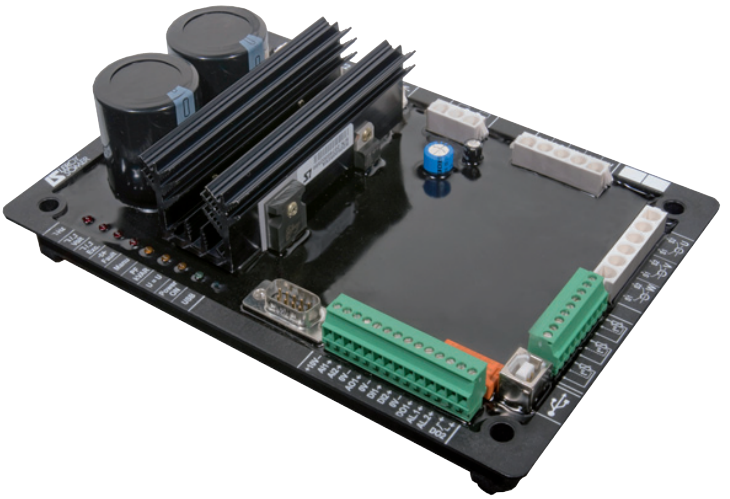
1 - D 510 voltage regulator for alternators with SHUNT - AREP or PMG excitation

The D 510 is a digital voltage regulator, which monitors and regulates the alternator output voltage.
It is designed for alternators with SHUNT, AREP or PMG excitation.
The D 510 is an AVR which can be configured using the "Easyreg" software.



- There are 4 possible regulation modes:
  - voltage, PF, kVA, manual

- The I/O can be configured:
  - 2 x I : analog
  - 1 x O : analog
  - 2 x I : digital
  - 3 x O : digital

- 1 volt-free contact

- 1 USB port

- Optional: 1 Bluetooth port

It complies fully with the requirements of IEC standard 60034-1 and UL 708 and CSA certifications.

2 - Operating range

	➤ LSA 40	➤ 42.2	➤ 43.2	➤ 44.2	➤ 46.2	➤ 47.2	➤ 49.1	➤ 50.2	➤ 51.2
Shunt/AREP or PMG	√	√	√	√	√	√	√	√	√

3 - Main functions and characteristics

- Voltage regulation: ± 0.25%.
- Function: regulation of voltage, PF, kVAR and manual regulation
- Response time depending on PID settings
- Rated field current: 6 A
- Maximum field current: 10 A/10 s
- Power supply range for voltage sensing: up to 600 V

- Protection:
  Short-circuit/Loss of voltage reference/Overvoltage/Overexcitation/
  High Temperature/Speed drop/Diode fault (D 510C)

- Engine assistance
  Soft start: 0 - 100 s
  U/F adjustable from 1 to 3 in increments of 0.1
  LAM: 0 to 30%
  Gradual increase: 0.1 to 30 s/Hz

4 - Conditions of use

- Operating temperature: - 40°C to + 65°C
- Storage temperature: - 55°C to + 85°C
- Shocks on the base: 9 g depending on the 3 axes
- Vibrations: less than 10 Hz, 2 mm half-peak amplitude
  10 Hz to 100 Hz: 100 mm/s, above 100 Hz: 8 g

5 - Connections and setting up

The AVR is set using the "Easyreg" software.
This can be used to:
- Set the AVR parameters
- Configure the inputs and outputs
- Display faults and parameter measurements