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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoZenith i350/ i350F						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	Νο	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	152	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	148	%
Declared capacity for heating and outdoor temperature T j	for part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	5,9	kW	T j = +2 °C	COPd	2,10	-
T j = + 7 °C	Pdh	7,3	kW	T j = +7 °C	COPd	3,21	-
T j = + 12 °C	Pdh	9,4	kW	T j = +12 °C	COPd	4,88	-
T j = bivalent temperature	Pdh	6,0	kW	T j = bivalent temperature	COPd	1,59	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	2,45	-
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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,007	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</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>	2271	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						-
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	$\eta_{wh}$	112	%
Daily electricity consumption	Qelec	6,835	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1504	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging m end of the produ importance that	ust be deposited act's life cycle, it m the product's refi	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	gineer for correc ler offering a sei c equipment are	t waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB. Bo	Disposing of the 0x 309, SE-341 2	product as house 26 Liungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoZenith i350/ i350F						
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:	197	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			

Heat pump combination heater:

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	194	%
Declared capacity for heating f and outdoor temperature T j	or part load at in	idoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	6,0	kW	T j = +2 °C	COPd	3,76	-
T j = + 7 °C	Pdh	7,9	kW	T j = +7 °C	COPd	5,01	-
T j = + 12 °C	Pdh	9,7	kW	T j = +12 °C	COPd	6,41	-
T j = bivalent temperature	Pdh	6,2	kW	T j = bivalent temperature	COPd	3,91	-
T j = operation limit temperature	Pdh	6,0	kW	T j = operation limit temperature	COPd	3,70	-
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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,7	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	Р <sub>СК</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>	1816	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	$\eta_{wh}$	112	%
Daily electricity consumption	Qelec	6,84	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1504	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging me end of the produ importance that	ust be deposited a 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 igerant, compressor oil and electrical/electronic held waste is not according	gineer for correc ller offering a se c equipment are	ct waste manager rvice of that type properly dispose	nent. At the t is of great d of.
Contact details	Enertech AB, Bo	< 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoZenith i350/ i350F						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	Νο	Controller contribution:	3,5	%			
Low-temperature heat pump:	Νο	Package efficiency:	122	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-			

Heat pump combination heater:

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	118	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ary energy rat itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,5	kW	T j = – 7 °C	COPd	2,21	- 1
T j = + 2 °C	Pdh	5,5	kW	T j = +2 °C	COPd	2,98	-
T j = + 7 °C	Pdh	7,6	kW	T j = +7 °C	COPd	4,09	-
T j = + 12 °C	Pdh	9,0	kW	T j = +12 °C	COPd	5,31	-
T j = bivalent temperature	Pdh	4,9	kW	T j = bivalent temperature	COPd	2,51	-
T j = operation limit temperature	Pdh	4,0	kW	T j = operation limit temperature	COPd	1,91	-
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	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode	-	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,4	kW
Thermostat-off mode	Р <sub>то</sub>	0,007	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							4
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>	4343	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy	$\eta_{wh}$	98	%
Daily electricity consumption	Oelec	7,816	kWh	Daily fuel consumption	Ofuel	na	kW/h
	20,000	.,010	-	,			
consumption	AEC	1720	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging m end of the produ importance that	ust be deposited ict'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 normitted	gineer for correc ler offering a se c equipment are	ct waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoZenith i350/ i350F					
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:	157	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-		

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	154	%
Declared capacity for heating and outdoor temperature T j	for part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = − 7 °C	Pdh	4,7	kW	T j = – 7 °C	COPd	3,07	-
T j = + 2 °C	Pdh	6,2	kW	T j = +2 °C	COPd	4,03	-
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	5,28	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,58	-
T j = bivalent temperature	Pdh	5,1	kW	T j = bivalent temperature	COPd	3,30	-
T j = operation limit temperature	Pdh	4,3	kW	T j = operation limit temperature	COPd	2,80	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T <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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode	-	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	1,9	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	Р <sub>СК</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>	3297	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	$\eta_{wh}$	98	%
Daily electricity consumption	Qelec	7,816	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1720	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging m end of the produ importance that	ust be deposited a ct's life cycle, it m the 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	gineer for correc ler offering a ser : equipment are	t waste manager vice of that type properly dispose	nent. At the t is of great d of.
Contact details	Enertech AB, Bc	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoZenith i350/ i350F						
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:	109	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	106	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performal part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,6	kW	T j = – 7 °C	COPd	2,49	- 1
T j = + 2 °C	Pdh	5,7	kW	T j = +2 °C	COPd	3,25	-
T j = + 7 °C	Pdh	7,7	kW	T j = +7 °C	COPd	4,40	-
T j = + 12 °C	Pdh	9,6	kW	T j = +12 °C	COPd	5,50	-
T j = bivalent temperature	Pdh	4,0	kW	T j = bivalent temperature	COPd	2,24	-
T j = operation limit temperature	Pdh	2,3	kW	T j = operation limit temperature	COPd	1,24	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	3,4	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	1,85	-
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 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	e mode	-	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	3,3	kW
Thermostat-off mode	Р <sub>то</sub>	0,007	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items							4
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>	5143	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile/ Energy efficiency class		XL/A		Water heating energy efficiency	$\eta_{wh}$	84	%
Daily electricity consumption	Qelec	9,038	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1988	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging m end of the produ importance that	ust be deposited a ct's life cycle, it mu the product's refri	t a recycling station or with the installation eng ust be sent correctly to a waste station or resel gerant, compressor oil and electrical/electronic old waste is not normitted	gineer for correct ler offering a ser equipment are	t waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Box	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoZenith i350/ i350F						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	Νο	Controller contribution:	3,5	%			
Low-temperature heat pump:	No	Package efficiency:	137	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	133	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T i = − 7 °C	Pdh	4.8	kW	T i = − 7 °C	COPd	3.22	-
T j = + 2 °C	Pdh	6,3	kW	T j = +2 °C	COPd	4,19	-
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	5,42	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,55	-
T j = bivalent temperature	Pdh	3,8	kW	T j = bivalent temperature	COPd	2,54	-
T j = operation limit temperature	Pdh	2,7	kW	T j = operation limit temperature	COPd	1,90	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	3,7	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	2,55	-
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 active	e mode	-	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,1	kW
Thermostat-off mode	Р <sub>то</sub>	0,022	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</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>	3494	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile/ Energy efficiency class		XL/A	_	Water heating energy efficiency	$\eta_{wh}$	84	%
Daily electricity consumption	Qelec	9,038	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1988	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging m end of the produ importance that	ust be deposited a ct's life cycle, it m the product's refr	at a recycling station or with the installation enguist be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic bold wasta is not permitted	gineer for correc ler offering a ser equipment are	t waste manager vice of that type properly dispose	nent. At the t is of great d of.
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

No

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoLog	ic		
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:	152	%
Equipped with a supplementary heater:	No	Package efficiency class:		-

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	148	%
Declared capacity for heating and outdoor temperature T j	for part load at in	door tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempe	io for rature T j
T j = − 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	5,9	kW	T j = +2 °C	COPd	2,10	-
T j = + 7 °C	Pdh	7,3	kW	T j = +7 °C	COPd	3,21	-
T j = + 12 °C	Pdh	9,4	kW	T j = +12 °C	COPd	4,88	-
T j = bivalent temperature	Pdh	6,0	kW	T j = bivalent temperature	COPd	1,59	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	2,45	-
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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	s other than active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,007	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	2271	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	neater:						
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:		The packaging me end of the produ importance that Disposing of the	ust be deposited a ct's life cycle, it m the product's refri	at a recycling station or with the installation eng ust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic and waste is not permitted	gineer for correcter ler offering a ser cequipment are	t waste manager rvice of that type properly dispose	nent. At the t is of great d of.
Contact details	Enertech AB, Box	( 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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



Model(s):		CTC EcoAir 408	+ CTC EcoLog	ic			
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:	198	%	
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate	er:	No					
Parameters shall be declared	or medium-temp	erature application	on, except for	r low-temperature heat pumps. For l	ow- tempera	ture heat pur	nps,
parameters shall be declared	for low-temperat	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	194	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\mathrm{C}$ and outdoor temperature T j			e 20 °C and	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rati tdoor temper	o for ature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	6,0	kW	T j = +2 °C	COPd	3,76	-
T j = + 7 °C	Pdh	7,9	kW	T j = +7 °C	COPd	5,01	-
T j = + 12 °C	Pdh	9,7	kW	T j = +12 °C	COPd	6,41	-
T j = bivalent temperature	Pdh	6,2	kW	T j = bivalent temperature	COPd	3,91	-
T j = operation limit temperature	Pdh	6,0	kW	T j = operation limit temperature	COPd	3,70	-
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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode		Supplementary heater			-
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,7	kW
Thermostat-off mode	Р <sub>то</sub>	0,022	kW				
Standby mode	P	0.018	kW	Type of energy input		Electric	
Crankcase heater mode	P cr	0,000	kW/				
Othor itoms	- CA	0,000		┨┠────			
Other items				4 1			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>	1816	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	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	#VÄRDEFEL!	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		The packaging must end of the product's importance that the	be deposited at a life cycle, it mus product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselled rant, compressor oil and electrical/electronic e	eer for correct w offering a servic quipment are pro	aste managemen e of that type. t i operly disposed o	t. At the s of great f. Disposing
Contact details	Enertech AB, Bo	x 309, SE-341 26 L	jungby Tel +4	16 372 88000 www.ctc.se			181001

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

No

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC EcoLog	gic		
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:	122	%
Equipped with a supplementary heater:	No	Package efficiency class:	A+	-

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	118	%
Declared capacity for heating and outdoor temperature T j	for part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempe	io for rature T j
T j = − 7 °C	Pdh	4,5	kW	T j = – 7 °C	COPd	2,21	- 1
T j = + 2 °C	Pdh	5,5	kW	T j = +2 °C	COPd	2,98	-
T j = + 7 °C	Pdh	7,6	kW	T j = +7 °C	COPd	4,09	-
T j = + 12 °C	Pdh	9,0	kW	T j = +12 °C	COPd	5,31	-
T j = bivalent temperature	Pdh	4,9	kW	T j = bivalent temperature	COPd	2,51	-
T j = operation limit temperature	Pdh	4,0	kW	T j = operation limit temperature	COPd	1,91	-
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	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	re mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,4	kW
Thermostat-off mode	P <sub>TO</sub>	0,007	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	4343	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	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:		The packaging mi end of the produ importance that	ust be deposited ct's life cycle, it m the product's refr	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 held waste is not normitted	gineer for correct ler offering a sei c equipment are	t waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Bo	ox 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + 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						

Heat pump combination heater:

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	154	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,7	kW	T j = – 7 °C	COPd	3,07	- 1
T j = + 2 °C	Pdh	6,2	kW	T j = +2 °C	COPd	4,03	-
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	5,28	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,58	-
T j = bivalent temperature	Pdh	5,1	kW	T j = bivalent temperature	COPd	3,30	-
T j = operation limit temperature	Pdh	4,3	kW	T j = operation limit temperature	COPd	2,80	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T <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	other than active	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	1,9	kW
Thermostat-off mode	Р <sub>то</sub>	0,022	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	3297	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:		The packaging me end of the produ importance that t	ust be deposited a ct's life cycle, it m the product's refr	at a recycling station or with the installation en oust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic instal work is act accertic.	gineer for correct ler offering a se c equipment are	ct waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Bo	x 309, SF-341 2	6 Liungby Tel	+46 372 88000 www.ctc.se			181001

#### 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 408 +	CTC EcoAir 408 + 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:	110	%			
Equipped with a supplementary heater:	No	Package efficiency class:		-			
Heat pump combination heater:	No						

Heat pump combination heater:

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	106	%
Declared capacity for heating f and outdoor temperature T j	for part load at in	idoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ary energy rat utdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,6	kW	T j = – 7 °C	COPd	2,49	-
T j = + 2 °C	Pdh	5,7	kW	T j = +2 °C	COPd	3,25	-
T j = + 7 °C	Pdh	7,7	kW	T j = +7 °C	COPd	4,40	-
T j = + 12 °C	Pdh	9,6	kW	T j = +12 °C	COPd	5,50	-
T j = bivalent temperature	Pdh	4,0	kW	T j = bivalent temperature	COPd	2,24	-
T j = operation limit temperature	Pdh	2,3	kW	T j = operation limit temperature	COPd	1,24	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	3,4	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	1,85	-
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	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	3,3	kW
Thermostat-off mode	Ρ <sub>τΟ</sub>	0,007	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	5143	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:		The packaging me end of the produ importance that	ust be deposited a ct's life cycle, it m the product's refr	at a recycling station or with the installation en ust be sent correctly to a waste station or rese igerant, compressor oil and electrical/electroni	gineer for correc ller offering a se c equipment are	ct waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB. Bo	309. SE-341 2	6 Liungby Tel	+46 372 88000 www.ctc.se			181001

## 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 408 + CTC EcoLog	gic		
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:	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	5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	133	%
Declared capacity for heating and outdoor temperature T j	for part load at ii	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,8	kW	T j = – 7 °C	COPd	3,22	- 1
T j = + 2 °C	Pdh	6,3	kW	T j = +2 °C	COPd	4,19	-
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	5,42	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,55	-
T j = bivalent temperature	Pdh	3,8	kW	T j = bivalent temperature	COPd	2,54	-
T j = operation limit temperature	Pdh	2,7	kW	T j = operation limit temperature	COPd	1,90	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	3,7	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	2,55	-
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 <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,1	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 <sub>CK</sub>	0,000	kW				
Other items		<b>.</b> -					_
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>	3494	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	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:		The packaging mi end of the produ importance that	ust be deposited a 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 igerant, compressor oil and electrical/electronic hold waste is not permitted	gineer for correc ler offering a ser c equipment are	t waste manager vice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + 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:	Νο	Controller contribution:	3,5	%		
Low-temperature heat pump:	Νο	Package efficiency:	141	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:		-		

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	137	%
Declared capacity for heating and outdoor temperature T j	for part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	5,9	kW	T j = +2 °C	COPd	2,42	-
T j = + 7 °C	Pdh	7,3	kW	T j = +7 °C	COPd	3,26	-
T j = + 12 °C	Pdh	9,4	kW	T j = +12 °C	COPd	4,68	-
T j = bivalent temperature	Pdh	6,0	kW	T j = bivalent temperature	COPd	2,63	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	2,36	-
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	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 <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	e mode	-	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	1,2	kW
Thermostat-off mode	Р <sub>то</sub>	0,018	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	2688	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	$\eta_{wh}$	73	%
Daily electricity consumption	Qelec	6,352	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1397	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging m end of the produ importance that	ust be deposited ct's life cycle, it m the product's refr	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 held waste is not normitted	gineer for correct ler offering a sei c equipment are	t waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + 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:	174	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	170	%
Declared capacity for heating and outdoor temperature T j	for part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempei	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	6,0	kW	T j = +2 °C	COPd	3,37	-
T j = + 7 °C	Pdh	7,9	kW	T j = +7 °C	COPd	4,62	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	5,98	-
T j = bivalent temperature	Pdh	6,4	kW	T j = bivalent temperature	COPd	3,66	-
T j = operation limit temperature	Pdh	6,0	kW	T j = operation limit temperature	COPd	3,31	-
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 <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	other than activ	e mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	1,4	kW
Thermostat-off mode	Р <sub>то</sub>	0,055	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</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>	2302	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	$\eta_{wh}$	73	%
Daily electricity consumption	Qelec	6,352	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1397	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging mi end of the produ importance that	ust be deposited ct's life cycle, it n the product's refu	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	gineer for correct ler offering a ser c equipment are	t waste managen rvice of that type. properly dispose	nent. At the t is of great d of.
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	I +46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + 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:	121	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-		

Heat pump combination heater:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	117	%
Declared capacity for heating f and outdoor temperature T j	for part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,4	kW	T j = – 7 °C	COPd	2,10	- 1
T j = + 2 °C	Pdh	6,3	kW	T j = +2 °C	COPd	3,21	-
T j = + 7 °C	Pdh	7,6	kW	T j = +7 °C	COPd	3,80	-
T j = + 12 °C	Pdh	8,9	kW	T j = +12 °C	COPd	4,66	-
T j = bivalent temperature	Pdh	5,1	kW	T j = bivalent temperature	COPd	2,51	-
T j = operation limit temperature	Pdh	3,9	kW	T j = operation limit temperature	COPd	1,82	-
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	other than activ	re mode	-	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,5	kW
Thermostat-off mode	Р <sub>то</sub>	0,018	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	4380	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	$\boldsymbol{\eta}_{wh}$	61	%
Daily electricity consumption	Qelec	7,630	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1679	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging mi end of the produ importance that	ust be deposited ct's life cycle, it m the product's refu	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 hold waste is not nermitted	gineer for correc ler offering a sei c equipment are	t waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Bo	ox 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 +	CTC EcoAir 408 + 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:	138	%			
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.

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	134	%	
Declared capacity for heating f and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature				
T j = – 7 °C	Pdh	4,7	kW	T j = – 7 °C	COPd	2,67	-	
T j = + 2 °C	Pdh	6,2	kW	T j = +2 °C	COPd	3,60	-	
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	4,84	-	
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,12	-	
T j = bivalent temperature	Pdh	5,2	kW	T j = bivalent temperature	COPd	2,99	-	
T j = operation limit temperature	Pdh	4,3	kW	T j = operation limit temperature	COPd	2,41	-	
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	-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	other than active	e mode	_	Supplementary heater			_	
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,5	kW	
Thermostat-off mode	Р <sub>то</sub>	0,055	kW					
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	Р <sub>СК</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>	4088	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	$\eta_{wh}$	61	%	
Daily electricity consumption	Qelec	7,630	kWh	Daily fuel consumption	Qfuel	NA	kWh	
Annual electricity consumption	AEC	1679	kWh	Annual fuel consumption	AFC	NA	GJ	
Specific precautions and end of life information:		The packaging mi end of the produ importance that	ust be deposited 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 igerant, compressor oil and electrical/electronic belowert is and comprise	gineer for correc ller offering a ser c equipment are	t waste manager rvice of that type properly dispose	nent. At the t is of great d of.	
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001	

#### 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 408 + 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:	99	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:		-		
Heat pump combination heater:	Yes					

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	95	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,6	kW	T j = – 7 °C	COPd	2,27	-
T j = + 2 °C	Pdh	5,7	kW	T j = +2 °C	COPd	2,99	-
T j = + 7 °C	Pdh	7,7	kW	T j = +7 °C	COPd	4,10	-
T j = + 12 °C	Pdh	9,6	kW	T j = +12 °C	COPd	5,18	-
T j = bivalent temperature	Pdh	4,5	kW	T j = bivalent temperature	COPd	2,22	-
T j = operation limit temperature	Pdh	2,3	kW	T j = operation limit temperature	COPd	1,01	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	3,4	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	1,60	-
Bivalent temperature	T <sub>biv</sub>	-8	°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 active	e mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	4,8	kW
Thermostat-off mode	P <sub>TO</sub>	0,018	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	71330	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	$\eta_{wh}$	54	%
Daily electricity consumption	Qelec	8,617	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1896	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging mi end of the produ importance that Disposing of the	ust be deposited ct's life cycle, it m the 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	gineer for correct ler offering a ser equipment are	t waste manager vice of that type properly dispose	nent. At the t is of great d of.
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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

Yes

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + 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:	117	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:		-		

Heat pump combination heater:

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	113	%
Declared capacity for heating f and outdoor temperature T j	for part load at ir	idoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,8	kW	T j = – 7 °C	COPd	2,81	-
T j = + 2 °C	Pdh	6,3	kW	T j = +2 °C	COPd	3,76	-
T j = + 7 °C	Pdh	8,1	kW	T j = +7 °C	COPd	4,98	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,10	-
T j = bivalent temperature	Pdh	4,5	kW	T j = bivalent temperature	COPd	2,61	-
T j = operation limit temperature	Pdh	2,7	kW	T j = operation limit temperature	COPd	1,51	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	3,7	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	2,12	-
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	0,95	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	4,2	kW
Thermostat-off mode	Ρ <sub>τΟ</sub>	0,055	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	5832	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	$\eta_{\rm wh}$	54	%
Daily electricity consumption	Qelec	8,617	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1896	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging me end of the produc importance that t	ust be deposited a 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 igerant, compressor oil and electrical/electronic bed waste is act access?	gineer for correc ller offering a sei c equipment are	t waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB, Bo	< 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

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



Model(s):		CTC EcoAir 408	3 + CTC EcoZer	ith 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:	142	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes		5 ,			
Parameters shall be declared f	or medium-temp	erature applicat	ion, except fo	r low-temperature heat pumps. For	low- tempera	ature heat pu	nps,
parameters shall be declared	for low-temperati	ure application.				·	• •
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	138	%
Declared capacity for heating outdoor temperature T j	for part load at in	door temperatu	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rati itdoor tempei	o for ature T j	
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	-
T j = + 2 °C	Pdh	5,9	kW	T j = +2 °C	COPd	2,42	-
T j = + 7 °C	Pdh	7,3	kW	T j = +7 °C	COPd	3,24	-
T j = + 12 °C	Pdh	9,4	kW	T j = +12 °C	COPd	4,66	-
T j = bivalent temperature	Pdh	6,1	kW	T j = bivalent temperature	COPd	2,53	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	2,36	-
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	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	other than active	mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	Psp	0.018	kW	Type of energy input		Electric	
Crankcase heater mode	P cr	0,000	kW				
Othor itoms	- CA	0,000		┨ ┠─────			
Other items				4		·	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>	2477	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:			I I0		•	
		Efficiency		Water heating energy			
Declared load profile	XL	class	na	efficiency	$\eta_{wh}$	88	%
Daily electricity consumption	Qelec	8,698	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1914	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging mus end of the product importance that th	t be deposited at a 's life cycle, it mus e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rrant, compressor oil and electrical/electronic e	eer for correct v r offering a servie equipment are pr	vaste managemer ce of that type. t i operly disposed o	it. At the s of great of. Disposing
Contact details	Enertech AB, Box	( 309, SE-341 26	Ljungby Tel +4	46 372 88000 www.ctc.se			181001

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



					j	-8-7	
Model(s):		CTC EcoAir 408	3 + CTC EcoZen	ith 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:	181	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	iture heat pui	nps,
parameters shall be declared	for low-temperatu	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	177	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\mathrm{C}$ and outdoor temperature T j				Declared coefficient of performa part load at indoor temperature	ance or prima 20 °C and ou	ry energy rati tdoor temper	o for ature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	- 1
T j = + 2 °C	Pdh	6,0	kW	T j = +2 °C	COPd	3,37	-
T j = + 7 °C	Pdh	7,9	kW	T j = +7 °C	COPd	4,60	-
T j = + 12 °C	Pdh	9,7	kW	T j = +12 °C	COPd	5,97	-
T j = bivalent temperature	Pdh	6,4	kW	T j = bivalent temperature	COPd	3,51	-
T j = operation limit temperature	Pdh	6,0	kW	T j = operation limit temperature	COPd	3,31	-
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	0,96	-	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	0,9	kW
Thermostat-off mode	P <sub>TO</sub>	0,034	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items		ļ	ļ		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>	2053	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	88	%
Daily electricity consumption	Qelec	8,698	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1914	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging mus end of the product importance that th	t be deposited at a 's life cycle, it must e product's refrige	recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic en not normitted	neer for correct w r offering a servic equipment are pr	vaste managemer ce of that type. t i operly disposed o	it. At the s of great of. Disposing
Contact details	Enertech AB, Box	< 309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se			181001

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



Model(s):		CTC EcoAir 408	+ CTC EcoZen	ith 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:	124	%	
Equipped with a supplementa	rv heater:	Yes		Package efficiency class:	A+	-	
Heat pump combination heat	۰. ۲:	Yes					
Parameters shall be declared f	or medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared	or low-temperati	ire application.	· ·				•
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	121	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	iry energy rati Itdoor temper	io for rature T j
T j = – 7 °C	Pdh	4,3	kW	T j = – 7 °C	COPd	2,14	-
T j = + 2 °C	Pdh	6,2	kW	T j = +2 °C	COPd	3,26	-
T j = + 7 °C	Pdh	7,6	kW	T j = +7 °C	COPd	4,04	-
T j = + 12 °C	Pdh	8,9	kW	T j = +12 °C	COPd	4,90	-
T j = bivalent temperature	Pdh	5,0	kW	T j = bivalent temperature	COPd	5,58	-
T j = operation limit temperature	Pdh	3,7	kW	T j = operation limit temperature	COPd	1,77	-
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	0,99	-	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	2,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	Psa	0.018	kW	Type of energy input		Electric	
Crankcase heater mode	зь Р	0,000					
Otheraiteree	, <sub>CK</sub>	0,000	NVV				
Other items				4		·	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>	4242	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{wh}$	75	%
Daily electricity consumption	Qelec	10,117	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2226	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging must end of the product' importance that the	t be deposited at a s life cycle, it must e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic e	neer for correct v r offering a servi equipment are pr	vaste managemer ce of that type. t i operly disposed c	nt. At the s of great of. Disposing
Contact details	Enertech AB, Box	309, SE-341 26	Ljungby Tel +4	16 372 88000 www.ctc.se			181001

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



Model(s):		CTC EcoAir 408	8 + CTC EcoZen	ith 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:	141	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:	A+	-	
Heat pump combination heat	er:	Yes		о ,			
Parameters shall be declared	for medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ature heat pui	nps,
parameters shall be declared	for low-temperate	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	137	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\mathrm{C}$ and outdoor temperature T j				Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	iry energy rati Itdoor temper	o for ature T j
T j = – 7 °C	Pdh	4,7	kW	T j = – 7 °C	COPd	2,67	-
T j = + 2 °C	Pdh	6,2	kW	T j = +2 °C	COPd	3,59	-
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	4,83	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,12	-
T j = bivalent temperature	Pdh	5,1	kW	T j = bivalent temperature	COPd	2,88	-
T j = operation limit temperature	Pdh	4,3	kW	T j = operation limit temperature	COPd	2,41	-
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>	-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	0,96	-	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	1,9	kW
Thermostat-off mode	Р <sub>то</sub>	0,034	kW				
Standby mode	P <sub>SB</sub>	0.018	kW	Type of energy input		Electric	
, Crankcase heater mode	Рск	0.000	kW				
Other items	C.	0,000					
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>	3708	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{wh}$	75	%
Daily electricity consumption	Qelec	10,117	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2226	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging mus end of the product importance that th	t be deposited at a 's life cycle, it mus e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic e	eer for correct v r offering a servi equipment are pr	vaste managemer ce of that type. t i roperly disposed c	it. At the s of great of. Disposing
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# Information for heat pump space heaters and heat pump combination heaters **Cold climate and Medium temperature**



Model(s):		CTC EcoAir 408	+ CTC EcoZen	ith 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:	99	%	
Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heate	er:	Yes					
Parameters shall be declared	or medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For l	ow- tempera	ature heat pui	nps,
parameters shall be declared	for low-temperatu	re application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	95	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\mathrm{C}$ and outdoor temperature T j				Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	iry energy rati Itdoor temper	o for ature T j
T j = – 7 °C	Pdh	4,6	kW	T j = – 7 °C	COPd	2,27	-
T j = + 2 °C	Pdh	5,7	kW	T j = +2 °C	COPd	2,99	-
T j = + 7 °C	Pdh	7,7	kW	T j = +7 °C	COPd	4,10	-
T j = + 12 °C	Pdh	9,6	kW	T j = +12 °C	COPd	5,18	-
T j = bivalent temperature	Pdh	4,5	kW	T j = bivalent temperature	COPd	2,22	-
T j = operation limit temperature	Pdh	2,3	kW	T j = operation limit temperature	COPd	1,01	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	3,4	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	1,60	-
Bivalent temperature	T <sub>biv</sub>	-8	°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 active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	4,8	kW
Thermostat-off mode	P <sub>TO</sub>	0,012	kW				
Standby mode	P <sub>SB</sub>	0.018	kW	Type of energy input		Electric	
Crankcase heater mode	Рск	0.000	kW				
Other items	C.N.	.,					
Other items				4			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>	7107	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	68	%
Daily electricity consumption	Qelec	11,152	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2453	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		The packaging must end of the product' importance that the	t be deposited at a 's life cycle, it mus' e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic e	eer for correct v r offering a servi quipment are pr	vaste managemer ce of that type. t i operly disposed c	it. At the s of great of. Disposing
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### Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature**



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Model(s):		CTC EcoAir 408	3 + CTC EcoZen	ith 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:	119	%	
Equipped with a supplementa	rv heater:	Yes		Package efficiency class:		-	
Heat pump combination heat	er:	Yes					
Parameters shall be declared	for medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared	for low-temperate	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	115	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\mathrm{C}$ and outdoor temperature T j				Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,8	kW	T j = – 7 °C	COPd	2,79	] -
T j = + 2 °C	Pdh	6,3	kW	T j = +2 °C	COPd	3,74	-
T j = + 7 °C	Pdh	8,1	kW	T j = +7 °C	COPd	4,96	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,09	-
T j = bivalent temperature	Pdh	4,2	kW	T j = bivalent temperature	COPd	2,40	-
T j = operation limit temperature	Pdh	2,7	kW	T j = operation limit temperature	COPd	1,51	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	3,7	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	2,12	-
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 cych	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	other than active	mode		Supplementary heater			•
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	3,3	kW
Thermostat-off mode	Р <sub>то</sub>	0,034	kW				
Standby mode	P <sub>SB</sub>	0.018	kW	Type of energy input		Electric	
, Crankcase heater mode	Рск	0.000	kW				
Other items	CA.	0,000					
Other items	<b></b>						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>	4977	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{wh}$	68	%
Daily electricity consumption	Qelec	11,152	kWh	Daily fuel consumption	Qfuel	XL	kWh
Annual electricity consumption	AEC	2453	kWh	Annual fuel consumption	AFC	XL	GJ
Specific precautions and end of life information:		The packaging mus end of the product importance that th	t be deposited at a 's life cycle, it must e product's refrige	recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic e not permitted	neer for correct w r offering a servic equipment are pro	vaste managemer ce of that type. t i operly disposed o	nt. At the s of great of. Disposing
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#### Information for heat pump space heaters and heat pump combination heaters Warm climate and Medium temperature

Enertech AB 341 26 Ljungby



CTC EcoAir 408 + CTC Basicstyrning					
Yes	Energy efficiency class:		-		
No	Controller class:	I	-		
No	Controller contribution:	1	%		
No	Package efficiency:	149	%		
No	Package efficiency class:		-		
	CTC EcoAir 408 + CTC Basicsty Yes No No No No	CTC EcoAir 408 + CTC BasicstyrningYesEnergy efficiency class:NoController class:NoController contribution:NoPackage efficiency:NoPackage efficiency class:	CTC EcoAir 408 + CTC Basicstyrning      Yes    Energy efficiency class:      No    Controller class:    I      No    Controller contribution:    1      No    Package efficiency:    149      No    Package efficiency class:		

Heat pump combination heater: No

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	148	%
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	nce or prima 20 °C and ou	ary energy rat itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	- 1
T j = + 2 °C	Pdh	5,9	kW	T j = +2 °C	COPd	2,10	1 -
T j = + 7 °C	Pdh	7,3	kW	T j = +7 °C	COPd	3,21	-
T j = + 12 °C	Pdh	9,4	kW	T j = +12 °C	COPd	4,88	-
T j = bivalent temperature	Pdh	6,0	kW	T j = bivalent temperature	COPd	1,59	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	2,45	-
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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode	_	Supplementary heater			-
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,5	kW
Thermostat-off mode	Ρ <sub>ΤΟ</sub>	0,007	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	2271	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:		The packaging me end of the produ importance that	ust be deposited 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 rese igerant, compressor oil and electrical/electroni	gineer for correc ller offering a se c equipment are	ct waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
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# Information for heat pump space heaters and heat pump combination heaters Warm climate and Low temperature



Model(s):		CTC EcoAir 408	+ CTC Basicst	yrning			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	-
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:	195	%	
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-	
Heat pump combination heat	er:	No					
Parameters shall be declared	for medium-tem	perature application	on, except fo	r low-temperature heat pumps. For l	ow- tempera	ture heat pui	nps,
parameters shall be declared	for low-temperat	ure application.					
Item	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	194	%
Declared capacity for heating outdoor temperature T j	for part load at in	ndoor temperature	e 20 °C and	Declared coefficient of performa part load at indoor temperature	ince or prima 20 °C and ou	ry energy rat tdoor temper	io for rature T j
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	6,0	kW	T j = +2 °C	COPd	3,76	- 1
T j = + 7 °C	Pdh	7,9	kW	T j = +7 °C	COPd	5,01	- 1
T j = + 12 °C	Pdh	9,7	kW	T j = +12 °C	COPd	6,41	-
T j = bivalent temperature	Pdh	6,2	kW	T j = bivalent temperature	COPd	3,91	-
T j = operation limit temperature	Pdh	6,0	kW	T j = operation limit temperature	COPd	3,70	-
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	0,97	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,7	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	Р <sub>ск</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>	1816	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	eater:						
Declared load profile		na		Water heating energy efficiency	η <sub>wh</sub>	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:		The packaging must end of the product's importance that the	be deposited at a life cycle, it mus product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic e	eer for correct w r offering a servic quipment are pro	aste managemer e of that type. t i operly disposed c	it. At the s of great of. Disposing
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#### Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature

No

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC Basicstyrning						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
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:	119	%			
Equipped with a supplementary heater:	No	Package efficiency class:	A+	-			

Heat pump combination heater:

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	118	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	idoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,5	kW	T j = – 7 °C	COPd	2,21	-
T j = + 2 °C	Pdh	5,5	kW	T j = +2 °C	COPd	2,98	-
T j = + 7 °C	Pdh	7,6	kW	T j = +7 °C	COPd	4,09	-
T j = + 12 °C	Pdh	9,0	kW	T j = +12 °C	COPd	5,31	-
T j = bivalent temperature	Pdh	4,9	kW	T j = bivalent temperature	COPd	2,51	-
T j = operation limit temperature	Pdh	4,0	kW	T j = operation limit temperature	COPd	1,91	-
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	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,4	kW
Thermostat-off mode	P <sub>TO</sub>	0,007	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	4343	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:		The packaging mi end of the production importance that the	ust be deposited a ct's life cycle, it m the product's refr	at a recycling station or with the installation en iust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic including to a statement.	gineer for correct ler offering a se c equipment are	t waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB. Box	( 309, SE-341 2	6 Liungby Tel	+46 372 88000 www.ctc.se			181001

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 408 + CTC Basicstyrning						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
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:	155	%			
Equipped with a supplementary heater:	No	Package efficiency class:	A++	-			
Heat pump combination heater:	No						

Heat pump combination heater:

ltem	Symbol	Value	Unit	ltem	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	154	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ry energy rat tdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,7	kW	T j = – 7 °C	COPd	3,07	-
T j = + 2 °C	Pdh	6,2	kW	T j = +2 °C	COPd	4,03	-
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	5,28	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,58	-
T j = bivalent temperature	Pdh	5,1	kW	T j = bivalent temperature	COPd	3,30	-
T j = operation limit temperature	Pdh	4,3	kW	T j = operation limit temperature	COPd	2,80	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T <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	other than active	e mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	1,9	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	Р <sub>ск</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>	3297	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination h	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:		The packaging mi end of the produ- importance that t	ust be deposited a 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 rese igerant, compressor oil and electrical/electroni hold waste is not permitted	gineer for correc ler offering a ser c equipment are	t waste manager vice of that type properly dispose	nent. At the t is of great d of.
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

#### 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 408 + CTC Basicstyrning					
Air-to-water heat pump:	Yes	Energy efficiency class:		-		
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:	107	%		
Equipped with a supplementary heater:	No	Package efficiency class:		-		
Heat pump combination heater:	No					

Heat pump combination heater:

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	106	%
Declared capacity for heating f and outdoor temperature T j	for part load at in	idoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ary energy rat utdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,6	kW	T j = – 7 °C	COPd	2,49	-
T j = + 2 °C	Pdh	5,7	kW	T j = +2 °C	COPd	3,25	-
T j = + 7 °C	Pdh	7,7	kW	T j = +7 °C	COPd	4,40	-
T j = + 12 °C	Pdh	9,6	kW	T j = +12 °C	COPd	5,50	-
T j = bivalent temperature	Pdh	4,0	kW	T j = bivalent temperature	COPd	2,24	-
T j = operation limit temperature	Pdh	2,3	kW	T j = operation limit temperature	COPd	1,24	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	3,4	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	1,85	-
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	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	3,3	kW
Thermostat-off mode	P <sub>TO</sub>	0,007	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>	5143	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:		The packaging me end of the produ importance that	ust be deposited a ct's life cycle, it m the product's refr	at a recycling station or with the installation en ust be sent correctly to a waste station or rese igerant, compressor oil and electrical/electroni	gineer for correc ller offering a se c equipment are	ct waste manager rvice of that type properly dispose	nent. At the . t is of great d of.
Contact details	Enertech AB. Bo	309. SE-341 2	6 Liungby Tel	+46 372 88000 www.ctc.se			181001

## 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 408 + CTC Basicstyrning				
Air-to-water heat pump:	Yes	Energy efficiency class:		-	
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:	134	%	
Equipped with a supplementary heater:	No	Package efficiency class:		-	

Heat pump combination heater: No

ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	133	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	idoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature	nce or prima 20 °C and ou	ary energy rat Itdoor tempe	io for rature T j
T j = – 7 °C	Pdh	4,8	kW	T j = – 7 °C	COPd	3,22	-
T j = + 2 °C	Pdh	6,3	kW	T j = +2 °C	COPd	4,19	-
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	5,42	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	6,55	-
T j = bivalent temperature	Pdh	3,8	kW	T j = bivalent temperature	COPd	2,54	-
T j = operation limit temperature	Pdh	2,7	kW	T j = operation limit temperature	COPd	1,90	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	3,7	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	2,55	-
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 active	e mode	-	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	2,1	kW
Thermostat-off mode	Ρ <sub>το</sub>	0,022	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</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>	3494	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:		The packaging me end of the production importance that the	ust be deposited a ct's life cycle, it m the product's refr	at a recycling station or with the installation en oust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic intervention of the statement of the statement of the statement of the statement of the statement of the statement of the statement of the statement of the statement of the statement of the statement of the stat	gineer for correc ler offering a se c equipment are	ct waste manager rvice of that type properly dispose	nent. At the t is of great d of.
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