

Data sheet

ELIMINATOR® filter drier with replaceable solid core Type DCR



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 and CO₂, thanks to replaceable solid cores the DCR programme offers flexibility with respect to different applications.

Available with steel and copper connections.

Features

DCR housing:

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

Top covers for DCR 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 burn-out and compatible with HCFC / HFC refrigerants:

- High acid adsorption and standard water adsorption

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.

Approvals

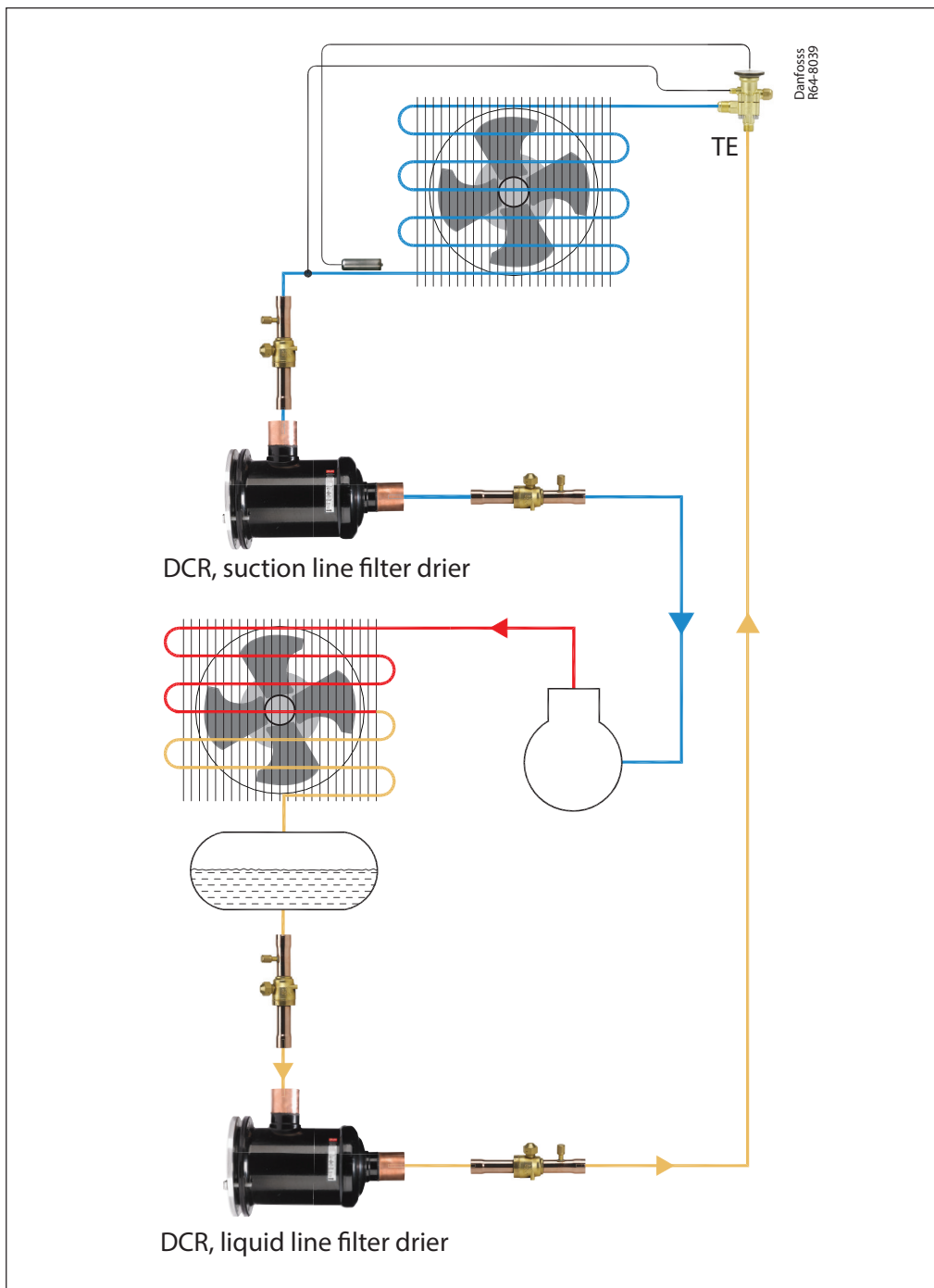
CE marked in accordance with the European Pressure Equipment Directive - 97/23/EC

UL US listed 207 and C22.2 no. 140.3
EN 12284

Introduction

Danfoss ELIMINATOR® filter driers with replaceable solid core, type DCR, 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.



Technical data

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

¹⁾ For usage with strainer or as a receiver application

²⁾ For "drier" application using all the permissible cores

Capacity

Drying and liquid capacity, type 48-DM & 100-DM

Type	N° of cores	Drying capacity [kg refrigerant] ¹⁾												Liquid capacity [kW] ²⁾						Max. working pressure PS [bar]
		R134a		R404A		R507		R22/R407C		R410A		R744(CO ₂)		R134a	R404A	R507	R22 / R407C	R410A	R744 (CO ₂)	
		[°C]																		
		24	52	24	52	24	52	24	52	24	52	-6.6	24							
DCR 0485	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	74.9	68.9	80.6	59.4	57.5	84.5	87.9	40.8	46
DCR 0487	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	74.9	68.9	128.0	92.5	89.6	132.6	136.8	58.0	46
DCR 0489	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	74.9	68.9	184.3	132.6	128.4	190.4	195.9	95.7	46
DCR 04811	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	74.9	68.9	249.3	180.5	174.8	258.5	266.8	113.9	46
DCR 04813	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	74.9	68.9	304.1	222.0	215.1	317.1	328.5	111.5	46
DCR 04817	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	74.9	68.9	434.3	324.1	314.3	459.4	480.7	148.1	46
DCR 04821	1	82.5	78.0	88.7	84.0	90.3	83.4	82.7	76.4	75.2	69.3	74.9	68.9	320.4	234.4	227.1	334.5	346.8	185.0	46
DCR 0967	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	149.8	137.7	119.6	85.7	83.0	123.2	126.6	78.4	46
DCR 0969	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	149.8	137.7	189.5	136.4	131.9	195.6	201.2	111.5	46
DCR 09611	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	149.8	137.7	259.7	187.2	181.4	268.6	276.7	126.6	46
DCR 09613	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	149.8	137.7	331.9	240.8	233.3	344.7	356.1	150.9	46
DCR 09617	2	165.0	155.0	177.3	168.1	180.5	166.8	165.3	152.8	150.5	138.7	149.8	137.7	477.2	349.1	338.3	498.2	516.6	200.5	46
DCR 1449	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	208.0	224.8	206.6	184.4	132.7	128.5	190.5	196.0	124.5	35 ³⁾ / 46 ⁴⁾
DCR 14411	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	208.0	224.8	206.6	272.5	196.9	190.7	282.2	290.9	154.0	35 ³⁾ / 46 ⁴⁾
DCR 14413	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	208.0	224.8	206.6	340.1	246.8	239.1	353.2	364.9	183.2	35 ³⁾ / 46 ⁴⁾
DCR 14417	3	247.5	233.9	266.0	252.7	270.8	250.1	248.0	229.1	225.7	208.0	224.8	206.6	442.3	323.0	313.0	461.3	478.0	243.4	35 ³⁾ / 46 ⁴⁾
DCR 19211	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	299.7	275.4	290.0	211.6	205.0	302.3	313.1	177.2	28 ³⁾ / 40 ⁴⁾
DCR 19213	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	299.7	275.4	359.8	261.7	253.6	374.2	387.0	211.0	28 ³⁾ / 40 ⁴⁾
DCR 19217	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	299.7	275.4	505.6	366.0	354.6	524.3	541.0	299.6	28 ³⁾ / 40 ⁴⁾
DCR 19221	4	329.9	311.9	354.7	336.2	361.0	333.5	330.6	305.5	300.9	277.0	299.7	275.4	442.5	321.7	311.7	460.2	475.8	381.6	28 ³⁾ / 40 ⁴⁾
DCR 300	3	555.9	525.5	597.6	566.5	608.3	561.9	557.1	514.8	507.1	467.2	505.0	464.1	-	-	-	-	-	-	-
DCR 400	4	741.2	700.6	796.8	755.3	811.0	749.2	742.8	686.4	676.1	623.0	673.3	618.7	-	-	-	-	-	-	-

Drying and liquid capacity, type 48-DC & 100-DC

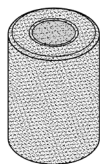
Type	N° of cores	Drying capacity [kg refrigerant] ¹⁾												Liquid capacity [kW] ²⁾						Max. working pressure PS [bar]
		R134a		R404A		R507		R22/R407C		R410A		R744(CO ₂)		R134a	R404A	R507	R22 / R407C	R410A	R744 (CO ₂)	
		[°C]																		
		24	52	24	52	24	52	24	52	24	52	-6.6	24							
DCR 0485	1	64.7	61.2	69.6	65.9	70.8	65.4	64.9	59.9	59.0	54.4	55.5	51.0	80.6	59.4	57.5	84.5	87.9	40.8	46
DCR 0487	1	64.7	61.2	69.6	65.9	70.8	65.4	64.9	59.9	59.0	54.4	55.5	51.0	128.0	92.5	89.6	132.6	136.8	58.0	46
DCR 0489	1	64.7	61.2	69.6	65.9	70.8	65.4	64.9	59.9	59.0	54.4	55.5	51.0	184.3	132.6	128.4	190.4	195.9	95.7	46
DCR 04811	1	64.7	61.2	69.6	65.9	70.8	65.4	64.9	59.9	59.0	54.4	55.5	51.0	249.3	180.5	174.8	258.5	266.8	113.9	46
DCR 04813	1	64.7	61.2	69.6	65.9	70.8	65.4	64.9	59.9	59.0	54.4	55.5	51.0	304.1	222.0	215.1	317.1	328.5	111.5	46
DCR 04817	1	64.7	61.2	69.6	65.9	70.8	65.4	64.9	59.9	59.0	54.4	55.5	51.0	434.3	324.1	314.3	459.4	480.7	148.1	46
DCR 04821	1	64.7	61.2	69.6	65.9	70.8	65.4	64.9	59.9	59.0	54.4	55.5	51.0	320.4	234.4	227.1	334.5	346.8	185.0	46
DCR 0967	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	110.9	101.9	119.6	85.7	83.0	123.2	126.6	78.4	46
DCR 0969	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	110.9	101.9	189.5	136.4	131.9	195.6	201.2	111.5	46
DCR 09611	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	110.9	101.9	259.7	187.2	181.4	268.6	276.7	126.6	46
DCR 09613	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	110.9	101.9	331.9	240.8	233.3	344.7	356.1	150.9	46
DCR 09617	2	129.4	122.3	139.1	131.9	141.6	130.8	129.7	119.9	118.1	108.8	110.9	101.9	477.2	349.1	338.3	498.2	516.6	200.5	46
DCR 1449	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	166.4	152.9	184.4	132.7	128.5	190.5	196.0	124.5	35 ³⁾ / 46 ⁴⁾
DCR 14411	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	166.4	152.9	272.5	196.9	190.7	282.2	290.9	154.0	35 ³⁾ / 46 ⁴⁾
DCR 14413	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	166.4	152.9	340.1	246.8	239.1	353.2	364.9	183.2	35 ³⁾ / 46 ⁴⁾
DCR 14417	3	194.1	183.5	208.7	197.8	212.4	196.2	194.6	179.8	177.1	162.2	166.4	152.9	442.3	323.0	313.0	461.3	478.0	243.4	35 ³⁾ / 46 ⁴⁾
DCR 19211	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	221.8	203.8	290.0	211.6	205.0	302.3	313.1	177.2	28 ³⁾ / 40 ⁴⁾
DCR 19213	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	221.8	203.8	359.8	261.7	253.6	374.2	387.0	211.0	28 ³⁾ / 40 ⁴⁾
DCR 19217	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	221.8	203.8	505.6	366.0	354.6	524.3	541.0	299.6	28 ³⁾ / 40 ⁴⁾
DCR 19221	4	258.9	244.7	278.3	263.8	283.2	261.7	259.4	239.7	236.1	217.6	221.8	203.8	442.5	321.7	311.7	460.2	475.8	381.6	28 ³⁾ / 40 ⁴⁾
DCR 300	3	433.5	409.7	466.0	441.7	474.3	438.1	434.4	401.4	395.3	364.3	371.4	341.3	-	-	-	-	-	-	-
DCR 400	4	577.9	546.3	621.3	588.9	632.4	584.2	579.1	535.2	527.1	485.7	495.2	455.1	-	-	-	-	-	-	-

¹⁾ 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 W
– R744: 1010 – 50 ppm W at 24 °C
445 – 50 ppm W at -6.6 °C
In accordance with ARI 710-2004.

²⁾ Given in accordance with ARI 710-2004 for
t_e = -15 °C, t_c = 30 °C and Δp = 0.07 bar

³⁾ For usage with strainer or as a receiver application
⁴⁾ For "drier" application using all the permissible cores

Capacity
(continued)


Drying and acid capacity, type 48-DA

Type	Number of cores	Drying capacity [g of water] ¹⁾												Acid capacity ²⁾ [g]
		Evaporating temperature t _e [°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

¹⁾ 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

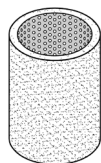
²⁾ Adsorption capacity of oleic acid at 0.05 TAN (Total Acid Number).

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 Δp [bar]											
	0.04	0.10	0.21	0.04	0.07	0.14	0.04	0.10	0.21	0.04	0.10	0.21
	R22 / R407C			R134a			R404A / R507			R410A		
DCR 0485	3.1	8.9	21.0	3.0	5.4	13.0	2.4	7.1	17.5	3.1	8.9	21.0
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	6.0	17.2	41.8	7.8	21.6	50.7
DCR 04811	10.0	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 04813	10.0	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 04817	10.0	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 04821	10.0	27.3	63.3	9.6	16.8	39.5	7.7	21.8	51.9	10.0	27.3	63.3
DCR 0965	3.3	9.1	21.4	3.2	5.7	13.4	2.5	7.4	18.0	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	15.0	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	11.0	32.0	78.7	14.1	39.9	95.2
DCR 09617	14.1	39.9	95.2	13.6	24.3	58.5	11.0	32.0	78.7	14.1	39.9	95.2
DCR 09621	14.1	39.9	95.2	13.6	24.3	58.5	11.0	32.0	78.7	14.1	39.9	95.2
DCR 1445	3.5	10.0	22.8	3.4	6.0	14.0	2.7	7.7	18.9	3.5	10.0	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	15.0	35.2	6.8	19.4	47.5	8.8	25.1	57.2
DCR 14411	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 14413	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 14417	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 14421	13.2	38.1	92.2	12.7	23.0	56.2	10.3	30.7	76.6	13.2	38.1	92.2
DCR 1925	4.2	11.5	27.3	4.0	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	18.0	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	18.0	51.1	122.1	17.4	31.1	75.0	14.1	41.1	101.0	18.0	51.1	122.1
DCR 19217	18.0	51.1	122.1	17.4	31.1	75.0	14.1	41.1	101.0	18.0	51.1	122.1
DCR 19221	18.0	51.1	122.1	17.4	31.1	75.0	14.1	41.1	101.0	18.0	51.1	122.1

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

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	-20	4.4
Pressure drop Δp [bar]	0.04	0.10	0.21	0.04	0.07	0.14	0.04	0.10	0.21	0.04	0.10	0.21
Recommended system capacity [kW]	15	47	113	15	28	69	12	38	93	15	47	113

Strainer mounted in liquid line

Refrigerant	R22 / R407C	R134a	R404A / R507	R410A
Recommended system capacity [kW]	390	350	260	390

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 °C,

t_e = 30 °C and

Δp = 0.07 bar

Type of connector and recommended soldering material

	Copper ODF solder connector Copper pipe
	Steel ODF solder connector Copper pipe
	Steel butt weld connector Steel pipe

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

Ordering

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

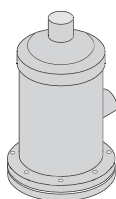


Table 1. Housing with copper connectors + top cover

Type	Number of cores	Copper connectors		Cover type	Max. working pressure PS [bar]	Code number
		Solder				
		ODF [in.]	ODF [mm]			
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 1⁄46 ²⁾	023U7265
DCR 14411s	3	1 3⁄8	35	Plug	35 1⁄46 ²⁾	023U7267
DCR 14411s	3	1 3⁄8	—	—	35 1⁄46 ²⁾	023U7275
DCR 14413s	3	1 5⁄8	—	Plug	35 1⁄46 ²⁾	023U7282
DCR 14413s	3	—	42	Plug	35 1⁄46 ²⁾	023U7269
DCR 14413s	3	1 5⁄8	42	—	35 1⁄46 ²⁾	023U7297
DCR 14417s	3	2 1⁄8	54	Plug	35 1⁄46 ²⁾	023U7270
DCR 19211s	4	1 3⁄8	—	—	28 1⁄40 ²⁾	023U7083
DCR 19213s	4	1 5⁄8	—	Plug	28 1⁄40 ²⁾	023U7272
DCR 19213s	4	—	42	Plug	28 1⁄40 ²⁾	023U7273
DCR 19213s	4	1 5⁄8	—	—	28 1⁄40 ²⁾	023U7082
DCR 19217s	4	2 1⁄8	54	Plug	28 1⁄40 ²⁾	023U7274

¹⁾ For usage with strainer or as a receiver application.

²⁾ For "drier" application using all the permissible cores.

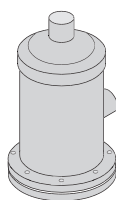
Ordering
 (continued)


Table 2. Housing with steel connectors + top cover

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

¹⁾ For usage with strainer or as a receiver application.

²⁾ For "drier" application using all the permissible cores.

Table 3. Type DCR, inserts

Type	Material	Code number		
		Industrial pack (8 pcs.)		Multi pack (3 pcs.)
		with gasket	without gasket	with gasket
48-DM solid core	100% molecular sieve	023U1392	023U1393	023U1391
48-DC solid core	80% molecular sieve & 20% Al ₂ O ₃	023U4381	023U4382	023U4380
48-DA solid core	30% molecular sieve & 70% Al ₂ O ₃	023U5381	023U5382	023U5380
48-F strainer	Felt-gasket, 15 µm	023U1921	—	—
Multi pack (6 pcs.)				
100-DM solid core ¹⁾	100% molecular sieve	023U7562	—	—
100-DC solid core ¹⁾	80% molecular sieve & 20% Al ₂ O ₃	023U7563	—	—

¹⁾ Not for usage with DCR 048 – 192 housings.

Core surface

DM 048, DC 048 and DA 048	=	612 cm ²
DM 096, DC 096 and DA 096	=	1225 cm ²
DM 144, DC 144 and DA 144	=	1837 cm ²
DM 192, DC 192 and DA 192	=	2450 cm ²
DM 300 and DC 300	=	3165 cm ²
DM 400 and DC 400	=	4220 cm ²
48-F	=	405 cm ²

Core volume

DM 048, DC 048 and DA 048	=	727 cm ³
DM 096, DC 096 and DA 096	=	1454 cm ³
DM 144, DC 144 and DA 144	=	2181 cm ³
DM 192, DC 192 and DA 192	=	2908 cm ³
DM 300 and DC 300	=	4761 cm ³
DM 400 and DC 400	=	6348 cm ³

Core selection

Refrigerant and oil types		DC	DM	DA
Refrigerant	HFC	Recommended	Recommended	Recommended
	HFO	Recommended	Recommended	Recommended
	HCFC	Recommended	Recommended	Recommended
Oil	Mineral or AB	Recommended	Recommended	Recommended
	POE or PAG, pure	Recommended	Recommended	Recommended
	POE or PAG, with additives	Not recommended ¹⁾	Recommended	Recommended

¹⁾ 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.

Identification

Type codes

Filter drier	D	Drier
Solid core	C	Solid core
	R	Replaceable
Size (volume)	048	48 in ³
	096	96 in ³
	144	144 in ³
	192	192 in ³
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

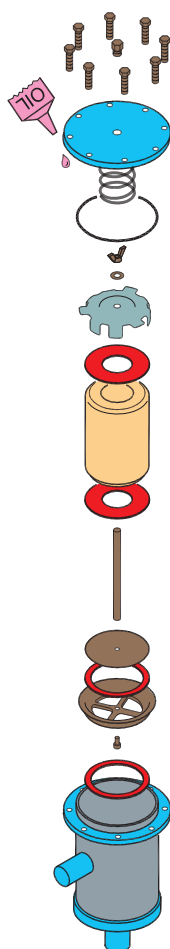
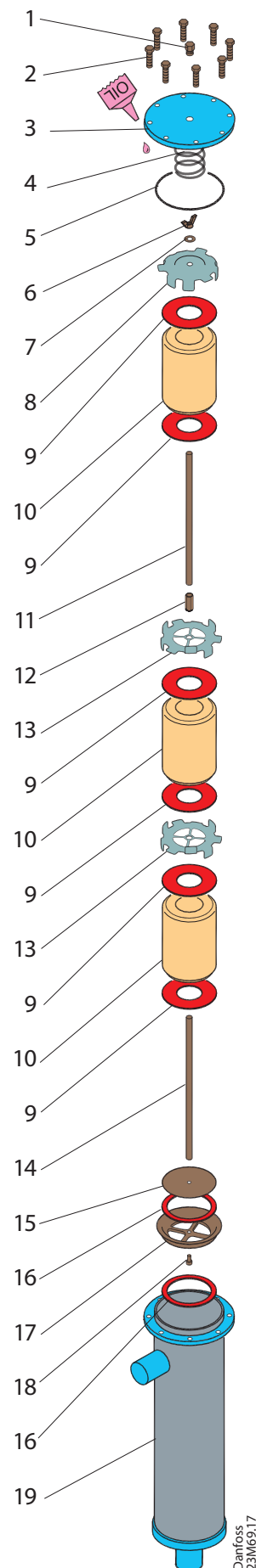
Example for type codes

D	C	R	096	9	s
↓	↓	↓	↓	↓	↓
Filter drier	Solid core	Replaceable	Size (volume)	Connection (filter connection in 1/8 of an inch increments)	Connection type

Design / Function

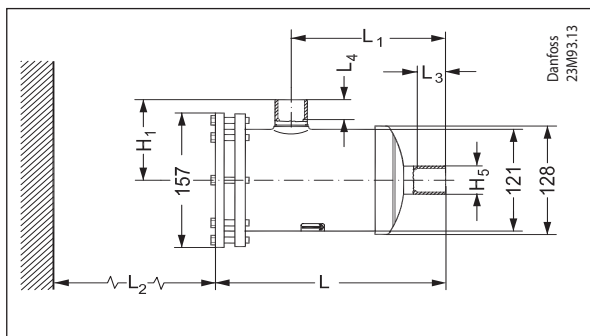
Example:

1. Plug 1/4 in. NPT
2. Top cover bolts
M8 × 35, class 10.9
3. Top cover
4. Spring
5. Top cover gasket
ø121.8 × ø113.6 × 0.8 mm
6. Wing nut
M10 (torque max. 3 Nm)
7. Lock washer
8. Top plate
9. Felt gasket
ø95.5 × ø45.5 × 2 mm
10. Solid core
11. Extension rod
12. Extension nut
13. Core plate
14. Distance rod
15. Wire mesh
16. Felt gasket
ø95.5 × ø78 × 2 mm
17. Core holder
18. Hex socket head screw M6
19. Filter drier shell

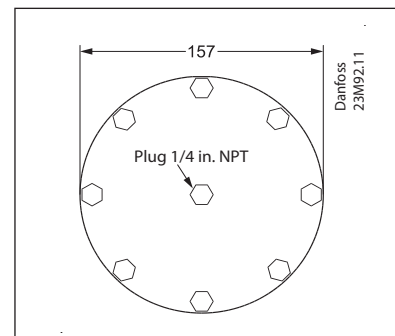
Danfoss
23M76.14Danfoss
23M69.17

**Dimensions [mm]
and weights [kg]**

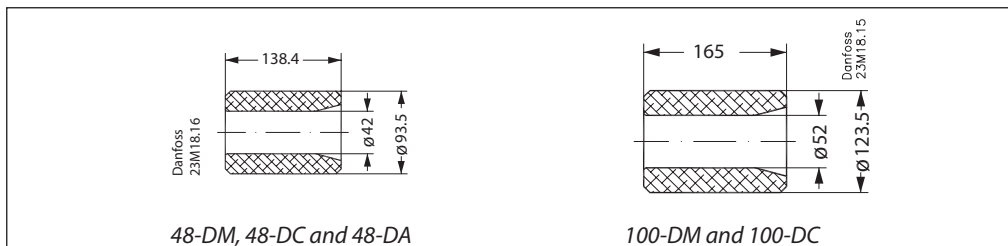
DCR housing



DCR top cover



DCR solid core



Type	Number of cores	DCR with steel connectors								DCR with copper connectors								Net weight ¹⁾
		L	L ₁	L ₂	L ₃	L ₄	H ₁	H ₂		L	L ₁	L ₂	L ₃	L ₄	H ₁	H ₂		
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
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

¹⁾ 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