

CT CONDENSER - SPECIFICATIONS

Model No.	Catalog Cap. (kW) @ 15KTD R404A	Air Flow (m³/hr)	Fan Data						Discharge Conn.	Liquid Conn.	Heat Transfer Surface Area (m²)	Tube Volume (dm³)
			No. of Fans	Fan Dia (mm)	dB(A) @ 3m	rpm	Current (A)	Power (W)				
CT080.401	7.6	3,050	1	400	62	1362	0.46	216	7/8"	3/4"	13.1	1.6
CT120.451	12.1	3,900	1	450	60	1328	0.59	290	7/8"	3/4"	25.3	3.2
CT150.501	15.2	6,450	1	500	64	1393	1.37	645	1 1/8"	7/8"	24.4	2.8
CT190.501	18.6	6,450	1	500	64	1393	1.37	645	1 1/8"	7/8"	34.3	4.3
CT220.501	21.0	6,800	1	500	64	1393	1.37	645	1 1/8"	7/8"	42.0	5.3
CT250.452	25.1	7,600	2	450	63	1328	1.18	580	1 1/8"	7/8"	51.4	6.4
CT300.452	30.2	7,000	2	450	63	1328	1.18	580	1 1/8"	7/8"	77.0	9.7
CT400.502	39.5	12,600	2	500	67	1393	2.74	1290	1 1/8"	7/8"	70.1	8.8
CT480.502	48.3	14,200	2	500	67	1393	2.74	1290	1 3/8"	1 1/8"	102.6	12.9
CT570.502	56.8	13,300	2	500	67	1393	2.74	1290	1 3/8"	1 1/8"	153.8	19.3
CT720.503	72.0	20,100	3	500	68	1393	4.11	1935	1 3/8"	1 1/8"	174.2	25.8
CT840.503	84.0	18,750	3	500	68	1393	4.11	1935	1 3/8"	1 1/8"	261.1	38.7
CT950.502x2	95.3	28,000	2 x 2	500	70	1393	5.48	2580	1 5/8"	1 3/8"	205.1	25.7
CT950.504	95.3	27,200	4	500	70	1393	5.48	2580	1 5/8"	1 3/8"	212.2	33.7
CT1100.502x2	110.0	26,600	2 x 2	500	70	1393	5.48	2580	1 5/8"	1 3/8"	307.6	38.6
CT1100.504	110.0	24,800	4	500	70	1393	5.48	2580	1 5/8"	1 3/8"	315.6	50.5

Note: All fan sets are using 400V/3Ph/50Hz.

General features:

1. All condensers are using inner groove tubes to achieve higher heat transfer coefficient
2. Enhanced performance fins pattern using double sine wave and rippled edge
3. Maximised heat transfer surface area to ensure most applications requirement achieved
4. High collar fan venturi to achieve higher air volume for higher capacity
5. Available for vertical air throw configuration (from CT480.502 to CT1100.504)
6. Option for EC Fan for energy saving solutions.
7. Option for different fan voltages/phase/frequencies for different countries requirement
8. Option for lower fan speed for low noise special requirement
9. Green or black colour as standard.

Refrigerant Correction Factor	
R404A	1
R507	1
R22	1.02
R134A	0.97
R407C	0.95

Condenser Selection Guide

Method - Using Compressor Selection Software (Recommended)

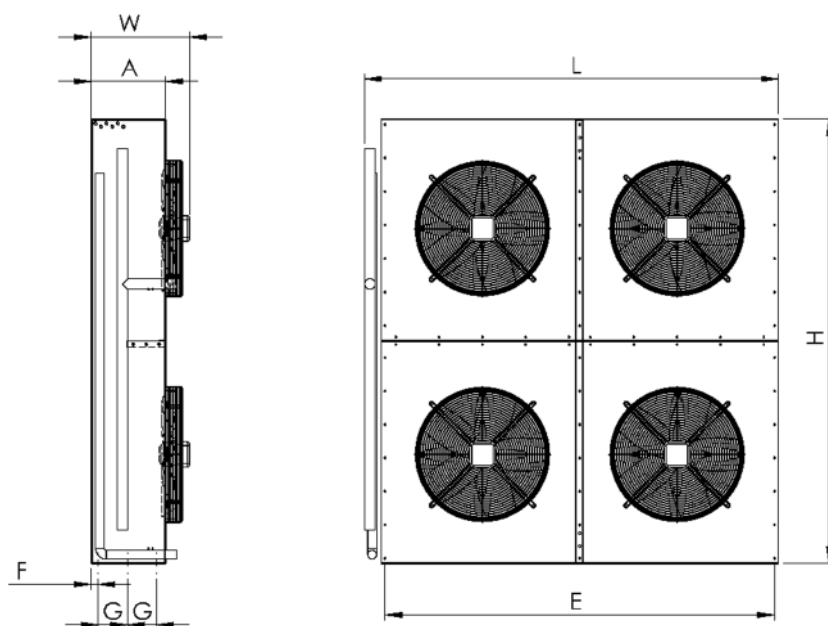
1. Open compressor selection software created by manufacturer
2. Key in your designed evaporator temperature (SST) and condensing temperature (SCT)
3. Do not add the Cooling Capacity (Q) and Power Input (P) at the designed temperature
4. For chiller - add 5 to 10 deg C for the evaporating temperature (SST), then add up the Cooling Capacity Q + Power Input (P) = Total Heat Rejection (THR) for the condenser.
5. For freezer - add 12 to 15 deg C into the evaporating temperature (SST), then add up Cooling Capacity Q + Power Input (P) = Total Heat Rejection (THR) for the condenser.
6. Choose the condenser based on the THR required. For the example below, selection for condenser is **CT250.452**

▼ tc	► to	0°C	-5°C	-10°C	-15°C	-20°C	-25°C
45 °C	Q [W]	25363	20267	15987	12418	9467	7052
	Qu* [W]	25363	20267	15987	12418	9467	7052
	P [kW]	8.63	8.01	7.32	6.58	5.80	5.02
	I [A]	15.21	14.30	13.31	12.27	11.23	10.22
	Qc [W]	33995	28278	23307	18995	15271	12072
	COP [-]	2.94	2.53	2.18	1.89	1.63	1.41
	m [kg/h]	838	687	557	446	350	269
	Op.	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	67.7	69.3	71.3	73.7	76.6	80.3

CT CONDENSER – DIMENSIONS & WEIGHT

Model No.	Dimensions (mm)							Nett Weight (KG)	Packed* Weight (KG)
	A	L	H	W	E	F	G		
CT080.401	250	585	495	370	525	30	93.5	17	31
CT120.451	250	735	550	370	625	30	93.5	30	54
CT150.501	250	792	598	370	725	30	93.5	34	61
CT190.501	250	892	598	370	825	30	93.5	43	77
CT220.501	250	992	698	370	925	30	93.5	48	86
CT250.452	250	1292	598	370	1225	30	93.5	61	110
CT300.452	250	1292	598	370	1225	30	93.5	73	131
CT400.502	250	1592	648	370	1525	30	93.5	81	146
CT480.502	295	1665	888	420	1580	38	105	100	180
CT570.502	295	1665	888	420	1580	38	105	121	218
CT720.503	325	2425	855	450	2330	28	125	157	283
CT840.503	325	2425	855	450	2330	28	125	196	353
CT950.502x2	295	1680	1750	420	1580	38	105	188	338
CT950.504	325	3135	855	450	3030	28	125	201	362
CT1100.502x2	295	1680	1750	420	1580	38	105	228	410
CT1100.504	325	3135	855	450	3030	28	125	251	452

*Packed in a wooden crates for export shipment



Bonus Tips - Condenser Selection Guide

Method 2 - Using Quick Selection Method **

1. Open compressor selection software created by manufacturer
2. Key in your designed evaporator temperature (SST) and condensing temperature (SCT)
3. Add the Cooling Capacity (Q) and Power Input (P) at the designed temperature
4. For Chiller @ -5C SST, Use 10KTD. Eg. Q = 20.3kW; P = 8.01. THR = $15/10 \times (20.3 + 8.01) = 42.5\text{kW}$
5. For Freezer @ -25C SST, Use 7KTD. Eg. Q = 7.05kW; P = 5.02. THR = $15/7 \times (7.05 + 5.02) = 25.9\text{kW}$
6. For the condenser selection, chiller application is **CT400.502**; freezer application is **CT250.452**

** Only for the experienced user. Not for tropicalised climate/special application