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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614M 400V + CTC EcoZenith i350/ i350F						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	180	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	176	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	9,4	kW	T j = +2 °C	COPd	1,81	-
T j = + 7 °C	Pdh	6,2	kW	T j = +7 °C	COPd	3,83	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,27	-
T j = bivalent temperature	Pdh	9,5	kW	T j = bivalent temperature	COPd	1,81	-
T j = operation limit	Pdh	9,5	kW	T j = operation limit	COPd	1,81	<b>-</b>
temperature	run	9,5	KVV	temperature	COPU	1,01	_
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>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	re mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	$P_{SB}$	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2845	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination hea	ater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	122	%
Daily electricity consumption	Qelec	6,232	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1371	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614M 400V + CTC EcoZenith i350/ i350F						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	236	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	232	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan			
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	-
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	2,50	-
T j = + 7 °C	Pdh	6,2	kW	T j = +7 °C	COPd	5,39	] -
T j = + 12 °C	Pdh	3,1	kW	T j = +12 °C	COPd	7,79	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	2,50	-
T j = operation limit	Pdh	9,3	kW	T j = operation limit	COPd	2,50	1 _
temperature	run	<i>3,3</i>	KVV	temperature	coru	2,30	_
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>	2	°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 of	ther than activ	re mode		Supplementary heater			_
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	C.N.	,,,,,,,		1			
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2164	kWh	flow rate, outdoor heat exchanger	_	IIa	1113/11
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	122	%
Daily electricity consumption	Qelec	6,232	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1371	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614N	1 400V + CTC EcoZenith i350/ i350F		
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	152	%
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+++	-
Heat pump combination heater:	Yes			

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	148	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	6,8	kW	T j = -7 °C	COPd	2,01	] -
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	3,94	] -
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	5,14	-
T j = + 12 °C	Pdh	2,9	kW	T j = +12 °C	COPd	6,53	-
T j = bivalent temperature	Pdh	7,7	kW	T j = bivalent temperature	COPd	1,51	-
T j = operation limit temperature	Pdh	7,7	kW	T j = operation limit temperature	COPd	1,51	-
For air-to-water heat pumps: $T j = -15 ^{\circ}\text{C}$ (if TOL < $-20 ^{\circ}\text{C}$ )	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>	-10	°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 o	ther than activ	re mode		Supplementary heater			_
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	$P_{SB}$	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	4153	kWh	flow rate, outdoor heat exchanger		114	1113/11
For heat pump combination hea	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\sf wh}$	97	%
Daily electricity consumption	Qelec	7,880	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1734	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

## 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 614N	1 400V + CTC EcoZenith i350/ i350F		
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	197	%
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+++	-
Heat pump combination heater:	Yes			

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	193	%
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 2			
T j = -7 °C	Pdh	6,8	kW	T j = - 7 °C	COPd	2,88	] -
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	5,21	-
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	6,24	] -
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	7,17	-
T j = bivalent temperature	Pdh	7,7	kW	T j = bivalent temperature	COPd	2,25	-
T j = operation limit temperature	Pdh	7,7	kW	T j = operation limit temperature	COPd	2,25	-
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>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		,		1			
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3163	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\sf wh}$	97	%
Daily electricity consumption	Qelec	7,880	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1734	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

# 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 614M 400V + CTC EcoZenith i350/ i350F						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	124	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	120	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	6,7	kW	T j = -7 °C	COPd	2,40	] -
T j = + 2 °C	Pdh	4,2	kW	T j = +2 °C	COPd	4,44	] -
T j = + 7 °C	Pdh	2,5	kW	T j = +7 °C	COPd	5,29	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,92	-
T j = bivalent temperature	Pdh	7,9	kW	T j = bivalent temperature	COPd	1,74	-
T j = operation limit	Pdh	2.7	kW	T j = operation limit	COPd	1 22	1
temperature	Pun	2,7	KVV	temperature	СОРИ	1,32	_
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	7,1	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	1,51	-
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/60	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	ther than activ	re mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	8,3	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		<u> </u>					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	8797	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination hea	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	82	%
Daily electricity consumption	Qelec	9,257	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2037	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

# 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 614M 400V + CTC EcoZenith i350/ i350F						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	155	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	151	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	6,6	kW	T j = - 7 °C	COPd	3,16	-
T j = + 2 °C	Pdh	4,3	kW	T j = +2 °C	COPd	5,57	-
T j = + 7 °C	Pdh	2,7	kW	T j = +7 °C	COPd	6,79	-
T j = + 12 °C	Pdh	3,1	kW	T j = +12 °C	COPd	7,04	-
T j = bivalent temperature	Pdh	8,1	kW	T j = bivalent temperature	COPd	2,20	-
T j = operation limit	Pdh	F 0	kW	T j = operation limit	COPd	1 01	1
temperature	Pun	5,0	KVV	temperature	СОРи	1,81	_
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	7,4	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	1,82	-
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	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	6,0	kW
Thermostat-off mode	$P_{TO}$	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	C.N	.,					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	7038	kWh	flow rate, outdoor heat exchanger	-	IIa	1113/11
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	A	Water heating energy efficiency	$\eta_{\sf wh}$	82	%
Daily electricity consumption	$Q_{elec}$	9,257	kWh	Daily fuel consumption	$\mathbf{Q}_{fuel}$	NA	kWh
Annual electricity consumption	AEC	2037	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:



Warm climate and Medium		and heat pum	ין בטוווטווומנוי	UII HEALEIS	Enertech A 341 26 Lju		
Model(s):		CTC EcoAir 6	14M 400V+ C	TC EcoLogic	341 20 Lju	ligby	
Air-to-water heat pump:		Yes		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	180	%	
Equipped with a supplementary	heater:	No		Package efficiency class:		-	
Heat pump combination heater Parameters shall be declared fo parameters shall be declared fo	r 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	10	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	176	%
Declared capacity for heating for and outdoor temperature T j	r part load at i	ndoor tempera	ture 20 °C	Declared coefficient of perform part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = -7 °C	COPd	na	] -
T j = + 2 °C	Pdh	9,4	kW	T j = +2 °C	COPd	1,81	_
T j = + 7 °C	Pdh	6,2	kW	T j = +7 °C	COPd	3,83	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,27	-
			1				7
T j = bivalent temperature	Pdh	9,5	kW	T j = bivalent temperature	COPd	1,81	-
T j = operation limit	Pdh Pdh	9,5	kW kW	T j = bivalent temperature  T j = operation limit temperature	COPd COPd	1,81	-
T j = operation limit temperature For air-to-water heat pumps:			 	T j = operation limit			-
T j = operation limit temperature  For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	9,5	kW	T j = operation limit temperature  For air-to-water heat pumps:	COPd	1,81	- - - - °C
T j = bivalent temperature  T j = operation limit temperature  For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)  Bivalent temperature  Cycling interval capacity for heating	Pdh Pdh	9,5 na	kW kW	T j = operation limit temperature  For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)  For air-to-water heat pumps:	COPd COPd	1,81 na	- - °C

Degradation co-efficient	Cdh	0,99	-
Power consumption in modes o	ther than active	mode	-
Off mode	P OFF	0,014	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW
Standby mode	P <sub>SB</sub>	0,014	kW
Crankcase heater mode	P <sub>CK</sub>	0,000	kW
Other items			

 $L_{WA}$ 

Q<sub>HE</sub>

Type of energy input		Electric	
For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	na	m3/h

Psup

0,0

kW

For heat pump combination heater:

Sound power level, indoors/

Annual energy consumption

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

dB

kWh

Specific precautions and end of life information:

The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It 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.

Rated heat output (\*)

Capacity control

outdoors

Variable

na/52

2845

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

Enertech AB 341 26 Ljungby



			31120	- <u>-                                  </u>	
Model(s):	CTC EcoAir 614N	/ 400V+ CTC EcoLogic			
Air-to-water heat pump:	Yes	Energy efficiency class:		-	
Water-to-water heat pump:	No	Controller class:	VI	-	
Brine-to-water heat pump:	No	Controller contribution:	4	%	
Low-temperature heat pump:	No	Package efficiency:	236	%	
Equipped with a supplementary heater:	No	Package efficiency class:		-	
Heat pump combination heater:	No				
Parameters shall be declared for medium-te	emperature application	on, except for low-temperature heat pump	s. For low- te	emperature h	eat pumps,
parameters shall be declared for low-temper	erature application.				

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	232	%
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 2	•		
T j = -7 °C	Pdh	na	kW	T j = -7 °C	COPd	na	-
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	2,50	] -
T j = + 7 °C	Pdh	6,2	kW	T j = +7 °C	COPd	5,39	-
T j = + 12 °C	Pdh	3,1	kW	T j = +12 °C	COPd	7,79	-
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	2,50	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,50	-
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>	2	°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 of	other than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		,					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2164	kWh	flow rate, outdoor heat exchanger	_	IIa	mojn
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614N	1 400V+ CTC EcoLogic		
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	152	%
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, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	148	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature 1
T j = - 7 °C	Pdh	6,8	kW	T j = -7 °C	COPd	2,01	] -
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	3,94	_
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	5,14	-
T j = + 12 °C	Pdh	2,9	kW	T j = +12 °C	COPd	6,53	-
T j = bivalent temperature	Pdh	7,7	kW	T j = bivalent temperature	COPd	1,51	-
T j = operation limit	Pdh	7,7	kW	T j = operation limit	COPd	1,51	
temperature	Pun	7,7	KVV	temperature	СОРИ	1,51	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-10	°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	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	$P_{SB}$	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		<u> </u>					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	4153	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

### 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 614M	400V+ CTC EcoLogic		
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	197	%
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, parameters shall be declared for low-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	193	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	6,8	kW	T j = -7 °C	COPd	2,88	-
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	5,21	-
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	6,24	
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	7,17	-
T j = bivalent temperature	Pdh	7,7	kW	T j = bivalent temperature	COPd	2,25	-
T j = operation limit	Pdh	7.7	kW	T j = operation limit	COPd	2.25	
temperature	Pun	7,7	KVV	temperature	СОРи	2,25	-
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>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	re mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		<u> </u>					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3163	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination hea	ater:						_
Declared load profile	na	Efficiency class	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:

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

Enertech AB 341 26 Ljungby



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Model(s):	CTC EcoAir 61	4M 400V+ C	TC EcoLogic			
Air-to-water heat pump:	Yes		Energy efficiency class:		-	
Water-to-water heat pump:	No		Controller class:	VI	-	
Brine-to-water heat pump:	No		Controller contribution:	4	%	
Low-temperature heat pump:	No		Package efficiency:	124	%	
Equipped with a supplementary heater:	No		Package efficiency class:		-	
Heat pump combination heater:	No					
Parameters shall be declared for medium	n-temperature applica	ation, except	for low-temperature heat pump	s. For low- temp	erature h	eat pumps,
parameters shall be declared for low-tem	perature application	l.				
Item Symbo	ol Value	Unit	Item	Symbol	Valu	e Unit

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	120	%
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 2			
T j = -7 °C	Pdh	6,7	kW	T j = - 7 °C	COPd	2,40	-
T j = + 2 °C	Pdh	4,2	kW	T j = +2 °C	COPd	4,44	] -
T j = + 7 °C	Pdh	2,5	kW	T j = +7 °C	COPd	5,29	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,92	-
T j = bivalent temperature	Pdh	7,9	kW	T j = bivalent temperature	COPd	1,74	-
T j = operation limit temperature	Pdh	2,7	kW	T j = operation limit temperature	COPd	1,32	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	7,1	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	1,51	-
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/60	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 <sub>OFF</sub>	0,014	kW	Rated heat output (*)	Psup	8,3	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	-						
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	8797	kWh	flow rate, outdoor heat exchanger		.10	3,11
For heat pump combination he	ater:						
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

# 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 614M 400V+ CTC EcoLogic							
Air-to-water heat pump:	Yes	Energy efficiency class:		-				
Water-to-water heat pump:	No	Controller class:	VI	-				
Brine-to-water heat pump:	No	Controller contribution:	4	%				
Low-temperature heat pump:	No	Package efficiency:	155	%				
Equipped with a supplementary heater:	No	Package efficiency class:		-				
Heat pump combination heater:	No							

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	151	%
Declared capacity for heating for and outdoor temperature T j	or part load at ii	ndoor temperat	ure 20 °C	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	6,6	kW	T j = - 7 °C	COPd	3,16	-
T j = + 2 °C	Pdh	4,3	kW	T j = +2 °C	COPd	5,57	-
T j = + 7 °C	Pdh	2,7	kW	T j = +7 °C	COPd	6,79	-
T j = + 12 °C	Pdh	3,1	kW	T j = +12 °C	COPd	7,04	_
T j = bivalent temperature	Pdh	8,1	kW	T j = bivalent temperature	COPd	2,20	-
T j = operation limit temperature	Pdh	5,0	kW	T j = operation limit temperature	COPd	1,81	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	7,4	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,82	-
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	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes o	ther than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	6,0	kW
Thermostat-off mode	$P_{TO}$	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		<u> </u>		1			
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	7038	kWh	flow rate, outdoor heat exchanger	_	na	1113/11
For heat pump combination hea	ater:						
Declared load profile	na	Efficiency class	na	Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	$\mathbf{Q}_{elec}$	na	kWh	Daily fuel consumption	$Q_{fuel}$	NA	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614M 400V + EcoZenith i250							
Air-to-water heat pump:	Yes	Energy efficiency class:		-				
Water-to-water heat pump:	No	Controller class:	VI	-				
Brine-to-water heat pump:	No	Controller contribution:	4	%				
Low-temperature heat pump:	No	Package efficiency:	138	%				
Equipped with a supplementary heater:	Yes	Package efficiency class:		-				
Heat pump combination heater:	Yes			_				

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	134	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	8,4	kW	T j = +2 °C	COPd	1,31	_
T j = + 7 °C	Pdh	5,8	kW	T j = +7 °C	COPd	2,92	-
T j = + 12 °C	Pdh	2,9	kW	T j = +12 °C	COPd	5,05	-
T j = bivalent temperature	Pdh	8,5	kW	T j = bivalent temperature	COPd	1,31	-
T j = operation limit	Pdh	8,5	kW	T j = operation limit	COPd	1,31	<b>-</b>
temperature	run	6,5	KVV	temperature	COPU	1,31	_
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>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	re mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	1,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	$P_{SB}$	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		•					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3701	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination hea	ater:						
Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	67	%
Daily electricity consumption	Qelec	6,958	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1531	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

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Model(s):	CTC EcoAir 614M 400V + EcoZenith i250						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	190	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						
Parameters shall be declared for medium-to parameters shall be declared for low-temporary for low-temp		n, except for low-temperature heat pump	s. For low- te	emperature h	neat pumps,		
		11.11					

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	186	%
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 2			
						•	1
Tj=-7°C	Pdh	na	kW	T j = -7 °C	COPd	na	-
T j = + 2 °C	Pdh Dalla	9,1	kW	T j = +2 °C	COPd	1,98	-
T j = + 7 °C	Pdh	6,1	kW	T j = +7 °C	COPd	4,31	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,26	-
T j = bivalent temperature	Pdh	9,1	kW	T j = bivalent temperature	COPd	1,98	-
T j = operation limit temperature	Pdh	9,1	kW	T j = operation limit temperature	COPd	1,98	-
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>	2	°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 of	other than activ	ve <u>mode</u>		Supplementary heater			_
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	- CA	3,333					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water		20	m3/h
Annual energy consumption	Q <sub>HE</sub>	2682	kWh	flow rate, outdoor heat exchanger	-	na	1113/11
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	67	%
Daily electricity consumption	Qelec	6,958	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1531	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

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Model(s):	CTC EcoAir 614M 400V + EcoZenith i250						
Air-to-water heat pump:	Yes	Energy efficiency class:	A+	-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	114	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+	-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	110	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	5,7	kW	T j = -7 °C	COPd	1,64	] -
T j = + 2 °C	Pdh	3,6	kW	T j = +2 °C	COPd	3,46	] -
T j = + 7 °C	Pdh	2,4	kW	T j = +7 °C	COPd	4,75	<u></u> -
T j = + 12 °C	Pdh	2,9	kW	T j = +12 °C	COPd	6,38	-
T j = bivalent temperature	Pdh	6,2	kW	T j = bivalent temperature	COPd	1,21	-
T j = operation limit	Pdh	6.2	kW	T j = operation limit	COPd	1 21	
temperature	Pun	6,2	KVV	temperature	СОРИ	1,21	-
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>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	re mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	1,4	kW
Thermostat-off mode	$P_{TO}$	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		<u> </u>					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	5555	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination hea	ater:						
Declared load profile	L	Efficiency class	В	Water heating energy efficiency	$\eta_{wh}$	53	%
Daily electricity consumption	Qelec	8,570	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1885	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

## 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 614M 400V + EcoZenith i250						
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	168	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	164	%
Declared capacity for heating fo	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performal part load at indoor temperature 2			
and outdoor temperature T j				part load at moor temperature 2	20 Candou	Luoor tempe	rature i _
T j = - 7 °C	Pdh	6,5	kW	T j = -7 °C	COPd	2,40	-
T j = + 2 °C	Pdh	4,0	kW	T j = +2 °C	COPd	4,44	-
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	5,35	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,18	-
T j = bivalent temperature	Pdh	7,3	kW	T j = bivalent temperature	COPd	1,86	-
T j = operation limit temperature	Pdh	7,3	kW	T j = operation limit temperature	COPd	1,86	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-10	°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 o	ther than activ	re <u>mode</u>		Supplementary heater			_
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	CR	3,000					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water		20	m2/h
Annual energy consumption	Q <sub>HE</sub>	3710	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea	ater:						
Declared load profile	L	Efficiency class	В	Water heating energy efficiency	$\eta_{\sf wh}$	53	%
Daily electricity consumption	Qelec	8,570	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1885	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

**Enertech AB** 341 26 Ljungby



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Model(s):		CTC EcoAir 614M 400V + EcoZenith i250							
Air-to-water heat pump:		Yes		Energy efficiency class:		-			
Water-to-water heat pump:		No		Controller class:	VI	-			
Brine-to-water heat pump:		No		Controller contribution:	4	%			
Low-temperature heat pump:		No		Package efficiency:	97	%			
Equipped with a supplementary heat	ter:	Yes		Package efficiency class:		-			
Heat pump combination heater:		Yes							
Parameters shall be declared for med	dium-tempe	erature applica	tion, except	for low-temperature heat pump	s. For low- temp	erature h	neat pumps,		
parameters shall be declared for low	-temperatu	re application.					•		
Item S	ymbol	Value	Unit	Item	Symbol	Valu	e Unit		

kW

kW

Tj = -7°C

Rated heat output (\*) Declared capacity for heating for part load at indoor temperature 20 °C

Prated

11

5,6

and outdoor temperature 1 j			
T j = -7 °C	Pdh	5,5	kW
T j = + 2 °C	Pdh	3,7	kW
T j = + 7 °C	Pdh	2,4	kW
T j = + 12 °C	Pdh	3,0	kW
T j = bivalent temperature	Pdh	6,4	kW
T j = operation limit temperature	Pdh	2,1	kW

°C Bivalent temperature -11 Cycling interval capacity for kW na heating Degradation co-efficient Cdh 0,98

Pdh

Power consumption in modes other than active mode Off mode 0,014 P OFF kW P<sub>TO</sub> 0,014 Thermostat-off mode kW Standby mode  $P_{SB}$ 0,014 kW Crankcase heater mode  $P_{CK}$ 0,000 kW Other items

Capacity control **Variable** Sound power level, indoors/ na/52 dB  $L_{WA}$ outdoors Annual energy consumption  $Q_{HE}$ 11331 kWh

Symbol Value Unit Seasonal space heating energy 93 %  $\eta_{s}$ efficiency

Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j

**COPd** 

1,96

ŀ	Γ j = +2 °C	COPd	3,90	-
ŀ	Г j = +7 °С	COPd	4,89	-
ŀ	Γ j = +12 °C	COPd	6,77	-
ŀ	Γ j = bivalent temperature	COPd	1,38	-
	Γ j = operation limit emperature	COPd	1,01	-
- 1	For air-to-water heat pumps: $\Gamma$ j = $-15$ °C (if TOL < $-20$ °C)	COPd	1,18	-
- 1	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
ŀ	Cycling interval efficiency	СОРсус	na	-
- 1	Heating water operating limit Eemperature	WTOL	55	°C
١	Supplementary heater			

Rated heat output (\*) Psup 8,9 kW Type of energy input **Electric** 

For air-to-water heat pumps: 2350 m3/h Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water m3/h na flow rate, outdoor heat exchanger

For heat pump combination heater:

For air-to-water heat pumps:

 $T j = -15 \degree C (if TOL < -20 \degree C)$ 

Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	47	%
Daily electricity consumption	Qelec	9,856	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2168	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

# 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 614M 400V + EcoZenith i250						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	132	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	128	%
Declared capacity for heating for and outdoor temperature T j	or part load at ii	ndoor temperat	ure 20 °C	Declared coefficient of performal part load at indoor temperature 2			
Tj=-7°C	Pdh	6,3	kW	T j = -7 °C	COPd	2,64	-
T j = + 2 °C	Pdh	4,2	kW	T j = +2 °C	COPd	4,74	-
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	5,82	
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,07	-
T j = bivalent temperature	Pdh	7,6	kW	T j = bivalent temperature	COPd	1,82	-
T j = operation limit temperature	Pdh	4,6	kW	T j = operation limit temperature	COPd	1,43	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	6,9	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	1,48	-
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	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	6,4	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		,					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/
Annual energy consumption	Q <sub>HE</sub>	8306	kWh	flow rate, outdoor heat exchanger		IIa	11137
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	47	%
Daily electricity consumption	$\mathbf{Q}_{elec}$	9,856	kWh	Daily fuel consumption	$\mathbf{Q}_{fuel}$	NA	kWl
Annual electricity consumption	AEC	2168	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614M	400V + EcoZenith i550		
Air-to-water heat pump:	Yes	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	141	%
Equipped with a supplementary heater:	Yes	Package efficiency class:		-
Heat pump combination heater:	Yes			

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	137	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	8,9	kW	T j = +2 °C	COPd	1,37	_
T j = + 7 °C	Pdh	6,0	kW	T j = +7 °C	COPd	2,97	
T j = + 12 °C	Pdh	2,9	kW	T j = +12 °C	COPd	4,99	-
T j = bivalent temperature	Pdh	9,0	kW	T j = bivalent temperature	COPd	1,37	-
T j = operation limit	Pdh	9,0	kW	T j = operation limit	COPd	1,37	<b>-</b>
temperature	run	9,0	KVV	temperature	COPU	1,37	_
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>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	re mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	$P_{SB}$	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		•					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3618	kWh	flow rate, outdoor heat exchanger		IIa	1113/11
For heat pump combination hea	ater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	101	%
Daily electricity consumption	Qelec	8,129	kWh	Daily fuel consumption	<b>Q</b> fuel	NA	kWh
Annual electricity consumption	AEC	1788	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614M 400V + EcoZenith i550						
Air-to-water heat pump:	Yes	Energy efficiency class:		-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	189	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:		-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Uni
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	185	%
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 2			
Tj=-7°C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	9,2	kW	T j = +2 °C	COPd	1,98	] -
T j = + 7 °C	Pdh	6,1	kW	T j = +7 °C	COPd	4,28	] -
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,20	-
T j = bivalent temperature	Pdh	9,2	kW	T j = bivalent temperature	COPd	1,98	-
T j = operation limit temperature	Pdh	9,2	kW	T j = operation limit temperature	COPd	1,98	_
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>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°(
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	_
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°(
Power consumption in modes of	other than activ	e mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kV
Thermostat-off mode	$P_{TO}$	0,014	kW				
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		<u> </u>					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3,
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3
Annual energy consumption	Q <sub>HE</sub>	2704	kWh	flow rate, outdoor heat exchanger		IIa	mo
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	101	%
Daily electricity consumption	Qelec	8,129	kWh	Daily fuel consumption	Qfuel	NA	kW
Annual electricity consumption	AEC	1788	kWh	Annual fuel consumption	AFC	NA	G

Specific precautions and end of life information:

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

Enertech AB 341 26 Ljungby



Model(s):	CTC EcoAir 614M 400V + EcoZenith i550						
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-			
Water-to-water heat pump:	No	Controller class:	VI	-			
Brine-to-water heat pump:	No	Controller contribution:	4	%			
Low-temperature heat pump:	No	Package efficiency:	140	%			
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-			
Heat pump combination heater:	Yes						

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	136	%	
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	6,3	kW	T j = - 7 °C	COPd	1,77	-	
T j = + 2 °C	Pdh	3,8	kW	T j = +2 °C	COPd	3,60	] -	
T j = + 7 °C	Pdh	2,5	kW	T j = +7 °C	COPd	4,81	_	
T j = + 12 °C	Pdh	2,9	kW	T j = +12 °C	COPd	6,28	-	
T j = bivalent temperature	Pdh	6,9	kW	T j = bivalent temperature	COPd	1,32	-	
T j = operation limit temperature	Pdh	6,9	kW	T j = operation limit temperature	COPd	1,32	-	
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>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C	
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C	
Power consumption in modes of	other than activ	e mode		Supplementary heater			-	
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW	
Thermostat-off mode	P <sub>TO</sub>	0,014	kW					
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric		
Crankcase heater mode	P <sub>CK</sub>	0,000	kW					
Other items								
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/	
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3,	
Annual energy consumption	Q <sub>HE</sub>	4534	kWh	flow rate, outdoor heat exchanger		···u	.113/	
For heat pump combination he	ater:							
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{\sf wh}$	75	%	
Daily electricity consumption	Qelec	10,807	kWh	Daily fuel consumption	Qfuel	NA	kW	
Annual electricity consumption	AEC	2378	kWh	Annual fuel consumption	AFC	NA	GJ	

Specific precautions and end of life information:

## 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 614N	1 400V + EcoZenith i550		
Air-to-water heat pump:	Yes	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	No	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	167	%
Equipped with a supplementary heater:	Yes	Package efficiency class:	A++	-
Heat pump combination heater:	Yes			_

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	163	%	
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 2				
T j = -7 °C	Pdh	6,7	kW	T j = -7 °C	COPd	2,42	_	
T j = + 2 °C	Pdh	4,0	kW	T j = +2 °C	COPd	4,41	-	
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	5,31		
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,11	-	
T j = bivalent temperature	Pdh	7,5	kW	T j = bivalent temperature	COPd	1,88	-	
T j = operation limit temperature	Pdh	7,5	kW	T j = operation limit temperature	COPd	1,88	-	
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>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C	
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-	
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C	
Power consumption in modes of	other than activ	re mode		Supplementary heater			-	
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	0,0	kW	
Thermostat-off mode	$P_{TO}$	0,014	kW					
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input		Electric		
Crankcase heater mode	P <sub>CK</sub>	0,000	kW					
Other items		,						
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h	
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h	
Annual energy consumption	Q <sub>HE</sub>	3726	kWh	flow rate, outdoor heat exchanger		IIa	1113/11	
For heat pump combination he	ater:							
Declared load profile	XL	Efficiency class	В	Water heating energy efficiency	$\eta_{wh}$	75	%	
Daily electricity consumption	Qelec	10,807	kWh	Daily fuel consumption	Qfuel	NA	kWh	
Annual electricity consumption	AEC	2378	kWh	Annual fuel consumption	AFC	NA	GJ	

Specific precautions and end of life information:

# 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 614M 400V + EcoZenith i550					
Air-to-water heat pump:	Yes	Energy efficiency class:		-		
Water-to-water heat pump:	No	Controller class:	VI	-		
Brine-to-water heat pump:	No	Controller contribution:	4	%		
Low-temperature heat pump:	No	Package efficiency:	112	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:		-		
Heat pump combination heater:	Yes					

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	108	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan	nce or prima	ry energy rat	io for
and outdoor temperature T j				part load at indoor temperature 2	20 °C and ou	tdoor tempe	rature T
T j = - 7 °C	Pdh	6,1	kW	T j = -7 °C	COPd	2,12	] -
T j = + 2 °C	Pdh	4,0	kW	T j = +2 °C	COPd	4,06	-
T j = + 7 °C	Pdh	2,5	kW	T j = +7 °C	COPd	4,95	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,66	-
T j = bivalent temperature	Pdh	7,1	kW	T j = bivalent temperature	COPd	1,52	-
T j = operation limit	Pdh	2,4	kW	T j = operation limit	COPd	1,13	<u> </u>
temperature	run	2,4	KVV	temperature	COFU	1,13	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	6,3	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	1,31	-
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	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	re mode		Supplementary heater			-
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	8,6	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW				
Standby mode	$P_{SB}$	0,014	kW	Type of energy input	Electric		Electric
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		<u> </u>					
Capacity control	Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h	
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/52	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	9746	kWh	flow rate, outdoor heat exchanger		IIa	IIIS/II
For heat pump combination hea	ater:						_
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	58	%
Daily electricity consumption	Qelec	14,672	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	3228	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information:

# 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 614M 400V + EcoZenith i550					
Air-to-water heat pump:	Yes	Energy efficiency class:		-		
Water-to-water heat pump:	No	Controller class:	VI	-		
Brine-to-water heat pump:	No	Controller contribution:	4	%		
Low-temperature heat pump:	No	Package efficiency:	132	%		
Equipped with a supplementary heater:	Yes	Package efficiency class:		-		
Heat pump combination heater:	Yes					

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

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	128	%
Declared capacity for heating for	or part load at i	ndoor temperat	ure 20 °C	Declared coefficient of performan			
and outdoor temperature T j				part load at indoor temperature 2	20°C and ou	tdoor tempe	rature I
T j = - 7 °C	Pdh	6,4	kW	T j = - 7 °C	COPd	2,65	-
T j = + 2 °C	Pdh	4,3	kW	T j = +2 °C	COPd	4,72	-
T j = + 7 °C	Pdh	2,6	kW	T j = +7 °C	COPd	5,77	-
T j = + 12 °C	Pdh	3,0	kW	T j = +12 °C	COPd	6,00	-
T j = bivalent temperature	Pdh	7,8	kW	T j = bivalent temperature	COPd	1,84	-
T j = operation limit temperature	Pdh	4,8	kW	T j = operation limit temperature	COPd	1,48	-
For air-to-water heat pumps: $T j = -15 ^{\circ}\text{C}$ (if $TOL < -20 ^{\circ}\text{C}$ )	Pdh	7,2	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	1,51	-
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	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	re mode		Supplementary heater			
Off mode	P OFF	0,014	kW	Rated heat output (*)	Psup	6,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,014	kW			•	
Standby mode	P <sub>SB</sub>	0,014	kW	Type of energy input	Electric		ric
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	· CK	0,000					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2350	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/51	dB	For water-/brine-to-water heat pumps: Rated brine or water			m 2 /h
Annual energy consumption	Q <sub>HE</sub>	8271	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	$\eta_{\sf wh}$	58	%
Daily electricity consumption	$Q_{elec}$	14,672	kWh	Daily fuel consumption	$Q_{fuel}$	NA	kWh
Annual electricity consumption	AEC	3228	kWh	Annual fuel consumption	AFC	NA	GJ

Specific precautions and end of life information: