

Information for heat pump s	pace heaters a	and heat pump	o combinati	on heaters	Enertech	AB	
Warm climate and Medium	temperature				341 26 Lju	ungby	
Model(s):		CTC EcoAir 41	.0 + CTC EcoL	.ogic			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		No		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	149	%	
Equipped with a supplementary	heater:	No		Package efficiency class:		-	
Heat pump combination heater		No					
Parameters shall be declared to parameters shall be declared fo				for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
item	Зуппоот			Seasonal space heating energy			1
Rated heat output (*)	Prated	9	kW	efficiency	$\eta_{s}$	145	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of perform part load at indoor temperature	•		
T j = -7 °C	Pdh	na	kW	T j = -7 °C	COPd	na	-
T j = + 2 °C	Pdh	8,0	kW	T j = +2 °C	COPd	2,62	-
T j = + 7 °C	Pdh	10,6	kW	T j = +7 °C	COPd	3,39	-
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,69	
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,76	-
T j = operation limit temperature	Pdh	8,1	kW	T j = operation limit temperature	COPd	2,40	] -
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	2	°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	55	°C
Power consumption in modes o	ther than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,013	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	

Degradation co-efficient	Cdh	0,99	-
Power consumption in modes	other than active	mode	
Off mode	P OFF	0,018	kW
Thermostat-off mode	P <sub>TO</sub>	0,013	kW
Standby mode	P <sub>SB</sub>	0,018	kW
Crankcase heater mode	P <sub>CK</sub>	0,000	kW
Other items			

 $L_{WA}$ 

Q<sub>HE</sub>

For air-to-water heat pumps: 4100 m3/h Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat m3/h exchanger

For heat pump combination heater:

Sound power level, indoors/

Annual energy consumption

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

dB

kWh

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 of the product as household waste is not permitted.

Capacity control

outdoors

**Fixed** 

na/58

3227



Information for heat pump s		and heat pump	o combinati	on heaters	Enertech		
Warm climate and Low temp	perature				341 26 Ljι	ingby	
Model(s):		CTC EcoAir 41	.0 + CTC Ecol				
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		No		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	193	%	
Equipped with a supplementary	heater:	No		Package efficiency class:		-	
Heat pump combination heater		No					
				for low-temperature heat pumps. I	For low- temp	erature heat	pumps
parameters shall be declared fo				lk	Comple al	Malue	11
Item	Symbol	Value	Unit	Item	Symbol	Value	Un
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	189	%
Declared capacity for heating for not	r part load at li	ndoor temperat	ure 20°C	Declared coefficient of perform part load at indoor temperatur	•		
Г j = – 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	3,72	] -
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	4,84	-
T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	6,07	
T j = bivalent temperature	Pdh	9,1	kW	T j = bivalent temperature	COPd	3,83	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	3,87	-
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	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Degradation co-efficient		e mode		Supplementary heater			-
	ther than activ			I In	Davis	0.7	kИ
Degradation co-efficient  Power consumption in modes o  Off mode	ther than activ	0,018	kW	Rated heat output (*)	Psup	0,7	7. 7
Power consumption in modes o		0,018 0,041	kW kW	Rated heat output (*)	Psup	0,7	1 ~~
Power consumption in modes o	P OFF			Type of energy input	Psup	Electric	KV

Power consumption in modes other than active mode							
Off mode	P OFF	0,018	kW				
Thermostat-off mode	$P_{TO}$	0,041	kW				
Standby mode	P <sub>SB</sub>	0,018	kW				
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							

 $L_{WA}$ 

		-
For air-to-water heat pumps: Rated air flow rate, outdoors	4100	m3/h
For water-/brine-to-water heat pumps: Rated brine or water		
flow rate, outdoor heatexchanger	na	m3/h

Q<sub>HE</sub> For heat pump combination heater:

Sound power level, indoors/

Annual energy consumption

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

dB

kWh

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 of the product as household waste is not permitted.

Capacity control

outdoors

**Fixed** 

na/58

2734

# Information for heat pump space heaters and heat pump combination heaters $% \left( 1\right) =\left( 1\right) \left( 1\right)$

Average climate and Medium temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoLogic						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	125	%			
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-			
Heat pump combination heater:	No						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	$\eta_{s}$	121	%
Declared capacity for heating for and outdoor temperature T j	or part load at ii	ndoor temperat	cure 20 °C	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	6,6	kW	T j = - 7 °C	COPd	2,22	-
T j = + 2 °C	Pdh	8,6	kW	T j = +2 °C	COPd	3,07	-
T j = + 7 °C	Pdh	11,1	kW	T j = +7 °C	COPd	3,99	-
T j = + 12 °C	Pdh	13,3	kW	T j = +12 °C	COPd	5,04	-
T j = bivalent temperature	Pdh	7,0	kW	T j = bivalent temperature	COPd	2,46	-
T j = operation limit temperature	Pdh	5,9	kW	T j = operation limit temperature	COPd	1,95	-
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>	-5	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	ı	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,8	kW
Thermostat-off mode	$P_{TO}$	0,013	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5826	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it m he product's refr	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic hold waste is not permitted.	ler offering a sei	vice of that type	. t is of gre

Average climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoLogic					
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-		
Water-to-water heat pump:	No	Controller class:	VII	-		
Brine-to-water heat pump:	No	Controller contribution:	3,5	%		
Low-temperature heat pump:	No	Package efficiency:	158	%		
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-		
Heat pump combination heater:	No					

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_s$	154	%
Declared capacity for heating fand outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	7,4	kW	T j = - 7 °C	COPd	3,25	] -
T j = + 2 °C	Pdh	9,0	kW	T j = +2 °C	COPd	3,94	-
T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	5,08	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,23	-
T j = bivalent temperature	Pdh	7,8	kW	T j = bivalent temperature	COPd	3,42	-
T j = operation limit temperature	Pdh	6,1	kW	T j = operation limit temperature	COPd	2,97	-
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>	-5	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater		,	
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,041	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5063	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produc importance that t	ct's life cycle, it m he product's refi	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of grea

**Cold climate and Medium temperature** 

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 +	CTC EcoLogic		
Air-to-water heat pump:	Yes	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	VII	-
Brine-to-water heat pump:	No	Controller contribution:	3,5	%
Low-temperature heat pump:	No	Package efficiency:	113	%
Equipped with a supplementary heater:	No	Package efficiency class:		-
Heat pump combination heater:	No			
Parameters shall be declared for medium-te	emperature applicatio	n, except for low-temperature heat pump	s. For low- te	emperature heat pumps,

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_{s}$	109	%
Declared capacity for heating f and outdoor temperature T j	for part load at in	door tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	6,9	kW	T j = -7 °C	COPd	2,56	] -
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	3,28	-
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	4,25	-
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	5,21	-
T j = bivalent temperature	Pdh	5,5	kW	T j = bivalent temperature	COPd	2,13	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,50	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	1,95	-
Bivalent temperature	T <sub>biv</sub>	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°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	55	°C
Power consumption in modes	other than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,013	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		•					<del></del>
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6381	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it m the product's refr	at a recycling station or with the installation engust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronical waste is not permitted.	ler offering a se	rvice of that type	. t is of great

Cold climate and Low temperature

Enertech AB 341 26 Ljungby



Cold climate and Low tempera	3+1 20 Lj						
Model(s):	•	CTC EcoAir 4	10 + CTC EcoL				
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		No		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	140	%	
Equipped with a supplementary he	eater:	No		Package efficiency class:		-	
Heat pump combination heater:		No					
Parameters shall be declared for me parameters shall be declared for lo	•			for low-temperature heat pump	os. For low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
		_		Seasonal space heating ene	rgy	400	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_s$	136	%
Declared capacity for heating fand outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	7,5	kW	T j = -7 °C	COPd	3,41	] -
T j = + 2 °C	Pdh	9,1	kW	T j = +2 °C	COPd	4,06	-
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	5,21	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,20	-
T j = bivalent temperature	Pdh	5,9	kW	T j = bivalent temperature	COPd	2,95	-
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	2,07	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	5,7	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,74	-
Bivalent temperature	T <sub>biv</sub>	-14	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,4	kW
Thermostat-off mode	$P_{TO}$	0,041	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5337	kWh	flow rate, outdoor heat exchanger	-	na	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
Specific precautions and end of life information:		end of the production	ct's life cycle, it n the product's ref	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ller offering a se	rvice of that type	. t is of grea

Warm climate and Medium temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 250						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	136	%			
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	$\eta_{s}$	132	%
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	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	8,0	kW	T j = +2 °C	COPd	2,37	-
T j = + 7 °C	Pdh	10,6	kW	T j = +7 °C	COPd	3,15	-
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,37	-
T j = bivalent temperature	Pdh	8,6	kW	T j = bivalent temperature	COPd	2,63	-
T j = operation limit temperature	Pdh	8,1	kW	T j = operation limit temperature	COPd	2,15	-
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>	4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°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	55	°C
Power consumption in modes	other than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,030	kW				
Standby mode	$P_{SB}$	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							1
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	3971	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	70	%
Daily electricity consumption	Qelec	6,622	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1457	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production	ct's life cycle, it m the product's refr	at a recycling station or with the installation engust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic hold waste is not permitted.	ller offering a se	rvice of that type	. t is of great

Warm climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 250						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	166	%			
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	11	kW	Seasonal space heating energy efficiency	$\eta_s$	162	%
Declared capacity for heating f and outdoor temperature T j	or part load at ir	ndoor tempera	ture 20 °C	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	8,9	kW	T j = +2 °C	COPd	3,26	] -
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	4,38	-
T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	5,56	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	3,46	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	3,41	-
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>	4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,94	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,0	kW
Thermostat-off mode	$P_{TO}$	0,096	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							1
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	3512	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	70	%
Daily electricity consumption	Qelec	6,622	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1457	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production importance that the	ct's life cycle, it m the product's refr	at a recycling station or with the installation engust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronical waste is not permitted.	ler offering a se	rvice of that type	. t is of great

Average climate and Medium temperature

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Model(s):	CTC EcoAir 410 + CTC EcoZenith 250						
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	135	%			
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	9	kW	Seasonal space heating energy efficiency	$\eta_s$	131	%
Declared capacity for heating f and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	7,7	kW	T j = - 7 °C	COPd	2,59	] -
T j = + 2 °C	Pdh	9,6	kW	T j = +2 °C	COPd	3,47	-
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	4,16	-
T j = + 12 °C	Pdh	13,6	kW	T j = +12 °C	COPd	4,89	-
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,92	-
T j = operation limit temperature	Pdh	6,9	kW	T j = operation limit temperature	COPd	2,24	-
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>	-4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°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	55	°C
Power consumption in modes	other than active	mode	_	Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	2,6	kW
Thermostat-off mode	P <sub>TO</sub>	0,030	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						_	1
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5826	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	L	Efficiency class	В	Water heating energy efficiency	$\eta_{wh}$	59	%
Daily electricity consumption	Qelec	7,969	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1753	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it m the product's refr	at a recycling station or with the installation engust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronical waste is not permitted.	ler offering a se	rvice of that type	. t is of great

Average climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 250							
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-				
Water-to-water heat pump:	No	Controller class:	VII	-				
Brine-to-water heat pump:	No	Controller contribution:	3,5	%				
Low-temperature heat pump:	No	Package efficiency:	134	%				
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	10	kW	Seasonal space heating energy efficiency	$\eta_s$	130	%
Declared capacity for heating f and outdoor temperature T j	or part load at ir	ndoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	7,4	kW	T j = - 7 °C	COPd	2,77	] -
T j = + 2 °C	Pdh	9,0	kW	T j = +2 °C	COPd	3,43	-
T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	4,57	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,69	-
T j = bivalent temperature	Pdh	14,0	kW	T j = bivalent temperature	COPd	3,01	-
T j = operation limit temperature	Pdh	7,9	kW	T j = operation limit temperature	COPd	2,51	-
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>	-4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,94	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	$P_{TO}$	0,096	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6399	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	L	Efficiency class	В	Water heating energy efficiency	$\eta_{wh}$	59	%
Daily electricity consumption	Qelec	7,969	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1753	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it m the product's refr	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic hold waste is not permitted.	ller offering a se	rvice of that type	. t is of great

**Cold climate and Medium temperature** 

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 250						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	100	%			
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	$\eta_{s}$	96	%
Declared capacity for heating f and outdoor temperature T j	or part load at	indoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	6,9	kW	T j = -7 °C	COPd	2,31	] -
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	2,96	] -
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	3,90	-
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	4,82	-
T j = bivalent temperature	Pdh	6,5	kW	T j = bivalent temperature	COPd	2,18	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,25	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	1,67	-
Bivalent temperature	T <sub>biv</sub>	-9	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°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	55	°C
Power consumption in modes	other than activ	ve mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	6,3	kW
Thermostat-off mode	$P_{TO}$	0,030	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	9752	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:	•				•	•
Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	52	%
Daily electricity consumption	Qelec	9,017	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1984	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	t's life cycle, it n that the produc	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel t's refrigerant, compressor oil and electrical/elec shold waste is not permitted.	ler offering a se	rvice of that type	e. t is of

**Cold climate and Low temperature** 

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 250						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	116	%			
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	$\eta_s$	112	%
Declared capacity for heating f and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	7,5	kW	T j = - 7 °C	COPd	2,92	] -
T j = + 2 °C	Pdh	9,1	kW	T j = +2 °C	COPd	3,54	-
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	4,68	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,67	-
T j = bivalent temperature	Pdh	6,8	kW	T j = bivalent temperature	COPd	2,73	-
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	1,61	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	5,7	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	2,24	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,94	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	5,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,096	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						_	1
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	8586	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	L	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	52	%
Daily electricity consumption	Qelec	9,017	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1984	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production importance that the	ct's life cycle, it m the product's refri	at a recycling station or with the installation engust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronical waste is not permitted.	ler offering a se	rvice of that type	. t is of great

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	136	%			
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	9	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	132	%
Declared capacity for heating for outdoor temperature T j	or part load at i	ndoor 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
Tj=+2°C	Pdh	8,0	kW	T j = +2 °C	COPd	na 2,37	1
Tj=+7°C	Pdh	10,6	kW	T j = +7 °C	COPd	3,11	1 -
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,34	-
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,50	] -
T j = operation limit temperature	Pdh	8,1	kW	T j = operation limit temperature	COPd	2,15	-
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	2	°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	55	°C
Power consumption in modes of	ther than activ	e mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,024	kW				
Standby mode	$P_{SB}$	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	-	4100	m3/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	3526	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hear	ater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	85	%
Daily electricity consumption	Qelec	9,006	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1981	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product	's life cycle, it mus e product's refrige	a recycling station or with the installation engine t be sent correctly to a waste station or reseller erant, compressor oil and electrical/electronic ec not permitted.	offering a servio	ce of that type. t	is of great

Warm climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	170	%			
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	$\eta_{s}$	166	%
Declared capacity for heating for outdoor temperature T j	or part load at i	ndoor 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	8,9	kW	T j = +2 °C	COPd	4,24	] -
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	3,26	] -
T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	4,35	-
T j = bivalent temperature	Pdh	9,1	kW	T j = bivalent temperature	COPd	5,55	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	3,36	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	3,41	-
Bivalent temperature	T <sub>biv</sub>	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°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	55	°C
Power consumption in modes of	other than activ	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,073	kW				
Standby mode	$P_{SB}$	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		-	ļ.				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	3099	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	85	%
Daily electricity consumption	Qelec	9,006	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1981	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end		end of the product	's life cycle, it must	recycling station or with the installation engine t be sent correctly to a waste station or reseller rant. compressor oil and electrical/electronic ec	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.

Average climate and Medium temperature

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Model(s):	CTC EcoAir 410 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	113	%			
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	9	kW	Seasonal space heating energy efficiency	$\eta_s$	110	%
Declared capacity for heating for	or part load at i	ndoor temperatu	ire 20 °C and	Declared coefficient of performar	nce or prima	ary energy rat	io for
outdoor temperature T j				part load at indoor temperature 2	20 °C and οι	itdoor tempe	rature T
T j = – 7 °C	Pdh	6,6	kW	T j = - 7 °C	COPd	2,05	] -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	2,97	1 -
T j = + 7 °C	Pdh	10,8	kW	T j = +7 °C	COPd	3,55	-
T j = + 12 °C	Pdh	12,6	kW	T j = +12 °C	COPd	4,31	-
T j = bivalent temperature	Pdh	7,0	kW	T j = bivalent temperature	COPd	2,30	-
T j = operation limit temperature	Pdh	5,8	kW	T j = operation limit temperature	COPd	1,71	-
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>	-4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°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	55	°C
Power consumption in modes of	other than activ	ve mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,024	kW	[ ]			-
Standby mode	$P_{SB}$	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items						_	
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6901	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{\sf wh}$	73	%
Daily electricity consumption	Qelec	10,478	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2305	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end		end of the product	t's life cycle, it must	a recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ec	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.

Average climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	136	%			
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 <b>Item</b>	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	132	%
Declared capacity for heating fo outdoor temperature T j	or part load at i	ndoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	7,4	kW	T j = - 7 °C	COPd	2,77	] -
T j = + 2 °C	Pdh	9,0	kW	T j = +2 °C	COPd	3,43	-
T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	4,57	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,69	-
T j = bivalent temperature	Pdh	7,9	kW	T j = bivalent temperature	COPd	3,01	-
T j = operation limit temperature	Pdh	6,7	kW	T j = operation limit temperature	COPd	2,51	_
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>	-4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,95	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	re mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,073	kW				
Standby mode	$P_{SB}$	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6320	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ater:			<u> </u>			-
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{\sf wh}$	73	%
Daily electricity consumption	Qelec	10,478	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2305	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product	's life cycle, it mus e product's refrige	a recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ed not permitted.	offering a service	e of that type. t	is of great

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	101	%			
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	9	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	97	%
Declared capacity for heating fo outdoor temperature T j	r part load at i	ndoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	6,9	kW	T j = - 7 °C	COPd	2,30	] -
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	2,95	] -
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	3,89	] -
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	4,81	] -
T j = bivalent temperature	Pdh	6,2	kW	T j = bivalent temperature	COPd	2,10	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,25	] -
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	1,67	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°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	55	°C
Power consumption in modes o	ther than activ	e mode	•	Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	5,6	kW
Thermostat-off mode	P <sub>TO</sub>	0,024	kW				
Standby mode	$P_{SB}$	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	-	4100	m3/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	9015	kWh	flow rate, outdoor heat exchanger	-	na	m3/ł
For heat pump combination hea	ater:	•	•	· ·			<u> </u>
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	66	%
Daily electricity consumption	Qelec	11,558	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2543	kWh	Annual fuel consumption	AFC	NA	Gl
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 ed not permitted.	offering a servic	e of that type. t	is of grea

of the product as household waste is not permitted.

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	117	%			
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	9	kW	Seasonal space heating energy efficiency	$\eta_{s}$	113	%
Declared capacity for heating fo	or part load at i	ndoor temperatu	ure 20 °C and	Declared coefficient of performar			
outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	itdoor tempe	rature T
T j = – 7 °C	Pdh	7,5	kW		COPd	2,91	] -
T j = + 2 °C	Pdh	9,1	kW	T j = +2 °C	COPd	3,54	] -
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	4,67	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	5,67	-
T j = bivalent temperature	Pdh	6,6	kW	T j = bivalent temperature	COPd	2,65	-
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	1,61	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	5,7	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	2,24	-
Bivalent temperature	T <sub>biv</sub>	-11	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,95	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	ve mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	5,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,073	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	7894	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	66	%
Daily electricity consumption	Qelec	11,558	kWh	Daily fuel consumption	Qfuel	XL	kWh
Annual electricity consumption	AEC	2543	kWh	Annual fuel consumption	AFC	XL	GJ
Specific precautions and end		end of the product	t's life cycle, it mus	recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ec	offering a servi	ce of that type. t	is of great

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

Warm climate and Medium temperature

Enertech AB 341 26 Ljungby



warm climate and weditin tem	perature				341 20 LJI	uligby	
Model(s):		CTC EcoAir 4	10 + CTC Basi	cstyrning			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	T.	-	
Brine-to-water heat pump:		No		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	146	%	
Equipped with a supplementary hea	ter:	No		Package efficiency class:		-	
Heat pump combination heater:		No					
Parameters shall be declared for me parameters shall be declared for low				for low-temperature heat pu	mps. For low- temp	erature hea	t pumps,
Item S	Symbol	Value	Unit	Item	Symbol	Value	Unit
				Seasonal space heating e	nergy		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	$\eta_s$	145	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	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	8,0	kW	T j = +2 °C	COPd	2,62	-
T j = + 7 °C	Pdh	10,6	kW	T j = +7 °C	COPd	3,39	-
T j = + 12 °C	Pdh	13,1	kW	T j = +12 °C	COPd	4,69	-
T j = bivalent temperature	Pdh	8,3	kW	T j = bivalent temperature	COPd	2,76	-
T j = operation limit temperature	Pdh	8,1	kW	T j = operation limit temperature	COPd	2,40	-
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	2	°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	55	°C
Power consumption in modes of	other than activ	e mode	1	Supplementary heater			-
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,013	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	3227	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:	•		1 1 2 2 8		•	
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
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it n he product's ref	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic hold waste is not permitted.	ler offering a se	ervice of that type	. t is of grea

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#### Warm climate and Low temperature Model(s): CTC EcoAir 410 + CTC Basicstyrning Energy efficiency class: Air-to-water heat pump: Yes Controller class: No Water-to-water heat pump: No Controller contribution: % Brine-to-water heat pump: Low-temperature heat pump: No Package efficiency: 190 % 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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	189	%
Declared capacity for heating for temperature T j	r part load at ind	oor temperature 20 °C ar	nd outdoor	Declared coefficient of performar load at indoor temperature 20 °C	•		-
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	3,72	] -
T j = + 7 °C	Pdh	11,6	kW	T j = +7 °C	COPd	4,84	-
T j = + 12 °C	Pdh	13,9	kW	T j = +12 °C	COPd	6,07	-
T j = bivalent temperature	Pdh	9,1	kW	T j = bivalent temperature	COPd	3,83	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	3,87	-
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	2	°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	55	°C
Power consumption in modes of	her than active r	node		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,041	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	2734	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ter:						
Declared load profile		na	_	Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	#VÄRDEFEL!	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		product's life cycle, it must be se	ent correctly to a w	tion or with the installation engineer for correct vaste station or reseller offering a service of that lelectronic equipment are properly disposed of.	type. t is of great	t importance tha	t the

# Information for heat pump space heaters and heat pump combination heaters $% \left( 1\right) =\left( 1\right) \left( 1\right)$

Average climate and Medium temperature





Model(s): CTC EcoAir 410 + CTC Basicstyrning						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-		
Water-to-water heat pump:	No	Controller class:	1	-		
Brine-to-water heat pump:	No	Controller contribution:	1	%		
Low-temperature heat pump:	No	Package efficiency:	122	%		
Equipped with a supplementary heater:	No	Package efficiency class:	A+	-		
Heat pump combination heater:	No					

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	$\eta_{s}$	121	%
Declared capacity for heating f and outdoor temperature T j	for part load at in	door tempera	ture 20°C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	6,6	kW	T j = - 7 °C	COPd	2,22	] -
T j = + 2 °C	Pdh	8,6	kW	T j = +2 °C	COPd	3,07	-
T j = + 7 °C	Pdh	11,1	kW	T j = +7 °C	COPd	3,99	-
T j = + 12 °C	Pdh	13,3	kW	T j = +12 °C	COPd	5,04	-
T j = bivalent temperature	Pdh	7,0	kW	T j = bivalent temperature	COPd	2,46	-
T j = operation limit temperature	Pdh	5,9	kW	T j = operation limit temperature	COPd	1,95	-
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>	-5	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°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	55	°C
Power consumption in modes	other than active	mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,8	kW
Thermostat-off mode	$P_{TO}$	0,013	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5826	kWh	flow rate, outdoor heat exchanger	-	na	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
Specific precautions and end of life information:		end of the production importance that the	ct's life cycle, it m the product's refri	at a recycling station or with the installation engust be sent correctly to a waste station or resel gerant, compressor oil and electrical/electronic and waste is not permitted.	ler offering a se	rvice of that type	. t is of great

Average climate and Low temperature

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Model(s):	CTC EcoAir 410 +	- CTC Basicstyrning		
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	1	-
Brine-to-water heat pump:	No	Controller contribution:	1	%
Low-temperature heat pump:	No	Package efficiency:	155	%
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-
Heat pump combination heater:	No			

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_s$	154	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	7,4	kW	T j = -7 °C	COPd	3,25	] -
T j = + 2 °C	Pdh	9,0	kW	T j = +2 °C	COPd	3,94	-
T j = + 7 °C	Pdh	11,7	kW	T j = +7 °C	COPd	5,08	-
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,23	-
T j = bivalent temperature	Pdh	7,8	kW	T j = bivalent temperature	COPd	3,42	-
T j = operation limit temperature	Pdh	6,1	kW	T j = operation limit temperature	COPd	2,97	-
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>	-5	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,022	kW				
Standby mode	P <sub>SB</sub>	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5063	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	<b>Q</b> fuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produc importance that t	t's life cycle, it n he product's ref	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of grea

**Cold climate and Medium temperature** 

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC Basicstyrning						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	I	-			
Brine-to-water heat pump:	No	Controller contribution:	1	%			
Low-temperature heat pump:	No	Package efficiency:	110	%			
Equipped with a supplementary heater:	No	Package efficiency class:		-			
Heat pump combination heater:	No						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_s$	109	%
Declared capacity for heating fand outdoor temperature T j	or part load at ir	idoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	6,9	kW	T j = - 7 °C	COPd	2,56	-
T j = + 2 °C	Pdh	8,7	kW	T j = +2 °C	COPd	3,28	] -
T j = + 7 °C	Pdh	11,3	kW	T j = +7 °C	COPd	4,25	-
T j = + 12 °C	Pdh	13,4	kW	T j = +12 °C	COPd	5,21	-
T j = bivalent temperature	Pdh	5,5	kW	T j = bivalent temperature	COPd	2,13	-
T j = operation limit temperature	Pdh	3,6	kW	T j = operation limit temperature	COPd	1,50	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	5,1	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	1,95	-
Bivalent temperature	T <sub>biv</sub>	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°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	55	°C
Power consumption in modes of	other than active	mode	-	Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,013	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	-	4100	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6381	kWh	flow rate, outdoor heat exchanger	-	na	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
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it n the product's ref	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of gre

Cold climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 410 + CTC Basicstyrning					
Air-to-water heat pump:	Yes	Energy efficiency class:		-		
Water-to-water heat pump:	No	Controller class:	I	-		
Brine-to-water heat pump:	No	Controller contribution:	1	%		
Low-temperature heat pump:	No	Package efficiency:	137	%		
Equipped with a supplementary heater:	No	Package efficiency class:		-		
Heat pump combination heater:	No					

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_s$	136	%		
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\text{C}$ and outdoor temperature T j			ture 20 °C	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j					
T j = -7 °C	Pdh	7,5	kW	T j = - 7 °C	COPd	3,41	] -		
T j = + 2 °C	Pdh	9,1	kW	T j = +2 °C	COPd	4,06	-		
T j = + 7 °C	Pdh	11,8	kW	T j = +7 °C	COPd	5,21	-		
T j = + 12 °C	Pdh	14,0	kW	T j = +12 °C	COPd	6,20	-		
T j = bivalent temperature	Pdh	5,9	kW	T j = bivalent temperature	COPd	2,95	-		
T j = operation limit temperature	Pdh	4,1	kW	T j = operation limit temperature	COPd	2,07	-		
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	5,7	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	2,74	-		
Bivalent temperature	T <sub>biv</sub>	-14	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°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	55	°C		
Power consumption in modes other than active mode				Supplementary heater			-		
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	3,4	kW		
Thermostat-off mode	P <sub>TO</sub>	0,041	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						•	1		
Capacity control	Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h			
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/58	dB	For water-/brine-to-water heat pumps: Rated brine or water					
Annual energy consumption	Q <sub>HE</sub>	5337	kWh	flow rate, outdoor heat exchanger	-	na	m3/h		
For heat pump combination he	eater:								
Declared load profile		na		Water heating energy efficiency	$\eta_{wh}$	na	%		
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh		
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ		
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it m the product's refr	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic hold waste is not permitted.	ller offering a se	rvice of that type	. t is of great		