

Standard Outdoor Air to Water Heat Pump Units 22 kW - 200 kW

Sep-06

CALORIS

Colt series CHA WP (air cooled axial Cooling)	81	91	101	131	151	182-P	202-P	262-P	302-P	364-P	404-P	524-P	604-P	
Net Capacity EWT 27 -> 22 @ 30 °C	19.3	23.8	27.6	34.1	42	46.8	54.4	71.2	82	96	111	140	162	kW net
TOTAL Capacity EWT 27 -> 22 @ 30 °C	26.8	31.0	39.0	45.5	55.0	57.4	68.0	84.0	105.0	122.0	145.0	169.0	208.0	kW total
absorbed power (comp+fans)	7.1	8.2	10.0	12.2	14.7	14.9	17.2	22.4	26.1	29.4	34.2	44.8	52.2	kW
EER max.load (comp+fans) @ 30 °C	3.20	3.40	3.20	3.30	3.30	3.70	3.70	3.60	3.60	3.80	3.70	3.70	3.40	
EER partial load (comp+fans) @ 25 °C	3.70	3.90	3.80	3.90	3.90	4.20	4.30	4.20	4.20	4.40	4.30	4.20	4.00	
Working range outside temperature	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	-16 ~ +35	°C

Heating														
Capacity EWT 15 -> 20 @ -10 °C	12.8	15.6	18.8	22.8	27.7	30.9	39.3	48.4	54.9	60.7	71.8	86.0	111.0	kW
absorbed power (comp+fans)	4.4	5.0	6.0	7.0	8.7	10.2	11.6	15.0	17.5	21.7	25.6	29.4	40.6	kW
COP max. load (comp+fans) @ - 10 °C	2.90	3.11	3.18	3.25	3.20	3.03	3.39	3.22	3.14	2.8	2.8	2.93	2.73	
COP max. load (comp+fans) @ + 7 °C	5.09	4.80	4.80	5.22	5.24	5.06	5.28	4.79	5.03	4.88	4.95	5.15	4.70	EN14511
Working range outside temperature	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	-16 ~ +22	°C

Heatpumps														
Steps of capacity	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	50 / 100	4x25	4x25	4x25	4x25	%
no. of compressors	1	1	1	1	1	2	2	2	2	4	4	4	4	#
Copeland scroll compressor(s) Model	ZR90	ZR11	ZR12	ZR16	ZR19	ZR11	ZR12	ZR16	ZR19	ZR11	ZR12	ZR16	ZR19	#
no. of circuits	1	1	1	1	1	2	2	2	2	2	2	2	2	#
Content of refrigerant each circuit	5.5	6.7	10.3	10.5	10.7	8	8	9	10	16	17	19	22	kg
Type HCFC-free refrigerant	R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C	

Air side Cu/Al-heat exchanger														
Rows	3X11	4X15	3X11	3X11	3X11	2X8	3X12	2X14	3X14	3X21	3X21	3X21	4X14	#
Axial fans	1	1	2	2	2	2	2	2	2	2	3	3	3	#
Power input each fanmotor	0.52	0.52	0.37	0.37	0.52	0.6	0.6	0.8	0.9	1.0	1.0	1.0	2.0	kW
Maximum revolution	870	870	870	870	870	920	920	920	920	920	920	920	920	rpm
Air volume max	1.64	2.69	2.50	4.00	4.00	4.20	4.10	7.90	7.70	7.9	11.7	11.7	15.6	m³/s
Total condensor inlet surface	1.2	1.2	2.4	2.4	2.4	3.0	3.0	3.53	3.6	5.5	5.5	5.5	5.5	m²

Water side Stainless plate heat exchanger														
Material	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316	
Nominal water flow	0.9	1.1	1.3	1.6	2.0	2.2	2.6	3.4	3.9	4.6	5.3	6.7	7.7	l/s
Pressure drop internal	23	31	27	25	27	31	37	39	41	33	36	47	48	kPa
Available external static height	190	204	193	155	153	136	125	103	137	162	146	111	102	kPa
Maximum operating water pressure	3	3	3	3	3	6	6	6	6	6	6	6	6	bar
Water connections external	1"	1"	1"	1"	1"	2.5"	2.5"	2.5"	2.5"	2.5"	2.5"	2.5"	2.5"	inch
Power input Circulation pump	0.45	0.55	0.55	0.55	0.75	0.75	0.75	0.75	1.10	1.50	1.50	1.50	1.85	kW

Electrical data														
Power supply	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	V
Maximum power input	8.2	9.8	11.7	14.1	16.9	18.0	21.1	26.6	31.6	35.2	41.3	53.4	65.0	kW
Maximum nominal current - RLA	17.0	20.0	26.0	30.0	34.0	42.0	46.0	58.0	68.0	84.0	93.0	113.0	136.0	A
Maximum inrush current LRA	101	125	132	172	203	145	151	198	234	187	198	253	302	A
Recommended main supply fuses	35	35	35	50	63	63	63	80	100	100	100	150	160	SLOW

Dimensions and weight														
Length	1850	1850	1850	1850	1850	2350	2350	2350	2350	3550	3550	3550	3550	mm
Width ex. Panels	1000	1000	1000	1000	1000	1100	1100	1100	1100	1100	1100	1100	1100	mm
Height	1245	1245	1245	1245	1245	1840	1840	2140	2140	2140	2140	2140	2275	mm
Total operational weight	222	232	347	367	381	570	630	710	830	1100	1180	1240	1430	kg

*) please note : sound data is sensitive to directions

Sound data: STD Standard unit														
crownsjam	62.5	62.5	62.5	62.5	62.5	70	70	72	72.5	72.5	73.5	73.5	77.5	dB(A)
Sound pressure Lp 10 meter free field	53	53	53	53	53	61	61	63	63	63	64	64	68	dB(A)
Sound Power Level LwA	81	81	81	81	81	89*	89*	91*	91*	91*	92*	92*	96*	dB(A)

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