



AltSource Specifications

The **AltSource** is an electric boiler used for hydronic heating and optionally, it can include a copper heat exchanger submerged in the unit's tank that is used to instantly produce domestic hot water.

IDENTIFICATION

The electric boiler with instantaneous indirect water heater is a AltSource made by THERMO 2000 Inc.

The specified size is:

- AltSource 50 (48 US gal)
 AltSource 70 (71 US gal)

The boiler's net output is _____kW at a voltage of 240V or 208V single phase with a frequency of 60 hertz. The boiler is 100% efficient.

The heat exchanger for domestic hot water is: required not required

DESCRIPTION OF THE TANK AND EXCHANGER

The tank is made of high-density carbon steel. All joints are arc-welded using the GMAW method. The tank is designed for a maximum operating pressure of 30-psi and undergoes a 60-psi hydrostatic test. The boiler is equipped with steel injectors at the bottom of the tank for heating water return dispersal, and steel collectors in the upper part of the tank to channel the heated water to the boiler's outlet. The boiler is insulated with a 2"-thick layer of fibreglass. The 20-gauge steel's exterior surface is coated with baked epoxy-based paint.

The built-in heat exchanger is made with parallel copper coils, with a maximum allowable working pressure of 125 psi. All copper components comply with NSF 61 standards as described in the NSF International Standard Drinking Water Systems Components Health Effects document.

DESCRIPTION OF THE ELECTRICAL AND CONTROLS

The heating elements are immersion-type with a copper sheath and a square flange. Each element can be replaced individually. The boiler is equipped with an UltraSmart controller for multi-stage modulation of the boiler power while allowing priority to domestic hot water production.

The boiler is equipped with a high temperature limit protection device controlling the activation of one or two main load contactors with a resistance of 50 amps, which are able to perform 250,000 operations when fully loaded. The control circuit is 24VAC and controls activation of the power relays supplying the heating elements. The control circuit can control the heat circulating pump and can authorize electric or auxiliary boiler operation on a Bi-Energy installation. The device is tested, certified and bears the CSA label for CSA standards C22.2 No. 165-92 in Canada, and UL834 in the United States.

THERMO 2000 INC



Peak-performance
heating systems

Revision 0 – April 2016

STANDARD FEATURES

- An ASME-compliant safety valve set to trigger at 30 psi on the tank side
- A temperature and pressure indicator
- A ½" automatic air valve with shut-off valve for easy replacement
- A ¾" drain valve to empty the tank
- The tank has adjustable legs

WARRANTIES

The AltSource is covered by a 15-year warranty on the tank and the domestic hot water exchanger on residential applications, 10 years on commercial applications and a 2-year warranty on accessories and electrical components.

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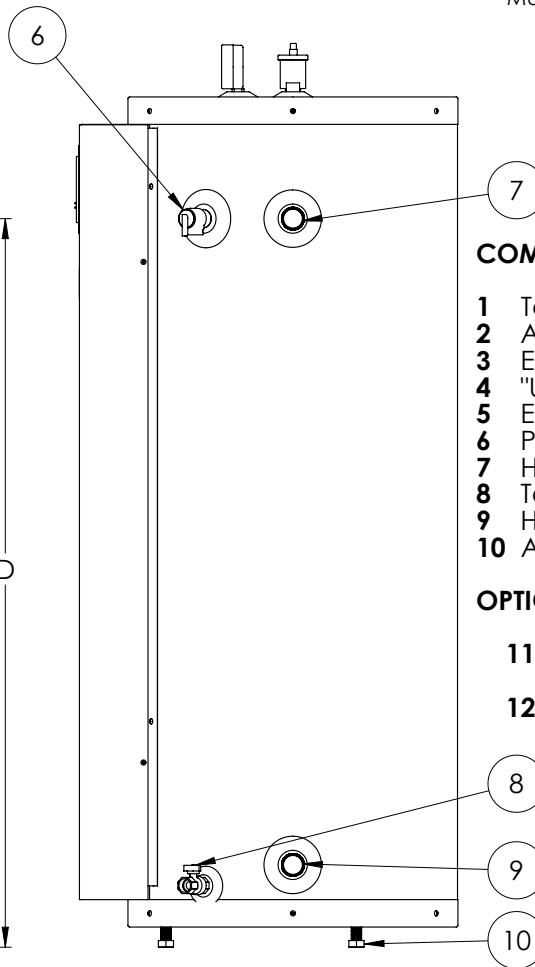
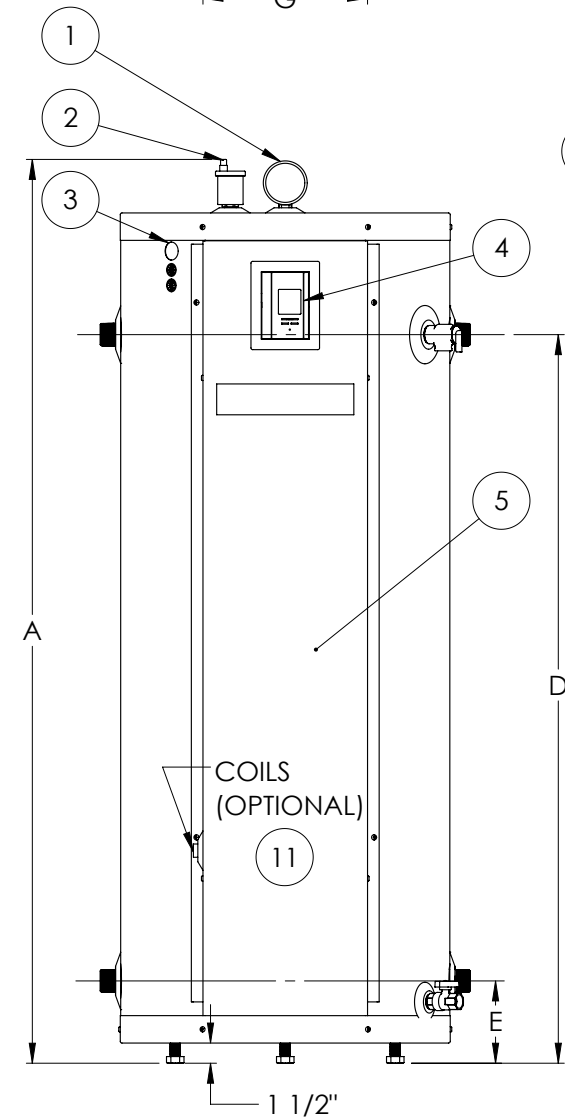
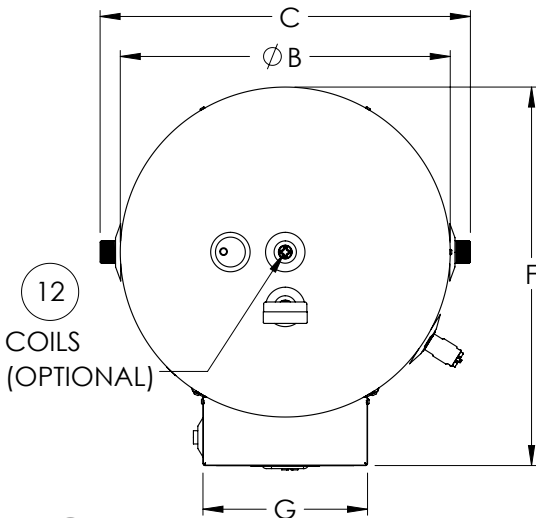
TECHNICAL DATA

Models (XX=Electric capacity)	Tank Volume	Boiler connection	Shipping weight
AltSource 50-XX	48 US gal.	1" NPT M	280 lbs
AltSource 70-XX	71 US gal.	1-1/4" NPT M	380 lbs

ELECTRICAL DATA (240V / 1PH)

Models (YY=Tank format)	KW*	Amps** 240V/1PH	Elements	Stages
AltSource YY-4.5	4.5	19	1 X 4.5 KW	1
AltSource YY-7.5	7.5	31	1 X 3 KW + 1 X 4.5 KW	2
AltSource YY-9	9	38	2 X 4.5 KW	2
AltSource YY-12	12	50	2 X 6KW	2
AltSource YY-15	15	63	2 X 3 KW + 2 X 4.5 KW	4
AltSource YY-18	18	75	4 X 4.5 KW	4
AltSource YY-20	20	83	4 X 5 KW	4
AltSource YY-24	24	100	4 X 6 KW	4
AltSource 70-27	27	113	6 X 4.5 KW	6
AltSource 70-29	29	120	4 X 5 KW + 2 X 4.5 KW	6

* MULTIPLY BY 0.75 FOR A 208V POWER SUPPLY.
 ** MULTIPLY BY 0.867 FOR A 208V POWER SUPPLY.



COMPONENT IDENTIFICATION

- 1 Temp. & Press. indicator 1/2NPTM
- 2 Automatic air vent 1/2NPTM
- 3 Electrical access
- 4 "UltraSmart" controller
- 5 Electrical panel removable
- 6 Pressure relief valve 3/4 NPTF
- 7 Heating water Supply
- 8 Tank drain valve 3/4 NPTF
- 9 Heating water return
- 10 Adjustable legs

OPTION : Copper coils heat exchanger.

- 11 Domestic cold water supply (3/4" sweat M)
- 12 Domestic hot water output (3/4" sweat M)

DIMENSIONS

MODELS	A	B	C	D	E	F	G
	in.	in.	in.	in.	in.	in.	in.
AltSource 50	56	22	25	44	6	25 1/8	11 5/8
AltSource 70	66	24	27	53 1/8	6	27 5/8	12