



## DTG SERIES

# UNI-FLOW FILTER DRIERS



The filter driers of series DTG are used in refrigeration system with unidirectional flow to absorb moisture and acid in the system and to filter out the impurities.

All the Filter Driers listed in this datasheet can be installed in system using flammable refrigerants HFO (categories A2\* and A2L\*), and Hydrocarbons HC (category A3\*).

\*according ANSI-ASHRAE 34-2016 and EN-378-1 ANNE EN 378-1:2016 Annex E

## FEATURES

- HIGHLY EFFICIENT IN MOISTURE ABSORPTION, FILTERING IMPURITY, ACID, PAINT REMAINS AND MUD REMOVAL
- HYBRID DESICCANT
- DURABLE AND SOLID FILTER CORES
- FILTERING FINENESS: 20µm
- CORROSION RESISTANT PAINTING SURVIVES SALT SPRAY TEST OF 500 HOURS
- CONNECTION TYPE: SOLDER

## GENERAL SPECIFICATIONS

- Applicable for all common HCFC, HFC and HFO refrigerants such as: R22, R134a, R404A, R407A/C/F, R410A, R507A, R448A, R449A, R450A, R452A, R513A, R32, R1234yf, R1234ze, R454A/B/C, R455A, R290, R1270, R600a
- Ambient temperature min./max.: -30°C / +55°C
- Medium temperature TS min./max.: -30°C / +120°C
- Max. operating pressure PS max.: 4,83 MPa (48,3 bar) - 700 PSI
- Installation position:
  - Flow direction corresponds to the arrow
  - Preferably installed in liquid line
- Certifications: UL/CSA and PED declaration (all products have been covered by Art.4.3 PED Directive 2014/68/EU)

## TECHNICAL PARAMETERS

### Desiccant Selection Table

	Medium Type	80% 3Å desiccant and 20% active alumina	100% 3Å desiccant
Refrigerant	HC	Applicable	Applicable
	HFC	Applicable	Applicable
	HFO	Applicable	Applicable
Oil <sup>1)</sup>	Mineral oil or AB	Applicable	Applicable
	Pure POE or PAG	Applicable	Applicable
	POE or PAG with additive	Not Applicable	Applicable

**Note:** 1) When the systems use oil with additive, it is not recommended to use a core with alumina.



## MODEL DESIGNATION LEGEND

<b>1</b>	<b>Product Code</b>	<b>Filter Drier Series</b>	
	DTG	Indicates unidirectional filter drier	
<b>2</b>	<b>Filter Core</b>	<b>Structure and Material</b>	
	B	Solid core, 100% 3Å desiccant	
	F	Solid core, 80% 3Å desiccant and 20% active alumina	
<b>3</b>	<b>Internal Volume</b>	<b>Expressed in [ inch<sup>3</sup> ]</b>	<b>Expressed in [ cm<sup>3</sup> ]</b>
	03	3	49
	05	5	82
	08	8	131
	16	16	262
	30	30	492
	41	41	672
<b>4</b>	<b>Connection Size</b>	<b>Pos. 5 shows "0": Solder [inch]</b>	
	02	1/4	
	25	5/16	
	03	3/8	
	04	1/2	
	05	5/8	
	06	3/4	
	07	7/8	
	09	1 1/8	
	<b>Connection Size</b>	<b>Pos. 5 shows "1": Solder [mm]</b>	
	06	6	
	(08)*	(5/16" version can be used e.g. DTG-B03 <b>250</b> )	
	10	10	
	12	12	
	(16)*	(5/8" version can be used e.g. DTG-B08 <b>050</b> )	
	(22)*	(7/8" version can be used e.g. DTG-B16 <b>070</b> )	
28	28		
<b>5</b>	<b>Pipe Connection</b>	<b>Type</b>	
	0	Solder with inch connections	
	1*	Solder with metric connections	
<b>6</b>	<b>Version Number</b>	<b>Description</b>	
	901	Standard product	

**Note:** \*Solder connections which fit to metric and inch are marked with inch product codes e.g. 8, 16 and 22 mm

## MODEL DESIGNATION EXAMPLE

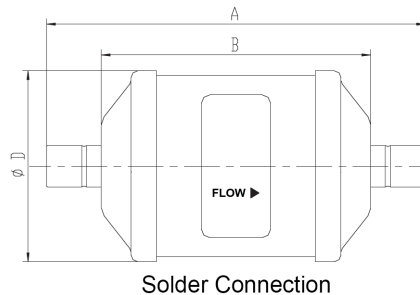
Position Number						According to Model Designation Legend
1	2	3	4	5	6	
DTG	B	03	06	1	901	Unidirectional filter drier
DTG	<b>B</b>	03	06	1	901	Solid filter core with 100% 3Å desiccant
DTG	B	<b>03</b>	06	1	901	3 inch <sup>3</sup> internal volume
DTG	B	03	<b>06</b>	1	901	When Pos. 5 is "1": connection size 6mm
DTG	B	03	06	<b>1</b>	901	Solder connection metric
DTG	B	03	06	1	<b>901</b>	Standard product



GENERAL CHARACTERISTICS OF DTG-B FILTER - SOLDER CONNECTION

Filter	Model [inch]	Part Number (multi package) <sup>1)</sup> [inch]	Model [mm]	Part Number (multi package) <sup>1)</sup> [mm]	Nominal Volumen		Connection		Dimensions & Weight <sup>2)</sup>				PED Category <sup>3)</sup> (Fluid Group 1)
					[inch <sup>3</sup> ]	[cm <sup>3</sup> ]	Solder		ØD [mm]	B [mm]	A [mm]	Weight [g]	
							[inch]	[mm]					
DTGB032s	DTG-B03 020-901	10230008302	DTG-B03 061-901	10230008702	3	49	1/4	6	45	65	103	160	Art. 4.3
DTGB0325s	DTG-B03 250-901	10230008402	DTG-B03 250-901	10230008402	3	49	5/16	8	45	65	103	160	Art. 4.3
DTGB033s	DTG-B03 030-901	10230008502	DTG-B03 101-901	10230008802	3	49	3/8	10	45	65	103	160	Art. 4.3
DTGB034s	DTG-B03 040-901	10230008602	DTG-B03 121-901	10230008902	3	49	1/2	12	45	65	113	160	Art. 4.3
DTGB052s	DTG-B05 020-901	10230010202	DTG-B05 061-901	10230010802	5	82	1/4	6	69	76	114	450	Art. 4.3
DTGB0525s	DTG-B05 250-901	10230010402	DTG-B05 250-901	10230010402	5	82	5/16	8	69	76	114	450	Art. 4.3
DTGB053s	DTG-B05 030-901	10230010502	DTG-B05 101-901	10230010902	5	82	3/8	10	69	76	114	450	Art. 4.3
DTGB054s	DTG-B05 040-901	10230010602	DTG-B05 121-901	10230011002	5	82	1/2	12	69	76	124	450	Art. 4.3
DTGB055s	DTG-B05 050-901	10230010702	DTG-B05 050-901	10230010702	5	82	5/8	16	69	76	124	450	Art. 4.3
DTGB082s	DTG-B08 020-901	10230009502	DTG-B08 061-901	10230011302	8	131	1/4	6	69	98	136	550	Art. 4.3
DTGB0825s	DTG-B08 250-901	10230009402	DTG-B08 250-901	10230009402	8	131	5/16	8	69	98	136	550	Art. 4.3
DTGB083s	DTG-B08 030-901	10230009302	DTG-B08 101-901	10230011402	8	131	3/8	10	69	98	136	550	Art. 4.3
DTGB084s	DTG-B08 040-901	10230009602	DTG-B08 121-901	10230011602	8	131	1/2	12	69	98	146	550	Art. 4.3
DTGB085s	DTG-B08 050-901	10230009702	DTG-B08 050-901	10230009702	8	131	5/8	16	69	98	146	550	Art. 4.3
DTGB162s	DTG-B16 020-901	10230012002	DTG-B16 061-901	10230012702	16	262	1/4	6	69	118	156	660	Art. 4.3
DTGB1625s	DTG-B16 250-901	10230012102	DTG-B16 250-901	10230012102	16	262	5/16	8	69	118	156	660	Art. 4.3
DTGB163s	DTG-B16 030-901	10230012202	DTG-B16 101-901	10230012802	16	262	3/8	10	69	118	156	660	Art. 4.3
DTGB164s	DTG-B16 040-901	10230012302	DTG-B16 121-901	10230015902	16	262	1/2	12	69	118	166	660	Art. 4.3
DTGB165s	DTG-B16 050-901	10230012402	DTG-B16 050-901	10230012402	16	262	5/8	16	69	118	166	660	Art. 4.3
DTGB166s	DTG-B16 060-901	10230012502	-	-	16	262	3/4	-	69	118	178	660	Art. 4.3
DTGB167s	DTG-B16 070-901	10230012602	DTG-B16 070-901	10230012602	16	262	7/8	22	69	118	178	660	Art. 4.3
DTGB303s	DTG-B30 030-901	10230013902	DTG-B30 101-901	10230014502	30	492	3/8	10	81	193	231	1550	Art. 4.3
DTGB304s	DTG-B30 040-901	10230014002	DTG-B30 121-901	10230014602	30	492	1/2	12	81	193	241	1550	Art. 4.3
DTGB305s	DTG-B30 050-901	10230014102	DTG-B30 050-901	10230014102	30	492	5/8	16	81	193	241	1550	Art. 4.3
DTGB306s	DTG-B30 060-901	10230014202	-	-	30	492	3/4	-	81	193	253	1550	Art. 4.3
DTGB307s	DTG-B30 070-901	10230014302	DTG-B30 070-901	10230014302	30	492	7/8	22	81	193	253	1550	Art. 4.3
DTGB309s	DTG-B30 090-901	10230014402	DTG-B30 281-901	10230014802	30	492	1 1/8	28	81	193	263	1550	Art. 4.3
DTGB414s	DTG-B41 040-901	10230013202	DTG-B41 121-901	10230013602	41	672	1/2	12	94	194	242	2050	Art. 4.3
DTGB415s	DTG-B41 050-901	10230013302	DTG-B41 050-901	10230013302	41	672	5/8	16	94	194	242	2050	Art. 4.3
DTGB417s	DTG-B41 070-901	10230013402	DTG-B41 070-901	10230013402	41	672	7/8	22	94	194	254	2050	Art. 4.3
DTGB419s	DTG-B41 090-901	10230013502	DTG-B41 281-901	10230013802	41	672	1 1/8	28	94	194	264	2050	Art. 4.3

- Note:** 1) Available also as industrial package. Contact Sanhua for more details.  
 2) Dimensions are rounded up to integral mm  
 3) PED Directive 2014/68/EU. Category evaluated considering product as a “vessel”

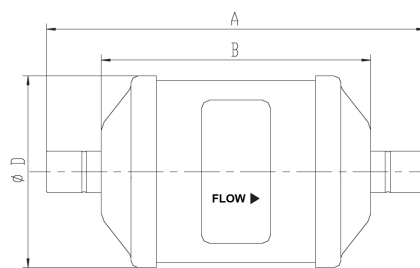




GENERAL CHARACTERISTICS OF DTG-F FILTER - SOLDER CONNECTION

Filter	Model <sup>1)</sup> [inch]	Part Number (multi package) <sup>2)</sup> [inch]	Model <sup>1)</sup> [mm]	Part Number (multi package) <sup>2)</sup> [mm]	Nominal Volumen		Connection		Dimensions & Weight <sup>3)</sup>				PED Category <sup>4)</sup> (Fluid Group 1)
					[inch <sup>3</sup> ]	[cm <sup>3</sup> ]	Solder		ØD [mm]	B [mm]	A [mm]	Weight [g]	
							[inch]	[mm]					
DTGF032s	DTG-F03 020-901	10230016102	DTG-F03 061-901	10230016502	3	49	1/4	6	45	65	103	160	Art. 4.3
DTGF0325s	DTG-F03 250-901	10230016202	DTG-F03 250-901	10230016202	3	49	5/16	8	45	65	103	160	Art. 4.3
DTGF033s	DTG-F03 030-901	10230016302	DTG-F03 101-901	10230016602	3	49	3/8	10	45	65	103	160	Art. 4.3
DTGF034s	DTG-F03 040-901	10230016402	DTG-F03 121-901	10230016002	3	49	1/2	12	45	65	113	160	Art. 4.3
DTGF052s	DTG-F05 020-901	10230017702	DTG-F05 061-901	10230017202	5	82	1/4	6	69	76	114	450	Art. 4.3
DTGF0525s	DTG-F05 250-901	10230017602	DTG-F05 250-901	10230017602	5	82	5/16	8	69	76	114	450	Art. 4.3
DTGF053s	DTG-F05 030-901	10230017502	DTG-F05 101-901	10230017102	5	82	3/8	10	69	76	114	450	Art. 4.3
DTGF054s	DTG-F05 040-901	10230017402	DTG-F05 121-901	10230017002	5	82	1/2	12	69	76	124	450	Art. 4.3
DTGF055s	DTG-F05 050-901	10230017302	DTG-F05 050-901	10230017302	5	82	5/8	16	69	76	124	450	Art. 4.3
DTGF082s	DTG-F08 020-901	10230018102	DTG-F08 061-901	10230018602	8	131	1/4	6	69	98	136	550	Art. 4.3
DTGF0825s	DTG-F08 250-901	10230018202	DTG-F08 250-901	10230018202	8	131	5/16	8	69	98	136	550	Art. 4.3
DTGF083s	DTG-F08 030-901	10230018302	DTG-F08 101-901	10230018702	8	131	3/8	10	69	98	136	550	Art. 4.3
DTGF084s	DTG-F08 040-901	10230018402	DTG-F08 121-901	10230018802	8	131	1/2	12	69	98	146	550	Art. 4.3
DTGF085s	DTG-F08 050-901	10230018502	DTG-F08 050-901	10230018502	8	131	5/8	16	69	98	146	550	Art. 4.3
DTGF162s	DTG-F16 020-901	10230019302	DTG-F16 061-901	10230020002	16	262	1/4	6	69	118	156	660	Art. 4.3
DTGF1625s	DTG-F16 250-901	10230019402	DTG-F16 250-901	10230019402	16	262	5/16	8	69	118	156	660	Art. 4.3
DTGF163s	DTG-F16 030-901	10230019502	DTG-F16 101-901	10230020102	16	262	3/8	10	69	118	156	660	Art. 4.3
DTGF164s	DTG-F16 040-901	10230019602	DTG-F16 121-901	10230020202	16	262	1/2	12	69	118	166	660	Art. 4.3
DTGF165s	DTG-F16 050-901	10230019702	DTG-F16 050-901	10230019702	16	262	5/8	16	69	118	166	660	Art. 4.3
DTGF166s	DTG-F16 060-901	10230019802	-	-	16	262	3/4	-	69	118	178	660	Art. 4.3
DTGF167s	DTG-F16 070-901	10230019902	DTG-F16 070-901	10230019902	16	262	7/8	22	69	118	178	660	Art. 4.3
DTGF303s	DTG-F30 030-901	10230020902	DTG-F30 101-901	10230021502	30	492	3/8	10	81	193	231	1550	Art. 4.3
DTGF304s	DTG-F30 040-901	10230021002	DTG-F30 121-901	10230021602	30	492	1/2	12	81	193	241	1550	Art. 4.3
DTGF305s	DTG-F30 050-901	10230021102	DTG-F30 050-901	10230021102	30	492	5/8	16	81	193	241	1550	Art. 4.3
DTGF306s	DTG-F30 060-901	10230021202	-	-	30	492	3/4	-	81	193	253	1550	Art. 4.3
DTGF307s	DTG-F30 070-901	10230021302	DTG-F30 070-901	10230021302	30	492	7/8	22	81	193	253	1550	Art. 4.3
DTGF309s	DTG-F30 090-901	10230021402	DTG-F30 281-901	10230021802	30	492	1 1/8	28	81	193	263	1550	Art. 4.3
DTGF414s	DTG-F41 040-901	10230022402	DTG-F41 121-901	10230022802	41	672	1/2	12	94	194	242	2050	Art. 4.3
DTGF415s	DTG-F41 050-901	10230022502	DTG-F41 050-901	10230022502	41	672	5/8	16	94	194	242	2050	Art. 4.3
DTGF417s	DTG-F41 070-901	10230022602	DTG-F41 070-901	10230022602	41	672	7/8	22	94	194	254	2050	Art. 4.3
DTGF419s	DTG-F41 090-901	10230022702	DTG-F41 281-901	10230023002	41	672	1 1/8	28	94	194	264	2050	Art. 4.3

- Note:**
- 1) Delivery time on request
  - 2) Available also as industrial package. Contact Sanhua for more details
  - 3) Dimensions are rounded up to integral mm
  - 4) PED Directive 2014/68/EU. Category evaluated considering product as a “vessel”



Solder Connection



**SELECTION TABLE**

Model	Capacity <sup>1)</sup> [kW]		
	R290	R1234yf	R1234ze(E)
DTGB032s	9.4	5.65	6.85
DTGB0325s	11.55	6.95	8.5
DTGB033s	17.5	10.6	12.8
DTGB034s	30	18	22
DTGB052s	10.2	6.18	7.5
DTGB0525s	13.3	8	9.7
DTGB053s	29	17.5	21.3
DTGB054s	30.7	18.6	22.5
DTGB055s	42.3	25.5	31
DTGB082s	10.2	6.17	7.5
DTGB0825s	14.1	8.5	10.35
DTG-B083s	30.5	18.4	22.3
DTGB084s	37.2	22.4	27.3
DTGB085s	54.5	32.9	40
DTGB162s	13.3	8	9.7
DTGB1625s	14.1	8.5	10.35
DTGB163s	31.2	18.9	23
DTGB164s	39.4	23.8	28.8
DTGB165s	52.5	31.7	38.7
DTGB166s	56.4	34	41.3
DTGB167s	57.4	34.5	42
DTGB303s	31.3	18.9	23
DTGB304s	40.2	24.3	29.5
DTGB305s	55.5	33.5	40.7
DTGB306s	76	46	55.8
DTGB307s	76.8	46.4	56.3
DTGB309s	86	52	63
DTGB414s	42.7	25.9	31.4
DTGB415s	74	44.5	54.3
DTGB417s	110	66.5	80.5
DTGB419s	112	67.5	82

**SELECTION TABLE**

Model	Capacity <sup>1)</sup> [kW]		
	R290	R1234yf	R1234ze(E)
DTGF032s	9.4	5.65	6.85
DTGF0325s	11.55	6.95	8.5
DTGF033s	17.5	10.6	12.8
DTGF034s	30	18	22
DTGF052s	10.2	6.18	7.5
DTGF0525s	13.3	8	9.7
DTGF053s	29	17.5	21.3
DTGF054s	30.7	18.6	22.5
DTGF055s	42.3	25.5	31
DTGF082s	10.2	6.17	7.5
DTGF0825s	14.1	8.5	10.35
DTG-F083s	30.5	18.4	22.3
DTGF084s	37.2	22.4	27.3
DTGF085s	54.5	32.9	40
DTGF162s	13.3	8	9.7
DTGF1625s	14.1	8.5	10.35
DTGF163s	31.2	18.9	23
DTGF164s	39.4	23.8	28.8
DTGF165s	52.5	31.7	38.7
DTGF166s	56.4	34	41.3
DTGF167s	57.4	34.5	42
DTGF303s	31.3	18.9	23
DTGF304s	40.2	24.3	29.5
DTGF305s	55.5	33.5	40.7
DTGF306s	76	46	55.8
DTGF307s	76.8	46.4	56.3
DTGF309s	86	52	63
DTGF414s	42.7	25.9	31.4
DTGF415s	74	44.5	54.3
DTGF417s	110	66.5	80.5
DTGF419s	112	67.5	82

**Note:** 1) the above data is based on filter driers with inch connections and clean system at ideal conditions; with impurities accumulated in the filter, the capacity may decrease

**SELECTION FORMULAS**

Filter Driers for liquid line are manufactured in compliance with ARI Standard 710. Flow rate of liquid refrigerant at a differential pressure of 0,07bar (1psi) is indicated by kW which is based on the temperature of liquid refrigerant 30°C (86°F), the evaporating temperature of refrigerant is -15°C (5°F).

For complete product family information please visit us at [www.sanhuaeurope.com](http://www.sanhuaeurope.com) and download the full range of datasheet at **TECHNICAL INFORMATION LINK**.