



T H E R M A L E C

RANGE OF ELECTRIC POOL HEATERS



12PHR
3kW - 12kW



24PHR
15kW - 24kW



36PHR
30kW - 36kW



72PHR
48kW - 72kW



120PHR
84kW - 120kW

S P E C I F I C A T I O N

HEATER BODY: Cast in BS-EN-1561-1997-ENGJL-200 iron, with a heavy fusion bonded epoxy coating impervious to chemically treated pool water, constructed in accordance with British Patent 2.092,282 Design pressure of 35psi (2.46kg/cm²) with 3/4" safety valve(s) set to operate at the maximum normal working pressure of 30psi (2.1kg/cm²) giving protection to both the heater and the installation as a whole against over pressure. A 1/2" drain valve at the lowest point allows the heater to be left empty in winter. Flow connections consist of easily removable uPVC stub flanges into which the pipes may be fitted using suitable adhesive, as the flanges can be released easily from the heater no unions are required, nor is any form of heat sink needed. Flow direction is from left to right, but may be reversed quite simply on site following the installation instructions.

HEATER ELEMENTS: Heavy duty nickel plated copper sheathed elements to BS3456:Part201:1990, BS-EN-60335-1, with low Watt density for long life, are mounted individually in a removable top plate, which allows complete inspection of the interior of the vessel.

CONTROLS: Heavy duty contactors control the power supply to the elements. The contactors are switched in turn by a filter pump interlock relay, a pool temperature controller with less than 1°C differential, and a manually reset safety thermostat to operate before the temperature reaches 53°C. The control circuit is protected by a 2A fuse. A minimum of 6 indicator lights monitor every stage for

simple diagnostic servicing. The controls are mounted in a plastic coated steel enclosure above the heater body. Cable entry is through a removable plate in the rear panel.

MODEL VARIATIONS. Due to the variation in power output of the different models, the heaters have additional controls as follows:

12PHR STANDARD MODEL. Additionally to the above controls switching the main contactor, an On/Off switch is provided to control the main power to the heating elements.

ALL OTHER STANDARD MODELS

24PHR - 36PHR - 72PHR - 120PHR AND ALL POWER BOOST MODELS. Circuit breakers are fitted instead of the On/Off switch and protect the heavy power circuits of the heater against short circuit. These not only act as the main switch, but in the event of a water temperature rise within the heater being sufficient to operate the safety thermostat, a trip is triggered within the breaker such that the heater is totally isolated at its point of supply. The unit will not operate again until both the safety thermostat and the circuit breakers are manually reset. Operation of the safety thermostat switches off the working contactors before energising the in-built shunt trip of the breaker, giving the unique Thermalec double protection against overheating and damage to the elements.

36PHR - 72PHR - 120PHR MODELS. Fitted with a thermometer to indicate the outlet temperature,

which enables flow rates to be adjusted when heaters are either fitted with a by-pass, branched off a much larger flow pipe, are used in multiples or are operated in parallel with an alternative means of heating.

72PHR MODELS. Fitted with a time delay relay to bring the contactors on in two stages, reducing electrical surges. Additionally a 2-step temperature controller overrides the time delay in the event of a rapid temperature rise. To cope with the increased power, two safety valves are fitted.

120PHR MODELS. Fitted with two time delay relays to bring the contactors on in three stages, reducing electrical surges. Additionally a 2-step temperature controller overrides the time delay in the event of a rapid temperature rise. To cope with the increased power, four safety valves are fitted.

In view of our policy of continuous improvement, we reserve the right to change this specification without notice.

GUARANTEE. Two years against faulty workmanship or materials. We will repair or replace during this period any goods returned to our factory for inspection. This guarantee does not cover misuse or neglect of the heater.

The above specification has been evolved over more than 35 years of electric pool heating experience and cannot be matched by any other heater in the World today, even though "all necessary controls and safety devices" is a much used phrase.