

TECHNICAL DATA SHEET



HYBRI9 - 380A

9 phases low voltage battery charger alternators

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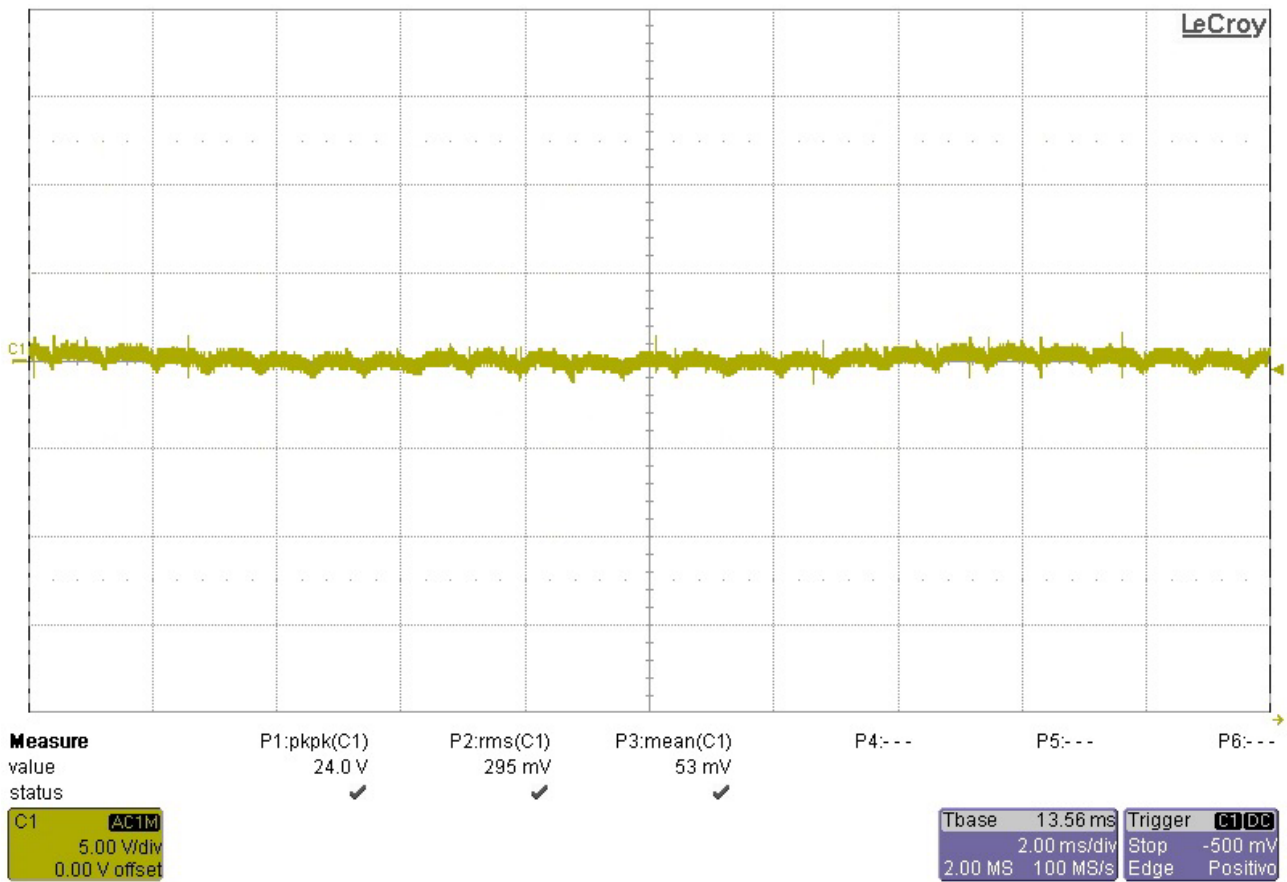
TYPICAL FEATURES

- Very low output ripple: <1% without battery (see picture 1)
- Output voltage: 12V_{DC} - 24V_{DC} - 48V_{DC} - 72V_{DC}
- Max power output: 12kW @ 1500RPM (see picture 2)
- Max rectified current: 380A_{DC}
- From 1100 to 2000 RPM
- AVR output voltage that allows:
 - ±0,5% of voltage accuracy
 - Over-excitation protection
 - Under-speed protection
- Brushless alternator with auxiliary winding
- Nine phases AC source
- Oversized and reliable internal DC power rectifier: up to 380A with air flow
- Protection of stator winding and rectifier with thermal trips
- DINSE socket used as DC output connector to guarantee simple, safe and durable connections.
- IP23
- SAE Coupling

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TYPICAL TECHNICAL DATA

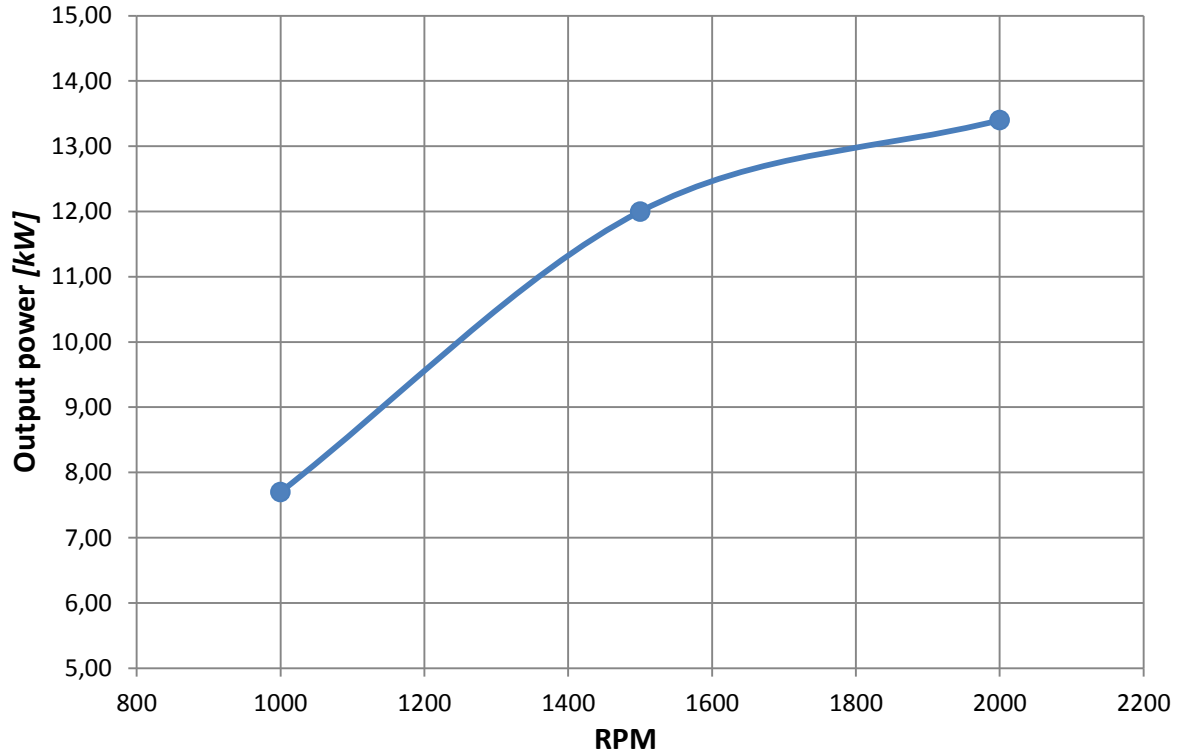
DC output (Vdc)	48 ÷ 58
Power outlet @ 1500RPM	12 kW
DC output current @ 1500RPM	Up to 380A
Max Efficiency	>86%
RPM	From 1100 to 2000 RPM
Output ripple	< 1% without battery (see picture 1)
Output accuracy	± 0,5%



Picture 1: AC ripple waveform @ 55Vdc and full load. The RMS value of the ripple is 295mV that is 0.54% of the nominal output voltage.

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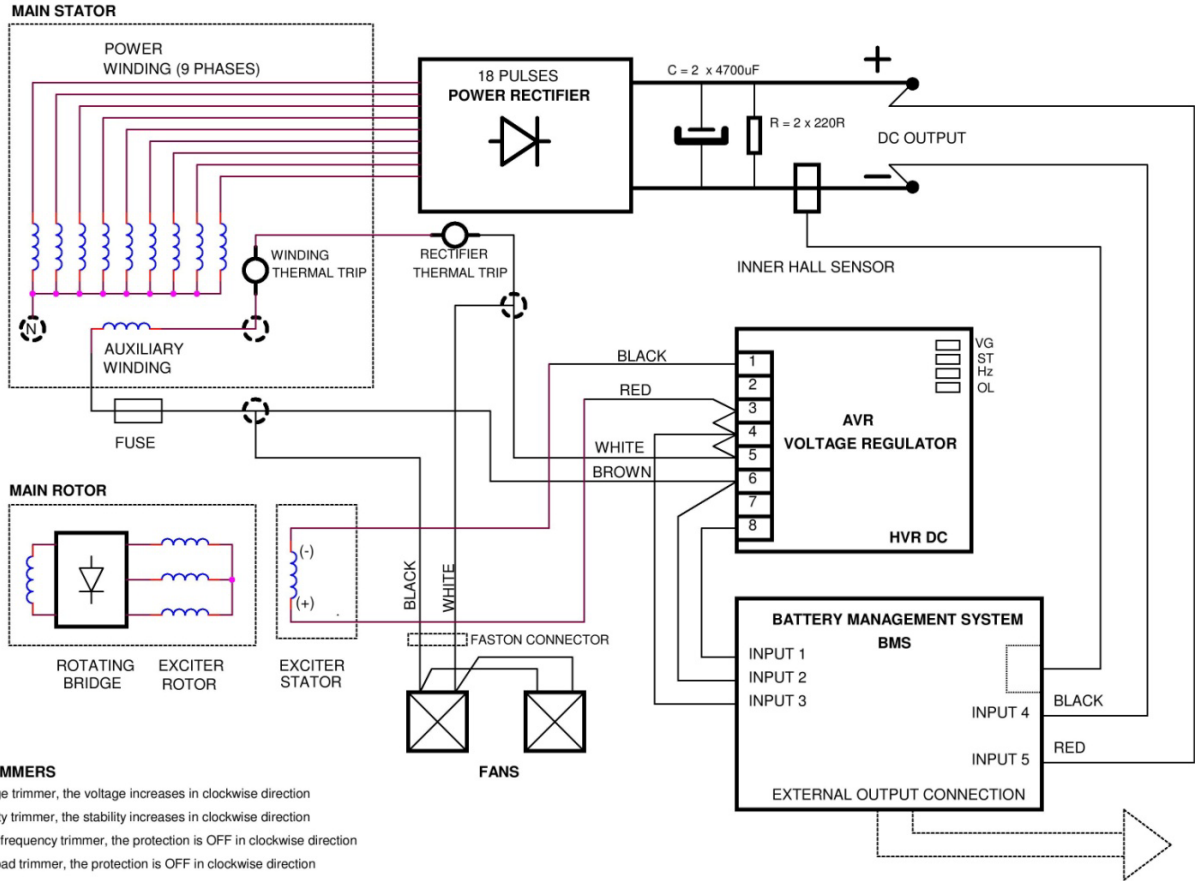
TYPICAL OUTPUT POWER



Picture 2: output power with different RPM.

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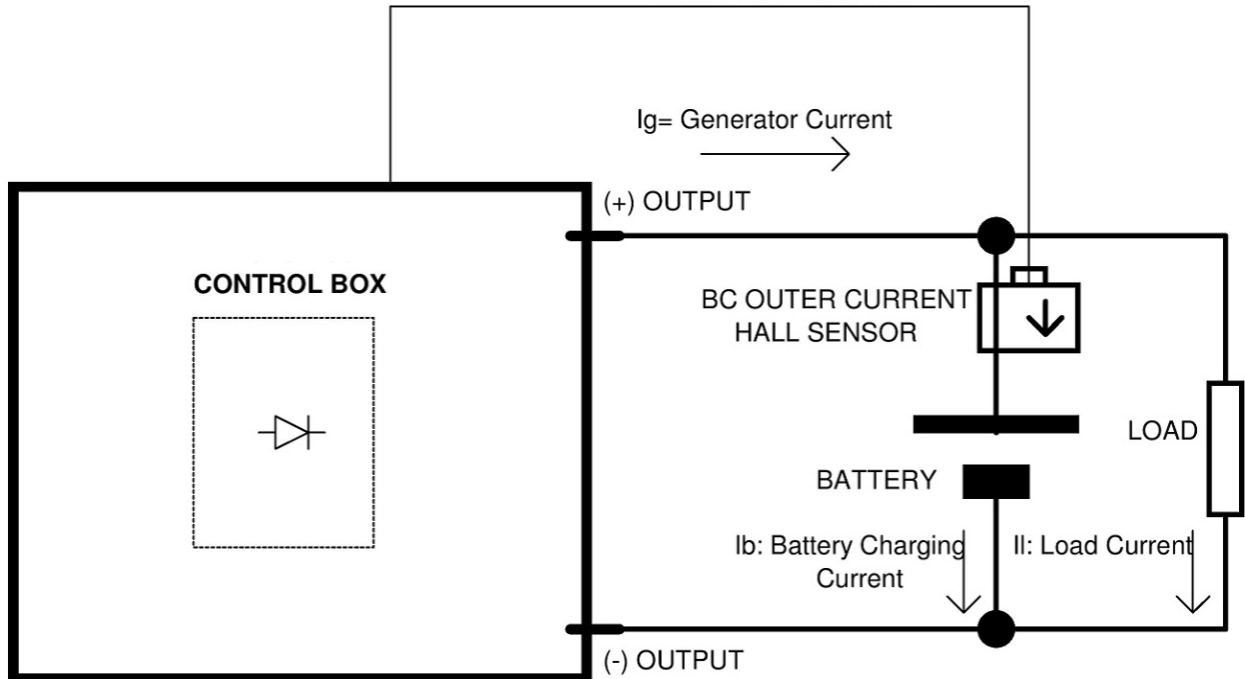
ELECTRIC DIAGRAM



AVR TRIMMERS

VG: Voltage trimmer, the voltage increases in clockwise direction
 ST: Stability trimmer, the stability increases in clockwise direction
 Hz: Under frequency trimmer, the protection is OFF in clockwise direction
 OL: Overload trimmer, the protection is OFF in clockwise direction

Battery Current Outer Hall Sensor Cable



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