

FIND THE RIGHT FIT

In most cases, determining the right charging system for your vessel can be reduced to three primary issues; alternator mounting style, belt size and battery capacity.

ALTERNATOR MOUNTING STYLES

The first issue, alternator mounting style, usually falls into one of four possibilities: **(A)** single 1"-foot (Motorola-Style) mount, **(B)** single 2"-foot (Delco-Style) mount, **(C)** 3.15" ID saddle (Hitachi-style) mount, and **(D)** 4"ID saddle (J-180 style) mount. The vast majority of marine gasoline and diesel engines will use one of these four mounting styles. The list below provides a guide for many engine applications, yet we strongly recommend you compare your existing alternator to the alternators at right to ensure a proper match. In some cases, additional spacing or modification to mounting components may be necessary to ensure proper fit or alignment. A full list of alternator dimensions is provided on Page 19 of the Product Guide. While Balmar makes every effort to provide an OEM-compatible product, "drop in" alternator replacement is not guaranteed.

Mounting Style	Typical Compatible Engine Types (By Manufacturer)
1" Single Ft. (Motorola)	Hino, Lehman, Caterpillar, Atomic 4, Universal, Ford, Crusader, Pathfinder, Westerbeke, Motorola-equipped
2" Single Ft. (Delco)	Volvo, Cummins, Westerbeke, Perkins, Mercruiser, Yanmar (6LP), Volvo-Penta, GM, Delco-equipped
3.15"ID Saddle Mt.	Mercruiser, Lehman, Yanmar, Westerbeke, Perkins-Sabre, Hitachi-equipped
4"ID Saddle Mt.	Detroit Diesel, Cummins, Caterpillar, John Deere, J-180 Off-Engine Mounts



As indicated in the chart, alternator mounting styles may vary among engine manufacturer's models and by model year. The best way to ensure that you are ordering the proper replacement for your alternator is to verify your engine's specific mounting configuration and alternator dimensions prior to purchasing your Balmar replacement alternator.

BELT SIZE

The width of the engine drive belt is also a critical factor when selecting a Balmar replacement alternator. Commonly installed vee belts and multi-groove serpentine belts have specific limitations in regard to amperage and horsepower loads they can support. As a rule of thumb, a 12-volt alternator's ratio of output to horsepower load is 25:1. In other words, an alternator that's producing 25 amps will apply approximately one horsepower of load to its drive belt. When installing an alternator upgrade, it is essential that the alternator selected is limited to the capacity of its drive belt. Failure to do so will result in premature belt wear, belt slippage, and potential damage to the alternator and engine. The following chart provides a general guideline for alternator selection, based on belt type and width. Note that dual vee belts and serpentine belts support substantially larger loads:

Belt Type	Belt Width	Max HP Load	Max Recommended Alternator Output
Sgl. Vee	3/8"	3.5	80-Amp @ 12-Volt, 30-Amp @ 24-Volt
Sgl. Vee	1/2"	4.5	110-Amp @ 12-Volt, 45-Amp @ 24-Volt
Dual Vee	1/2"	12	310-Amp @ 12-Volt, 220-Amp @ 24-Volt
Serpentine	6-Groove	N/A	210-Amps @ 12-Volt, 100-Amps @ 24-Volt
Serpentine	8-Groove	N/A	310-Amps @ 12-Volt, 220-Amps @ 24-Volt