



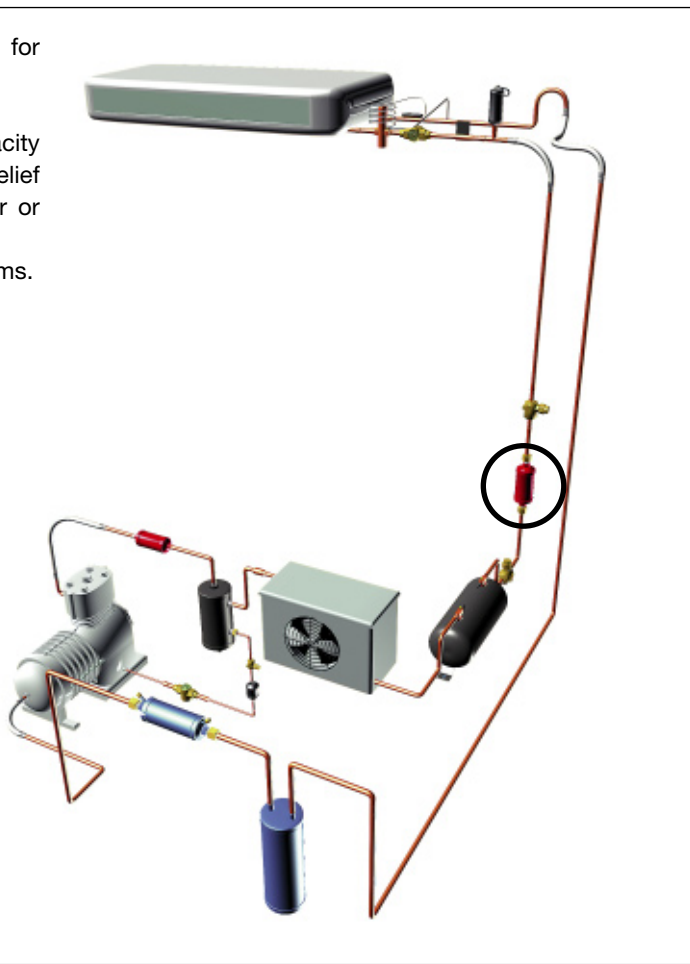
## Filter drier receiver units

### → RCY

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#### ■ Applications

- Refrigerant filtering and drying, and acid neutralization for refrigerating and air conditioning installation liquid lines.
- Integrated liquid reserve function.
- The filter drier receivers are particularly suited to low capacity installations that operate with a thermostatic pressure relief valve and that are equipped with an air-cooled condenser or a plate-type condenser.
- Filter drier receivers fit perfectly within the heat pump systems.



#### ■ 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.
- Permanent reserve of dried and filtered refrigerant, for better feeding of the pressure relief valve, whichever the operating rate.
- Filtering at outlet preventing the propagation within the circuit of particles bigger than 12 microns.
- No desorption, even at high temperatures.

① CARLY can deliver specific versions of filter driers receivers : drying capacity, volume of the receiver or connections adapted to your needs.

#### ■ CARLY advantages

- Room saving in comparison with the assembly of two separate components (filter drier + receiver); savings in terms of labour cost and accessories.
- High drying and acid neutralization capacity at all temperatures, thanks to a rigorous selection and judicious mix of chemical agents present in the filter drier receivers (activated alumina to neutralise the acids and molecular sieves to adsorb moisture).
- Initial drying capacity guaranteed by a 200°C oven drying and airtight sealing.
- A dispenser located at the intake ensures optimal distribution and permanent treatment of the whole refrigerant, inside the filter drier receiver.
- Connections to solder are made of copper-plated steel, 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

- \* Filter drier receivers are to be mounted on the liquid line between the condenser and the expansion element.
- \* The refrigerant flow direction is indicated by an "IN" mark in the inlet shell of the filter drier and by an arrow on the filter drier tag. It must be necessarily respected.
- \* Mounting of filter drier receivers should always be performed vertically, refrigerant inlet up, for proper use of the receiver part.
- \* Be careful to properly select the solenoid valves located downstream of the filter drier receivers; their oversizing could cause liquid hammer phenomena hindering proper mechanical behaviour of the filter drier receivers; protection of the regulation elements upstream of the evaporator should be performed with FILTRY dirt filters (refer to chapter 8); these liquid hammer phenomena can come from other sources, in long-piping installations.
- \* Never install filter drier receivers in an area of the circuit that can be isolated.
- \* Never trap refrigerant in its liquid state (between a check valve and a solenoid valve, for instance).
- \* The filter drier receivers efficiency and the refrigerant moisture content should be checked using VCYL or VCYLS liquid sight glasses (refer to chapter 7).
- \* General assembly precautions: refer to chapter 115.

#### ■ Selection table

CARLY references	Connections		CARLY references	Connections To solder ODF mm	Refrigerating capacity (kW) <sup>(1)</sup>				Dehydratable refrigerant capacity (kg of refrigerant) <sup>(2)</sup>					
	To screw SAE inch	To solder ODF inch			R22	R134a	R404A R507	R407C R410A	R22 R407C		R134a R410A		R404A R507	
									24°C	52°C	24°C	52°C	24°C	52°C
<b>RCY 502-3 S</b>		3/8-1/4(3)			8	7,3	5,2	7,9	10,5	9,0	11	10,5	17	9,5
<b>RCY 522 S</b>		1/4	<b>RCY 522 MMS</b>	6	8	7,3	5,2	7,9	10,5	9,0	11	10,5	17	9,5
<b>RCY 523 S</b>		3/8	<b>RCY 523 MMS</b>	10	20	18,2	13,0	19,8	10,5	9,0	11	10,5	17	9,5
<b>RCY 743 S</b>		3/8	<b>RCY 743 MMS</b>	10	35	31,9	22,8	34,7	38,5	32,5	40	38,5	61	34,0
<b>RCY 744 S</b>		1/2	<b>RCY 744 MMS</b>	12	38	34,6	24,7	37,6	38,5	32,5	40	38,5	61	34,0
<b>RCY 924</b>	1/2				40	36,4	26,0	39,6	50,0	42,5	52	50,0	79	44,0
<b>RCY 924 S</b>		1/2	<b>RCY 924 MMS</b>	12	40	36,4	26,0	39,6	50,0	42,5	52	50,0	79	44,0
<b>RCY 925</b>	5/8				42	38,2	27,3	41,6	50,0	42,5	52	50,0	79	44,0
<b>RCY 925 S/MMS</b>		5/8		16	42	38,2	27,3	41,6	50,0	42,5	52	50,0	79	44,0

<sup>(1)</sup> Refrigerating capacities according to Standard ARI 710-86 for  $T_o = -15^\circ\text{C}$ ,  $T_k = 30^\circ\text{C}$  and  $\Delta p = 0.07$  bar. If different conditions, refer to correction factors in chapter 112.

<sup>(2)</sup> Dehydratable refrigerant capacity according to Standard ARI 710-86.

<sup>(3)</sup> Inlet 3/8 - Outlet 1/4



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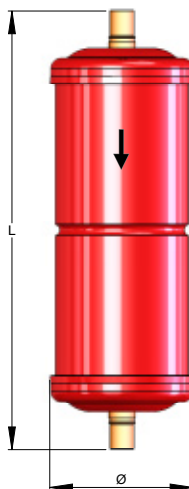
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#### ■ Technical features

CARLY references		Connection types <sup>(1)</sup>	Filtering surface (cm <sup>2</sup> )	Desiccants volume (cm <sup>3</sup> )	Receiver volume (L)	Dimensions (mm)		Net weight (kg)
						∅	L	
RCY 502-3 S		2	52	70	0,12	53	160,5	0,35
RCY 522 S	RCY 522 MMS	2	52	60	0,21	53	209,0	0,45
RCY 523 S	RCY 523 MMS	2	52	60	0,21	53	209,0	0,45
RCY 743 S	RCY 743 MMS	2	102	260	0,33	74	232,0	1,00
RCY 744 S	RCY 744 MMS	2	102	260	0,33	74	232,0	1,00
RCY 924		1	170	290	0,76	93	266,0	1,65
RCY 924 S	RCY 924 MMS	2	170	290	0,76	93	246,0	1,65
RCY 925		1	170	290	1,80	93	455,0	2,35
RCY 925 S/MMS		2	170	290	1,80	93	435,0	2,35

<sup>(1)</sup> Chapter "Connection features and drawings" (refer to chapter 114).



CARLY references		Volume	Maximal working pressure	Working pressure <sup>(1)</sup>	Maximal working temperature	Minimal working temperature	Working temperature <sup>(1)</sup>	CE Category <sup>(2)</sup>
		V (L)	PS (bar)	PS BT (bar)	TS maxi (°C)	TS mini (°C)	TS BT (°C)	
RCY 502-3 S		0,20	42	10	80	-40	-20	Art 3§3
RCY 522 S	RCY 522 MMS	0,29	42	10	80	-40	-20	Art 3§3
RCY 523 S	RCY 523 MMS	0,29	42	10	80	-40	-20	Art 3§3
RCY 743 S	RCY 743 MMS	0,63	42	10	80	-40	-20	Art 3§3
RCY 744 S	RCY 744 MMS	0,63	42	10	80	-40	-20	Art 3§3
RCY 924		1,16	42	10	80	-40	-20	Art 3§3
RCY 924 S	RCY 924 MMS	1,16	42	10	80	-40	-20	Art 3§3
RCY 925		2,22	42	10	80	-40	-20	I
RCY 925 S/MMS		2,22	42	10	80	-40	-20	I

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

<sup>(2)</sup> 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>RCY 502-3 S</b>	0,35	0,35	1	48
<b>RCY 522 S &amp; MMS</b>	0,45	0,45	1	48
<b>RCY 523 S &amp; MMS</b>	0,45	0,45	1	70
<b>RCY 743 S &amp; MMS</b>	1,01	1,00	1	25
<b>RCY 744 S &amp; MMS</b>	1,01	1,00	1	25

CARLY references	Unit weight (kg)		Packaging unit	
	With packaging	Without packaging	standard	OEM'S
<b>RCY 924</b>	1,66	1,65	1	12
<b>RCY 924 S &amp; MMS</b>	1,66	1,65	1	12
<b>RCY 925</b>	2,36	2,35	1	12
<b>RCY 925 S/MMS</b>	2,36	2,35	1	12