







Distech Controls ECLYPSE™ Series Comparison

Hardware Comparison for Distech Controls ECLYPSE Series Controllers

Distech Controls ECLYPSE Series controller models have very different options that are required for different applications. This comparison chart is intended to aid in determining which ECLYPSE Series is most suited to your application.

Model		ECLYPSE APEX Controller	ECLYPSE Connected System Controller	ECLYPSE Connected Equipment Controller	ECLYPSE Connected VAV Controller	ECLYPSE Connected Terminal Unit Controller	ECLYPSE Connected Thermostat
		ECY-APEX	ECY-S1000	ECY-303	ECY-VAV	ECY-PTU/TU	ECY-STAT
Category	Feature						
Recommended Applications	Central Plant and Mechanical Equipment Control	■	■				
	Rooftop Units and Small AHUs			■			■
	Variable Air Volume (VAV)				■		
	Terminal Units (Fan Coils, Chilled Beams, Radiant and Reversible Ceilings, Heat Pumps)					■	■
	Zone Control						■
Preloaded Software & Graphics	ECLYPSE Designer	■	■	Optional	Optional	Optional	Optional
	ECLYPSE Designer Viewer			■	■	■	■
	Preloaded Configurable Applications			■	■	■	■
General Features	Webserver	HTML5 REST API	HTML5 REST API	HTML5 REST API	HTML5 REST API	HTML5 REST API	HTML5 REST API
	Smart Room Control	■	■	■	■	■	
	Maximum of Points	320	320	16	11	12 or 16	12
	Maximum of I/O Modules	20	20	N/A	N/A	N/A	N/A

Model		ECLYPSE APEX Controller	ECLYPSE Connected System Controller	ECLYPSE Connected Equipment Controller	ECLYPSE Connected VAV Controller	ECLYPSE Connected Terminal Unit Controller	ECLYPSE Connected Thermostat
		ECY-APEX	ECY-S1000	ECY-303	ECY-VAV	ECY-PTU/TU	ECY-STAT
Inputs	Universal Inputs (Software Configurable)			8	4	3	4
	Allure™ Series Communicating Sensor device limit	12 ¹	12 ¹	4 ¹	4 ¹	4 ¹	
	Sensor Inputs					1	
	Analog/Digital Converter (Precision)		16-bits	16-bits	16-bits	16-bits	12-bits
Outputs	Universal Outputs (Analog)			2	2	Up to 4	
	Digital Outputs (Triac)			4	4	2	Up to 5
	Relay Outputs (Fan Application)					3	
	Relay Outputs (Electric Heater Application)					1	
	Field Configurable Outputs (Triac or Analog)			2		Up to 2 (Optional)	Up to 3
	Analog/Digital Converter (Precision)		10-bits	10-bits	10-bits	10-bits	10-bits
Power	24 VAC	■	■	■	■		■
	120/240 VAC					■	
	Power over Ethernet (PoE)				Optional		
	Daisy-Chaining ²	■	■	■	■	■ (ECY-TU-203 only)	
Communication	BACnet IP	■	■	■	■	■	■
	Wi-Fi Access Point	■	■	■	■	■	■
	Wi-Fi (Client, Hotspot, Bridge)	Up to 16 clients (using ECLYPSE Wi-Fi adaptor)	Up to 16 clients (using ECLYPSE Wi-Fi adaptor)	Up to 16 clients (using ECLYPSE Wi-Fi adaptor)	Up to 16 clients (using ECLYPSE Wi-Fi adaptor)	Up to 16 clients (using ECLYPSE Wi-Fi adaptor)	Up to 3 clients
	Bluetooth®						Use with <i>my PERSONIFY</i>
Upgrading	Capacity-Based Upgrades	Yes (ECLYPSE Designer, MS/TP routing, up to 320 points)	Yes (ECLYPSE Designer, MS/TP routing, up to 320 points)	Yes (ECLYPSE Designer)	Yes (ECLYPSE Designer)	Yes (ECLYPSE Designer)	Yes (ECLYPSE Designer)

Model		ECLYPSE APEX Controller	ECLYPSE Connected System Controller	ECLYPSE Connected Equipment Controller	ECLYPSE Connected VAV Controller	ECLYPSE Connected Terminal Unit Controller	ECLYPSE Connected Thermostat
		ECY-APEX	ECY-S1000	ECY-303	ECY-VAV	ECY-PTU/TU	ECY-STAT
Advanced Security	HTTPS Server	■	■	■	■	■	■
	WPA/WPA2 Enterprise Protection	■	■	■	■	■	■
	Authorization and Access Level Control	■	■	■	■	■	■
	Built-In Support of TLS/SSL	■	■	■	■	■	■
	RADIUS Server Authentication	■	■	■	■	■	■
	FIPS 140-2 Level 1 Compliant		■	■	■	■	
Third-Party Integration / Developer Tools	RESTful API	■	■	■	■	■	■
	Azure IoT Hub	■	■	■	■	■	■
	Azure IoT Edge (supports Docker Containers)	■					
	my PERSONIFY						■
	ECLYPSE SKY Ecosystem SDK						■
Mechanical and Environmental	Dimensions (W x H x D)	5.5 × 8.5 × 2.3" (216×140×58 mm)	4.7 × 3.6 × 2.3" (120×91×58 mm) ³	4.7 × 6.8 × 2.3" (120×172×58 mm)	7.9 × 5.5 × 3.7" (201×140×94 mm) ⁴	5.6 × 5.7 × 2.2" (142×145×57mm)	5.2 × 3.4 × 1.1" (131×86×28mm)
	Weight	1.8 lbs (0.82 kg) ⁴	0.85 lbs (0.39 kg) ⁴	1.20 lbs (0.55 kg)	2.00 lbs (0.90 kg) ⁴	1.32 lbs (0.6 kg)	0.55lbs (0.26 kg)
	Operating Temperature	32 to 122°F (0 to 50°C)	32 to 122°F (0 to 50°C)	-40 to 122°F (-40 to 50°C)	32 to 122°F (0 to 50°C)	41 to 104°F (5 to 40°C)	32 to 104°F (0 to 40°C)
	Sound Level (<35 dBA)	N/A	N/A	N/A	Yes	N/A	N/A
Standards and Regulations	BACnet BTL listed (B-BC)	■	■	■	■	■	■

1. Limited to a maximum of 2 Allure Series Communicating Sensors equipped with CO₂.

2. Refer to the controller's Installation Guide for details on individual daisy-chaining performance.

3. ECY-S1000 Server only.

4. Excluding PoE model or Terminal Covers.

ECLYPSE APEX Controller



Model	ECY-APEX
Maximum of Points	320 ¹
BACnet MSTP to IP Routing Support	■ ²
Maximum of Modbus Devices (RTU or TCP)	96 ³
Embedded ECLYPSE Designer (Studio & Viewer)	■
Application	Large size equipment such as large plant rooms and large data centers.

1. Supports a maximum of 320 points OR a maximum of 20 IO modules

2. Maximum of 50 BACnet MS/TP devices recommended on each RS-485 port

3. Maximum of 32 devices on each RS-485 port

ECLYPSE Communication Modules

Add communication modules to the controller for multi-protocol support. See the [ECLYPSE Connected System Controller datasheet](#) for details.

ECLYPSE Power Supply Modules

Model	Description
ECY-PS24	24VAC / 24 VDC power supply module
ECY-PS100-240	100 to 240VAC power supply module

ECLYPSE IO Modules

Model	Points	Universal Inputs	Digital Inputs	Universal Outputs	Triac Outputs	Relay Outputs	HOA Switches
ECY-6UO	6			6			
ECY-6UO-HOA							■
ECY-4UI4UO	8	4		4			
ECY-4UI4UO-HOA							
ECY-8UI		8					
ECY-8DOR							
ECY-8DOR-HOA					8 (Form-C Digital Relay)		■
ECY-8UI6UO	14	8		6			
ECY-8UI6UO-HOA							
ECY-8UI6DOT						6	
ECY-8UI6DOT-HOA							
ECY-16DI	16		16 (Counting Capabilities)				

ECLYPSE Connected System Controller



Model	Maximum of Points	BACnet MS/TP to IP Routing Support	Maximum of Modbus Devices (RTU or TCP)	Embedded ECLYPSE Designer (Studio & Viewer)	Application
ECY-S1000-28	28		3		Small size equipment such as a large rooftop unit or a small AHU.
ECY-S1000E-28				■	
ECY-S1000-28-MS		■ ²			
ECY-S1000E-28-MS		■ ²		■	
ECY-S1000-48	48		10		Medium size equipment such as an AHU or a small size plant room
ECY-S1000E-48				■	
ECY-S1000-48-MS		■ ²			
ECY-S1000E-48-MS		■ ²		■	
ECY-S1000	320 ¹	■ ²	96 ³		Large size equipment such as large plant rooms and large data centers.
ECY-S1000E		■ ²		■	

1. Supports a maximum of 320 points OR a maximum of 20 IO modules.

2. Maximum of 50 BACnet MS/TP devices recommended on each RS-485 port.

3. Maximum of 32 devices on each RS-485 port.

ECLYPSE Communication Modules

Add communication modules to the controller for multi-protocol support. See the [ECLYPSE Connected System Controller datasheet](#) for details.

ECLYPSE Power Supply Modules

Model	Description
ECY-PS24	24VAC / 24VDC power supply module
ECY-PS100-240	100 to 240VAC power supply module

ECLYPSE IO Modules

Model	Points	Universal Inputs	Digital Inputs	Universal Outputs	Triac Outputs	Relay Outputs	HOA Switches
ECY-6UO	6			6			
ECY-6UO-HOA							■
ECY-8UI	8	8		4			
ECY-4UI4UO		4					
ECY-4UI4UO-HOA							■
ECY-8DOR						8 (Form-C Digital Relay)	
ECY-8DOR-HOA							■
ECY-8UI6UO	14	8		6			
ECY-8UI6UO-HOA							■
ECY-8UI6DOT					6		
ECY-8UI6DOT-HOA							■
ECY-16DI	16		16 (Counting Capabilities)				

ECLYPSE Connected Equipment Controller



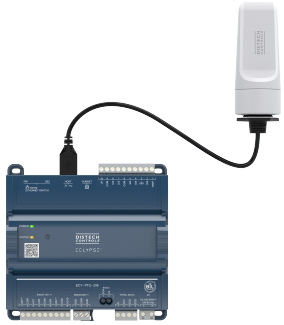
Model	ECY-303	ECY-303-M3
Points	16	16
Power Supply	18 VDC	18 VDC
Universal Inputs	8	8
Universal Outputs	2	2
Digital (Triac) Outputs	4	4
Digital/Universal Outputs	2	2
Number of Supported Modbus TCP & RTU Devices	0	3
Preloaded Apps in SI Units (Metric)	CDIY-303-SI-01	CDIY-303M3-SI-01
Preloaded Apps in Imperial Units (US)	CDIY-303-IMP-01	CDIY-303M3-IMP-01
Preloaded Application		
Rooftop Unit	■	■
Other Application		
Small Air Handling Unit	■	■

ECLYPSE Connected VAV Controller



Model	ECY-VAV	ECY-VAV-POE
Points	11	11
Power Supply	18 VDC	18 VDC
Power over Ethernet (PoE)		■
Universal Inputs	4	4
Universal Outputs	2	2
Digital (Triac) Outputs	4	4
Built-in Flow Sensor ($\pm 500\text{Pa}$, $\pm 2.0''$ w.c.)	■	■
Built-in Damper Actuator (45 in-lb, 5 Nm)	■	■
Preloaded Apps in SI Units (Metric)	CDIY-VAXXX-SI-00	CDIY-VAPOE-SI-00
Preloaded Apps in Imperial Units (US)	CDIY-VAXXX-IMP-00	CDIY-VAPOE-IMP-00
Preloaded Applications		
Cooling-only VAV Box	■	■
Cooling-with-Reheat VAV Box	■	■
Parallel-Fan VAV Box	■	■
Series-Fan VAV Box	■	■
Other Application		
Dual-Duct VAV System	■	■

ECLYPSE Connected Terminal Unit Controller



Model	ECY-TU203	ECY-PTU-107	ECY-PTU-207	ECY-PTU-208
Power Supply	24 VAC	100-240 VAC	100-240 VAC	100-240 VAC
Points	16	12	16	16
Inputs (Universal/Sensor/Digital)	3UI / 1SI / 2DI	3UI / 1SI / 2DI	3UI / 1SI / 2DI	3UI / 1SI / 2DI
Triac Outputs	2 (24 VAC)	2 (100-240 VAC)	2 (100-240 VAC)	2 (24 VAC)
Relay Outputs: Fan Application	3	3 (100-240 VAC)	3 (100-240 VAC)	3 (100-240 VAC)
Relay Output: Electric Heater Application	1	1	1	1
Analog Output	2		4	4
Field Configurable Outputs (Triac or Analog)	2			
24 VAC Power Supply Output	■			■
Preloaded Apps in SI Units (Metric)	CDIY-PTU203SI-00	CDIY-PTU107SI-00	CDIY-PTU207SI-00	CDIY-PTU208SI-00
Preloaded Apps in Imperial Units (US)	CDIY-PTU203IMP-00	CDIY-PTU107IMP-00	CDIY-PTU207IMP-00	CDIY-PTU208IMP-00
Preloaded Applications				
Fan-Coil Unit (3 Speeds)	■	■	■	■
Fan-Coil Unit (Variable Speeds)	■		■	■
Chilled Beam	■		■	■
Ceiling System	■		■	■
Other Application				
Heat Pump Unit	■		■	■

ECLYPSE Connected Thermostat



Model	ECY-STAT-R	ECY-STAT-F	ECY-STAT-Z
Power Supply	24VAC / 24VDC	24VAC / 24VDC	24VAC / 24VDC
Points			
Universal Inputs (software configurable)	4	4	4
Digital Outputs (software configurable)	5 (24VAC / 24VDC)	5 (24VAC / 24VDC)	3 (24VAC / 24VDC)
Digital-Universal Outputs (software configurable)	3	3	2
Preloaded Applications			
Rooftop Unit	■		
Heat Pump Unit	■		
Fan Coil Unit		■	
Zone Control			■

Specifications subject to change without notice.

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