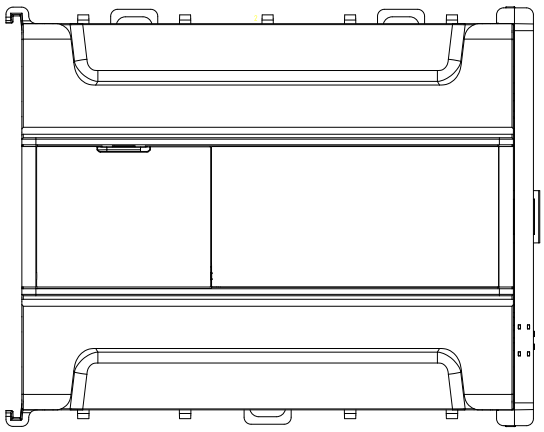
Honeywell

Advanced Controller

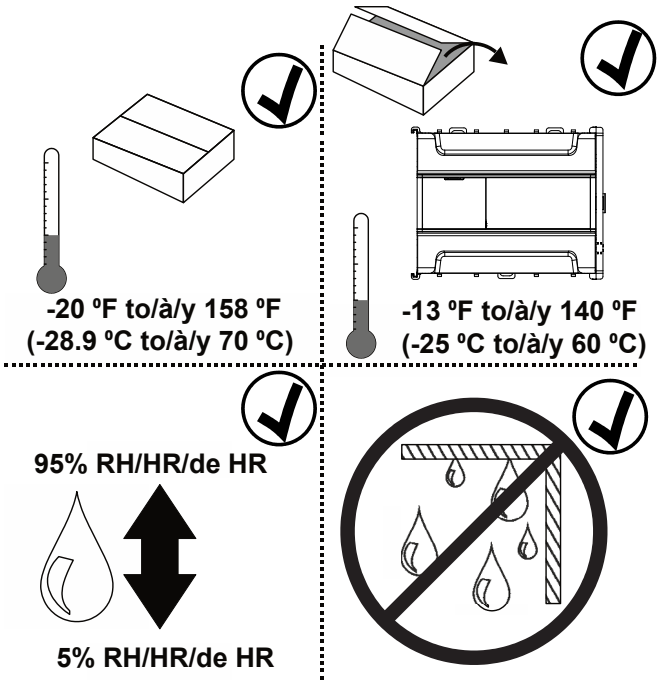
MOUNTING INSTRUCTIONS

1. CONTENTS OF SHIPMENT

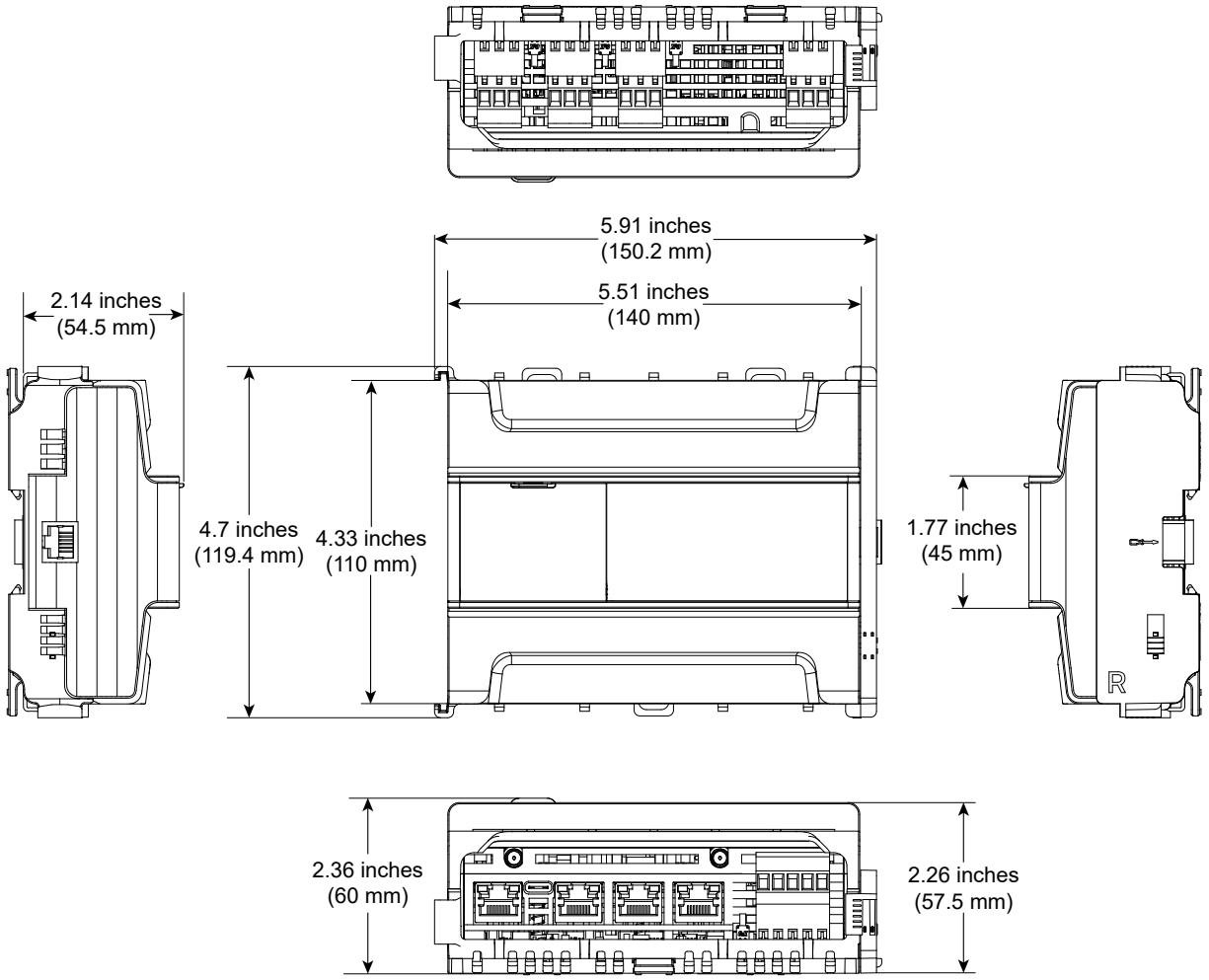
- Controller: 1 Qty
- Mounting Instructions: 1 Qty
- Safety Sheet: 1 Qty



2. STORAGE AND OPERATION



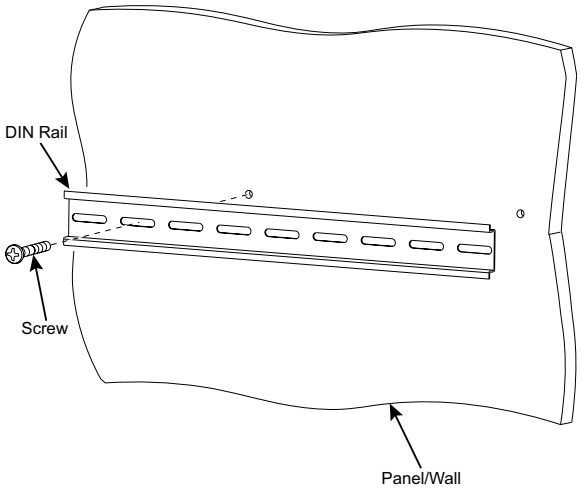
3. DIMENSIONS



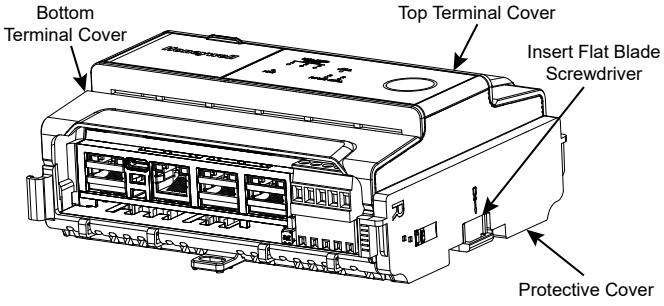
NOTE: All the dimensions are in inches (mm). For wiring adapter dimension drawing please refer the Comfortpoint Niagara Advanced Plant Controller Product Datasheet -31-00583 and Optimizer Advanced Controller Product Datasheet -31-00631.

4. MOUNTING THE CONTROLLER ON A WALL OR PANEL DIN RAIL

1. Mount the DIN rail on the wall or panel by using screws.



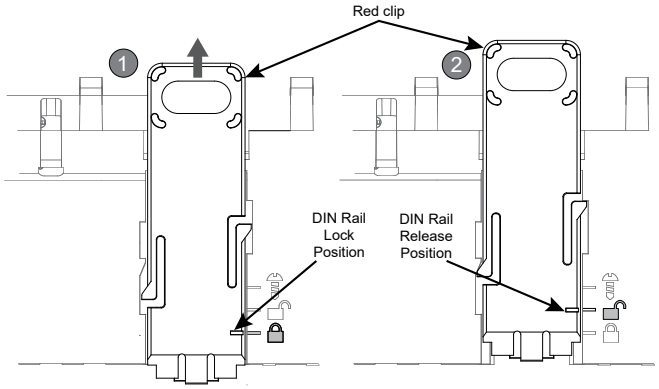
2. Remove the bottom Terminal cover from the controller. Use a screwdriver to push the cover upwards as shown in the below figure.



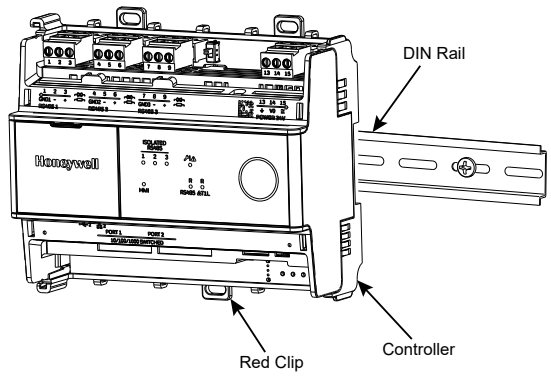
3. Remove the top Terminal Cover from the controller. Use a screwdriver to push the cover downwards. Same as step 2.

4. Remove the top Terminal Cover as described in the previous step.

5. Extend all red clips to the unlock position as shown in the below figure.



6. Hold the controller in an orientation such that the red clip is facing downwards and towards the DIN rail.



7. Mount the controller onto the DIN rail and push all red clips in to secure it in place.

8. Connect the terminal wires, and Ethernet cables.

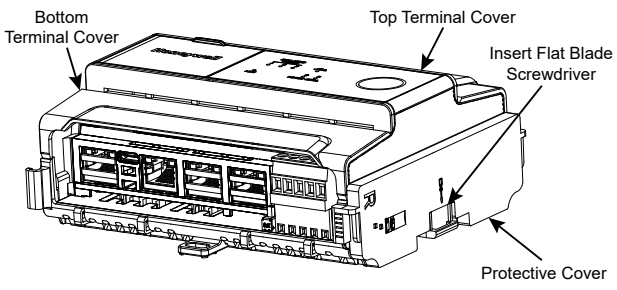
9. Replace the terminal covers.

10. Replace the protective cover if IO module attachment is not required.

NOTE: the protection cover must be fitted to protect the touchflakes on the side of the controller. For the advanced controller solution it also includes the terminating resistor for the end of the IO BUS, hence it must always be located at the end of the IO BUS.

5. MOUNTING THE CONTROLLER ON A WALL/PANEL USING SCREWS

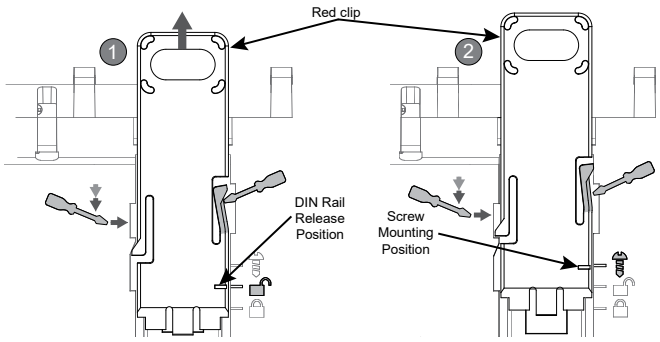
1. Remove the bottom Terminal cover from the controller. Use a screwdriver to push the cover upwards as shown in the below figure.



2. Remove the top Terminal cover as described in the previous step.

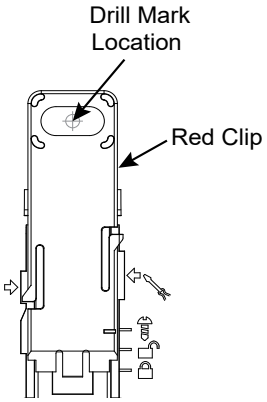
3. Remove the Protective cover by inserting a flat blade into the slot and push up.

4. Extend all red clips to the screw mounting position by inserting the flat blade screwdriver at a marked location and moveing up the nod from the lower to the upper slot, as shown in the below figure.



NOTE: Repeat step 5 of Mounting the controller on a wall or panel using Din rail in case the red clip is in the lock position.

5. Hold the controller along the wall and mark three drilling locations through the red clip slots, as shown in the below figure.



6. Remove the controller from the wall and drill three holes at the marked locations.

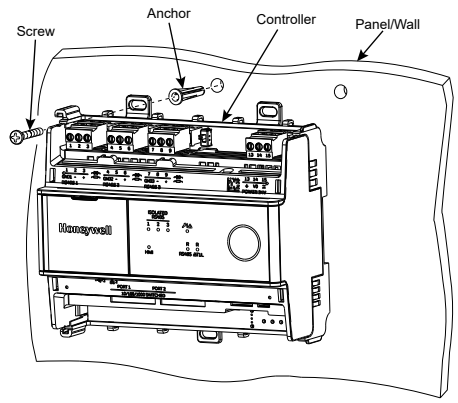
7. Insert anchors into the three mounting screw holes.

8. Place the controller on the wall or panel so that the holes are aligned.

9. Insert the screws into the topside holes first and fasten them with a screwdriver.

NOTE: It is recommended to use the 6-18 1" pan head Phillips tapping screws.

10. Insert the screws into the bottom hole and fasten them with a screwdriver.



11. Connect the terminal wires, and Ethernet cables.

12. Replace the terminal covers.

13. Replace the protective cover if no IO module attachment is required.

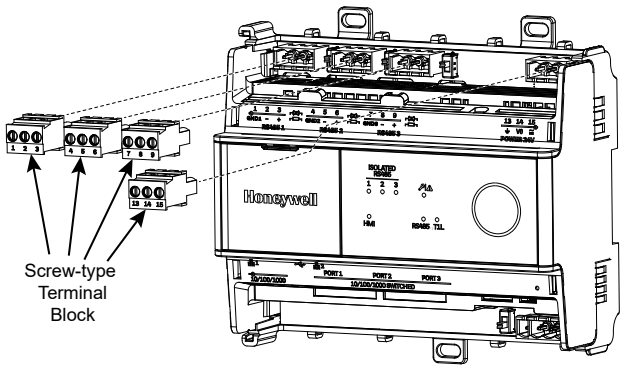
6. TERMINAL BLOCKS

The controller has the screw type terminal blocks by default, factory-installed, and these are removable. Additionally, the controller supports push-in type terminal blocks that are available in a separate order.

NOTE: The protection cover must be fitted to protect the touchflakes on the side of the controller. For the advanced controller solution it also includes the terminating resistor for the end of the IO BUS, hence it must always be located at the end of the IO BUS.

Installing the Push-In Terminal Blocks

1. Remove the screw-type terminal blocks from the controller by gently pulling them out using fingers.



2. Install the Push-in terminal blocks onto the controller.

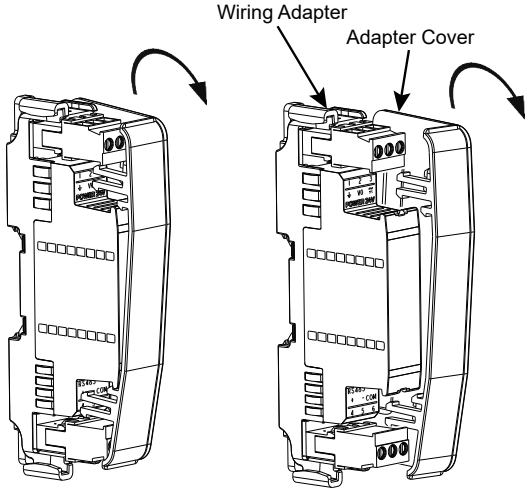
3. Remove the insulation 0.19 inches (5 mm) from the wires' end by using a stripping tool.

4. Refer to Installation Instruction and Commissioning Guide - 31-00584 for wiring connections and insert the wires into the terminal blocks.

7. MOUNTING THE WIRING ADAPTER ON THE DIN RAIL

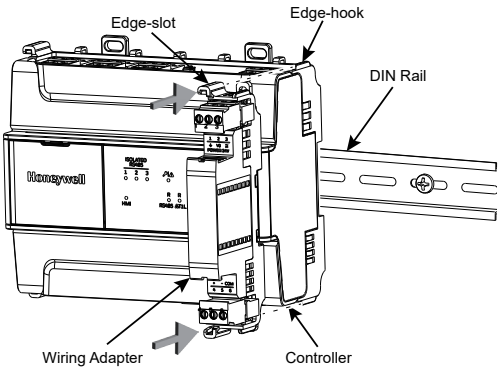
NOTE: Use the Wiring Adapter to extend 5 VDC power and communication to the next controller or IO module.

1. Remove the adapter cover by pulling out the cover along the radius arrow as shown in the below image.

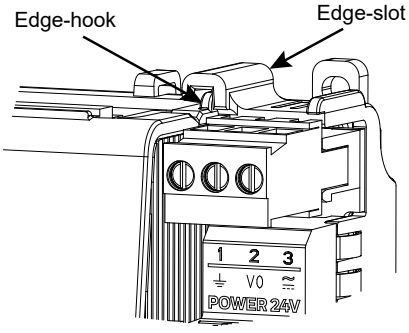


2. Extend the red clips on the wiring adapter to the last position.

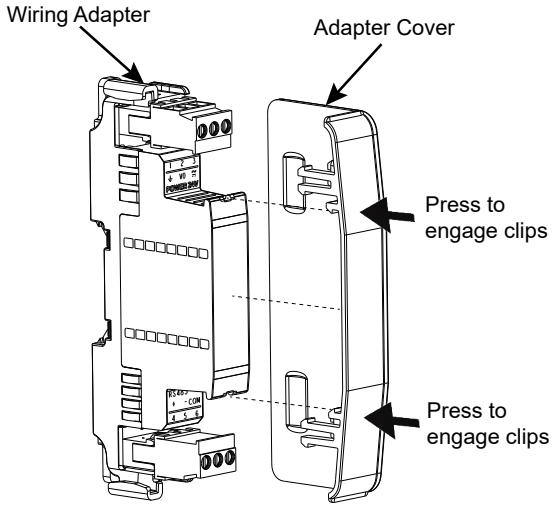
3. Hold the wiring adapter in the position as shown below.



4. Mount the adapter in a way that the edge-slot of the adapter aligns with the axis of the edge-hook of the controller to attach and secure them together.

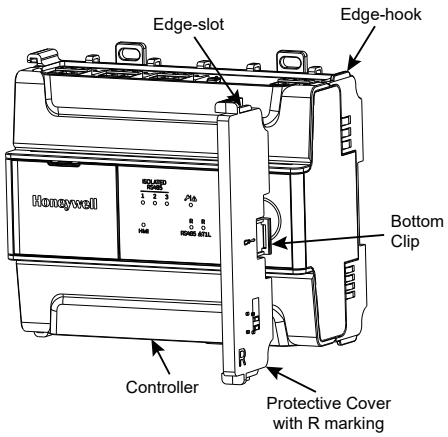


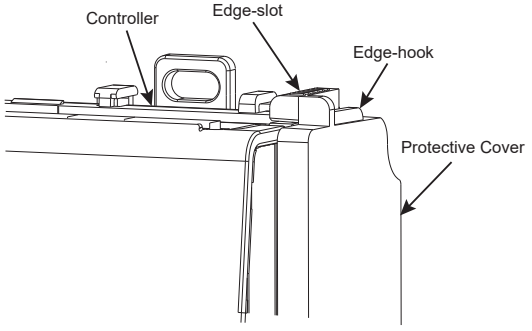
5. Mount the adapter cover on the wiring adapter by firmly pushing it against the axis as shown in the illustration below. There should be no space between the cover and the adapter. In addition to providing end-of-line termination for the RS485 bus, the adapter cover protects the touch flakes.



8. MOUNTING THE PROTECTIVE END COVER ON THE CONTROLLER

1. Hold the Protective end cover (marked with R), which has the terminating resistor in a way that the edge-slot of the cover aligns with the axis of the edge-hook of the controller, and slide along till the bottom clip is locked with the IO module.





9. REMOVING THE CONTROLLER FROM THE DIN RAIL

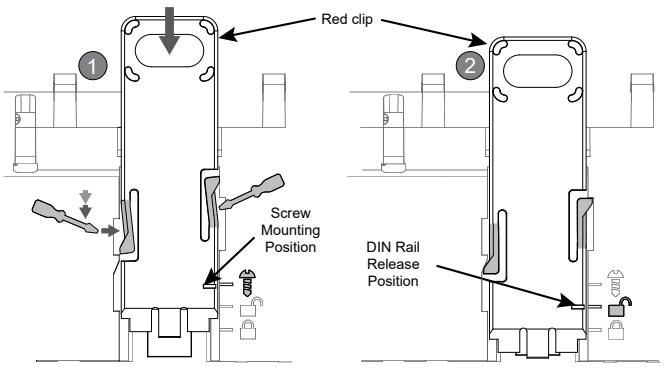
1. Remove the Terminal Covers and Protective Cover if applicable.
2. Switch off the power supply.
3. Disconnect all the controller's communication and power supply terminals.
4. Hold the controller with one hand and insert a flat blade screwdriver into the red clip slot.
5. Pull the red clip downward by using the flat blade screwdriver.
6. After the controller is released from the DIN rail, dis-engage the top two controller clip, slightly tilt the controller on the horizontal axis, lift up and detach the controller from the DIN rail.

10. REMOVING THE CONTROLLER FROM THE WALL OR PANEL

1. Remove the Terminal Covers and Protective Cover if applicable.
2. Switch off the power supply.
3. Disconnect all the controller's communication, and power supply terminals.
4. Unscrew the bottom side screws first by using a screwdriver.
5. Hold the controller with one hand, unscrew the top side screws using a screwdriver.

11. SCENARIO FOR RED CLIP

1. If the user wants to attach the controller to a wall or panel using screws, push all red clips down to the unlock mounting position by inserting the flat blade screwdriver at a defined point, as shown in the figure below.



WARNING
Electrical Shock Hazard.
Can cause severe injury, death, or property damage. Disconnect the power supply before beginning installation to prevent electrical shock and equipment damage. More than one power supply may have to be disconnected.

CAUTION/MISE EN GARDE/PRECAUCIÓN
To reduce the risk of fire or electric shock, do not interconnect the outputs of different Class 2 circuits.

WEEE

WEEE Directive 2012/19/EC Waste Electrical and Electronic Equipment Directive
- At the end of the product life, dispose of the packaging and product in an appropriate recycling center.
- Do not dispose of the device with the usual domestic refuse.
- Do not burn the device.

SPECIFICATIONS OF THE CONTROLLER

POWER CONSUMPTION				
CONTROLLER	**POWER CONSUMPTION**		**CURRENT CONSUMPTION**	
	24 VAC	**24 VDC**	**24 VAC**	**24 VDC**
N-ADV-134-H	Max. 36 VA	Max. 13 W	1500 mA	540 mA
N-ADV-133-H	Max. 34 VA	Max. 12.5 W	1420 mA	520 mA
N-ADV-112-H	Max. 34 VA	Max. 12.5 W	1420 mA	520 mA

ELECTRICAL	
PARAMETER	**SPECIFICATION**
Operating Voltage (AC)	24 VAC (+/-20%) = 19 to 29 VAC 50/60 Hz
Operating Voltage (DC)	24 VDC (+/-20%) = 20 to 30 VDC
Overvoltage Protection	Protected against overvoltage of max. 29 VAC or 40 VDC. Terminals protected against short-circuiting.

OPERATIONAL ENVIRONMENT	
PARAMETER	**SPECIFICATION**
Storage Temperature	-20 to 158 °F (-28.9 to +70 °C)
Operating temperature	-13 to 140 °F (-25 to 60 °C)
Humidity	5 to 95 % relative humidity (non-condensing)
Vibration Under Operation	0.024" double amplitude (2 to 30 Hz), 0.6 g (30 to 300 Hz)
Dust, Vibration	According to EN60730-1
Protection	IP20 with optional terminal covers
Altitude	13123 ft (4000m)

STANDARDS AND APPROVALS

Product Standards	UL60730-1, UL60730-2-9, UL916, IEC/EN60730-1, Energy Management Equipment, IEC/EN60730-2-9, CAN/CSA-E60730-1:02, IEC/EN61326-1, and IEC/EN61010.
Certification	UL60730-1, UL916, CE, BTL B-BC, BACnet™ Standard 135 version 1.14, ISO 16484-5, FCC Part15, WEEE, C-tick RCM, Subpart B, CAN ICES-3 (B)/NMB-3(B), RCM, AMEV AS-B, KBOB, EAC, RoHS II, Ethernet Protocol version IEEEC 802.3, EN-1434-3 and EN-13757-3
Shock Protection	SELV
Pollution Class	IP20
Software Class	Class B

IMPORTANT: Keep mains power supply and loads cables separate from signal wiring!

REFERENCE TECHNICAL LITERATURE

TITLE	LITERATURE NUMBER
ADVANCED PRODUCT DATASHEET	31-00583
OPTIMIZER PRODUCT DATASHEET	31-00631
INSTALLATION INSTRUCTION AND COMMISSIONING GUIDE	31-00584

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