Filter driers series ADK hermetic design for liquid refrigerants

Features

- Robust block with optimum blend of molecular sieve and activated alumina
- ODF Copper fittings for easy brazing
- High water and acid adsorption capacity
- Filtration down to 20 microns
- Temperature range TS: -45°C...+65°C
- Max. allowable pressure PS: 45 bar
- CE marking not required acc. PED
- c UL us LISTED Underwriter Laboratories

ADK

Selection table - A1 refrigerants

Type	Part No.	Connection ODF*/SAE*	Flow capacity (kW) pressure drop 0.07 bar **									
			R134a	R407C	R404A R507	R410A	R448A	R449A	R450A	R513A	R452A	R744
ADK-032	003595	1/4"(6 mm) SAE	6.7	7.0	4.8	7.2	6.4	6.2	6.1	5.9	4.8	8.1
ADK-032S	003596	1/4" ODF	8.1	8.4	5.7	8.7	7.7	7.5	7.4	7.0	5.8	9.7
ADK-036MMS	003597	6 mm ODF	7.3	7.6	5.2	7.9	7.0	6.8	6.7	6.4	5.3	8.8
ADK-052	003598	1/4"(6 mm) SAE	6.9	7.2	4.9	7.5	6.6	6.5	6.4	6.1	5.0	8.3
ADK-052S	003599	1/4" ODF	9.9	10.3	7.0	10.7	9.4	9.2	9.1	8.6	7.1	11.9
ADK-056MMS	003600	6 mm ODF	9.2	9.5	6.5	9.9	8.7	8.5	8.4	8.0	6.6	11.0
ADK-053	003601	3/8"(10 mm) SAE	13.0	13.5	9.2	14.0	12.3	12.1	11.9	11.3	9.4	15.6
ADK-053S	003602	3/8" ODF	15.0	15.6	10.7	16.1	14.3	14.0	13.7	13.1	10.8	18.0
ADK-0510MMS	003603	10 mm ODF	15.0	15.6	10.7	16.1	14.3	14.0	13.7	13.1	10.8	18.0
ADK-082	003604	1/4"(6 mm) SAE	7.1	7.4	5.1	7.7	6.8	6.7	6.5	6.2	5.2	8.6
ADK-082S	003605	1/4" ODF	10.9	11.4	7.8	11.8	10.4	10.2	10.0	9.6	7.9	13.2
ADK-086MMS	003606	6 mm ODF	9.8	10.2	7.0	10.5	9.3	9.1	9.0	8.5	7.1	11.7
ADK-083	003607	3/8"(10 mm) SAE	15.0	15.6	10.7	16.2	14.3	14.0	13.8	13.1	10.8	18.1
ADK-083S	003608	3/8" ODF	15.0	15.7	10.7	16.2	14.3	14.0	13.8	13.1	10.9	18.1
ADK-0810MMS	003609	10 mm ODF	15.0	15.6	10.7	16.2	14.3	14.0	13.8	13.1	10.8	18.1
ADK-084	003610	1/2"(12 mm) SAE	23.5	24.5	16.7	25.3	22.4	21.9	21.5	20.5	17.0	28.3
ADK-084S	003611	1/2" ODF	24.5	25.6	17.5	26.4	23.3	22.9	22.5	21.4	17.7	29.5
ADK-0812MMS	003612	12 mm ODF	24.1	25.1	17.2	26.0	22.9	22.5	22.1	21.1	17.4	29.0
ADK-162	003613	1/4"(6 mm) SAE	7.3	7.6	5.2	7.8	6.9	6.8	6.7	6.4	5.3	8.8
ADK-163	003614	3/8"(10 mm) SAE	15.4	16.0	10.9	16.5	14.6	14.3	14.1	13.4	11.1	18.5
ADK-163S	003615	3/8" ODF	17.2	17.9	12.2	18.5	16.3	16.0	15.7	15.0	12.4	20.6
ADK-1610MMS	003616	10 mm ODF	17.1	17.8	12.2	18.5	16.3	16.0	15.7	15.0	12.4	20.6
ADK-164	003617	1/2"(12 mm) SAE	28.7	29.9	20.4	30.9	27.3	26.7	26.3	25.1	20.7	34.5
ADK-164S	003618	1/2" ODF	33.0	34.3	23.5	35.5	31.4	30.7	30.2	28.8	23.8	39.6
ADK-1612MMS	003619	12 mm ODF	29.6	30.8	21.1	31.9	28.2	27.6	27.1	25.9	21.4	35.6
ADK-165	003620	5/8"(16 mm) SAE	41.1	42.8	29.2	44.3	39.1	38.3	37.7	35.9	29.7	49.4
ADK-165S	003621	5/8"(16 mm) ODF	45.6	47.4	32.4	49.1	43.3	42.5	41.8	39.8	32.9	54.8
ADK-303	003622	3/8"(10 mm) SAE	16.2	16.9	11.5	17.5	15.4	15.1	14.9	14.2	11.7	19.5
ADK-304	003623	1/2"(12 mm) SAE	28.7	29.9	20.4	30.9	27.3	26.7	26.3	25.1	20.7	34.5
ADK-304S	003624	1/2" ODF	33.0	34.4	23.5	35.6	31.4	30.8	30.3	28.8	23.8	39.7
ADK-305	003626	5/8"(16 mm) SAE	48.2	50.2	34.3	52.0	45.9	45.0	44.2	42.1	34.8	58.0
ADK-305S	003627	5/8"(16 mm) ODF	48.4	50.4	34.4	52.1	46.0	45.1	44.3	42.2	34.9	58.1
ADK-307S	003628	7/8"(22 mm) ODF	60.7	63.2	43.2	65.4	57.8	56.6	55.7	53.0	43.9	73.0
ADK-414	003629	1/2"(12 mm) SAE	33.7	35.1	24.0	36.3	32.1	31.4	30.9	29.4	24.3	40.5
ADK-415	003632	5/8"(16 mm) SAE	53.7	55.9	38.2	57.8	51.1	50.0	49.2	46.9	38.8	64.5
ADK-415S	003633	5/8"(16 mm) ODF	57.7	60.1	41.1	62.2	54.9	53.8	52.9	50.4	41.7	69.4
ADK-417S	003634	7/8"(22 mm) ODF	71.4	74.3	50.8	76.9	67.9	66.6	65.4	62.4	51.5	85.8
ADK-757S	003635	7/8"(22 mm) ODF	96.7	100.7	68.8	104.2	92.0	90.1	88.6	84.4	69.8	116.2
ADK-759S	003636	1-1/8" ODF	107.4	111.8	76.4	115.7	102.1	100.1	98.4	93.8	77.5	129.0

Note 1: Flow capacities are in accordance with ARI710-86 and DIN8949. R744 is not specified by standard.
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 flow capacities bases on following operating conditions:

Refrigerant	Evaporating Temperature	Liquid Temperature	Flow rate (kg/kW/sec.)
R134a	-15°C	+30°C	0.0068
R407C			0.0063
R404A/R507			0.0088
R410A			0.0059
R744	-40°C	-10°C	0.0039

Refrigerant	Evaporating Temperature	Liquid Temperature	Flow rate (kg/kW/sec.)
R448A	-15°C	+30°C	0.0061
R449A			0.0061
R450A			0.0074
R452A			0.0086
R513A			0.0079

Note: For selection of other operating conditions please use Copeland Select software.

Selection table - A2L refrigerants

Type	Part No.	Connection ODF*/SAE*	Flow capacity (kW) pressure drop 0.07 bar **							
			R32	R452B	R454B	R454A	R454C	R455A	R1234ze	R1234yf
ADK-032	003595	1/4"(6 mm) SAE	10.4	8.1	8.1	6.2	5.4	5.7	5.9	4.8
ADK-032S	003596	1/4" ODF	12.4	9.7	9.8	7.4	6.5	6.9	7.1	5.8
ADK-036MMS	003597	6 mm ODF	11.3	8.9	8.9	6.8	5.9	6.3	6.4	5.3
ADK-052	003598	1/4"(6 mm) SAE	10.7	8.4	8.4	6.4	5.6	5.9	6.1	5.0
ADK-052S	003599	1/4" ODF	15.3	12.0	12.0	9.1	8.0	8.5	8.7	7.1
ADK-056MMS	003600	6 mm ODF	14.2	11.1	11.1	8.5	7.4	7.8	8.0	6.6
ADK-053	003601	3/8"(10 mm) SAE	20.1	15.7	15.8	12.0	10.5	11.1	11.4	9.3
ADK-053S	003602	3/8" ODF	23.2	18.1	18.2	13.8	12.1	12.8	13.1	10.8
ADK-0510MMS	003603	10 mm ODF	23.2	18.1	18.2	13.8	12.1	12.8	13.1	10.8
ADK-082	003604	1/4"(6 mm) SAE	11.0	8.6	8.7	6.6	5.8	6.1	6.2	5.1
ADK-082S	003605	1/4" ODF	16.9	13.2	13.3	10.1	8.8	9.4	9.6	7.9
ADK-086MMS	003606	6 mm ODF	15.1	11.8	11.9	9.0	7.9	8.4	8.6	7.0
ADK-083	003607	3/8"(10 mm) SAE	23.2	18.2	18.3	13.9	12.1	12.8	13.2	10.8
ADK-083S	003608	3/8" ODF	23.2	18.2	18.3	13.9	12.1	12.9	13.2	10.8
ADK-0810MMS	003609	10 mm ODF	23.2	18.2	18.3	13.9	12.1	12.8	13.2	10.8
ADK-084	003610	1/2"(12 mm) SAE	36.3	28.4	28.6	21.7	19.0	20.1	20.6	16.9
ADK-084S	003611	1/2" ODF	37.9	29.7	29.9	22.6	19.8	21.0	21.5	17.7
ADK-0812MMS	003612	12 mm ODF	37.3	29.2	29.3	22.3	19.5	20.6	21.1	17.4
ADK-162	003613	1/4"(6 mm) SAE	11.3	8.8	8.9	6.7	5.9	6.2	6.4	5.2
ADK-163	003614	3/8"(10 mm) SAE	23.7	18.6	18.7	14.2	12.4	13.1	13.4	11.0
ADK-163S	003615	3/8" ODF	26.5	20.7	20.9	15.8	13.8	14.7	15.0	12.3
ADK-1610MMS	003616	10 mm ODF	26.5	20.7	20.8	15.8	13.8	14.7	15.0	12.3
ADK-164	003617	1/2"(12 mm) SAE	44.4	34.7	34.9	26.5	23.2	24.5	25.1	20.6
ADK-164S	003618	1/2" ODF	51.0	39.9	40.1	30.4	26.6	28.2	28.9	23.7
ADK-1612MMS	003619	12 mm ODF	45.8	35.8	36.0	27.3	23.9	25.3	25.9	21.3
ADK-165	003620	5/8"(16 mm) SAE	63.5	49.7	50.0	37.9	33.2	35.1	36.0	29.6
ADK-165S	003621	5/8"(16 mm) ODF	70.4	55.1	55.4	42.0	36.8	39.0	39.9	32.8
ADK-303	003622	3/8"(10 mm) SAE	25.0	19.6	19.7	15.0	13.1	13.9	14.2	11.7
ADK-304	003623	1/2"(12 mm) SAE	44.4	34.7	34.9	26.5	23.2	24.5	25.1	20.6
ADK-304S	003624	1/2" ODF	51.0	39.9	40.1	30.5	26.7	28.2	28.9	23.7
ADK-305	003626	5/8"(16 mm) SAE	74.5	58.3	58.7	44.5	38.9	41.2	42.2	34.7
ADK-305S	003627	5/8"(16 mm) ODF	74.8	58.5	58.8	44.6	39.0	41.4	42.4	34.8
ADK-307S	003628	7/8"(22 mm) ODF	93.9	73.4	73.9	56.0	49.0	51.9	53.2	43.7
ADK-414	003629	1/2"(12 mm) SAE	52.1	40.8	41.0	31.1	27.2	28.8	29.5	24.3
ADK-415	003632	5/8"(16 mm) SAE	83.0	64.9	65.3	49.5	43.3	45.9	47.0	38.6
ADK-415S	003633	5/8"(16 mm) ODF	89.2	69.8	70.2	53.3	46.6	49.4	50.5	41.5
ADK-417S	003634	7/8"(22 mm) ODF	110.4	86.3	86.8	65.9	57.6	61.1	62.5	51.4
ADK-757S	003635	7/8"(22 mm) ODF	149.4	116.9	117.6	89.2	78.1	82.7	84.7	69.5
ADK-759S	003636	1-1/8" ODF	166.0	129.8	130.6	99.1	86.7	91.8	94.0	77.2

Note 1: Flow capacities are in accordance with ARI710-86 and DIN8949.
Note 2: *) SAE = Flare. ODF = Brazing female
Note 3: **) for 0.14 bar pressure drop, multiple values by 1.4
Note 4: Product label update is pending!

Nominal flow capacities bases on following operating conditions:

Refrigerant	Evaporating Temperature	Liquid Temperature	Flow rate (kg/kW/sec.)
R32	-15°C	+30°C	0.0039
R452B			0.0043
R454B			0.0047
R454A			0.0061

Refrigerant	Evaporating Temperature	Liquid Temperature	Flow rate (kg/kW/sec.)
R454C	-15°C	+30°C	0.0058
R455A			0.0072
R1234ze			0.0076
R1234yf			0.0089

Note: For selection of other operating conditions please use Copeland Select software.

Water and acid adsorption capacity

A1 refrigerants / CO2

Type / Size	Water Adsorption Capacity (gram)										Acid Adsorption Capacity (gram)
	Liquid Temperature 24°C					Liquid Temperature 52°C					
	R134a	R404A/ R507	R407C	R410A	R744	R134a	R404A/ R507	R407C	R410A	R744	
ADK-03	4.9	4.9	3.4	2.8	4.6	4.4	4.6	2.9	2.4	4.2	0.8
ADK-05	11.8	11.8	8.2	6.8	8.7	10.6	10.9	7	5.8	7.9	2.3
ADK-08	17.9	18.0	12.4	10.3	13.2	16.2	16.6	10.7	8.8	12.0	3.3
ADK-16	23.0	23.1	16.0	13.2	17.0	20.8	21.3	13.8	11.4	15.4	4.5
ADK-30	51.8	53.5	36.9	30.6	41.0	47.4	49.3	31.8	26.3	38.1	11.3
ADK-41	81.7	84.3	58.2	48.3	54.3	74.8	77.8	50.2	41.4	50.5	16.8
ADK-75	143.5	148.1	102.1	84.8	96.3	131.4	136.6	88.1	72.8	89.5	29.9

Type / Size	Water Adsorption Capacity (gram)										Acid Adsorption Capacity (gram)
	Liquid Temperature 25°C					Liquid Temperature 52°C					
	R448A	R449A	R450A	R513A	R452A	R448A	R449A	R450A	R513A	R452A	
ADK-03	4.7	4.7	6.0	6.0	3.4	4.3	4.3	5.5	5.4	2.7	0.8
ADK-05	9.0	9.0	11.4	11.3	6.5	8.2	8.2	10.3	10.3	5.0	2.3
ADK-08	13.7	13.7	17.3	17.2	9.8	12.4	12.4	15.7	15.7	7.7	3.3
ADK-16	17.5	17.5	22.2	22.1	12.6	16.0	16.0	20.2	20.1	9.9	4.5
ADK-30	39.9	39.9	52.0	51.7	32.8	37.5	36.3	46.1	45.9	25.6	11.3
ADK-41	52.8	52.8	68.8	68.4	43.4	49.7	48.1	61.0	60.7	33.9	16.8
ADK-75	93.8	93.8	122.1	121.4	77.1	88.2	85.3	108.4	107.8	60.1	29.9

A2L refrigerants

Type / Size	Water Adsorption Capacity (gram)										Acid Adsorption Capacity (gram)
	Liquid Temperature 24°C					Liquid Temperature 52°C					
	R32	R452B	R454A R454B R454C	R455A	R1234ze R1234yf	R32	R452B	R454A R454B R454C	R455A	R1234ze R1234yf	
ADK-03	3.4	3.4	3.4	3.4	6.0	2.7	2.7	2.7	2.7	5.5	0.8
ADK-05	6.5	6.5	6.5	6.5	11.4	5.2	5.0	5.0	5.0	10.3	2.3
ADK-08	9.8	9.8	9.8	9.8	17.3	7.8	7.7	7.7	7.7	15.7	3.3
ADK-16	12.6	12.6	12.6	12.6	22.2	10.1	9.9	9.9	9.9	20.2	4.5
ADK-30	32.8	32.8	32.8	32.8	57.6	26.2	25.6	25.6	25.6	52.5	11.3
ADK-41	43.4	43.4	43.4	43.4	76.2	34.6	33.9	33.9	33.9	69.4	16.8
ADK-75	77.1	77.1	77.1	77.1	135.4	61.5	60.1	60.1	60.1	123.3	29.9

Technical data

Max. allowable pressure PS	45 bar
Test pressure PT	47.3 bar
Liquid temperature refrigerant	-45...+65°C
Fluid group	I + II
List of released refrigerants Fluid group II (A1): Fluid group I (A2L): Note: Fluid group classification according to PED 2014/68/EU.	R134a, R404A, R407C, R410A, R448A, R449A, R450A, R452A, R507, R513A, R744 R32, R452B, R454B, R454A, R454C, R455A, R1234ze, R1234yf

Material shell	Steel
Paint	Epoxy powder paint
Connections Solder Flare	 Copper, ODF Burnished, SAE
Protection	500+ hours salt spray test
Package	Individual packaged
Marking	(A2L pending) (acc. PED, V > 1 liter)