

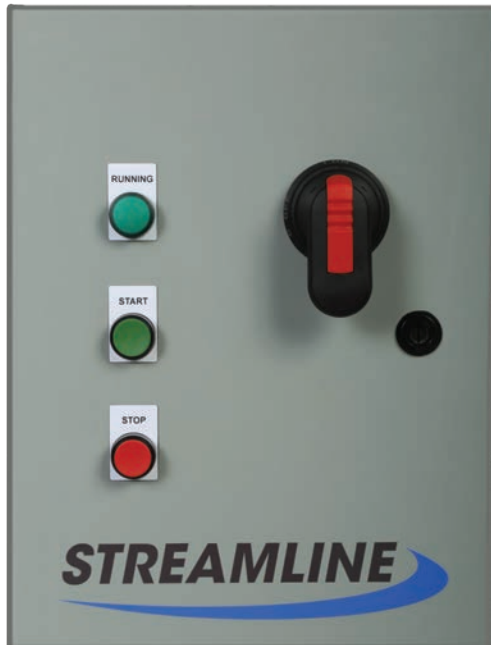
# **STREAMLINE**

*Powered by Gross Automation*

## **Energy Solutions**



# Starter Panels



*Streamline offers a variety of simple, durable starter panels designed to aid in motor control. Both off-the-shelf and custom-built panels contain the starter and other related controls. Streamline's preconfigured starter panels are used to control the path of electrical power to your equipment. They allow motors to be stopped, started, accelerated, and reversed safely, both onsite or from a remote location.*



## Starter Panels Options

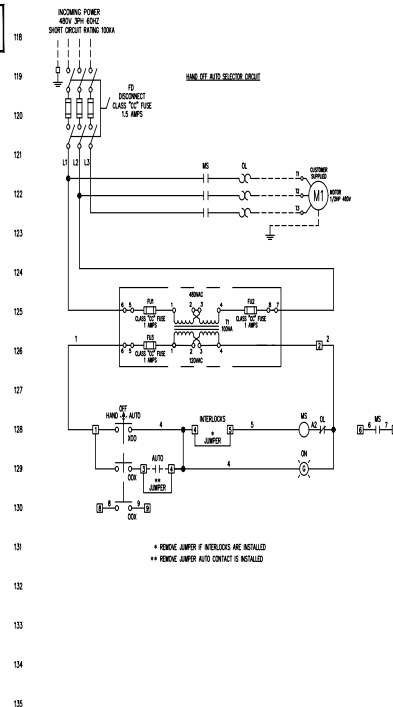
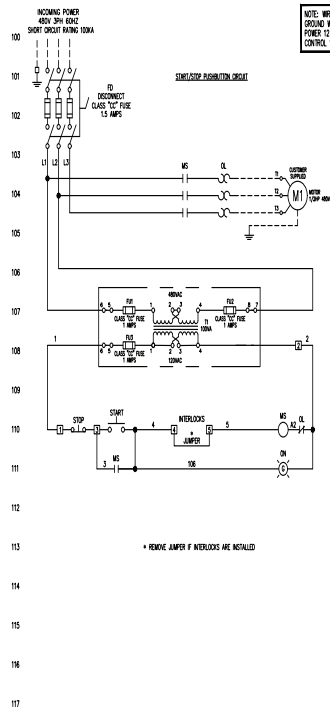
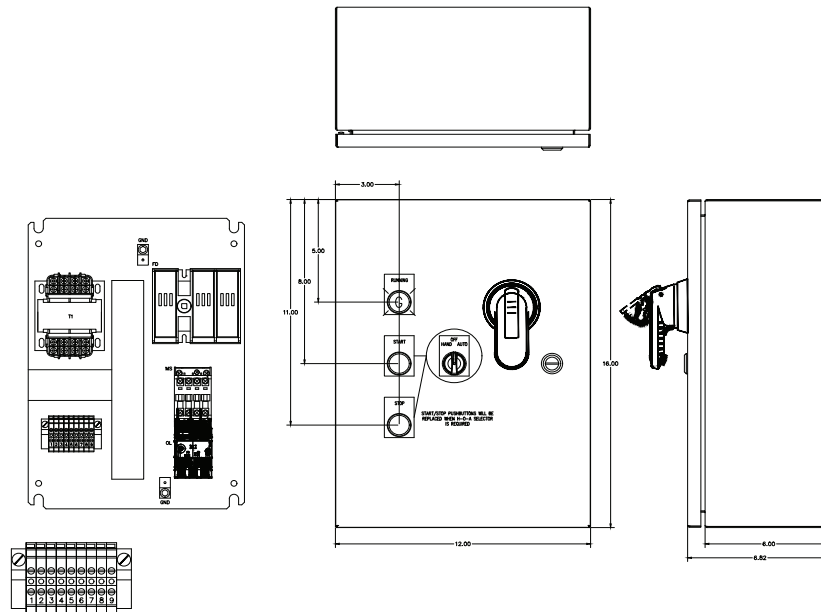
- Voltage: 240V, 480V
- Horsepower: 0.5hp - 200hp
- Circuit Breaker or Fuse Disconnect
- Start/Stop or Hand/Off/Auto

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# Prototypical Starter Panel



# Solar Combiner Box Series

Solar combiners (solar panel combiner boxes) are engineered to combine power from several solar panels onto a common bus. They are specially designed for the types of wiring used in photovoltaic (PV) systems. The output would then be connected to a charge controller or inverter, depending on the type of system. Solar combiners also allow for a transition to larger wires between the array and the batteries or inverter to minimize transmission voltage drop, all while protecting the array.

Streamline now offers a variety of premium "plug and play" solar combiner box solutions. Built in Streamline's UL 508a panel shop just outside of Milwaukee, Wisconsin, these systems can be trusted to perform. All combiner boxes are hand-assembled using best-in-class, name brand components and are built to stand up under even the harshest conditions. In addition, they are highly serviceable. The polycarbonate enclosure features a full-length piano-hinged door with a non-metallic latch. They offer a variety of mounting options thanks to brass inserts on the rear wall of the enclosure and the lid. Made in the U.S.A. the enclosures are UL/cUL, NEMA, Type 6P, IP68 as well as UV and chemical resistant.



## Key Features

- Built to IEC & UL standards
- Touch-safe fuse holder
- Surge protection
- DC disconnect switch
- NEMA 4x enclosures
- Circuit breakers mounted inside for improved safety
- IP 68
- UV resistant
- Assembled in U.S.A.

## Benefits

- Improves safety
- Saves time with prearranged configurations
- Assures smooth on-site installation
- Reduces labor and material costs
- Provides over-current and over-voltage protection
- Assembled using premium, name-brand components, resulting in enhanced durability and serviceability
- Enhances inverter protection and reliability



# Solar Combiner Box Series

Streamline offers two combiner box configurations: **Dual Guard™** and **Solo Side™**. The **Dual Guard™** configuration fuses each circuit, on both the positive and negative side. **Solo Side™** fuses just the positive side. Each configuration is offered in a variety of amperages, as well as a choice in the number of circuits. While a wide variety of turnkey, pre-configured combiner boxes are available, Streamline is ready and willing to custom design and produce a product that meets any unique customer need.

Customers can rely on Streamline's team of experienced engineers to answer their questions or assist them in selecting the best option for their project. The team is live and in person to help, not just in the planning stage, but through completion of the project and beyond.

So, whether you are expanding an existing array or assembling a new one, Streamline combiner boxes will save time and make solar panel system connection easier. Streamline products are compatible with any brand of solar panel.

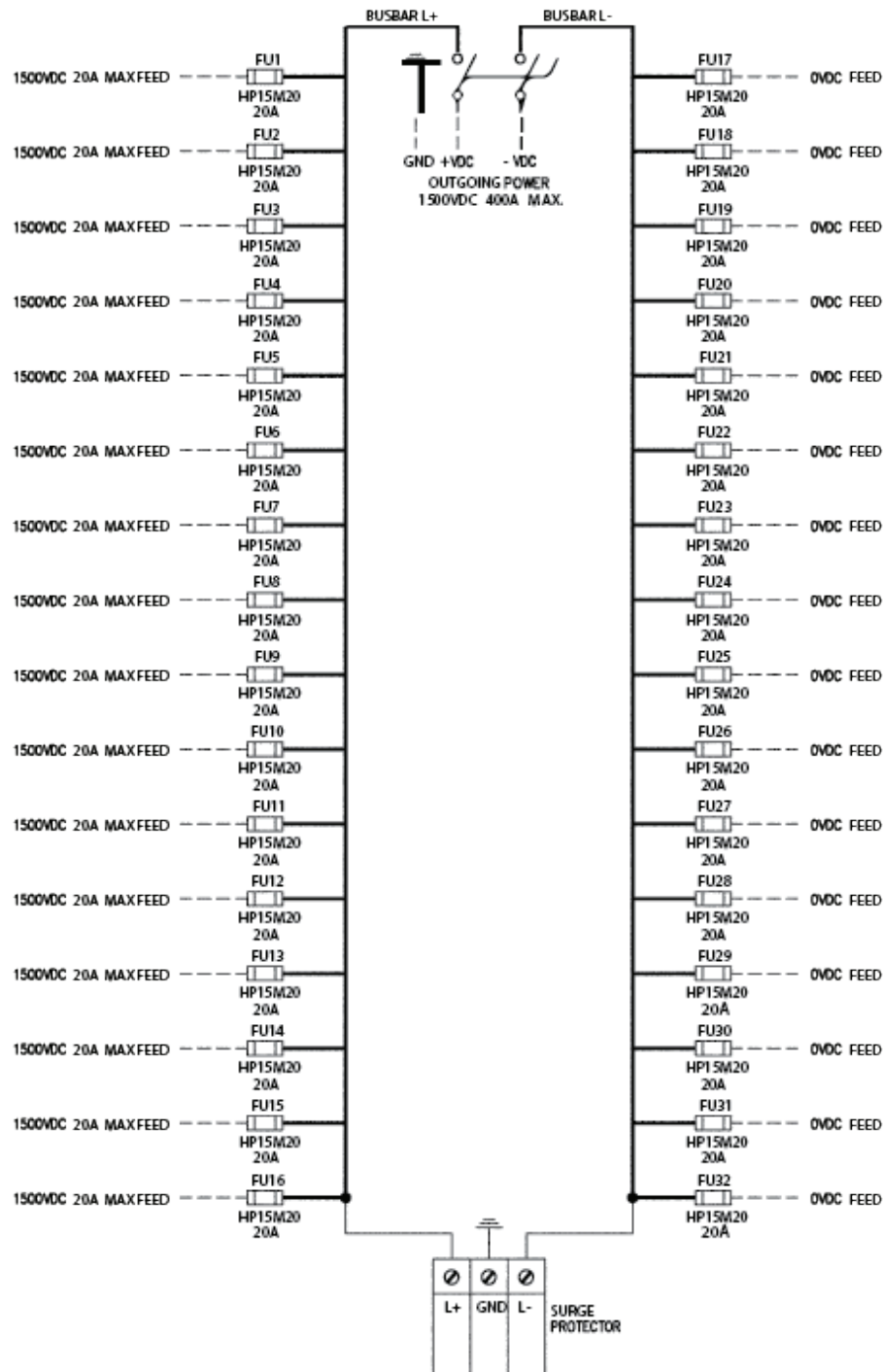
| <b>Dual Control (fused both sides)</b> |             | <b>Solo Side (fused one side)</b> |             |
|----------------------------------------|-------------|-----------------------------------|-------------|
| <b>Model</b>                           | <b>MSRP</b> | <b>Model</b>                      | <b>MSRP</b> |
| 100a 1500Vdc 12 ct                     | \$3899      | 60a 1500Vdc 12 ct                 | \$2999      |
| 100a 1500Vdc 16 ct                     | \$4349      | 60a 1500Vdc 16 ct                 | \$3299      |
| 100a 1500Vdc 20 ct                     | \$4899      | 60a 1500Vdc 20 ct                 | \$3499      |
|                                        |             |                                   |             |
| 200a 1500Vdc 12 ct                     | \$4099      | 100a 1500Vdc 12 ct                | \$2999      |
| 200a 1500Vdc 16 ct                     | \$4499      | 100a 1500Vdc 16 ct                | \$3299      |
| 200a 1500Vdc 20 ct                     | \$4899      | 100a 1500Vdc 20 ct                | \$3499      |
|                                        |             |                                   |             |
| 400a 1500Vdc 12 ct                     | \$4399      | 200a 1500Vdc 12 ct                | \$3499      |
| 400a 1500Vdc 16 ct                     | \$4799      | 200a 1500Vdc 16 ct                | \$3699      |
| 400a 1500Vdc 20 ct                     | \$5199      | 200a 1500Vdc 20 ct                | \$3899      |

**Contractors or distributors should contact Streamline for a quote.**



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# Prototypical Solar Combiner Box



# Enclosure Mounting Bracket Kit



Enclosure mounting bracket kits are specifically designed for flat surface and pole mounting. One kit includes two brackets, as well as the hardware to securely fasten the brackets to a wide variety of enclosures, allowing for a wide range of mounting options.

**Kit Part Number STBRK**

**MSRP \$69.95 / pair**

## **Each Kit Includes:**

- Material: 1/8" aluminum
- Bracket: (2) brackets, each featuring a 6" flat bar section with (2) 3/8" holes to mount to a variety of H-bars to any pole or flat surface
- Fasteners: (4) 1/4" x 20 washers, (4) 1/4" x 20 carriage bolts, (4) 1/4" x 20 nuts



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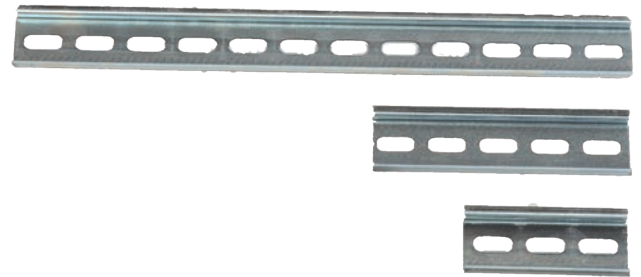
# Custom Parts

## Custom-cut DIN Rail

DIN rail is a universal mounting option for electrical and industrial control products—such as circuit breakers, electrical supplies, terminal blocks and more. The rail system is used to stabilize a wide variety of devices and products. Ordering pre-cut DIN rail helps increase productivity and decrease jobsite clutter.

### On-site Flexibility

Streamline custom cuts DIN rail to any length, so it is ready to use when it arrives on the jobsite. Additionally, DIN rail can be easily removed if relocation is necessary.



### Features

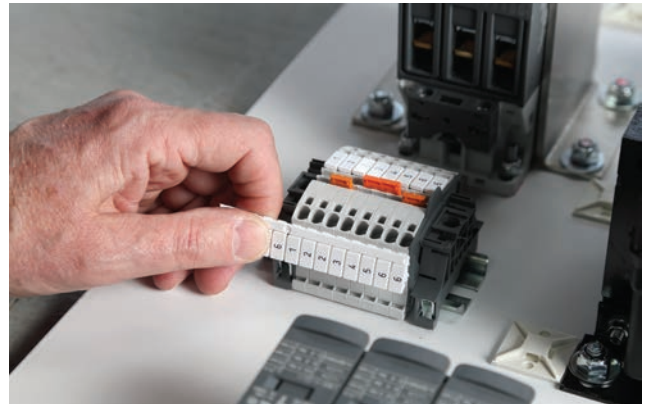
- De-burred
- Custom length
- Any quantity 1-1000+
- Quick turnaround (typically 2 weeks or less from receipt of order)

## Custom-printed Terminal Marker Cards

Streamline offers solutions for any custom-printed terminal marker needs. Customized terminal marker cards help to clearly identify terminal block connections. Additionally, clearly identifying terminal blocks helps troubleshoot when it comes time to service the equipment.

Because accuracy is paramount when it comes to marking terminal block connections, Streamline hand inspects each and every order. With a wide variety of terminal marker cards in stock and a custom printer on-site, Streamline can provide shorter lead times than most competitive offerings.

Easy to install, terminal marker cards from Streamline simply snap into the terminal block. They are vibration and water resistant. And, they enhance the professionalism of the panel in which the terminal block is installed, showing the installer's careful attention to detail and dedication to doing a quality job.



## Custom-cut Shafts

Suitable for motor disconnect or industrial control panel disconnects, custom-cut steel shafts from Streamline are available in a wide variety of diameters. Cut to any length, custom-cut shafts have a strict tolerance of  $\pm 1$  mm.

Quick turnaround is guaranteed because Streamline maintains a stock of steel shafts ready to fulfill orders.



## Why Choose the Streamline Brand?

*Streamline products are manufactured and distributed by Gross Automation. We have a team of seasoned, experienced engineers as well as a fully equipped, staffed, and UL 508A certified panel shop. Gross Automation is proud to be ISO 9001:2015 certified.*

*With Streamline, all clients receive direct, personal attention that is 100% solution-focused. Whether it is remote troubleshooting, complex panel assembly, or our team performing installation and startup at your facility, Streamline is dedicated to providing answers to your questions and solutions to your problems.*



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