



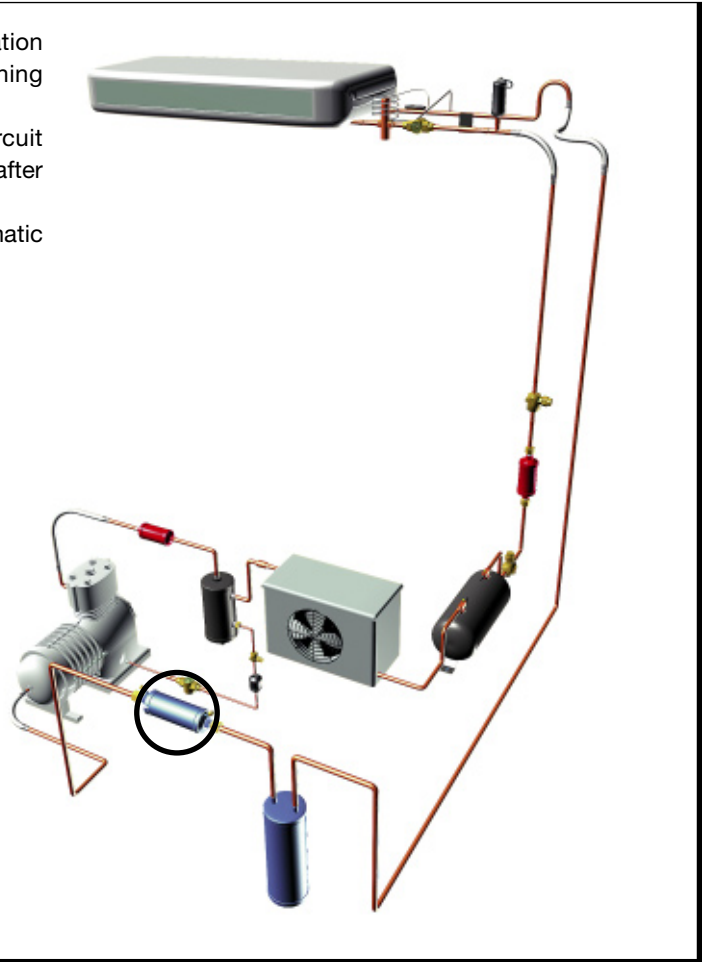
## Cleaning filters (suction line)

### → FACY (permanent use, with or without automatic bypass)

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#### ■ Applications

- Permanent refrigerant filtering, compressor and regulation element protection in refrigerating and air conditioning installations.
- Recommended use during commissioning, during circuit decontamination and refrigerant regeneration operations, after compressor burnout.
- Particularly recommended for sealed groups, their automatic bypass system prevents a major drop in suction pressure.



#### ■ Functional features

- Products are compatible with HFCs, HCFCs, CFCs, as well as with their associated oils and additives. Products are designed for use of non-hazardous refrigerants from group 2 of PED 97/23/EC.
- Product classification in CE categories is performed using the PED 97/23/EC table, corresponding to a volume-based selection.
- Filtering at outlet preventing the propagation within the circuit of particles bigger than 10 microns.
- Presence of a permanent magnet at the intake of the filters, for steel metallic particle trapping.

#### ■ CARLY advantages

- Two access valves allow measurement of the filters' pressure drop, to check filter saturation.
- Permanent treatment until saturation and regular refrigerant distribution, through a tubular felt core, that creates a lower depression than in the connection piping.
- Internal automatic bypass system in case of filter blocking.
- Very economical cleaning process without loss of time, because the installation is still running during the operation.
- Environmental protection and savings of refrigerant, because using these cleaning filters allows re-use of the refrigerant after pollution control.
- Connections to solder are made of copper-plated steel up to connections diameter 3/4" included and allow the use of filler metals with a low silver content; their resistance to pressure is much higher than that of full copper connections.
- GOST certified products.



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### ■ Recommendations

- \* Cleaning filters are to be mounted on the suction line between the evaporator outlet and the compressor.
- \* On reversing cycle installations, FACY cleaning filters should always be installed between the inversion valve and the compressor.
- \* Never use these cleaning filters on the oil line; in such a case, use HCYF oil filters, or HYDROIL filter driers for POE oils (refer to chapters 45 and 46).
- \* Pay attention to the filters' assembly order, because the automatic bypass operation depends on the refrigerant direction indicated on the filter tag.
- \* In the event of compressor burnout, the cleaning and pollution control procedure is described in the FACY cleaning filter chapter (refer to page 9.9).
- \* FACY cleaning filters used for these operations are perfectly interchangeable with FACY filters; therefore, they can be temporarily mounted instead of FACY filters.
- \* Closely monitor the pressure drops using the access valves, in order to prevent shortage of the refrigerant vapour required to cool the compressor engine.
- \* Upon saturation or when the bypass system is used, filters have to be replaced.
- \* General assembly precautions: refer to chapter 115.

### ■ Selection table

CARLY references	Connections		CARLY references	Connections	Refrigerating capacity (kW) <sup>(1)</sup>			
	To screw SAE inch	To solder ODF inch			To solder ODF mm	R22	R134a	R404A R507
<b>FACY 283</b>	3/8				5,64	5,13	3,67	5,58
<b>FACY 284</b>	1/2				9,40	8,55	6,11	9,31
<b>FACY 285</b>	5/8				21,24	19,33	13,81	21,03
<b>FACY 285 S/MMS</b>		5/8	<b>FACY 285 S/MMS</b>	16	21,24	19,33	13,81	21,03
<b>FACY 286 S</b>		3/4	<b>FACY 286 MMS</b>	18	30,36	27,63	19,74	30,06
<b>FACY 287 S</b>		7/8	<b>FACY 287 MMS</b>	22	38,16	34,73	24,81	37,78
<b>FACY 289 S</b>		1 1/8	<b>FACY 289 MMS</b>	28	48,69	44,31	31,65	48,21
<b>FACY 489 S</b>		1 1/8	<b>FACY 489 MMS</b>	28	57,81	52,61	37,58	57,23
<b>FACY 4811 S/MMS</b>		1 3/8	<b>FACY 4811 S/MMS</b>	35	70,31	63,98	45,70	69,61
<b>FACY 4813 S</b>		1 5/8	<b>FACY 4813 MMS</b>	42	76,89	69,97	49,98	76,12

<sup>(1)</sup> Refrigerating capacities according to Standard ARI 730-2001 for  $T_o = 4.4^{\circ}\text{C}$ ,  $T_k = 32^{\circ}\text{C}$ .  
If different conditions, refer to correction factors in chapter 112.



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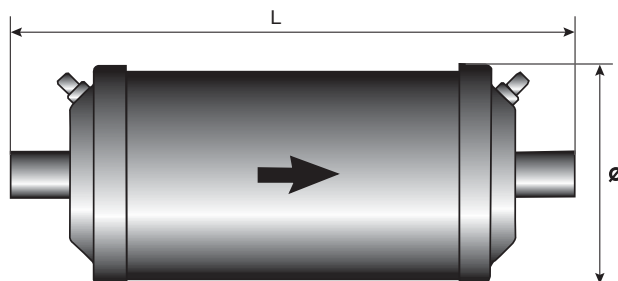
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### ■ Technical features

CARLY references		Connection types (1)	Filtering surface (cm <sup>2</sup> )	Dimensions (mm)		Net weight (kg)
				Ø	L	
<b>FACY 283</b>		1	150	74	225,0	0,90
<b>FACY 284</b>		1	150	74	229,0	0,95
<b>FACY 285</b>		1	150	74	233,0	1,00
<b>FACY 285 S/MMS</b>		2	150	74	213,0	1,00
<b>FACY 286 S</b>	<b>FACY 286 MMS</b>	2	150	74	219,0	1,00
<b>FACY 287 S</b>	<b>FACY 287 MMS</b>	2	150	74	233,0	1,00
<b>FACY 289 S</b>	<b>FACY 289 MMS</b>	3	150	74	243,0	1,10
<b>FACY 489 S</b>	<b>FACY 489 MMS</b>	3	356	93	316,0	1,70
<b>FACY 4811 S/MMS</b>		3	356	93	336,0	1,90
<b>FACY 4813 S</b>	<b>FACY 4813 MMS</b>	3	356	93	336,0	2,00

(1) Chapter "Connection features and drawings" (refer to chapter 114).



CARLY references		Volume	Maximal working pressure	Working pressure (1)	Maximal working temperature	Minimal working temperature	Working temperature (1)	CE Category (2)
<b>FACY 283</b>		0,58	42	10	80	-40	-20	Art3§3
<b>FACY 284</b>		0,58	42	10	80	-40	-20	Art3§3
<b>FACY 285</b>		0,58	42	10	80	-40	-20	Art3§3
<b>FACY 285 S/MMS</b>		0,58	42	10	80	-40	-20	Art3§3
<b>FACY 286 S</b>	<b>FACY 286 MMS</b>	0,58	42	10	80	-40	-20	Art3§3
<b>FACY 287 S</b>	<b>FACY 287 MMS</b>	0,59	42	10	80	-40	-20	Art3§3
<b>FACY 289 S</b>	<b>FACY 289 MMS</b>	0,60	42	10	80	-40	-20	Art3§3
<b>FACY 489 S</b>	<b>FACY 489 MMS</b>	1,39	42	10	80	-40	-20	I
<b>FACY 4811 S/MMS</b>		1,40	42	10	80	-40	-20	I
<b>FACY 4813 S</b>	<b>FACY 4813 MMS</b>	1,42	42	10	80	-40	-20	I

(1) The working pressure is limited to the PS BT value when working temperature is lower than or equal to TS BT value.

(2) Classification by volume, according to PED 97/23/EC (refer to chapter 0 page 7).



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## ■ Weights and packaging

CARLY references	Unit weight (kg)		Packaging unit	
	With packaging	Without packaging	standard	OEM'S
<b>FACY 283</b>	0,94	0,90	12	/
<b>FACY 284</b>	0,99	0,95	12	/
<b>FACY 285</b>	1,04	1,00	12	/
<b>FACY 285 S/MMS</b>	1,04	1,00	12	/
<b>FACY 286 S &amp; MMS</b>	1,04	1,00	12	/
<b>FACY 287 S &amp; MMS</b>	1,04	1,00	12	/
<b>FACY 289 S &amp; MMS</b>	1,14	1,10	12	/
<b>FACY 489 S &amp; MMS</b>	1,77	1,70	6	/
<b>FACY 4811 S/MMS</b>	1,97	1,90	6	/
<b>FACY 4813 S &amp; MMS</b>	2,07	2,00	6	/