

# EK Liquid Line Filter Drier

The EK Liquid Line filter drier is a premium compacted bead filter drier with a 20 micron outlet pad for maximum filtration. The EK is a premium universal replacement liquid line filter drier for CFC, HCFC and HFC refrigerants including R-12, R-134a, R-22, R-404A, R-407C, R-410A, R-500, R-502, and R-507.



## Features

- Filtration first for more effective use of surface area of desiccant
- High moisture and acid removal capacity
- Solid copper connections
- Corrosion resistant epoxy powder paint finish
- Copeland® brand products approved for POE Oils
- Shock resistant steel shell construction

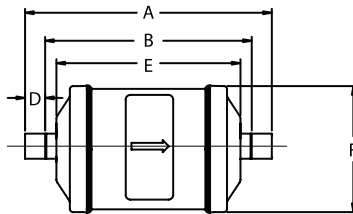
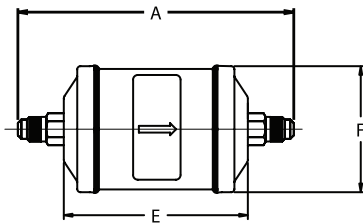
## Specifications

- Desiccant blend - optimized for high water capacity and acid capacity
- Filtration: 20 microns
- Maximum working pressure: 680 psig
- UL/CUL file number: SA 3124

## Nomenclature example: EK-083S

EK	08	3	S
Drier Series	Unit Size (in cu. in.)	Connection Size (in 1/8")	S = ODF connections (omit for SAE)

## Dimensional Data



## Ordering Information

PCN	Description	Dimensions (in)					Weight (lbs)
		A	B	D	E	F	
060009	EK 032	4.38			2.57	1.75	0.48
060012	EK 032S	3.83	2.71	0.56			
060011	EK 032FM	3.92					
060010	EK 032MF	3.92					
060013	EK 033	4.69					
060014	EK 033S	4.03	2.79	0.62	3.02		1.04
047601	EK 052	4.83					
057013	EK 052MF	4.37					
047602	EK 052S	4.15	3.46	0.35			
047603	EK 053	5.14					
047604	EK 053S	4.48	3.24	0.62	3.83	2.64	1.23
047605	EK 082	5.64					
047606	EK 082S	4.96	4.27	0.35			
049551	EK 0825S	5.01	4.37	0.32			
056906	EK 083MF	5.70					
047607	EK 083	5.95			4.77		1.49
047608	EK 083S	5.29	4.05	0.62			
047609	EK 084	6.17					
047610	EK 084S	5.33	4.07	0.63			
047611	EK 162	6.58					
047612	EK 162S	5.90	5.21	0.35	7.54	3.14	3.01
056045	EK 1625S	5.95	5.31	0.32			
047613	EK 163	6.89					
047614	EK 163S	6.24	5.43	0.40			
047615	EK 164	7.11					
047616	EK 164S	6.33	5.33	0.50	7.67	3.64	3.35
047617	EK 165	7.57					
047618	EK 165S	6.55	5.30	0.63			
047619	EK 167S	7.13	5.63	0.75			
048210	EK 303	9.66					
048211	EK 303S	9.01	8.21	0.40	13.16		6.14
048212	EK 304	9.88					
048213	EK 304S	9.10	8.10	0.50			
048214	EK 305	10.34					
048215	EK 305S	9.32	8.07	0.63			
048216	EK 306S	9.73	8.48	0.63	7.67	3.64	3.35
048217	EK 307S	9.90	8.40	0.75			
048218	EK 309S	10.26	8.45	0.90			
048219	EK 413	9.79					
048220	EK 414	10.01					
048221	EK 414S	9.23	8.23	0.50	13.16		6.14
048222	EK 415	10.47		-			
048223	EK 415S	9.45	8.20	0.63			
048224	EK 417S	10.03	8.53	0.75			
048225	EK 419S	10.39	8.58	0.91			
048228	EK 757S	15.25	14.02	0.61	13.16		6.14
048229	EK 759S	15.88	14.07	0.91			

# EK Filter Driers

## Capacity Tables

Description	Connections Inlet/Outlet	Flow Capacity Tons @ 1 psi $\Delta P$ <sup>1,4</sup> (For kW, multiply tons by 3.5)						Water Capacity <sup>2</sup> Drops of Water <sup>3</sup>															
		R-12	R-134a R-450A R-513A	R-22 R-410A R-448A R-449A	R-407C	R-404A/ R-507	R-744	R-12		R-134a		R-22		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	-10°F	25°F	
EK 03 2 FM	1/4 Fem/1/4 Male SAE	1.6	2.0	2.2	2.1	1.4	2.8																
EK 03 2 MF	1/4 Male/1/4 Fem SAE	1.6	2.0	2.2	2.1	1.4	2.8																
EK 03 2	1/4 SAE	1.6	2.0	2.2	2.1	1.4	2.8																
EK 03 2 S	1/4 ODF	2.2	2.7	2.9	2.9	2.0	3.7	47	41	40	37	40	33	33	25	21	19	38	37	42	37	30	34
EK 032 SV	1/4 ODF	2.2	2.7	2.9	2.9	2.0	3.7																
EK 03 3	3/8 SAE	2.5	3.0	3.3	3.2	2.2	4.3																
EK 03 3 S	3/8 ODF	2.5	3.0	3.3	3.2	2.2	4.3																
EK 05 2 FM	1/4 Fem/1/4 Male SAE	1.7	2.1	2.3	2.2	1.5	3.0																
EK 05 2 MF	1/4 Male/1/4 Fem SAE	1.7	2.1	2.3	2.2	1.5	3.0																
EK 05 2	1/4 SAE	1.7	2.1	2.3	2.2	1.5	3.0																
EK 05 2 S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	4.6	133	119	116	106	114	97	95	75	64	58	109	106	120	107	81	89
EK 05 3 MF	3/8 Male/3/8 Fem SAE	2.9	3.5	3.8	3.7	2.5	4.9																
EK 05 3	3/8 SAE	2.9	3.5	3.8	3.7	2.5	4.9																
EK 05 3 S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	6.2																
EK 08 2 FM	1/4 Fem/1/4 Male SAE	1.9	2.3	2.5	2.4	1.7	3.2																
EK 08 2 MF	1/4 Male/1/4 Fem SAE	1.9	2.3	2.5	2.4	1.7	3.2																
EK 08 2	1/4 SAE	1.9	2.3	2.5	2.4	1.7	3.2																
EK 08 2 S	1/4 ODF	2.7	3.3	3.6	3.5	2.4	4.4																
EK 08 25 S	5/16 ODF	2.9	3.5	3.8	3.7	2.5	4.9																
EK 08 3 MF	3/8 Male/3/8 Fem SAE	3.3	4.0	4.3	4.3	2.9	5.5	274	240	237	218	235	200	195	155	159	118	224	217	245	217	163	180
EK 08 3	3/8 SAE	3.3	4.0	4.3	4.3	2.9	5.5																
EK 08 3 S	3/8 ODF	3.7	4.5	4.9	4.8	3.3	6.3																
EK 08 4	1/2 SAE	5.5	6.7	7.3	7.1	4.9	9.4																
EK 08 4 S	1/2 ODF	5.8	7.1	7.7	7.5	5.1	9.9																
EK 16 2 MF	1/4 Male/1/4 Fem SAE	1.9	2.3	2.5	2.4	1.7	3.2																
EK 16 2	1/4 SAE	1.9	2.3	2.5	2.4	1.7	3.2																
EK 16 2 S	1/4 ODF	2.5	3.1	3.4	3.3	2.2	4.4																
EK 16 25 S	5/16 ODF	2.5	3.1	3.4	3.3	2.2	4.4																
EK 16 3	3/8 SAE	3.2	3.9	4.2	4.1	2.8	5.4																
EK 16 3 S	3/8 ODF	3.6	4.4	4.8	4.7	3.2	6.2	347	301	371	341	368	313	305	240	206	186	350	340	306	272	260	286
EK 16 4	1/2 SAE	5	6.1	7.3	6.5	6.6	10.1																
EK 16 4 S	1/2 ODF	7.0	8.5	9.0	9.0	6.2	11.9																
EK 16 5	5/8 SAE	8.0	9.7	10.5	10.3	7.0	13.5																
EK 16 5 S	5/8 ODF	8.3	10.1	10.9	10.7	7.3	14.1																
EK 16 7 S	7/8 ODF	12.7	15.5	16.8	16.5	11.2	21.7																
EK 30 3	3/8 SAE	3.5	4.3	4.7	4.6	3.1	6.1																
EK 30 3 S	3/8 ODF	5.2	6.3	6.8	6.7	4.6	8.8																
EK 30 4	1/2 SAE	6.6	8.1	8.8	8.6	5.9	11.4																
EK 30 4 S	1/2 ODF	8.2	10.0	10.8	10.6	7.2	13.9																
EK 30 5	5/8 SAE	8.7	10.6	11.5	11.3	7.7	14.8																
EK 30 6 S	3/4 ODF	12.1	14.8	16.0	15.7	10.7	20.6																
EK 30 7 S	7/8 ODF	13.8	16.8	18.2	17.9	12.2	23.5																
EK 30 9 S	1 1/8 ODF	16.1	19.6	21.2	20.8	14.2	27.3																
EK 41 3	3/8 SAE	3.5	4.3	4.7	4.6	3.1	6.1																
EK 41 4	1/2 SAE	8.5	10.4	11.3	11.1	7.5	14.6																
EK 41 4 S	1/2 ODF	8.9	10.8	11.7	11.5	7.8	15.1																
EK 41 5	5/8 SAE	9.8	12.0	13.0	12.8	8.7	16.8																
EK 41 7 S	7/8 ODF	16.6	20.3	22.0	21.6	14.7	28.4																
EK 41 9 S	1 1/8 ODF	22.7	27.7	30.0	29.4	20.1	38.7																
EK 75 7 S	7/8 ODF	18.2	22.2	24.1	23.6	16.1	31.1																
EK 75 9 S	1 1/8 ODF	26.8	32.7	35.4	34.8	23.7	45.7	2368	2159	2159	2019	2159	1880	1810	1460	1460	1111	2019	2019	2229	2019	1578	1737

<sup>1</sup> All ratings in accordance with ARI Standard 710-04, 86°F liquid refrigerant temperature

<sup>2</sup> Water Capacities are based on:

<sup>3</sup> 20 drops of water = 1 gram = 1 cc

5°F saturated vapor temperature

Equilibrium Point Dryness (EPD) of:

3.1 lbs./min./ton for R-134a

50 parts per million for R-134a, R404-A/507,

2.9 lbs./min./ton for R-22 and R-407C

R-410A and R-407C

4.0 lbs./min./ton for R-404A/507 and R-12

60 parts per million for R-22

<sup>4</sup> For 2 PSI  $\Delta P$ , Multiply values by 1.4

2.7 lbs./min./ton for R-410A

15 parts per million for R-12

<sup>5</sup> 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.

## Liquid Refrigerant Holding Capacity-Ounces

Unit Size	R-12		R-134a/R-450A/R-513A		R-22/R-448A/R-449A		R-407C		R-410A		R-404A/R-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	20°F	-20°F
03	2.9	2.6	2.6	2.3	2.6	2.3	2.5	2.1	2.3	1.9	2.3	1.9	2.7	2.3	2.1	2.3
05	6.5	5.9	6.0	5.4	5.9	5.3	5.6	4.9	5.3	4.4	5.2	4.4	6.0	5.3	4.8	5.3
08	8.3	7.6	7.6	6.9	7.5	6.8	7.2	6.3	6.7	5.7	6.6	5.6	7.7	6.8	6.1	6.7
16	10.2	9.4	9.4	8.6	9.3	8.4	8.9	7.8	8.3	7.0	8.2	6.9	9.5	8.4	7.5	8.3
30	28.7	26.3	26.4	23.9	26.1	23.5	24.9	21.9	23.3	19.6	22.9	19.4	26.7	23.4	21.1	23.4
41	40.0	36.4	36.9	33.1	36.4	32.5	34.7	30.3	32.5	27.2	31.9	26.8	37.2	32.4	29.2	32.4
75	72.4	66.3	66.7	60.3	65.8	59.2	62.8	55.2	58.7	49.5	57.7	48.9	67.2	59.0	53.1	58.9