

CR - CRS - CRU Kc

REMOTE CONDENSERS WITH AXIAL FANS FOR R410A

CR 34 Kc



Above picture is only indicative and is not binding.

Packaged air condensers with axial fans for external installation, especially designed to satisfy many refrigeration and air conditioning applications, so to reduce the overall noise level.

On request, the remote condensers can be provided with a condensing pressure control (option RG), by means of an actuated pressure fan speed controller, providing speed variation with a reduced full load current and allowing their operation down to -20°C ambient temperature. For lower temperatures down to -40°C, it is necessary to select option BW.

The following versions are available:

1-circuit:

- **CR Kc** standard version (4/6 pole fans),
- **CRS Kc** silenced version (6/8 pole fans),
- **CRU Kc** ultra-silenced version (6/8 pole fans).

2-circuits:

- **CR/2 Kc** standard version (4/6 pole fans),
- **CRS/2 Kc** silenced version (6/8 pole fans),
- **CRU/2Kc** Ultra-silenced version (6/8 pole fans).

Operation limits: external air temperature from +15 to +42°C.

MAIN COMPONENTS

Casing built using modular components in warm galvanized steel, powder painted (standard colour: RAL 9002), resistant to corrosive agents up to corrosion class C5. The cuvettes are protected by a safety panel fixed to the structure. All operations necessary for manufacturing components (punching, drilling, bending) are performed prior to painting: maximum protection against rust is thus guaranteed. Mounting elements (screws, threaded inserts, rivets, washers and nuts) are all in stainless steel. The kit for vertical airflow is standard provided.

Coil built using copper pipes mechanically expanded on high efficiency aluminium fins separated by 2.1 mm. Tiles are in warm galvanized steel while

sides are in aluminium to prevent pipe damage due to thermal expansion. Circuits are designed for counter flow. Manifolds are in copper. Test pressure (with dry air): 30 bars. Test pressure (with dry air) for use with R410A: 45 bars.

AC Single phase or three-phase axial fans, thermally protected, permanently lubricated, statically and dynamically balanced, single speed, class B and F insulation; built-in thermal contact, IP54 protection. Power and sound pressure reference levels (free field conditions) for each fan are declared by the fan manufacturer according to EN13487 standards.

Condensers are standard provided with:

Electrical main switch, realized in a switchboard box in plastic material resistant to UV rays, protection class IP55, fans wiring with cables suitable for outdoor installation.

ACCESSORIES

BW Low temperature operation down to -40°C: In order to allow operation down to such external air temperature, we provide a kit of components to be installed close to the remote condenser that include: liquid receiver, condensing control valve, non-return valves, safety valve, self-regulating heating coil and insulating material. (Available up to size CR73, CRS 55 and CRU 46)

IM Seawood packing: Fumigated seawood case and protection bag with hygroscopic salts, suitable for long sea transports.

RG Fans speed regulation: For operation down to -20°C external air, on the indoor unit we install a voltage fan speed controller (protection class IP54) already factory set.

RM Condensing coil with pre-painted fins: Superficial treatment of the condensing coils realized in epoxy pre-painted aluminium material.

RR Copper/copper condensing coils: Special execution of the condensing coils with copper pipe and fins.

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Technical data - CR Standard - 1-circuit version

CR Kc		9	12	19	22	34	47	55	73	97	114	137
Heating rejection												
Power	kW	8,8	10	19,6	24,8	38,5	47,9	57,2	77,1	109,7	125,6	164,6
Axial fans												
Quantity	n.	1	1	1	1	2	2	2	4	4	4	4
Rotation speed	rpm	1'400	1'400	1'300	1'300	1'300	1'300	1'300	1'300	1'300	860	860
Air flow	m ³ /h	2'300	5'000	5'900	5'500	11'800	11'000	11'500	23'600	22'775	37'700	34'130
Motor input power	kW	0,18	0,18	0,49	0,49	0,98	0,98	0,98	1,96	1,96	2,4	2,4
Input current	A	0,81	0,81	2,36	2,36	4,72	4,72	4,72	9,44	9,44	10,48	10,48
Diameter	mm	350	350	450	450	450	450	450	450	450	630	630
Sound pressure level												
Sound pressure at 10 m	dB(A)	39	39	41	41	44	44	44	47	47	49	49
Dimensions												
Length	mm	610	610	840	840	1540	1540	1540	1540	1540	2260	2260
Width	mm	580	580	780	780	780	780	780	1480	1480	2080	2080
Height	mm	800	800	800	800	800	800	800	800	800	1340	1340
Length (vertical air flow)	mm	610	610	840	840	1540	1540	1540	1540	1540	2260	2260
Width (vertical air flow)	mm	670	670	670	670	670	670	670	670	670	900	900
Height (vertical air flow)	mm	560	560	760	760	760	760	760	1460	1460	2060	2060
weight	kg	15	17	31	34	56	62	74	115	140	324	370
IN/OUT connections	Ø mm	18/16	18/16	18/16	18/16	18/16	22/18	22/18	22/18	28/22	54/42	54/42
Electrical power supply												
Electrical power supply	V / ph / Hz	230 / 1 / 50										
NOTES												
-Selected for external air temperature of 35°C.												
-Sound pressure level measured at 10 m in open field (ISO 3744).												

Technical data - CRS Silenced - 1-circuit version

CRS Kc		14	18	23	30	34	46	55	73	97	114	137
Heating rejection												
Power	kW	15,4	18,8	19,8	30,4	37,3	40,1	62,6	76,2	92,3	123,1	155,2
Axial fans												
Quantity	n.	1	1	1	2	2	2	4	4	3	4	6
Rotation speed	rpm	900	900	915	900	900	915	900	900	860	670	670
Air flow	m ³ /h	4000	3700	3400	8000	7400	6400	16000	14800	20400	27170	42770
Motor input power	kW	0,19	0,19	0,19	0,38	0,38	0,38	0,76	0,76	0,99	1,32	1,98
Input current	A	0,86	0,86	0,86	1,72	1,72	1,72	3,44	3,44	2,49	3,32	4,98
Diameter	mm	450	900	500	450	450	500	450	450	630	630	630
Sound pressure level												
Sound pressure level	dB(A)	34	34	34	37	37	37	40	40	41	42	44
Dimensions												
Length	mm	840	840	840	1540	1540	1540	1540	1540	3260	2260	3260
Width	mm	780	780	780	780	780	780	1480	1480	1080	2080	2080
Height	mm	800	800	800	800	800	800	800	800	1060	1340	1340
Length (vertical air flow)	mm	840	840	840	1540	1540	1540	1540	1540	3260	2260	3260
Width (vertical air flow)	mm	670	670	670	670	670	670	670	670	900	900	900
Height (vertical air flow)	mm	760	760	760	760	760	760	1460	1460	1060	2060	2060
weight	kg	31	34	37	56	62	74	115	125	280	352	456
IN/OUT connections	Ø mm	18/16	18/16	18/16	18/16	22/18	22/18	22/18	28/22	28/22	54/42	54/42
Electrical power supply												
Electrical power supply	V / ph / Hz	230 / 1 / 50										400/3/50
NOTES												
-Selected for external air temperature of 35°C.												
-Sound pressure level measured at 10 m in open field (ISO 3744).												

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Technical data - CRU Ultrasilenced - 1-circuit version

CRU Kc		11	14	17	22	29	34	46	55	73	92	114
Heating rejection												
Power	kW	12,1	14,6	16	24	34,1	35,1	49,5	59,1	77,3	91,7	138,6
Axial fans												
Quantity	n.	1	1	1	2	2	2	4	4	3	4	6
Rotation speed	rpm	720	720	665	720	665	665	720	720	670	670	670
Air flow	m ³ /h	3000	2800	2900	6000	6400	5800	12000	11200	16450	23600	35350
Motor input power	kW	0,12	0,12	0,13	0,24	0,26	0,26	0,48	0,48	0,57	0,76	1,14
Input current	A	0,53	0,53	0,59	1,06	1,18	1,18	2,12	2,12	1,17	1,56	2,34
Diameter	mm	450	450	500	450	500	500	450	450	630	630	630
Sound pressure level												
Sound pressure level	dB(A)	30	30	29	33	32	32	36	36	37	37	39
Dimensions												
Length	mm	840	840	840	1540	1540	1540	1540	1540	3260	2260	3260
Width	mm	780	780	780	780	780	780	1480	1480	1080	2080	2080
Height	mm	800	800	800	800	800	800	800	800	1340	1340	1340
Length (vertical air flow)	mm	840	840	840	1540	1540	1540	1540	1540	3260	2260	3260
Width (vertical air flow)	mm	670	670	670	670	670	670	670	670	900	900	900
Height (vertical air flow)	mm	760	760	760	760	760	760	1460	1460	1060	2060	2060
weight	kg	31	34	44	56	76	82	115	125	280	324	456
IN/OUT connections	∅ mm	18/16	18/16	18/16	18/16	22/18	22/18	22/18	28/22	28/22	54/42	54/42
Electrical power supply												
Electrical power supply	V / ph / Hz	230 / 1 / 50						400/3/50				
NOTES												
-Selected for external air temperature of 35°C.												
-Sound pressure level measured at 10 m in open field (ISO 3744).												

Technical data - CR/2 Standard - 2-circuits version

CR Kc		40/2	50/2	70/2	80/2	101/2	120/2	143/2	
Heating rejection									
Power	kW	47,9	54,9	77,1	96	109,7	124,8	154,1	
Axial fans									
Quantity	n.	2	2	4	4	4	3	4	
Rotation speed	rpm	1'300	1'300	1'300	1'300	1'300	860	860	
Air flow	m ³ /h	11000	10400	23600	22000	20800	25480	33940	
Motor input power	kW	0,98	0,98	1,96	1,96	1,96	18	2,4	
Input current	A	4,72	4,72	9,44	9,44	9,44	7,86	10,48	
Diameter	mm	450	450	450	450	450	630	630	
Sound pressure level									
Sound pressure level	dB(A)	44	44	47	47	47	48	49	
Dimensions									
Length	mm	1540	1540	1540	1540	1540	3260	4260	
Width	mm	780	780	1480	1480	1480	1080	1080	
Height	mm	800	800	800	800	800	1340	1340	
Length (vertical air flow)	mm	1540	1540	1540	1540	1540	3260	4260	
Width (vertical air flow)	mm	670	670	670	670	670	900	900	
Height (vertical air flow)	mm	760	760	1460	1460	1460	1060	1060	
weight	kg	62	68	115	125	140	301	399	
IN/OUT connections	∅ mm	2x22/2x18	2x22/2x18	2x22/2x18	2x22/2x18	2x22/2x18	2x22/2x18	2x28 / 2x22	
Electrical power supply									
Electrical power supply	V / ph / Hz	230 / 1 / 50 + T							
NOTES									
-Selected for external air temperature of 35°C.									
-Sound pressure level measured at 10 m in open field (ISO 3744).									

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Technical data - CRS/2 Silenced - 2-circuits version

CRS Kc		40/2	60/2	70/2	101/2	120/2	183/2
Heating rejection							
Power	kW	40,1	62,6	76,2	97,4	132,5	186,1
Axial fans							
Quantity	n.	2	4	4	3	4	6
Rotation speed	rpm	915	900	900	860	670	670
Air flow	m ³ /h	6400	16000	14800	22190	31780	40710
Motor input power	kW	0,38	0,76	0,76	1,2	1,6	1,98
Input current	A	1,72	3,44	3,44	2,04	2,72	4,98
Diameter	mm	500	450	630	630	630	630
Sound pressure level							
Sound pressure level	dB(A)	37	40	40	42	43	44
Dimensions							
Length	mm	1540	1540	1540	3260	2260	3260
Width	mm	780	1480	1480	1080	2080	2080
Height	mm	800	800	800	1340	1340	1340
Length (vertical air flow)	mm	1540	1540	1540	3260	2260	3260
Width (vertical air flow)	mm	670	670	670	900	900	900
Height (vertical air flow)	mm	760	1460	1460	1060	2060	2060
weight	kg	74	115	125	280	324	498
IN/OUT connections	∅ mm	2x22/2x18	2x22/2x18	2x22/2x18	2x22/2x18	2x28/2x22	2x28/2x22
Electrical power supply							
Electrical power supply	V / ph / Hz	230/1/50			400/3/50		
NOTES							
-Selected for external air temperature of 35°C.							
-Sound pressure level measured at 10 m in open field (ISO 3744).							

Technical data - CRU/2 Ultrasilenced - 2-circuits version

CRU Kc		46/2	60/2	70/2	80/2	120/2	143/2
Heating rejection							
Power	kW	49,5	59,1	61,3	91,7	138,6	156,1
Axial fans							
Quantity	n.	4	4	4	4	6	6
Rotation speed	rpm	670	670	670	670	670	670
Air flow	m ³ /h	12000	11200	9800	23600	35350	32900
Motor input power	kW	0,48	0,48	0,48	0,76	1,14	1,14
Input current	A	2,12	2,12	2,12	1,56	2,36	2,36
Diameter	mm	630	630	630	630	630	630
Sound pressure level							
Sound pressure level	dB(A)	36	36	36	37	39	39
Dimensions							
Length	mm	1540	1540	1540	2260	3260	3260
Width	mm	1480	1480	1480	2080	2080	2080
Height	mm	800	800	800	1340	1340	1340
Length (vertical air flow)	mm	1540	1540	1540	2260	3260	3260
Width (vertical air flow)	mm	670	670	670	900	900	900
Height (vertical air flow)	mm	1460	1460	1460	2060	2060	2060
weight	kg	115	125	150	324	456	456
IN/OUT connections	∅ mm	2x22 / 2x18	2x22 / 2x18	2x28 / 2x22	2x22 / 2x18	2x28 / 2x22	2x28 / 2x22
Electrical power supply							
Electrical power supply	V / ph / Hz	230/1/50			400/3/50		
NOTES							
-Selected for external air temperature of 35°C.							
-Sound pressure level measured at 10 m in open field (ISO 3744).							