



EK 083S

## EK SERIES HERMETIC LIQUID LINE FILTER DRIERS

*The EK is a premium compacted bead liquid line filter designed for maximum filtration in both air conditioning and refrigeration applications.*

### FEATURES

- 99.9% filtration efficiency with minimal pressure drop
- Retains contaminants during system cycling and vibration
- Filtration first for more effective use of surface area of desiccant
- High moisture and acid removal capacity
- Specially formulated blend to protect POE oils
- Shock resistant steel shell construction
- Solid copper connections

### SPECIFICATIONS

Desiccant ..... Blend optimized for high water and acid capacity  
 Filtration ..... 20 microns  
 Maximum Working Pressure..... 680 psig (47 bar)  
 UL/CUL File Number ..... SA3124  
 Canadian CRN ..... 0E21971.513467890YTN

### MODEL NUMBER NOMENCLATURE - Example: EK 083SVV

SERIES	UNIT SIZE	CONNECTION SIZE	CONNECTION STYLE	ACCESS TYPE	SEQUENTIAL IDENTIFIER	CUSTOMER SPECIAL	PACK TYPE
EK	08	3	S	VV			
Hermetic Liquid Line Filter Driers	In Cubic In.	In 1/8" Increments	S = ODF FM = SAE Female X SAE Male SVCAP = ODF X Cap. Tube with Access Valve MF = SAE Male X SAE Female  (Omit for SAE)	V = Single Access Valve VV = Dual Access Valve VCAP = Single Access Valve with Cap Tube Outlet Connection	Blank Thru -99	G = Customer Special  (Omit for Standard)	B1 = Bulk Pack  (Omit for Individual Pack)

### EK SERIES LIQUID LINE FILTER DRIERS

UNIT SIZE (CUBIC INCHES)	INLET X OUTLET CONNECTION SIZE	ACCESS TYPE	MODEL NUMBER	ITEM NUMBER
3	1/4" X 1/4" SAE Flare	None	EK 032	060009
3	1/4" Female X 1/4" Male SAE Flare	None	EK 032FM	060011
3	1/4" Male X 1/4" Female SAE Flare	None	EK 032MF	060010
3	1/4" X 1/4" ODF	None	EK 032S	060012
3	1/4" ODF X Cap Tube	Single	EK 032SVCAP	063208
3	1/4" X 1/4" ODF	Dual	EK 032SVV	063908
3	3/8" X 3/8" SAE Flare	None	EK 033	060013
3	3/8" X 3/8" ODF	None	EK 033S	060014
5	1/4" X 1/4" SAE Flare	None	EK 052	047601
5	1/4" Male X 1/4" Female SAE Flare	None	EK 052MF	057013
5	1/4" X 1/4" ODF	None	EK 052S	047602
5	1/4" ODF X Cap Tube	Single	EK 052SVCAP	065846
5	1/4" X 1/4" ODF	Dual	EK 052SVV	065966
5	3/8" X 3/8" SAE Flare	None	EK 053	047603
5	3/8" X 3/8" ODF	None	EK 053S	047604
5	3/8" X 3/8" ODF	Dual	EK 053SVV	065963
8	1/4" X 1/4" SAE Flare	None	EK 082	047605
8	5/16" X 5/16" ODF	None	EK 0825S	049551
8	1/4" X 1/4" ODF	None	EK 082S	047606
8	3/8" X 3/8" SAE Flare	None	EK 083	047607
8	3/8" Male X 3/8" Female SAE Flare	None	EK 083MF	056906

**EK SERIES LIQUID LINE FILTER DRIERS (CONTINUED)**

UNIT SIZE (CUBIC INCHES)	INLET X OUTLET CONNECTION SIZE	ACCESS TYPE	MODEL NUMBER	ITEM NUMBER
8	3/8" X 3/8" ODF	None	EK 083S	047608
8	3/8" X 3/8" ODF	Dual	EK 083SVV	065964
8	1/2" X 1/2" SAE Flare	None	EK 084	047609
8	1/2" X 1/2" ODF	None	EK 084S	047610
16	1/4" X 1/4" SAE Flare	None	EK 162	047611
16	5/16" X 5/16 ODF	None	EK 1625S	056045
16	1/4" X 1/4" ODF	None	EK 162S	047612
16	3/8" X 3/8" SAE Flare	None	EK 163	047613
16	3/8" X 3/8" ODF	None	EK 163S	047614
16	3/8" X 3/8" ODF	Dual	EK 163SVV	065965
16	1/2" X 1/2" SAE Flare	None	EK 164	047615
16	1/2" X 1/2" ODF	None	EK 164S	047616
16	5/8" X 5/8" SAE Flare	None	EK 165	047617
16	5/8" X 5/8" ODF	None	EK 165S	047618
16	7/8" X 7/8" ODF	None	EK 167S	047619
30	3/8" X 3/8" SAE Flare	None	EK 303	048210
30	3/8" X 3/8" ODF	None	EK 303S	048211
30	1/2" X 1/2" SAE Flare	None	EK 304	048212
30	1/2" X 1/2" ODF	None	EK 304S	048213
30	5/8" X 5/8" SAE Flare	None	EK 305	048214
30	5/8" X 5/8" ODF	None	EK 305S	048215
30	3/4" X 3/4" SAE Flare	None	EK 306	048668
30	3/4" X 3/4" ODF	None	EK 306S	048216
30	7/8" X 7/8" ODF	None	EK 307S	048217
30	1-1/8" X 1-1/8" ODF	None	EK 309S	048218
41	3/8" X 3/8" SAE Flare	None	EK 413	048219
41	1/2" X 1/2" SAE Flare	None	EK 414	048220
41	1/2" X 1/2" ODF	None	EK 414S	048221
41	5/8" X 5/8" SAE Flare	None	EK 415	048222
41	5/8" X 5/8" ODF	None	EK 415S	048223
41	7/8" X 7/8" ODF	None	EK 417S	048224
41	1-1/8" X 1-1/8" ODF	None	EK 419S	048225
75	7/8" X 7/8" ODF	None	EK 757S	048228
75	1-1/8" X 1-1/8" ODF	None	EK 759S	048229

**EK SERIES CAPACITY TABLE**

MODEL NUMBER	ITEM NUMBER	FLOW CAPACITY TONS @ 1 PSI ΔP <sup>1,4</sup> (FOR KW, MULTIPLY TONS BY 3.5)							WATER CAPACITY <sup>2</sup> DROPS OF WATER <sup>3</sup>																				
		R-22 /R-410A /R-448A /R-449A		R-134a /R-450A /R-513A		R-404A /R-507 /R-452A /R-452C		R-407C		R-744		R-22		R-134a		R-290 /R-600		R-404A /R-507		R-407C		R-410A		R-450A /R-513A		R452A /R452C /R-448A /R-449A		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	75°F	125°F	75°F	125°F	75°F	125°F	14°F	75°F		
EK 032FM	060011	2.2	2.0	2.4	1.4	2.1	2.8	40	33	40	37	46	42	38	37	33	25	21	19	41	46	41	45	30	34				
EK 032	060009	2.2	2.0	2.4	1.4	2.1	2.8	40	33	40	37	46	42	38	37	33	25	21	19	41	46	41	45	30	34				
EK 032MF	060010	2.2	2.0	2.4	1.4	2.1	2.8	40	33	40	37	46	42	38	37	33	25	21	19	41	46	41	45	30	34				
EK 032S	060012	2.9	2.7	3.2	2.0	2.9	3.7	40	33	40	37	46	42	38	37	33	25	21	19	41	46	41	45	30	34				
EK 033	060013	3.3	3.0	3.6	2.2	3.2	4.3	40	33	40	37	46	42	38	37	33	25	21	19	41	46	41	45	30	34				
EK 033S	060014	3.3	3.0	3.6	2.2	3.2	4.3	40	33	40	37	46	42	38	37	33	25	21	19	41	46	41	45	30	34				
EK 052	047601	2.3	2.1	2.5	1.5	2.2	3.0	114	97	116	106	125	114	109	106	95	75	64	58	112	123	111	122	81	89				
EK 052MF	057013	2.3	2.1	2.5	1.5	2.2	3.0	114	97	116	106	125	114	109	106	95	75	64	58	112	123	111	122	81	89				
EK 052S	047602	3.4	3.1	3.7	2.2	3.3	4.6	114	97	116	106	125	114	109	106	95	75	64	58	112	123	111	122	81	89				

**EK SERIES CAPACITY TABLE (CONTINUED)**

MODEL NUMBER	ITEM NUMBER	FLOW CAPACITY TONS @ 1 PSI ΔP <sup>1,4</sup> (FOR KW, MULTIPLY TONS BY 3.5)							WATER CAPACITY <sup>2</sup> DROPS OF WATER <sup>3</sup>																
									R-22		R-134a		R-290 / R-600		R-404A / R-507		R-407C		R-410A		R-450A / R-513A		R452A / R452C / R-448A / R-449A		R-744
		R-22 / R-410A / R-448A / R-449A	R-134a / R-450A / R-513A	R-290	R-404A / R-507 / R-452A / R-452C	R-407C	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	14°F	75°F		
EK 053	047603	3.8	3.5	4.2	2.5	3.7	4.9	114	97	116	106	125	114	109	106	95	75	64	58	112	123	111	122	81	89
EK 053S	047604	4.8	4.4	5.3	3.2	4.7	6.2	114	97	116	106	125	114	109	106	95	75	64	58	112	123	111	122	81	89
EK 082	047605	2.5	2.3	2.8	1.7	2.4	3.2	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 0825S	049551	3.8	3.5	4.2	2.5	3.7	4.9	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 082S	047606	3.6	3.3	4.0	2.4	3.5	4.4	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 083	047607	4.3	4.0	4.7	2.9	4.3	5.5	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 083MF	056906	4.3	4.0	4.7	2.9	4.3	5.5	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 083S	047608	4.9	4.5	5.4	3.3	4.8	6.3	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 084	047609	7.3	6.7	8.0	4.9	7.1	9.4	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 084S	047610	7.7	7.1	8.5	5.1	7.5	9.9	235	200	237	218	257	234	224	217	195	155	159	118	231	254	228	251	163	180
EK 162	047611	2.5	2.3	2.8	1.7	2.4	3.2	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 1625S	056045	3.4	3.1	3.7	2.2	3.3	4.4	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 162S	047612	3.4	3.1	3.7	2.2	3.3	4.4	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 163	047613	4.2	3.9	4.6	2.8	4.1	5.4	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 163S	047614	4.8	4.4	5.3	3.2	4.7	6.2	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 164	047615	7.8	6.1	8.6	4.2	6.5	10.1	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 164S	047616	9.2	8.5	10.1	6.2	9.0	11.9	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 165	047617	10.5	9.7	11.6	7.0	10.3	13.5	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 165S	047618	10.9	10.1	12.0	7.3	10.7	14.1	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 167S	047619	16.8	15.5	18.5	11.2	16.5	21.7	368	313	371	341	403	366	350	340	305	240	206	186	361	398	357	392	260	286
EK 303	048210	4.7	4.3	5.2	3.1	4.6	6.1	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 303S	048211	6.8	6.3	7.5	4.6	6.7	8.8	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 304	048212	8.8	8.1	9.7	5.9	8.6	11.4	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 304S	048213	10.8	10.0	11.9	7.2	10.6	13.9	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 305	048214	11.5	10.6	12.7	7.7	11.3	14.8	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 306S	048216	16.0	14.8	17.6	10.7	15.7	20.6	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 307S	048217	18.2	16.8	20.0	12.2	17.9	23.5	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 309S	048218	21.2	19.6	23.3	14.2	20.8	27.3	657	561	664	611	—	—	627	608	548	434	515	355	648	713	640	703	458	504
EK 413	048219	4.7	4.3	5.2	3.1	4.6	6.1	919	785	938	854	—	—	876	850	765	607	715	465	906	997	895	984	638	702
EK 414	048220	11.3	10.4	12.4	7.5	11.1	14.6	919	785	938	854	—	—	876	850	765	607	715	465	906	997	895	984	638	702
EK 414S	048221	11.7	10.8	12.9	7.8	11.5	15.1	919	785	938	854	—	—	876	850	765	607	715	465	906	997	895	984	638	702
EK 415	048222	13.0	12.0	14.3	8.7	12.8	16.8	919	785	938	854	—	—	876	850	765	607	715	465	906	997	895	984	638	702
EK 417S	048224	22.0	20.3	24.2	14.7	21.6	28.4	919	785	938	854	—	—	876	850	765	607	715	465	906	997	895	984	638	702
EK 419S	048225	30.0	27.7	33.0	20.1	29.4	38.7	919	785	938	854	—	—	876	850	765	607	715	465	906	997	895	984	638	702
EK 757S	048228	24.1	22.2	26.5	16.1	23.6	31.1	2159	1880	2159	2019	—	—	2019	2019	1810	1460	1460	1111	2170	2387	2142	2356	1578	1737
EK 759S	048229	35.4	32.7	38.9	23.7	34.8	45.7	2159	1880	2159	2019	—	—	2019	2019	1810	1460	1460	1111	2170	2387	2142	2356	1578	1737

<sup>1</sup> 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

<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.

<sup>2</sup> 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

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

**LIQUID REFRIGERANT HOLDING CAPACITY-OUNCES**

UNIT SIZE	R-12		R-134a		R-22		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