No

No

Warm climate and High temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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VII

water to water near pamp:		110		COTTET CIGSS:	***		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	128	%	
Equipped with a supplementary	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater	r:	Yes					
Parameters shall be declared for	or medium-temp	erature applicat	tion, except fo	r low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
parameters shall be declared for	or low-temperati	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	124	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	ıre 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	9,3	kW	T j = +2 °C	COPd	2,86] -
T j = + 7 °C	Pdh	9,5	kW	T j = +7 °C	COPd	3,20	-
T j = + 12 °C	Pdh	9,8	kW	T j = +12 °C	COPd	3,78	
T j = bivalent temperature	Pdh	9,3	kW	T j = bivalent temperature	COPd	2,96	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na] -
Degradation co-efficient (**)	Cdh	0,99	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	other than active	mode	_	Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	P _{TO}	0,026	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		•	•		•		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	4090	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination he	ater:						
Declared load profile		L		Water heating energy efficiency	$\eta_{\sf wh}$	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ

Energy efficiency class:

Controller class:

consumption Contact details

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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

No

Energy efficiency class:

Controller class:

Warm climate and Low temperature

Model(s):

consumption Contact details

Air-to-water heat pump:

Water-to-water heat pump:

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Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	156	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heater		Yes					
Parameters shall be declared for parameters shall be declared for			tion, except for	r low-temperature heat pumps. Fo	or low- tempera	iture heat pu	mps,
Item	Symbol	Value	Unit		Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency		152	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of perform			
T j = -7 °C	Pdh	na	kW	T j = - 7 °C	COPd	na] -
T j = + 2 °C	Pdh	10,0	kW	T j = +2 °C	COPd	4,16	-
T j = + 7 °C	Pdh	10,1	kW	T j = +7 °C	COPd	4,35	-
T j = + 12 °C	Pdh	10,2	kW	T j = +12 °C	COPd	4,58	-
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,22	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: $T j = -15 ^{\circ}C \text{ (if TOL } < -20 ^{\circ}C \text{)}$	COPd	na	-
Bivalent temperature	T _{biv}	3	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P cych	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 of	other than active	mode	-	Supplementary heater			-
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	0,8	kW
Thermostat-off mode	P _{TO}	0,082	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L WA	49/na	dB	For water-/brine-to-water hea pumps: Rated brine or water	t		
Annual energy consumption	Q _{HE}	3592	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	ater:						
Declared load profile		L	_	Water heating energy efficiency	η_{wh}	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GΊ

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

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No

No

Energy efficiency class:

Controller class:

ENERTECH GROUP

Average climate and High temperature

Model(s):

consumption Contact details

Air-to-water heat pump:

Water-to-water heat pump:

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A++

VII

Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	129	%	
Equipped with a supplementary	heater:	Yes		Package efficiency class:	A++	-	
Heat pump combination heater		Yes		· · · · · · · · · · · · · · · · · · ·			
Parameters shall be declared to parameters shall be declared for			tion, except foi	r low-temperature heat pumps. For	low- tempera	iture heat pu	mps,
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
	· ·			Seasonal space heating energy			
Rated heat output (*)	Prated	11	kW	efficiency	η_{S}	125	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	ire 20 °C and	Declared coefficient of performa part load at indoor temperature			
T j = -7 °C	Pdh	9,4	kW	T j = - 7 °C	COPd	3,02] -
T j = + 2 °C	Pdh	9,6	kW	T j = +2 °C	COPd	3,39] -
T j = + 7 °C	Pdh	9,7	kW	T j = +7 °C	COPd	3,69	-
T j = + 12 °C	Pdh	9,9	kW	T j = +12 °C	COPd	4,00	-
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,08	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	ther than active	mode	_	Supplementary heater			_
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	1,8	kW
Thermostat-off mode	P _{TO}	0,026	kW				
Standby mode	P_{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		,					
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	6900	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h
For heat pump combination hea	ater:						
Declared load profile		L		Water heating energy efficiency	$\eta_{\sf wh}$	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

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No

No

Yes

Energy efficiency class:

Controller contribution:

Controller class:

ENERTECH

Average climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

Brine-to-water heat pump:

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%

A++

VII

3,5

					-,-		
Low-temperature heat pump:		No		Package efficiency:	161	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:	A+++	-	
Heat pump combination heate	r:	Yes					
		erature applicat	ion, except fo	or low-temperature heat pumps. For	low- tempera	iture heat pu	mps,
parameters shall be declared f	or low-temperatu	ire application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	η_{s}	157	%
Declared capacity for heating foutdoor 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	10,0	kW	T j = - 7 °C	COPd	4,24] -
T j = + 2 °C	Pdh	10,1	kW	T j = +2 °C	COPd	4,40	1 -
T j = + 7 °C	Pdh	10,2	kW	T j = +7 °C	COPd	4,54	1 -
T j = + 12 °C	Pdh	10,3	kW	T j = +12 °C	COPd	4,68] -
T j = bivalent temperature	Pdh	10,0	kW	T j = bivalent temperature	COPd	4,27	-
T j = operation limit temperature	Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	_
For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-6	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P _{cych}	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 _{OFF}	0,018	kW	Rated heat output (*)	Psup	1,9	kW
Thermostat-off mode	P _{TO}	0,082	kW				
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
	- ск	0,000		† 			
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}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	5938	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
For heat pump combination he	eater:						
Declared load profile		L		Water heating energy efficiency	$\eta_{\sf wh}$	87	%
Daily electricity consumption	Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
Annual electricity consumption	AEC	1183	kWh	Annual fuel consumption	AFC	na	GJ
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^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

No

No

ENERTECH GROUP

Cold climate and High temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

For heat pump combination heater:

Declared load profile

Annual electricity

consumption Contact details

Daily electricity consumption

Enertech AB, 341 26 Ljungby

water-to-water near pump.		NO		Controller class.	VII		
Brine-to-water heat pump:		Yes		Controller contribution:	3,5	%	
Low-temperature heat pump:		No		Package efficiency:	131	%	
Equipped with a supplementar	y heater:	Yes		Package efficiency class:		-	
Heat pump combination heate	r:	Yes					
			ion, except for	r low-temperature heat pumps. For	low- tempera	ature heat pu	mps,
parameters shall be declared for	-	ure application.					
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	η_{s}	127	%
Declared capacity for heating for outdoor temperature T j	or part load at in	door temperatu	re 20 °C and	Declared coefficient of performation part load at indoor temperature			
T j = -7 °C	Pdh	9,5	kW	T j = - 7 °C	COPd	3,30] -
T j = + 2 °C	Pdh	9,7	kW	T j = +2 °C	COPd	3,62] -
T j = + 7 °C	Pdh	9,8	kW	T j = +7 °C	COPd	3,90] -
T j = + 12 °C	Pdh	10,0	kW	T j = +12 °C	COPd	4,11	_
T j = bivalent temperature	Pdh	9,4	kW	T j = bivalent temperature	COPd	3,02	-
T j = operation limit temperature	Pdh	9,3	kW	T j = operation limit temperature	COPd	2,86	-
For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	Pdh	na	kW	For air-to-water heat pumps: T j = -15 °C (if TOL < -20 °C)	COPd	na	-
Bivalent temperature	T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
Cycling interval capacity for heating	P cych	na	kW	Cycling interval efficiency	СОРсус	na	-
Degradation co-efficient (**)	Cdh	0,98	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes of	other than active	mode	_	Supplementary heater			
Off mode	P OFF	0,018	kW	Rated heat output (*)	Psup	1,2	kW
Thermostat-off mode	P _{TO}	0,026	kW			-	•
Standby mode	P _{SB}	0,018	kW	Type of energy input		Electric	
Crankcase heater mode	P _{CK}	0,000	kW				
Other items		-,			!		
Capacity control		Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
Sound power level, indoors/ outdoors	L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Annual energy consumption	Q _{HE}	7647	kWh	flow rate, outdoor heat exchanger	-	1,9	m3/h

Energy efficiency class:

VII

Controller class:

kWh

kWh

L

5,377

1183

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Qelec

AEC

Water heating energy

Daily fuel consumption

Annual fuel consumption

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efficiency

 η_{wh}

 \mathbf{Q}_{fuel}

AFC

87

na

na

%

kWh

GJ

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Energy efficiency class:

Controller class:

No

No

ENERTECH

Cold climate and Low temperature

Model(s):

Air-to-water heat pump:

Water-to-water heat pump:

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VII

	Yes		Controller contribution:	3,5	%	
	No		Package efficiency:	162	%	
/ heater:	Yes		Package efficiency class:		-	
:	Yes					
r medium-temp	erature applicat	tion, except for	low-temperature heat pumps. For	low- tempera	ture heat pu	mps,
r low-temperatu	ure application.					
Symbol	Value	Unit	Item	Symbol	Value	Unit
Prated	11	kW	Seasonal space heating energy efficiency	η_{s}	158	%
or part load at in	door temperatu	ıre 20 °C and	•	•		
Pdh	10,1	kW	T j = - 7 °C	COPd	4,42] -
Pdh	10,2	kW	T j = +2 °C	COPd	4,54	-
Pdh	10,2	kW	T j = +7 °C	COPd	4,64	-
Pdh	10,2	kW	T j = +12 °C	COPd	4,66	-
Pdh	10,0	kW	T j = bivalent temperature	COPd	4,26	-
Pdh	10,0	kW	T j = operation limit temperature	COPd	4,16	
Pdh	na	kW	For air-to-water heat pumps: T j = - 15 °C (if TOL < - 20 °C)	COPd	na	-
T _{biv}	-18	°C	For air-to-water heat pumps: Operation limit temperature	TOL	na	°C
P _{cych}	na	kW	Cycling interval efficiency	СОРсус	na	-
Cdh	0,96	-	Heating water operating limit temperature	WTOL	65	°C
ther than active	mode	_	Supplementary heater			_
P OFF	0,018	kW	Rated heat output (*)	Psup	1,2	kW
P _{TO}	0,082	kW				
P _{SB}	0,018	kW	Type of energy input		Electric	
P _{CK}	0,000	kW				
		•		!		
	Fixed		For air-to-water heat pumps: Rated air flow rate, outdoors	-	na	m3/h
L _{WA}	49/na	dB	For water-/brine-to-water heat pumps: Rated brine or water			
Q _{HE}	6656	kWh	flow rate, outdoor heat exchanger	-	2,3	m3/h
ater:						
	L		Water heating energy efficiency	$\eta_{\sf wh}$	87	%
Qelec	5,377	kWh	Daily fuel consumption	Qfuel	na	kWh
			i			1
	Symbol Prated or part load at in Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh Pdh	No y heater: Yes T: Yes or medium-temperature application. Symbol Value Prated 11 or part load at indoor temperature Pdh 10,1 Pdh 10,2 Pdh 10,2 Pdh 10,0 Pdh 10,0 Pdh 10,0 Pdh 10,0 Pdh	No y heater: Yes Trest Yes remedium-temperature application, except for part low-temperature application. Symbol Value Unit Prated 11 kW Prated 10,1 kW Pah 10,2 kW Pah 10,2 kW Pah 10,0 kW Pah 10,0	No Package efficiency: y heater: Yes Package efficiency: y heater: Yes Package efficiency class:	No Package efficiency: 162 / heater: Yes Package efficiency: 162 / heater: Yes Package efficiency class:	No Package efficiency: 162 % / heater: Yes Package efficiency class: Tes Yes Tredium-temperature application, except for low-temperature heat pumps. For low-temperature heat pumps for low-temperature application. Symbol Value Unit Item Symbol Value Prated 11 kW Seasonal space heating energy efficiency In Seasonal space heating energy efficiency Package of ficient of performance or primary energy rat part load at indoor temperature 20 °C and Declared coefficient of performance or primary energy rat part load at indoor temperature 20 °C and outdoor 20 °C and 4,26 °C and 50 °C and 4,26 °C and 50 °C and 4,26 °C and 50 °C and 5

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.