

CWS/EWS Series

Air Cooler with Long Ram and
Water Defrost



 SAUVERAIN**CWS/EWS SERIES**

AIR COOLER WITH LONG RAM AND WATER DEFROST

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1. Product Description

CWS/EWS series air coolers are mainly designed with long raw; CWS is mainly used in general medium and large cold storage, and EWS is mainly used in explosion-proof cold storage.

1 Casing

Casing: Adopt high-quality steel plate with powder coating RAL9003; Has strong corrosion resistance;

2 Heat exchanger coil

Heat exchanger coil: Copper tubing $\phi 15$, Spacing 50×50 ; Corrugated aluminium fins, fin spacing 4.2mm, 6.4mm & 9.0mm;

3 Fans

Fans: CWS series adopts ordinary motor; EWS series adopts Exd II BT4 explosion-proof motor, can be used in zone 1 and 2 district-level other anti explosive mixed gas space; Fan blade $\phi 500$, $\phi 600$;

4 Water Defrosting

Water Defrosting: Using water defrosting method, the defrosting time is short, and the little effect on cold room temperature; Sieve pore type defrosting water pan and inner & outer water baffles are used to prevent water spraying into cold storage and wind blades during defrosting;

5 Refrigerants

It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.

2. Model Description

CWS 58 / 1 50 M - T - V

V	Pre-installation expansion valve (Optional)
T	Voltage, T: 3P / 380V / 50hz
M	Fin spacing code, M: 4.2mm, L: 6.4mm, J: 9.0mm
50	Fan Diameter (CM)
1	Number of fans
58	Surface (m ²)
CWS	Product Series, CWS : ordinary motor, EWS: explosion-proof motor



3. Performance Data Sheet

3.1 Fin Spacing 4.2 mm

Model	R404A Capacity (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Airthrow (m)	Fan		Defrost (m ³ /h)	Weight (kg)
	T _c =0°C, ΔT=8K	T _c =-18°C, ΔT=7K					Power (W)	Current (A)		
CWS58/150M-T	11.3	9.0	58.1	9.3	7500	12	780	1.6	1.9	110
CWS73/150M-T	12.7	10.2	72.6	11.3	7000	12	780	1.6	2.4	115
CWS87/150M-T	13.9	11.1	87.1	13.3	6500	12	780	1.6	2.8	123
CWS116/250M-T	22.6	18.0	116.1	17.4	15000	15	1560	3.2	3.8	191
CWS145/250M-T	25.4	20.3	145.2	21.4	14000	15	1560	3.2	4.8	202
CWS174/250M-T	27.8	22.2	174.2	25.5	13000	15	1560	3.2	5.6	213
CWS174/350M-T	33.9	27.1	174.2	25.5	22500	18	2340	4.8	5.6	268
CWS205/350M-T	35.9	28.7	205.3	29.7	21000	18	2340	4.8	6.8	285
CWS261/350M-T	41.8	33.4	261.3	37.6	19500	18	2340	4.8	8.4	302
CWS274/450M-T	47.9	38.3	273.7	39.2	30000	20	3120	6.4	9.0	365
CWS348/450M-T	55.7	44.6	348.4	49.7	28000	20	3120	6.4	11.2	387
CWS199/260M-T	36.8	29.4	199.0	28.9	25000	22	3200	7.0	6.4	295
CWS249/260M-T	41.0	32.8	248.8	36.1	24000	22	3200	7.0	8.2	315
CWS299/260M-T	44.8	35.8	298.5	43.3	23000	22	3200	7.0	9.6	335
CWS299/360M-T	55.2	44.2	298.5	42.8	37500	25	4800	10.5	9.6	420
CWS373/360M-T	61.5	49.2	373.2	53.5	36000	25	4800	10.5	12.3	450
CWS448/360M-T	67.2	53.7	447.8	64.1	34500	25	4800	10.5	14.3	480

Remarks: 1). T_c is the coldroom temp., and ΔT is the difference between the coldroom temp. and the evaporation temperature.

2). Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.

3.2 Fin Spacing 6.4 mm

Model	R404A Capacity (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Airthrow (m)	Fan		Defrost (m ³ /h)	Weight (kg)
	T _c =0°C, ΔT=8K	T _c =-18°C, ΔT=7K					Power (W)	Current (A)		
CWS39/150L-T	9.3	7.4	38.9	9.3	7800	12	780	1.6	1.4	106
CWS49/150L-T	10.7	8.6	48.6	11.3	7500	12	780	1.6	1.7	111
CWS58/150L-T	12.3	9.8	58.4	13.3	7200	12	780	1.6	2.0	116
CWS78/250L-T	18.7	14.9	77.8	17.4	15600	15	1560	3.2	2.7	182
CWS97/250L-T	21.4	17.1	97.3	21.5	15000	15	1560	3.2	3.4	191
CWS117/250L-T	24.5	19.6	116.7	25.5	14400	15	1560	3.2	4.1	200
CWS117/350L-T	28.0	22.4	116.7	25.5	23400	18	2340	4.8	4.1	253
CWS138/350L-T	30.3	24.2	137.6	29.7	22500	18	2340	4.8	4.8	264
CWS175/350L-T	36.7	29.4	175.1	37.6	21600	18	2340	4.8	6.1	280
CWS183/450L-T	40.3	32.2	183.4	39.2	30000	20	3120	6.4	6.5	340
CWS234/450L-T	49.0	39.2	233.5	49.7	28800	20	3120	6.4	8.2	360



3.2 Fin Spacing 6.4 mm (continued)

Model	R404A Capacity (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Airthrow (m)	Fan		Defrost (m ³ /h)	Weight (kg)
	T _c =0°C, ΔT=8K	T _c =-18°C, ΔT=7K					Power (W)	Current (A)		
CWS133/260L-T	30.6	24.5	133.4	28.9	26000	22	3200	7.0	4.7	278
CWS167/260L-T	35.0	28.0	166.8	36.1	25000	22	3200	7.0	5.8	294
CWS200/260L-T	40.0	32.0	200.2	43.3	24000	22	3200	7.0	7.0	310
CWS200/360L-T	46.0	36.8	200.2	42.8	39000	25	4800	10.5	7.0	394
CWS250/360L-T	52.5	42.0	250.1	53.5	37500	25	4800	10.5	8.8	417
CWS300/360L-T	60.0	48.0	300.2	64.1	36000	25	4800	10.5	10.5	440

Remarks: 1). T_c is the coldroom temp., and ΔT is the difference between the coldroom temp. and the evaporation temperature.

2). Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.

3.3 Fin Spacing 9.0 mm

Model	R404A Capacity (kW)		Surface (m ²)	Volume (dm ³)	Airflow (m ³ /h)	Airthrow (m)	Fan		Defrost (m ³ /h)	Weight (kg)
	T _c =0°C, ΔT=8K	T _c =-18°C, ΔT=7K					Power (W)	Current (A)		
CWS28/150J-T	8.0	6.5	28.3	9.3	8100	12	780	1.6	1.0	104
CWS36/150J-T	9.5	7.6	35.5	11.3	7900	12	780	1.6	1.3	109
CWS43/150J-T	11.0	8.8	42.5	13.3	7700	12	780	1.6	1.5	114
CWS57/250J-T	16.1	12.9	56.6	17.4	16200	15	1560	3.2	2.1	178
CWS71/250J-T	20.2	16.1	70.9	21.5	15800	15	1560	3.2	2.6	187
CWS85/250J-T	22.1	17.6	85.0	25.5	15400	15	1560	3.2	3.0	195
CWS85/350J-T	24.2	19.4	85.0	25.5	24300	18	2340	4.8	3.0	348
CWS100/350J-T	27.0	21.6	100.3	29.7	23700	18	2340	4.8	3.6	260
CWS128/350J-T	33.1	26.5	127.5	37.6	23100	18	2340	4.8	4.5	275
CWS134/450J-T	36.1	28.9	133.8	39.2	31600	20	3120	6.4	4.8	332
CWS170/450J-T	44.2	35.3	170.0	49.7	30800	20	3120	6.4	6.0	352
CWS97/260J-T	26.7	21.3	97.1	28.9	27000	22	3200	7.0	3.4	274
CWS122/260J-T	31.6	25.3	121.6	36.1	26500	22	3200	7.0	4.4	287
CWS146/260J-T	36.4	29.1	145.7	43.3	26000	22	3200	7.0	5.1	300
CWS146/360J-T	40.0	32.0	145.7	42.8	40500	25	4800	10.5	5.1	387
CWS182/360J-T	47.4	37.9	182.4	53.5	39750	25	4800	10.5	6.6	410
CWS219/360J-T	54.6	43.7	218.5	64.1	39000	25	4800	10.5	7.7	430

Remarks: 1). T_c is the coldroom temp., and ΔT is the difference between the coldroom temp. and the evaporation temperature.

2). Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.



4. Outline & Installation Dimensions

Model	Outline (mm)			Install (mm)					Connect Pipe			
									Refrigerant		Defrost	
	L	W	H	A	B	B1	B2	B3	Inlet	Outlet	Inlet	Drain
CWS*/150*	1300	980	975	630	930	/	/	/	φ16	φ28	G2"	G3"
CWS*/250*	2200	980	975	630	1830	900	/	/	φ22	φ42	G2"	G3"
CWS*/350*	3100	980	975	630	2730	900	1800	/	φ28	φ50	2-G2"	G4"
CWS*/450*	4000	980	975	630	3630	900	1800	2700	φ28	φ50	2-G2"	G4"
CWS*/260*	2800	980	1175	630	2430	1200	/	/	φ22	φ42	G2"	G3"
CWS*/360*	4000	980	1175	630	3630	1200	2400	/	φ28	φ50	2-G2"	G4"

