

Model(s):	CTC EcoAir 410 + CTC EcoLogic						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	149	%			
Equipped with a supplementary heater:	No	Package efficiency class:		-			
Heat pump combination heater:	No						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	η_{s}	145	%
Declared capacity for heating for and outdoor temperature T j	or part load at in	door temperat	ture 20 °C	Declared coefficient of performal part load at indoor temperature 2	-		
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	8,0	kW	T j = +2 °C	COPd	2,62] -
T j = + 7 °C	Pdh	10,6	kW	T j = +7 °C	COPd	3,39	-
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,69	
Γ j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,76	-
Γ j = operation limit temperature	Pdh	8,1	kW	T j = operation limit temperature	COPd	2,40	-
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 _{biv}	3	°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	55	°C
Power consumption in modes o	other than active	mode	•	Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P_{TO}	0,013	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q_{HE}	3227	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile		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 productimportance that t	ct's life cycle, it m the product's refr	at a recycling station or with the installation eng nust be sent correctly to a waste station or resell rigerant, compressor oil and electrical/electronic hold waste is not permitted.	er offering a ser	vice of that type	e. t is of gre
Contact details (CTC AB, Näsväge			·		F0003	231218



Model(s):	CTC EcoAir 410 + CTC EcoLogic							
Air-to-water heat pump:	Yes	Energy efficiency class:		-				
Water-to-water heat pump:	No	Controller class:	VII	-				
Brine-to-water heat pump:	No	Controller contribution:	3,5	%				
Low-temperature heat pump:	No	Package efficiency:	193	%				
Equipped with a supplementary heater:	No	Package efficiency class:		-				
Heat pump combination heater:	No							

Rated heat output (*) Proted 10 kW Seasonal space heating energy efficiency Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j T = -7 °C Pdh Ra Na KW T = +2 °C Pdh Ra Na Seasonal space heating energy efficiency T = -7 °C Pdh Ra Na KW T = -7 °C Pdh Ra Na Seasonal space heating energy efficiency T = -7 °C COPd Ra Na Na Na Na Na Na Na N	Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
$T_j = -7 ^{\circ} C \qquad Pdh \qquad na \\ T_j = +2 ^{\circ} C \qquad Pdh \qquad 8,9 \\ T_j = +2 ^{\circ} C \qquad Pdh \qquad 11,6 \\ NW \qquad T_j = +2 ^{\circ} C \qquad COPd \qquad 3,72 \\ T_j = +12 ^{\circ} C \qquad Pdh \qquad 13,9 \\ T_j = +12 ^{\circ} C \qquad Pdh \qquad 13,9 \\ T_j = +12 ^{\circ} C \qquad Pdh \qquad 13,9 \\ T_j = +12 ^{\circ} C \qquad Pdh \qquad 13,9 \\ T_j = +12 ^{\circ} C \qquad COPd \qquad 4,84 \\ T_j = +12 ^{\circ} C \qquad COPd \qquad 4,84 \\ T_j = +12 ^{\circ} C \qquad COPd \qquad 4,83 \\ T_j = -15 ^{\circ} C \qquad COPd \qquad 6,07 \\ T_j = \text{bivalent temperature} \qquad Pdh \qquad 9,1 \\ T_j = \text{operation limit} \qquad COPd \qquad 3,83 \\ T_j = -15 ^{\circ} C \qquad Ciff TOL < -20 ^{\circ} C) \qquad Pdh \qquad na \\ NW \qquad T_j = \text{operation limit} \qquad COPd \qquad 3,87 \\ T_j = -15 ^{\circ} C \qquad Ciff TOL < -20 ^{\circ} C) \qquad Pdh \qquad na \\ NW \qquad T_j = \text{operation limit} \qquad COPd \qquad 3,87 \\ T_j = -15 ^{\circ} C \qquad Ciff TOL < -20 ^{\circ} C) \qquad Pdh \qquad na \\ NW \qquad For air-to-water heat pumps: \\ T_j = -15 ^{\circ} C \qquad Ciff TOL < -20 ^{\circ} C) \qquad na \\ NW \qquad For air-to-water heat pumps: \\ T_j = -15 ^{\circ} C \qquad Ciff TOL < -20 ^{\circ} C) \qquad na \\ NW \qquad Cycling interval efficiency \qquad COPcy \\ NW \qquad CYcling interval effic$	Rated heat output (*)	Prated	10	kW	1	η_s	189	%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		or part load at i	ndoor temperat	ture 20 °C				
T j = + 7 °C Pdh 13,9 kW T j = + 7 °C COPd 4,84 T j = + 12 °C COPd 5,07 T j = bivalent temperature Pdh 9,1 kW T j = poperation limit temperature Pdh 9,3 kW T j = operation limit temperature Por 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) Pdh na kW Cycling interval capacity for heating Degradation co-efficient Cdh 0,98 - Heating water operating limit temperature Power consumption in modes other than active mode Off mode P or 0,018 kW Standby mode P s 0,0018 kW Cycling interval efficiency CoPcyc na heating water operating limit temperature Capacity control Fixed Fixed For air-to-water heat pumps: Capacity control Fixed For air-to-water heat pumps: Capacity control Fixed For air-to-water heat pumps: Capacity consumption of the proof of a position of the proof of air-to-water heat pumps: Capacity control Fixed For air-to-water heat pumps: Capacity control Fixed Fixed For air-to-water heat pumps: Capacity control Fixed Fixed For air-to-water heat pumps: Capacity control Fixed	Tj=-7°C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = +12 °C	T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	3,72	-
T j = bivalent temperature	T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	4,84	-
T j = operation limit temperature Pah Pah Pah Pah Pah Pah Pah Pa	T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	6,07	-
temperature Pan Sy,3 KW temperature	T j = bivalent temperature	Pdh	9,1	kW	T j = bivalent temperature	COPd	3,83	-
T j = -15 °C (if TOL < -20 °C) Bivalent temperature T biv 3 °C Cycling interval capacity for heating Degradation co-efficient Cdh O,98 - Power consumption in modes other than active mode Off mode P off T point Cycling interval efficiency Cycling interval efficien		Pdh	9,3	kW		COPd	3,87	-
Cycling interval capacity for heating Degradation co-efficient Cdh O,98 Dewer consumption in modes other than active mode Off mode Porf O,018 KW Standby mode Porf O,0018 KW Crankcase heater mode Other items Capacity control Fixed Fixed For air-to-water heat pumps: Rated air flow rate, outdoors Outdoors Annual energy consumption Annual electricity Declared load profile Daily electricity Operation limit temperature Cycling interval efficiency Rated heat output (*) Psup O,7 Type of energy input Electric 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 For heat pump combination heater: Declared load profile Na Water heating energy efficiency Ina Annual electricity consumption AFC Na Annual fuel consumption AFC Na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management or correct waste management o		Pdh	na	kW		COPd	na	-
heating Degradation co-efficient Cdh O,98 - Heating water operating limit temperature Supplementary heater Supplementary heater Rated heat output (*) Psup O,7 Fixed Type of energy input Electric For air-to-water heat pumps: Rated air flow rate, outdoors Annual energy consumption Party heating water operating limit temperature Supplementary heater Rated heat output (*) Psup O,7 Fixed 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 For heat pump combination heater: Declared load profile na Daily electricity consumption Qelec Annual electricity CDecyc Ana RW Heating water operating limit temperature Supplementary heater Rated heat output (*) Psup O,7 Type of energy input Electric For water-/brine-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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily fuel consumption Qfuel na Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management	Bivalent temperature	T _{biv}	3	°C		TOL	2	°C
Power consumption in modes other than active mode Off mode		P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Off mode	Degradation co-efficient	Cdh	0,98	-		WTOL	55	°C
Thermostat-off mode Standby mode P 58 Q,018 RW Type of energy input Electric 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Pwh Nwh Nanual electricity consumption Qelec Na NWh Daily fuel consumption AFC Na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management.	Power consumption in modes	other than activ	e mode		Supplementary heater			_
Standby mode Crankcase heater mode P SB Q,0018 KW Crankcase heater mode P CK Q,0000 KW Type of energy input Electric For air-to-water heat pumps: Rated air flow rate, outdoors Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoors pumps: Rated brine or water pumps: Rated	Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,7	kW
Crankcase heater mode P CK O,000 kW Other items Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoors The packaging must be deposited at a recycling station or with the installation engineer for correct waste management Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management The packaging must be deposited at a recycling station or with the installation engineer for correct waste management.	Thermostat-off mode	P _{TO}	0,041	kW				
Other items Capacity control Fixed For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoo	Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile	Crankcase heater mode	P _{CK}	0,000	kW				
Sound power level, indoors/ outdoors Annual energy consumption Outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Outdoors Awh Outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Outdoors Awh Outdoors Awh Outdoors Are heating energy efficiency Offuel Na Annual electricity consumption Outdoors Are na Annual electricity Consumption Are na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management waste management.	Other items						-	-
outdoors Annual energy consumption QHE 2734 AWh Pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile Daily electricity consumption Qelec Annual electricity AEC na RWh Mater heating energy efficiency Daily fuel consumption Qfuel Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management.	Capacity control		Fixed			-	4100	m3/h
Annual energy consumption QHE 2734 kWh exchanger - na For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na Annual electricity consumption AEC na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management.		L _{WA}	na/58	dB	pumps: Rated brine or water			
Declared load profile na Water heating energy efficiency Daily electricity consumption Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management.	Annual energy consumption	Q _{HE}	2734	kWh	1 1	-	na	m3/h
Daily electricity consumption Annual electricity consumption Qelec na kWh Daily fuel consumption Application Annual fuel consumption Application Application Application Application The packaging must be deposited at a recycling station or with the installation engineer for correct waste management	For heat pump combination he	ater:						
Annual electricity consumption AEC na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste management of the packaging must be deposited at a recycling station or with the installation engineer for correct waste must be deposited at a recycling station or with the installation engineer for correct waste must be deposited at a recycling station or with the installation engineer for correct waste must be deposited at a recycling station or with the installation engineer for correct waste must be deposited at a recycling station or with the installation engineer for correct waste must be deposited at a recycling station or with the installation engineer for correct waste must be deposited at a recycling station or with the installation engineer for correct waste must be deposited at a recycling station or with the installation engineer for correct wast	Declared load profile		na			η_{wh}	na	%
Consumption AEC na KWn Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management management and the consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management m	Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
	· ·	AEC			·		ļ	GJ
of life information: importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed Disposing of the product as household waste is not permitted.	l '		end of the production	ct's life cycle, it m the product's refr	nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic	ler offering a se	rvice of that type	e. t is of great



Model(s):	CTC EcoAir 410 + CTC EcoLogic						
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	131	%			
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	9	kW	Seasonal space heating energy efficiency	η_s	127	%
Declared capacity for heating f	or part load at in	door temperat	ture 20 °C	Declared coefficient of performa	nce or prima	ary energy rat	io for
and outdoor temperature T j				part load at indoor temperature	20 °C and οι	utdoor tempe	rature T
T j = - 7 °C	Pdh	7,1	kW	T j = - 7 °C	COPd	2,35] -
T j = + 2 °C	Pdh	8,6	kW	T j = +2 °C	COPd	3,17] -
T j = + 7 °C	Pdh	11,4	kW	T j = +7 °C	COPd	4,29] -
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	5,23	-
T j = bivalent temperature	Pdh	7,1	kW	T j = bivalent temperature	COPd	2,35	-
T j = operation limit temperature	Pdh	6,4	kW	T j = operation limit temperature	COPd	2,04	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	N/A	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	N/A	-
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cych}	N/A	kW	Cycling interval efficiency	СОРсус	N/A	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,1	kW
Thermostat-off mode	P_{TO}	0,018	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	N/A /58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5403	kWh	flow rate, outdoor heat exchanger	-	N/A	m3/h
For heat pump combination he	ater:						
Declared load profile		N/A		Water heating energy efficiency	η_{wh}	N/A	%
Daily electricity consumption	Qelec	N/A	kWh	Daily fuel consumption	Qfuel	N/A	kWh
Annual electricity consumption	AEC	N/A	kWh	Annual fuel consumption	AFC	N/A	GJ
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it m the product's refi	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic hold waste is not permitted.	er offering a se	rvice of that type	. t is of grea

F0003

Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature

CTC AB Ljungby



Model(s):	CTC EcoAir 410	- CTC EcoLogic		
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VII	-
Brine-to-water heat pump:	No	Controller contribution:	3,5	%
Low-temperature heat pump:	No	Package efficiency:	158	%
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-
Heat pump combination heater:	No			

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	154	%
Declared capacity for heating for and outdoor temperature T j	or part load at ir	ndoor tempera	ture 20°C	Declared coefficient of performal part load at indoor temperature	•		
Tj=-7°C	Pdh	7,4	kW	T j = - 7 °C	COPd	3,25] -
T j = + 2 °C	Pdh	9,0	kW	T j = +2 °C	COPd	3,94] -
T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	5,08	_
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,23	
T j = bivalent temperature	Pdh	7,8	kW	T j = bivalent temperature	COPd	3,42	-
T j = operation limit temperature	Pdh	6,1	kW	T j = operation limit temperature	COPd	2,97	-
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 _{biv}	-5	°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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than active	e mode	•	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,9	kW
Thermostat-off mode	P_{TO}	0,041	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5063	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ater:						
Declared load profile		na		Water heating energy efficiency	η_{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 production	ct's life cycle, it n the product's ref	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	e. t is of great
Contact details (CTC AB, Näsväge	en 8, SE-341 34	Ljungby Tel +	-46 372 88000 www.ctc.se		F0003	231218

Information for heat pump space heaters and heat pump combination heaters

CTC AB



Cold climate and Medium	temperature				Ljungby		
Model(s):		CTC EcoAir 4	10 + CTC EcoL	ogic			
Air-to-water heat pump:		Yes		Energy efficiency class:		=	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		No		Controller contribution:	3,5	%	
Low-temperature heat pump):	No		Package efficiency:	113	%	
Equipped with a supplement	ary heater:	No		Package efficiency class:		-	
Heat pump combination hear Parameters shall be declared parameters shall be declared	for medium-temp		•	for low-temperature heat pumps. F	or low- tempo	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η_{s}	% erature heat p Value 109	%
Declared capacity for heating	•	door tempera	ture 20 °C	Declared coefficient of perform	•	, 0,	

item	Зуппрог	value	Ullit	item	Зуппрот	value	Offic
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η_{s}	109	%
Declared capacity for heating fand outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	-		
T j = -7 °C	Pdh	6,9	kW	T j = - 7 °C	COPd	2,56] -
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	3,28	1 -
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	4,25] -
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	5,21	-
T j = bivalent temperature	Pdh	5,5	kW	T j = bivalent temperature	COPd	2,13	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,50	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,95	-
Bivalent temperature	T _{biv}	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°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	55	°C
Power consumption in modes	other than activ	e mode	-	Supplementary heater			=
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	P_{TO}	0,013	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							=
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6381	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile		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				at a recycling station or with the installation en nust be sent correctly to a waste station or rese	-	-	

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. t is o 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.

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**

CTC AB Ljungby



Model(s):	CTC EcoAir 41	CTC EcoAir 410 + CTC EcoLogic						
Air-to-water heat pump:	Yes	Energy efficiency class:		-				
Water-to-water heat pump:	No	Controller class:	VII	-				
Brine-to-water heat pump:	No	Controller contribution:	3,5	%				
Low-temperature heat pump:	No	Package efficiency:	140	%				
Equipped with a supplementary heater:	No	Package efficiency class:		-				
Heat pump combination heater:	No							

Thermostat-off mode Standby mode Pro O,041 kW Standby mode Pro O,000 kW Type of energy input 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 For heat pump combination heater: Declared load profile Daily electricity consumption Qelec Annual electricity Consumption Qelec Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Ina Water heating energy efficiency Daily fuel consumption Qfuel Rate Rated brine or water Pro Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat Pumps: Rated brine or water Pro Rated air flow rate, outdoors For water-/brine-to-water heat Pumps: Rated brine or water Pro Rated air flow rate, outdoors For water-/brine-to-water heat Pumps: Rated brine or water Pro Rated air flow rate, outdoors For water-/brine-to-water heat Pumps: Rated brine or water Pro Rated air flow rate, outdoors Paulon Paulon Placed air flow rate, outdoors Paulon Paulon Paulon Placed air flow rate, outdoors Paulon	Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
$T = -7 ^{\circ} C \qquad Pdh \qquad 7.5 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 9.1 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 9.1 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 11.8 \qquad kW \qquad T = -7 ^{\circ} C \qquad COPd \qquad 3.41 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 11.8 \qquad kW \qquad T = + 2 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = + 12 ^{\circ} C \qquad Pdh \qquad 11.8 \qquad kW \qquad T = + 2 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = + 12 ^{\circ} C \qquad Pdh \qquad 1.8 \qquad kW \qquad T = + 12 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ} C \qquad COPd \qquad 7.4 \\ T = -7 ^{\circ}$	Rated heat output (*)	Prated	7	kW	1	η_s	136	%
T = +2 °C		or part load at i	ndoor temperat	ture 20 °C				
T j = +7 °C Pdh 11,8 kW T j = +7 °C COPd 5,21 T j = bivalent temperature Pdh 5,9 kW T j = +12 °C COPd 6,20 T j = bivalent temperature Pdh 5,9 kW T j = +12 °C COPd 6,20 T j = bivalent temperature Pdh 5,9 kW T j = +12 °C COPd 2,95 T j = operation limit temperature Pdh 4,1 kW temperature COPd 2,95 T j = operation limit temperature For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 5,7 kW F or air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Por air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) COPd 2,74 For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) COPd 2,74 For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) COPd 2,74 For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) COPd 2,74 For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) COPd 2,74 Coperation limit temperature COPd 2,07 COPd 2,74 For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C) T	Tj=-7°C	Pdh	7,5	kW	T j = - 7 °C	COPd	3,41] -
T j = +12 °C	T j = + 2 °C	Pdh		kW	T j = +2 °C	COPd] -
T j = bivalent temperature Pdh 5,9 kW T j = bivalent temperature COPd 2,95 T j = operation limit temperature Pdh 4,1 kW T j = operation limit temperature COPd 2,07 For air-to-water heat pumps: T j = -15 °C (if TOL < - 20 °C) Pdh 5,7 kW T j = -15 °C (if TOL < - 20 °C) COPd 2,74 Bivalent temperature T biv -14 °C For air-to-water heat pumps: T j = -15 °C (if TOL < - 20 °C) Pdh 5,7 kW T j = -15 °C (if TOL < - 20 °C) COPd 2,74 Bivalent temperature T biv -14 °C Operation limit temperature TOL -22 Cycling interval capacity for heating Pcych na kW Cycling interval efficiency COPcyc na Heating water operating limit temperature Off mode Porr 0,018 kW Standby mode Porr 0,001 kW Standby mode Porr 0,004 kW Standby mode Porr 0,000 kW Type of energy input Electric Capacity control Fixed For air-to-water heat pumps: Rated air flow rate, outdoors Rated air flow rate, outdoors For water flow rate, outdoors For water flow rate, outdoors For water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exchanger Told pumps: Rated brine or water flow rate, outdoor heat exch	T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	5,21	-
T j = operation limit temperature Pdh 4,1 kW T j = operation limit temperature For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 5,7 kW For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 5,7 kW For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 ToL 2-22 Cycling interval efficiency COPcc na Heating water operating limit WTOL 55 Emperature Supplementary heater Rated heat output (*) Psup	T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,20	-
temperature Part A,1 RW temperature	T j = bivalent temperature	Pdh	5,9	kW	T j = bivalent temperature	COPd	2,95	-
Tj = -15 °C (if TOL < -20 °C) Bivalent temperature T biv -14 °C For air-to-water heat pumps: Operation limit temperature T Cycling interval capacity for heating Degradation co-efficient C Chh O,97 - Heating water operating limit temperature C Cycling interval efficiency C COPCyc na Heating water operating limit temperature WTOL 55 Degradation co-efficient C Chh O,97 - Dower consumption in modes other than active mode Off mode P OFF O,018 RW Thermostat-off mode P OFF O,041 RW Standby mode P SS O,018 RW Type of energy input Electric For air-to-water heat pumps: Acted air flow rate, outdoors Fixed Sound power level, indoors/ Other items Capacity control Fixed Torair-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated air flow rate, outdoors For water, brine-to-water heat pumps: Rated pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency The packaging must be deposited at a recycling station or with the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reselier offering a service of that type. It is		Pdh	4,1	kW		COPd	2,07	-
Cycling interval capacity for heating Degradation co-efficient Cdh O,97 Degradation co-efficient Cycling interval efficiency Interporative Cycling interval efficiency Cycling interval efficiency Interporative Cycling i		Pdh	5,7	kW		COPd	2,74	-
heating	Bivalent temperature	T _{biv}	-14	°C	1 1	TOL	-22	°C
Power consumption in modes other than active mode Off mode Poff O,018 NW Thermostat-off mode Poff O,0018 NW Type of energy input Fixed For air-to-water heat pumps: Rated air flow rate, outdoors Annual energy consumption Poff heat pump combination heater: Declared load profile Daily electricity consumption Qelec Annual electricity Consumption AEC The packaging must be deposited at a recycling station or with the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. 1is		P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	_
Off mode	Degradation co-efficient	Cdh	0,97	-		WTOL	55	°C
Thermostat-off mode Standby mode Standby mode Pro O,041 kW Standby mode Pro O,018 kW Other items Capacity control Fixed 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Annual fuel consumption AEC na kWh Annual fuel consumption or reseller offering a service of that type. t is The packaging must be deposited at a recycling station or wist the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is	Power consumption in modes	other than activ	e mode		Supplementary heater			_
Standby mode P SB Q,018 RW Type of energy input Electric 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Paily electricity consumption Qelec Na RWh Daily fuel consumption AFC Na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is	Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	3,4	kW
Crankcase heater mode Pck O,000 kW Other items Capacity control Fixed 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Pumb Pally electricity consumption Qelec Na Na Na Na Na Na Na Na Na N	Thermostat-off mode	P_{TO}	0,041	kW				
Other items Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoors flow rate, outdoors na kWh Annual electricity onsumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management and 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	Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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.	Crankcase heater mode	P _{CK}	0,000	kW				
Sound power level, indoors/ outdoors Annual energy consumption Declared load profile Daily electricity consumption AEC na kWh Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Mater heating energy efficiency Daily fuel consumption Annual fuel consumption April 100 Mater heating energy efficiency Daily fuel consumption April 100 Mater heating energy efficiency Daily fuel consumption April 100 Mater heating energy efficiency Daily fuel consumption April 100 Mater heating energy efficiency Daily fuel consumption April 100 Apri	Other items						-	-
outdoors Annual energy consumption QHE 5337 kWh To heat pump combination heater: Declared load profile Daily electricity consumption Qelec Annual electricity Consumption AEC The packaging must be deposited at a recycling station or with the installation engineer for correct waste management send 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	Capacity control		Fixed		1 1	-	4100	m3/h
Annual energy consumption Q_{HE} 5337 kWh exchanger - na na nexchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na kWh Annual electricity consumption AEC na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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		L _{WA}	na/58	dB	1 1			
Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption AFC na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Annual energy consumption	Q _{HE}	5337	kWh	1 1	-	na	m3/h
Daily electricity consumption Qelec na kWh Daily fuel consumption Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management specific precautions and end The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	For heat pump combination he	ater:						
Annual electricity consumption AEC na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Declared load profile		na			η_{wh}	na	%
The packaging must be deposited at a recycling station or with the installation engineer for correct waste management specific precautions and end Specific precautions and end AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Specific precautions and end end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is	·	AEC					ļ	GJ
Disposing of the product as household waste is not permitted.	Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it m the product's refr	nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic	ler offering a se	rvice of that type	. t is of great



Information for heat pump	p space heaters a	and heat pum	on heaters	CICAB		5	
Warm climate and Mediu	m temperature				Ljungby		<u> </u>
Model(s):		CTC EcoAir 41	LO + CTC EcoZ	enith i255			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		No		Controller contribution:	3,5	%	
Low-temperature heat pump) :	No		Package efficiency:	136	%	
Equipped with a supplement	ary heater:	Yes		Package efficiency class:		-	
Heat pump combination hea	ter:	Yes	•				
parameters shall be declared		• • • • • • • • • • • • • • • • • • • •		for low-temperature heat pumps. Item	Symbol	Value	U
Rated heat output (*)	Prated	10	kW	Seasonal space heating energ efficiency	γ η _s	132	9
Declared capacity for heating and outdoor temperature T j	•	ndoor tempera	ture 20 °C	Declared coefficient of perform	•	, ,,	
Tj=-7°C	Pdh	na	kW	T j = - 7 °C	COPd	na	1
T j = + 2 °C	Pdh	8,0	kW	T j = +2 °C	COPd	2,37	j
T j = + 7 °C	Pdh	10,6	kW	T j = +7 °C	COPd	3,15	_
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,37	

T j = - 7 °C	Pdh	na	kW				
T j = + 2 °C	Pdh	8,0	kW				
T j = + 7 °C	Pdh	10,6	kW				
T j = + 12 °C	Pdh	13,1	kW				
T j = bivalent temperature	Pdh	8,6	kW				
T j = operation limit temperature	Pdh	8,1	kW				
For air-to-water heat pumps: $T j = -15 ^{\circ}\text{C} \text{ (if TOL } < -20 ^{\circ}\text{C)}$	Pdh	na	kW				
Bivalent temperature	T _{biv}	4	°C				
Cycling interval capacity for heating	P cych	na	kW				
Degradation co-efficient	Cdh	0,98	-				
Power consumption in modes other than active mode							
Off mode	P OFF	0,018	kW				
Thermostat-off mode	P _{TO}	0,030	kW				

Standby mode	P _{SB}	0,018	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other items			
Capacity control		Fixed	
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB

 Q_{HE}

part load at indoor temperature	•		
T j = - 7 °C	COPd	na	-
T j = +2 °C	COPd	2,37	-
T j = +7 °C	COPd	3,15	-
T j = +12 °C	COPd	4,37	-
T j = bivalent temperature	COPd	2,63	-
T j = operation limit temperature	COPd	2,15	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	СОРсус	na	-
Heating water operating limit temperature	WTOL	55	°C
Supplementary heater			_
Rated heat output (*)	Psup	2,0	kW
Type of energy input		Electric	
	-		1
For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h

For air-to-water heat pumps:	4100	m3/h
For water-/brine-to-water heat pumps: Rated brine or water		
flow rate, outdoor heat exchanger	na	m3/h

Annual energy consumption

Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	70	%
Daily electricity consumption	Qelec	6,622	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1457	kWh	Annual fuel consumption	AFC	NA	GJ

kWh

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. t 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.

3971



Model(s):	CTC EcoAir 410 + C	TC EcoZenith i255		
Air-to-water heat pump:	Yes	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	VII	-
Brine-to-water heat pump:	No	Controller contribution:	3,5	%
Low-temperature heat pump:	No	Package efficiency:	166	%
Equipped with a supplementary heater:	Yes	Package efficiency class:		-
Heat pump combination heater:	Yes			

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	162	%
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
Tj=-7°C	Pdh	na	kW	T j = -7 °C	COPd	na] -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	3,26] -
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	4,38	-
T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	5,56	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	3,46	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	3,41	-
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 _{biv}	4	°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	0,94	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	ve mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,0	kW
Thermostat-off mode	P _{TO}	0,096	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3512	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	70	%
Daily electricity consumption	Qelec	6,622	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1457	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	ct's life cycle, it m the product's refr	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic hold waste is not permitted.	ler offering a se	rvice of that type	. t is of great
Contact details	CTC AR Nacyar			·		E0003	221210

Information for heat pump space heaters and heat pump combination heaters **Average climate and Medium temperature**

CTC AB Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith i255					
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-		
Water-to-water heat pump:	No	Controller class:	VII	-		
Brine-to-water heat pump:	No	Controller contribution:	3,5	%		
Low-temperature heat pump:	No	Package efficiency:	135	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-		
Heat pump combination heater:	Yes					

ltem	Symbol	Value	Unit	Item	Symbol	Value	Uni
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	131	%
Declared capacity for heating for and outdoor temperature T j	or part load at ir	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature	•		
T j = - 7 °C	Pdh	7,7	kW	T j = - 7 °C	COPd	2,59] -
T j = + 2 °C	Pdh	9,6	kW	T j = +2 °C	COPd	3,47] -
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	4,16	-
T j = + 12 °C	Pdh	13,6	kW	T j = +12 °C	COPd	4,89	_
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,92	-
T j = operation limit temperature	Pdh	6,9	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 _{biv}	-4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°(
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°(
Power consumption in modes of	other than active	e mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	2,6	kV
Thermostat-off mode	P_{TO}	0,030	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		•]			_
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3,
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5826	kWh	flow rate, outdoor heat exchanger	-	na	m3,
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	В	Water heating energy efficiency	η_{wh}	59	%
Daily electricity consumption	Qelec	7,969	kWh	Daily fuel consumption	Qfuel	NA	kW
Annual electricity consumption	AEC	1753	kWh	Annual fuel consumption	AFC	NA	G.
Specific precautions and end of life information:		end of the production importance that t	t's life cycle, it n he product's ref	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a sei	rvice of that type	. t is of

Information for heat pump space h	CTC AB			
Average climate and Low tempera	Ljungby			
Model(s):	CTC EcoAir 410 +	CTC EcoZenith i255		
Air-to-water heat pump:	Yes	Energy efficiency class:	A+ -	



Model(s):	CTC EcoAir 410 + CTC EcoZenith i255						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	134	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-			
Heat pump combination heater:	Yes						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	130	%	
Declared capacity for heating f and outdoor temperature T j	or part load at ir	ndoor temperat	ture 20 °C	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T				
Tj=-7°C	Pdh	7,4	kW	T j = - 7 °C	COPd	2,77] -	
T j = + 2 °C	Pdh	9,0	kW	T j = +2 °C	COPd	3,43	-	
T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	4,57	-	
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,69	-	
T j = bivalent temperature	Pdh	14,0	kW	T j = bivalent temperature	COPd	3,01	-	
T j = operation limit temperature	Pdh	7,9	kW	T j = operation limit temperature	COPd	2,51	-	
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 _{biv}	-4	°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	0,94	-	Heating water operating limit temperature	WTOL	55	°C	
Power consumption in modes	other than active	e mode	_	Supplementary heater				
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,7	kW	
Thermostat-off mode	P_{TO}	0,096	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	P _{CK}	0,000	kW					
Other items] [-	
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	6399	kWh	flow rate, outdoor heat exchanger	-	na	m3/h	
For heat pump combination he	eater:							
Declared load profile	L	Efficiency class	В	Water heating energy efficiency	η_{wh}	59	%	
Daily electricity consumption	Qelec	7,969	kWh	Daily fuel consumption	Qfuel	NA	kWh	
Annual electricity consumption	AEC	1753	kWh	Annual fuel consumption	AFC	NA	GJ	
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it m the product's refr	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic hold waste is not permitted.	ller offering a se	rvice of that type	. t is of great	

Cold climate and Medium temperature

CTC AB Ljungby

CIC

Model(s):	CTC EcoAir 410 + CTC EcoZenith i255						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	100	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η _s	96	%
Declared capacity for heating for and outdoor temperature T j	or part load at	indoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature i			
T j = -7 °C	Pdh	6,9	kW	T j = - 7 °C	COPd	2,31] -
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	2,96] -
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	3,90] -
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	4,82	
T j = bivalent temperature	Pdh	6,5	kW	T j = bivalent temperature	COPd	2,18	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,25	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,67	-
Bivalent temperature	T _{biv}	-9	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than acti	ve mode		Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	6,3	kW
Thermostat-off mode	P_{TO}	0,030	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		,					
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9752	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	52	%
Daily electricity consumption	Qelec	9,017	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1984	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	t's life cycle, it m that the product	at a recycling station or with the installation enginust be sent correctly to a waste station or resel's refrigerant, compressor oil and electrical/electhold waste is not permitted.	ler offering a se	rvice of that type	e. t is of
Contact details C	TC AB, Näsväg			· · · · · · · · · · · · · · · · · · ·		F0003	231218

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**

CTC AB Ljungby



Model(s):	CTC EcoAir 410 +	CTC EcoZenith i255			
Air-to-water heat pump:	Yes	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	No	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	116	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:		-	
Heat pump combination heater:	Yes				

Item	Symbol	Value	Unit	Item	Symbol	Value	Uı
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	112	ç
Declared capacity for heating for and outdoor temperature T j	or part load at ir	idoor temperat	ure 20 °C	Declared coefficient of performa part load at indoor temperature	•		
T j = - 7 °C	Pdh	7,5	kW	T j = - 7 °C	COPd	2,92	1
T j = + 2 °C	Pdh	9,1	kW	T j = +2 °C	COPd	3,54	
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	4,68	ļ
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,67	
T j = bivalent temperature	Pdh	6,8	kW	T j = bivalent temperature	COPd	2,73	
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	1,61	
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	5,7	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,24	
Bivalent temperature	T _{biv}	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	,
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	
Degradation co-efficient	Cdh	0,94	-	Heating water operating limit temperature	WTOL	55	•
Power consumption in modes o	other than active	mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	5,9	k
Thermostat-off mode	P _{TO}	0,096	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		-					7
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m.
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	8586	kWh	flow rate, outdoor heat exchanger	-	na	m.
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	52	
Daily electricity consumption	Qelec	9,017	kWh	Daily fuel consumption	Qfuel	NA	k۱
Annual electricity consumption	AEC	1984	kWh	Annual fuel consumption	AFC	NA	(
Specific precautions and end of life information:		end of the productimportance that t	t's life cycle, it n he product's refi	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is o



			-,	,	
Model(s):	CTC EcoAir 410 +	CTC EcoAir 410 + CTC EcoZenith i555			
Air-to-water heat pump:	Yes	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	No	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	136	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:		-	
Heat pump combination heater:	Yes				

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	9	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	132	%
Declared capacity for heating fooutdoor temperature T j	or part load at ir	idoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	8,0	kW	T j = +2 °C	COPd	2,37] -
T j = + 7 °C	Pdh	10,6	kW	T j = +7 °C	COPd	3,11	-
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,34	-
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,50	-
T j = operation limit temperature	Pdh	8,1	kW	T j = operation limit temperature	COPd	2,15	-
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 _{biv}	3	°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	55	°C
Power consumption in modes o	ther than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P _{TO}	0,024	kW				-
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		1	<u>!</u>				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3526	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ater:			-			
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	85	%
Daily electricity consumption	Qelec	9,006	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1981	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product	's life cycle, it must e product's refrige	recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ed	offering a service	e of that type. t	is of great

of the product as household waste is not permitted.

www.ctc.se

F0003 231218



Warm climate and Low temperature			Ljungby		CIC
Model(s):	CTC EcoAir 410 +	CTC EcoZenith i555			
Air-to-water heat pump:	Yes	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	No	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	170	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:		-	
Heat pump combination heater:	Yes				

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	166	%
Declared capacity for heating fo outdoor temperature T j	or part load at i	ndoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	4,24	-
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	3,26	-
T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	4,35	-
T j = bivalent temperature	Pdh	9,1	kW	T j = bivalent temperature	COPd	5,55	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	3,36	-
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	3,41	-
Bivalent temperature	T _{biv}	3	°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	0,96	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	other than activ	e mode	_	Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P _{TO}	0,073	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		· ·	!				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3099	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ater:	-	•	· · ·	'	-	-
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	85	%
Daily electricity consumption	Qelec	9,006	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1981	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product	's life cycle, it must e product's refrige	recycling station or with the installation enging t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ed	offering a servic	e of that type. t	is of great

of the product as household waste is not permitted.

CTC AB, Näsvägen 8, SE-341 34 Ljungby Tel +46 372 88000 F0003 231218 Contact details www.ctc.se

Information for heat pump space heaters and heat pump combination heaters

CTC AB Ljungby



Average climate and Medium tempera	·			у	CIC
Model(s):	CTC EcoAir 410 +	CTC EcoZenith i555			
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	No	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	114	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-	
Heat pump combination heater:	Yes				

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

parameters shall be declared for Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	η _s	110	%
Declared capacity for heating fo outdoor temperature T j	or part load at i	indoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = -7 °C	Pdh	6,6	kW	T j = - 7 °C	COPd	2,05] -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	2,97	-
T j = + 7 °C	Pdh	10,8	kW	T j = +7 °C	COPd	3,55	-
T j = + 12 °C	Pdh	12,6	kW	T j = +12 °C	COPd	4,31	-
T j = bivalent temperature	Pdh	7,0	kW	T j = bivalent temperature	COPd	2,30	-
T j = operation limit temperature	Pdh	5,8	kW	T j = operation limit temperature	COPd	1,71	-
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 _{biv}	-4	°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	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	ve mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	P _{TO}	0,024	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<u>.</u>					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6901	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ater:	•	•	· ·			
Declared load profile	XL	Efficiency class	A	Water heating energy efficiency	η_{wh}	89	%
Daily electricity consumption	Qelec	9,230	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2031	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product	's life cycle, it mus e product's refrige	a recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ed not permitted.	offering a service	e of that type. t	is of great

Contact details

CTC AB, Näsvägen 8, SE-341 34 Ljungby Tel +46 372 88000

www.ctc.se

F0003 231218

Information for heat pump space heaters and heat pump combination heaters

CTC AB Ljungby



Average climate and Low temperature				у	CIC	
Model(s):	CTC EcoAir 410 +	CTC EcoZenith i555				
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-		
Water-to-water heat pump:	No	Controller class:	VII	-		
Brine-to-water heat pump:	No	Controller contribution:	3,5	%		
Low-temperature heat pump:	No	Package efficiency:	136	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-		
Heat pump combination heater:	Yes					

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	132	%
Declared capacity for heating for outdoor temperature T j	or part load at i	ndoor temperatu	ire 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = -7 °C	Pdh	7,4	kW	T j = - 7 °C	COPd	2,77] -
T j = + 2 °C	Pdh	9,0	kW	T j = +2 °C	COPd	3,43] -
T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	4,57	_
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,69	-
T j = bivalent temperature	Pdh	7,9	kW	T j = bivalent temperature	COPd	3,01	-
T j = operation limit temperature	Pdh	6,7	kW	T j = operation limit temperature	COPd	2,51	
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 _{biv}	-4	°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	0,95	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	re <u>mode</u>	_	Supplementary heater			,
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	P _{TO}	0,073	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		•	•				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/l
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6320	kWh	flow rate, outdoor heat exchanger	-	na	m3/l
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\sf wh}$	89	%
Daily electricity consumption	Qelec	9,230	kWh	Daily fuel consumption	Qfuel	NA	kWl
Annual electricity consumption	AEC	2031	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end		end of the product	's life cycle, it mus	a recycling station or with the installation enging t be sent correctly to a waste station or reseller rant. compressor oil and electrical/electronic eq	offering a serv	ice of that type. t	is of gre

of life information:

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.

F0003

www.ctc.se

231218



Model(s):	CTC EcoAir 410	+ CTC EcoZenith i555			
Air-to-water heat pump:	Yes	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	No	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	101	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:		-	
Heat pump combination heater:	Yes				

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	9	kW	Seasonal space heating energy efficiency	η_{s}	97	%
Declared capacity for heating fo outdoor temperature T j	r part load at i	ndoor temperatu	ire 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	6,9	kW	T j = - 7 °C	COPd	2,30] -
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	2,95] -
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	3,89] -
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	4,81] -
T j = bivalent temperature	Pdh	6,2	kW	T j = bivalent temperature	COPd	2,10	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,25	_
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	1,67	-
Bivalent temperature	T _{biv}	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	ther than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	5,6	kW
Thermostat-off mode	P _{TO}	0,024	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9015	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	iter:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	η_{wh}	66	%
Daily electricity consumption	Qelec	11,558	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2543	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product	's life cycle, it mus e product's refrige	a recycling station or with the installation engin it be sent correctly to a waste station or reseller grant, compressor oil and electrical/electronic en the not permitted.	offering a service	ce of that type. t	is of great

of the product as household waste is not permitted.

CTC AB, Näsvägen 8, SE-341 34 Ljungby Tel +46 372 88000

Contact details

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**

CTC AB Ljungby



Model(s):	CTC EcoAir 410 +	CTC EcoZenith i555			
Air-to-water heat pump:	Yes	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	No	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	117	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:		-	
Heat pump combination heater:	Yes			_	

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	η_s	113	%
Declared capacity for heating foo outdoor temperature T j	or part load at i	ndoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = -7 °C	Pdh	7,5	kW	T j = - 7 °C	COPd	2,91] -
T j = + 2 °C	Pdh	9,1	kW	T j = +2 °C	COPd	3,54	-
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	4,67	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,67	-
T j = bivalent temperature	Pdh	6,6	kW	T j = bivalent temperature	COPd	2,65	-
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	1,61	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	5,7	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,24	-
Bivalent temperature	T _{biv}	-11	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,95	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	ther than activ	e mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	5,2	kW
Thermostat-off mode	P _{TO}	0,073	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<u>'</u>					
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7894	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ater:	•	•		'	-	-
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	66	%
Daily electricity consumption	Qelec	11,558	kWh	Daily fuel consumption	Qfuel	XL	kWh
Annual electricity consumption	AEC	2543	kWh	Annual fuel consumption	AFC	XL	GJ
Specific precautions and end of life information:		end of the product	's life cycle, it must e product's refrige	recycling station or with the installation engine the sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ed	offering a servic	e of that type. t	is of great

of the product as household waste is not permitted.



Model(s):	CTC EcoAir 410 + CTC Basicstyrning						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	1	-			
Brine-to-water heat pump:	No	Controller contribution:	1	%			
Low-temperature heat pump:	No	Package efficiency:	146	%			
Equipped with a supplementary heater:	No	Package efficiency class:		-			
Heat pump combination heater:	No						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	η_s	145	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ture 20 °C	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	8,0	kW	T j = +2 °C	COPd	2,62] -
T j = + 7 °C	Pdh	10,6	kW	T j = +7 °C	COPd	3,39	-
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,69	-
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,76	-
T j = operation limit temperature	Pdh	8,1	kW	T j = operation limit temperature	COPd	2,40	-
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 _{biv}	3	°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	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P_{TO}	0,013	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items						-	-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3227	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	η_{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 productimportance that t	ct's life cycle, it m the product's refr	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic hold waste is not permitted.	ler offering a se	rvice of that type	. t is of great
Contact details	CTC AD NEW	n 0 CE 2/1 2/		<u> </u>		E0003	221210

 Q_{HE}



m3/h

m3/h

Information for heat pump sp Warm climate and Low temp		ind heat pump combir	nation heaters		CTC AB Ljungby		arc
Model(s):	erature	CTC EcoAir 410 + CTC I	Basicstyrning		Бјиндоу		
Air-to-water heat pump:		Yes	,	Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	1	-	
Brine-to-water heat pump:		No		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	190	%	
Equipped with a supplementary	heater:	No		Package efficiency class:		-	
Heat pump combination heater: Parameters shall be declared for shall be declared for low-temper	medium-temp		ept for low-temp	perature heat pumps. For low- tempe	erature heat p	umps, param	eters
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	189	%
Declared capacity for heating for temperature T j	part load at in	door temperature 20 °C	and outdoor	Declared coefficient of performation load at indoor temperature 20 °			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	7 -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	3,72	_
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	4,84	-
T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	6,07	-
T j = bivalent temperature	Pdh	9,1	kW	T j = bivalent temperature	COPd	3,83	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	3,87	-
For air-to-water heat pumps: $T j = -15 ^{\circ}\text{C}$ (if TOL < $-20 ^{\circ}\text{C}$)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°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	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes ot	her than active	mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P_{TO}	0,041	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Pcr	0.000	kW				

Thermostat-off mode	P_{TO}	0,041	KVV				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	
Sound power level, indoors/ outdoors	L _{WA}	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	2734	kWh	flow rate, outdoor heat	-	na	,

For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	#VÄRDEFEL!	kWh	Annual fuel consumption	AFC	na	GJ

exchanger

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the Specific precautions and end product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t 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 of life information: is not permitted.

CTC AB, Näsvägen 8, SE-341 34 Ljungby Tel +46 372 88000 www.ctc.se F0003 231218 Contact details

Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature

CTC AB Ljungby



Model(s):	CTC EcoAir 410 + CTC Basicstyrning						
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-			
Water-to-water heat pump:	No	Controller class:	1	-			
Brine-to-water heat pump:	No	Controller contribution:	1	%			
Low-temperature heat pump:	No	Package efficiency:	128	%			
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-			
Heat pump combination heater:	No						

Thermostat-off mode Pro O,018 kW Standby mode Pro O,018 kW Type of energy input For air-to-water heat pumps: Rated air flow rate, outdoors Annual energy consumption Pro Pro Pro Pro Pro Pro Pro Pro Pro Pr	Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
$T = -7 ^{\circ} C \qquad Pdh \qquad 7.1 \\ T = -7 ^{\circ} C \qquad Pdh \qquad 8.6 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 8.6 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 8.6 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 8.6 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 11.4 \\ W \qquad T = + 7 ^{\circ} C \qquad COPd \qquad 2.35 \\ T = + 12 ^{\circ} C \qquad Pdh \qquad 13.4 \\ W \qquad T = + 7 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = - 15 ^{\circ} C \qquad COPd \qquad 4.29 \\ T = - 15 ^{\circ} C \qquad COPd \qquad 5.23 \\ T = - 15 ^{\circ} C \qquad (if TOL < -20 ^{\circ} C) \qquad Pdh \qquad N/A \\ W \qquad V \qquad$	Rated heat output (*)	Prated	9	kW	1	η_s	127	%
T = +2 °C		or part load at i	ndoor temperat	ure 20 °C				
T j = +7 °C Pdh 13.4 kW T j = +7 °C COPd 4.29 T j = t22 °C COPd 5.23 T j = bivalent temperature Pdh 7.1 kW T j = +7 °C COPd 5.23 T j = bivalent temperature Pdh 7.1 kW T j = bivalent temperature COPd 2.35 T j = poration limit temperature Pdh 6.4 kW temperature COPd 2.35 T j = operation limit temperature Por air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Bivalent temperature T biv -7 °C For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Cycling interval capacity for heating P cych N/A kW Cycling interval efficiency COPcyc N/A Heating water operating limit temperature Cycling interval capacity for heating N p O.018 kW Thermostat-off mode P o.07 0.018 kW Thermostat-off mode P o.07 0.018 kW Thermostat-off mode P o.0018 kW Type of energy input Electric Crankcase heater mode P correct O.000 kW Type of energy input Electric Capacity control Fixed For water heat pumps: Rated air flow rate, outdoors - Annual energy consumption P o.04E 5.826 kWh Exhanger Towater heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water heat pumps: Rated brine or water flow rate, outdoor heat exhanger Towater heat pumps: Rated brine or water heat pump	T j = -7 °C	Pdh	7,1	kW	T j = - 7 °C	COPd	2,35	7 -
T j = +12 °C	T j = + 2 °C	Pdh	8,6	kW	T j = +2 °C	COPd	3,17] -
T j = bivalent temperature T j = operation limit temperature Pdh G,A KW T j = operation limit temperature Por air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh N/A KW T j = operation limit temperature COPd Z,04 For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Power consumption in modes other than active mode Off mode Porr O,018 KW To air-to-water heat pumps: Operation limit temperature COPd N/A For air-to-water heat pumps: Operation limit temperature ToL -10 Cycling interval efficiency CoPcyc N/A Heating water operating limit temperature WTOL 65 Power consumption in modes other than active mode Off mode Porr O,018 KW Type of energy input Electric For air-to-water heat pumps: Rated heat output (*) Psup Z,1 I ype of energy input Electric For water-/brine-to-water heat pumps: Rated air flow rate, outdoors Annual energy consumption QHE For heat pump combination heater: Declared load profile N/A Water heating energy I on N/A Water heating energy If on N/A Water heating energy If on N/A When having energy Pown N/A Ranual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end	T j = + 7 °C	Pdh	11,4	kW	T j = +7 °C	COPd	4,29] -
T j = operation limit temperature Pdh 6,4 kW T j = operation limit temperature For air-to-water heat pumps: Pdh N/A kW For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Bivalent temperature T biv -7 °C For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Cycling interval capacity for heating metric for mode Cycling interval capacity for heating water operating limit temperature Off mode P orr 0,018 kW Standby mode P ss 0,018 kW Thermostat-off mode P or 0,0018 kW Thermostat-off mode P or 0,0018 kW Thermostat-off mode P or 0,0018 kW Type of energy input Electric Fixed For air-to-water heat pumps: TOL -10 Cycling interval efficiency COPcyc N/A Heating water operating limit wroth 65 Electric Supplementary heater Rated heat output (*) Psup 2,1 metric for air-to-water heat pumps: Rated brine or water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile N/A Annual electricity consumption Qelec N/A kWh Dailly fuel consumption AFC N/A Annual electricity on water flow or resulter offering a service of that type. It is not on the the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or resulter offering a service of that type. It is not on the time of the product's life cycle, it must be sent correctly to a waste station or resulter offering a service of that type. It is not on the product of the type. It is not on the time of the product's life cycle, it must be sent correctly to a waste station or resulter offering a service of that type. It is not on the product of the cycle, it must be sent correctly to a waste station or resulter offering a service of that type. It is not on the product of the cycle, it must be sent correctly to a waste station or resulter offering a service of that type. It is not on the product of the cycle, it must be sent correctly	T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	5,23	-
temperature Pan	T j = bivalent temperature	Pdh	7,1	kW	T j = bivalent temperature	COPd	2,35	-
Tj = -15 °C (if TOL < -20 °C) Bivalent temperature T biv -7 °C For air-to-water heat pumps: Operation limit temperature T Cycling interval capacity for heating Degradation co-efficient Cdh O,99 - Power consumption in modes other than active mode Off mode P orr O,018 kW T j = -15 °C (if TOL < -20 °C) For air-to-water heat pumps: Operation limit temperature Cycling interval efficiency COPCyc N/A Heating water operating limit temperature Supplementary heater Rated heat output (*) Psup 2,1 For air-to-water poerating limit temperature Supplementary heater Rated heat output (*) Psup 2,1 For air-to-water poerating limit temperature For ai		Pdh	6,4	kW		COPd	2,04	-
Cycling interval capacity for heating Degradation co-efficient Cycling interval capacity for heating Degradation co-efficient Cycling interval capacity for heating Degradation co-efficient Cycling interval efficiency N/A Example 1 Electric For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow a		Pdh	N/A	kW		COPd	N/A	-
heating	Bivalent temperature	T _{biv}	-7	°C	1 1	TOL	-10	°C
Power consumption in modes other than active mode Off mode Poff O,018 NW Thermostat-off mode Poff O,018 NW Standby mode Poff O,0018 NW Type of energy input Fixed For air-to-water heat pumps: Rated air flow rate, outdoors Sound power level, indoors/ Outdoors Annual energy consumption Poff heat pump combination heater: Declared load profile N/A Daily electricity consumption Qelec N/A Annual electricity Consumption AEC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. The packaging must be deposited at a recycling station or westler of that type. It is, temperature Supplementary heater Rated heat output (*) Psup 2,1 Type of energy input Electric 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 N/A Water heating energy efficiency The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. The packaging must be deposited at a recycling station or wish the installation engineer for correct waste management. The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. The packaging must be deposited at a recycling station or with the installation engineer for correct waste management.		P _{cych}	N/A	kW	Cycling interval efficiency	СОРсус	N/A	-
Off mode	Degradation co-efficient	Cdh	0,99	-		WTOL	65	°C
Thermostat-off mode Standby mode Standby mode P _{SB} O,018 KW Crankcase heater mode P _{CK} O,000 KW Other items Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate,	Power consumption in modes	other than activ	e mode		Supplementary heater			
Standby mode P SB Q,018 Crankcase heater mode P CK Q,0000 KW Type of energy input Fixed 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 pumps: Rated brine or water flow rate, ou	Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,1	kW
Crankcase heater mode Other items Capacity control Fixed 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 For heat pump combination heater: Declared load profile N/A Daily electricity consumption Qelec N/A Annual electricity Consumption AEC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. 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	Thermostat-off mode	P_{TO}	0,018	kW				
Other items Capacity control Fixed For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or wat	Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile N/A Water heating energy efficiency N/A Annual electricity consumption Qelec N/A Annual electricity consumption AEC N/A Wh Annual fuel consumption AFC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. 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 one 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 one 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 one 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 one 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 one 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 one 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 one 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 one 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 one of the product of th	Crankcase heater mode	P _{CK}	0,000	kW				
Sound power level, indoors/ outdoors Annual energy consumption Outdoor heat exchanger Outdoor heat exchanger In what exchanger Outdoor heat exchanger Outdoor heat exchanger Outdoor heat exchanger Outdoor heat exchanger In what exchanger Outdoor heat exchanger Outd	Other items							_
outdoors Annual energy consumption QHE S826 KWh S826 KWh S826 For heat pump combination heater: Declared load profile N/A Daily electricity consumption Qelec N/A Annual electricity Consumption AEC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end N/A S826 KWh Pumps: Rated brine or water flow rate, outdoor heat exchanger N/A N/A Water heating energy efficiency Daily fuel consumption Qfuel N/A Annual fuel consumption AFC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end	Capacity control		Fixed		1 1	-	4100	m3/h
Annual energy consumption QHE 5826 kWh exchanger For heat pump combination heater: Declared load profile N/A Wh Daily fuel consumption Qfuel N/A kWh Annual electricity consumption Annual electricity AEC N/A kWh Annual fuel consumption AFC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end		L _{WA}	N/A /58	dB	1 1			
Declared load profile N/A Water heating energy efficiency Daily electricity consumption Qelec N/A kWh Daily fuel consumption Qfuel N/A kWh Annual fuel consumption AFC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of the product of the prod	Annual energy consumption	Q _{HE}	5826	kWh	1 1	-	N/A	m3/h
Daily electricity consumption Qelec N/A Annual electricity consumption AEC N/A ANA Wh Daily fuel consumption AFC N/A Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end	For heat pump combination he	ater:						
Annual electricity consumption AEC N/A kWh Annual fuel consumption AFC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end Specific precautions and end	Declared load profile		N/A			$\eta_{\sf wh}$	N/A	%
The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. Specific precautions and end AFC N/A The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. 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	Daily electricity consumption	Qelec	N/A	kWh	Daily fuel consumption	Qfuel	N/A	kWh
Specific precautions and end end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is	·	AEC						GJ
Disposing of the product as household waste is not permitted.	Specific precautions and end of life information:		end of the produc	t's life cycle, it m he product's refr	nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic	ler offering a se	rvice of that type	e. t is of great

Information for heat pump space heaters and heat pump combination heaters **Average climate and Low temperature**

CTC AB Ljungby



Model(s):	CTC EcoAir 410	CTC Basicstyrning			
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-	
Water-to-water heat pump:	No	Controller class:	T	-	
Brine-to-water heat pump:	No	Controller contribution:	1	%	
Low-temperature heat pump:	No	Package efficiency:	155	%	
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-	
Heat pump combination heater:	No		_		

Sound power level, indoors/ outdoors Annual energy consumption Outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Ina Outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Ina Outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Ina Outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor hea	Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
$T = -7 ^{\circ} C \qquad Pdh \qquad 7.4 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 9.0 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 9.0 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 11.7 \\ Pdh \qquad 11.7 \qquad kW \qquad T = -7 ^{\circ} C \qquad COPd \qquad 3.25 \\ T = + 2 ^{\circ} C \qquad Pdh \qquad 11.7 \qquad kW \qquad T = + 2 ^{\circ} C \qquad COPd \qquad 5.08 \\ T = + 12 ^{\circ} C \qquad Pdh \qquad 11.7 \qquad kW \qquad T = + 2 ^{\circ} C \qquad COPd \qquad 5.08 \\ T = + 12 ^{\circ} C \qquad Pdh \qquad 14.0 \qquad kW \qquad T = + 2 ^{\circ} C \qquad COPd \qquad 5.08 \\ T = -15 ^{\circ} C \qquad Pdh \qquad 14.0 \qquad kW \qquad T = + 12 ^{\circ} C \qquad COPd \qquad 6.23 \\ T = \text{bivalent temperature} \qquad Pdh \qquad 6.1 \qquad kW \qquad T = \text{operation limit} \qquad COPd \qquad 3.42 \\ T = operation lim$	Rated heat output (*)	Prated	10	kW	1	η_s	154	%
T j = +2 °C Pdh 11.7 kW T j = +2 °C COPd 5.08 T j = +7 °C Pdh 11.7 kW T j = +7 °C COPd 5.08 T j = +12 °C COPd 5.08 T j = +12 °C COPd 5.08 T j = bivalent temperature Pdh 7.8 kW T j = +12 °C COPd 5.08 T j = bivalent temperature Pdh 6.1 kW T j = bivalent temperature COPd 3.42 T j = operation limit temperature Pdh 6.1 kW T j = operation limit temperature COPd 3.42 T j = operation limit temperature Pdh 6.1 kW T j = operation limit temperature COPd 3.42 T j = operation limit temperature T operation limit temper		or part load at i	ndoor temperat	ture 20 °C				
T j = + 7 °C Pdh 11,7 kW T j = + 7 °C COPd 5,08 T j = + 12 °C COPd 5,08 T j = bivalent temperature Pdh 7,8 kW T j = + 12 °C COPd 6,23 T j = bivalent temperature Pdh 7,8 kW T j = bivalent temperature COPd 3,42 T j = operation limit temperature Pdh 6,1 kW T j = operation limit temperature For air-to-water heat pumps: T j = 0 operation limit temperature For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh Bivalent temperature T biv -5 °C Cycling interval capacity for heating material capacity for heating Degradation co-efficient Cdh 0,97 - Power consumption in modes other than active mode Off mode Powr 0,018 kW Crankcase heater mode Pro 0,002 kW Other items Capacity control Fixed Fixed For water heat pumps: Rated air flow rate, outdoors Annual energy consumption Qelec Daily electricity Onsumption Qelec Daily electricity Onsumption The packaging must be deposited at a recycling station or with the installation engineer for correct west emanagemes peedific precautions and end T p to bivalent temperature COPd 3,42 T j = +12 °C (coPd 6,23 T j = +12 °C (coPd 6,23 T j = +12 °C (coPd 3,42 T j = bivalent temperature COPd 3,42 T j = operation limit temperature COPd 2,97 Ina Ina For air-to-water heat pumps: Rated ficiency ToL -10 -	Tj=-7°C	Pdh	7,4	kW	T j = - 7 °C	COPd	3,25	1 -
T j = +12 °C	T j = + 2 °C	Pdh		kW	T j = +2 °C	COPd] -
T j = bivalent temperature Pdh 7,8 kW T j = bivalent temperature COPd 3,42 T j = operation limit temperature Pdh 6,1 kW T j = operation limit temperature COPd 2,97 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) Pdh na For air-to-water heat pumps: T j = -15 °C (if TOL < - 20 °C) Pdh na Poych na kW Cycling interval capacity for heating network of the tips of t	T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	5,08] -
T j = operation limit temperature Pdh 6,1 kW T j = operation limit temperature For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh na kW T j = -15 °C (if TOL < -20 °C) For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh na kW T j = -15 °C (if TOL < -20 °C) For air-to-water heat pumps: T oL Poych na kW Cycling interval capacity for heating interval capacity for heating Degradation co-efficient Cdh 0,97 Power consumption in modes other than active mode Off mode Porr 0,018 Supplementary heater Rated heat output (*) Psup 2,9 Type of energy input Electric For air-to-water heat pumps: Cycling interval efficiency COPcyc na Heating water operating limit wTOL 55 Supplementary heater Rated heat output (*) Psup 2,9 Type of energy input Electric For air-to-water heat pumps: Rated heat output (*) Psup 2,9 For air-to-water heat pumps: Rated heat output (*) Psup 2,9 Type of energy input Electric For air-to-water heat pumps: Rated heat output (*) Psup 3,9 For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors Rated air flow rate, outdoors Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger For water-/brine-to-water heat pumps: Rated brine or water h	T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,23	-
temperature Part Spit KW temperature temperatur	T j = bivalent temperature	Pdh	7,8	kW	T j = bivalent temperature	COPd	3,42	-
T j = -15 °C (if TOL < -20 °C) Bivalent temperature T biv -5 °C For air-to-water heat pumps: Operation limit temperature T cycling interval capacity for heating Degradation co-efficient Cdh 0,97 - Reating water operating limit temperature Off mode P off O,018 RW T j = -15 °C (if TOL < -20 °C) Power consumption limit temperature Cycling interval efficiency COPCyc na Heating water operating limit temperature WTOL 55 Lemperature Supplementary heater Rated heat output (*) Psup 2,9 Type of energy input Electric For air-to-water heat pumps: Rated heat output (*) Psup 2,9 For air-to-water heat pumps: Rated heat output (*) Psup Alton For air-to-water heat pumps: Rated birne or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated birne or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Now hand Annual electricity COPCyc na Heating water operating limit word. WTOL 55 Lemperature VTOL -10 Cycling interval efficiency COPCyc na Heating water operating limit temperature NTOL -10 Cycling interval efficiency COPCyc na Heating water operating limit word. WTOL 55 Lemperature NTOL -10 Cycling interval efficiency COPCyc na Heating water operating limit temperature NTOL -10 Cycling interval efficiency COPCyc na Heating water operating limit temperature NTOL 55 Lemperature NTOL -10 Cycling interval efficiency COPCyc na Heating water operating limit temperature NTOL 55 Lemperature NTOL -10 Cycling interval efficiency CoPcyc na Heating water operating limit temperature NTOL -10 Cycling interval efficiency NTOL -10 Cycling interval efficiency NTOL -10 Cycling interval efficiency NTOL -10 -10 Cycling interval efficiency NTOL -10 -10 -10 Cycling interval efficiency NTOL -10 -10 -10 -10 Cycling interval efficiency NTOL -10 -10 -10 -10 -10 -10 -10 -1		Pdh	6,1	kW		COPd	2,97	-
Cycling interval capacity for heating Degradation co-efficient Cdh Degradation co-efficient Cycling interval efficiency CoPcyc na Heating water operating limit temperature Supplementary heater Rated heat output (*) Psup 2,9 Type of energy input Electric For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated birne or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency In a Pump consumption AFC Daily electricity consumption AFC Daily electricity COPCyc na Heating water operating limit wTOL 55 Legarative deposited at a recycling station or with the installation engineer for correct waste manageme end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type, to		Pdh	na	kW		COPd	na	-
heating	Bivalent temperature	T _{biv}	-5	°C	1 1	TOL	-10	°C
Power consumption in modes other than active mode Off mode Off mode Poff O,018 NW Thermostat-off mode Poff O,0022 NW Standby mode Poff Crankcase heater mode Other items Capacity control Sound power level, indoors/ outdoors Annual energy consumption Poff Poff Daily electricity consumption Poff Daily electricity Consumption Poff Annual electricity Consumption Poff Annual electricity Consumption Poff D,018 NW Annual fuel consumption Poff D,018 NW Rated heat output (*) Psup Psup Psup Psup Psup Psup Psup Psup		P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Off mode	Degradation co-efficient	Cdh	0,97	-		WTOL	55	°C
Thermostat-off mode Pro O,022 kW Standby mode Pro O,018 kW Type of energy input Electric 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily fuel consumption Qelec na kWh Daily fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste managemeend of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. ti	Power consumption in modes	other than activ	e mode		Supplementary heater			_
Standby mode P s8 Q,018 RW Type of energy input Electric 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Ina Annual electricity consumption Qelec na kWh Daily fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	2,9	kW
Crankcase heater mode P CK O,000 kW Other items Capacity control Fixed 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 pumps:	Thermostat-off mode	P_{TO}	0,022	kW				
Other items Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoors pumps: Rated brine or water flow rate, outdoors pumps: Rated brine or water flow rate, outdoors pumps: Rated brine or water pumps: Rated brine or water pumps: Rated brine or water flow rate, outdoors pumps: Rated brine or water p	Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management and of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It	Crankcase heater mode	P _{CK}	0,000	kW				
Sound power level, indoors/ outdoors Annual energy consumption Declared load profile Daily electricity consumption Annual electricity consumption AEC The packaging must be deposited at a recycling station or with the installation engineer for correct waste managemes and of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It	Other items						-	-
outdoors Annual energy consumption QHE 5063 kWh flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Capacity control		Fixed			-	4100	m3/h
Annual energy consumption Q_{HE} 5063 kWh exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency n_{wh} na Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na Annual electricity AEC na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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		L _{WA}	na/58	dB	pumps: Rated brine or water			
Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Annual energy consumption	Q _{HE}	5063	kWh	1 1	-	na	m3/h
Daily electricity consumption Qelec na kWh Daily fuel consumption Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	For heat pump combination he	ater:						
Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management and of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It	Declared load profile		na			η_{wh}	na	%
Consumption AEC na KWn Annual fuel Consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Specific precautions and end end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. to	· ·	AEC			· ·		ļ	GJ
of life information: 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.	· ·		end of the productimportance that t	ct's life cycle, it m the product's refr	nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic	ler offering a se	rvice of that type	. t is of great

Information for heat pump s	pace heaters a	and heat pum	o combinati	on heaters	CTC AB		57
Cold climate and Medium te	mperature				Ljungby		
Model(s):		CTC EcoAir 41	lO + CTC Basi	cstyrning			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	1	-	
Brine-to-water heat pump:		No		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	110	%	
Equipped with a supplementary	heater:	No		Package efficiency class:		-	
Heat pump combination heater		No					
				for low-temperature heat pumps. I	or low- temp	erature heat	pumps,
parameters shall be declared fo		ture application	ı.				
Item	Symbol	Value	Unit	Item	Symbol	Value	Uni
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η_{s}	109	%
Declared capacity for heating fo and outdoor temperature T j	or part load at i	ndoor temperat	ture 20 °C	Declared coefficient of perform part load at indoor temperature	-		
T j = - 7 °C	Pdh	6,9	kW	T j = - 7 °C	COPd	2,56	1 -
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	3,28] -
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	4,25	-
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	5,21	-
T j = bivalent temperature	Pdh	5,5	kW	T j = bivalent temperature	COPd	2,13	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,50	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,95	-
Bivalent temperature	T _{biv}	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°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	55	°C
	ther than activ	e mode		Supplementary heater			
Power consumption in modes o		0.010	kW	Rated heat output (*)	Psup	3,7	kW
·	P OFF	0,018	K V V				
Off mode	P _{OFF} P _{TO}	0,018	kW			-	
Power consumption in modes o Off mode Thermostat-off mode Standby mode				Type of energy input	·	Electric	

mermostat-on mode	r TO	0,013	KVV
Standby mode	P _{SB}	0,018	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other items			
Capacity control		Fixed	

 L_{WA}

 Q_{HE}

		_
For air-to-water heat pumps: Rated air flow rate, outdoors	4100	m3/h
For water-/brine-to-water heat pumps: Rated brine or water		
flow rate, outdoor heat	na	m3/h

For heat pump combination heater:

Sound power level, indoors/

Annual energy consumption

outdoors

Declared load profile		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

dB

kWh

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. t 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.

na/58

6381

Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**

oump combination heaters CTC AB
Ljungby



Model(s):	CTC EcoAir 410 +	- CTC Basicstyrning		
Air-to-water heat pump:	Yes	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	1	-
Brine-to-water heat pump:	No	Controller contribution:	1	%
Low-temperature heat pump:	No	Package efficiency:	137	%
Equipped with a supplementary heater:	No	Package efficiency class:		-
Heat pump combination heater:	No			

Thermostat-off mode	Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
$T = -7 ^{\circ} C \qquad Path \qquad 7.5 \\ T = + 2 ^{\circ} C \qquad Path \qquad 9.1 \\ T = + 2 ^{\circ} C \qquad Path \qquad 9.1 \\ T = + 2 ^{\circ} C \qquad Path \qquad 11.8 \\ T = + 2 ^{\circ} C \qquad Path \qquad 11.8 \\ T = + 2 ^{\circ} C \qquad COPd \qquad 3.41 \\ T = + 2 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 5.21 \\ T = + 12 ^{\circ} C \qquad COPd \qquad 6.20 \\ T = -7 ^{\circ} C \qquad$	Rated heat output (*)	Prated	7	kW	1	η_s	136	%
T = + 2° C Pdh 11,8		or part load at i	ndoor temperat	ture 20 °C				
T j = +7 °C Pdh 11,8 kW T j = +7 °C COPd 5,21 COPd 6,20 T j = bivalent temperature Pdh 5,9 kW T j = +12 °C COPd 6,20 T j = bivalent temperature Pdh 5,9 kW T j = +12 °C COPd 6,20 T j = bivalent temperature Pdh 4,1 kW T j = operation limit temperature Pdh 4,1 kW T j = operation limit temperature Por air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 5,7 kW For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 5,7 kW For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL < -20 °C) Pdh 2,74 T j = -15 °C (if TOL	T j = -7 °C	Pdh	7,5	kW	T j = - 7 °C	COPd	3,41	1 -
T j = +12 °C	T j = + 2 °C	Pdh		kW	T j = +2 °C	COPd] -
T j = bivalent temperature Pdh 5,9 kW T j = bivalent temperature COPd 2,95 T j = operation limit temperature Pdh 4,1 kW T j = operation limit temperature COPd 2,07 T j = operation limit temperature To Lopd 2,07 T j = operation limit temperature To Lopd 2,07 T j = operation limit temperature To Lopd 2,07 T j = operation limit temperature To Lopd 2,07 T j = operation limit temperature To Lopd 2,07 T l	T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	5,21	_
T j = operation limit temperature Pdh 4,1 kW T j = operation limit temperature For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 5,7 kW For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) Pdh 5,7 kW For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 T j = -15 °C (if TOL < -20 °C) COPd 2,74 ToL 2-22 Copcing interval eficiency Copcing interval ef	T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,20	-
temperature Pan 4,1 kW temperature	T j = bivalent temperature	Pdh	5,9	kW	T j = bivalent temperature	COPd	2,95	-
Tj = -15 °C (if TOL < -20 °C) Bivalent temperature T biv -14 °C Operation limit temperature T cycling interval capacity for heating Degradation co-efficient C dh O,97 - Heating water operating limit temperature Off mode P orf O,018 RW T j = -15 °C (if TOL < -20 °C) COPC COPC na Heating water operating limit temperature WTOL 55 Degradation co-efficient C dh O,97 - Do,018 RW Thermostat-off mode P orf O,018 RW Type of energy input Electric For air-to-water heat pumps: Operation limit temperature WTOL 55 Supplementary heater Rated heat output (*) P sup 3,4 Type of energy input Electric For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-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 For heat pump combination heater: Declared load profile na Water heating energy efficiency I wh I p = -15 °C (if TOL < - 20 °C) COPCV na Heating water operating limit temperature WTOL 55 Supplementary heater Rated heat output (*) P sup 3,4 Type of energy input Electric 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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		Pdh	4,1	kW		COPd	2,07	-
Cycling interval capacity for heating Degradation co-efficient Cdh O,97 Degradation co-efficient Cycling interval efficiency CoPcyc na Heating water operating limit temperature Supplementary heater Rated heat output (*) Psup 3,4 Type of energy input Electric 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec Na Who Annual fuel consumption AFC Na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. I is		Pdh	5,7	kW		COPd	2,74	-
heating	Bivalent temperature	T _{biv}	-14	°C	1 1	TOL	-22	°C
Power consumption in modes other than active mode Off mode Poff O,018 Rated heat output (*) Psup Type of energy input For air-to-water heat pumps: Rated air flow rate, outdoors Sound power level, indoors/ outdoors Annual energy consumption Poff heat pump combination heater: Declared load profile Daily electricity consumption Qelec Annual electricity Consumption AEC The packaging must be deposited at a recycling station or with the installation engineer for correct waste management and of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. I is	, -	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	_
Off mode	Degradation co-efficient	Cdh	0,97	-		WTOL	55	°C
Thermostat-off mode Pro O,041 kW Standby mode Pro O,018 kW Crankcase heater mode Pro O,000 kW Other items Capacity control Fixed 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 For heat pump combination heater: Declared load profile Na Water heating energy efficiency Pumb Paily fuel consumption Qelec Na When Type of energy input Flectric 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 Pro Paily electricity consumption Qelec Na Water heating energy efficiency Pumb Paily fuel consumption Qfuel Na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. Is	Power consumption in modes of	other than activ	e mode		Supplementary heater			
Standby mode P SB Q,0018 RW Type of energy input Electric 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 pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Ina Water heating energy efficiency Ina Ina Ina Ina Ina Ina Ina In	Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	3,4	kW
Crankcase heater mode Other items Capacity control Fixed 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 For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t. is	Thermostat-off mode	P_{TO}	0,041	kW				
Other items Capacity control Fixed Fixed 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 pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated air flow rate, outdoors pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated pumps: Rated air flow rate, outdoors flow rate, outdoors pumps: Rated pumps: Rated air flow rate, outdoors for water-/brine-to-water heat pumps: Rated pumps: Rated air flow rate, outdoors flow rate, outdoor heat pumps: Rated pumps: Rated air flow rate, outdoors flow rate, outdoor heat pumps: Rated prine-to-water heat pumps: Rated pumps: Rated air flow rate, outdoors flow rate, outdoor heat pumps: Rated prine-to-water heat pumps: Rated prine-to-water heat pumps: Rated pumps: Rated air flow rate, outdoor heat pumps: Rated prine-to-water heat pumps: Rated prine-to-water heat pumps: Rated prine-to-water heat pumps: Rated prine to-water pumps: Rated prine-to-water heat pumps: Rated prine-to-water heat pumps: Rated prine-to-water heat pumps: Rated prine-to-water heat pumps: Rated prine to-water pumps: Rated prine to-water heat pumps: Rated prine to-water pumps: Rated prine to-w	Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Capacity control Fixed 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 pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Crankcase heater mode	P _{CK}	0,000	kW				
Sound power level, indoors/ outdoors Annual energy consumption Declared load profile Daily electricity consumption Annual electricity consumption AEC na Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Mater heating energy efficiency Daily fuel consumption Annual fuel consumption Annual fuel consumption Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Other items						-	-
outdoors Annual energy consumption QHE 5337 AWh For heat pump combination heater: Declared load profile Daily electricity consumption Qelec Annual electricity Consumption AEC The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Capacity control		Fixed		1 1	-	4100	m3/h
Annual energy consumption Q_{HE} 5337 kWh exchanger For heat pump combination heater: Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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		L _{WA}	na/58	dB	pumps: Rated brine or water			
Declared load profile na Water heating energy efficiency Daily electricity consumption Qelec na kWh Daily fuel consumption AFC na Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is	Annual energy consumption	Q _{HE}	5337	kWh	1 1	-	na	m3/h
Daily electricity consumption Qelec na kWh Daily fuel consumption Annual electricity consumption AEC na kWh Annual fuel consumption The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	For heat pump combination he	ater:						
Annual electricity consumption AEC na kWh Annual fuel consumption AFC na The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Declared load profile		na			η_{wh}	na	%
The packaging must be deposited at a recycling station or with the installation engineer for correct waste management 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	Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Specific precautions and end end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is	·	AEC					ļ	GJ
Disposing of the product as household waste is not permitted.	Specific precautions and end of life information:		end of the production	ct's life cycle, it m the product's refr	nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic	ler offering a se	rvice of that type	e. t is of great