THERMOELECTRIC COOLERS

ALL MODELS

INSTRUCTION MANUAL

Rev. I

P/N 89072602

89072603

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NOTE: Some of the information in this manual may not apply if a special unit was ordered. If additional drawings for a special unit are necessary, they have been inserted. Contact nVent Equipment Protection if further information is required.

WARRANTY AND RETURN POLICY

Visit hoffman.nVent.com/en/hoffman/warranty-information

RECEIVING THE THERMOELECTRIC COOLER

Inspect the thermoelectric cooler. Check for concealed damage that may have occurred during shipment. Look for dents, scratches, loose assemblies, etc. Damage evident upon receipt should be noted on the freight bill. Damage should be brought to the attention of the delivering carrier -- NOT to nVent -- within 15 days of delivery. Save the carton and packing material and request an inspection. Then file a claim with the delivering carrier.

nVent cannot accept responsibility for freight damages; however, we will assist you in any way possible.

HANDLING & TESTING THE THERMOELECTRIC COOLER

TEST FOR FUNCTIONALITY BEFORE MOUNTING THE THERMOELECTRIC COOLER TO THE ENCLOSURE.

Refer to nameplate for proper electrical current requirements, then connect power cord to a properly grounded power supply. Minimum circuit ampacity should be at least 125% of the amperage shown in the design data section for the appropriate model. No other equipment should be connected to this circuit to prevent overloading.

Operate the thermoelectric cooler for five (5) to ten (10) minutes. No excessive noise or vibration should be evident during this run period. The ambient and enclosure fans should be running.

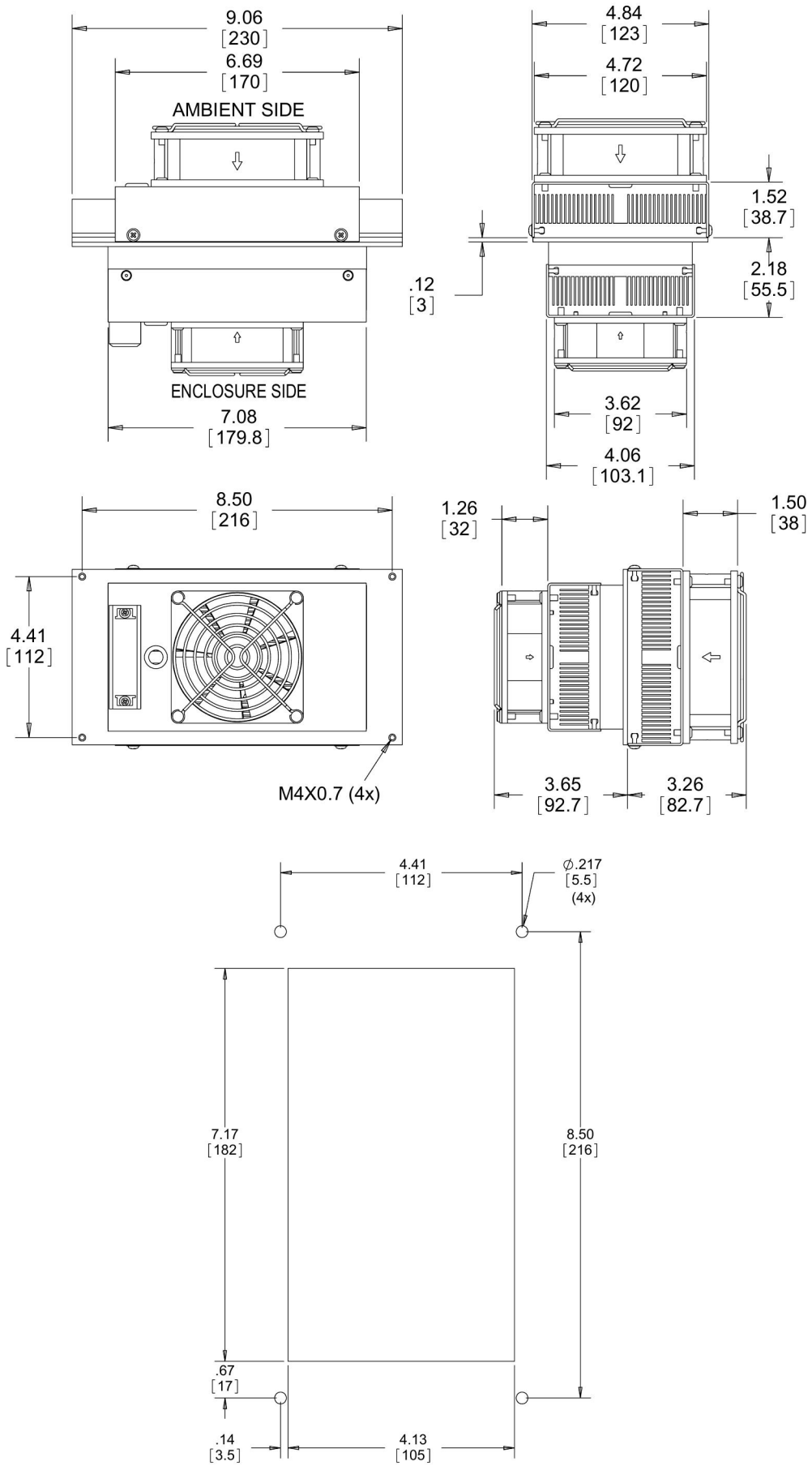
INSTALLATION INSTRUCTIONS

1. Inspect thermoelectric cooler. Verify functionality before mounting the thermoelectric cooler, see HANDLING & TESTING THE THERMOELECTRIC COOLER on page 3.
2. Using the cutout dimensions shown in this manual, prepare the air openings, and mounting bolt hole pattern for the enclosure.
3. Mount thermoelectric cooler on enclosure using mounting fasteners provided.
4. Refer to top of nameplate for electrical requirements. Connect the thermoelectric cooler to a properly grounded power supply. Class 2 or SELV power source is required for fans.

DESIGN DATA

Model	Description	Voltage	Rated Amps at 131F/131F	Nominal Cooling/ Heating Watts	Maximum Ambient Temperature °F / °C	Shipping Weight lb. / kg
TE090624020	60 Watt 24 Volt TEC No Shroud	18 - 27.6 Vdc	4.4 @ 27.6 Vdc	52 / 64	131 / 55	7.5 / 3.4
TE121024020	100 Watt 24 Volt TEC No Shroud	18 - 27.6 Vdc	8.5 @ 27.6 Vdc	94 / 94	131 / 55	10.8 / 4.9
TE121048020	100 Watt 48 Volt TEC No Shroud	40 - 56.7 Vdc	4.4 @ 56.7 Vdc	94 / 94	131 / 55	10.8 / 4.9
TE162024020	200 Watt 24 Volt TEC No Shroud	18 - 27.6 Vdc	14.7 @ 27.6 Vdc	166 / 144	131 / 55	16.9 / 7.7
TE162048020	200 Watt 48 Volt TEC No Shroud	40 - 56.7 Vdc	7.6 @ 56.7 Vdc	166 / 149	131 / 55	16.9 / 7.7
TE090624010	60 Watt 24 Volt TEC Galvanized Shroud	18 - 27.6 Vdc	4.4 @ 27.6 Vdc	52 / 64	131 / 55	9.3 / 4.3
TE121024010	100 Watt 24 Volt TEC Galvanized Shroud	18 - 27.6 Vdc	8.5 @ 27.6 Vdc	94 / 94	131 / 55	13.3 / 6.1
TE121048010	100 Watt 48 Volt TEC Galvanized Shroud	40 - 56.7 Vdc	4.4 @ 56.7 Vdc	94 / 94	131 / 55	13.3 / 6.1
TE162024010	200 Watt 24 Volt TEC Galvanized Shroud	18 - 27.6 Vdc	14.7 @ 27.6 Vdc	166 / 144	131 / 55	20.7 / 9.4
TE162048010	200 Watt 48 Volt TEC Galvanized Shroud	40 - 56.7 Vdc	7.6 @ 56.7 Vdc	166 / 149	131 / 55	20.7 / 9.4
TE090624011	60 Watt 24 V TEC Stainless Steel Shroud	18 - 27.6 Vdc	4.4 @ 27.6 Vdc	52 / 64	131 / 55	9.3 / 4.3
TE121024011	100 Watt 24 V TEC Stainless Steel Shroud	18 - 27.6 Vdc	8.5 @ 27.6 Vdc	94 / 94	131 / 55	13.3 / 6.1
TE162024011	200 Watt 24 V TEC Stainless Steel Shroud	18 - 27.6 Vdc	14.7 @ 27.6 Vdc	166 / 144	131 / 55	20.7 / 9.4

DIMENSIONAL DRAWING (TE090624020)



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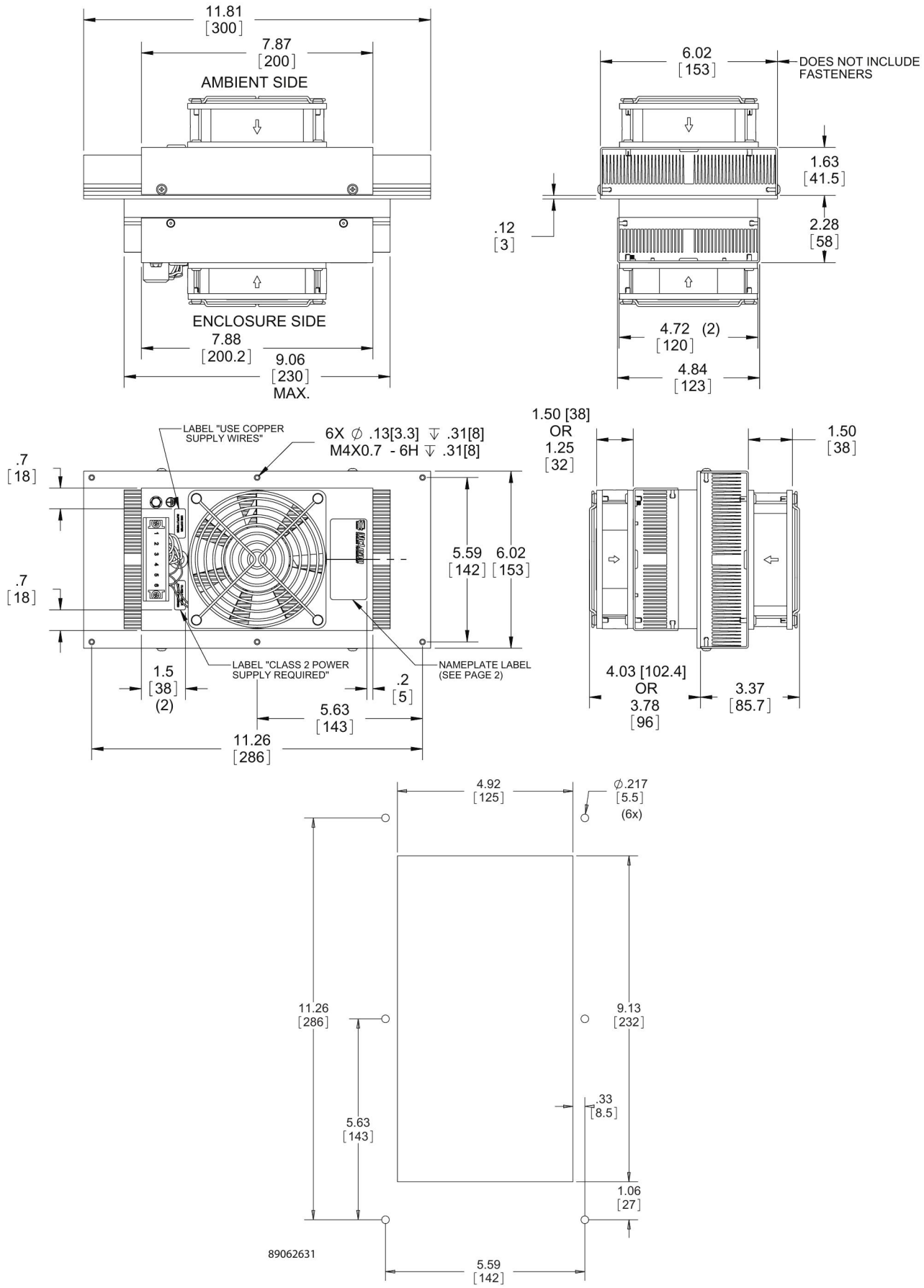

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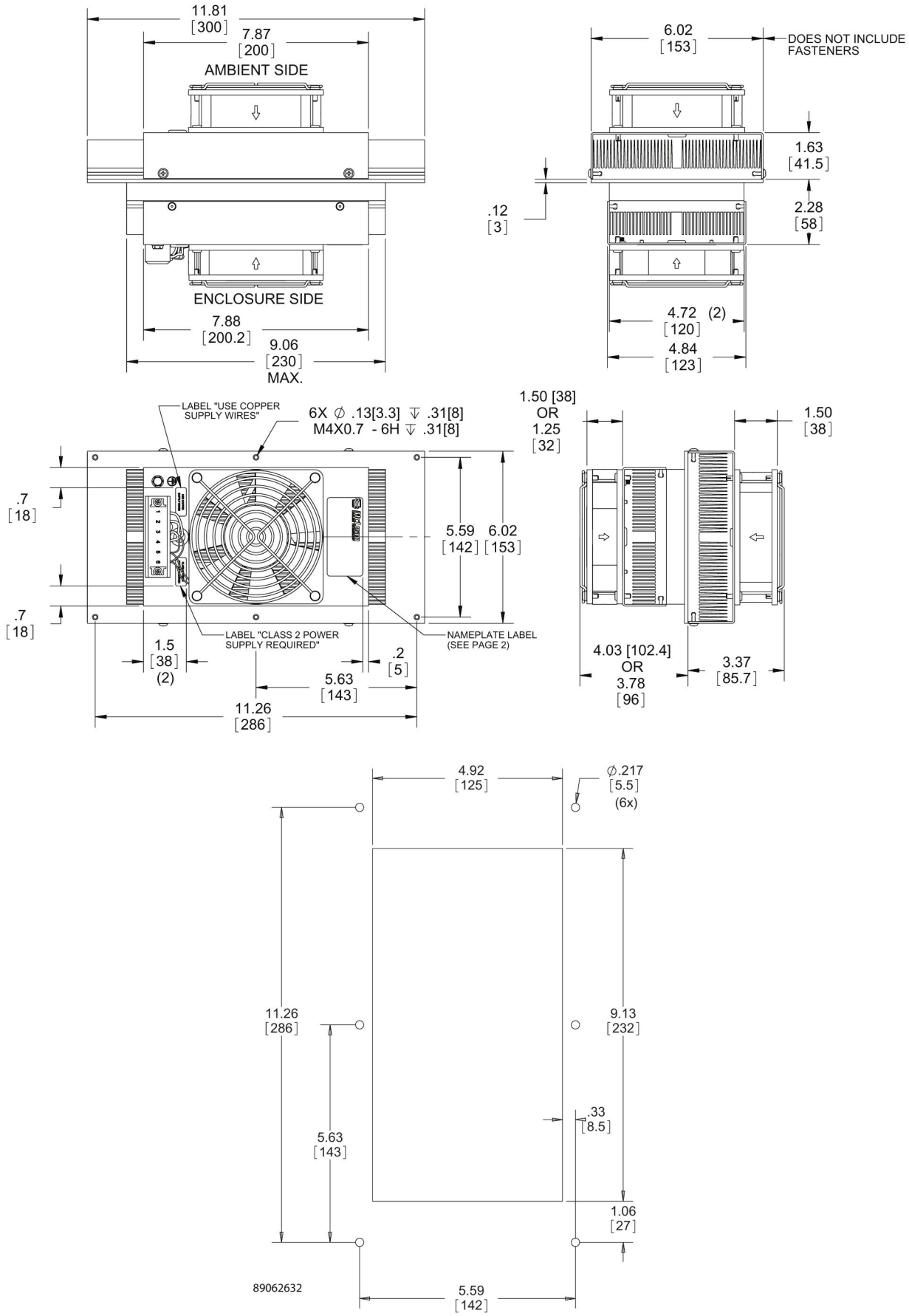

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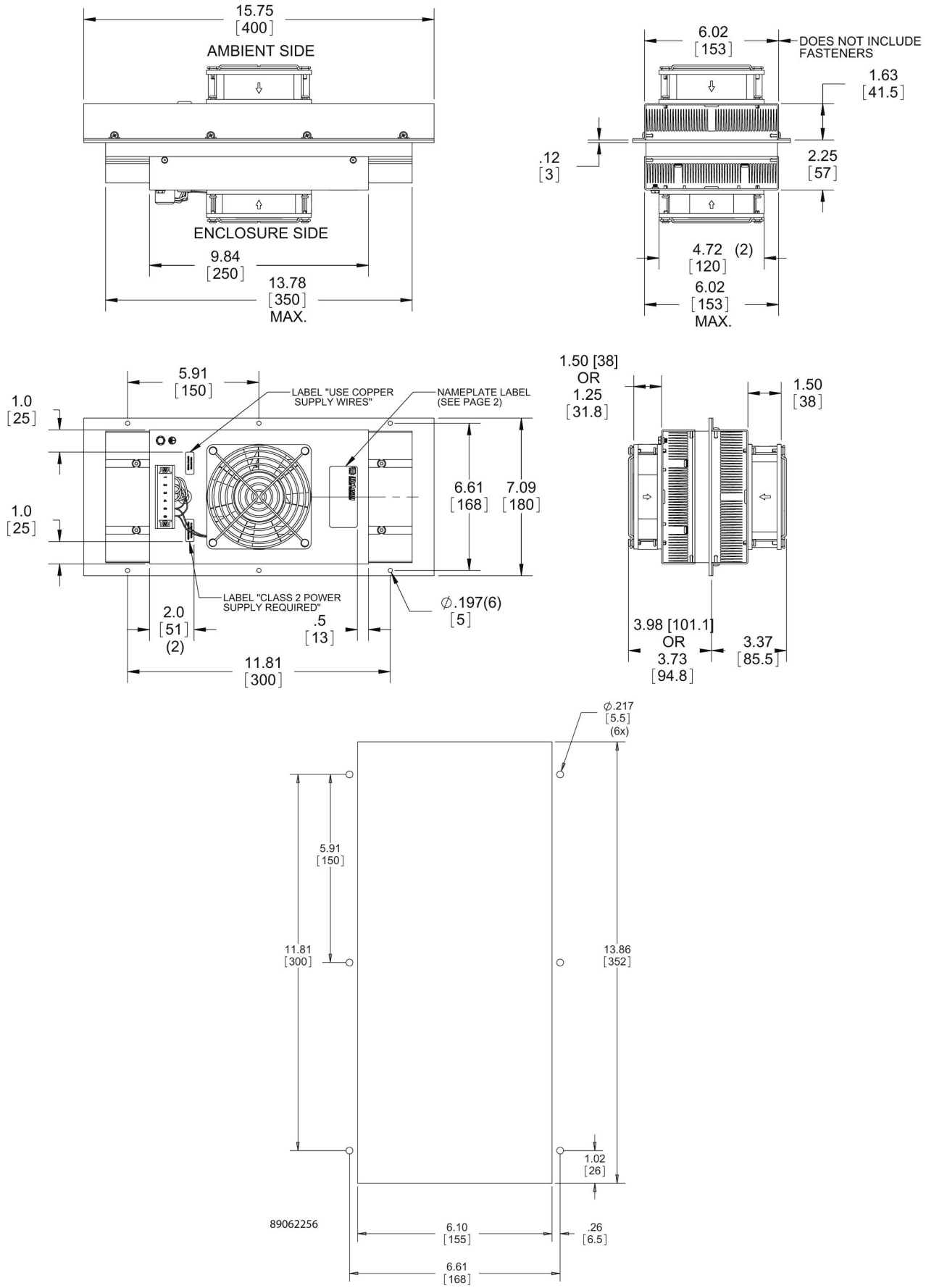

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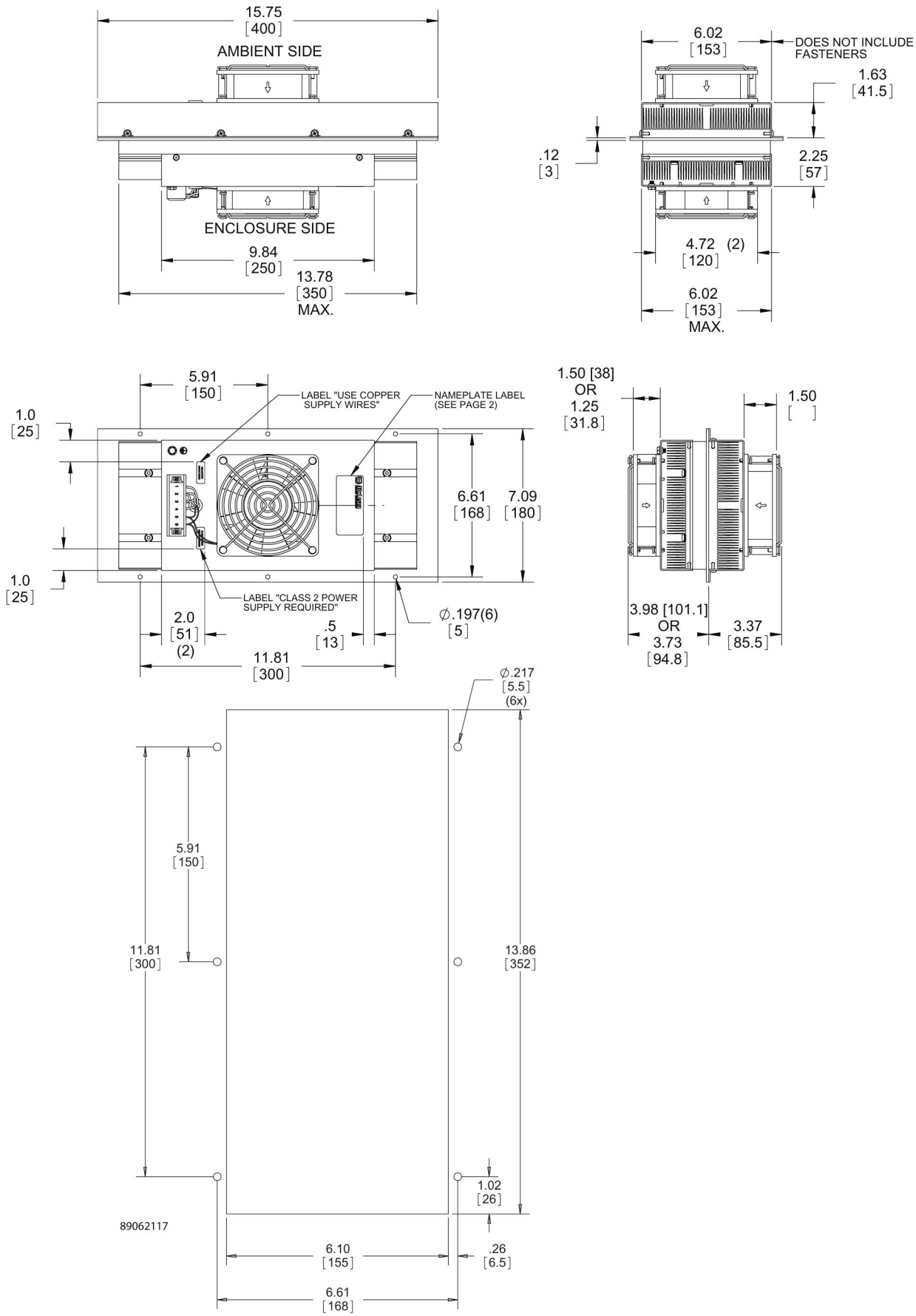

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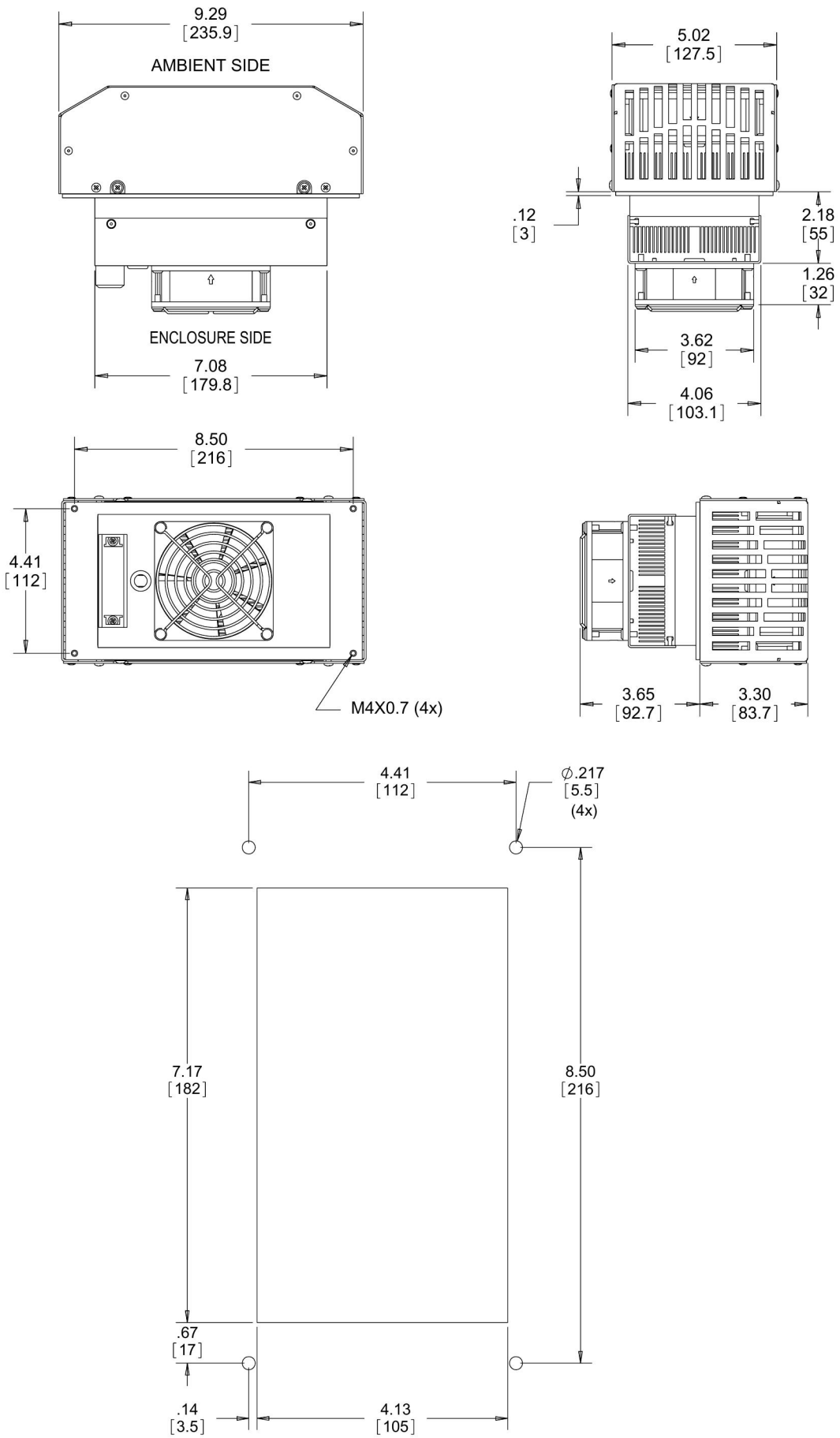

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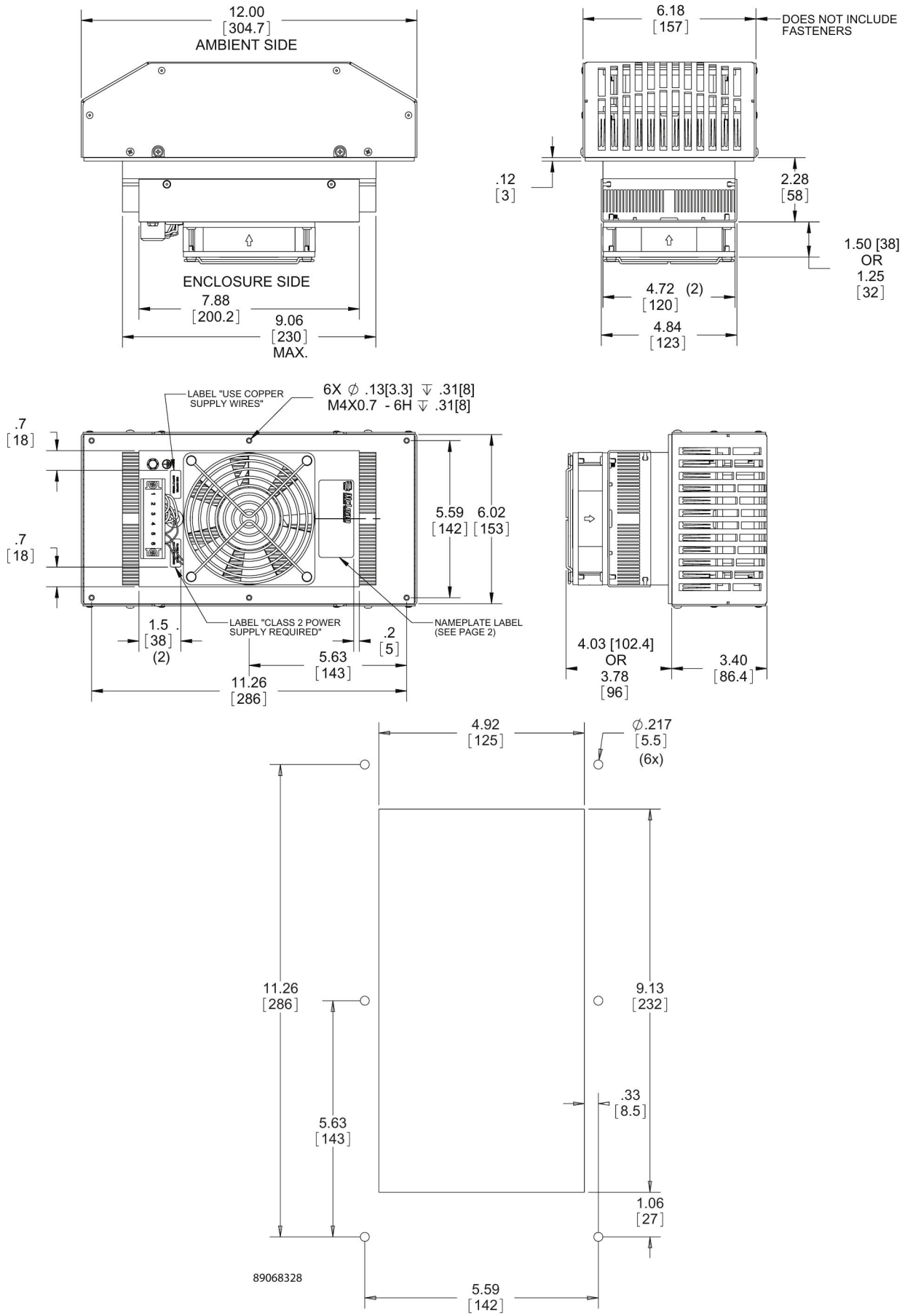

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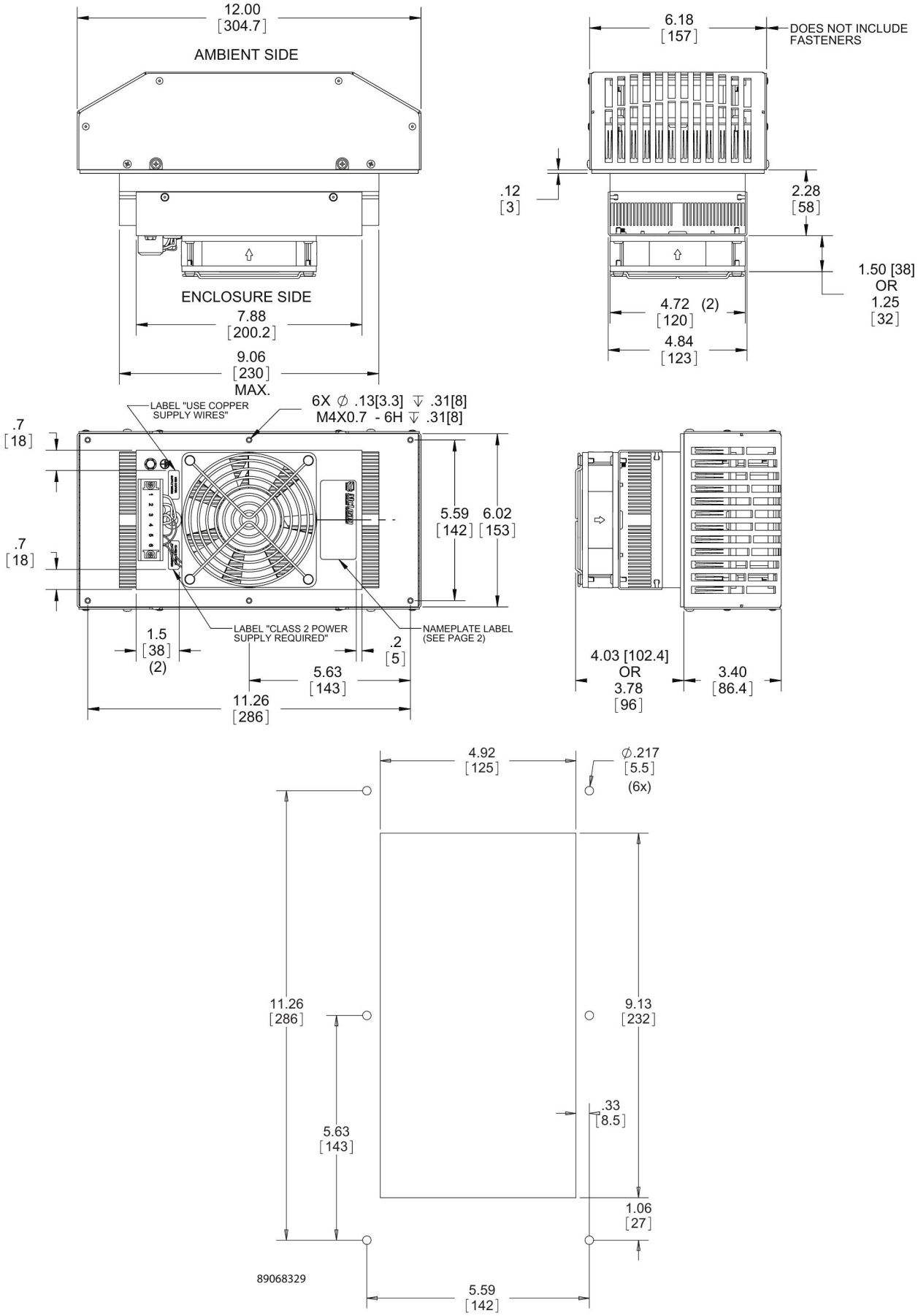

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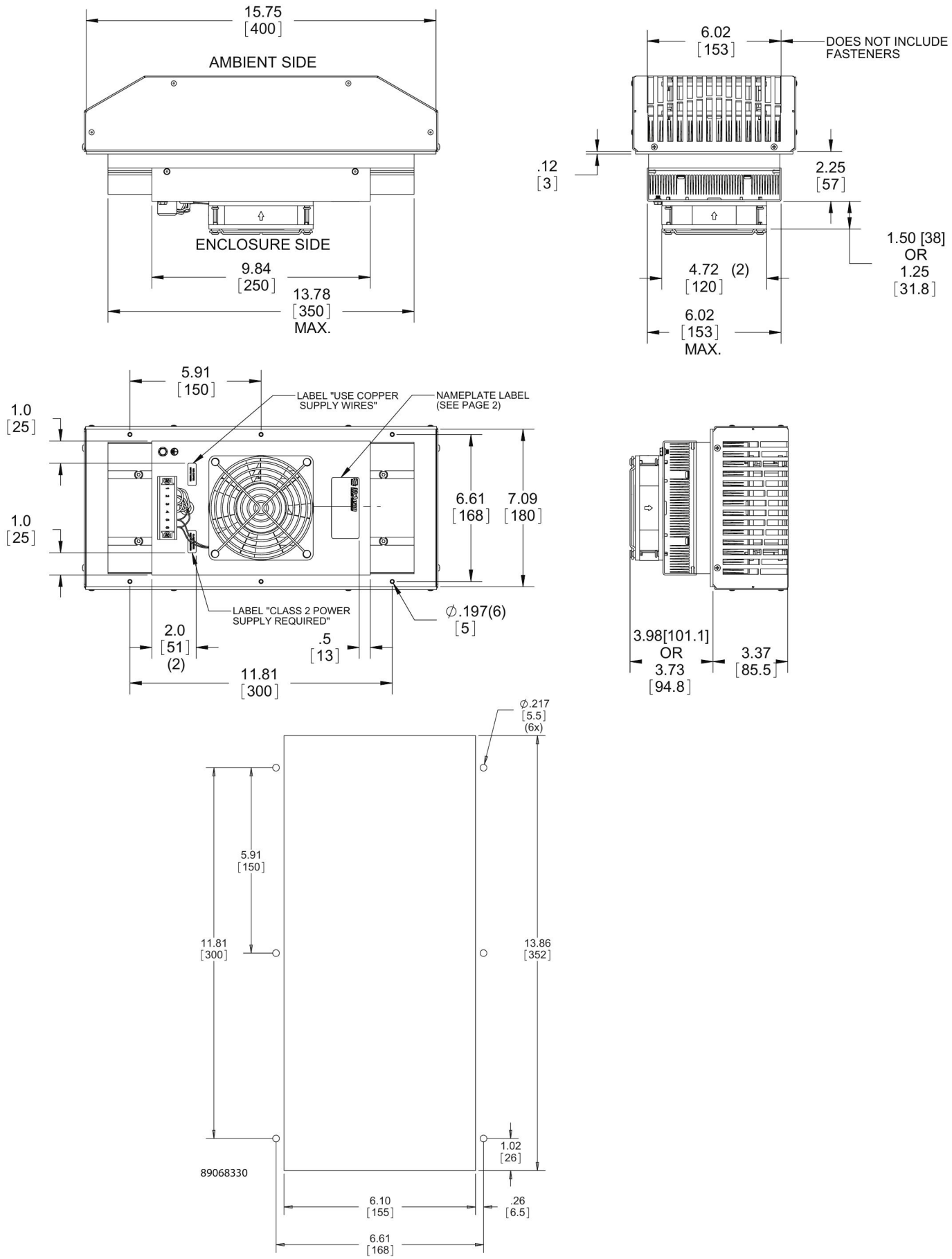

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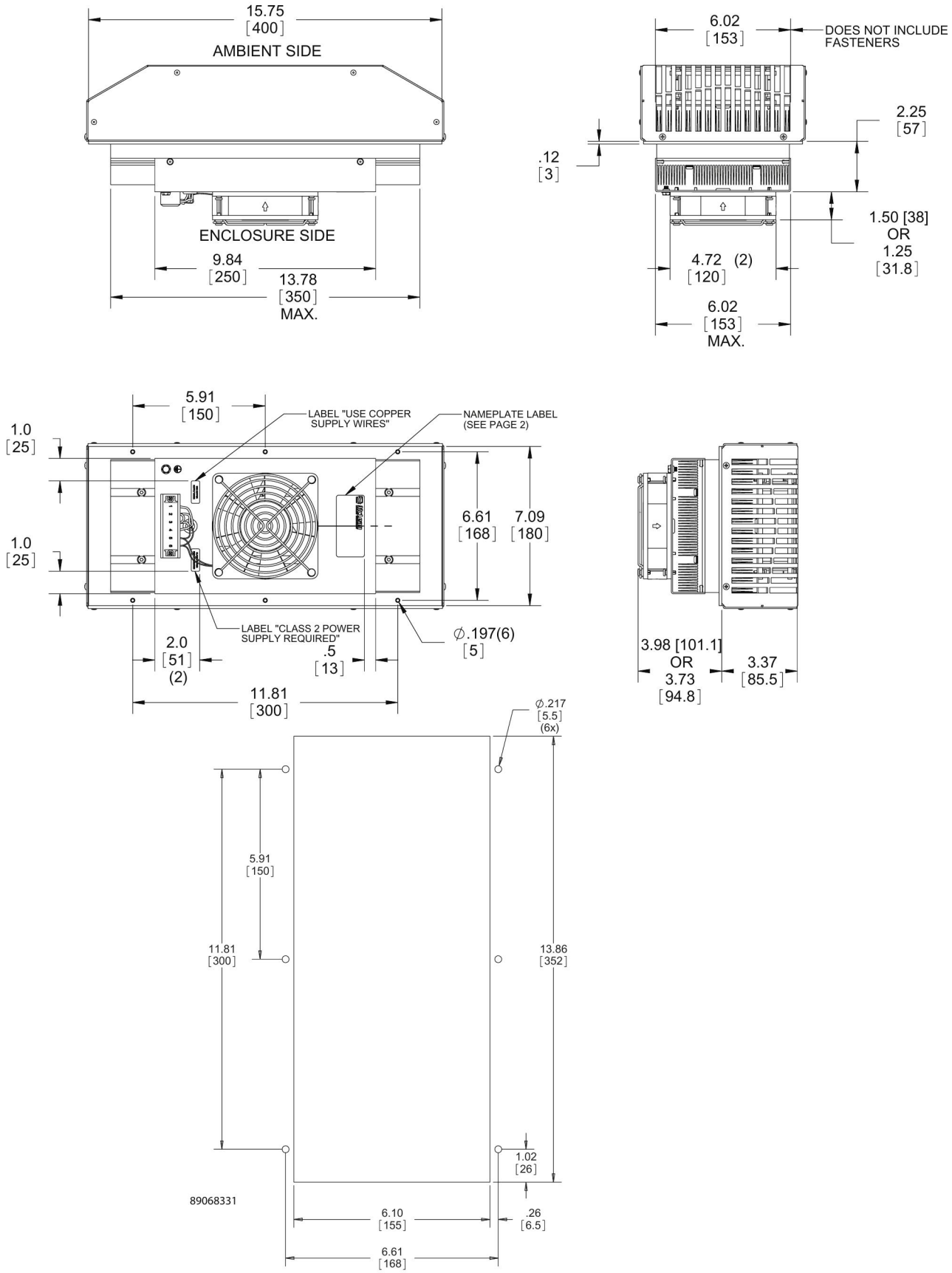

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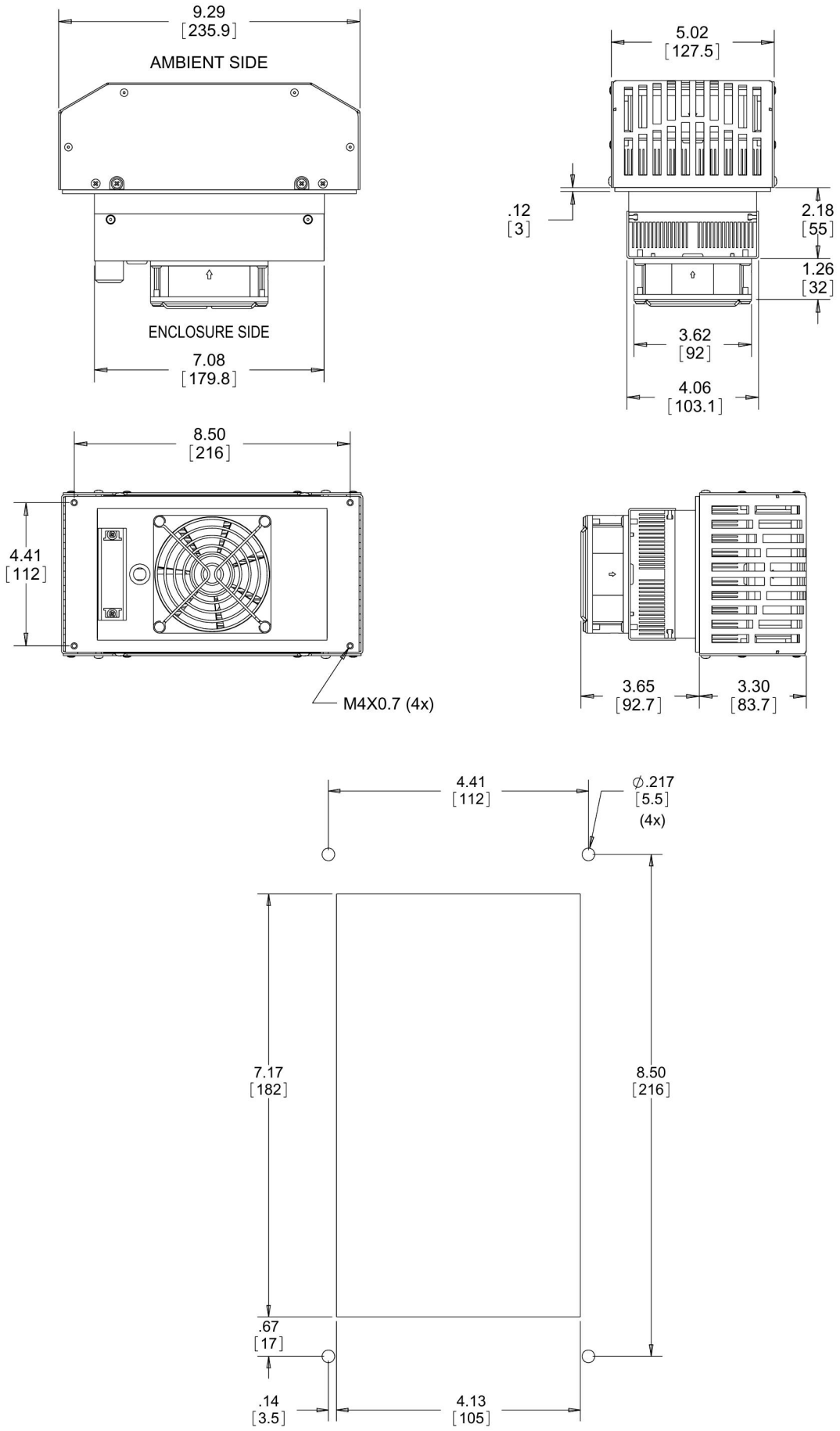

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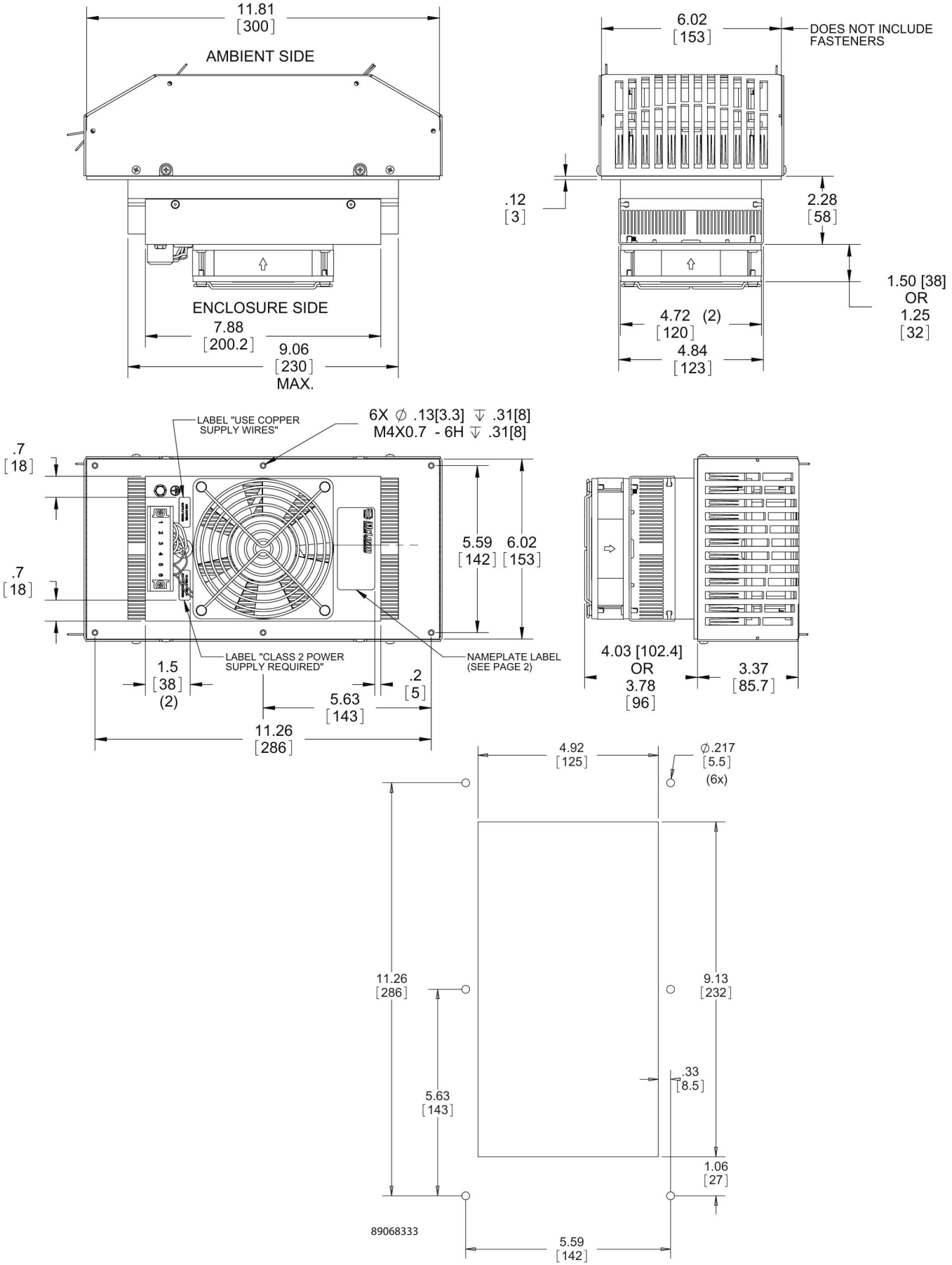

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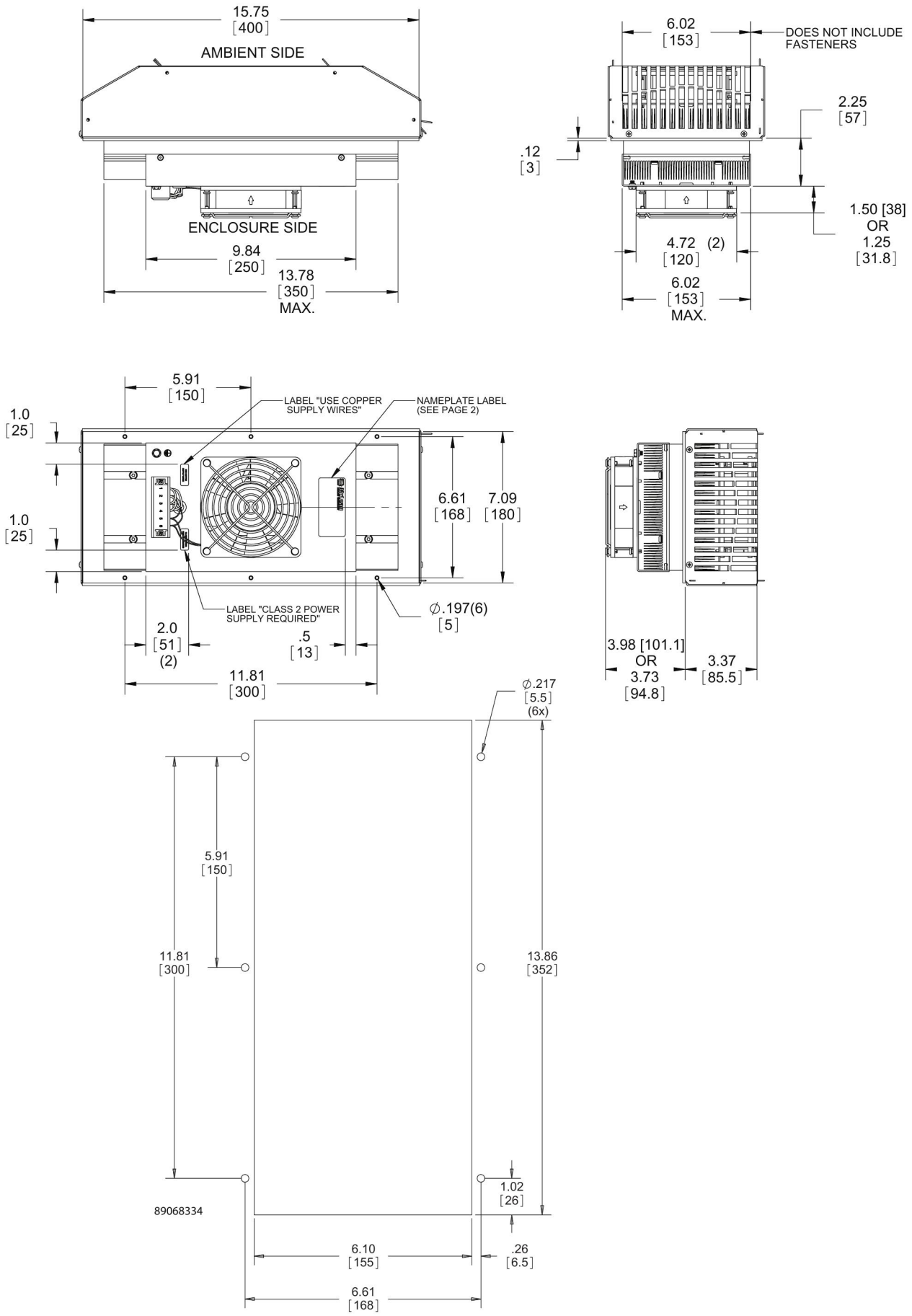
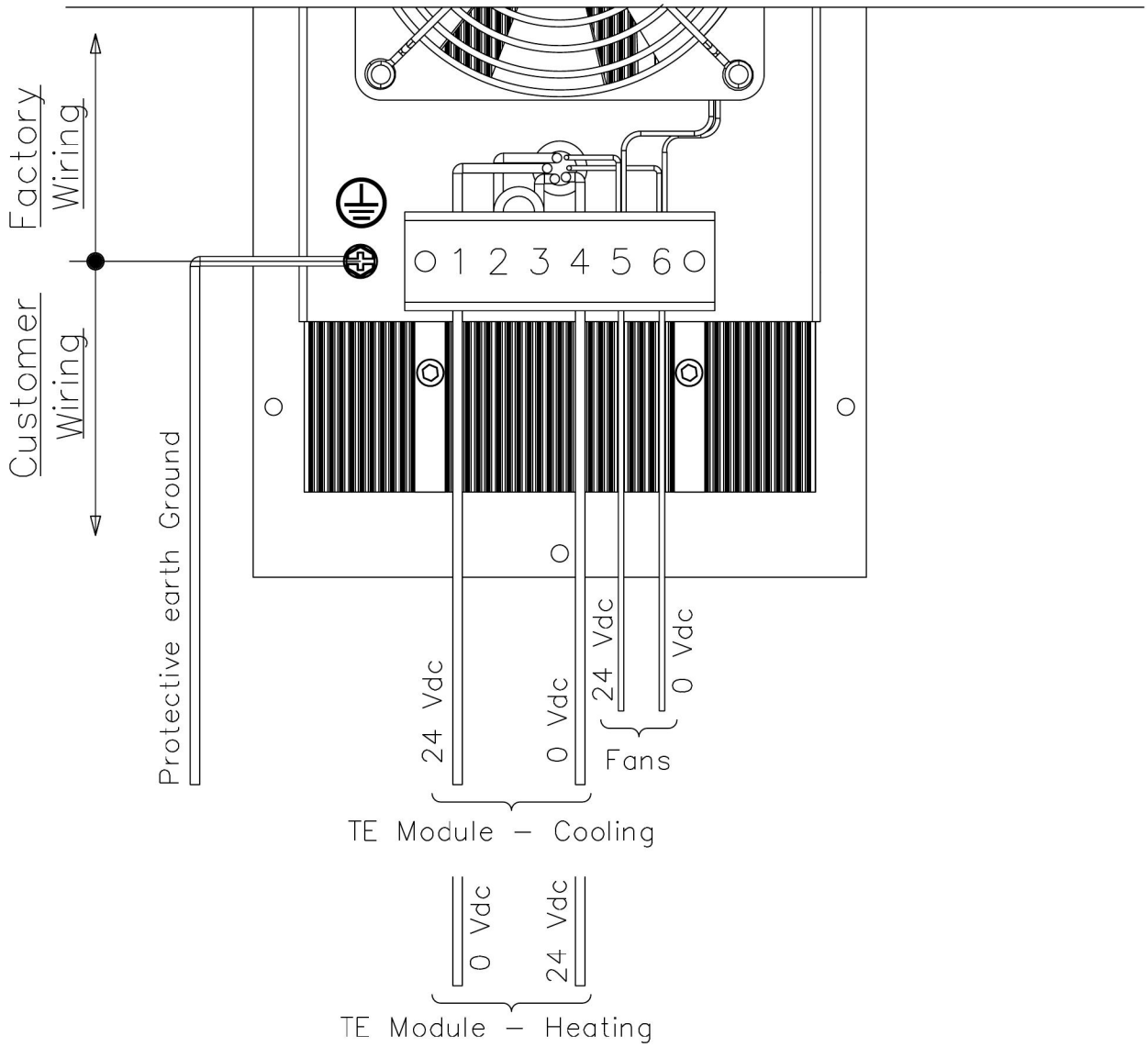
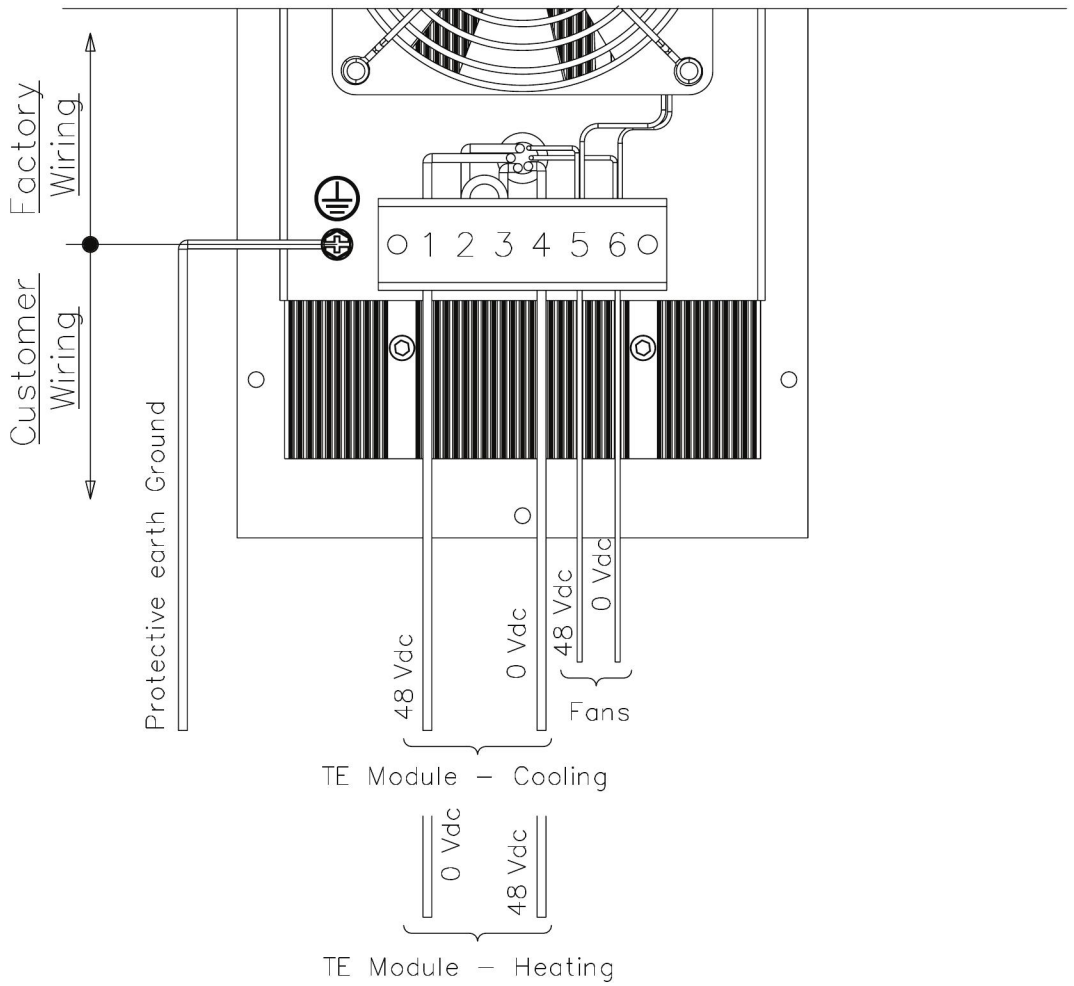


WIRING DIAGRAMS 24 VDC UNITS

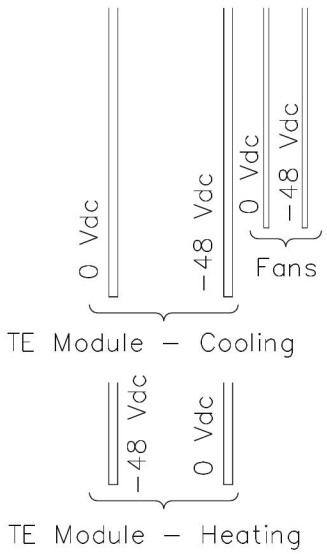


NOTE: Class 2 or SELV power source is required for fans.

WIRING DIAGRAMS 48 VDC UNITS



For -48 Vdc Positive Ground Telecom Power Supply:



NOTE: Class 2 or SELV power source is required for fans.

PRINCIPLES OF OPERATION

The thermoelectric cooler is configured for direct power application through the input connections on the terminal block. The terminal block is located on the enclosure side of the product. The thermoelectric cooler can be used for cooling or heating and is determined by the DC voltage polarity applied for the peltier modules at the terminal block. Refer to the wiring diagrams for the correct wire connections depending on the desired operating condition. Note the fan wiring will not change to match the peltier module wiring. The fan wiring is the same regardless of whether the thermoelectric cooler is configured for cooling or heating.

MAINTENANCE

Beyond occasional inspection for dust or dirt buildup no special maintenance should be required.

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