Enertech AB



Warm climate and Mediu	ım temperature				341 26 Ljur	ngby		
Model(s):		CTC EcoAir 42	20 + CTC Ecol	Logic				
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	p:	No		Package efficiency:	144	/		
Equipped with a supplement	tary heater:	No		Package efficiency class:		-		
Heat pump combination hea	iter:	No						
Parameters shall be declared parameters shall be declared				for low-temperature heat pumps. F	or low- tempe	erature heat	pumps,	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_{s}	140	/	
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature				

				efficiency	.3		
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			
T j = -7 °C	Pdh	na	kW	T i = -7 °C	COPd	na] -
T j = + 2 °C	Pdh	13,0	kW	T j = +2 °C	COPd	2,56	-
T j = + 7 °C	Pdh	16,6	kW	T j = +7 °C	COPd	3,29	-
T j = + 12 °C	Pdh	20,0	kW	T j = +12 °C	COPd	4,33	-
T j = bivalent temperature	Pdh	13,4	kW	T j = bivalent temperature	COPd	2,67	-
T j = operation limit temperature	Pdh	13,8	kW	T j = operation limit temperature	COPd	2,76	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°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 activ	e mode	_	Supplementary heater			_
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	P _{TO}	0,020	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5390	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	na	Efficiency class		Water heating energy efficiency	η_{wh}	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh

For heat pump combination heater:											
Declared load profile	na	Efficiency class		Water heating energy efficiency	$\eta_{\sf wh}$	na	/				
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh				
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ				

Specific precautions and end of life information:

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

Warm climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 420 +	CTC EcoAir 420 + 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:	179	/					
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	15	kW	Seasonal space heating energy efficiency	η_{s}	175	/
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	13,9	kW	T j = +2 °C	COPd	3,54] -
T j = + 7 °C	Pdh	17,6	kW	T j = +7 °C	COPd	4,46	-
T j = + 12 °C	Pdh	21,2	kW	T j = +12 °C	COPd	5,43	-
T j = bivalent temperature	Pdh	14,2	kW	T j = bivalent temperature	COPd	3,65	-
T j = operation limit temperature	Pdh	14,2	kW	T j = operation limit temperature	COPd	3,60	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,4	kW
Thermostat-off mode	P_{TO}	0,068	kW			•	
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items]			-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4574	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	na	Efficiency class		Water heating energy efficiency	η_{wh}	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it n he product's ref	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of gre

Average climate and Medium temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 420 +	CTC EcoAir 420 + 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:	123	/					
Equipped with a supplementary heater:	No	Package efficiency class:	A+	-					
Heat pump combination heater:	No								
Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps. For low- temperature heat pumps,									

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	119	/
Declared capacity for heating f and outdoor temperature T j	for part load at ir	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	10,9	kW	T j = - 7 °C	COPd	2,35] -
T j = + 2 °C	Pdh	13,4	kW	T j = +2 °C	COPd	2,97	-
T j = + 7 °C	Pdh	17,3	kW	T j = +7 °C	COPd	3,81	-
T j = + 12 °C	Pdh	20,3	kW	T j = +12 °C	COPd	4,62	-
T j = bivalent temperature	Pdh	11,5	kW	T j = bivalent temperature	COPd	2,49	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	2,10	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-5	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode			Supplementary heater				
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	4,3	kW
Thermostat-off mode	P _{TO}	0,020	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items]			-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9646	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	na	Efficiency class		Water heating energy efficiency	η_{wh}	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it m he product's refr	at a recycling station or with the installation engoust be sent correctly to a waste station or reseligerant, compressor oil and electrical/electronic hold waste is not permitted.	ller offering a se	rvice of that type	. t is of great

Average climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 420 + 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:	149	/		
Equipped with a supplementary heater:	No	Package efficiency class:	A+	-		
Heat pump combination heater:	No					

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_{s}	145	/
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	11,5	kW	T j = -7 °C	COPd	3,07] -
T j = + 2 °C	Pdh	14,0	kW	T j = +2 °C	COPd	3,72] -
T j = + 7 °C	Pdh	17,7	kW	T j = +7 °C	COPd	4,64	-
T j = + 12 °C	Pdh	21,4	kW	T j = +12 °C	COPd	5,56	-
T j = bivalent temperature	Pdh	11,5	kW	T j = bivalent temperature	COPd	3,15	-
T j = operation limit temperature	Pdh	10,5	kW	T j = operation limit temperature	COPd	2,82	-
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 _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	re mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,4	kW
Thermostat-off mode	P_{TO}	0,068	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7739	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class		Water heating energy efficiency	$\eta_{\sf wh}$	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the productimportance that t	t's life cycle, it n he product's refi	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	vice of that type	. t is of great

Enertech AB



Cold climate and Medium	temperature				341 26 Ljur	ngby	
Model(s):		CTC EcoAir 42	20 + CTC Ecol	ogic			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		No		Controller contribution:	3,5	/	
Low-temperature heat pump	o:	No		Package efficiency:	111	/	
Equipped with a supplement	tary heater:	No		Package efficiency class:		-	
Parameters shall be declared parameters shall be declared	d for medium-tem			for low-temperature heat pumps. F	or low- tempe	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	n _s	107	/
Declared capacity for heating and outdoor temperature T	• .	ndoor tempera	ture 20 °C	Declared coefficient of perform part load at indoor temperature	•	, ,,	

Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	107	/
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	•		
T j = -7 °C	Pdh	11,0	kW	T j = -7 °C	COPd	2,52	-
T j = + 2 °C	Pdh	13,6	kW	T j = +2 °C	COPd	3,15	-
T j = + 7 °C	Pdh	17,4	kW	T j = +7 °C	COPd	4,01	-
T j = + 12 °C	Pdh	20,5	kW	T j = +12 °C	COPd	4,76	-
T j = bivalent temperature	Pdh	8,8	kW	T j = bivalent temperature	COPd	2,16	-
T j = operation limit temperature	Pdh	6,1	kW	T j = operation limit temperature	COPd	1,44	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	8,5	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,98	-
Bivalent temperature	T _{biv}	-14	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	mode		Supplementary heater		•	•
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	4,9	kW
Thermostat-off mode	P _{TO}	0,020	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items	·		!				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9970	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:	-	-	· · · · · · · · · · · · · · · · · · ·			-
Declared load profile	na	Efficiency class		Water heating energy efficiency	$\eta_{\sf wh}$	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

Declared load profile	na	Efficiency class		Water heating energy efficiency	$\eta_{\sf wh}$	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
	<u> </u>	The nackaging mu	ist he denosited at a	recycling station or with the installation	engineer for correct	t waste managen	nent At the

Specific precautions and end of life information:

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

Cold climate and Low temperature

Enertech AB 341 26 Ljungby



				, , ,			
Model(s):	CTC EcoAir 420 + 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:	133	/			
Equipped with a supplementary heater:	No	Package efficiency class:	:	-			
Heat pump combination heater:	No						
Parameters shall be declared for medium	-temperature applic	ation, except for low-temperature heat p	umps. For low- t	emperature hea	at pumps,		
parameters shall be declared for low-tem	perature applicatior	n.					
Itam Sumb	d Value	Linit Itam	Cumb	aal Valua	Unit		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_{s}	129	/	
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor temperat	ture 20 °C	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j				
T j = -7 °C	Pdh	11,6	kW	T j = -7 °C	COPd	3,20	-	
T j = + 2 °C	Pdh	14,1	kW	T j = +2 °C	COPd	3,84	-	
T j = + 7 °C	Pdh	17,8	kW	T j = +7 °C	COPd	4,74	-	
T j = + 12 °C	Pdh	21,3	kW	T j = +12 °C	COPd	5,54	-	
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	2,74	-	
T j = operation limit temperature	Pdh	6,8	kW	T j = operation limit temperature	COPd	2,04	-	
For air-to-water heat pumps: $T j = -15 ^{\circ}\text{C}$ (if TOL < $-20 ^{\circ}\text{C}$)	Pdh	9,1	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,63	-	
Bivalent temperature	T _{biv}	-14	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C	
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C	
Power consumption in modes other than active mode			Supplementary heater			-		
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	5,0	kW	
Thermostat-off mode	P _{TO}	0,068	kW					
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric		
Crankcase heater mode	P _{CK}	0,000	kW					
Other items		•						
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h	
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water				
Annual energy consumption	Q _{HE}	8876	kWh	flow rate, outdoor heat exchanger	-	na	m3/h	
For heat pump combination h	eater:							
Declared load profile	na	Efficiency class		Water heating energy efficiency	η_{wh}	na	/	
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh	
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ	
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it n the product's ref	at a recycling station or with the installation enginust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a ser	vice of that type	. t is of great	
Contact details	Enertech AR Ro	v 309 SE-3/11 2	6 Liunghy Tel	L+46 372 88000 www.ctc.se			181001	

Warm climate and Medium temperature

Enertech AB 341 26 Ljungbv



warm climate and Mediu		341 26 Ljur	ngby				
Model(s):		CTC EcoAir 420 + CTC EcoZenith 550					
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		No Contro		Controller contribution:	3,5	/	
Low-temperature heat pump	0:	No		Package efficiency:	127	/	
Equipped with a supplement	tary heater:	Yes F		Package efficiency class:		-	
Heat pump combination hea	iter:	Yes					
Parameters shall be declared parameters shall be declared				for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	η_s	123	/
		_				-	_

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	η_s	123	/
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	13,0	kW	T j = +2 °C	COPd	2,25	-
T j = + 7 °C	Pdh	16,6	kW	T j = +7 °C	COPd	2,94	-
T j = + 12 °C	Pdh	20,0	kW	T j = +12 °C	COPd	3,90	-
T j = bivalent temperature	Pdh	13,7	kW	T j = bivalent temperature	COPd	2,34	-
T j = operation limit temperature	Pdh	13,8	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: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode	=	Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	1,7	kW
Thermostat-off mode	P _{TO}	0,051	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items			•				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6254	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	η_{wh}	82	/
Daily electricity consumption	Qelec	9,302	kWh	Daily fuel consumption	Q fuel	NA	kWh
Annual electricity consumption	AEC	2047	kWh	Annual fuel consumption	AFC	NA	GJ
consumption		The packaging m	ust be deposited	at a recycling station or with the installation eng		t waste manager	nent. At

Specific precautions and end

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

of life information:

Warm climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 420 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	/			
Low-temperature heat pump:	No	Package efficiency:	151	/			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	η_{s}	147	/
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = -7 °C	COPd	na] -
T j = + 2 °C	Pdh	13,9	kW	T j = +2 °C	COPd	2,98] -
T j = + 7 °C	Pdh	17,6	kW	T j = +7 °C	COPd	3,89	-
T j = + 12 °C	Pdh	21,3	kW	T j = +12 °C	COPd	4,82	-
T j = bivalent temperature	Pdh	15,4	kW	T j = bivalent temperature	COPd	3,17	-
T j = operation limit temperature	Pdh	14,2	kW	T j = operation limit temperature	COPd	3,04	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,92	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	ve mode		Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	4,1	kW
Thermostat-off mode	P_{TO}	0,160	kW			•	
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6419	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	82	/
Daily electricity consumption	Qelec	9,302	kWh	Daily fuel consumption	\mathbf{Q}_{fuel}	NA	kWh
Annual electricity consumption	AEC	2047	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	t's life cycle, it n he product's refi	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of great

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

Average climate and Medium temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 420 + CTC EcoZenith 550						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	=			
Water-to-water heat pump:	No	Controller class:	VII	-			
Brine-to-water heat pump:	No	Controller contribution:	3,5	/			
Low-temperature heat pump:	No	Package efficiency:	117	/			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-			
Heat pump combination heater:	Yes						

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	η_{s}	114	/
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature	•		
T j = - 7 °C	Pdh	10,8	kW	T j = - 7 °C	COPd	2,22] -
T j = + 2 °C	Pdh	14,5	kW	T j = +2 °C	COPd	3,05] -
T j = + 7 °C	Pdh	17,1	kW	T j = +7 °C	COPd	3,59	-
T j = + 12 °C	Pdh	19,2	kW	T j = +12 °C	COPd	4,17	-
T j = bivalent temperature	Pdh	1,6	kW	T j = bivalent temperature	COPd	2,39	-
T j = operation limit temperature	Pdh	9,5	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 _{biv}	-4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	5,8	kW
Thermostat-off mode	P_{TO}	0,051	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items]			-
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10830	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{\sf wh}$	70	/
Daily electricity consumption	Qelec	10,835	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2384	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it n the product's ref	at a recycling station or with the installation en nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of gre

Enertech AB Average climate and Low temperature 341 26 Ljungby



Model(s):	CTC EcoAir 420 + CTC EcoZenith 550							
Air-to-water heat pump:	Yes	Energy efficiency class:	Α	-				
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:	123	/				
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-	•			
Heat pump combination heater:	Yes		•	_				

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	η_{s}	119	/
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	11,5	kW	T j = -7 °C	COPd	2,49	1 -
T j = + 2 °C	Pdh	14,0	kW	T j = +2 °C	COPd	3,12	-
T j = + 7 °C	Pdh	17,7	kW	T j = +7 °C	COPd	4,02	-
T j = + 12 °C	Pdh	21,4	kW	T j = +12 °C	COPd	4,91	-
T j = bivalent temperature	Pdh	12,3	kW	T j = bivalent temperature	COPd	2,71	-
T j = operation limit temperature	Pdh	10,5	kW	T j = operation limit temperature	COPd	2,26	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-4	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,94	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	5,5	kW
Thermostat-off mode	P_{TO}	0,160	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	10879	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{\sf wh}$	70	/
Daily electricity consumption	Qelec	10,835	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2384	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it n the product's ref	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of gre

Enertech AB



Cold climate and Medium	on neaters	341 26 Ljur					
Model(s):		CTC EcoAir 42	0 + CTC EcoZ	enith 550		.8.57	
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	p:	No		Package efficiency:	94	/	
Equipped with a supplement	tary heater:	Yes		Package efficiency class:		-	
Heat pump combination hea		Yes					
Parameters shall be declared parameters shall be declared	d for low-temperat			for low-temperature heat pumps. F	or low- tempe	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	η_{s}	90	/
Declared capacity for heating and outdoor temperature T	• •	ndoor temperat	ure 20 °C	Declared coefficient of perform part load at indoor temperature	•		
T j = – 7 °C	Pdh	11,0	kW	T j = -7 °C	COPd	2,16] -
T j = + 2 °C	Pdh	13,6	kW	T j = +2 °C	COPd	2,73] -
T j = + 7 °C	Pdh	17,4	kW	T j = +7 °C	COPd	3,55	-
T j = + 12 °C	Pdh	20,5	kW	T j = +12 °C	COPd	4,26	_
,				1 1 ,		-/	

T j = - 7 °C	Pdh	11,0	kW	Tj:
T j = + 2 °C	Pdh	13,6	kW	T j :
T j = + 7 °C	Pdh	17,4	kW	T j :
T j = + 12 °C	Pdh	20,5	kW	T j :
T j = bivalent temperature	Pdh	10,1	kW	T j :
T j = operation limit temperature	Pdh	6,1	kW	T j : ten
For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C)$	Pdh	8,5	kW	For T j :
Bivalent temperature	T _{biv}	-10	°C	For
Cycling interval capacity for heating	P _{cych}	na	kW	Сус
Degradation co-efficient	Cdh	0,98	-	Hea ten
Power consumption in modes of	ther than active	mode		Sup
Off mode	P OFF	0,018	kW	Rat
Thermostat-off mode	P _{TO}	0,051	kW	

1 J = +/ C	COPa	3,55	-
T j = +12 °C	COPd	4,26	-
T j = bivalent temperature	COPd	2,01	-
T j = operation limit temperature	COPd	1,13	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,62	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	СОРсус	na	-
Heating water operating limit temperature	WTOL	55	°C
Supplementary heater			
Rated heat output (*)	Psup	8,5	kW
Type of energy input		Electric	

Other items			
Capacity control		Fixed	
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB
Annual energy consumption	Q _{HE}	15548	kWh

 P_{SB}

0,018 0,000

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

For heat pump combination heater:

Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	64	/
Daily electricity consumption	Qelec	11,937	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2626	kWh	Annual fuel consumption	AFC	NA	GJ

kW

Specific precautions and end of life information:

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

Contact details

Standby mode

Crankcase heater mode

Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000

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Enertech AB 341 26 Liungby



erature		341 26 Ljur	igby			
	CTC EcoAir 42	20 + CTC EcoZ	Zenith 550			
	Yes		Energy efficiency class:		-	
	No		Controller class:	VII	-	
	No		Controller contribution:	3,5	/	
	No		Package efficiency:	106	/	
ry heater:	Yes		Package efficiency class:		-	
•			for low-temperature heat pumps.	For low- tempe	erature heat	pumps,
Symbol	Value	Unit	Item	Symbol	Value	Unit
Prated	18	kW	Seasonal space heating energy efficiency	η_{s}	102	/
	ry heater: er: or medium-temp for low-temperati Symbol	Yes No No No No ry heater: Yes or medium-temperature application Symbol Value	Yes No No No No ry heater: Yes er: Yes for medium-temperature application, except for low-temperature application. Symbol Value Unit	Yes Energy efficiency class: No Controller class: No Controller contribution: No Package efficiency: ry heater: Yes Package efficiency class: er: Yes for medium-temperature application, except for low-temperature heat pumps. For low-temperature application. Symbol Value Unit Item Proted 18 kW Seasonal space heating energy	Tested 18 kW Seasonal space heating energy	Yes Energy efficiency class: - No Controller class: VII - No Controller contribution: 3,5 / No Package efficiency: 106 / ry heater: Yes Package efficiency class: - Yes Package efficiency class:

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	η_s	102	/
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	11,6	kW	T j = - 7 °C	COPd	2,60	-
T j = + 2 °C	Pdh	14,1	kW	T j = +2 °C	COPd	3,22] -
T j = + 7 °C	Pdh	17,8	kW	T j = +7 °C	COPd	4,11	-
T j = + 12 °C	Pdh	21,4	kW	T j = +12 °C	COPd	4,90	-
T j = bivalent temperature	Pdh	11,3	kW	T j = bivalent temperature	COPd	2,54	-
T j = operation limit temperature	Pdh	6,8	kW	T j = operation limit temperature	COPd	1,48	_
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	9,1	kW	For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd	2,59	-
Bivalent temperature	T _{biv}	-8	°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	0,93	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	re mode	•	Supplementary heater		_	-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	11,0	kW
Thermostat-off mode	P_{TO}	0,160	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	16783	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	64	/
Daily electricity consumption	Qelec	11,937	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2626	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produc	ct's life cycle, it n	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	ller offering a se	rvice of that type	. t is of grea

of life information:

Disposing of the product as household waste is not permitted.

Warm climate and Medium temperature

Enertech AB 341 26 Ljungby



Fnergy			
Liicig	y efficiency class:	-	
Contro	oller class:	-	
Contro	oller contribution: 1	/	
Packa	ge efficiency: 14	1 /	
Packa	ge efficiency class:	-	
	Contro Packa _l Packa _l	Package efficiency class:	Controller contribution: 1 / Package efficiency: 141 /

parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	140	/
Declared capacity for heating f and outdoor temperature T j	or part load at in	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	13,0	kW	T j = +2 °C	COPd	2,56] -
T j = + 7 °C	Pdh	16,6	kW	T j = +7 °C	COPd	3,29	-
T j = + 12 °C	Pdh	20,0	kW	T j = +12 °C	COPd	4,33	-
T j = bivalent temperature	Pdh	13,4	kW	T j = bivalent temperature	COPd	2,67	-
T j = operation limit temperature	Pdh	13,8	kW	T j = operation limit temperature	COPd	2,76	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°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 _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,3	kW
Thermostat-off mode	P_{TO}	0,020	kW			•	
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5390	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	na	Efficiency class		Water heating energy efficiency	η_{wh}	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it n he product's ref	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of gre

Enertech AB



Warm climate and Low temperature					341 26 Ljui	ngby	
Model(s):		CTC EcoAir 4	20 + CTC Basi	cstyrning			
Air-to-water heat pump:		Yes Energy efficiency class:				-	
Water-to-water heat pump:		No		Controller class:	I	-	
Brine-to-water heat pump:		No		Controller contribution:	1	/	
Low-temperature heat pump	o:	No		Package efficiency:	176	/	
Equipped with a supplement	tary heater:	No		Package efficiency class:		-	
Heat pump combination hea	iter:	No					
Parameters shall be declared parameters shall be declared	•			for low-temperature heat pumps.	For low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	$\eta_{\mathcal{S}}$	175	/
Declared capacity for heating	-	door tempera	ture 20 °C	Declared coefficient of perform			

T i = - 7 °C

Type of energy input

exchanger

and outdoor temperature T j Ti = -7°C Pdh kW na 13,9 kW Tj = +2 °CPdh Tj = +7°C Pdh 17,6 kW T j = + 12 °C 21,2 Pdh kW 14,2 T j = bivalent temperature Pdh kW T j = operation limit Pdh 14,2 kW temperature For air-to-water heat pumps: Pdh na kW $T j = -15 \degree C (if TOL < -20 \degree C)$ Bivalent temperature T_{biv} °C 3 Cycling interval capacity for na kW

Degradation co-efficient Cdh 0,98 Power consumption in modes other than active mode Off mode P _{OFF} 0,018 kW Thermostat-off mode P_{TO} 0,068 kW Standby mode P_{SB} 0,018 kW 0,000 Crankcase heater mode P_{CK} kW Other items

P cych

Capacity control **Fixed** Sound power level, indoors/ na/66 dB L_{WA} outdoors 4574 Annual energy consumption kWh Q_{HE}

part load at indoor temperature 20 °C and outdoor temperature T j

COPd

na

Electric

na

l.) , o	co, a	TTG.	
T j = +2 °C	COPd	3,54	-
T j = +7 °C	COPd	4,46	-
T j = +12 °C	COPd	5,43	-
T j = bivalent temperature	COPd	3,65	-
T j = operation limit temperature	COPd	3,60	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	СОРсус	na	-
Heating water operating limit temperature	WTOL	55	°C
Supplementary heater			_
Rated heat output (*)	Psup	1,4	kW

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

For heat pump combination heater:

Declared load profile	na	Efficiency class		Water heating energy efficiency	$\eta_{\sf wh}$	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

Specific precautions and end of life information:

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

Contact details

heating

Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000

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m3/h

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

Average climate and Medium temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 420 + CTC Basicstyrning					
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-		
Water-to-water heat pump:	No	Controller class:	1	-		
Brine-to-water heat pump:	No	Controller contribution:	1	/		
Low-temperature heat pump:	No	Package efficiency:	120	/		
Equipped with a supplementary heater:	No	Package efficiency class:	A+	-		
Heat pump combination heater:	No					

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_{s}	119	/
Declared capacity for heating fand outdoor temperature T j	or part load at in	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	10,9	kW	T j = - 7 °C	COPd	2,35] -
T j = + 2 °C	Pdh	13,4	kW	T j = +2 °C	COPd	2,97	-
T j = + 7 °C	Pdh	17,3	kW	T j = +7 °C	COPd	3,81	-
T j = + 12 °C	Pdh	20,3	kW	T j = +12 °C	COPd	4,62	-
T j = bivalent temperature	Pdh	11,5	kW	T j = bivalent temperature	COPd	2,49	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	2,10	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-5	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than active	e mode		Supplementary heater			
Off mode	P _{OFF}	0,018	kW	Rated heat output (*)	Psup	4,3	kW
Thermostat-off mode	P _{TO}	0,020	kW				,
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		•					_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	9646	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	eater:						
Declared load profile	na	Efficiency class		Water heating energy efficiency	η_{wh}	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the production importance that t	ct's life cycle, it n he product's ref	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic shold waste is not permitted.	ler offering a se	rvice of that type	. t is of gre

Average climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 420 + CTC Basicstyrning							
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-				
Water-to-water heat pump:	No	Controller class:	1	-				
Brine-to-water heat pump:	No	Controller contribution:	1	/				
Low-temperature heat pump:	No	Package efficiency:	146	/				
Equipped with a supplementary heater:	No	Package efficiency class:	A+	-				
Heat pump combination heater:	No							

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	η_s	145	/
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	11,5	kW	T j = - 7 °C	COPd	3,07] -
T j = + 2 °C	Pdh	14,0	kW	T j = +2 °C	COPd	3,72] -
T j = + 7 °C	Pdh	17,7	kW	T j = +7 °C	COPd	4,64	-
T j = + 12 °C	Pdh	21,4	kW	T j = +12 °C	COPd	5,56	-
T j = bivalent temperature	Pdh	11,5	kW	T j = bivalent temperature	COPd	3,15	-
T j = operation limit temperature	Pdh	10,5	kW	T j = operation limit temperature	COPd	2,82	-
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 _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	re mode		Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	3,4	kW
Thermostat-off mode	P _{TO}	0,068	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7739	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class		Water heating energy efficiency	η_{wh}	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produc importance that t	t's life cycle, it m he product's refi	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel rigerant, compressor oil and electrical/electronic hold waste is not permitted.	ler offering a se	rvice of that type	. t is of grea



Information for heat pump	on heaters	Enertech AB					
Cold climate and Medium t	emperature				341 26 Ljur	ngby	
Model(s):		CTC EcoAir 42	20 + CTC Basic	cstyrning			
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	I	-	
Brine-to-water heat pump:		No		Controller contribution:	1	/	
Low-temperature heat pump:		No		Package efficiency:	108	/	
Equipped with a supplementar	y heater:	No		Package efficiency class:		-	
Heat pump combination heate	r:	No					
Parameters shall be declared f	or medium-tem	perature applic	ation, except	for low-temperature heat pumps.	. For low- temp	erature heat	pumps,
parameters shall be declared f	or low-temperat	ure application	າ.				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energ efficiency	η _ς	107	/
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor tempera	ture 20°C	Declared coefficient of perfor part load at indoor temperatu			
Tj=-7°C	Pdh	11,0	kW	T j = - 7 °C	COPd	2,52	1 -
T j = + 2 °C	Pdh	13,6	kW	T j = +2 °C	COPd	3,15	1 -
T j = + 7 °C	Pdh	17,4	kW	T j = +7 °C	COPd	4,01	-
T j = + 12 °C	Pdh	20,5	kW	T j = +12 °C	COPd	4,76	-
T j = bivalent temperature	Pdh	8,8	kW	T j = bivalent temperature	COPd	2,16	-
T j = operation limit	Pdh	6,1	kW	T j = operation limit	COPd	1,44	1 -

T j = - 7 °C	Pdh	11,0	kW	T j = - 7 °C	COPd	2,52
T j = + 2 °C	Pdh	13,6	kW	T j = +2 °C	COPd	3,15
T j = + 7 °C	Pdh	17,4	kW	T j = +7 °C	COPd	4,01
T j = + 12 °C	Pdh	20,5	kW	T j = +12 °C	COPd	4,76
T j = bivalent temperature	Pdh	8,8	kW	T j = bivalent temperature	COPd	2,16
T j = operation limit temperature	Pdh	6,1	kW	T j = operation limit temperature	COPd	1,44
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	8,5	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,98
Bivalent temperature	T _{biv}	-14	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22
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
Power consumption in modes o	ther than active	mode		Supplementary heater		
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	4,9
Thermostat-off mode	P_{TO}	0,020	kW			
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric

mermostat on mode	' 10	0,020	~~~			
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric
Crankcase heater mode	P _{CK}	0,000	kW			
Other items						
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100
Sound power level, indoors/	L _{WA}	na/66	dB	For water-/brine-to-water heat		

kWh

For heat pump combination heater:

Annual energy consumption

 Q_{HE}

Declared load profile	na	Efficiency class		Water heating energy efficiency	$\eta_{\sf wh}$	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ

Specific precautions and end of life information:

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

pumps: Rated brine or water

flow rate, outdoor heat

exchanger

Contact details

outdoors

Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000

9970

www.ctc.se

181001

°C

°C

kW

m3/h

m3/h

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



Model(s):	CTC EcoAir 420 + 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:	130	/			
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	12	kW	Seasonal space heating energy efficiency	η_{s}	129	/
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	11,6	kW	T j = - 7 °C	COPd	3,20] -
T j = + 2 °C	Pdh	14,1	kW	T j = +2 °C	COPd	3,84] -
T j = + 7 °C	Pdh	17,8	kW	T j = +7 °C	COPd	4,74] -
T j = + 12 °C	Pdh	21,3	kW	T j = +12 °C	COPd	5,54	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	2,74	-
T j = operation limit temperature	Pdh	6,8	kW	T j = operation limit temperature	COPd	2,04	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	9,1	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,63	-
Bivalent temperature	T _{biv}	-14	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	5,0	kW
Thermostat-off mode	P_{TO}	0,068	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4100	m3/h
Sound power level, indoors/ outdoors	L _{WA}	na/66	dВ	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	8876	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class	-	Water heating energy efficiency	$\eta_{\sf wh}$	na	/
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produc	t's life cycle, it m he product's refr	at a recycling station or with the installation eng nust be sent correctly to a waste station or resel igerant, compressor oil and electrical/electronic hold waste is not permitted.	ler offering a se	vice of that type	e. t is of grea