UNITS RANGE ▣ Reliable by nature. **Hydrothermal Systems** EXCELLENCE MADE IN ITALY

Bitherm

Heating & instantaneous domestic hot water interface unit

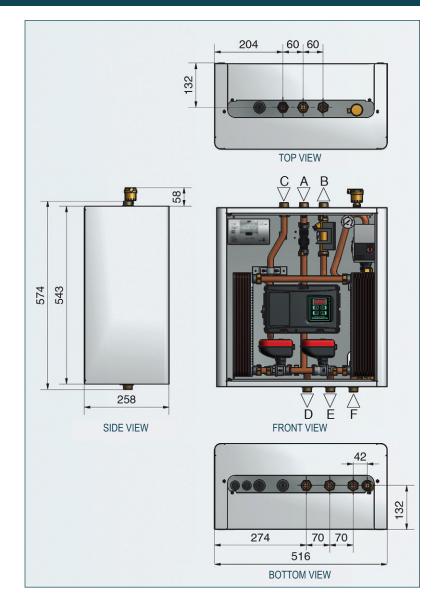
The Bitherm is a compact wall mounted interface unit suitable for studio flats and up to 2/3 bedroom apartments where instantaneous DHW generation and indirect apartment heating are required.

MODELS AVAILABLE:

- Bitherm 40-5
- Bitherm 40-10
- Bitherm 60-5
- Bitherm 60-10

MODELS EXAMPLE:

• Bitherm 40(DHW)-5(heating)



LEGEND:

			40-5	40-10	60-5	60-10
A	Primary heating flow		G ¾"M	G ¾"M	G ¾"M	G ¾"M
В	Primary heating return		G ¾"M	G ¾"M	G ¾"M	G ¾"M
С	Mains cold water inlet		G ¾"M	G ¾"M	G ¾"M	G ¾"M
D	Apartment DHW outlet		G ¾"M	G ¾"M	G ¾"M	G ¾"M
E	Apartment heating circuit flow		G 3/4"M	G ¾"M	G ¾"M	G ¾"M
F	Apartment heating circuit return		G ¾″M	G ¾"M	G ¾"M	G ¾"M
			40-5	40-10	60-5	60-10
Wei	ght (empty)	kg	40	40	40	40
Wei	ght (full)	kg	50	50	50	50

Hydraulic connections are in accordance with ISO 228/1





STANDARD FEATURES:

- · Wall mounted design
- · Top and bottom connections
- · Hydraulic separation between primary and apartment heating circuit
- · Instantaneous DHW generation and secondary heating
- · DHW priority over secondary heating
- Insulated copper brazed AISI 316 stainless steel plate heat exchangers from SWEP
- · Insulated mains cold water (MCW) pipework
- · Unique ModFlow modulating primary control valves (PICV functionality)
- · Microprocessor controls
- Electronic temperature control of both DHW and secondary heating

- · Weather compensation facility on secondary heating
- · Switchable keep warm function on DHW plate heat exchanger
- · Insulated painted steel case (RAL 9010) with lockable door
- High efficiency ErP compliant modulating secondary heating high torque pump
- · 4bar rated pressure relief valve on secondary heating circuit
- · Pressure gauge on secondary heating circuit
- · 8.5 litre expansion vessel on secondary heating circuit
- · Primary circuit strainer
- Interface with external programmer for time/temp control (volt free contact)
- Prepaid billing integration

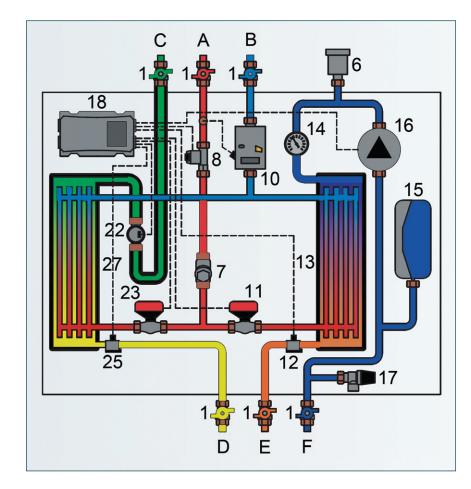
SPECIFICATION:

- · DHW output up to 60kW (model dependent)
- · Heating output up to 10kW (model dependent)
- Max primary operating temperature 80°C (90°C if DPCV fitted)
- · Max primary operating pressure 8bar (ModFlow)
- · Max secondary heating operating pressure 3bar
- Max DHW supply temperature 60°C
- · Max DHW operating pressure 6bar
- Electrical supply 230-1-50

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FACTORY FITTED OPTIONS (specify when ordering):

- M-Bus energy meter (MID class 2 & RHI compliant)
- Modulating primary valves & DPCV for max 10bar primary pressure (replaces ModFlow)
- All insulated pipework Mechanical underfloor heating high limit thermostat
- DHW secondary recirculation kit



CONNECTIONS:

- A. Primary heating flow
- B. Primary heating return
- C. Mains cold water inlet
- **D.** Apartment DHW outlet
- E. Apartment heating circuit flow
- F. Apartment heating circuit return

COMPONENTS:

- 1. Manual isolation valve (optional)
- 6. Auto air vent
- 7. Primary heating & DHW system strainer
- Primary heating & DHW system flow meter (ModFlow)
- 10. Heating & DHW energy meter
- 11. Heating circuit control valve
- 12. Heating circuit flow temperature sensor
- 13. Heating circuit plate heat exchanger
- 14. Heating circuit pressure gauge
- 15. Heating circuit expansion vessel
- 16. Heating circuit high efficiency pump
- 17. Heating circuit pressure relief valve
- 18. Heating & DHW circuit control panel
- 22. DHW secondary flow meter
- 23. DHW modulating control valve
- 25. DHW flow temperature sensor
- 27. DHW plate heat exchanger





HEATING PERFORMANCE DATA

Up to	5kW:						
Primary flow temp	Heating output	Heating temps	Heating flow rate	Residual pump head	Residual pump head	Primary pressure drop	Primary return temp
°C	kW	°C	l/min	∆p-c kPa	Δp-v kPa	kPa	°C
	2.5	45/35 50/40 60/40	3.6 3.6 1.8	55 55 55	35 35 31	0.2 0.3 0.3	35.1 40.1 41.4
70	5	45/35 50/40 60/40	7.2 7.2 3.6	55 55 55	37 37 35	0.8 1.1 1.3	35.4 40.6 43.7
75	2.5	45/35 50/40 60/40	3.6 3.6 1.8	55 55 55	35 35 31	0.1 0.2 0.2	35.0 40.1 40.6
75	5	45/35 50/40 60/40	7.2 7.2 3.6	55 55 55	37 37 35	0.7 0.9 1.0	35.2 40.4 42.3
00	2.5	45/35 50/40 60/40	3.6 3.6 1.8	55 55 55	35 35 31	0.1 0.2 0.2	35.0 40.0 40.3
80	5	45/35 50/40 60/40	7.2 7.2 3.6	55 55 55	37 37 35	0.5 0.7 0.7	35.1 40.2 41.4

Up to	10kW:						
Primary flow temp	Heating output	Heating temps	Heating flow rate	Residual pump head	Residual pump head	Primary pressure drop	Primary return temp
°C	kW	°C	l/min	Δp-c kPa	Δp-v kPa	kPa	°C
		45/35	10.8	54	42	1.4	35.3
	7.5	50/40	10.8	54	42	1.9	40.2
70		60/40	5.4	55	37	2.4	43.4
70		45/35	14.4	48	44	2.6	35.6
		50/40	14.4	48	44	3.6	40.8
		60/40	7.2	55	38	4.6	44.2
		45/35	10.8	54	42	1.1	35.2
	7.5	50/40	10.8	54	42	1.4	40.3
75		60/40	5.4	55	37	1.6	42.0
/5		45/35	14.4	48	44	1.9	35.4
	10	50/40	14.4	48	44	2.6	40.5
		60/40	7.2	55	38	2.9	42.7
		45/35	10.8	54	42	0.8	35.1
	7.5	50/40	10.8	54	42	1.1	40.2
80		60/40	5.4	55	37	1.1	41.2
80		45/35	14.4	48	44	1.5	35.3
	10	50/40	14.4	48	44	1.9	40.4
		60/40	7.2	55	38	2.1	41.9

DHW PERFORMANCE DATA

Primary flow temp	DHW output	DHW temps	DHW flow rate	DHW pressure drop	Primary flow rate	Primary pressure drop	Primar return temp
°C	kW	°C	l/min	kPa	l/min	kPa	°C
		10/45	12.3	16.6	8.2	12.4	17.2
	40	10/50	10.8	12.8	8.6	13.9	20.1
70		10/55	9.6	10.1	9.4	16.4	24.1
70		10/45	16.4	29.5	11.3	23.8	19.2
		10/50	14.4	22.8	12.1	27.3	22.6
		10/55	12.8	18.0	13.4	33.4	27.1
		10/45	12.3	16.6	7.3	9.9	15.8
	30	10/50	10.8	12.8	7.6	10.7	18.1
75		10/55	9.6	10.1	8.0	11.9	21.2
73		10/45	16.4	29.5	10.0	18.6	17.6
	40	10/50	14.4	22.8	10.5	20.5	20.3
		10/55	12.8	18.0	11.2	23.4	23.8
		10/45	12.3	16.6	6.6	8.1	14.7
	30	10/50	10.8	12.8	6.8	8.6	16.6
80		10/55	9.6	10.1	7.1	9.3	19.0
00		10/45	16.4	29.5	9.0	15.2	16.3
	40	10/50	14.4	22.8	9.3	16.2	18.5
		10/55	12.8	18.0	9.8	17.8	21.4

Primary flow temp	DHW output	DHW temps	DHW flow rate	DHW pressure drop	Primary flow rate	Primary pressure drop	Primary return temp
°C	kW	°C	l/min	kPa	l/min	kPa	°C
		10/45	20.5	44.2	13.9	34.0	18.4
	50	10/50	17.9	33.9	14.8	38.6	21.5
70		10/55	16.0	26.8	16.2	46.4	25.8
70		10/45	24.6	63.7	17.1	51.7	19.8
	60	10/50	21.6	49.1	18.4	59.7	23.2
		10/55	19.2	38.8	20.4	73.4	27.8
		10/45	20.5	44.2	12.3	26.8	16.8
	50	10/50	17.9	33.9	12.9	29.3	19.4
75		10/55	16.0	26.8	13.7	33.1	22.7
/5		10/45	24.6	63.7	15.1	40.3	18.1
	60	10/50	21.6	49.1	15.9	44.6	20.9
		10/55	19.2	38.8	17.0	51.2	24.5
		10/45	20.5	44.2	11.1	21.9	15.6
	50	10/50	17.9	33.9	11.5	23.3	17.7
80		10/55	16.0	26.8	12.0	25.5	20.3
60		10/45	24.6	63.7	13.6	32.6	16.8
	60	10/50	21.6	49.1	14.1	35.1	19.0
		10/55	19.2	38.8	14.8	38.7	22.0

NOTES:

- 1. Specify model requirement from model listing taking into account "model example."
- **2.** For DHW & heating, the primary flow rates and primary pressure drops, shown within the DHW tables, should be used when sizing primary pumps and pipework.
- 3. Primary pressure drop values apply to the unit fitted with ModFlow Valves. Optional DPCV, instead of ModFlow, will increase pressure drop values.
- **4.** Greater DHW & heating outputs are available with Bitherm models. Contact **COMPARATO** for selections.

Bitherm S

Heating & instantaneous domestic hot water interface unit

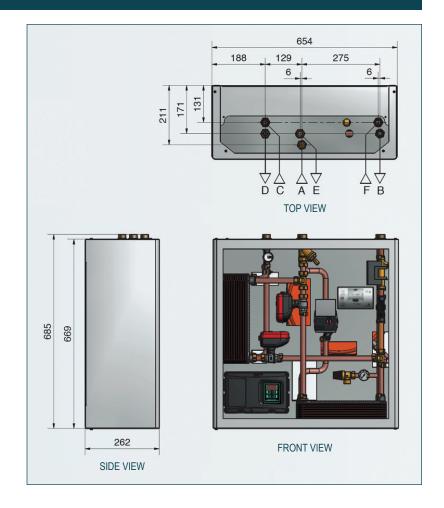
The Bitherm S is a wall mounted interface unit, with all top connections, suitable for studio flats and up to 2/3 bedroom apartments where instantaneous DHW generation and indirect apartment heating are required.

MODELS AVAILABLE:

- Bitherm S 40-5
- Bitherm S 40-10
- Bitherm S 60-5
- Bitherm S 60-10

MODELS EXAMPLE:

• Bitherm S 40(DHW)-5(heating)



LEGEND:

			40-5	40-10	60-5	60-10
Α	Primary heating flow		G ¾"M	G ¾"M	G ¾″M	G ¾"M
В	Primary heating return		G ¾"M	G ¾"M	G ¾"M	G ¾"M
С	Mains cold water inlet		G ¾"M	G ¾"M	G ¾"M	G ¾"M
D	Apartment DHW outlet		G ¾"M	G ¾"M	G ¾"M	G ¾"M
E	Apartment heating circuit flow		G ¾"M	G ¾"M	G ¾"M	G ¾"M
F	Apartment heating circuit return		G ¾″M	G ¾"M	G ¾"M	G ¾"M
			40-5	40-10	60-5	60-10
Weig	ght (empty)	kg	30	30	30	30
	ght (full)	kg	38	38	38	38

STANDARD FEATURES:

- · Wall mounted design
- · Top connections
- · Hydraulic separation between primary and apartment heating circuit
- · Instantaneous DHW generation and secondary heating
- · DHW priority over secondary heating
- Insulated copper brazed AISI 316 stainless steel plate heat exchangers from SWEP
- Insulated mains cold water (MCW) pipework
- · Unique ModFlow modulating primary control valves (PICV functionality)
- · Microprocessor controls
- · Electronic temperature control of both DHW and secondary heating
- · Weather compensation facility on secondary heating

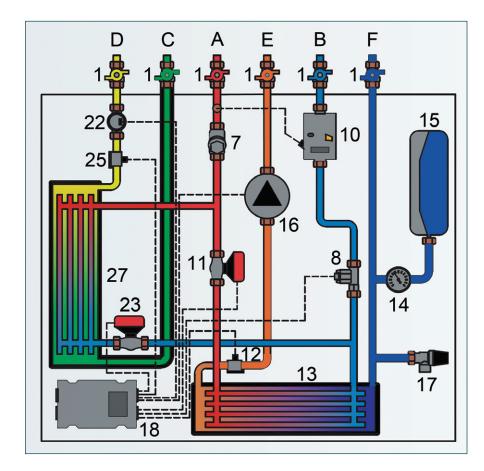
- Switchable keep warm function on DHW plate heat exchanger
- Insulated painted steel case (RAL 9010) with removable front cover
- High efficiency ErP compliant modulating secondary heating high torque pump
- · 4bar rated pressure relief valve on secondary heating circuit
- · Pressure gauge on secondary heating circuit
- · 8.5 litre expansion vessel on secondary heating circuit
- · Primary circuit strainer
- Interface with external programmer for time/temp control (volt free contact)
- · Prepaid billing integration

SPECIFICATION:

- · DHW output up to 60kW (model dependent)
- · Heating output up to 10kW (model dependent)
- Max primary operating temperature 80°C (90°C if DPCV fitted)
- Max primary operating pressure 8bar (ModFlow)
- · Max secondary heating operating pressure 3bar
- Max DHW supply temperature 60°C
- · Max DHW operating pressure 6bar
- Electrical supply 230-1-50

FACTORY FITTED OPTIONS (specify when ordering):

- M-Bus energy meter (MID class 2 & RHI compliant)
- Modulating primary valves & DPCV for max 10bar primary pressure (replaces ModFlow)
- Modulating primary valves, DPCV & stainless steel primary pipes for max 16bar primary pressure (replaces ModFlow)
- Mechanical underfloor heating high limit thermostat
- All insulated pipework



CONNECTIONS:

- A. Primary heating flow
- B. Primary heating return
- C. Mains cold water inlet
- D. Apartment DHW outlet
- E. Apartment heating circuit flow
- F. Apartment heating circuit return

COMPONENTS:

- 1. Manual isolation valve (optional)
- 7. Primary heating & DHW system strainer
- **8.** Primary heating & DHW system flow meter (ModFlow)
- 10. Heating & DHW energy meter
- 11. Heating circuit control valve
- 12. Heating circuit flow temperature sensor
- 13. Heating circuit plate heat exchanger
- 14. Heating circuit pressure gauge
- 15. Heating circuit expansion vessel
- 16. Heating circuit high efficiency pump
- 17. Heating circuit pressure relief valve
- 18. Heating & DHW circuit control panel
- 22. DHW secondary flow meter
- 23. DHW modulating control valve
- 25. DHW flow temperature sensor
- 27. DHW plate heat exchanger





HEATING PERFORMANCE DATA

Up to	Up to 5kW:												
Primary flow temp	Heating output	Heating temps	Heating flow rate	Residual pump head	Residual pump head	Primary pressure drop	Primary return temp						
°C	kW	°C	l/min	∆p-c kPa	Δp -v kPa	kPa	°C						
		45/35	3.6	55	35	0.2	35.1						
	2.5	50/40	3.6	55	35	0.2	40.1						
70		60/40	1.8	55	31	0.3	41.4						
70		45/35	7.2	55	37	0.7	35.4						
		50/40	7.2	55	37	1.0	40.6						
		60/40	3.6	55	35	1.2	43.7						
		45/35	3.6	55	35	0.1	35.0						
	2.5	50/40	3.6	55	35	0.2	40.1						
75		60/40	1.8	55	31	0.2	40.6						
/5		45/35	7.2	55	37	0.5	35.2						
	5	50/40	7.2	55	37	0.7	40.4						
		60/40	3.6	55	35	0.8	42.3						
		45/35	3.6	55	35	0.1	35.0						
	2.5	50/40	3.6	55	35	0.1	40.0						
80		60/40	1.8	55	31	0.1	40.3						
60		45/35	7.2	55	37	0.4	35.1						
	5	50/40	7.2	55	37	0.5	40.2						
		60/40	3.6	55	35	0.6	41.4						

Up to	10kW:						
Primary flow temp	Heating output	Heating temps	Heating flow rate	Residual pump head	Residual pump head	Primary pressure drop	Primary return temp
°C	kW	°C	l/min	∆p-c kPa	Δp-v kPa	kPa	°C
		45/35	10.8	54	42	1.4	35.1
	7.5	50/40	10.8	54	42	1.9	40.3
70		60/40	5.4	55	37	2.4	42.2
70	10	45/35	14.4	48	44	2.6	35.3
		50/40	14.4	48	44	3.6	40.5
		60/40	7.2	55	38	4.6	43.3
		45/35	10.8	54	42	1.1	35.1
	7.5	50/40	10.8	54	42	1.4	40.1
75		60/40	5.4	55	37	1.6	41.2
/5		45/35	14.4	48	44	1.9	35.2
	10	50/40	14.4	48	44	2.6	40.3
		60/40	7.2	55	38	2.9	41.9
		45/35	10.8	54	42	0.8	35.0
	7.5	50/40	10.8	54	42	1.1	40.1
80		60/40	5.4	55	37	1.1	40.6
80		45/35	14.4	48	44	1.5	35.1
	10	50/40	14.4	48	44	1.9	40.2
		60/40	7.2	55	38	2.1	41.1

DHW PERFORMANCE DATA

Up to 4	40kW:						
Primary flow temp	DHW output	DHW temps	DHW flow rate	DHW pressure drop	Primary flow rate	Primary pressure drop	Primary return temp
°C	kW	°C	l/min	kPa	l/min	kPa	°C
	30	10/45 10/50 10/55	12.3 10.8 9.6	10.4 8.0 6.3	8.2 8.6 9.4	8.3 9.3 11.0	17.2 20.1 24.1
70	40	10/45 10/50 10/55	16.4 14.4 12.8	15.1 11.6 9.1	11.3 12.1 13.4	15.9 18.3 22.3	19.2 22.6 27.1
	30	10/45 10/50 10/55	12.3 10.8 9.6	10.4 8.0 6.3	7.3 7.6 8.0	6.6 7.1 8.0	15.8 18.1 21.2
75	40	10/45 10/50 10/55	16.4 14.4 12.8	15.1 11.6 9.1	10.0 10.5 11.2	12.5 13.7 15.7	17.6 20.3 23.8
	30	10/45 10/50 10/55	12.3 10.8 9.6	10.4 8.0 6.3	6.6 6.8 7.1	5.4 5.7 6.2	14.7 16.6 19.0
80	40	10/45 10/50 10/55	16.4 14.4 12.8	15.1 11.6 9.1	9.0 9.3 9.8	10.1 10.9 11.9	16.3 18.5 21.4

Up to	60kW:						
Primary flow temp	DHW output	DHW temps	DHW flow rate	DHW pressure drop	Primary flow rate	Primary pressure drop	Primary return temp
°C	kW	°C	l/min	kPa	l/min	kPa	°C
		10/45	20.5	19.2	13.9	21.7	18.4
	50	10/50	17.9	14.8	14.8	24.6	21.5
70		10/55	16.0	11.7	16.2	29.6	25.8
70		10/45	24.6	25.2	17.1	33.0	19.8
	60	10/50	21.6	19.3	18.4	38.1	23.2
		10/55	19.2	15.3	20.4	46.9	27.8
		10/45	20.5	19.2	12.3	17.1	16.8
	50	10/50	17.9	14.8	12.9	18.7	19.4
75		10/55	16.0	11.7	13.7	21.1	22.7
/5		10/45	24.6	25.2	15.1	25.7	18.1
	60	10/50	21.6	19.3	15.9	28.5	20.9
		10/55	19.2	15.3	17.0	32.7	24.5
		10/45	20.5	19.2	11.1	14.0	15.6
	50	10/50	17.9	14.8	11.5	14.9	17.7
80		10/55	16.0	11.7	12.0	16.2	20.3
00		10/45	24.6	25.2	13.6	20.8	16.8
	60	10/50	21.6	19.3	14.1	22.4	19.0
		10/55	19.2	15.3	14.8	24.7	22.0

NOTES:

- 1. Specify model requirement from model listing taking into account "model example."
- 2. For DHW & heating, the primary flow rates and primary pressure drops, shown within the DHW tables, should be used when sizing primary pumps and pipework.
- 3. Primary pressure drop values apply to the unit fitted with ModFlow Valves. Optional DPCV, instead of ModFlow, will increase pressure drop values.
- 4. Greater DHW & heating outputs are available with Bitherm models. Contact **COMPARATO** for selections.



Dual Stage

Heating & high output instantaneous domestic hot water interface unit

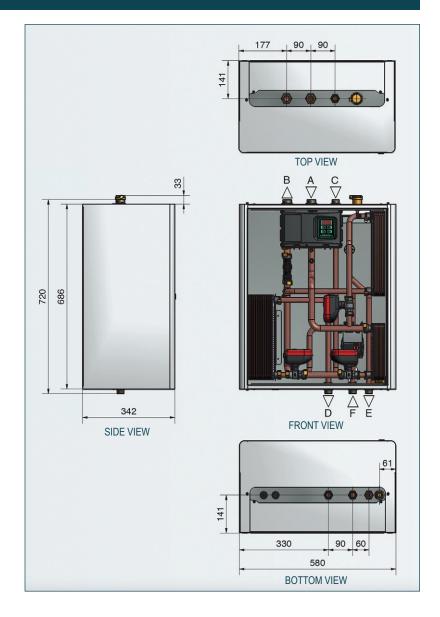
The Dual Stage interface unit is designed for larger or high-end apartments where there is an increased demand for instantaneous DHW and apartment heating.

MODELS AVAILABLE:

- Dual Stage 90-10
- Dual Stage 90-20
- Dual Stage 120-10
- Dual Stage 120-20
- Dual Stage 150-10
- Dual Stage 150-20

MODELS EXAMPLE:

• Dual Stage 90(DHW)-10(heating)



LEGEND:

		90-10	90-20	120-10	120-20	150-10	150-20
Primary heating flow		G1"M	G1"M	G11/4"M	G11/4"M	G11/4"M	G11/4"M
Primary heating return		G1"M	G1"M	G11/4"M	G11/4"M	G11/4"M	G11/4"M
Mains cold water inlet		G¾"M	G¾"M	G1"M	G1"M	G1"M	G1"M
Apartment DHW outlet		G¾″M	G¾"M	G1"M	G1"M	G1"M	G1"M
Apartment heating circuit flo	W	G¾"M	G¾"M	G¾"M	G¾"M	G¾"M	G¾"M
Apartment heating circuit re	turn	G¾"M	G¾"M	G¾"M	G¾"M	G¾"M	G¾"M
		90-10	90-20	120-10	120-20	150-10	150-20
ght (empty)	kg	45	45	60	60	60	60
jht (full)	kg	57	57	75	75	75	75
	Primary heating return Mains cold water inlet Apartment DHW outlet Apartment heating circuit flo Apartment heating circuit re	Primary heating return Mains cold water inlet Apartment DHW outlet Apartment heating circuit flow Apartment heating circuit return	Primary heating return Mains cold water inlet Apartment DHW outlet Apartment heating circuit flow Apartment heating circuit return G34"M Apartment heating circuit return G94"M 90-10 9th (empty) kg 45	Primary heating return Mains cold water inlet Apartment DHW outlet Apartment heating circuit flow Apartment heating circuit return G%"M 45 45	Primary heating return G1"M G4"M G4"M	Primary heating return G1"M G3"M G3"M	Primary heating return G1"M G1"M G1¼"M G1¼"M G1¼"M Mains cold water inlet G¾"M G¾"M G1"M G1"M G1"M Apartment DHW outlet G¾"M G¾"M G1"M G1"M G1"M Apartment heating circuit flow G¾"M G¾"M G¾"M G¾"M G¾"M Apartment heating circuit return G¾"M G¾"M G¾"M G¾"M G¾"M 90-10 90-20 120-10 120-20 150-10 ght (empty) kg 45 45 60 60 60

Hydraulic connections are in accordance with ISO 228/1

STANDARD FEATURES:

- · Wall mounted design
- · Top and bottom connections
- · Hydraulic separation between primary and apartment heating circuit
- · Instantaneous high output DHW generation and secondary heating
- · DHW priority over secondary heating
- Fast DHW temperature stabilisation attributed to Dual Stage operation
- Insulated copper brazed AISI 316 stainless steel plate heat exchangers from SWEP
- · Insulated mains cold water (MCW) pipework
- · Unique ModFlow modulating primary control valves (PICV functionality)
- · Microprocessor controls
- · Electronic temperature control of both DHW and secondary heating

- Switchable keep warm function on DHW plate heat exchangers
- Insulated painted steel case (RAL 9010) with lockable door
- High efficiency ErP compliant modulating secondary heating high torque pump
- · 4bar rated pressure relief valve on secondary heating circuit
- · Pressure gauge on secondary heating circuit
- 8.5 litre expansion vessel on secondary heating circuit
- · Primary circuit strainer
- Interface with external programmer for time/temp control (volt free contact)
- Prepaid billing integration

SPECIFICATION:

- · DHW output up to 150kW (model dependent)
- · Heating output up to 20kW (model dependent)
- Max primary operating temperature 80°C (90°C if DPCV fitted)
- Max primary operating pressure 8bar (ModFlow)
- · Max secondary heating operating pressure 3bar
- Max DHW supply temperature 60°C
- · Max DHW operating pressure 6bar
- · Electrical supply 230-1-50

B A C 12 13 18 10 11 18 26 8 22 27 27 16 15 16 D F E

FACTORY FITTED OPTIONS (specify when ordering):

- M-Bus energy meter (MID class 2 & RHI compliant)
- Modulating primary valves & DPCV for max 10bar primary pressure (replaces ModFlow)
- Cut-out in door for energy meter
- · All insulated pipework
- · Mechanical underfloor heating high limit thermostat

CONNECTIONS:

- A. Primary heating flow
- B. Primary heating return
- C. Mains cold water inlet
- D. Apartment DHW outlet
- E. Apartment heating circuit flow
- F. Apartment heating circuit return

COMPONENTS:

- 1. Manual isolation valve (optional)
- 6. Auto air vent
- 7. Primary heating & DHW system strainer
- 8. Primary heating & DHW system flow meter (ModFlow)
- 10. Heating & DHW energy meter
- 11. Heating circuit control valve
- 12. Heating circuit flow temperature sensor
- 13. Heating circuit plate heat exchanger
- 14. Heating circuit pressure gauge
- 15. Heating circuit expansion vessel
- 16. Heating circuit high efficiency pump
- 17. Heating circuit pressure relief valve
- 18. Heating & DHW circuit control panel
- 22. DHW secondary flow meter
- 23. DHW 1st stage modulating control valve
- 24. DHW 2nd stage modulating control valve
- 25. DHW 1st stage flow temperature sensor
- 26. DHW 2nd stage flow temperature sensor27. DHW 1st stage plate heat exchanger
- 28. DHW 2nd stage plate heat exchanger





HEATING PERFORMANCE DATA

Primary flow	Heating output	Heating tmps	Heating flow	Residual pump	Residual pump	Primary pressure	Primary return
temp			rate	head	head	drop	temp
°C	kW	°C	l/min	∆p-c kPa	∆p-v kPa	kPa	°C
		45/35	10.8	54	42	0.5	35.3
	5	50/40	10.8	54	42	0.7	40.2
70		60/40	5.4	55	37	0.9	43.4
70		45/35	14.4	49	44	2.2	35.6
	10	50/40	14.4	49	44	3.0	40.8
		60/40	7.2	55	38	3.8	44.2
		45/35	10.8	54	42	0.4	35.2
	5	50/40	10.8	54	42	0.5	40.3
75		60/40	5.4	55	37	0.6	42.0
/5		45/35	14.4	49	44	1.6	35.4
	10	50/40	14.4	49	44	2.2	40.5
		60/40	7.2	55	38	2.5	42.7
		45/35	10.8	54	42	0.3	35.1
	5	50/40	10.8	54	42	0.4	40.2
80		60/40	5.4	55	37	0.4	41.2
00		45/35	14.4	49	44	1.3	35.2
	10	50/40	14.4	49	44	1.6	40.4
		60/40	7.2	55	38	1.8	41.9

Up to 20kW:									
Primary flow temp	Heating output	Heating temps	Heating flow rate	Residual pump head	Residual pump head	Primary pressure drop	Primary return temp		
°C	kW	°C	l/min	∆p-c kPa	∆p-v kPa	kPa	°C		
70	15	45/35 50/40 60/40	21.5 21.5 10.8	28 28 55	28 28 43	4.6 6.4 8.3	35.6 40.8 44.3		
	20	45/35 50/40 60/40	28.7 28.7 14.4	2 2 50	2 2 50	8.3 11.6 15.7	35.9 41.2 45.2		
75	15	45/35 50/40 60/40	21.5 21.5 10.8	28 28 55	28 28 43	3.5 4.6 5.3	35.5 40.6 42.9		
	20	45/35 50/40 60/40	28.7 28.7 14.4	2 2 50	2 2 50	6.2 8.3 9.8	35.7 40.8 43.6		
80	15	45/35 50/40 60/40	21.5 21.5 10.8	28 28 55	28 28 43	2.7 3.5 3.8	35.3 40.4 42.0		
	20	45/35 50/40 60/40	28.7 28.7 14.4	2 2 50	2 2 50	4.9 6.2 6.9	35.5 40.6 42.6		

NOTES:

- **1.** Specify model requirement from model listing taking into account "model example."
- 2. For DHW & heating, the primary flow rates and primary pressure drops, shown within the DHW tables, should be used when sizing primary pumps and pipework.
- Primary pressure drop values apply to the unit fitted with ModFlow Valves. Optional DPCV, instead of ModFlow, will increase pressure drop values.
- **4.** Greater DHW & heating outputs are available with Bitherm models. Contact **COMPARATO** for selections.

DHW PERFORMANCE DATA

Up to 90kW:								
Primary flow temp	DHW output	DHW temps	DHW flow rate	DHW pressure drop	Primary flow rate	Primary pressure drop	Primary return temp	
°C	kW	°C	l/min	kPa	l/min	kPa	°C	
70	75	10/45 10/50 10/55	30.8 26.9 23.9	132.5 101.8 80.3	25.8 28.3 31.5	34.4 41.4 51.3	27.5 31.0 35.0	
	90	10/45 10/50 10/55	n/a 32.3 28.7	n/a 146.7 115.8	n/a 35.0 39.0	n/a 63.3 78.6	n/a 32.2 36.3	
75	75	10/45 10/50 10/55	30.8 26.9 23.9	132.5 101.8 80.3	23.0 24.2 26.6	27.3 30.2 36.5	26.7 29.5 33.3	
	90	10/45 10/50 10/55	n/a 32.3 28.7	n/a 146.7 115.8	n/a 30.0 32.5	n/a 46.5 54.6	n/a 30.8 34.3	
80	75	10/45 10/50 10/55	30.8 26.9 23.9	132.5 101.8 80.3	20.7 21.3 22.8	22.0 23.4 26.9	26.0 28.2 31.6	
	90	10/45 10/50 10/55	n/a 32.3 28.7	n/a 146.7 115.8	n/a 26.3 28.0	n/a 35.7 40.5	n/a 29.5 32.7	

Up to	120kW:						
Primary flow temp	DHW output	DHW temps	DHW flow rate	DHW pressure drop	Primary flow rate	Primary pressure drop	Primary return temp
°C	kW	°C	l/min	kPa	l/min	kPa	°C
		10/45	43.1	52.5	35.9	29.7	27.3
	105	10/50	37.7	40.2	39.6	36.2	31.2
70		10/55	33.5	31.7	44.5	45.7	35.4
70	120	10/45	49.2	68.8	42.5	41.7	28.4
		10/50	43.1	52.7	46.6	50.1	32.1
		10/55	38.3	41.6	52.5	63.6	36.4
	105	10/45	43.1	52.5	31.6	23.0	26.4
		10/50	37.7	40.2	34.1	26.8	30.2
75		10/55	33.5	31.7	37.1	31.8	33.4
/5	120	10/45	49.2	68.8	36.6	30.9	27.0
		10/50	43.1	52.7	40.0	36.9	30.6
		10/55	38.3	41.6	45.9	48.6	33.6
80	105	10/45	43.1	52.5	28.3	18.5	25.4
		10/50	37.7	40.2	30.0	20.8	28.5
		10/55	33.5	31.7	32.2	23.9	31.8
	120	10/45	49.2	68.8	33.3	25.6	26.4
		10/50	43.1	52.7	35.6	29.2	29.7
		10/55	38.3	41.6	37.5	32.4	32.7

Primary flow temp	DHW output	DHW temps	DHW flow rate	DHW pressure drop	Primary flow rate	Primary pressure drop	Primary return temp		
°C	kW	°C	l/min	kPa	l/min	kPa	°C		
		10/45	55.4	81.7	46.6	50.6	27.7		
	135	10/50	48.4	62.6	51.6	62.1	31.5		
70		10/55	43.1	49.4	57.5	77.1	35.6		
70	150	10/45	61.5	101.1	53.3	66.2	28.5		
		10/50	53.8	77.4	57.5	77.1	32.6		
		10/55	47.9	61.2	65.8	100.9	36.5		
	135	10/45	55.4	81.7	40.8	38.8	26.5		
		10/50	48.4	62.6	43.3	43.7	29.5		
75		10/55	43.1	49.4	47.5	52.6	33.4		
/3	150	10/45	61.5	101.1	46.3	50.0	27.3		
		10/50	53.8	77.4	49.6	57.3	30.5		
		10/55	47.9	61.2	54.2	68.5	34.3		
80	135	10/45	55.4	81.7	36.6	31.2	25.6		
		10/50	48.4	62.6	38.8	35.1	28.7		
		10/55	43.1	49.4	41.3	39.8	31.9		
	150	10/45	61.5	101.1	41.0	39.2	26.2		
		10/50	53.8	77.4	43.8	44.7	29.4		
		10/55	47.9	61.2	46.6	50.6	32.6		





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