



# PLANRAY

- Trace Heating Automation -

## BT-300-1P

### 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 @ 40 °C, Absolute maximum 74A /<1s

**Voltage:**

**Current:**

**Control mode:**

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  
 Measurement scale -50 ... +600 °C, accuracy +- 0,1 °C (sensor type A)

**Mechanical data**

Dimensions: Height: 424 mm, Widht: 132 mm, Depth: 210 mm, mounting spacing 374 mm  
 Weight: 44 kg  
 Space: 0,0107 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 RS-485 / MODBUS RTU, additional feature PROFIBUS DP, additional feature
Network connection:	ETHERNET / MODBUS RTU over TCP/IP additional feature

## Additional cardslots

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>

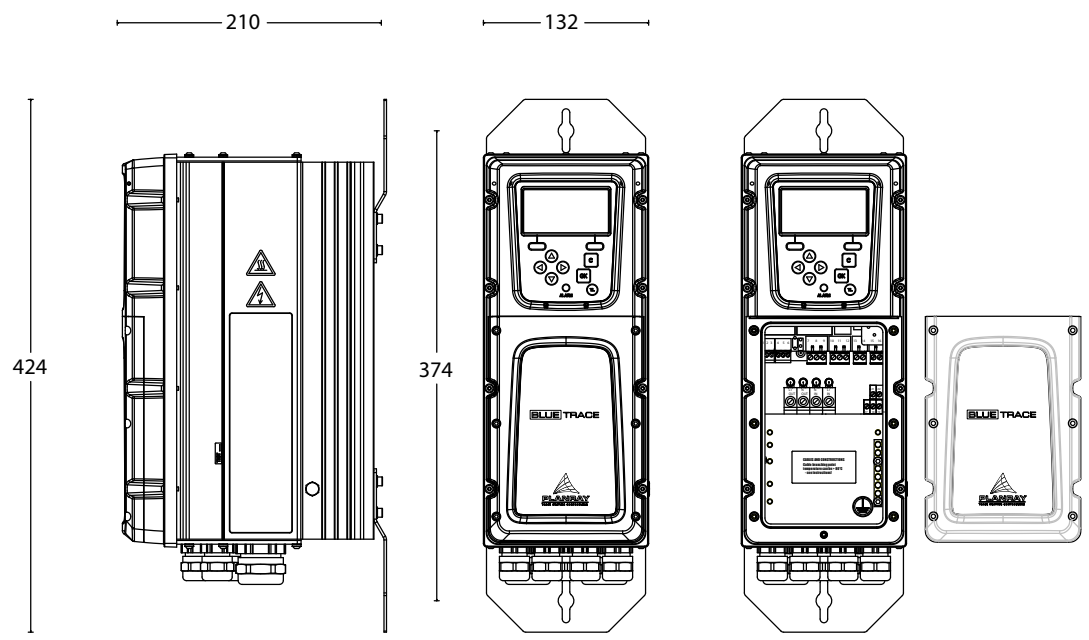
Country of origin:	Warranty:	Customs code:	UNSPSC-code	ETIM-class
FI	24	9032 10 20	40101800	EC000194

## Certificates

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



Dimension table



Circuit

