



ADK 163S

ADK SERIES HERMETIC LIQUID LINE FILTER DRIERS

The ADK is a solid core liquid line filter drier good for use in residential air conditioning and refrigeration systems.

FEATURES

- Solid copper connections
- High moisture and acid removal capacity
- Corrosion resistant epoxy powder paint finish

SPECIFICATIONS

Desiccant blend..... Optimized for high water and acid capacity
 Filtration 40 microns
 Maximum working pressure 680 psig (47 bar)
 UL/CUL file numberSA 3124
 Canadian CRN0E21971.513467890YTN

MODEL NUMBER NOMENCLATURE - Example: ADK 032SVCAP

SERIES	UNIT SIZE	CONNECTION SIZE	CONNECTION TYPE	ACCESS	SEQUENTIAL IDENTIFIER	CUSTOMER SPECIAL	PACK TYPE
ADK	03	2	S	VCAP			
Hermetic Core Style Liquid Line Filter Driers	In Cubic In.	In 1/8" Increments	S = Solder (ODF) Omit for Flare (SAE)	V = Single Access Valve VCAP = Single Access Valve with Cap Tube Outlet (Omit for no access valve)	Blank Thru -99	G = Customer Special (Omit for Standard)	B1 = Bulk Pack (Omit for Individual Pack)

ADK SERIES REFRIGERANT FILTER DRIERS

UNIT SIZE (CUBIC INCHES)	INLET X OUTLET CONNECTION SIZE & TYPE	ACCESS TYPE	MODEL NUMBER	ITEM NUMBER
03	1/4" X 1/4" SAE	None	ADK 032	059874
03	1/4" X 1/4" ODF	None	ADK 032S	052451
03	1/4" ODF X Cap Tube	Single	ADK 032SVCAP	063909
03	3/8" X 3/8" SAE	None	ADK 033	023157
03	3/8" X 1/4" ODF	None	ADK 033/2S	063496
03	3/8" X 3/8" ODF	None	ADK 033S	053172
05	1/4" X 1/4" SAE	None	ADK 052	060125
05	1/4" X 1/4" ODF	None	ADK 052S	060126
05	3/8" X 3/8" SAE	None	ADK 053	060127
05	3/8" X 3/8" ODF	None	ADK 053S	060128
08	1/4" X 1/4" SAE	None	ADK 082	060129
08	1/4" X 1/4" ODF	None	ADK 082S	060130
08	3/8" X 3/8" SAE	None	ADK 083	060131
08	3/8" X 3/8" ODF	None	ADK 083S	060132
08	1/2" X 1/2" SAE	None	ADK 084	060133
08	1/2" X 1/2" ODF	None	ADK 084S	060134
16	1/4" X 1/4" SAE	None	ADK 162	059820
16	1/4" X 1/4" ODF	None	ADK 162S	059838
16	3/8" X 3/8" SAE	None	ADK 163	059839
16	3/8" X 3/8" ODF	None	ADK 163S	060795
16	1/2" X 1/2" SAE	None	ADK 164	059840
16	1/2" X 1/2" ODF	None	ADK 164S	059841
16	5/8" X 5/8" SAE	None	ADK 165	059842
16	5/8" X 5/8" ODF	None	ADK 165S	059843

ADK SERIES REFRIGERANT FILTER DRIERS (CONT'D)

UNIT SIZE (CUBIC INCHES)	INLET X OUTLET CONNECTION SIZE & TYPE	ACCESS TYPE	MODEL NUMBER	ITEM NUMBER
30	3/8" X 3/8" SAE	None	ADK 303	060172
30	3/8" X 3/8" ODF	None	ADK 303S	058507
30	1/2" X 1/2" SAE	None	ADK 304	060173
30	1/2" X 1/2" ODF	None	ADK 304S	060176
30	5/8" X 5/8" SAE	None	ADK 305	060174
30	5/8" X 5/8" ODF	None	ADK 305S	060177
30	7/8" X 7/8" ODF	None	ADK 307S	060178
30	1-1/8" X 1-1/8" ODF	None	ADK 309S	060179
41	3/8" X 3/8" SAE	None	ADK 413	060182
41	1/2" X 1/2" SAE	None	ADK 414	060183
41	1/2" X 1/2" ODF	None	ADK 414S	060185
41	5/8" X 5/8" SAE	None	ADK 415	060184
41	5/8" X 5/8" ODF	None	ADK 415S	060186
41	7/8" X 7/8" ODF	None	ADK 417S	060187
41	1-1/8" X 1-1/8" ODF	None	ADK 419S	060188
75	7/8" X 7/8" ODF	None	ADK 757S	060190
75	1-1/8" X 1-1/8" ODF	None	ADK 759S	060191

ADK SERIES CAPACITY TABLE

MODEL NUMBER	CONN.	FLOW CAPACITY TONS @ 1 PSI ΔP ¹ (FOR KW, MULTIPLY TONS BY 3.5)							WATER CAPACITY ² (DROPS OF WATER ³)																	
		R-22/ R-448A/ R-449A	R-134a/ R-450A/ R-513A	R-290	R-410A	R-407C	R-404A / R-507	R-744	R-22		R-134a		R-290		R-407C		R-410A		R-404A / 507		R-448A / R-449A		R-450A / R-513A		R-744	
									75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	14°F	75°F
ADK 032	1/4 SAE	2.1	1.9	2.3	2.1	2.0	1.4	2.7	69	63	74	68	62	59	57	46	47	36	76	72	49	45	63	57	58	64
ADK 032S	1/4 ODF	2.5	2.3	2.8	2.5	2.4	1.7	3.2																		
ADK 033	3/8 SAE	2.9	2.7	3.2	2.9	2.9	2.0	3.7																		
ADK 033S	3/8 ODF	3.3	3.0	3.6	3.3	3.2	2.2	4.3																		
ADK 052	1/4 SAE	2.2	2.0	2.4	2.2	2.1	1.4	2.8	180	130	195	180	161	152	150	120	125	95	200	190	128	116	162	147	144	169
ADK 052S	1/4 ODF	3.1	2.9	3.4	3.1	3.1	2.1	4.0																		
ADK 053	3/8 SAE	4.0	3.7	4.4	4.0	3.9	2.7	5.2																		
ADK 53S	3/8 ODF	4.9	4.5	5.4	4.9	4.8	3.3	6.3																		
ADK 082	1/4 SAE	2.2	2.0	2.4	2.2	2.1	1.4	2.8	250	225	265	245	227	214	205	165	170	130	275	260	180	164	228	207	198	233
ADK 082S	1/4 ODF	3.4	3.1	3.7	3.4	3.3	2.2	4.4																		
ADK 083	3/8 SAE	4.7	4.3	5.2	4.7	4.6	3.1	6.1																		
ADK 083S	3/8 ODF	4.6	4.2	5.1	4.6	4.5	3.0	5.9																		
ADK 084	1/2 SAE	7.3	6.7	8.0	7.3	7.1	4.9	9.4	265	330	390	360	322	304	300	240	250	190	400	380	256	233	323	294	328	386
ADK 084S	1/2 ODF	7.6	7.0	8.4	7.6	7.4	5.1	9.8																		
ADK 162	1/4 SAE	2.2	2.0	2.4	2.2	2.1	1.4	2.8																		
ADK 163	3/8 SAE	4.8	4.4	5.3	4.8	4.7	3.2	6.2																		
ADK 163S	3/8 ODF	5.3	4.9	5.8	5.3	5.2	3.6	6.8	810	740	865	800	—	—	675	540	555	420	895	845	614	558	775	705	676	796
ADK 164	1/2 SAE	9.0	8.3	9.9	9.0	8.8	6.0	11.6																		
ADK 164S	1/2 ODF	9.3	8.6	10.2	9.3	9.1	6.2	12.0																		
ADK 165	5/8 SAE	12.8	11.8	14.1	12.8	12.5	8.6	16.5																		
ADK 165S	5/8 ODF	14.2	13.1	15.6	14.2	13.9	9.5	18.3																		
ADK 167S	7/8 ODF	17.3	16.0	19.0	17.3	17.0	11.8	22.3																		
ADK 303	3/8 SAE	5.1	4.7	—	5.1	5.0	3.4	6.6																		
ADK 304	1/2 SAE	9.3	8.6	—	9.3	9.1	6.2	12.0																		
ADK 304S	1/2 ODF	9.5	8.8	—	9.5	9.4	6.4	12.3																		
ADK 305	5/8 SAE	15.0	13.8	—	15.0	14.7	10.0	19.4																		

ADK SERIES CAPACITY TABLE (CONTINUED)

MODEL NUMBER	CONN.	FLOW CAPACITY TONS @ 1 PSI ΔP ^{1,4} (FOR KW, MULTIPLY TONS BY 3.5)							WATER CAPACITY ² (DROPS OF WATER ³)																	
									R-22		R-134a		R-290		R-407C		R-410A		R-404A / 507		R-448A / R-449A		R-450A / R-513A		R-744	
		75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	14°F	75°F					
ADK 305S	5/8 ODF	15.7	14.5	—	15.7	15.4	10.5	20.3	810	740	865	800	—	—	675	540	555	420	895	845	614	558	775	705	676	796
ADK 306S	3/4 ODF	17.1	15.8	—	17.1	16.8	11.5	22.1																		
ADK 307S	7/8 ODF	18.9	17.4	—	18.9	18.5	12.6	24.4																		
ADK 309S	1-1/8 ODF	27.0	24.9	—	27.0	26.5	18.0	34.8																		
ADK 413	3/8 SAE	5.1	4.7	—	5.1	5.0	3.4	6.6	1140	1010	1210	1100	—	—	945	740	780	580	1260	1156	818	744	1033	1033	900	1060
ADK 414	1/2 SAE	10.6	9.8	—	10.6	10.4	7.1	13.7																		
ADK 414S	1/2 ODF	11.6	10.7	—	11.6	11.4	7.8	15.0																		
ADK 415	5/8 SAE	16.9	15.6	—	16.9	16.6	11.3	21.8																		
ADK 415S	5/8 ODF	17.9	16.5	—	17.9	17.5	12.0	23.1																		
ADK 417S	7/8 ODF	22.0	20.3	—	22.0	21.7	14.7	28.4																		
ADK 419S	1-1/8 ODF	27.3	25.2	—	27.3	26.8	18.3	35.2																		
ADK 757S	7/8 ODF	37.1	34.2	—	37.1	36.3	24.8	47.9																		
ADK 759S	1-1/8 ODF	40.4	37.3	—	40.4	39.6	27.0	52.1																		

¹ All ratings in accordance with ARI Standard 710-04. 86oF liquid refrigerant temperature
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
2.7 lbs./min./ton for R-410A

⁵ Since there is currently no ARI standard for R-744, values are based on 1 ton of refrigeration at 20°F liquid refrigerant temperature and -20°F saturated vapor temperature.

² Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a,
R404-A/507, R-410A, R-407C, and R-744
60 parts per million for R-22
15 parts per million for R-12

³ 20 drops of water = 1 gram = 1 cc
⁴ For 2 PSI ΔP, Multiply values by 1.4

LIQUID REFRIGERANT HOLDING CAPACITY-OUNCES

UNIT SIZE	R-12		R-22 / R-448A / R-449A		R290		R-134a / R-450A / R-513A		R-407C		R-410A		R-404A / 507		R-502		R-744	
	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	20°F	-20°F
03	2.4	2.2	2.2	2.0	0.9	0.8	2.2	2.0	2.1	1.9	2.0	1.7	1.9	1.7	2.7	2.3	1.8	2.0
05	5.9	6.0	5.4	5.4	2.2	2	5.5	5.5	5.2	5.0	4.8	4.5	4.7	4.5	6.0	5.3	4.9	5.4
08	8.0	7.4	7.3	6.6	3	2.7	7.4	6.7	7.0	6.2	6.5	5.5	6.4	5.5	7.7	6.8	5.9	6.5
16	14.5	12.5	13.2	11.2	5.4	4.9	13.4	11.4	12.6	10.4	11.7	9.4	11.6	9.3	9.5	8.4	10.1	11.2
30	21.8	19.9	19.8	17.8	8.1	7.3	20.1	18.1	18.9	16.6	17.4	14.9	17.4	14.7	26.7	23.4	16.0	17.7
41	29.3	26.8	26.6	23.9	11	9.9	26.9	24.4	25.4	22.3	23.7	20.0	23.3	19.7	37.2	32.4	21.4	23.8
75	52.8	48.3	48.0	43.1	19.8	17.9	48.6	43.9	45.8	40.2	42.8	36.0	42.1	35.6	67.2	59.0	38.7	42.9