Warm climate and Medium temperature

CTC AB Ljungby



Model(s): CTC EcoPart 430 + CTC EcoLogic, CTC EcoPart i430 PRO					
No	Energy efficiency class:		=		
No	Controller class:	VII	=		
Yes	Controller contribution:	3,5	%		
No	Package efficiency:	140	%		
No	Package efficiency class:		-		
No					
	No No Yes No	No Energy efficiency class: No Controller class: Yes Controller contribution: No Package efficiency: No Package efficiency class:	No Energy efficiency class: No Controller class: VII Yes Controller contribution: 3,5 No Package efficiency: 140 No Package efficiency class:	No Energy efficiency class: - No Controller class: VII - Yes Controller contribution: 3,5 % No Package efficiency: 140 % No Package efficiency class: -	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	30	kW	Seasonal space heating energy efficiency	η_s	136	%
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			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	27,0	kW	T j = +2 °C	COPd	3,11	-
T j = + 7 °C	Pdh	27,6	kW	T j = +7 °C	COPd	3,48	-
T j = + 12 °C	Pdh	28,4	kW	T j = +12 °C	COPd	4,12	-
T j = bivalent temperature	Pdh	27,0	kW	T j = bivalent temperature	COPd	3,21	-
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	2,2	kW
Thermostat-off mode	P TO	0,032	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		7	-				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10792	kWh	flow rate, outdoor heat exchanger	-	3,1/2,1	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 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 enging it be sent correctly to a waste station or reseller erant, compressor oil and electrical/electronic en not permitted.	offering a servi	ce of that type. t i	s of great

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Warm climate and Low temperature			Ljungb	у	CIC
Model(s):	CTC EcoPart 430				
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:	174	%	
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	32	kW	Seasonal space heating energy efficiency	η_{s}	170	%
Declared capacity for heating fo	r part load at in	door temperatu	re 20 °C and	Declared coefficient of performan	nce or prima	ry energy rati	io for
outdoor temperature T j		·		part load at indoor temperature 2			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	29,0	kW	T j = +2 °C	COPd	4,55	-
Г j = + 7 °C	Pdh	29,4	kW	T j = +7 °C	COPd	4,76	-
T j = + 12 °C	Pdh	29,6	kW	T j = +12 °C	COPd	5,02	-
T j = bivalent temperature	Pdh	29,2	kW	T j = bivalent temperature	COPd	4,62	-
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	0,96	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes o	ther than active	mode	•	Supplementary heater		•	•
Off mode	P OFF	0,018	kW	Rated heat output	Psup	2,4	kW
Thermostat-off mode	P _{TO}	0,097	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9404	kWh	flow rate, outdoor heat exchanger	-	3,8/2,6	m3/h
For heat pump combination hea	ater:	•	-			-	-
Declared load profile /		na		Water heating energy	n .	na	%
Energy efficiency class		ııa	1	efficiency	$\eta_{\sf wh}$	na	/0
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 the sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ed not permitted.	offering a service	ce of that type. t i	s of great

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

CTC AB Ljungby



The table of table	manage annual meanann temperature			,		
Model(s):	CTC EcoPart 430	+ CTC EcoLogic, CTC EcoPart i430 PRO				
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	32	kW	Seasonal space heating energy efficiency	η_{s}	137	%
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	27,2	kW	T j = - 7 °C	COPd	3,29] -
T j = + 2 °C	Pdh	27,8	kW	T j = +2 °C	COPd	3,68	-
T j = + 7 °C	Pdh	28,4	kW	T j = +7 °C	COPd	4,03	-
T j = + 12 °C	Pdh	28,8	kW	T j = +12 °C	COPd	4,37	-
T j = bivalent temperature	Pdh	27,2	kW	T j = bivalent temperature	COPd	3,34	-
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}	-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	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	5,4	kW
Thermostat-off mode	P _{TO}	0,032	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	18316	kWh	flow rate, outdoor heat exchanger	-	3,1/2,1	m3/h
For heat pump combination he	eater:						
Declared load profile /		na		Water heating energy	$\eta_{\sf wh}$	na	%
Energy efficiency class		··~	1	efficiency	· IWI		, i
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 i	s of great

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

CTC AB Ljungby



Average climate and Low temperature			Ljuligo	y	
Model(s):	CTC EcoPart 430	+ CTC EcoLogic, CTC EcoPart i430 PRO			
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:	178	%	
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	32	kW	Seasonal space heating energy efficiency	η_{s}	174	%
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	29,2	kW	T j = - 7 °C	COPd	4,64	-
T j = + 2 °C	Pdh	29,4	kW	T j = +2 °C	COPd	4,81	-
T j = + 7 °C	Pdh	29,6	kW	T j = +7 °C	COPd	4,97	-
T j = + 12 °C	Pdh	29,8	kW	T j = +12 °C	COPd	5,13	-
T j = bivalent temperature	Pdh	29,2	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	0,96	-	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	4,0	kW
Thermostat-off mode	P _{TO}	0,097	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	14934	kWh	flow rate, outdoor heat exchanger	-	3,8/2,6	m3/h
For heat pump combination he	eater:						
Declared load profile /		na		Water heating energy	$\eta_{\sf wh}$	na	%
Energy efficiency class		1	Ī	efficiency	·WII		
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 i	s of great

Cold climate and Medium temperature

CTC AB Ljungby



•				,
Model(s):	CTC EcoPart 430 +	CTC EcoLogic, CTC EcoPart i430 PRO		
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			
Parameters shall be declared for medium-te	mperature application,	except for low-temperature heat pumps.	For low- tem	perature heat pumps,

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	30	kW	Seasonal space heating energy efficiency	η_s	140	%
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			
T j = -7 °C	Pdh	27,6	kW	T j = - 7 °C	COPd	3,59] -
T j = + 2 °C	Pdh	28,2	kW	T j = +2 °C	COPd	3,94	-
T j = + 7 °C	Pdh	28,6	kW	T j = +7 °C	COPd	4,26	-
T j = + 12 °C	Pdh	29,0	kW	T j = +12 °C	COPd	4,49	-
T j = bivalent temperature	Pdh	27,2	kW	T j = bivalent temperature	COPd	3,28	-
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}	-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	0,99	-	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	3,4	kW
Thermostat-off mode	P TO	0,032	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	20278	kWh	flow rate, outdoor heat exchanger	-	3,1/2,1	m3/h
For heat pump combination he	ater:			-			
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	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 enging the sent correctly to a waste station or reseller grant, compressor oil and electrical/electronic en anot permitted.	offering a servi	ce of that type. t i	is of great

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Cold climate and Low temperature			Ljungb	У	CIC
Model(s):	CTC EcoPart 430 +	CTC EcoLogic, CTC EcoPart i430 PRO			
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:	180	%	
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	32	kW	Seasonal space heating energy efficiency	η_{s}	176	%
Declared capacity for heating fo	r part load at in	door temperatur	re 20 °C and	Declared coefficient of performar	nce or prima	ry energy rati	o for
outdoor temperature T j		·		part load at indoor temperature 2	20 °C and ou	tdoor temper	ature T
T j = -7 °C	Pdh	29,4	kW	T j = - 7 °C	COPd	4,84	-
T j = + 2 °C	Pdh	29,6	kW	T j = +2 °C	COPd	4,98	-
T j = + 7 °C	Pdh	29,8	kW	T j = +7 °C	COPd	5,08	-
T j = + 12 °C	Pdh	29,8	kW	T j = +12 °C	COPd	5,11	-
T j = bivalent temperature	Pdh	29,2	kW	T j = bivalent temperature	COPd	4,67	-
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}	-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 o	ther than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output	Psup	3,6	kW
Thermostat-off mode	P_{TO}	0,097	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	15539	kWh	flow rate, outdoor heat exchanger	-	3,8/2,6	m3/h
For heat pump combination hea	iter:	-	-	<u> </u>		-	
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	s life cycle, it must product's refriger	recycling station or with the installation engine be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic equals permitted	offering a servic	e of that type. t is	s of great

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

CTC AB Ljungby



Model(s):	CTC EcoPart 430	+ 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	29	kW	Seasonal space heating energy efficiency	η_{s}	120	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performar part load at indoor temperature 2	•		
T j = -7 °C	Pdh	na	kW	T j = − 7 °C	COPd	na	-
T j = + 2 °C	Pdh	26,8	kW	T j = +2 °C	COPd	2,77	-
T j = + 7 °C	Pdh	27,2	kW	T j = +7 °C	COPd	3,09	-
T j = + 12 °C	Pdh	28,0	kW	T j = +12 °C	COPd	3,65	-
T j = bivalent temperature	Pdh	26,9	kW	T j = bivalent temperature	COPd	2,86	-
T j = operation limit temperature	Pdh	26,8	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	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	•	Supplementary heater		•	•
Off mode	P OFF	0,025	kW	Rated heat output	Psup	2,2	kW
Thermostat-off mode	P _{TO}	0,119	kW				
Standby mode	P_{SB}	0,025	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	12132	kWh	flow rate, outdoor heat exchanger	-	3,1/2,1	m3/h
For heat pump combination he	eater:						
Declared load profile /		XXL / A		Water heating energy	$\eta_{\sf wh}$	100	%
Energy efficiency class		10.2771		efficiency	· IWII	100	, i
Daily electricity consumption	Qelec	9,851	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2167	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 servi	ce of that type. t i	s of great

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Warm climate and Low temperature		Ljungby		CIC	
Model(s):	CTC EcoPart 430				
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:	150	%	
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	31	kW	Seasonal space heating energy efficiency	η_{s}	146	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performar part load at indoor temperature 2			
T j = -7 °C	Pdh	na	kW	T j = − 7 °C	COPd	na	-
T j = + 2 °C	Pdh	28,6	kW	T j = +2 °C	COPd	4,03	-
T j = + 7 °C	Pdh	28,9	kW	T j = +7 °C	COPd	4,22	-
T j = + 12 °C	Pdh	29,3	kW	T j = +12 °C	COPd	4,45	-
T j = bivalent temperature	Pdh	28,7	kW	T j = bivalent temperature	COPd	4,09	-
T j = operation limit temperature	Pdh	28,6	kW	T j = operation limit temperature	COPd	4,03	-
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	0,94	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	other than active	mode	•	Supplementary heater		•	
Off mode	P OFF	0,025	kW	Rated heat output	Psup	2,3	kW
Thermostat-off mode	P _{TO}	0,357	kW	[]			
Standby mode	P_{SB}	0,025	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10756	kWh	flow rate, outdoor heat exchanger	-	3,8/2,6	m3/h
For heat pump combination he	ater:						
Declared load profile /		XXL / A		Water heating energy	$\eta_{\sf wh}$	100	%
Energy efficiency class		·	<u> </u>	efficiency	•****		
Daily electricity consumption	Qelec	9,851	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2167	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 i	s of great

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

CTC AB Ljungby



- 18 - 1 - 1 - 1 - 1 - 1 - 1 - 1	, , ,						
Model(s):	CTC EcoPart 430 + CTC EcoZenith i555						
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:	128	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-			
Heat pump combination heater:	Yes						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	30	kW	Seasonal space heating energy efficiency	η_{s}	124	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performar part load at indoor temperature 2			
T j = -7 °C	Pdh	27,0	kW	T j = − 7 °C	COPd	2,93	-
T j = + 2 °C	Pdh	16,6	kW	T j = +2 °C	COPd	3,24	-
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	3,63	-
T j = + 12 °C	Pdh	11,8	kW	T j = +12 °C	COPd	3,94	-
T j = bivalent temperature	Pdh	26,8	kW	T j = bivalent temperature	COPd	2,79	-
T j = operation limit temperature	Pdh	26,8	kW	T j = operation limit temperature	COPd	2,79	-
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}	-10	°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	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	•	Supplementary heater		•	•
Off mode	P OFF	0,025	kW	Rated heat output	Psup	3,2	kW
Thermostat-off mode	P _{TO}	0,025	kW				
Standby mode	P _{SB}	0,025	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	18765	kWh	flow rate, outdoor heat exchanger	-	3,1/2,1	m3/h
For heat pump combination he	eater:						
Declared load profile /		XXL / A		Water heating energy	$\eta_{\sf wh}$	100	%
Energy efficiency class		1	Ī	efficiency	·wii		
Daily electricity consumption	Qelec	9,851	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2167	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 servi	ce of that type. t i	s of great

CTC AB Ljungby



Average climate and Low temperature			Ljungby		CIC	
Model(s):	CTC EcoPart 430	+ CTC EcoZenith i555				
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:	155	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-		
Heat pump combination heater:	Yes					

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	34	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	151	%
Declared capacity for heating fo	r part load at in	door temperatui	re 20 °C and	Declared coefficient of performar	nce or prima	ry energy rati	o for
outdoor temperature T j	·	·		part load at indoor temperature 2			
T j = - 7 °C	Pdh	28,70	kW	T j = - 7 °C	COPd	4,11	-
Г j = + 2 °C	Pdh	29,0	kW	T j = +2 °C	COPd	4,27	-
Г j = + 7 °C	Pdh	29,2	kW	T j = +7 °C	COPd	4,41	-
T j = + 12 °C	Pdh	29,5	kW	T j = +12 °C	COPd	4,55	-
Γ j = bivalent temperature	Pdh	28,8	kW	T j = bivalent temperature	COPd	4,14	-
T j = operation limit temperature	Pdh	28,6	kW	T j = operation limit temperature	COPd	4,03	-
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	0,94	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes o	ther than active	mode		Supplementary heater			
Off mode	P OFF	0,025	kW	Rated heat output	Psup	5,4	kW
Thermostat-off mode	P _{TO}	0,357	kW	[]			
Standby mode	P _{SB}	0,025	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	17699	kWh	flow rate, outdoor heat exchanger	-	3,8/2,6	m3/h
For heat pump combination hea	iter:						
Declared load profile /		XXL / A		Water heating energy	$\eta_{\sf wh}$	100	%
Energy efficiency class		-		efficiency			
Daily electricity consumption	Qelec	9,851	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2167	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product'	s life cycle, it must e product's refrige	recycling station or with the installation engine be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ec	offering a servic	e of that type. t i	s of great

Cold climate and Medium temperature

CTC AB Ljungby



Model(s):	CTC EcoPart 430 +	CTC EcoPart 430 + 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	31	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 performar part load at indoor temperature 2	•		
T j = -7 °C	Pdh	27,30	kW	T j = − 7 °C	COPd	3,19	-
T j = + 2 °C	Pdh	27,8	kW	T j = +2 °C	COPd	3,50	-
T j = + 7 °C	Pdh	28,2	kW	T j = +7 °C	COPd	3,78	-
T j = + 12 °C	Pdh	28,6	kW	T j = +12 °C	COPd	3,99	-
T j = bivalent temperature	Pdh	27,0	kW	T j = bivalent temperature	COPd	2,95	-
T j = operation limit temperature	Pdh	26,8	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	3,00	-
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	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	•	Supplementary heater		•	•
Off mode	P OFF	0,025	kW	Rated heat output	Psup	4,3	kW
Thermostat-off mode	P _{TO}	0,119	kW				
Standby mode	P_{SB}	0,025	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	23522	kWh	flow rate, outdoor heat exchanger	-	3,1/2,1	m3/h
For heat pump combination he	eater:						
Declared load profile /		XXL / A		Water heating energy	$\eta_{\sf wh}$	100	%
Energy efficiency class		• •	ı	efficiency	*****		
Daily electricity consumption	Qelec	9,851	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2167	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 servi	ce of that type. t i	s of great

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

CTC AB Ljungby



Model(s):	CTC EcoPart 430 + 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:	155	%			
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	33	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	151	%
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	29,10	kW	T j = - 7 °C	COPd	4,29] -
T j = + 2 °C	Pdh	29,3	kW	T j = +2 °C	COPd	4,42	-
T j = + 7 °C	Pdh	29,4	kW	T j = +7 °C	COPd	4,51	-
T j = + 12 °C	Pdh	29,4	kW	T j = +12 °C	COPd	4,53	-
T j = bivalent temperature	Pdh	28,8	kW	T j = bivalent temperature	COPd	4,16	-
T j = operation limit temperature	Pdh	28,6	kW	T j = operation limit temperature	COPd	4,03	-
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	4,19	-
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	0,94	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	•	Supplementary heater		•	•
Off mode	P OFF	0,025	kW	Rated heat output	Psup	4,6	kW
Thermostat-off mode	P _{TO}	0,357	kW				-
Standby mode	P_{SB}	0,025	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}	53/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	20588	kWh	flow rate, outdoor heat exchanger	-	3,8/2,6	m3/h
For heat pump combination he	eater:						
Declared load profile /		XXL / A		Water heating energy	$\eta_{\sf wh}$	100	%
Energy efficiency class		1002/10	1	efficiency	· IWI	100	
Daily electricity consumption	Qelec	9,851	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2167	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product'	s life cycle, it must e product's refrige	recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ec not permitted.	offering a servic	ce of that type. t is	s of great