Varmeteknikk

SB 375 – 1200 kW

Electric boilers

Properties - industry - factories - greenhouses

Varmeteknikk - a leader in boiler design

The boilers from Varmeteknikk, are a result of more than 60 years of experience gained in the production and operation of electric boilers.

The "Asea Per Kure boiler" is further developed through the company ABB, and now Varmeteknikk. The application of advanced and reliable technology is a guarantee for both high reliability in service, and a service life above the average.

Due to variable regulation and control equipment, the boilers offer universal applicability, being adaptable to a wide selection of operations. Modern design as well as small dimensions, are predominant external features.

The SB-boilers are delivered with outputs up to 1200 kW. When bigger outputs are required, two or more boilers can be connected in series or in parallel. Operating temperature is max. 95 °C, and max. pressure is 6 / 16 bar.

Electric boiler

- Better utilization of electric energy
- Using bivalent operation to optimize operating costs
- Safe supply of heat
- Easy integration in existing installations and systems.
- Higher effiency of the installation
- Non-pollutant heat production.
- Long service life.
- Little space required.
- Low maintenance costs

Boiler design

Boilers of type SB are in accordance with international regulations. The boilers consist basically of :

- Pressure vessel with heating elements inserted from above
- Thermal mineral fiber insulation
- Exterior casing made of sprayed steel plates
- Removable front door
- Electronical fittings for control and regulation
- Safety temperature limiter (110 °C)
- Fuses or circuit breakers for each group of elements

Boiler is certified by NEMKO regarding HOUS/EMF/EMC

TYPE	kW	VOLTAGE 380 – 400 V 50 – 60 HZ	KCAL/H	WATER CIRCULATION M^3/H ΔT=20 °C)	WATER SPEED M/S	PRESSURE DROP mm Wc
SB 4375	375	●	322.500	16,1	0,33	14
SB 4400	400	●	344.000	17,2	0,35	16
SB 4450	450	●	387.000	19,4	0,45	19
SB 4600	600	●	516.000	25,8	0,52	35
SB 4750	750	●	645.000	32,3	0,66	56
SB 4800	800	●	688.000	34,4	0,70	63
SB 4900	900	●	774.000	38,7	0,79	80
SB 41000	1000	●	860.000	43,0	0,87	97
SB 41200	1200	●	1032.000	51,6	1,05	141

NB! The specified outputs are referred to voltage 400 V. By rated voltage 380 V, the outputs are to be reduced by a factor of 0,9.

Boiler Regulator

The electric boilers are supplied with an electronic temp. regulating unit for proportional power regulation in 30 steps, and for temp. range 30 – 95 °C.
Display is indicating temperature, output, steps in operation etc.
Based on internal or external control, the regulator offers a large number of functions.

Additional Functions

These are some of the advantages of the additional equipment suitable for the boiler regulator :
- Regulation of the boiler flow temperature in accordance with the outside temperature.
- Regulation in accordance with available electric energy.
- Bivalent operation of the electric boiler together with boilers using other sources of energy.
- Remote adjustment of temperature setting.
- External switching On / Off.

Special Features

- Cable connection box to be mounted optionally on the right or the left hand side. Cable feeding from above or from below.
- Boiler socket screws adjustable to a maximum of 12 mm.
- Lifting hooks, easy to dismantle
- Required free height for disassembly of heating elements is 1 m.
- Heating elements resistance tolerances +/- 10%

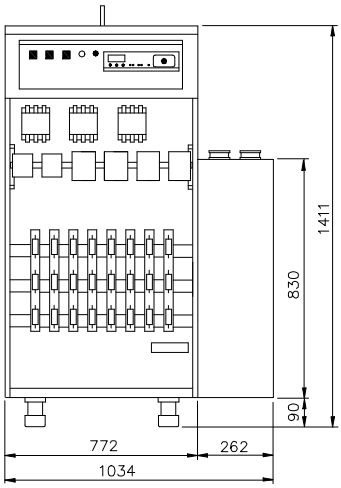
Electrical connection

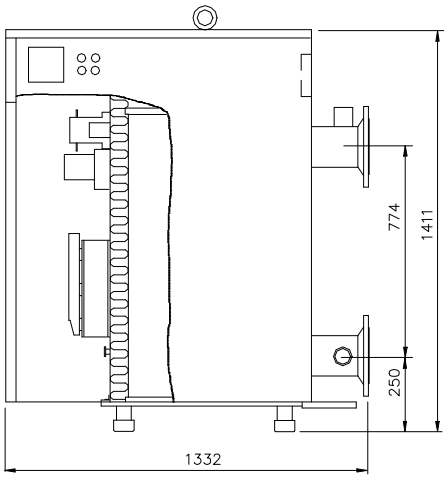
30-steps regulator

TYPE	WATER CONTS. LITERS	TUBE CONNECTIONS		WEIGHT	PACKAGE SIZE CM		
		FLOW/ RETURN	EXP./ DRAIN		L	B	H
SB 4375	310	DN 125/16	2”	450	137	81	155
SB 4400	310	DN 125-16	2”	450	137	81	155
SB 4450	310	DN 125/16	2”	450	137	81	155
SB 4600	310	DN 125/16	2”	450	137	81	155
SB 4750	620	DN 125/16	2”	975	185	133	155
SB 4800	620	DN 125/16	2”	975	185	133	155
SB 4900	620	DN 125/16	2”	975	185	133	155
SB 41000	620	DN 125/16	2”	975	185	133	155
SB 41200	620	DN 125/16	2”	975	185	133	155

All applicable regulations must be observed when electrical and plumbing connections. Sufficient provision must be made for expansion, in accordance with applicable regulations.

Dimension sketches for: SB 375 – 600 kW, 380/400 V





Dimension sketches for: SB 750 – 1200 kW, 380/400 V