

**ELECTRAFLOW**

## Electric Boiler Range

Electric boiler with thermal storage flexibility providing both heating and hot water



**McDonald**  
**Water Storage**

Hot Water Storage Solutions

# ELECTRAFLOW

## The Electric Boiler Range Providing Wet Central Heating and Mains Pressure Hot Water

Our ELECTRAflow is an electric boiler incorporating thermal storage, providing instantaneous heating and hot water.

With our solution, we can offer significant cost savings both during installation and ongoing running costs.

ELECTRAflow is the most customisable wet central heating and hot water solution for apartment applications, with bespoke design flexibility to meet the installation requirements.

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# Discover The Benefits Of An Electric Boiler Solution

The ELECTRAflow electric boiler solution provides many benefits, especially when compared to an electric instantaneous heater or electric combination boiler including:

- The thermal storage allows the home owner to maximise the benefit of lower cost off-peak electric periods such as Economy 7 or Economy 10, to load shift the energy consumption, for use when required.
- The store provides a large amount of mains pressure hot water, even during periods of high demand and heating.
- The ELECTRAflow is an off-peak thermal store, designed to utilise the off-peak electricity tariffs, a major benefit in Standard Assessment Procedure (SAP) calculations.
- By making use of off-peak electricity and potentially renewable sources, electric thermal stores can contribute to a lower carbon footprint for your home heating and hot water.



## ELECTRAflow Advantages For Multi-Apartment Developments

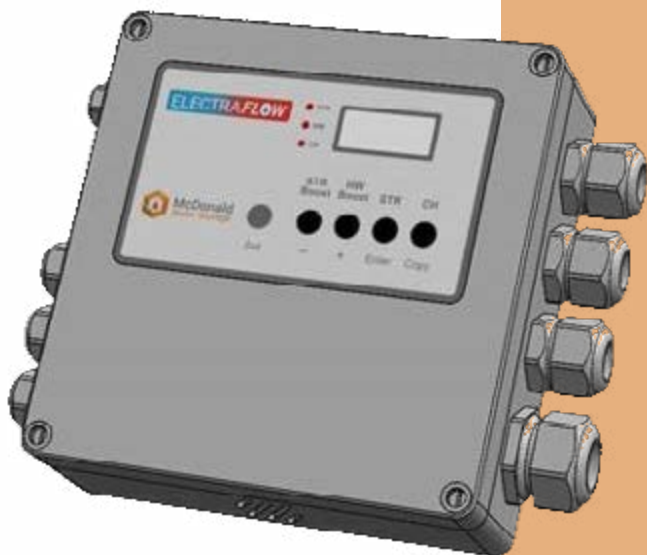


The ELECTRAflow is the perfect solution for multi-apartment developments, especially when considering alternatives to central plant or electric combination boiler solutions:

- Bespoke design flexibility to suit all applications
- Suitable for use with underfloor or wet central heating systems
- Provides mains pressure hot water
- No risk of legionella
- No annual service requirement
- No discharge or flue requirement

# Controller Simplicity

## To Meet Your Requirements



The ELECTRAflow is supplied with a compact control panel for ease of use, to provide control of both your heating and hot water requirements.

The controller is supplied pre-programmed for Economy 7 and Economy 10 tariffs, providing ease of installation, allowing you to charge the complete store using off-peak electricity, for use when required during the day.

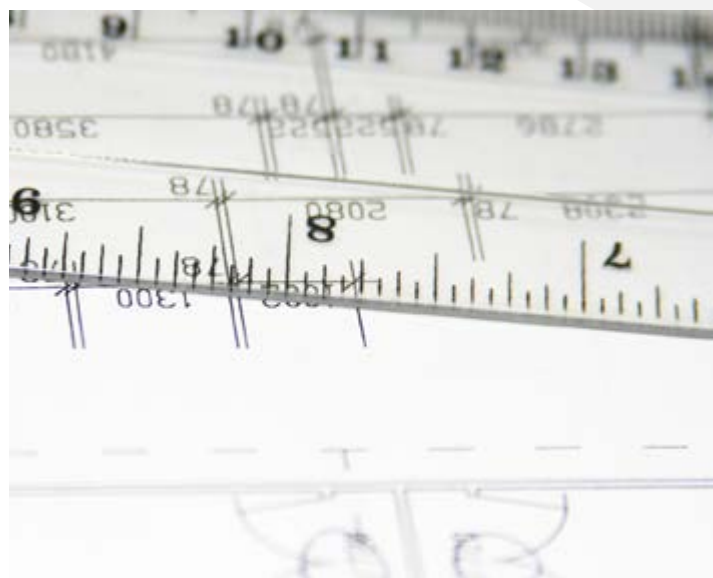
The two boost options provide the flexibility to either boost the store using the bottom immersions for heating or the top immersion during summer for hot water only.

The ELECTRAflow controller provides the 7 day programming functionality for the heating, which works in conjunction with the room thermostat supplied for your comfort.

## Specification Is Key To Maximising Efficiency

To decide which unit is most suitable for you, please specify the following when speaking to the team;

- Property heat load in kW (Maximum 6kW)
- Annual kW usage
- Number of bedrooms and bathrooms
- Proposed electrical tariff
- Open vented or sealed heating system
- Available Space

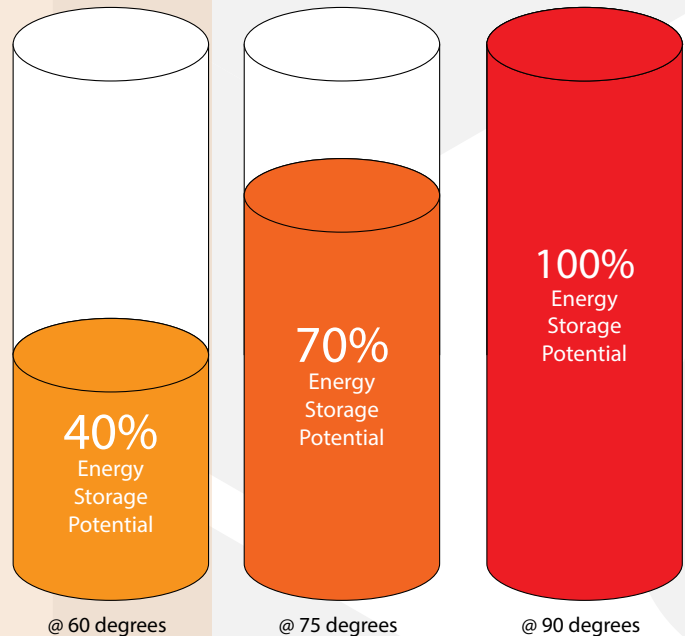


# Higher Temperatures For Increased Energy Storage

Traditional electrically heated cylinders control the temperature of the store by using the immersion heater thermostats, with unvented cylinders at 60°C and standard thermal stores at 75°C.

The ELECTRAflow is designed to work with a PT1000 sensor at the top of the store to control the temperature, allowing the thermal store to be taken to higher temperatures, up to 90°C.

By heating the thermal store, often classed as a thermal battery, to a higher temperature whilst the electricity is at a lower cost (ie during an Economy 7 off-peak period), there is more energy provided than standard hot water storage cylinders.



## Complete Package Delivered With A Range Of Optional Extras



We are able to supply the ELECTRAflow with a range of optional extras to suit the individual installation including;

- Sealed heating coil
- Heating expansion vessel
- Heating system pump
- Framework to support the rectangular tank option
- Spray foam insulation available
- Combination cylinder or cylinder with separate feed and expansion tank
- Domestic hot water pipework insulation

## Cylinder and Combination Variants

The ELECTRAflow cylinder / combination style units provide both heating and mains pressure hot water to the property, utilising electricity only.

The unit is supplied with three 3kW immersion heaters, with the two at the base connected to the low cost electricity supply (where available) to heat the complete store. The controller allows the flexibility to either boost the store using the bottom immersions for heating or the top immersion during summer for hot water.

The unit is suitable for either open vented heating systems or sealed heating systems.

The ELECTRAflow is a bespoke designed product with indicative sizes for reference shown below. Larger volumes and different configurations available to suit application.



Combination model shown

### COMPONENTS

1. Ballvalve
2. 22mm Hot Draw Out – c/w TMV
3. Expansion Chamber
4. 22mm Cold Mains In
5. Drain
6. 22mm Heating Flow \*
7. 22mm Heating Return \*
8. PT1000 Sensor Pocket
9. Immersion (Hot Water Boost)
10. Immersion (Central Heating)
11. ½" Female (Plugged)

\* Sealed System Heating Coil can be supplied.

### KEY BENEFITS

- Maximises the benefit of off-peak electricity tariffs
- Provides both wet central heating and hot water
- No discharge pipework
- No annual maintenance
- No G3 certification required for installation
- Units are bespoke manufactured to suit installation

#### All Units to Following Specification:

- Feed and expansion tank can be provided separately or incorporated into the combination units
- Room thermostat
- 3 x 3kW LWD Immersion heaters fitted
- Insulation to all external pipework

| Model                      | CYLINDER VARIANT |      |      |      | COMBINATION VARIANT |      |      |      |
|----------------------------|------------------|------|------|------|---------------------|------|------|------|
|                            | 180              | 210  | 250  | 300  | 180                 | 210  | 250  | 300  |
| Storage Capacity           | 180              | 210  | 250  | 300  | 180                 | 210  | 250  | 300  |
| Height                     | 1350             | 1550 | 1850 | 1850 | 1500                | 1700 | 1700 | 2050 |
| Diameter                   | 550              | 550  | 550  | 600  | 550                 | 550  | 600  | 600  |
| Max Heating Load (kW)      | 6                | 6    | 6    | 6    | 6                   | 6    | 6    | 6    |
| ERP Class                  | C                | C    | C    | C    | C                   | C    | C    | C    |
| Standing Heat Loss (watts) | 59               | 65   | 72   | 80   | 59                  | 65   | 72   | 80   |
| Heating Expansion          | -                | -    | -    | -    | 20                  | 20   | 25   | 25   |

Sizes shown include insulation with protective casing and standard heating expansion (Combination variant only).



## Rectangular Tank Variant

The ELECTRAflow rectangular tank style units provide both heating and mains pressure hot water to the property. The rectangular design of the store takes up to 27% less space than an equivalent volume cylinder, perfect for space restricted applications.

The unit is supplied with three 3kW immersion heaters, two at the base connected to the low cost electricity supply (where available) to heat the complete store. The controller allows the flexibility to either boost the store using the bottom immersions for heating or the top immersion during summer for hot water.

The ELECTRAflow is a bespoke designed product with indicative sizes for reference shown below. Larger volumes and different configurations available to suit application.

## COMPONENTS

1. Ballvalve
2. Overflow – Header Tank
3. Inspection Lid (Header Tank)
4. 22mm Hot Draw Out – c/w TMV
5. Expansion Chamber
6. 22mm Cold Mains In
7. Drain
8. 22mm Heating Flow \*
9. 22mm Heating Return \*
10. PT1000 Sensor Pocket
11. Immersion (Hot Water Boost)
12. Immersion (Central Heating)
13. ½" Female (Plugged)

\* Sealed System Heating Coil can be supplied.

## KEY BENEFITS

- Maximises the benefit of off-peak electricity tariffs
- Provides both wet central heating and hot water
- No discharge pipework
- No annual maintenance
- No G3 certification required for installation
- Units are bespoke manufactured to suit installation
- Suitable for open vented or sealed heating systems

### All Units to Following Specification:

- Incorporated feed and expansion tank
- Room thermostat
- 3 x 3kW LWD Immersion heaters fitted
- Insulation to all external pipework

| Model                      | 180  | 210  | 250  | 300  |
|----------------------------|------|------|------|------|
| Storage Capacity           | 180  | 210  | 250  | 300  |
| Height                     | 1285 | 1285 | 1260 | 1285 |
| Width                      | 525  | 585  | 600  | 640  |
| Depth                      | 570  | 570  | 600  | 640  |
| Max Heating Load (kW)      | 6    | 6    | 6    | 6    |
| ERP Class                  | C    | C    | C    | C    |
| Standing Heat Loss (watts) | 73   | 78   | 85   | 94   |
| Heating Expansion          | 20   | 20   | 20   | 20   |

Sizes shown above are indicative only, and include insulation and standard heating expansion which can be increased at the time of order

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