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



Warm climate and Medium	temperature	070 5 - 0 - 11 44		-1-	341 26 Ljun	ignà 🗾	
Model(s):		CTC EcoPart 41	7 + CTC ECOLO	-			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	141	%	
Equipped with a supplementary	-	No		Package efficiency class:		-	
Heat pump combination heater Parameters shall be declared fo parameters shall be declared fo	or medium-temp		ion, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	17	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	137	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	] - [
r j = + 2 °C	Pdh	15,9	kW	T j = +2 °C	COPd	3,07	] -
T j = + 7 °C	Pdh	16,0	kW	T j = +7 °C	COPd	3,42	- [
T j = + 12 °C	Pdh	16,5	kW	T j = +12 °C	COPd	4,09	-
T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,17	] -
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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 <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	other than active	mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,3	kW
Thermostat-off mode	P <sub>TO</sub>	0,008	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</sub>	0,000	kW				
Other items						_	_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	6315	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:						
Declared load profile /		na		Water heating energy	$\eta_{wh}$	na	%
Energy efficiency class				efficiency	* IW()		
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 product'	s life cycle, it mus product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle grant, compressor oil and electrical/electronic of not permitted.	er offering a servic	e of that type. t	is of great
Contact details	Enertech AB, Box						181001

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



Warm climate and Low ten	nperature				341 26 Ljun	igby	
Model(s):		CTC EcoPart 41	17 + CTC EcoLo	-			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	184	%	
Equipped with a supplementar	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate Parameters shall be declared f parameters shall be declared f	or medium-temp		ion, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	180	%
Declared capacity for heating f outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	na	kW	T j = − 7 °C	COPd	na	] -
Г ј = + 2 °С	Pdh	16,9	kW	T j = +2 °C	COPd	4,55	1 -
Г ј = + 7 °С	Pdh	17,0	kW	T j = +7 °C	COPd	4,78	- [
Г ј = + 12 °С	Pdh	17,3	kW	T j = +12 °C	COPd	5,06	-
Г ј = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,63	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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 neating	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	other than active	mode		Supplementary heater			-
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,4	kW
hermostat-off mode	Ρ <sub>τΟ</sub>	0,027	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items		·	·				_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5180	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	eater:	·		· · · · · ·		·	
Declared load profile /		na		Water heating energy	η <sub>wh</sub>	<b>n</b> 2	%
Energy efficiency class		IId	1	efficiency	' Iwh	na	70
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 product	's life cycle, it mus e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic not permitted.	er offering a servic	e of that type. t	is of great
Contact details	Enertech AB, Box						181001

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



Average climate and iviedlu	m temperature				341 26 Ljun	guy	
Model(s):		CTC EcoPart 41	17 + CTC EcoLo	gic			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:		%	
Equipped with a supplementar	v heater:	No		Package efficiency class:	A++	-	
Heat pump combination heater		No					
Parameters shall be declared for	or medium-temp		tion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared for Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	137	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	ure 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = – 7 °C	Pdh	16	kW	T j = – 7 °C	COPd	3,23	] -
T j = + 2 °C	Pdh	16,1	kW	T j = +2 °C	COPd	3,60	1 -
T j = + 7 °C	Pdh	16,4	kW	T j = +7 °C	COPd	3,97	1 -
T j = + 12 °C	Pdh	16,7	kW	T j = +12 °C	COPd	4,36	- 1
T j = bivalent temperature	Pdh	16	kW	T j = bivalent temperature	COPd	3,23	l .
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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	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	other than active	mode	•	Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	2,2	kW
Thermostat-off mode	Р <sub>то</sub>	0,008	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Ρ <sub>CK</sub>	0,000	kW				
Other items					ļ		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
L Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	10286	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:			L0-'			
Declared load profile /				Water heating energy	2		<u> </u>
Energy efficiency class		na		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		end of the product	's life cycle, it mus	a recycling station or with the installation engine t be sent correctly to a waste station or reselle	er offering a servic	e of that type. t	is of great
of life information:		of the product as h		rant, compressor oil and electrical/electronic not permitted.	equipment are pro	operiy disposed	

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



Average climate and Low te	mperature	070 F			341 26 Ljun	iRnà	
Model(s):		CTC EcoPart 41	I / + CTC EcoLo	-			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	185	%	
Equipped with a supplementary	y heater:	No		Package efficiency class:	A+++	-	
Heat pump combination heater Parameters shall be declared fo parameters shall be declared fo	or medium-temp		ion, except for	low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	19	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	181	%
Declared capacity for heating fo outdoor temperature T j	or part load at ind	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = – 7 °C	Pdh	16,9	kW	T j = – 7 °C	COPd	4,64	] -
Г ј = + 2 °С	Pdh	17,1	kW	T j = +2 °C	COPd	4,83	1 -
г ј = + 7 °С	Pdh	17,2	kW	T j = +7 °C	COPd	5,01	1 -
г ј = + 12 °С	Pdh	17,4	kW	T j = +12 °C	COPd	5,18	1 -
Г ј = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,64	1 -
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	<u> </u>
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	na	°C
Cycling interval capacity for neating	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 c	other than active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	2,3	kW
Thermostat-off mode	Р <sub>то</sub>	0,027	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items		·					_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
L Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	8362	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	ater:						
Declared load profile /		na		Water heating energy	η <sub>wh</sub>	na	%
Energy efficiency class			r	efficiency	' Iwh	110	
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				recycling station or with the installation engin t be sent correctly to a waste station or reselle		-	
of life information:		importance that the of the product as he		rant, compressor oil and electrical/electronic o	equipment are pro	operly disposed	of. Disposing

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



Cold climate and Medium	lemperature				341 26 Ljur	igby	
Model(s):		CTC EcoPart 41	7 + CTC EcoLo	gic			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	144	%	
Equipped with a supplementa	ry heater:	No		Package efficiency class:		-	
Heat pump combination heate Parameters shall be declared f parameters shall be declared f	or medium-temp		ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	17	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	140	%
Declared capacity for heating outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	16,1	kW	T j = − 7 °C	COPd	3,51	<b>]</b> -
Г ј = + 2 °С	Pdh	16,4	kW	T j = +2 °C	COPd	3,89	1 -
; j = + 7 °C	Pdh	16,6	kW	T j = +7 °C	COPd	4,24	1 -
Г ј = + 12 °С	Pdh	16,8	kW	T j = +12 °C	COPd	4,50	1 -
Γ j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,19	_
Γ j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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>	-19	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for neating	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	other than active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,4	kW
hermostat-off mode	P <sub>TO</sub>	0,008	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items	CA	-,			Ļ		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	11554	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
or heat pump combination h	eater:						•
Declared load profile /				Water heating energy	n		~
nergy efficiency class		na		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 product'	's life cycle, it mus e product's refrige	recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic en not permitted.	er offering a servio	e of that type. t	is of great
Contact details	Enertech AB, Box						181001

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



$\mathbf{N} \mathbf{A} = \mathbf{A} = \mathbf{A} \mathbf{A} \mathbf{A}$		070 5		-t-			
Model(s):		CTC EcoPart 41	/ + CTC EcoLo	-			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	- / -	%	
Low-temperature heat pump:		No		Package efficiency:	166	%	
Equipped with a supplementar		No		Package efficiency class:		-	
Heat pump combination heate		No					
Parameters shall be declared fo parameters shall be declared fo			ion, except foi	low-temperature heat pumps. For	low- temperat	ture heat pu	mps,
parameters shall be declared to Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
tem	Symbol			Seasonal space heating energy	Jymbol		
Rated heat output (*)	Prated	18	kW	efficiency	n <sub>s</sub>	184	%
Declared capacity for heating for heating for the second sec	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	17,1	kW	T j = – 7 °C	COPd	4,84	] -
г ј = + 2 °С	Pdh	17,2	kW	T j = +2 °C	COPd	5,01	] -
Г ј = + 7 °С	Pdh	17,3	kW	T j = +7 °C	COPd	5,13	- [
Г ј = + 12 °С	Pdh	17,3	kW	T j = +12 °C	COPd	5,15	-
Г ј = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,61	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
For air-to-water heat pumps: ſ 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>	-20	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for neating	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	other than active	mode		Supplementary heater			Į
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,027	kW				*
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items		,	P		ļ.		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
L Sound power level, indoors/ putdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	9166	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
or heat pump combination he	ater:						
Declared load profile /		na		Water heating energy	$\eta_{wh}$	na	%
nergy efficiency class				efficiency	' Iwn	ind.	
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 product'	s life cycle, it must	recycling station or with the installation engin be sent correctly to a waste station or reselled rant, compressor oil and electrical/electronic e	r offering a service	e of that type. t i	is of great
		of the product as ho	usehold waste is	not permitted			

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



Warm climate and Medium	i temperature				341 26 Ljur	igby	
Model(s):		CTC EcoPart 41	7 + CTC EcoZe	nith 550			
Air-to-water heat pump:		Νο		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
ow-temperature heat pump:		No		Package efficiency:	124	%	
Equipped with a supplementar	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heate Parameters shall be declared for		Yes perature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared for	or low-temperati Symbol	ure application. Value	Unit	ltem	Symbol	Value	Unit
Rated heat output (*)	Prated	17	kW	Seasonal space heating energy		120	%
	Tratea	17	NVV	efficiency	η <sub>s</sub>	120	70
Declared capacity for heating f outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	na	kW	T j = – 7 °C	COPd	na	] -
j = + 2 °C	Pdh	15,9	kW	T j = +2 °C	COPd	2,77	1 -
j = + 7 ℃	Pdh	16,0	kW	T j = +7 °C	COPd	3,07	1 -
ī j = + 12 °C	Pdh	16,5	kW	T j = +12 °C	COPd	3,64	<b>-</b>
j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	2,85	1.
j = operation limit	Pdh		kW	T j = operation limit	COPd		- I
emperature	Full	15,9	ĸvv	temperature	COPU	2,77	-
For air-to-water heat pumps: - 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	-
livalent temperature	T <sub>biv</sub>	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for neating	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
ower consumption in modes	other than active	e mode		Supplementary heater			
)ff mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,3	kW
hermostat-off mode	P <sub>TO</sub>	0,052	kW				•
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</sub>	0,000	kW				
Other items	CA	-,			ļ		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Gound power level, indoors/ butdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	7168	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
or heat pump combination he	eater:	1				1	
Declared load profile /				Water heating energy			
nergy efficiency class		XL/A		efficiency	$\eta_{wh}$	100	%
Daily electricity consumption	Qelec	7,659	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1685	kWh	Annual fuel consumption	AFC	NA	GJ
				-			
pecific precautions and end of life information:		end of the product'	's life cycle, it must e product's refriger	recycling station or with the installation engine to sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic not permitted.	er offering a servio	e of that type. t	is of great

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



No   Energy efficiency class:   -     Water-to-water heat pump:   No   Controller class:   VII     Water-to-water heat pump:   No   Controller contribution:   5.5   %     Kow temperature heat pump:   No   Package efficiency:   153   %     Kow temperature heat pump:   No   Package efficiency:   153   %     Expression provide in a symptotic provide in temperature application, except for low-temperature heat pumps, parameters shall be declared for medium-temperature application.   *   *     Branches symbol   Value   Unit   tem   Symbol   Value   Unit     Rate deale acting for medium-temperature application.   tem   Symbol   Value   Unit   tem   Symbol   Value   Unit     Ti = -7 C   Pdr.   16.9   KW   Ti = -7 C   COPH   4.01   -     Ti = +2 C   Pdr.   16.9   KW   Ti = -7 C   COPH   4.01   -     Ti = +2 C   Pdr.   16.9   KW   Ti = -7 C   COPH   4.01   -     Ti = +2 C   Pdr.   16.9   KW   Ti = -7 C   COPH	Warm climate and Low ten	nperature				341 26 Ljun	igby	
Water to water heat pump:   No   Controller class:   VI   -     Grine Lew water heat pump:   Yes   Controller contribution:   3,5   %     Grupped with a supplementary heater:   Yes   Package efficiency:   1.5.3   %     Equipped with a supplementary heater:   Yes   Package efficiency class:   -   -     Parameters shall be declared for low-temperature application.   Yes   Package efficiency class:   -   -     Parameters shall be declared for low-temperature application.   Symbol   Value   Unit   Semiclose classifies of the standard	Model(s):		CTC EcoPart 41	7 + CTC EcoZe	enith 550			
Brink-to-water heat pump:   Yes   Controller contribution:   3,5   %     Convertengerature heat pump:   No   Package efficiency:   153   %     Exade-temport combination heater:   Yes   Package efficiency:   153   %     Package efficiency:   153   %   %   Face face face for for the temperature heat pumps.   For low temperature heat pumps.     Package for four ow temperature application.   excert for low temperature heat pumps.   For low temperature heat pumps.   For low temperature heat pumps.     Raded heat output (*)   Proted   18   kW   Item   Symbol   Value   Unit     Raded heat output (*)   Proted   18   kW   Item   Symbol   Value   Unit     Ti = $-7^{\circ}$ Pah   na   kW   Ti = -7^{\circ} C   COrd   4,01   -     Ti = $+2^{\circ}$ C   Pah   16,9   kW   Ti = -7^{\circ} C   COrd   4,01   -     Ti = $+12^{\circ}$ C   Pah   16,9   kW   Ti = +12^{\circ} C   COrd   4,01   -     Ti = $+12^{\circ}$ C (f TOL < $-20^{\circ}$ C)   Pah   na   -   -   -	Air-to-water heat pump:		No		Energy efficiency class:		-	
No   Package efficiency:   153   %     Equipped with a supplementary heater:   Yes   Package efficiency class:   -     Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps, barameters shall be declared for low-temperature application.   -     Rate deat output (*)   Proted   18   KW     Rate deat output (*)   Proted   18   KW     Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 j   -   -     T j = - 7 °C   Pdh   na   KW   Seatonal space heating energy   ns   149   %     Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 j   T j = - 7 °C   Pdh   159   KW   T j = - 7 °C   COPd   4.01   -     T j = - 7 °C   Pdh   16,9   KW   T j = - 7 °C   COPd   4.02   -     T j = - 2 °C   Pdh   16,9   KW   T j = - 12 °C   COPd   4.01   -     T j = operation limit   Pdh   16,9   KW   T j = -12 °C   COPd   4.01   -     T j = -15 °C (f TOL < - 20 °C)	Water-to-water heat pump:		No		Controller class:	VII	-	
Equipped with a supplementary heater: Ves Package efficiency class:	Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Vest   Vest     Pranteers 5th all be declared for neur-temperature application.   Neuronameters hall be declared for low-temperature application.   Value   Unit   Item   Symbol   Value   Unit     Rated heat output (*)   Proted   18   kW   Seasonal space heating energy $n_s$ 149   %     Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 20°C and outdoor temperature 7)   Image: temperature 7   Tj = -7°C   Pdh   Ta   -	Low-temperature heat pump:		No		Package efficiency:	153	%	
Parameters shall be declared for medium-temperature application. except for low-temperature heat pumps. For low-temperature 20 °C and build or temperature Pdh 16.9 kW T i = -7 °C C COPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C OPd 4.20 - 1 i = -1 2 °C C (IT OL < -2 0 °C) Pdh 16.9 kW T i = operation limit temperature COPd 4.01 - 1 For air-to-water heat pumps: C oPr d 4.01 - 1 For air-to-water heat pumps: C oPr d 20 °C C OPd 20 °C C	Equipped with a supplementa	ry heater:	Yes		Package efficiency class:		-	
parameters shall be declared for low-temperature application. <b>Item</b> Symbol Value Unit <b>Rated heat output (*)</b> Prated 18 kW Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j T j = - 7°C Pdh <u>16,9</u> kW T j = + 2°C Pdh <u>15,9</u> kW T j = + 2°C COPd <u>4,01</u> - T j = - 7°C COPd <u>4,01</u> - T j = - 7°C COPd <u>4,01</u> - T j = - 7°C COPd <u>4,01</u> - T j = + 12°C COPd <u>4,01</u> - T j = - 15°C (If T C + - 20°C) Pdh <u>16,9</u> kW T j = - 15°C (If T C + - 20°C) Pdh <u>16,9</u> kW T j = - 15°C (If T C + - 20°C) Pdh <u>16,9</u> kW T j = - 15°C (If T C + - 20°C) Pdh <u>16,9</u> kW T j = - 15°C (If T C + - 20°C) Pdh <u>16,9</u> kW T j = - 15°C (If T C + - 20°C) Pdh <u>1.4</u> kW T j = - 15°C (If T C + - 20°C) COPd <u>1.4</u> - Bivalent temperature T bw Bivalent temperature T bw Bivalent temperature T bw Bivalent temperature T bw Bivalent temperature T bw Coperation limit temperature TOL <u>1.4</u> kW T per air-to-water heat pumps: TOL <u>1.4</u> kW T memostat-off mode P or <u>0.018</u> kW T memostat-off mode P or <u>0.018</u> kW T memostat-off mode P or <u>0.018</u> kW T per of energy input Electric Coperation limit temperature TOL <u>1.4</u> kW T per of energy input Electric T bow rate, outdoors - T pows: Read bine or water heat pumps: Read bine or water heat pump fine tonsumption <u>1.4</u> kC <u>1.685</u> kWh Daily fuel consumption Qluel NA kWh Annual electricity ALC <u>1.685</u> kWh Daily fuel consumption Qluel NA kWh Annual electricity ALC <u>1.685</u> kWh								
temSymbolValueUnitItemSymbolValueUnitRated heat output (*)Protecd18kWSeasonal space heating energy $n_{S}$ 149%Declared capacity for heating for part load at indoor temperature 20 °C andSeasonal space heating energy $n_{S}$ 149%Declared capacity for heating for part load at indoor temperature 20 °C andTi = -7 °CPdhTi-7 °CCOPd $na$ -T j = -7 °CPdh16,9kWTi = -7 °CCOPd $4,01$ T j = +12 °CPdh16,9kWTi = +2 °CCOPd $4,01$ -T j = operation limitPdh16,9kWTi = operation limitCOPd $4,01$ -T j = operation limitPdh16,9kWTi = operation limitCOPd $4,01$ -T j = operation limitPdhnakWTi = operation limitCOPd $4,01$ -T j = operation limitPdhnakWTi = operation limitCOPd $4,01$ -T j = -15 °C (if TOL < -20 °C)				ion, except for	r low-temperature heat pumps. For	· low- tempera	ture heat pu	imps,
Rated heat output (*)   Protect   18   kW     Based heat output (*)   Protect   18   kW     Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 °C     T  = -7 °C   Pdh   na   kW     T  = -7 °C   Pdh   17.0   kW     T  = -7 °C   Pdh   17.0   kW     T  = -7 °C   Pdh   17.3   kW     T  = -7 °C   COPd   4.01   -     T  = -7 °C   COPd   4.01   -     T  = -15 °C (If TOL < - 20 °C)	·	-		11		C. week al	Malua	11
Raded near output (r)Prace15KWefficiencyns149%Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T jDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 20 °C and outdoor temperature 20 °C and outdoor temperature 20 °C matching to part load at indoor temperature 20 °C and outdoor temperature 20 °C and at indoor temperature 20 °C and a indoor temperature 20 °C and a indoor temperature 20 °C and at indoor temperature 20 °C and a indoor temperature 20 °C and at indoor temperature 20 °C and a	Item	Symbol	value	Unit	1	-	value	
outdoor temperature T jT j = - 7 °CPdhnaT j = - 7 °CPdh16.9T j = + 7 °CPdh17.0T j = + 7 °CPdh17.0T j = + 7 °CPdh17.3KWT j = + 7 °CCOPd4.01T j = + 7 °CPdh17.3KWT j = + 7 °CCOPd4.01T j = + 7 °CPdh16.9KWT j = + 7 °CCOPd4.01T j = operation limitPdh16.9KWT j = + 12 °CCOPd4.01T j = operation limitPdh16.9KWT j = poration limitCOPd4.01temperaturePdh16.9KWT j = - 15 °C (if TOL < - 20 °C)	Rated heat output (*)	Prated	18	kW		η <sub>s</sub>	149	%
T T T 1 = 2 °CPdh16.9kWT 1 = +7 °CCOPd4.01T 1 = +7 °CPdh17.3KWT 1 = +7 °CCOPd4.01T 1 = bivalent temperaturePdh16.9kWT 1 = +12 °CCOPd4.43T 1 = operation limitPdh16.9kWT 1 = operation limitCOPd4.01T 1 = operation limitPdh16.9kWT 1 = operation limitCOPd4.01For air-to-water heat pumps: 1 = -15 °C (if TOL < -20 °C)	Declared capacity for heating four temperature T j	for part load at in	door temperatu	re 20 °C and				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	<b>]</b> -
T j = + 7 °CPdh17,0kWT j = + 7 °CCOPd4,20-T j = + 12 °CPdh17,3kWT j = + 12 °CCOPd4,43-T j = bivalent temperaturePdh16,9kWT j = bivalent temperatureCOPd4,01-T j = operation limitPdh16,9kWT j = operation limitCOPd4,01-temperaturePdh16,9kWT j = operation limitCOPd4,01-for air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-for air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-Bivalent temperatureT biv3°CFor air-to-water heat pumps:COPdna-Cycling interval capacity for heatingP cychnakWCycling interval efficiencyCOPcycna-Degradation co-efficientCdh0,96-Heating water operating limit wToOL65°CSound power level, indoors/L wA56/nadBKWType of energy inputElectricCapacity controlFixed56/nadBKWFor air-to-water heat pumps: Rated air flow rate, outdoorsnam3/hSound power level, indoors/L wA56/nadBKWhFor air-to-water heat pumps: Rated air flow rate, outdoorsnam3/hCapacity controlFixed56/nadBMWhDaily fel co	T j = + 2 °C							1 -
Tj = bivalent temperaturePdh16,9kWTj = bivalent temperatureCOPd4,07-T j = operation limit temperaturePdh16,9kWTj = operation limit temperatureCOPd4,01-For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	T j = + 7 °C	Pdh	17,0	kW	T j = +7 °C	COPd	4,20	] -
T j = operation limit temperaturePdh16,9kwT j = operation limit temperatureCOPd4,01For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	T j = + 12 °C	Pdh	17,3	kW	T j = +12 °C	COPd	4,43	- 1
temperaturepan16,9KWtemperatureCDPa4,01-For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,07	-
T j = -15 °C (if TOL < - 20 °C)PdnnakWT j = -15 °C (if TOL < - 20 °C)CDPana-Bivalent temperatureT $biv$ 3°CFor air-to-water heat pumps: Operation limit temperatureTOLna°CCycling interval capacity for heating $P_{cyCh}$ nakWCycling interval efficiencyCOPcycna-Degradation co-efficientCdh0,96-Heating water operating limit temperatureWTOL65°CPower consumption in modes other than active modeNAKWSupplementary heaterSupplementary heaterSupplementary heaterOff mode $P_{orr}$ 0,0146kWType of energy inputElectricCrankcase heater mode $P_{coc}$ 0,000kWType of energy inputElectricCapacity controlFixedFor air-to-water heat pumps: Rated air flow rate, outdoors-nam3/hSound power level, indoors/ outdoorsL wA56/nadBdBm3/hm3/hFor hart pump combination heater:Declared load profile / Energy efficiencyTwh100%Declared load profile / tenregy efficiencyAEC1685kWhDaily fuel consumptionQfuelNAkWhAnnual electricity consumptionAEC1685kWhAnnual fuel consumptionQfuelNAkWhAnnual electricity consumptionAEC1685kWhAnnual fuel consumptionQfuelNAkWhAnnual electricity con	T j = operation limit temperature	Pdh	16,9	kW		COPd	4,01	-
Bavalent temperature $1_{biv}$ 3 °C Operation limit temperature $1OL$ $10L$		Pdh	na	kW		COPd	na	-
heating $P_{cych}$ nakWCycling interval efficiency $COPcyc$ na-Degradation co-efficient $Cdh$ $0,96$ -Heating water operating limit temperature $WTOL$ $655$ *CPower consumption in modes other than active mode $O,018$ $kW$ Supplementary heaterSupplementary heater $B_{cr}$ $Supplementary heaterOff modeP_{orr}0,018kWV_{crankcase heater modeP_{cx}0,018kWType of energy inputElectricCapacity controlFixedFor air-to-water heat pumps:Rated air flow rate, outdoorsnam3/hSound power level, indoors/L_{WA}56/nadBFor water./brine-to-water heatpumps: Rated brine or waterflow rate, outdoorsm3/hFor heat pump combination heater:VL/AWater heating energyefficiency\eta_{wh}100%Deally electricity consumptionQelec7,659kWhDaily fuel consumptionAFCNAkWAnnual electricityAEC1685kWhAnnual fuel consumptionAFCNAKWSpecific precautions and endof life information:The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At theend of the product's tire cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of greatimportance that the product's tire cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of greatimportance that the $	Bivalent temperature	T <sub>biv</sub>	3	°C		TOL	na	°C
Degradation co-efficient   Cdn   0,96   -   temperature   W/OL   65   *C     Power consumption in modes other than active mode   Off mode   Porr   0,018   kW   Supplementary heater   Rated heat output   Psup   1,4   kW     Thermostat-off mode   P ro   0,018   kW   Type of energy input   Electric   Electric     Standby mode   P sa   0,018   kW   Type of energy input   Electric   ma   m3/h     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Capacity control   L wA   56/na   dB   dB   ma   m3/h     For water /brine-to-water heat pumps: Rated prine or water flow rate, outdoors   -   na   m3/h     Annual energy consumption   Q HE   6208   kWh   Water heating energy   nwh   100   %     Daily electricity consumption   Qelec   7,659   kWh   Annual fuel consumption   Qfuel   NA   kW     Specific precautions and end of the product's life cycle, it must be sent correcity to a waste station or reseller offering a service of that type. It is of great information	Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Off mode   P orr   0,018   kW   Rated heat output   Psup   1,4   kW     Thermostat-off mode   P ro   0,146   kW   Type of energy input   Electric     Standby mode   P ss   0,018   kW   Type of energy input   Electric     Crankcase heater mode   P cx   0,000   kW   Type of energy input   Electric     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/   L wA   56/na   dB   dB   pumps: Rated brine or water flow rate, outdoors   -   na   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   XL / A   Water heating energy efficiency   n <sub>kwh</sub> 100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   AFC   NA   kWh     Annual electricity consumption   AEC   1685   kWh   Annual fuel consumption   AFC   NA   KWh     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the	Degradation co-efficient	Cdh	0,96	-		WTOL	65	°C
Thermostat-off mode   P τo   0,146   kW     Standby mode   P ss   0,018   kW     Crankcase heater mode   P cx   0,000   kW     Other items   Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Capacity control   L wA   56/na   dB   for water-/brine-to-water heat pumps: Rated brine or water   na   m3/h     Sound power level, indoors/ outdoors   L wA   56/na   dB   for water-/brine-to-water heat pumps: Rated brine or water   na   m3/h     For heat pump combination heater:   Energy efficiency class   XL / A   Water heating energy efficiency   nwh   100   %     Daily electricity consumption consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   KWh     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product as household waste is not permitted.   Ma electricia/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.	Power consumption in modes	other than active	mode	_	Supplementary heater		-	-
Standby mode   P 58   0,018   kW   Type of energy input   Electric     Crankcase heater mode   P cx   0,000   kW   Type of energy input   Electric     Other items   -   na   m3/h     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/ outdoors   L WA   56/na   dB   -   For water-/brine-to-water heat pumps: Rated brine or water   -   3,8   m3/h     For heat pump combination heater:   -   -   3,8   m3/h     Declared load profile / Energy efficiency class   XL / A   Water heating energy efficiency   nwh   100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity consumption   AEC   1685   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 ty	Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,4	kW
Crankcase heater mode   P cx   0,000   kW     Other items   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Sound power level, indoors/ outdoors   L wA   56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger   -   3,8   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   XL / A   Water heating energy efficiency   nu   100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer of correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great	Thermostat-off mode	Р <sub>то</sub>	0,146	kW				
Other items     Capacity control     Fixed     Sound power level, indoors/   L wA     Sound power level, indoors/   Sound power level, indoors     Annual energy consumption to the term   KU / A     Paily electricity consumption   Qelec     Annual electricity   AEC     Specific precautions and end of the product's life cycle, it must be sent correctly to a wast station or with the installation engineer for correct waste management. At the end of the product's life cycle, it mu	Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/ outdoors   L wa   56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   -   3,8   m3/h     Annual energy consumption   Q HE   6208   kWh   Water heating energy enchanger   -   3,8   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   XL / A   Water heating energy efficiency   nwh   100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity consumption   AEC   1685   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 refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposing of the product as household waste is not permitted.	Crankcase heater mode	Р <sub>СК</sub>	0,000	kW				
Capacity control   Fixed   Rated air flow rate, outdoors   na   m3/h     Sound power level, indoors/ outdoors   L wA   56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   For water-/brine-to-water heat   m3/h     Annual energy consumption   Q HE   6208   kWh   For water-/brine-to-water heat   m3/h     For heat pump combination heater:   Declared load profile /   XL / A   Water heating energy efficiency   nwh   100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity consumption   AEC   1685   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 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 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 equipmen	Other items							_
L WA   56/na   dB   pumps: Rated brine or water     Annual energy consumption   Q HE   6208   kWh   pumps: Rated brine or water     For heat pump combination heater:   Declared load profile /   XL / A   Water heating energy   -   3,8   m3/h     Declared load profile /   XL / A   Water heating energy   nwh   100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity   AEC   1685   kWh   Annual fuel consumption   AFC   NA   GJ     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.	Capacity control		Fixed			-	na	m3/h
Annual energy consumption   Q HE   6208   kWh   exchanger   -   3,8   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   XL / A   Water heating energy ficiency $\eta_{wh}$ 100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity   AEC   1685   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.	Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB				
For heat pump combination heater:     Declared load profile /     Declared load profile /   XL / A   Water heating energy efficiency $\eta_{wh}$ 100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity consumption   AEC   1685   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.	Annual energy consumption	Q <sub>HE</sub>	6208	kWh		-	3,8	m3/h
Declared load profile / Energy efficiency class   XL / A   Water heating energy efficiency $\eta_{wh}$ 100   %     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity consumption   AEC   1685   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.	For heat pump combination he	eater:			· · · · · ·			
Energy efficiency class   efficiency     Daily electricity consumption   Qelec   7,659   kWh   Daily fuel consumption   Qfuel   NA   kWh     Annual electricity   AEC   1685   kWh   Annual fuel consumption   AFC   NA   GJ     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.			XI / A		Water heating energy	n	100	0/
Annual electricity consumption   AEC   1685   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.	Energy efficiency class		AL/ A	1	efficiency	' Iwh	100	70
AEC1685KWhAnnual fuel consumptionAFCNAGJconsumptionFNAGJSpecific 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.	Daily electricity consumption	Qelec	7,659	kWh	Daily fuel consumption	Qfuel	NA	kWh
Specific precautions and endend 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 greatof life information: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.	Annual electricity consumption	AEC						
	Specific precautions and end of life information:		end of the product importance that the	's life cycle, it mus e product's refrige	t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic	er offering a servic	e of that type. t	is of great
	Contact details	Enertech AB, Box						181001

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



Average climate and Mediu	m temperature				341 26 Ljur	igby	
Model(s):		CTC EcoPart 41	.7 + CTC EcoZe				
Air-to-water heat pump:		No		Energy efficiency class:	A+	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	125	%	
Equipped with a supplementary		Yes		Package efficiency class:	A++	-	
Heat pump combination heater Parameters shall be declared fo parameters shall be declared fo	or medium-temp		ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	19	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	121	%
Declared capacity for heating fo outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = – 7 °C	Pdh	16,0	kW	T j = – 7 °C	COPd	2,91	- [
T j = + 2 °C	Pdh	16,1	kW	T j = +2 °C	COPd	3,24	1 -
T j = + 7 °C	Pdh	16,4	kW	T j = +7 °C	COPd	3,55	1 -
T j = + 12 °C	Pdh	16,7	kW	T j = +12 °C	COPd	3,86	-
T j = bivalent temperature	Pdh	16,0	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	15,9	kW	T j = operation limit temperature	COPd	2,77	] -
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>	-6	°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 o	other than active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	3,0	kW
Thermostat-off mode	P <sub>TO</sub>	0,052	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
L Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	12137	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination hea	ater:						
Declared load profile /		XL/A		Water heating energy	$\eta_{wh}$	100	%
Energy efficiency class		//s//*		efficiency	' Iwh	100	, <sup>2</sup>
Daily electricity consumption	Qelec	7,659	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1685	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end			•	a recycling station or with the installation engin t be sent correctly to a waste station or reselle		-	
of life information:		importance that the of the product as he	e product's refrige	rant, compressor oil and electrical/electronic	-		of. Disposing

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



Average climate and Low to	emperature				341 26 Ljun	igby	
Model(s):		CTC EcoPart 41	7 + CTC EcoZe	nith 550			
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	157	%	
Equipped with a supplementar	ry heater:	Yes		Package efficiency class:	A++	-	
Heat pump combination heate	-	Yes		· · · ·			
		erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared f	or low-temperati	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	20	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	153	%
Declared capacity for heating f outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	16,9	kW	T j = − 7 °C	COPd	4,09	] -
r j = + 2 °C	Pdh	17,1	kW	T j = +2 °C	COPd	4,25	] -
Г ј = + 7 °С	Pdh	17,2	kW	T j = +7 °C	COPd	4,39	- [
j = + 12 °C	Pdh	17,4	kW	T j = +12 °C	COPd	4,53	
j = bivalent temperature آز	Pdh	17,0	kW	T j = bivalent temperature	COPd	4,12	-
Γ j = operation limit temperature	Pdh	16,9	kW	T j = operation limit temperature	COPd	4,01	- 1
For air-to-water heat pumps: Γ 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>	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for neating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	] -
Degradation co-efficient	Cdh	0,96	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	3,2	kW
hermostat-off mode	Ρ <sub>τΟ</sub>	0,146	kW				
itandby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P <sub>CK</sub>	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	10312	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
or heat pump combination he	eater:						
Declared load profile /		XL/A		Water heating energy	$\eta_{wh}$	100	%
nergy efficiency class		,		efficiency	• Iwn		
Daily electricity consumption	Qelec	7,659	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1685	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product'	s life cycle, it must e product's refrige	a recycling station or with the installation enging t be sent correctly to a waste station or reseller rant, compressor oil and electrical/electronic not permitted.	er offering a servic	e of that type. t	is of great
Contact details	Enertech AB, Box	× 309, SE-341 26	Ljungby Tel +4	46 372 88000 www.ctc.se			181001

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



Model(s):		CTC EcoPart 41	7 + CTC EcoZe	enith 550			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	126	%	
Equipped with a supplementary	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater Parameters shall be declared fo		Yes erature applicat	ion, except fo	low-temperature heat pumps. For	low- tempera	ture heat pu	imps,
parameters shall be declared fo Item	or low-temperate Symbol	ure application. Value	Unit	ltem	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	122	%
Declared capacity for heating fo outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	16,1	kW	T j = − 7 °C	COPd	3,17	<b>]</b> -
Г ј = + 2 °С	Pdh	16,4	kW	T j = +2 °C	COPd	3,48	1 -
г ј = + 7 °С	Pdh	16,6	kW	T j = +7 °C	COPd	3,76	1 -
Г ј = + 12 °С	Pdh	16,8	kW	T j = +12 °C	COPd	3,97	] -
T j = bivalent temperature	Pdh	16,0	kW	T j = bivalent temperature	COPd	2,94	-
T j = operation limit temperature	Pdh	15,9	kW	T j = operation limit temperature	COPd	2,77	-
<sup>Ξ</sup> or air-to-water heat pumps: Γ 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>	-17	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for neating	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 c	other than active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	2,5	kW
Thermostat-off mode	P <sub>TO</sub>	0,052	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Рск	0,000	kW				
Other items		-			-		-
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	13902	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
or heat pump combination he	ater:						
Declared load profile /		XL/A		Water heating energy	$\eta_{wh}$	100	%
Energy efficiency class				efficiency	i wil		-
Daily electricity consumption	Qelec	7,659	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1685	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product' importance that the	s life cycle, it mus e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic e not permitted	r offering a servio	e of that type. t	is of great
Contact details	Enertech AB, Box	of the product as he	ousehold waste is	not permitted.			

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



Cold climate and Low temp	erature				341 26 Ljun	ngby	
Model(s):		CTC EcoPart 41	l <mark>7 + CTC EcoZ</mark> e	enith 550			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	VII	-	
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	158	%	
Equipped with a supplementar	ry heater:	Yes		Package efficiency class:		-	
Heat pump combination heate	er:	Yes					
	or medium-temp		ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	19	kW	Seasonal space heating energy efficiency	n <sub>s</sub>	154	%
Declared capacity for heating f outdoor temperature T j	for part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	17,1	kW	T j = – 7 °C	COPd	4,27	] -
Г ј = + 2 °С	Pdh	17,2	kW	T j = +2 °C	COPd	4,39	1 -
г ј = + 7 °С	Pdh	17,3	kW	T j = +7 °C	COPd	4,49	1 -
Г ј = + 12 °С	Pdh	17,3	kW	T j = +12 °C	COPd	4,51	1 -
Г ј = bivalent temperature	Pdh	17,0	kW	T j = bivalent temperature	COPd	4,11	1.
Γ j = operation limit temperature	Pdh	16,9	kW	T j = operation limit temperature	COPd	4,01	-
For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = – 15 °C (if TOL < – 20 °C)	COPd	na	-
Bivalent temperature	T <sub>biv</sub>	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for neating	P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient	Cdh	0,96	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes	other than active	e mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	2,1	kW
hermostat-off mode	P <sub>TO</sub>	0,146	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>СК</sub>	0,000	kW				
Other items		-,-,-	<u>,</u>				
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	11573	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
or heat pump combination he	eater:	•		· · · · · · · · · · · · · · · · · · ·		•	
Declared load profile /		XL/A		Water heating energy	$\eta_{wh}$	100	%
nergy efficiency class		AL/ A	1	efficiency	<b>' I</b> wh	100	70
Daily electricity consumption	Qelec	7,659	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1685	kWh	Annual fuel consumption	AFC	NA	GJ
Specific precautions and end of life information:		end of the product'	's life cycle, it must e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic e not permitted.	r offering a servic	e of that type. t	is of great
Contact details	Enertech AB, Bo						181001

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



For heat pump combination heater:   Water heating energy   na   %     Declared load profile / Energy efficiency class   na   Water heating energy   nwh   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposir of the product as household waste is not permitted.	Warm climate and Medium	temperature				341 26 Ljun	gby	
Water to-water heat pump:   No   Controller class:   I   -     inine-to-water heat pump:   No   Package efficiency:   1.8   ×     Devicemperature heat pump:   No   Package efficiency:   1.8   ×     Equipped with a supplementary heater:   No   Package efficiency:   1.8   ×     Parameters shall be declared for medium-temperature application.   Item   Symbol   Value   Unit     Rated heat output (*)   Proted   1.7   kW   Second space heating energy ratio for part load at indoor temperature 20 'C and utidoor temperature?   npart load at indoor temperature?   1   -     Declared capacity for heating for part load at indoor temperature?   1   -   Ti = - 2 'C   OPM   1.3.7   %     Declared capacity for heating for part load at indoor temperature?   1   -   Ti = - 2 'C   OPM   1.3.7   %     Ti = - 2 'C   Pdh   1.6.5   KW   Ti = - 2 'C   OPM   3.0.7   .   .   Ti = - 2 'C   OPM   4.0.9   .     Ti = - 1 S 'C (f TOL < - 20 'C)	Model(s):		CTC EcoPart 41	.7 + CTC Basics	styrning			
Brine-to-water heat pump:   Yes   Controller contribution:   1   %     Low-temperature heat pump:   No   Package efficiency:   138   %     Low-temperature heat pump:   No   Package efficiency:   138   %     Equipoid with a supplementary heater:   No   Package efficiency:   138   %     Provide declared for idminimetemperature application.   No   Package efficiency:   138   %     Parameters shall be declared for idminimetemperature application.   No   Package efficiency:   For declared and provide idminimetemperature application.   Symbol   Value   Unit     Reter heat output (1)   Parted   17   KW   Seasonal space heating energy ms   ns   137   %     Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 20 °C and outdoor temperature 1   1 = 7 °C   Codpd   3,07   -   -   1 = 7 °C   Codpd   3,07   -   -   1 = 5 °C (1 Cod < 4,09	Air-to-water heat pump:		No		Energy efficiency class:		-	
Low-temperature heat pumps:   No   Package efficiency:   138   %     Equipped with a supplementary heater:   No   Package efficiency:   138   %     Parameters shall be declared for weldum temperature application, except for low temperature heat pumps. For low-temperature heat pumps, parameters shall be declared for low-temperature application, except for low temperature heat pumps. For low-temperature heat pumps.   No   Package efficiency:   138   %     Rated heat output (*)   Proted   17   KW   Eastonal space heating energy ns to for low temperature 20* C and outdoor temperature 7 in part load at indoor temperature 20* C and outdoor temperature 7 in part load at indoor temperature 20* C and outdoor temperature 7 in part load at indoor temperature 20* C and outdoor temperature 7 in part load at indoor temperature 20* C and outdoor temperature 7 in part load at indoor temperature 20* C and outdoor temperature 20* C and outdoor temperature 20* C and outdoor temperature 10   T i = -7* C   Coord in a   Coord in a <td>Water-to-water heat pump:</td> <td></td> <td>No</td> <td></td> <td>Controller class:</td> <td>1</td> <td>-</td> <td></td>	Water-to-water heat pump:		No		Controller class:	1	-	
Equipped with a supplementary heater:   No   Package efficiency class:   .     Heat pump combination heater:   No   Package efficiency class:   .     Parameters shall be declared for medium-temperature application, except for low-temperature heat pumps, parameters shall be declared for medium-temperature 20 °C and outdoor temperature 1   Item   Symbol   Value   Unit     Rated heat output (1)   Proted   17   KW   Item   Symbol   Value   Unit     Becared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 30 °C and outdoor temperature 20 °C and outdoor temperature 7 j   13.7   %     T j = - 2 °C   Pah   16.0   KW   T j = - 7 °C   COPd   3.07   -     T j = - 12 °C   Pah   16.0   KW   T j = - 7 °C   COPd   3.07   -     T j = - 12 °C   Pah   16.9   KW   T j = -7 °C   COPd   3.17   -     T j = - 15 °C (if TOL < - 20 °C)	Brine-to-water heat pump:		Yes		Controller contribution:	1	%	
No   No     Prameters shall be declared for neumerature application, except for low-temperature heat pumps, parameters shall be declared for neumerature application, except for low-temperature heat pumps, parameters shall be declared for neumerature application, except for low-temperature heat pumps, parameters shall be declared for neumerature application, except for low-temperature heat pumps, parameters shall be declared for neumerature application, except for low-temperature for an outdoor temperature 20 ° cand outdoor temperature 7 and outdoor temperature 20 ° cand outdoor temperature 7 and for for formance or primary energy ratio 6 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -17 °C · C cored 3,42 · · 1 = -15 °C (17 °C - 20 °C) / an a · · 1 = -15 °C (17 °C - 20 °C) / an a · · · 1 = -15 °C (17 °C - 20 °C) / an a · · · · 1 = -15 °C (17 °C - 20 °C) / an a · · · · · · · · · · · · · · · · ·	Low-temperature heat pump:		No		Package efficiency:	138	%	
Parameters shall be declared for medium-temperature application.     Item Symbol Value Unit     Rate declared for low-temperature application.     Item Symbol Value Unit     Rate declared for low-temperature application.     Item Symbol Value Unit     Rate declared for medium-temperature 20 °C and outdoor temperature 1     Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 20 °C and outdoor temperature 1     T j = - 7 °C   OPdh   Tail to 20 °C and outdoor temperature 20 °C and outdoor temperature 7 j     T j = - 7 °C   COPd   Tail to 20 °C and outdoor temperature 7 j     T j = - 7 °C   COPd   Tail to 20 °C and outdoor temperature 7 j     T j = - 7 °C   COPd   Tail to 20 °C and outdoor temperature 20 °C and outdoor temperature 7 j     T j = - 7 °C   COPd   Tail to 20 °C and outdoor temperature 7 j     T j = - 15 °C (f TOL < - 20 °C)	Equipped with a supplementar	y heater:	No		Package efficiency class:		-	
parameters shall be declared for low-temperature application. <b>Item</b> Symbol Value Unit <b>Rated heat output (*)</b> Proted 17 kW Parated 17 kW Beclared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 1 J T ] = - 7 °C Pdh 15,9 kW T ] = - 7 °C C OPd 3,07 · T ] = - 7 °C C OPd 3,07 · T ] = - 7 °C C OPd 4,09 · T ] = - 7 °C C OPd 4,09 · T ] = - 7 °C C OPd 4,09 · T ] = - 7 °C C OPd 4,09 · T ] = - 7 °C C OPd 4,09 · T ] = - 7 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 12 °C C OPd 4,09 · T ] = - 15 °C (if T OL < - 20 °C) Pdh na kW T ] = - 15 °C (if T OL < - 20 °C) Pdh na · Bivalent temperature T bW 3 °C C OPd 0,018 kW T ] = - 15 °C (if T OL < - 20 °C) Pdh na · Bivalent temperature T bW 3 °C C OPd 0,018 kW T = - 15 °C (if T OL < - 20 °C) Pdh na · Bivalent temperature T bW 3 °C C OPd 0,018 kW T = - 15 °C (if T OL < - 20 °C) Pdh na · Bivalent temperature T bW 0,018 kW T temperature T b T fixed T flow rate, outdoors - N na M3/h T per of energy input Electric T beclared load profile / Na 0,018 kW T temperature T beclared load profile / Na 0,018 kW T temperature T beclared load profile / Na 0,018 kW T temperature T beclared load profile / Na 0,018 kW T temperature T beclared load profile / Na 0,018 kW T temperature T beclared b P oo 0,018 kW T temperature T beclared to the protect file recyreg stated trine or water the tat pumps: N	Heat pump combination heate	r:	No					
teemSymbolValueUnitHermSymbolValueUnitRated heat output (*)Proted17k/WSeasonal space heating energy mls137%Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 jDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and 0.07Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and 0.07Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 7 part load at indoor temperature 7N13.7%1 = -7 °CPdhnak/WT j = -12 °CCOPdna-1 = operation limit temperaturePdhnak/WT j = 12 °CCOPdna-1 = operation limit temperaturePdhnak/WT j = operation limit temperatureCOPdna-1 = -15 °C (HTOL < -20 °C)				ion, except for	<sup>-</sup> low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
Rated heat output (*)   Proted   17   kW     Becaused capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 i   indoor temperature 20 °C and outdoor temperature 20 °C and 000 °C and 20 °C	parameters shall be declared for	-	ure application.					
Nate near output (*)Protect17KWDeclared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 1Declared capacity for heating for part load at indoor temperature 20 °C and part load at indoor temperature 20 °C and outdoor temperature 20 °C and outdoor temperature 71j = - 7 °CPdhnaTj = + 2 °CPdh16,0Tj = + 2 °CPdh16,0Tj = + 2 °CPdh16,0Tj = + 12 °CPdh16,5KWTj = + 2 °CCOPd3,07Tj = + 12 °CPdh16,5Tj = paraton limitPdhnatemperaturePdhnaro air-to-water heat pumps: ro core or sumption in modes other than active modeOff modeP orr0,018 roOff modeP orr0,008 roOther itemsFixedSound power level, indoors/ outdoorsL waSound power level, indoors/ outdoorsL waOther itemsCapacity controlCapacity controlFixedSound power level, indoors/ outdoorsL waAnnual energy consumption nearestPaDelared load profile / many filenaDelared costing energy file ronaSpecific procel load profile / many file file roy active the prostant energy file profile / many file row active heat pumps: Rated air flow rate, outdoor set rate outdoor set rate outdoor setDelared costing file in	Item	Symbol	Value	Unit	1	Symbol	Value	Unit
aution temperature T jpart load at indoor temperature 20 °C and outdoor temperature TT j = - 7 °CPdhnaKWT j = - 7 °CCOPdna-T j = + 7 °CPdh16,0KWT j = + 7 °CCOPd3,02-T j = + 12 °CPdh16,5KWT j = + 7 °CCOPd3,02-T j = + 12 °CPdh16,5KWT j = + 12 °CCOPd3,02-T j = bioslent temperaturePdh15,9KWT j = + 12 °CCOPd3,17-T j = operation limitPdhnakWT j = operation limitCOPdna-For air-to-water heat pumps:PdhnakWT j = -15 °C (if TOL < - 20 °C)	Rated heat output (*)	Prated	17	kW		η <sub>s</sub>	137	%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		or part load at in	door temperatu	re 20 °C and	-			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	T j = – 7 °C	Pdh	na	kW	T j = – 7 °C	COPd	na	- [
T j = + 12 °CPdh16,5kWT j = +12 °CCOPd4,09T j = bivalent temperaturePdh15,9kWT j = bivalent temperatureCOPd3,17T j = operation limit temperaturePdhnakWT j = operation limit temperatureCOPdnaFor air-to-water heat pumps: T j = -15 °C (if TOL < - 20 °C)	-				-			- 1
T j = bivalent temperaturePdh15,9kWT j = bivalent temperatureCOPd3,17T j = operation limit temperaturePdhnakWT j = operation limit temperatureCOPdnaFor air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	T j = + 7 °C	Pdh	16,0	kW	T j = +7 °C	COPd	3,42	-
J = operation limit temperature $Pdh$ nakWT j = operation limit temperature $COPd$ naFor air-to-water heat pumps: T j = -15 °C (if TOL < - 20 °C)	T j = + 12 °C	Pdh	16,5	kW	T j = +12 °C	COPd	4,09	-
temperaturePannaKWtemperatureCOPana-For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,17	-
T j = -15 °C (if TOL < -20 °C)PannaKWT j = -15 °C (if TOL < -20 °C)CDPana-Bivalent temperatureT biv3°CFor air-to-water heat pumps: Operation limit temperatureTOLna°CCycling interval capacity for heating $P_{cyCh}$ nakWCycling interval efficiency $COPcyc$ na-Degradation co-efficient $Cdh$ $0,99$ -Heating water operating limit temperature $WTOL$ 65°CPower consumption in modes other than active mode $O,018$ $kW$ Supplementary heaterSupplementary heaterOff mode $P_{ore}$ $0,018$ $kW$ Supplementary heaterRated heat output $Psup$ $1,3$ $kW$ Thermostat-off mode $P_{35}$ $0,000$ $kW$ Type of energy input $Electric$ $ricecricCapacity controlFixedFor air-to-water heat pumps:Rated air flow rate, outdoors-nam3/hSound power level, indoors/L_{WA}56/nadBricecryri_{wh}na\%Annual energy consumptionQ_{HE}6315kWhDaily fuel consumptionQ_{fuel}na\%Declared load profile /consumptionAECnakWhDaily fuel consumptionQ_{fuel}a_{3,1}m3/hDaily electricity consumptionQelecnakWhDaily fuel consumptionAFCnaGDaily electricity consumptionQelecnakWh$		Pdh	na	kW		COPd	na	-
Bivalent temperature   I   Jiv   3   -C   Operation limit temperature   IOL   na   -C     Cycling interval capacity for heating   Porch   na   kW   Cycling interval efficiency   COPcyc   na   -     Degradation co-efficient   Cdh   0,99   -   Heating water operating limit temperature   WTOL   65   *C     Power consumption in modes other than active mode   Off mode   Porc   0,018   kW   Buplementary heater   Rated heat output   Psup   1,3   kW     Type of energy input   Electric   Electric   For air-to-water heat pumps:   na   m3/h     Capacity control   Fixed   Fixed   For air-to-water heat pumps:   na   m3/h     Sound power level, indoors/   L_WA   56/na   dB   dB   pumps: Rated brine or water flow rate, outdoors   na   m3/h     Delared load profile /   na   KWh   Annual energy consumption   Qelec   na   kWh     Annual electricity consumption   Qelec   na   kWh   Annual fuel consumption   Qfuel   na   kWh     Annual electricity consumptio		Pdh	na	kW		COPd	na	-
heating   P cych   na   kW   Cycling interval efficiency   COPyce   na   -     Degradation co-efficient   Cdh   0,99   -   Heating water operating limit   WTOL   65   °C     Power consumption in modes other than active mode   O,018   kW   Supplementary heater   Supplementary heater   Rated heat output   Psup   1,3   kW     Off mode   P or   0,008   kW   Type of energy input   Electric   Electric     Crankcase heater mode   P or   0,000   kW   Type of energy input   Electric   ma   m3/h     Capacity control   Fixed   For air-to-water heat pumps:   na   m3/h     Sound power level, indoors/   L wA   56/na   dB   outdoors   For water-/brine-to-water heat pumps:   na   m3/h     Annual energy consumption   Q HE   6315   kWh   Mater heating energy   Nwh   na   %     Daily electricity consumption   Qelec   na   kWh   Annual fuel consumption   Qfuel   na   kWh     Annual electricity   AEC   na   kWh   Annual	Bivalent temperature	T <sub>biv</sub>	3	°C		TOL	na	°C
Degradation co-erricient   Can   0,99   -   temperature   W10L   65   *C     Power consumption in modes other than active mode   Off mode   Poer   0,018   kW   Supplementary heater   Rated heat output   Psup   1,3   kW     Thermostat-off mode   Pro   0,008   kW   Type of energy input   Electric   Electric     Crankcase heater mode   P cx   0,000   kW   Type of energy input   Electric   ma   m3/h     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Sound power level, indoors/ outdoors   L wA   56/na   dB   dB   flow rate, outdoors   a,1   m3/h     For heat pump combination heater:   Declared load profile /   na   water heating energy   na   m3/h     Daily electricity consumption   Qelec   na   kWh   Annual fuel consumption   Qfuel   na   kWh     Annual electricity   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   of the product's life c		P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Off mode P orr 0,018 kW Rated heat output P sup 1,3 kW   Thermostat-off mode P ro 0,008 kW   Standby mode P sa 0,018 kW   Crankcase heater mode P cc 0,000 kW   Other items - - na   Capacity control Fixed For air-to-water heat pumps: Rated air flow rate, outdoors - na   Sound power level, indoors/ outdoors L wA 56/na dB - na m3/h   For heat pump combination heater: - - 3,1 m3/h   Declared load profile / Energy efficiency class na kWh Daily fuel consumption Qfuel na   Annual electricity consumption AEC na kWh Annual fuel consumption AFC na   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. ti s of great importance that the product's refigerant, compresson oil and electricid/electronic equipment are properly disposed of. Disposit of the product as household waste is not permitted.	Degradation co-efficient	Cdh	0,99	-		WTOL	65	°C
Thermostat-off mode   P ro   0,008   kW     Standby mode   P s8   0,018   kW     Crankcase heater mode   P cx   0,000   kW     Other items   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/ outdoors   L wA   56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger   -   3,1   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product as household waste is not permitted.   Disposit of the product as household waste is not permitted.   Disposit of the product as household waste is not permitted.	Power consumption in modes	other than active	mode	-	Supplementary heater			-
Standby mode   P sg   0,018   kW   Type of energy input   Electric     Crankcase heater mode   P cx   0,000   kW   Type of energy input   Electric     Other items   Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/ outdoors   L wA   56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   -   3,1   m3/h     Annual energy consumption   Q HE   6315   kWh   Por water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   -   3,1   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   Water heating energy efficiency   Nwh   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:   of the product's life cycle, it must be sent correctly to a wase station or reseller offering a service of that type. It is of great importan	Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,3	kW
Crankcase heater mode   P cx   0,000   kW     Other items   For air-to-water heat pumps:   na   m3/h     Capacity control   Fixed   For air-to-water heat pumps:   na   m3/h     Sound power level, indoors/   L wA   56/na   dB   pumps: Rated air flow rate, outdoors   -   na   m3/h     Annual energy consumption   Q HE   6315   kWh   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger   -   3,1   m3/h     For heat pump combination heater:   Declared load profile /   na   Water heating energy   nwh   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   Qelec   na   kWh   Annual fuel consumption   AFC   na   GJ     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. ti s of great importance that the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. ti s of great importance that the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. ti s of great imp	Thermostat-off mode	Р <sub>то</sub>	0,008	kW				
Other items     Capacity control     Fixed     Sound power level, indoors/ outdoors   L <sub>WA</sub> Solid power level, indoors/ outdoors   L <sub>WA</sub> Annual energy consumption   Q <sub>HE</sub> 6315   kWh     For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger   -     Por heat pump combination heater:   -     Declared load profile / Energy efficiency class   na     Daily electricity consumption   Qelec     Annual electricity consumption   AEC     Namual electricity consumption   AEC     Namual electricity consumption   AEC     Namual electricity consumption   AEC     Namual electricity consumption:   AEC     Namust be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. It is of great importance that the product's infegrant, compressor oil and electrical/electronic equipment are properly disposed of. Disposir of the product as household waste is not permit	Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/ outdoors   L <sub>WA</sub> 56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   -   3,1   m3/h     Annual energy consumption   Q <sub>HE</sub> 6315   kWh   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   -   3,1   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   Water heating energy efficiency   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great importance that the product's 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 life cycle, it must be sent correctly to a waste station or reseller offering a servi	Crankcase heater mode	Р <sub>СК</sub>	0,000	kW				
Capacity control   Fixed   Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/ outdoors   L WA   56/na   dB   For water/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   -   3,1   m3/h     Annual energy consumption   Q HE   6315   kWh   KWh   Sound power level, indoors   -   3,1   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   Water heating energy efficiency   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposir of the product as household waste is not permitted.	Other items							_
L wa   56/na   dB   pumps: Rated brine or water     Annual energy consumption   Q HE   6315   kWh   flow rate, outdoor heat   -   3,1   m3/h     For heat pump combination heater:   Declared load profile /   na   Water heating energy   -   3,1   m3/h     Declared load profile /   na   Water heating energy   nwh   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great importance that the product's 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 life cycle, it must be sent correctly conic equipment are properly disposed of. Disposir of the product as household waste is not permitted.	Capacity control		Fixed			-	na	m3/h
Annual energy consumption   Q <sub>HE</sub> 6315   KWn   exchanger   -   3,1   m3/n     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   Water heating energy efficiency $\eta_{wh}$ na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   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. Disposir of the product as household waste is not permitted.		L <sub>WA</sub>	56/na	dB				
Declared load profile / Energy efficiency classnaWater heating energy efficiencyna%Daily electricity consumptionQelecnakWhDaily fuel consumptionQfuelnakWhAnnual electricity consumptionAECnakWhAnnual fuel consumptionAFCnaGJSpecific 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. Disposir of the product as household waste is not permitted.	Annual energy consumption	Q <sub>HE</sub>	6315	kWh		-	3,1	m3/h
Energy efficiency classna%Daily electricity consumptionQelecnakWhDaily fuel consumptionQfuelnakWhAnnual electricity consumptionAECnakWhAnnual fuel consumptionAFCnaGJSpecific 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. Disposir of the product as household waste is not permitted.		eater:						
Energy efficiency class   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 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. Disposir of the product as household waste is not permitted.	•		na			n <sub>wh</sub>	na	%
Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposir of the product as household waste is not permitted.	Energy efficiency class		-		efficiency	••••		4
AECnaKWnAnnual fuel consumptionAFCnaGJConsumptionThe 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. Disposir of the product as household waste is not permitted.		Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Specific precautions and endend 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 greatof life information:importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposir of the product as household waste is not permitted.		AEC						
			end of the product' importance that the	s life cycle, it must e product's refrige	t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic	er offering a servic	e of that type. t	is of great
Contact details Enertech AB, Box 309, SE-341 26 Ljungby Tel +46 372 88000 www.ctc.se 181001	Contact details	Enertech AB, Box						181001

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



parameters shall be declared for lo Item Rated heat output (*) Declared capacity for heating for p	nedium-tempe ow-temperatu <b>Symbol</b> Prated	re application. Value	on, except for	Energy efficiency class: Controller class: Controller contribution: Package efficiency: Package efficiency class:	181	- - % % -	
Water-to-water heat pump: Brine-to-water heat pump: Low-temperature heat pump: Equipped with a supplementary he Heat pump combination heater: Parameters shall be declared for n parameters shall be declared for lo Item Rated heat output (*) Declared capacity for heating for p	nedium-tempe ow-temperatu <b>Symbol</b> Prated	No Yes No No erature application. Value		Controller class: Controller contribution: Package efficiency: Package efficiency class:	1 181	%	
Brine-to-water heat pump: Low-temperature heat pump: Equipped with a supplementary he Heat pump combination heater: Parameters shall be declared for n parameters shall be declared for lo Item Rated heat output (*) Declared capacity for heating for p	nedium-tempe ow-temperatu <b>Symbol</b> Prated	Yes No No erature application. Value		Controller contribution: Package efficiency: Package efficiency class:	1 181	%	
Low-temperature heat pump: Equipped with a supplementary he Heat pump combination heater: Parameters shall be declared for n parameters shall be declared for lo Item Rated heat output (*) Declared capacity for heating for p	nedium-tempe ow-temperatu <b>Symbol</b> Prated	No No erature applicati re application. Value		Package efficiency: Package efficiency class:	181	%	
Equipped with a supplementary he Heat pump combination heater: Parameters shall be declared for n parameters shall be declared for lo Item Rated heat output (*) Declared capacity for heating for p	nedium-tempe ow-temperatu <b>Symbol</b> Prated	No No erature applicati re application. Value		Package efficiency class:		-	
Heat pump combination heater: Parameters shall be declared for n parameters shall be declared for lo Item Rated heat output (*) Declared capacity for heating for p	nedium-tempe ow-temperatu <b>Symbol</b> Prated	No erature applicati re application. Value					
Parameters shall be declared for n parameters shall be declared for k Item Rated heat output (*) Declared capacity for heating for p	ow-temperatu Symbol Prated	erature applicati re application. Value		r low-temperature heat pumps. For	low- temperat		
parameters shall be declared for lo I <b>tem</b> Rated heat output (*) Declared capacity for heating for p	ow-temperatu Symbol Prated	re application. Value		r low-temperature heat pumps. For	low-tempera		
Item Rated heat output (*) Declared capacity for heating for p	Symbol Prated	Value	114.14			ture heat pu	mps,
Rated heat output (*) Declared capacity for heating for p	Prated		11				
Declared capacity for heating for p		10	Unit	Item	Symbol	Value	Unit
		18	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	180	%
outdoor temperature T j	oart load at ind	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	na	kW	T j = – 7 °C	COPd	na	- [
Г ј = + 2 °С	Pdh	16,9	kW	T j = +2 °C	COPd	4,55	-
Г ј = + 7 °С	Pdh	17,0	kW	T j = +7 °C	COPd	4,78	-
Г ј = + 12 °С	Pdh	17,3	kW	T j = +12 °C	COPd	5,06	-
Γ j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,63	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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 neating	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 othe	er than active	mode		Supplementary heater			-
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,4	kW
Thermostat-off mode	Р <sub>то</sub>	0,027	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	5180	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination heate	r:						
Declared load profile /		na		Water heating energy	$\eta_{wh}$	na	%
Energy efficiency class				efficiency	· iwn		
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 product'	s life cycle, it must product's refriger	recycling station or with the installation engine to sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic not permitted.	er offering a service	e of that type. t i	is of great
Contact details Ene	rtech AB, Box	309, SE-341 26	Ljungby Tel +4	46 372 88000 www.ctc.se			181001

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



	um temperaturo				341 26 LJUN	ignà	
Model(s):		CTC EcoPart 41	L7 + CTC Basics				
Air-to-water heat pump:		No		Energy efficiency class:	A++	-	
Water-to-water heat pump:		No		Controller class:	1	-	
Brine-to-water heat pump:		Yes		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	138	%	
Equipped with a supplementar		No		Package efficiency class:	A++	-	
Heat pump combination heate Parameters shall be declared f parameters shall be declared f	or medium-temp		ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	137	%
Declared capacity for heating f outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
Г ј = — 7 °С	Pdh	16	kW	T j = – 7 °C	COPd	3,23	] - [
Г ј = + 2 °С	Pdh	16,1	kW	T j = +2 °C	COPd	3,60	] -
Г ј = + 7 °С	Pdh	16,4	kW	T j = +7 °C	COPd	3,97	- [
T j = + 12 °C	Pdh	16,7	kW	T j = +12 °C	COPd	4,36	-
T j = bivalent temperature	Pdh	16	kW	T j = bivalent temperature	COPd	3,23	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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	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	other than active	mode	-	Supplementary heater			3
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	2,2	kW
Thermostat-off mode	P <sub>TO</sub>	0,008	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items					-		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ butdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	10286	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
or heat pump combination he	eater:			L0-'			
Declared load profile /		82		Water heating energy	n		0/
Energy efficiency class		na		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 product	's life cycle, it must e product's refrige	a recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic not permitted.	er offering a servio	e of that type. t	is of great
Contact details	Enertech AB, Box						181001
			2.1				

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



Model(s):   CTC Report A17 - CTC Basicatyrning     Ant-to-water heat pump:   No   Controller class:   1     Mater to-water heat pump:   No   Controller contribution:   1   S     Development the stap pump:   No   Package efficiency:   182   %     Development the stap pump:   No   Package efficiency:   182   %     Development the stap pump:   No   Package efficiency:   182   %     Development the stap pump:   No   Package efficiency:   182   %     Development the stap pump:   No   Package efficiency:   182   %     Parameters shall be declared for medium-temperature application.   Temperature hast pump:   No   Package efficiency:   182   %     Declared capacity for heating for part bad at infoor temperature 20 ° Cand outdoor temperature 7 infoor   No   No   Package efficiency:   163   %     Declared capacity for heating for part bad at infoor temperature 20 ° Cand outdoor temperature 7 infoor   Ti = -7 °C   Cohd   17,1   No   Ti = -7 °C   Cohd   17,2   KW   Ti = -7 °C   Cohd   17,2   KW   Ti = -7 °C   Cohd   17,2	Average climate and Low te	emperature				341 26 Ljun	igby	
Water to water heat pump:   No   Controller class:   I   -     Brine to water heat pump:   Yes   Controller contribution:   1   %     Strine to water heat pump:   No   Package efficiency:   182   %     Equipped with a supplementary heater:   No   Package efficiency:   182   %     Parameters shall be declared for medium-tomperature application.   No   Package efficiency class:   A+++   -     Team to symbol   Value   Unit   Etc   Symbol   Value   Unit     Rated heat output (*)   Protect   19   KW   Seasonal space heating energy in the seasonal space heating energy in theating in theating in the seasonal space heating energy	( )			.7 + CTC Basics				
Brine to-water heat pump:   Yes   Controller contribution:   1   %     Low-temperature heat pump:   No   Package efficiency:   182   %     Guipped with supplementary heater:   No   Package efficiency:   182   %     Heat pump combination heater:   No   Package efficiency:   182   %     Package efficiency:   No   Package efficiency:   182   %     Package efficiency:   No   Package efficiency:   182   %     Package efficiency:   No   Package efficiency:   No+   The material pace heating energy many:   No+   The material pace heating energy many:   No+   No+   The material pace heating energy many:   No   No+   The material pace heating energy many:   No+   No+   The material pace heating energy many:   No+   The packade and coutput if the material pace heating energy many:   No+   The material pace heating energy many:							-	
No   Package efficiency:   182   %     Grupped with a supplementary heater:   No   Package efficiency class:   A++   -     Package efficiency:   182   %   Package efficiency:   182   %     Parameters shall be declared for two temperature application.   No   Package efficiency:   A+++   -     Parameters shall be declared for two temperature application.   Item   Symbol   Value   Unit     Rated heat output (*)   Proted   19   KW   Seasonal space heating energy ns   181   %     Declared cogacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 j   Item   Seasonal space heating energy ns   181   %     T j = 7 °C   Pdh   16,9   KW   T j = -7 °C   COPd   4,64   -     T j = 2 °C   Pdh   17,4   KW   T j = -7 °C   COPd   4,64   -     T j = + 2 °C   Pdh   16,9   KW   T j = -7 °C   COPd   4,64   -     T j = operation limit   Pdh   na   KW   T j = -7 °C   COPd   4,64   -     T j = -15 °C (f TOL < -							-	
Equipped with a supplementary heater:     No     Package efficiency class:     A++     -       Heat pump combination heater:     No     No     Package efficiency class:     A+++     -       Heat pump combination heater:     No     Package efficiency class:     A+++     -       Provided pump combination heater:     Symbol     Value     Unit     tem     Symbol     Value     Unit       Rated heat output (*)     Proted     19     kW     Essennal space heating energy represented output to the part load at indoor temperature 20 °C and outdoor temperature 7 j     183     %       Declared copacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 j     183     %       T j = - 7 °C     Pdh     15,9     kW     T j = - 7 °C     COrd     4,64     -       T j = + 7 °C     Pdh     12,4     kW     T j = + 7 °C     COrd     4,64     -       T j = + 7 °C     Pdh     na     kW     T j = + 7 °C     COrd     4,64     -       T j = - 15 °C (ff TOL < - 20 °C)								
No   No     Pranteters 5th II be declared for neighbor temperature application.   No   Value   Unit   Item   Symbol   Value   Unit     Rated heat output (*)   Proted   19   kW   Seasonal space heating energy $n_s$ 181   %     Declared capacity for heating for part load at indoor temperature 20*C and outdoor temperature 7 i   T   = -7 °C   Pdh   15.9   KW   T   = -7 °C   C COPd   4.64   -	Low-temperature heat pump:		No		, , , , , , , , , , , , , , , , , , ,	182	%	
Parameters shall be declared for modulum-temperature application.     treem   Symbol   Value   Unit     term   Symbol   Value   Unit     Samoetrs shall be declared for low-temperature application.     term   Symbol   Value   Unit     Rated heat output (*)   Protect   19   State for low-temperature 20 °C and outdoor temperature 7     1 = - 7 °C   Pdh   17,1   kW   T   = - 2 °C   COPd   4,64   -     1 = - 7 °C   Pdh   17,2   kW   T   = - 2 °C   COPd   5,01   -     1 = 1 = 1 °C   Pdh   16,9   kW   T   = - 1 °C   COPd   5,01   -     1 = obvalent temperature   Pdh   16,9   kW   T   = bivalent temperature   COPd   5,01   -     1 = -1 5 °C (I TOL < - 20 °C)		-	No		Package efficiency class:	A+++	-	
temSymbolValueUnittemSymbolValueUnitRated heat output (*)Proted19kWSeasonal space heating energy mfs181%Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature 7 j19-7°Pdh16,9kWT j = - 7°CPdh16,9kWT j = -2°CCOPd4,64-T j = + 12 °CPdh17,2kWT j = +2°CCOPd4,64-T j = bavelent temperaturePdh16,9kWT j = +2°CCOPd4,64-T j = bavelent temperaturePdhnakWT j = bavelent temperatureCOPdna-T j = operation limitPdhnakWT j = bavelent temperatureCOPdna-For air-to-water heat pumps: pard load capacity for heatingPdhna-For air-to-water heat pumps: Operation limitna-Bivalent temperatureT bw-7°CrCRate heat outputRatePower consumption in modes other than active mode0,018kWT j = or social fideieccyCOPdna-Off modePar ar0,018kWType of energy inputElectricNa/hSound power level, indoors/ outdoorsL Ar0,018kWType of energy inputElectricGapacity controlFixedna-Na/hFor vater-rbraine-owater heat pumps: Rate	Parameters shall be declared for	or medium-temp	erature applicat	ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
Radee near output (T)Prace1.9KWefficiencyns1.81 $\gamma_{\rm s}$ Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T jDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 21 °CDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 11 ° = 7 °CDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 11 ° = 7 °CDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 11 ° = 7 °CDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 11 ° = 7 °CDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 11 ° = 7 °CDeclared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature 12 °CDeclared coefficient 1 °C and outdoor temperature 20 °CT = + 7 °CPdh17,4kWT = + 12 °CCOPd4,64-T = operation limitPdhnakWT = operation limitT = operation limitT = operation limitT = operation limitT = - 15 °C (if T CL < - 20 °C)	•	•		Unit	Item	Symbol	Value	Unit
outdoor temperature T jT j = - 7 °CPdh16,9T j = - 7 °CPdh17,1kWT j = - 7 °CCOPdT j = + 7 °CPdh17,1kWT j = + 7 °CCOPdT j = + 7 °CPdh17,2kWT j = + 7 °CCOPdT j = + 12 °CCOPd4,83T j = + 12 °CPdh17,4kWT j = + 12 °CCOPdJ = objaslent temperaturePdhn = nakWtemperaturePdhn = nakWtemperaturePdhfor air-to-water heat pumps: T j = -15 °C (f TOL < - 20 °C)	Rated heat output (*)	Prated	19	kW		n <sub>s</sub>	181	%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		or part load at in	door temperatu	re 20 °C and	-			
T j = + 7 * CPdh17,2kWT j = + 7 * CCOPd5,01-T j = + 12 * CPdh17,4kWT j = + 12 * CCOPd5,01-T j = bivalent temperaturePdh16,9kWT j = + 12 * CCOPd5,18-T j = operation limitPdhnakWT j = operation limitCOPd4,64-For air-to-water heat pumps:PdhnakWT j = operation limitCOPdna-For air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-Bivalent temperatureT bv-7*CFor air-to-water heat pumps:ToLna-Bivalent temperatureT bv-7*COperation limit temperatureToLna-Person consumption in modes other than active mode0,018kWCycling interval efficiencyCOPcycna-Power consumption in modes other than active mode0,018kWFor air-to-water heat pumps:ToLna-Canackase heater modeP or0,002kWType of energy inputElectricSupplementary heaterSound power level, indoors/L wA56/nadBdBAdWhFor air-to-water heat pumps:nama/mDeciared load profile /NaSa62kWhDaily feel consumptionAfeAmual feel consumptionADeciared load profile /NaSa62kWhDaily feel consumptionAfe	T j = – 7 °C	Pdh	16,9	kW	T j = – 7 °C	COPd	4,64	] - [
T j = + 7 °CPdh17,2kWT j = + 7 °CCOPd5,01-T j = + 1 °CPdh17,4kWT j = + 7 °CCOPd5,01T j = bivalent temperaturePdh16,9kWT j = bivalent temperatureCOPd5,18-T j = operation limitPdhnakWT j = operation limitCOPdna-For air-to-water heat pumps:PdhnakWT j = operation limitCOPdna-For air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-Bivalent temperatureT bw-7°CFor air-to-water heat pumps:TOLna-Bivalent temperatureT bw-7°COperation limit temperatureTOLna-Power consumption in modes other than active mode0,018kWCycling interval efficiencyCOPcycna-Power consumption in modes other than active mode0,018kWType of energy inputElectricSupplementary heaterSound power level, indoors/L wa56/nadBAWhFor air-to-water heat pumps:-nam3/hCapacity controlFixedSa362kWhFor air-to-water heat pumps:-nam3/hSound power level, indoors/L wa56/nadBBa3/2kWhDaily feel consumptionAmu%Daily detricity consumptionQelecnaKWhDaily fuel consumption<	•			-	-			1 -
T j = + 12 °CPdh17,4kWT j = + 12 °CCOPd5,18-T j = bivalent temperaturePdh16,9kWT j = poreration limitCOPd4,64-T j = oparation limitPdhnakWT j = oparation limitCOPdna-For air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-For air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-For air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-For air-to-water heat pumps:PdhnakWFor air-to-water heat pumps:COPdna-Cycling interval capacity for heatingP cychnakWCycling interval efficiencyCOPcycna-Power consumption in modes other than active modeP or0,018kWKWType of energy inputElectricOther itemsCapacity controlFixedKWType of energy inputElectricnam3/hCapacity controlFixedRate difficur quarter for ine-to-water heat pumps:-nam3/hCapacity controlFixedNaMater-heating energy-nam3/hCapacity controlFixedNaAnnual energy consumptionA_HE8362kWhPaily fuel consumptionQuelnaDaily electricity consumptionQelecnakWhDaily fuel consum	-	Pdh		kW	-	COPd		] -
T j = operation limit temperaturePdhnakWT j = operation limit temperatureCOPdnaFor air-to-water heat pumps: T j = -15 °C (if TOL < - 20 °C)	Г ј = + 12 °С	Pdh		kW	T j = +12 °C	COPd		] -
temperaturePannaKWtemperatureCDPana-For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	T j = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,64	-
T j = -15 °C (if TOL < - 20 °C)PdfnnakWT j = -15 °C (if TOL < - 20 °C)COPdna-Bivalent temperatureT $_{biv}$ -7°CFor air-to-water heat pumps: Operation limit temperatureTOLna°CCycling interval capacity for heating $P_{cych}$ nakWCycling interval efficiencyCOPcycna-Degradation co-efficientCdh0,99-Heating water operating limit temperatureWTOL65°CPower consumption in modes other than active mode0,018kWSuplementary heater Rated heat outputPsup2,3kWThermostat-off mode $P_{cor}$ 0,018kWType of energy inputElectricCanakcase heater mode $P_{cor}$ 0,000kWFor air-to-water heat pumps: Rated air flow rate, outdoorsnam3/hSound power level, indoors/ outdoors $L_{WA}$ 56/nadBdBm3/hm3/hFor hard pump combination heater:Declared load profile / Inergy efficiency classna-3,8m3/hDeclared load profile / consumptionQelecnakWhAnnual fuel consumptionQfuelnakWhAnnual electricity consumptionQelecnakWhAnnual fuel consumptionQfuelnakWhAnnual electricity consumptionQelecnakWhAnnual fuel consumptionQfuelnakWhAnnual electricity consumptionQelecnakWhAnnual fuel consu		Pdh	na	kW		COPd	na	-
sivalent temperature   I   Ivic   Operation limit temperature   IOL   na   -C     Cycling interval capacity for heating   P <sub>cych</sub> na   KW   Cycling interval efficiency   COPcyc   na      Degradation co-efficient   Cdh   0,99    Heating water operating limit temperature   VTOL   65   *C     Power consumption in modes other than active mode   0,018   KW   Supplementary heater   Rated heat output   Psup   2,3   kW     Thermostat-off mode   P ro   0,027   kW   Type of energy input   Electric   Electric     Crankcase heater mode   P coc   0,000   kW   Type of energy input   Electric   ma   m3/h     Capacity control   Fixed   Fixed   For air-to-water heat pumps:   -   na   m3/h     Sound power level, indoors/   L wA   56/na   dB   pumps: Rated brine or water flow rate, outdoors   -   na   m3/h     Por heat pump combination heater:   Declared load profile /   na   -   Annual energy efficiency   n_wh   na   %     Daily electricity consumption		Pdh	na	kW		COPd	na	-
heating   P cych   na   kW   Cycling interval efficiency   COPcyc   na   -     Degradation co-efficient   Cdh   0,99   -   Heating water operating limit   WTOL   65   *C     Power consumption in modes other than active mode   Oldt   kW   Supplementary heater	Bivalent temperature	T <sub>biv</sub>	-7	°C		TOL	na	°C
Degradation co-efficient Can 0,99 -   Power consumption in modes other than active mode Itemperature W10L b5 C   Power consumption in modes other than active mode 0,018 kW Supplementary heater Rated heat output Psup 2,3 kW   Thermostat-off mode P ro 0,027 kW Type of energy input Electric   Standby mode P sa 0,018 kW Type of energy input Electric   Crankcase heater mode P cx 0,000 kW For air-to-water heat pumps: Rated air flow rate, outdoors - na m3/h   Capacity control Fixed For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors - na m3/h   Annual energy consumption Q HE 8362 kWh Water heating energy flow rate, outdoors - 3,8 m3/h   Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na kWh   Annual electricity AEC na kWh Annual fuel consumption AFC na GJ   Specific precautions and end of life information: The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's iffe c		P <sub>cych</sub>	na	kW	Cycling interval efficiency	СОРсус	na	-
Off mode Porr 0,018 kW Rated heat output Psup 2,3 kW   Thermostat-off mode Pro 0,027 kW Type of energy input Electric   Standby mode Psa 0,018 kW Type of energy input Electric   Crankcase heater mode Pcx 0,000 kW Type of energy input Electric   Other items Fixed For air-to-water heat pumps: Rated air flow rate, outdoors - na m3/h   Capacity control Image: Mark and the state of the product state of the product state of the product shows of	Degradation co-efficient	Cdh	0,99	-		WTOL	65	°C
Thermostat-off mode   P TO   0,027   kW     Standby mode   P SB   0,018   kW   Type of energy input   Electric     Crankcase heater mode   P cx   0,000   kW   Type of energy input   Electric     Other items	Power consumption in modes	other than active	e mode		Supplementary heater			-
Standby mode   P 58   0,018   kW   Type of energy input   Electric     Crankcase heater mode   P cx   0,000   kW   Type of energy input   Electric     Other items   -   na   m3/h     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   -   na   m3/h     Sound power level, indoors/   L WA   56/na   dB   -   For water-/brine-to-water heat pumps: Rated brine or water   -   3,8   m3/h     Annual energy consumption   Q HE   8362   kWh   Energy efficiency   -   3,8   m3/h     Cor heat pump combination heater:   -   na   kWh   Daily fuel consumption   Qfuel   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   KWh     Annual electricity   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   -   ma   kWh   Annual fuel consumption or wates that product's iffe cycle, it must be sent correctly to a waste station or reseller offering a service of t	Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	2,3	kW
Crankcase heater mode   P cx   0,000   kW     Other items   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Sound power level, indoors/ outdoors   L wa   56/na   dB   For water/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger   -   3,8   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   Water heating energy efficiency   na   %     Daily electricity consumption consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer of rc 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 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 equipmen	Thermostat-off mode	P <sub>TO</sub>	0,027	kW				
Crankcase heater mode   P ck   0,000   kW     Other items   Capacity control   Fixed   For air-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Capacity control   L WA   56/na   dB   For water-/brine-to-water heat pumps: Rated air flow rate, outdoors   na   m3/h     Sound power level, indoors/ outdoors   L WA   56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat   a.   m3/h     For heat pump combination heater:   Declared load profile /   na   M3/h   m3/h     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   Qfuel   na   kWh     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer of 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. Disposin of the product as household waste is not permitted.	Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Other items     Capacity control   Fixed     Sound power level, indoors/ outdoors   L <sub>WA</sub> 56/na   dB     Annual energy consumption   Q <sub>HE</sub> 8362   kWh   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger   -   3,8   m3/h     For heat pump combination heater:   -   3,8   m3/h     Declared load profile / Energy efficiency class   na   kWh   Water heating energy efficiency   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   Qfuel   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer of 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 importnance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposin of the product as household waste is not permitted.	Crankcase heater mode			kW				
Capacity control   Fixed   Rated air flow rate, outdoors   na   m3/n     Sound power level, indoors/ outdoors   L wA   56/na   dB   For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger   For water-/brine-to-water heat   m3/n     Annual energy consumption   Q HE   8362   kWh   For water-/brine-to-water heat   m3/n     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   Water heating energy efficiency   na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity consumption   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     Specific precautions and end of life information:   The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great importance that the product's 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 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 life cycle, it must be sent correctly to a waste station	Other items		1			1		
Annual energy consumption L wA 56/na dB pumps: Rated brine or water   Annual energy consumption Q HE 8362 kWh flow rate, outdoor heat - 3,8 m3/h   For heat pump combination heater: Declared load profile / na Water heating energy - na %   Daily electricity consumption Qelec na kWh Daily fuel consumption Qfuel na %   Annual electricity AEC na kWh Annual fuel consumption AFC na GJ   Specific precautions and end of life information: The packaging must be deposited at a recycling station or with the installation engineer for correct waste management. At the end of the product's life cycle, it must be sent correctly to a waste station or reseller offering a service of that type. t is of great importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposin of the product as household waste is not permitted.	Capacity control		Fixed			-	na	m3/h
Annual energy consumption   Q HE   8362   kWh   exchanger   -   3,8   m3/h     For heat pump combination heater:   Declared load profile / Energy efficiency class   na   Water heating energy efficiency $\eta_{wh}$ na   %     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity   AEC   na   kWh   Annual fuel consumption   Qfuel   na   GJ     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. Disposin of the product as household waste is not permitted.		L <sub>WA</sub>	56/na	dB				
For heat pump combination heater:     Declared load profile /     Declared load profile /   na   Water heating energy   nwh   na   %     Energy efficiency class   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     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. Disposin of the product as household waste is not permitted.	Annual energy consumption	Q <sub>HE</sub>	8362	kWh		-	3,8	m3/h
Energy efficiency classnaIma <td>1 1</td> <td>eater:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1 1	eater:						
Energy efficiency class   efficiency     Daily electricity consumption   Qelec   na   kWh   Daily fuel consumption   Qfuel   na   kWh     Annual electricity   AEC   na   kWh   Annual fuel consumption   AFC   na   GJ     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. Disposin of the product as household waste is not permitted.	-		na		Water heating energy	n	na	%
Annual electricity consumption AEC na 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 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. Disposin of the product as household waste is not permitted.	Energy efficiency class				efficiency	' Iwh	na	
AECnakWhAnnual fuel consumptionAFCnaGJconsumptionThe 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. Disposin of the product as household waste is not permitted.	Daily electricity consumption	Qelec	na	kWh	Daily fuel consumption	Qfuel	na	kWh
Specific precautions and endend 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 greatof life information:importance that the product's refrigerant, compressor oil and electrical/electronic equipment are properly disposed of. Disposin of the product as household waste is not permitted.	•	AEC						
			end of the product' importance that the	s life cycle, it mus e product's refrige	t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic	er offering a servic	e of that type. t	is of great
CONTACT DETAILS ENERGY ADD DVX 3V2, 3E-341 Z0 ENTRED V 101 ±40.377 66000 WWW.CTC.SP 181001	Contact details	Enertech AB. Box						181001

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



Cold climate and Medium te Model(s):	emperature	CTC EcoPart 41	7 + CTC Basic	tyrning	341 26 Ljur	іблу	
			L7 + CTC Dasics				
Air-to-water heat pump:		No		Energy efficiency class: Controller class:	1	-	
Water-to-water heat pump:		No				-	
Brine-to-water heat pump:		Yes		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	141	%	
Equipped with a supplementary		No		Package efficiency class:		-	
Heat pump combination heater Parameters shall be declared fo parameters shall be declared fo	or medium-temp		ion, except for	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	17	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	140	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = – 7 °C	Pdh	16,1	kW	T j = – 7 °C	COPd	3,51	] - [
T j = + 2 °C	Pdh	16,4	kW	T j = +2 °C	COPd	3,89	1 -
т ј = + 7 °С	Pdh	16,6	kW	T j = +7 °C	COPd	4,24	-
T j = + 12 °C	Pdh	16,8	kW	T j = +12 °C	COPd	4,50	] -
T j = bivalent temperature	Pdh	15,9	kW	T j = bivalent temperature	COPd	3,19	- 1
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	-
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>	-19	°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 c	other than active	mode		Supplementary heater			_
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,4	kW
Thermostat-off mode	Р <sub>то</sub>	0,008	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items						_	_
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
L Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	11554	kWh	flow rate, outdoor heat exchanger	-	3,1	m3/h
For heat pump combination he	ater:	•	•	· · · · ·		•	<u> </u>
Declared load profile /		na		Water heating energy	$\eta_{wh}$	<b>n</b> 2	%
Energy efficiency class		ila	1	efficiency	' Iwh	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 product	's life cycle, it must e product's refrige	recycling station or with the installation engin t be sent correctly to a waste station or reselle rant, compressor oil and electrical/electronic en not nermitted	r offering a servic	e of that type. t	is of great
Contact details	Enertech AR Roy	of the product as h < 309, SE-341 26					181001

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



Cold climate and Low temp	erature				341 26 LJUN	gnà 🔽	
Model(s):		CTC EcoPart 41	7 + CTC Basics	styrning			
Air-to-water heat pump:		No		Energy efficiency class:		-	
Water-to-water heat pump:		No		Controller class:	1	-	
Brine-to-water heat pump:		Yes		Controller contribution:	1	%	
Low-temperature heat pump:		No		Package efficiency:	185	%	
Equipped with a supplementar	y heater:	No		Package efficiency class:		-	
Heat pump combination heater	-	No					
Parameters shall be declared for parameters shall be declared for parame			ion, except for	low-temperature heat pumps. For l	ow- temperat	ture heat pu	mps,
ltem	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	18	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	184	%
Declared capacity for heating fo outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = – 7 °C	Pdh	17,1	kW	T j = – 7 °C	COPd	4,84	] -
г ј = + 2 °С	Pdh	17,2	kW	T j = +2 °C	COPd	5,01	] -
Г ј = + 7 °С	Pdh	17,3	kW	T j = +7 °C	COPd	5,13	-
Г ј = + 12 °С	Pdh	17,3	kW	T j = +12 °C	COPd	5,15	1 -
Г ј = bivalent temperature	Pdh	16,9	kW	T j = bivalent temperature	COPd	4,61	-
T j = operation limit temperature	Pdh	na	kW	T j = operation limit temperature	COPd	na	- 1
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>	-20	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for neating	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	other than active	mode		Supplementary heater			
Off mode	P <sub>OFF</sub>	0,018	kW	Rated heat output	Psup	1,0	kW
Thermostat-off mode	Р <sub>то</sub>	0,027	kW				
Standby mode	P <sub>SB</sub>	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	Р <sub>ск</sub>	0,000	kW				
Other items					<u>.</u>		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
L Sound power level, indoors/ outdoors	L <sub>WA</sub>	56/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q <sub>HE</sub>	9166	kWh	flow rate, outdoor heat exchanger	-	3,8	m3/h
For heat pump combination he	ater:						
Declared load profile /		na		Water heating energy	n.	22	%
Energy efficiency class		Πα		efficiency	$\eta_{wh}$	na	70
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		end of the product'	s life cycle, it must	recycling station or with the installation engin be sent correctly to a waste station or reseller	offering a service	e of that type. t i	is of great
of life information:		of the product as he		rant, compressor oil and electrical/electronic e	quipment are pro	perly disposed o	Dispositi