#### Information for heat pump space heaters and heat pump combination heaters **Warm climate and Medium temperature (55)**

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby



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:	184	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater		Yes					
Parameters shall be declared for parameters shall be declared for				for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
	Duestad	12	LAAZ	Seasonal space heating energy	-	100	0/
Rated heat output (*)	Prated	13	kW	efficiency	n <sub>s</sub>	180	%
Declared capacity for heating for and outdoor temperature T j	or 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	12,8	kW	T j = +2 °C	COPd	2,33	-
T j = + 7 °C	Pdh	8,2	kW	T j = +7 °C	COPd	3,95	-
T j = + 12 °C	Pdh	5,8	kW	T j = +12 °C	COPd	6,16	-
T j = bivalent temperature	Pdh	12,8	kW	T j = bivalent temperature	COPd	2,33	-
T j = operation limit temperature	Pdh	12,8	kW	T j = operation limit temperature	COPd	2,33	-
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	ve mode		Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW			-	
Standby mode	P SB	0,000	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3730	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:	•	•			•	•
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	112	%
Daily electricity consumption	Qelec	6,835	kWh	Daily fuel consumption	<b>Q</b> fuel	na	kWh
Annual electricity consumption	AEC	1504	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the production	ct's life cycle, it n the product's ref	at a recycling station or with the installation e nust be sent correctly to a waste station or res rigerant, compressor oil and electrical/electror shold waste is not permitted.	eller offering a se	rvice of that type	. t is of great
Contact details	nertech AB Ro	ox 309 SF-341 2	6 Liunghy Te	1+46 372 88000 www.ctc.se	3		181001

CTC EcoAir 520M + CTC EcoZenith i350/ i350F

#### Information for heat pump space heaters and heat pump combination heaters **Warm climate and Low temperature (35)**

Model(s):

Enertech AB 341 26 Ljungby



Model(s):		CTC EcoAir 52	20IVI + CTC EC	ozenith 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:	244	%	
Equipped with a supplementary	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater	:	Yes					
				for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared for	or low-tempera	ture application	١.				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	$\eta_s$	240	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performations part load at indoor temperature			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	-
T j = + 2 °C	Pdh	13,5	kW	T j = +2 °C	COPd	3,32	-
T j = + 7 °C	Pdh	8,7	kW	T j = +7 °C	COPd	5,67	-
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	7,55	-
T j = bivalent temperature	Pdh	13,5	kW	T j = bivalent temperature	COPd	3,32	-
T j = operation limit temperature	Pdh	13,5	kW	T j = operation limit temperature	COPd	3,32	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: $T j = -15 ^{\circ}\text{C} \text{ (if TOL } < -20 ^{\circ}\text{C)}$	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	ve mode	-	Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	$P_{TO}$	0,010	kW				
Standby mode	$P_{SB}$	0,000	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2968	kWh	flow rate, outdoor heat exchanger			5,
For heat pump combination hea	ater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	112	%
Daily electricity consumption	Qelec	6,835	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1504	kWh	Annual fuel consumption	AFC	na	G1
Specific precautions and end of life information:		end of the produ	ct's life cycle, it n the product's ref	at a recycling station or with the installation en must be sent correctly to a waste station or reso rigerant, compressor oil and electrical/electron shold waste is not permitted.	eller offering a se	rvice of that type	. t is of great

### Information for heat pump space heaters and heat pump combination heaters **Average climate and Medium temperature (55)**

Model(s):

Enertech AB 341 26 Ljungby



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:	136	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:	A++	-	
Heat pump combination heate Parameters shall be declared for		Yes perature applica	ation, except	for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared for	-	ture application					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	$\eta_s$	132	%
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performation part load at indoor temperature			
T j = -7 °C	Pdh	7,6	kW	T j = - 7 °C	COPd	2,07	] -
T j = + 2 °C	Pdh	4,6	kW	T j = +2 °C	COPd	3,49	-
Tj=+7°C	Pdh	4,8	kW	T j = +7 °C	COPd	4,69	-
T j = + 12 °C	Pdh	5,8	kW	T j = +12 °C	COPd	6,36	-
T j = bivalent temperature	Pdh	8,4	kW	T j = bivalent temperature	COPd	1,71	-
T j = operation limit temperature	Pdh	8,4	kW	T j = operation limit temperature	COPd	1,71	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-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	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes		re mode		Supplementary heater			7
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,1	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW				
Standby mode	$P_{SB}$	0,000	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items						1	1
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	5090	kWh	flow rate, outdoor heat exchanger		iid	5/11
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	98	%
Daily electricity consumption	Qelec	7,816	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1720	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it n he product's ref	at a recycling station or with the installation er nust be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electron shold waste is not permitted.	eller offering a se	rvice of that type	. t is of great

### Information for heat pump space heaters and heat pump combination heaters **Average climate and Low temperature (35)**

Model(s):

Enertech AB 341 26 Ljungby



widuci(3).		CTC ECOAH 32	LOIVI I CIC LC	02CIII(II 1330/ 1330I			
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:	181	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heater:	:	Yes					
				for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared fo		ture application	١.				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_s$	177	%
Declared capacity for heating fo and outdoor temperature T j	r part load at	indoor tempera	ture 20 °C	Declared coefficient of performation part load at indoor temperature			
T j = -7 °C	Pdh	6,9	kW	T j = -7 °C	COPd	3,09	-
T j = + 2 °C	Pdh	4,2	kW	T j = +2 °C	COPd	4,82	-
T j = + 7 °C	Pdh	5,0	kW	T j = +7 °C	COPd	6,18	-
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	7,62	-
T j = bivalent temperature	Pdh	8,0	kW	T j = bivalent temperature	COPd	2,72	-
T j = operation limit temperature	Pdh	8,0	kW	T j = operation limit temperature	COPd	2,72	_
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	ve mode		Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	$P_{TO}$	0,010	kW				
Standby mode	$P_{SB}$	0,000	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3526	kWh	flow rate, outdoor heat exchanger			,
For heat pump combination hea	iter:	Т	1			T	1
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	98	%
Daily electricity consumption	Qelec	7,816	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1720	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produ importance that	ct's life cycle, it m the product's refi	at a recycling station or with the installation en nust be sent correctly to a waste station or reso rigerant, compressor oil and electrical/electron shold waste is not permitted.	eller offering a se	rvice of that type	e. t is of great

# Information for heat pump space heaters and heat pump combination heaters Cold climate and Medium temperature (55)

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby



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:	125	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate		Yes					
Parameters shall be declared to parameters shall be declared to				t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
	•			Seasonal space heating energy	·		
Rated heat output (*)	Prated	10	kW	efficiency	$\eta_s$	121	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of perform part load at indoor temperature	•		
T j = -7 °C	Pdh	6,1	kW	T j = - 7 °C	COPd	2,49	-
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	4,12	-
T j = + 7 °C	Pdh	5,0	kW	T j = +7 °C	COPd	5,40	-
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	6,84	-
T j = bivalent temperature	Pdh	7,9	kW	T j = bivalent temperature	COPd	1,69	-
T j = operation limit temperature	Pdh	5,4	kW	T j = operation limit temperature	COPd	1,01	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	7,8	kW	For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd	1,60	-
Bivalent temperature	T <sub>biv</sub>	-14	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ			Supplementary heater			7
Off mode	P <sub>OFF</sub>	0,015	kW	Rated heat output (*)	Psup	4,6	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW				
Standby mode	P <sub>SB</sub>	0,000	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items						T	•
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	$Q_{HE}$	7956	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\scriptscriptstyle \sf wh}$	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:		end of the productimportance that t	t's life cycle, it r he product's ref	I at a recycling station or with the installation en must be sent correctly to a waste station or resi frigerant, compressor oil and electrical/electron whold waste is not permitted.	eller offering a se	rvice of that type	. t is of great

CTC EcoAir 520M + CTC EcoZenith i350/ i350F

## Information for heat pump space heaters and heat pump combination heaters Cold climate and Low temperature (35)

Model(s):

Enertech AB 341 26 Ljungby



Model(s):		CTC ECOAIT 54	ZUIVI + CTC EC	ozenith 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:	153	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate	r:	Yes					
				for low-temperature heat pumps. F	or low- temp	erature heat	oumps,
parameters shall be declared for	•						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	149	%
Declared capacity for heating f and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	6,7	kW	T j = - 7 °C	COPd	3,42	-
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	4,51	-
T j = + 7 °C	Pdh	5,0	kW	T j = +7 °C	COPd	6,57	-
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	7,53	-
T j = bivalent temperature	Pdh	8,4	kW	T j = bivalent temperature	COPd	2,44	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	1,70	-
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	7,9	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,26	-
Bivalent temperature	T <sub>biv</sub>	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	re mode	•	Supplementary heater			-
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	5,4	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW				
Standby mode	$P_{SB}$	0,000	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	7156	kWh	flow rate, outdoor heat exchanger			,
For heat pump combination he	ater:	1		T T .			
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	82	%
Daily electricity consumption	$Q_{elec}$	9,257	kWh	Daily fuel consumption	$Q_{fuel}$	na	kWh
Annual electricity consumption	AEC	2037	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 er nust be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electron shold waste is not permitted.	eller offering a se	rvice of that type	. t is of great

### Information for heat pump space heaters and heat pump combination heaters Warm climate and Medium temperature (55)

Yes

CTC EcoAir 520M + CTC EcoLogic

Energy efficiency class:

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby



All-to-water fleat pullip.		163		Lifetgy 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:	184	%	
Equipped with a supplementa	iry heater:	No		Package efficiency class:		-	
Heat pump combination heat		No		,			
		perature applic	cation, except	for low-temperature heat pumps. For	or low- tempe	erature heat	pumps,
parameters shall be declared	for low-temperat	ure application	n.				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	$\eta_s$	180	%
Declared capacity for heating and outdoor temperature T j	for part load at ir	ndoor tempera	iture 20°C	Declared coefficient of performa			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	12,8	kW	T j = +2 °C	COPd	2,33	-
T j = + 7 °C	Pdh	8,2	kW	T j = +7 °C	COPd	3,95	-
T j = + 12 °C	Pdh	5,8	kW	T j = +12 °C	COPd	6,16	-
T j = bivalent temperature	Pdh	12,8	kW	T j = bivalent temperature	COPd	2,33	-
T j = operation limit temperature	Pdh	12,8	kW	T j = operation limit temperature	COPd	2,33	-
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	other than active	e mode	_	Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW				
Standby mode	P <sub>SB</sub>	0,000	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	<u> </u>	-,		1	<u> </u>		
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/outdoors	L WA	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3730	kWh	flow rate, outdoor heat exchanger			,
For heat pump combination h	eater:						
Declared load profile		na	_	Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produ importance that	ict's life cycle, it n the product's refi	at a recycling station or with the installation er nust be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electroni shold waste is not permitted.	eller offering a se	rvice of that type	. t is of great
Contact details	Enertech AB, Bo	x 309, SE-341 2	26 Ljungby Tel	+46 372 88000 www.ctc.se			181001

### Information for heat pump space heaters and heat pump combination heaters **Warm climate and Low temperature (35)**

Yes

CTC EcoAir 520M + CTC EcoLogic

Energy efficiency class:

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby



Air-to-water neat pump.		res		Effergy 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:	244	%	
Equipped with a supplementa		No		Package efficiency class:		-	
Heat pump combination heat		No		Tuckage efficiency class.			
			ation, except	for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared					·	'	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	$\eta_s$	240	%
Declared capacity for heating and outdoor temperature T j	for part load at in	ndoor tempera	ture 20 °C	Declared coefficient of performa			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	-
T j = + 2 °C	Pdh	13,5	kW	T j = +2 °C	COPd	3,32	-
T j = + 7 °C	Pdh	8,7	kW	T j = +7 °C	COPd	5,67	-
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	7,55	-
T j = bivalent temperature	Pdh	13,5	kW	T j = bivalent temperature	COPd	3,32	-
T j = operation limit temperature	Pdh	13,5	kW	T j = operation limit temperature	COPd	3,32	-
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>	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	other than active	e mode		Supplementary heater			
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW			•	•
Standby mode	P <sub>SB</sub>	0,000	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	CA .	3,000		1			
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	<u>-</u>	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	2968	kWh	flow rate, outdoor heat exchanger			, 
For heat pump combination h	eater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produ importance that	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 rese rigerant, compressor oil and electrical/electroni shold waste is not permitted.	ller offering a se	rvice of that type	. t is of great
Contact details	Enertech AB, Bo	x 309, SE-341 2	6 Ljungby Te	I +46 372 88000 www.ctc.se			181001

### Information for heat pump space heaters and heat pump combination heaters **Average climate and Medium temperature (55)**

CTC EcoAir 520M + CTC EcoLogic

Energy efficiency class:

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby

**A++** 



711 to Water near pamp.				Energy enferency class.	Att		
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:	136	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:	A++	-	
Heat pump combination heater		No					
				for low-temperature heat pumps. For	or low- tempe	erature heat <sub>l</sub>	pumps,
parameters shall be declared for	Symbol	ure application  Value	unit	Itaua	Symbol	Value	Unit
Item	Зуппоот	1	Oilit	Item Seasonal space heating energy	Зуппоот		I
Rated heat output (*)	Prated	9	kW	efficiency	$\eta_s$	132	%
Declared capacity for heating for and outdoor temperature T j	or part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	7,6	kW	T j = - 7 °C	COPd	2,07	-
T j = + 2 °C	Pdh	4,6	kW	T j = +2 °C	COPd	3,49	-
T j = + 7 °C	Pdh	4,8	kW	T j = +7 °C	COPd	4,69	-
T j = + 12 °C	Pdh	5,8	kW	T j = +12 °C	COPd	6,36	-
T j = bivalent temperature	Pdh	8,4	kW	T j = bivalent temperature	COPd	1,71	-
T j = operation limit temperature	Pdh	8,4	kW	T j = operation limit temperature	COPd	1,71	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-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	0,99	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than active	mode	ī	Supplementary heater			7
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,1	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW				
Standby mode	$P_{SB}$	0,000	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items						T	
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	5090	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:						
Declared load profile		na	ı	Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produ importance that	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 rese rigerant, compressor oil and electrical/electroni shold waste is not permitted.	ller offering a ser	vice of that type	. t is of great

### Information for heat pump space heaters and heat pump combination heaters Average climate and Low temperature (35)

CTC EcoAir 520M + CTC EcoLogic

Model(s):

Enertech AB 341 26 Ljungby



Model(3).		CTC ECOAII 32	ZOIVI + CTC LC	OLUGIC			
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:	181	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:	A+++	-	
Heat pump combination heate		No					
				for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared for					Complete	Value	l lmit
Item	Symbol	Value	Unit	Item	Symbol	Value 	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	177	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performation part load at indoor temperature			
T j = - 7 °C	Pdh	6,9	kW	T j = -7 °C	COPd	3,09	1
Tj=+2°C	Pdh Pdh	4,2	kW	T j = +2 °C	COPd	4,82	† <u>-</u>
Tj=+7°C	Pdh	5,0	kW	T j = +7 °C	COPd	6,18	1 -
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	7,62	1 -
T j = bivalent temperature	Pdh	8,0	kW	T j = bivalent temperature	COPd	2,72	] -
T j = operation limit temperature	Pdh	8,0	kW	T j = operation limit temperature	COPd	2,72	-
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	e mode	-	Supplementary heater			_
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW				
Standby mode	$P_{SB}$	0,000	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW		<u> </u>		
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3526	kWh	flow rate, outdoor heat exchanger			,
For heat pump combination he	ater:						
Declared load profile		na		Water heating energy efficiency	$\eta_{\sf wh}$	na	%
Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produ importance that	ct's life cycle, it r the product's ref	at a recycling station or with the installation er must be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electron ehold waste is not permitted.	eller offering a se	rvice of that type	. t is of great

# Information for heat pump space heaters and heat pump combination heaters Cold climate and Medium temperature (55)

Yes

No

CTC EcoAir 520M + CTC EcoLogic

Energy efficiency class:

Controller class:

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

Enertech AB 341 26 Ljungby

VI



water to water near pamp.		110		Controller class:	• •		
Brine-to-water heat pump:		No		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	125	%	
Equipped with a supplementar	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate	er:	No		· · · · · · · · · · · · · · · · · · ·			
				for low-temperature heat pumps. For	or low- temp	erature heat p	oumps,
parameters shall be declared f	for low-temperat	ure application	١.				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	$\eta_{s}$	121	%
Declared capacity for heating f	for part load at ir	ndoor tempera	ture 20 °C	Declared coefficient of performa	ance or prima	ary energy rat	io for
and outdoor temperature T j				part load at indoor temperature			
T i = - 7 °C	Pdh	6,1	kW	T j = - 7 °C	COPd	2,49	] <u>-</u>
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	4,12	-
T j = + 7 °C	Pdh	5,0	kW	T j = +7 °C	COPd	5,40	-
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	6,84	-
T j = bivalent temperature	Pdh	7,9	kW	T j = bivalent temperature	COPd	1,69	-
T j = operation limit				T j = operation limit			ŀ
temperature	Pdh	5,4	kW	temperature	COPd	1,01	-
For air-to-water heat pumps:	Pdh	7,8	kW	For air-to-water heat pumps:	COPd	1,60	-
T j = -15 °C (if TOL < -20 °C)	-	- , ,		T j = $-15$ °C (if TOL < $-20$ °C)	<del>-</del>	_,	
Bivalent temperature	T <sub>biv</sub>	-14	°C	For air-to-water heat pumps:	TOL	-22	°C
	2		1	Operation limit temperature			1
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	0,015	kW	Rated heat output (*)	Psup	4,6	kW
Thermostat-off mode	P <sub>TO</sub>	0,010	kW				
Standby mode	P <sub>SB</sub>	0,000	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:	-	6200	m3/h
1				Rated air flow rate, outdoors			
Sound power level, indoors/	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat			
outdoors	- WA			pumps: Rated brine or water flow rate, outdoor heat	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	7956	kWh	exchanger			
For heat pump combination he	eater:						
Declared load profile		na		Water heating energy	$\eta_{\sf wh}$	na	%
•		T	I	efficiency			-
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 procesutions and and				at a recycling station or with the installation en nust be sent correctly to a waste station or rese	-	_	
Specific precautions and end				rigerant, compressor oil and electrical/electroni	•		-
of life information:				hold waste is not permitted.			
Contact details	Enertech AB, Box	x 309, SE-341 2	6 Ljungby Tel	+46 372 88000 www.ctc.se			181001

# Information for heat pump space heaters and heat pump combination heaters Cold climate and Low temperature (35)

CTC EcoAir 520M + CTC EcoLogic

Model(s):

Enertech AB 341 26 Ljungby



widuei(3).		CTC ECOAII 32	EDIVI + CTC EC	orogic			
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:	153	%	
Equipped with a supplementary	heater:	No		Package efficiency class:		-	
Heat pump combination heater:		No					
				for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared fo						24.1	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_s$	149	%
Declared capacity for heating fo and outdoor temperature T j	r part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
T j = - 7 °C	Pdh	6,7	kW	T j = - 7 °C	COPd	3,42	] -
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	4,51	-
T j = + 7 °C	Pdh	5,0	kW	T j = +7 °C	COPd	6,57	- -
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	7,53	-
T j = bivalent temperature	Pdh	8,4	kW	T j = bivalent temperature	COPd	2,44	-
T j = operation limit temperature	Pdh	5,6	kW	T j = operation limit temperature	COPd	1,70	] -
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	7,9	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	2,26	-
Bivalent temperature	T <sub>biv</sub>	-13	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	e <u>mode</u>	T	Supplementary heater			-
Off mode	P OFF	0,015	kW	Rated heat output (*)	Psup	5,4	kW
Thermostat-off mode	$P_{TO}$	0,010	kW				
Standby mode	$P_{SB}$	0,000	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	7156	kWh	flow rate, outdoor heat exchanger			
For heat pump combination hea	iter:						
Declared load profile		na	r	Water heating energy efficiency	$\eta_{wh}$	na	%
Daily electricity consumption	$Q_{\text{elec}}$	na	kWh	Daily fuel consumption	$\mathbf{Q}_{fuel}$	na	kWh
Annual electricity consumption	AEC	na	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the produ importance that	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 rese rigerant, compressor oil and electrical/electroni shold waste is not permitted.	ller offering a se	rvice of that type	e. t is of great

#### Information for heat pump space heaters and heat pump combination heaters **Warm climate and Medium temperature (55)**

Yes

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby



All-to-water fleat pullip.		163		Lifergy 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:	145	%		
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-		
Heat pump combination heater	r:	Yes						
				for low-temperature heat pumps. For	or low- tempe	erature heat	pumps,	
parameters shall be declared for	or low-tempera	ture application	١.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	$\eta_s$	141	%	
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature				
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	-	
T j = + 2 °C	Pdh	12,3	kW	T j = +2 °C	COPd	1,54	-	
T j = + 7 °C	Pdh	8,0	kW	T j = +7 °C	COPd	3,05	-	
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	5,28	-	
T j = bivalent temperature	Pdh	12,3	kW	T j = bivalent temperature	COPd	1,54	-	
T j = operation limit temperature	Pdh	12,3	kW	T j = operation limit temperature	COPd	1,54	-	
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 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 of	other than activ	e mode	7	Supplementary heater			•	
Off mode	P <sub>OFF</sub>	0,031	kW	Rated heat output (*)	Psup	0,0	kW	
Thermostat-off mode	P <sub>TO</sub>	0,009	kW					
Standby mode	$P_{SB}$	0,031	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	-	6200	m3/h	
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h	
Annual energy consumption	Q <sub>HE</sub>	4525	kWh	flow rate, outdoor heat exchanger				
For heat pump combination he	ater:	_	T				•	
Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	66	%	
Daily electricity consumption	Qelec	7,118	kWh	Daily fuel consumption	Qfuel	NA	kWh	
Annual electricity consumption	AEC	1566	kWh	Annual fuel consumption	AFC	NA	GJ	
Specific precautions and end of life information:		end of the production importance that the	ct's life cycle, it r the product's ref	at a recycling station or with the installation en must be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electroni ehold waste is not permitted.	ller offering a se	vice of that type	. t is of great	

CTC EcoAir 520M + CTC EcoZenith 250

#### Information for heat pump space heaters and heat pump combination heaters **Warm climate and Low temperature (35)**

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby



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 supplementar	y heater:	Yes		Package efficiency class:		-	
	or medium-tem			t for low-temperature heat pumps.	For low- temp	erature heat	pumps,
parameters shall be declared for	Symbol	ture application  Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy		193	%
				efficiency	.15		
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor temperat	ture 20 °C	Declared coefficient of perforn part load at indoor temperatur			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	13,3	kW	T j = +2 °C	COPd	2,43	-
T j = + 7 °C	Pdh	8,6	kW	T j = +7 °C	COPd	4,61	-
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	6,31	-
T j = bivalent temperature	Pdh	13,3	kW	T j = bivalent temperature	COPd	2,43	-
T j = operation limit temperature	Pdh	13,3	kW	T j = operation limit temperature	COPd	2,43	-
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 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 of	other than activ	e mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,031	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,005	kW				
Standby mode	P <sub>SB</sub>	0,031	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water hear pumps: Rated brine or water	t -	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3634	kWh	flow rate, outdoor heat exchanger			,
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	66	%
Daily electricity consumption	Qelec	7,118	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1566	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 r he product's ref	at a recycling station or with the installation or use the sent correctly to a waste station or refrigerant, compressor oil and electrical/electrophold waste is not permitted.	seller offering a se	rvice of that type	. t is of great

CTC EcoAir 520M + CTC EcoZenith 250

### Information for heat pump space heaters and heat pump combination heaters **Average climate and Medium temperature (55)**

Model(s):

Enertech AB 341 26 Ljungby



Air-to-water heat pump:		Yes		Energy efficiency class:	<b>A</b> +	-	
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:	118	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:	A+	-	
	or medium-tem			for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared for							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	$\eta_{S}$	114	%
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	6,6	kW	T j = -7 °C	COPd	1,75	-
T j = + 2 °C	Pdh Dalla	4,1	kW	T j = +2 °C	COPd	2,94	-
T j = + 7 °C T j = + 12 °C	Pdh Pdh	4,6 5,7	kW kW	T j = +7 °C T j = +12 °C	COPd COPd	4,01 5,55	-
T j = bivalent temperature	Pdh	6,6	kW	T j = bivalent temperature	COPd	1,75	
T j = operation limit temperature	Pdh	7,2	kW	T j = operation limit temperature	COPd	1,47	-
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>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes	other than activ	e mode		Supplementary heater			_
Off mode	P OFF	0,031	kW	Rated heat output (*)	Psup	0,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,009	kW				
Standby mode	$P_{SB}$	0,031	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	5246	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	В	Water heating energy efficiency	$\eta_{\sf wh}$	53	%
Daily electricity consumption	Qelec	8,780	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1932	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the produ importance that	ct's life cycle, it n the product's ref	at a recycling station or with the installation er nust be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electroni shold waste is not permitted.	eller offering a se	rvice of that type	. t is of great

CTC EcoAir 520M + CTC EcoZenith 250

### Information for heat pump space heaters and heat pump combination heaters **Average climate and Low temperature (35)**

Model(s):

Enertech AB 341 26 Ljungby



iviouci(3).							
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:	154	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heater:		Yes					
				for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared for	Symbol		Unit	la con	Symbol	Value	Linit
Item	Зуппоп	Value	Offic	Item Seasonal space heating energy	Зуппоот	Value	Unit
Rated heat output (*)	Prated	8	kW	efficiency	$\eta_{s}$	150	%
Declared capacity for heating fo	r part load at i	indoor temperat	ture 20 °C	Declared coefficient of performa	ance or prima	arv energy rat	tio for
and outdoor temperature T j		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		part load at indoor temperature			
T j = - 7 °C	Pdh	6,7	kW	T j = - 7 °C	COPd	2,51	٦ .
T j = + 2 °C	Pdh	4,0	kW	T j = +2 °C	COPd	3,93	1 -
T j = + 7 °C	Pdh	4,9	kW	T j = +7 °C	COPd	5,12	1 -
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	6,38	-
T j = bivalent temperature	Pdh	6,7	kW	T j = bivalent temperature	COPd	2,51	] .
T j = operation limit	5 <i>''</i>			T j = operation limit		2.2-	1
temperature	Pdh	7,7	kW	temperature	COPd	2,25	_
For air-to-water heat pumps:	Pdh	200	kW	For air-to-water heat pumps:	COPd	20	
T j = -15 °C (if TOL < -20 °C)	Pull	na	KVV	T j = - 15 °C (if TOL < - 20 °C)	СОРИ	na	_
	_			For air-to-water heat pumps:		- 10	1
Bivalent temperature	T <sub>biv</sub>	-7	°C	Operation limit temperature	TOL	-10	°C
Cycling interval capacity for	Р.	na	kW	Cycling interval efficiency	СОРсус	na	1 .
heating	P <sub>cych</sub>	- IIu			corcyc	- IIu	4
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	ther than activ	ve mode		Supplementary heater			_
Off mode	P OFF	0,031	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,005	kW				
Standby mode	P <sub>SB</sub>	0,031	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items		•			•		
				For air-to-water heat pumps:			
Capacity control		Variable		Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/				For water-/brine-to-water heat			
outdoors	L <sub>WA</sub>	na/55	dB	pumps: Rated brine or water		no	m2/h
Annual energy consumption	Q <sub>HE</sub>	4047	kWh	flow rate, outdoor heat exchanger	-	na	m3/h
For heat pump combination hea		<u> </u>		Levenander			1
		Efficiency		Water heating energy	n	E2	0/
Declared load profile	L	class	В	efficiency	$\eta_{\sf wh}$	53	%
Daily electricity consumption	Qelec	8,780	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity	AEC	1932	kWh	Annual fuel consumption	AFC	NA	GJ
consumption	ALC			ļ			
Specific precautions and end				at a recycling station or with the installation er nust be sent correctly to a waste station or rese	-	_	
of life information:				rigerant, compressor oil and electrical/electron	_		_

CTC EcoAir 520M + CTC EcoZenith 250

# Information for heat pump space heaters and heat pump combination heaters Cold climate and Medium temperature (55)

Model(s):

Air-to-water heat pump:

Enertech AB 341 26 Ljungby



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:	108	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate		Yes					
Parameters shall be declared for parameters shall be declared for				for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy	-	104	%
Kated heat output (*)	Pruteu	•	KVV	efficiency	$\eta_s$	104	70
Declared capacity for heating for and outdoor temperature T j	or part load at i	indoor tempera	ture 20 °C	Declared coefficient of perform part load at indoor temperature			
T j = -7 °C	Pdh	5,0	kW	T j = -7 °C	COPd	2,16	] -
T j = + 2 °C	Pdh	3,4	kW	T j = +2 °C	COPd	3,57	-
T j = + 7 °C	Pdh	4,7	kW	T j = +7 °C	COPd	4,72	-
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	6,03	-
T j = bivalent temperature	Pdh	5,9	kW	T j = bivalent temperature	COPd	1,79	-
T j = operation limit temperature	Pdh	4,4	kW	T j = operation limit temperature	COPd	1,14	_
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	6,3	kW	For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd	1,49	-
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	other than activ	ve mode		Supplementary heater			_
Off mode	P OFF	0,026	kW	Rated heat output (*)	Psup	8,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,028	kW				
Standby mode	$P_{SB}$	0,000	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	7524	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:	•		· · · · · · · · · · · · · · · · · · ·		•	•
Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{\scriptscriptstyle \sf wh}$	46	%
Daily electricity consumption	Qelec	10,113	kWh	Daily fuel consumption	<b>Q</b> fuel	NA	kWh
Annual electricity consumption	AEC	2225	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production	ct's life cycle, it n the product's ref	at a recycling station or with the installation e must be sent correctly to a waste station or res rigerant, compressor oil and electrical/electror ehold waste is not permitted.	eller offering a se	rvice of that type	. t is of great
Contact details	nertech AB Ro	ox 309 SF-341 2	6 Liunghy Te	I +46 372 88000 www.ctc.se	<u> </u>		181001

CTC EcoAir 520M + CTC EcoZenith 250

### Information for heat pump space heaters and heat pump combination heaters Cold climate and Low temperature (35)

Model(s):

Enertech AB 341 26 Ljungby



Model(3).		CTC ECOAII 32	LOIVI - CTC LC	OZCIIIII ZJO			
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:	126	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate		Yes					
				for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared for					Completed		11
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	122	%
Declared capacity for heating for and outdoor temperature T j	or part load at i	ndoor tempera	ture 20 °C	Declared coefficient of performa part load at indoor temperature			
Tj=-7°C	Pdh	6,4	kW	T j = -7 °C	COPd	2,85	1 -
Tj=+2°C	Pdh	3,9	kW	T j = +2 °C	COPd	3,62	1 -
Tj=+7°C	Pdh	4,9	kW	T j = +7 °C	COPd	5,51	] -
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	6,29	] -
T j = bivalent temperature	Pdh	7,2	kW	T j = bivalent temperature	COPd	2,56	-
T j = operation limit temperature	Pdh	5,9	kW	T j = operation limit temperature	COPd	1,84	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	7,6	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	1,96	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes of	other than activ	e mode	ī	Supplementary heater			•
Off mode	P <sub>OFF</sub>	0,031	kW	Rated heat output (*)	Psup	10,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,005	kW				
Standby mode	P <sub>SB</sub>	0,031	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	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	8260	kWh	flow rate, outdoor heat exchanger		110	3, 11
For heat pump combination he	ater:						
Declared load profile	L	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	46	%
Daily electricity consumption	$Q_{elec}$	10,113	kWh	Daily fuel consumption	$Q_{fuel}$	NA	kWh
Annual electricity consumption	AEC	2225	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the production importance that the	ct's life cycle, it r the product's ref	at a recycling station or with the installation en nust be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electroni shold waste is not permitted.	ller offering a se	rvice of that type	. t is of great
<u>L</u>							

CTC EcoAir 520M + CTC EcoZenith 250

#### Information for heat pump space heaters and heat pump combination heaters **Warm climate and Medium temperature (55)**

Model(s):

Enertech AB 341 26 Ljungby



Model(3).		CTC ECOAII 32	ON TOTAL	02emii 1550 250/ <del>1</del> 00 V			
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:	147	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate	r:	Yes					
				for low-temperature heat pumps. For	or low- temp	erature heat	pumps,
parameters shall be declared for							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	$\eta_{s}$	143	%
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	12,3	kW	T j = +2 °C	COPd	1,54	-
T j = + 7 °C	Pdh Ddh	8,0	kW	T j = +7 °C	COPd	3,05	ł <sup>-</sup>
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	5,28	ł <sup>-</sup>
T j = bivalent temperature	Pdh	12,3	kW	T j = bivalent temperature	COPd	1,54	-
T j = operation limit temperature	Pdh	12,3	kW	T j = operation limit temperature	COPd	1,54	-
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	other than activ	e mode		Supplementary heater			•
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	$P_{TO}$	0,024	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							_
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	4479	kWh	flow rate, outdoor heat exchanger			,
For heat pump combination he	ater:	<u>.</u>				_	
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{wh}$	112	%
Daily electricity consumption	Qelec	6,835	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1504	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the productimportance that t	ct's life cycle, it n he product's ref	at a recycling station or with the installation en nust be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electroni ehold waste is not permitted.	ller offering a se	rvice of that type	. t is of great

CTC EcoAir 520M + CTC EcoZenith i550 230/400V

### Information for heat pump space heaters and heat pump combination heaters **Warm climate and Low temperature (35)**

Model(s):

Enertech AB 341 26 Ljungby



Model(3).		C1 C 2007 III 52	ON CICE	02emii 1550 250/ <del>4</del> 00 V			
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:	197	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate	r:	Yes					
				for low-temperature heat pumps. For	or low- temp	erature heat	oumps,
parameters shall be declared for		-					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13	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	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	13,3	kW	T j = +2 °C	COPd	2,43	-
Tj=+7°C	Pdh Ddh	8,6	kW	T j = +7 °C	COPd	4,61	-
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	6,31	-
T j = bivalent temperature	Pdh	13,3	kW	T j = bivalent temperature	COPd	2,43	-
T j = operation limit temperature	Pdh	13,3	kW	T j = operation limit temperature	COPd	2,43	-
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	e mode		Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	$P_{TO}$	0,073	kW				
Standby mode	$P_{SB}$	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	3628	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	ater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	112	%
Daily electricity consumption	Qelec	6,835	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1504	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		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 en nust be sent correctly to a waste station or rese rigerant, compressor oil and electrical/electroni shold waste is not permitted.	ller offering a se	rvice of that type	. t is of grea

CTC EcoAir 520M + CTC EcoZenith i550 230/400V

## Information for heat pump space heaters and heat pump combination heaters Average climate and Medium temperature (55)

Model(s):

Enertech AB 341 26 Ljungby



viouei(s):				<u> </u>			
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:	119	%	
Equipped with a supplementary	, heater:	Yes		Package efficiency class:	A+	_	
Heat pump combination heater		Yes		r delage efficiency class.	Α.		
			ation, except	for low-temperature heat pumps. For	or low- tempe	erature heat	pumps.
parameters shall be declared fo							,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	115	%
Declared capacity for heating fo and outdoor temperature T j	or part load at i	ndoor temperat	cure 20 °C	Declared coefficient of performa part load at indoor temperature			
Γ j = − 7 °C	Pdh	7,6	kW	T j = - 7 °C	COPd	1,75	] -
T j = + 2 °C	Pdh	4,1	kW	T j = +2 °C	COPd	2,94	-
T j = + 7 °C	Pdh	4,6	kW	T j = +7 °C	COPd	4,01	-
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	5,55	-
T j = bivalent temperature	Pdh	6,6	kW	T j = bivalent temperature	COPd	1,75	-
T j = operation limit temperature	Pdh	7,2	kW	T j = operation limit temperature	COPd	1,47	_
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>	-7	°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	0,015	kW	Rated heat output (*)	Psup	0,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,024	kW				
Standby mode	$P_{SB}$	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items	- CK	5,000					
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/l
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/
Annual energy consumption	Q <sub>HE</sub>	5201	kWh	flow rate, outdoor heat exchanger			
For heat pump combination hea	ater:			<u> </u>		•	
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{wh}$	98	%
Daily electricity consumption	Qelec	7,816	kWh	Daily fuel consumption	<b>Q</b> fuel	NA	kWl
Annual electricity consumption	AEC	1719	kWh	Annual fuel consumption	AFC	NA	Gl

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of life information:

Disposing of the product as household waste is not permitted.

#### Information for heat pump space heaters and heat pump combination heaters **Average climate and Low temperature (35)**

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Model(s):	CTC EcoAir 520N	CTC EcoAir 520M + CTC EcoZenith i550 230/400V						
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:	156	%				
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	$\eta_{S}$	152	%
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	6,7	kW	T j = -7 °C	COPd	2,51	] -
T j = + 2 °C	Pdh	4,0	kW	T j = +2 °C	COPd	3,93	-
T j = + 7 °C	Pdh	4,3	kW	T j = +7 °C	COPd	5,12	-
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	6,37	-
T j = bivalent temperature	Pdh	6,7	kW	T j = bivalent temperature	COPd	2,51	-
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>	-7	°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	0,018	kW	Rated heat output (*)	Psup	0,0	kW
Thermostat-off mode	$P_{TO}$	0,073	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	4011	kWh	flow rate, outdoor heat exchanger			1115/11
For heat pump combination hea	ater:			eneron ger		1	<u> </u>
Declared load profile	XL	Efficiency class	Α	Water heating energy efficiency	$\eta_{\sf wh}$	98	%
Daily electricity consumption	Qelec	7,816	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1719	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 r 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 great

# Information for heat pump space heaters and heat pump combination heaters Cold climate and Medium temperature (55)

Model(s):

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Model(3).		CIC ECOAII 32	.o CICE	.02emm 1330 230/ 400 V			
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:	109	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
	or medium-tem			t for low-temperature heat pumps. Fo	or low- temp	erature heat <sub>l</sub>	oumps,
parameters shall be declared for							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	$\eta_{s}$	105	%
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	6,1	kW	T j = - 7 °C	COPd	2,16	-
T j = + 2 °C	Pdh	3,4	kW	T j = +2 °C	COPd	3,57	-
Tj=+7°C	Pdh	4,7	kW	T j = +7 °C	COPd	4,72	-
T j = + 12 °C	Pdh	5,7	kW	T j = +12 °C	COPd	6,03	-
T j = bivalent temperature	Pdh	5,9	kW	T j = bivalent temperature	COPd	1,79	-
T j = operation limit temperature	Pdh	4,4	kW	T j = operation limit temperature	COPd	1,14	-
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	1,49	-
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	other than activ	re mode	r	Supplementary heater			1
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	8,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,024	kW				
Standby mode	$P_{SB}$	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/61	dB	For water-/brine-to-water heat pumps: Rated brine or water	-	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	7497	kWh	flow rate, outdoor heat exchanger			
For heat pump combination he	eater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\sf wh}$	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:		end of the production importance that t	ct's life cycle, it i he product's ref	I at a recycling station or with the installation en must be sent correctly to a waste station or rese frigerant, compressor oil and electrical/electroni ehold waste is not permitted.	ller offering a se	rvice of that type	t is of great
L							

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## Information for heat pump space heaters and heat pump combination heaters **Cold climate and Low temperature (35)**

Model(s):

Air-to-water heat pump:

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				, ,			
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:	127	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate		Yes					
				t for low-temperature heat pumps. F	or low- temp	erature heat	pumps,
parameters shall be declared f					Comple al	Value	11
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	$\eta_{s}$	123	%
Declared capacity for heating for part load at indoor temperature 20 $^{\circ}\text{C}$ and outdoor temperature T j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T j			
T j = -7 °C	Pdh	6,7	kW	T j = - 7 °C	COPd	2,85	] -
T j = + 2 °C	Pdh	3,9	kW	T j = +2 °C	COPd	3,62	-
T j = + 7 °C	Pdh	4,9	kW	T j = +7 °C	COPd	5,51	-
T j = + 12 °C	Pdh	5,6	kW	T j = +12 °C	COPd	6,29	ļ -
T j = bivalent temperature	Pdh	7,2	kW	T j = bivalent temperature	COPd	2,56	-
T j = operation limit temperature	Pdh	5,9	kW	T j = operation limit temperature	COPd	1,84	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	7,6	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	1,96	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,98	-	Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			7
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output (*)	Psup	10,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,073	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	6200	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	na/55	dB	For water-/brine-to-water heat pumps: Rated brine or water	_	na	m3/h
Annual energy consumption	Q <sub>HE</sub>	8238	kWh	flow rate, outdoor heat exchanger		IId	5/11
For heat pump combination he	eater:						
Declared load profile	XL	Efficiency class	NA	Water heating energy efficiency	$\eta_{\scriptscriptstyle \sf wh}$	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
The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the Specific precautions and 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.							

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