



Filter Drier D-Series (hermetic) and DS- with Inserts

<p><b>D und DS Filter Drier:</b></p> <p>The compact housing for Operating Pressures up to 46 bar (i.e. R410A and CO2 subcritical) applications.</p> <p><b>CE</b></p>	<p><b>Product Features:</b></p> <ul style="list-style-type: none"> <li>• Optimal Flow Capacity with low pressure Drop</li> <li>• CE marked acc. PED 2014/68/EU</li> <li>• Powder Painted for excellent corrosion resistance</li> <li>• 80% Molecular Sieve for high moisture capacity and quick removal of moisture</li> <li>• 20% Activated Alumina for Acid removal</li> <li>• High water capacity even at high liquid temperatures due to high MS content (3 Å Material)</li> <li>• Connection suitable for brazing and welding (only DS)</li> </ul> <p>Optional: ¼"NPT thread in cover</p>
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<b>Pressure Equipment Directive:</b>	2014/68/EU	<b>Released for Media:</b>	See capacity table, Mineral-, Synthetic- und POE lubricants
<b>Applied Standards</b>	EN 378/-1/-2, EN 14276-1, EN 1593, EN 1779	<b>Materials</b>	Housing: Steel Pressure Connection: Ni plated Steel Cover plated Steel, Screw: 8.8
<b>Pressure Range:</b>	Max. Operating Pressure PS: 46 bar Proof Pressure PT: 65,8 bar	<b>Temperature Range:</b>	-10°C to 75°C at 46 bar -35°C to 75°C at 34,5 bar

**Accessories**

Type	P/N		Weight (kg)
T-48	16016	Block Type Drier with 80% Molecular sieve and 20% activated Aluminum oxide	0,86
W-48	16085	Burn out Block (Water Capacity 80% of T-47 Block, see page 2, acid capacity	0,82
F-48	16086	Stainless Steel Filter, Mesh size 100	0,43
DSD-48	16084	Cover Gasket for DS-Series (mulit pack 6 pcs.)	
DSU-48	16083	Universal Cover gasket set for other Filter Drier brands	



**Models and Nominal Capacity DS-Series (Qn)**

Cooling Capacity Qn (kW*) Tc=30°C, Tevap=-15°C, 1K subcooling													
(I) PED Refrigerant Group		R404A (2)	R134a (2)	R449A R448A (2)	R450A (2)	R513A (2)	R410A (2)	R744 (2)	R1234ze (E) (1)	R1234yf (1)	R32 (1)	R1270 (1)	R290 (1)
Type	P/N												
DS-485	16032	51	68	69	65	63	71	110	63	53	101	86	83
DS-487	16033	93	125	126	119	114	129	200	114	96	184	156	152
DS-489	16034	120	161	163	154	148	167	258	148	124	238	202	196
DS-4811	16035	150	201	204	192	185	209	323	185	155	297	252	245
DS-4813	16050	150	201	204	192	185	209	323	185	155	297	252	245
DS-4817	16036	150	201	204	192	185	209	323	185	155	297	252	245
DS-967	16037	95	127	129	122	117	132	204	117	98	188	160	155
DS-969	16038	145	194	197	186	178	202	312	178	149	287	244	236
DS-9611	16039	180	241	245	230	221	250	387	221	185	356	302	293
DS-9613	16040	210	281	286	269	258	292	452	258	216	416	353	342
DS-9617	16041	210	281	286	269	258	292	452	258	216	416	353	342
DS-1449	16042	150	201	204	192	185	209	323	185	155	297	252	245
DS-14411	16043	210	281	286	269	258	292	452	258	216	416	353	342
DS-14413	16044	225	302	306	288	277	313	484	277	232	446	378	367
DS-14417	16045	230	308	313	294	283	320	495	283	237	455	386	375
DS-19211	16046	240	322	326	307	295	334	516	295	247	475	403	391
DS-19213	16047	250	335	340	320	308	348	538	308	258	495	420	408
DS-19217	16048	270	362	367	346	332	375	581	332	278	535	454	440

**Models and Nominal Capacity D-Series (Qn)**

Cooling Capacity Qn (kW*) Tc=30°C, Tevap=-15°C, 1K subcooling													
(I) PED Refrigerant Group		R404A (2)	R134a (2)	R449A R448A (2)	R450A (2)	R513A (2)	R410A (2)	R1234ze (E) (1)	R1234yf (1)	R32 (1)	R1270 (1)	R290 (1)	
Type	P/N												
D-052	16001												
D-052 S	16003	8	10,7	10,9	10,2	9,8	11,1	9,8	8,2	15,8	13,4	13,0	
D-056 S	16002												
D-053	16004												
D-053 S	16006	17	22,8	23,1	21,8	20,9	23,6	20,9	17,5	33,7	28,6	27,7	
D-0510 S	16005												
D-082	16007												
D-082 S	16009	10	13,4	13,6	12,8	12,3	13,9	12,3	10,3	19,8	16,8	16,3	
D-086 S	16008												
D-083	16010												
D-083 S	16012	18	24,1	24,5	23,0	22,1	25,0	22,1	18,5	35,6	30,2	29,3	
D-0810 S	16011												
D-084	16013												
D-084 S	16015												
D-0812 S	16014												
D-162	16017	22	29,5	29,9	28,2	27,1	30,6	27,1	22,7	43,6	37,0	35,9	
D-163	16018												
D-163 S	16020												
D-1610 S	16019												
D-164	16021												
D-164 S	16023	30	40,2	40,8	38,4	36,9	41,7	36,9	30,9	59,4	50,4	48,9	
D-1612 S	16022												

(I) PED Refrigerant Group		R404A (2)	R134a (2)	R449A R448A (2)	R450A (2)	R513A (2)	R410A (2)	R1234ze (E) (1)	R1234yf (1)	R32 (1)	R1270 (1)	R290 (1)
D-165	16024											
D-165 S	16025											
D-303	16026											
D-304	16027	32	42,9	43,5	41,0	39,4	44,5	39,4	33,0	63,4	53,8	52,2
D-304 S	16028											
D-3012 S	16058											
D-305	16029											
D-305 S	16030	38	50,9	51,7	48,6	46,7	52,8	46,7	39,1	75,2	63,8	61,9
D-307 S	16031											

\*acc ARI 710-2002, tevap = -15°C, tc = 30°C, Pressure drop 0,07 bar

**R744:** tevap = -30°C, tc = -10°C, Pressure drop 0,07 bar

Refrigerant group 1: delivered Type with Index F1 (i.e. DS-485-F1 P/N xxxxx)

Refrigerant classification acc EN 378:

Group	A1
Group	A2
Group	A3

**Correction Factors (Kt liquid)**

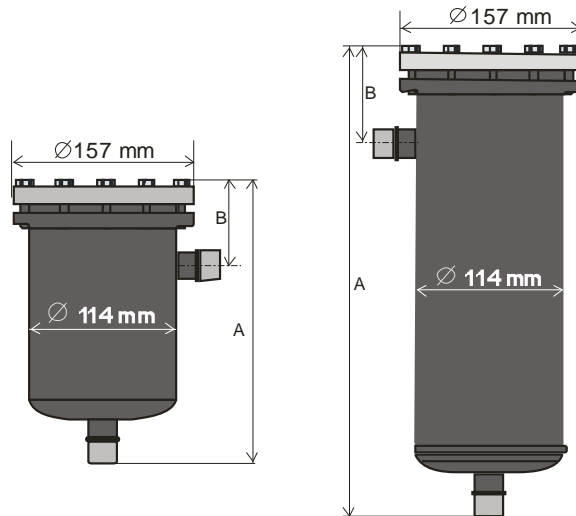
Correction factor for Liquid application									
R1270					R449A				
Condensing Temp. °C	Evaporating Temp. °C				Evaporating Temp. °C				
	5	-10	-25		5	-10	-20	-35	
50	1,18	1,25	1,34		1,21	1,29	1,34	1,44	
40	1,04	1,10	1,17		1,05	1,11	1,15	1,23	
30	0,94	0,98	1,04		0,93	0,98	1,01	1,07	
R448A					R450A				
Condensing Temp. °	Evaporating Temp. °C				Evaporating Temp. °C				
	5	-10	-20	-35	5	-10	-20	-35	
50	1,21	1,28	1,34	1,44	1,16	1,26	1,33	1,46	
40	1,05	1,11	1,15	1,23	1,02	1,10	1,16	1,25	
30	0,94	0,98	1,02	1,08	0,92	0,98	1,02	1,10	
R513A					R1234yf				
Condensing Temp. ° temperatur °C	Evaporating Temp. °C				Evaporating Temp. °C				
	5	-10	-20	-35	5	-10	-20	-35	
50	1,18	1,29	1,37	1,54	1,19	1,31	1,41	1,61	
40	1,02	1,11	1,17	1,29	1,02	1,11	1,18	1,32	
30	0,91	0,98	1,03	1,12	0,90	0,97	1,03	1,13	
R1234ze					R32				
Condensing Temp. °	Evaporating Temp. °C				Evaporating Temp. °C				
	5	-10	-20	-35	5	-10	-20	-35	
50	1,15	1,25	1,33	1,48	1,22	1,24	1,26	1,30	
40	1,02	1,10	1,16	1,27	1,08	1,10	1,11	1,14	
30	0,91	0,97	1,02	1,11	0,98	0,99	1,00	1,03	
R290					R410A				
Condensing Temp. °	Evaporating Temp. °C				Evaporating Temp. °C				
	5	-10	-20		5	-10	-20		
50	1,16	1,24	1,31		1,29	1,34	1,38		
40	1,02	1,09	1,14		1,09	1,13	1,16		
30	0,92	0,97	1,01		0,96	0,99	1,01		

R134a					R404A			
Condensing Temp. °	Evaporating Temp. °C				Evaporating Temp. °C			
	5	-10	-20		5	-10	-20	-35
50	1,16	1,26	1,32		1,25	1,36	1,45	1,61
40	1,03	1,10	1,15		1,04	1,12	1,18	1,30
30	0,92	0,98	1,02		0,90	0,95	1,00	1,08

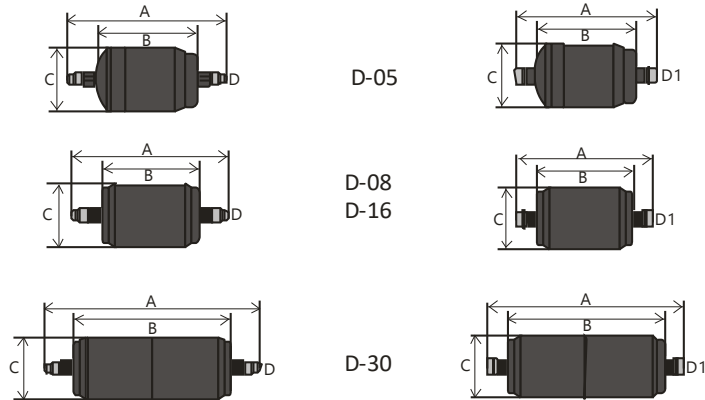
R744				
Condensing Temp. °	Evaporating Temp. °C			
	-10	-20	-35	-50
5	1,22	1,21	1,22	1,24
-10		1,00	1,00	1,02
-20			0,90	0,91

**Dimension DS (mm)**



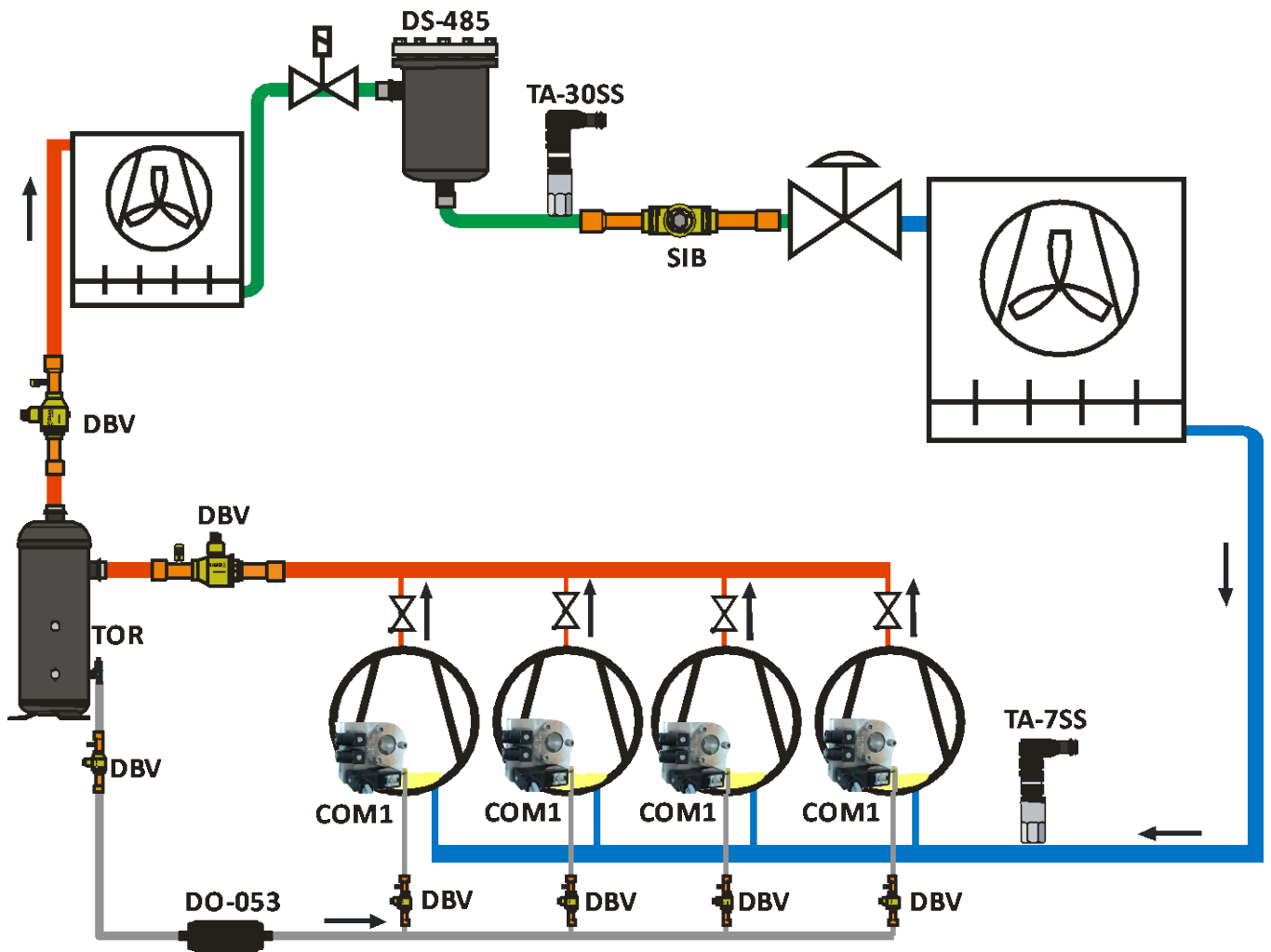
Type	P/N	ODF inch	ODF mm	Volume (l)	Weight (kg)	A	B	PED Cat.
DS-485	16032	5/8	16	1,64	5,2	230	95	I
DS-487	16033	7/8	22		5,3	235		
DS-489	16034	<b>1-1/8</b>	28		5,4	240		
DS-4811	16035	1-3/8	35		5,4	240		
DS-4813	16050	1-5/8	<b>42</b>		5,5	245		
DS-4817	16036	2-1/8	54		5,6	245		
DS-967	16037	7/8	22		3,0	6,5		
DS-969	16038	<b>1-1/8</b>	28	6,7		395		
DS-9611	16039	1-3/8	35	6,7		394		
DS-9613	16040	1-5/8	<b>42</b>	6,8		399		
DS-9617	16041	2-1/8	54	6,9		396		
DS-1449	16042	<b>1-1/8</b>	28	4,31	8,0	538		
DS-14411	16043	1-3/8	35		8,1	538		
DS-14413	16044	1-5/8	<b>42</b>		8,0	541		
DS-14417	16045	2-1/8	54		8,1	539		
DS-19211	16046	1-3/8	35	5,61	9,6	680	II	
DS-19213	16047	1-5/8	<b>42</b>		9,6	684		
DS-19217	16048	2-1/8	54		9,8	682		

**Dimension D (mm)**



Type	P/N	A	D (SAE)	D1 (ODF)	Volume (l)	Weighth (kg)	B	C	PED Category
D-052	16001	116	¼" (6mm)		0,12	0,29 0,33 0,33 0,30 0,35	75	55	SEP 4.3 PED
D-052 S	16003	120		¼"					
D-056 S	16002	120		6mm					
D-053	16004	130	3/8" (10mm)						
D-053 S	16006	126		3/8"					
D-0510 S	16005	126		10 mm					
D-082	16007	144	¼" (6mm)		0,2	0,42 0,36 0,41 0,39 0,43	102	SEP 4.3 PED	
D-082 S	16009	148		¼"					
D-086 S	16008	119		6mm					
D-083	16010	158	3/8" (10mm)						
D-083 S	16012	154		3/8"					
D-0810 S	16011	154		10 mm					
D-084	16013	166	½" (12mm)		0,46	0,42 0,78 0,41	110		SEP 4.3 PED
D-084 S	16015	162		½"					
D-0812 S	16014	162		12 mm					
D-162	16017	157	¼" (6mm)						
D-163	16018	166	3/8" (10mm)						
D-163 S	16020	162		3/8"					
D-1610 S	16019	162		10 mm					
D-164	16021	174	½" (12mm)		0,85	0,89 0,75 0,87 0,92 0,88	81	SEP 4.3 PED	
D-164 S	16023	170		½"					
D-1612 S	16022	170		12 mm					
D-165	16024	178	5/8" (16mm)						
D-165 S	16025	170		16mm – 5/8"					
D-303	16026	259	3/8" (10mm)		0,85	1,10 1,27 1,36	200		SEP 4.3 PED
D-304	16027	267	½" (12mm)						
D-304 S	16028	263		½"					
D-3012 S	16058	263		12 mm					
D-305	16029	271	5/8" (16mm)						
D-305 S	16030	263		16 mm - 5/8"					
D-307 S	16031	270		22mm – 7/8"					

Cycle Diagram with DEKA components



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