

Refrigerant R1234yf in Secop Compressors

R1234yf is a future refrigerant candidate in auto air conditioning replacing R134a. Likewise it might be used in light commercial applications where redesign of the system to propane is not possible. R1234yf is classified as flammable in the relevant safety standards. It is more expensive than R134a, however holds remarkably less greenhouse potential than R134a.

Our R134a compressors can be used for testing with this refrigerant and we are ready to support you in your investigation and approval procedure.

Investigations on material compatibility have so far shown good results with refrigerant R1234yf in Secop R134a compressors. These results must be confirmed in the ongoing long term tests.

At present, testing system performance can be carried out with the compressors originally designed for R134a. The same application limits as described on the R134a data sheet may be used, however, partly changing the electrical equipment.

As R1234yf is classified as a flammable refrigerant, the compressors must be used with starting equipment approved for flammable refrigerants.

Please contact your local support for selecting the correct starting equipment.

The compressors designed for R134a do not have a safety approval for flammable refrigerants like R1234yf. Please contact us for initiating approval process.

Basic rules for electrical equipment:

Electronic units for DC supply

- Electronic units of the BD compressors can be used for testing with R1234yf

PTC starters for low starting torque (LST)

- All PTC starters can be used for flammable refrigerant as well

Start relays

- Start relays of 117U4... series can not be used
- Start relays of 117U6... series can not be used
- Start relays of 117U7... can be used
 - Start relays of 117U7... series can replace 117U6... with same ending, e.g. 117U7003 is the replacement for 117U6003 for flammable refrigerants
- Starting equipment 117-.... series with voltage relays can be used

Capacitors

- Start capacitors can all be used without changes
- Run capacitors can all be used without changes

Secop GmbH

Mads-Clausen-Str. 7

24939 Flensburg

Germany

Tel: +49 461 4941 0

Fax: +49 461 4941 44715

www.secop.com

Secop can accept no responsibility for possible errors in catalogues, brochures and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved



Fig.1 Compressor with DC electronic unit

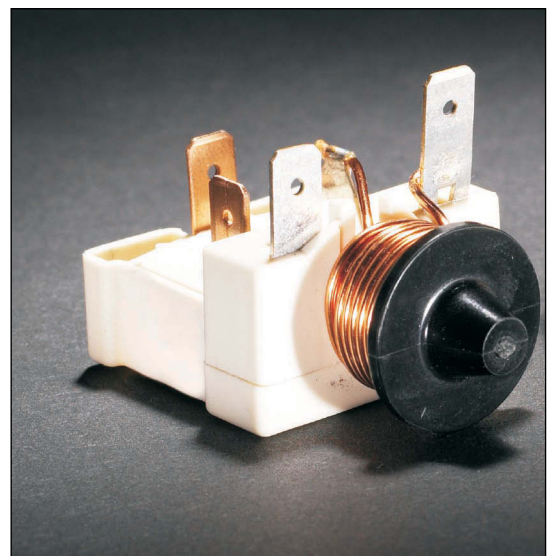


Fig. 2 Start relay