

Data Sheet

# Filter drier, shell Types **DCR** and **DCRE**

Danfoss **ELIMINATOR®** filter drier **with replaceable solid core**.  
Designed for applications requiring high moisture capacity and acid adsorption capacity.



Danfoss ELIMINATOR® filter driers with replaceable solid core, type DCR, are for use in liquid and / or suction lines in refrigeration, freezing and air-conditioning systems.

Besides being able to meet the demanding requirements of high working pressure levels when operating with R410A thanks to replaceable solid cores the DCR programme offers flexibility with respect to different applications.

Available with steel and copper connections. DCRE programme offers to be used with flammable refrigerants A2L, Group .

## Features

### **DCR / DCRE housing:**

- PED approved for PS up to 46 bar for the DCR and up to 50 bar for DCRE
- DCR / DCRE housing (including core holder) are made entirely of steel and are thus compatible with all refrigerants
- DCR / DCRE housings have undergone phosphate pre-treatment and have a corrosion-resistant powder-paint finish
- DCR / DCRE housings are helium leak tested

### **Top covers for DCR / DCRE housings:**

- Zinc-chromated steel top covers with or without external access connection

### **Inserts for DCR housings - strainer 48 - F strainer - compatible with all refrigerants:**

- Retains dirt particles larger than 15 µm
- For use direct in DCR housings
- Utilised in the suction or liquid line

### **Inserts for DCR housings - solid cores**

**48 - DM** - 100% molecular sieve solid core suitable for HFC refrigerants:

- Provides high moisture adsorption at low and high condensing temperatures
- Effective protection against impurities

**48 - DC** - 80% molecular sieve and 20% activated alumina solid core suitable for HCFC refrigerants and compatible with HFC refrigerants:

- Adsorbs moisture and acid in the system throughout the entire temperature range

**48 - DA** - 30% molecular sieve and 70% activated alumina solid core suitable after compressor burnout and compatible with HCFC / HFC refrigerants:

### **Inserts for DCRE housings - solid cores:**

- 48 - DM
- 48 - DC

All solid cores have an optimised uniform grain size ensuring effective dirt removal and low pressure drop. The robust solid cores withstand pressure surge and vibration.

## Functions

Figure 1: DCR

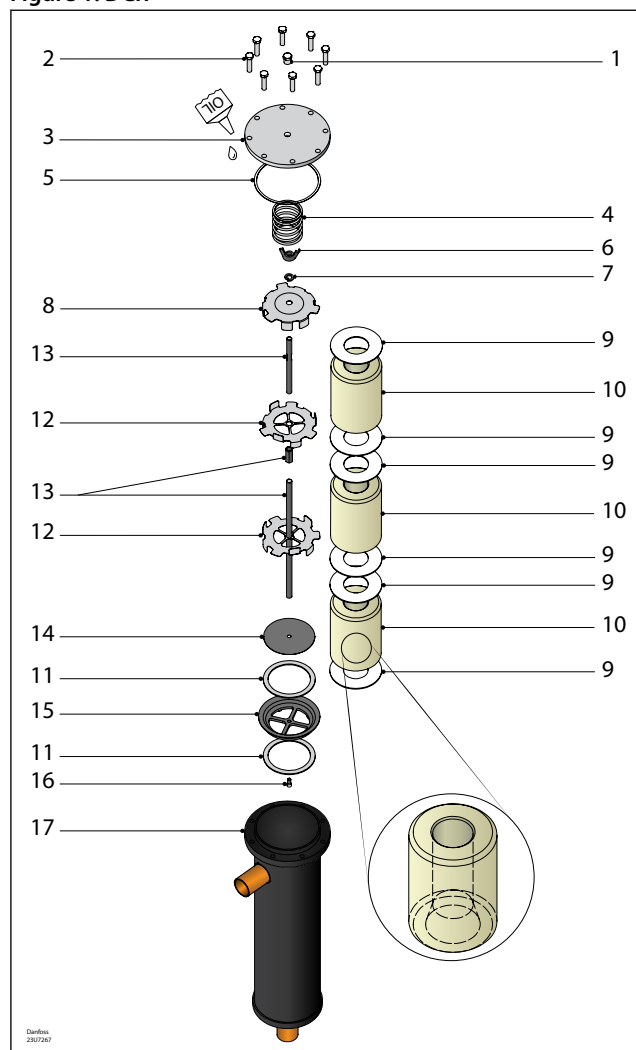
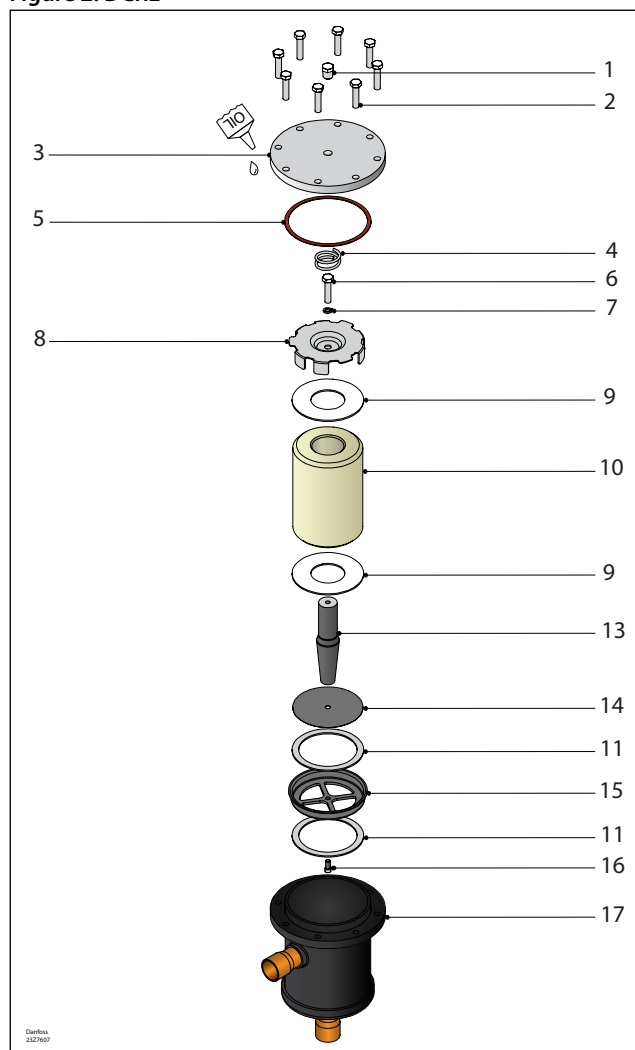


Figure 2: DCRE



|   |                              |
|---|------------------------------|
| 1 | Plug for cover               |
| 2 | Bolts for cover              |
| 3 | Top cover                    |
| 4 | Spring                       |
| 5 | Top cover gasket             |
| 6 | Wing nut (DCR) / Bolt (DCRE) |
| 7 | Lock washer                  |
| 8 | Top plate                    |
| 9 | Core felt gasket             |

|    |                         |
|----|-------------------------|
| 10 | Solid core              |
| 11 | Core holder felt gasket |
| 12 | Core plate              |
| 13 | Distance rod            |
| 14 | Wire mesh               |
| 15 | Core holder             |
| 16 | Hex socket head screw   |
| 17 | Shell                   |

Inner taper of core should always face towards filter outlet. This apply for DCR and DCRE components.

**NOTE:**

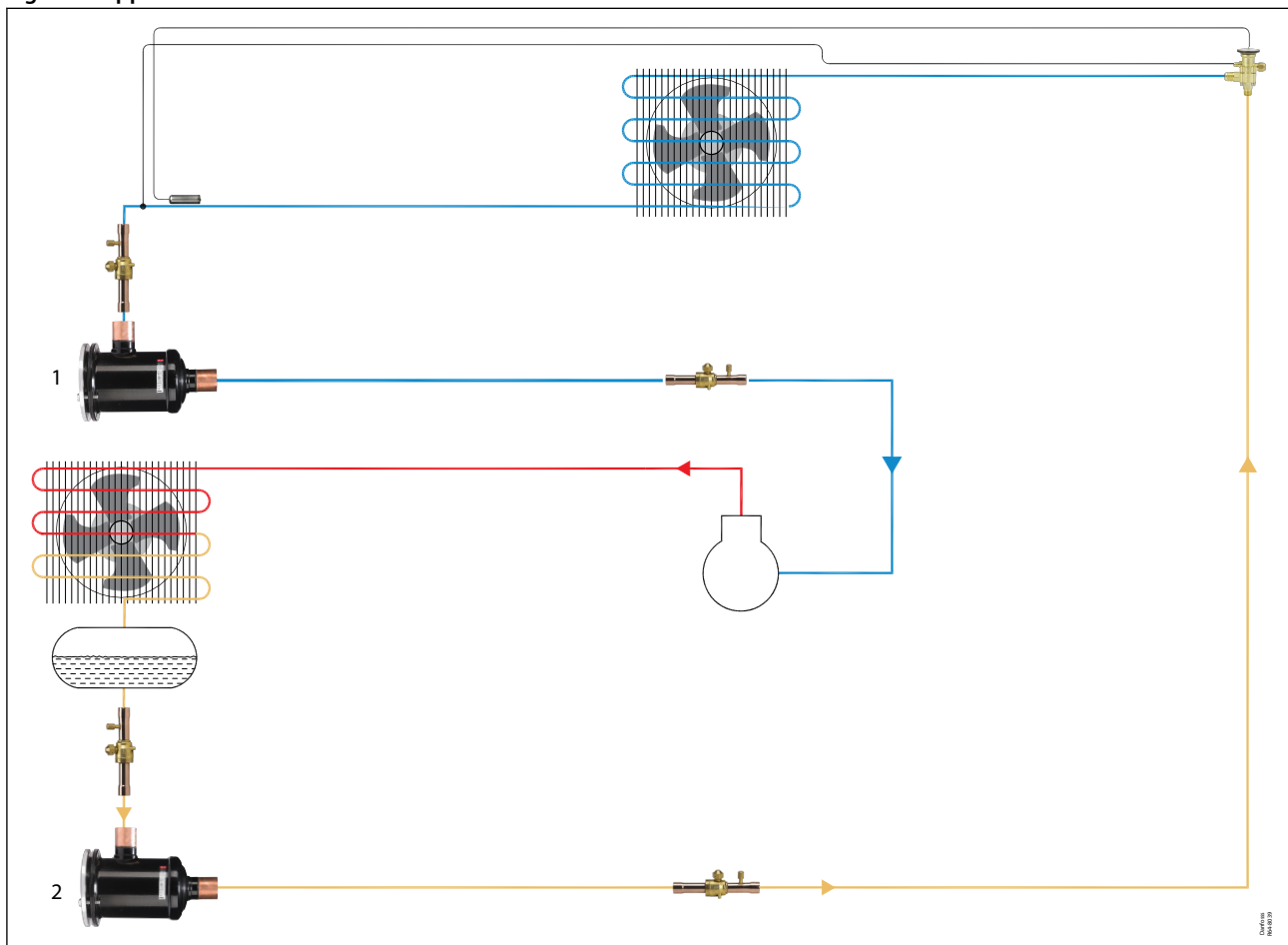
The DCRE can only be use for A2L when the solid core is placed. DCRE is not allowed to be used as receiver.

## Applications

Danfoss ELIMINATOR® filter driers with replaceable solid core, type DCR / DCRE, protect refrigeration, freezing and air-conditioning systems from moisture, acids, and solid particles.

With these contaminants eliminated, systems are safer from harmful chemical reactions and from abrasive impurities.

Figure 3: Applications



- |   |                                      |
|---|--------------------------------------|
| 1 | DCR, suction line filter drier       |
| 2 | DCR / DCRE, liquid line filter drier |

## Product specification

### Technical data

Table 1: Technical data

| Type     | Maximum working pressure PS           | Temperature range |
|----------|---------------------------------------|-------------------|
|          | [bar]                                 |                   |
| DCR 048  | 46                                    | - 40 – 70 °C      |
| DCR 096  | 46                                    | - 40 – 70 °C      |
| DCR 144  | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | - 40 – 70 °C      |
| DCR 192  | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | - 40 – 70 °C      |
| DCRE 048 | 50                                    | - 40 – 70 °C      |

<sup>(1)</sup> For usage with strainer or as a receiver application

<sup>(2)</sup> For "drier" application using all the permissible cores

### Connections

Table 2: Type of connector

| Connector                                                                           | Connector type                                 |
|-------------------------------------------------------------------------------------|------------------------------------------------|
|    | Copper ODF solder connector <b>Copper pipe</b> |
|   | Steel ODF solder connector <b>Copper pipe</b>  |
|  | Steel butt weld connector <b>Steel pipe</b>    |

Table 3: Type of connector and recommended soldering material

| Solder connector | Recommended soldering material |
|------------------|--------------------------------|
| Copper           | Min. 5% Ag                     |
| Steel            | Silver-flo 55 + Easy-flow flux |

### Identification

Table 4: Type codes

| Type          | Code | Description            |
|---------------|------|------------------------|
| Filter drier  | D    | Drier                  |
| Solid core    | C    | Solid core             |
|               | R    | Replaceable            |
|               | E    | Flammable refrigerants |
| Size (volume) | 048  | 48 in <sup>3</sup>     |
|               | 096  | 96 in <sup>3</sup>     |
|               | 144  | 144 in <sup>3</sup>    |
|               | 192  | 192 in <sup>3</sup>    |

## Filter drier, shell, types DCR and DCRE

| Type                                                        | Code    | Description       |
|-------------------------------------------------------------|---------|-------------------|
| Connection (filter connection in 1/8 of an inch increments) | 5       | 5/8 in. / 16 mm   |
|                                                             | 7       | 7/8 in. / 22 mm   |
|                                                             | 9       | 1 1/8 in. / 28 mm |
|                                                             | 11      | 1 3/8 in. / 35 mm |
|                                                             | 13      | 1 5/8 in. / 42 mm |
|                                                             | 17      | 2 1/8 in. / 54 mm |
|                                                             | 21      | 2 5/8 in.         |
| Connection type                                             | (blank) | Steel connectors  |
|                                                             | s       | Copper connectors |

## Capacity

Table 5: DCR Drying and liquid capacity, type 48-DM

| Type      | No. of<br>cores | Drying capacity [kg refrigerant] <sup>(1)</sup> |       |       |       |       |       |       |       |       |       | Liquid capacity [kW] <sup>(2)</sup> |       |       |       |       | Max.<br>working<br>pressure           |
|-----------|-----------------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------------------|-------|-------|-------|-------|---------------------------------------|
|           |                 | R134a                                           |       | R404A |       | R507  |       | R407C |       | R410A |       | R134a                               | R404A | R507  | R407C | R410A | PS                                    |
|           |                 | [°C]                                            |       |       |       |       |       |       |       |       |       |                                     |       |       |       |       | [bar]                                 |
|           |                 | 24                                              | 52    | 24    | 52    | 24    | 52    | 24    | 52    | 24    | 52    |                                     |       |       |       |       |                                       |
| DCR 0485  | 1               | 83.4                                            | 76.4  | 86.9  | 82.3  | 91.0  | 81.9  | 81.0  | 74.7  | 75.5  | 67.2  | 67.0                                | 47.1  | 45.7  | 68.7  | 69.7  | 46                                    |
| DCR 0487  | 1               | 83.4                                            | 76.4  | 86.9  | 82.3  | 91.0  | 81.9  | 81.0  | 74.7  | 75.5  | 67.2  | 127.0                               | 89.3  | 86.6  | 130.1 | 132.1 | 46                                    |
| DCR 0489  | 1               | 83.4                                            | 76.4  | 86.9  | 82.3  | 91.0  | 81.9  | 81.0  | 74.7  | 75.5  | 67.2  | 165.0                               | 116.0 | 112.6 | 169.1 | 171.7 | 46                                    |
| DCR 04811 | 1               | 83.4                                            | 76.4  | 88.7  | 82.3  | 91.0  | 81.9  | 81.0  | 74.7  | 75.5  | 67.2  | 205.0                               | 144.2 | 139.8 | 210.1 | 213.3 | 46                                    |
| DCR 04813 | 1               | 83.4                                            | 76.4  | 86.9  | 82.3  | 91.0  | 81.9  | 81.0  | 74.7  | 75.5  | 67.2  | 230.3                               | 162.0 | 157.1 | 236.0 | 239.6 | 46                                    |
| DCR 04817 | 1               | 83.4                                            | 76.4  | 86.9  | 82.3  | 91.0  | 81.9  | 81.0  | 74.7  | 75.5  | 67.2  | 250.1                               | 175.9 | 170.6 | 256.3 | 260.2 | 46                                    |
| DCR 04821 | 1               | 83.4                                            | 76.4  | 86.9  | 82.3  | 91.0  | 81.9  | 81.0  | 74.7  | 75.5  | 67.2  | 255.0                               | 179.3 | 174.0 | 261.3 | 265.4 | 46                                    |
| DCR 0967  | 2               | 166.8                                           | 152.8 | 173.8 | 164.6 | 182.0 | 163.8 | 162.0 | 149.4 | 151.0 | 134.4 | 134                                 | 94.3  | 91.4  | 137.4 | 139.5 | 46                                    |
| DCR 0969  | 2               | 166.8                                           | 152.8 | 173.8 | 164.6 | 182.0 | 163.8 | 162.0 | 149.4 | 151.0 | 134.4 | 212.3                               | 149.3 | 144.8 | 217.6 | 220.9 | 46                                    |
| DCR 09611 | 2               | 166.8                                           | 152.8 | 173.8 | 164.6 | 182.0 | 163.8 | 162.0 | 149.4 | 151.0 | 134.4 | 216.9                               | 152.6 | 148.0 | 222.3 | 225.7 | 46                                    |
| DCR 09613 | 2               | 166.8                                           | 152.8 | 173.8 | 164.6 | 182.0 | 163.8 | 162.0 | 149.4 | 151.0 | 134.4 | 294.9                               | 207.4 | 201.1 | 302.2 | 306.8 | 46                                    |
| DCR 09617 | 2               | 166.8                                           | 152.8 | 173.8 | 164.6 | 182.0 | 163.8 | 162.0 | 149.4 | 151.0 | 134.4 | 358                                 | 251.8 | 244.2 | 366.9 | 372.5 | 46                                    |
| DCR 1449  | 3               | 250.2                                           | 229.2 | 260.7 | 246.9 | 273.0 | 245.7 | 243.0 | 224.1 | 226.5 | 201.6 | 222.2                               | 156.3 | 151.6 | 227.7 | 231.2 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 14411 | 3               | 250.2                                           | 229.2 | 260.7 | 246.9 | 273.0 | 245.7 | 243.0 | 224.1 | 226.5 | 201.6 | 225.7                               | 158.8 | 154.0 | 231.3 | 234.9 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 14413 | 3               | 250.2                                           | 229.2 | 260.7 | 246.9 | 273.0 | 245.7 | 243.0 | 224.1 | 226.5 | 201.6 | 355.9                               | 250.3 | 242.8 | 364.7 | 370.3 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 14417 | 3               | 250.2                                           | 229.2 | 260.7 | 246.9 | 273.0 | 245.7 | 243.0 | 224.1 | 226.5 | 201.6 | 355.9                               | 250.3 | 242.8 | 364.7 | 370.3 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 19211 | 4               | 333.6                                           | 305.6 | 347.6 | 329.2 | 364.0 | 327.6 | 324.0 | 298.8 | 302.0 | 268.8 | 371.7                               | 261.4 | 253.6 | 381   | 386.8 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |
| DCR 19213 | 4               | 333.6                                           | 305.6 | 347.6 | 329.2 | 364.0 | 327.6 | 324.0 | 298.8 | 302.0 | 268.8 | 459.9                               | 323.5 | 313.7 | 471.4 | 478.6 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |
| DCR 19217 | 4               | 333.6                                           | 305.6 | 347.6 | 329.2 | 364.0 | 327.6 | 324.0 | 298.8 | 302.0 | 268.8 | 459.9                               | 323.5 | 313.7 | 471.4 | 478.6 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |
| DCR 19221 | 4               | 333.6                                           | 305.6 | 347.6 | 329.2 | 364.0 | 327.6 | 324.0 | 298.8 | 302.0 | 268.8 | 459.9                               | 323.5 | 313.7 | 471.4 | 478.6 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |

<sup>(1)</sup> Drying capacity is based on following moisture content test standards before and after drying:

- R134a: 1050 – 50 ppm W
  - R404A, R507: 1020 – 50 ppm W
  - R407C: 1020 – 50 ppm W
  - R410A: 1050 – 50 ppm W
  - R22: 1050 – 60 ppm.
- In accordance with ARI 710-2004

<sup>(2)</sup> Given in accordance with ARI 710-2004 for:

- $t_e = -15\text{ °C}$
- $t_c = 30\text{ °C}$
- $\Delta p = 0.07\text{ bar}$

<sup>(3)</sup> For usage with strainer or as a receiver application

<sup>(4)</sup> Refrigerants other than specified in the table please contact Danfoss for the approval.

Table 6: DCR Drying and liquid capacity , type 48-DC

| Type      | No. of<br>cores | Drying capacity [kg refrigerant] <sup>(1)</sup> |       |       |       |       |       |       |       |       |       | Liquid capacity [kW] <sup>(2)</sup> |       |       |       |       | Max.<br>working<br>pressure           |
|-----------|-----------------|-------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------------------------|-------|-------|-------|-------|---------------------------------------|
|           |                 | R134a                                           |       | R404A |       | R507  |       | R407C |       | R410A |       | R134a                               | R404A | R507  | R407C | R410A | PS                                    |
|           |                 | [°C]                                            |       |       |       |       |       |       |       |       |       |                                     |       |       |       |       | [bar]                                 |
|           |                 | 24                                              | 52    | 24    | 52    | 24    | 52    | 24    | 52    | 24    | 52    |                                     |       |       |       |       |                                       |
| DCR 0485  | 1               | 65.5                                            | 59.9  | 68.2  | 64.6  | 71.4  | 64.3  | 63.6  | 58.6  | 59.3  | 52.7  | 67.0                                | 47.1  | 45.7  | 68.7  | 69.7  | 46                                    |
| DCR 0487  | 1               | 65.5                                            | 59.9  | 68.2  | 64.6  | 71.4  | 64.3  | 63.6  | 58.6  | 59.3  | 52.7  | 127.0                               | 89.3  | 86.6  | 130.1 | 132.1 | 46                                    |
| DCR 0489  | 1               | 65.5                                            | 59.9  | 68.2  | 64.6  | 71.4  | 64.3  | 63.6  | 58.6  | 59.3  | 52.7  | 165.0                               | 116.0 | 112.6 | 169.1 | 171.7 | 46                                    |
| DCR 04811 | 1               | 65.5                                            | 59.9  | 68.2  | 64.6  | 71.4  | 64.3  | 63.6  | 58.6  | 59.3  | 52.7  | 205.0                               | 144.2 | 139.8 | 210.1 | 213.3 | 46                                    |
| DCR 04813 | 1               | 65.5                                            | 59.9  | 68.2  | 64.6  | 71.4  | 64.3  | 63.6  | 58.6  | 59.3  | 52.7  | 230.3                               | 162.0 | 157.1 | 236.0 | 239.6 | 46                                    |
| DCR 04817 | 1               | 65.5                                            | 59.9  | 68.2  | 64.6  | 71.4  | 64.3  | 63.6  | 58.6  | 59.3  | 52.7  | 250.1                               | 175.9 | 170.6 | 256.3 | 260.2 | 46                                    |
| DCR 04821 | 1               | 65.5                                            | 59.9  | 68.2  | 64.6  | 71.4  | 64.3  | 63.6  | 58.6  | 59.3  | 52.7  | 255.0                               | 179.3 | 174.0 | 261.3 | 265.4 | 46                                    |
| DCR 0967  | 2               | 131.0                                           | 119.8 | 136.4 | 129.2 | 142.8 | 128.6 | 126.6 | 117.2 | 118.6 | 105.4 | 134.0                               | 94.3  | 91.4  | 137.4 | 139.5 | 46                                    |
| DCR 0969  | 2               | 131.0                                           | 119.8 | 136.4 | 129.2 | 142.8 | 128.6 | 126.6 | 117.2 | 118.6 | 105.4 | 212.3                               | 149.3 | 144.8 | 217.6 | 220.9 | 46                                    |
| DCR 09611 | 2               | 131.0                                           | 119.8 | 136.4 | 129.2 | 142.8 | 128.6 | 126.6 | 117.2 | 118.6 | 105.4 | 216.9                               | 152.6 | 148.0 | 222.3 | 225.7 | 46                                    |
| DCR 09613 | 2               | 131.0                                           | 119.8 | 136.4 | 129.2 | 142.8 | 128.6 | 126.6 | 117.2 | 118.6 | 105.4 | 294.9                               | 207.4 | 201.1 | 302.2 | 306.8 | 46                                    |
| DCR 09617 | 2               | 131.0                                           | 119.8 | 136.4 | 129.2 | 142.8 | 128.6 | 126.6 | 117.2 | 118.6 | 105.4 | 358.0                               | 251.8 | 244.2 | 366.9 | 372.5 | 46                                    |
| DCR 1449  | 3               | 196.5                                           | 179.7 | 204.6 | 193.8 | 214.2 | 192.9 | 189.9 | 175.8 | 177.9 | 158.1 | 222.2                               | 156.3 | 151.6 | 227.7 | 231.2 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 14411 | 3               | 196.5                                           | 179.7 | 204.6 | 193.8 | 214.2 | 192.9 | 189.9 | 175.8 | 177.9 | 158.1 | 225.7                               | 158.8 | 154.0 | 231.3 | 234.9 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 14413 | 3               | 196.5                                           | 179.7 | 204.6 | 193.8 | 214.2 | 192.9 | 189.9 | 175.8 | 177.9 | 158.1 | 355.9                               | 250.3 | 242.8 | 364.7 | 370.3 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 14417 | 3               | 196.5                                           | 179.7 | 204.6 | 193.8 | 214.2 | 192.9 | 189.9 | 175.8 | 177.9 | 158.1 | 355.9                               | 250.3 | 242.8 | 364.7 | 370.3 | 35 <sup>(3)</sup> / 46 <sup>(4)</sup> |
| DCR 19211 | 4               | 262.0                                           | 239.6 | 272.8 | 258.4 | 285.6 | 257.2 | 253.2 | 234.4 | 237.2 | 210.8 | 371.7                               | 261.4 | 253.6 | 381.0 | 386.8 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |
| DCR 19213 | 4               | 262.0                                           | 239.6 | 272.8 | 258.4 | 285.6 | 257.2 | 253.2 | 234.4 | 237.2 | 210.8 | 459.9                               | 323.5 | 313.7 | 471.4 | 478.6 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |
| DCR 19217 | 4               | 262.0                                           | 239.6 | 272.8 | 258.4 | 285.6 | 257.2 | 253.2 | 234.4 | 237.2 | 210.8 | 459.9                               | 323.5 | 313.7 | 471.4 | 478.6 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |
| DCR 19221 | 4               | 262.0                                           | 239.6 | 272.8 | 258.4 | 285.6 | 257.2 | 253.2 | 234.4 | 237.2 | 210.8 | 459.9                               | 323.5 | 313.7 | 471.4 | 478.6 | 28 <sup>(3)</sup> / 40 <sup>(4)</sup> |

<sup>(1)</sup> Drying capacity is based on following moisture content test standards before and after drying:

- R134a: 1050 – 50 ppm W
  - R404A, R507: 1020 – 50 ppm W
  - R407C: 1020 – 50 ppm W
  - R410A: 1050 – 50 ppm W
  - R22: 1050 – 60 ppm
- In accordance with ARI 710-2004

<sup>(2)</sup> Given in accordance with ARI 710-2004 for:

- $t_e = -15^\circ\text{C}$
- $t_c = 30^\circ\text{C}$
- $\Delta p = 0.07 \text{ bar}$

<sup>(3)</sup> For usage with strainer or as a receiver application

<sup>(4)</sup> Refrigerants other than specified in the table please contact Danfoss for the approval.

Table 7: Recommended plant capacity in suction line - burn-out, type 48-DA

| Type      | Recommended plant capacity [kW]    |      |      |       |      |      |              |      |      |       |      |      |
|-----------|------------------------------------|------|------|-------|------|------|--------------|------|------|-------|------|------|
|           | Evaporating temperature $t_e$ [°C] |      |      |       |      |      |              |      |      |       |      |      |
|           | -40                                | -20  | 4.4  | -30   | -20  | 4.4  | -40          | -20  | 4.4  | -40   | -20  | 4.4  |
|           | Pressure drop $\Delta p$ [bar]     |      |      |       |      |      |              |      |      |       |      |      |
|           | 0.04                               | 0.1  | 0.21 | 0.04  | 0.07 | 0.14 | 0.04         | 0.1  | 0.21 | 0.04  | 0.1  | 0.21 |
|           | R22 / R407C                        |      |      | R134a |      |      | R404A / R507 |      |      | R410A |      |      |
| DCR 0485  | 3.1                                | 8.9  | 21   | 3     | 5.4  | 13   | 2.4          | 7.1  | 17.5 | 3.1   | 8.9  | 21   |
| DCR 0487  | 5.8                                | 16.1 | 37.8 | 5.6   | 9.9  | 23.4 | 4.5          | 12.9 | 31.2 | 5.8   | 16.1 | 37.8 |
| DCR 0489  | 7.8                                | 21.6 | 50.7 | 7.5   | 13.3 | 31.5 | 6            | 17.2 | 41.8 | 7.8   | 21.6 | 50.7 |
| DCR 04811 | 10                                 | 27.3 | 63.3 | 9.6   | 16.8 | 39.5 | 7.7          | 21.8 | 51.9 | 10    | 27.3 | 63.3 |
| DCR 04813 | 10                                 | 27.3 | 63.3 | 9.6   | 16.8 | 39.5 | 7.7          | 21.8 | 51.9 | 10    | 27.3 | 63.3 |
| DCR 04817 | 10                                 | 27.3 | 63.3 | 9.6   | 16.8 | 39.5 | 7.7          | 21.8 | 51.9 | 10    | 27.3 | 63.3 |
| DCR 04821 | 10                                 | 27.3 | 63.3 | 9.6   | 16.8 | 39.5 | 7.7          | 21.8 | 51.9 | 10    | 27.3 | 63.3 |
| DCR 0965  | 3.3                                | 9.1  | 21.4 | 3.2   | 5.7  | 13.4 | 2.5          | 7.4  | 18   | 3.3   | 9.2  | 21.6 |
| DCR 0967  | 5.8                                | 16.2 | 38.1 | 5.6   | 9.9  | 23.6 | 4.5          | 12.9 | 31.4 | 5.8   | 16.2 | 38.1 |
| DCR 0969  | 8.7                                | 24.6 | 58.3 | 8.4   | 15   | 35.9 | 6.8          | 19.7 | 48.1 | 8.7   | 24.6 | 58.3 |
| DCR 09611 | 11.9                               | 33.4 | 79.3 | 11.4  | 20.4 | 48.9 | 9.3          | 26.8 | 65.4 | 11.9  | 33.4 | 79.3 |
| DCR 09613 | 14.1                               | 39.9 | 95.2 | 13.6  | 24.3 | 58.5 | 11           | 32   | 78.7 | 14.1  | 39.9 | 95.2 |
| DCR 09617 | 14.1                               | 39.9 | 95.2 | 13.6  | 24.3 | 58.5 | 11           | 32   | 78.7 | 14.1  | 39.9 | 95.2 |

## Filter drier, shell, types DCR and DCRE

| Type      | Recommended plant capacity [kW]    |      |       |       |      |      |              |      |      |       |      |       |
|-----------|------------------------------------|------|-------|-------|------|------|--------------|------|------|-------|------|-------|
|           | Evaporating temperature $t_e$ [°C] |      |       |       |      |      |              |      |      |       |      |       |
|           | -40                                | -20  | 4.4   | -30   | -20  | 4.4  | -40          | -20  | 4.4  | -40   | -20  | 4.4   |
|           | Pressure drop $\Delta p$ [bar]     |      |       |       |      |      |              |      |      |       |      |       |
|           | 0.04                               | 0.1  | 0.21  | 0.04  | 0.07 | 0.14 | 0.04         | 0.1  | 0.21 | 0.04  | 0.1  | 0.21  |
|           | R22 / R407C                        |      |       | R134a |      |      | R404A / R507 |      |      | R410A |      |       |
| DCR 09621 | 14.1                               | 39.9 | 95.2  | 13.6  | 24.3 | 58.5 | 11           | 32   | 78.7 | 14.1  | 39.9 | 95.2  |
| DCR 1445  | 3.5                                | 10   | 22.8  | 3.4   | 6    | 14   | 2.7          | 7.7  | 18.9 | 3.5   | 10   | 22.8  |
| DCR 1447  | 6.6                                | 18.9 | 42.9  | 6.3   | 11.2 | 26.4 | 5.1          | 14.5 | 35.6 | 6.6   | 18.9 | 42.9  |
| DCR 1449  | 8.8                                | 25.1 | 57.2  | 8.4   | 15   | 35.2 | 6.8          | 19.4 | 47.5 | 8.8   | 25.1 | 57.2  |
| DCR 14411 | 13.2                               | 38.1 | 92.2  | 12.7  | 23   | 56.2 | 10.3         | 30.7 | 76.6 | 13.2  | 38.1 | 92.2  |
| DCR 14413 | 13.2                               | 38.1 | 92.2  | 12.7  | 23   | 56.2 | 10.3         | 30.7 | 76.6 | 13.2  | 38.1 | 92.2  |
| DCR 14417 | 13.2                               | 38.1 | 92.2  | 12.7  | 23   | 56.2 | 10.3         | 30.7 | 76.6 | 13.2  | 38.1 | 92.2  |
| DCR 14421 | 13.2                               | 38.1 | 92.2  | 12.7  | 23   | 56.2 | 10.3         | 30.7 | 76.6 | 13.2  | 38.1 | 92.2  |
| DCR 1925  | 4.2                                | 11.5 | 27.3  | 4     | 7.1  | 16.8 | 3.2          | 9.2  | 22.7 | 4.2   | 11.5 | 27.3  |
| DCR 1927  | 7.9                                | 21.6 | 51.4  | 7.6   | 13.4 | 31.6 | 6.1          | 17.4 | 42.7 | 7.9   | 21.6 | 51.4  |
| DCR 1929  | 10.6                               | 28.9 | 68.9  | 10.2  | 18   | 42.1 | 8.2          | 23.3 | 57.2 | 10.6  | 28.9 | 68.9  |
| DCR 19211 | 14.8                               | 41.8 | 99.4  | 14.3  | 25.5 | 61.2 | 11.6         | 33.6 | 82.2 | 14.8  | 41.8 | 99.4  |
| DCR 19213 | 18                                 | 51.1 | 122.1 | 17.4  | 31.1 | 75   | 14.1         | 41.1 | 101  | 18    | 51.1 | 122.1 |
| DCR 19217 | 18                                 | 51.1 | 122.1 | 17.4  | 31.1 | 75   | 14.1         | 41.1 | 101  | 18    | 51.1 | 122.1 |
| DCR 19221 | 18                                 | 51.1 | 122.1 | 17.4  | 31.1 | 75   | 14.1         | 41.1 | 101  | 18    | 51.1 | 122.1 |

### NOTE:

Data given in accordance with ARI-Standard 710-2004 for  $t_e = 4.4$  °C and  $t_c = 32.2$  °C

**Table 8: DCR Drying and acid capacity , type 48-DA**

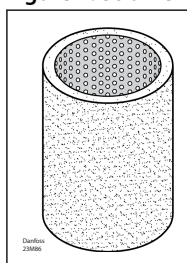
| Type    | No. of<br>cores | Drying capacity [g of water] <sup>(1)</sup> |     |     |       |     |     |              |     |     |       |     |     | Acid ca-<br>pacity <sup>(2)</sup> |
|---------|-----------------|---------------------------------------------|-----|-----|-------|-----|-----|--------------|-----|-----|-------|-----|-----|-----------------------------------|
|         |                 | Evaporating temperature te [°C]             |     |     |       |     |     |              |     |     |       |     |     |                                   |
|         |                 | -40                                         | -20 | 4.4 | -30   | -20 | 4.4 | -40          | -20 | 4.4 | -40   | -20 | 4.4 |                                   |
|         |                 | R22 / R407C                                 |     |     | R134a |     |     | R404A / R507 |     |     | R410A |     |     |                                   |
| DCR 048 | 1               | 28                                          | 19  | 12  | 45    | 38  | 27  | 47           | 30  | 19  | 42    | 35  | 25  | 26.6                              |
| DCR 096 | 2               | 56                                          | 37  | 24  | 90    | 77  | 54  | 94           | 60  | 37  | 84    | 70  | 50  | 53.3                              |
| DCR 144 | 3               | 84                                          | 56  | 36  | 135   | 115 | 81  | 142          | 90  | 56  | 126   | 105 | 75  | 79.9                              |
| DCR 192 | 4               | 112                                         | 74  | 48  | 180   | 153 | 108 | 189          | 120 | 75  | 168   | 140 | 100 | 106.5                             |

<sup>(1)</sup> Drying capacity is expressed during drying in:

- R22: EPD = 10 ppm W, corresponding to a dew point temperature = -50 °C
- R134a: EPD = 50 ppm W, corresponding to a dew point temperature = -37 °C
- R404A: EPD = 10 ppm W, corresponding to a dew point temperature = -40 °C
- R407C: EPD = 10 ppm W, corresponding to a dew point temperature = -40 °C

<sup>(2)</sup> Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number)

**Figure 4: Strainer**



**Table 9: Strainer mounted in suction line, type 48-F**

| Refrigerant                      | R22 / R407C |     |      | R134a |      |      | R404A / R507 |     |      | R410A |      |
|----------------------------------|-------------|-----|------|-------|------|------|--------------|-----|------|-------|------|
| Evaporating temperature [°C]     | -40         | -20 | 4.4  | -30   | -20  | 4.4  | -40          | -20 | 4.4  | -40   | 4.4  |
| Pressure drop $\Delta p$ [bar]   | 0.04        | 0.1 | 0.21 | 0.04  | 0.07 | 0.14 | 0.04         | 0.1 | 0.21 | 0.04  | 0.21 |
| Recommended system capacity [kW] | 15          | 47  | 113  | 15    | 28   | 69   | 12           | 38  | 93   | 15    | 113  |

## Filter drier, shell, types DCR and DCRE

**Table 10: Strainer mounted in liquid line**

| Refrigerant                                     | R22 / R407C | R134a | R404A / R507 | R410A |
|-------------------------------------------------|-------------|-------|--------------|-------|
| Recommended system capacity [kW] <sup>(1)</sup> | 390         | 350   | 260          | 390   |

<sup>(1)</sup> The data given apply to DCR 04811 with 48-F core.

Liquid capacity is given in accordance with ARI 710-2004 for:  $t_e = -15\text{ °C}$ ,  $t_c = 30\text{ °C}$ ,  $\Delta p = 0.07\text{ bar}$

**Table 11: DCRE Drying and liquid capacity, type 48-DM**

| Type       | No of<br>cores | Drying capacity [kg refrigerant] |      |       |      |       |      |       |      |         |       | Liquid capacity [kW] |       |       |       |         | Max.<br>working<br>pressure |
|------------|----------------|----------------------------------|------|-------|------|-------|------|-------|------|---------|-------|----------------------|-------|-------|-------|---------|-----------------------------|
|            |                | R32                              |      | R444B |      | R452B |      | R454B |      | R1234yf |       | R32                  | R444B | R452B | R454B | R1234yf |                             |
|            |                | [°C]                             |      |       |      |       |      |       |      |         |       |                      |       |       |       |         | PS                          |
|            |                | 24                               | 52   | 24    | 52   | 24    | 52   | 24    | 52   | 24      | 52    |                      |       |       |       |         |                             |
| DCRE 0485s | 1              | 70.2                             | 64.6 | 83.0  | 74.3 | 80.4  | 71.6 | 82.6  | 76.5 | 155.9   | 143.9 | 102.1                | 77.9  | 85.1  | 69.0  | 48.5    | 50                          |
| DCRE 0487s | 1              | 70.2                             | 64.6 | 83.0  | 74.3 | 80.4  | 71.6 | 82.6  | 76.5 | 155.9   | 143.9 | 221.4                | 138.9 | 184.5 | 149.5 | 105.2   | 50                          |
| DCRE 0489s | 1              | 70.2                             | 64.6 | 83.0  | 74.3 | 80.4  | 71.6 | 82.6  | 76.5 | 155.9   | 143.9 | 245.9                | 154.3 | 204.9 | 166.0 | 116.9   | 50                          |
| DCRE 0411s | 1              | 70.2                             | 64.6 | 83.0  | 74.3 | 80.4  | 71.6 | 82.6  | 76.5 | 155.9   | 143.9 | 312.4                | 196.0 | 260.4 | 266.6 | 148.5   | 50                          |
| DCRE 0413s | 1              | 70.2                             | 64.6 | 83.0  | 74.3 | 80.4  | 71.6 | 82.6  | 76.5 | 155.9   | 143.9 | 351.0                | 267.5 | 292.5 | 299.5 | 166.8   | 50                          |

**Table 12: DCRE Drying and liquid capacity, type 48-DC**

| Type       | No of cores | Drying capacity [kg refrigerant] |      |       |      |       |      |       |      |         |       | Liquid capacity [kW] |       |       |       |         | Max. working pressure |
|------------|-------------|----------------------------------|------|-------|------|-------|------|-------|------|---------|-------|----------------------|-------|-------|-------|---------|-----------------------|
|            |             | R32                              |      | R444B |      | R452B |      | R454B |      | R1234yf |       | R32                  | R444B | R452B | R454B | R1234yf |                       |
|            |             | [°C]                             |      |       |      |       |      |       |      |         |       |                      |       |       |       |         | PS                    |
|            |             | 24                               | 52   | 24    | 52   | 24    | 52   | 24    | 52   | 24      | 52    |                      |       |       |       |         |                       |
| DCRE 0485s | 1           | 55.1                             | 50.7 | 65.1  | 58.3 | 63.1  | 56.2 | 64.8  | 60.0 | 122.3   | 112.9 | 102.1                | 77.9  | 85.1  | 69.0  | 48.5    | 50                    |
| DCRE 0487s | 1           | 55.1                             | 50.7 | 65.1  | 58.3 | 63.1  | 56.2 | 64.8  | 60.0 | 122.3   | 112.9 | 221.4                | 138.9 | 184.5 | 149.5 | 105.2   | 50                    |
| DCRE 0489s | 1           | 55.1                             | 50.7 | 65.1  | 58.3 | 63.1  | 56.2 | 64.8  | 60.0 | 122.3   | 112.9 | 245.9                | 154.3 | 204.9 | 166.0 | 116.9   | 50                    |
| DCRE       | 1           | 55.1                             | 50.7 | 65.1  | 58.3 | 63.1  | 56.2 | 64.8  | 60.0 | 122.3   | 112.9 | 312.4                | 196.0 | 260.4 | 266.6 | 148.5   | 50                    |
| DCRE       | 1           | 55.1                             | 50.7 | 65.1  | 58.3 | 63.1  | 56.2 | 64.8  | 60.0 | 122.3   | 112.9 | 351.0                | 267.5 | 292.5 | 299.5 | 166.8   | 50                    |

## Core selection

**Table 13: Core selection**

| Refrigerant and oil types |                                                                             | DC                             | DM          | DA          |
|---------------------------|-----------------------------------------------------------------------------|--------------------------------|-------------|-------------|
| Refrigerant               | HFC (R134a, R404A, R507, R407C and R410A)                                   | Recommended                    | Recommended | Recommended |
|                           | HFO (R1234ze, R407F, R407A)                                                 | Recommended                    | Recommended | Recommended |
|                           | HCFC (R22)                                                                  | Recommended                    | Recommended | Recommended |
|                           | R32, R444A, R444B, R445A, R446A, R447A, R451A, R452B, R454B, R455A, R1234yf | Recommended                    | Recommended | NA          |
| Oil                       | Mineral or AB                                                               | Recommended                    | Recommended | Recommended |
|                           | POE or PAG, pure                                                            | Recommended                    | Recommended | Recommended |
|                           | POE or PAG, with additives                                                  | Not recommended <sup>(1)</sup> | Recommended | Recommended |

<sup>(1)</sup> DC filter driers cores contain activated alumina, which is a polar material used for acid adsorption. Many oil additives are also polar substances and can be adsorbed by the activated alumina, rendering them useless, and reducing the drier's acid capacity, though this is not harmful to the system.

## Dimensions and weights

Figure 5: DCR housing

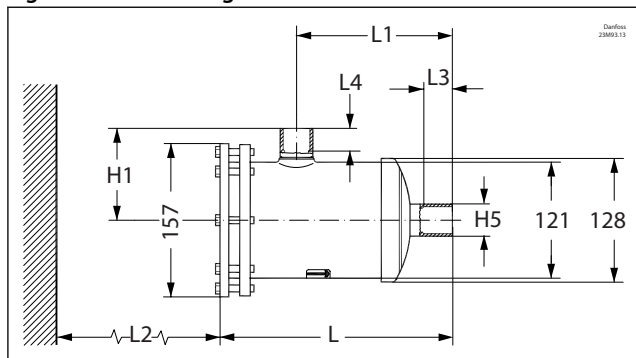
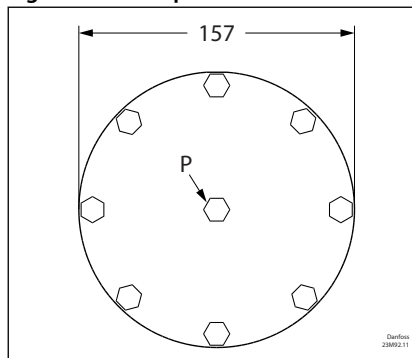


Figure 6: DCR top cover



P Plug 1/4 in. NPT

Figure 7: DCR solid core (48-DM, 48-DC and 48-DA)

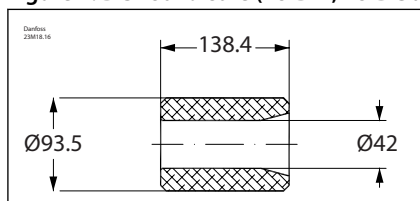


Table 14: Dimensions and weights for DCR

| Type         | No. of cores | DCR with steel connectors |       |      |      |      |       |      | DCR with copper connectors |       |      |      |      |       |      | Net weight<br>(1) |
|--------------|--------------|---------------------------|-------|------|------|------|-------|------|----------------------------|-------|------|------|------|-------|------|-------------------|
|              |              | L                         | L1    | L2   | L3   | L4   | H1    | H5   | L                          | L1    | L2   | L3   | L4   | H1    | H5   |                   |
|              |              | [mm]                      | [mm]  | [mm] | [mm] | [mm] | [mm]  | [mm] | [mm]                       | [mm]  | [mm] | [mm] | [mm] | [mm]  | [mm] | [Kg]              |
| DCR 0485(s)  | 1            | 242.9                     | 162.7 | 170  | 12   | 12   | 96.8  | 21   | 259.9                      | 179.7 | 170  | 12   | 12   | 112.8 | 19   | 5.2               |
| DCR 0487(s)  | 1            | 237                       | 156.8 | 170  | 17   | 17   | 90.3  | 27   | 259.5                      | 179.3 | 170  | 17   | 17   | 112.8 | 25   | 5.2               |
| DCR 0489(s)  | 1            | 240.4                     | 160.2 | 170  | 22   | 22   | 94.3  | 34   | 261.9                      | 181.7 | 170  | 20   | 20   | 115.8 | 32   | 5.2               |
| DCR 0489(s)  | 1            | 240.4                     | 160.2 | 170  | 22   | 22   | 94.3  | 34   | 261.9                      | 181.7 | 170  | 20   | 20   | 115.8 | 32   | 5.2               |
| DCR 04811(s) | 1            | 242.8                     | 162.6 | 170  | 25   | 25   | 97.3  | 42   | 264.3                      | 184.1 | 170  | 25   | 25   | 118.8 | 39   | 5.2               |
| DCR 04813(s) | 1            | 248                       | 167.8 | 170  | 29   | 29   | 103.3 | 48   | 265.5                      | 185.3 | 170  | 29   | 29   | 120.8 | 46   | 5.2               |
| DCR 04813(s) | 1            | 248                       | 167.8 | 170  | 29   | 29   | 103.3 | 48   | 265.5                      | 185.3 | 170  | 29   | 29   | 120.8 | 46   | 5.2               |
| DCR 04817(s) | 1            | 253.7                     | 173.5 | 170  | 33   | 33   | 110.8 | 60   | 267.7                      | 187.5 | 170  | 34   | 34   | 124.8 | 58   | 5.2               |
| DCR 04821(s) | 1            | 256.5                     | 176.3 | 170  | 38   | 38   | 115.8 | 73   | 269.5                      | 189.3 | 170  | 34   | 34   | 128.8 | 71   | 5.2               |
| DCR 0965(s)  | 2            | 381.9                     | 301.7 | 310  | 12   | 12   | 96.8  | 21   | 398.9                      | 318.7 | 310  | 12   | 12   | 112.8 | 19   | 6.6               |
| DCR 0967(s)  | 2            | 376                       | 295.8 | 310  | 17   | 17   | 90.3  | 27   | 398.5                      | 318.3 | 310  | 17   | 17   | 112.8 | 25   | 6.6               |
| DCR 0969(s)  | 2            | 379.4                     | 299.2 | 310  | 22   | 22   | 94.3  | 34   | 400.9                      | 320.7 | 310  | 20   | 20   | 115.8 | 32   | 6.6               |
| DCR 0969(s)  | 2            | 379.4                     | 299.2 | 310  | 22   | 22   | 94.3  | 34   | 400.9                      | 320.7 | 310  | 20   | 20   | 115.8 | 32   | 6.6               |
| DCR 09611(s) | 2            | 381.8                     | 301.6 | 310  | 25   | 25   | 97.3  | 42   | 403.3                      | 323.1 | 310  | 25   | 25   | 118.8 | 39   | 6.6               |
| DCR 09613(s) | 2            | 387                       | 306.8 | 310  | 29   | 29   | 103.3 | 48   | 404.5                      | 324.3 | 310  | 29   | 29   | 120.8 | 46   | 6.6               |
| DCR 09613(s) | 2            | 387                       | 306.8 | 310  | 29   | 29   | 103.3 | 48   | 404.5                      | 324.3 | 310  | 29   | 29   | 120.8 | 46   | 6.6               |
| DCR 09617(s) | 2            | 392.7                     | 312.5 | 310  | 33   | 33   | 110.8 | 60   | 406.7                      | 326.5 | 310  | 34   | 34   | 124.8 | 58   | 6.6               |
| DCR 09621(s) | 2            | 395.5                     | 315.3 | 310  | 38   | 38   | 115.8 | 73   | 408.5                      | 328.3 | 310  | 34   | 34   | 128.8 | 71   | 6.6               |
| DCR 1445(s)  | 3            | 523.9                     | 443.7 | 310  | 12   | 12   | 96.8  | 21   | 540.9                      | 460.7 | 310  | 12   | 12   | 112.8 | 19   | 7.8               |
| DCR 1447(s)  | 3            | 518                       | 437.8 | 310  | 17   | 17   | 90.3  | 27   | 540.5                      | 460.3 | 310  | 17   | 17   | 112.8 | 25   | 7.8               |
| DCR 1449(s)  | 3            | 521.4                     | 441.2 | 310  | 22   | 22   | 94.3  | 34   | 542.9                      | 462.7 | 310  | 20   | 20   | 115.8 | 32   | 7.8               |
| DCR 1449(s)  | 3            | 521.4                     | 441.2 | 310  | 22   | 22   | 94.3  | 34   | 542.9                      | 462.7 | 310  | 20   | 20   | 115.8 | 32   | 7.8               |
| DCR 14411(s) | 3            | 523.8                     | 443.6 | 310  | 25   | 25   | 97.3  | 42   | 545.3                      | 465.1 | 310  | 25   | 25   | 118.8 | 39   | 7.8               |
| DCR 14413(s) | 3            | 529                       | 448.8 | 310  | 29   | 29   | 103.3 | 48   | 546.5                      | 466.3 | 310  | 29   | 29   | 120.8 | 46   | 7.8               |
| DCR 14413(s) | 3            | 529                       | 448.8 | 310  | 29   | 29   | 103.3 | 48   | 546.5                      | 466.3 | 310  | 29   | 29   | 120.8 | 46   | 7.8               |
| DCR 14417(s) | 3            | 534.7                     | 454.5 | 310  | 33   | 33   | 110.8 | 60   | 548.7                      | 468.5 | 310  | 34   | 34   | 124.8 | 58   | 7.8               |
| DCR 14421(s) | 3            | 537.5                     | 457.3 | 310  | 38   | 38   | 115.8 | 73   | 550.5                      | 470.3 | 310  | 34   | 34   | 128.8 | 71   | 7.8               |
| DCR 1925(s)  | 4            | 663.9                     | 583.7 | 310  | 12   | 12   | 96.8  | 21   | 680.9                      | 600.7 | 310  | 12   | 12   | 112.8 | 19   | 9.1               |
| DCR 1927(s)  | 4            | 658                       | 577.8 | 310  | 17   | 17   | 90.3  | 27   | 680.5                      | 600.3 | 310  | 17   | 17   | 112.8 | 25   | 9.1               |
| DCR 1929(s)  | 4            | 661.4                     | 581.2 | 310  | 22   | 22   | 94.3  | 34   | 682.9                      | 602.7 | 310  | 20   | 20   | 115.8 | 32   | 9.1               |

## Filter drier, shell, types DCR and DCRE

| Type         | No. of cores | DCR with steel connectors |       |      |      |      |       |      | DCR with copper connectors |       |      |      |      |       |      | Net weight <sup>(1)</sup><br>[Kg] |
|--------------|--------------|---------------------------|-------|------|------|------|-------|------|----------------------------|-------|------|------|------|-------|------|-----------------------------------|
|              |              | L                         | L1    | L2   | L3   | L4   | H1    | H5   | L                          | L1    | L2   | L3   | L4   | H1    | H5   |                                   |
|              |              | [mm]                      | [mm]  | [mm] | [mm] | [mm] | [mm]  | [mm] | [mm]                       | [mm]  | [mm] | [mm] | [mm] | [mm]  | [mm] |                                   |
| DCR 1929(s)  | 4            | 661.4                     | 581.2 | 310  | 22   | 22   | 94.3  | 34   | 682.9                      | 602.7 | 310  | 20   | 20   | 115.8 | 32   | 9.1                               |
| DCR 19211(s) | 4            | 663.8                     | 583.6 | 310  | 25   | 25   | 97.3  | 42   | 685.3                      | 605.1 | 310  | 25   | 25   | 118.8 | 39   | 9.1                               |
| DCR 19213(s) | 4            | 669                       | 588.8 | 310  | 29   | 29   | 103.3 | 48   | 686.5                      | 606.3 | 310  | 29   | 29   | 120.8 | 46   | 9.1                               |
| DCR 19213(s) | 4            | 669                       | 588.8 | 310  | 29   | 29   | 103.3 | 48   | 686.5                      | 606.3 | 310  | 29   | 29   | 120.8 | 46   | 9.1                               |
| DCR 19217(s) | 4            | 674.7                     | 594.5 | 310  | 33   | 33   | 110.8 | 60   | 688.7                      | 608.5 | 310  | 34   | 34   | 124.8 | 58   | 9.1                               |
| DCR 19221(s) | 4            | 677.5                     | 597.3 | 310  | 38   | 38   | 115.8 | 73   | 690.5                      | 610.3 | 310  | 34   | 34   | 128.8 | 71   | 9.1                               |

<sup>(1)</sup> Without core. For total weight add 0.7 kg per core for 48-DM and 48-DC, 0.8 kg per core for 48-DA or 0.4 kg per strainer 48-F

Figure 8: DCRE housing

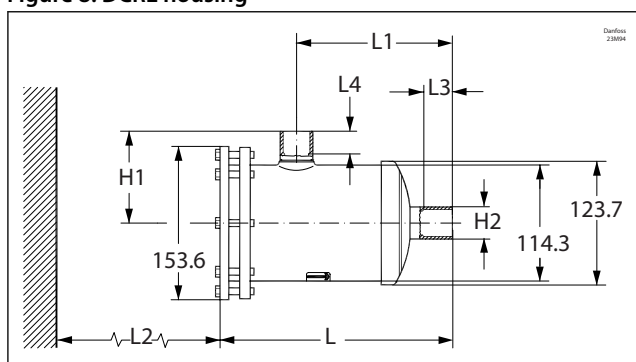
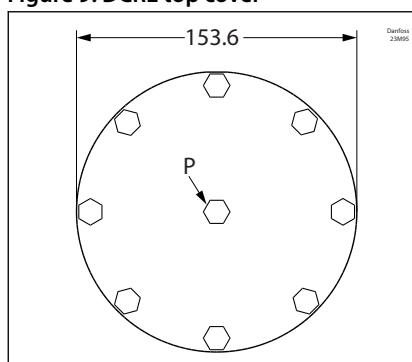


Figure 9: DCRE top cover



P Plug 1/4 in. NPT

Table 15: Dimensions and weights for DCRE

| Type          | No. of cores | DCRE with copper connectors |        |      |      |      |        |       | Net weight <sup>(2)</sup><br>[Kg] |
|---------------|--------------|-----------------------------|--------|------|------|------|--------|-------|-----------------------------------|
|               |              | L                           | L1     | L2   | L3   | L4   | H1     | H2    |                                   |
|               |              | [mm]                        | [mm]   | [mm] | [mm] | [mm] | [mm]   | [mm]  |                                   |
| DCRE 0485(s)  | 1            | 219.93                      | 152.13 | 170  | 18   | 18   | 99.85  | 16    | 4.4                               |
| DCRE 0487(s)  | 1            | 221.42                      | 153.62 | 170  | 19   | 19   | 101.85 | 22.22 | 4.6                               |
| DCRE 0489(s)  | 1            | 228.15                      | 160.35 | 170  | 22.5 | 22.5 | 108.85 | 28    | 4.8                               |
| DCRE 04811(s) | 1            | 233.15                      | 165.35 | 170  | 23.5 | 23.5 | 113.85 | 35    | 5.0                               |
| DCRE 04813(s) | 1            | 236.15                      | 168.35 | 170  | 27.5 | 27.5 | 116.85 | 41.28 | 5.2                               |

<sup>(2)</sup> Without core. For total weight add 0.7 kg per core for 48-DM and 48-DC, 0.8 kg per core for 48-DA or 0.4 kg per strainer 48-F

## Ordering

DCR/DCRE housing and insert are ordered separately. Select housing and top cover with all internal parts assembled from table 1,2 or 3 and required number of inserts from table 4.

Figure 10: DCR

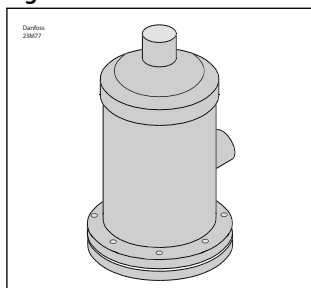


Table 16: DCR Housing with copper connectors + top cover

| Type       | Number of cores | Copper connectors |      | Cover type | Max. working pressure PS              | Code number |
|------------|-----------------|-------------------|------|------------|---------------------------------------|-------------|
|            |                 | Solder ODF        |      |            |                                       |             |
|            |                 | [in.]             | [mm] |            | [bar]                                 |             |
| DCR 0485s  | 1               | 5⁄8               | 16   | Plug       | 46                                    | 023U7250    |
| DCR 0487s  | 1               | 7⁄8               | 22   | Plug       | 46                                    | 023U7251    |
| DCR 0487s  | 1               | 7⁄8               | 22   | –          | 46                                    | 023U7571    |
| DCR 0489s  | 1               | –                 | 28   | Plug       | 46                                    | 023U7252    |
| DCR 0489s  | 1               | 1 1⁄8             | –    | Plug       | 46                                    | 023U7253    |
| DCR 0489s  | 1               | –                 | 28   | –          | 46                                    | 023U7268    |
| DCR 04811s | 1               | 1 3⁄8             | 35   | Plug       | 46                                    | 023U7254    |
| DCR 04813s | 1               | 1 5⁄8             | –    | Plug       | 46                                    | 023U7255    |
| DCR 04813s | 1               | –                 | 42   | Plug       | 46                                    | 023U7256    |
| DCR 04813s | 1               | –                 | 42   | –          | 46                                    | 023U7303    |
| DCR 04817s | 1               | 2 1⁄8             | 54   | Plug       | 46                                    | 023U7257    |
| DCR 04821s | 1               | 2 5⁄8             | –    | Plug       | 46                                    | 023U7276    |
| DCR 0967s  | 2               | 7⁄8               | 22   | Plug       | 46                                    | 023U7258    |
| DCR 0969s  | 2               | –                 | 28   | Plug       | 46                                    | 023U7259    |
| DCR 0969s  | 2               | 1 1⁄8             | –    | Plug       | 46                                    | 023U7260    |
| DCR 0969s  | 2               | 1 1⁄8             | –    | –          | 46                                    | 023U7278    |
| DCR 09611s | 2               | 1 3⁄8             | 35   | Plug       | 46                                    | 023U7261    |
| DCR 09613s | 2               | 1 5⁄8             | –    | Plug       | 46                                    | 023U7262    |
| DCR 09613s | 2               | –                 | 42   | Plug       | 46                                    | 023U7263    |
| DCR 09613s | 2               | –                 | 42   | –          | 46                                    | 023U7463    |
| DCR 09617s | 2               | 2 1⁄8             | 54   | Plug       | 46                                    | 023U7264    |
| DCR 09617s | 2               | 2 1⁄8             | 54   | –          | 46                                    | 023U7290    |
| DCR 09621s | 2               | 2 5⁄8             | –    | Plug       | 46                                    | 023U7281    |
| DCR 1449s  | 3               | –                 | 28   | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7265    |
| DCR 14411s | 3               | 1 3⁄8             | 35   | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7267    |
| DCR 14411s | 3               | 1 3⁄8             | –    | –          | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7275    |
| DCR 14413s | 3               | 1 5⁄8             | –    | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7282    |
| DCR 14413s | 3               | –                 | 42   | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7269    |
| DCR 14413s | 3               | 1 5⁄8             | 42   | –          | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7297    |
| DCR 14417s | 3               | 2 1⁄8             | 54   | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7270    |
| DCR 19211s | 4               | 1 3⁄8             | –    | –          | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7083    |
| DCR 19213s | 4               | 1 5⁄8             | –    | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7272    |
| DCR 19213s | 4               | –                 | 42   | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7273    |
| DCR 19213s | 4               | 1 5⁄8             | –    | –          | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7082    |
| DCR 19217s | 4               | 2 1⁄8             | 54   | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7274    |

<sup>(1)</sup> For usage with strainer or as a receiver application

<sup>(2)</sup> For “drier” application using all the permissible cores

## Filter drier, shell, types DCR and DCRE

Figure 11: DCR

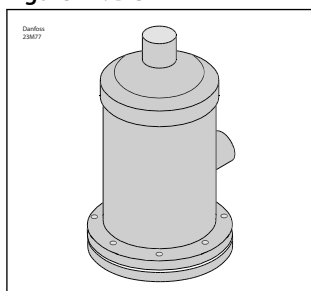


Table 17: DCR Housing with steel connectors + top cover

| Type      | Number of cores | Steel connectors |      |           | Cover type | Max. working pressure PS              | Code number |
|-----------|-----------------|------------------|------|-----------|------------|---------------------------------------|-------------|
|           |                 | Solder ODF       |      | Butt weld |            |                                       |             |
|           |                 | [in.]            | [mm] | [in.]     |            | [bar]                                 |             |
| DCR 0485  | 1               | 5/8              | 16   | 1/2       | Plug       | 46                                    | 023U7050    |
| DCR 0487  | 1               | 7/8              | 22   | 3/4       | Plug       | 46                                    | 023U7051    |
| DCR 0487  | 1               | 7/8              | 22   | 3/4       | –          | 46                                    | 023U7151    |
| DCR 0489  | 1               | –                | 28   | 1         | Plug       | 46                                    | 023U7052    |
| DCR 0489  | 1               | 1 1/8            | –    | 1         | Plug       | 46                                    | 023U7053    |
| DCR 04811 | 1               | 1 3/8            | 35   | 1 1/4     | Plug       | 46                                    | 023U7054    |
| DCR 04813 | 1               | 1 5/8            | –    | 1 1/2     | Plug       | 46                                    | 023U7055    |
| DCR 04813 | 1               | –                | 42   | 1 1/2     | Plug       | 46                                    | 023U7056    |
| DCR 04817 | 1               | 2 1/8            | 54   | 2         | Plug       | 46                                    | 023U7057    |
| DCR 04821 | 1               | 2 5/8            | –    | 2 1/2     | Plug       | 46                                    | 023U7076    |
| DCR 0967  | 2               | 7/8              | 22   | 3/4       | Plug       | 46                                    | 023U7058    |
| DCR 0969  | 2               | –                | 28   | 1         | Plug       | 46                                    | 023U7059    |
| DCR 0969  | 2               | 1 1/8            | –    | 1         | Plug       | 46                                    | 023U7060    |
| DCR 09611 | 2               | 1 3/8            | 35   | 1 1/4     | Plug       | 46                                    | 023U7061    |
| DCR 09611 | 2               | 1 3/8            | 35   | 1 1/4     | –          | 46                                    | 023U7161    |
| DCR 09613 | 2               | 1 5/8            | –    | 1 1/2     | Plug       | 46                                    | 023U7062    |
| DCR 09613 | 2               | –                | 42   | 1 1/2     | Plug       | 46                                    | 023U7063    |
| DCR 09617 | 2               | 2 1/8            | 54   | 2         | Plug       | 46                                    | 023U7064    |
| DCR 1449  | 3               | –                | 28   | 1         | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7065    |
| DCR 1449  | 3               | 1 1/8            | –    | 1         | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7066    |
| DCR 14411 | 3               | 1 3/8            | 35   | 1 1/4     | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7067    |
| DCR 14413 | 3               | 1 5/8            | –    | 1 1/2     | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7068    |
| DCR 14413 | 3               | –                | 42   | 1 1/2     | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7069    |
| DCR 14417 | 3               | 2 1/8            | 54   | 2         | Plug       | 35 <sup>(1)</sup> / 46 <sup>(2)</sup> | 023U7070    |
| DCR 19211 | 4               | 1 3/8            | 35   | 1 1/4     | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7071    |
| DCR 19213 | 4               | 1 5/8            | –    | 1 1/2     | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7072    |
| DCR 19213 | 4               | –                | 42   | 1 1/2     | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7073    |
| DCR 19217 | 4               | 2 1/8            | 54   | 2         | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7074    |
| DCR 19221 | 4               | 2 5/8            | –    | 2 1/2     | Plug       | 28 <sup>(1)</sup> / 40 <sup>(2)</sup> | 023U7086    |

<sup>(1)</sup> For usage with strainer or as a receiver application

<sup>(2)</sup> For "drier" application using all the permissible cores

Figure 12: DCRE

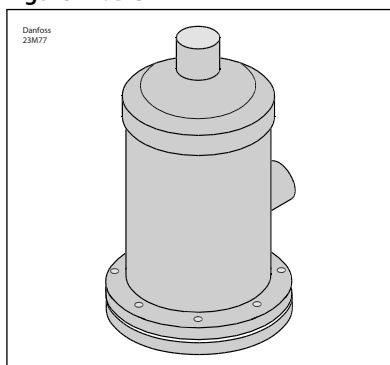


Table 18: DCRE Housing with copper connectors + top cover

| Type        | Number of cores | Copper connectors solder |      | Cover | Maximum working pressure PS | Code number |
|-------------|-----------------|--------------------------|------|-------|-----------------------------|-------------|
|             |                 | [in]                     | [mm] |       | [bar]                       |             |
| DCRE 0485s  | 1               | 5/8                      | 16   | plug  | 50                          | 023U7608    |
| DCRE 0487s  | 1               | 7/8                      | 22   | plug  | 50                          | 023U7606    |
| DCRE 0489s  | 1               | 1 1/8                    | –    | plug  | 50                          | 023U7607    |
| DCRE 0489s  | 1               | –                        | 28   | plug  | 50                          | 023U7609    |
| DCRE 04811s | 1               | 1 3/8                    | 35   | plug  | 50                          | 023U7610    |
| DCRE 04813s | 1               | 1 5/8                    | 41   | plug  | 50                          | 023U7611    |

Figure 13: DCR insert    Figure 14: DCRE insert

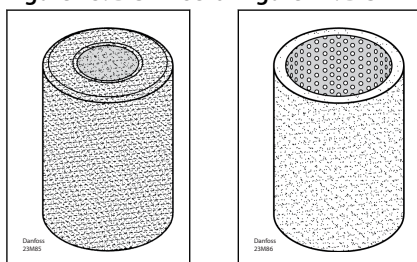


Table 19: Type DCR/DCRE, inserts

| Type                         | Material                                                 | Code number for DCR |                | Code number for DCRE |             |
|------------------------------|----------------------------------------------------------|---------------------|----------------|----------------------|-------------|
|                              |                                                          | Industrial pack     |                | Multi pack           | Multi pack  |
|                              |                                                          | (8 pcs.)            |                | (3 pcs.)             | (3 pcs.)    |
|                              |                                                          | with gasket         | without gasket | with gasket          | with gasket |
| 48-DM solid core             | 100% molecular sieve                                     | 023U1392            | 023U1393       | 023U1391             | 023U1399    |
| 48-DC solid core             | 80% molecular sieve & 20% Al <sub>3</sub> O <sub>2</sub> | 023U4381            | 023U4382       | 023U4380             | 023U4388    |
| 48-DA solid core             | 30% molecular sieve & 70% Al <sub>3</sub> O <sub>2</sub> | 023U5381            | 023U5382       | 023U5380             | –           |
| 48-F strainer <sup>(5)</sup> | Felt-gasket, 15 µm                                       | 023U1921            | –              | –                    | –           |

<sup>(5)</sup> Not for usage with DCR 048 – 192 housings.

Table 20: Core surface and volume

| Core                      | surface            | volume             |
|---------------------------|--------------------|--------------------|
|                           | [cm <sup>2</sup> ] | [cm <sup>3</sup> ] |
| DM 048, DC 048 and DA 048 | 612                | 727                |
| DM 096, DC 096 and DA 096 | 1225               | 1454               |
| DM 144, DC 144 and DA 144 | 1837               | 2181               |
| DM 192, DC 192 and DA 192 | 2450               | 2908               |
| 48-F                      | 405                | –                  |

## Certificates, declarations, and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

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**Table 21: Certificates, declarations, and approvals**

| Document name           | Document type                   | Document topic        | Approval authority |
|-------------------------|---------------------------------|-----------------------|--------------------|
| PV 6-238699.19          | Pressure - Safety Certificate   |                       | NSW                |
| PV 6-238700.19          | Pressure - Safety Certificate   |                       | NSW                |
| PV 6-238701.19          | Pressure - Safety Certificate   |                       | NSW                |
| PV 6-238702.19          | Pressure - Safety Certificate   |                       | NSW                |
| SA6398 <sup>(1)</sup>   | Mechanical - Safety Certificate |                       | UL                 |
| 023U9601                | Manufacturers Declaration       | China RoHS            | Danfoss            |
| 023U9611                | Manufacturers Declaration       | RoHS                  | Danfoss            |
| 023U9612                | EU Declaration                  | PED                   | Danfoss            |
| 023U9613                | Manufacturers Declaration       | ATEX/PED/RoHS         | Danfoss            |
| 023U9631                | Manufacturers Declaration       | PED/RoHS              | Danfoss            |
| RU Д-ДК.РА01.В.32851_20 | EAC Declaration                 | PED                   | EAC                |
| RU Д-ДК.ВЛ08.В.00828_19 | EAC Declaration                 | Machinery & Equipment | EAC                |

<sup>(1)</sup> Approve for DCR. For DCRE Approval in progress.

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