



# PLANRAY

- Trace Heating Automation -

## BT-400-3P

### TECHNICAL DATA



**Function**

**BlueTrace typical heating targets:**

- Conduit heat tracing for different materials
- Slab, ramp and conveyor heating
- Receptacle and tank heating
- Roof- and drainpipe heating

**Typical heating applications:**

- Frost protection
- Process temperature maintaining
- Outdoor temperature based heating

**Electrical data**

Supply voltage: 100 - 277 VAC, 50 - 60 Hz  
 Power consumption: 8 W, internal operating voltage transformer  
 Main circuit voltage: 100 - 277 VAC, 50 - 60 Hz  
 Main circuit current: 50A @ 0 °C, Absolute maximum 74A /<1s

|                                | <b>Voltage:</b>   | <b>Current:</b> | <b>Control mode:</b>                       |
|--------------------------------|---|-----------------|--|
| Input connections:             | 2x 100 - 277 VAC, 24 VDC  | 5A              | Current limited input, function settable   |
| Output connections:            | 2x 100 - 277 VAC, 24 VDC  | 5A              | Relay, change over contact: func. settable |
| Temp. measurement connections: | 2x PT-100, 3-wire connection<br>Measurement scale -50 ... +600 °C, accuracy +- 0,1 °C (sensor type A) |                 |  |

**Mechanical data**

Dimensions: Height: 524 mm, Widht: 132 mm, Depth: 210 mm, mounting spacing 474 mm  
 Weight: 5.9 kg  
 Space: 0,0132 m<sup>2</sup>  
 IP-rating: IP54 / IEC 60529 / SGS 259732-1  
 Panel: ABS  
 Heat sink and mounting hardware: Aluminum  
 Display: 128 x 64, monochrome graphics display with contrast adjustment  
 Keyboard: Membrane keypad, IP54 (avoid mechanical stress)  
 Cable entries: M32 \* 2pcs (cable Ø 20 mm), M20 \* 5pcs (cable Ø 10 mm),  
 M12 \*1pcs (cable Ø 5 mm)  
 Connectors:

|                           |   |
|---------------------------|---|
| Supply voltage            | 2,5 mm <sup>2</sup> screw terminal, wire A = 1 - 2,5 mm <sup>2</sup>        |
| Main circuit              | 16 mm <sup>2</sup> screw terminal, wire A = 1 - 16 mm <sup>2</sup>          |
| I/O connections           | 2,5 mm <sup>2</sup> plug/screw terminal, wire A = 0,5 - 2,5 mm <sup>2</sup> |
| Temp. Measurement         | 1,5 mm <sup>2</sup> plug/screw terminal, wire A = 0,5 - 1,5 mm <sup>2</sup> |
| Bus connections           | 2,5 mm <sup>2</sup> plug/screw terminal, wire A = 0,5 - 2,5 mm <sup>2</sup> |
| Programming / PC          | USB mini B-connector  |
| PE / TE                   | 16 mm <sup>2</sup> screw terminal, wire A = 1 - 16 mm <sup>2</sup>          |
| BT-TL600 contactor contr. | 2,5 mm <sup>2</sup> screw terminal, wire A = 1 - 2,5 mm <sup>2</sup>        |

## Electromagnetic compatibility

|           |  |
|-----------|--|
| Immunity: | EN 61000-6-2:2005 / IEC 61000-6-2:2005 |
| Emission: | EN 61000-6-4:2006 / IEC 61000-6-4:2007 |

## Environmental conditions

|                           |                |
|---------------------------|----------------|
| Operating temperature:    | -40 ... +60 °C |
| LCD function temperature: | -20 ... +60 °C |
| Storage temperature:      | -30 ... +70 °C |

## Communications

|                       |   |
|-----------------------|---|
| Serial communication: | USB<br>RS-485 / MODBUS RTU, additional feature<br>PROFIBUS DP, additional feature |
| Network connection:   | ETHERNET / MODBUS RTU over TCP/IP additional feature                              |

## Additional card slots

Two card slots for serial communication and network connections.  
One slot for BT-TL600 temperature limiter card.

## Equipement safety

Meets the safety standart EN-61010-1:2001 (Ed 2), National Differences: CA, CH, US

## Packaging information

Size: Length: 550 mm, Height: 225 mm, Width: 160 mm, Space: 0,0198 m<sup>2</sup>

|                    |           |               |             |            |
|--------------------|-----------|---------------|-------------|------------|
| Country of origin: | Warranty: | Customs code: | UNSPSC-code | ETIM-class |
| FI                 | 24        | 9032 10 20    | 40101800    | EC000194   |

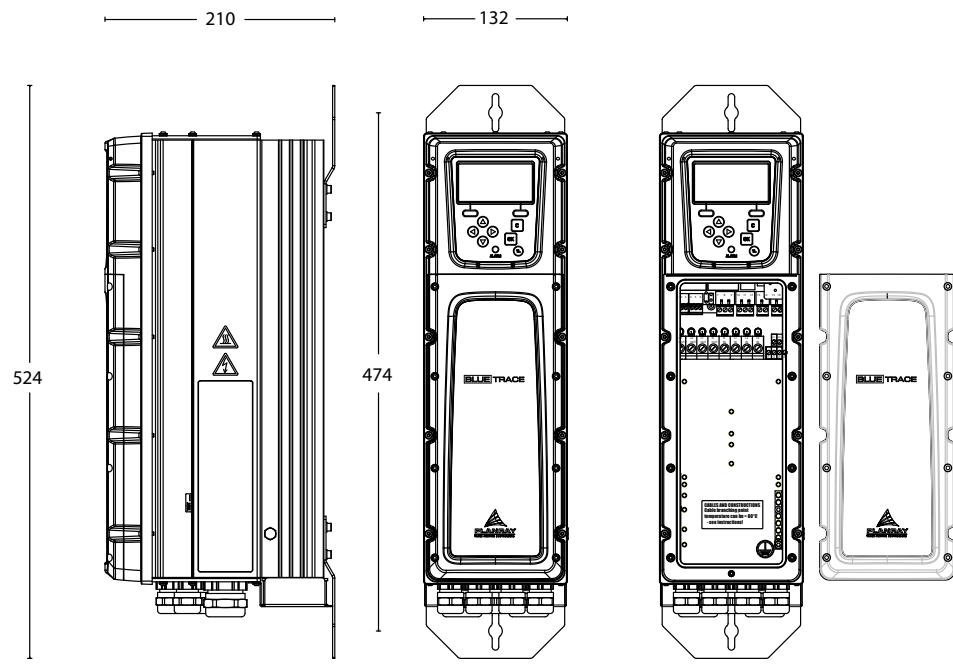
## Certificates

|            |                              |
|------------|------------------------------|
| SGS FIMKO: | FI 27450; BlueTrace          |
| CSA:       | 2567936; BlueTrace, BT-TL600 |
| VTT:       | VTT 11 ATEX 083X; BT-TL600   |





Dimension table



Circuit

