

## The Smart Charging Regulator VREGxx

### Overview

The most important part of any engine with a battery is the charging system. Modern batteries and electrical components, have higher performance but are more sensitive so for optimum extended life smart charging is needed. The smart regulator will pay for itself with the first battery it saves.

This is intended for the following markets:

- Motorcycles, ATV, QUADs
- Marine, Jet Skis, outboard motors
- Yard equipment – Snow blowers, lawn tractors, etc
- Snowmobiles
- Tuk Tuks
- And other small engine applications where the engine has a 12V electric start system.

Benefits over most OEM regulators:

- Extended battery life – minimise the high frequency charge discharge “over working”
- Faster charging/higher efficiency – Good for short trips, no heat sink or air flow required.
- Rugged – Will not be damaged by boosting, overloads, or many other stresses.
- Wide temperature operation – Good for winter and summer applications.
- Allows the engine to run without a battery

This series of regulators is intended for permanent magnet/stator electrical systems. Versions are available for 20A, 40A and 60A systems.



An aluminum interface plate is available for mounting the regulator in many different applications. The regulator mechanical design and connector interface can be customised for OEM or high volume applications.

For more information please go to [www.radicalelectronics.net/products/regulator/VREGxx.htm](http://www.radicalelectronics.net/products/regulator/VREGxx.htm)

## Specifications

### Common

Temperature Range	-40C to +85C (Industrial Temperature Range)
Case Material	Plastic ABS
Potting Material	Epoxy
Wire Material	105Celcius (Oil, Water and Flame Resistant)
Reverse Leakage Current (maximum)	3mA
Battery voltage	12.6V nominal
Chemistry	Sealed Lead Acid
Electromagnetic Compatibility	CISPR 25, EN50498

Specification	VREG20	VREG40	VREG60
Dimensions (LxWxH)	2"x3"x1"	2"x3"x1.5"	3"x3"x1.5"
Footprint	2"x4"	2"x4"	3"x4"
Output Current (A)	20	40	60
Wire Size (AWG)	18	14	10
Power Dissipation	TBD	TBD	TBD



*Regulator mounting plate kit (VREG20) with nylok nuts*

