Warm climate and Medium temperature

CTC AB Liungby



Warm climate and Medium	n temperature				Ljungby		
Model(s):		CTC EcoAir 71	L2M + CTC E	coLogic			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	180	%	
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate		No					
				t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared f	-	• • •			Cumbal	Value	l lmit
Item	Symbol	Value	Unit	Item Seasonal space heating energy	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	efficiency	$\eta_{\mathcal{S}}$	176	%
Declared capacity for heating and outdoor temperature T j	for part load at ii	ndoor tempera	ture 20 °C	Declared coefficient of performation part load at indoor temperature	-		
T j = - 7 °C	Pdh		kW	T j = - 7 °C	COPd		] -
T j = + 2 °C	Pdh	7,5	kW	T j = +2 °C	COPd	2,22	-
T j = + 7 °C	Pdh	4,8	kW	T j = +7 °C	COPd	3,82	-
T j = + 12 °C	Pdh	2,3	kW	T j = +12 °C	COPd	5,84	-
T j = bivalent temperature	Pdh	7,5	kW	T j = bivalent temperature	COPd	7,49	-
T j = operation limit temperature	Pdh	7,5	kW	T j = operation limit temperature	COPd	7,49	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	NA	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	NA	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P cych	NA	kW	Cycling interval efficiency	СОРсус	NA	-
Degradation co-efficient	Cdh	1,00	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode		Supplementary heater			-
Off mode	P <sub>OFF</sub>	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items				_		_	
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2,787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	NA	m3/h
Annual energy consumption	Q <sub>HE</sub>	2236	kWh	flow rate, outdoor heat exchanger	-	NA	1113/11
For heat pump combination he	eater:						
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	NA	%
Daily electricity consumption	Qelec	NA	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	ct's life cycle, it i that the produc	d at a recycling station or with the installation ermust be sent correctly to a waste station or resect's refrigerant, compressor oil and electrical/eleehold waste is not permitted.	eller offering a se	rvice of that type	. It is of

Information for heat pump sp		and heat pum	p combination	on heaters	CTC AB		
Warm climate and Low temp  Model(s):	perature	CTC EcoAir 7	12M + CTC Eco	ol ogic	Ljungby		
Air-to-water heat pump:		Yes	IZIVI + CTC LC	Energy efficiency class:		-	
					VI		
Water-to-water heat pump:		No		Controller class:  Controller contribution:	4	%	
Brine-to-water heat pump:		No					
Low-temperature heat pump:		No		Package efficiency:	244	%	
Equipped with a supplementary		No		Package efficiency class:		-	
Heat pump combination heater Parameters shall be declared fo parameters shall be declared fo	r medium-tem		•	for low-temperature heat pumps.	For low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	240	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of perform part load at indoor temperatur	•		
Tj=-7°C	Pdh	NA	kW	T j = - 7 °C	COPd	NA	-
T j = + 2 °C	Pdh	7,5	kW	T j = +2 °C	COPd	2,85	] -
T j = + 7 °C	Pdh	4,7	kW	T j = +7 °C	COPd	5,53	-
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	7,50	-
T j = bivalent temperature	Pdh	7,5	kW	T j = bivalent temperature	COPd	2,85	-
T j = operation limit temperature	Pdh	7,5	kW	T j = operation limit temperature	COPd	2,85	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	NA	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	NA	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	_
	Cdh	0.98	ĺ	Heating water operating limit	WTOL	55	1

Degradation co-efficient	Cdh	0,98	-
Power consumption in modes	other than active	mode	_
Off mode	P OFF	0,015	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW
Standby mode	P <sub>SB</sub>	0,015	kW
Crankcase heater mode	P <sub>CK</sub>	0,000	kW
Other items			

 $L_{WA}$ 

 $Q_{HE}$ 

Variable

NA / 47

1650

Type of energy input		Electric	
For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat	-	NA	m3/h

WTOL

Psup

°C

kW

0,0

For heat pump combination heater:

Sound power level, indoors/

Annual energy consumption

Capacity control

outdoors

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

dΒ

kWh

temperature Supplementary heater Rated heat output (\*)

exchanger

Specific precautions and end of life information:

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

Information for heat pump sp  Average climate and Mediun			o combinati	on heaters	CTC AB Ljungby		
Model(s):		CTC EcoAir 71	L2M + CTC Ec	oLogic			
Air-to-water heat pump:		Yes		Energy efficiency class:	A+++	-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	155	%	
Equipped with a supplementary	heater:	No		Package efficiency class:	A+++	-	
Heat pump combination heater: Parameters shall be declared for parameters shall be declared for	medium-tem	• •	•	for low-temperature heat pumps.	For low- temp	erature heat	pumps
Item	Symbol	Value	Unit	Item	Symbol	Value	Un
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_{s}$	151	%
Declared capacity for heating fo and outdoor temperature T j	r part load at ii	ndoor tempera	ture 20 °C	Declared coefficient of perforn part load at indoor temperatur	•	, 0,	
T j = - 7 °C	Pdh	6,0	kW	T j = - 7 °C	COPd	2,31	] -
T j = + 2 °C	Pdh	3,7	kW	T j = +2 °C	COPd	3,77	] -
T j = + 7 °C	Pdh	2,4	kW	T j = +7 °C	COPd	5,16	] -
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	6,31	-
T j = bivalent temperature	Pdh	6,8	kW	T j = bivalent temperature	COPd	1,96	-
T j = operation limit temperature	Pdh	6,8	kW	T j = operation limit temperature	COPd	1,96	
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	NA	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	NA	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P cych	NA	kW	Cycling interval efficiency	СОРсус	NA	_
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	her than activ	e mode	•	Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kИ
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P SB	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW	1 1			

Other items							
Capacity control	Variable						
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB				
Annual energy consumption	Q <sub>HE</sub>	3751	kWh				

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

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

2787

m3/h

m3/h

240913

For heat pump combination heater:

Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	NA	%
Daily electricity consumption	Qelec	NA	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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



	nformation for heat pump space heaters and heat pump combination heaters  Average climate and Low temperature						
Model(s):	h	CTC EcoAir 71	2M + CTC Ed	coLogic	Ljungby		
Air-to-water heat pump:		Yes		Energy efficiency class:	A+++	-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	201	%	
Equipped with a supplementary	/ heater:	No		Package efficiency class:	A+++	-	
Heat pump combination heater		No		. acrage emercine, classi			
			ation, except	t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared for	r low-tempera	ture application			•		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_{s}$	197	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of perform part load at indoor temperature	-		
T j = - 7 °C	Pdh	6,0	kW	T j = - 7 °C	COPd	3,07	-
T j = + 2 °C	Pdh	3,8	kW	T j = +2 °C	COPd	4,94	-
T j = + 7 °C	Pdh	2,5	kW	T j = +7 °C	COPd	6,46	-
T j = + 12 °C	Pdh	2,5	kW	T j = +12 °C	COPd	8,23	-
T j = bivalent temperature	Pdh	7,2	kW	T j = bivalent temperature	COPd	2,54	-
T j = operation limit temperature	Pdh	7,2	kW	T j = operation limit temperature	COPd	2,54	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	NA	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	NA	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	_
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	re mode		Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	- CA	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1	<u> </u>		
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water		NA	m2/h
Annual energy consumption	Q <sub>HE</sub>	3016	kWh	flow rate, outdoor heat exchanger	-	NA	m3/h
For heat pump combination he	ater:			<u> </u>		-	•
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	NA	%
Daily electricity consumption	Qelec	NA	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ
Specific procautions and and				at a recycling station or with the installation e	-	_	

Specific precautions and end of life information:

end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

F-0138

231206

CTC AB Liunghy



231206

Cold climate and Medium temperat	ure			Ljungby		CIC
Model(s):	CTC EcoAir 71	2M + CTC Eco	Logic			
Air-to-water heat pump:	Yes		Energy efficiency class:		-	
Water-to-water heat pump:	No		Controller class:	VI	-	
Brine-to-water heat pump:	No		Controller contribution:	4	%	
Low-temperature heat pump:	No		Package efficiency:	136	%	
Equipped with a supplementary heater:	No		Package efficiency class:		-	
Heat pump combination heater:	No					
Parameters shall be declared for medium parameters shall be declared for low-ter			for low-temperature heat pump	os. For low- tem	perature he	at pumps,
Item Symb	ool Value	Unit	Item	Symbol	Value	Unit

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{S}$	132	%
Declared capacity for heating fo and outdoor temperature T j	or part load at ir	ndoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	5,3	kW	T j = -7 °C	COPd	2,75	] -
T j = + 2 °C	Pdh	3,0	kW	T j = +2 °C	COPd	4,33	] -
T j = + 7 °C	Pdh	2,1	kW	T j = +7 °C	COPd	5,75	-
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	6,62	-
T j = bivalent temperature	Pdh	6,5	kW	T j = bivalent temperature	COPd	2,04	-
T j = operation limit temperature	Pdh	3,2	kW	T j = operation limit temperature	COPd	1,53	_
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	6,1	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,92	-
Bivalent temperature	T <sub>biv</sub>	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	_
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	ther than active	mode		Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	5,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	CA .	1,111					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dВ	For water-/brine-to-water heat pumps: Rated brine or water	_	NA	m3/h
Annual energy consumption	Q <sub>HE</sub>	6130	kWh	flow rate, outdoor heat exchanger			, 11
For heat pump combination hea	ater:			1 1			
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	NA	%
Daily electricity consumption	Qelec	NA	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

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

CTC AB Ljungby



Model(s):	CTC EcoAir 712M + CTC EcoLogic							
Air-to-water heat pump:	Yes	Energy efficiency class:		-				
Water-to-water heat pump:	No	Controller class:	VI	-				
Brine-to-water heat pump:	No	Controller contribution:	4	%				
Low-temperature heat pump:	No	Package efficiency:	171	%				
Equipped with a supplementary heater:	No	Package efficiency class:		-				
Heat pump combination heater:	No							

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	167	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performal part load at indoor temperature	-		
T j = -7 °C	Pdh	5,1	kW	T j = - 7 °C	COPd	3,51	-
T j = + 2 °C	Pdh	3,0	kW	T j = +2 °C	COPd	5,29	-
T j = + 7 °C	Pdh	2,1	kW	T j = +7 °C	COPd	6,95	] -
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	8,03	-
T j = bivalent temperature	Pdh	6,4	kW	T j = bivalent temperature	COPd	2,34	-
T j = operation limit temperature	Pdh	5,3	kW	T j = operation limit temperature	COPd	2,00	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	6,4	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,34	-
Bivalent temperature	T <sub>biv</sub>	-15	°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	ther than activ	re mode		Supplementary heater			
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	2,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW			•	
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,015	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	NA	m3/h
Annual energy consumption	Q <sub>HE</sub>	4653	kWh	flow rate, outdoor heat exchanger		IVA	1113/11
For heat pump combination he	ater:						
Declared load profile	NA	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	NA	%
Daily electricity consumption	$Q_{elec}$	NA	kWh	Daily fuel consumption	$Q_{\text{fuel}}$	NA	kWh
Annual electricity consumption	AEC	NA	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

Information for heat pump sp Warm climate and Medium			o combinati	on heaters	CTC AB Ljungby		
Model(s):		CTC EcoAir 71	2M + CTC Ed	coZenith i360			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	180	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:		-	
Heat pump combination heater Parameters shall be declared fo		Yes perature applica	ation, excep	t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared fo	·						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	176	%
Declared capacity for heating fo and outdoor temperature T j	r part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performation part load at indoor temperature			
Tj=-7°C	Pdh		kW	T j = - 7 °C	COPd		] -
T j = + 2 °C	Pdh	7,5	kW	T j = +2 °C	COPd	2,22	-
T j = + 7 °C	Pdh	4,8	kW	T j = +7 °C	COPd	3,82	-
T j = + 12 °C	Pdh	2,3	kW	T j = +12 °C	COPd	5,84	-
T j = bivalent temperature	Pdh	7,5	kW	T j = bivalent temperature	COPd	7,49	-
T j = operation limit temperature	Pdh	7,5	kW	T j = operation limit temperature	COPd	7,49	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	NA	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	NA	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	-
Degradation co-efficient	Cdh	1,00	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	ther than activ	ve mode		Supplementary heater		•	•
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/ł
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	NA	m3/l
Annual energy consumption	Q <sub>HE</sub>	2236	kWh	flow rate, outdoor heat exchanger		NA.	5/1
For heat pump combination hea	iter:						
Declared lead modile		Efficiency		Water heating energy	_		

Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	116	%
Daily electricity consumption	Qelec	7	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1445	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

CTC AB



	on neaters	CTC AB				
	CTC FcoAir 71	2M + CTC Fo	coZenith i360	LJuliguy		
		2111 - 616 26			_	
				VI	-	
					%	
haatar:				244	-	
			r delage efficiency class.			
		ation, except	t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
r low-tempera	ture application					
Symbol	Value	Unit	Item	Symbol	Value	Unit
Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	240	%
r part load at i	ndoor temperat	ure 20 °C		-		
Pdh	NA	kW	T j = - 7 °C	COPd	NA	] -
Pdh	7,5	kW	T j = +2 °C	COPd	2,85	-
Pdh	4,7	kW	T j = +7 °C	COPd	5,53	-
Pdh	2,4	kW	T j = +12 °C	COPd	7,50	-
Pdh	7,5	kW	T j = bivalent temperature	COPd	2,85	-
Pdh	7,5	kW	T j = operation limit temperature	COPd	2,85	-
Pdh	NA	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	NA	-
T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	-
Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
ther than activ	e mode		Supplementary heater			
P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
P <sub>TO</sub>	0,015	kW				
P SB	0,015	kW	Type of energy input		Electric	
P <sub>CK</sub>	0,000	kW				
	Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water		BL A	m 2 //-
Q <sub>HE</sub>	1650	kWh	flow rate, outdoor heat exchanger		INA	m3/h
ter:						
XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	116	%
Qelec	6,570	kWh	Daily fuel consumption	Qfuel	NA	kWh
AEC	1445	kWh	Annual fuel consumption	AFC	NA	GJ
	heater: r medium-tem r low-tempera Symbol Prated r part load at i  Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pd	No No No No No No No heater: Yes redium-temperature application Symbol Value Prated 8 repart load at indoor temperat  Pdh NA Pdh 7,5 Pdh 4,7 Pdh 2,4 Pdh 7,5 Pdh 7,5 Pdh NA  T biv 2  P cych NA Cdh 0,98  ther than active mode P off 0,015 P so 0,015 P so 0,015 P so 0,015 P so 0,000  Variable  L WA NA / 47 Q HE 1650  tter:  XL Efficiency class Qelec 6,570	No	TCE EcoAir 712M + CTC EcoZenith i360  Yes Energy efficiency class:  No Controller class:  No Controller contribution:  No Package efficiency:  Package efficiency class:  Yes Package efficiency class:  Tredium-temperature application, except for low-temperature heat pumps. For low-temperature application.  Symbol Value Unit Item  Seasonal space heating energy efficiency  Pour part load at indoor temperature 20 °C  Poclared coefficient of performs part load at indoor temperature of performs part load at indoor temperature of the performing part load at indoor temperature of the performing part load at indoor temperature of the performance of the performing part load at indoor temperature o	CTC EcoAir 712M + CTC EcoZenith i360  Yes Energy efficiency class:  No Controller class: VI  No Controller contribution: 4  No Package efficiency: 244  heater: Yes Package efficiency class:  Trendelium-temperature application, except for low-temperature heat pumps. For low-temper low-temperature application.  Symbol Value Unit Item Symbol  Proted 8 kW Seasonal space heating energy efficiency  r part load at indoor temperature 20 °C  Path NA kW Fig. A kw Tj = -7 °C  Path 7,5 kw Tj = -7 °C  Path 7,5 kw Tj = -7 °C  Path 7,5 kw Tj = +12 °C  Path 7,5 kw Tj = -12 °C  Path 7,5 kw Tj = -15 °C (if TOL < -20 °C)  Path 7,5 kw Tj = -15 °C (if TOL < -20 °C)  Path 7,5 kw Tj = -15 °C (if TOL < -20 °C)  Path NA kw Cycling interval efficiency  Popp 0,015 kw Popp 0,	CTC EcoAir 712M + CTC EcoZenith 1360  Yes Energy efficiency class:  No Controller contribution: 4 %  No Package efficiency: 244 %  heater: Yes Package efficiency class:  Yes Package efficiency class

Specific precautions and end of life information:

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.



Information for heat pump s  Average climate and Mediu			p combinati	on heaters	CTC AB Ljungby		
Model(s):	· · · · · · · · · · · · · · · · · · ·	CTC EcoAir 71	L2M + CTC Ed	coZenith i360	, 0-1		
Air-to-water heat pump:		Yes		Energy efficiency class:	A+++	-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	155	%	
Equipped with a supplementary	/ heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heater		Yes		r dekage efficiency class.	A		
Parameters shall be declared for	r medium-tem	perature applic		t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared fo	•				Ch al	Value	11
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	151	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of perform part load at indoor temperature	•		
T j = -7 °C	Pdh	6,0	kW	T j = - 7 °C	COPd	2,31	] -
T j = + 2 °C	Pdh	3,7	kW	T j = +2 °C	COPd	3,77	-
T j = + 7 °C	Pdh	2,4	kW	T j = +7 °C	COPd	5,16	-
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	6,31	-
T j = bivalent temperature	Pdh	6,8	kW	T j = bivalent temperature	COPd	1,96	-
T j = operation limit temperature	Pdh	6,8	kW	T j = operation limit temperature	COPd	1,96	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	NA	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	e mode	_	Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	-				1		
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	NA	m3/h
Annual energy consumption	Q <sub>HE</sub>	3751	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	99,1	%
Daily electricity consumption	Qelec	7,7	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1694	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of.

Disposing of the product as household waste is not permitted.

Average climate and Low temperature

CTC AB Ljungby



			J · U ·	<i></i>	
Model(s):	CTC EcoAir 712N	1 + CTC EcoZenith i360			
Air-to-water heat pump:	Yes	Energy efficiency class:	A+++	-	
Water-to-water heat pump:	No	Controller class:	VI	-	
Brine-to-water heat pump:	No	Controller contribution:	4	%	
Low-temperature heat pump:	No	Package efficiency:	201	%	
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 low-temperature application

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	197	%
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	6,0	kW	T j = - 7 °C	COPd	3,07	-
T j = + 2 °C	Pdh	3,8	kW	T j = +2 °C	COPd	4,94	-
T j = + 7 °C	Pdh	2,5	kW	T j = +7 °C	COPd	6,46	-
T j = + 12 °C	Pdh	2,5	kW	T j = +12 °C	COPd	8,23	-
T j = bivalent temperature	Pdh	7,2	kW	T j = bivalent temperature	COPd	2,54	-
T j = operation limit temperature	Pdh	7,2	kW	T j = operation limit temperature	COPd	2,54	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	NA	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	NA	-
Bivalent temperature	T <sub>biv</sub>	-10	°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	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		,					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water		NA	m3/h
Annual energy consumption	$Q_{HE}$	3016	kWh	flow rate, outdoor heat exchanger		NA.	1113/11
For heat pump combination hea	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\scriptscriptstyle \sf wh}$	99	%
Daily electricity consumption	Qelec	8	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1694	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

CTC AB



	on neaters	CTC AB				
mperature				Ljungby		
	CTC EcoAir 71	.2M + CTC Ec	coZenith i360			
	Yes		Energy efficiency class:		-	
	No		Controller class:	VI	-	
	No		Controller contribution:	4	%	
	No		Package efficiency:	136	%	
heater:	Yes		Package efficiency class:		-	
	Yes					
			t for low-temperature heat pumps. F	or low- temp	erature heat	pumps
•	• •					
Symbol	Value	Unit	Item	Symbol	Value	Un
Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	132	%
r part load at i	ndoor temperat	ture 20 °C	Declared coefficient of performa	ance or prima	irv energy rat	io for
part load at i	ndoor temperat	.ui C 20 C				
- "						1
			1 1 -			┤ ‐
			1 1 -			┤ ‐
			11'			-
Pdh	2,4	κW	= +12 °C	COPa	6,62	- ∤
Pdh	6,5	kW	T j = bivalent temperature	COPd	2,04	-
Pdh	3,2	kW	T j = operation limit temperature	COPd	1,53	-
Pdh	6,1	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,92	-
T <sub>biv</sub>	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°(
P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	-
Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°(
her than activ	e mode		Supplementary heater			
P OFF	0,015	kW	Rated heat output (*)	Psup	5,2	kV
P <sub>TO</sub>	0,015	kW				
		kW	Type of energy input		Electric	
	_					
· LK	0,000	N V V	1	<u> </u>		
			1			l
	Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3,
L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	NA	m3,
Q <sub>HE</sub>	6130	kWh	flow rate, outdoor heat exchanger		INA	1113,
ter:						
XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\sf wh}$	84,1	%
Qelec	9,07	kWh	Daily fuel consumption	Qfuel	NA	kW
AEC	1995	kWh	Annual fuel consumption	AFC	NA	G.
	heater: r medium-tem r low-tempera Symbol  Prated r part load at i  Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pd	mperature  CTC EcoAir 71  Yes  No  No  No  No heater: Yes  Yes  redium-temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature application Symbol Value  Prated 8  repart load at indoor temperature  Pu	No	TCTC EcoAir 712M + CTC EcoZenith 1360  Yes Energy efficiency class:  No Controller contribution:  No Package efficiency:  heater: Yes Package efficiency class:  No Controller contribution:  No Package efficiency class:  Yes Package efficiency class:  Yes Package efficiency class:  Yes Package efficiency class:  No Controller contribution:  No Package efficiency class:  No Controller contribution:  No Package efficiency class:  Yes Package efficiency class:  No Controller contribution:  No Package efficiency class:  No Controller contribution:  No Package efficiency class:  No Controller contribution:  No Package efficiency class:  Package efficiency class:  Yes Package efficiency class:  No Controller contribution:  No Package efficiency class:  No Color emperature heat pumps:  No package efficiency class:  No Color emperature heat pumps:  No package efficiency class:  No Color emperature heat pumps:  No package efficiency class:  No Color emperature class:  No Color of Color emperature class:  No Color of Color emperature class:  No Color of Color emperature class cl	Test Controller class:    No	To Ecoair 712M + CTC EcoZenith 1360  Yes Energy efficiency class:  No Controller class: VI -  No Controller contribution: 4 %  No Package efficiency: 136 %  heater: Yes Package efficiency class: -  To Value Unit Item Symbol Value Proted 8 kW Fig. 132 Cefficiency of Cope

Specific precautions and end of life information:

end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

CTC AB



Cold climate and Low tem	•	na neat pain	p combinati	on neaters	Ljungby				
Model(s):		CTC EcoAir 7	12M + CTC Ec	coZenith i360					
Air-to-water heat pump:		Yes		Energy efficiency class:		-			
Water-to-water heat pump:		No		Controller class:	VI	-			
Brine-to-water heat pump:		No		Controller contribution:	4	%			
Low-temperature heat pump	):	No		Package efficiency:	171	%			
Equipped with a supplement	ary heater:	Yes		Package efficiency class:		-			
Heat pump combination hea Parameters shall be declared parameters shall be declared	for medium-temp			t for low-temperature heat pumps.	For low- temp	erature heat	pumps,		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_s$	167	%		
Declared capacity for heating	eclared capacity for heating for part load at indoor temperature 20 °C				Declared coefficient of performance or primary energy ratio for				

Item	Symbol	value	Unit	Item	Symbol	value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	167	%
Declared capacity for heating for and outdoor temperature T j	or part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	-		
T j = -7 °C	Pdh	5,1	kW	T j = - 7 °C	COPd	3,51	] -
T j = + 2 °C	Pdh	3,0	kW	T j = +2 °C	COPd	5,29	] -
T j = + 7 °C	Pdh	2,1	kW	T j = +7 °C	COPd	6,95	-
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	8,03	-
T j = bivalent temperature	Pdh	6,4	kW	T j = bivalent temperature	COPd	2,34	-
T j = operation limit temperature	Pdh	5,3	kW	T j = operation limit temperature	COPd	2,00	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	6,4	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,34	-
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	NA	kW	Cycling interval efficiency	СОРсус	NA	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	ther than active	e mode	-	Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	2,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,015	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA / 47	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	NA	m3/h
Annual energy consumption	Q <sub>HE</sub>	4653	kWh	flow rate, outdoor heat exchanger			
For heat pump combination hea	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\scriptscriptstyle \sf wh}$	84,1	%
Daily electricity consumption	$Q_{elec}$	9,07	kWh	Daily fuel consumption	$Q_{fuel}$	NA	kWh
Annual electricity	AEC	1995	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

Warm climate and Medium temperature

CTC AB 341 34 Ljungby



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Model(s):		CTC EcoAir 71	IZM + CTC Ec				
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	157	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate Parameters shall be declared for parameters shall be declared for	or medium-tem			for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_s$	153	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	indoor tempera	ture 20 °C	Declared coefficient of performa			
T j = -7 °C	Pdh		kW	T j = - 7 °C	COPd		-
T j = + 2 °C	Pdh	7,1	kW	T j = +2 °C	COPd	2,07	-
T j = + 7 °C	Pdh	4,5	kW	T j = +7 °C	COPd	3,45	-
T j = + 12 °C	Pdh	2,1	kW	T j = +12 °C	COPd	4,80	-
T j = bivalent temperature	Pdh	7,1	kW	T j = bivalent temperature	COPd	2,07	_
T j = operation limit temperature	Pdh	7,1	kW	T j = operation limit temperature	COPd	2,07	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh		kW	For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd		-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	1,00	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	ve mode	•	Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P SB	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA/46	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2576	kWh	flow rate, outdoor heat exchanger		110	
For heat pump combination he	ater:		ī	T T		•	1
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	95	%
Daily electricity consumption	Qelec	8,030	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1767	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	ct's life cycle, it n that the produc	at a recycling station or with the installation er nust be sent correctly to a waste station or rese t's refrigerant, compressor oil and electrical/ele shold waste is not permitted.	eller offering a se	rvice of that type	. It is of

Warm climate and Low temperature

CTC AB 341 34 Ljungby



					341 34 Lju		
Model(s):		CTC EcoAir 71	2M + CTC Ec	oZenith i555			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	216	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate Parameters shall be declared for parameters shall be declared for	or medium-tem			t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	212	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ture 20 °C	Declared coefficient of performa			
T j = - 7 °C	Pdh		kW	T j = -7 °C	COPd		] -
T j = + 2 °C	Pdh	7,3	kW	T j = +2 °C	COPd	2,74	1 -
T j = + 7 °C	Pdh	4,6	kW	T j = +7 °C	COPd	5,11	1 -
T j = + 12 °C	Pdh	2,3	kW	T j = +12 °C	COPd	6,28	] -
T j = bivalent temperature	Pdh	7,3	kW	T j = bivalent temperature	COPd	2,74	-
T j = operation limit temperature	Pdh	7,3	kW	T j = operation limit temperature	COPd	2,74	] -
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh		kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd		_
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P cych	NA	kW	Cycling interval efficiency	СОРсус	NA	_
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items				1	•		
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA/46	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	NA	m3/h
Annual energy consumption	Q <sub>HE</sub>	1864	kWh	flow rate, outdoor heat exchanger	-	IVA	1113/11
For heat pump combination he	ater:	•				•	
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	95	%
Daily electricity consumption	Qelec	8,030	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1767	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc great importance	ct's life cycle, it n that the produc	at a recycling station or with the installation er nust be sent correctly to a waste station or rese t's refrigerant, compressor oil and electrical/ele shold waste is not permitted.	eller offering a ser	rvice of that type	e. It is of

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

CTC AB 341 34 Ljungby



Model(s):		CTC EcoAir 71	2M + CTC E	coZenith i555			
Air-to-water heat pump:		Yes		Energy efficiency class:		A++	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	128	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		A++	
Heat pump combination heate	r:	Yes					
	•			t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared for	•						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	124	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\text{C}$ and outdoor temperature T j				Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	4,9	kW	T j = - 7 °C	COPd	1,96	] -
T j = + 2 °C	Pdh	3,1	kW	T j = +2 °C	COPd	3,03	] -
T j = + 7 °C	Pdh	2,2	kW	T j = +7 °C	COPd	4,34	] -
T j = + 12 °C	Pdh	2,2	kW	T j = +12 °C	COPd	5,24	_
T j = bivalent temperature	Pdh	5,6	kW	T j = bivalent temperature	COPd	1,69	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	1,69	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh		kW	For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd		-
Bivalent temperature	T <sub>biv</sub>	-10	°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	1,00	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode		Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				,
Standby mode	P SB	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items				1			
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA/46	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3749	kWh	flow rate, outdoor heat exchanger		IId	1113/11
For heat pump combination he	eater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	77	%
Daily electricity consumption	Qelec	9,870	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2171	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc great importance	t's life cycle, it i that the produc	I at a recycling station or with the installation er must be sent correctly to a waste station or rese xt's refrigerant, compressor oil and electrical/ele ehold waste is not permitted.	ller offering a se	rvice of that type	e. It is of

#### Average climate and Low temperature

CTC AB 341 34 Ljungby



					341 34 1,0	iligby	
Model(s):		CTC EcoAir 71	.2M + CTC Ed				
Air-to-water heat pump:		Yes		Energy efficiency class:		A+++	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	167	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		A+++	
Heat pump combination heate Parameters shall be declared for parameters shall be declared for	or medium-tem			t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	163	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	4,0	kW	T j = -7 °C	COPd	2,82	-
T j = + 2 °C	Pdh	2,5	kW	T j = +2 °C	COPd	4,01	-
T j = + 7 °C	Pdh	2,1	kW	T j = +7 °C	COPd	5,28	<b>.</b> .
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	6,72	
T j = bivalent temperature	Pdh	4,2	kW	T j = bivalent temperature	COPd	2,52	-
T j = operation limit temperature	Pdh	4,2	kW	T j = operation limit temperature	COPd	2,53	_
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh		kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd		-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	ve mode		Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW				
Standby mode	P SB	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		•			•		
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA/46	dB	For water-/brine-to-water heat pumps: Rated brine or water		na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2239	kWh	flow rate, outdoor heat exchanger	-	IIa	ШЭДП
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\sf wh}$	77	%
Daily electricity consumption	Qelec	9,870	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2171	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	ct's life cycle, it n that the produc	at a recycling station or with the installation er nust be sent correctly to a waste station or rese t's refrigerant, compressor oil and electrical/ele shold waste is not permitted.	eller offering a se	rvice of that type	. It is of

#### CTC AB **Cold climate and Medium temperature** 341 34 Ljungby



Model(s):	CTC EcoAir 712M + CTC EcoZenith i555							
Air-to-water heat pump:	Yes	Energy efficiency class:		-				
Water-to-water heat pump:	No	Controller class:	VI	-				
Brine-to-water heat pump:	No	Controller contribution:	4	%				
Low-temperature heat pump:	No	Package efficiency:	112	%				
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	7	kW	Seasonal space heating energy efficiency	$\eta_{s}$	108	%	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T				
Tj=-7°C	Pdh	4,4	kW	T j = - 7 °C	COPd	2,33	] -	
T j = + 2 °C	Pdh	2,4	kW	T j = +2 °C	COPd	3,38	-	
T j = + 7 °C	Pdh	2,0	kW	T j = +7 °C	COPd	4,78	-	
T j = + 12 °C	Pdh	2,3	kW	T j = +12 °C	COPd	5,51	-	
T j = bivalent temperature	Pdh	5,4	kW	T j = bivalent temperature	COPd	1,79	-	
T j = operation limit temperature	Pdh	2,0	kW	T j = operation limit temperature	COPd	1,04	_	
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh		kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd		-	
Bivalent temperature	T <sub>biv</sub>	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C	
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	_	
Degradation co-efficient	Cdh	1,00	-	Heating water operating limit temperature	WTOL	55	°C	
Power consumption in modes of	ther than activ	ve mode		Supplementary heater				
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	5,0	kW	
Thermostat-off mode	P <sub>TO</sub>	0,015	kW					
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric		
Crankcase heater mode	P <sub>CK</sub>	0,000	kW					
Other items								
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h	
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA/46	dВ	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h	
Annual energy consumption	Q <sub>HE</sub>	6205	kWh	flow rate, outdoor heat exchanger		IIa	1113/11	
For heat pump combination he	ater:							
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	64	%	
Daily electricity consumption	Qelec	11,940	kWh	Daily fuel consumption	Qfuel	NA	kWh	
Annual electricity consumption	AEC	2627	kWh	Annual fuel consumption	AFC	NA	GJ	

Specific precautions and end of life information:

end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.

CTC AB 341 34 Ljungby **Cold climate and Low temperature** 



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Model(s):	CTC EcoAir 712M + CTC EcoZenith i555							
Air-to-water heat pump:	Yes		Energy efficiency class:		-			
Water-to-water heat pump:	No		Controller class:	VI	-			
Brine-to-water heat pump:	No		Controller contribution:	4	%			
Low-temperature heat pump:	No		Package efficiency:	143	%			
Equipped with a supplementary heater	r: Yes		Package efficiency class:		-			
Heat pump combination heater:	Yes							
Parameters shall be declared for media	um-temperature ap	plication, except	for low-temperature heat pump	os. For low- temp	erature heat	pumps,		
parameters shall be declared for low-t	emperature applica	ation.						
Item Syr	nbol Value	. Unit	Item	Symbol	Value	Unit		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_{s}$	139	%
Declared capacity for heating for and outdoor temperature T j	or part load at ir	ndoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature	•		
Tj=-7°C	Pdh	4,4	kW	T j = - 7 °C	COPd	3,05	] -
T j = + 2 °C	Pdh	2,6	kW	T j = +2 °C	COPd	4,16	-
T j = + 7 °C	Pdh	2,1	kW	T j = +7 °C	COPd	5,88	-
T j = + 12 °C	Pdh	2,4	kW	T j = +12 °C	COPd	6,74	-
T j = bivalent temperature	Pdh	5,5	kW	T j = bivalent temperature	COPd	2,14	-
T j = operation limit temperature	Pdh	4,4	kW	T j = operation limit temperature	COPd	1,76	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh		kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd		-
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	ther than active	e mode		Supplementary heater			
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	2,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,015	kW		•	•	
Standby mode	P <sub>SB</sub>	0,015	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		.,					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2787	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	NA/46	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	$Q_{HE}$	4747	kWh	flow rate, outdoor heat exchanger			
For heat pump combination hea	ater:	-		· · · · · · · · · · · · · · · · · · ·		•	
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	64	%
Daily electricity consumption	$Q_{\text{elec}}$	11,940	kWh	Daily fuel consumption	$\mathbf{Q}_{fuel}$	NA	kWh
Annual electricity consumption	AEC	2627	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.