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 Connected System Controller	ECLYPSE Connected Equipment Controller	ECLYPSE Connected VAV Controller	ECLYPSE Connected Terminal Unit Controller
		ECY-S1000	ECY-303	ECY-VAV	ECY-PTU/TU
Category	Feature				
Recommended Applications	Central Plant and Mechanical Equipment Control	■			
	Rooftop Units and Small Air Handling Units		■		
	Variable Air Volume (VAV) Applications			■	
	Terminal Unit Applications (Fan Coils, Chilled Beams, Radiant and Reversible Ceilings, and Heat Pumps)				■
Preloaded Software and Graphics	ENVYSION	■			
	ENVYSION Viewer		■	■	■
	Preloaded Configurable Applications		■	■	■
General Features	Webserver	HTML5 REST API	HTML5 REST API	HTML5 REST API	HTML5 REST API
	Smart Room Control	■	■	■	■
	Max. Number of Points	Up to 320	16	11	12 or 16
	Max. Number of Supported I/O Modules	Up to 20	N/A	N/A	N/A
Inputs	Universal Inputs (Software Configurable)		8	4	3
	Allure™ Series Communicating Sensor device limit	12[1]	4[1]	4[1]	4[1]
	Sensor Inputs				1
	Analog/Digital Converter (Precision)	16-bits	16-bits	16-bits	16-bits
Outputs	Universal Outputs (Analog)		2	2	Up to 4
	Digital Outputs (Triac)		4	4	2
	Relay Outputs (Fan Application)				3
	Relay Outputs (Electric Heater Application)				1
	Field Configurable Outputs (Triac or Analog)		2		Up to 2 (Optional)
	Analog/Digital Converter (Precision)	10-bits	10-bits	10-bits	10-bits

	Model	ECLYPSE Connected System Controller	ECLYPSE Connected Equipment Controller	ECLYPSE Connected VAV Controller	ECLYPSE Connected Terminal Unit Controller
		ECY-S1000	ECY-303	ECY-VAV	ECY-PTU/TU
Power	24 VAC	■	■	■	
	120/240 VAC				■
	Power over Ethernet (PoE)			Optional	
	Daisy-Chaining[2]			■	■ (ECY-TU-203 only)
Communication	BACnet IP	■	■	■	■
	WiFi (Client, Hotspot, Access Point, Bridge)	■	■	■	■
Upgrading	Capacity-Based Upgrades	Yes (ENVYSION, MS/TP routing, up to 320 points)	Yes (Modbus)	No	No
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	■	■	■	■
Mechanical and Environmental	Dimensions (W x H x D)	4.74x3.57x2.31” (120.31x 90.67x58.56mm)[3]	4.74x6.78x2.31” (120.31x 172.10x58.56mm)	7.90x5.51x3.70” (200.61x 139.93x94.04mm)[4]	5.60x5.71 x2.24” (142x145 x57mm)
	Weight	0.85 lbs (0.39 kg)[2]	1.20 lbs (0.55 kg)	2.00 lbs (0.90 kg)[4]	1.32 lbs (0.6 kg)
	Environmental Rating	32 to 122ºF (0 to 50ºC)	-40 to 122ºF (-40 to 50ºC)	32 to 122ºF (0 to 50ºC)	41 to 104ºF (5 to 40ºC)
	Sound Level (<35 dBA)	N/A	N/A	Yes	N/A
Standards and Regulations	BACnet BTL listed (B-BC)	■	■	■	■

1. Limited to a maximum of 2 Allure Series Communicating Sensors equipped with CO_2.
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 Connectivity Server

Model	Max. Number of Supported Points	BACnet MS/TP to IP Routing Support	Max. Number of Modbus Devices (RTU or TCP)	Embedded ENVYSION (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]		■	
ECY-S1000E-48-NL	48		10	■	Small size equipment with lighting integration

1. Supports a maximum of 320 points OR up to a maximum of 20 IO modules.
2. Up to 50 BACnet MS/TP devices recommended on each RS-485 port.
3. Up to 32 devices on each RS-485 port.

ECLYPSE Communication Modules

Communication modules can be added to the ECLYPSE Connectivity Server for multi-protocol support. See the ECLYPSE Connected System Controller datasheet for details.

ECLYPSE Power Supply Modules

Model	Description
ECY-PS24	24VAC/VDC power supply module for the ECLYPSE Connected System Controller.
ECY-PS100-240	100 to 240VAC power supply module for the ECLYPSE Connected System Controller.

ECLYPSE IO Modules

Model	Points	Universal Inputs	Digital Inputs	Universal Outputs	Triac Outputs	Relay Outputs	HOA Switches
ECY-8UI	8	8	-	-	-	-	
ECY-6UO	6	-	-	6	-	-	
ECY-6UO-HOA		-	-		-	-	■
ECY-4UI4UO	8	4	-	4	-	-	
ECY-4UI4UO-HOA			-		-	-	■
ECY-8UI6UO	14	8	-	6	-	-	
ECY-8UI6UO-HOA			-		-	-	■
ECY-8UI6DOT			-	-	6	-	
ECY-8UI6DOT-HOA			-	-		-	■

Model	Points	Universal Inputs	Digital Inputs	Universal Outputs	Triac Outputs	Relay Outputs	HOA Switches
ECY-16DI	16	-	16 (Counting Capabilities)	-	-	-	
ECY-8DOR	8	-		-	-	8 (Form-C Digital Relay)	
ECY-8DOR-HOA		-		-	-		■

ECLYPSE Connected Equipment Controller

Models	ECY-303	ECY-303-M3
Points	16	16
Power Supply Voltage	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
Default Preloaded Application		
Rooftop Unit	■	■
Other Applications		
Small Air Handling Unit	■	■

ECLYPSE Connected VAV Controller

Model		
	ECY-VAV	**ECY-VAV-POE**
Points	11	11
Power Supply Voltage	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 (±500Pa, ±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
Default Preloaded Applications		
Cooling Only VAV Box	■	■
Cooling with Reheat VAV Box	■	■
Parallel Fan VAV Box	■	■
Series Fan VAV Box	■	■
Other Applications		
Dual-Duct VAV Systems	■	■

ECLYPSE Connected Terminal Unit Controller

Models	ECY-TU203	ECY-PTU-107	ECY-PTU-207	ECY-PTU-208
Power Supply Voltage	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
Default Preloaded Applications				
Fan-Coil Unit (3 Speeds)	■	■	■	■
Fan-Coil Unit (Variable Speeds)	■		■	■
Chilled Beams	■		■	■
Ceiling Systems	■		■	■
Other Applications				
Heat Pump Units	■		■	■