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

CTC AB Ljungby



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Model(s):	CTC EcoPart 417	+ CTC EcoLogic			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	141	%	
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	17	kW	Seasonal space heating energy efficiency	η_{s}	137	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	15,9	kW	T j = +2 °C	COPd	3,07	
T j = + 7 °C	Pdh	16,0	kW	T j = +7 °C	COPd	3,42	
T j = + 12 °C	Pdh	16,5	kW	T j = +12 °C	COPd	4,09	-
T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,17	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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	na	°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	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,008	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6315	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:	•	-	· · ·		•	-
Declared load profile /		na		Water heating energy	n	no	%
Energy efficiency class		ııa	1	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 product'	s life cycle, it mus 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 not permitted.	offering a servi	ce of that type. t	is of great
Contact details	CTC AB, Näsväge						231218

CTC AB Ljungby



Warm climate and Low temperature			Ljungby	/	CIC
Model(s):	CTC EcoPart 417	+ CTC EcoLogic			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	184	%	
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	18	kW	Seasonal space heating energy efficiency	η _s	180	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door 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	16,9	kW	T j = +2 °C	COPd	4,55] -
T j = + 7 °C	Pdh	17,0	kW	T j = +7 °C	COPd	4,78	-
T j = + 12 °C	Pdh	17,3	kW	T j = +12 °C	COPd	5,06	<u> </u>
T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,63	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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	na	°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	65	°C
Power consumption in modes of	other than active	mode	•	Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output	Psup	1,4	kW
Thermostat-off mode	P _{TO}	0,027	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5180	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	ater:	<u>'</u>	•		<u> </u>		•
Declared load profile /		na		Water heating energy	$\eta_{\sf wh}$	na	%
Energy efficiency class		Tild	T	efficiency	' Iwh	IIa	
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 product	's life cycle, it mus e product's refrige	a recycling station or with the installation engine it be sent correctly to a waste station or reseller erant, compressor oil and electrical/electronic ec not permitted.	offering a servic	e of that type. t	is of great
Contact details	CTC AB, Näsväge						231218

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

CTC AB Ljungby



Model(s):	CTC EcoPart 417 -	+ CTC EcoLogic			
Air-to-water heat pump:	No	Energy efficiency class:	A++	-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	141	%	
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	18	kW	Seasonal space heating energy efficiency	η_{s}	137	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	16	kW	T j = - 7 °C	COPd	3,23] -
T j = + 2 °C	Pdh	16,1	kW	T j = +2 °C	COPd	3,60	
T j = + 7 °C	Pdh	16,4	kW	T j = +7 °C	COPd	3,97	
T j = + 12 °C	Pdh	16,7	kW	T j = +12 °C	COPd	4,36	
T j = bivalent temperature	Pdh	16	kW	T j = bivalent temperature	COPd	3,23	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	_
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}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	2,2	kW
Thermostat-off mode	P _{TO}	0,008	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	-	na	m3/h
Sound power level, indoors/ outdoors	L WA	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10286	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:	•	•				•
Declared load profile /		na		Water heating energy	n		0/
Energy efficiency class		na	1	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 product'	s life cycle, it mus 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 not permitted.	offering a servi	ce of that type. t	is of great
Contact details	CTC AB, Näsväge						231218

CTC AB Information for heat pump space heaters and heat pump combination heaters Ljungby Average climate and Low temperature Model(s): CTC EcoPart 417 + CTC EcoLogic Air-to-water heat pump: Energy efficiency class: No A+++ Water-to-water heat pump: No Controller class: VII Brine-to-water heat pump: Yes Controller contribution: % Low-temperature heat pump: No Package efficiency: 185 % Equipped with a supplementary heater: No Package efficiency class: A+++

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.

No

Heat pump combination heater:

Rated heat output (*) Declared capacity for heating for outdoor temperature T j $T j = -7 ^{\circ}C$ $T j = +2 ^{\circ}C$ $T j = +7 ^{\circ}C$ $T j = +12 ^{\circ}C$	Prated part load at ir Pdh Pdh Pdh Pdh	16,9	kW re 20 °C and	Seasonal space heating energy efficiency Declared coefficient of performal	η _s	181	%
outdoor temperature T j T j = -7 °C T j = +2 °C T j = +7 °C	Pdh Pdh	16,9	re 20 °C and	Declared coefficient of performan			
T j = + 2 °C T j = + 7 °C	Pdh			part load at indoor temperature	•	, ,,	
T j = + 7 °C			kW	T j = - 7 °C	COPd	4,64] -
	Pdh	17,1	kW	T j = +2 °C	COPd	4,83	
T j = + 12 °C		17,2	kW	T j = +7 °C	COPd	5,01	. −
	Pdh	17,4	kW	T j = +12 °C	COPd	5,18	-
T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,64	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na] -
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}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes oth	ner than active	mode	•	Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output	Psup	2,3	kW
Thermostat-off mode	P _{TO}	0,027	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	8362	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination heat	er:	· ·		1 Texerranger			
Declared load profile /		na		Water heating energy	$\eta_{\sf wh}$	na	%
Energy efficiency class		T	ı	efficiency	· Iwn	110	1 ~
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 product	s life cycle, it mus e product's refrige	a recycling station or with the installation engine it be sent correctly to a waste station or reseller erant, compressor oil and electrical/electronic ed not permitted.	offering a servic	e of that type. t	is of great



CTC AB

Cold climate and Medium temperature	!		Ljungby	/	CIC
Model(s):	CTC EcoPart 417	CTC EcoPart 417 + CTC EcoLogic			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	144	%	
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	17	kW	Seasonal space heating energy efficiency	η_{s}	140	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = -7 °C	Pdh	16,1	kW	T j = - 7 °C	COPd	3,51] -
T j = + 2 °C	Pdh	16,4	kW	T j = +2 °C	COPd	3,89	-
T j = + 7 °C	Pdh	16,6	kW	T j = +7 °C	COPd	4,24	_
T j = + 12 °C	Pdh	16,8	kW	T j = +12 °C	COPd	4,50	-
T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,19	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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}	-19	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes other than active mode				Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output	Psup	1,4	kW
Thermostat-off mode	P _{TO}	0,008	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	11554	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	eater:						
Declared load profile / Energy efficiency class		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	Gì
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 enging t be sent correctly to a waste station or reseller erant, compressor oil and electrical/electronic en and permitted	offering a service	e of that type. t	is of great
Contact details	CTC AB, Näsväge						231218

CTC AB Ljungby



Cold climate and Low temperature			Ljungby	/	CIC
Model(s):	CTC EcoPart 417	+ CTC EcoLogic			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	166	%	
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	18	kW	Seasonal space heating energy efficiency	η_{s}	184	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = -7 °C	Pdh	17,1	kW	T j = - 7 °C	COPd	4,84] -
T j = + 2 °C	Pdh	17,2	kW	T j = +2 °C	COPd	5,01] -
T j = + 7 °C	Pdh	17,3	kW	T j = +7 °C	COPd	5,13	↓ -
T j = + 12 °C	Pdh	17,3	kW	T j = +12 °C	COPd	5,15	
T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,61	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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}	-20	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes	other than active	mode	_	Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output	Psup	1,0	kW
Thermostat-off mode	P _{TO}	0,027	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9166	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	eater:						
Declared load profile / Energy 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	AEC	na	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	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 servic	e of that type. t	is of great
Contact details	CTC AB, Näsväge						231218

CTC AB Liungby



Warm climate and Medium temperatu	re		Ljungby	/	CIC
Model(s):	CTC EcoPart 417	+ CTC EcoZenith i555			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	124	%	
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	17	kW	Seasonal space heating energy efficiency	η_s	120	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performan	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T j
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	15,9	kW	T j = +2 °C	COPd	2,77	1 -
T j = + 7 °C	Pdh	16,0	kW	T j = +7 °C	COPd	3,07	-
T j = + 12 °C	Pdh	16,5	kW	T j = +12 °C	COPd	3,64	-
T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	2,85	-
T j = operation limit temperature	Pdh	15,9	kW	T j = operation limit temperature	COPd	2,77	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,3	kW
Thermostat-off mode	P TO	0,052	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7168	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:	•				•	
Declared load profile /		XL / A		Water heating energy	$\eta_{\sf wh}$	89	%
Energy efficiency class				efficiency	· IWII		ļ ~
Daily electricity consumption	Qelec	9,110	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2004	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 servi	ce of that type. t	is of great
Contact details	CTC AB, Näsväge	n 8. SE-341 34 Li	ungby Tel +46	372 88000 www.ctc.se			23121

CTC AB Ljungby



Warm climate and Low temperature				/	CIC	
Model(s):	CTC EcoPart 417					
Air-to-water heat pump:	No	Energy efficiency class:		-		
Water-to-water heat pump:	No	Controller class:	VII	-		
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%		
Low-temperature heat pump:	No	Package efficiency:	153	%		
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	18	kW	Seasonal space heating energy efficiency	η_{s}	149	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performan	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	16,9	kW	T j = +2 °C	COPd	4,01	-
Г j = + 7 °C	Pdh	17,0	kW	T j = +7 °C	COPd	4,20	_
Г j = + 12 °C	Pdh	17,3	kW	T j = +12 °C	COPd	4,43	-
T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,07	-
T j = operation limit temperature	Pdh	16,9	kW	T j = operation limit temperature	COPd	4,01	-
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	na	°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	65	°C
Power consumption in modes o	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,4	kW
Thermostat-off mode	P _{TO}	0,146	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	-	na	m3/h
Sound power level, indoors/ outdoors	L WA	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6208	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	ater:	•	•	· · · · · · · · · · · · · · · · · · ·		•	•
Declared load profile /		VI / A		Water heating energy	n	00	0/
Energy efficiency class		XL / A		efficiency	$\eta_{\sf wh}$	89	%
Daily electricity consumption	Qelec	9,110	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2004	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 servi	ce of that type. t	is of great
Contact details	CTC AB, Näsväge						231218

CTC AB Information for heat pump space heaters and heat pump combination heaters Ljungby **Average climate and Medium temperature** Model(s): CTC EcoPart 417 + CTC EcoZenith i555 Energy efficiency class: Air-to-water heat pump: No A+ Water-to-water heat pump: No Controller class: VII Brine-to-water heat pump: Yes Controller contribution: 3,5 % Low-temperature heat pump: No Package efficiency: 125 % 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	19	kW	Seasonal space heating energy efficiency	η_{s}	121	%
Declared capacity for heating foutdoor temperature T j	for part load at ir	idoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature	•		
T j = -7 °C	Pdh	16,0	kW	T j = - 7 °C	COPd	2,91] -
T j = + 2 °C	Pdh	16,1	kW	T j = +2 °C	COPd	3,24	-
T j = + 7 °C	Pdh	16,4	kW	T j = +7 °C	COPd	3,55	-
T j = + 12 °C	Pdh	16,7	kW	T j = +12 °C	COPd	3,86	
T j = bivalent temperature	Pdh	16,0	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	15,9	kW	T j = operation limit temperature	COPd	2,77] -
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes	other than active	e mode	•	Supplementary heater		•	•
Off mode	P OFF	0,018	kW	Rated heat output	Psup	3,0	kW
Thermostat-off mode	P _{TO}	0,052	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	12137	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	eater:	•	<u> </u>				
Declared load profile /		XL / A		Water heating energy	n .	89	%
Energy efficiency class		AL / A	T	efficiency	η _{wh}	63	70
Daily electricity consumption	Qelec	9,110	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2004	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	recycling station or with the installation enging the sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic en not permitted.	offering a servi	ce of that type. t	is of great
Contact details	CTC AB, Näsväge						231218

Information for heat pump sp		and heat pump	combination	heaters	CTC AB		
Average climate and Low ter Model(s):	nperature	CTC EcoPart 41	l7 + CTC EcoZe	enith i555	Ljungby		
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	157	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:	A++	-	
Heat pump combination heater:		Yes					
Parameters shall be declared for parameters shall be declared for	•		ion, except for	r low-temperature heat pumps. Fo	r low- temper	ature heat pu	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	20	kW	Seasonal space heating energy efficiency	η_s	153	%
Declared capacity for heating for outdoor temperature T j	r part load at ir	idoor temperatu	re 20 °C and	Declared coefficient of perform part load at indoor temperatur	•		
T j = - 7 °C	Pdh	16,9	kW	T j = -7 °C	COPd	4,09	-
T j = + 2 °C	Pdh	17,1	kW	T j = +2 °C	COPd	4,25	-
T j = + 7 °C	Pdh	17,2	kW	T j = +7 °C	COPd	4,39	-
T j = + 12 °C	Pdh	17,4	kW	T j = +12 °C	COPd	4,53	-
T j = bivalent temperature	Pdh	17,0	kW	T j = bivalent temperature	COPd	4,12	-
T j = operation limit temperature	Pdh	16,9	kW	T j = operation limit temperature	COPd	4,01	-
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	-

°C

kW

heating	Сусп		
Degradation co-efficient	Cdh	0,96	-
Power consumption in modes o	ther than active	mode	
Off mode	P OFF	0,018	kW
Thermostat-off mode	P _{TO}	0,146	kW
Standby mode	P_{SB}	0,018	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other items			

For air-to-water heat pumps: Operation limit temperature	TOL	na	°C	
Cycling interval efficiency	СОРсус	na	-	
Heating water operating limit temperature	WTOL	65	°C	
Supplementary heater				
Rated heat output	Psup	3,2	kW	
Type of energy input	Electric			
			 i	

Capacity control	Fixed					
capacity control						
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB			
Annual energy consumption	Q _{HE}	10312	kWh			

For air-to-water heat pumps: - Rated air flow rate, outdoors	na	m3/h
For water-/brine-to-water heat pumps: Rated brine or water		
flow rate, outdoor heat - exchanger	3,8	m3/h

For heat pump combination heater:						
Declared load profile /						

Bivalent temperature

Cycling interval capacity for

Declared load profile / Energy efficiency class	XL / A		Water heating energy efficiency	$\eta_{\sf wh}$	89	%	
Daily electricity consumption	Qelec	9,110	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2004	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. 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.

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



CTC AB

Cold climate and Medium temperature	•		Ljungby	/	CIC
Model(s):	CTC EcoPart 417	CTC EcoPart 417 + CTC EcoZenith i555			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	126	%	
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	18	kW	Seasonal space heating energy efficiency	η_{s}	122	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = -7 °C	Pdh	16,1	kW	T j = - 7 °C	COPd	3,17] -
T j = + 2 °C	Pdh	16,4	kW	T j = +2 °C	COPd	3,48	-
T j = + 7 °C	Pdh	16,6	kW	T j = +7 °C	COPd	3,76	-
T j = + 12 °C	Pdh	16,8	kW	T j = +12 °C	COPd	3,97	-
T j = bivalent temperature	Pdh	16,0	kW	T j = bivalent temperature	COPd	2,94	-
T j = operation limit temperature	Pdh	15,9	kW	T j = operation limit temperature	COPd	2,77	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-17	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes	other than active	mode	•	Supplementary heater		•	•
Off mode	P _{OFF}	0,018	kW	Rated heat output	Psup	2,5	kW
Thermostat-off mode	P _{TO}	0,052	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	13902	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	eater:						
Declared load profile /		XL / A		Water heating energy	$\eta_{\sf wh}$	89	%
Energy efficiency class		1	Ī	efficiency	·WII		
Daily electricity consumption	Qelec	9,110	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2004	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 servi	ce of that type. t	s of great
Contact details	CTC AB Näsväge						231218

CTC AB Ljungby



Cold climate and Low temperature				/	CIC	
Model(s):	CTC EcoPart 417					
Air-to-water heat pump:	No	Energy efficiency class:		-		
Water-to-water heat pump:	No	Controller class:	VII	-		
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%		
Low-temperature heat pump:	No	Package efficiency:	158	%		
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	19	kW	Seasonal space heating energy efficiency	η_{s}	154	%
Declared capacity for heating for outdoor temperature T j	or part load at ir	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = -7 °C	Pdh	17,1	kW	T j = - 7 °C	COPd	4,27] -
T j = + 2 °C	Pdh	17,2	kW	T j = +2 °C	COPd	4,39] -
T j = + 7 °C	Pdh	17,3	kW	T j = +7 °C	COPd	4,49	-
T j = + 12 °C	Pdh	17,3	kW	T j = +12 °C	COPd	4,51	↓ -
T j = bivalent temperature	Pdh	17,0	kW	T j = bivalent temperature	COPd	4,11	-
T j = operation limit temperature	Pdh	16,9	kW	T j = operation limit temperature	COPd	4,01	-
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}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	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}	0,146	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	11573	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	ater:						
Declared load profile / Energy efficiency class		XL / A		Water heating energy efficiency	η_{wh}	89	%
Daily electricity consumption	Qelec	9,110	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2004	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 ec not permitted.	offering a servic	e of that type. t	is of great
Contact details	CTC AB, Näsväge	en 8, SE-341 34 L					231218

CTC AB Ljungby



Warm climate and Medium temperatu	Ljungby		CIC		
Model(s):	CTC EcoPart 417	CTC EcoPart 417 + CTC Basicstyrning			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	I	-	
Brine-to-water heat pump:	Yes	Controller contribution:	1	%	
Low-temperature heat pump:	No	Package efficiency:	138	%	
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	17	kW	Seasonal space heating energy efficiency	η_{s}	137	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performan	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T j
Tj=-7°C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	15,9	kW	T j = +2 °C	COPd	3,07	1 -
T j = + 7 °C	Pdh	16,0	kW	T j = +7 °C	COPd	3,42	-
T j = + 12 °C	Pdh	16,5	kW	T j = +12 °C	COPd	4,09	-
T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,17	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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	na	°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	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,008	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6315	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:	•				_	
Declared load profile /		na		Water heating energy	$\eta_{\sf wh}$	na	%
Energy efficiency class		iiu	1	efficiency	' Iwh	ila	1 ′°
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 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 en not permitted.	offering a servi	ce of that type. t	is of great
Contact details	CTC AB, Näsväge	n 8. SE-341 34 Li	ungby Tel +46	372 88000 www.ctc.se			231218

CTC AB Ljungby



Warm climate and Low temperature			Ljungby	1	CIC
Model(s):	CTC EcoPart 417				
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	I	-	
Brine-to-water heat pump:	Yes	Controller contribution:	1	%	
Low-temperature heat pump:	No	Package efficiency:	181	%	
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	18	kW	Seasonal space heating energy efficiency	η_{s}	180	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door 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	16,9	kW	T j = +2 °C	COPd	4,55	-
T j = + 7 °C	Pdh	17,0	kW	T j = +7 °C	COPd	4,78	-
T j = + 12 °C	Pdh	17,3	kW	T j = +12 °C	COPd	5,06	-
T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,63	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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	na	°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	65	°C
Power consumption in modes	other than active	mode	•	Supplementary heater		•	
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,4	kW
Thermostat-off mode	P _{TO}	0,027	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	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5180	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	eater:			-			
Declared load profile /		na		Water heating energy	$\eta_{\sf wh}$	na	%
Energy efficiency class			1	efficiency	· IWII		,
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 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 grant, compressor oil and electrical/electronic ed not permitted.	offering a service	ce of that type. t	s of great
Contact details	CTC AB Näsväge						231218

CTC AB Ljungby



Average climate and Medium tempera	Ljungby		CIC				
Model(s):	CTC EcoPart 417 + CTC Basicstyrning						
Air-to-water heat pump:	No	Energy efficiency class:	A++	-			
Water-to-water heat pump:	No	Controller class:	I	-			
Brine-to-water heat pump:	Yes	Controller contribution:	1	%			
Low-temperature heat pump:	No	Package efficiency:	138	%			
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-			
Heat numn combination heater:	No						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	η_{s}	137	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	16	kW	T j = - 7 °C	COPd	3,23] -
T j = + 2 °C	Pdh	16,1	kW	T j = +2 °C	COPd	3,60	
T j = + 7 °C	Pdh	16,4	kW	T j = +7 °C	COPd	3,97	
T j = + 12 °C	Pdh	16,7	kW	T j = +12 °C	COPd	4,36	
T j = bivalent temperature	Pdh	16	kW	T j = bivalent temperature	COPd	3,23	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	_
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}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	2,2	kW
Thermostat-off mode	P _{TO}	0,008	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	-	na	m3/h
Sound power level, indoors/ outdoors	L WA	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10286	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:	•	•				•
Declared load profile /		na		Water heating energy	n		0/
Energy efficiency class		na	1	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 product'	s life cycle, it mus 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 not permitted.	offering a servi	ce of that type. t	is of great
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CTC AB Ljungby



Average climate and Low temperature			Ljungby		CIC			
Model(s):	CTC EcoPart 417	CTC EcoPart 417 + CTC Basicstyrning						
Air-to-water heat pump:	No	Energy efficiency class:	A+++	-				
Water-to-water heat pump:	No	Controller class:	1	-				
Brine-to-water heat pump:	Yes	Controller contribution:	1	%				
Low-temperature heat pump:	No	Package efficiency:	182	%				
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	19	kW	Seasonal space heating energy efficiency	η_{s}	181	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	16,9	kW	T j = - 7 °C	COPd	4,64] -
T j = + 2 °C	Pdh	17,1	kW	T j = +2 °C	COPd	4,83	_
Т j = + 7 °С	Pdh	17,2	kW	T j = +7 °C	COPd	5,01	_
T j = + 12 °C	Pdh	17,4	kW	T j = +12 °C	COPd	5,18	-
T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,64	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	2,3	kW
Thermostat-off mode	P _{TO}	0,027	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	-	na	m3/h
Sound power level, indoors/ outdoors	L WA	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	8362	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	ater:	•	•	· · · · · · · · · · · · · · · · · · ·		•	
Declared load profile /		na		Water heating energy	n		0/
Energy efficiency class		na -	1	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 product'	s life cycle, it mus 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 not permitted.	offering a servi	ce of that type. t	is of great
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CTC AB Ljungby



Cold climate and Medium temperature	•		Ljungby	/	CIC
Model(s):	CTC EcoPart 417	+ CTC Basicstyrning			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	I	-	
Brine-to-water heat pump:	Yes	Controller contribution:	1	%	
Low-temperature heat pump:	No	Package efficiency:	141	%	
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	17	kW	Seasonal space heating energy efficiency	η_s	140	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	16,1	kW	T j = - 7 °C	COPd	3,51] -
T j = + 2 °C	Pdh	16,4	kW	T j = +2 °C	COPd	3,89	
T j = + 7 °C	Pdh	16,6	kW	T j = +7 °C	COPd	4,24	
T j = + 12 °C	Pdh	16,8	kW	T j = +12 °C	COPd	4,50	-
T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,19	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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}	-19	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,4	kW
Thermostat-off mode	P TO	0,008	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	-	na	m3/h
Sound power level, indoors/ outdoors	L WA	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	11554	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:	•	-	· · ·		•	-
Declared load profile /	na			Water heating energy	n .	na	%
Energy efficiency class		IIa	1	efficiency	$\eta_{\sf wh}$	na	70
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 product'	s life cycle, it mus 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 not permitted.	offering a servi	ce of that type. t	is of great
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CTC AB Ljungby



Cold climate and Low temperature			Ljungby	,	CIC
Model(s):	CTC EcoPart 417	+ CTC Basicstyrning			
Air-to-water heat pump:	No	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	I	-	
Brine-to-water heat pump:	Yes	Controller contribution:	1	%	
Low-temperature heat pump:	No	Package efficiency:	185	%	
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	18	kW	Seasonal space heating energy efficiency	η _s	184	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = -7 °C	Pdh	17,1	kW	T j = - 7 °C	COPd	4,84] -
T j = + 2 °C	Pdh	17,2	kW	T j = +2 °C	COPd	5,01] -
T j = + 7 °C	Pdh	17,3	kW	T j = +7 °C	COPd	5,13	
T j = + 12 °C	Pdh	17,3	kW	T j = +12 °C	COPd	5,15	↓ -
T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,61	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	_
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}	-20	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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 65		°C
Power consumption in modes of	other than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,0	kW
Thermostat-off mode	P _{TO}	0,027	kW		Electric		
Standby mode	P_{SB}	0,018	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0,000	kW				
Other items					i		_
Capacity control	Fixed			For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9166	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	ater:						
Declared load profile / Energy 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 product	's life cycle, it mus 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 ec not permitted.	offering a service	e of that type. t	is of great
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