ECLYPSE™ Connected Terminal Unit Controller

Overview
The ECLYPSE Connected Terminal Unit Controller (ECY-TU/PTU) is designed to control terminal units such as fan coil units, chilled beams, ceilings, and heat pumps. It integrates a control, automation and connectivity server, a power supply, and dedicated I/Os in one convenient package. Each model supports BACnet/IP communication and is listed as a BACnet Building Controller (B-BC).

These products feature wired and wireless advanced IP connectivity for efficient and reliable installation.

The ECY-TU/PTU comes with an embedded web server that enables web-based application configuration and an HTML5 visualization interface. It also features embedded scheduling, alarming, and logging. Control logic and graphic user interface can be customized as required for the application.

Moreover, as part of the Smart Room Control solution, these controllers can control lighting fixtures (DALI, ON/OFF, dimming) and shades/sunblind motors (24 VDC or 100-240 VAC, up/down and angle rotation) through additional expansion modules.

Applications
- Fan coil units
- Chilled beams
- Reversible ceilings with 6-way valves
- Heat pumps
- Smart Room Control solution

Moreover, these HVAC applications can support different configurations (4 pipe, 2 pipe, ...) and different valve and actuator types (on/off, thermal, floating, 0-10 V, ...).

Features & Benefits
IP Communication
- Increased speed and improved handling of numerous trend logs that enable applications, such as advanced analytics that require a large amount of data.
- Experience faster response and save time when programming, configuring, creating and viewing graphics, and upgrading your system.
Control technicians can connect the ECLYPSE Wi-Fi Adapter to the ECY-TU/PTU thereby creating a Wi-Fi Hotspot network. The control technician can then connect wirelessly to the system using a mobile device or laptop, for faster, easier system configuration, programming, commissioning, and servicing.

Hostname management allows the controller to be addressed by a nickname to facilitate network management.

**Advanced IP Connectivity**

The different types of connections supported by the ECY-TU/PTU are the following:

**IP wired connection**

Internal switch with two Ethernet ports allows the controllers to be wired in a star or daisy-chain topology. With a daisy-chain topology:

- Fewer wire runs to a centralized switch are required, thereby achieving installation and cost reduction.
- A laptop can be connected to the second Ethernet port for direct programming, configuration, and commissioning using EC-gfxProgram or ENVYSION.

**Integrated Fail-Safe for Daisy-Chaining**

Controllers feature an integrated fail-safe: in case of power failure to one of the daisy-chained controllers, communication data is still relayed to the following controller on the daisy-chain. This reduces the possibility that a single point of failure will knock-out follow-on controllers, and minimizes disruption when power is cut to a controller for maintenance operations.

**IP wireless (Wi-Fi) connection**

- Wi-Fi Client - Connection to the building’s existing Wi-Fi network or to another controller’s Wi-Fi Hotspot or Access Point.
- Wi-Fi Access Point - extending the building’s wired IP network to your Wi-Fi Client devices.
- Wi-Fi Hotspot - your own wireless area network, for wireless communication between the controllers, or with a mobile device or laptop for configuration, commissioning and servicing.

Both IP wired and wireless (Wi-Fi) connection

The availability of both Ethernet ports and USB ports for the Wi-Fi Adapter, allows for simultaneous wired IP and Wi-Fi communication on the same controller, which means you can choose and combine these connection methods. For example, Wi-Fi can be used between two controllers to jump a large atrium.

**Connect from anywhere**

Control technicians, facility managers, occupants, and others can easily connect to the system, on-site or off-site, using the different available tools:

- ENVYSION to create and view the graphical interface
- EC-gfxProgram to create custom control sequences
- myDC Control to view, edit, and configure system operating parameters

**Scalable and Modular**

An ECY-MBUS communication module can be connected via USB to add one M-Bus port for meter integration, thus eliminating the need for a third-party gateway (from M-Bus to BACnet/IP).

**BACnet/IP Device**

The ECY-TU/PTU is BTL-listed as a BACnet Building Controller (B-BC) and is certified WSP B-BC (Europe) and AMEV AS-A & AS-B (German-speaking countries). It supports BACnet/IP for faster communication in comparison to the traditional twisted pair communication bus.

**No External Transformer**

Some models feature a 100-240 VAC universal power supply input that allows for direct connection to the mains and do not require external transformers, for improved reliability and reduced installation costs.

Some models have a 24 VAC power supply output that can be used to power analog dampers and valve actuators thereby eliminating the need for a transformer.

**Dedicated Inputs & Outputs**

Each controller has specific IOs to fulfill any type of installation:

- Universal inputs for using your preferred or engineer-specified sensors.
- Sensor inputs to ensure optimal temperature measurement processing.
- Digital inputs to accelerate the integration of binary inputs such as window contacts.
- Powered Triac outputs for direct connection of valves and actuators.
- Powered relay outputs for direct connection of ventilator fans.
- Relay contact outputs for controlling externally powered devices such as electric heater, fans, ...
- Analog outputs to provide control signals for external peripherals.
- Digital / Analog outputs for enhanced flexibility

Depending on the installation configuration and controlled equipment (valves, fans...), the suitable model will allow for simplified installation and wiring, and eliminate the need for additional external power supply.

**eu.bac Certified Control Efficiency**

The eu.bac certification schemes guarantees the highest level of performance of the products and systems, as defined in the EU-Directives and relevant EN standards. This allows building owners to ensure that their building keeps performing as well, or better than when it was first commissioned.

**Preloaded Application and Graphics**

**Faster programming and configuration**

The ECY-TU/PTU is a plug and play device that saves time and money since no programming or graphic design is needed as it comes with ENVYSION™ Viewer and the associated preloaded applications and graphics are pre-installed.

All standard terminal applications, such as fan coil units, chilled beams and ceilings, are included.

**Direct web access**

Also, no additional tools are required; only a web-browser is needed when you are using the pre-loaded application through ENVYSION. An Allure™ EC-Smart-Vue sensor can also be used. However, if the pre-loaded application does not meet the application requirements, it is possible to use EC-gfxProgram to program it.

**HTML5 Visual Interface**

The ECY-TU/PTU comes embedded with ENVYSION Viewer and xpressENVYSION.

**ENVYSION Viewer – Web-based graphical user interface**

The embedded ENVYSION viewer provides fast loading of visual applications through native web pages with absolutely no browser plug-ins. Host and view preloaded graphics, and access schedules, alarms, and trend logs directly from your ECY-TU/PTU.

**Programmability**

Supports Distech Controls’ EC-gfxProgram, which makes Building Automation System (BAS) programming effortless, by allowing you to visually assemble building blocks to create a custom control sequence for any HVAC, lighting, or building automation application.

**Simplified Network Commissioning**

The XpressNetwork Utility saves you time and expense by giving you increased control over multiple ECLYPSE controllers through device discovery and batch operations such as configuring, programming, and updating multiple ECLYPSE controllers on the network.

In addition, with the embedded step by step Commissioning Wizard, all configuration operations can be setup and applied in one go.
Increase productivity using the xpressNetwork Companion mobile app, making it easier to identify and locate a controller on the network. Use the QR Code marked on ECLYPSE controllers to easily collect key controller data and to facilitate its network integration with xpressNetwork Utility.

Open to Web Services
With the RESTful API, the ECY-TU/PTU’s data can be accessed from different applications, such as energy dashboards, analytics tools, and mobile applications. The RESTful API documentation explains the implementation protocol for this interface.

Mobility
The controller can be remotely accessed to program, configure, or maintain the installation thus reducing costs associated with on-site visits. Through a mobile device or PC, a range of tasks can be performed using the following free-to-use tools and interfaces:
- ENVYSION web-based graphic design and visualization interface
- EC-gfx Program graphical programming interface
- myDC Control mobile application
- xpressNetwork Companion controller data collection utility

Alarms, Trend Log, Schedule Support
Embedded alarms, trend log and schedule support allows for fully distributed data and logic providing a more robust system. Embedded trend logs simplify system troubleshooting when compared to a centralized system.

Email Notifications Service
Technicians & facility managers can receive automatic email notifications for system status and alarms to ensure faster system servicing and response time. Email notification text can be customized to provide pertinent information about the issue at hand.

FIPS 140-2 Level 1 Compliant
FIPS 140-2 Level 1 compliance provides an enhanced level of security to protect data the controller is collecting and sharing making it suitable for use in the most sensitive environments.

Smart Room Control Support
The Smart Room Control solution is an end-to-end system for the control of HVAC equipment, lighting, and shades/sunblinds, achieving the highest levels of comfort for occupants while cutting costs from installation time and wiring/material requirements to energy consumption. This solution combines:
- Lighting and shade/sunblind expansion modules to control lights (on/off or dimming) and shades/sunblinds (up/down and angle rotation).
- Multi-sensor combining motion and luminosity (Lux) sensors and an Infrared receiver that works with a convenient remote control.
- The ECLYPSE platform is compatible with Distech Controls line of Bluetooth® low energy technology enabled devices (Allure UNITOUCH™ and EC-Multi-Sensor-BLE) and mobile application providing state-of-the-art occupant management.
- Allure™ Series Communicating room sensors for increased occupant comfort settings using integrated sensors for temperature, humidity, CO₂, and motion.

Allure™ Series Communicating Sensor Support
These controllers work with a wide range of sensors, such as the Allure Series Communicating Sensors that are designed to provide intelligent sensing and control devices for increased user experience and energy efficiency.
- Allure EC-Smart-Vue
- Allure EC-Smart-Comfort
- Allure EC-Smart-Air
- Allure UNITOUCH
## Model Selection

### Connected Terminal Unit Controller

<table>
<thead>
<tr>
<th>Model</th>
<th>ECY-PTU-107</th>
<th>ECY-PTU-207</th>
<th>ECY-PTU-208</th>
<th>ECY-TU-203</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage Input</td>
<td>100-240 VAC</td>
<td>100-240 VAC</td>
<td>100-240 VAC</td>
<td>24 VAC</td>
</tr>
<tr>
<td>Points</td>
<td>12</td>
<td>16</td>
<td>16</td>
<td>16</td>
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<tr>
<td>Universal Inputs</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Digital Inputs</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sensor Inputs</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Relay Contact Outputs</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Relay Outputs (typ. Electric Heater)</td>
<td>3 (Line-Powered)</td>
<td>3 (Line-Powered)</td>
<td>3 (Line-Powered)</td>
<td>3 (Unpowered)</td>
</tr>
<tr>
<td>Relay Outputs (typ. Fan Speeds)</td>
<td>3 (Line-Powered)</td>
<td>3 (Line-Powered)</td>
<td>3 (Line-Powered)</td>
<td>3 (Unpowered)</td>
</tr>
<tr>
<td>Powered Triac Outputs (typ. Valves)</td>
<td>2 (Line-Powered)</td>
<td>2 (Line-Powered)</td>
<td>2 (24 VAC)</td>
<td>2 (24 VAC)</td>
</tr>
<tr>
<td>Analog Outputs</td>
<td>-</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Digital / Analog Outputs</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>24 VAC Power Supply Outputs</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>ENVYSION Viewer</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Preloaded Apps in Imperial units</td>
<td>CDIY-PTU107IMP-00</td>
<td>CDIY-PTU207IMP-00</td>
<td>CDIY-PTU208IMP-00</td>
<td>CDIY-PTU203IMP-00</td>
</tr>
<tr>
<td>Preloaded Apps in Metric units</td>
<td>CDIY-PTU107SI-00</td>
<td>CDIY-PTU207SI-00</td>
<td>CDIY-PTU208SI-00</td>
<td>CDIY-PTU203SI-00</td>
</tr>
</tbody>
</table>

### Accessories

- **ECLYPSE Wi-Fi Adapter**: Wi-Fi Adapter for ECLYPSE Connected Controllers.
## Product Specifications

### Power Supply Input

**For ECY-PTU-107, ECY-PTU-207, and ECY-PTU-208**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>100-240 VAC; ±10%</td>
</tr>
<tr>
<td>Frequency Range</td>
<td>50 to 60 Hz</td>
</tr>
<tr>
<td>Overcurrent protection</td>
<td>4.0 A external circuit breaker type C</td>
</tr>
<tr>
<td>Device Insulation Type</td>
<td>Double Insulation</td>
</tr>
<tr>
<td>Overvoltage Category</td>
<td>II - 2.5 kV</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>5 W + all external loads</td>
</tr>
<tr>
<td>Maximum Consumption</td>
<td>4 A</td>
</tr>
</tbody>
</table>

**For ECY-TU-203**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>24 VAC; ±15%; Class 2</td>
</tr>
<tr>
<td>Frequency Range</td>
<td>50 to 60 Hz</td>
</tr>
<tr>
<td>Overcurrent protection</td>
<td>2.0 A fast acting, 5x20mm (GMA-2A) internal fuse</td>
</tr>
<tr>
<td>Device Insulation Type</td>
<td>Double Insulation</td>
</tr>
<tr>
<td>Overvoltage Category</td>
<td>II - 2.5 kV</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>5 W + all external loads</td>
</tr>
<tr>
<td>Maximum Consumption</td>
<td>2 A</td>
</tr>
</tbody>
</table>

### Environmental

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>+5°C to +40°C (+41°F to +104°F)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-20°C to +70°C (-4°F to +158°F)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>0 to 90% Non-condensing</td>
</tr>
<tr>
<td>Ingress Protection Rating</td>
<td>IP30 (with terminal block covers and strain relief)</td>
</tr>
<tr>
<td>Nema Rating</td>
<td>1</td>
</tr>
<tr>
<td>Altitude</td>
<td>&lt; 2000 m (6560 ft)</td>
</tr>
<tr>
<td>Pollution Degree</td>
<td>2</td>
</tr>
</tbody>
</table>

### Communications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet Connection Speed</td>
<td>10/100 Mbps</td>
</tr>
<tr>
<td>Addressing</td>
<td>IPv4 or Hostname</td>
</tr>
<tr>
<td>BACnet Listing</td>
<td>BTL, WSP B-BC</td>
</tr>
<tr>
<td>BACnet Interconnectivity</td>
<td>BBMD forwarding capabilities</td>
</tr>
<tr>
<td>BACnet Profile</td>
<td>BACnet Building Controller (B-BC), AMEV AS-A and AS-B</td>
</tr>
<tr>
<td>BACnet Transport Layer</td>
<td>IP</td>
</tr>
<tr>
<td>Web Server Protocol</td>
<td>HTML5</td>
</tr>
<tr>
<td>Web Server Application Interface</td>
<td>REST API</td>
</tr>
</tbody>
</table>

#### Supported Wireless Connectivity:

- **Wireless Adapter**: Optional, USB Port Connection
- **Wi-Fi Communication Protocol**: IEEE 802.11b/g/n
- **Wi-Fi Network Types**: Client, Access Point, Hotspot
Subnetwork

Communication: RS-485
Cable: Cat 5e, 8 conductor twisted pair
Connector: RJ-45
Topology: Daisy-chain configuration

Maximum number of standard devices supported per controller combined: 4
- Allure EC-Smart-Vue Series
- Allure EC-Smart-Air Series
- Allure EC-Smart-Comfort Series
- EC-Multi-Sensor Series

Maximum number of expansion modules supported per controller combined: 4
- ECx-Light-4 / ECx-Light-4D / ECx-Light-4DALI
- ECx-Blind-4 / ECx-Blind-4LV

Maximum number of Bluetooth low energy devices per controller combined: 4
- Allure UNITOUCH
- EC-Multi-Sensor-BLE

A mixed architecture with standard room devices and Bluetooth low energy enabled devices is not recommended.

Hardware

Processor: Sitara ARM processor
CPU Speed: 600 MHz
Memory: 4 GB Non-volatile Flash (applications & storage)
Real Time Clock (RTC): Real Time Clock with rechargeable battery
RTC Battery: 20 hours charge time, 20 days discharge time
Supports SNTP network time synchronization
Cryptographic Module: FIPS 140-2 Level 1 Compliant

Communications Ports:
- Ethernet: 2 switched RJ-45 Ethernet ports
- Integrated fail-safe for daisy-chaining: In case of power failure to one of the controllers, communication data is still relayed to the following controller on the daisy-chain
- USB Connections: 2 × USB 2.0 Ports
- Subnet: 1 × Micro-USB 2.0 Port

Status Indicators:
- Green LEDs: Power status, and Ethernet Traffic
- Orange LEDs: Controller status, and Ethernet Speed

1. For more information regarding supported quantities, see the ECLYPSE User Guide available on SmartSource.
2. A controller can support a maximum of two Allure Series Communicating Sensor models equipped with a CO₂ sensor. The remaining connected Allure Series Communicating Sensor models must be without a CO₂ sensor.
Mechanical

Dimensions

- Without terminal block covers
  - 5.60 × 5.71 × 2.24" (142 × 145 × 57 mm)

- With terminal block covers
  - 7.67 × 5.71 × 2.24" (195 × 145 × 57 mm)

Shipping weight: 0.6 kg [1.32 lbs]

Material: Flame retardant ABS

Enclosure Rating: Plastic housing, UL94-5VB flammability rating

Color: Blue

Installation: Direct din-rail mounting or wall-mounting

1. All materials and manufacturing processes comply with the RoHS directive and are marked according to the Waste Electrical and Electronic Equipment (WEEE) directive

Standards & Regulations


CE - Immunity: EN61000-6-1: 2007; Generic standards for residential commercial and light-industrial environments

CE - Electrical Safety: EN 60730-1 : 2011 - Automatic electrical controls for household and similar use - Part 1: General requirements

UL Listed (CDN & US): UL 61010-1 Safety Requirements For Electrical Equipment
For Measurement, Control, And Laboratory Use – Part 1: General Requirements

FCC This device complies with FCC rules part 15, subpart B, class B

Specifications – Inputs

Universal Inputs (UI)

<table>
<thead>
<tr>
<th>General</th>
<th>Input Type</th>
<th>Universal; software configurable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>Type</td>
<td>Dry contact (0-3.3 VDC)</td>
</tr>
<tr>
<td>Counter</td>
<td>Type</td>
<td>Dry contact (0-3.3 VDC)</td>
</tr>
<tr>
<td></td>
<td>Maximum Frequency</td>
<td>1 Hz maximum</td>
</tr>
<tr>
<td></td>
<td>Minimum Duty Cycle</td>
<td>500 milliseconds On / 500 milliseconds Off</td>
</tr>
<tr>
<td>0 to 10 VDC</td>
<td>Range</td>
<td>0 to 10 VDC (40 kΩ input impedance)</td>
</tr>
<tr>
<td>Resistance/Thermistor</td>
<td>Type</td>
<td>10 kΩ Type II, III (10 kΩ @ 25ºC ; 77ºF)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sensor Inputs (SI)</th>
<th>General</th>
<th>Input Type</th>
<th>Sensor; software configurable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>Type</td>
<td>Dry contact (0-3.3 VDC)</td>
<td></td>
</tr>
<tr>
<td>Counter</td>
<td>Type</td>
<td>Dry contact (0-3.3 VDC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum Frequency</td>
<td>1 Hz maximum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimum Duty Cycle</td>
<td>500 milliseconds On / 500 milliseconds Off</td>
<td></td>
</tr>
<tr>
<td>Resistance</td>
<td>Type</td>
<td>10 kΩ Type II, III (10 kΩ @ 25ºC ; 77ºF)</td>
<td></td>
</tr>
<tr>
<td>Accuracy</td>
<td>±0.1°C @ 25°C (±0.18°F @ 77°F)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital Inputs (DI)</th>
<th>General</th>
<th>Input Type</th>
<th>Digital; software configurable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact</td>
<td>Type</td>
<td>Dry contact (0-3.3 VDC)</td>
<td></td>
</tr>
</tbody>
</table>
Counter
Type: Dry contact (0-3.3 VDC)
Maximum Frequency: 100 Hz maximum
Minimum Duty Cycle: 5 milliseconds On / 5 milliseconds Off

Power Supply (Vref)
Output (Vref): 5 VDC for polarization (I < 1 mA)

Specifications – Outputs
Triac Outputs
General
For ECY-PTU-107 and ECY-PTU-207
Output Type: Triac
Voltage Range: 0 or 100-240 VAC (same as device power supply)
Maximum Current per Output: 0.5 A continuous
Inrush Current: 1 A @ 15% duty cycle for a 10-minute period
Common Terminal: 1 per pair of outputs

For ECY-PTU-208 and ECY-TU-203
Output Type: Triac
Power Source: Internal on-board 24 VAC power supply
Voltage Range: See on-board 24 VAC power supply
Current: See on-board 24 VAC power supply
Common Terminal: 1 per pair of outputs

Digital (On/Off)
For ECY-PTU-107 and ECY-PTU-207
Voltage Range: 0 or 100-240 VAC (same as device power supply)

For ECY-PTU-208 and ECY-TU-203
Voltage Range: 0 or 24 VAC

PWM
Application: Typically Thermal Valve Control
Range: Adjustable period from 2 to 65 seconds

Floating
Minimum Outputs: 2 consecutive outputs
Minimum Pulse On/Off Time: 500 milliseconds
Drive Time Period: Adjustable from 10 to 600 seconds

Powered Relay Outputs
For ECY-PTU-107, ECY-PTU-207, and ECY-PTU-208
Output Type: Digital
Application
Typically Fan Speeds
Supplied Voltage
Same as device power supply
Current
3.0 A max. (inductive or resistive load) for the total sum of the 3 outputs
Resting State
Normally Open
Common Terminal
Shared

Unpowered Relay Outputs

For ECY-TU-203

Output Type
Digital
Application
Typically Fan Speeds
Supplied Voltage
No voltage supplied
Supported Voltage
100-277 VAC
Current
3.0 A max. (inductive or resistive load) for the total sum of the 3 outputs
Protection
Must be protected with an external circuit breaker or fast acting, high breaking fuse in accordance with the controlled load (3 A max. / min voltage according to the controlled load)
Resting State
Normally Open
Common Terminal
Shared

Digital Relay Contacts Outputs

General

Output Type
Digital
Application
Typically Electric Heater
Protection
Must be protected with an external circuit breaker or fast acting, high breaking fuse in accordance with the controlled load (10 A max. / min voltage according to the controlled load)

Contact

Type
Dry contact
Voltage Range:
- ECY-PTU-107 / ECY-PTU-207 / ECY-PTU-208
  100-240 VAC
- ECY-TU-203
  100-277 VAC
Current
9.0 A max. on a resistive load (2 kW @ 230 VAC)
Resting State
Normally Open
Common Terminal
Dedicated digital

Analog Outputs

For ECY-PTU-207 ECY-PTU-208 and ECY-TU-203

General

Output Type
Analog
Voltage Range
0-10 VDC linear
Current
5 mA max.
Current sourcing
Maximum 5 mA at 10 VDC (minimum resistance 2 kΩ)
Current sinking
Maximum 2 mA at 1 VDC (minimum resistance 5 kΩ)
24 VAC Outputs

For ECY-PTU-208 and ECY-TU-203

Power Source: Internal on-board 24 VAC power supply
Voltage Range: See on-board 24 VAC power supply
Current: See on-board 24 VAC power supply

On-board 24 VAC Power Supply

For ECY-PTU-208 and ECY-TU-203

Voltage Range: 24 VAC; ± 10%
Frequency: 50 Hz
Current: 700 mA max. on a resistive load (16 VA @ 24 VAC)
Peak current: 850 mA
Short-circuit protection:
- ECY-PTU-208: Integrated Fail Safe
- ECY-TU-203: Fuse
Overload protected: Yes

Digital-Analog Outputs

For ECY-TU-203

Output Type: Digital Triac or Analog; software configurable
Triac Output Mode: See Triac Output specifications
Analog Output Mode: See Analog Output specifications

Specifications subject to change without notice.