

Description

The ESR30 solid state relay is suitable for all applications where mechanical ISO MINI relays reach their technological limits.

It features a high continuous current and switching frequency as well as a long life-span and noiseless switching operations. In addition, it is extremely resistant to environmental influences.

It extends our portfolio of plug-in type automotive solid state relays by a 50 A solid state relay in Mini format. The ESR30 is suitable for standard automotive relay sockets to ISO 7588 (ISO Mini).

Applications

The ESR30 solid state relay is suitable for all applications in DC 24 V on-board electrical systems.

Scope of applications:

- Road vehicles (trucks, buses, working vehicles, emergency cars and special vehicles)
- Agricultural vehicles and construction machinery
- Watercraft (ships, motor yachts etc.)

Typical applications:

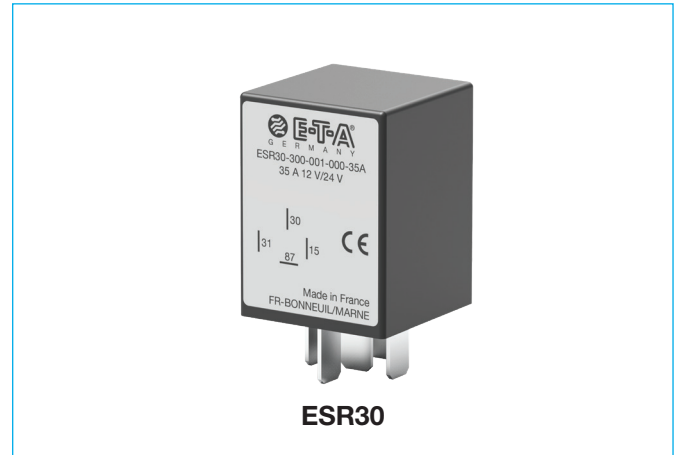
- Any application where loads need to be switched such as controllers of pumps, valves, lighting or fans

Benefits

- The solid state relay's electronic circuitry ensures wear-free operation and thus full operational readiness over the vehicle's entire life span. Costly complaints or service works are eliminated.
- Silent switching enhances convenience in the driver's cab. The driver is not distracted by switching noises he cannot associate with anything.
- An innovative cooling system prevents heat build-up and thus facilitates software and programming activities.
- The solid state relay is extremely resistant to vibration.

Qualifications

Degree of protection	depending on current rating (see technical data)
Noise immunity	95/54 EG & DIN 40839
E1 number	upon request



ESR30

Technical data 25 °C - ESR30-240-000-000-50A

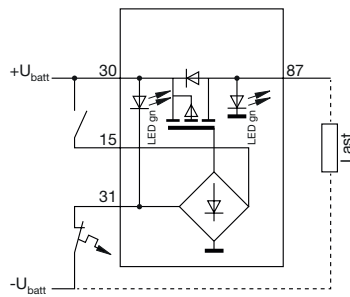
Continuous current	50 A
Input	double pole control
Voltage ratings	24 V
Operating voltage	18 V ... 30 V
Closed current	< 10 mA
Max. switching current	50 A
Max. current	70 A
Contact voltage drop	2 MOhm
Switching time ON	120-600 µs
Switching time OFF	< 1 sec
PWM frequency	not suitable for PWM operation
Operating temperature	-40 °C...+85 °C
Mass	70 g
Materials	
Blade terminals	A6.3 x 0.8 DIN 46 244 CuZn 37 F37 A9.5 x 1.2 DIN 46244
Housing material	PA6GF
Output	semi-conductor switch
Power output at 12 V	1200 W
Degree of protection	IP67

Ordering information

Type no.	
ESR30	solid state relay
Operating voltage	
2	24 V
3	12 V/24 V
Control	
4	double pole control (only 50 A versions) - high side switch
Option 1	
0-000-000	none
Rated current	
50 A (only 24 V)	
ESR30 - 3 4 0-000-000 - 10 A ordering example	

Schematic diagram / pin assignment

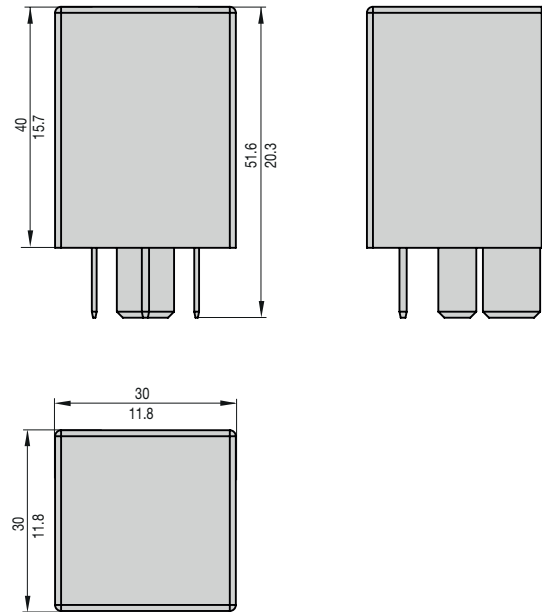
ESR30-240-000-000-50 A



Caution: U_{batt} must on no account be removed!

Dimensions

4 PIN current > 30 A



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