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TITANIUM SWIMMING POOL HEATERS

# T-100 Electric Heaters 6-72kW

The T-100 model heater is designed for ultimate safety and market leading reliability. It is perfect for use on larger pools. It is available in outputs from 6-72kW. Multiple heaters can be installed in parallel to achieve greater outputs. T-100 models are supplied fully equipped and prewired to ensure easy installation and incorporate several safety features to ensure they meet and exceed current and future safety standards.



## Titanium heating elements

Offer total protection against corrosion from aggressive water chemistry

## Flow switch

The safest and most reliable method to protect equipment when flow stops

## Multi point temperature detection

For accurate and safe control of the heating process

## Two contactors per element bank

Telemecanique heavy duty contactors provide ultimate safety

## Anti cycle delay protection

Prevents the heater from 'cycle' switching to ensure component life is maximised

## Indication lamps

Provide clear and easily understandable display of the heaters status

## Mounting brackets

Ensure the heater can be easily wall or base mounted

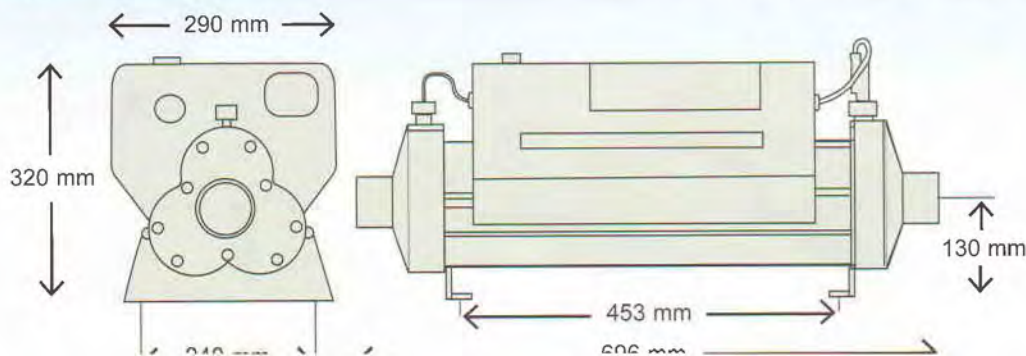
## Technical Specification

Heating Elements:	Pure Titanium
Flow Tube:	Stainless Steel BS316 or Pure Titanium
Control Thermostat:	0-40°C (1°C Differential)
Safety Thermostat:	60°C Manual Reset
Flow Requirements:	Minimum 9000 litres per hour Maximum 36000 litres per hour
Water Connections:	2" / 63mm rigid pipe
Service Pressure:	3 Bar

## Power Requirements

	230v 1phase	230v 3phase	400v 3phase	415v 3phase
6kW	6kW 27A	6kW 15A	6kW 9A	6.5kW 10A
9kW	9kW 40A	9kW 23A	9kW 13A	9.75kW 14A
12kW	12kW 53A	12kW 30A	12kW 18A	13kW 18.5A
15kW	15kW 66A	15kW 38A	15kW 22A	16kW 23A
18kW	18kW 79A	18kW 45A	18kW 26A	19.5kW 27A
24kW		24kW 61A	24kW 35A	26kW 37A
30kW		30kW 76A	30kW 44A	32kW 45A
36kW		36kW 91A	36kW 52A	39kW 54A
45kW		45kW 113A	45kW 66A	49kW 69A
54kW		54kW 136A	54kW 78A	59kW 82A
60kW			60kW 87A	65kW 91A
72kW			72kW 104A	78kW 108A

Heaters can be supplied in other voltages to meet with any local laws and regulations



# Evolution Electric Heaters 3-24kW



Evolution model pool heaters are Europe's market leading electric swimming pool heater. They are supplied fully equipped and pre-wired ensuring the simplest and most cost effective installation process. They provide safe and reliable operation for all types of pool.

## Titanium Heating Elements

Offer total protection against corrosion from aggressive water chemistry

## Flow Switch

The safest and most reliable method to protect equipment when flow stops

## Twin thermostats

For accurate and safe control of the heating process

## Contactors

Telemecanique heavy duty contactor

## Mounting Brackets

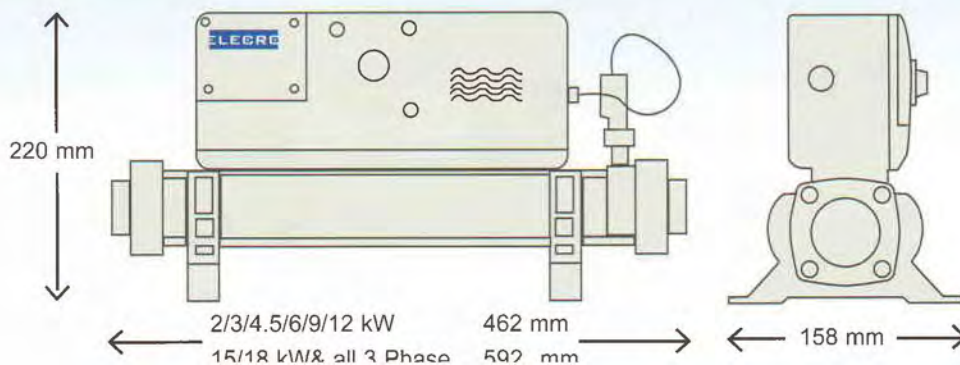
Ensure the heater can be easily wall or base mounted

## Technical Specification

Heating Elements:	Pure Titanium
Flow Tube:	Stainless Steel BS316 or Pure Titanium
Control Thermostat:	0-40°C (1°C Differential)
Safety Thermostat:	60°C Manual Reset
Flow Requirements:	Minimum 2500 litres per hour Maximum 13000 litres per hour
Water Connections:	1.5" BSP/ 50mm
Service Pressure:	3 Bar

## Power Requirements

	230v 1phase	400v 3phase	415v 3phase
3kW	3kW 13A		
6kW	6kW 27A	6kW 9A	6.5kW 10A
9kW	9kW 40A	9kW 13A	9.75kW 14A
12kW	12kW 53A	12kW 18A	13kW 18.5A
15kW	15kW 66A	15kW 22A	16kW 22.5A
18kW	18kW 79A	18kW 26A	19.5kW 27A
24kW		24kW 35A	26kW 37A



# ELECRO

## ENGINEERING



### ELECRO G2 Heat Exchanger

30-kW (102K BTU) - 122-kW (416K BTU)

#### Features

- Robust, durable construction
- Titanium tube bundle
- 316 Stainless Steel shell with special polyamide fittings
- Wall mountable (bracket supplied)
- Vast, unrivalled heat transfer surface area
- Rigid Thermal Insulation shell to insulate the primary circuit and enable maximum efficiency
- Available with fully equipped Analogue or Digital control (optional)

#### Construction

The Elecra G2 Heat Exchanger is manufactured from top quality components and materials at the Elecra works in Hertfordshire, England.

The heat exchanger construction gives a vast heat transfer surface area, consisting of a densely populated multi-tubular bundle, secured by the uniquely designed polyamide-rubber tube sheet. The heat exchanger shell is constructed from BS 316 Stainless Steel enclosed by a rigid thermal shell for enhanced insulation of the primary (HOT) water, enabling even greater heat transfer; this is capped at each end with primary and secondary moulded fittings manufactured from specially formulated polymer alloy material.

The standard G2 heat exchanger is supplied complete with:

- 2 x 1" male/male Brass Primary connections
- 1 x 1" Non-Return Valve
- Titanium thermostat pocket
- 1 x Blanking Cap and Gasket (for non-thermostat side)

The Elecra G2 Heat Exchanger has been designed to allow the installation engineer to select which way to plumb the primary and secondary water to achieve maximum thermal gain; this is achieved by routing the primary (HOT) flow in an opposing direction to the secondary (POOL) water.



# ELECRON

## ENGINEERING

### TITAN Optima TITAN Optima plus

Swimming Pool Heater  
with Ultra Efficient Titanium  
Heating Elements

18-kW – 120-kW (400 V - 3 ph)

18-kW – 90-kW (230 V - 3 ph)



#### Features

- Easy Installation, floor or vertical wall mount
- Super safe operation
- Robust, durable construction
- Digital water flow signal, no pump interlock required
- Low element Watts density reduces encrustation
- Titanium heating elements - zero corrosion guaranteed
- 316 stainless steel flow tube (Titan Optima)
- Titanium flow tube (Titan Optima plus)
- Dual cascade wired *Schneider* contactors on each element bank
- Digital timers for staged energisation
- Easy programming using touch screen
- Digital controls provide more accurate temperature control
- Epoxy powder coated aluminium cabinet

#### Construction

The Titan Optima is manufactured from top quality components and materials at the Elecro works in Hertfordshire, England.

Construction consists of three flow tubes which are fitted to the uniquely designed manifold mouldings made from specially formulated polymer alloy material. Spiral wound titanium heating elements provide a 'Vortex' water flow, these are positioned equidistantly along each flow tube providing ultra efficient performance, the 'Low watts density' of these elements guarantees extended life and reliability. The Titan Optima plus uses pure titanium flow tubes for use with salt water pools. The outlet manifold accommodates a flow switch which provides a digital signal to the control board. The inlet manifold is equipped with a titanium temperature pocket fitted with a temperature sensor.

The heater is supported by two G/F polyamide Chassis End Panel mouldings, these together with durable aluminium panels form an enclosure finished in tough epoxy powder coat paint. The enclosure houses the cascade wired *Schneider* contactors (2 per element bank) timers and control board. The enclosure design encourages induced cooling giving an extended switch gear life span.

The heater control panel is on the top of cabinet containing the indication and fault lights as well

