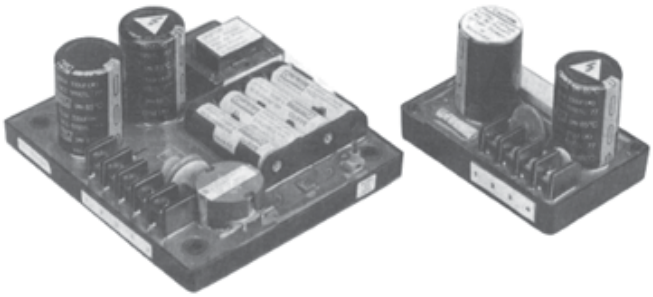

ESD-201/ESD-202 ENERGY STORAGE DEVICES

The Basler Electric energy storage devices are an economical alternative to existing energy storage devices. They can be used when a station battery source is not available for circuit breaker tripping. The ESD-201 converts an ac input into dc and stores sufficient energy to trip the circuit breaker for up to 72 hours after the ac is removed. The ESD-202 converts an AC input and stores sufficient energy to trip the circuit breaker for at least 12 seconds.

FEATURES

- Converts an ac input into dc for circuit breaker tripping power.
- The ESD-201 tripping power is maintained for up to 72 hours after the loss of the ac input.
- The ESD-202 maintains tripping power for 12 seconds.
- LED indicator to indicate a sufficient charge is available.
- Compact package.
- Economical design.
- One unit for 120 or 240 Vac inputs.
- CSA-C22-2 certified.
- UL 508 recognized.
- 18 month warranty.

ADDITIONAL INFORMATION

INSTRUCTION MANUAL

Request Publication 9110600991 (ESD-201)
Request Publication 9290500990 (ESD-202)

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DESCRIPTION and SPECIFICATIONS
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DESCRIPTION:

ESD-201

Power input to the Energy Storage Device is 120 or 240 Vac. This input is rectified and used to charge the energy storage capacitor to approximately 330 Vdc. A nickel cadmium battery source is also charged from this ac source. As long as the ac input is applied, the output capacitor and the battery continue to be charged in this manner. If the ac fails, a battery-powered oscillator circuit and an associated step-up transformer act as the capacitor charging source. Energy for breaker tripping is maintained for as long as 72 hours after a loss of ac voltage.

ESD-202

Power input to the energy storage device is 240 Vac. This input is rectified and used to charge the energy storage capacitors to approximately 330 Vdc. As long as the input is applied, this voltage will be maintained. Once the ac input is removed, the energy storage device will maintain a sufficient charge for a minimum of 12 seconds.

SPECIFICATIONS:

ESD-201

OUTPUT POWER:

Voltage: 330-450 Vdc

Energy: 27 Joules minimum at 330 Vdc
36 Joules minimum at 380 Vdc
50 Joules minimum at 450 Vdc
This output is maintained for a period of 72 hours after the internal battery is fully charged.

CHARGING RATE: Varies non-linearly from 90 Volts/cycle down to 2.8 Volts/min as cap approaches 90% full charge after breaker trip event.

ESD-201, cont.

INPUT POWER:

Voltage: 120 or 240 V ±10%
Frequency: 50/60 Hz
Phase: Single
Burden: 4.0 VA maximum

POWER DISSIPATED: 5.0 Watts.

STORAGE TEMPERATURE RANGE: -40°C (-40°F) to +90°C (+194°F).

OPERATING TEMPERATURE RANGE: -25°C (-13°F) to +65°C (+149°F).

WEIGHT: 1 lb. 5 oz. (0.582 kg.)

ESD-202

OUTPUT POWER:

Voltage: 191-339 Vdc

Energy: 9.1 Joules minimum at 191 Vdc
21.6 Joules minimum at 295 Vdc
24.2 Joules minimum at 311 Vdc
28.7 Joules minimum at 339 Vdc
This output is maintained for a minimum of 12 seconds or until a load is applied.

INPUT POWER:

Voltage: 208 or 240 V ±10%
Frequency: 50/60 Hz
Phase: Single
Burden: 10 VA maximum (after ESD-202 is fully charged)

POWER DISSIPATED: 2.0 Watts.

STORAGE TEMPERATURE RANGE: -40°C (-40°F) to +85°C (+185°F).

OPERATING TEMPERATURE RANGE: -25°C (-13°F) to +65°C (+149°F).

WEIGHT: .55 lb. (.25 kg)

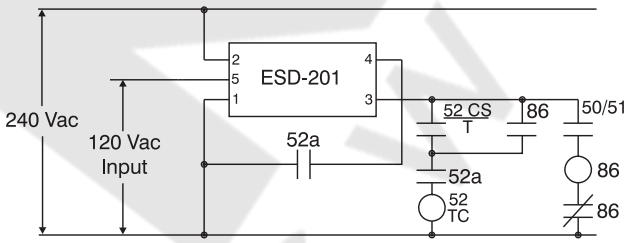

FIGURE 1 - ESD-201 Interconnection Diagram

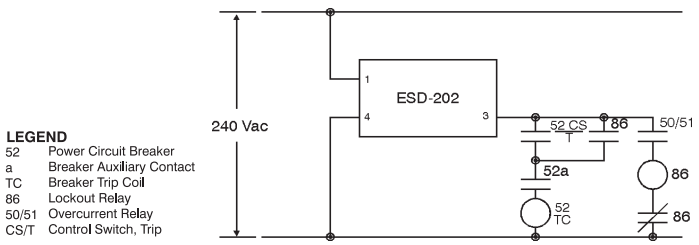

FIGURE 2 - ESD-202 Interconnection Diagram

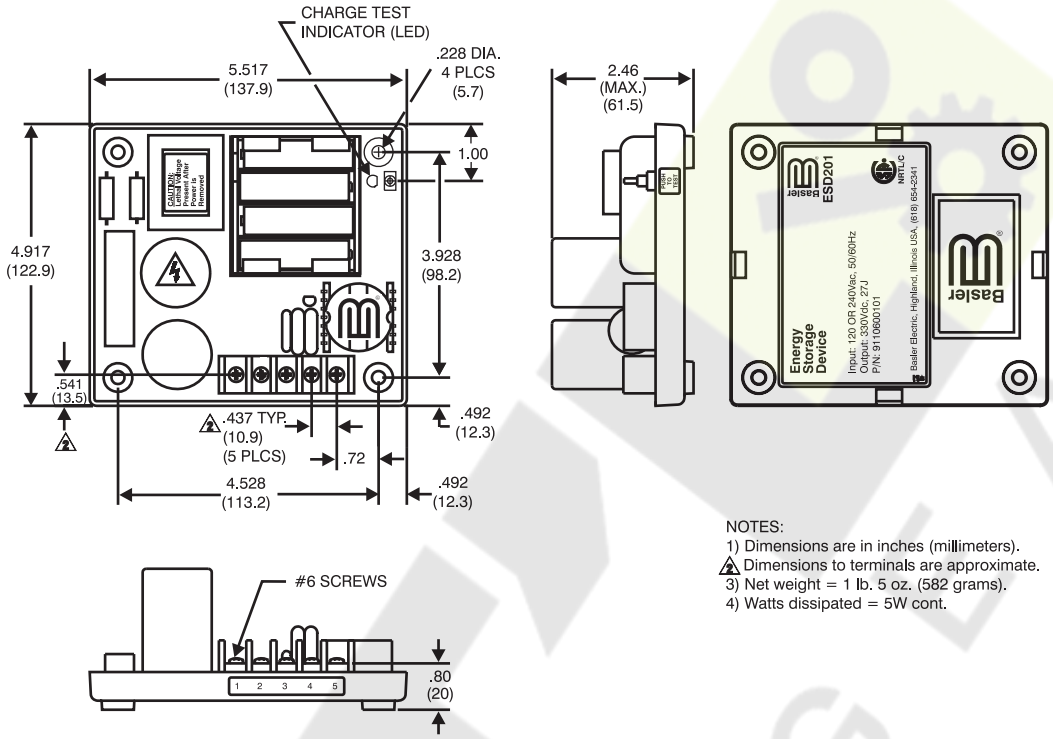

FIGURE 3 - ESD-201 Dimensions

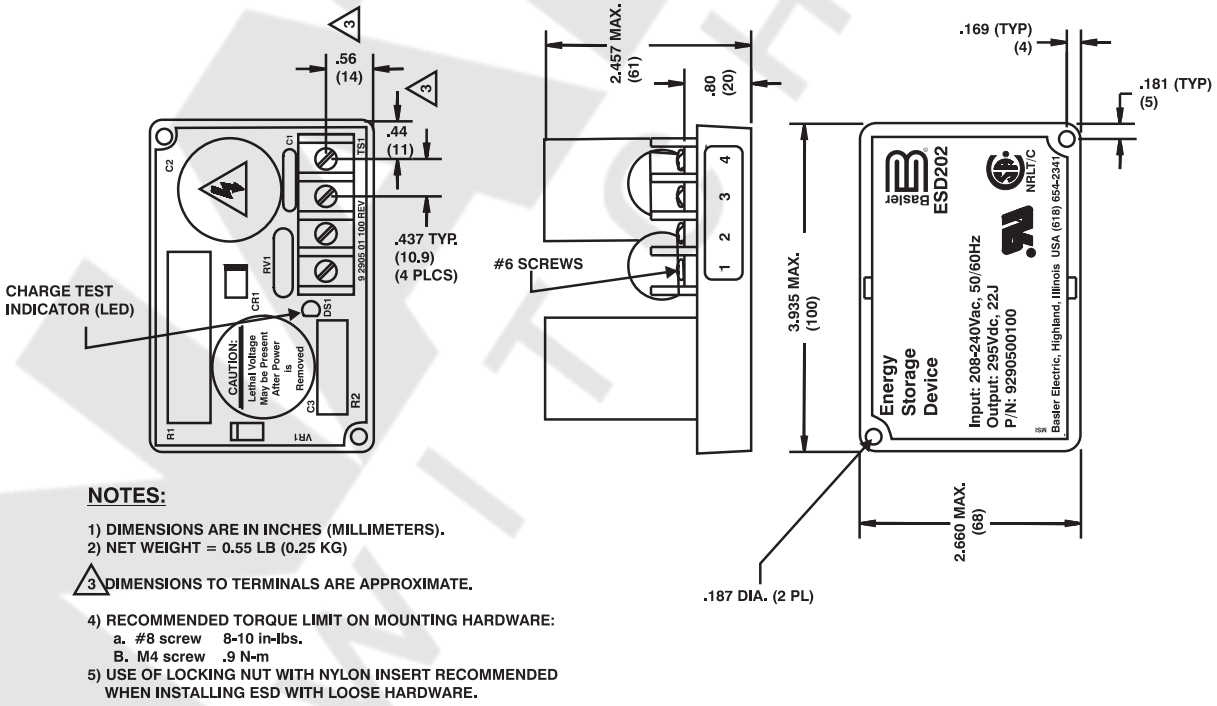

FIGURE 4 - ESD-202 Dimensions

NOTES: 1. Dimensions in parentheses are in inches (millimeters).
2. All drawings and data subject to change without notice.

ACCESSORY ITEM:

CONVERSION MOUNTING PLATE: An adaptive mounting plate is available for retrofit applications for mounting of an ESD-201 in place of existing ESD products; order Basler Electric part number 9 1106 00 009. See Figure 5 below.

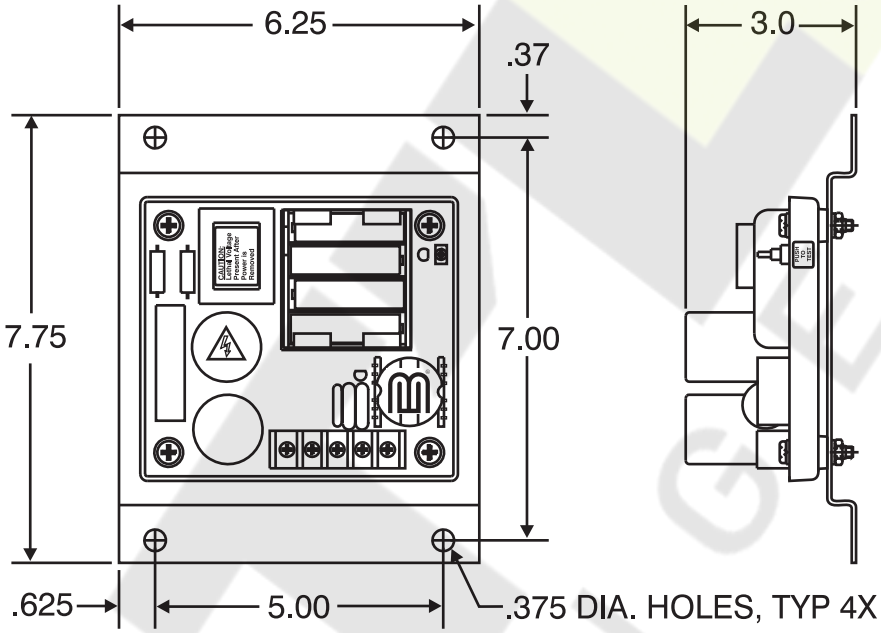

FIGURE 5 - DIMENSION DRAWING, OPTIONAL CONVERSION MOUNTING PLATE FOR REPLACING BASLER MODEL ESD-200