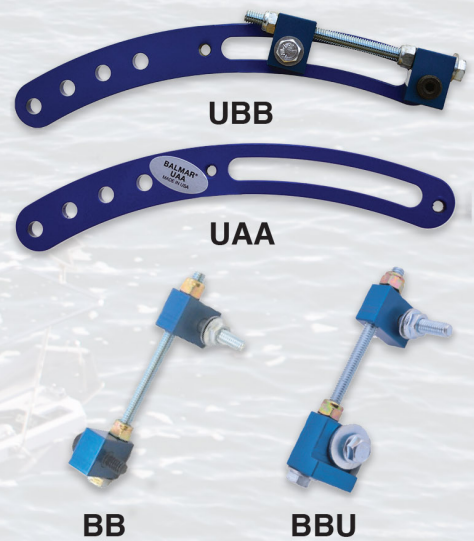


Alternator Accessories

Belt Buddy Universal Adjustment Arm

Reduce your installation time! Many installers rely on the Belt Buddy Universal Adjustment Arm for alternator installations and belt tensioning. Precision cut and powder coated for protection from corrosion, the Belt Buddy can be purchased as a kit or by individual component.

Part Number	Description
UBB	Universal Adjustment Arm & Belt Buddy Combination. This is the complete assembly (UBB = UAA + BB), designed for adjusting belt tension and providing a positive stop for no slipping.
UAA	Universal Adjustment Arm Only The UAA provides a longer, more positive arm for alternator adjustment.
BB	Belt Buddy for the UAA The BB adjustable mechanism converts your existing UAA to a UBB.
BBU	Belt Buddy for Any Adjustment Arm This product is designed to fit on your existing tensioning arm, thereby converting it to our Belt Buddy System.



Yanmar Installation Mounting Kits

Pre-matched mounting Kits for various Yanmar engines can save time and frustration. Required for AT-Series installation.

6CX and 6LP kits include the required pulleys.

Part Number	Yanmar Engine Model
6-0020	GM, JH, LH, LY
6-0030	6CX
6-0040	6LP



Offshore Repair Kits

Recommended for cruisers, Balmar's Offshore Repair Kits ensure that you will be ready if your alternator needs repair.

Kits vary by alternator model, but all provide the most commonly needed components, such as bearings, brushes, and complete regulator/rectifier assemblies.

Part Number	Alternator Series
7060	6-Series (12V)
7060-24	6-Series (24V)
7090	90-Series (12/24V)
7094	94-Series (12/24V)
7095	95-Series (12/24V)
70-AT-165	AT-Series (165A)
70-XT-170	XT-Series (170A)
70-AT-200	AT-Series (200A)



Alternator Pulleys, Belts & Mounting Spacers

Balmar offers an extensive selection of pulleys, belts & mounting spacers for its Small, Large and Extra-Large Frame Alternators. Pulley models vary by bore (17mm and .875"), outside diameter, belt width and type, and rear shoulder width. Balmar pulleys are anodized steel, unless otherwise noted.



See our complete spare parts listing on page 38!

Alternator Output Curves

Alternator output is dependent on a number of factors: battery condition and capacity, wire size, engine horsepower and engine RPM, battery temperature and alternator temperature. Of these factors, alternator speed and temperatures are the most important.

The following chart describes alternator output based on two temperature levels (ambient (25° C) and hot (60° C)). Test voltages are set at 13.5V (for 12V units) and 27.0V (for 24V units). Engine-to-alternator drive ratios vary by engine, but a conversion factor of 2 is shown here for simplicity.

Engine RPM		500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
Typical Drive Ratio		2	2	2	2	2	2	2	2	2	2	2
Alternator RPM		1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
Alternator Model	Temp	Alternator Power Curves by Balmar Model										
6-Series, 12V 70 Amp Models	Cold	0	20	68	73	77	78	77	77	76	77	77
	Hot	0	15	56	63	65	66	65	65	66	66	65
6-Series, 12V 100 Amp Models	Cold	0	21	83	100	106	110	104	106	108	109	108
	Hot	0	20	70	80	93	93	93	93	94	93	93
6-Series, 12V 120 Amp Models	Cold	0	21	80	116	121	122	125	125	124	124	125
	Hot	0	20	60	98	105	108	109	110	110	108	109
6-Series, 12V 150 Amp Models	Cold	0	24	80	117	132	141	149	155	158	159	159
	Hot	0	9	65	95	111	120	122	123	125	128	129
6-Series, 24V 70 Amp Models	Cold	0	6	36	55	68	71	73	76	76	75	76
	Hot	0	3	25	40	50	53	53	56	54	56	55
XT-Series, 12V 170 Amp Models	Cold	0	90	128	159	174	182	189	194	196	197	198
	Hot	0	90	118	134	144	154	157	159	162	164	166
AT-Series, 12V 220 Amp Models	Cold	0	132	165	199	215	222	225	231	235	240	243
	Hot	0	99	148	164	181	187	192	197	202	205	207
94/94LY-Series, 12V 165 Amp Models	Cold	0	20	60	89	112	128	140	151	158	163	168
	Hot	0	10	50	72	89	104	109	122	139	142	148
94/94LY-Series, 12V 210 Amp Models	Cold	0	21	78	103	128	147	162	178	191	208	210
	Hot	0	15	68	82	103	120	131	142	161	170	175
94/94LY-Series, 24V 140 Amp Models	Cold	0	8	15	38	50	70	77	96	124	131	135
	Hot	0	0	10	30	40	58	65	75	92	105	110
95-Series, 12V 165 Amp Model	Cold	0	18	76	103	122	130	135	138	142	150	158
	Hot	0	9	58	80	90	105	115	118	121	122	127
95-Series, 12V 210 Amp Model	Cold	0	40	45	100	125	143	155	170	183	190	195
	Hot	0	35	40	80	115	120	135	142	150	158	161
95-Series, 24V 140 Amp Model	Cold	0	7	14	38	55	65	85	100	113	120	133
	Hot	0	5	12	35	50	60	78	95	100	105	110
97-Series, 12V 160 Amp Model	Cold	0	22	80	120	140	153	160	162	163	162	160
	Hot	0	18	115	100	120	140	145	148	145	148	148
97-Series, 24V 140 Amp Model	Cold	0	22	80	120	135	136	138	140	142	142	145
	Hot	0	18	62	100	115	123	123	123	128	131	138
97EHD-Series, 12V 185 Amp Model	Cold	0	100	141	159	165	174	179	183	186	186	184
	Hot	0	83	132	144	150	163	166	170	172	170	171
97EHD-Series, 12V 265 Amp Model	Cold	0	50	150	210	225	245	252	255	260	268	270
	Hot	0	30	120	182	186	194	204	212	218	221	221
97EHD-Series, 24V 190 Amp Model	Cold	0	40	100	148	168	180	188	193	198	199	198
	Hot	0	22	92	125	145	157	166	170	171	178	178
98-Series, 12V 310 Amp Model	Cold	0	36	150	235	262	278	290	295	315	322	320
	Hot	0	30	140	190	215	228	245	250	250	251	252
98-Series, 24V 220 Amp Model	Cold	0	36	100	145	167	180	190	195	205	210	220
	Hot	0	34	92	138	156	166	172	178	186	190	192

Alternator Dimensions

Alternator Model	Case Diameter	Bolt-to-Bolt Tension to Mounting Foot	Overall Height	Case Length Front-to-Back	Overall Length (Standard Pulley)	Dual Foot Saddle Width (Inside)	Rear Foot Width (including Bushing)	Front Foot Width	Front Foot to Center of Inside Sheave	Standard Pulley Diameter	Mounting Foot Bore	Tension Arm Bolt Dia. / Thread Count	Stator Poles
60 Series	5.35" / 136 mm	6.6" / 167 mm	7.5" / 190 mm	5.08" / 129 mm	SV: 6.63" / 168 mm	3.28" / 83 mm	0.94" / 24 mm	0.61" / 16 mm	0.5" / 13 mm	SV: 2.7" / 69 mm	0.39" / 10 mm	M8 x 1.25	12
621 Series	5.35" / 136 mm	6.6" / 167 mm	7.5" / 190 mm	5.08" / 129 mm	SV: 6.63" / 168 mm	N/A	N/A	1.0 / 2.0" / 25 / 51 mm	0.5" / 13 mm	SV: 2.7" / 69 mm	.39" / 0.5" / 10 / 13 mm	M8 x 1.25	12
604 Series	5.35" / 136 mm	6.6" / 167 mm	7.5" / 190 mm	5.08" / 129 mm	SV: 6.63" / 168 mm	4.15" / 105 mm	0.94" / 24 mm	0.61" / 16 mm	0.5" / 13 mm	SV: 2.7" / 69 mm	0.39" / 10 mm	M8 x 1.25	12
XT-170 Series	5.26" / 134 mm	6.53" / 165 mm	7.43" / 188 mm	3.54" / 90 mm	DV: 8.00" / 203 mm	3.28" / 83 mm	.75" / 19 mm	0.55" / 14 mm	0.62" / 16 mm	DV: 2.7" / 69 mm	.39" / 0.5" / 10 / 13 mm	M8 x 1.25	16
AT-200 Series	5.68" / 145 mm	8.15" / 207 mm	9.67" / 246 mm	5.10" / 130 mm	DV: 7.93" / 201 mm	3.3" / 84 mm	.75" / 19 mm	0.55" / 14 mm	0.62" / 16 mm	DV: 2.7" / 69 mm	.39" / 0.5" / 10 / 13 mm	3/8" x 16NC	16
AT-DF4-200 Series	5.68" / 145 mm	8.15" / 207 mm	9.67" / 246 mm	5.10" / 130 mm	DV: 7.93" / 201 mm	4.02" / 102 mm	.75" / 19 mm	0.55" / 14 mm	0.62" / 16 mm	DV: 2.7" / 69 mm	0.39" / 10 mm	3/8" x 16NC	16
94 Series	6.0" / 152 mm	8.0" / 203 mm	9.0" / 229 mm	5.0" / 127 mm	DV: 7.0" / 178 mm	N/A	N/A	2.0" / 51 mm	1.0" / 25 mm	DV: 2.9" / 74 mm	0.5" / 13 mm	3/8" x 16NC	12
94LY Series	6.0" / 152 mm	8.0" / 203 mm	9.0" / 229 mm	5.0" / 127 mm	DV: 7.0" / 178 mm	3.28" / 83 mm	0.55" / 14 mm	0.88" / 23 mm	1.0" / 25 mm	DV: 2.9" / 74 mm	0.5" / 13 mm	3/8" x 16NC	12
95 Series	6.0" / 152 mm	7.7" / 196 mm	9.0" / 229 mm	6.5" / 165 mm	DV: 8.7" / 221 mm	4.1" / 104 mm	.75" / 19 mm	0.56" / 14 mm	1.1" / 28 mm	DV: 2.9" / 74 mm	0.5" / 13 mm	3/8" x 16NC	12
97 Series	6.75" / 171 mm	8.4" / 213 mm	9.75" / 248 mm	7.0" / 178 mm	DV: 10.9" / 277 mm	4.1" / 104 mm	.75" / 19 mm	0.56" / 14 mm	1.0" / 25 mm	DV: 2.9" / 74 mm	0.5" / 13 mm	1/2" x 13NC	16
97EHD Series	6.5" / 165 mm	8.4" / 213 mm	9.75" / 248 mm	8.125" / 207 mm	DV: 10.9" / 277 mm	4.1" / 104 mm	.75" / 19 mm	0.65" / 17 mm	1.2" / 30 mm	DV: 2.9" / 74 mm	0.5" / 13 mm	1/2" x 13NC	12
98 Series	8.25" / 210 mm	8.25" / 210 mm	9.6" / 244 mm	8.0" / 204 mm	DV: 11.0" / 279 mm	4.1" / 104 mm	0.75" / 19 mm	0.58" / 15 mm	1.1" / 28 mm	DV: 2.9" / 74 mm	0.5" / 13 mm	1/2" x 13NC	14

Notes:

In order to ensure quality, Balmar reserves the right to make changes which may affect alternator dimensions or specification. Visit www.balmar.net for any product updates. Balmar is not liable for any damages or injuries resulting from faulty product installation. See the Balmar Warranty and ordering instructions at the bottom of page 34 of this catalog for more information.

Small case 60-Series Alternators are equipped standard with 10mm bore spacers and bushings. 8mm bore spacers and bushings are available for those units. Call Balmar Customer Service at +1 (360) 435-6100.

621-Series and XT-Series alternators are equipped with a removable bushed 1" spacer for use in 2" installations. 1" mounts feature a .50" bore. 2" mounts feature a .38" bore. Always compare existing alternator & replacement alternator dimensions. Balmar cannot guarantee direct OEM replacement.

Multi-Lite™ Utility Lighting Fixture

Balmar's Multi-Lite™ Fixture can be used in 12VDC, 24VDC, 110VAC or 220VAC applications without the need for difficult rewiring. Housed in a protective UV-resistant cage, the Multi-Lite™ uses a glass fresnel lens for optimal light dispersion. See page 38 for ordering details.

