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



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Model(s):		CTC GS 8					
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:	148	/	
Equipped with a supplemental	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared f	or low-temperate	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	η _s	145	/
Declared capacity for heating to outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	⊤ j = − 7 °C	COPd	na] - [
T j = + 2 °C	Pdh	7,7	kW	T j = +2 °C	COPd	<u>3,0</u> 0] -
T j = + 7 °C	Pdh	7,7	kW	T j = +7 °C	COPd	3,65	-
T j = + 12 °C	Pdh	8,0	kW	T j = +12 °C	COPd	4,46] -
T j = bivalent temperature	Pdh	7,5	kW	T j = bivalent temperature	COPd	3,27	-
T j = operation limit temperature	Pdh	7,7	kW	T j = operation limit temperature	COPd	3,00	-
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	0,5	kW
Thermostat-off mode	P _{TO}	0,004	kW				
Standby mode	P _{SB}	0.018	kW	Type of energy input		Electric	
, Crankcase heater mode	Pcr	0.000	kW/				
Other items	CA	0,000					
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	39/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	2842	kWh	flow rate, outdoor heat exchanger	-	1,3	m3/h
For heat pump combination he	eater:	•	-			-	-
Declared load profile/		¥L / A		Water heating energy	n	444	,
Energy efficiency class		AL / A		efficiency	lwh	111	
Daily electricity consumption	Qelec	4,200	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	924	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging must end of the product' importance that the	t be deposited at a 's life cycle, it must e product's refriger	recycling station or with the installation engin be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic e not permitted	neer for correct w r offering a servic equipment are pro	aste manageme e of that type. t operly disposed	nt. At the is of great of. Disposing
Contact details	Enertech AB, Box	x 309, SE-341 26	Ljungby Tel +4	.6 372 88000 www.ctc.se			181001

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



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Model(s):		CTC GS 8					
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:	192	/	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes		- · ·			
Parameters shall be declared	for medium-temp	perature applicat	tion, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared	for low-temperat	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	n _s	188	/
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\mathrm{C}$ and outdoor temperature T j			Declared coefficient of performa part load at indoor temperature	ince or primai 20 °C and out	ry energy rat tdoor tempe	io for rature T j	
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na] - [
T j = + 2 °C	Pdh	8,2	kW	T j = +2 °C	COPd	4,78	-
T j = + 7 °C	Pdh	8,3	kW	T j = +7 °C	COPd	5,06] -
T j = + 12 °C	Pdh	8,4	kW	T j = +12 °C	COPd	5,42	-
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	4,89	- 1
T j = operation limit temperature	Pdh	8,2	kW	T j = operation limit temperature	COPd	4,78	-
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	e mode	÷	Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output	Psup	0,7	kW
Thermostat-off mode	P _{TO}	0,013	kW				
Standby mode	P _{SB}	0.018	kW	Type of energy input		Electric	
Crankcase heater mode	Рск	0.000	kW				
Other items	UN	0,000	1		1		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	39/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	2443	kWh	flow rate, outdoor heat exchanger	-	1,7	m3/h
For heat pump combination h	eater:						
Declared load profile/		XI / A		Water heating energy	n	111	/
Energy efficiency class		05/ F	-	efficiency	' Iwn		ļ
Daily electricity consumption	Qelec	4,200	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	924	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging mus end of the product importance that th	t be deposited at a 's life cycle, it mus e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic en not permitted	neer for correct w r offering a servic equipment are pro	aste manageme e of that type. t operly disposed	nt. At the is of great of. Disposing
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Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature



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Model(s):		CTC GS 8					
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:	151	/	
Equipped with a supplemental	ry heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared f	or medium-tem	perature applicat	tion, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared f	for low-temperat	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	n _s	147	/
Declared capacity for heating to outdoor temperature T j	for part load at in	ndoor temperatu	ure 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and out	ry energy rat tdoor tempe	io for rature T
T j = – 7 °C	Pdh	7,6	kW	T j = - 7 °C	COPd	3,35] -
T j = + 2 °C	Pdh	7,8	kW	T j = +2 °C	COPd	3,94] -
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	4,33] -
T j = + 12 °C	Pdh	8,2	kW	T j = +12 °C	COPd	4,78] -
T j = bivalent temperature	Pdh	7,6	kW	T j = bivalent temperature	COPd	3,47	- [
T j = operation limit temperature	Pdh	7,5	kW	T j = operation limit temperature	COPd	3,14] -
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 activ	e mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output	Psup	1,2	kW
Thermostat-off mode	Р _{то}	0,004	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}	39/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4594	kWh	flow rate, outdoor heat exchanger	-	1,3	m3/h
For heat pump combination he	eater:						
Declared load profile/		XL/A		Water heating energy	n _{wh}	111	/
Energy efficiency class	l	• -	1	efficiency			-
Daily electricity consumption	Qelec	4,200	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	924	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging mus end of the product importance that th	st be deposited at a t's life cycle, it mus ne product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic en not permitted	neer for correct w er offering a servic equipment are pro	vaste manageme se of that type. t operly disposed	nt. At the is of great of. Disposir
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Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature



Average climate and Low (emperature				341 20 LJU	ingby	
Model(s):		CTC GS 8					
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:	194	/	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	iture heat pu	mps,
parameters shall be declared	for low-temperatu	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	n _s	191	/
Declared capacity for heating for part load at indoor temperature 20 °C outdoor temperature T j			re 20 °C and	Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = − 7 °C	Pdh	8,3	kW	T j = – 7 °C	COPd	4,89] - [
T j = + 2 °C	Pdh	8,3	kW	T j = +2 °C	COPd	5,13	-
T j = + 7 °C	Pdh	8,4	kW	T j = +7 °C	COPd	5,33	- 1
T j = + 12 °C	Pdh	8,4	kW	T j = +12 °C	COPd	5,50	1.
T i = hivalent temperature	Pdh	83	k\W	T i = hivalent temperature	COPd	4 89	1
	i un	0,5			coru	4,05	
l j = operation limit temperature	Pdh	8,2	kW	l j = operation limit temperature	COPd	4,78	-
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 other than active mode			Supplementary heater				
Off mode	P _{OFF}	0,018	kW	Rated heat output	Psup	1,2	kW
Thermostat-off mode	P _{TO}	0,013	kW				-
Standby mode	P _{SB}	0.018	kW	Type of energy input		Electric	
Crankcase heater mode	Рск	0.000	kW				
Other items		.,					
	r						1
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	39/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3923	kWh	flow rate, outdoor heat exchanger	-	1,7	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL / A		Water heating energy	n _{wb}	111	/
Energy efficiency class	L		<u> </u>	efficiency	19911		4
Daily electricity consumption	Qelec	4,200	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	924	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging must end of the product importance that the of the product as h	t be deposited at a 's life cycle, it must e product's refrige ousehold waste is	recycling station or with the installation engine to sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic en not permitted.	neer for correct w r offering a servic equipment are pr	vaste management ce of that type. t operly disposed of	nt. At the is of great of. Disposing
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Information for heat pump space heaters and heat pump combination heaters Cold climate and Medium temperature



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Model(s):		CTC GS 8					
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:	154	/	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	ion, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pu	imps,
parameters shall be declared	for low-temperate	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	η _s	151	/
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\text{C}$ and outdoor temperature T j			Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and out	ry energy rat tdoor tempe	io for rature ⊤ j	
T j = – 7 °C	Pdh	7,7	kW	T j = - 7 °C	COPd	3,78	- ר
T j = + 2 °C	Pdh	8,0	kW	T j = +2 °C	COPd	4,28] -
T j = + 7 °C	Pdh	8,1	kW	T j = +7 °C	COPd	4,64] -
T j = + 12 °C	Pdh	8,2	kW	T j = +12 °C	COPd	4,94] -
T j = bivalent temperature	Pdh	7,6	kW	T j = bivalent temperature	COPd	3,35	-
T j = operation limit temperature	Pdh	7,5	kW	T j = operation limit temperature	COPd	3,14	-
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 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}	0,004	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{ск}	0,000	kW				
Other items		4	_		<u> </u>		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	39/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5275	kWh	flow rate, outdoor heat exchanger	-	1,3	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL / A		Water heating energy	n	111	/
Energy efficiency class			1	efficiency	• IWA		
Daily electricity consumption	Qelec	4,200	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	924	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging must end of the product' importance that the of the product as he	t be deposited at a 's life cycle, it mus e product's refrige ousehold waste is	a recycling station or with the installation engir t be sent correctly to a waste station or reselle grant, compressor oil and electrical/electronic e not permitted.	neer for correct w r offering a servic equipment are pro	aste manageme e of that type. t operly disposed	nt. At the is of great of. Disposing
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Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**



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Model(s):		CTC GS 8					
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:	197	/	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicati	on, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	η _s	194	/
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j	
T j = – 7 °C	Pdh	8,3	kW	T j = – 7 °C	COPd	5,13] -
T j = + 2 °C	Pdh	8,4	kW	T j = +2 °C	COPd	5,33	- 1
T j = + 7 °C	Pdh	8,4	kW	T j = +7 °C	COPd	5,48	-
T j = + 12 °C	Pdh	8,4	kW	T j = +12 °C	COPd	5,50	-
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	4,89	-
T j = operation limit temperature	Pdh	8,2	kW	T j = operation limit temperature	COPd	4,78	-
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	0,98	-	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	0,8	kW
Thermostat-off mode	P _{TO}	0,013	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р _{СК}	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}	39/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4424	kWh	flow rate, outdoor heat exchanger	-	1,7	m3/h
For heat pump combination h	eater:						
Declared load profile/		XL / A		Water heating energy	Ŋwh	111	/
Energy efficiency class		•		efficiency	•••••		-
Daily electricity consumption	Qelec	4,200	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	924	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging must end of the product's importance that the of the product as he	be deposited at a s life cycle, it mus product's refrige <u>pusehold w</u> aste is	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rrant, compressor oil and electrical/electronic e not permitted.	eer for correct w r offering a servic equipment are pro	aste managemer e of that type. t i operly disposed c	it. At the s of great of. Disposing
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