Warm climate and Medium temperature

Enertech AB 341 26 Ljungby



Water-to-water heat pump:  Brine-to-water heat pump:  Yes  Controller class:  Controller contribution  Low-temperature heat pump:  No  Package efficiency	· class:		
Water-to-water heat pump:  Brine-to-water heat pump:  Yes  Controller class:  Controller contribut  Low-temperature heat pump:  No  Package efficiency	class:		
Brine-to-water heat pump:  Low-temperature heat pump:  No  Controller contribution  Package efficiency			-
Low-temperature heat pump: No Package efficiency		VII	-
	bution:	3,5	%
Equipped with a supplementary heater: Ves Package efficiency	cy:	128	%
Equipped with a supplementary heater.	cy 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	$\eta_{\mathcal{S}}$	124	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performar part load at indoor temperature 2			
T j = -7 °C	Pdh	na	kW	T j = − 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	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 <sub>biv</sub>	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P <sub>cych</sub>	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 o	ther than active	mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output	Psup	0,8	kW
Thermostat-off mode	P <sub>TO</sub>	0,026	kW	[ ]			
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	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 <sub>WA</sub>	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	4090	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination hea	ater:						
Declared load profile / Energy efficiency class		L/A		Water heating energy efficiency	$\eta_{wh}$	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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Warm climate and Low temperature			341 26 Ljungby		CIC
Model(s):	CTC EcoHeat 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:	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	$\eta_s$	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	1 -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,16	-
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,35	] -
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 <sub>biv</sub>	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,96	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes o	ther than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output	Psup	0,8	kW
Thermostat-off mode	P <sub>TO</sub>	0,082	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/ł
Sound power level, indoors/ outdoors	L <sub>WA</sub>	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	3592	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/l
For heat pump combination hea	ater:		1				•
Declared load profile /	-	L/A		Water heating energy	$\eta_{\sf wh}$	87	%
Energy efficiency class		L/A	ı	efficiency	' lwh	67	70
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWł
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	Gì
Specific precautions and end of life information:		end of the product	's life cycle, it must e product's refrige	recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic en ant permitted	offering a service	e of that type. t	is of grea

Average climate and Medium temperature

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Model(s):	CTC EcoHeat 410			
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			

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	$\eta_{\mathcal{S}}$	125	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performan	nce or prima	ry energy rat	io for
outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
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	Pdh	9,3	kW	T j = operation limit	COPd	2,86	_
temperature	ruii	9,5	, KVV	temperature	COPU	2,00	_
For air-to-water heat pumps:	Pdh	no	kW	For air-to-water heat pumps:	COPd	no	
T j = -15 °C (if TOL < -20 °C)	Pull	na	KVV	T j = - 15 °C (if TOL < - 20 °C)	СОРа	na	-
		_	1	For air-to-water heat pumps:			1
Bivalent temperature	T <sub>biv</sub>	-6	°C	Operation limit temperature	TOL	na	°C
Cycling interval capacity for	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	_
heating	сусп				,		
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes o	ther than active	mode	-	Supplementary heater		•	_
Off mode	P OFF	0,018	kW	Rated heat output	Psup	1,8	kW
Thermostat-off mode	$P_{TO}$	0,026	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items				]			-
Capacity control		Fixed		For air-to-water heat pumps:	_	na	m3/h
Capacity control		TIXEU		Rated air flow rate, outdoors	_	IIa	1113/11
Sound power level, indoors/ outdoors	L <sub>WA</sub>	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6900	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination hea				exchanger			
Declared load profile /		1./2		Water heating energy	n	6-	2,
Energy efficiency class		L/A		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	na	GJ
consumption  Specific precautions and end of life information:		end of the product' importance that the	s life cycle, it mus	a recycling station or with the installation engine t be sent correctly to a waste station or reseller trant, compressor oil and electrical/electronic ed	offering a service	e of that type. t	is of great

Average climate and Low temperature

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Model(s):	CTC EcoHeat 410			
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	$\eta_s$	157	%
Declared capacity for heating for	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
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: $T j = -15 ^{\circ}\text{C} \text{ (if TOL } < -20 ^{\circ}\text{C)}$	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-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	ther 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 <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	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 <sub>WA</sub>	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5938	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination hea	ater:			1 1			•
Declared load profile /		L/A		Water heating energy	n	07	0/
Energy efficiency class		L/A		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
Specific precautions and end of life information:		end of the product' importance that the	's life cycle, it mus	a recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ed	offering a service	e of that type. t	is of great

**Enertech AB** 



<b>Cold climate and Medium</b>	n temperature				341 26 Lju	ingby	CIC
Model(s):		CTC EcoHeat 4	10				
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	o:	No		Package efficiency:	131	%	
Equipped with a supplement	tary heater:	Yes		Package efficiency class:		-	
Parameters shall be declared parameters shall be declared	d for medium-tem		ion, except fo	r low-temperature heat pumps. For	low- tempera	iture heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	e Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	127	%
Declared capacity for heating outdoor temperature T j	g for part load at in	ndoor temperatu	re 20 °C and	Declared coefficient of perform part load at indoor temperature	•	, ,,	

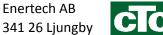
rateu lleat output ( )	Fratea	10	KVV	efficiency	Πς	127	70
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	9,5	kW	T j = - 7 °C	COPd	3,30	1 -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,62	1 -
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	3,90	] -
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 <sub>biv</sub>	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P <sub>cych</sub>	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 <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	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 <sub>WA</sub>	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	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

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great  $importance\ that\ the\ product's\ refrigerant,\ compressor\ oil\ and\ electrical/electronic\ equipment\ are\ properly\ disposed\ of.\ Disposing\ properly\ disposed\ properly\ disposed\ of.\ Disposing\ properly\ disposed\ properly\ disposed\$ of the product as household waste is not permitted.

**Cold climate and Low temperature** 





Model(s):	CTC EcoHeat 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:	162	%
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	$\eta_s$	158	%
Declared capacity for heating for	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performan	nce or prima	ıry energy rat	io for
outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
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 <sub>biv</sub>	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P <sub>cych</sub>	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	1,2	kW
Thermostat-off mode	$P_{TO}$	0,082	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	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 <sub>WA</sub>	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6656	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	$\eta_{wh}$	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
Specific precautions and end		end of the product	's life cycle, it mus	a recycling station or with the installation engine t be sent correctly to a waste station or reseller	offering a servi	ce of that type. t	is of great

of life information:

 $importance\ that\ the\ product's\ refrigerant,\ compressor\ oil\ and\ electrical/electronic\ equipment\ are\ properly\ disposed\ of.\ Disposing$ of the product as household waste is not permitted.