Plugs, Receptacles and Connectors for the Power Generation Industry

Featuring:
Switch-Rated Plugs and Receptacles with DECONTACTOR® Technology
MELTRIC’s Switch-Rated plugs and receptacles combine the safety and functionality of a switch with the convenience of a plug and receptacle. They help power plants ensure worker safety while also reducing equipment and labor costs. They are UL and CSA rated for motor circuit and branch circuit disconnect switching and meet code requirements for ‘line of sight’ disconnects. Switch-rated plugs and receptacles eliminate the need for expensive auxiliary disconnects and enable plug and play equipment changeouts.

**DECONTACTOR® Technology**

- **OFF Button**
  - Press to deenergize. Provides push button circuit disconnection.

- **Spring Assisted Screw Terminals**
  - Exclusive design assures “Tighten and Forget” confidence.

- **Spring-Loaded Butt-Style Contacts**
  - Ensures optimal contact force and superior electrical performance over thousands of operations.

- **Dead Front Safety Shutter**
  - Assures safety by preventing user access to live parts.

- **Casing**
  - Fiberglass reinforced thermoplastic polyester material offers great resistance to impact, corrosion and harsh environmental conditions.

- **Silver-Nickel Contact Material**
  - Solid silver-nickel contact surfaces provide superior conductivity, durability and corrosion resistance.

- **Lockout-Tagout Provisions**
  - Allows plug to be easily locked out and tagged. Optional Padlock Pawl allows lockout/tagout of the receptacle.

- **DSN 20-150A (Up to 75 hp)**
  - Compact, lightweight design
  - Type 4X, IP69/IP69K
  - Up to 6 auxiliary contacts
  - Polyester or metal casings
  - 100kA short circuit rated
  - 08IK rated

- **DS 20-200A (Up to 100 hp)**
  - Rugged construction
  - Type 3R (4X optional)
  - Up to 6 auxiliary contacts
  - Polyester or Metal casings
  - Short circuit rated up to 100kA
  - 08-09IK rated

*Testing was performed with RK1 current limiting fuses sized at 400% of the highest full load motor ampacity associated with the devices hp ratings. Visit meltric.com to confirm ratings.

**Common Product Accessories**

**Handles**
- Poly Handle
- PH Handle
- Finger Draw Plates

**Angles and Boxes**
- Metal Junction Box
- 30° Metal Angle
- 70° Metal Angle

**Pawls**
- Padlockable Pawl

**Adapter Plates**
Application Spotlights

MELTRIC Switch-Rated Plugs and Receptacles

Welding Machine Connections

MELTRIC’s Switch-Rated devices allow workers to safely connect and disconnect welding machines, even in over-load conditions.

MELTRIC’s Switch-Rated devices reduce costs by eliminating the need for interlocks and auxiliary disconnects.

Downtime Critical Motors

When replacement motors are pre-wired with Switch-Rated devices, a mechanic can safely change-out a motor by simply unplugging the old motor and re-plugging in a new one. No tools or materials are required.

MELTRIC’s Switch-Rated plugs and receptacles utilize motor starter contact technology, allowing users to safely make and break motor loads up to 100 hp.

Retrofit Applications

Adapter plates made it simple for this power plant to convert their existing pin and sleeve receptacles to Switch-Rated devices.

Adapter plates are available in a variety of sizes and configurations.

Portable Power Distribution

MELTRIC’s receptacles feature a built-in switching function that ensures the contacts are safely deenergized before the plug can be withdrawn from the generator receptacle. Arc flash safety is ensured.

MELTRIC devices provide an “inline switch” when used on extension cords.
Portable Equipment Connections

MELTRIC Switch-Rated plugs and receptacles are ideal for safely connecting or disconnecting power to welders, lighting, pumps, and other electrical equipment.

Disconnecting a Switch-Rated plug and receptacle is a NFPA 70E defined “Normal Operation”. No PPE is required.

Pump Connections

Submersible pumps, float pumps, and process pumps can be safely and quickly disconnected and reconnected with Switch-Rated plugs and receptacles.

Safety Switch/Receptacles

Retrofit existing safety switches so workers can safely deenergize equipment without having to open the disconnect (to verify deenergization) and risk exposure to live parts.

Mobile Facilities’ Power Supply

MELTRIC Switch-Rated devices provide convenient power supply connections and local disconnects for mobile facilities.

To match the functionality of a Switch-Rated device, it would take a pin and sleeve plug plus a non-fused safety switch.

MELTRIC’s non-interlocked safety switch disconnects are intended for use in power supply applications where additional over current and short circuit protection is desired.
Other MELTRIC Product Lines for the Power Generation Industry

High Amperage Connections

The DR400 Series (up to 400A, 480V or 350A, 600V) features a safety shutter that protects from live parts and an easy closing mechanism that mates the plug to the receptacle with relative ease. The PF/PFQ Series (up to 600A, 600V) utilizes silver pressure contacts that maximize performance in dirty environments. A mechanical locking system ensures safety and watertightness.

Multipin Connections

MELTRIC offers a broad range of multipin devices for use in a wide variety of control and power applications. All of MELTRIC’s multipin devices feature spring-loaded, silver-nickel, butt-style contacts for maximum conductivity and durability. Models are available with as many as 37 or as few as 4 contacts. Products range from 2A up to 50A and some include load making and breaking capabilities. DN9c and DN20c devices are horsepower rated and allow multiple power circuits in a single connection.

Hazardous Location Connections

MELTRIC offers a range of hazardous duty rated devices for use in power supply and control applications. Each device features MELTRIC’s butt-style contact technology that maximizes durability and performance. Depending on the application’s needs, most devices, can be configured for use in in-line and wall mounted applications. DXN Series plugs and receptacles are CSA rated for use in Class I Zone 1, Class I Division 2 and Class II Division 2 environments. Hp ratings make the DXN ideal for motor connections.

For even more plugs and receptacles from MELTRIC, visit meltric.com or view the MELTRIC catalog.
Application Note for Gas Turbine Power Generation Facilities

**Application Challenge:** Scheduled maintenance at gas-turbine power generation facilities often requires removal of the facility’s rooftop to obtain access to the turbines. Since there are many hard-wired, electrical cables that run in rooftop cable trays above the turbines, they must be disconnected to permit crane access to the turbines. This disconnection task requires an excessive amount of electrical work, resulting in significant downtime and labor costs, as well as a loss of revenues while turbine maintenance is being performed.

In some installations, the time to remove the hardwired motors, auxiliary electrical loads and control wiring can take up 10 hours to complete. But once the maintenance is performed, additional time must be taken to carefully re-connect the cabling and rooftop prior to bringing the turbine generators back on line.

**Connection Solution:** To circumvent the time consuming and expensive process of unwiring/wiring rooftop cabling, MELTRIC Corporation has devised an alternative to hardwiring motors, electrical equipment, and control wiring located in the rooftop cable trays.

By connecting the rooftop cabling with Switch-Rated plugs and receptacles, significant cost and time-savings was achieved. MELTRIC’s plugs and receptacles can safely, quickly and easily connect and disconnect motors and electrical equipment.