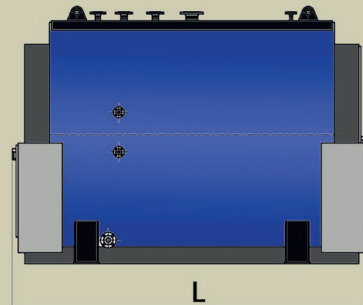
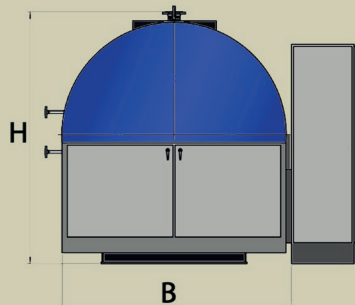
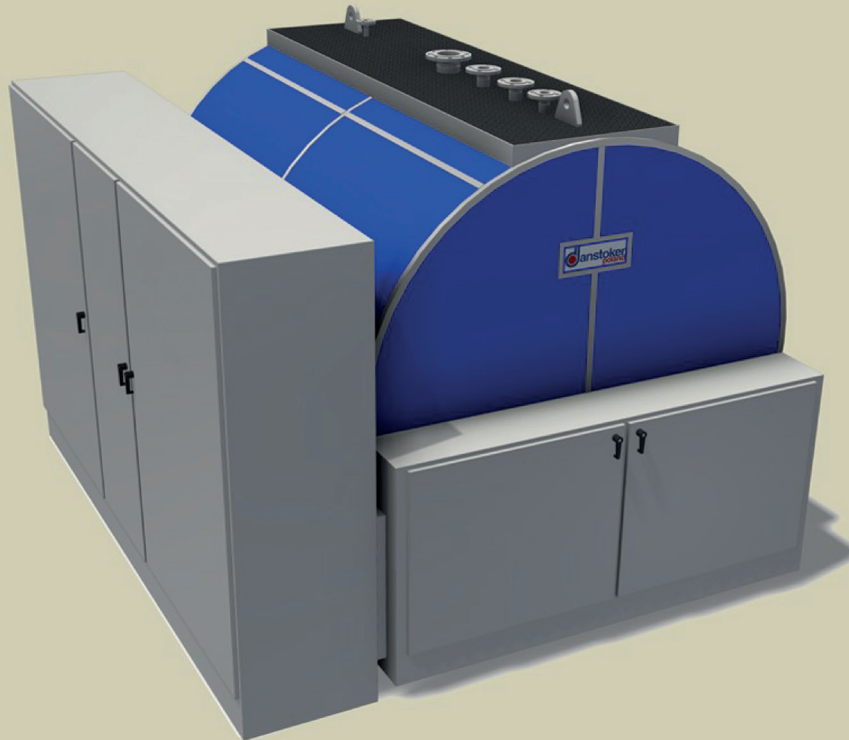


# Low Voltage Electric Boiler

Capacity from 400 kW to 6.000 kW LTHW & HTHW,  
alternative steam rating from 600 kg/h to 9.000 kg/h



The global surplus electricity production from solar and wind energy offers financial benefits when supplementing the heating supply with electric boilers in district heating plants and industrial applications.

Quite often, district heating plants can substitute the use of fossil fuels by leaving it instead to an electric boiler to generate heat for the plant's accumulation tank when the price of electricity is low.

This implies a more environmentally compatible operation and reduced vulnerability to energy price fluctuations.

The industries have the opportunities of supplementing or replacing hot water (LTHW), high-temperature hot water (HTHW) and steam boilers with electric boilers.

Analyses of the costs and benefits involved have demonstrated that electric boilers are extremely competitive and will improve the CO<sub>2</sub> accounts.

Electric boilers feature a robust design and a wide range of regulation. In terms of installation, operation and maintenance alike, they are usually more economical than conventional boilers, as no chimney is needed and the mechanical wear is minimized.



A Thermax Group Company

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# Low Voltage Electric Boiler

Capacity from 400 kW to 6.000 kW LTHW & HTHW,  
alternative steam rating from 600 kg/h to 9.000 kg/h



## Steam: Low Voltage Electric Boiler 690V AC

Heat capacity	Steam rating*	Min. operation pressure**	Total water volume	Boiler L***	Boiler D	Boiler H	Boiler transport weight	Power cabinet L	Power cabinet H	Power cabinet D	Power cabinet weight	Power consumption	Heating elements, 50 kW
kW	kg/h	bar	m <sup>3</sup>	mm	mm	mm	kg	mm	mm	mm	kg	Amp.	pcs.
400	600	3,4	1,4	2600	1360	1600	3300	2400	2100	600	800	335	8
600	900	7,4	1,3	2600	1360	1600	3400	2400	2100	600	850	502	12
800	1200	6	1	3200	1360	1600	3700	2400	2100	600	900	669	16
1000	1500	8,2	1,7	3200	1360	1600	3700	2400	2100	600	925	837	20
1200	1800	2,3	3,4	3500	1760	2000	4600	2400	2100	600	950	1004	24
1600	2400	3,6	3,4	3500	1760	2000	4700	2400	2100	600	970	1339	32
2000	3000	6	3,5	3500	1760	2000	4800	2400	2100	600	1200	1673	40
2400	3600	7,8	3,4	3500	1760	2000	4900	4200	2100	600	1450	2008	48
2800	4200	6	4,7	3800	2010	2300	5800	4200	2100	600	1500	2343	56
3200	4800	7,2	4,7	3800	2010	2300	5900	4200	2100	600	1650	2678	64
3600	5500	5,7	6,5	3800	2260	2500	6600	4200	2100	600	1700	3012	72
4000	6100	6,5	6,4	3800	2260	2500	6700	4400	2100	600	1750	3347	80
4400	6700	6,5	7,8	3800	2460	2700	7600	4400	2100	600	1800	3682	88
4800	7300	7,3	7,8	3800	2460	2700	7700	4400	2100	600	1850	4015	96
5200	7900	8,1	7,8	3800	2460	2700	7800	4400	2100	600	1900	4351	104
5500	8400	8,8	7,8	3800	2460	2700	7900	4800	2100	600	1950	4602	110
6000	9000	8,8	7,8	3800	2460	2700	8100	4800	2100	600	2000	5020	120

## Steam: Low Voltage Electric Boiler 400V AC

Heat capacity	Steam rating*	Min. operation pressure**	Total water volume	Boiler L***	Boiler D	Boiler H	Boiler transport weight	Power cabinet L	Power cabinet H	Power cabinet D	Power cabinet weight	Power consumption	Heating elements, 50 kW
kW	kg/h	bar	m <sup>3</sup>	mm	mm	mm	kg	mm	mm	mm	kg	Amp.	pcs.
400	600	3,4	1,4	2600	1360	1600	3300	2400	2100	600	880	577	8
600	900	7,4	1,3	2600	1360	1600	3400	2400	2100	600	900	866	12
800	1200	6	1	3200	1360	1600	3700	2400	2100	600	920	1155	16
1000	1500	8,2	1,7	3200	1360	1600	3700	2400	2100	600	940	1443	20
1200	1800	2,3	3,4	3500	1760	2000	4600	2400	2100	600	960	1732	24
1600	2400	3,6	3,4	3500	1760	2000	4700	2400	2100	600	990	2309	32
2000	3000	6	3,5	3500	1760	2000	4800	2400	2100	600	1020	2887	40
2400	3600	7,8	3,4	3500	1760	2000	4900	4200	2100	600	1260	3464	48
2800	4200	6	4,7	3800	2010	2300	5800	4200	2100	600	1290	4041	56
3200	4800	7,2	4,7	3800	2010	2300	5900	4200	2100	600	1320	4619	64
3600	5500	5,7	6,5	3800	2260	2500	6600	4200	2100	600	1590	5196	72

\* At nominal capacity, 8 barg and 100°C

\*\* Minimum steam operation pressure

\*\*\* incl. Heating element cabinet(s)

■ Heating elements in both boiler ends

### Control cabinet

W	H	D	Weight
mm	mm	mm	kg
600	1000	250	62

Wall mounted or installed on a separately tripod

The control cabinet is equipped with a Siemens PLC with 7" touch screen.

Steam boilers are supplied with full control system for:

- Feedwater Regulation,
- Feedwater Pump Units
- 72 h/84 h Modulating Safety and Regulating System
- Automatic Blow-down Control and Equipment
- Automatic water treatment
- Water Sampling

Standard design pressure:

Steam: 13 barg

Maximum design pressure:

Steam: 22 barg



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# Low Voltage Electric Boiler

Capacity from 400 kW to 6.000 kW LTHW & HTHW,  
alternative steam rating from 600 kg/h to 9.000 kg/h



## LTHW & HTHW: Low Voltage Electric Boiler 690V AC

Heat capacity	Total water volume	Boiler L***	Boiler D	Boiler H	Boiler transport weight	Power cabinet W	Power cabinet H	Power cabinet D	Power cabinet weight	Power consumption	Heating elements, 50 kW
kW	m <sup>3</sup>	mm	mm	mm	kg	mm	mm	mm	kg	Amp.	stk.
400	0,9	2200	1310	1600	3700	600	1000	250	62	335	8
600	0,9	2200	1310	1600	3700	600	1000	250	62	502	12
800	0,9	2200	1310	1600	3700	600	1000	250	62	669	16
1000	0,9	2200	1310	1600	3700	600	1000	250	62	837	20
1200	2,3	3800	1310	1600	4100	600	1000	250	62	1004	24
1600	2,3	3800	1310	1600	4100	600	1000	250	62	1339	32
2000	2,3	3800	1310	2000	4100	600	1000	250	62	1673	40
2400	3,4	3800	1710	2000	5300	600	1000	250	62	2008	48
2800	3,4	3800	1710	2000	5300	600	1000	250	62	2343	56
3200	3,4	3800	1710	2000	5300	600	1000	250	62	2678	64
3600	3,4	3800	1710	2000	5300	600	1000	250	62	3012	72
4000	4,7	3800	1960	2200	6200	600	1000	250	62	3347	80
4400	4,7	3800	1960	2200	6200	600	1000	250	62	3682	88
4800	4,7	3800	1960	2200	6200	600	1000	250	62	4016	96
5200	4,7	3800	1960	2200	6200	600	1000	250	62	4351	104
5500	4,7	3800	1960	2200	6200	600	1000	250	62	4602	110
6000	4,7	3800	1960	2700	7600	600	1000	250	62	5020	120

## LTHW & HTHW: Low Voltage Electric Boiler 400V AC

Heat capacity	Total water volume	Boiler L***	Boiler D	Boiler H	Boiler transport weight	Power cabinet W	Power cabinet H	Power cabinet D	Power cabinet weight	Power consumption	Heating elements, 50 kW
kW	m <sup>3</sup>	mm	mm	mm	kg	mm	mm	mm	kg	Amp.	stk.
400	0,9	2200	1310	1600	3700	600	1000	250	62	577	8
600	0,9	2200	1310	1600	3700	600	1000	250	62	866	12
800	0,9	2200	1310	1600	3700	600	1000	250	62	1155	16
1000	0,9	2200	1310	1600	3700	600	1000	250	62	1443	20
1200	2,3	3800	1310	1600	4100	600	1000	250	62	1732	24
1600	2,3	3800	1310	1600	4100	600	1000	250	62	2309	32
2000	2,3	3800	1310	2000	4100	600	1000	250	62	2887	40
2400	3,4	3800	1710	2000	5300	600	1000	250	62	3464	48
2800	3,4	3800	1710	2000	5300	600	1000	250	62	4041	56
3200	3,4	3800	1710	2000	5300	600	1000	250	62	4619	64
3600	3,4	3800	1710	2000	5300	600	1000	250	62	5196	72

- \* incl. Heating element cabinet(s)
- Heating elements in both boiler ends

The control cabinet is equipped with a Siemens PLC with 7" touch screen.

### Control cabinet

W	H	D	Weight
mm	mm	mm	kg
600	1000	250	62

Wall mounted or installed on a separately tripod

High- and low temperature hot water boilers are supplied with full control system for:

- Shunt pump (option)

Standard designpressure:  
LTHW: 6 baro  
HTHW: 10 baro

Max. designpressure:  
LTHW: 22 baro  
HTHW: 22 baro

LTHW & HTHW boilers may be delivered with the full Danstoker accessory package according to request.



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