NEC 700.3 (F) Compliant

UL 1008 LISTED up to 3000A

# Emergency Power

## Emergency Power Connection Equipment

StormSwitch™ | TripleSwitch™ | TempTap™ | OutTap™

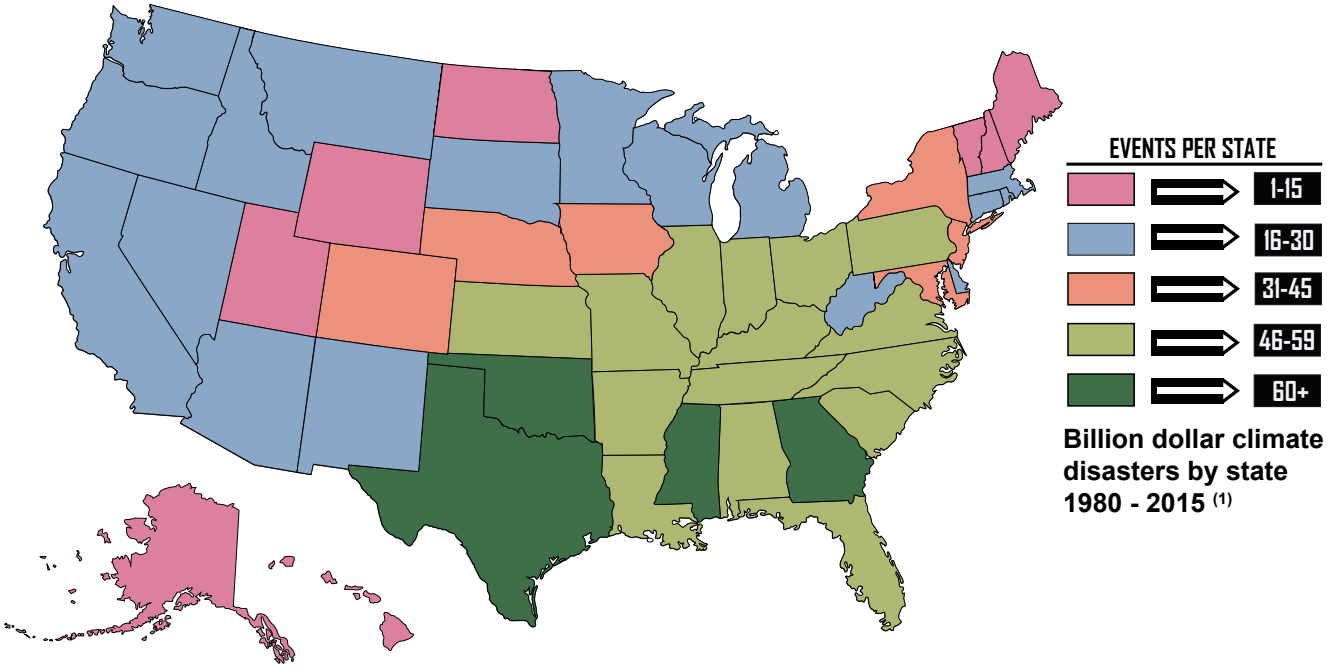


ESL POWER SYSTEMS

# Importance of Emergency Power

QUICK LINK
Check out more Facts & Figures:
ESLPWR.COM/PREPAREDNESS

The reliability of power over the past 15 years has been strained by increased demand of growing populations, aging infrastructure and more frequent occurrences of extreme weather. There is often a large cost impact for businesses without backup power during power outages. These costs include lost output and wages, spoiled inventory, inconvenience and the cost of restarting industrial operations.



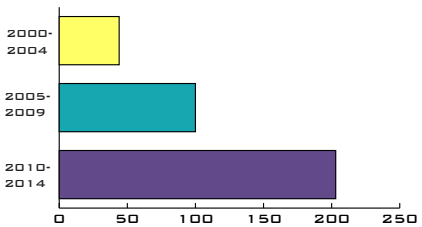

**Billion dollar climate disasters by state 1980 - 2015** (1)

The graphs below illustrate an unmistakable rise in the number of power grid outages as well as weather related downtime.

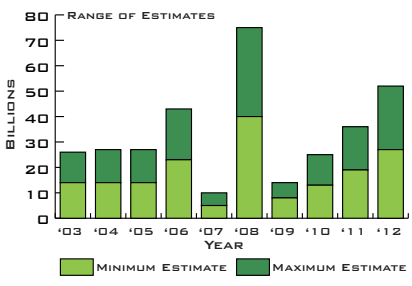
The costs associated with unscheduled power outages (i.e. weather related) are influenced by the amount of time that the power is out. The pie chart below shows the average length of reported power outages in the digital economy, continuous process manufacturing and fabrication/essential services sectors of the economy. Regardless of what industry your business is in, the longer the power is out the more money you are losing.

As the climate changes and infrastructure ages, the economic and social impacts of power outages may be unavoidable. However, the effects can be mitigated by being diligent and taking appropriate steps to minimize operational downtime. ESL's emergency power connection equipment is very cost-effective, especially when compared to the cost of being without power for extended periods of time. In addition, our emergency power products provide users with safe and simple operation so that grid-tied facilities can quickly connect to portable power when it matters most.

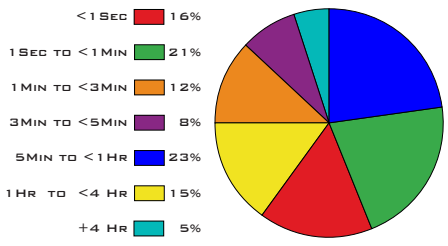
**Five-Year Annual Average of Power Grid Outages (2)**




**Estimated Cost of Weather-Related Power Outages (3)**




**Average Length of Outages Per Year (4)**




**SOURCES**

1- Billion-Dollar Weather and Climate Disasters || *ncdc.noaa.gov* 2- Power Outages On The Rise Across The U.S. || *insideenergy.org* 3- Economic Benefits of Increasing Electric Grid Resilience to Weather Related Outages || *energy.gov*
4- The Cost of Power Disturbances to Industrial & Digital Economy Companies || *onpower.com*

# INDEX







# StormSwitch™

## Manual Transfer Switch
## 70A – 800A • Wall Mount

UL/cUL 1008 LISTED

ESL's UL/cUL 1008 Listed StormSwitch™ manual transfer switch is the ideal solution for portable generator connection to grid-tied facilities. StormSwitch combines a robust commercial-grade transfer switch with color-coded cam-style connectors for quick connection to a portable power generator.

Integral utility and generator manual disconnects are interlocked to prevent cross connecting the power sources. Once installed by a licensed electrician, the StormSwitch is so easy and safe to operate that only basic training is required.

Buying and installing automatic transfer switches with a permanent generator for each site can be quite costly and requires ongoing maintenance. With StormSwitch, multiple locations can be equipped with a manual transfer switch and share a single portable generator, a significant cost savings.

800A StormSwitch™

### StormSwitch™ Features

- Interlocking mechanism prevents cross-connecting power sources
- Safety-interlocked door and dead front panel
- Utility and generator 3-pole disconnects
- 400A rated color-coded cam-style connectors (male) for easy connections
- Type 3R powder-coated galvanneal steel enclosure (stainless steel, Type 3RX, & colors optional)
- Hinged, padlockable access door with door stoop
- Hinged plate secures cord entries when not in use
- Suitable for use as service equipment in USA
- UL /cUL 1008 Listed up to 3000A
- OSHPD Seismic Certification (OSP)*

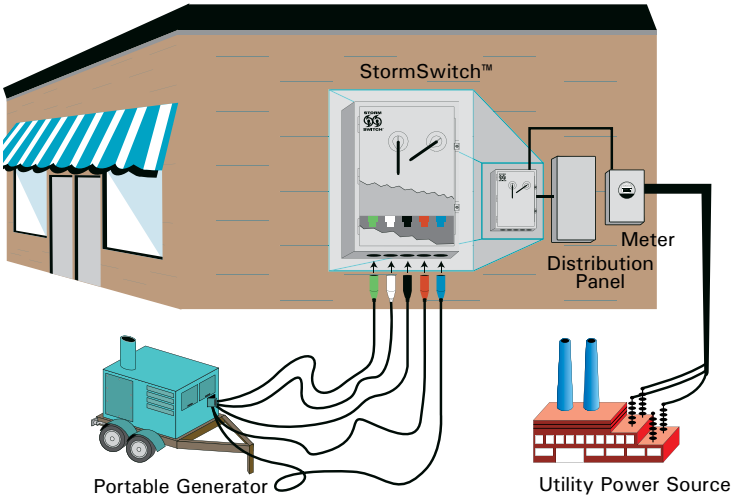
**excludes 225A - 400A StormSwitch BeBe™*

### StormSwitch™ Optional Features

- Phase monitor
- Utility ON indicator (unit mounted or remote mounted)
- 4-pole disconnects (switched neutral)
- Terminal strip (for devices like remote generator start, remote monitoring)
- 20A & 30A 125VAC or 240VAC receptacles (for battery chargers, heaters)
- SCADA (Supervisory Control and Data Acquisition to connect to a PLC)
- Leg kits
- Aux contacts (to comply with NEC 700.3(F))
- Posi-Lok™ cams†*

† Posi-Lok™ is a Trademark of Crouse-Hinds
* Consult Factory

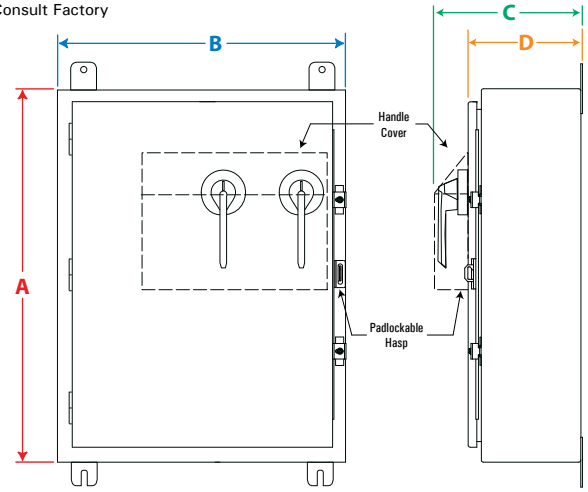
### StormSwitch™ Connection to Portable Generator




| Dim | 3020 | 3040 | 3060 | 3080 |
|---|---|---|---|---|
| A | 30″ | 45″ | 53″ | 55″ |
| B | 24″ | 34″ | 42.5″ | 46″ |
| C | 13.4″ | 14.6″ | 15.5″ | 16.6″ |
| D | 10.4″ | 11.4″ | 12.3″ | 13.4″ |
| Approx Lbs. | 138 | 310 | 450 | 680 |

*Note: Dimensions and weights are subject to change. Please verify with factory.*

- *Suitable for use as Service Equipment (SUSE) in USA*
- *Type 3R enclosure*
- *UL /cUL 1008 Listed Assembly*
- *U.S. Pat. #7462792*



# StormSwitch BeBe™

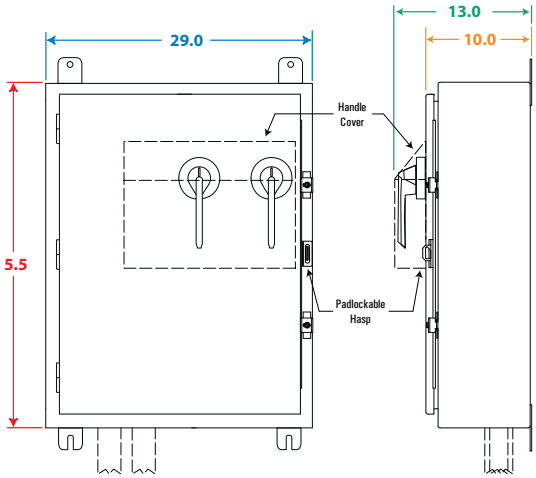
## Compact Manual Transfer Switch
## 225A – 400A • Wall Mount

UL/cUL 1008 LISTED

The StormSwitch BeBe™ is UL/cUL 1008 Listed and provides the same ideal solution for portable generator connection to grid-tied facilities but with a 33% smaller footprint than the original 400A StormSwitch.

This compact manual transfer switch weighs less than ESL's standard StormSwitch and makes for an easy installation. The StormSwitch BeBe (Bottom Entry Bottom Exit) accepts conduit entries through the bottom left side of the enclosure. Like all of ESL's emergency power products, the StormSwitch BeBe provides operators with color-coded cam-style receptacles to ensure a quick, safe connection to a portable generator, and is a cost effective UL1008 Listed solution to the traditional double throw switch.


400A StormSwitch BeBe™




(Bottom Feed Only)

### Typical Configurations • 225A - 400A • Up to 600VAC

| Model | Current Rating (Amps) | Line Terminals (Wire Range) | Neutral / Load Terminals (Wire Range) | Ground Lug (Wire Range) | Cam-style Receptacle Size (Amps) |
|---|---|---|---|---|---|
| 3042 Series† | 225-400 | (2) 2/0 - 500 | (2) #2 - 500 | #6 - 250 | 400 |

Note: Other options available - consult the factory.
†3042 Series with circuit breaker are furnished with adjustable electronic trips.
Approximate weight: 160 lbs

### Product Selection Information: For StormSwitch BeBe™

Example: SFD4 - 400C - 400C - 480 - 311- S - C

SFDX - ▭ - ▭ - ▭ - ▭ - ▭ - ▭ ▭ ▭ - ▭ - ▭

- SFDX: For Factory Use
- Utility†: Insert Breaker Trip Rating in Amps (225A-400A). †3-pole is standard
- Utility Disconnect: **C**=Molded Case Circuit Breaker; **H**=100% Rated Molded Case Circuit Breaker; **S**=Molded Case Switch
- Portable Generator†: Insert Breaker Trip Rating in Amps (225A-400A). †3-pole is standard
- Generator Disconnect: **C**=Molded Case Circuit Breaker; **H**=100% Rated Molded Case Circuit Breaker; **S**=Molded Case Switch
- Voltage (Ø to Ø): **208**, **240**, **480**, **600**
- System (Male Connector): **1**=1Ø, 2W; **2**=1Ø, 3W; **3**=3Ø, 4W and 3Ø, 3W
- Neutral: **0**=None; **1**=Male; **X**=Other
- Ground: **1**=Male; **5**=Female; **X**=Other
- Inlets: **D**=Direct Wire; **S**=400A Cam-style
- Enclosure Material: **C**=Galvanneal*; **S**=304SS; **6**=316SS. *Galvanneal is standard enclosure material.

Notes: - Optional utility ON indicator (unit mounted or remote mounted) available
- Enclosure is bottom left conduit entry/exit only

# StormSwitch™

## Manual Transfer Switch
## 1000A – 3000A • Pad Mount

UL/cUL 1008 LISTED

ESL's UL/cUL 1008 Listed pad-mounted StormSwitches range from 1000A - 3000A and include a main padlockable door with separate lower hinged panel for emergency generator cable access.

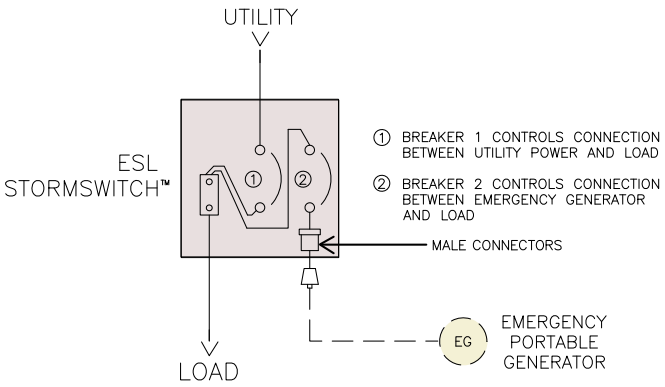
These higher amperage units include a fixed deadfront over 3-pole circuit breakers, hinged deadfront for emergency power cable hook-up, ventilation louvers, and removable lifting pads. Left side wire way is standard for bottom feed up to 2000A. Dual side wireway available on units 2400A - 3000A.

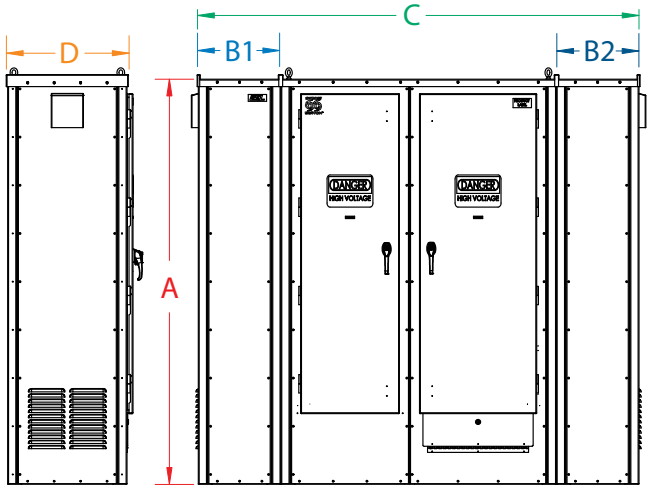
3000A StormSwitch™

### Applications

- Banks/Financial Centers
- Grocery Stores
- Gas Stations
- Data Centers
- Cell Sites
- Retail Stores
- Schools
- Healthcare Centers
- Law Enforcement Facilities
- Water/Wastewater Facilities
- Evacuation Centers

### StormSwitch™ Single Line Diagram




### StormSwitch™ Pad Mount Features

- Interlocking mechanism prevents cross-connecting power sources
- Door & dead front panel for safe generator connection and operation
- Utility and generator 3-pole disconnects
- 400A rated color-coded cam-style connectors (male) for easy connections
- Type 3R powder-coated galvanneal steel enclosure (stainless steel, Type 3RX, & colors optional)
- Hinged plate secures cord entries when not in use
- UL /cUL 1008 Listed up to 3000A
- OSHPD Seismic Certification (OSP)*

**excludes 1600A & 2000A Pad Mount*

### StormSwitch™ Pad Mount Optional Features

- Suitable for Use as Service Equipment (SUSE) in USA
- Phase monitor
- Utility ON indicator (unit mounted or remote mounted)
- 4-pole disconnects (switched neutral)
- Terminal strip (for devices like remote generator start, remote monitoring)
- 20A & 30A 125VAC or 240VAC receptacles (for battery chargers, heaters)
- SCADA (Supervisory Control and Data Acquisition to connect to a PLC)
- Aux contacts
- NEC 700.3(F)
- Posi-Lok cams †*

† Posi-Lok™ is a Trademark of Crouse-Hinds
* Consult Factory

| Dim | 3012 | 3016 | 3022 | 3024 | 3028 | 3032 |
|---|---|---|---|---|---|---|
| A | 88″ | 88″ | 88″ | 88″ | 88″ | 88″ |
| B1 | 14″ | 14″ | 14″ | 18″ | 18″ | 18″ |
| B2 | - | - | - | 18″ | 18″ | 18″ |
| C | 62″ | 62″ | 62″ | 96″ | 96″ | 96″ |
| D | 24″ | 24″ | 24″ | 27″ | 27″ | 27″ |
| Approx Lbs. | 1600 | 1600 | 1600 | 1800 | 1800 | 1800 |

*Note: Dimensions and weights are subject to change. Please verify with factory.*

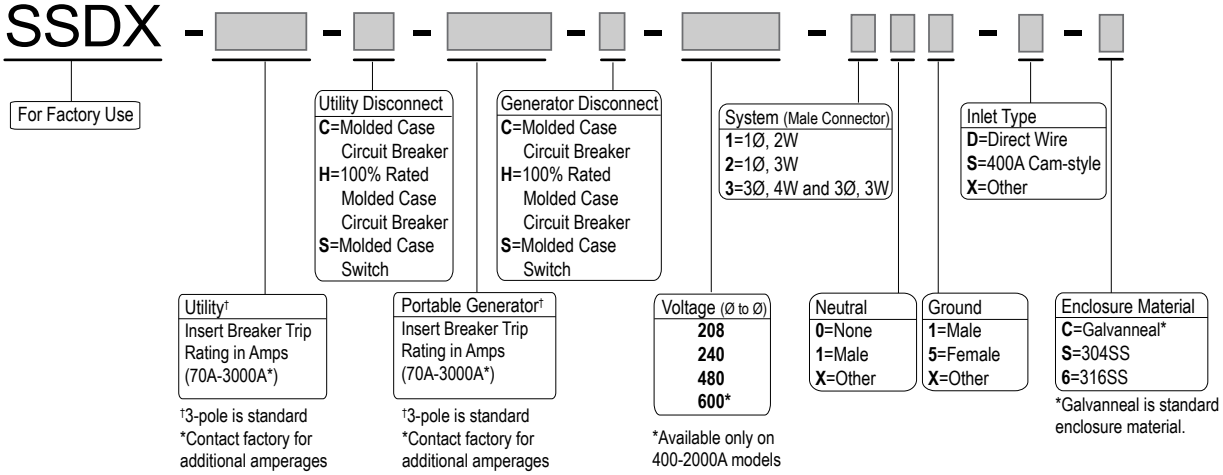
- *Type 3R enclosure*
- *UL /cUL 1008 Listed Assembly*

# StormSwitch™

UL/cUL 1008 LISTED

## Product Selection Information:
## 70A – 3000A

Example: SSD8 - 800C - 800C - 480 - 311 - S - C




800A units or below are SUSE rated as standard. SUSE rated is optional on larger units

QUICK LINK
Download StormSwitch Specifications:
STORMSWITCH.COM/STORMSWITCHSPECS

### Typical 3-pole Configurations • 70A - 3000A • Up to 480VAC or 600VAC

| Model | Current Rating (Amps) | Line Terminals (Wire Range) | Neutral / Load Terminals (Wire Range) | Ground Lug (Wire Range) | Cam-style Receptacle Size (Amps) |
|---|---|---|---|---|---|
| 3020 Series | 70, 100, 125, 150 | (1) #14 - 3/0 | (2) #6 - 4/0 | (2) #6 - 250 | 400 |
| | 175 | (1) #4 - 4/0 | (2) #6 - 4/0 | (2) #6 - 250 | 400 |
| | 200 | (1) 3/0 - 350 | (2) #6 - 4/0 | (2) #6 - 250 | 400 |
| 3040 Series† | 400 max | (1) #2 - 600 | (4) #2 - 600 | (2) #6 - 300 | 400 |
| 3060 Series | 300, 350, 400, 450, 500, 600 | (3) 3/0 - 500 | (4) #2 - 600 | (2) #6 - 300 | (2) 400 |
| 3080 Series | 300, 350, 400, 450, 500, 600, 700, 800 | (3) 3/0 - 500 | (4) 1/0 - 750 | (2) #6 - 300 | (2) 400 |
| 3012 Series | 1200 max | (4) 3/0 - 500 | (4) 1/0 - 750 | (4) 1/0 - 750<br>(1) #2 - 600 | (3) 400 |
| 3016 Series | 1600 max | (4) 300 - 800 | (4) 300 - 800 | (9) #2 - 600 | (4) 400 |
| 3022 Series | 2000 max | (6) 300 - 800 | (6) 300 - 800 | (9) #2 - 600 | (5) 400 |
| 3024 Series | 2400 max | (8) 300 - 800 | (8) 300 - 800 | (9) #2 - 600 | (6) 400 |
| 3028 Series | 2800 max | (8) 300 - 800 | (8) 300 - 800 | (9) #2 - 600 | (7) 400 |
| 3032 Series | 3000 max | (8) 300 - 800 | (8) 300 - 800 | (9) #2 - 600 | 8) 400 |

Note: other options such as 4-pole (switched neutral) available - consult the factory.
†3040 Series with circuit breaker are furnished with adjustable electronic trips.


# TripleSwitch™

## 3-way Manual Transfer Switch
## 125A - 3000A

UL/cUL 1008 LISTED

800A TripleSwitch™

Load bank testing can be challenging and time consuming. ESL's UL/cUL 1008 Listed TripleSwitch™ is a dual purpose solution to service those facilities that utilize an automatic transfer switch and a permanent generator.

The TripleSwitch includes three breakers which allow the permanent generator to be simultaneously connected to both a load bank and the ATS. Two mechanically interlocked breakers prevent cross connecting the permanent standby generator and the portable generator.

ESL's TripleSwitch combines female quick connect cams for the load bank, and male quick connect cams for a portable backup generator. Connections are simple and quick, reducing set-up times and wiring mistakes.

### Cost Advantages of the TripleSwitch™:

- Man power to run testing process is reduced
- Reduction of testing set-up and disconnect time
- Prevents costly repairs of stripped lugs on permanent generator
- Provides a redundant and safe way to connect a backup generator in the event the permanent generator malfunctions, requires maintenance or repairs, or if utility power to your facility fails during load bank testing

### TripleSwitch™ Features

- Interlocking mechanism prevents cross-connecting power sources
- Safety-interlocked door & dead front panel
- Permanent generator and portable generator disconnects
- 400A rated color-coded cam-style receptacles for easy back-up generator (male) & load bank connection (female)
- Type 3R powder-coated galvanneal steel enclosure (stainless steel, Type 3RX, & colors optional)
- Hinged, padlockable access doors with door stops
- Hinged lower plate secures cord entries when not in use
- 3-pole circuit breakers standard (4-pole circuit breakers optional)
- UL /cUL 1008 Listed up to 3000A
- OSHPD Seismic Certification (OSP)

### TripleSwitch™ Optional Features

- Phase monitor
- Utility ON indicator (unit mounted or remote mounted)
- Terminal strip (for devices like remote generator start, remote monitoring)
- 20A & 30A 125VAC or 240VAC receptacles (for battery chargers, heaters)
- SCADA (Supervisory Control and Data Acquisition to connect to a PLC)
- Leg kits for wall mount units
- Extended enclosures for bottom-fed wall mount units

### Applications

- Healthcare Facilities
- Data Centers
- Banks/Financial Centers
- Emergency Operations Centers
- Tunnels & Bridges
- Cable TV Distribution Centers
- Wastewater Lift Stations
- Airports

# TripleSwitch™

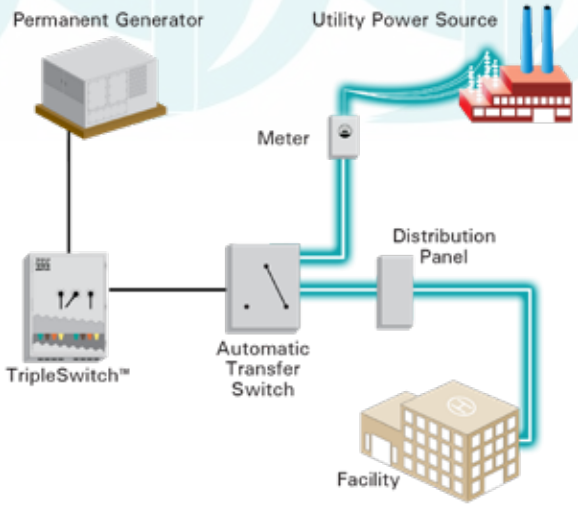
## 3-way Manual Transfer Switch
## 125A - 3000A

UL/cUL 1008 LISTED

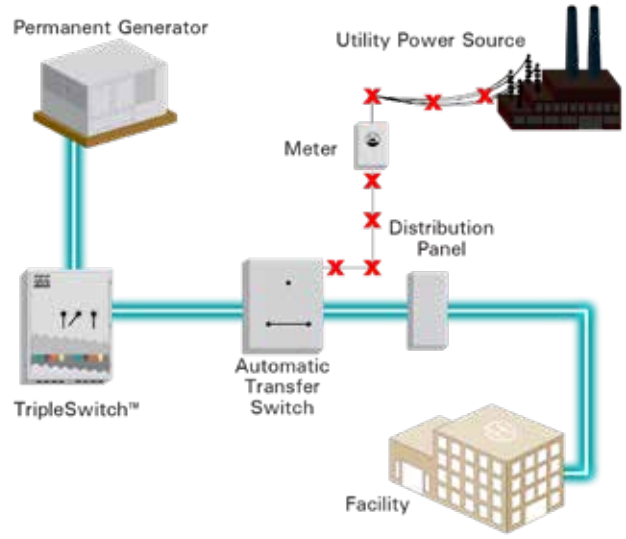
**2017 NEC 700.3(F)**
**ESL's TripleSwitch™ Has You Covered**

**Diagrams below represent TripleSwitch™ operating functions during various conditions**

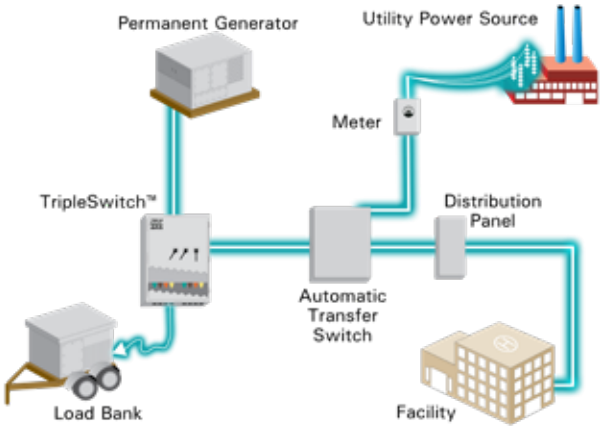
### Normal Operation



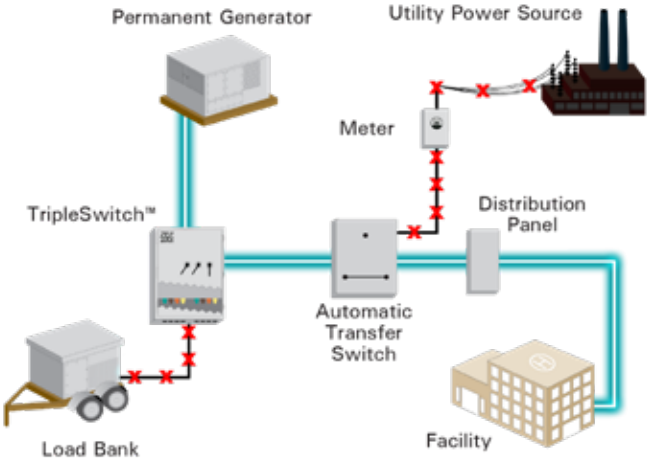

### Permanent Generator Running
**During Utility Power Outage**



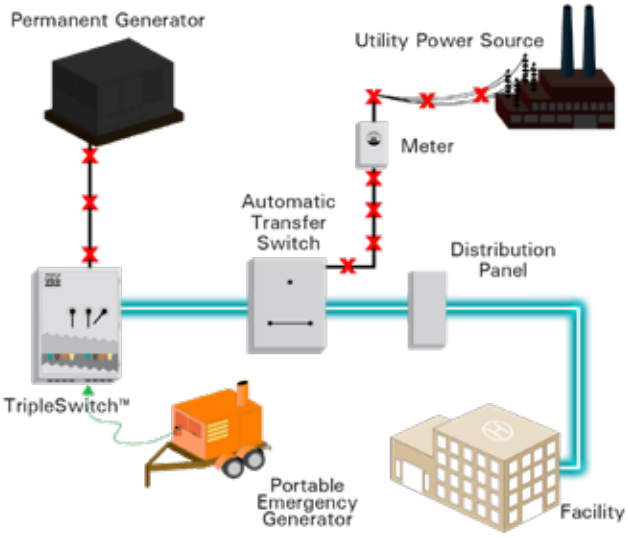

### Load Bank Testing
**Under Normal Power Situation**




### Load Bank Testing - Shunt Trip Activated
**During Utility Power Outage**




### Portable Emergency Generator Connected and Running
### Annunciator Circuit Activated
**Permanent Generator Out of Service During Power Outage**



# TripleSwitch™

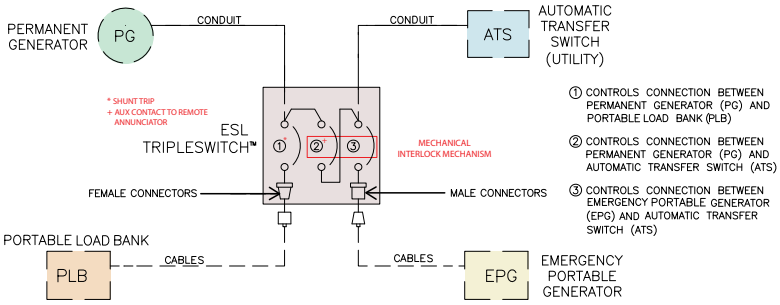
## 1000A - 3000A • Pad Mount

ESL's UL/cUL 1008 Listed pad-mounted TripleSwitches range from 1000A - 3000A up to 480VAC and include two main padlockable doors with separate lower hinged cable-pass-through panels for load bank testing and emergency generator connections.

The interior of these higher amperage units include fixed deadfronts over 3-pole circuit breakers and termination lugs; below the breakers are hinged deadfronts for emergency power cable hook-up. Left side wireway is standard for bottom permanent generator feed up to 1600A. Dual side wireway is available from 2000A - 3000A.

3000A TripleSwitch™

### TripleSwitch™ Single Line Diagram



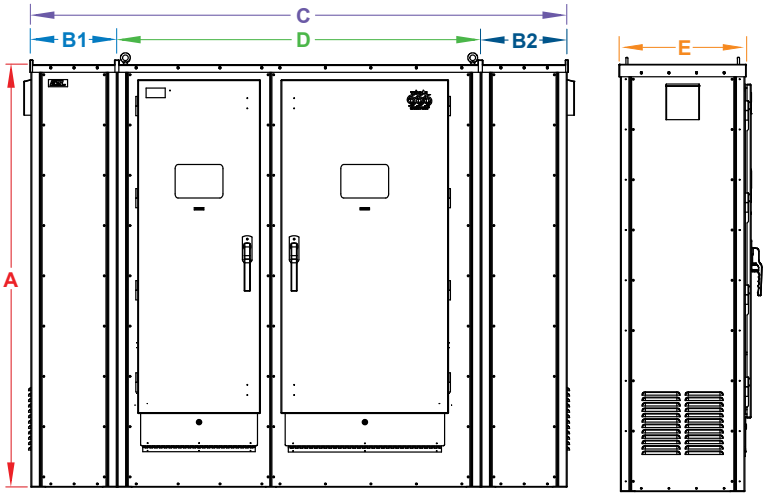

**Typical Configurations • 1000A - 3000A • Pad Mount • Up to 480VAC**

| Model | Max Current Rating (Amps) | Line / Load Terminals (Wire Range) | Ground Lug (Wire Range) | Cam-style Receptacle Size (Amps) |
|---|---|---|---|---|
| 3112 Series | 1200 max | (4) #2 - 600 | (9) #6 - 350 | (3) 400A Male, (3) 400A Female |
| 3116 Series | 1600 max | (4) 1/0 - 750 | (9) #2 - 600 | (4) 400A Male, (4) 400A Female |
| 3122 Series | 2000 max | (6) 300 - 800 | (9) #2 - 600 | (5) 400A Male, (5) 400A Female |
| 3124 Series | 2400 max | (8) 300 - 800 | (9) #2 - 600 | (6) 400A Male, (6) 400A Female |
| 3128 Series | 2800 max | (8) 300 - 800 | (9) #2 - 600 | (7) 400A Male, (7) 400A Female |
| 3132 Series | 3000 max | (8) 300 - 800 | (9) #2 - 600 | (8) 400A Male, (8) 400A Female |

Other options such as 4-pole (switched neutral) available - consult the factory.

| Dim | 3112 | 3116 | 3122 | 3124 | 3128 | 3132 |
|---|---|---|---|---|---|---|
| A | 89 | 89 | 89 | 89 | 89 | 89 |
| B1 | 28 | 28 | 18 | 18 | 18 | 18 |
| B2 | - | - | 18 | 18 | 18 | 18 |
| C | 104 | 104 | 104 | 112 | 112 | 112 |
| D | 76 | 76 | 76 | 76 | 76 | 76 |
| E | 24 | 24 | 26.5 | 26.5 | 26.5 | 26.5 |
| Approx. lbs. | 3300 | 3300 | 3300 | 3400 | 3400 | 3400 |

*Note: Dimensions and weights are subject to change. Please verify with factory.*



# TripleSwitch™

UL/cUL 1008 LISTED

QUICK LINK
Download 3-Way Manual Transfer Switch Specs:
ESLPWR.COM/TRIPLESWITCH

## Typical Configurations
## 125A - 800A up to 600VAC • Wall Mount

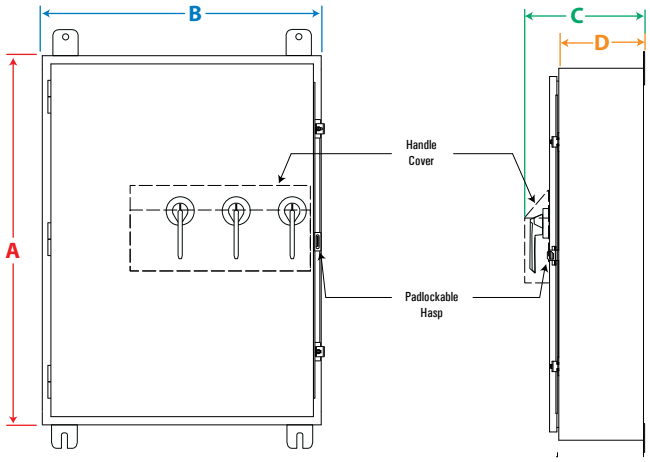
| Model | Current Rating (Amps) | Line / Load Terminals (Wire Range) | Ground Lug (Wire Range) | Cam-style Receptacle Size (Amps) |
|---|---|---|---|---|
| 3141 Series | 125 - 400 | (2) 2/0 - 500 | (2) #6 - 300 | 400 |
| 3181 Series | 300, 350, 400, 450, 500, 600, 700, 800 | (3) 3/0 - 500 | (2) #6 - 300 | (2) 400 |

Other options available - consult the factory.
Note: If neutral switching is required, please contact ESL for details.

| Dim | 3141 | 3181 |
|---|---|---|
| A | 46.5″ | 55″ |
| B | 34″ | 46″ |
| C | 14.6″ | 16.5″ |
| D | 11.5″ | 13.3″ |
| Approx. lbs. | 370 | 540 |

*Note: Dimensions and weights are subject to change. Please verify with factory.*

- *Type 3R enclosure*
- *UL /cUL 1008 Listed Assembly*




**(Shown with transparent handle cover)**

### Product Selection Information: 125A – 3000A

Example: M3D8 - 800C - 800C - 800C - 480 - 311 - S - C

**M□D X -□ -□ -□ -□ -□ -□ -□ -□**

- **Breakers or Switches**: **3**=3 pole* **4**=4 pole — *3 pole is standard
- **For Factory Use**: X
- **Load Bank**: Insert Breaker Trip Rating in Amps (125A-3000A)
- **Load Bank Disconnect**: **C**= 80% Rated Molded Case Circuit Breaker; **H**=100% Rated Molded Case Circuit Breaker; **S**= Molded Case Switch
- **Permanent Generator**: Insert Breaker Trip Rating in Amps (125A-3000A)
- **Permanent Generator Disconnect**: **C**= 80% Rated Molded Case Circuit Breaker; **H**= 100% Rated Molded Case Circuit Breaker; **S**= Molded Case Switch
- **Portable Generator**: Insert Breaker Trip Rating in Amps (125A-3000A)
- **Portable Generator Disconnect**: **C**= 80% Rated Molded Case Circuit Breaker; **H**= 100% Rated Molded Case Circuit Breaker; **S**= Molded Case Switch
- **Voltage (Ø to Ø)**: **208**, **240**, **480**, **600**
- **System** (Load Bank Cams (Female) Portable Gen Cams (Male)): **1**=1Ø, 2W; **2**=1Ø, 3W; **3**=3Ø, 4W and 3Ø, 3W
- **Neutral** (Load Bank Cams (Female) Portable Gen Cams (Male)): **0**=None; **1**=Male: Portable Gen Female: Load Bank; **X**=Other
- **Ground** (Load Bank Cams (Female) Portable Gen Cams(Male)): **1**=Male: Portable Gen Female: Load Bank; **5**=Female: Portable Gen Male: Load Bank; **X**=Other
- **Load Bank Cams & Portable Generator Connection**: **S**=400A Cam-style; **X**=Other
- **Enclosure Material**: **C**=Galvanneal*; **S**=304SS; **6**=316SS — *Galvanneal is standard enclosure material

# TempTap™

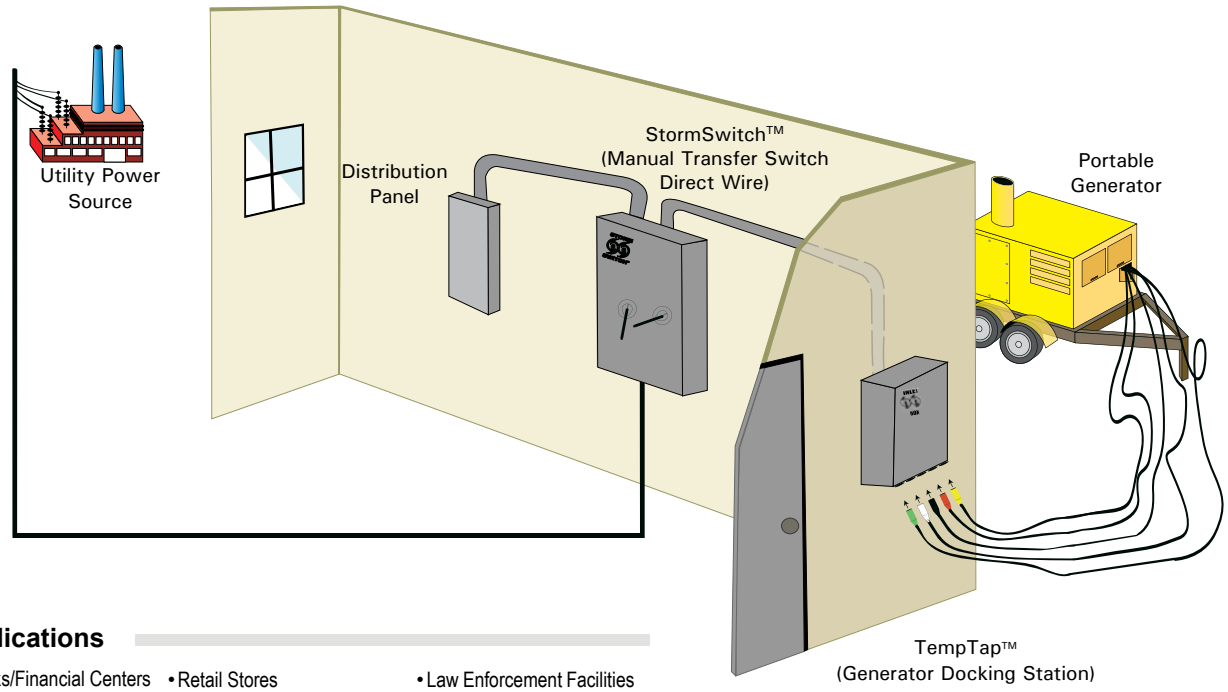
## Generator Tap Box (Inlet box)
## 400A - 1600A • Wall Mount

UL/cUL 1008 LISTED


ESL's UL/cUL 1008 Listed TempTap™ generator docking stations are designed to provide end users with a safe and simple solution to connect a portable generator to a grid-tied facility.

TempTap is a pass-through junction box that can be mounted to a building and is typically hard-wired to an upstream circuit breaker enclosure or system, such as a transfer switch or utility disconnect. Similar to ESL's StormSwitch, TempTap provides operators with color-coded cam-style receptacles to ensure a quick, safe connection to a portable generator.

### TempTap™ Connection to Portable Generator (with StormSwitch™ indoors)




### Applications

- Banks/Financial Centers
- Grocery Stores
- Gas Stations
- Data Centers
- Cell Sites
- Retail Stores
- Water/Wastewater Facilities
- Evacuation Centers
- Schools
- Healthcare Centers
- Law Enforcement Facilities
- Load Bank Testing
- Toll Booths

### TempTap™ Features

- 400A rated color-coded cam-style connectors (male) for easy connection
- Type 3R powder-coated galvanneal steel enclosure (stainless steel, Type 3RX, & colors optional)
- Hinged, padlockable access door with door stop
- Hinged plate secures cord entries when not in use
- Use in conjunction with a manual/automatic transfer switch
- UL/cUL 1008 Listed up to 3200A

### TempTap™ Optional Features

- Phase monitor
- Utility ON indicator (unit mounted bottom feed optional or remote mounted)
- Terminal strip (for devices like remote generator start, remote monitoring)
- 20A & 30A 125VAC or 240VAC receptacles (for battery chargers, heaters)
- SCADA (Supervisory Control and Data Acquisition to connect to a PLC)
- Leg kits
- Posi-Lok cams †*
- Extended depth enclosures for bottom-fed units

† Posi-Lok™ is a Trademark of Crouse-Hinds
* Consult Factory

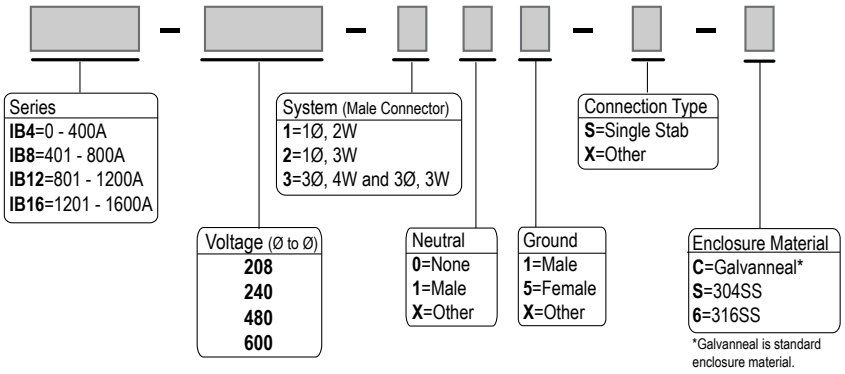
# TempTap™

## Product Selection Information: 400A – 1600A • Wall Mount

UL/cUL 1008 LISTED

QUICK LINK
Download TempTap Specifications:
ESLPWR.COM/TEMPTAP

Example: IB8 - 480 - 311 - S - C




### Typical Configurations • 400A - 1600A • Wall Mount • Up to 600VAC

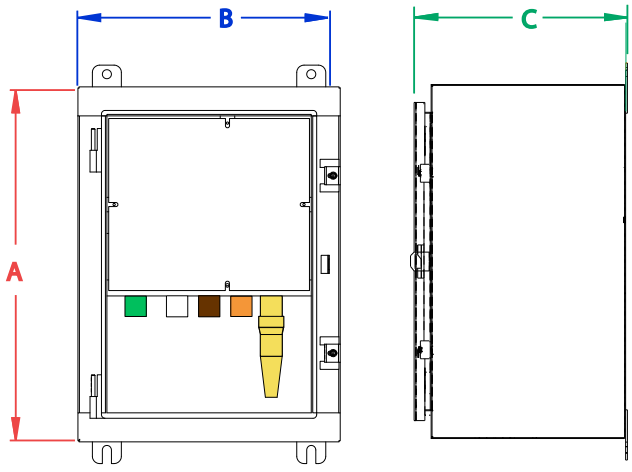
| Max Current Rating (Amps) | Model | Load Terminals Per Phase & Neutral | Ground Lug (Wire Range) | Cam-style Receptacle Size Per Phase & Neutral (Amps) | Ground Cam-style Receptacle Size (Amps) | Max Current Withstand Rating (KA) |
|---|---|---|---|---|---|---|
| 400 | IB4 | (1) 1/2 -13x7/8" stud | (1) #6-250 | (1) 400 | (1) 400 | 22 (Single PH)<br>42 (3 PH) |
| 800 | IB8 | Copper pad with (6) 0.53" holes on 1 3/4" V x 1" H | (1) #6-250 | (2) 400 | (1) 400 | 42 |
| 1200 | IB12 | Copper pad with (4) 0.53" holes on 1 3/4" V x 2" H; (2) 0.44" holes on 1 3/8" V | (1) #6-250 | (3) 400 | (1) 400 | 42 |
| 1600 | IB16 | Copper pad with (4) 0.53" holes on 1 3/4" V x 2" H; (2) 0.44" holes on 1 3/8" V | (1) #6-250 | (4) 400 | (1) 400 | 42 |

Other options available - consult the factory.

| Dim | IB4 | IB8 | IB12/IB16 |
|---|---|---|---|
| A | 24" | 32" | 38" |
| B | 17.6" | 34" | 39" |
| C | 13.3" | 15" | 16.4" |
| Approx. lbs. | 60 | 195 | 260 |

*Note: Dimensions and weights are subject to change. Please verify with factory.*

- *Type 3R enclosure*
- *UL /cUL 1008 Listed Assembly*




**(Shown with door removed)**

# TempTap™

## Generator Tap Box (Inlet box)
## 2000A - 3200A • Pad Mount

UL/cUL 1008 LISTED


3200A TempTap™

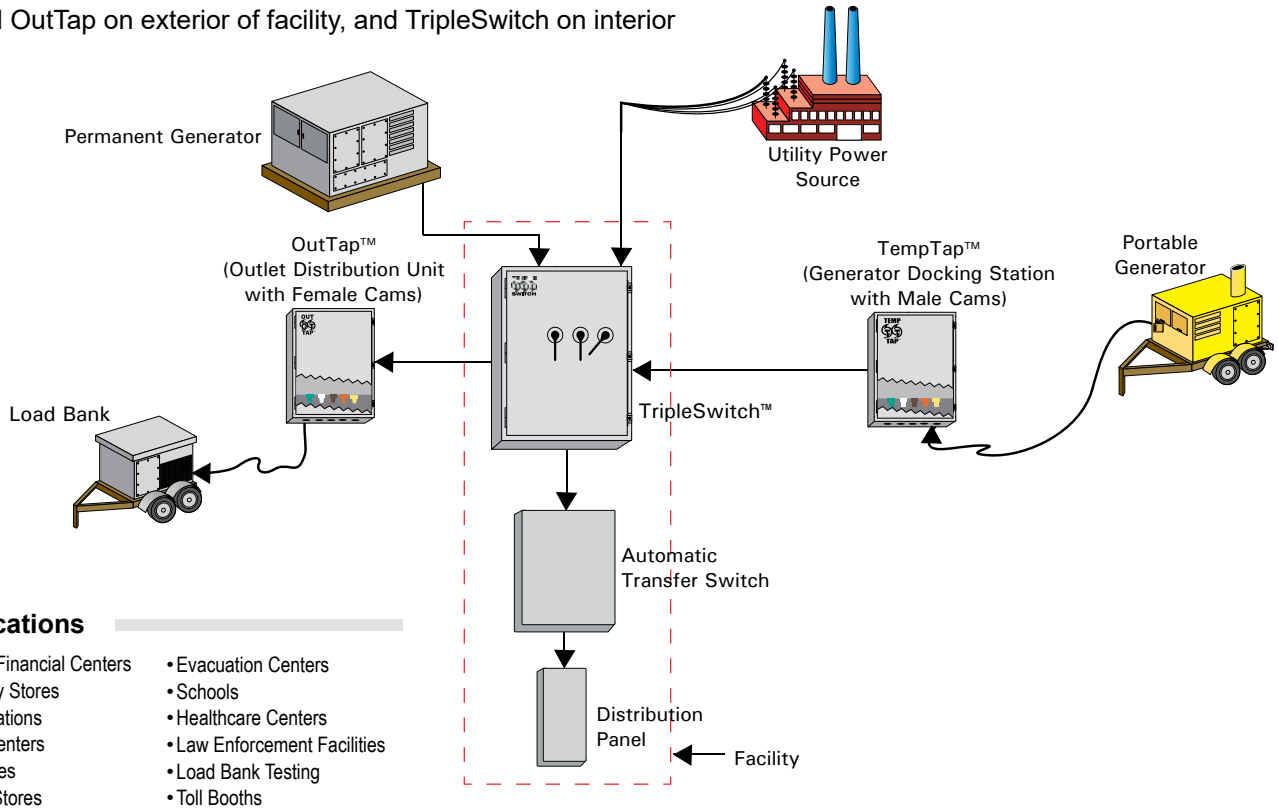
ESL's UL/cUL 1008 Listed pad mounted generator docking stations range from 2000A to 3200A and provide a quick connection point for a portable backup generator. ESL's pad mounted TempTap™ has two major uses:

- To be used with a portable generator as the primary emergency generator quick connection point outside a facility (in conjunction with StormSwitch)
- As a quick exterior connection point for a portable generator to back up the permanent standby generator at a critical facility (in conjunction with TripleSwitch)

Designed with multiple conduit entry locations (including bottom feed), the pad mounted TempTap provides a cost effective, easy install and convenient hook up for large trailer mounted portable generators.

### TempTap™ Generator Connection Box

TempTap and OutTap on exterior of facility, and TripleSwitch on interior




### Applications

- Banks/Financial Centers
- Grocery Stores
- Gas Stations
- Data Centers
- Cell Sites
- Retail Stores
- Water/Wastewater Facilities
- Evacuation Centers
- Schools
- Healthcare Centers
- Law Enforcement Facilities
- Load Bank Testing
- Toll Booths

### TempTap™ Features

- 400A rated color-coded cam-style connectors (male) for easy connection
- Type 3R powder-coated galvanneal steel enclosure (stainless steel, Type 3RX, & colors optional)
- Hinged, padlockable access door with door stop
- Hinged plate secures cord entries when not in use
- Use in conjunction with a manual/automatic transfer switch
- UL/cUL 1008 Listed up to 3200A

### TempTap™ Optional Features

- Phase monitor
- Utility ON indicator (unit mounted bottom feed optional or remote mounted)
- Terminal strip (for devices like remote generator start, remote monitoring)
- 20A & 30A 125VAC or 240VAC receptacles (For battery chargers, heaters)
- SCADA (Supervisory Control and Data Acquisition to connect to a PLC)
- Posi-Lok cams †*

† Posi-Lok™ is a Trademark of Crouse-Hinds
* Consult Factory

# TEMPTAP™

## Product Selection Information: 2000A – 3200A • Pad Mount

UL/cUL 1008 LISTED

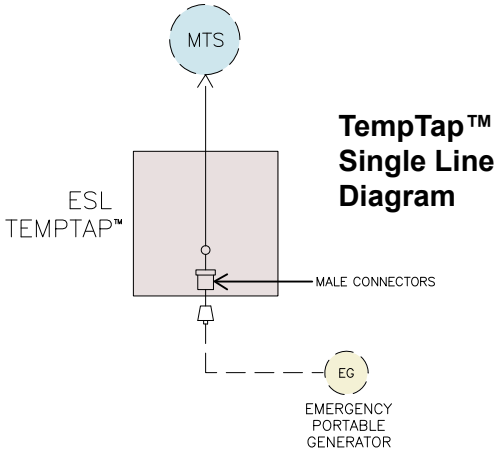
QUICK LINK
Download TempTap Specifications:
ESLPWR.COM/TEMPTAP

Example: IB24-480-311-S-C

| Series | Voltage (Ø to Ø) | System (Male Connector) | Neutral | Ground | Connection Type | Enclosure Material |
|---|---|---|---|---|---|---|
| **IB20**=1601 - 2000A<br>**IB24**=2001 - 2400A<br>**IB28**=2401 - 2800A<br>**IB32**=2801 - 3200A | **208**<br>**240**<br>**480**<br>**600** | **1**=1Ø, 2W<br>**2**=1Ø, 3W<br>**3**=3Ø, 4W and 3Ø, 3W | **0**=None<br>**1**=Male<br>**X**=Other | **1**=Male<br>**5**=Female<br>**X**=Other | **S**=Single Stab<br>**X**=Other | **C**=Galvanneal*<br>**S**=304SS<br>**6**=316SS |

Contact factory for higher amperages

*Galvanneal is standard enclosure material.

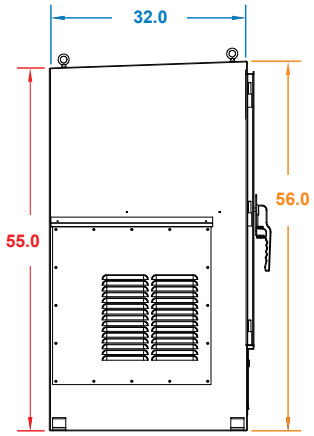


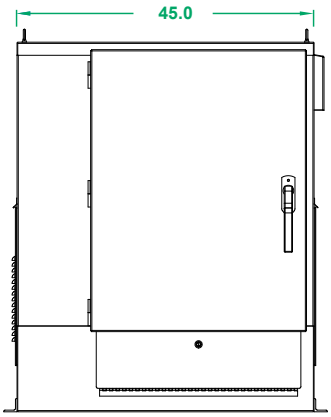

**TempTap™ Single Line Diagram**

### Typical Configurations • 2000A - 3200A • Pad Mount • Up to 480VAC

| Max Current Rating (Amps) | Model | Load Terminals Per Phase & Neutral | Ground Lug (Wire Range) | Cam-style Receptacle Size Per Phase & Neutral (Amps) | Ground Cam-style Receptacle Size (Amps) | Max Current Withstand Rating (KA) |
|---|---|---|---|---|---|---|
| 2000 | IB20 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (5) 400 | (2) 400 | 42 |
| 2400 | IB24 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (6) 400 | (3) 400 | 42 |
| 2800 | IB28 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (7) 400 | (3) 400 | 42 |
| 3200 | IB32 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (8) 400 | (3) 400 | 42 |

Other options available - consult the factory.
Approximate weight: 725lbs




# OutTap™

# Outlet Box without Circuit Breaker 400A - 3200A

UL/cUL 891 LISTED

ESL's OutTap™ is an UL/cUL 891 Listed outlet box designed to provide end users a safe and simple temporary method of using a facility's electrical power source and distributing it to exterior electrical equipment via quick connect 400A cam-lock cables. This solution is often used in lieu of utilizing a portable generator.

Outlet boxes are simple pass-through boxes that are mounted on or adjacent to a building and hard-wired to an existing power source. ESL's OutTap can be designed with or without a breaker based on your needs.

**2000A - 3200A OutTap™ without breaker (Pad Mounted)**

**400A OutTap™ without breaker (Wall Mounted)**

## Product Selection Information: 400A - 3200A

Example: OB8 - 0 - 480 - 311 - S - C (without Disconnect)
OB8 - 800C - 480 - 311 - S - C (with Disconnect)

OB [ ] - [ ] [ ] - [ ] - [ ] [ ] [ ] - [ ] - [ ]

| Amperage |
|---|
| **4**=0 - 400A |
| **8**=401 - 800A |
| **12**=801 - 1200A |
| **16**=1201 - 1600A |
| **20**=1601 - 2000A |
| **24**=2001 - 2400A |
| **28**=2401 - 2800A |
| **32**=2801 - 3200A |

| Disconnect Amperage Rating |
|---|
| Insert Breaker Trip Rating in Amps |
| 0=No Disconnect |

| Type of Disconnect |
|---|
| **Blank**=No Disconnect |
| **C**=80% Rated Circuit Breaker |
| **H**=100% Rated Circuit Breaker |
| **S**=Switch |

| Voltage (Ø to Ø) |
|---|
| **208** |
| **240** |
| **480** |
| **600** |

| System (Female Connector) |
|---|
| **1**=1Ø, 2W |
| **2**=1Ø, 3W |
| **3**=3Ø, 4W and 3Ø, 3W |

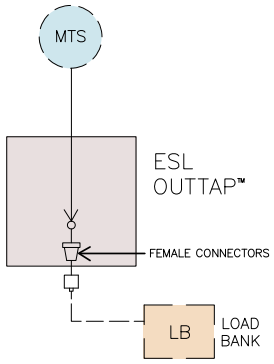
| Neutral |
|---|
| **0**=None |
| **1**=Female |
| **X**=Other |

| Ground |
|---|
| **1**=Female |
| **5**=Male |
| **X**=Other |

| Connection Type |
|---|
| **S**=Single Stab |
| **X**=Other |

| Enclosure Material |
|---|
| **C**=Galvanneal* |
| **6**=316SS |
| **S**=304SS |

*Galvanneal is standard enclosure material.




## Typical Configurations • 400A - 3200A without a breaker

**(For standard dimensions refer to corresponding TempTap™ amperage on pages 10 & 12)**

| Max Current Rating (Amps) | Model | Load Terminals Per Phase & Neutral | Ground Lug (Wire Range) | Cam-style Receptacle Size Per Phase & Neutral (Amps) | Ground Cam-style Receptacle Size (Amps) | Max Current Withstand Rating (KA) |
|---|---|---|---|---|---|---|
| 400 | OB4 | (1) 1/2 -13x7/8" stud | (1) #6-250 | (1) 400 | (1) 400 | 22 (Single PH) 42 (3 PH) |
| 800 | OB8 | Copper pad with (6) .53" holes on 1 3/4" V x 1" H | (1) #6-250 | (2) 400 | (1) 400 | 42 |
| 1200 | OB12 | Copper pad with (4) .53" holes on 1 3/4" V x 2" H; (2).44" holes on 1 3/8" V | (1) #6-250 | (3) 400 | (1) 400 | 42 |
| 1600 | OB16 | Copper pad with (4) .53" holes on 1 3/4" V x 2" H; (2).44" holes on 1 3/8" V | (1) #6-250 | (4) 400 | (1) 400 | 42 |
| 2000 | OB20 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (5) 400 | (2) 400 | 42 |
| 2400 | OB24 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (6) 400 | (3) 400 | 42 |
| 2800 | OB28 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (7) 400 | (3) 400 | 42 |
| 3200 | OB32 | Mech lugs accept (8) 300 - 800 kcmil | (6) #2AWG - 600 kcmil | (8) 400 | (3) 400 | 42 |

Other options available - consult the factory.

# OutTap™

## Outlet Box with Circuit Breaker 125A - 3000A

UL/cUL 891 LISTED

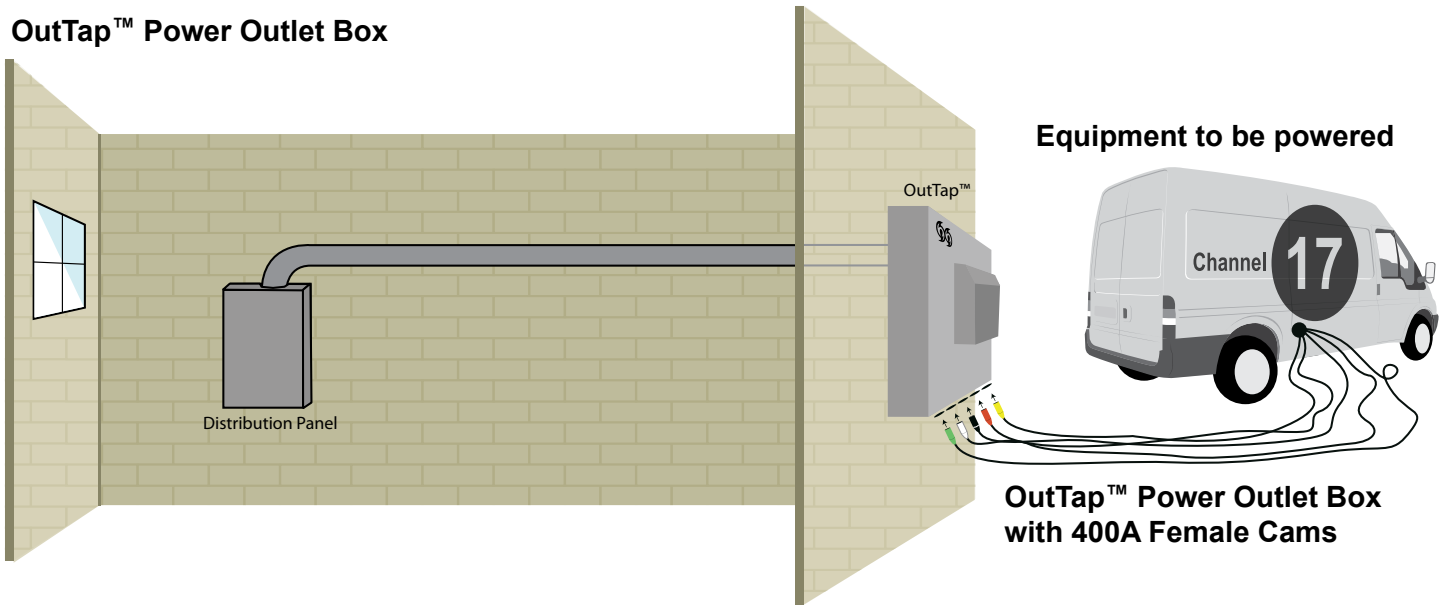
ESL's OutTap with Circuit Breaker includes a safety-interlocked door for safe connection and operation. All outlet boxes are UL 891 Listed and provid a quick and safe connection with color-coded female cam-style receptacles.


800A OutTap™ with breaker

### OutTap™ Features

- Safety-interlocked door and dead front panel
- 400A rated color-coded cam-style connectors (female) for easy connections
- Type 3R powder-coated galvanneal steel enclosure (stainless steel, Type 3RX, & colors optional)
- Hinged, padlockable access door with door stoop
- UL /cUL 891 Listed up to 3000A

### OutTap™ Power Outlet Box




OutTap™ Power Outlet Box with 400A Female Cams

### Typical Configurations with Breaker • 125A - 3000A

**(For standard dimensions refer to corresponding StormSwitch™ amperage on pages 1 & 3)**

| Model | Current Rating (Amps) | Line Terminals (Wire Range) | Ground Lug (Wire Range) | Cam-style Receptacle Size (Amps) |
|---|---|---|---|---|
| OB4 | 400 max | (1) #2-600 | (2) #6-250 | 400 |
| OB8 | 300, 350, 400, 450, 500, 600, 700, 800 | (3) 3/0-500 | (2) #6-300 | (2) 400 |
| OB12 | 1200 max | (4) 3/0-500 | (9) #2-600 | (3) 400 |
| OB16 | 1600 max | (4) 300 - 800 | (9) #2-600 | (4) 400 |
| OB20 | 2000 max | (6) 300 - 800 | (9) #2-600 | (5) 400 |
| OB24 | 2400 max | (8) 300 - 800 | (9) #2-600 | (6) 400 |
| OB28 | 2800 max | (8) 300 - 800 | (9) #2-600 | (7) 400 |
| OB32 | 3000 max | (8) 300 - 800 | (9) #2-600 | (8) 400 |

# DirecTap™

## Termination Cabinet (Junction Box) 100A - 1500A

ESL's industrial grade DirecTap™ is a UL1773 Listed termination box. Equipped with power distribution blocks, these direct wire tap boxes are designed to make lug connections to permanently installed equipment such as an ATS, UPS, or supporting switchgear. DirecTap enclosures are available in a variety of types ranging from Type 1-4X. ESL's termination boxes provide a permanent connection to emergency power systems for a variety of facilities, including refineries, pharmaceutical, food processing & manufacturing.


100A - 1500A DirecTap™

### DirecTap™ Features

- Terminal blocks or Power distribution blocks
- Various types of enclosures available
- Hinged, padlockable access door
- UL 1773 Listed

### Product Selection Information: 100A - 1500A

Example: DT0400 - 600 - 311 - CW4X

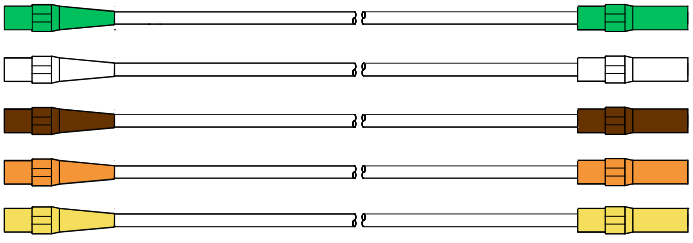
DT [ ] - [ ] - [ ] [ ] [ ] - [ ] [ ] [ ]

| Amp Rating* | Max Voltage | System | Neutral | Ground | Enclosure Material | Mounting Style | Enclosure Type |
|---|---|---|---|---|---|---|---|
| **0100**=100A | **208**VAC | **1**=1Ø, 2W | **0**=None | **0**=None | **C**=Steel | **F**=Free Standing | **01**=Type 1 |
| **0400**=400A | **240**VAC | **2**=1Ø, 3W | **1**=Required | **1**=Required | **S**=304SS | **W**=Wall | **3R**=Type 3R |
| **0600**=600A | **480**VAC | **3**=3Ø | | | **6**=316SS | | **12**=Type 12 |
| **0800**=800A | **600**VAC | | | | **X**=Other | | **04**=Type 4 |
| **1200**=1200A | | | | | | | **4X**=Type 4X |
| **1500**=1500A | | | | | | | |

# Cable Sets

## 208VAC - 480VAC - 600VAC

ESL offers cord assembly sets for our emergency power connection equipment in 208VAC, 480VAC and 600VAC color-coded configurations. Each standard set is 25 feet of 4/0 UL Listed flexible welding cable and includes (3) phase cables, (1) neutral cable and (1) ground. Standard cables are factory wired with a 400A camlok female connector and a 400A camlok male connector.



- One cable set is required per 400A increase
- Color configuration varies based on voltage rating
- Customer can specify custom lengths

# Why UL 1008 Should Be Specified

When comparing NRTL Listings of different products, it is important to know what the appropriate UL standards are and how they apply to your specific application. You may not always be purchasing what you think you are. UL 1008 is specifically designed for transfer switch equipment. Products with a UL 1008 certification ensure the complete assembly is certified and has undergone rigorous testing to validate performance, safety, and reliability. Non-Automatic transfer switches that are Listed under the UL 1008 standard are evaluated in accordance with Articles 517-Health Care Facilities, 702-Optional Standby Systems of the National Electrical Code (ANSI/NFPA 70) and the National Fire Protection Association Standard for Health Care Facilities (ANSI/NFPA 99). The local inspection process by the AHJ is typically much easier when emergency power transfer switch equipment is UL 1008 Listed.

## Frequently Asked Questions

### What are the advantages/ disadvantages of using a manual transfer switch with a portable generator versus an automatic transfer switch with a permanent generator?

The Advantages are:

- Significantly lower initial and lifetime cost
- No on-site fuel storage required
- No maintenance or standard periodic testing
- Easier installation – days instead of weeks
- Smaller size
- Portable generator can be rented or used at other facilities
- Does not require multiple permits that a permanent generator install would require

Disadvantages: Longer time before generator power is established

### What is UL 1008 and how does it affect me?

Local building inspectors (AHJ) typically require all new electrical equipment installed in their jurisdiction to be "Listed" which means the equipment has been approved by Underwriter Laboratories or another recognized test lab. For standby systems that allow portable generator connection, UL 1008 is the proper standard for manual transfer use. If the equipment is not Listed, or if only the enclosure is Listed under UL 50, it may not be acceptable to the inspector.

### Can't I just connect my generator directly to my panel?

Accidentally backfeeding the utility grid can be very dangerous. For a direct connection you would need a licensed electrician to be present anytime you needed to hook up your generator. There are other methods and products available for powering up from a portable generator, but the StormSwitch™ is the best product available that combines the simplicity of cam-style connectors with a safety interlock device that prevents backfeeding the utility grid.

### Can vandals open or steal the StormSwitch™? Can they shut off my power?

Once installed, the device is always in use. The StormSwitch™ door can be padlocked, preventing unauthorized entry. The disconnect handles can be padlocked in the "OFF" position for further security. With a minor modification, the disconnect handles can also be padlocked in the "ON" position, however this is not recommended. For additional security the StormSwitch™ is equipped with a lockable handle cover to prevent unauthorized use.

### Where can I make conduit penetrations on the StormSwitch™?

Conduit line/load penetrations can be made around the top portion of the enclosure (top left, top right, top back, top top) and/or bottom left of the enclosure only. For the StormSwitch BeBe™, conduit line/load penetrations can only be made through the bottom left side of the enclosure.

### Can the StormSwitch™ be Service Entrance Rated?

Yes, the StormSwitch™ has the option to be SUSE (Suitable for use as Service Entrance in the USA). This option should only be used when the StormSwitch™ is installed at the building service entrance.

### I am in Texas. Can the StormSwitch™ survive the rain/heat/cold/bugs here?

The StormSwitch™ is a Type 3R enclosure. This means it is suitable for outdoors, and will protect components from rain. To ensure that insects, debris, and small animals do not enter the enclosure, ESL provides a hinged cover over the cam openings in the bottom of the enclosure that is locked "closed" when the door is shut.

### What is the TripleSwitch™?

The TripleSwitch™ is designed to simplify and reduce the cost of load bank testing procedures. In addition, this unique 3-way manual transfer switch system provides a quick and completely safe way to supply power to the facility from a portable emergency standby generator if the permanent generator is offline.

### Is it difficult to make the generator connection to the StormSwitch™, TripleSwitch™ or TempTap™ product line?

No, each of these products utilize the industry standard 400A series 16 cam-style connectors. The Cams on ESL's StormSwitch™, TripleSwitch™ and TempTap™ are color-coded to the voltage, e.g. 480/277 are green, white, brown, orange and yellow.

### How do I know what product will best work with my specific needs?

ESL's knowledgeable sales personnel will gladly assist with helping to identify the proper product for your application. The key factors will be the voltage system and the desired emergency load that is to be fed.

For More information, please visit:
**eslpwr.com/emergency-power**

UL 1008 LISTED up to 3000A

# Emergency power connection equipment

MANUAL TRANSFER SWITCHES

GENERATOR DOCKING STATIONS

ESL POWER SYSTEMS

2800 Palisades drive, Corona, CA 92880
Tel: (800) 922-4188 +1 (951) 739-7000 eslpwr.com