

# Smart Thermostat

## HVAC Monitoring and Control



### Control your Heating and Cooling

The Smart Thermostat device is an all in one monitoring and control module for HVAC systems, encapsulated in a small form factor and can be controlled and configured remotely via the carbonTRACK Smart Hub.

### Flexibility

The Smart Thermostat device is a very smart, adaptable control device.

It can be used with a number of leading HVAC systems currently available on the market.

### Compatibility

The Smart Thermostat supports a range of 2 Heat / 2 Cool multistage conventional HVAC and Heat Pump systems.

### BENEFITS

- Control and manage your HVAC temperature and running schedule
- Installation is a simple replacement of your existing HVAC controller. No change to the main HVAC unit is required.

### FEATURES

- Control your device from the App & online dashboard
- Switch & smart control
- Device scheduling
- Reliable, real-time data
- ZigBee HA 1.2 compliant
- Safety & system alerts
- MDT data security

## SPECIFICATIONS

Model	PCTZ-503
Radio Frequency ZigBee Power and Standard	2.4GHz +8dBm, ZigBee HA 1.2
Device Range (Outdoor / Indoor)	100 metres / 30 metres*
Electrical Rating	24 VAC, 2A Carry; 5A Surge 50/60 Hz
Rated Power Consumption	4-watts maximum
Firmware Upgrade Method	Not Supported
Mounting Type	Wall mounted
<b>Physical Description</b>	
Dimensions (W x L x H)	87.40 mm x 160.00 mm x 33.00 mm
Weight	0.226 kg
Chassis Type	Plastic
<b>Environmental</b>	
Operating Temperature	-0° to +40° C
Storage Temperature	-30° to +60° C
Relative Humidity	20% to 90%, non-condensing
<b>Visual Characteristics</b>	
Display	3.5" TFT Colour LCD, 480*320 pixels
<b>Certifications</b>	
FCC Certification	Yes
CE Certification	Yes

## GENERAL INFORMATION

Model	PCTZ-503
Functions	<ul style="list-style-type: none"> <li>• 2-stage heater and 2-stage cooling HVAC systems</li> <li>• Supports natural gas, heat pump, electric, hot water, steam or gravity, gas fireplaces (24 Volts), oil heat sources</li> <li>• Supports any combination of systems</li> </ul>
Heating and Cooling	<ul style="list-style-type: none"> <li>• Up to 2 stages cooling and Up to 2 stages heating</li> </ul>
Heat Pump	<ul style="list-style-type: none"> <li>• Up to 2 Stages</li> <li>• 1 stage + 1 aux</li> <li>• 1 stage + 2 aux</li> <li>• 2 stage + 1 aux</li> <li>• 2 stage + 2 aux</li> <li>• Dual Fuel Heat Pump</li> <li>• 4 stage heating (2 compressor, 2 aux heat), 2 stage cooling</li> </ul>
Schedules	<ul style="list-style-type: none"> <li>• User configurable schedule-based control</li> </ul>
Data Transmission Protocol	<ul style="list-style-type: none"> <li>• Secure carbonTRACK MDT protocol</li> </ul>
HVAC Control Functions	
System Mode	<ul style="list-style-type: none"> <li>• Heat, Cool, Auto, Off, Emergency Heat (Heat Pump only)</li> </ul>
Fan Mode	<ul style="list-style-type: none"> <li>• On, Auto, Circulation</li> </ul>
Advanced Mode	<ul style="list-style-type: none"> <li>• Local and remote setting of the temperature</li> <li>• Auto-changeover between heat and cool mode (System Auto)</li> <li>• Compressor short cycle protection delay of 2 minutes</li> <li>• Failure protection by cutting off all circuit relays</li> </ul>
Temperature Sensing Range	<ul style="list-style-type: none"> <li>• -10° to +125° C</li> </ul>
Temperature Resolution	<ul style="list-style-type: none"> <li>• 0.1° C</li> </ul>
Temperature Display Accuracy	<ul style="list-style-type: none"> <li>• +/- 1.0° C</li> </ul>
Temperature Setpoint Span	<ul style="list-style-type: none"> <li>• +/- 1.0° C</li> </ul>
Humidity Sensing Range	<ul style="list-style-type: none"> <li>• 0 to 100% relative humidity</li> </ul>
Humidity Accuracy	<ul style="list-style-type: none"> <li>• +/- 4.0% Accuracy through the range of 0% to 80% relative humidity</li> </ul>
Humidity Response Time	<ul style="list-style-type: none"> <li>• 18 seconds to reach 63% of the next step value</li> </ul>

\*Note: There are various factors that can affect the maximum working range of this device such as obstructions between the Smart Hub and the Smart Thermostat. The maximum working range is an estimate only and the manufacturer make no guarantees that this range will be achieved for your specific application.

## ORDERING INFORMATION

SKU	Description	Region
CTPCTZ-503	PCTZ-503 Smart Thermostat	All

## RECOMMENDED ACCESSORIES

SKU	Description	Region
CT200M-508	CT200 Smart Gateway (CAT-M1 Modem)	All
CT200i-505	CT200 Smart Gateway (3G Modem)	All

### SERVICE & WARRANTY

carbonTRACK's comprehensive Support Service programs offer a full array of options to suit your specific needs. These services are aimed at protecting your investment and reducing the total cost of ownership.

### TECHNICAL SUPPORT SERVICES

At carbonTRACK, we are committed to providing you with a quality service with a high attention to detail. Several options of support are available to choose from.

For additional information on Support Services as well as other service offerings, please contact your carbonTRACK representative or visit [www.carbonTRACK.com.au](http://www.carbonTRACK.com.au)

### HEAD OFFICE

carbonTRACK Limited  
Level 2  
104 Burwood Road  
Hawthorn, Victoria  
Australia 3122  
Tel: 1300 288 648  
Email: [info@carbontrack.com.au](mailto:info@carbontrack.com.au)  
[www.carbonTRACK.com.au](http://www.carbonTRACK.com.au)

Go to [www.carbonTRACK.com.au](http://www.carbonTRACK.com.au) for detailed product model numbers.

Trademarks and Registered Trademarks: carbonTRACK and the carbonTRACK logo. All other products and technologies are the trademarks or registered trademarks of their respective holders.