

## Bi-flow filter driers series BFK hermetic design for liquid refrigerants

### Features

- Solid block style
- Integrated check valves ensure Bi-flow capability, eliminate the need for external check valves and reduce the external piping
- ODF Copper fittings for easy brazing
- Pattern flow for non-turbulent performance
- High water, acid adsorption capacity
- Filtration down to 40 microns
- Temperature range TS: -45°C...+65°C
- Max. allowable pressure PS: 45 bar
- CE marking not required acc. PED
-  Underwriter Laboratories



BFK

### Selection table - A1 refrigerants

Type	Part No.	Connection ODF*/SAE*	Flow Capacity (kW) Pressure Drop 0.07 bar**					
			R134a	R407C	R404A R507	R410A	R450A	R513A
BFK 052	007343	1/4"(6 mm) SAE	5.2	5.4	3.7	5.6	4.8	4.6
BFK 052S	007344	1/4" ODF	6.7	7.0	4.8	7.2	6.1	5.9
BFK 083	007345	3/8"(10 mm) SAE	10.6	11.0	7.5	11.4	9.7	9.2
BFK 083S	007346	3/8" ODF	12.0	12.5	8.5	12.9	11.0	10.5
BFK 084	007347	1/2"(12 mm) SAE	15.2	15.8	10.8	16.4	13.9	13.3
BFK 084S	007348	1/2" ODF	15.6	16.2	11.1	16.8	14.3	13.6
BFK 163	007349	3/8"(10 mm) SAE	13.6	14.2	9.7	14.7	12.5	11.9
BFK 163S	007350	3/8" ODF	15.5	16.1	11.0	16.7	14.2	13.5
BFK 164	007351	1/2"(12 mm) SAE	20.3	21.1	14.4	21.9	18.6	17.7
BFK 164S	007352	1/2" ODF	24.3	25.3	17.3	26.1	22.2	21.2
BFK 165	007353	5/8"(16 mm) SAE	25.1	26.2	17.9	27.1	23.0	21.9
BFK 165S	007354	5/8" ODF	25.6	26.7	18.3	27.6	23.5	22.4
BFK 305S	007356	5/8" (16 mm) ODF	34.1	35.6	24.3	36.8	31.3	29.8
BFK 307S	007357	7/8" (22 mm) ODF	40.6	42.3	28.9	43.7	37.2	35.5
BFK 309S	007358	1-1/8" ODF	47.0	49.0	33.5	50.7	43.1	41.1

### Selection table - A2L refrigerants

Type	Part No.	Connection ODF*/SAE*	Flow capacity (kW) pressure drop 0.07 bar**					
			R32	R452B	R454B	R454C	R1234ze	R1234yf
BFK 052	007343	1/4"(6 mm) SAE	8.1	6.3	6.4	4.2	4.6	3.8
BFK 052S	007344	1/4" ODF	10.4	8.1	8.2	5.4	5.9	4.8
BFK 083	007345	3/8"(10 mm) SAE	16.3	12.8	12.8	8.5	9.2	7.6
BFK 083S	007346	3/8" ODF	18.5	14.5	14.6	9.7	10.5	8.6
BFK 084	007347	1/2"(12 mm) SAE	23.5	18.4	18.5	12.3	13.3	10.9
BFK 084S	007348	1/2" ODF	24.1	18.8	18.9	12.6	13.6	11.2
BFK 163	007349	3/8"(10 mm) SAE	21.1	16.5	16.6	11.0	11.9	9.8
BFK 163S	007350	3/8" ODF	23.9	18.7	18.8	12.5	13.6	11.1
BFK 164	007351	1/2"(12 mm) SAE	31.3	24.5	24.7	16.4	17.8	14.6
BFK 164S	007352	1/2" ODF	37.5	29.3	29.5	19.6	21.3	17.5
BFK 165	007353	5/8"(16 mm) SAE	38.8	30.4	30.6	20.3	22.0	18.1
BFK 165S	007354	5/8" ODF	39.7	31.0	31.2	20.7	22.5	18.5
BFK 305S	007356	5/8" (16 mm) ODF	52.8	41.3	41.5	27.6	29.9	24.6
BFK 307S	007357	7/8" (22 mm) ODF	62.8	49.1	49.4	32.8	35.6	29.2
BFK 309S	007358	1-1/8" ODF	72.7	56.9	57.2	38.0	41.2	33.8

**Note 1:** Flow capacities are in accordance with ARI710-86 and DIN 8949

**Note 2:** \*\*) for 0.14 bar pressure drop, multiple values by 1.4

**Note 3:** \*) SAE = Flare ODF = Brazing female

**Note 4:** Product label update is pending!

**Nominal operating capacities based on following conditions:**

Refrigerant	Evaporating Temperature	Liquid Temperature	Flow Rate (kg/kW/sec.)	Refrigerant	Evaporating Temperature	Liquid Temperature	Flow rate (kg/kW/sec.)
R134a	-15°C	+30°C	0.0068	R32	-15°C	+30°C	0.0039
R407C			0.0063	R452B			0.0043
R404A/R507			0.0088	R454B			0.0047
R410A			0.0059	R454C			0.0058
R450A			0.0074	R1234ze			0.0076
R513A			0.0079	R1234yf			0.0089

**Note:** For selection of other operating conditions please use Copeland Select software. Product label update is pending!

**Water and acid adsorption capacity**

**A1 refrigerants**

Type / Size	Water Adsorption Capacity (gram)												Acid Adsorption Capacity (gram)
	Liquid Temperature 24°C						Liquid Temperature 52°C						
	R134a	R404A/R507	R407C	R410A	R450A	R513A	R134a	R404A/R507	R407C	R410A	R450A	R513A	
BFK-05...	4.4	4.5	3.4	2.8	6.0	6.0	4.1	4.3	2.8	2.2	5.4	5.4	0.3
BFK-08...	9.6	9.9	7.5	6.2	10.2	10.1	8.9	9.4	6.0	4.7	9.2	9.2	0.6
BFK-16...	18.9	19.5	14.8	12.2	14.1	14.1	17.5	18.5	11.9	9.3	15.5	15.5	1.2
BFK-30...	34.5	35.6	27.1	22.4	28.8	28.8	31.9	33.7	21.7	17.0	31.7	31.7	2.0

**A2L refrigerants**

Type / Size	Water Adsorption Capacity (gram)										Acid Adsorption Capacity (gram)
	Liquid Temperature 24°C					Liquid Temperature 52°C					
	R32	R452B	R454B/R454C	R1234ze	R1234yf	R32	R452B/R454C	R454B	R1234ze	R1234yf	
BFK-05...	3.4	3.4	3.4	6.0	6.0	2.7	2.6	2.6	5.4	5.4	0.3
BFK-08...	5.7	5.7	5.7	10.2	10.2	4.5	4.4	4.4	9.2	9.2	0.6
BFK-16...	11.5	10.8	10.8	19.1	14.1	9.1	8.3	8.3	17.4	17.4	1.2
BFK-30...	23.2	21.9	21.9	39.1	28.8	18.4	17.0	17.0	35.5	35.5	2.0

**Technical data**

Max. Allowable Pressure PS	45 bar	Material Shell	Steel
Test Pressure PT	47.3 bar	Paint	Epoxy Powder paint
Liquid Temperature Refrigerant	-45...+65 °C	Connections	Solder Flare Copper, ODF Burnished, SAE
Fluid Group	I + II	Protection	
List of Released Refrigerants	Fluid Group II (A1): R134a, R404A, R407C, R410A, R450A, R507, R513A  Fluid Group I (A2L): R32, R452B, R454B, R454C, R1234ze, R1234yf	Package	Individual packaged
Note: Fluid group classification according to PED 2014/68/EU.		Marking	 (A2L pending)  (acc. PED, V > 1 liter),