

# BIBLOC UNIT - AEROTHERM V17

## Technical Data Manual





## Product Fiche

Import: SALVADOR ESCODA SA

Address: C/ PROVENZA 392 P2 08025 BARCELONA (SPAIN)

Models		Climate condition	Sound power level(indoor/outdoor), $L_{WA}$ [dB]	Medium-temperature application				Low-temperature application			
Outdoor unit	Indoor unit			Rated heat output [kW]	Energy efficiency	Annual energy consumption [kWh]	Energy efficiency classes	Rated heat output [kW]	Energy efficiency	Annual energy consumption [kWh]	Energy efficiency classes
UE BIBLOC AEROTHERM V17 (4KW)	UI BIBLOC AEROTHERM V17 (4 ~ 8KW)	Average	43 / 62	4	127%	2709	A++	4	182%	1943	A+++
		Colder	/	4	100%	3890	/	4	130%	11711	/
		Warmer	/	4	169%	1055	/	4	172%	4058	/
UE BIBLOC AEROTHERM V17 (6KW)	UI BIBLOC AEROTHERM V17 (4 ~ 8KW)	Average	43 / 66	6	129%	3888	A++	6	184%	2659	A+++
		Colder	/	6	104%	5650	/	6	130%	11711	/
		Warmer	/	6	178%	1505	/	6	172%	4058	/
UE BIBLOC AEROTHERM V17 (8KW)	UI BIBLOC AEROTHERM V17 (4 ~ 8KW)	Average	43 / 69	7	125%	4475	A++	8	170%	3794	A++
		Colder	/	7	110%	6054	/	8	149%	5133	/
		Warmer	/	7	154%	2075	/	8	232%	1561	/
UE BIBLOC AEROTHERM V17 (10KW)	UI BIBLOC AEROTHERM V17 (10 ~ 16KW)	Average	45 / 67	10	122%	6953	A+	10	177%	4568	A+++
		Colder	/	10	98%	9931	/	10	136%	7403	/
		Warmer	/	10	167%	2744	/	10	242%	1859	/
UE BIBLOC AEROTHERM V17 (12KW)	UI BIBLOC AEROTHERM V17 (10 ~ 16KW)	Average	45 / 68	12	127%	7835	A++	12	175%	5561	A++
		Colder	/	12	99%	11694	/	12	144%	8065	/
		Warmer	/	12	170%	3151	/	12	246%	2229	/
UE BIBLOC AEROTHERM V17 (14KW)	UI BIBLOC AEROTHERM V17 (10 ~ 16KW)	Average	45 / 71	14	128%	8692	A++	14	168%	6714	A++
		Colder	/	14	103%	13314	/	14	132%	10310	/
		Warmer	/	14	165%	3780	/	14	211%	2971	/
UE BIBLOC AEROTHERM V17 (16KW)	UI BIBLOC AEROTHERM V17 (10 ~ 16KW)	Average	45 / 72	15	124%	9697	A+	16	158%	8265	A++
		Colder	/	15	98%	14451	/	16	130%	11711	/
		Warmer	/	15	178%	3839	/	16	211%	3429	/
UE BIBLOC AEROTHERM V17 (12KW) (TRIF.)	UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)	Average	45 / 70	12	126%	7630	A++	12	179%	5499	A+++
		Colder	/	12	100%	11507	/	12	142%	7953	/
		Warmer	/	12	169%	3190	/	12	245%	2220	/
UE BIBLOC AEROTHERM V17 (14KW) (TRIF.)	UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)	Average	45 / 72	14	129%	8733	A++	14	182%	6304	A+++
		Colder	/	14	103%	13120	/	14	130%	10154	/
		Warmer	/	14	165%	3807	/	14	212%	2957	/
UE BIBLOC AEROTHERM V17 (16KW) (TRIF.)	UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)	Average	45 / 72	15	128%	9394	A++	16	172%	7405	A++
		Colder	/	15	101%	14002	/	16	131%	11626	/
		Warmer	/	15	178%	3813	/	16	210%	3435	/

### Specific precautions when the space heater is assembled, installed or maintained:

- (1) This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- (2) Turn off the main power supply switch or breaker before attempting any electrical work. Make sure all power switches are off. Failure to do so may cause electric shock.
- (3) Perform installation work properly according to the Installation Manual.
- (4) Install the heat pump securely in a location where the base can sustain the weight adequately. Perform the specified installation work to guard against an earthquake. If the heat pump is not installed appropriately, accidents may occur due to the falling units.
- (5) Conform to the regulations of the local electric company when wiring the power supply. Inappropriate grounding may cause electric shock.
- (6) Before cleaning, be sure to stop the operation, turn the breaker off or pull out the supply cord.
- (7) Do not operate the heat pump with a wet hand.
- (8) Never touch the internal parts of the units.
- (9) The company reserves the right to revise product technical parameter without having to notify the clients individually.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (4KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	3.8	kW
Tj = 2 C	Pdh	2.4	kW
Tj = 7 C	Pdh	1.6	kW
Tj = 12 C	Pdh	1.6	kW
Tj = bivalent temperature	Pdh	4.3	kW
Tj = operating limit	Pdh	4.3	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	43 / 62	dB
Annual energy consumption	Q <sub>HE</sub>	2709	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	127	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	1.98	-
Tj = 2 C	COPd	3.13	-
Tj = 7 C	COPd	4.31	-
Tj = 12 C	COPd	6.62	-
Tj = bivalent temperature	COPd	1.81	-
Tj = operating limit	COPd	1.81	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3180	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)						

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (4KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4	kW	Seasonal space heating energy efficiency	$\eta_s$	100	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	3.8	kW	Tj = -7 C	COPd	2.18	-
Tj = 2 C	Pdh	2.4	kW	Tj = 2 C	COPd	3.17	-
Tj = 7 C	Pdh	1.9	kW	Tj = 7 C	COPd	4.61	-
Tj = 12 C	Pdh	1.6	kW	Tj = 12 C	COPd	7.05	-
Tj = bivalent temperature	Pdh	3.0	kW	Tj = bivalent temperature	COPd	1.95	-
Tj = operating limit	Pdh	3.5	kW	Tj = operating limit	COPd	1.32	-
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 C	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-12	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>off</sub>	0.019	kW	Rated heat output (**)	P <sub>sup</sub>	4.1	kW
Standby mode	P <sub>sb</sub>	0.019	kW	Type of energy input	Electrical		
Thermostat-off mode	P <sub>to</sub>	0.051	kW				
Crankcase heater mode	P <sub>ck</sub>	0.014	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	3890	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3180	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (4KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	4.0	kW
Tj = 7 C	Pdh	3.0	kW
Tj = 12 C	Pdh	1.8	kW
Tj = bivalent temperature	Pdh	4.0	kW
Tj = operating limit	Pdh	4.0	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	1055	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	169	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	-	-
Tj = 2 C	COPd	2.28	-
Tj = 7 C	COPd	3.40	-
Tj = 12 C	COPd	7.10	-
Tj = bivalent temperature	COPd	2.28	-
Tj = operating limit	COPd	2.28	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3180	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA, PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (6KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	5.0	kW
Tj = 2 C	Pdh	3.4	kW
Tj = 7 C	Pdh	2.2	kW
Tj = 12 C	Pdh	1.6	kW
Tj = bivalent temperature	Pdh	5.0	kW
Tj = operating limit	Pdh	4.4	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-5	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	43 / 66	dB
Annual energy consumption	Q <sub>HE</sub>	3888	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	129	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.04	-
Tj = 2 C	COPd	3.16	-
Tj = 7 C	COPd	4.66	-
Tj = 12 C	COPd	7.05	-
Tj = bivalent temperature	COPd	2.16	-
Tj = operating limit	COPd	1.73	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cy</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	1.9	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3180	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (6KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	3.8	kW
Tj = 2 C	Pdh	2.4	kW
Tj = 7 C	Pdh	1.9	kW
Tj = 12 C	Pdh	1.6	kW
Tj = bivalent temperature	Pdh	4.5	kW
Tj = operating limit	Pdh	3.5	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-12	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	5650	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	104	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.18	-
Tj = 2 C	COPd	3.17	-
Tj = 7 C	COPd	4.61	-
Tj = 12 C	COPd	7.05	-
Tj = bivalent temperature	COPd	1.90	-
Tj = operating limit	COPd	1.32	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	6.1	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3180	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.



### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (6KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	6.0	kW
Tj = 7 C	Pdh	4.0	kW
Tj = 12 C	Pdh	1.8	kW
Tj = bivalent temperature	Pdh	6.0	kW
Tj = operating limit	Pdh	6.0	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	1505	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	178	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	-	-
Tj = 2 C	COPd	2.32	-
Tj = 7 C	COPd	3.52	-
Tj = 12 C	COPd	7.10	-
Tj = bivalent temperature	COPd	2.32	-
Tj = operating limit	COPd	2.32	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cy</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3180	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (8KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	6.1	kW
Tj = 2 C	Pdh	3.8	kW
Tj = 7 C	Pdh	2.5	kW
Tj = 12 C	Pdh	2.2	kW
Tj = bivalent temperature	Pdh	6.1	kW
Tj = operating limit	Pdh	6.2	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-7	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	43 / 69	dB
Annual energy consumption	Q <sub>HE</sub>	4475	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	125	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.00	-
Tj = 2 C	COPd	3.10	-
Tj = 7 C	COPd	4.28	-
Tj = 12 C	COPd	6.53	-
Tj = bivalent temperature	COPd	2.00	-
Tj = operating limit	COPd	1.71	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0.7	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	5116	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (8KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	4.3	kW
Tj = 2 C	Pdh	2.7	kW
Tj = 7 C	Pdh	2.3	kW
Tj = 12 C	Pdh	2.4	kW
Tj = bivalent temperature	Pdh	5.5	kW
Tj = operating limit	Pdh	4.8	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-14	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	6054	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	110	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.26	-
Tj = 2 C	COPd	3.43	-
Tj = 7 C	COPd	4.63	-
Tj = 12 C	COPd	6.73	-
Tj = bivalent temperature	COPd	1.86	-
Tj = operating limit	COPd	1.35	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cy</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	7.0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	5116	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (8KW) / UI BIBLOC AEROTHERM V17 (4 ~ 8KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	7.2	kW
Tj = 7 C	Pdh	4.7	kW
Tj = 12 C	Pdh	2.1	kW
Tj = bivalent temperature	Pdh	7.2	kW
Tj = operating limit	Pdh	7.2	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.051	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	2075	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	154	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	-	-
Tj = 2 C	COPd	2.25	-
Tj = 7 C	COPd	3.27	-
Tj = 12 C	COPd	5.33	-
Tj = bivalent temperature	COPd	2.25	-
Tj = operating limit	COPd	2.25	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	5116	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)						
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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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (10KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	9.6	kW
Tj = 2 C	Pdh	5.9	kW
Tj = 7 C	Pdh	3.5	kW
Tj = 12 C	Pdh	2.5	kW
Tj = bivalent temperature	Pdh	10.4	kW
Tj = operating limit	Pdh	10.4	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	45 / 67	dB
Annual energy consumption	Q <sub>HE</sub>	6953	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	122	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	1.97	-
Tj = 2 C	COPd	3.02	-
Tj = 7 C	COPd	4.05	-
Tj = 12 C	COPd	5.81	-
Tj = bivalent temperature	COPd	1.76	-
Tj = operating limit	COPd	1.76	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyh</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0.1	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (10KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	6.2	kW
Tj = 2 C	Pdh	3.9	kW
Tj = 7 C	Pdh	2.4	kW
Tj = 12 C	Pdh	1.1	kW
Tj = bivalent temperature	Pdh	8.3	kW
Tj = operating limit	Pdh	7.1	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-15	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	9931	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	98	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.15	-
Tj = 2 C	COPd	2.98	-
Tj = 7 C	COPd	3.93	-
Tj = 12 C	COPd	2.89	-
Tj = bivalent temperature	COPd	1.66	-
Tj = operating limit	COPd	1.30	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	10.2	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)						

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (10KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	10.3	kW
Tj = 7 C	Pdh	6.7	kW
Tj = 12 C	Pdh	5.2	kW
Tj = bivalent temperature	Pdh	10.3	kW
Tj = operating limit	Pdh	10.3	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	2744	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	167	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	-	-
Tj = 2 C	COPd	2.34	-
Tj = 7 C	COPd	3.54	-
Tj = 12 C	COPd	6.28	-
Tj = bivalent temperature	COPd	2.34	-
Tj = operating limit	COPd	2.34	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (12KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	10.9	kW
Tj = 2 C	Pdh	7.0	kW
Tj = 7 C	Pdh	4.2	kW
Tj = 12 C	Pdh	2.5	kW
Tj = bivalent temperature	Pdh	10.3	kW
Tj = operating limit	Pdh	10.3	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	45 / 68	dB
Annual energy consumption	Q <sub>HE</sub>	7835	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	127	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.02	-
Tj = 2 C	COPd	3.05	-
Tj = 7 C	COPd	4.49	-
Tj = 12 C	COPd	5.97	-
Tj = bivalent temperature	COPd	1.73	-
Tj = operating limit	COPd	1.73	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	2.0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.



### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (12KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	$\eta_s$	99	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	7.7	kW	Tj = -7 C	COPd	2.12	-
Tj = 2 C	Pdh	4.6	kW	Tj = 2 C	COPd	2.91	-
Tj = 7 C	Pdh	2.9	kW	Tj = 7 C	COPd	4.08	-
Tj = 12 C	Pdh	2.4	kW	Tj = 12 C	COPd	6.00	-
Tj = bivalent temperature	Pdh	9.9	kW	Tj = bivalent temperature	COPd	1.78	-
Tj = operating limit	Pdh	7.0	kW	Tj = operating limit	COPd	1.28	-
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 C	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW	Cycling interval efficiency	COP <sub>cy</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>off</sub>	0.019	kW	Rated heat output (**)	P <sub>sup</sub>	12.1	kW
Standby mode	P <sub>sb</sub>	0.019	kW	Type of energy input	Electrical		
Thermostat-off mode	P <sub>to</sub>	0.078	kW				
Crankcase heater mode	P <sub>ck</sub>	0.014	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	11694	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:							
<b>Declared load profile</b>		-		<b>Water heating energy efficiency</b>		$\eta_{wh}$	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)
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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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (12KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	12.0	kW
Tj = 7 C	Pdh	7.8	kW
Tj = 12 C	Pdh	5.3	kW
Tj = bivalent temperature	Pdh	12.0	kW
Tj = operating limit	Pdh	12.0	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	3151	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	170	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	-	-
Tj = 2 C	COPd	2.41	-
Tj = 7 C	COPd	3.52	-
Tj = 12 C	COPd	6.33	-
Tj = bivalent temperature	COPd	2.41	-
Tj = operating limit	COPd	2.41	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)						

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (14KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	12.2	kW
Tj = 2 C	Pdh	8.3	kW
Tj = 7 C	Pdh	5.0	kW
Tj = 12 C	Pdh	2.7	kW
Tj = bivalent temperature	Pdh	12.3	kW
Tj = operating limit temperature	Pdh	10.3	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-7	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	45 / 71	dB
Annual energy consumption	Q <sub>HE</sub>	8692	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	128	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COP <sub>d</sub>	2.00	-
Tj = 2 C	COP <sub>d</sub>	3.14	-
Tj = 7 C	COP <sub>d</sub>	4.56	-
Tj = 12 C	COP <sub>d</sub>	6.24	-
Tj = bivalent temperature	COP <sub>d</sub>	2.00	-
Tj = operating limit temperature	COP <sub>d</sub>	1.66	-
For air-to-water heat pumps: Tj = -15 C	COP <sub>d</sub>	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyh</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	3.5	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (14KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	8.8	kW
Tj = 2 C	Pdh	5.3	kW
Tj = 7 C	Pdh	3.3	kW
Tj = 12 C	Pdh	2.4	kW
Tj = bivalent temperature	Pdh	10.5	kW
Tj = operating limit temperature	Pdh	7.1	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-12	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	13314	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	103	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.19	-
Tj = 2 C	COPd	3.17	-
Tj = 7 C	COPd	4.40	-
Tj = 12 C	COPd	6.15	-
Tj = bivalent temperature	COPd	1.85	-
Tj = operating limit temperature	COPd	1.29	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	14.3	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)						

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (14KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	$\eta_s$	165	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW	Tj = -7 C	COPd	-	-
Tj = 2 C	Pdh	14.0	kW	Tj = 2 C	COPd	2.31	-
Tj = 7 C	Pdh	9.3	kW	Tj = 7 C	COPd	3.45	-
Tj = 12 C	Pdh	4.2	kW	Tj = 12 C	COPd	5.76	-
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	2.31	-
Tj = operating limit	Pdh	14.0	kW	Tj = operating limit	COPd	2.31	-
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 C	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW	Cycling interval efficiency	COP <sub>cy</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>off</sub>	0.019	kW	Rated heat output (**)	P <sub>sup</sub>	0	kW
Standby mode	P <sub>sb</sub>	0.019	kW	Type of energy input	Electrical		
Thermostat-off mode	P <sub>to</sub>	0.078	kW				
Crankcase heater mode	P <sub>ck</sub>	0.014	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	3780	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (16KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	11.5	kW
Tj = 2 C	Pdh	8.1	kW
Tj = 7 C	Pdh	5.2	kW
Tj = 12 C	Pdh	2.5	kW
Tj = bivalent temperature	Pdh	12.0	kW
Tj = operating limit	Pdh	10.3	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-5	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	45 / 72	dB
Annual energy consumption	Q <sub>HE</sub>	9697	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	124	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	1.95	-
Tj = 2 C	COPd	3.05	-
Tj = 7 C	COPd	4.52	-
Tj = 12 C	COPd	5.96	-
Tj = bivalent temperature	COPd	2.05	-
Tj = operating limit	COPd	1.70	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	4.6	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (16KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	8.8	kW
Tj = 2 C	Pdh	5.3	kW
Tj = 7 C	Pdh	3.3	kW
Tj = 12 C	Pdh	2.4	kW
Tj = bivalent temperature	Pdh	10.1	kW
Tj = operating limit	Pdh	7.1	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	14451	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	98	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COP <sub>d</sub>	2.19	-
Tj = 2 C	COP <sub>d</sub>	3.17	-
Tj = 7 C	COP <sub>d</sub>	4.40	-
Tj = 12 C	COP <sub>d</sub>	6.15	-
Tj = bivalent temperature	COP <sub>d</sub>	1.85	-
Tj = operating limit	COP <sub>d</sub>	1.29	-
For air-to-water heat pumps: Tj = -15 C	COP <sub>d</sub>	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cyh</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	14.8	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (16KW) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	15.3	kW
Tj = 7 C	Pdh	9.9	kW
Tj = 12 C	Pdh	4.4	kW
Tj = bivalent temperature	Pdh	15.3	kW
Tj = operating limit	Pdh	15.3	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	3839	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	178	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	-	-
Tj = 2 C	COPd	2.42	-
Tj = 7 C	COPd	3.80	-
Tj = 12 C	COPd	6.08	-
Tj = bivalent temperature	COPd	2.42	-
Tj = operating limit	COPd	2.42	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)						
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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.



### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (12KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	10.7	kW
Tj = 2 C	Pdh	6.6	kW
Tj = 7 C	Pdh	4.2	kW
Tj = 12 C	Pdh	3.5	kW
Tj = bivalent temperature	Pdh	11.5	kW
Tj = operating limit	Pdh	10.9	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-9	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	45 / 70	dB
Annual energy consumption	Q <sub>HE</sub>	7630	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	126	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COP <sub>d</sub>	1.96	-
Tj = 2 C	COP <sub>d</sub>	3.02	-
Tj = 7 C	COP <sub>d</sub>	4.51	-
Tj = 12 C	COP <sub>d</sub>	6.69	-
Tj = bivalent temperature	COP <sub>d</sub>	1.77	-
Tj = operating limit	COP <sub>d</sub>	1.67	-
For air-to-water heat pumps: Tj = -15 C	COP <sub>d</sub>	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyh</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	1.0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (12KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	7.4	kW
Tj = 2 C	Pdh	4.5	kW
Tj = 7 C	Pdh	2.9	kW
Tj = 12 C	Pdh	2.4	kW
Tj = bivalent temperature	Pdh	9.8	kW
Tj = operating limit	Pdh	7.0	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-15	°C
Cycling interval capacity for heating	P <sub>cy ch</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	11507	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	100	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.15	-
Tj = 2 C	COPd	2.92	-
Tj = 7 C	COPd	4.08	-
Tj = 12 C	COPd	6.00	-
Tj = bivalent temperature	COPd	1.78	-
Tj = operating limit	COPd	1.28	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cy c</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	12.0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details	SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)						
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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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (12KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	12.1	kW
Tj = 7 C	Pdh	7.9	kW
Tj = 12 C	Pdh	5.3	kW
Tj = bivalent temperature	Pdh	12.1	kW
Tj = operating limit	Pdh	12.1	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	3190	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	169	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COP <sub>d</sub>	-	-
Tj = 2 C	COP <sub>d</sub>	2.35	-
Tj = 7 C	COP <sub>d</sub>	3.50	-
Tj = 12 C	COP <sub>d</sub>	6.33	-
Tj = bivalent temperature	COP <sub>d</sub>	2.35	-
Tj = operating limit	COP <sub>d</sub>	2.35	-
For air-to-water heat pumps: Tj = -15 C	COP <sub>d</sub>	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

Technical parameters							
Model(s):	UE BIBLOC AEROTHERM V17 (14KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)						
Air-to-water heat pump:	YES						
Water-to-water heat pump:	NO						
Brine-to-water heat pump:	NO						
Low-temperature heat pump:	NO						
Equipped with a supplementary heater:	YES						
Heat pump combination heater:	NO						
Declared climate condition:	AVERAGE						
Parameters are declared for medium-temperature application.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	$\eta_s$	129	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	12.4	kW	Tj = -7 C	COPd	2.02	-
Tj = 2 C	Pdh	7.5	kW	Tj = 2 C	COPd	3.08	-
Tj = 7 C	Pdh	5.0	kW	Tj = 7 C	COPd	4.71	-
Tj = 12 C	Pdh	3.4	kW	Tj = 12 C	COPd	6.72	-
Tj = bivalent temperature	Pdh	12.4	kW	Tj = bivalent temperature	COPd	2.02	-
Tj = operating limit temperature	Pdh	10.1	kW	Tj = operating limit temperature	COPd	1.65	-
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 C	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>off</sub>	0.019	kW	Rated heat output (**)	P <sub>sup</sub>	3.8	kW
Standby mode	P <sub>sb</sub>	0.019	kW	Type of energy input	Electrical		
Thermostat-off mode	P <sub>to</sub>	0.078	kW				
Crankcase heater mode	P <sub>ck</sub>	0.014	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	45 / 72	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h
Annual energy consumption	Q <sub>HE</sub>	8733	kWh				
For heat pump combination heater:							
Declared load profile				Water heating energy efficiency			
-				$\eta_{wh}$	-		
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
Contact details				SALVADOR ESCODA SA PROVENZA, 392 P2, BARCELONA (SPAIN)			
(*) 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.							

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (14KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	8.8	kW
Tj = 2 C	Pdh	5.3	kW
Tj = 7 C	Pdh	3.5	kW
Tj = 12 C	Pdh	2.4	kW
Tj = bivalent temperature	Pdh	10.4	kW
Tj = operating limit temperature	Pdh	7.1	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-12	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	13120	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	103	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COP <sub>d</sub>	2.19	-
Tj = 2 C	COP <sub>d</sub>	3.17	-
Tj = 7 C	COP <sub>d</sub>	4.45	-
Tj = 12 C	COP <sub>d</sub>	6.15	-
Tj = bivalent temperature	COP <sub>d</sub>	1.88	-
Tj = operating limit temperature	COP <sub>d</sub>	1.29	-
For air-to-water heat pumps: Tj = -15 C	COP <sub>d</sub>	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cy</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	14.1	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (14KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW
Tj = 2 C	Pdh	14.1	kW
Tj = 7 C	Pdh	9.3	kW
Tj = 12 C	Pdh	4.2	kW
Tj = bivalent temperature	Pdh	14.1	kW
Tj = operating limit	Pdh	14.1	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	2	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	3807	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	165	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	-	-
Tj = 2 C	COPd	2.31	-
Tj = 7 C	COPd	3.45	-
Tj = 12 C	COPd	5.76	-
Tj = bivalent temperature	COPd	2.31	-
Tj = operating limit	COPd	2.31	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: SALVADOR ESCODA SA  
PROVENZA, 392 P2, BARCELONA (SPAIN)

(\*) 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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (16KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	13.0	kW
Tj = 2 C	Pdh	8.2	kW
Tj = 7 C	Pdh	5.4	kW
Tj = 12 C	Pdh	3.6	kW
Tj = bivalent temperature	Pdh	12.6	kW
Tj = operating limit	Pdh	10.9	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-6	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	45 / 72	dB
Annual energy consumption	Q <sub>HE</sub>	9394	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	128	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COP <sub>d</sub>	2.01	-
Tj = 2 C	COP <sub>d</sub>	3.05	-
Tj = 7 C	COP <sub>d</sub>	4.74	-
Tj = 12 C	COP <sub>d</sub>	7.03	-
Tj = bivalent temperature	COP <sub>d</sub>	2.07	-
Tj = operating limit	COP <sub>d</sub>	1.67	-
For air-to-water heat pumps: Tj = -15 C	COP <sub>d</sub>	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP <sub>cyh</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	4.0	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	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.

### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (14KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	9.0	kW
Tj = 2 C	Pdh	5.5	kW
Tj = 7 C	Pdh	3.5	kW
Tj = 12 C	Pdh	2.4	kW
Tj = bivalent temperature	Pdh	10.1	kW
Tj = operating limit	Pdh	7.1	kW
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW
Bivalent temperature	T <sub>biv</sub>	-10	°C
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--
Power consumption in modes other than active mode			
Off mode	P <sub>off</sub>	0.019	kW
Standby mode	P <sub>sb</sub>	0.019	kW
Thermostat-off mode	P <sub>to</sub>	0.078	kW
Crankcase heater mode	P <sub>ck</sub>	0.014	kW

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	14002	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η <sub>s</sub>	101	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	COPd	2.15	-
Tj = 2 C	COPd	3.20	-
Tj = 7 C	COPd	4.42	-
Tj = 12 C	COPd	6.15	-
Tj = bivalent temperature	COPd	1.85	-
Tj = operating limit	COPd	1.29	-
For air-to-water heat pumps: Tj = -15 C	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-20	°C
Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Supplementary heater			
Rated heat output (**)	P <sub>sup</sub>	14.8	kW
Type of energy input	Electrical		

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	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.



### Technical parameters

Model(s):	UE BIBLOC AEROTHERM V17 (14KW) /TRIF.) / UI BIBLOC AEROTHERM V17 (10 ~ 16KW) (TRIF.)
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	YES
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 C	Pdh	-	kW	Tj = -7 C	COPd	-	-
Tj = 2 C	Pdh	15.2	kW	Tj = 2 C	COPd	2.42	-
Tj = 7 C	Pdh	9.9	kW	Tj = 7 C	COPd	3.80	-
Tj = 12 C	Pdh	4.4	kW	Tj = 12 C	COPd	6.08	-
Tj = bivalent temperature	Pdh	15.2	kW	Tj = bivalent temperature	COPd	2.42	-
Tj = operating limit	Pdh	15.2	kW	Tj = operating limit	COPd	2.42	-
For air-to-water heat pumps: Tj = -15 C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 C	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P <sub>cyh</sub>	-	kW	Cycling interval efficiency	COP <sub>cy</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>off</sub>	0.019	kW	Rated heat output (**)	P <sub>sup</sub>	0	kW
Standby mode	P <sub>sb</sub>	0.019	kW	Type of energy input	Electrical		
Thermostat-off mode	P <sub>to</sub>	0.078	kW				
Crankcase heater mode	P <sub>ck</sub>	0.014	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB
Annual energy consumption	Q <sub>HE</sub>	3813	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	6500	m <sup>3</sup> /h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	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.





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