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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoPart 410 +	CTC EcoLogic		
Air-to-water heat pump:	No	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	VII	-
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%
Low-temperature heat pump:	No	Package efficiency:	141	%
Equipped with a supplementary heater:	No	Package efficiency class:		-
Heat pump combination heater:	No			
Parameters shall be declared for medium-te	mperature application,	except for low-temperature heat pumps.	For low- tem	perature heat pumps,

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	137	%
Declared capacity for heating foutdoor temperature T j	or part load at ind	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	9,3	kW	T j = +2 °C	COPd	3,10	1 -
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,47	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	4,15	-
T j = bivalent temperature	Pdh	9,3	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	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}	0,003	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3701	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
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
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		Ljungby	
+ CTC EcoLogic			
Energy efficiency class:		-	
Controller class:	VII	-	
Controller contribution:	3,5	%	
Package efficiency:	183	%	
Package efficiency class:		-	
	Energy efficiency class: Controller class: Controller contribution: Package efficiency: Package efficiency class:	Energy efficiency class: Controller class: VII Controller contribution: Package efficiency: Package efficiency class:	Energy efficiency class: - Controller class: VII - Controller contribution: 3,5 % Package efficiency: 183 %

Parameters shall be declared for medium-temperature application parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	179	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,60	1 -
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,82] -
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,10] -
T j = bivalent temperature	Pdh	10	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}	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	0,8	kW
Thermostat-off mode	P _{TO}	0,014	kW				
Standby mode	P_{SB}	0,018	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3079	kWh	flow rate, outdoor heat exchanger	-	2,3	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	G1
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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 EcoPart 410 +	CTC EcoLogic			
Air-to-water heat pump:	No	Energy efficiency class:	A++	-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	142	%	
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-	
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 pu	ımps.

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	138	%
Declared capacity for heating foutdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	9,4	kW	T j = - 7 °C	COPd	3,28] -
T j = + 2 °C	Pdh	9,5	kW	T j = +2 °C	COPd	3,66] -
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	4,03	1 -
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,41] -
T j = bivalent temperature	Pdh	9,4	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}	-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	other than active	mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,003	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5999	kWh	flow rate, outdoor heat exchanger	-	1,9	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	GΊ
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Average climate and Low temperature			341 26 1	341 26 Ljungby	
Model(s):	CTC EcoPart 410 +	+ CTC EcoLogic			
Air-to-water heat pump:	No	Energy efficiency class:	A++	-	
Water-to-water heat pump:	No	Controller class:	VII	-	
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%	
Low-temperature heat pump:	No	Package efficiency:	185	%	
Equipped with a supplementary heater:	No	Package efficiency class:	A+++	-	
Heat pump combination heater:	No				
Heat pump combination heater: Parameters shall be declared for medium-tem		n. except for low-temperature heat pumps.	For low- temr	perature he	at nu

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	181	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	10,0	kW	T j = - 7 °C	COPd	4,69] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,88] -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,05] -
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	5,22] -
T j = bivalent temperature	Pdh	10,0	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	other than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,014	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4944	kWh	flow rate, outdoor heat exchanger	-	2,3	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 consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	Gì
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Cold climate and Medium temperature

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Model(s):	CTC EcoPart 410 +	CTC EcoLogic		
Air-to-water heat pump:	No	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	VII	-
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%
Low-temperature heat pump:	No	Package efficiency:	145	%
Equipped with a supplementary heater:	No	Package efficiency class:		-
Heat pump combination heater:	No			

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	141	%
Declared capacity for heating foutdoor temperature T j	for part load at ind	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	9,5	kW	T j = - 7 °C	COPd	3,58] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,96	1 -
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	4,29	1 -
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,54] -
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,27	-
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	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}	0,003	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6939	kWh	flow rate, outdoor heat exchanger	-	1,9	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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Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoPart 410 +	CTC EcoLogic		
Air-to-water heat pump:	No	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	VII	-
Brine-to-water heat pump:	Yes	Controller contribution:	3,5	%
Low-temperature heat pump:	No	Package efficiency:	188	%
Equipped with a supplementary heater:	No	Package efficiency class:		-
Heat pump combination heater:	No			

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	184	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatui	re 20 °C and	Declared coefficient of performar part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	10,1	kW	T j = - 7 °C	COPd	4,89] -
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	5,05] -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,16	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,19	-
T j = bivalent temperature	Pdh	10,0	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	other than active	mode	_	Supplementary heater			_
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,6	kW
Thermostat-off mode	P _{TO}	0,014	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5414	kWh	flow rate, outdoor heat exchanger	-	2,3	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	G۱
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enith i350/ i350F			
:III(II 1330/ 1330F			
Energy efficiency class:		-	
Controller class:	VII	-	
Controller contribution:	3,5	%	
Package efficiency:	141	%	
Package efficiency class:		-	
	Controller class: Controller contribution: Package efficiency: Package efficiency class:	Controller class: VII Controller contribution: 3,5 Package efficiency: 141 Package efficiency class:	Controller class: VII - Controller contribution: 3,5 % Package efficiency: 141 %

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	137	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	3,10	-
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,47] -
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	4,15] -
T j = bivalent temperature	Pdh	9,3	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	0,8	kW
Thermostat-off mode	P _{TO}	0,003	kW	[]			-
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3701	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	$\eta_{\sf wh}$	102	%
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity			-				-
consumption	AEC	1652	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.

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class:	-
VII	-
ution: 3,5	%
/: 183	%
/ class:	-
/	VII ution: 3,5 : 183

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	179	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,60	1 -
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,82] -
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,10	-
T j = bivalent temperature	Pdh	10	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}	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	0,8	kW
Thermostat-off mode	P _{TO}	0,014	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3079	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	η_{wh}	102	%
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
consumption				. <u> </u>		.10	
Contact details	Enertech AB, Bo	x 309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se	170710		

^(*) 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.

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

Enertech AB 341 26 Ljungby



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Model(s):	CTC EcoPart 410 + CTC EcoZenith i350/ i350F						
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:	142	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	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	re 20 °C and	Declared coefficient of performa part load at indoor temperature	•		
T j = - 7 °C	Pdh	9,4	kW	T j = - 7 °C	COPd	3,28] -
T j = + 2 °C	Pdh	9,5	kW	T j = +2 °C	COPd	3,66	1 -
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	4,03] -
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,41	-
T j = bivalent temperature	Pdh	9,4	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}	-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	1,3	kW
Thermostat-off mode	P _{TO}	0,003	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items	<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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5999	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	η_{wh}	102	%
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
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Enertech AB 341 26 Ljungby



Average climate and Low temperature			341 26 I	jungby	CIC
Model(s):	CTC EcoPart 410 +	CTC EcoZenith i350/ i350F			
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:	185	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+++	-	
Heat pump combination heater:	Yes			•	

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	181	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	10,0	kW	T j = - 7 °C	COPd	4,69] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,88	-
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,05	-
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	5,22] -
T j = bivalent temperature	Pdh	10,0	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	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,014	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4944	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	η_{wh}	102	%
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity	AEC	1652	kWh	Annual fuel consumption	AFC	na	GJ
consumption				· ·			
Contact details	Enertech AB, Bo	x 309, SE-341 26	Ljungby Tel +2	16 372 88000 www.ctc.se	170710		

Enertech AB **Cold climate and Medium temperature** 341 26 Ljungby



Model(s):	CTC EcoPart 410 + CTC EcoZenith i350/ i350F					
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:	145	%		
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	10	kW	Seasonal space heating energy efficiency	η_{s}	141	%
Declared capacity for heating foutdoor temperature T j	for part load at in	door temperatu	ire 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	9,5	kW	T j = - 7 °C	COPd	3,58] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,96	-
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	4,29	-
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,54	_
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,27	-
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	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}	0,003	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items	<u> </u>						
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6939	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	η_{wh}	102	%
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1652	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	170710		•

^(*) 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.

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

Enertech AB 341 26 Ljungby



CTC EcoPart 410 + CTC EcoZenith i350/ i350F					
No	Energy efficiency class:		-		
No	Controller class:	VII	-		
Yes	Controller contribution:	3,5	%		
No	Package efficiency:	188	%		
Yes	Package efficiency class:		-		
Yes					
	No No Yes No Yes	No Energy efficiency class: No Controller class: Yes Controller contribution: No Package efficiency: Yes Package efficiency class:	No Energy efficiency class: No Controller class: VII Yes Controller contribution: 3,5 No Package efficiency: 188 Yes Package efficiency class:		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	184	%
Declared capacity for heating foutdoor temperature T j	for part load at in	door temperatui	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	10,1	kW	T j = - 7 °C	COPd	4,89] -
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	5,05] -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,16] -
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,19	-
T j = bivalent temperature	Pdh	10,0	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	other than active	mode		Supplementary heater			-
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	0,6	kW
Thermostat-off mode	P _{TO}	0,014	kW	l		•	•
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/	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5414	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	η_{wh}	102	%
Daily electricity consumption	Qelec	7,508	kWh	Daily fuel consumption	Qfuel	na	kWh
	Quice	7,300		2 any raci consumption	Q iuci		
Annual electricity consumption	AEC	1652	kWh	Annual fuel consumption	AFC	na	Gl
Contact details	Enertech AB, Box	309. SE-341 26	Liungby Tel +4	6 372 88000 www.ctc.se	170710	!	

^(*) 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.

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoPart 410 + CTC EcoZenith 250						
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:	128	%			
Equipped with a supplementary heater:	yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	124	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	2,86	-
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,20] -
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	3,78] -
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
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	0,8	kW
Thermostat-off mode	P _{TO}	0,026	kW				-
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			1
Annual energy consumption	Q _{HE}	4090	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	$\eta_{\sf wh}$	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity	AEC	1183	kWh	Annual fuel consumption	AFC		GJ
consumption				· ·	AFC	na	رق
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se			

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

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Model(s):	CTC EcoPart 410 + CTC EcoZenith 250						
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:	156	%			
Equipped with a supplementary heater:	yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	152	%
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	10,0	kW	T j = +2 °C	COPd	4,16	1 -
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,35	1 -
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,58] -
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,22	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16] -
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 of	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}	0,082	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3592	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	η_{wh}	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	G1
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Average climate and Medium tempera	verage climate and Medium temperature				
Model(s):	CTC EcoPart 410	CTC EcoPart 410 + CTC EcoZenith 250			
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:	129	%	
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	11	kW	Seasonal space heating energy efficiency	η_{s}	125	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = -7 °C	Pdh	9,4	kW	T j = - 7 °C	COPd	3,02] -
T j = + 2 °C	Pdh	9,6	kW	T j = +2 °C	COPd	3,39] -
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	3,69	
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,00	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,08	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	_
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 of	ther than active	mode	-	Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	1,8	kW
Thermostat-off mode	P _{TO}	0,026	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6900	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	η_{wh}	х	%
Daily electricity consumption	Qelec	х	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity	AEC	X	kWh	Annual fuel consumption	AFC	NA	GJ
<u> </u>	Enertech AB, Box	200 SE 2/1 36	Liungby Tol. 19	46 372 88000 www.ctc.se		l	<u> </u>

^(*) 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.

Enertech AB 341 26 Ljungby



Average climate and Low temperature			341 26	Ljungby	CIC	
Model(s):	CTC EcoPart 410 +	+ CTC EcoZenith 250				
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:	161	%		
Equipped with a supplementary heater:	yes	Package efficiency class:	A++	-		
Heat pump combination heater:	Yes					

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_{s}	157	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	10,0	kW	T j = - 7 °C	COPd	4,24] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,40	-
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,54] -
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	4,68] -
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,27	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
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	0,96	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	other than active	mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	1,9	kW
Thermostat-off mode	P _{TO}	0,082	kW	[]			-
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			1
Annual energy consumption	Q _{HE}	5938	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	$\eta_{\sf wh}$	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity			-				-
consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ
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	-		
VII	-		
3,5	%		
131	%		
	-		
	•		
		w- temperature he	

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	127	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	9,5	kW	T j = - 7 °C	COPd	3,30] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,62	-
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	3,90] -
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,11] -
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,02	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
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	0,98	-	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	1,2	kW
Thermostat-off mode	P _{TO}	0,026	kW	[]			-
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<u>.</u>	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			1
Annual energy consumption	Q _{HE}	7647	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	$\eta_{\sf wh}$	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity	AEC	1183	kWh	Annual fuel consumption	AFC		GJ
consumption				. <u> </u>	AFC	na	رق
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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 EcoPart 410 + CTC EcoZenith 250					
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:	162	%		
Equipped with a supplementary heater:	yes	Package efficiency class:		-		
Heat pump combination heater:	Yes					
Parameters shall be declared for medium-te	mperature application,	except for low-temperature heat pumps.	For low- tem	perature heat pumps,		

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	158	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatui	re 20 °C and	Declared coefficient of performar part load at indoor temperature 2			
T j = - 7 °C	Pdh	10,1	kW	T j = - 7 °C	COPd	4,42] -
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	4,54	-
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,64	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,66	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,26	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
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	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}	0,082	kW	[]			•
Standby mode	P_{SB}	0,018	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6656	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		L/A		Water heating energy efficiency	η_{wh}	х	%
	0.41		LAATI-		Oc. :	N/A	1344
Daily electricity consumption	Qelec	X	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	x	kWh	Annual fuel consumption	AFC	NA	GJ
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Information for heat pump space heaters and heat pump combination heaters **Warm climate and Medium temperature**

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Model(s):	CTC EcoPart 410 +	CTC EcoZenith 550		
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:	128	%
Equipped with a supplementary heater:	yes	Package efficiency class:		-
Heat pump combination heater:	Yes			

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	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 performal part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	2,86	-
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,20] -
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	3,78] -
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86] -
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	0,8	kW
Thermostat-off mode	P _{TO}	0,019	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4070	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
Declared load profile/		XL / A		Water heating energy	$\eta_{\sf wh}$	101	%
Energy efficiency class			l	efficiency	·		-
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
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Warm climate and Low temperature			341 26 Ljungby		CIC	
Model(s):	CTC EcoPart 410	+ CTC EcoZenith 550				
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:	160	%		
Equipped with a supplementary heater:	yes	Package efficiency class:		-		
Heat pump combination heater:	Yes					
Parameters shall be declared for medium-te	emperature application	n, except for low-temperature heat pumps.	For low- tem	perature he	eat pumps,	

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	156	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,16	1 -
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,35	1 -
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,58	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,22	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
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	0,97	-	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}	0,051	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3506	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:						
Declared load profile/		XL / A		Water heating energy	$\eta_{\sf wh}$	101	%
Energy efficiency class				efficiency			1
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
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Information for heat pump space heaters and heat pump combination heaters $% \left(1\right) =\left(1\right) \left(1\right)$

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Average climate and Medium temperature					
CTC EcoPart 410 +	CTC EcoPart 410 + CTC EcoZenith 550				
No	Energy efficiency class:	A++	-		
No	Controller class:	VII	-		
Yes	Controller contribution:	3,5	%		
No	Package efficiency:	141	%		
yes	Package efficiency class:	A++	-		
Yes				_	
	No No Yes No yes	CTC EcoPart 410 + CTC EcoZenith 550 No Energy efficiency class: No Controller class: Yes Controller contribution: No Package efficiency: yes Package efficiency class:	CTC EcoPart 410 + CTC EcoZenith 550 No Energy efficiency class: A++ No Controller class: VII Yes Controller contribution: 3,5 No Package efficiency: 141 yes Package efficiency class: A++	CTC EcoPart 410 + CTC EcoZenith 550 No Energy efficiency class: A++ - No Controller class: VII - Yes Controller contribution: 3,5 % No Package efficiency: 141 % yes Package efficiency class: A++ -	

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	η_{s}	137	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	9,4	kW	T j = - 7 °C	COPd	3,02] -
T j = + 2 °C	Pdh	9,6	kW	T j = +2 °C	COPd	3,39	-
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	3,69] -
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,00] -
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,08	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
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 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}	0,019	kW				-
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6880	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	ater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	$\eta_{\sf wh}$	101	%
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity	Quice		_	2 any race consumption] """
consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
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A++	-	
VII	-	
3,5	%	
164	%	
A++	-	
	•	
	164 A++	164 %

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	160	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	10,0	kW	T j = - 7 °C	COPd	4,24] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,39	1 -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,53	1 -
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	4,68	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,24	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
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	0,97	-	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	1,3	kW
Thermostat-off mode	P _{TO}	0,051	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5582	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:						
Declared load profile/		XL / A		Water heating energy	$\eta_{\sf wh}$	101	%
Energy efficiency class			l	efficiency	·		-
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
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Information for heat pump space heaters and heat pump combination heaters **Cold climate and Medium temperature**

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CTC EcoPart 410 + CTC EcoZenith 550					
No	Energy efficiency class:		-		
No	Controller class:	VII	-		
Yes	Controller contribution:	3,5	%		
No	Package efficiency:	132	%		
yes	Package efficiency class:		-		
Yes					
	No No Yes No yes	No Energy efficiency class: No Controller class: Yes Controller contribution: No Package efficiency: yes Package efficiency class:	No Energy efficiency class: No Controller class: VII Yes Controller contribution: 3,5 No Package efficiency: 132 yes Package efficiency class:		

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	128	%
Declared capacity for heating f	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performar	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T j
T j = - 7 °C	Pdh	9,5	kW	T j = - 7 °C	COPd	3,30] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,62	1 -
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	3,90	1 -
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,11] -
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,02	-
T j = operation limit	Pdh	0.2	kW	T j = operation limit	COPd	2 96	1 _
temperature	Full	9,3	_ Kvv	temperature	COPU	2,86	ļ ·
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	1,2	kW
Thermostat-off mode	P _{TO}	0,019	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		<u>.</u>	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7618	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	eater:						
Declared load profile/		XL / A		Water heating energy	$\eta_{\sf wh}$	101	%
Energy efficiency class		7.27 / /	<u> </u>	efficiency	· IWI		
Daily electricity consumption	Qelec	7,552	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details	Enertech AB, Box	< 309, SE-341 26	Ljungby Tel +4	46 372 88000 www.ctc.se			

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoPart 410 +			
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:	165	%
Equipped with a supplementary heater:	yes	Package efficiency class:		-
Heat pump combination heater:	Yes			

parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	161	%
Declared capacity for heating foutdoor temperature T j	or part load at in	door temperatur	e 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	10,1	kW	T j = - 7 °C	COPd	4,42] -
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	4,54] -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,64	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,66	
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,26	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
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	0,97	-	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}	0,051	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6528	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		XL / A		Water heating energy efficiency	η_{wh}	101	%
Daily electricity consumption	Qelec	7 552	kWh	Daily fuel consumption	Ofice	NA	kWh
	gelec	7,552	KVVII	Daily ruel consumption	Qfuel	NA	KVVII
Annual electricity consumption	AEC	1661	kWh	Annual fuel consumption	AFC	NA	GJ
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Information for heat pump space heaters and heat pump combination heaters **Warm climate and Medium temperature**

Enertech AB 341 26 Ljungby



CTC EcoPart 410 + CTC Basicstyrning					
No	Energy efficiency class:		-		
No	Controller class:	1	-		
Yes	Controller contribution:	1	%		
No	Package efficiency:	138	%		
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: Yes Controller contribution: No Package efficiency: No Package efficiency class:		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_s	137	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	3,10] -
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,47	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	4,15	_
T j = bivalent temperature	Pdh	9,3	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	0,8	kW
Thermostat-off mode	P _{TO}	0,003	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3701	kWh	flow rate, outdoor heat exchanger	-	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	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.

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	-	
_	-	
_		
	-	
1	%	
180	%	
	-	

Parameters shall be declared for medium-temperature application parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	179	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,60] -
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,82] -
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,10	-
T j = bivalent temperature	Pdh	10	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}	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	0,8	kW
Thermostat-off mode	P _{TO}	0,014	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	3079	kWh	flow rate, outdoor heat exchanger	-	2,3	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	Gì
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Average climate and Medium temperature				GIG
CTC EcoPart 410 +	- CTC Basicstyrning			
No	Energy efficiency class:	A++	-	
No	Controller class:	I	-	
Yes	Controller contribution:	1	%	
No	Package efficiency:	139	%	
No	Package efficiency class:	A++	-	
No				
	No No Yes No No	No Energy efficiency class: No Controller class: Yes Controller contribution: No Package efficiency: No Package efficiency class:	No Energy efficiency class: A++ No Controller class: I Yes Controller contribution: 1 No Package efficiency: 139 No Package efficiency class: A++	No Energy efficiency class: A++ - No Controller class: I - Yes Controller contribution: 1 % No Package efficiency: 139 % No Package efficiency class: A++ -

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	138	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\text{C}$ and outdoor temperature T j				Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	9,4	kW	T j = - 7 °C	COPd	3,28] -
T j = + 2 °C	Pdh	9,5	kW	T j = +2 °C	COPd	3,66] -
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	4,03	-
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,41	_
T j = bivalent temperature	Pdh	9,4	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}	-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	1,3	kW
Thermostat-off mode	P _{TO}	0,003	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5999	kWh	flow rate, outdoor heat exchanger	-	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	GJ
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Average climate and Low temperature		341 26 Ljungby		CIC	
CTC EcoPart 410 +	CTC Basicstyrning				
No	Energy efficiency class:	A++	-		
No	Controller class:	I	-		
Yes	Controller contribution:	1	%		
No	Package efficiency:	182	%		
No	Package efficiency class:	A+++	-		
No					
	No No Yes No No	No Controller class: Yes Controller contribution: No Package efficiency: No Package efficiency class:	No Energy efficiency class: A++ No Controller class: I Yes Controller contribution: 1 No Package efficiency: 182 No Package efficiency class: A+++	No Energy efficiency class: A++ - No Controller class: I - Yes Controller contribution: 1 % No Package efficiency: 182 % No Package efficiency class: A+++ -	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_s	181	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	10,0	kW	T j = - 7 °C	COPd	4,69] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,88	1 -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,05	1 -
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	5,22	-
T j = bivalent temperature	Pdh	10,0	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	other than active	mode	_	Supplementary heater			_
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,014	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4944	kWh	flow rate, outdoor heat exchanger	-	2,3	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	Gì
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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.

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

Enertech AB 341 26 Ljungby



CTC EcoPart 410 + CTC Basicstyrning					
No	Energy efficiency class:		-		
No	Controller class:	1	-		
Yes	Controller contribution:	1	%		
No	Package efficiency:	142	%		
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: Yes Controller contribution: No Package efficiency: No Package efficiency class:		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	141	%
Declared capacity for heating outdoor temperature T j	for part load at in	door temperatu	ire 20 °C and	Declared coefficient of performal part load at indoor temperature 2	•		
T j = - 7 °C	Pdh	9,5	kW	T j = - 7 °C	COPd	3,58] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,96	1 -
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	4,29	1 -
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,54] -
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,27	-
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	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}	0,003	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6939	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination h	eater:	<u> </u>	-	· · · · · · · · · · · · · · · · · · ·		·	
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	GΊ
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se	170410		

^(*) 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.

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoPart 410 + CTC Basicstyrning					
Air-to-water heat pump:	No	Energy efficiency class:		-		
Water-to-water heat pump:	No	Controller class:	I	-		
Brine-to-water heat pump:	Yes	Controller contribution:	1	%		
Low-temperature heat pump:	No	Package efficiency:	185	%		
Equipped with a supplementary heater:	No	Package efficiency class:		-		
Heat pump combination heater:	No					
Parameters shall be declared for medium-te	mperature application,	except for low-temperature heat pumps.	For low- tem	perature heat pumps,		

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	184	%
Declared capacity for heating foutdoor temperature T j	for part load at in	door temperatu	ire 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	10,1	kW	T j = - 7 °C	COPd	4,89] -
T j = + 2 °C	Pdh	10,2	kW	T j = +2 °C	COPd	5,05	1 -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	5,16	1 -
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	5,19] -
T j = bivalent temperature	Pdh	10,0	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	other than active	mode	<u> </u>	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,6	kW
Thermostat-off mode	P _{TO}	0,014	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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5414	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:		·	· · · · · · · · · · · · · · · · · · ·		<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 consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Contact details	Enertech AB, Box	x 309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se	170410	·	