICATION REQUIREMENTS FOR CERTIFICATION

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

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Base Model	Net Wt. (lbs.)	No. of Leads	Standard Regulator	PMG Available	NEMA®* Class F			NEMA Class H		
					kW Ratings @ 95°C R/R over 50°C Amb.			kW Ratings @ 110°C R/R over 45°C Ambient		
					208Y - 240D	450Y	480Y	208Y - 240D	450Y	480Y
282PSL28043	295	12	SE350E	Yes	17.5	17.5	17.5	20	20	20
283PSL28045	366	12	SE350E	Yes	25	25	26	28	29	30
284PSL28047	436	12	SE350E	Yes	33	33	33	36	36	36
361PSL3120	518	12	SE350E	Yes	37	40	41	40	42	45
361PSL3121	569	12	SE350E	Yes	46	48	50	50	53	55
361PSL3122	620	12	SE350E	Yes	55	58	60	60	63	65
362PSL3124	706	12	SE350E	Yes	67	70	77	72	76	84
362PSL3126	796	12	SE350E	Yes	82	83	83	90	92	96
363PSL3127	943	12	SE350E	Yes	105	110	115	110	115	125
364PSL3129	1096	12	SE350E	Yes	143	145	145	155	160	160
431PSL6252	1220	12	SE350E	Yes	133	135	135	140	143	142
431PSL6254	1310	12	SE350E	Yes	156	160	160	165	167	170
431PSL6256	1415	12	SE350E	Yes	183	190	186	191	200	200
431PSL6258	1455	12	SE350E	Yes	195	198	200	203	210	211
432PSL6260	1685	12	SE350E	Yes	245	245	245	260	261	260
432PSL6262	1760	12	SE350E	Yes	245	255	260	260	266	275
433PSL6266	2235	12	SE350E	Yes	325	325	321	343	348	342
433PSL6270	2245	12	SE350E	Yes	345	355	352	362	375	375
572RSL6325	2730	12	DVR2400	Std	400	430	430	435	462	450
572RSL6327	2840	12	DVR2400	Std	415	440	475	445	470	500
572RSL6329	3050	12	DVR2400	Std	470	505	505	510	547	535
572RSL6331	3110	12	DVR2400	Std	470	500	515	525	557	575
573RSL6333	3400	12	DVR2400	Std	610	645	645	650	690	680
573RSL6335	3620	12	DVR2400	Std	625	652	670	680	725	710
574RSL6337	4080	12	DVR2400	Std	655	690	700	725	770	800

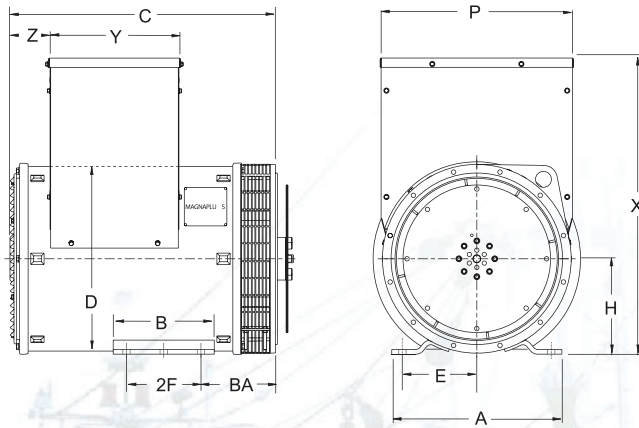
Base Model	Net Wt. (kgs.)	No. of Leads	Standard Regulator	PMG Available	NEMA Class F			NEMA Class H		
					kVA Ratings @ 95°C R/R over 50°C Ambient			kVA Ratings @ 110°C R/R over 45°C Ambient		
					220Y	380Y	400Y	220Y	380Y	400Y
282PSL28043	134	12	SE350E	Yes	12	16.9	15.6	13.5	19.8	18.5
283PSL28045	166	12	SE350E	Yes	20	23	23	23	28	28
284PSL28047	198	12	SE350E	Yes	25	31	30	29	37	35
361PSL3120	234	12	SE350E	Yes	38	40	41	40	44	45
361PSL3121	258	12	SE350E	Yes	43	50	50	45	53	52
361PSL3122	281	12	SE350E	Yes	45	60	56	51	65	62
362PSL3124	320	12	SE350E	Yes	65	75	73	75	80	81
362PSL3126	361	12	SE350E	Yes	73	82	81	81	94	94
363PSL3127	427	12	SE350E	Yes	90	100	100	101	113	113
363PSL3129	497	12	SE350E	Yes	115	135	135	130	156	156
431PSL6252	553	12	SE350E	Yes	121	140	135	130	143	141
431PSL6254	594	12	SE350E	Yes	143	160	160	151	166	165
431PSL6256	641	12	SE350E	Yes	150	186	183	161	200	193
431PSL6258	659	12	SE350E	Yes	183	200	200	195	210	210
432PSL6260	764	12	SE350E	Yes	191	235	240	210	256	251
432PSL6262	798	12	SE350E	Yes	245	256	256	260	270	271
433PSL6266	1013	12	SE350E	Yes	241	325	310	265	245	331
433PSL6270	1018	12	SE350E	Yes	285	355	350	310	375	368
572RSL6325	1239	12	DVR2400	Std	306	438	425	331	469	450
572RSL6327	1289	12	DVR2400	Std	356	450	463	363	475	494
572RSL6329	1384	12	DVR2400	Std	331	506	506	381	550	531
572RSL6331	1411	12	DVR2400	Std	431	513	525	469	563	563
573RSL6333	1543	12	DVR2400	Std	519	669	656	556	700	688
573RSL6335	1642	12	DVR2400	Std	469	663	669	513	738	706
574RSL6337	1851	12	DVR2400	Std	519	700	725	569	769	794

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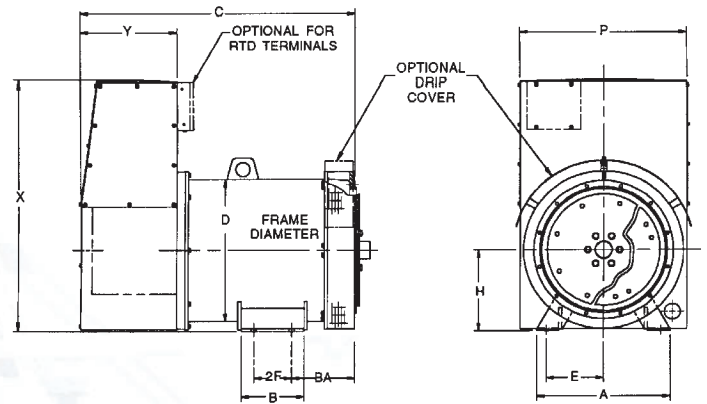
DIMENSIONS IN INCHES AND (MILLIMETERS)



ALL DIMENSIONS ARE APPROXIMATE. Contact Regal for full dimensional data
(please see rear page for the contact details).



280-430 frame



570 frame

Frame size	A	B	BA	C	C with PMG	D	E	2F	H	P	X	Y	Z
282PSL	14.00 (356)	7.00 (178)	6.56 (167)	18.50 (470)	23.10 (587)	13.64 (346)	6.25 (159)	5.00 (127)	8.00 (203)	13.55 (344)	18.56 (471)	8.93 (227)	3.42 (87)
283PSL	14.00 (356)	7.00 (178)	6.56 (167)	20.50 (521)	25.10 (638)	13.64 (346)	6.25 (159)	5.00 (127)	8.00 (203)	13.55 (344)	18.56 (471)	8.93 (227)	3.42 (87)
284PSL	14.00 (356)	7.00 (178)	6.56 (167)	22.75 (578)	27.40 (696)	13.64 (346)	6.25 (159)	5.00 (127)	8.00 (203)	13.55 (344)	18.56 (471)	8.93 (227)	3.42 (87)
285PSL	14.00 (356)	7.00 (178)	11.56 (294)	25.00 (635)	29.60 (752)	13.64 (346)	6.25 (159)	5.00 (127)	8.00 (203)	13.55 (344)	18.56 (471)	8.93 (227)	3.42 (87)
361PSL	16.00 (406)	9.50 (241)	7.00 (178)	24.96 (634)	27.56 (700)	17.35 (441)	7.00 (178)	7.00 (178)	9.00 (229)	18.19 (462)	27.85 (707)	12.44 (316)	3.52 (89)
362PSL	16.00 (406)	9.50 (241)	7.00 (178)	28.59 (726)	31.18 (792)	17.35 (441)	7.00 (178)	7.00 (178)	9.00 (229)	18.19 (462)	27.85 (707)	12.44 (316)	3.52 (89)
363PSL	16.00 (406)	9.50 (241)	10.50 (267)	31.72 (806)	34.29 (871)	17.35 (441)	7.00 (178)	7.00 (178)	9.00 (229)	18.19 (462)	27.85 (707)	12.44 (316)	3.52 (89)
364PSL	16.00 (406)	9.50 (241)	10.50 (267)	34.92 (887)	37.28 (947)	17.35 (441)	7.00 (178)	7.00 (178)	9.00 (229)	18.19 (462)	27.85 (707)	12.44 (316)	3.52 (89)
431PSL	21.46 (545)	15.00 (381)	10.00 (254)	33.89 (861)	38.27 (972)	22.64 (575)	9.00 (229)	11.00 (279)	13.00 (330)	24.97 (634)	36.10 (917)	16.00 (406)	2.66 (68)
432PSL	21.46 (545)	15.00 (381)	10.00 (254)	37.39 (950)	41.77 (1061)	22.64 (575)	9.00 (229)	11.00 (279)	13.00 (330)	24.97 (634)	36.10 (917)	16.00 (406)	2.66 (68)
433PSL	21.46 (545)	15.00 (381)	10.00 (254)	42.39 (1077)	46.77 (1188)	22.64 (575)	9.00 (229)	11.00 (279)	13.00 (330)	24.97 (634)	36.10 (917)	16.00 (406)	2.66 (68)
572RSL	22.50 (572)	15.00 (381)	11.50 (292)	n/a	51.52 (1308)	27.64 (702)	10.00 (254)	11.00 (279)	15.50 (394)	30.77 (782)	42.64 (1083)	17.21 (437)	n/a
573RSL	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)	
574RSL	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)	

Must have minimum clearance of 6 inches for air flow in to the generator. Additional clearance may be required for servicing.
280 - 430 frame sizes equipped with linkboard as standard.



marathon®
Generators

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APPLICATION CONSIDERATIONS

The proper selection and application of 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.

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