No

Yes

Warm climate and High temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

Brine-to-water heat pump:

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%

VII

3,5

Billie-to-water fleat pullip.		163		Controller contribution.	3,3	/0	
Low-temperature heat pump:		No		Package efficiency:	141	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:		-	
Heat pump combination heate		No					
			tion, except fo	r low-temperature heat pumps. For l	ow- tempera	ature heat pui	nps,
parameters shall be declared for	or low-temperati	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	24	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 performa part load at indoor temperature			
T j = – 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	-
T j = + 2 °C	Pdh	27,2	kW	T j = +2 °C	COPd	3,08	-
T j = + 7 °C	Pdh	22,2	kW	T j = +7 °C	COPd	3,45	-
T j = + 12 °C	Pdh	23,0	kW	T j = +12 °C	COPd	4,14	-
T j = bivalent temperature	Pdh	22,0	kW	T j = bivalent temperature	COPd	3,18	-
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	-
Sivalent 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	1,0	kW
Thermostat-off mode	P _{TO}	0,005	kW			•	
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
	, ck	0,000	K V V	1			
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}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	8728	kWh	flow rate, outdoor heat exchanger		3,1/1,6	m3/h
For heat pump combination he	eater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +	46 372 88000 www.ctc.se			

CTC EcoPart 425 + CTC EcoLogic, CTC EcoPart i425 PRO

Energy efficiency class:

Controller contribution:

Controller class:

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

Warm climate and Low temperature

Model(s):

consumption Contact details

Air-to-water heat pump:

Water-to-water heat pump:

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water-to-water neat pump.		NU		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	y heater:	No		Package efficiency class:		-	
Heat pump combination heater	r:	No					
		erature applica	tion, except for	r low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared for	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	26	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	ure 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	23,6	kW	T j = +2 °C	COPd	4,60] -
T j = + 7 °C	Pdh	23,8	kW	T j = +7 °C	COPd	4,83	-
T j = + 12 °C	Pdh	24,0	kW	T j = +12 °C	COPd	5,11	-
T j = bivalent temperature	Pdh	23,6	kW	T j = bivalent temperature	COPd	4,68	-
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	0,98	-	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	1,8	kW
Thermostat-off mode	P _{TO}	0,022	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}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7236	kWh	flow rate, outdoor heat exchanger	-	3,8/2,0	m3/h
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

CTC EcoPart 425 + CTC EcoLogic, CTC EcoPart i425 PRO

Energy efficiency class:

Controller class:

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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

ENERTECH

Average climate and High temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	142	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:	A++	-	
Heat pump combination heater	r:	No					
Parameters shall be declared fo	or medium-temp	erature applicat	tion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pui	mps,
parameters shall be declared for	or low-temperati	ure application.					
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	24	kW	Seasonal space heating energy efficiency	η_{s}	138	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	ıre 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	22,0	kW	T j = - 7 °C	COPd	3,25] -
T j = + 2 °C	Pdh	22,4	kW	T j = +2 °C	COPd	3,64	1 -
T j = + 7 °C	Pdh	22,8	kW	T j = +7 °C	COPd	4,02	-
T j = + 12 °C	Pdh	23,2	kW	T j = +12 °C	COPd	4,40	-
T j = bivalent temperature	Pdh	22,0	kW	T j = bivalent temperature	COPd	3,25] -
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	3	kW
Thermostat-off mode	P TO	0,005	kW				-
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items	CK	3,000	1		ļ		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	14168	kWh	flow rate, outdoor heat exchanger	-	3,1/1,6	m3/h
For heat pump combination he	ater:						
Declared load profile		na	_	Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

CTC EcoPart 425 + CTC EcoLogic, CTC EcoPart i425 PRO

Energy efficiency class:

Controller class:

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

Average climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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A++

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water to water near pamp:		110		COTTE OHET CIUSSI	•		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	186	%	
Equipped with a supplementary	y heater:	No		Package efficiency class:	A+++	-	
Heat pump combination heater	r:	No					
Parameters shall be declared for	or medium-temp	erature applicat	tion, except fo	r low-temperature heat pumps. For	low- tempera	ature heat pui	mps,
parameters shall be declared for	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	26	kW	Seasonal space heating energy efficiency	η_{s}	182	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	23,6	kW	T j = - 7 °C	COPd	4,69	-
T j = + 2 °C	Pdh	23,8	kW	T j = +2 °C	COPd	4,88	-
T j = + 7 °C	Pdh	24,0	kW	T j = +7 °C	COPd	5,06	-
T j = + 12 °C	Pdh	24,2	kW	T j = +12 °C	COPd	5,23	-
T j = bivalent temperature	Pdh	23,6	kW	T j = bivalent temperature	COPd	4,69	-
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	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of		mode	7	Supplementary heater			1
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,2	kW
Thermostat-off mode	P _{TO}	0,022	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}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	11628	kWh	flow rate, outdoor heat exchanger	-	3,8/2,0	m3/h
For heat pump combination he	ater:			<u>-</u>			
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

CTC EcoPart 425 + CTC EcoLogic, CTC EcoPart i425 PRO

Energy efficiency class:

Controller class:

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consumption Contact details

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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

Cold climate and High temperature

Model(s):

consumption Contact details

Air-to-water heat pump:

Water-to-water heat pump:

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Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	145	%	
Equipped with a supplementary	/ heater:	No		Package efficiency class:		-	
Heat pump combination heater		No					
Parameters shall be declared for parameters shall be declared for			ion, except for	r low-temperature heat pumps. Fo	r low- tempera	iture heat pui	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	24	kW	Seasonal space heating energy efficiency		141	%
Declared capacity for heating for outdoor temperature T j	or part load at inc	door temperatu	re 20 °C and	Declared coefficient of perforn part load at indoor temperatur			
T j = -7 °C	Pdh	22,4	kW	T j = - 7 °C	COPd	3,56] -
T j = + 2 °C	Pdh	22,8	kW	T j = +2 °C	COPd	3,94] -
T j = + 7 °C	Pdh	23,2	kW	T j = +7 °C	COPd	4,29	-
T j = + 12 °C	Pdh	23,4	kW	T j = +12 °C	COPd	4,54	-
T j = bivalent temperature	Pdh	22,0	kW	T j = bivalent temperature	COPd	3,25	-
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	ther than active	mode	•	Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	2,8	kW
Thermostat-off mode	P _{TO}	0,005	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}	50/na	dB	For water-/brine-to-water hear pumps: Rated brine or water	t		
Annual energy consumption	Q _{HE}	16390	kWh	flow rate, outdoor heat exchanger		3,1/1,6	m3/h
For heat pump combination hea	ater:						
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

CTC EcoPart 425 + CTC EcoLogic, CTC EcoPart i425 PRO

Energy efficiency class:

Controller class:

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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

Cold climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	189	%	
Equipped with a supplementary	/ heater:	No		Package efficiency class:		-	
Heat pump combination heater	:	No					
			ion, except for	r low-temperature heat pumps. Fo	r low- tempera	ture heat pur	nps,
parameters shall be declared for	r low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	24	kW	Seasonal space heating energy efficiency	η _s	185	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatui	re 20 °C and	Declared coefficient of perform	•		
T j = -7 °C	Pdh	23,8	kW	T j = - 7 °C	COPd	4,89	-
T j = + 2 °C	Pdh	24,0	kW	T j = +2 °C	COPd	5,06	-
T j = + 7 °C	Pdh	24,2	kW	T j = +7 °C	COPd	5,18	-
T j = + 12 °C	Pdh	24,2	kW	T j = +12 °C	COPd	5,20	-
T j = bivalent temperature	Pdh	23,6	kW	T j = bivalent temperature	COPd	4,66	-
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	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	ther than active	mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,4	kW
Thermostat-off mode	P _{TO}	0,022	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}	50/na	dB	For water-/brine-to-water hear pumps: Rated brine or water	t		
Annual energy consumption	Q _{HE}	12746	kWh	flow rate, outdoor heat exchanger	-	3,8/2,0	m3/h
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	η_{wh}	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	46 372 88000 www.ctc.se			

CTC EcoPart 425 + CTC EcoLogic, CTC EcoPart i425 PRO

Energy efficiency class:

Controller class:

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

Warm climate and High temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	123	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:		-	
Heat pump combination heater		Yes					
				r low-temperature heat pumps. For	low- tempera	iture heat pui	mps,
parameters shall be declared fo	Symbol	Value	Unit	Item	Symbol	Value	Unit
	,			Seasonal space heating energy			
Rated heat output (*)	Prated	25	kW	efficiency	η_{s}	119	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	ure 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	- [
T j = + 2 °C	Pdh	23,5	kW	T j = +2 °C	COPd	2,79	-
T j = + 7 °C	Pdh	23,8	kW	T j = +7 °C	COPd	3,09	-
T j = + 12 °C	Pdh	24,5	kW	T j = +12 °C	COPd	3,64	-
T j = bivalent temperature	Pdh	23,6	kW	T j = bivalent temperature	COPd	2,87	-
T j = operation limit temperature	Pdh	23,5	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}	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 o	ther than active		7	Supplementary heater		_	1
Off mode	P _{OFF}	0,025	kW	Rated heat output (*)	Psup	1,9	kW
Thermostat-off mode	P _{TO}	0,117	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}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10694	kWh	flow rate, outdoor heat exchanger	-	3,1/1,6	m3/h
For heat pump combination hea	ater:						
Declared load profile		XXL		Water heating energy efficiency	$\eta_{\sf wh}$	101	%
Daily electricity consumption	Qelec	9,750	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity	AEC	2145	kWh	Annual fuel consumption	AFC	NA	GJ

CTC EcoPart 425 + CTC EcoZenith 550

Energy efficiency class:

Controller class:

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consumption Contact details

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

CTC EcoPart 425 + CTC EcoZenith 550

Energy efficiency class:

Controller class:

Warm climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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water-to-water neat pump.		NU		CONTRONET Class.	VII		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	147	%	
Equipped with a supplementary	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater		Yes		•			
		erature applicat	tion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pui	mps,
parameters shall be declared for	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Uni
Rated heat output (*)	Prated	29	kW	Seasonal space heating energy efficiency	n _s	143	%
Declared capacity for heating fo outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	25,1	kW	T j = +2 °C	COPd	4,02	1 -
T j = + 7 °C	Pdh	25,3	kW	T j = +7 °C	COPd	4,23	-
T j = + 12 °C	Pdh	25,6	kW	T j = +12 °C	COPd	4,45	-
T j = bivalent temperature	Pdh	25,2	kW	T j = bivalent temperature	COPd	4,14	-
T j = operation limit temperature	Pdh	25,1	kW	T j = operation limit temperature	COPd	4,02	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	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	other than active	mode	•	Supplementary heater		•	•
Off mode	P OFF	0,025	kW	Rated heat output (*)	Psup	4,4	kW
Thermostat-off mode	P _{TO}	0,354	kW				
Standby mode	P_{SB}	0,025	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items	<u> </u>	-,-30	!		1		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/
Sound power level, indoors/ outdoors	L _{WA}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10386	kWh	flow rate, outdoor heat exchanger		3,8/2,0	m3/
For heat pump combination he	ater:			<u>-</u>			
Declared load profile		XXL		Water heating energy efficiency	$\eta_{\sf wh}$	101	%
Daily electricity consumption	Qelec	9,750	kWh	Daily fuel consumption	Qfuel	NA	kW
Annual electricity	AEC	2145	kWh	Annual fuel consumption	AFC	NA	GJ

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

Yes

CTC EcoPart 425 + CTC EcoZenith 550

Energy efficiency class:

Controller contribution:

Controller class:

Average climate and High temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

Brine-to-water heat pump:

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%

A+

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3,5

Low-temperature heat pump:		No		Package efficiency:	124	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:	A+	-	
Heat pump combination heate	r:	Yes					
			ion, except for	r low-temperature heat pumps. For	low- tempera	iture heat pui	mps,
parameters shall be declared for	-						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	28	kW	Seasonal space heating energy efficiency	η_{S}	120	%
Declared capacity for heating foutdoor temperature T j	or part load at inc	door temperatu	re 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = -7 °C	Pdh	23,7	kW	T j = - 7 °C	COPd	2,93] -
T j = + 2 °C	Pdh	24,0	kW	T j = +2 °C	COPd	3,25	-
T j = + 7 °C	Pdh	24,4	kW	T j = +7 °C	COPd	3,56	-
T j = + 12 °C	Pdh	24,9	kW	T j = +12 °C	COPd	3,87	-
T j = bivalent temperature	Pdh	23,7	kW	T j = bivalent temperature	COPd	2,98	-
T j = operation limit temperature	Pdh	23,5	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}	-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	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	-	Supplementary heater			
Off mode	P OFF	0,011	kW	Rated heat output (*)	Psup	4,5	kW
Thermostat-off mode	P _{TO}	0,117	kW				
Standby mode	P_{SB}	0,025	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		•	!		Į.		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L WA	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	18065	kWh	flow rate, outdoor heat exchanger	-	3,1/1,6	m3/h
For heat pump combination he	eater:						
Declared load profile		XXL		Water heating energy efficiency	η_{wh}	101	%
Daily electricity consumption	Qelec	9,750	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2145	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se			

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

CTC EcoPart 425 + CTC EcoZenith 550

Energy efficiency class:

Controller class:

Average climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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A++

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Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	153	%	
Equipped with a supplementary	y heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heater	:	Yes					
				r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared for	-	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	30	kW	Seasonal space heating energy efficiency	η_{s}	149	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	ıre 20°C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	25,2	kW	T j = - 7 °C	COPd	4,10] -
T j = + 2 °C	Pdh	25,4	kW	T j = +2 °C	COPd	4,26	-
T j = + 7 °C	Pdh	25,6	kW	T j = +7 °C	COPd	4,40	-
T j = + 12 °C	Pdh	25,8	kW	T j = +12 °C	COPd	4,54	-
T j = bivalent temperature	Pdh	25,2	kW	T j = bivalent temperature	COPd	4,13	-
T j = operation limit temperature	Pdh	25,1	kW	T j = operation limit temperature	COPd	4,02	-
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	4,7	kW
Thermostat-off mode	P _{TO}	0,354	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}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	15661	kWh	flow rate, outdoor heat exchanger	-	3,8/2,0	m3/h
For heat pump combination he	ater:						
Declared load profile		XXL		Water heating energy efficiency	$\eta_{\sf wh}$	101	%
Daily electricity consumption	Qelec	9,750	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity	AEC	2145	kWh	Annual fuel consumption	AFC	NA	GJ

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

CTC EcoPart 425 + CTC EcoZenith 550

Energy efficiency class:

Controller class:

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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water-to-water neat pump.		NU		COTILIONEL Class.	VII		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	126	%	
Equipped with a supplementary	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater	r:	Yes					
				r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared fo	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	27	kW	Seasonal space heating energy efficiency	η_{s}	122	%
Declared capacity for heating for outdoor temperature T j	or part load at ind	door temperatu	ıre 20°C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	23,9	kW	T j = - 7 °C	COPd	3,18] -
T j = + 2 °C	Pdh	24,3	kW	T j = +2 °C	COPd	3,49	_
T j = + 7 °C	Pdh	24,7	kW	T j = +7 °C	COPd	3,77	-
T j = + 12 °C	Pdh	25,0	kW	T j = +12 °C	COPd	3,98	-
T j = bivalent temperature	Pdh	23,7	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	23,5	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}	-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 o	other than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,025	kW	Rated heat output (*)	Psup	3,8	kW
Thermostat-off mode	P _{TO}	0,117	kW				
Standby mode	P_{SB}	0,025	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items	J.	-,	•		!		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/l
Sound power level, indoors/ outdoors	L _{WA}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	20723	kWh	flow rate, outdoor heat exchanger	-	3,1/1,6	m3/l
For heat pump combination he	ater:	•				<u> </u>	
Declared load profile		XXL		Water heating energy efficiency	$\eta_{\sf wh}$	101	%
Daily electricity consumption	Qelec	9,750	kWh	Daily fuel consumption	Qfuel	NA	kWł
Annual electricity	AEC	2145	kWh	Annual fuel consumption	AFC	NA	GJ

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

CTC EcoPart 425 + CTC EcoZenith 550

Energy efficiency class:

Controller class:

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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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					
			on, except for	r low-temperature heat pumps. Fo	or low- tempera	ture heat pur	nps,
parameters shall be declared for	r low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	29	kW	Seasonal space heating energy efficiency	γ η _ς	149	%
Declared capacity for heating for outdoor temperature T j	or part load at ind	door temperatui	e 20 °C and	Declared coefficient of perform			
T j = -7 °C	Pdh	25,4	kW	T j = - 7 °C	COPd	4,29	-
T j = + 2 °C	Pdh	25,6	kW	T j = +2 °C	COPd	4,41	-
T j = + 7 °C	Pdh	25,7	kW	T j = +7 °C	COPd	4,50	-
T j = + 12 °C	Pdh	25,7	kW	T j = +12 °C	COPd	4,52	-
T j = bivalent temperature	Pdh	25,2	kW	T j = bivalent temperature	COPd	4,15	-
T j = operation limit temperature	Pdh	25,1	kW	T j = operation limit temperature	COPd	4,02	-
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	4,18	-
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	0,93	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	ther than active	mode		Supplementary heater			
Off mode	P _{OFF}	0,025	kW	Rated heat output (*)	Psup	4,0	kW
Thermostat-off mode	P _{TO}	0,354	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}	50/na	dB	For water-/brine-to-water hea pumps: Rated brine or water	t		
Annual energy consumption	Q _{HE}	18242	kWh	flow rate, outdoor heat exchanger	-	3,8/2,0	m3/h
For heat pump combination he	ater:						
Declared load profile		XXL		Water heating energy efficiency	$\eta_{\sf wh}$	101	%
Daily electricity consumption	Qelec	9,750	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2145	kWh	Annual fuel consumption	AFC	NA	GJ
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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

Yes

CTC EcoPart 425 + CTC Eco Basic

Energy efficiency class:

Controller contribution:

1

Controller class:

Warm climate and High temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

Brine-to-water heat pump:

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%

Billie-to-water fleat pullip.		163		Controller contribution.		/0	
Low-temperature heat pump:		No		Package efficiency:	106	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:	<u> </u>	-	
Heat pump combination heate	r:	No					
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For l	ow- tempera	iture heat pui	mps,
parameters shall be declared f	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	24	kW	Seasonal space heating energy efficiency	η_{s}	105	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	-
T j = + 2 °C	Pdh	22,0	kW	T j = +2 °C	COPd	3,08	-
T j = + 7 °C	Pdh	21,8	kW	T j = +7 °C	COPd	2,94	_
T j = + 12 °C	Pdh	21,8	kW	T j = +12 °C	COPd	2,77	-
T j = bivalent temperature	Pdh	22,0	kW	T j = bivalent temperature	COPd	3,08	-
T j = operation limit temperature	Pdh	22,0	kW	T j = operation limit temperature	COPd	3,08	-
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	1	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode	=	Supplementary heater			
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	1,6	kW
Thermostat-off mode	P _{TO}	0,005	kW				
Standby mode	P_{SB}	0,007	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items	CK	3,555					
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	11194	kWh	flow rate, outdoor heat exchanger	-	3,1/1,5	m3/h
For heat pump combination he	eater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

CTC EcoPart 425 + CTC Eco Basic

Energy efficiency class:

Controller class:

Warm climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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water to water near pump.							
Brine-to-water heat pump:		Yes		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	163	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:		-	
Heat pump combination heater	r:	No					
Parameters shall be declared fo	or medium-temp	erature applicat	tion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pui	mps,
parameters shall be declared for	or low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	26	kW	Seasonal space heating energy efficiency	η_{s}	162	%
Declared capacity for heating foutdoor temperature T j	or part load at ind	door temperatu	ire 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	23,6	kW	T j = +2 °C	COPd	4,60] -
T j = + 7 °C	Pdh	23,4	kW	T j = +7 °C	COPd	4,46	-
T j = + 12 °C	Pdh	23,2	kW	T j = +12 °C	COPd	4,28] -
T j = bivalent temperature	Pdh	23,6	kW	T j = bivalent temperature	COPd	4,60	-
T j = operation limit temperature	Pdh	23,6	kW	T j = operation limit temperature	COPd	4,60	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	4,6	°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 of	other than active	mode	_	Supplementary heater			
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	1,8	kW
Thermostat-off mode	P _{TO}	0,022	kW				
Standby mode	P _{SB}	0,007	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/l
Sound power level, indoors/ outdoors	L _{WA}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7968	kWh	flow rate, outdoor heat exchanger	-	3,8/1,9	m3/l
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWł
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

CTC EcoPart 425 + CTC Eco Basic

Energy efficiency class:

Controller class:

A+

Average climate and High temperature

Model(s):

consumption Contact details

Air-to-water heat pump:

Water-to-water heat pump:

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Brine-to-water heat pump:		Yes		Controller contribution:	1	%			
Low-temperature heat pump:		No		Package efficiency:	107	%			
Equipped with a supplementary	y heater:	No		Package efficiency class:	A+	-			
Heat pump combination heater		No							
	•		ion, except for	r low-temperature heat pumps. Fo	r low- tempera	ature heat pui	mps,		
parameters shall be declared for Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
	Зуппоот		<u> </u>	Seasonal space heating energy					
Rated heat output (*)	Prated	26	kW	efficiency	η_{s}	106	%		
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\text{C}$ 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 j					
T j = - 7 °C	Pdh	22,0	kW	T j = -7 °C	COPd	3,08] -		
T j = + 2 °C	Pdh	21,8	kW	T j = +2 °C	COPd	2,91	-		
T j = + 7 °C	Pdh	21,8	kW	T j = +7 °C	COPd	2,81	-		
T j = + 12 °C	Pdh	21,8	kW	T j = +12 °C	COPd	2,71	-		
T j = bivalent temperature	Pdh	22,0	kW	T j = bivalent temperature	COPd	3,08	-		
T j = operation limit temperature	Pdh	22,0	kW	T j = operation limit temperature	COPd	3,08	-		
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	1	-	Heating water operating limit temperature	WTOL	65	°C		
Power consumption in modes of	other than active	mode	•	Supplementary heater					
Off mode	P OFF	0,007	kW	Rated heat output (*)	Psup	4	kW		
Thermostat-off mode	P _{TO}	0,005	kW						
Standby mode	P_{SB}	0,007	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}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water	İ.				
Annual energy consumption	Q _{HE}	18736	kWh	flow rate, outdoor heat exchanger	-	3,1/1,5	m3/h		
For heat pump combination he	ater:	•				•			
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%		
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh		
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	G١		

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

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CTC EcoPart 425 + CTC Eco Basic

Energy efficiency class:

For heat pump combination heater:

Declared load profile

Annual electricity

consumption Contact details

Daily electricity consumption

Model(s):

Air-to-water heat pump:

A++

All to water fieat pairip.		140		Energy emiciency class.	ATT			
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:	165	%		
Equipped with a supplementar	y heater:	No		Package efficiency class:	A+++	-		
Heat pump combination heate	r:	No						
Parameters shall be declared for	or medium-temp	perature applicat	tion, except for	r low-temperature heat pumps. For	low- tempera	iture heat pu	mps,	
parameters shall be declared for	or low-temperat	ure application.						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	26	kW	Seasonal space heating energy efficiency	η _s	164	%	
Declared capacity for heating for outdoor temperature T j	or part load at ir	ndoor temperatu	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j					
T j = - 7 °C	Pdh	23,6	kW	T j = - 7 °C	COPd	4,60] -	
T j = + 2 °C	Pdh	23,4	kW	T j = +2 °C	COPd	4,42] -	
T j = + 7 °C	Pdh	23,2	kW	T j = +7 °C	COPd	4,32	1 -	
T j = + 12 °C	Pdh	23,0	kW	T j = +12 °C	COPd	4,22	-	
T j = bivalent temperature	Pdh	23,6	kW	T j = bivalent temperature	COPd	4,60] -	
T j = operation limit temperature	Pdh	23,6	kW	T j = operation limit temperature	COPd	4,60	-	
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	e mode	_	Supplementary heater			_	
Off mode	P _{OFF}	0,007	kW	Rated heat output (*)	Psup	3,0	kW	
Thermostat-off mode	P _{TO}	0,022	kW					
Standby mode	P_{SB}	0,007	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}	50/na	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	12746	kWh	flow rate, outdoor heat exchanger	-	3,8/1,9	m3/h	

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

kWh

kWh

na

na

na

Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000

Qelec

AEC

Water heating energy

Daily fuel consumption

Annual fuel consumption

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efficiency

 η_{wh}

 \mathbf{Q}_{fuel}

AFC

na

na

na

%

kWh

GJ

Cold climate and High temperature

Enertech AB, 341 26 Ljungby

Model(s):	CTC EcoPart 425 + CTC Eco Basic						
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	%			
ow-temperature heat pump:	No	Package efficiency:	106	%			
Equipped with a supplementary heater:	No	Package efficiency class:		-			
Heat pump combination heater:	No						

Item Symbol Value Unit Symbol Value Unit Seasonal space heating energy 24 Rated heat output (*) Prated kW 105 % η_s efficiency Declared capacity for heating for part load at indoor temperature 20 °C and Declared coefficient of performance or primary energy ratio for outdoor temperature T j part load at indoor temperature 20 °C and outdoor temperature T j Ti = -7°C Pdh COPd 21,8 kW 2,93 Tj = +2 °CPdh 21,6 kW T j = +2 °C COPd 2,81 Tj = +7°C Pdh 21,6 kW Tj = +7 °C COPd 2,75 **COPd** T j = + 12 °CPdh 21,6 kW T j = +12 °C2,68 T j = bivalent temperature Pdh 22,0 kW T j = bivalent temperature COPd 3,08 T j = operation limit T i = operation limit kW COPd Pdh 22,0 3,08 temperature temperature For air-to-water heat pumps: For air-to-water heat pumps: Pdh na kW COPd T j = -15 °C (if TOL < -20 °C) T j = -15 °C (if TOL < -20 °C)For air-to-water heat pumps: Bivalent temperature -18 °C TOL °C T biv na Operation limit temperature Cycling interval capacity for kW Cycling interval efficiency **COPcyc** na na P cych heating Heating water operating limit Degradation co-efficient (**) Cdh 1 WTOL °C 65 temperature Power consumption in modes other than active mode Supplementary heater Off mode P OFF 0,007 kW Rated heat output (*) Psup 2,6 kW Thermostat-off mode P_{TO} 0,005 kW Type of energy input **Electric** Standby mode P_{SB} 0,007 kW Crankcase heater mode P_{CK} 0,000 kWOther items For air-to-water heat pumps: Capacity control **Fixed** na m3/h Rated air flow rate, outdoors Sound power level, indoors/ For water-/brine-to-water heat 50/na dΒ L WA pumps: Rated brine or water outdoors flow rate, outdoor heat 21364 kWh 3,1/1,5 m3/h Annual energy consumption Q_{HE} exchanger For heat pump combination heater: Water heating energy **Declared load profile** na η_{wh} na effic<u>iency</u> Daily electricity consumption Qelec kWh Daily fuel consumption kWh **Q**fuel na na Annual electricity AEC kWh Annual fuel consumption AFC GJ na na consumption Contact details Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 www.ctc.se

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

CTC EcoPart 425 + CTC Eco Basic

Energy efficiency class:

Controller class:

Cold climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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Brine-to-water heat pump:		Yes		Controller contribution:	1	%		
Low-temperature heat pump:		No		Package efficiency:	164	%		
Equipped with a supplementary	/ heater:	No		Package efficiency class:		-		
Heat pump combination heater	:	No						
			tion, except fo	r low-temperature heat pumps. Fo	r low- tempera	ture heat pu	mps,	
parameters shall be declared for	r low-temperatu	re application.						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	24	kW	Seasonal space heating energy efficiency	η_{s}	163	%	
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 j				
T j = -7 °C	Pdh	23,4	kW	T j = - 7 °C	COPd	11,70] -	
T j = + 2 °C	Pdh	23,2	kW	T j = +2 °C	COPd	11,60	-	
T j = + 7 °C	Pdh	23,2	kW	T j = +7 °C	COPd	11,60	-	
T j = + 12 °C	Pdh	23,0	kW	T j = +12 °C	COPd	11,50	-	
T j = bivalent temperature	Pdh	23,6	kW	T j = bivalent temperature	COPd	11,80	-	
T j = operation limit temperature	Pdh	23,6	kW	T j = operation limit temperature	COPd	11,80	-	
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	ther than active	mode		Supplementary heater				
Off mode	P _{OFF}	0,007	kW	Rated heat output (*)	Psup	1,4	kW	
Thermostat-off mode	P _{TO}	0,022	kW			•	•	
Standby mode	P_{SB}	0,007	kW	Type of energy input		Electric		
Crankcase heater mode	P _{CK}	0,000	kW					
Other items		,			ļ			
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	50/na	dB	For water-/brine-to-water hear pumps: Rated brine or water	t			
Annual energy consumption	Q _{HE}	14304	kWh	flow rate, outdoor heat exchanger	-	3,8/1,9	m3/h	
For heat pump combination he	ater:							
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%	
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	Gl	
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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.