

# 6-Series Alternators



## 6-Series Packages

Designed to eliminate the guesswork when selecting the best system for the job, packages include 6-Series alternator, multi-stage voltage regulator, alternator and battery temp. sensors.

### 60-YP-Series Packages

Packages for Yanmar and other 3.15" ID saddle style mounts (YP). Includes hardware kit. Available with Balmar's ARS-5 or MC-614 voltage regulator.

Model	A/V	Reg.
60-YP-70-SR-KIT	70/12	ARS-5
60-YP-100-SR-KIT	100/12	ARS-5
60-YP-120-SR-KIT	120/12	ARS-5
60-YP-150-SR-KIT	150/12	ARS-5

60-YP-MC-70-SR-KIT	70/12	MC-614
60-YP-MC-100-SR-KIT	100/12	MC-614
60-YP-MC-120-SR-KIT	120/12	MC-614
60-YP-MC-150-SR-KIT	150/12	MC-614

### 621-VUP-Series Packages

Packages for Volvo, Universal and other applications utilizing single 1" or 2" single foot (spindle) type mounts. Available with Balmar's ARS-5 or MC-614 voltage regulator.

621-VUP-70-SR-KIT	70/12	ARS-5
621-VUP-100-SR-KIT	100/12	ARS-5
621-VUP-120-SR-KIT	120/12	ARS-5
621-VUP-150-SR-KIT	150/12	ARS-5

621-VUP-MC-70-SR-KIT	70/12	MC-614
621-VUP-MC-100-SR-KIT	100/12	MC-614
621-VUP-MC-120-SR-KIT	120/12	MC-614
621-VUP-MC-150-SR-KIT	150/12	MC-614

Light-duty 6-Series Alternators are engineered to replace most OEM alternators on a wide variety of marine gasoline and diesel engines.

Available in outputs ranging from 70-amp to 150-amp at 12 volts and 70 amps at 24 volts, 6-Series alternators provide a simple and effective tool for supporting upgraded battery systems and increased electrical loads.

6-Series alternators are available in three mounting configurations, which support four mounting styles; a 3.15" saddle mount that's typical of Yanmar engines, a 4" J-180 mount, and a single foot mount that's convertible to support 1" Motorola and 2" Delco style mounting configurations.

### SmartReady® Internal Regulation

A feature unique to the 6-Series alternator, SmartReady internal regulation enables the alternator to be used with smart Balmar external regulation, or as a stand-alone, internally regulated alternator system. The SmartReady regulator is a fixed, 14.1-volt charge controller that is ideal as a built-in back-up regulator for the cruiser, or as a full-time regulator for for systems where smart, multi-stage regulation is not required.



### 6-Series Alternator Models

Model	Volts	Amps	Mounting Style	Alternator Profile
60-70-SR-IG	12	70A	3.15" I.D. Saddle (Hitachi Style)	
60-100-SR-IG	12	100A	3.15" I.D. Saddle (Hitachi Style)	
60-120-SR-IG	12	120A	3.15" I.D. Saddle (Hitachi Style)	
60-150-SR-IG	12	150A	3.15" I.D. Saddle (Hitachi Style)	
60-24-70-SR-IG	24	70A	3.15" I.D. Saddle (Hitachi Style)	
621-70-SR-IG	12	70A	1" or 2" Single Foot (Spindle)	
621-100-SR-IG	12	100A	1" or 2" Single Foot (Spindle)	
621-120-SR-IG	12	120A	1" or 2" Single Foot (Spindle)	
621-150-SR-IG	12	150A	1" or 2" Single Foot (Spindle)	
621-24-70-SR-IG	24	70A	1" or 2" Single Foot (Spindle)	
604-120-SR-IG	12	120A	4" I.D. Saddle (Hitachi Style)	
604-150-SR-IG	12	150A	4" I.D. Saddle (Hitachi Style)	
604-24-70-SR-IG	24	70A	4" I.D. Saddle (Hitachi Style)	

# Balmar

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# 6-Series Alternator Specifications

**Alternator Style:** Small case, positive field excitation (p-type)

**Regulation:** External p-type or internal Smart Ready® fixed voltage regulator

**Case Construction:** Ventilated cast aluminum / High-impact plastic rear cover

**Finish:** White powdercoating

**Cooling:** Dual internal fans

**Bearings:** Sealed ball bearing. Heavy duty radial (front). Heavy duty radial (rear)

**Tensioning Arm:** Five position crown; M8 x 1.25

**Available Outputs:** 70A/12V, 100A/12V, 120A/12V, 150A/12V, 70A/24V

**Mounting Styles:** 3.15" I.D. Saddle (Model 60), 4" I.D. Saddle (Model 604), 1" / 2" Single Foot (Model 6 21)

**Mounting Foot Bore:** (60/604) 8mm or 10mm; (621) 1" foot / 1/2", 2" foot / 3/8"

**Grounding:** Dedicated terminal (case isolated). Stud dimensions: M8 x 1.25

**Positive Output:** Threaded stud. Stud dimensions: M8 x 1.25

**Lamp Output:** D+ (low voltage / low current) Stud dimensions: 10 x 24

**AC/Stator Output:** 12 pulse. Stator output wire included in pigtail plug.

**Internal Voltage Regulation:** 14.1-volt (12V). 28.2-volt (24V). Single stage regulation.

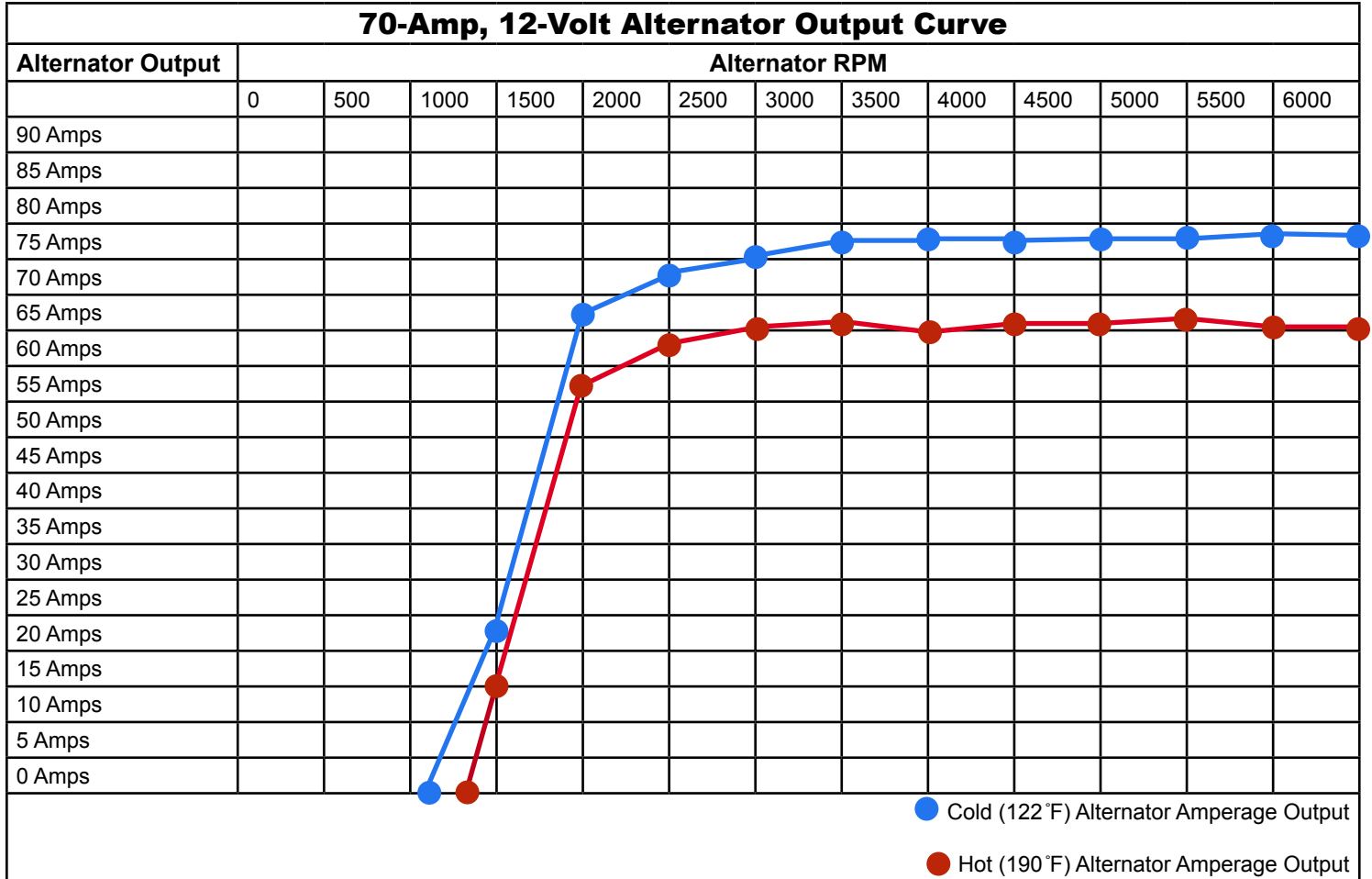
**Normal/Maximum Operating Temperature:** 180°F/82°C / 225°F/108°C

**Low RPM Cut-In/Maximum Alternator RPM:** 1320rpm / 15000rpm

**Diodes +/-:** 3 (positive), 3 (negative); 50-amp rated

**Ignition Protection Rating:** USCG Title 33, ISO J1187, SAE 8846, CE

**70-Amp, 12-Volt Alternator Output Curve**



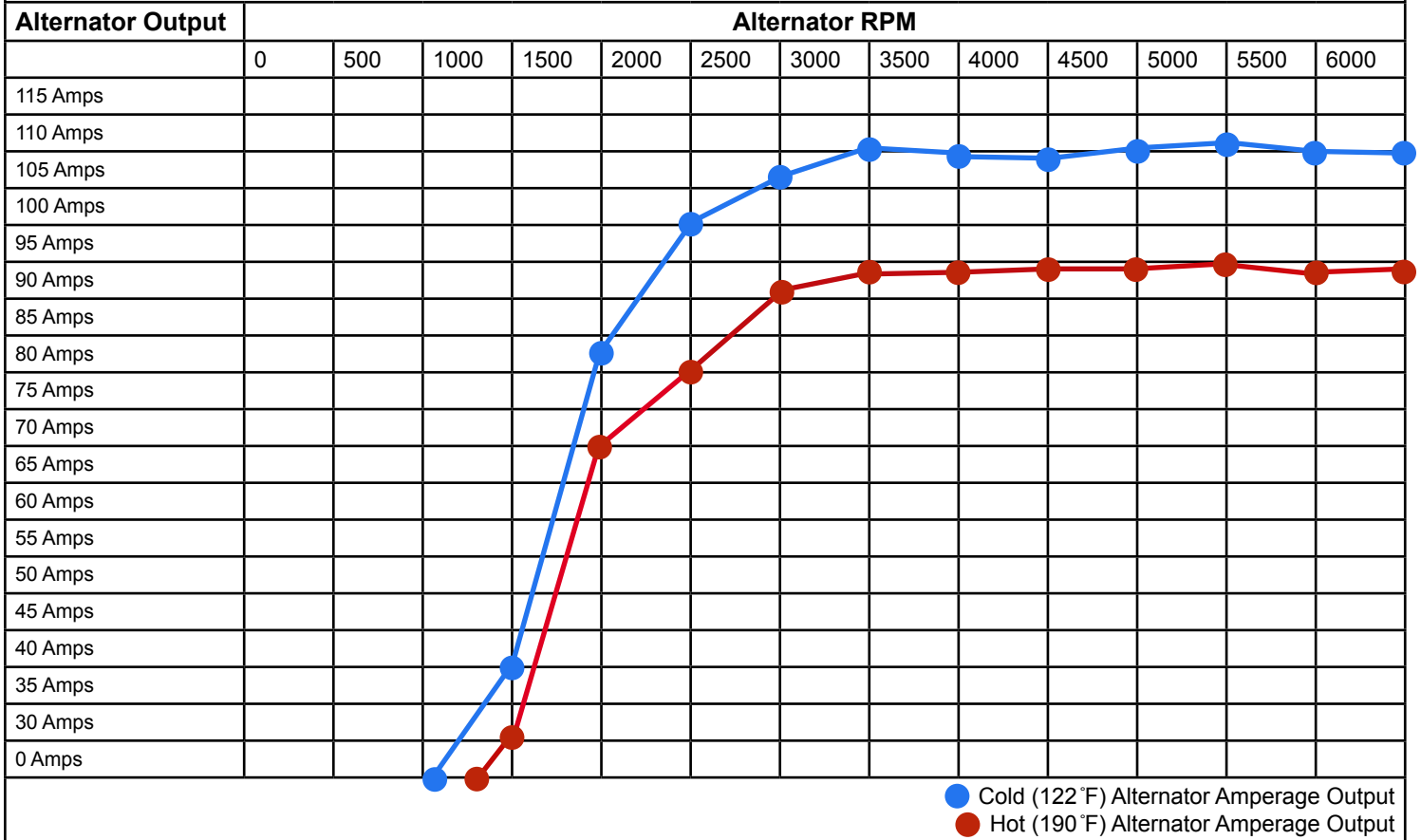
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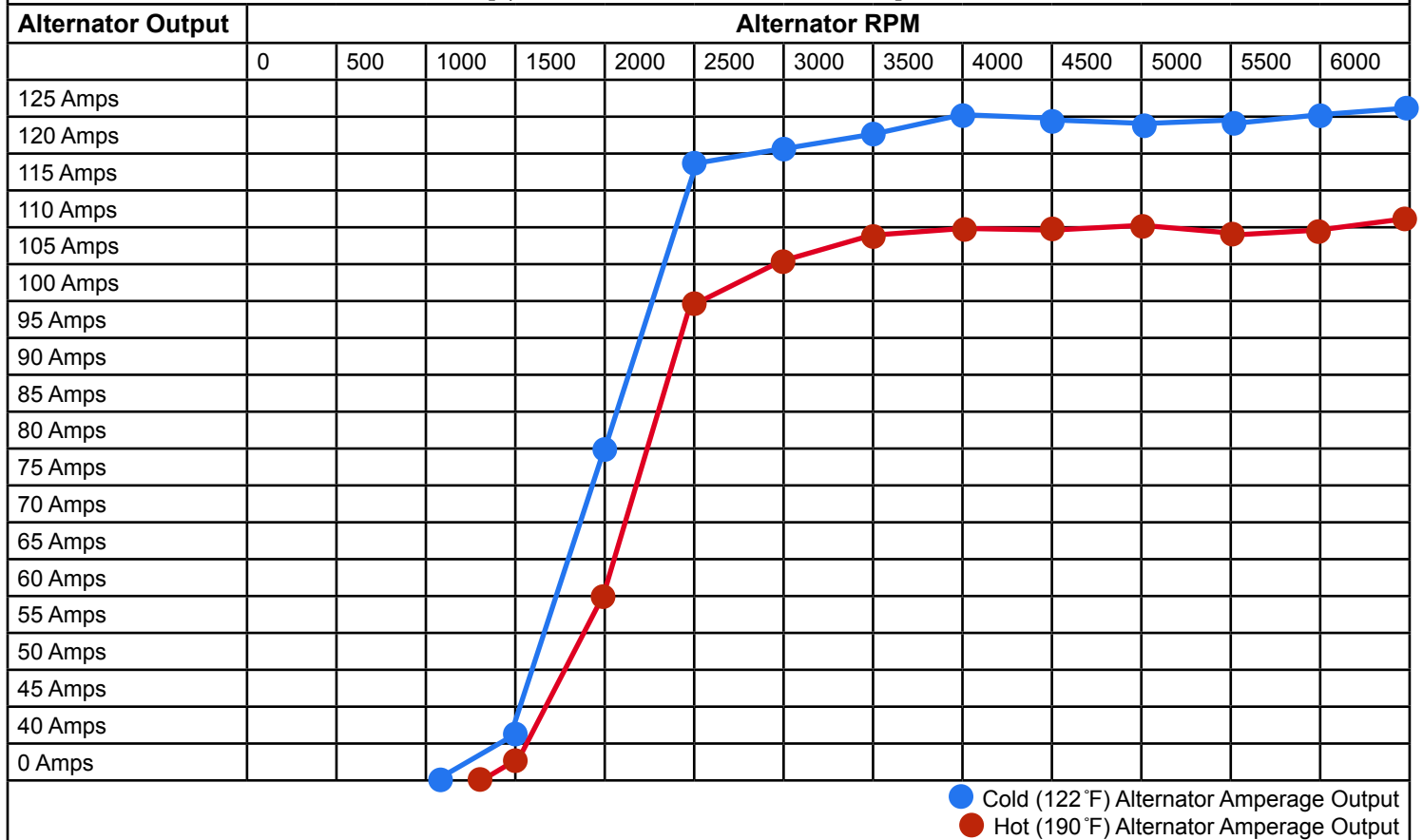
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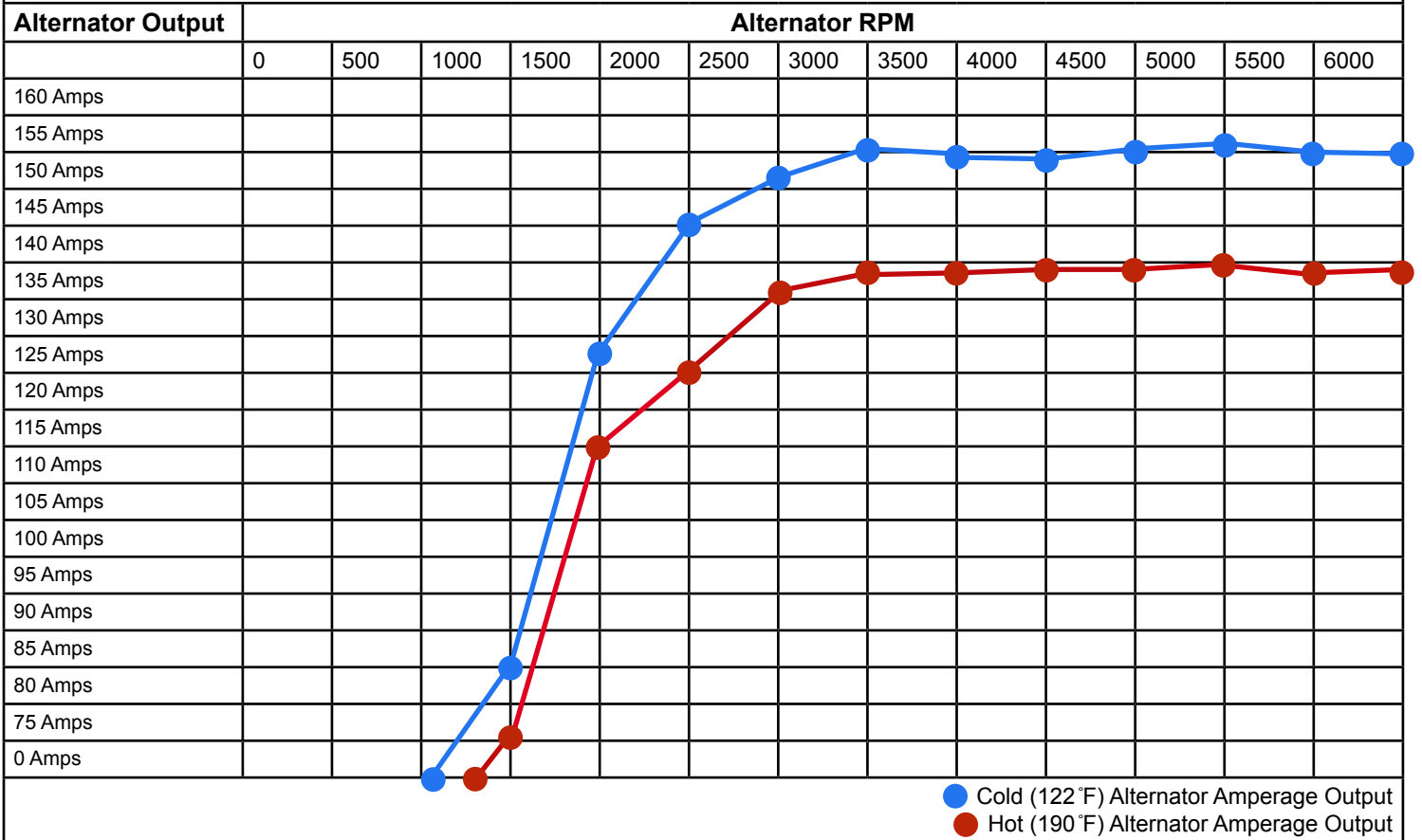
### 100-Amp, 12-Volt Alternator Output Curve



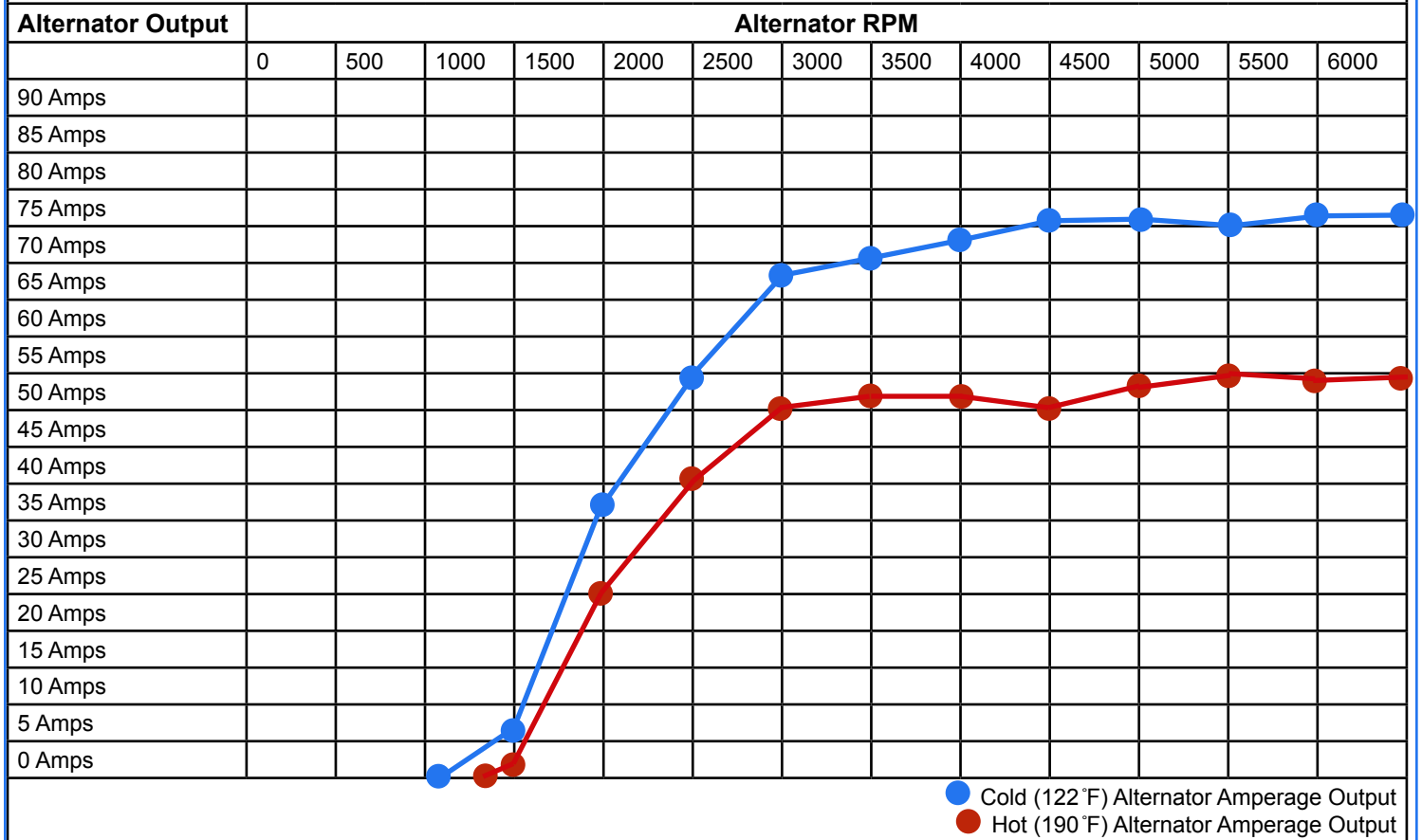
### 120-Amp, 12-Volt Alternator Output Curve

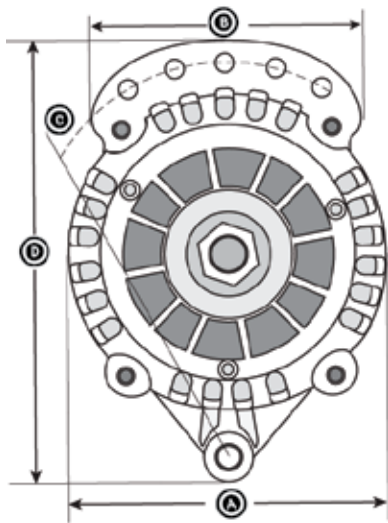


### 150-Amp, 12-Volt Alternator Output Curve

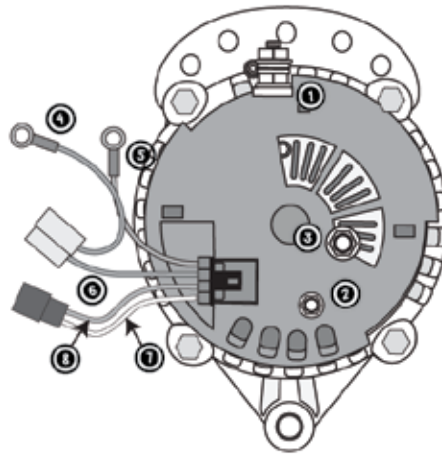


### 70-Amp, 24-Volt Alternator Output Curve

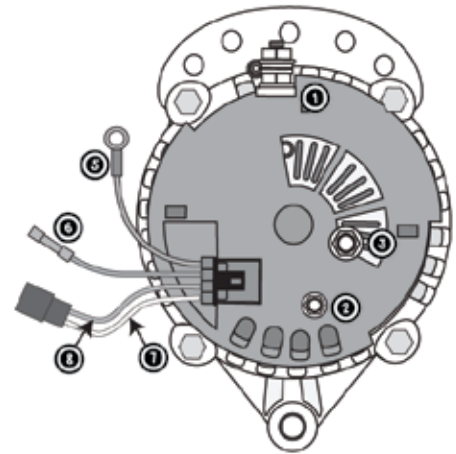




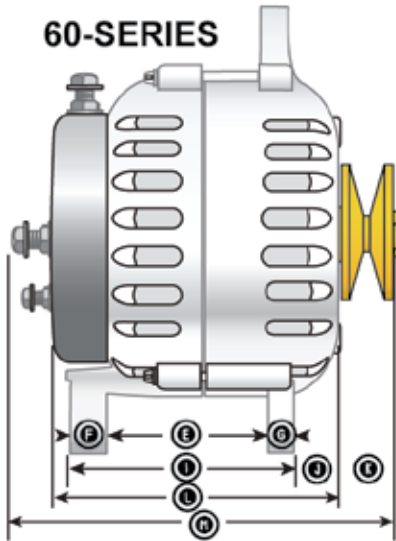
**60-SERIES**



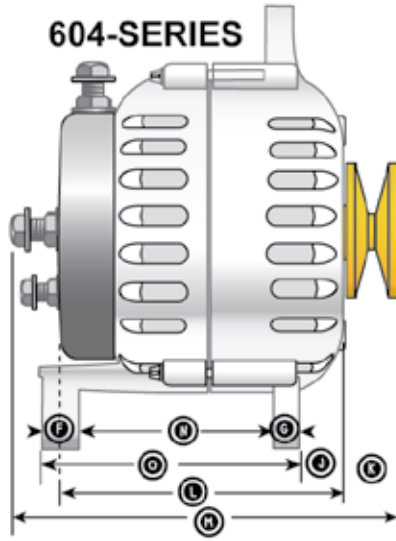
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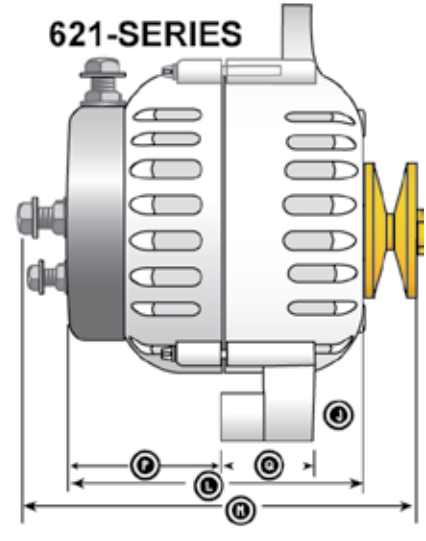
**60-SERIES**



**604-SERIES**



**621-SERIES**



ITEM	DESCRIPTION	IN.	MM
A	Case Diameter	5.7	144.8
B	Crown Width	4.5	114.3
C	Bolt-to-Bolt Center	6.5	165
D	Overall Height	7.3	185.4
E	60-Series Saddle Width (ID)	3.15	80
F	Rear Foot Width (+ Bushing)	.75	19
G	Front Foot Width	.55	14
I	Mounting Saddle Overall	4.45	113
J	Front Foot to Case Front	.5	12.7
K	Case to Pulley Front (Sgl.)	1.25	31.75
L	Case Length Front-to-Back	5.1	129.6
M	Length Overall	6.6	167.6
N	604-Series Saddle Width (ID)	4.0	101.6
O	Mounting Saddle Overall	5.3	134.6
P(1)	Case Rear to Foot (2" Foot)	2.6	66

ITEM	DESCRIPTION	IN.	MM
P(2)	Case Rear to Foot (1" Foot)	3.6	91.4
Q(1)	Foot Width (With Spacer)	2	23.4
Q(2)	Foot Width (No Spacer)	1	12.7
M(2)	Overall Length (Dual Pulley)	7	177.8
TERMINAL CONNECTION LOCATIONS			
1	Isolated Ground Terminal		
2	Lamp (D+) Circuit Terminal		
3	Positive Output Terminal		
4	Lamp Wire (60-Series Only) (BLUE) Not Used		
5	Internal Regulator Sense Wire (RED)		
6	Internal Regulator Ignition Wire (BROWN)		
7	Stator/Tach Output (WHITE)		
8	External Regulator Field Input (BLUE)		

Measurements provided are believed to be correct at the time of publication. Diagrams shown are for illustrative purposes and are not designed to be used for engineering. Please contact our Customer or Technical Services departments or see our 2009 Product Guide for additional information.

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