ELECTRIC BOILER
THERMAL MASS
4,5 KW TO 60 KW

altsource

120 commercial

THE HIGH-PERFORMANCE ALLY OF RENEWABLE ENERGIES.

The AltSource 120 is the only high-volume electric boiler on the market designed specifically for commercial applications.

Unique and robust, this unit combines a boiler and storage tank to act as a secondary energy source, maximising the efficiency of any renewable energy system.

THERMO 2000 | Peak-performance heating systems

altsource 120

STORE ALL THE ENERGY PRODUCED, AND EVEN MORE

When the primary renewable energy heat source is in operation, AltSource® stores thermal energy in its high water volume, just like a battery. This is what is called a thermal mass. When there is a low demand for heat (ex.: when there is little difference between the outdoor and indoor temperature) or when the unit is combined with a low-capacity energy source, the energy required for heating will come first from the thermal mass accumulated in the tank. In order to further reduce energy consumption costs, AltSource® can optionally be offered with an extremely efficient copper coil heat exchanger for domestic hot water, which heats (or pre-heats) potable water to meet a family's needs.

Efficient kW Management

The electronic controller makes it easy to control the boiler's operating settings related to the application in order to obtain optimal performance. Its can modulate the power of the unit from 0 to 100%, based on heating demand through the use of a solid-state SCR relay. The benefits of this operating mode are increased temperature control and reduced wear on the power relays. In addition, it very precisely limits the maximum electrical power required for the boiler in order to prevent wasteful and costly peaks in consumption.

AltSource 120

GENERAL FEATURES

Weight	530 lbs
Weight with the optional copper coil	630 lbs
Height	78''
Width	36''
Depth	36,5''
Volume	120 gal US
Max. pressure - Heating	100 PSI
Max. pressure - Domestic hot water	100 PSI
Max. pressure - Boiler connections	2'' NPT mâle
Max. pressure - Drink water connections	2'' sweat M

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STANDARD FEATURES

1. Digital controller
2. Boiler pressure relief valve
3. Drain valve
4. Heating water supply
5. Heating water return
6. Electrical panel
7. Electrical elements
8. Automatic air vent

FEATURES WITH OPTIONAL COPPER COIL HEAT EXCHANGER

9. Copper heat exchanger
10. Domestic cold water supply
11. Domestic hot water output

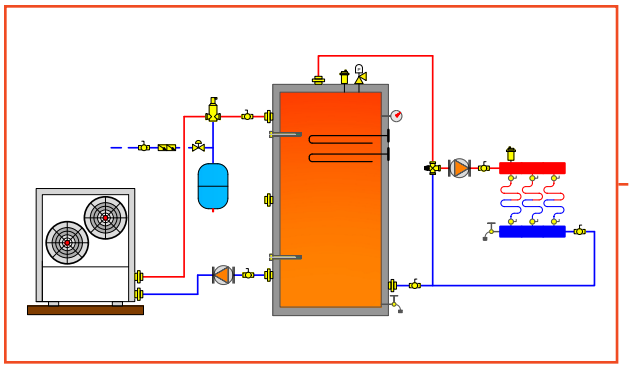
Option with the optional copper coil heat exchanger is shown.

FOR 100 % EFFICIENCY

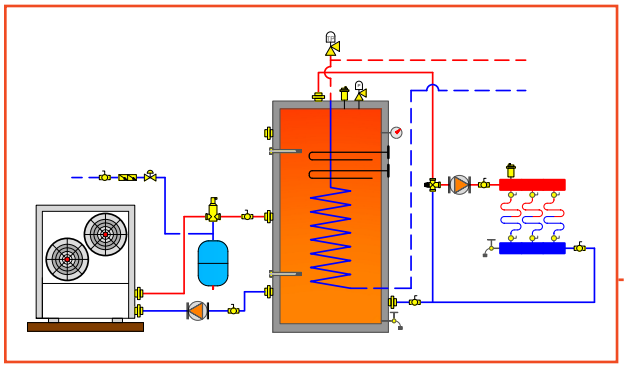
- Easy access to component parts.
- Operates only when needed.
- Set point temperature adjustable from 10 °C to 93 °C (50 °F to 200 °F)
- Silent, clean and requires little maintenance.
- Robust industrial-grade construction.
- Water temperature and boiler power modulation.
- Temperature and power control via a 0-10Vdc remote controller.
- Control and/or reading of variables using external BACnet IP or MS/TP protocol.
- Contact to activate an external alarm.
- Presence of dry contacts to start-up pumps.
- Amperage measurements (Three phase models only) to detect anomalies and to estimate electrical consumption.
- Boiler return temperature and boiler flow estimation.
- Can be easily connected with an auxiliary boiler as a power backup or for a dual-energy configuration.

THE PERFECT COMPLEMENT TO RENEWABLE ENERGY

Altsource® standard



Option with the optional copper coil heat exchanger



The central connection provides the system designer with greater flexibility to optimize the performance of the alternative energy source.

ALTSOURCE IS AVAILABLE IN DIFFERENT POWERS AND VOLTAGES

SINGLE-PHASE 60Hz

208 VAC	4,5 kW to 45 kW
240 VAC	6 kW to 60 kW

THREE-PHASE 60Hz

208 VAC	6,8 kW to 54 kW
240 VAC	9 kW to 60 kW
480 VAC	9 kW to 60 kW
600 VAC	9 kW to 60 kW

3 PHASE-MODEL

208V - 3 Phase[1]	BTU/h	kW	Amps	Stages	Element 240V	Relays Stages	SCR Stage
Altsource 120 7KW 208V 3PH	23065	6,8	19	1	3 x 3 kW	N.A.	1 x 6.8 kW
Altsource 120 10KW 208V 3PH	34598	10,1	28	1	3 x 4.5 kW	N.A.	1 x 10.1 kW
Altsource 120 11KW 208V 3PH	38442	11,3	31	1	3 x 5 kW	N.A.	1 x 11.3 kW
Altsource 120 14KW 208V 3PH	46130	13,5	37	1	3 x 6 kW	N.A.	1 x 13.5 kW
Altsource 120 20KW 208V 3PH	69195	20,3	56	2	6 x 4.5 kW	1 x 10.1 kW	1 x 10.1 kW
Altsource 120 23KW 208V 3PH	76884	22,5	62	2	6 x 5 kW	1 x 11.3 kW	1 x 11.3 kW
Altsource 120 27KW 208V 3PH	92260	27,0	75	2	6 x 6 kW	1 x 13.5 kW	1 x 13.5 kW
Altsource 120 30KW 208V 3PH	103793	30,4	84	3	9 x 4.5 kW	2 x 10.1 kW	1 x 10.1 kW
Altsource 120 34KW 208V 3PH	115326	33,8	94	3	9 x 5 kW	2 x 11.3 kW	1 x 11.3 kW
Altsource 120 41KW 208V 3PH	138391	40,6	113	3	9 x 6 kW	2 x 13.5 kW	1 x 13.5 kW
Altsource 120 45KW 208V 3PH	153767	45,1	125	4	12 x 5 kW	3 x 11.3 kW	1 x 11.3 kW
Altsource 120 54KW 208V 3PH	184521	54,1	150	4	12 x 6 kW	3 x 13.5 kW	1 x 13.5 kW

[1] 208 V 3-phase electrical supply (L1-L2-L3) with three 75 °C conductors and a ground.

240V - 3 Phase[1]	BTU/h	kW	Amps	Stages	Element 240V	Relays Stages	SCR Stage
Altsource 120 9KW 240V 3PH	30708	9	22	1	3 x 3 kW	N.A.	1 x 9 kW
Altsource 120 13KW 240V 3PH	46062	13,5	32	1	3 x 4.5 kW	N.A.	1 x 13.5 kW
Altsource 120 15KW 240V 3PH	51180	15	36	1	3 x 5 kW	N.A.	1 x 15 kW
Altsource 120 18KW 240V 3PH	61416	18	43	1	3 x 6 kW	N.A.	1 x 18 kW
Altsource 120 27KW 240V 3PH	92124	27	65	2	6 x 4.5 kW	1 x 13.5 kW	1 x 13.5 kW
Altsource 120 30KW 240V 3PH	102360	30	72	2	6 x 5 kW	1 x 15 kW	1 x 15 kW
Altsource 120 36KW 240V 3PH	122832	36	87	2	6 x 6 kW	1 x 18 kW	1 x 18 kW
Altsource 120 41KW 240V 3PH	138186	40,5	97	3	9 x 4.5 kW	2 x 13.5 kW	1 x 13.5 kW
Altsource 120 45KW 240V 3PH	153540	45	108	3	9 x 5 kW	2 x 15 kW	1 x 15 kW
Altsource 120 54KW 240V 3PH	184248	54	130	3	9 x 6 kW	2 x 18 kW	1 x 18 kW
Altsource 120 60KW 240V 3PH	204720	60	144	4	12 x 5 kW	3 x 15 kW	1 x 15 kW

[1] 240 V 3-phase electrical supply (L1-L2-L3) with three 75 °C conductors and a ground.

480V - 3 Phase[1]	BTU/h	kW	Amps	Stages	Element 277V	Relays Stages	SCR Stage
Altsource 120 9KW 480V 3PH	30708	9	10,8	1	3 x 3 kW	N.A.	1 x 9 kW
Altsource 120 15KW 480V 3PH	51180	15	18,0	1	3 x 5 kW	N.A.	1 x 15 kW
Altsource 120 18KW 480V 3PH	61416	18	21,7	1	3 x 6 kW	N.A.	1 x 18 kW
Altsource 120 30KW 480V 3PH	102360	30	36,1	2	6 x 5 kW	1 x 15 kW	1 x 15 kW
Altsource 120 36KW 480V 3PH	122832	36	43,3	2	6 x 6 kW	1 x 18 kW	1 x 18 kW
Altsource 120 45KW 480V 3PH	153540	45	54,1	3	9 x 5 kW	2 x 15 kW	1 x 15 kW
Altsource 120 54KW 480V 3PH	184248	54	65	3	9 x 6 kW	2 x 18 kW	1 x 18 kW
Altsource 120 60KW 480V 3PH	204720	60	72,2	4	12 x 5 kW	3 x 15 kW	1 x 15 kW

[1] 480 V 3-phase electrical supply (L1-L2-L3) with three 75 °C conductors and a ground.

600V - 3 Phase[1]	BTU/h	kW	Amps	Stages	Element 347V	Relays Stages	SCR Stage
Altsource 120 9KW 600V 3PH	30708	9	8,7	1	3 x 3 kW	N.A.	1 x 9 kW
Altsource 120 15KW 600V 3PH	51180	15	14,4	1	3 x 5 kW	N.A.	1 x 15 kW
Altsource 120 18KW 600V 3PH	61416	18	17,3	1	3 x 6 kW	N.A.	1 x 18 kW
Altsource 120 30KW 600V 3PH	102360	30	28,9	2	6 x 5 kW	1 x 15 kW	1 x 15 kW
Altsource 120 36KW 600V 3PH	122832	36	34,6	2	6 x 6 kW	1 x 18 kW	1 x 18 kW
Altsource 120 45KW 600V 3PH	153540	45	43,3	3	9 x 5 kW	2 x 15 kW	1 x 15 kW
Altsource 120 54KW 600V 3PH	184248	54	52	3	9 x 6 kW	2 x 18 kW	1 x 18 kW
Altsource 120 60KW 600V 3PH	204720	60	57,7	4	12 x 5 kW	3 x 15 kW	1 x 15 kW

[1] 600 V 3-phase electrical supply (L1-L2-L3) with three 75 °C conductors and a ground.

1 PHASE-MODEL

208V - 1 Phase[1]	BTU/h	kW	Amps	Stages	Element 240V	Relays Stages	SCR Stage
Altsource 120 5KW 208V 1PH	15377	4,5	22	1	1 x 6 kW	N.A.	1 x 4.5 kW
Altsource 120 9KW 208V 1PH	30753	9	43	1	2 x 6 kW	N.A.	1 x 9 kW
Altsource 120 13KW 208V 1PH	46130	13,5	65	2	4 x 4.5 kW	1 x 6.8 kW	1 x 6.8 kW
Altsource 120 18KW 208V 1PH	61507	18	87	2	4 x 6 kW	1 x 9 kW	1 x 9 kW
Altsource 120 23KW 208V 1PH	76884	22,5	108,2	3	6 x 5 kW	2 x 7.5 kW	1 x 7.5 kW
Altsource 120 27KW 208V 1PH	92260	27	129,8	3	6 x 6 kW	2 x 9 kW	1 x 9 kW
Altsource 120 32KW 208V 1PH	107637	31,5	151,4	4	4 x 4.5 kW 4 x 6 kW	3 x 7.9 kW	1 x 7.9 kW
Altsource 120 36KW 208V 1PH	123014	36,1	173,6	4	8 x 6 kW	3 x 9 kW	1 x 9 kW
Altsource 120 41KW 208V 1PH	140954	41,3	199	5	5 x 5 kW 5 x 6 kW	3 x 8.3 kW	1 x 8.3 kW
Altsource 120 45KW 208V 1PH	153767	45,1	216,8	5	10 x 6 kW	3 x 9 kW	1 x 9 kW

[1] 208 V 1-phase electrical supply (L1-L2) with two 75 °C conductors and a ground.

240V - 1 Phase[1]	BTU/h	kW	Amps	Stages	Element 240V	Relays Stages	SCR Stage
Altsource 120 6KW 240V 1PH	20472	6	25	1	1 x 6 kW	N.A.	1 x 6 kW
Altsource 120 12KW 240V 1PH	40944	12	50	1	2 x 6 kW	N.A.	1 x 12 kW
Altsource 120 18KW 240V 1PH	61416	18	75	2	4 x 4.5 kW	1 x 9 kW	1 x 9 kW
Altsource 120 24KW 240V 1PH	81888	24	100	2	4 x 6 kW	1 x 12 kW	1 x 12 kW
Altsource 120 30KW 240V 1PH	102360	30	125,0	3	6 x 5 kW	2 x 10 kW	1 x 10 kW
Altsource 120 36KW 240V 1PH	122832	36	150,0	3	6 x 6 kW	2 x 12 kW	1 x 12 kW
Altsource 120 42KW 240V 1PH	143304	42	175,0	4	4 x 4.5 kW 4 x 6 kW	3 x 10.5 kW	1 x 10.5 kW
Altsource 120 48KW 240V 1PH	163776	48	200,0	4	8 x 6 kW	3 x 12 kW	1 x 12 kW
Altsource 120 55KW 240V 1PH	187660	55	229,2	5	5 x 5 kW 5 x 6 kW	4 x 11 kW	1 x 11 kW
Altsource 120 60KW 240V 1PH	204720	60	250	5	10 x 6 kW	4 x 12 kW	1 x 12 kW

[1] 240 V 1-phase electrical supply (L1-L2) with two 75 °C conductors and a ground.

Domestic hot water production at 110°F* (US gallons)

kW	1 hour	Continuous
4,5	146	26
6	155	35
6,8	160	40
9	173	53
10,1	179	59
11,3	186	66
12	190	70
13,5	199	79
15	208	88
18	226	106

kW	1 hour	Continuous
20,3	239	119
22,5	252	132
24	261	141
27	279	159
30	296	176
30,4	299	179
31,5	305	185
33,8	318	198
36	331	211
36,1	332	212

kW	1 hour	Continuous
40,5	358	238
41,3	363	243
42	367	247
45	384	264
48	402	282
54	437	317
55	443	323
60	472	352

* Based on a 40°F domestic cold water supply and a heating water temperature of 180°F

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OUR PRODUCTS ARE CERTIFIED C SA® US

10-YEAR WARRANTY
ON THE TANK AND THE COILS

2-YEAR WARRANTY
ON ELECTRICAL AND MECHANICAL PARTS

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