

Data sheet

ELIMINATOR® Burn-out filter drier Type DAS



ELIMINATOR® burn-out filter driers type DAS are used in the suction line to clean up refrigeration and AC-systems with fluorinated refrigerants after a compressor motor burn-out.

The solid core, which is composed of 70% activated alumina and 30% Molecular Sieve, adsorbs harmful acids as well as moisture. By adsorbing these acids, the DAS burn-out filter drier protects the new compressor against premature failure.

Available with flare and solder (pure copper) connections.

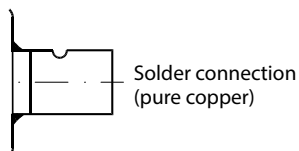
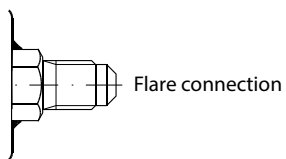
Features

- Solid core with 70% activated alumina and 30% Molecular Sieve for adsorption of acid and moisture
- 2 Schraeder access valves to measure pressure drop across the drier
- Available in sizes from 8 to 60 cubic inches
- Corrosion resistant powder-painted finish
- Available with flare and solder (pure copper) connections
- UL approved for PS 35 bar
- 120 mesh wire mesh provides solid particle retention with minimal pressure drop
- Allows installation with any orientation provided the flow is in the arrow direction

Approvals

UL file no. SA 6398
PED 97/23/EC - a3p3

Technical data and capacities



	Rated capacity, Q_n ¹⁾						Acid capacity ²⁾	Max. Working Pressure PS [bar]
	R22/R407C/R410A		R134a		R404A/R507			
	[TR]	[kW]	[TR]	[kW]	[TR]	[kW]	[g]	
DAS 083	1.7	6.0	1.0	3.5	1.3	4.5	3.8	35
DAS 084	2.9	10.0	1.6	5.5	2.3	8.0	3.8	35
DAS 085	4.1	14.5	2.6	9.0	3.6	12.5	3.8	35
DAS 086	5.4	19.0	3.3	11.5	4.7	16.5	3.8	35
DAS 164	6.3	10.5	1.7	6.0	2.4	8.5	8.6	35
DAS 165	4.3	15.0	2.7	9.5	3.7	13.0	8.6	35
DAS 166	5.7	20.0	3.4	12.0	4.9	17.0	8.6	35
DAS 167	6.3	22.0	3.9	13.5	5.4	19.0	8.6	35
DAS 305	5.1	18.0	3.1	11.0	4.3	15.0	18.2	35
DAS 306	6.3	22.0	4.0	14.0	5.4	19.0	18.2	35
DAS 307	7.4	26.0	4.6	16.0	6.3	22.0	18.2	35
DAS 309	8.9	31.0	5.7	20.0	7.7	27.0	18.2	35
DAS 417	8.6	30.0	5.1	18.0	7.1	25.0	24.3	35
DAS 419	10.0	35.0	6.3	22.0	8.6	30.0	24.3	35
DAS 607	5.7	20.0	3.4	12.0	4.9	17.0	36.5	35

1) Rated capacity is stated at:
 evaporating temperature $t_e = 4\text{ °C}$
 pressure drop $\Delta p = 0.21\text{ bar}$

2) Adsorption capacity of oleic acid at 0.05 TAN
 (Total Acid Number).

Capacities for other temperatures than 4 °C are calculated by use of correction factors. Divide your actual evaporator capacity with the correction factor given for your actual evaporating temperature.

Look up the capacity table for the necessary rated capacity.

$$Q_e / F_e = Q_n$$

Q_e = Actual evaporator capacity
 Q_n = Nominal capacity
 F_e = Correction factor

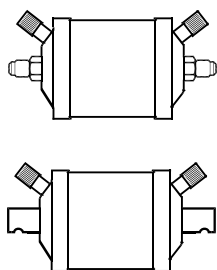
Correction factors. F_e evaporating temperatures [°C]

[°C]	4	0	-5	-10	-15	-20	-25	-30	-35	-40
F_e	1	0.9	0.75	0.6	0.5	0.4	0.35	0.25	0.2	0.15

Example

To select a burn-out filter drier for a R22 plant with an evaporator capacity at 8.5 kW at -20 °C you may use a burn-out filter drier with a rated capacity of $8.5/0.4 = 21.25\text{ kW}$ or bigger. For example DAS 306.

Ordering



Flare

Type	Connection [in.]	Multi pack pcs.	Code no.
DAS 083VV	3/8	24	023Z1001
DAS 084VV	1/2	24	023Z1002
DAS 164VV	1/2	12	023Z1007
DAS 165VV	5/8	12	023Z1008

Solder

Type	Connection [in.]	Multi pack pcs.	Code no.
DAS 083sVV	3/8	24	023Z1003
DAS 084sVV	1/2	24	023Z1004
DAS 085sVV	5/8	24	023Z1005
DAS 086sVV	3/4	24	023Z1006
DAS 164sVV	1/2	12	023Z1009
DAS 165sVV	5/8	12	023Z1010
DAS 166sVV	3/4	12	023Z1011
DAS 167sVV	7/8	12	023Z1012
DAS 305sVV	5/8	8	023Z1013
DAS 306sVV	3/4	8	023Z1014
DAS 307sVV	7/8	8	023Z1015
DAS 309sVV	1 1/8	8	023Z1016
DAS 417sVV	7/8	8	023Z1017
DAS 419sVV	1 1/8	8	023Z1018
DAS 607sVV	7/8	12	023Z1019
DAS 609sVV	1 1/8	12	023Z1020

Identification

Example for type codes

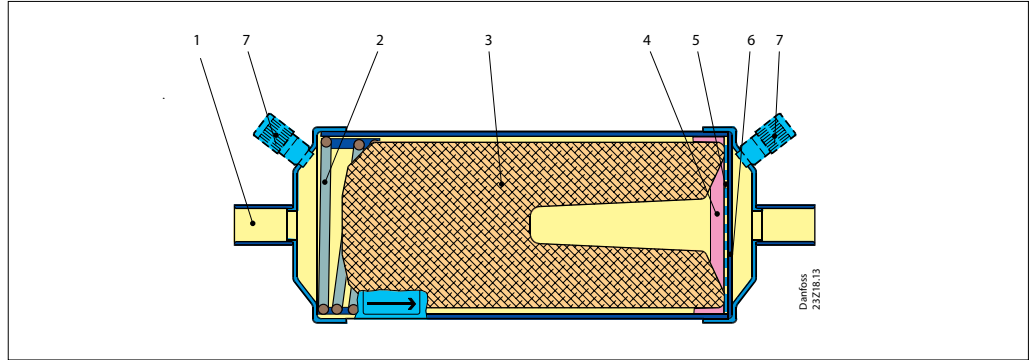
D A S 08 3 s VV

Type codes

Filter drier	D		
Solid core	A	Burn-out, 70% activated alumina, 30% Molecular Sieves	
Application	S	Suction line	
Size (volume)	08	8 in ³	
	16	16 in ³	
	30	30 in ³	
	41	41 in ³	
	60	60 in ³	
Connection size (filter connection in 1/8 of an inch increments)	3	3/8 in. / 10 mm	
	4	1/2 in. / 12 mm	
	5	5/8 in. / 16 mm	
	6	3/4 in. / 18 (19) mm	
	7	7/8 in. / 22 mm	
	9	1 1/8 in. / 28 mm	
Connection type	(blank)	Flare connection	
	s	Solder connection	
Access valves	(blank)	Inlet: No access valves	Outlet: No access valves
	V	Schraeder valve	No access valves
	VV	Schraeder valve	Schraeder valve

D	→	Filter drier
A	→	Solid core
S	→	Application
08	→	Size (volume)
3	→	Connection size (filter connection in 1/8 of an inch increments)
s	→	Connection type
VV	→	Access valves

Design / function



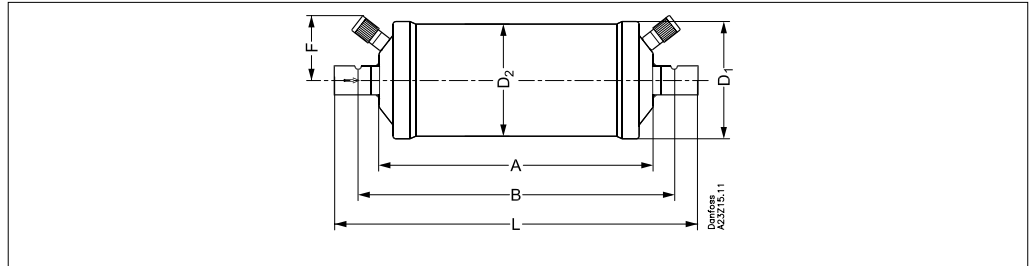
- 1. Inlet
- 2. Spring
- 3. Solid core
- 4. Polyester mat
- 5. Metal mesh
- 6. Perforated plate
- 7. Schraeder valve

The large diameter of the burn-out filter drier means that flow velocity is suitably low and the pressure drop minimal.

Powder formation is eliminated because the solid core grains are bonded and cannot move against each other.

Dimensions [mm] and weights [kg]

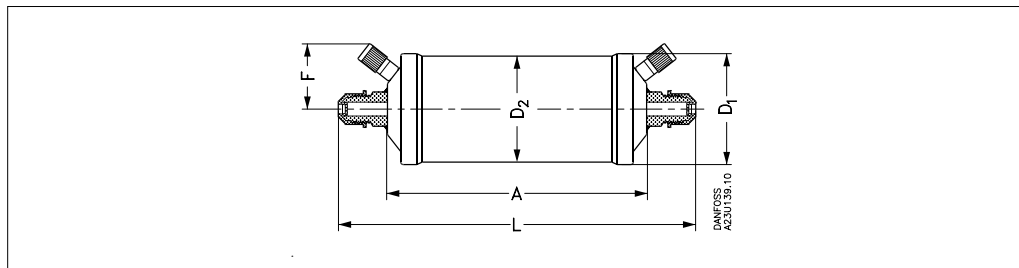
Solder connections



Type	A	B	L	D ₁	D ₂	F	Net weight
DAS 083sVV	101	120	139	58	54	40	0.47
DAS 084sVV	101	122	143	58	54	40	0.50
DAS 085sVV	101	125	149	58	54	40	0.50
DAS 086sVV	101	131	161	58	54	40	0.50
DAS 164sVV	110	131	152	80	76	50	0.83
DAS 165sVV	110	134	158	80	76	50	0.84
DAS 166sVV	110	140	170	80	76	50	0.84
DAS 167sVV	110	141	172	80	76	50	0.84
DAS 169sVV	110	142	173	80	76	50	1.9
DAS 305sVV	186	210	234	80	76	50	1.31
DAS 306sVV	186	216	246	80	76	50	1.31
DAS 307sVV	186	217	248	80	76	50	1.33
DAS 309sVV	186	218	249	80	76	50	1.35
DAS 417sVV	187	218	249	93	89	55	2.08
DAS 419sVV	187	219	250	93	89	55	2.08
DAS 607sVV	337	363	399	80	76	50	2.39
DAS 609sVV	337	358	400	80	76	50	2.40

Dimensions [mm] and weights [kg]
Continued

Flare connections



Type	A	L	D ₁	D ₂	F	Net weight
DAS 083VV	101	158	58	54	40	0.51
DAS 084VV	101	166	58	54	40	0.62
DAS 164VV	110	175	80	76	40	0.91
DAS 165VV	110	184	80	76	40	0.95

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