



## Hot water coil type CWA-S

Circular hot water heating battery, easy to install and with a removable service panel allowing access for cleaning the coil

### Application

- Zone heating

### Material

- Casing made of galvanised sheet steel, the circular connections are equipped with an EPDM rubber.
- The coil consists of copper tubes with aluminium fins.

### Specifications

- Max. operating temperature: 100°C
- Max. operating pressure: 2.2MPa
- Fin distance: 2,5 mm
- Battery with 3 rows
- Airtightness class:
  - Class C for CWA 100 S - CWA 400 S, according to EN15272/2010 (except CWA 160 S)
  - Class D for CWA 160 S and CWA 500 S, according to EN15272/2010

### Mounting

- Round ducts

### Accessoires

- 2 or 3-way regulation valves, type **QCV-2** or **QCV-3**

### Text for tender

- The heating coil shall be out of copper tubes with aluminium fins, the copper tubes shall be positioned zig-zag this for an effective and economic heat transfer from the circulated heating medium to the air. The casing of the heating coil shall be made of galvanised steel sheet with circular connections with on each connection a solid EPDM rubber. The casing of the heating coil shall have a removable service panel this to inspect the coil and clean it.

**Order example**

**CWA, 200 + N2, D10 + T24SR**

Explanation

**CWA** = Type warmwater heater

**200** = Diameter in mm, (see table)

Accessories

**N2** = 2-way valve, **N3** = 3-way valve

**D10** = Connection diameter (selection made by means of the KVS value), (see table)

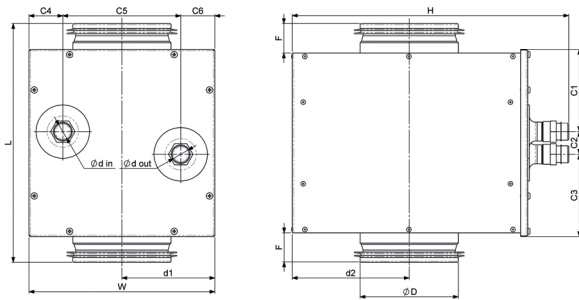
**T24SR** = Modulating valve actuator, **T24** = On/off valve actuator 24V, **T230** = On/off valve actuator 230V

Technical data															
Q [m³/h]	ΔP [Pa]	Ti [C°]	Tw 70°C/50°C				Tw 60°C/40°C				Tw 40°C/30°C				
			Tu [C°]	P [kW]	Qw [l/s]	ΔPw [kPa]	Tu [C°]	P [kW]	Qw [l/s]	ΔPw [kPa]	Tu [C°]	P [kW]	Qw [l/s]	ΔPw [kPa]	
CWA 100 S	100	3	-10	33	1.44	0.017	0.25	23.1	1.11	0.013	0.15	17.5	0.92	0.022	0.43
		3	0	35.3	1.18	0.014	0.18	26.1	0.87	0.01	0.078	18.8	0.63	0.015	0.21
		3	10	37.1	0.91	0.011	0.11	30.3	0.68	0.008	0.054	23.4	0.45	0.011	0.1
	150	6	-10	26.7	1.86	0.023	0.41	18.6	1.45	0.017	0.26	11.9	1.19	0.028	0.67
		6	0	30.1	1.52	0.018	0.28	21.5	1.09	0.013	0.15	16.6	0.84	0.02	0.36
		6	10	33.2	1.17	0.014	0.18	26.4	0.83	0.01	0.078	20.5	0.53	0.013	0.13
200	10	-10	21.3	2.12	0.026	0.53	14.7	1.67	0.02	0.35	10.3	1.37	0.033	0.92	
	10	0	25.9	1.75	0.021	0.38	18.6	1.26	0.015	0.2	14.3	0.97	0.023	0.46	
	10	10	29.8	1.32	0.016	0.23	23	0.88	0.011	0.11	18.4	0.57	0.013	0.13	
CWA 125 S	180	8	-10	24.9	2.12	0.026	0.53	17.6	1.68	0.02	0.35	12.6	1.37	0.033	0.92
		8	0	28.9	1.75	0.021	0.38	20.7	1.26	0.015	0.2	15.9	0.97	0.023	0.46
		8	10	32.1	1.34	0.016	0.23	24.5	0.88	0.011	0.11	19.4	0.57	0.013	0.13
	270	17	-10	18.6	2.61	0.032	0.79	12.7	2.07	0.026	0.53	8.5	1.68	0.04	1.3
		17	0	23.7	2.16	0.027	0.57	17.4	1.59	0.019	0.31	13.2	1.21	0.029	0.72
		17	10	28.3	1.67	0.021	0.34	21.9	1.09	0.013	0.15	17.3	0.67	0.016	0.23
360	27	-10	17.1	3.29	0.04	1.2	11.3	2.59	0.032	0.8	7.6	2.14	0.051	2.1	
	27	0	22.1	2.69	0.033	0.84	16.6	2.01	0.024	0.49	12.5	1.51	0.036	1.1	
	27	10	27.3	2.1	0.026	0.53	21.7	1.42	0.017	0.26	17.2	0.88	0.021	0.39	
CWA 160 S	200	6	-10	29.4	2.67	0.033	1.2	22.1	2.18	0.026	0.82	15.3	1.72	0.041	2
		6	0	33.1	2.25	0.028	0.87	25.6	1.74	0.021	0.54	18.7	1.27	0.03	1.1
		6	10	36.2	1.78	0.021	0.54	28.5	1.25	0.015	0.29	21.7	0.79	0.019	0.46
	330	14	-10	21.6	3.52	0.043	2	15.7	2.86	0.035	1.4	10.5	2.29	0.056	3.5
		15	0	26.4	2.94	0.036	1.4	20.3	2.26	0.028	0.88	15.1	1.68	0.04	1.9
		14	10	31.1	2.35	0.029	0.94	25.2	1.69	0.02	0.5	19.5	1.05	0.025	0.77
460	25	-10	19.7	4.6	0.056	3.4	14.2	3.74	0.046	2.3	9.3	2.99	0.073	5.8	
	25	0	24.8	3.84	0.047	2.4	19	2.95	0.036	1.4	14.2	2.21	0.053	3.2	
	25	10	29.6	3.04	0.037	1.5	24.5	2.24	0.028	0.88	19	1.39	0.033	1.3	
CWA 200 S	350	16	-10	21.1	3.68	0.045	2.2	15.3	3	0.037	1.5	10.1	2.38	0.057	3.7
		16	0	26	3.08	0.038	1.6	19.9	2.36	0.029	0.94	14.9	1.76	0.042	2.1
		16	10	30.6	2.44	0.03	1	24.9	1.77	0.021	0.54	19.3	1.1	0.026	0.83
	500	29	-10	18.8	4.87	0.059	3.8	13.3	3.94	0.048	2.5	8.7	3.17	0.077	6.5
		30	0	23.9	4.04	0.049	2.6	18.5	3.12	0.038	1.6	13.8	2.33	0.056	3.6
		31	10	29	3.22	0.039	1.7	23.9	2.35	0.029	0.94	18.7	1.47	0.035	1.5
650	47	-10	14.5	5.37	0.066	4.6	9.8	4.34	0.053	3.1	6	3.51	0.085	7.9	
	47	0	20.3	4.46	0.054	3.2	16	3.51	0.043	2	11.7	2.58	0.063	4.4	
	48	10	26.5	3.61	0.044	2.1	21.9	2.62	0.032	1.1	17.6	1.66	0.04	1.9	
CWA 250 S	500	14	-10	23.9	5.73	0.069	7	18.2	4.76	0.058	5	12	3.72	0.09	12
		14	0	28.8	4.86	0.059	5.2	22.8	3.86	0.047	3.3	16.7	2.83	0.069	7.1
		14	10	33.4	3.95	0.048	3.4	27.7	2.99	0.037	2.1	21.1	1.88	0.045	3.2
	750	27	-10	21.2	7.9	0.096	13	15.8	6.54	0.079	9.2	10.3	5.14	0.124	22
		27	0	26.4	6.69	0.082	9.6	20.9	5.28	0.064	6.1	15.3	3.88	0.094	13
		28	10	31.3	5.4	0.066	6.2	26.2	4.11	0.05	3.8	20.2	2.58	0.063	6
1000	45	-10	16.4	8.9	0.11	17	11.8	7.35	0.089	12	7.2	5.8	0.14	28	
	45	0	22.2	7.49	0.091	12	17.8	6.01	0.073	7.9	12.9	4.36	0.11	16	
	45	10	28.8	6.13	0.079	8	23.9	4.68	0.057	4.8	18.7	2.93	0.071	7.5	
CWA 315 S	750	14	-10	22.1	8.12	0.099	2	16.1	6.62	0.08	1.4	10.8	5.26	0.127	3.4
		14	0	26.9	6.8	0.083	1.4	20.8	5.27	0.064	0.9	15.4	3.9	0.094	1.9
		14	10	31.5	5.44	0.066	0.95	25.7	3.96	0.048	0.52	19.9	2.49	0.061	0.84
	1000	23	-10	20.5	10.29	0.126	3.2	14.8	8.37	0.102	2.2	9.8	6.68	0.161	5.4
		23	0	25.5	8.58	0.104	2.2	19.7	6.64	0.08	1.4	14.7	4.94	0.119	3
		24	10	30.3	6.86	0.084	1.5	25	5.04	0.061	0.82	19.4	3.17	0.077	1.3
1500	46	-10	14.7	12.49	0.152	4.6	10	10.12	0.123	3.1	6.1	8.14	0.196	7.8	
	47	0	12.5	10.39	0.127	3.2	16.2	8.21	0.1	2.1	11.9	6.01	0.145	4.4	
	48	10	26.7	8.45	0.013	2.2	22.3	6.2	0.075	1.2	17.7	3.9	0.094	1.9	
CWA 400 S	900	11	-10	25.5	10.79	0.132	4.6	19.5	8.97	0.109	3.2	13	6.99	0.169	7.8
		11	0	30	9.15	0.111	3.3	24	7.3	0.089	2.2	17.5	5.31	0.128	4.6
		11	10	34.6	7.47	0.091	2.3	28.5	5.62	0.068	1.3	21.7	3.56	0.086	2.2
	1550	27	-10	21.4	16.44	0.2	10	16.1	13.63	0.166	7.2	10.4	10.68	0.257	17
		27	0	26.6	13.91	0.17	7.4	21.1	11.04	0.134	4.8	15.4	8.08	0.194	10
		27	10	31.6	11.3	0.138	5	26.4	8.6	0.105	3	20.3	5.39	0.13	4.7
2200	52	-10	15.9	19.23	0.233	14	11.4	15.91	0.193	9.7	6.9	12.57	0.303	24	
	52	0	21.9	16.26	0.198	10	17.6	13.05	0.159	6.7	12.8	9.48	0.229	14	
	52	10	28	13.33	0.162	6.9	23.7	10.19	0.124	4.2	18.6	6.39	0.154	6.5	
CWA 500 S	1500	9	-10	30.1	20.27	0.248	6.7	23.5	16.98	0.206	4.8	15.9	13.1	0.316	11
		9	0	34.1	17.27	0.211	4.9	27.5	13.91	0.169	3.3	19.8	10.02	0.241	6.7
		9	10	38	14.18	0.173	3.4	31.2	10.73	0.13	2	23.6	6.86	0.165	3.3
	2500	22	-10	23.3	28.07	0.343	12	17.7	23.39	0.284	8.8	11.6	18.21	0.439	21
		22	0	28.3	23.84	0.29	9	22.7	19.1	0.232	6	16.5	13.9	0.336	13
		22	10	33.1	19.48	0.237	6.1	27.7	14.89	0.181	3.8	21.1	9.39	0.226	6
3500	40	-10	17.8	32.83	0.401	17	13.1	27.26	0.331	12	8.1	21.36	0.515	28	
	40	0	23.6	27.83	0.339	12	18.9	22.34	0.272	8.1	13.8	16.25	0.392	17	
	40	10	29.3	22.76	0.277	8.2	24.9	17.59	0.214	5.1	19.3	11.02	0.265	8	

**Symbols & specifications**

- Q = air flow
- ΔP = pressure loss air
- Ti = inlet air temperature
- Tu = outlet air temperature
- P = power of the battery
- Qw = water flow
- ΔPw = pressure loss of water

- $T_w$  = water temperature in/out



Dimensions															
	L [mm]	W [mm]	H [mm]	F [mm]	C1 [mm]	C2 [mm]	C3 [mm]	C4/C6 [mm]	C5 [mm]	ød [mm]	DN	øD [mm]	d1 [mm]	d2 [mm]	[kg]
<b>CWA 100 S</b>	304	236	352	37	105	29	105	43	150	18	1/2"	100	118	149	5.2
<b>CWA 125 S</b>	304	236	352	38	105	29	105	43	150	18	1/2"	125	118	149	6
<b>CWA 160 S</b>	304	303	352	37	105	29	105	43	217	18	1/2"	160	152	149	8.2
<b>CWA 200 S</b>	304	236	352	37	105	29	105	43	217	18	1/2"	200	152	149	8.5
<b>CWA 250 S</b>	304	370	405	45	105	29	105	43	283	22	1/2"	250	185	175	12.5
<b>CWA 315 S</b>	318	403	491	45	105	29	105	43	293	22	1/2"	315	202	218	16
<b>CWA 400 S</b>	358	470	585	64	105	29	105	53	365	22	3/4"	400	235	264	20
<b>CWA 500 S</b>	358	570	788	64	105	29	105	53	365	22	3/4"	500	285	366	28