

R407C

EASY_R

**Air cooled liquid chillers and heat pumps
equipped with scroll compressor and axial fans**

5,2 ÷ 41,5 kW




rcgroup.it

T_ESY_R_0508_GB

EASY.A "R": Air cooled liquid chillers equipped with scroll compressors and axial fans.
R407C refrigerant charge.

EASY.A.P "R": Air cooled heat pump equipped with scroll compressors, axial fans and welded plate heat exchangers.
R407C refrigerant charge.

The units are in compliance with CE 98/37, 2004/108/CE, CE 97/23, 2006/95/CE European norms and subsequent modifications.

WORKING LIMITS

COOLING MODE:

Evaporator water temperature:

6°C outlet minimum value.
-10°C outlet minimum value with antifreeze solution.
20°C inlet maximum value.

Ambient temperature:

20°C minimum value with nominal air flow rate
20/-15°C temperature range with air flow rate control
45°C maximum value

HEAT PUMP

Ambient temperature:

-15°C minimum value
30°C maximum value

Hot water temperature:

30÷50°C outlet water temperature range.

WARNING

The values are indicative.

Please check the limit operation conditions of the specific model with the electronic selection catalogue RC WORLD.

STORING TEMPERATURE: -30 ÷ 50°C in absence of superficial condensation and direct sun light.

SERIES IDENTIFICATION

EASY “R” - Air cooled liquid chillers and heat pumps with one condensing coil in vertical position and equipped with scroll compressor, axial fans and welded plate heat exchangers. Horizontal air suction and discharge.

EASY.A “R” - Liquid chiller

Cooling capacity 5,2 ÷ 41,5 kW

EASY.A.P “R” - Heat pump

Cooling capacity 5,2 ÷ 41,1 kW

Heating capacity 6,2 ÷ 49,5 kW

**MODEL IDENTIFICATION**

EASY A P T 8 Z 1 R1

A Condenser fan type

A Axial fan

P Heat pump version**ELN Extremely low noise version****T Power supply**

M Single-phase 230/150

T Three-phase 400/3/50+N

8 Cooling capacity (kW)**Z Compressor type**

Z Scroll

1 Compressors number**R1 Cabinet size**

COMPONENTS

- Housing and unit base made of RAL9002 epoxy painted galvanized steel sheet.
- Technical compartment, fully enclosed and separate from the air flow, housing compressors, evaporator, controls, electric and regulation devices, to assure working continuity during ordinary service and preventive maintenance operations and to reduce the noise emissions.
- Antifreeze electric heater for technical compartment.
- Scroll type fully-hermetic compressor with built-in electric protection.
- Rubber holders for compressor.
- Stainless steel AISI 316 welded plate evaporator, insulated with closed cells polyurethane.
- Condensing coil with copper tubes, continuous aluminium finning and frame in non-oxidable material.
- Axial fans directly coupled to electric motor and protected by special safety net.
- Condensing control system by stepless condenser fans speed, through electronic regulator directly driven by the proportional signal managed by microprocessor control.
- Differential pressure switch for water flow loss control.
- Rubber antivibration holders, not installed
- Cooling circuit components:
 - Thermostatic expansion valve with external equalizer.
 - Liquid and moisture indicator.
 - High pressure safety switch.
 - Low pressure safety switch.
 - Dryer and anti-acid gas filter.
 - Copper piping for cooling circuit.
 - Flexible piping for pressure switches connection.
 - R407C refrigerant gas and non-freezing oil charge.
- Microprocessor control system with contact for general alarm remotization.
- Temperature sensors on evaporator water inlet/outlet.
- Compressor hour-meter.
- Electric box built-in the unit housing, suitable for outdoor installation, including:
 - Quick opening external panel with protective function.
 - Safety internal panel equipped with microprocessor display and auxiliary controls.
 - Magnetothermic switches.
 - Contactor for compressor.
 - Auxiliary circuit and microprocessor feeding by transformer.

HEAT PUMP COMPONENTS

- Microprocessor controlled automatic defrosting system of the gas/air heat exchanger.
- Cycle inversion valve.
- Liquid receiver.

OPTIONAL ACCESSORIES

- “HYG” hydronic group equipped with water tank and one circulating water pump.
It is not possible to match the HYG hydronic group with the PU pumping group.
- “PU” pumping group equipped with one circulating water pump.
It is not possible to match the PU pumping group with the HYG hydronic group.
- Kit for gas/air heat exchanger protection net.
- LNO kit:
 - Set of the working parameters
 - Soundproof cap on compressor.
- Microprocessor accessories:
 - Remote control kit: remote panel for unit control and alarms signalling.
 - Kit for RS485 serial port.

WARNING

In case the unit is not equipped with “HYG Hydronic group” it is compulsory to install a water filter on evaporator water inlet.

It is not possible to match the “HYG Hydronic Group” and “Pumping Group” optional.

The optional named “Kit” are not factory installed. The installation is at Customer care.

RC GROUP reserves the right to accept the matching of the optional installed on the unit.

TECHNICAL DATA - EASY.A "R" – Liquid chiller

MODEL		T.16.Z1	T.18.Z1	T.20.Z1	T.24.Z1	T.28.Z1	T.35.Z1	T.43.Z1
SIZE		R2	R2	R3	R3	R3	R4	R4
COOLING ONLY (1)								
COOLING CAPACITY	kW	15,6	17,4	20,7	24,5	27,8	34,1	41,5
Compressor power input	kW	5,1	6,0	5,9	7,6	9,1	11,3	13,6
Compressor operating current	A	8,9	11,0	12,0	15,0	16,3	19,1	23,5
Evaporator water flow rate	m ³ /h	2,7	3,0	3,6	4,2	4,8	5,9	7,2
Evaporator pressure drop	kPa	22	26	27	35	24	27	28
COMPRESSOR								
		scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	n.	1	1	1	1	1	1	1
Max operating current FLA	A	10	12	14	16	18	22	26
Starting current LRA	A	74	101	99	123	127	167	198
Capacity steps	n.	1	1	1	1	1	1	1
EVAPORATOR								
	n.	1	1	1	1	1	1	1
Water volume	l	1,5	1,5	1,8	1,8	2,5	3,0	3,5
Max water flow rate	m ³ /h	4,8	4,8	5,8	5,8	8,0	9,6	11,0
AXIAL FANS								
	n.	1	1	2	2	2	4	4
Total air flow	m ³ /h	4700	4400	8400	8400	8400	10250	13100
Total power input	kW	0,25	0,25	0,50	0,50	0,50	0,60	1,00
Max operating current FLA	A	1,2	1,2	2,3	2,3	2,3	2,8	4,6
REFRIGERANT								
		R407C	R407C	R407C	R407C	R407C	R407C	R407C
Total refrigerant charge (optional excluded)	kg	1,9	1,9	3,0	3,0	3,0	5,5	5,5
Gas circuits	n.	1	1	1	1	1	1	1
POWER SUPPLY								
	V/Ph/Hz	400/350+N	400/350+N	400/350+N	400/350+N	400/350+N	400/350+N	400/350+N
ENERGY EFFICIENCY INDEXES								
EER - Energy Efficiency Ratio	kW/kW	2,92	2,78	3,24	3,02	2,90	2,87	2,84
IPLV - ARI Standard 550/590		3,59	3,42	3,99	3,71	3,57	3,53	3,49
ESEER Eurovent Standard		4,06	3,86	4,50	4,20	4,03	3,99	3,95
SOUND LEVEL - ISO 3744 (2)								
Sound pressure level (Lp)	dB(A)	62,4	62,4	62,4	62,6	64,5	62,2	65,1
Sound power level (Lw)	dB(A)	77,3	77,3	77,9	78,1	80,0	78,1	81,0
HYG HYDRONIC GROUP								
With 1 pump - Model		131	131	132	132	132	210	210
Water tank volume	l	130	130	130	130	130	210	210
PU PUMPING GROUP								
Model		01/R2b	01/R2b	01/R3	01/R3	01/R3	01/R4	01/R4
DIMENSIONS								
Length	mm	1305	1305	1305	1305	1305	1805	1805
Width	mm	580	580	580	580	580	580	580
Height	mm	900	900	1285	1285	1285	1285	1285
NET WEIGHT	kg	115	120	170	185	205	280	295
HYDRAULIC CONNECTIONS								
EVAPORATOR								
Inlet / Outlet – ISO228/1-G M	Ø	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"

1. Referred to chiller water temperature 12/7°C; 35°C ambient temperature.
2. Sound level 1m far in free field conditions.

Technical data and dimensions are not binding.
RC GROUP S.p.A. reserves the right of effecting opportune modifications without previous notice.



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