Warm climate and Medium temperature



Model(s):		CTC CombiAir	6M + CTC Ecc	DLogic				
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:	183	%		
Equipped with a supplementar	y heater:	No		Package efficiency class:		-		
Heat pump combination heater	-	No						
			tion, except fo	or low-temperature heat pumps. Fo	or low- tempe	rature heat p	umps,	
parameters shall be declared for								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	$\eta_{s}$	179	%	
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperati	ure 20 °C and	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature				
T j = -7 °C	Pdh	na	kW	T j = -7 °C	COPd	na	] -	
T j = + 2 °C	Pdh	4,8	kW	T j = +2 °C	COPd	2,16	-	
T j = + 7 °C	Pdh	3,1	kW	T j = +7 °C	COPd	3,95		
T j = + 12 °C	Pdh	2,6	kW	T j = +12 °C	COPd	6,03		
T j = bivalent temperature	Pdh	4,8	kW	T j = bivalent temperature	COPd	2,16	-	
T j = operation limit temperature	Pdh	4,8	kW	T j = operation limit temperature	COPd	2,16	_	
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-	
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C	
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	58	°C	
Power consumption in modes of	other than active	mode		Supplementary heater				
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	0,0	kW	
Thermostat-off mode	P <sub>TO</sub>	0,012	kW			•		
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric		
Crankcase heater mode	P <sub>CK</sub>	0,000	kW					
Other items	, ск	0,000	NVV					
other items							1	
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h	
Sound power level, indoors/ outdoors	L <sub>WA</sub>	35/50	dB	For water-/brine-to-water heat pumps: Rated brine or water		na	m2/h	
Annual energy consumption	Q <sub>HE</sub>	1398	kWh	flow rate, outdoor heat exchanger	-	na	m3/h	
For heat pump combination he	ater:							
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	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:		end of the produc importance that t	t's life cycle, it mu he product's refrig	t a recycling station or with the installation er ist be sent correctly to a waste station or rese gerant, compressor oil and electrical/electroni old waste is not permitted.	ller offering a ser	vice of that type.	It is of grea	
Contact details	CTC AB. Box 309						231218	

Warm climate and Low temperature



Warm climate and Low tem	perature				Ljungby		
Model(s):		CTC CombiAir	6M + CTC Eco	Logic			
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:	256	%	
Equipped with a supplementary	y heater:	No		Package efficiency class:		-	
Heat pump combination heater	r:	No					
				r low-temperature heat pumps. Fo	or low- tempe	rature heat p	oumps,
parameters shall be declared fo	•	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4	kW	Seasonal space heating energy efficiency	$\eta_{s}$	252	%
Declared capacity for heating for outdoor temperature T j	or part load at ir	ndoor temperati	ure 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	4,2	kW	T j = +2 °C	COPd	2,68	] -
T j = + 7 °C	Pdh	2,7	kW	T j = +7 °C	COPd	6,31	] -
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	7,79	
T j = bivalent temperature	Pdh	4,2	kW	T j = bivalent temperature	COPd	2,68	-
T j = operation limit temperature	Pdh	4,2	kW	T j = operation limit temperature	COPd	2,68	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes of	other than active	e mode		Supplementary heater			
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW			•	
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	C.	.,					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	870	kWh	flow rate, outdoor heat exchanger	-	IIa	1113/11
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	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:		end of the produc	t's life cycle, it mus he product's refrige	a recycling station or with the installation en at be sent correctly to a waste station or rese erant, compressor oil and electrical/electroni Id waste is not permitted.	ller offering a serv	vice of that type	. It is of gre

CTC CombiAir 6M + CTC EcoLogic

Average climate and Medium temperature

Model(s):



wiodei(3).		0.000	1 OWI : CTC ECO				
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:	135	%	
Equipped with a supplementar	ry heater:	No		Package efficiency class:	A+++	-	
Heat pump combination heate	er:	No					
				or low-temperature heat pumps. Fo	or low- tempe	rature heat p	umps,
parameters shall be declared f	· ·						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	$\eta_{S}$	131	%
Declared capacity for heating foutdoor temperature T j	for part load at ir	ndoor temperat	ture 20 °C and	Declared coefficient of performation			
T j = -7 °C	Pdh	4,7	kW	T j = - 7 °C	COPd	1,88	] -
T j = + 2 °C	Pdh	2,8	kW	T j = +2 °C	COPd	3,26	] -
T j = + 7 °C	Pdh	1,8	kW	T j = +7 °C	COPd	4,72	] -
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	6,47	
T j = bivalent temperature	Pdh	4,7	kW	T j = bivalent temperature	COPd	1,88	_
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	1,77	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes	other than active	e mode	,	Supplementary heater			-
Off mode	P <sub>OFF</sub>	0,007	kW	Rated heat output (*)	Psup	1,1	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	<u>-</u>	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3245	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	eater:	T =cc: :				ı	
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	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:		end of the produ importance that	ct's life cycle, it mu the product's refrig	a recycling station or with the installation er st be sent correctly to a waste station or rese terant, compressor oil and electrical/electroni old waste is not permitted.	eller offering a serv	vice of that type.	It is of great

Information for heat pump s Average climate and Low te		nd heat pump	combination	n heaters	CTC AB Ljungby		TC
Model(s):		CTC CombiAir	6M + CTC Eco	Logic			
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 parameters shall be declared for				or low-temperature heat pumps. Fo	or low- tempe	rature heat p	umps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	$\eta_{s}$	188	%
Declared capacity for heating fo outdoor temperature T j	or part load at in	door temperat	ure 20 °C and	Declared coefficient of perform part load at indoor temperature	•		
T j = - 7 °C	Pdh	4,3	kW	T j = -7 °C	COPd	2,60	] -
T j = + 2 °C	Pdh	2,6	kW	T j = +2 °C	COPd	4,84	] -
T j = + 7 °C	Pdh	1,7	kW	T j = +7 °C	COPd	6,91	] -
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	7,72	-
T j = bivalent temperature	Pdh	4,3	kW	T j = bivalent temperature	COPd	2,60	-
T j = operation limit temperature	Pdh	3,2	kW	T j = operation limit temperature	COPd	2,24	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,97	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes of	ther than active	mode		Supplementary heater			_
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	1,6	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h

Capacity control Variable

Sound power level, indoors/ outdoors

Annual energy consumption  $Q_{HE}$  2072 kWh

For air-to-water heat pumps:
Rated air flow rate, outdoors

For water-/brine-to-water heat
pumps: Rated brine or water
flow rate, outdoor heat
exchanger

2526

m3/h

m3/h

For heat pump combination heater:

Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	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.

**Cold climate and Medium temperature** 



Model(s):		CTC CombiAir	6M + CTC Eco	Logic			
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:	120	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:		-	
Heat pump combination heate	r:	No					
				or low-temperature heat pumps. Fo	or low- tempe	rature heat p	umps,
parameters shall be declared f	•	• •					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	$\eta_{s}$	116	%
Declared capacity for heating to outdoor temperature T j	or part load at in	door temperati	ure 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = -7 °C	Pdh	3,4	kW	T j = - 7 °C	COPd	2,43	1 -
T j = + 2 °C	Pdh	2,0	kW	T j = +2 °C	COPd	3,95	-
T j = + 7 °C	Pdh	1,3	kW	T j = +7 °C	COPd	4,24	-
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	6,80	-
T j = bivalent temperature	Pdh	4,1	kW	T j = bivalent temperature	COPd	1,96	-
T j = operation limit temperature	Pdh	2,9	kW	T j = operation limit temperature	COPd	1,41	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	1,7	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	3,01	-
Bivalent temperature	T <sub>biv</sub>	-12	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval capacity for heating	P cych	-/58	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes	other than active	mode		Supplementary heater			-
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	5,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	35/50	dB	For water-/brine-to-water heat pumps: Rated brine or water		na	m3/h
Annual energy consumption	Q <sub>HE</sub>	4610	kWh	flow rate, outdoor heat exchanger	_	III	1113/11
For heat pump combination he	eater:						
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	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:		end of the produc importance that t	t's life cycle, it mu he product's refrig	t a recycling station or with the installation en ust be sent correctly to a waste station or rese gerant, compressor oil and electrical/electroni old waste is not permitted.	eller offering a serv	vice of that type.	It is of great

Cold climate and Low temperature



					Ljuligby		
Model(s):		CTC CombiAir	6M + CTC Eco	Logic			
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:	147	%	
Equipped with a supplementary	/ heater:	No		Package efficiency class:		-	
Heat pump combination heater Parameters shall be declared for parameters shall be declared for	r medium-tem			or low-temperature heat pumps. Fo	or low- tempe	rature heat p	umps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4	kW	Seasonal space heating energy efficiency	$\eta_{s}$	143	%
Declared capacity for heating for outdoor temperature T j	or part load at i	ndoor temperatu	ure 20 °C and	Declared coefficient of performa			
T j = -7 °C	Pdh	2,4	kW	T j = - 7 °C	COPd	3,15	] -
Tj=+2°C	Pdh	2,4	kW	T j = +2 °C	COPd	5,06	1 -
T j = + 7 °C	Pdh	1,0	kW	T j = +7 °C	COPd	5,17	1 -
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	7,90	-
T j = bivalent temperature	Pdh	2,9	kW	T j = bivalent temperature	COPd	2,22	-
T j = operation limit temperature	Pdh	2,0	kW	T j = operation limit temperature	COPd	1,50	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	1,7	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	4,02	-
Bivalent temperature	T <sub>biv</sub>	-12	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,97	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes of	ther than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	4,0	kW
Thermostat-off mode	$P_{TO}$	0,012	kW				
Standby mode	$P_{SB}$	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items					•		
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2694	kWh	flow rate, outdoor heat exchanger			5/11
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	$Q_{\text{elec}}$	na	kWh	Daily fuel consumption	$\mathbf{Q}_{fuel}$	NA	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product importance that the	t's life cycle, it mu ne product's refrig	a recycling station or with the installation en st be sent correctly to a waste station or rese erant, compressor oil and electrical/electroni old waste is not permitted.	ller offering a serv	vice of that type.	It is of grea
Contact details (	TC AR Box 300	). SE-341 26 Liun	ghy Tel ±46 37	72 88000 www.ctc.se			231218

Warm climate and Medium temperature



Warm climate and Medium	temperature				Ljungby		
Model(s):		CTC CombiAir	6M + CTC Eco	Zenith i360/EcoVent i360F			
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:	183	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater	r:	Yes					
		• • •	•	or low-temperature heat pumps. Fo	r low- temper	rature heat p	umps,
parameters shall be declared for	•						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	$\eta_{s}$	179	%
Declared capacity for heating for outdoor temperature T j	or part load at i	ndoor temperati	ure 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = − 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	4,8	kW	T j = +2 °C	COPd	2,16	-
T j = + 7 °C	Pdh	3,1	kW	T j = +7 °C	COPd	3,95	-
T j = + 12 °C	Pdh	2,6	kW	T j = +12 °C	COPd	6,03	-
T j = bivalent temperature	Pdh	4,8	kW	T j = bivalent temperature	COPd	2,16	-
T j = operation limit temperature	Pdh	4,8	kW	T j = operation limit temperature	COPd	2,16	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	] -
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	$P_{TO}$	0,012	kW				
Standby mode	$P_{SB}$	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	35/50	dВ	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/l
Annual energy consumption	Q <sub>HE</sub>	1398	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	121	%
Daily electricity consumption	Qelec	6,610	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1390	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc importance that the	t's life cycle, it mu he product's refrig	a recycling station or with the installation en st be sent correctly to a waste station or rese erant, compressor oil and electrical/electroni old waste is not permitted.	ller offering a serv	vice of that type	. It is of gre

CTC AB



Warm climate and Low temp		acat pap			Ljungby		<b>H</b> [0
Model(s):		CTC CombiAir	6M + CTC Eco	Zenith i360/EcoVent i360F	Ljungby		
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:	256	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:		-	
Heat pump combination heater:		Yes		·			
				or low-temperature heat pumps. Fo	r low- tempe	rature heat p	umps,
parameters shall be declared for	r low-tempera	• • • • • • • • • • • • • • • • • • • •					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	252	%
Declared capacity for heating fo outdoor temperature T j	r part load at i	ndoor temperati	ure 20 °C and	Declared coefficient of performation			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	4,2	kW	T j = +2 °C	COPd	2,68	] -
T j = + 7 °C	Pdh	2,7	kW	T j = +7 °C	COPd	6,31	-
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	7,79	-
T j = bivalent temperature	Pdh	4,2	kW	T j = bivalent temperature	COPd	2,68	-
T j = operation limit temperature	Pdh	4,2	kW	T j = operation limit temperature	COPd	2,68	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes of	ther than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	$P_{SB}$	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/l
Annual energy consumption	Q <sub>HE</sub>	870	kWh	flow rate, outdoor heat exchanger		110	1113/11
For heat pump combination hea	iter:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	121	%
Daily electricity consumption	Qelec	6,610	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1390	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc importance that the	t's life cycle, it mu he product's refrig	a recycling station or with the installation en st be sent correctly to a waste station or rese terant, compressor oil and electrical/electroni old waste is not permitted.	ller offering a ser	vice of that type.	It is of gre

Average climate and Medium temperature



_					Ljuligby		
Model(s):		CTC CombiAir	6M + CTC Eco	Zenith i360/EcoVent i360F			
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:	135	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heate	r:	Yes					
			-	or low-temperature heat pumps. Fo	or low- tempe	rature heat p	umps,
parameters shall be declared for	or low-temperat	ture application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Un
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	131	%
Declared capacity for heating foutdoor temperature T j	or part load at i	ndoor temperati	ure 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	4,7	kW	T j = -7 °C	COPd	1,88	] -
T j = + 2 °C	Pdh	2,8	kW	T j = +2 °C	COPd	3,26	] -
T j = + 7 °C	Pdh	1,8	kW	T j = +7 °C	COPd	4,72	-
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	6,47	-
T j = bivalent temperature	Pdh	4,7	kW	T j = bivalent temperature	COPd	1,88	-
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	1,77	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	Т <sub>biv</sub>	-7	°C	For air-to-water heat pumps:	TOL	-10	°(
	2			Operation limit temperature			
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	58	°(
Power consumption in modes of				Supplementary heater	_		٦
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	1,1	kV
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	$P_{SB}$	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items						ī	
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3,
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3
Annual energy consumption	Q <sub>HE</sub>	3245	kWh	flow rate, outdoor heat exchanger	-	110	1113
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	100	%
Daily electricity consumption	Qelec	7,990	kWh	Daily fuel consumption	Qfuel	NA	kW
Annual electricity consumption	AEC	1682	kWh	Annual fuel consumption	AFC	NA	G.
Specific precautions and end of life information:		end of the produc	t's life cycle, it mus he product's refrig	a recycling station or with the installation er st be sent correctly to a waste station or rese erant, compressor oil and electrical/electroni	ller offering a serv	vice of that type.	It is of g

CTC AB



Average climate and Low ter		and near pamp		. Tredicers	CTC AB Ljungby		
Model(s):		CTC CombiAir	6M + CTC Eco	Zenith i360/EcoVent i360F	<u>, , , , , , , , , , , , , , , , , , , </u>		
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:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heater		Yes		,			
		perature applica	tion, except fo	or low-temperature heat pumps. Fo	r low- tempe	rature heat p	umps,
parameters shall be declared fo	r low-temperat	ture application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	$\eta_s$	188	%
Declared capacity for heating for outdoor temperature T j	or part load at i	ndoor temperatu	ure 20 °C and	Declared coefficient of performa part load at indoor temperature	-		
T j = - 7 °C	Pdh	4,3	kW	T j = - 7 °C	COPd	2,60	] -
T j = + 2 °C	Pdh	2,6	kW	T j = +2 °C	COPd	4,84	-
T j = + 7 °C	Pdh	1,7	kW	T j = +7 °C	COPd	6,91	-
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	7,72	-
T j = bivalent temperature	Pdh	4,3	kW	T j = bivalent temperature	COPd	2,60	-
T j = operation limit temperature	Pdh	3,2	kW	T j = operation limit temperature	COPd	2,24	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,97	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes o	ther than activ	e <u>mode</u>		Supplementary heater			_
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	1,6	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items					•		
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/l
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/l
Annual energy consumption	Q <sub>HE</sub>	2072	kWh	flow rate, outdoor heat exchanger			5/1
For heat pump combination hea	ater:			, -		•	
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\sf wh}$	100	%
Daily electricity consumption	Qelec	7,990	kWh	Daily fuel consumption	Qfuel	NA	kWl
Annual electricity	AEC	1682	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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 Medium temperature** 



Cold climate and Medium to	emperature				Ljungby		
Model(s):		CTC CombiAir	6M + CTC Eco	Zenith i360/EcoVent i360F			
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:	120	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate		Yes					
Parameters shall be declared for parameters shall be declared for				or low-temperature heat pumps. Fo	or low- tempe	rature heat p	umps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
				Seasonal space heating energy	Зуппоот		
Rated heat output (*)	Prated	6	kW	efficiency	$\eta_{\mathcal{S}}$	116	%
Declared capacity for heating for outdoor temperature T j	or part load at ir	ndoor temperati	ure 20 °C and	Declared coefficient of performation part load at indoor temperature	•		
Г j = – 7 °C	Pdh	3,4	kW	T j = - 7 °C	COPd	2,43	] -
T j = + 2 °C	Pdh	2,0	kW	T j = +2 °C	COPd	3,95	
T j = + 7 °C	Pdh	1,3	kW	T j = +7 °C	COPd	4,24	-
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	6,80	-
T j = bivalent temperature	Pdh	4,1	kW	T j = bivalent temperature	COPd	1,96	-
T j = operation limit temperature	Pdh	2,9	kW	T j = operation limit temperature	COPd	1,41	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	1,7	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	3,01	-
Bivalent temperature	T <sub>biv</sub>	-12	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-/58	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes of	other than active	e mode		Supplementary heater		ı	
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	5,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW			•	
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		•					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	35/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	4610	kWh	flow rate, outdoor heat exchanger			5,11
For heat pump combination he	ater:		•				
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	82	%
Daily electricity consumption	Qelec	9,700	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2046	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	t's life cycle, it mus he product's refrige	a recycling station or with the installation en st be sent correctly to a waste station or rese erant, compressor oil and electrical/electroni old waste is not permitted.	ller offering a serv	vice of that type.	It is of grea

**Cold climate and Low temperature** 

CTC AB Liungby



Cold climate and Low temper	erature				Ljungby		
Model(s):		CTC CombiAi	r 6M + CTC Eco	Zenith i360/EcoVent i360F			
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:	147	%	
Equipped with a supplementary heater:		Yes		Package efficiency class:		-	
Heat pump combination heater	r:	Yes					
Parameters shall be declared for parameters shall be declared for			, ·	or low-temperature heat pumps. Fo	r low- tempe	rature heat p	umps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	143	%
Declared capacity for heating for outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C and	Declared coefficient of performa part load at indoor temperature	-		
T j = -7 °C	Pdh	2,4	kW	T j = − 7 °C	COPd	3,15	] -
T j = + 2 °C	Pdh	2,4	kW	T j = +2 °C	COPd	5,06	
T j = + 7 °C	Pdh	1,0	kW	T j = +7 °C	COPd	5,17	-
T j = + 12 °C	Pdh	2,7	kW	T j = +12 °C	COPd	7,90	1 .
T j = bivalent temperature	Pdh	2,9	kW	T j = bivalent temperature	COPd	2,22	-
T j = operation limit	Pdh	2.0	kW	T j = operation limit	COPd	1 50	1 _
temperature	ruii	2,0	KVV	temperature	COPU	1,50	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	1,7	kW	For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd	4,02	_
Bivalent temperature	T <sub>biv</sub>	-12	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,97	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes other than active mode				Supplementary heater		•	
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	4,0	kW
Thermostat-off mode	$P_{TO}$	0,012	kW				
Standby mode	P <sub>SB</sub>	0,012	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2526	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-/50	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2694	kWh	flow rate, outdoor heat exchanger	-	110	1113/11
For heat pump combination he	ater:	•		<u> </u>			
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	82	%
Daily electricity consumption	$Q_{elec}$	9,700	kWh	Daily fuel consumption	$\mathbf{Q}_{fuel}$	NA	kWh
Annual electricity consumption	AEC	2046	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it mu the product's refrig	t a recycling station or with the installation en ist be sent correctly to a waste station or rese gerant, compressor oil and electrical/electroni old waste is not permitted.	ller offering a ser	vice of that type.	It is of grea