

Model(s): **CTC EcoAir C108 + CTC EcoLogic**

Air-to-water heat pump:	Yes	Energy efficiency class:	-
Water-to-water heat pump:	No	Controller class:	VI
Brine-to-water heat pump:	No	Controller contribution:	4 %
Low-temperature heat pump:	No	Package efficiency:	191 %
Equipped with a supplementary heater:	No	Package efficiency class:	-
Heat pump combination heater:	No		

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)				Seasonal space heating energy efficiency			
Prated		7	kW	ηs		187	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	NA	kW	Tj = -7 °C	COPd	NA	-
Tj = +2 °C	Pdh	7,1	kW	Tj = +2 °C	COPd	2,46	-
Tj = +7 °C	Pdh	4,6	kW	Tj = +7 °C	COPd	4,10	-
Tj = +12 °C	Pdh	2,2	kW	Tj = +12 °C	COPd	6,02	-
Tj = bivalent temperature	Pdh	7,1	kW	Tj = bivalent temperature	COPd	2,46	-
Tj = operation limit temperature	Pdh	7,1	kW	Tj = operation limit temperature	COPd	2,46	-
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	NA	-
Bivalent temperature	Tbiv	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	-
Degradation co-efficient	Cdh	0,90	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	POFF	0,006	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	Pto	0,006	kW	Electric			
Standby mode	PSB	0,006	kW				
Crankcase heater mode	PCK	0,000	kW	Type of energy input			
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	3350	m³/h
Sound power level, indoors/outdoors	LWA	NA / 53	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	m³/h
Annual energy consumption	QHE	1997	kWh				
For heat pump combination heater:							
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	ηwh	NA	%
Daily electricity consumption	Qelec	NA	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Contact details

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Warm climate and Low temperature

Model(s): CTC EcoAir C108 + CTC EcoLogic

Air-to-water heat pump:	Yes	Energy efficiency class:	-
Water-to-water heat pump:	No	Controller class:	VI
Brine-to-water heat pump:	No	Controller contribution:	4 %
Low-temperature heat pump:	No	Package efficiency:	265 %
Equipped with a supplementary heater:	No	Package efficiency class:	-
Heat pump combination heater:	No		

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	<i>Prated</i>	8	<i>kW</i>	Seasonal space heating energy efficiency	η_s	261	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = -7 °C	<i>P_{dh}</i>	NA	<i>kW</i>	T _j = -7 °C	<i>COP_d</i>	NA	-
T _j = +2 °C	<i>P_{dh}</i>	7,5	<i>kW</i>	T _j = +2 °C	<i>COP_d</i>	3,55	-
T _j = +7 °C	<i>P_{dh}</i>	5,0	<i>kW</i>	T _j = +7 °C	<i>COP_d</i>	5,93	-
T _j = +12 °C	<i>P_{dh}</i>	2,3	<i>kW</i>	T _j = +12 °C	<i>COP_d</i>	8,01	-
T _j = bivalent temperature	<i>P_{dh}</i>	7,5	<i>kW</i>	T _j = bivalent temperature	<i>COP_d</i>	3,55	-
T _j = operation limit temperature	<i>P_{dh}</i>	7,5	<i>kW</i>	T _j = operation limit temperature	<i>COP_d</i>	3,55	-
For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C)	<i>P_{dh}</i>	NA	<i>kW</i>	For air-to-water heat pumps: T _j = -15 °C (if TOL < -20 °C)	<i>COP_d</i>	NA	-
Bivalent temperature	<i>T_{biv}</i>	2	°C	For air-to-water heat pumps: Operation limit temperature	<i>TOL</i>	2	°C
Cycling interval capacity for heating	<i>P_{cych}</i>	NA	<i>kW</i>	Cycling interval efficiency	<i>COP_{cyc}</i>	NA	-
Degradation co-efficient	<i>C_{dh}</i>	0,90	-	Heating water operating limit temperature	<i>WTOL</i>	75	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	<i>P_{OFF}</i>	0,006	<i>kW</i>	Rated heat output (*)	<i>P_{sup}</i>	0,0	<i>kW</i>
Thermostat-off mode	<i>P_{TO}</i>	0,006	<i>kW</i>	Type of energy input			
Standby mode	<i>P_{SB}</i>	0,006	<i>kW</i>				
Crankcase heater mode	<i>P_{CK}</i>	0,000	<i>kW</i>	For air-to-water heat pumps: Rated air flow rate, outdoors			
Other items							
Capacity control	Variable			For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			
Sound power level, indoors/outdoors	<i>L_{WA}</i>	NA / 50	<i>dB</i>				
Annual energy consumption	<i>Q_{HE}</i>	1558	<i>kWh</i>				
For heat pump combination heater:							
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	η_{wh}	NA	%
Daily electricity consumption	<i>Q_{elec}</i>	NA	<i>kWh</i>	Daily fuel consumption	<i>Q_{fuel}</i>	NA	<i>kWh</i>
Annual electricity consumption	<i>AEC</i>	NA	<i>kWh</i>	Annual fuel consumption	<i>AFC</i>	NA	<i>GJ</i>

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Model(s):	CTC EcoAir C108 + CTC EcoLogic			
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	152	%
Equipped with a supplementary heater:	No	Package efficiency class:	A+++	-
Heat pump combination heater:	No			

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)				Seasonal space heating energy efficiency			
<i>Prated</i>		7	<i>kW</i>	η_s		148	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j			
T j = -7 °C	<i>Pdh</i>	6,0	<i>kW</i>	T j = -7 °C	<i>COPd</i>	2,26	-
T j = +2 °C	<i>Pdh</i>	3,3	<i>kW</i>	T j = +2 °C	<i>COPd</i>	3,75	-
T j = +7 °C	<i>Pdh</i>	2,3	<i>kW</i>	T j = +7 °C	<i>COPd</i>	4,90	-
T j = +12 °C	<i>Pdh</i>	2,4	<i>kW</i>	T j = +12 °C	<i>COPd</i>	6,78	-
T j = bivalent temperature	<i>Pdh</i>	6,0	<i>kW</i>	T j = bivalent temperature	<i>COPd</i>	2,26	-
T j = operation limit temperature	<i>Pdh</i>	6,0	<i>kW</i>	T j = operation limit temperature	<i>COPd</i>	1,94	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	<i>Pdh</i>	NA	<i>kW</i>	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	<i>COPd</i>	NA	-
Bivalent temperature	<i>T biv</i>	-7	°C	For air-to-water heat pumps: Operation limit temperature	<i>TOL</i>	-10	°C
Cycling interval capacity for heating	<i>P cych</i>	NA	<i>kW</i>	Cycling interval efficiency	<i>COPcyc</i>	NA	-
Degradation co-efficient	<i>Cdh</i>	0,90	-	Heating water operating limit temperature	<i>WTOL</i>	75	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	<i>P OFF</i>	0,006	<i>kW</i>	Rated heat output (*)	<i>Psup</i>	0,5	<i>kW</i>
Thermostat-off mode	<i>P TO</i>	0,006	<i>kW</i>	Type of energy input	Electric		
Standby mode	<i>P SB</i>	0,006	<i>kW</i>				
Crankcase heater mode	<i>P CK</i>	0,000	<i>kW</i>				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	3350	<i>m³/h</i>
Sound power level, indoors/outdoors	<i>L WA</i>	NA / 53	<i>dB</i>	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	<i>m³/h</i>
Annual energy consumption	<i>Q HE</i>	3556	<i>kWh</i>				
For heat pump combination heater:							
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	η_{wh}	NA	%
Daily electricity consumption	<i>Qelec</i>	NA	<i>kWh</i>	Daily fuel consumption	<i>Qfuel</i>	NA	<i>kWh</i>
Annual electricity consumption	<i>AEC</i>	NA	<i>kWh</i>	Annual fuel consumption	<i>AFC</i>	NA	<i>GJ</i>

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Model(s): **CTC EcoAir C108 + CTC EcoLogic**

Air-to-water heat pump:	Yes	Energy efficiency class:	A+++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	192	%
Equipped with a supplementary heater:	No	Package efficiency class:	A+++	-
Heat pump combination heater:	No			

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	188	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	7,0	kW	Tj = -7 °C	COPd	2,59	-
Tj = +2 °C	Pdh	3,8	kW	Tj = +2 °C	COPd	4,98	-
Tj = +7 °C	Pdh	2,6	kW	Tj = +7 °C	COPd	6,18	-
Tj = +12 °C	Pdh	2,3	kW	Tj = +12 °C	COPd	7,63	-
Tj = bivalent temperature	Pdh	7,0	kW	Tj = bivalent temperature	COPd	2,59	-
Tj = operation limit temperature	Pdh	6,9	kW	Tj = operation limit temperature	COPd	2,47	-
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	Pdh	NA	kW	For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	NA	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	-
Degradation co-efficient	Cdh	0,90	-	Heating water operating limit temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	POFF	0,006	kW	Rated heat output (*)	Psup	0,6	kW
Thermostat-off mode	Pto	0,006	kW	Type of energy input	Electric		
Standby mode	PSB	0,006	kW				
Crankcase heater mode	PCK	0,000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	3350	m³/h
Sound power level, indoors/outdoors	LWA	NA / 50	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	m³/h
Annual energy consumption	QHE	3241	kWh				
For heat pump combination heater:							
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	ηwh	NA	%
Daily electricity consumption	Qelec	NA	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Model(s): **CTC EcoAir C108 + CTC EcoLogic**

Air-to-water heat pump:	Yes	Energy efficiency class:	-
Water-to-water heat pump:	No	Controller class:	VI
Brine-to-water heat pump:	No	Controller contribution:	4 %
Low-temperature heat pump:	No	Package efficiency:	141 %
Equipped with a supplementary heater:	No	Package efficiency class:	-
Heat pump combination heater:	No		

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)				Seasonal space heating energy efficiency			
<i>Prated</i>		8	<i>kW</i>	η_s		137	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j			
T j = -7 °C	<i>Pdh</i>	4,5	<i>kW</i>	T j = -7 °C	<i>COPd</i>	3,04	-
T j = +2 °C	<i>Pdh</i>	2,8	<i>kW</i>	T j = +2 °C	<i>COPd</i>	4,24	-
T j = +7 °C	<i>Pdh</i>	2,7	<i>kW</i>	T j = +7 °C	<i>COPd</i>	5,44	-
T j = +12 °C	<i>Pdh</i>	2,2	<i>kW</i>	T j = +12 °C	<i>COPd</i>	5,79	-
T j = bivalent temperature	<i>Pdh</i>	6,0	<i>kW</i>	T j = bivalent temperature	<i>COPd</i>	2,02	-
T j = operation limit temperature	<i>Pdh</i>	4,8	<i>kW</i>	T j = operation limit temperature	<i>COPd</i>	1,53	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	<i>Pdh</i>	6,0	<i>kW</i>	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	<i>COPd</i>	2,02	-
Bivalent temperature	<i>T biv</i>	-15	°C	For air-to-water heat pumps: Operation limit temperature	<i>TOL</i>	-22	°C
Cycling interval capacity for heating	<i>P cych</i>	NA	<i>kW</i>	Cycling interval efficiency	<i>COPcyc</i>	NA	-
Degradation co-efficient	<i>Cdh</i>	0,90	-	Heating water operating limit temperature	<i>WTOL</i>	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	<i>P OFF</i>	0,006	<i>kW</i>	Rated heat output (*)	<i>Psup</i>	2,7	<i>kW</i>
Thermostat-off mode	<i>P TO</i>	0,006	<i>kW</i>	Type of energy input	Electric		
Standby mode	<i>P SB</i>	0,006	<i>kW</i>				
Crankcase heater mode	<i>P CK</i>	0,000	<i>kW</i>				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	3350	<i>m³/h</i>
Sound power level, indoors/outdoors	<i>L WA</i>	NA / 53	<i>dB</i>	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	<i>m³/h</i>
Annual energy consumption	<i>Q HE</i>	5297	<i>kWh</i>				
For heat pump combination heater:							
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	η_{wh}	NA	%
Daily electricity consumption	<i>Qelec</i>	NA	<i>kWh</i>	Daily fuel consumption	<i>Qfuel</i>	NA	<i>kWh</i>
Annual electricity consumption	<i>AEC</i>	NA	<i>kWh</i>	Annual fuel consumption	<i>AFC</i>	NA	<i>GJ</i>

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Cold climate and Low temperature

Model(s): **CTC EcoAir C108 + CTC EcoLogic**

Air-to-water heat pump:	Yes	Energy efficiency class:	-
Water-to-water heat pump:	No	Controller class:	VI
Brine-to-water heat pump:	No	Controller contribution:	4 %
Low-temperature heat pump:	No	Package efficiency:	179 %
Equipped with a supplementary heater:	No	Package efficiency class:	-
Heat pump combination heater:	No		

Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	175	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	4,8	kW	Tj = -7 °C	COPd	3,79	-
Tj = +2 °C	Pdh	3,0	kW	Tj = +2 °C	COPd	5,52	-
Tj = +7 °C	Pdh	2,8	kW	Tj = +7 °C	COPd	6,99	-
Tj = +12 °C	Pdh	2,3	kW	Tj = +12 °C	COPd	7,13	-
Tj = bivalent temperature	Pdh	6,5	kW	Tj = bivalent temperature	COPd	2,60	-
Tj = operation limit temperature	Pdh	5,6	kW	Tj = operation limit temperature	COPd	2,06	-
For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	Pdh	6,5	kW	For air-to-water heat pumps: Tj = -15 °C (if TOL < -20 °C)	COPd	2,60	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	-
Degradation co-efficient	Cdh	0,90	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	POFF	0,006	kW	Rated heat output (*)	Psup	2,5	kW
Thermostat-off mode	Pto	0,006	kW	Type of energy input	Electric		
Standby mode	PSB	0,006	kW				
Crankcase heater mode	PCK	0,000	kW				
Other items							
Capacity control	Variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	3350	m³/h
Sound power level, indoors/outdoors	LWA	NA / 50	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	NA	m³/h
Annual energy consumption	QHE	4489	kWh				
For heat pump combination heater:							
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	ηwh	NA	%
Daily electricity consumption	Qelec	NA	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.