Enertech AB



Warm climate and Medium	temperature				341 26 Ljur	ngby	
Model(s):		CTC GSi 16					
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		Yes		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	157	%	
Equipped with a supplementary	y heater:	Yes		Package efficiency class:		-	
Parameters shall be declared for parameters shall be declared for	or medium-temp		ion, except fo	or low-temperature heat pumps. Fo	r low- tempera	iture heat pu	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	$\eta_s$	153	%
			•	1		•	

item	Symbol	value	Unit	item	Symbol	value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	$\eta_{s}$	153	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	ire 20 °C and	Declared coefficient of performal part load at indoor temperature			
T j = - 7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	14,3	kW	T j = +2 °C	COPd	2,57	-
T j = + 7 °C	Pdh	10,4	kW	T j = +7 °C	COPd	3,50	-
T j = + 12 °C	Pdh	4,4	kW	T j = +12 °C	COPd	5,13	-
T j = bivalent temperature	Pdh	14,5	kW	T j = bivalent temperature	COPd	2,68	-
T j = operation limit temperature	Pdh	14,34	kW	T j = operation limit temperature	COPd	2,57	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	other than active	mode	_	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,020	kW	Rated heat output	Psup	1,7	kW
Thermostat-off mode	P <sub>TO</sub>	0,020	kW				
Standby mode	P <sub>SB</sub>	0,020	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	-	na	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	40 / na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5300	kWh	flow rate, outdoor heat exchanger	-	1,6	m3/h
For heat pump combination he	eater:						
Declared load profile		XL		Water heating energy efficiency/Energy class	$\eta_{\text{wh/-}}$	95 / A	%
Daily electricity consumption	Qelec	8,010	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1762	kWh	Annual fuel consumption	AFC	na	GJ

Declared load profile		XL		Water heating energy efficiency/Energy class	$\eta_{\text{wh/-}}$	95 / A	%
Daily electricity consumption	Qelec	8,010	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1762	kWh	Annual fuel consumption	AFC	na	GJ

Specific precautions and end of life information:

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

Information for heat pump sp Warm climate and Low temp		nd heat pump	combination	heaters	Enertech A 341 26 Ljur		TC
Model(s):		CTC GSi 16					
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		Yes		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	206	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:		-	
Heat pump combination heater: Parameters shall be declared for parameters shall be declared for	r medium-temp		tion, except fo	r low-temperature heat pumps. Fo	r low- tempera	nture heat pu	ımps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	$\eta_s$	202	%
Declared capacity for heating for outdoor temperature T j	r part load at in	door temperatu	ire 20 °C and	Declared coefficient of perform part load at indoor temperatur			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na	] -
T j = + 2 °C	Pdh	15,6	kW	T j = +2 °C	COPd	3,77	] -
T j = + 7 °C	Pdh	10,4	kW	T j = +7 °C	COPd	5,01	
T j = + 12 °C	Pdh	4,4	kW	T j = +12 °C	COPd	6,00	
T j = bivalent temperature	Pdh	15,6	kW	T j = bivalent temperature	COPd	3,77	-
T j = operation limit temperature	Pdh	15,6	kW	T j = operation limit temperature	COPd	3,77	] -
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	ther than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,020	kW	Rated heat output	Psup	0,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,020	kW				
Standby mode	P <sub>SB</sub>	0,020	kW	Type of energy input		Electric	

Standby mode 0,000 Crankcase heater mode  $P_{CK}$ kWOther items

Variable 36 / na dΒ  $L_{WA}$ 4080 kWh  $Q_{HE}$ 

For air-to-water heat pumps: na m3/h Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat 2,3 m3/h exchanger

For heat pump combination heater:

Sound power level, indoors/

Annual energy consumption

Declared load profile		XL		Water heating energy efficiency/Energy class	$\eta_{\text{wh/-}}$	95 / A	%
Daily electricity consumption	Qelec	8,010	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1762	kWh	Annual fuel consumption	AFC	na	GJ

Specific precautions and end of life information:

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

Capacity control

outdoors

Average climate and Medium temperature

Enertech AB 341 26 Ljungby



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Model(s):	CTC GSi 16				
Air-to-water heat pump:	No	Energy efficiency class:	A++	-	
Water-to-water heat pump:	No	Controller class:	VI	-	
Brine-to-water heat pump:	Yes	Controller contribution:	4	%	
Low-temperature heat pump:	No	Package efficiency:	158	%	
Equipped with a supplementary heater:	Yes	Package efficiency class:	A+++	-	
Heat pump combination heater:	Yes				
Parameters shall be declared for medium-te	emperature application, ex	ccept for low-temperature heat pumps.	For low- tem	perature he	at pumps,
parameters shall be declared for low-temper	rature application.				

Item Symbol Value Unit Symbol Value Unit Seasonal space heating energy Prated Rated heat output (\*) 16 kW 154 %  $\eta_{s}$ efficiency Declared capacity for heating for part load at indoor temperature 20 °C and Declared coefficient of performance or primary energy ratio for outdoor temperature T j part load at indoor temperature 20 °C and outdoor temperature T j Tj = -7 °C Pdh 14,2 Ti = -7°C COPd kW 2,79 Tj = +2 °CPdh 8,8 kW T j = +2 °C **COPd** 4,13 Tj = +7 °C Pdh 5,5 kW Tj = +7°C **COPd** 4,89 Tj = +12 °C Pdh kW T j = +12 °C **COPd** 5,14 4,4 T j = bivalent temperature Pdh 14,6 kW T j = bivalent temperature COPd2,70 T j = operation limit T j = operation limit 14,34 COPd Pdh kW 2,57 temperature temperature For air-to-water heat pumps: For air-to-water heat pumps: Pdh na kW COPd T j = -15 °C (if TOL < -20 °C)T j = -15 °C (if TOL < -20 °C)For air-to-water heat pumps: °C Bivalent temperature -8 TOL °C na T<sub>biv</sub> Operation limit temperature Cycling interval capacity for kW Cycling interval efficiency **COPcyc** na na P cych heating Heating water operating limit Degradation co-efficient Cdh 0.99 WTOL 65 °C temperature Power consumption in modes other than active mode Supplementary heater Off mode P OFF 0,020 kW Rated heat output Psup 1,7 kW  $P_{TO}$ Thermostat-off mode 0,020 kW 0,020 Type of energy input **Electric** Standby mode  $P_{SB}$ kW 0,000 Crankcase heater mode  $P_{CK}$ kW Other items For air-to-water heat pumps: **Variable** Capacity control m3/h Rated air flow rate, outdoors Sound power level, indoors/ For water-/brine-to-water heat 40 / na dΒ  $L_{WA}$ pumps: Rated brine or water outdoors flow rate, outdoor heat Annual energy consumption 8176 kWh m3/h 1.6  $Q_{HE}$ exchanger For heat pump combination heater: Water heating energy **Declared load profile** XL 95 / A %  $\eta_{wh/-}$ efficiency/Energy class Daily electricity consumption 8,010 kWh Daily fuel consumption kWh Qelec **Q**fuel na Annual electricity AEC 1762 AFC kWh Annual fuel consumption GJ consumption

Specific precautions and end of life information:

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

Average climate and Low temperature

Enertech AB 341 26 Ljungby



Model(s):	CTC GSi 16			
Air-to-water heat pump:	No	Energy efficiency class:	A++	-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	Yes	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	205	%
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	16	kW	Seasonal space heating energy efficiency	$\eta_{s}$	201	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = -7 °C	Pdh	14,0	kW	T j = - 7 °C	COPd	4,17	] -
T j = + 2 °C	Pdh	8,5	kW	T j = +2 °C	COPd	5,36	] -
T j = + 7 °C	Pdh	5,6	kW	T j = +7 °C	COPd	5,87	-
T j = + 12 °C	Pdh	4,6	kW	T j = +12 °C	COPd	6,03	-
T j = bivalent temperature	Pdh	15,3	kW	T j = bivalent temperature	COPd	3,88	-
T j = operation limit temperature	Pdh	15,6	kW	T j = operation limit temperature	COPd	3,77	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-9	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	ther than active	mode	•	Supplementary heater		•	•
Off mode	P OFF	0,020	kW	Rated heat output	Psup	0,4	kW
Thermostat-off mode	P <sub>TO</sub>	0,020	kW	[ ]	·	•	•
Standby mode	$P_{SB}$	0,020	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	-	na	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	36 / na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6321	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination hea	ater:						
Declared load profile		XL		Water heating energy efficiency/Energy class	$\eta_{\text{wh/-}}$	95 / A	%
Daily electricity consumption	Qelec	8,010	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1762	kWh	Annual fuel consumption	AFC	na	GJ

Specific precautions and end of life information:

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

Information for heat pump sp Cold climate and Medium te	•	ind heat pump	combination	heaters	Enertech A 341 26 Ljur		cTc
Model(s):		CTC GSi 16					
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VI	-	
Brine-to-water heat pump:		Yes		Controller contribution:	4	%	
Low-temperature heat pump:		No		Package efficiency:	165	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:		-	
Heat pump combination heater:		Yes					
Parameters shall be declared for parameters shall be declared for	•	• • •	tion, except for	r low-temperature heat pumps. For	· low- tempera	iture heat pu	ımps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	$\eta_{s}$	161	%
Declared capacity for heating fo outdoor temperature T j	r part load at in	door temperatu	ıre 20°C and	Declared coefficient of perform part load at indoor temperature	•		
T j = -7 °C	Pdh	9,84	kW	T j = - 7 °C	COPd	3,79	] -
T j = + 2 °C	Pdh	5,9	kW	T j = +2 °C	COPd	4,78	] -
T j = + 7 °C	Pdh	4,5	kW	T j = +7 °C	COPd	5,31	_  -
T j = + 12 °C	Pdh	4,5	kW	T j = +12 °C	COPd	5,31	
T j = bivalent temperature	Pdh	14,3	kW	T j = bivalent temperature	COPd	2,76	-
T j = operation limit temperature	Pdh	14,34	kW	T j = operation limit temperature	COPd	2,57	] -
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>	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes of	ther than active	mode	_	Supplementary heater			_
Off 1 -	P OFF	0,020	kW	Rated heat output	Psup	1,7	kW
Off mode	' OFF	0,020	] """	The state of the s	- T 3 4 P	-,,	

Power consumption in modes other than active mode						
Off mode	P OFF	0,020	kW			
Thermostat-off mode	P <sub>TO</sub>	0,020	kW			
Standby mode	$P_{SB}$	0,020	kW			
Crankcase heater mode	P <sub>CK</sub>	0,000	kW			
Other items						

For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
For water-/brine-to-water hea pumps: Rated brine or water	it		
flow rate, outdoor heat exchanger	-	1,6	m3/h

**Electric** 

181001

Capacity control		Variable	
Sound power level, indoors/ outdoors	L <sub>WA</sub>	40 / na	dB
Annual energy consumption	Qыг	9352	kWh

For heat pump combination heater:

Declared load profile	XL		Water heating energy efficiency/Energy class	$\eta_{\text{wh/-}}$	95 / A	%	
Daily electricity consumption	Qelec	8,010	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1762	kWh	Annual fuel consumption	AFC	na	GJ

Specific precautions and end of life information:

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

Type of energy input

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



Model(s):	CTC GSi 16			
Air-to-water heat pump:	No	Energy efficiency class:		-
Water-to-water heat pump:	No	Controller class:	VI	-
Brine-to-water heat pump:	Yes	Controller contribution:	4	%
Low-temperature heat pump:	No	Package efficiency:	214	%
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 fo	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	16	kW	Seasonal space heating energy efficiency	$\eta_{s}$	210	%
Declared capacity for heating for outdoor temperature T j	or part load at ir	ndoor temperatu	re 20 °C and	Declared coefficient of performal part load at indoor temperature 2			
T j = - 7 °C	Pdh	9,9	kW	T j = - 7 °C	COPd	5,22	-
T j = + 2 °C	Pdh	5,9	kW	T j = +2 °C	COPd	5,93	-
T j = + 7 °C	Pdh	4,5	kW	T j = +7 °C	COPd	6,07	-
T j = + 12 °C	Pdh	4,4	kW	T j = +12 °C	COPd	5,76	-
T j = bivalent temperature	Pdh	15,5	kW	T j = bivalent temperature	COPd	3077,00	-
T j = operation limit temperature	Pdh	15,6	kW	T j = operation limit temperature	COPd	3,77	-
For air-to-water heat pumps: T j = $-15$ °C (if TOL < $-20$ °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-21	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°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	65	°C
Power consumption in modes o	ther than active	e mode		Supplementary heater			
Off mode	P OFF	0,020	kW	Rated heat output	Psup	0,4	kW
Thermostat-off mode	P <sub>TO</sub>	0,020	kW			•	
Standby mode	$P_{SB}$	0,020	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	-	na	m3/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	36 / na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	7239	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination hea	ater:			j jekenange.			
Declared load profile	XL			Water heating energy efficiency/Energy class	$\eta_{\text{wh/-}}$	95 / A	%
Daily electricity consumption	Qelec	8,010	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1762	kWh	Annual fuel consumption	AFC	na	GJ
Specific precautions and end of life information:		end of the product'	s life cycle, it mus e product's refrige	a recycling station or with the installation engine t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic ec not permitted.	offering a servi	ce of that type. t i	of great