



## Product Description: Mains voltage control unit

Six channel, with six P159TDA temperature programmers and 110V auxiliary outputs.

## Applications

This versatile unit is ideal for use in supplying and controlling thermal energy in temporary and permanent furnaces, and for the internal heating of vessels for post weld heat treatments.

The unit can also be used (using the correct electrical safety procedures) to power and control mains voltage, flexible ceramic pad

## Description

When connected to a three phase 380V/415V/440V, 330A supply, this unit provides up to 240kW of heating power to up to eighteen, 4-bank channel elements such as our GHT 5604, 13.3 kW channel elements. The heat treatment process is controlled by six built-in P159T-DA temperature controller/programmers.

*Note that where three phase 380V/415V/440V, supply currents on site are limited, we can supply units where each of the six channel outputs are supplied individually from a standard 63A three phase socket. Request our product data sheet GHT 8119 ( six channel unit), or GHT 8002 (two channel unit) for further details of these units.*

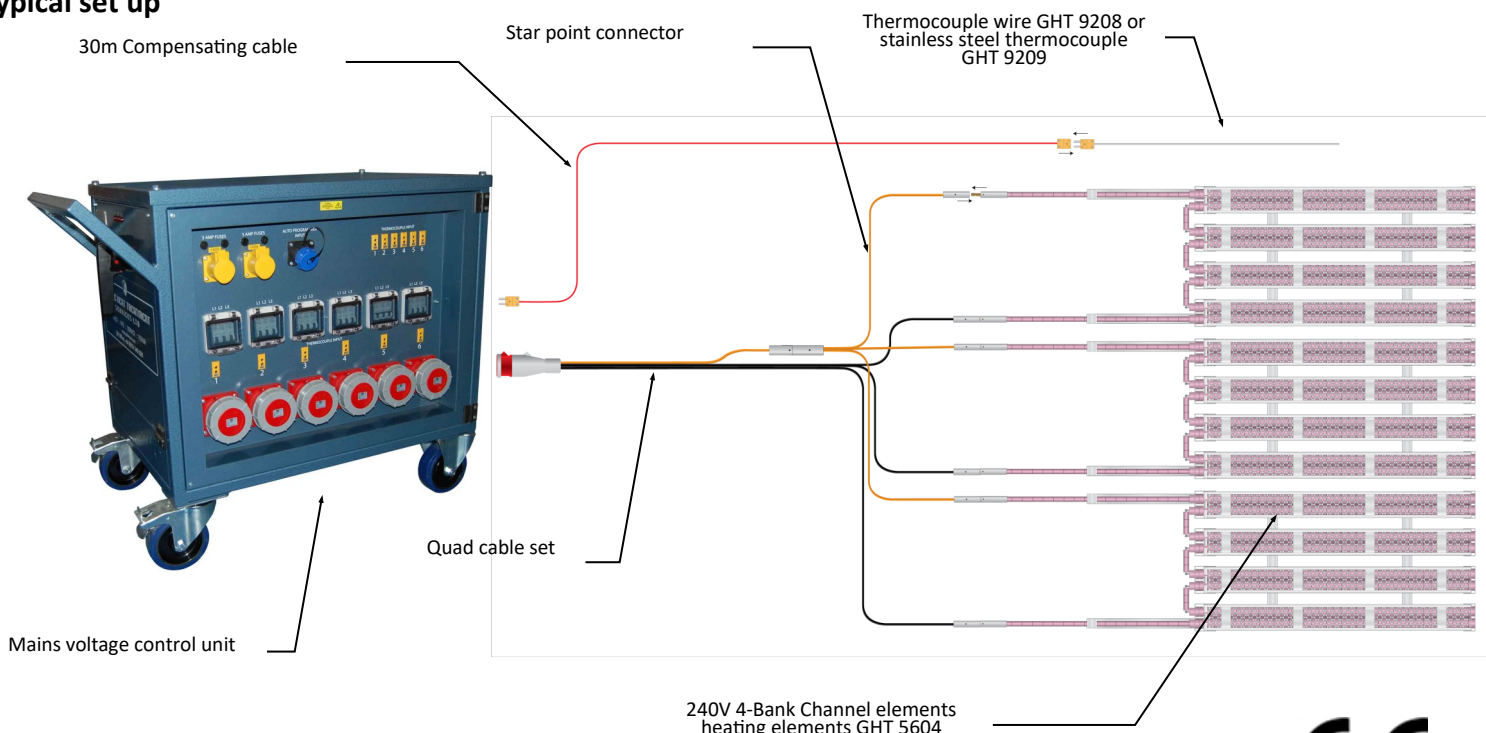
## Operation

- In total, six control channels, with three elements connected in star to each output channel circuit, can be used to provide 240kW of power when the unit is connected to a 415V three phase, neutral and earth supply.
- Each channel output supplies three phase power to each circuit of star connected elements, via a quad cable ( see GHT6201) and a star point connection cable ( see GHT 6202-OR ) . All cables are supplied separately.
- The temperature of each control channel is controlled by a P159TDA temperature programmer and can be recorded via thermocouple outputs , utilizing an external temperature recorder such as our GHT 2001 or GHT 2474 ( supplied separately).

## Features

- Six P159TDA single channel, temperature controller/programmers
- Six three phase and neutral output sockets
- Six type K thermocouple panel mounted input sockets, and six output sockets, for connection to external temperature recorder
- Mains input isolator and fast acting emergency stop/power cut-off switch
- Multipin, Bulgin control input plug, for use with external six way programmer such as the P183: GHT 3300 supplied separately
- Two 110V auxiliary sockets for supplying power to temperature recorders and for recharging thermocouple attachment units (TAU)

## Typical set up



240V 4-Bank Channel elements heating elements GHT 5604



| Specification                            |   |
|--|---|
| Primary input supply voltage and current | Three phase, 380V, 415V, 440V (330A per phase fully loaded)                               |
| Frequency                                | 50/60Hz   |
| Output voltage                           | Three phase, 380V, 415V, 440V (single phase voltage 220V, 240V or 255V)                   |
| Maximum total number of 13.2 kW elements | Eighteen  |
| Over current protection                  | 63A miniature circuit breaker (MCB) on each output channel                                |
| Earth leakage protection                 | Earth leakage protection provided by earth leakage trip system                            |
| Input protection                         | User's three phase supply must be protected by adequately rated fuses or circuit breakers |
| Thermocouple input and output            | Type K (NiCr/NiAl)  |
| Output sockets                           | Six 3 phase and neutral sockets   |
| Auxiliary outputs                        | Three 110V auxiliary sockets  |
| Case                                     | Mild steel, blue powder coated  |
| Dimensions                               | 80cm x 59cm x 137cm   |
| Weight                                   | 130kg   |
| Design standards                         | EMC: EN 61326: 1998, LVD: EN 61010-1: 2001  |

## Example set of mains voltage equipment for internal bulk head heat treatment or temporary furnaces etc

| Product Code | Description  | Quantity |
|--------------|--|----------|
| GHT 8003     | Mains voltage control unit   | 1        |
| GHT 2001     | Chino EH3127-001 twelve point temperature recorder   | 1        |
| GHT 6001     | Quad cable set 30m, 16mm <sup>2</sup>  | 6        |
| GHT 9314     | Six way, 1m compensating cable link  | 1        |
| GHT 6202-OR  | Star point connector   | 6        |
| GHT 6253     | 30m Compensating cable fitted with Type k thermocouple plug and socket   | 6        |
| GHT 5604     | 240V, 4-Bank Channel elements heating elements   | 18       |
| GHT 7000     | Superwool 607 insulation blanket, 7.3m x 610mm, 25mm thick ( quantity dependent upon application and workpiece size) | -        |
| GHT 4003     | TW163/V-M automatic, variable, thermocouple welder   | 1        |
| GHT 9208     | Thermocouple wire type K, high density insulation, 100m roll   | 1        |
| GHT 9046     | Thermocouple plug, solid pin, type K   | 6        |
| GHT 9209     | Stainless steel thermocouple type K  | 6        |
| GHT 9301     | Banding machine  | 1        |
| GHT 9303     | Stainless steel banding, 30m roll  | 2        |
| GHT 9304     | Stainless steel banding clips, box of 100  | 1        |