

DRY COOLERS

AXIAL FANS VERSION

MEDIUM AND HIGH CAPACITY



ARW

ARW ... Series

Capacities from 20 to 775 kW

Packaged dry coolers with axial fans suitable for external installation. To be matched to the units series:

RWE - RWS - RWH - PWE - PWS - PWH - ED.W - EDW.F

In the units series RWE-RWS-RWH-PWE-PWS-PWH-ED.W-EDW.F they are used to cool the condensing water

In units EDW.F they have a double use, for condensing in the summer period or for free-cooling in the winter period.

4 different versions are available depending on the sound pressure level:

ARW standard version

ARW.S silenced version

ARW.U ultrasilenced version

ARW.XU extra-ultrasilenced

They can be installed both with horizontal and vertical air flow; in this case option FV must be required

In addition some models are made with two V coil and therefore are available only with vertical air flow.

Made up of:

PANELS: The external housing is made of Peraluman Al-Mf (Aluminium - Manganese alloy) of 2.0 and 2.55 mm thickness depending on the sizes, with anti-scratch protection film. The bent side of the coil is provided with suitable protection.

FANS: Axial type with external motor, with wing-profiled blades to ensure the best performance, complete with protection grid. The motors are 3 Phases, for supply

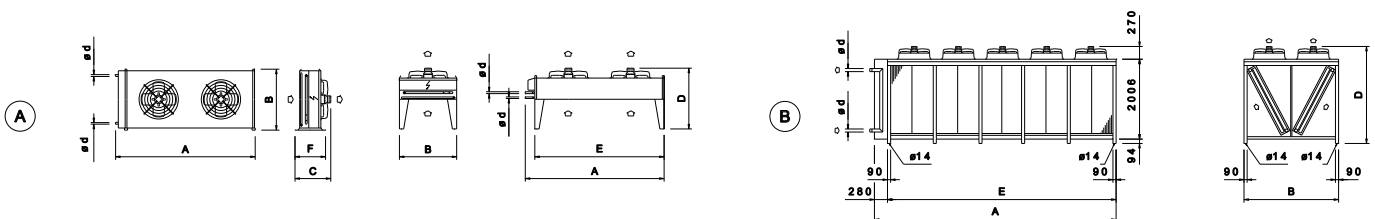
400V/50Hz, IP 54 protection according to DIN 400 50 standards and complete with in-built thermostat.

COILS: Made, in the standard version, with copper pipes and special ruled aluminium fins to improve the heating exchange. On request they are available with aluminium fins pre-painted with epoxy powders, suitably resistant to the sea environment, or with copper fins and are complete with purge and draining valves. Each coil is pressure tested at 30 Bar.

In the basic version the fans are not wired.

Accessories

- CQ Fans and electrical panel wiring
- CV Fans wired in a suitable terminal board
- FV Kit of supports for vertical air flow
- IX Stainless steel housing
- PA Rubber-type vibration dampers
- RG Electronic and modulating fans speed regulation so to keep the liquid temperature constant
- RM Epoxy coating of coil for sea environment
- VM Version with customized coloured housing



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STANDARD VERSION

MODEL	ARW...	20	35	50	65	80	90	100	120	150	180	210	230
Capacity 1)	kW	20	38,4	54,2	62,8	80,9	90,3	98,1	125,4	166,2	189,4	208,2	230,9
Axial fans													
Quantity	n	2	2	2	2	3	3	4	4	4	4	4	6
Total air flow	mc/h	15.000	26.000	30.000	28.400	45.000	42.600	60.000	56.800	103.200	111.200	102.000	154.800
Total air flow	l/s	4.167	7.222	8.333	7.889	12.500	11.833	16.667	15.778	28.667	30.889	28.333	43.000
Diameter	mm	500	630	630	630	630	630	630	630	900	900	900	900
Rotation speed	rpm	1.330	1.070	1.340	1.340	1.340	1.340	1.340	1.340	893	893	893	893
Motors power	kW	1,6	2,7	3,8	3,8	5,7	5,7	7,6	7,6	14,4	14,4	14,4	21,6
Nominal absorbed current	A	3	4	6,4	6,4	9,6	9,6	12,8	12,8	28,8	28,8	28,8	43,2
Sound pressure level 2)	dB(A)	54	54	60	60	62	62	63	63	62	62	62	64
Coil													
Water flow rate	mc/h	3,8	7,3	10,3	12	15,4	17,2	18,7	23,9	36	36,1	39,7	44,1
Water flow rate	l/s	1,06	2,03	2,86	3,33	4,28	4,78	5,19	6,64	10,00	10,03	11,03	12,25
Pressure drop	kPa	39	43	41	71	38	28	10	66	36	52	37	14
Volume	dmc	11	24	36	46	51	66	69	89	97	126	156	151
Dimensions for horizontal air flow													
Length	mm	1.910	2.630	2.630	2.630	3.770	3.770	4.910	4.910	3.530	4.030	4.030	5.030
Width	mm	600	600	600	600	600	600	600	600	800	800	800	800
Height	mm	900	1.260	1.260	1.260	1.260	1.260	1.260	1.260	2.400	2.400	2.400	2.400
Dimensions													
Length	mm	1.910	2.630	2.630	2.630	3.770	3.770	4.910	4.910	3.530	4.030	4.030	5.030
Width	mm	900	1.260	1.260	1.260	1.260	1.260	1.260	1.260	2.400	2.400	2.400	2.400
Height	mm	980	980	980	980	980	980	980	980	1.565	1.565	1.565	1.565
Ø In / Ø Out	Inc	1"1/2	2"	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	4"	4"	4"
Weight	kg	90	151	168	185	248	273	328	362	609	662	715	901
Drawing type		A	A	A	A	A	A	A	A	A	A	A	A
Power supply 400 V / 50 Hz / 3 Ph + T + N													

STANDARD VERSION

MODEL	ARW...	260	280	300	350	400	450	500	550	600	650	700
Capacity 1)	kW	267,2	288,8	297,7	341,8	406,6	454,2	494	586,7	641,1	641,1	774,2
Axial fans												
Quantity	n	6	6	10	8	8	8	10	10	12	12	14
Total air flow	mc/h	166.800	138.600	185.000	222.400	235.200	220.800	217.000	276.000	331.200	331.200	386.400
Total air flow	l/s	46.333	38.500	51.389	61.778	65.333	61.333	60.278	76.667	92.000	92.000	107.333
Diameter	mm	900	900	800	900	900	900	900	900	900	900	900
Rotation speed	rpm	893	893	895	893	893	893	716	893	893	893	893
Motors power	kW	21,6	21,6	20,0	28,8	28,8	28,8	24,0	36,0	43,2	43,2	50,4
Nominal absorbed current	A	43,2	43,2	43,0	57,6	57,6	57,6	41,0	72,0	86,4	86,4	100,8
Sound pressure level 2)	dB(A)	64	64	58	65	65	65	61	65	66	66	66
Coil												
Water flow rate	mc/h	51	55,1	56,8	65,2	77,6	86,7	94,3	112	122,3	122,3	147,8
Water flow rate	l/s	14,17	15,31	15,78	18,11	21,56	24,08	26,19	31,11	33,97	33,97	41,06
Pressure drop	kPa	20	84	15	19	55	40	58	79	16	16	26
Volume	dmc	171	190	255	263	323	413	501	501	589	589	678
Dimensions for horizontal air flow												
Length	mm	5.780	5.030	7.280	7.530	--	--	--	--	--	--	--
Width	mm	800	800	800	800	--	--	--	--	--	--	--
Height	mm	2.400	2.400	2.400	2.400	--	--	--	--	--	--	--
Dimensions												
Length	mm	5.780	5.030	7.280	7.530	5.490	5.490	6.740	6.740	7.990	7.990	9.240
Width	mm	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.440	2.440	2.400
Height	mm	1.565	1.565	1.565	1.565	2.262	2.262	2.262	2.262	2.262	2.262	2.262
Ø In / Ø Out	Inc	4"	4"	4"	4"	2x4"	2x4"	2x4"	2x4"	2x4"	2x4"	2x4"
Weight	kg	979	971	1.340	1.412	2.151	2.318	2.847	2.847	3.356	3.356	3.865
Drawing type		A	A	A	A	B	B	B	B	B	B	B
Power supply 400 V / 50 Hz / 3 Ph + T + N												

-- = not available

Nominal condition referred to: External air 35 °C - Water 45/40 °C - Glycol 35%

2) Measured at 10 m in open field (ISO 3746) for fans with 400V / 3Ph / 50 Hz of power supply

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MEDIUM AND HIGH CAPACITY

SILENCED VERSION

MODEL	ARW...S	20	35	50	65	80	90	100	120	150	180	210	230
Capacity 1)	kW	19,8	34,6	59,9	68,7	83,4	90,3	106,2	123,1	150,9	187,4	209,6	242
Axial fans													
Quantity	n	2	2	3	3	4	4	3	4	4	4	6	6
Total air flow	mc/h	8.200	20.800	29.550	27.900	39.400	37.200	46.800	64.400	89.200	88.400	133.800	144.000
Total air flow	l/s	2.278	5.778	8.208	7.750	10.944	10.333	13.000	17.889	24.778	24.556	37.167	40.000
Diameter	mm	500	630	630	630	630	630	800	800	900	900	900	900
Rotation speed	rpm	900	870	870	870	870	870	870	870	890	890	890	890
Motors power	kW	0,6	1,5	2,2	2,2	2,9	2,9	4,4	5,8	9,8	9,8	14,7	14,7
Nominal absorbed current	A	1,34	2,7	4,05	4,05	5,4	5,4	9,6	12,8	20,8	20,8	31,2	31,2
Sound pressure level 2)	dB(A)	41	48	50	50	51	51	51	52	53	53	55	55
Coil													
Water flow rate	mc/h	3,8	6,6	11,4	13,1	15,9	17,2	20,3	23,5	28,8	35,8	40	46,2
Water flow rate	l/s	1,06	1,83	3,17	3,64	4,42	4,78	5,64	6,53	8,00	9,94	11,11	12,83
Pressure drop	kPa	24	76	22	55	52	37	37	59	30	31	11	17
Volume	dmc	20	24	51	66	69	86	88	90	97	156	151	171
Dimensions for horizontal air flow													
Length	mm	1.910	2.630	3.770	3.770	4.910	4.910	4.580	3.230	3.530	4.030	5.030	5.780
Width	mm	600	600	600	600	600	600	800	800	800	800	800	800
Height	mm	900	1.260	1.260	1.260	1.260	1.260	1.380	2.400	2.400	2.400	2.400	2.400
Dimensions													
Length	mm	1.910	2.630	3.770	3.770	4.910	4.910	4.580	3.230	3.530	4.030	5.030	5.780
Width	mm	900	1.260	1.260	1.260	1.260	1.260	1.380	2.400	2.400	2.400	2.400	2.400
Height	mm	980	980	980	980	980	980	1.565	1.565	1.565	1.565	1.565	1.565
Ø In / Ø Out	Inc	1"1/2	2"	2"1/2	2"1/2	3"	2"1/2	3"	3"	3"	4"	4"	4"
Weight	kg	106	151	248	273	328	362	484	505	609	715	901	979
Drawing type		A	A	A	A	A	A	A	A	A	A	A	A
Power supply		400 V / 50 Hz / 3 Ph + T + N											

SILENCED VERSION

MODEL	ARW...S	260	280	300	350	400	450	500	550	600	650	700
Capacity 1)	kW	261,9	277,4	312	368,6	411,6	476,8	489,3	576,1	586,6	736,1	736,1
Axial fans												
Quantity	n	6	8	8	8	10	10	12	12	14	16	16
Total air flow	mc/h	121.200	120.000	192.000	201.600	240.000	252.000	242.400	284.400	282.800	403.200	403.200
Total air flow	l/s	33.667	33.333	53.333	56.000	66.667	70.000	67.333	79.000	78.556	112.000	112.000
Diameter	mm	900	800	900	900	900	900	900	900	900	900	900
Rotation speed	rpm	890	870	890	890	890	890	890	890	890	890	890
Motors power	kW	14,7	11,6	19,6	19,6	24,5	24,5	29,4	29,4	34,3	39,2	39,2
Nominal absorbed current	A	31,2	25,6	41,6	41,6	52	52	62,4	62,4	72,8	83,2	83,2
Sound pressure level 2)	dB(A)	55	55	56	56	56	56	57	57	57	58	58
Coil												
Water flow rate	mc/h	50	53	59,6	70,3	78,6	91	93,4	109,9	111,9	140,5	140,5
Water flow rate	l/s	13,89	14,72	16,56	19,53	21,83	25,28	25,94	30,53	31,08	39,03	39,03
Pressure drop	kPa	71	93	17	46	34	91	28	13	45	45	45
Volume	dmc	190	221	263	323	320	390	427	589	492	588	588
Dimensions for horizontal air flow												
Length	mm	5.030	5.930	7.530	--	--	--	9.530	--	11.030	--	--
Width	mm	800	800	800	--	--	--	800	--	800	--	--
Height	mm	2.400	2.400	2.400	--	--	--	2.400	--	2.400	--	--
Dimensions												
Length	mm	5.030	5.930	7.530	5.490	9.280	6.740	9.530	7.990	11.030	10.490	10.490
Width	mm	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400
Height	mm	1.565	1.565	1.565	2.262	1.565	2.262	1.565	2.262	1.565	2.262	2.262
Ø In / Ø Out	Inc	4"	4"	4"	2x4"	4"	2x4"	2x4"	2x4"	2x4"	2x4"	2x4"
Weight	kg	971	1.071	1.412	2.151	1.730	2.638	2.083	3.356	2.426	4.039	4.039
Drawing type		A	A	A	B	B	B	A	B	A	B	B
Power supply		400 V / 50 Hz / 3 Ph + T + N										

-- = not available

Nominal condition referred to: External air 35 °C - Water 45/40 °C - Glycol 35%

2) Measured at 10 m in open field (ISO 3746) for fans with 400V / 3Ph / 50 Hz of power supply

ULTRASILENCED VERSION

MODEL	ARW...U	20	35	50	65	80	90	100	120	150	180	210
Capacity 1)	kW	22,7	38,9	51,8	62,8	95,9	95,9	136	136	161	192	203,6
Axial fans												
Quantity	n	2	3	4	4	4	4	6	6	6	6	6
Total air flow	mc/h	11.000	15.300	20.400	27.200	42.400	42.400	87.600	87.600	112.800	96.000	87.000
Total air flow	l/s	3.056	4.250	5.667	7.556	11.778	11.778	24.333	24.333	31.333	26.667	24.167
Diameter	mm	630	630	630	630	800	800	800	800	900	900	900
Rotation speed	rpm	470	470	470	630	495	495	665	665	665	665	665
Motors power	kW	0,4	0,6	0,8	1,3	2,4	2,4	5,9	5,9	6,7	6,7	6,7
Nominal absorbed current	A	0,74	1,11	1,48	2,92	5	5	15	15	16,2	16,2	16,2
Sound pressure level 2)	dB(A)	33	35	36	44	39	39	47	47	48	48	48
Coil												
Water flow rate	mc/h	4,3	7,4	9,9	12,0	18,3	18,3	26,0	26,0	30,7	36,6	38,8
Water flow rate	l/s	1,19	2,06	2,75	3,33	5,08	5,08	7,22	7,22	8,53	10,17	10,78
Pressure drop	kPa	74	75	71	31	66	66	68	68	17	68	45
Volume	dmc	24	49	66	66	88	88	89	89	110	151	190
Dimensions for horizontal air flow												
Length	mm	2.630	3.770	4.910	4.910	5.930	5.930	4.580	4.580	5.780	5.030	5.030
Width	mm	600	600	600	600	800	800	800	800	800	800	800
Height	mm	1.260	1.260	1.260	1.260	1.380	1.380	2.400	2.400	2.400	2.400	2.400
Dimensions												
Length	mm	2.630	3.770	4.910	4.910	5.930	5.930	4.580	4.580	5.780	5.030	5.030
Width	mm	1.260	1.260	1.260	1.260	1.380	1.380	2.400	2.400	2.400	2.400	2.400
Height	mm	980	980	980	980	1.565	1.565	1.565	1.565	1.565	1.565	1.565
Ø In / Ø Out	Inc	2"	2"	2"1/2	2"1/2	3"	3"	3"	3"	3"	4"	4"
Weight	kg	151	248	328	328	595	595	691	691	908	901	971
Drawing Type	A	A	A	A	A	A	A	A	A	A	A	A
Power supply	400 V / 50 Hz / 3 Ph + T + N											

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ULTRASILENCED VERSION

MODEL	ARW...U	230	260	280	300	350	400	450	500	550	600	650
Capacity 1)	kW	228,9	269,4	304	304	383,9	410,2	505,5	505,5	593,4	593,4	639,5
Axial fans												
Quantity	n	6	8	8	8	10	12	12	12	16	16	16
Total air flow	mc/h	94.800	116.000	126.400	126.400	183.000	206.400	205.200	205.200	292.800	292.800	273.600
Total air flow	l/s	26.333	32.222	35.111	35.111	50.833	57.333	57.000	57.000	81.333	81.333	76.000
Diameter	mm	900	900	900	900	900	900	900	900	900	900	900
Rotation speed	rpm	665	665	665	665	665	665	665	665	665	665	665
Motors power	kW	6,7	8,9	8,9	8,9	11,1	13,3	13,3	13,3	17,8	17,8	17,8
Nominal absorbed current	A	16,2	21,6	21,6	21,6	27	32,4	32,4	32,4	43,2	43,2	43,2
Sound pressure level 2)	dB(A)	48	49	49	49	49	50	50	50	51	51	51
Coil												
Water flow rate	mc/h	43,7	51,4	58,0	58,0	73,3	78,3	96,5	96,5	113,2	113,2	122,1
Water flow rate	l/s	12,14	14,28	16,11	16,11	20,36	21,75	26,81	26,81	31,44	31,44	33,92
Pressure drop	kPa	64	45	65	65	62	40	72	72	31	31	21
Volume	dmc	216	297	340	340	390	377	589	589	588	588	766
Dimensions for horizontal air flow												
Length	mm	5.780	6.530	7.530	7.530	--	11.030	--	--	--	--	--
Width	mm	800	800	800	800	--	800	--	--	--	--	--
Height	mm	2.400	2.400	2.400	2.400	--	2.400	--	--	--	--	--
Dimensions												
Length	mm	5.780	6.530	7.530	7.530	6.740	11.030	7.990	7.990	10.490	10.490	10.490
Width	mm	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400
Height	mm	1.565	1.565	1.565	1.565	2.262	1.565	1.565	1.565	2.262	2.262	2.262
Ø In / Ø Out	Inc	4"	2x4"	4"	4"	2x4"	4"	2x4"	2x4"	2x4"	2x4"	2x4"
Weight	kg	1.058	1.418	1.555	1.555	2.638	2.070	3.356	3.356	4.039	4.039	4.373
Drawing Type		A	A	A	A	B	A	B	B	B	B	B
Power supply		400 V / 50 Hz / 3 Ph + T + N										

EXTRA-ULTRASILENCED VERSION

MODEL	ARW...XU	20	35	50	65	80	90	100	120	150	180	210	230	260	280	300	350	400	
Capacity 1)	kW	21,7	35,5	53,2	64,1	79,4	88,8	99,3	133,9	148,9	178,2	228,7	233,2	255,3	289,1	306,1	392,3	419	
Axial fans																			
Quantity	n	2	2	3	3	4	4	4	6	6	8	10	10	12	12	14	14	16	
Total air flow	mc/h	8.400	19.400	29.100	27.000	44.400	39.200	42.400	72.000	63.600	78.400	98.000	106.000	117.600	127.200	137.200	159.600	182.400	
Total air flow	l/s	2.333	5.389	8.083	7.500	12.333	10.889	11.778	20.000	17.667	21.778	27.222	29.444	32.667	35.333	38.111	44.333	50.667	
Diameter	mm	630	800	800	800	900	900	900	900	900	900	900	900	900	900	900	900	900	
Rotation speed	rpm	400	445	445	445	425	425	425	425	425	425	425	425	425	425	425	425	425	
Motors power	kW	0,3	0,6	0,9	0,9	1,7	1,7	1,7	2,5	2,5	3,4	4,2	4,2	5,0	5,0	5,9	5,9	6,7	
Nominal absorbed current	A	0,82	2,4	3,6	3,6	4,6	4,6	4,6	6,9	6,9	9,2	11,5	11,5	13,8	13,8	16,1	16,1	18,4	
Sound pressure level 2)	dB(A)	32	31	33	33	36	36	36	38	38	39	39	39	40	40	40	40	41	
Coil																			
Water flow rate	mc/h	4,1	6,8	10,2	12,2	15,2	16,9	19,0	25,5	28,4	34,0	43,6	44,5	48,7	55,2	58,4	74,9	80,0	
Water flow rate	l/s	1,14	1,89	2,83	3,39	4,22	4,69	5,28	7,08	7,89	9,44	12,11	12,36	13,53	15,33	16,22	20,81	22,22	
Pressure drop	kPa	34	39	37	78	63	37	52	85	50	36	69	12	15	22	24	89	17	
Volume	dmc	34	30	43	65	65	91	110	110	155	216	280	320	329	377	377	522	588	
Dimensions for horizontal air flow																			
Length	mm	2.630	3.230	4.580	4.580	3.530	3.530	4.030	5.780	5.780	6.530	8.030	9.280	9.530	11.030	11.030	--	--	
Width	mm	600	800	800	800	800	800	800	800	800	800	800	800	800	800	800	--	--	
Height	mm	1.260	1.380	1.380	1.380	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	--	--	
Dimensions																			
Length	mm	2.630	3.230	4.580	4.580	3.530	3.530	4.030	5.780	5.780	6.530	8.030	9.280	9.530	11.030	11.030	9.240	10.490	
Width	mm	1.260	1.380	1.380	1.380	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	
Height	mm	980	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	1.565	2.262	
Ø In / Ø Out	inc	2"	2"	2"	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	4"	4"	4"	4"	4"	2x4"	2x4"	
Weight	kg	168	280	414	449	562	609	662	899	979	1.293	1.589	1.730	1.902	2.070	2.215	3.572	4.039	
Drawing Type		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	
Power supply		400 V / 50 Hz / 3 Ph + T + N																	

-- = not available
Nominal condition referred to: External air 35 °C - Water 45/40 °C - Glycol 35%
2) Measured at 10 m in open field (ISO 3746) for fans with 400V / 3Ph / 50 Hz of power supply