SSR-Starter Protection Relay

**Applications**
For all combustion engines

**Features**
- For original equipment and upgrading
- Compact size
- Quick mounting

**Description of the SSR200**
The SSR is used to protect the starter motor, the bevel wheel and the engine sprocket. The SSR protect against starting by mistake, when the engine is running or still running.

The SSR is an electronic relay which is switched between clamp 30 (battery +) and clamp 50f (starter motor). The engine speed is measured by the clamp „W“ signal from the alternator. The connections of clamp 15 (ignition), 30 and clamp 31 (ground) are used for the current supply.

The SSR switched the voltage to the connection D+ (excitation) during the start phase. In this way it is secured that the clamp „W“ produce clearly signals for the engine speed.

**Scope of protection**
- No start during the engine is running
- No start during the engine stops running
- Protection against restart
- Shut down the starter, if the frequency exceed the specified value at clamp “W” (SSR200=200Hz)

**Security concept**
- SSR is plus switching.
- Outputs are protected against overload and short circuit.
- The output currents are limited in case of overload.
- All output transistors switch off in case of over temperature.
- In the time of protection against restart the SSR don’t need a power supply.
- Output transistors need an approval from the processor and a voltage at clamp 50e for switching (redundance).
- The maximum start time is limited on 60 seconds.
Technical data

**material of the enclosure**
Relay enclosure with molded mounting tap;
Dimension: 60 x 30 x 60 mm;

number of Terminals: 8

**color** black

**protection class (Din 40050 page 9)**
enclosure: IP53
connector: IP20

**Nominal voltage** 12 – 24 V

**Operating voltage** 9 ... 36 V

**Capacity output clamp 50f**
25 A (static)

**Short circuit current limiting clamp 50f**
65 – 180 A

**Output clamp D+** 2 A (durable)

**Durable** reserve battery

**No current** flow if battery power supply is reserved

**Working temperature** –40 bis 85°C