



# Electric boilers

Output 70–495 kW

The Professional's Choice Since 1935

## Electric boilers with PLC and built-in safety equipment

Osby Parca offers electric boilers complete with built-in safety equipment — a very reliable and convenient solution. Common areas of use for this type of boilers is heating of hot water for all kinds of facilities, including industrial process water. The electric boilers are also used in connection with other hot water sources, such as solid fuel boilers and heat pumps.

All electrical boilers are delivered with a micro processor control system. This piece of equipment offers great possibilities to optimise the boiler operation, which enables safer and more economical operation.

The boilers are built around a pressure vessel with electric elements assembled from the top with connections for input and output water easily accessible. The electric equipment is assembled in the front.

The 70–495 kW electric boilers can be delivered with assembled safety equipment — a neat and reliable solution

### Benefits With Osby Parca Electric Boilers (70-495 kW):

- When current drops which lasts longer than three minutes occur, the re-connection of the boiler load is delayed with 60 minutes;
- The boiler output is regulated by power steps. The output can easily be optimised by adjusting the number of power steps used;
- The main fuse of the facility can be protected by installing current transformer and current sensors;
- The boiler water temperature is regulated with the setpoint;
- Equipped with over heating protection equipment;
- Several boiler can be connected for higher total output;
- Approved for 0-flow.

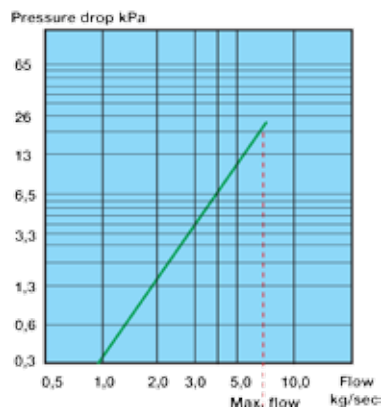


# Boiler Specifications

## EL150 – 70–150 kW

### Design data for EL150

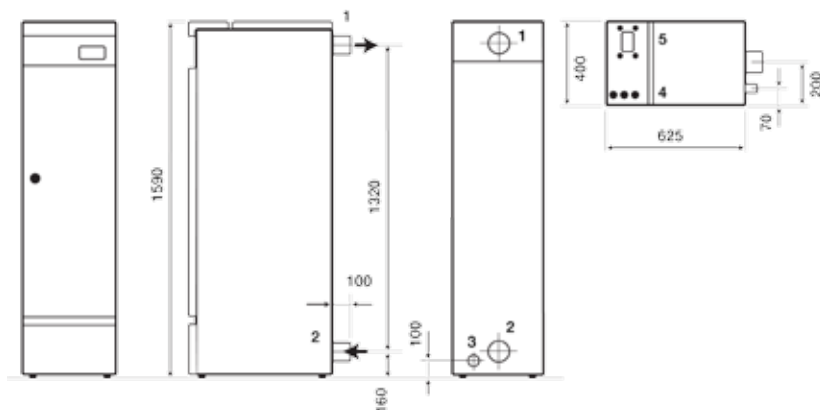
Design pressure	4,0 bar
Test pressure	5,2 bar
Design temperature	110°C
Operating temperature	100°C
Boiler water volume	85 l
Safety rating	IP21



### Technical Data for EL150

Output kW	Power steps		Voltage A	Current A	Rec. fuse A	Connection area mm <sup>2</sup>	Weight kg
	kW	qty					
70	3,8	19	400V 3N~	102	125	240	160
88	6	15	400V 3N~	128	160	240	160
100	6	17	400V 3N~	145	160	240	170
135	6	23	400V 3N~	196	250	240	170
150	12	13	400V 3N~	219	250	240	170

### Dimensions and connections on the EL150



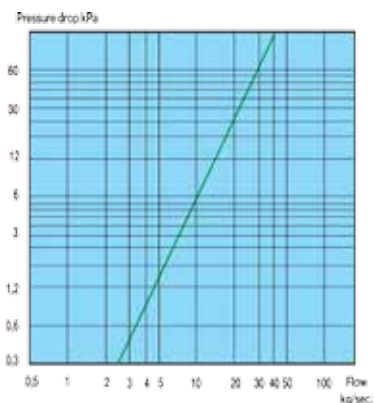
1. Supply flow conn. 50 (ext. thread)
2. Return flow conn. 50 (ext. thread)
3. Drain R1" ext.
4. Connection slot 3 x Ø22,5
5. Flange opening 1 pc. FL-21

The minimum distance between the top of the boiler and the ceiling must be at least 800 mm.

## EL350 – 175–350 kW

### Design data for EL350

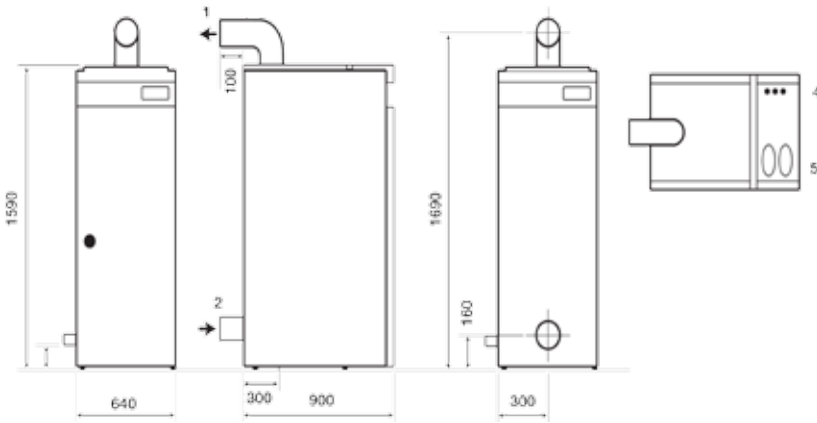
Design pressure	10 bar
Test pressure	13 bar
Design temperature	110°C
Operating temperature	100°C
Boiler water volume	263 l
Safety rating	IP21



### Technical Data for EL350

Output kW	Power steps		Voltage A	Current A	Rec. fuse A	Connection area mm <sup>2</sup>	Weight kg
	kW	qty					
175	12	15	400V 3N~	253	315	2 x 240	325
200	12	17	400V 3N~	289	315	2 x 240	325
245	12	21	400V 3N~	354	400	2 x 240	325
270	12	23	400V 3N~	390	500	2 x 240	325
315	12	27	400V 3N~	457	500	2 x 240	325
350	23,3	15	400V 3N~	506	630	2 x 240	325

## Dimensions and connections on the EL350



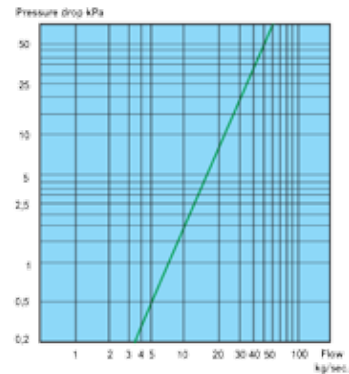
- |                    |                        |
|--------------------|------------------------|
| 1. Supply flow     | conn. 80 (ext. thread) |
| 2. Return flow     | conn. 80 (ext. thread) |
| 3. Drain           | R1" ext.               |
| 4. Connection slot | 3 x Ø22.5              |
| 5. Flange opening  | 1 pc. FL-21            |

Minimum distance between the top of the boiler and the ceiling is 1300 mm. No cables may be assembled on the boiler's rear plate (inhibits change of immersion heaters).

## EL500 – 425–495 kW

### Design data for EL500

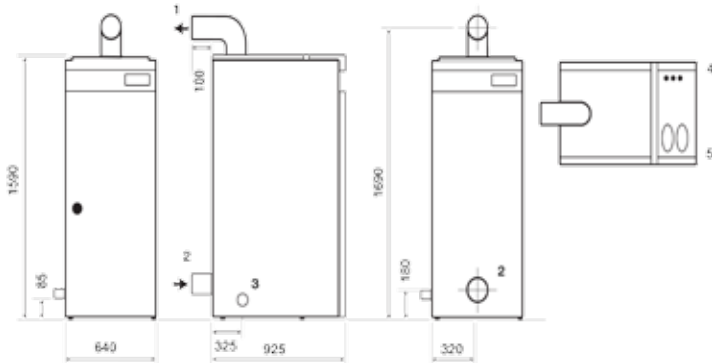
Design pressure	10 bar
Test pressure	13 bar
Design temperature	110°C
Operating temperature	100°C
Boiler water volume	315 l
Safety rating	IP21



### Technical Data for EL350

Output	Power steps		Voltage	Current	Rec. fuse	Connection area	Weight
kW	kW	qty	A	A	A	mm <sup>2</sup>	kg
425	23.3	18	400V 3N~	613	800 (3x250)	3 x 240	400
495	23.3	21	400V 3N~	714	800 (3x250)	3 x 240	400

## Dimensions and connections on the EL500



- |                    |                         |
|--------------------|-------------------------|
| 1. Supply flow     | conn. 100 (ext. thread) |
| 2. Return flow     | conn. 100 (ext. thread) |
| 3. Drain           | R1" ext.                |
| 4. Connection slot | 3 x Ø22.5               |
| 5. Flange opening  | 2 pc. FL-21             |

The minimum distance between the top of the boiler and the ceiling must be at least 1300 mm.



Assembly alternatives for connection box and cable flange on the EL500.

# OX 2001 – Electronic Control System

The unit is composed of two printed circuit cards assembled on top of each other. All the connections for 230V is placed on the lower card. The upper card contains the electronics for the control and monitoring functions, as well as a display with eight light emitting diodes (LED) for status indication.

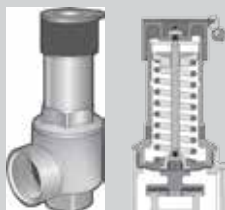


## Features

- External limit that indicates if the external analogue input is limiting/blocking the output;
- One-hour delay after power cut;
- Current limit;
- Supply flow temperature matched to set point value;
- Output regulation;
- Step regulation;
- Six LED diodes that indicates wich output step that is active;
- Seven potentiometers for setting the following parameters: step duration, current limit, current margin, delta T, minimum limit, maximum limit, boiler temp;
- Four buttons for reading and setting parameters;
- Eight electronic DIP-switches for programming the boiler: supply flow sensor, over-temperature setting (relative or constant), internal or external set point value, external set point value signal (0-10V or 4-20mA), input – external signal for output control (0-10V or 4-20mA),
- relay function – alarm or operation indication.

## Built-in Safety Equipment

A reliable, convenient and economical solution as all the equipment is delivered pre-assembled on the boiler. This saves you time and money for assembly parts and labour. The built-in safety equipment is approved for installation without emergency protection, steam pipe, level sensor and flow guard.



Safety valve



Pressure switch



Thermostat

## Safety Equipment Matrix

Denomination / Output	70-150 kW	175-270 kW	315-350 kW	425-495 kW
Safety valve (op. pressure 3 bar)	1 pc. (DN20/25)			
Safety valve (op. pressure 6 bar)		1 pc. (DN25/32)	1 pc. (DN25/32)	1 pc. (DN32/40)
Max. pressure switch	1 pc. (DN15)	1 pc. (DN15)	2 pc. (DN15)	2 pc. (DN15)
Min. pressure switch	1 pc. (DN15)	1 pc. (DN15)	1 pc. (DN15)	1 pc. (DN15)
Max. thermostat	1 pc. (DN15)	1 pc. (DN15)	2 pc. (DN15)	2 pc. (DN15)

## Accessories

Prod.no.	Denomination
3317-0106	Flow temperature sensor (extra sensor)
1118404-01	3 pc current sensor for current limit, max. 5 A
3317-0202	Outdoor temperature compensator (incl. outdoor sensor)

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