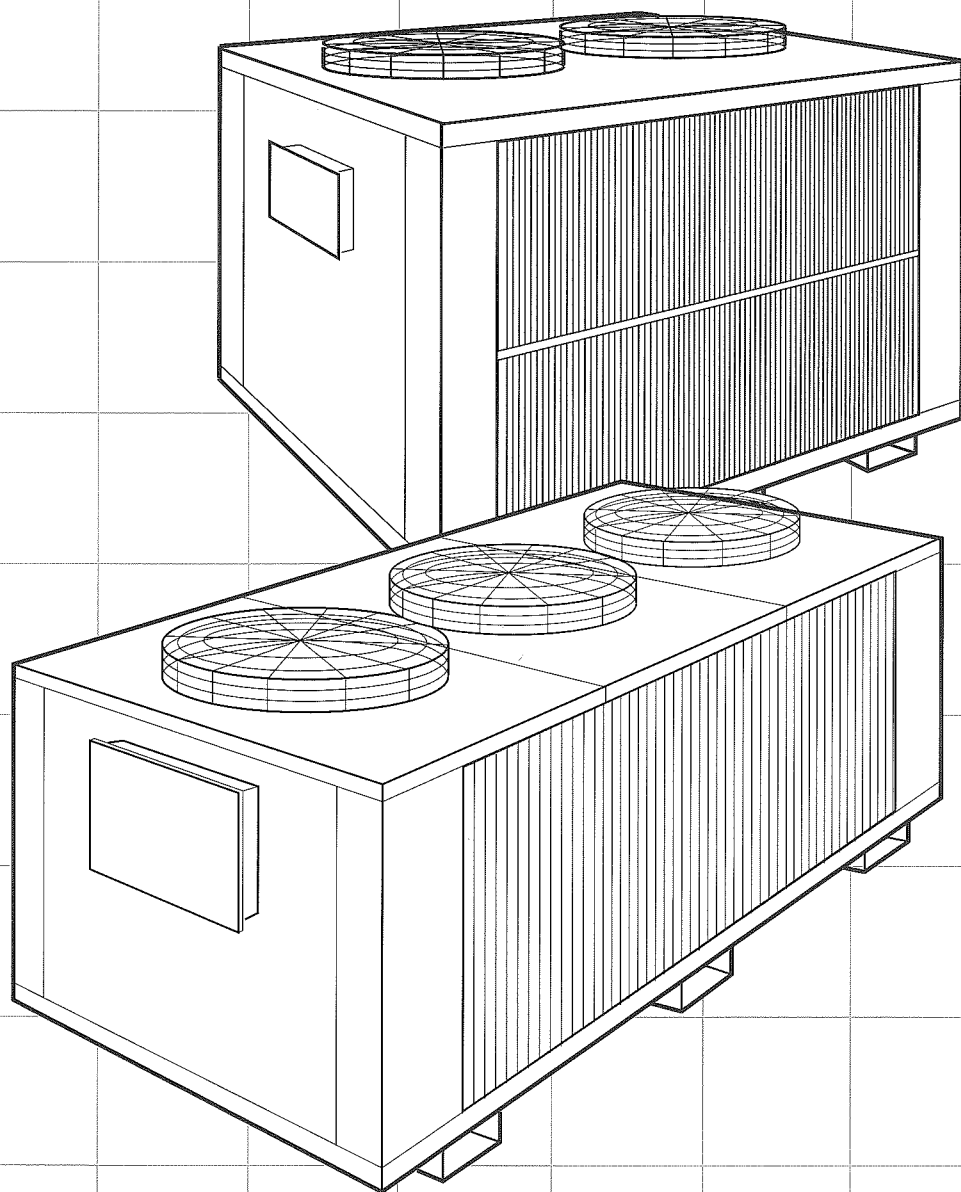


ACW 300, 400, 700, 900

Technical Data

**Radiators
Three Phase**



**Nominal Capacities
100 kW - 1000 kW**

ACW 300, 400, 700, 900 RADIATORS

GENERAL

The ACW range of Radiators provide an environmentally safe closed circuit water cooling system eliminating the risk of contamination associated with open air cooled type cooling towers and evaporative coolers.

APPLICATIONS

The ACW range is designed to be used for industrial cooling applications, water cooled chillers and water cooled air conditioners, e.g. **temperzone** HW Series or CC Series water sourced heat pump air conditioners.

CAPACITIES

The ACW Series is available in nominal capacities of 100 kW to 1000 kW. Multiple ACW units can be installed where greater capacity is required.

The capacities specified in this pamphlet relate to a specified range of conditions. Capacities at other conditions could vary considerably. To obtain the optimum unit selection for other conditions, contact your nearest **temperzone** office.

CONSTRUCTION

Casing. Made from the highest grade galvanised steel construction, powder coated inside and out for maximum moisture protection and utilising rust free stainless steel fasteners throughout.

Heat Exchange Element (Coil). Die formed plate type aluminium fins mechanically bonded to high efficiency inner grooved (rifled) copper tube. Tested at 2000 kPa air pressure under water, the coils are suitable for 1600 kPa working pressure. Higher test pressures are available if requested. Optional epoxy coated aluminium fins are available for added protection in salt laden or polluted atmospheres.

Fans. Axial fans have aerofoil, die cast, adjustable pitch propeller blades to permit a wide variety of air volumes; powered by six pole motors to keep noise levels to a minimum, and housed within a 5 mm mild steel hot dipped galvanised casing. Fan motors of a higher capacity are available where additional external resistance is anticipated, e.g. due to silencers being fitted, or in confined installations where air is to be drawn down into and exhausted from a plant room through louvres. For further advice consult your nearest **temperzone** office.

ELECTRICAL

The electrical supply required (including voltage fluctuation limits) is: 3 phase 342-436 V a.c. 50 Hz. Fan motors are pre-wired to a common terminal block in the electrical box. Refer also to specifications table.

LOCATION & INSTALLATION

To ensure maximum efficiency of operation, the following points need to be addressed prior to installation:

1. Locate pipework away from the Radiator so that it is not an obstruction to the unit's air flow and does not provide a heat source to the air entering the coil.
2. Other plant adjacent to the Radiator must not be so close that it effects the air flow of the unit.
3. Colour of the mounting surface can create high solar gains that adversely affect (raise) the air entering temperature.
4. Adjacent buildings, plant and prevailing winds can cause down drafts, reducing air flow to the coils, thereby causing higher air entering temperatures and loss of performance.
5. The coil faced sides of the Radiator should be shaded from direct sunlight.
6. Do not locate the Radiator near a parapet wall. If this can not be avoided then the unit should be raised on extended legs or installed on a plinth.

NOTE

The manufacturer reserves the right to make changes in specifications at any time without notice or obligation. Certified dimensions available on request.

The manufacturer operates a quality management system that conforms to AS/NZS ISO 9001:2000.

PERFORMANCE DATA

Cooling Capacity

MODEL	EWT °C	LWT °C	ENTERING AIR TEMPERATURE C								
			25			30			35		
			CAPACITY kW	FLOW l/s	PRES. DROP kPa	CAPACITY kW	FLOW l/s	PRES. DROP kPa	CAPACITY kW	FLOW l/s	PRES. DROP kPa
ACW 300-4	40	35	207	9.92	26.72	121	5.81	10.27	-	-	-
	45	40	291	13.90	47.78	205	9.83	25.67	120	5.77	9.90
	50	45	376	18.00	74.13	289	13.82	46.16	203	9.73	24.63
ACW 300-6	40	35	235	11.24	16.18	143	6.86	6.67	-	-	-
	45	40	326	15.60	28.41	233	11.17	15.61	142	6.78	6.39
	50	45	411	19.86	42.57	320	15.33	26.88	231	11.03	14.92
ACW 400-4	40	35	276	13.20	6.98	159	7.62	2.61	-	-	-
	45	40	395	18.87	12.93	274	13.10	6.73	158	7.57	2.52
	50	45	516	24.67	20.40	391	18.71	12.44	272	13.00	6.48
ACW 400-6	40	35	324	15.49	28.72	195	9.31	11.53	-	-	-
	45	40	452	21.62	50.98	322	15.41	27.81	193	9.22	11.07
	50	45	584	27.91	78.66	450	21.49	49.25	317	15.19	26.44
ACW 700-4	40	35	464	22.20	32.66	272	13.00	12.52	-	-	-
	45	40	656	31.35	59.23	460	22.01	31.43	270	12.89	12.06
	50	45	849	40.57	91.83	649	31.03	56.78	456	21.81	30.21
ACW 700-6	40	35	514	24.56	18.94	311	14.88	7.71	-	-	-
	45	40	708	33.82	32.82	506	24.18	17.99	308	14.73	7.41
	50	45	910	43.52	50.18	703	33.58	31.64	502	23.99	17.32
ACW 900-4	40	35	528	25.22	6.42	306	14.62	2.42	-	-	-
	45	40	752	35.95	11.85	523	25.02	6.19	304	14.52	2.33
	50	45	977	46.71	18.49	746	35.64	11.39	519	24.82	5.96
ACW 900-6	40	35	657	31.39	29.39	394	18.83	11.76	-	-	-
	45	40	917	43.81	52.16	653	31.19	28.38	390	18.65	11.30
	50	45	1177	56.26	79.75	910	43.50	50.31	646	30.88	27.24

Note: To obtain the optimum unit selection for other conditions, contact your nearest **temperzone** office.

Sound Levels

Test Conditions: BS 848 pt2 1966.

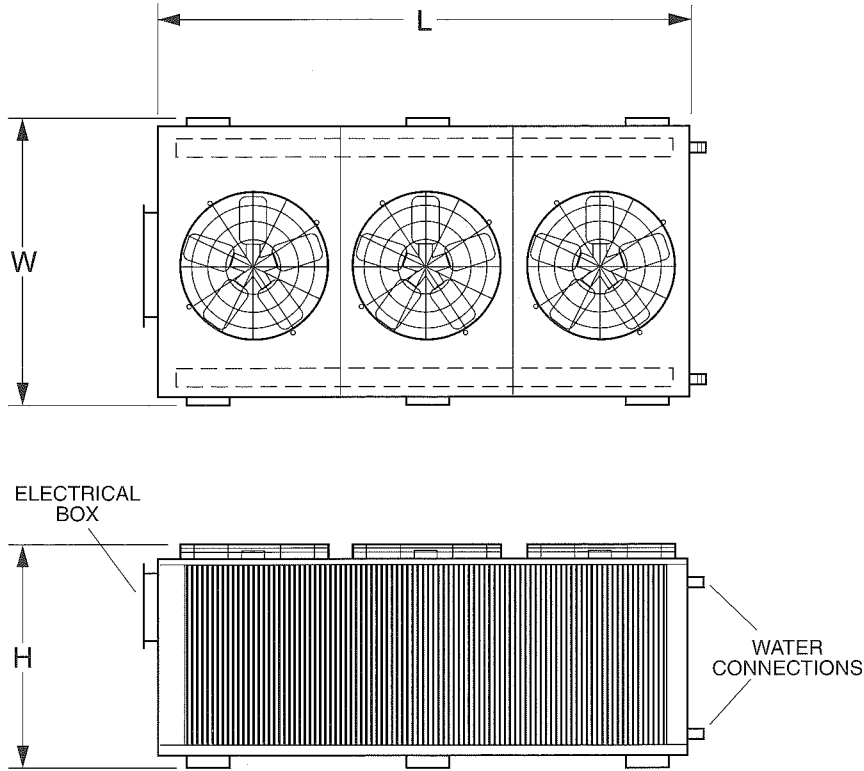
Sound Pressure Levels (SPL) have been measured at the following distances:

ACW 300-4/-6 2.5 m; ACW 400-4/-6 3 m; ACW 700-4/-6 3 m; ACW 900-4/-6 4 m.

MODEL	AIR FLOW l/s	SPL dB	OCTAVE BAND FREQUENCY Hz					
			125	250	500	1 k	2 k	4 k
			SOUND POWER LEVELS (SWL) dB					
ACW 300-4	15 000	79	90	91	87	85	81	75
ACW 300-6	15 000	80	91	92	88	86	82	76
ACW 400-4	23 400	81	92	95	91	89	85	79
ACW 400-6	21 700	82	93	96	92	90	86	80
ACW 700-4	34 500	83	94	97	93	91	87	81
ACW 700-6	33 000	84	95	98	94	92	88	82
ACW 900-4	44 000	84	97	100	96	94	90	84
ACW 900-6	44 000	85	98	101	97	95	91	85

SPECIFICATIONS

Not to Scale



MODEL	NUMBER OF FANS	MOTOR RATING (kW) each	FULL LOAD rpm	CURRENT PER MOTOR at 415 V	OVERALL DIMENSIONS L x W x H (mm)	WATER CONN. MPT (mm)	OPERATING WEIGHT (kg)
ACW 300-4	3	1.5	918	3.6 A	2900 x 1600 x 1100	50 (x4)	827
ACW 300-6	3	1.5	918	3.6 A	2900 x 1600 x 1100	50 (x4)	978
ACW 400-4	3	4.0	958	8.5 A	3580 x 1880 x 1100	50 (x4)	1 130
ACW 400-6	3	4.0	958	8.5 A	3580 x 1880 x 1100	50 (x4)	1 280
ACW 700-4	3	5.5	960	11.4 A	3580 x 1880 x 2100	50 (x8)	1 440
ACW 700-6	3	5.5	960	11.4 A	3580 x 1880 x 2100	50 (x8)	1 738
ACW 900-4	2	18.5	979	33.4 A	3005 x 2180 x 2100	50 (x8)	2 355
ACW 900-6	2	18.5	979	33.4 A	3005 x 2180 x 2100	50 (x8)	2 653



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