

Application note



Subject:

Switching interface relays in applications using flammable A3 refrigerants.

Industry:

HVAC (refrigeration)

Product:

RSLSD024D0350IG1

Customer:

OEMs

CUSTOMER ISSUE

In the defrost control circuit, interface relays may be required as digital outputs to the main controller.

With the new F-gas regulations in effect, and the increasing use of low-GWP refrigerants, which are often flammable, OEMs are transitioning from electro-mechanical relays to solid state solutions.

This transition helps remove potential ignition sources from the system and facilitate the certification process.

OUR SOLUTION

The RSLSD024D0350IG1 is a slim, DC fully solid state relay, ideal for use in flammable environments as it provides arc-free switching.

The output is rated for a maximum of 3.5 A at 24 VDC, with the input controlled by a 24 VDC signal.

The isolation between input and output is rated at 2500 VACrms.

This solution comes pre-mounted on a DIN relay socket with spring-type terminals for easy installation.

BENEFITS

- **Arc-free, ensuring compliance with A3 refrigerants**
Solid state devices are considered, non flammable making them suitable for use with flammable A3 refrigerants.
- **Cost-effective**
The low-rated SSR is ideal for small load applications, offering a cost-efficient solution.
- **Reduced downtime:**
The integrated overvoltage protection helps to protect the SSR from breaking down due to over voltages, enhancing reliability.
- **User-friendly:**
Control-on LED indication provides clear visibility of the presence of control voltage, for easy identification.