

Air Cooled
Condensers

HTC

Air Cooled Condensers

HTC

Type	Capacity kW		Airflow m ³ /h		dB(A)	Capacity kW		Airflow m ³ /h		dB(A)	Cap.	Air	dB(A)	Cap.	Air	dB(A)	
HTC	H	L	H	L	H/L	H	L	H	L	H/L							
Motor 370 W, 1420 rpm						180 W, 910 rpm						120 W, 690 rpm			25 W, 470 rpm		
1. 212 - ...	31.6		13200		58	28.0		10100		47	24.4	8310	43	18.6	5107	34	
1. 213 - ...	42.6		13100		58	36.4		9760		47	30.4	8040	43	22.4	4970	34	
1. 214 - ...	51.0		12900		58	42.2		9430		47	34.6	7700	43	24.0	4620	34	
1. 222 - ...	63.8		26500		61	56.6		20200		50	48.6	16600	46	37.2	10300	37	
1. 223 - ...	85.6		26200		61	73.6		19500		50	61.4	16100	46	45.2	9940	37	
1. 224 - ...	103.2		25800		61	85.2		18900		50	69.6	15400	46	48.0	9230	37	
1. 232 - ...	96.6		39700		63	85.2		30300		52	73.6	24900	48	56.2	15400	39	
1. 233 - ...	126.4		39200		63	109.0		29300		52	92.0	24100	48	67.8	14900	39	
1. 234 - ...	152.2		38700		63	126.6		28300		52	103.6	23100	48	70.4	13900	39	
1. 243 - ...	163.6		52300		64	142.4		39000		53	121.6	32200	49	89.4	19900	40	
1. 244 - ...	198.2		51600		64	166.4		37700		53	136.8	30800	49	94.4	18400	40	
Motor 750 W, 930 rpm						750/150 W, 935/425 rpm						370 W, 690 rpm			120 W, 325 rpm		
2. 212 - ...	76.4		31600		56	76.4	53.4	31600	17000	56/42	65.4	22400	49	46.2	13000	36	
2. 213 - ...	100.4		30200		56	100.4	67.0	30200	16600	56/42	84.2	21200	49	54.2	12100	36	
2. 214 - ...	118.6		28700		56	118.6	75.6	28700	16200	56/42	95.4	20200	49	54.8	10800	36	
2. 222 - ...	153.4		63300		59	153.4	107.0	63300	34000	59/45	130.8	44700	52	92.8	26000	39	
2. 223 - ...	200.6		60400		59	200.6	134.8	60400	33200	59/45	166.6	42500	52	110.2	24300	39	
2. 224 - ...	231.4		57400		59	231.4	151.0	57400	32600	59/45	188.0	40500	52	111.4	21600	39	
2. 232 - ...	228.2		94900		61	228.2	161.0	94900	50900	61/47	195.6	67100	54	138.4	39000	41	
2. 233 - ...	304.2		90600		61	304.2	200.2	90600	49800	61/47	250.8	63700	54	163.4	36400	41	
2. 234 - ...	352.0		86100		61	352.0	228.4	86100	48800	61/47	285.8	60700	54	167.2	32400	41	
2. 242 - ...	307.6		127000		62	307.6	214.2	127000	67900	62/48	262.2	89500	55	185.8	52000	42	
2. 243 - ...	404.6		121000		62	404.6	270.8	121000	66400	62/48	335.2	84900	55	221.0	48600	42	
2. 244 - ...	468.0		115000		62	468.0	303.8	115000	65000	62/48	379.8	81000	55	223.8	43200	42	
2. 252 - ...	384.4		158000		63	384.4	269.0	158000	84900	63/49	328.2	112000	56	232.0	65000	43	
2. 253 - ...	500.0		151000		63	500.0	334.6	151000	83000	63/49	416.8	106000	56	270.8	61900	43	
2. 254 - ...	572.6		144000		63	572.6	375.8	144000	81200	63/49	467.8	101000	56	279.0	54000	43	
2. 262 - ...	459.4		190000		64	459.4	323.0	190000	101900	64/50	393.2	134000	57	277.6	78000	44	
2. 263 - ...	608.4		181000		64	608.4	406.8	181000	99600	64/50	503.8	127000	57	326.6	72900	44	
2. 264 - ...	707.0		172000		64	707.0	457.8	172000	97600	64/50	573.2	121000	57	334.8	64800	44	
Motor 1400/810 W, 870/620 rpm						720/440 W, 680/500 rpm											
3. 212 - ...	92.8	81.2	38200	28400	60/51	83.2	74.4	30100	26600	53/44							
3. 213 - ...	121.0	102.8	36200	26500	60/51	105.8	92.4	27900	24900	53/44							
3. 214 - ...	141.2	114.8	34600	24800	60/51	119.8	103.6	26200	23400	53/44							
3. 222 - ...	185.2	162.4	76300	56900	63/54	166.2	148.6	60100	53200	56/47							
3. 223 - ...	239.6	203.2	72500	53000	63/54	208.8	185.6	55700	49700	56/47							
3. 224 - ...	274.8	227.4	69200	49700	63/54	234.8	205.6	52400	46800	56/47							
3. 232 - ...	272.2	240.2	115000	85300	65/56	245.4	220.6	90200	79800	58/49							
3. 233 - ...	363.6	308.0	109000	79500	65/56	318.6	278.4	83600	74600	58/49							
3. 234 - ...	423.0	346.8	104000	74500	65/56	359.2	313.2	78600	70200	58/49							
3. 242 - ...	392.2	323.8	153000	114000	66/57	333.4	298.0	120000	106400	59/50							
3. 243 - ...	481.8	410.0	145000	106000	66/57	421.2	369.2	111000	99400	59/50							
3. 244 - ...	557.6	455.8	138000	99300	66/57	474.8	409.2	105000	93600	59/50							
3. 252 - ...	462.2	405.2	191000	142000	67/58	415.6	371.0	150000	133300	60/51							
3. 253 - ...	606.2	513.0	181000	133000	67/58	531.2	466.8	139000	124400	60/51							
3. 254 - ...	712.2	577.2	173000	124000	67/58	600.4	519.6	131000	116700	60/51							
Motor 2100/1200 W, 645/455 rpm						380/190 W, 295/180 rpm											
4. 212 - ...	106.0	92.4	53200	38500	58/50	62.2	45.0	19100	11800	39/30							
4. 213 - ...	139.6	117.6	48200	34200	58/50	72.6	51.6	16600	10300	39/30							
4. 214 - ...	163.0	131.0	44600	30300	58/50	72.8	50.2	14600	9200	39/30							
4. 222 - ...	211.4	185.4	107000	77000	61/53	124.0	92.0	38200	23600	42/33							
4. 223 - ...	272.4	233.2	96600	68300	61/53	142.4	100.4	33000	20700	42/33							
4. 224 - ...	328.2	263.2	89200	60600	61/53	145.6	100.6	29000	18400	42/33							
4. 232 - ...	319.0	279.2	160000	116000	63/55	186.6	137.6	57300	35300	44/35							
4. 233 - ...	418.8	354.4	145000	102000	63/55	213.2	153.0	49600	31000	44/35							
4. 234 - ...	487.8	396.0	134000	90900	63/55	220.0	149.6	43600	27600	44/35							
4. 242 - ...	425.0	372.2	213000	154000	64/56	248.4	184.2	76400	47100	45/36							
4. 243 - ...	551.0	468.6	193000	137000	64/56	286.0	201.4	66100	41300	45/36							
4. 244 - ...	658.8	527.6	178000	121000	64/56	230.6	201.2	58100	36900	45/36							
4. 252 - ...	527.2	464.4	266000	193000	65/57	312.6	230.6	95600	58900	46/37							
4. 253 - ...	697.6	590.4	242000	171000	65/57	357.0	254.0	82700	51700	46/37							
4. 254 - ...	820.8	661.6	222000	151000	65/57	372.2	246.0	72700	46000	46/37							

H = High fan speed

L = Low fan speed

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Fan types

All fan types have corrosion resistant fan blades and fan guards.

HTC Type 1

Fans ø 508 mm, complete with protection guards and anti vibration mountings. The guards are galvanized and epoxy coated. Mounting bolts and nuts are stainless steel.

Standard execution with fan motors type 1.910.

Terminal boxes are provided with cable inlet PG-13,5.

HTC Type 2

Fans ø 762 mm mounted on a motor support. Fan guards are integrated in the fan plate.

Standard execution with fan motors type 2.930.

Motors are wired to a common terminal box:

HTC type 2.1 : 1 terminal box,

HTC type 2.2 : 2 terminal boxes.

The terminal boxes are located on the end-plate at the liquid header end of the coil.

HTC Type 3

Fans ø 800 mm, fan motors integrated with guards and mounted to fan discharge hood.

HTC Type 4

Similar in construction to type 3, fan diameter however 1000 mm.

All fan motors of HTC models 3 and 4 are equipped with an overload protector built in the windings. Via terminals in the terminal box this internal protector **must** be used in the control current circuit. The electrical control should be arranged in such a way that continuous on/off switching of the motors ('tripping') is prevented.

When the condensers are out of use for longer periods, the motors have to be switched on for at least 2 hours every month.

HTC types 1 t/m 4

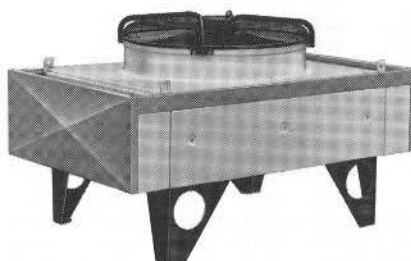
For application at ambient temperatures above 40 °C : special motors on request.

Fan motors

Motor type	Nr. of poles	rpm	Watt	Voltage	Thermal overload relay * settings (A)
HTC type 1 (enclosed design, IP-55)					
1.910	6	910	180	220/380/50/3	0.86
1.690	8	690	120	220/380/50/3	0.67
1.470	12	470	25	220/380/50/3	0.32
1.1420	4	1420	370	220/380/50/3	1.4
1.VAR	6	variable	180	220/50/1	2.36 **
HTC type 2 (enclosed design, IP-55)					
2.930	6	930	750	220-240/380-415/50/3	2.9/5.0
2.690	8	690	370	220-240/380-415/50/3	1.5/2.6
2.325	16	325	120	220-240/380-415/50/3	1.2/2.0
2.425	YI 6	935	750	380-415/50/3	3.1
	YII 12	425	150	380-415/50/3	1.1
2.930 W	6	930	750	220-240/50/1	8.0
2.VAR	6	variable	750	220-240/50/1	8.4 **
2.840	8	840	660	220-254/380-440/60/3	2.8/4.8
HTC type 3 (enclosed design, IP-44)					
3.870	Y -	870	1400	380/50/3	3.2
	Δ -	620	810	380/50/3	1.9
3.680	Y -	680	720	380/50/3	2.2
	Δ -	500	440	380/50/3	1.1
HTC type 4 (enclosed design, IP-44)					
4.645	Y -	645	2100	380/50/3	4.6
	Δ -	455	1200	380/50/3	3.0
4.295	Y -	295	380	380/50/3	1.54
	Δ -	180	190	380/50/3	0.66

* The settings can be applied to a minimum ambient temperature of -10 °C

** Value at highest speed.



HTC type 4

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Technical data HTC • 2 ••

Type HTC	Refrigerant connections mm ODS		Max. number separated refrigerant circuits	Internal volume dm ³	Surface		Weight kg fin execution	
	in	out			m ²		aluminium	copper
1. 212 - ...	2 x 22	2 x 22	2 x 2	8	82	82	108	
1. 213 - ...	2 x 22	2 x 22	2 x 3	12	123	98	136	
1. 214 - ...	2 x 22	2 x 22	2 x 4	16	164	114	164	
1. 222 - ...	2 x 22	2 x 22	2 x 4	14	164	160	210	
1. 223 - ...	2 x 28	2 x 22	2 x 6	21	246	190	266	
1. 224 - ...	2 x 28	2 x 28	2 x 8	28	328	220	322	
1. 232 - ...	2 x 28	2 x 28	2 x 8	19	246	239	314	
1. 233 - ...	2 x 35	2 x 28	2 x 6	29	369	283	396	
1. 234 - ...	2 x 35	2 x 28	2 x 8	39	492	327	478	
1. 243 - ...	2 x 35	2 x 35	2 x 6	37	492	375	528	
1. 244 - ...	2 x 35	2 x 35	2 x 8	50	656	434	636	
2. 212 - ...	2 x 28	2 x 22	2 x 11	17	197	253	314	
2. 213 - ...	2 x 28	2 x 28	2 x 11	26	295	289	380	
2. 214 - ...	2 x 35	2 x 28	2 x 11	34	393	325	446	
2. 222 - ...	2 x 35	2 x 35	2 x 11	30	393	501	622	
2. 223 - ...	2 x 42	2 x 35	2 x 11	46	590	571	752	
2. 224 - ...	2 x 42	2 x 35	2 x 11	61	786	641	884	
2. 232 - ...	2 x 42	2 x 35	2 x 11	48	590	754	936	
2. 233 - ...	2 x 54	2 x 42	2 x 22	72	885	861	1134	
2. 234 - ...	2 x 54	2 x 54	2 x 22	96	1180	968	1332	
2. 242 - ...	2 x 54	2 x 54	2 x 22	61	786	1002	1244	
2. 243 - ...	2 x 54	2 x 54	2 x 22	92	1180	1143	1506	
2. 244 - ...	2 x 67	2 x 54	2 x 22	122	1573	1284	1768	
2. 252 - ...	2 x 54	2 x 54	2 x 22	75	983	1250	1552	
2. 253 - ...	2 x 67	2 x 54	2 x 22	112	1475	1425	1880	
2. 254 - ...	2 x 67	2 x 54	2 x 22	149	1966	1600	2206	
2. 262 - ...	2 x 67	2 x 54	2 x 22	88	1180	1498	1862	
2. 263 - ...	2 x 67	2 x 67	2 x 33	132	1770	1707	2252	
2. 264 - ...	2 x 80	2 x 67	2 x 44	176	2359	1915	2642	
3. 212 - ...	2 x 28	2 x 28	2 x 11	20	237	457	530	
3. 213 - ...	2 x 35	2 x 28	2 x 11	30	355	500	610	
3. 214 - ...	2 x 35	2 x 28	2 x 11	40	474	543	690	
3. 222 - ...	2 x 42	2 x 35	2 x 11	36	474	908	1054	
3. 223 - ...	2 x 42	2 x 42	2 x 11	54	711	993	1212	
3. 224 - ...	2 x 54	2 x 42	2 x 11	72	948	1077	1370	
3. 232 - ...	2 x 54	2 x 42	2 x 11	56	711	1366	1584	
3. 233 - ...	2 x 54	2 x 54	2 x 22	84	1066	1494	1822	
3. 234 - ...	2 x 54	2 x 54	2 x 22	112	1421	1621	2060	
3. 242 - ...	2 x 54	2 x 54	2 x 22	72	948	1818	2110	
3. 243 - ...	2 x 67	2 x 54	2 x 22	108	1421	1986	2424	
3. 244 - ...	2 x 67	2 x 54	2 x 22	144	1895	2155	2740	
3. 252 - ...	2 x 67	2 x 54	2 x 22	88	1185	2269	2634	
3. 253 - ...	2 x 67	2 x 67	2 x 33	132	1777	2479	3026	
3. 254 - ...	2 x 80	2 x 67	2 x 44	177	2369	2689	3420	
4. 212 - ...	2 x 35	2 x 28	2 x 11	20	237	477	550	
4. 213 - ...	2 x 35	2 x 28	2 x 11	30	355	520	630	
4. 214 - ...	2 x 35	2 x 35	2 x 11	40	474	563	710	
4. 222 - ...	2 x 42	2 x 35	2 x 11	36	474	948	1094	
4. 223 - ...	2 x 54	2 x 42	2 x 11	54	711	1033	1252	
4. 224 - ...	2 x 54	2 x 42	2 x 22	72	948	1117	1410	
4. 232 - ...	2 x 54	2 x 42	2 x 22	56	711	1426	1644	
4. 233 - ...	2 x 67	2 x 54	2 x 22	84	1066	1554	1882	
4. 234 - ...	2 x 67	2 x 54	2 x 22	112	1421	1681	2120	
4. 242 - ...	2 x 67	2 x 54	2 x 22	72	948	1898	2190	
4. 243 - ...	2 x 67	2 x 54	2 x 22	108	1421	2066	2504	
4. 244 - ...	2 x 67	2 x 67	2 x 44	144	1895	2235	2820	
4. 252 - ...	2 x 67	2 x 54	2 x 22	88	1185	2369	2734	
4. 253 - ...	2 x 80	2 x 67	2 x 33	132	1777	2579	3126	
4. 254 - ...	2 x 80	2 x 67	2 x 44	177	2369	2789	3520	

★ These condenser types have the connections on both ends (inlet connection has been moved). All other models have the inlet- and outlet connections at the same side.

★★ Without changes in circuiting design suitable for horizontal air flow.