SOLID FUEL PRODUCTS

LOAD UNIT
SERIES LTC200

The ESBE load unit series LTC200 is used to automatically and efficiently load storage tanks and protect solid fuel boilers from too low return temperatures, which otherwise could cause tarring, reduced output and shorter life span of the boiler. The load unit is developed according to the important European Directive 2009/125/EC regarding Eco-design of Energy Related Products and reduces electricity consumption with up to 70%. Patent pending.

Internal thread

OPERATION

The ESBE series LTC200 is a load unit designed to protect the boiler from return temperatures that are too low. Maintaining a high and stable return temperature enables a higher level of boiler efficiency, reduced tarring and increased life span of the boiler.

The LTC200 is used in heating applications where solid fuel boilers are used to feed storage tanks.

FUNCTION

The load unit consists of an integrated pump and thermic valve, designed to make both assembly and handling easy. The new pump reduces electricity consumption with up to 70% compared to standard pumps.

To further increase the energy efficiency the pump speed is fully adjustable, enabling the pump speed to be set exactly right for the system and optimizing the loading of the storage tank.

The load unit is protected by an insulation shell and is fitted with easily readable thermometers.

The valve regulates on two ports, which makes it easy to install and does not require any balancing valve in the bypass pipe.

The LTC200 has an integrated auto-circulation function which makes the unit operational even during power failure or pump failure. The circulation function is blocked at delivery, but can easily be activated if required.

An integrated venting function is included in the LTC200. By alternating for 10 minutes, between low and high speed of the pump, any residual air is pushed out of the load unit and can be vented from the system. After the routine is run, the pump switches automatically to a pre-set speed.

The valve contains a thermostat which begins to open connection A when the outgoing mixed water temperature in connection AB exceeds the lower end of the regulating range. Connection B is fully closed when the temperature in connection A exceeds the nominal temperature with 5°C.

MOUNTING

The pump is equipped with a power supply cable of 0.1 meters, with male connector mounted. Female connector is enclosed.

MEDIA

Maximum 50% glycol for freezing protection and oxygen absorbing compounds are allowed as additives. As both the viscosity and the thermal conduction are affected when glycol is added to the system water, this fact has to be considered when dimensioning the unit.

SERVICE AND MAINTENANCE

The load unit is equipped with shut off ball valves to facilitate future service.

The load unit does not need any maintenance under normal conditions. However thermostats are available and are easy to replace if necessary.

LOAD UNIT LTC200 DESIGNED FOR

- ● Heating
- ○ Comfort cooling
- ○ Potable water
- ○ Floor heating
- ○ Solar heating
- ○ Ventilation
- ○ Zone
- ○ District hot water
- ○ District heating
- ○ District cooling

OPTIONS

Thermostat 55°C	Art. No. 5702 02 00
Thermostat 60°C	Art. No. 5702 03 00
Thermostat 65°C	Art. No. 5702 08 00
Thermostat 70°C	Art. No. 5702 04 00

TECHNICAL DATA

Pressure class:	PN 6
Temperature of medium:	max. 110°C
	min. 0°C
Ambient temperature:	max. 60°C
	min. 0°C
Leakrate A - AB:	max. 0,5% of max. flow (Q_{max})
Leakrate B - AB:	max. 3% of max. flow (Q_{max})
Rangeability Kv/Kv^{min}:	100
Supply voltage:	230 ± 10% VAC, 50 Hz
Power consumption:	LTC261, 3 – 45W
Energy classification:	A
EEI (Energy Efficiency Index)	<0.23
Power supply cable:	0.1 m
Connections:	Internal thread, EN 10226-1

Material

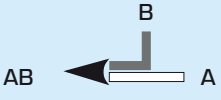
Valve body and cover:	Nodular iron EN-JS 1050

CE LVD 2006/95/EC
EMC 2004/108/EC
RoHS 2002/95/EC
PED 97/23/EC, article 3.3

ErP 2009/125/EC

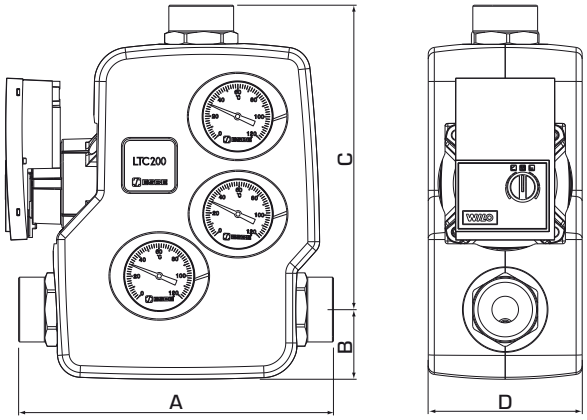
Pressure Equipment in conformity with PED 97/23/EC, article 3.3 (sound engineering practice).

FLOW PATTERN



ESBE
NO.1 IN HYDRONIC SYSTEM CONTROL

LOAD UNIT
SERIES LTC200

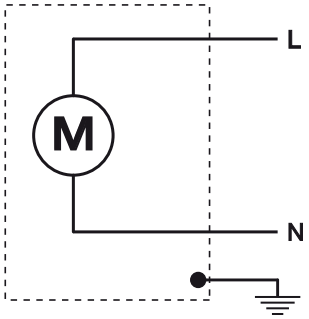


SERIES LTC261, INTERNAL THREAD

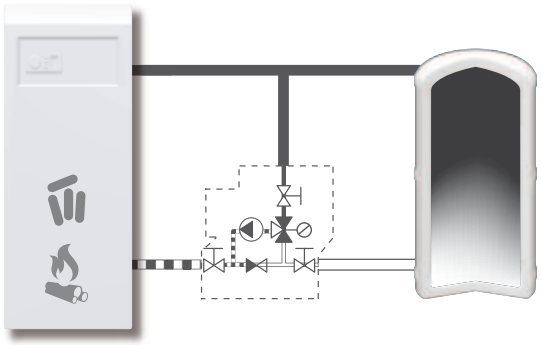
Art. No.	Reference	DN	Connection Adapter	Power [kW]	(max. Δt)	Temperature	A	B	C	D	Weight [kg]
5500 40 00	LTC261	25	Rp 1“	90	35	55°C ± 5°C	207	50	209	110	4.40
5500 41 00				75	30	60°C ± 5°C					
5500 42 00				65	25	65°C ± 5°C					
5500 43 00				50	20	70°C ± 5°C					
5500 44 00	LTC261	32	Rp 1¼“	100	35	55°C ± 5°C	227	50	219	110	4.55
5500 45 00				85	30	60°C ± 5°C					
5500 46 00				70	25	65°C ± 5°C					
5500 47 00				55	20	70°C ± 5°C					
5500 48 00	LTC261	40	Rp 1 ½"	105	35	55°C ± 5°C	241	50	226	110	4.60
5500 49 00				90	30	60°C ± 5°C					
5500 50 00				75	25	65°C ± 5°C					
5500 51 00				60	20	70°C ± 5°C					

WIRING

The pump should be preceded by a multi-pole contact breaker in the fixed installation.



INSTALLATION EXAMPLE



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