

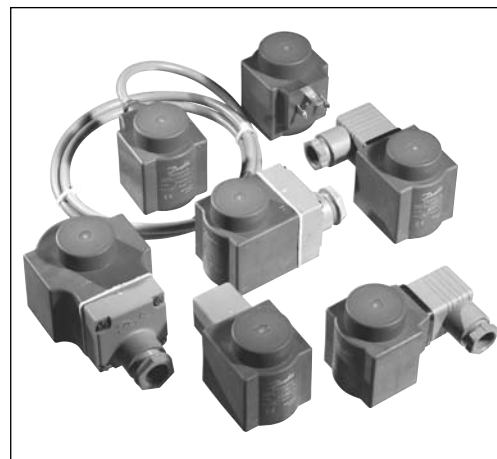
Coils for solenoid valves

Introduction

The coils are specially designed to operate in the aggressive environment of high humidity and temperature fluctuations that you find in most refrigeration systems.

The new Clip-on fastening system ensures a faultless installation and makes the coils easy to mount and dismount. A Danfoss Clip-on coil can be mounted without any tools at all, and it is simple to dismount the coil by means of a screwdriver.

The Clip-on coils are available for the entire range of Danfoss solenoid valves for refrigeration, freezing and air conditioning purposes.


Features

- Encapsulated coils with long operating life, even under extreme conditions
- Standard coils for a.c. or d.c.
- Standard coils available with 3-core cable, terminal box or DIN plugs
- Standard coils from 12 V to 420 V, 50, 60 or 50/60 Hz
- Standard coils dimensioned for max. opening differential pressure (MOPD) of up to 21 bar
- Coils can be fitted without the use of tools

Technical data
Ambient temperature

10 or 12 W a.c. coil for NC (normally closed) valve:
-40 → +80°C

10 W a.c. coil
for NO (normally open) valve:
-40 → +55°C

20 W d.c. coil for NC and NO valve:
-40 → +50°C

Permissible voltage variation

10 and 12 W a.c. coils: +10 → -15% and as double frequency coils: ±10%
a.c. coils for 220-230 / 380-400 V: +6 → -15%
and as double frequency coils: +6 → -10%
20 W d.c. coils: ±10%.

Enclosure

IP 67 with cable or terminal box
IP 20 with DIN plugs and protective cap
IP 65 with DIN socket
IP 00 with DIN plugs.

Approvals

See under the required solenoid valve.

Connection
3-core cable

The external thread in the screwed cable entry suits flexible steel hose or corresponding cable protection.

Terminal box

Leads are connected to terminal screws in the terminal box. The box is fitted with a Pg 13.5 screwed entry for 6 → 14 mm cable.
Max. lead cross section: 2.5 mm².

DIN plugs

The three pins on the coil can be fitted with spade tabs, 6.3 mm wide (to DIN 46247).
The two current carrying pins can also be fitted with spade tabs, 4.8 mm wide.
Max. lead cross section: 1.5 mm².
Use of the protective cap supplied will prevent inadvertent contact with live parts.

DIN socket


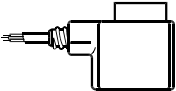
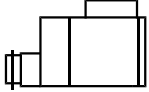
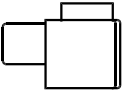

(to DIN 43650)

Leads are connected in the socket. The socket is fitted with a Pg 11 screwed entry for 6 → 12 mm.





Ordering
 Clip-on coils

| Valve type | Voltage V | Frequency Hz | Code no. | | | | Appendix no.*) | Power consumption |
|------------|--------------|-----------------|--------------------------------|----------------------------|--|-------------------|----------------|-------------------|
| | | | With 1 m 3-core cable IP 67 | With terminal box IP 67 | With DIN plugs and protect. cap IP 20 | With DIN plugs**) | | |





Alternating current a.c.

| | | | | | | | | | |
|---|-------------------|---------|-------|-----------------|-----------------|-----------------|-----------------|----|---|
|      | EVR 2 → 40 (NC) | 12 | 50 | 018F6256 | 018F6706 | 018F6181 | | 15 | Holding: 10 W 21 VA Inrush: 44 VA |
| | EVR 6 → 22 (NO) | 24 | 50 | 018F6257 | 018F6707 | 018F6182 | 018F7358 | 16 | |
| | EVRH 4 → 40 | 42 | 50 | 018F6258 | 018F6708 | 018F6183 | | 17 | |
| | EVRC | 48 | 50 | 018F6259 | 018F6709 | 018F6184 | | 18 | |
| | EVRA | 115 | 50 | 018F6261 | 018F6711 | 018F6186 | 018F7361 | 22 | |
| | EVRA 25 → 40 (NC) | 220-230 | 50 | 018F6251 | 018F6701 | 018F6176 | 018F7351 | 31 | |
| | EVRS / EVRST | 240 | 50 | 018F6252 | 018F6702 | 018F6177 | 018F7352 | 33 | |
| | PKVD | 380-400 | 50 | 018F6253 | 018F6703 | 018F6178 | | 37 | |
| | EVM (NC) | 420 | 50 | 018F6254 | 018F6704 | 018F6179 | | 38 | |
| | | 24 | 60 | 018F6265 | 018F6715 | 018F6190 | | 14 | |
| | | 115 | 60 | 018F6260 | 018F6710 | 018F6185 | | 20 | |
| | | 220 | 60 | 018F6264 | 018F6714 | 018F6189 | | 29 | |
| | | 240 | 60 | 018F6263 | 018F6713 | 018F6188 | | 30 | |
| | | 110 | 50/60 | 018F6280 | 018F6730 | 018F6192 | 018F7360 | 21 | |
| | | 220-230 | 50/60 | 018F6282 | 018F6732 | 018F6193 | 018F7363 | 32 | |

Direct current d.c.
Coil type I

| | | | | | | | | | |
|---|---------------------|-----|--|--|-----------------|--|--|----|------|
|     | EVR 2 → 15 (NC) | 12 | | | 018F6856 | | | 01 | 20 W |
| | EVR 25 → 40 (NC/NO) | 24 | | | 018F6857 | | | 02 | |
| | EVR 6 → 15 (NO) | 48 | | | 018F6859 | | | 04 | |
| | EVRC 10 → 15 | 110 | | | 018F6860 | | | 06 | |
| | EVRA 3 → 15 (NC) | 115 | | | 018F6861 | | | 07 | |
| | EVRA 25 → 40 (NC) | 220 | | | 018F6851 | | | 09 | |
| | EVRA 10 → 15 (NC) | | | | | | | | |
| | EVRS / EVRST 3 → 15 | | | | | | | | |
| PKVD | | | | | | | | | |
| EVM (NC/NO) | | | | | | | | | |

Direct current d.c.
Coil type II

| | | | | | | | | | |
|--|---------------------|-----|--|--|-----------------|--|--|----|------|
|     | EVR 20 → 22 (NC/NO) | 12 | | | 018F6886 | | | 01 | 20 W |
| | EVRC 20 | 24 | | | 018F6887 | | | 02 | |
| | EVRA 20 | 48 | | | 018F6889 | | | 04 | |
| | EVRA 20 | 110 | | | 018F6890 | | | 06 | |
| | EVRS 20 | 220 | | | 018F6881 | | | 09 | |

See "Opening differential pressure" under "Technical data" for the valve concerned.

*) Indicates voltage and frequency

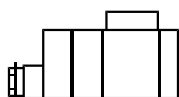
**) Can only be used with DIN socket

***) When replacing a coil with terminal box, it is sufficient to change the coil unit itself. Therefore, order coil with DIN plugs and protective cap.

Ordering (Continued)

Special coils

| Valve type | Voltage V | Frequency Hz | Code no. | Appendix no. Indicates voltage and frequency | Power consumption |
|------------|--------------|-----------------|-------------------------------|--|----------------------|
| | | | With terminal box IP 67 | | |


Alternating current a.c.

| | | | | | |
|---------------|---------|----|-----------------|----|---|
| EVR 3 → 40 | 24 | 50 | 018F6807 | 16 | Holding: 12 W 26 VA Inrush: 55 VA |
| EVRC | 42 | 50 | 018F6808 | 17 | |
| EVRA | | | | | |
| EVRA | 48 | 50 | 018F6809 | 18 | |
| EVRS / EVRST | 110 | 50 | 018F6811 | 22 | |
| PKVD | | | | | |
| EVM (NC / NO) | 220-230 | 50 | 018F6801 | 31 | |
| | 240 | 50 | 018F6802 | 33 | |
| | 380-400 | 50 | 018F6803 | 37 | |
| | 24 | 60 | 018F6815 | 14 | |
| | 110 | 60 | 018F6813 | 20 | |
| | 220 | 60 | 018F6814 | 29 | |

Alternating current a.c.

| | | | | | |
|------------------|-----|----|-----------------|--|---|
| EVR 2 → 40 (NC) | 24 | 50 | 018F6901 | | Holding: 20 W 45VA Inrush: 65VA |
| EVR 6 → 22 (NO) | 24 | 60 | 018F6902 | | |
| EVRH 4 → 40 (NO) | | | | | |
| EVRC | 230 | 50 | 018F6905 | | |
| EVRA/EVRAT | | | | | |
| EVR/EVRST | | | | | |
| PKVD | | | | | |
| EVM (NC) | | | | | |

Recommended use for EVRH with high MOPD (38 bar)

See "Opening differential pressure" under "Technical data" for the valve concerned.

When replacing a coil with terminal box, it is sufficient to change the coil unit itself. Therefore, order coil with DIN plugs and protective cap.

Accessories


| Description | Code no. |
|---|-----------------|
| DIN socket | 042N0156 |
| Terminal box with build-in light emitting indicator diode for solenoid valves | 018Z0089 |

Dimensions and weights

See under the required solenoid valve.

Introduction

Danfoss has developed a series of ATEX approved coils for use in EX zone 2. The coils are equipped with clip-on fastening system for easy and faultless installation. Thus the coil can be installed without use of tools and easily dismantled by means of a screwdriver.


Features

- ATEX approved for use in EX zone 2
- Embedded coils with long lifetime - even under extreme conditons
- Available with 1 m 3-core cable or terminal
- Quick and safe mounting with "clip-on"coil
- Mounting on valve without use of tools
- Standard coils for a.c. and d.c.
- Standard coils from 24 to 240 V
- Standard coils dimensioned to max. opening differential pressure (MOPD) up to 21 bar

Approval

EExnAII T3 DEMKO 01 ATEX 130591X

Technical data
Ambient temperature

- 11 or 14 W, 50 Hz a.c. coil -20 → +80°C
- 13 W, 50/60 Hz a.c. coil -20 → +50°C
- 20 W d.c. coil -20 → +50°C

Temperature of medium
max. 105°C

Enclosure for coil

- IP 67

Permissible voltage variation

- 11 and 14 W a.c. coils: +10 → -15% and as double frequency coils: ±10%
- 20 W d.c. coils: ±10%

Connections
3-core cable

The external thread of the cable entry is suitable for flexible steel hose or similar cable protection

Terminal box

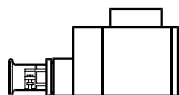
The cables are connected with the terminal screws in the terminal box which is equipped with a Pg 13.5 cable gland for 6 → 14 mm cable. Max. cable diam.: 2.5 mm²

Note:

**Always install a fuse ahead of the coil.
It should not exceed 2 A for coils rated less than 50 V and it should not exceed 1 A for coils rated 50 V or more.**

Ordering
Coils

| Type | Voltage V | Frequency Hz | Code no. | | Power consumption |
|------|--------------|-----------------|-----------------------------------|-------------------------------|-------------------|
| | | | With 1 m 3-core cable IP 67 | With terminal box IP 67 | |


Alternating current a.c.

| | | | | | |
|-------------------------------------|-----|-------|--|-----------------|---------------------------|
| EVR 2 → 40 (NC) | 24 | 50 | | 018F5707 | Holding: 11 W 21 VA |
| EVR 6 → 22 (NO) | 230 | 50 | | 018F5701 | |
| EVRC | 240 | 50 | | 018F5702 | |
| EVRA/ EVRAT EVRS / EVRST PKVD | | | | | Inrush: 44 VA |
| EVM (NC / NO) | 230 | 50/60 | | 018F5732 | Holding: 13 W |
| | 224 | 50/60 | | 018F5727 | |
| | | | | | 25 VA Inrush: 48 VA |

Alternating current a.c.

| | | | | | |
|---|-----|----|--|-----------------|---------------------------|
| EVR 2 → 40 (NC) | 24 | 50 | | 018F5807 | Holding: 14 W 26 VA |
| EVR 6 → 22 (NO) | 110 | 50 | | 018F5811 | |
| EVRC | 230 | 50 | | 018F5801 | |
| EVRA/ EVRAT EVRS / EVRST PKVD EVM (NC) | | | | | Inrush: 55 VA |

Direct current d.c.

| | | | | | |
|---------------------|----|--|--|-----------------|------|
| EVR 2 → 15 (NC) | 24 | | | 018F5857 | 20 W |
| EVR 25 → 40 (NC/NO) | | | | | |
| EVR 6 → 15 (NO) | | | | | |
| EVRC 10 → 15 | | | | | |
| EVRA 3 → 15 (NC) | | | | | |
| EVRA 25 → 40 (NC) | | | | | |
| EVRAT 10 → 15 (NC) | | | | | |
| EVRS/ EVRST | | | | | |
| 3 → 15 | | | | | |
| PKVD | | | | | |
| EVM (NC/NO) | | | | | |

Must always be installed with fuse ahead of coil

