



Electrifying a Sustainable Future

Event Center Venue Design



Electrifying a Sustainable Future



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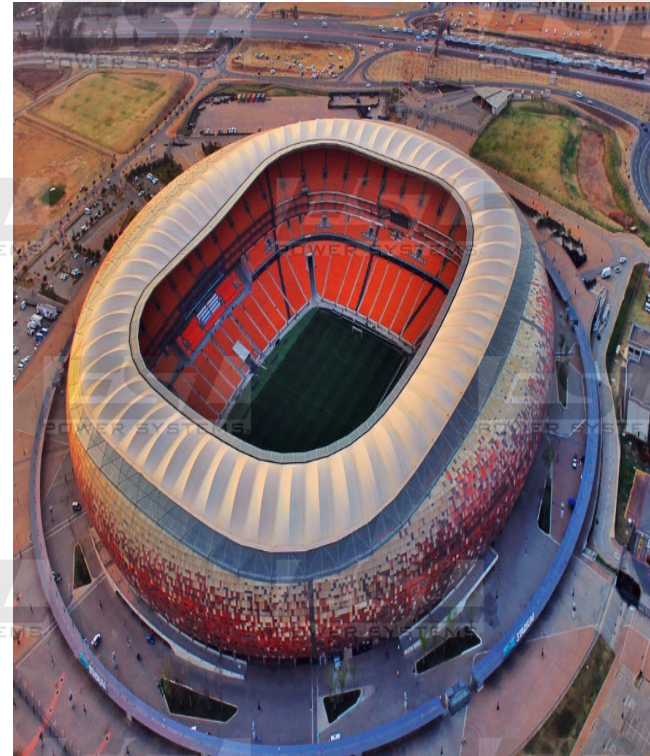


AGENDA



- **What are company Switches**
- **Entertainment Industry Trends**
- **Where You Need What When Building Infrastructure:**
 - **Considerations and Designs**
 - **About ESL and Entertainment Power**
 - **ESL Entertainment Products**

Power Distribution Systems for Entertainment Venues



Company Switches

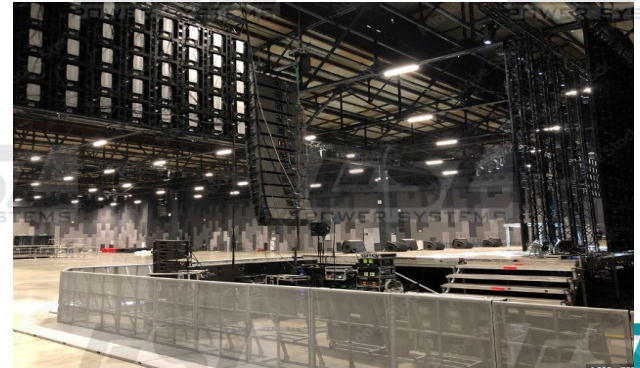
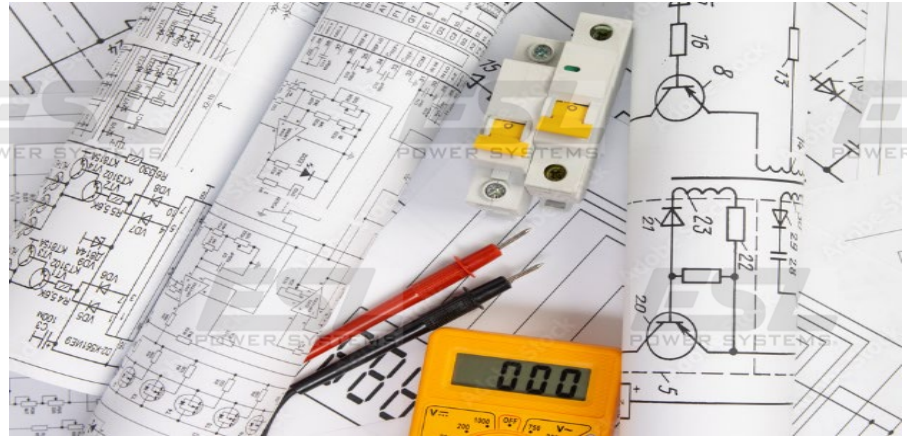
- Company switches are UL 891 listed which is a North American and European testing standard for switchboards (dead-fronts electrical units that have no exposed live parts)
- Company switches provide short-term power solutions for power distribution
- Company switches are used extensively for set stage applications for lighting, sound and video by entertainers, road shows and media personnel
- The ESL Company switch offers safety-interlocked circuit breakers
- Standard company switches are rated 100–400 amps
- Company switches can be used both in and outdoors and in single and combo unit applications

Entertainment Industry Statistics

- The live entertainment market consists of music concerts, sports events, theater productions, festivals, and more.
- Live entertainment industry globally in 2023 was \$60B, in 2030 \$750B
- Increasing demand for new facilities
- The rise of experiential consumption, where consumers prioritize spending on experiences rather than material possessions, has further fueled demand for live events.
- Increasing attendance and widening age demographic
- The value chain in the live entertainment industry starts with the artist, but there are many people involved in supporting acts - venue operators, ticketing companies and a myriad of suppliers and contractors.

Where You Need What When Building Infrastructure

- Application
- Amperage
- Safety
- Equipment Location
- Accessibility



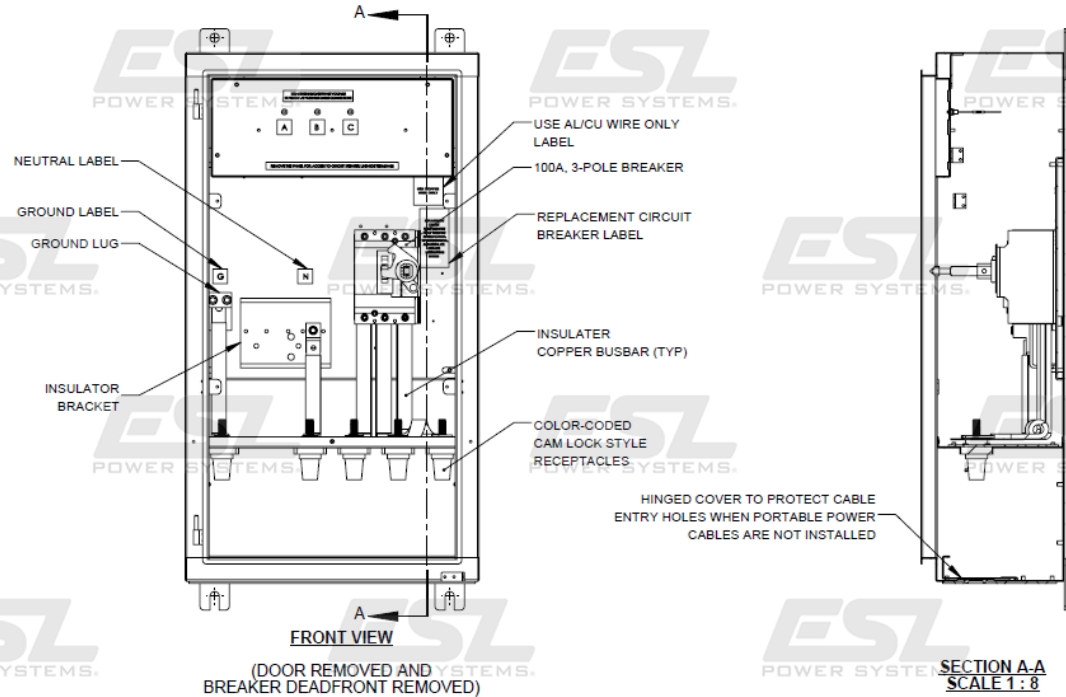
Considerations and Design

Design Footprint

- Pad and Wall Mounts
- Flush Mount
- Dual(Combo) unit
- Pin and Sleeve compact footprint applications; drop downs from the ceiling
- Receptacle / Pedestal
- Food Service
- Broadcast Truck

Technical Considerations

- Incoming wire size
- 200% Neutrals
- Isolated Grounds
- Need for direct wire lugs
- Digital Ammeter
- Lights
- Enclosure type





About ESL and Entertainment Power



- Safety-Interlock Door for Safe Connection, Operation and Maintenance
- UL 891 (Independent testing and safety standard recognized globally)
- 80 and 100 percent rated breakers
- Type 1 Enclosure (Optional Type 3R)
 - Optional colors
- Pad Lockable Door
- Optional Stainless-steel enclosures
- Optional Lights
- Single cam connections

Company Switch Connected

From the ShowSwitch to the
“Spider Box”

ShowSwitch thru The Wall to
Ball Room



Wall Mount ShowSwitch

100-400 AMPS
(up to 480V)

UL 891 (Switchboard -
Theatrical) Listed Assembly

Safety-Interlocked Door
for Safe Connection,
Operation, and
Maintenance.



LEDs Indicate When
Power is Available at
Connectors

Type 1 (or Type 3R)
Powder Coated Steel
Enclosure

Color-Coded Series 16 Cam
Style Receptacles

Options for ESL's ShowSwitch



- 100% Rated Circuit Breaker
- Type 3R and 3RX Enclosures
- Reverse Gender Neutral & Ground
- Flush-mount Enclosure
- Custom RAL Color Finish
- Direct-wire (Lug) Connections with Safety Shield
- Digital Ammeter
- SafeSide® test port
- Interior work-light

Pin and Sleeve

Features

- Safety-interlocked and equipped with an IEC style receptacle
- Integral circuit breaker(30-100A and up to 480V)
- Indicator lights
- Tethered assembly lockout device
- Compact footprint
- Type 1, 3R, or 4X enclosure
- Watertight connection once a plug is properly mated



100A Pin & Sleeve Outlet



60A Pin & Sleeve Outlet

ADA/GFCI Receptacle Pedestals

ADA/GFCI Receptacle Pedestals

- 50A, 60A, and 100A receptacles
- Electric vehicle charging stations in 20A and 40A
- Pedestals meet American Disabilities Act (ADA) requirements for public accommodations.



**ADA/GFCI
Receptacle Pedestals**

Food Service / Concession

- ESL's food service/concession power pedestals or in-wall units
- 60A - 100A pin and sleeve receptacles
- 125V GFI receptacles, and 50A twist lock receptacles.



**Food Service In-Wall
Receptacle Enclosure**



Concession Planter Box

Broadcast Truck Power Unit

- Type 3R or 3RX enclosures
- Network uplink truck pedestals provide power and communications to ENG/SNG satellite news trucks for broadcast.
- The power compartment consists of circuit breakers, cam-style receptacles, pin & sleeves, and twist lock receptacles.
- The signal compartment includes 19" equipment racks for broadcast equipment and satellite uplinks.



**Broadcast Truck
Power Unit**



Power Distribution Boards

- Multi-gang, free standing company switches allow for flexibility of positioning in open areas or locations lacking structural wall support.
- A main circuit breaker can also be included to provide a convenient power disconnect for added safety measure.



Concert Power Distribution Boards

ShowSwitch™ - Combo Company Switches Arena

Combo Company Switches eliminate the need to run multiple conduits to individual company switches. Combo Company Switches are available with and without a main circuit break



- Inside and outside, think event centers, pool areas, ballrooms



Stadiums tend to have multiple types and multiple quantities of units. When reviewing drawings and discussing with engineers be mindful of the opportunities.

Broadcast Truck Connections
May have multiple units per site



Food Cart Connections
Multiple Units



800A & 600A
Combo units



ADA Pedestal



Recent ShowSwitch Installations

Stadiums & Arenas



- USC Galen Center
- UCLA Rose Bowl
- Citizens Bank Arena
- College of Charleston
- Madison Square Gardens
- Indian Wells Tennis Center
- ASU Sun Devil Stadium
- Milwaukee Bucks Arena
- Rams Stadium
- Raiders Stadium
- Kannapolis Ballpark

Hotels & Universities



- Cosmopolitan Hotel
- Mandalay Bay Resort
- Luxor Hotel
- Monte Carlo
- Washington State University

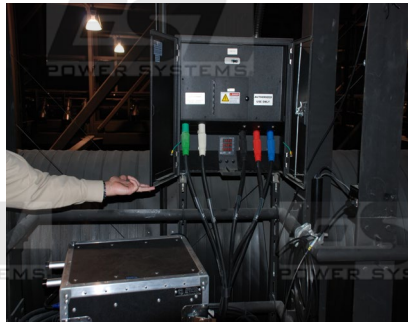
Studios & Convention Centers

- NBC Studios
- ESPN
- Miami Convention Center

Theatres & Theme Parks

- Nokia Theatre
- Nashville Music City Center
- Harley-Davidson Museum
- Montreal Symphony Orchestra
- Seaside Park/Coney Island
- Disneyland





Custom Theatre



ESL Power Systems, Inc.

A global leader in designing and manufacturing electrical solutions and products to safely connect power sources to electrical equipment.

Thank You for your input and ongoing suggestions for enhancing our product lines and on how we can provide better customer assistance for you.

Entertainment Contact Marcus Lawrence
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