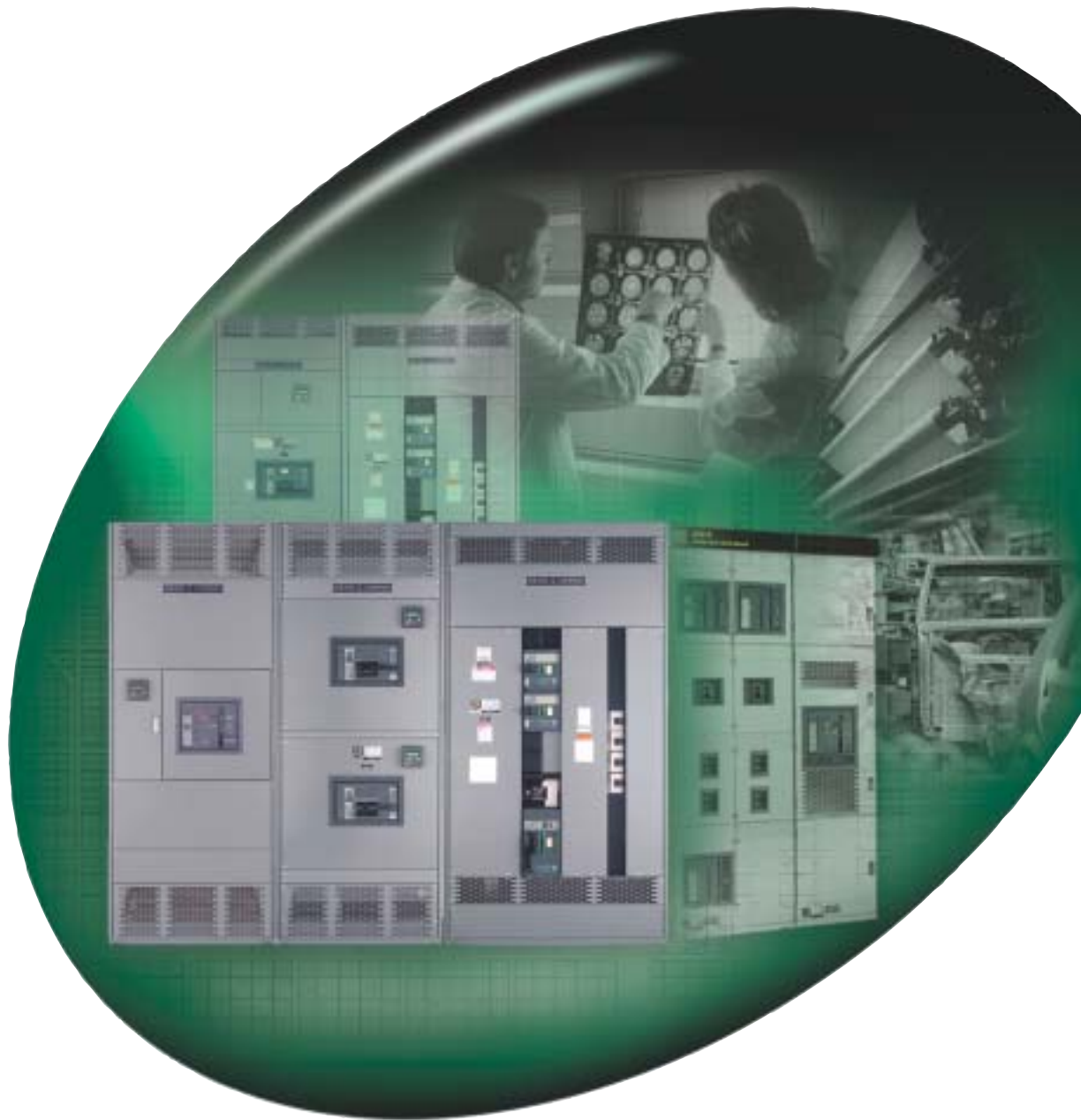


POWER-STYLE® QED
Switchboards

Setting standards for today,
building foundations for tomorrow



SQUARE D
Schneider Electric



With a tradition of distinction

SQUARE D® POWER-STYLE® Switchboards set the standard for the system solutions of today and those of tomorrow

These **quality** products are built according to your specifications in strict adherence to NEC, NEMA and UL standards at factories certified to ISO 9002 quality standards. The **versatility** in our switchboard design helps you meet and exceed today's complex electrical distribution requirements. Features include front or rear accessibility, fixed or drawout construction, and individually or group-mounted circuit breakers or fusible switches. POWER-STYLE switchboards are also designed with **durability** in mind. Sturdy frames and standard bolted base channels all contribute to durability.

Quality, versatility and durability also define our SPEED-D® ready-to-assemble switchboards. Living up to its name, the SPEED-D line offers shipment of service section switchboards that's measured in days, not weeks.

One of the most important advantages you'll see in SQUARE D switchboards is our focus on system solutions. Our switchboards are designed to maximize the capabilities of our overcurrent protection devices, metering options and other switchboard accessories.

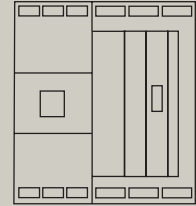
We also offer power monitoring and communications systems as simple or complex as your application requires. You can choose to communicate with a single PC, multiple PCs or over the Internet, using our Transparent Ready™ Internet communications system. Start with a simple monitoring and communications system and expand as your power system grows.

Our focus on customer needs does not stop here. SQUARE D Services offers a complete line of solutions through our national network of service locations. We can offer comprehensive solutions related to new installation, maintenance and testing services.

With Square D/Schneider Electric you can create an efficient electrical distribution system that meets your needs today, while building a foundation for the future. This is the SQUARE D difference.

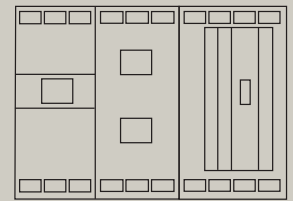
We have an efficient solution designed to meet your needs

	Commercial	Industrial
QED-S	Office buildings Strip malls Retail stores Grocery stores Nursing homes Hospitals	Automotive plants Paper mills Manufacturing facilities Refineries Textile plants Pharmaceuticals
QED-2	Office buildings Strip malls Retail stores Grocery stores Nursing homes Hospitals	Automotive plants Paper mills Manufacturing facilities Refineries Textile plants Pharmaceuticals
QED-6	Universities Public buildings Communication Centers High-rise offices Hospitals	Automotive plants Manufacturing facilities Refineries Textile plants Chemical plants Pharmaceuticals Semiconductor manufacturing



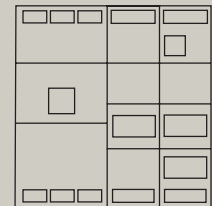
QED-S switchboard

Front accessible, group-mounted panels to 2,500 A



QED-2 switchboard

Individually mounted mains to 5,000 A, distribution sections to 4,000 A, group-mounted to 1,200 A



QED-6 switchboard

Individually mounted mains to 5,000 A, front and rear access with dedicated loadside cable entry

Standards

The POWER-STYLE QED switchboards in this brochure are designed, manufactured and tested to meet the latest revisions of the following appropriate standards.

UL 50	Enclosures for Electrical Equipment
UL 98	Enclosed and Deadfront Switches
UL 489	Molded Case Circuit Breakers
UL 891	Deadfront Switchboards
UL 943	Ground Fault Circuit Interrupters
UL 977	Fused Power Circuit Devices
UL 1053	Ground Fault Sensing and Relaying Equipment
NEC Article 834	Switchboards
NFPA 70	National Electrical Code® (NEC®)
ANSI/IEEE C12.1	Code for Electricity Metering
ANSI C39.1	Electrical Analog Indicating Instruments
ANSI C57.13	Instrument Transformers
NEMA AB 1	Molded Case Circuit Breakers and Molded Case Switches
NEMA PB 2	Switchboards

Federal Specifications

W-C-375B/GEN	Molded Case Circuit Breakers
W-C-870	Fuseholders
W-S-865	Enclosed Knife Switch

POWER-STYLE® QED-S



The I-LINE bus stack provides circuit breaker mounting flexibility and simplifies installation and maintenance.

QED-S switchboards feature totally enclosed, freestanding sections up to 48" deep and contain circuit breaker or fusible overcurrent protection devices for services rated up to 4,000 A with a maximum voltage of 600 VAC or 250 VDC. Distribution sections include both I-LINE circuit breaker and QMB fusible switch group-mounted panels. Offering the flexibility of either fix-mounted or group-mounted mains and feeders, QED-S switchboards are ideal for meeting quick delivery requirements.

I-LINE Advantages

I-LINE construction gives you many advantages that boost efficiency while minimizing installation and maintenance costs. Plug-on, group-mounted construction, automatic alignment and single- or double-row construction are just a few. Single-row construction allows circuit breakers to be mounted only on one side of the I-LINE bus. With double-row construction, you can mount branch circuit breakers of different sizes opposite each other. A 15 A circuit breaker, for example, can be mounted next to or across from a 1,200 A circuit breaker. This flexibility makes it easy to add or change circuit breakers to meet the demands of your growing electrical distribution system.

Efficient, Plug-On Fusible Switches

For fusible applications, QMB construction enhances efficiency during and after installation. Switches accommodate Class H, R, T or L fuses, and plug-on construction simplifies installation and upgrades. Plus, the QMB high-density switchboards from Square D/Schneider Electric use compact switches and Class J fuses to deliver an even smaller footprint.

Neutral Connections with Ease

I-LINE and QMB construction also simplifies neutral connections whenever they are required. The neutral is located on the side of the I-LINE circuit breaker mounting pan and QMB vertical bus assembly, providing totally front-accessible neutral connections. In addition, ample wireway space makes loadside cabling of branch units much easier.

Main Lug Alternatives

Main lug only (MLO) switchboards are available in both I-LINE and QMB construction, ranging from 800 A to 4,000 A. The QED MLO switchboards feature front accessibility, small footprints and, in many cases, eliminate the need for an auxiliary section.

Features

- Front accessible load connections
- Front and rear alignment standard
- Switchboard fed by cable
- Switchboard ratings through 4000 A, 200kA
- Thermal-magnetic, electronic and MICROLOGIC® fix-mounted circuit breaker mains and feeders
- Stored Energy fix-mounted mains
- Fix-mounted fusible switch mains and feeders
- Group-mounted circuit breaker and fusible switch mains and feeders
- Main devices in six subdivision or single main configurations
- Main and branch devices in single section configurations
- Main lugs in separate section in line-up or behind devices
- Thermal-magnetic and electronic circuit breakers with standard, high, extra-high or current limiting capability
- Exclusive MICROLOGIC microprocessor trip circuit breakers, 80% or 100% rated
- Selected utilities and POWERLOGIC® system customer metering
- Selected options on circuit breakers and fusible switches

Options

Hot and cold sequence utility metering, customer metering and the POWERLOGIC monitoring and control system and equipment ground fault protection.



A small footprint makes QED-S switchboards an excellent choice for commercial and other applications with limited floor space.

Quality You Can See...

The Square D/Schneider Electric family of POWER-STYLE® QED switchboards is designed with the highest standards of quality. They uniquely meet your needs for low voltage power distribution as service entrance or distribution boards for systems up to 600 VAC or 250 VDC. The difference in quality shows in efficient installation and operational capabilities.

Installation is simplified with two standard connections that only Square D/Schneider Electric provides. QWIK FLANGE™, a factory-installed connection, replaces the traditional busway flanged end. By eliminating internal bolted connections and removal and replacement of side or top plates, this connection allows for easier installation and better connections.

In addition, the unique "E" connector from Square D/Schneider Electric eliminates conventional bus bar alignment problems. While simplifying splice connections and through and vertical bus connections, this connector requires only one wrench to tighten. The "E" connector also provides a more efficient connection by applying uniform pressure over the contact surface.

POWER-STYLE® QED-2



POWER-STYLE QED-2 switchboards are designed to distribute electrical power and give you economies of floor space without compromising performance or versatility. They provide circuit breaker or fusible overcurrent protection for services rated to 5,000 A with a maximum voltage of 600 VAC or 250 VDC. QED-2 switchboards can be used as service entrance equipment or as distribution centers in commercial, industrial or institutional applications. For additional flexibility, they can be customized to meet your specific application requirements.

A Solid Foundation

QED-2 switchboards are available as single or multiple mains or as distribution sections. Individually mounted mains use SQUARE D P- and R-frame electronic or MICROLOGIC® molded case circuit breakers through 2,500 A, MASTERPACT® NW two-step stored energy electronic trip circuit breakers, circuit breakers for fixed or drawout applications through 5,000 A and fusible switches through 5,000 A.

Efficient Distribution Options

QED-2 distribution sections include both I-LINE circuit breaker and QMB fusible switch group-mounted panels. With I-LINE plug-on circuit breaker construction, the line end of the circuit breaker plugs directly onto the I-LINE panel bus assembly. This design allows you to quickly install and wire circuit breakers from the fronts of the switchboard. In addition, I-LINE circuit breakers are keyed to mounting slots in the support pan for automatic alignment and faster installation. I-LINE switchboard sections are available in single- or double-row construction.

High Ampacities

If you require higher feeder ampacities, QED-2 switchboards are available with individually mounted branch devices up to 4,000 A. They include both thermal-magnetic and electronic trip molded case circuit breakers or BOLT-LOC Type BP fusible switches. For equipment ground fault protection, you can use electronic trip circuit breakers or fusible switches with the Type GC equipment ground fault system. With QED-2 switchboards, you can also specify options such as automatic throw-over systems.



QED-2
combination
section

Features

- Front accessible load connections
- Front and rear alignment standard
- Switchboard fed by cable, busway, transformer, QED switchboard or other
- Switchboard ratings through 5000 A, 200kA; higher amperages available
- Thermal-magnetic, electronic, MICROLOGIC® or stored energy fix- and drawout-mounted circuit breaker mains and feeders
- Fix-mounted fusible switch mains and feeders
- Group-mounted circuit breaker and fusible switch mains and feeders
- Main devices in six sub-division or single main configurations
- Main and branch devices in single section configuration
- Main lugs in separate section in line-up or behind devices
- Group-mounted mains and branches
- Thermal-magnetic and electronic circuit breakers with standard, high, extra-high or current limiting capability
- Exclusive MICROLOGIC trip circuit breakers, 80% or 100% rated
- Zone selective interlocking on MICROLOGIC® circuit breakers, group-mounted 100 A/250 A thermal-magnetic circuit breakers with add-on ground fault and bolted pressure fusible switches
- POWERLOGIC® system customer metering including custom communications capability and interwiring
- All options available on circuit breakers and fusible switches
- Custom engineering including main-tie-mains, multiple sets of through bus, reduced heights and engineered houses
- Optional start-up service and training

Options

Hot and cold sequence utility metering, customer metering and the POWERLOGIC monitoring and control system, equipment ground fault protection, automatic throw-over systems, transfer switches and zone selective interlocking.



QED-2 switchboards provide versatility and performance for today's complex commercial, industrial and utility applications.

Solutions for Maximum Flexibility...

If you're looking for an overcurrent device to meet your specific application, no one matches the selection found in the POWER-STYLE® QED switchboard family. All QED switchboards feature a choice of molded case circuit breakers or fusible switches.

You can select thermal-magnetic, current limiting, electronic or MICROLOGIC® circuit breakers in a configuration designed to meet your specific needs. The unique I-LINE construction from Square D/ Schneider Electric, for example, gives you the capacity of group mounting circuit breakers (up to 1,200 A) for faster installation, mounting flexibility and efficient use of space. You can also select individually mounted circuit breakers rated up to 5,000 A in fixed or drawout construction.

You can further enhance the flexibility of POWER-STYLE QED switchboards with other options, such as equipment ground fault protection with MICROLOGIC® electronic trip circuit breakers or BOLT-LOC Type BP switches with the TYPE GC equipment ground fault system. On 100 A and 250 A circuit breakers, an equipment ground fault module is available with two levels of protection to give you the backup protection you need for power-critical operations.

POWER-STYLE® QED-6



With QED-6 rear connected switchboards, Square D offers the next generation of proven, reliable and durable low voltage switchboards. We developed it with your values in mind – with a small, flexible footprint with segregated front access to all wiring, and with easy-to-add “smart” functionality like communications interfaces and power monitoring and control capability – all to improve your electrical system uptime and efficiency.

Efficient Space Use.

When floor space is at a premium, QED-6 rear connected switchboards are the ideal solution. For those applications where space is available and you want more working room inside the equipment, we also offer larger footprints. In either case, we provide dedicated control wiring channels and the most conduit space among competitive products. Our objective was simple: to make QED-6 switchboards as quick, easy and inexpensive as possible to install and maintain.

Maximum Uptime.

Drawout construction allows quick and simple replacement of circuit breaker elements. If an emergency occurs, circuit breakers may be removed from low-priority circuits and re-installed to serve high-priority circuits.

Through-the-Door Construction.

MASTERPACT® and POWERPACT® circuit breakers provide clear access to all circuit breaker controls, indicators, and trip unit functionality without opening the compartment door. MASTERPACT circuit breaker racking is also achieved with the compartment door closed.



Through-the-door circuit breaker operation (above) and segregated control and power wiring, with dedicated compartments (left) for control wiring to allow easier access.

Features

- QED-6 switchboards are listed to Underwriters Laboratories® (UL®) 891
- MASTERPACT® drawout circuit breakers and POWERPACT® C and D plug-in circuit breakers are listed to UL 489
- Short circuit current rating up to 200kA @ 240V, 150kA @ 480V applications
- High short-time withstand bus rating up to 100kA for 30 cycles
- Compartmentalized design segregates each circuit breaker
- Family of field-installable upgrades including communications
- Highest density of circuit breakers available in rear connected switchboard construction
- Front access to all controls and communications wire connections
- Silver-plated bolted copper bus provided as standard
- Large rear cable compartment pull area allows maximum room for power cables
- Bus provisions for future equipment expansion
- Optional start-up service and training

Options

QED-6 rear connected switchboards are designed to provide superior electrical distribution, protection, and power quality management for the entire facility. The prime components are MASTERPACT NW, MASTERPACT NT, POWERPACT C, and POWERPACT D circuit breakers. QED-6 switchboards are designed to maximize the functionality of these circuit breakers, which, in turn, delivers maximum uptime, system selectivity and circuit protection—all of this in a fully withdrawable construction.



For the diverse requirements of manufacturing, as well as commercial applications, QED-6 switchboards offer many options.

Durability for the Long Term...

Durability is a key design factor that makes POWERSTYLE® QED switchboards ideal for applications ranging from power-intensive commercial operations to harsh industrial environments. You'll see the difference in our sturdy frame construction.

Built from formed steel channels and angles, the heart of the QED switchboard is the frame, which serves as the mounting base for all components in the switchboard.

The QED frame is even sturdy enough to serve as its own floor sill. In addition, every frame has base channels as a standard feature. Base channels are bolted to the bottom of the frame, assuring extra rigidity during installation.

POWER-STYLE® QED Metering Options



MICROLOGIC Trip Units



POWERLOGIC Circuit Monitor



Utility metering

You can see versatility in the number and types of metering options available for the POWER-STYLE® QED switchboard family. They include customer metering featuring the advanced capabilities of the POWERLOGIC® monitoring and control system and MICROLOGIC® trip units. Utility metering options are also available to meet local utility requirements.

Customer Metering from A to Z.

The POWERLOGIC system provides over 50 meter values, which can be displayed locally on multiple POWERLOGIC circuit monitors or remotely on personal computers. On-board event and data logging, waveform capture and automated controls are also provided by the POWERLOGIC system. Now Square D/Schneider Electric not only offers the toughest switchboard in the industry, but the smartest one as well!

Effective electrical distribution is more than just the transmission of power. Capturing, understanding and managing power information can substantially increase your system efficiency and lower life cycle costs.

These trip units provide advanced functionality such as communications interfaces, POWERLOGIC power metering, and local/remote monitoring capability, which allows for integration and coordination of your electrical system. With the appropriate MICROLOGIC trip unit, you can:

- Communicate with breakers
- Gather power information and energy usage patterns
- Monitor events and deviations from the norm
- Remotely control breakers for better process loading
- Perform predictive maintenance

Because the trip units, which offer increasing levels of functionality, are interchangeable, you can upgrade equipment easily as your needs expand.

Utility Metering.

Square D/Schneider Electric provides utility current transformer (UCT) metering compartments to meet your local utility specifications. The UCT compartment has either single- or double-hinged doors with sealable hasps and screws. UCTs are available in full-height (90") or half-height (45") compartments. Depending upon your utility's requirements, we will provide either hot sequence CT compartments (metering ahead of the main disconnect) or cold sequence CT compartments (metering on the load side of the main disconnect).

POWER-STYLE® QED Selection Information

	QED-S	QED-2	QED-6
RATING	RATING	RATING	RATING
400-4000 A	✓	✓	✓
400-5000 A		✓	✓
6000 A		✓	
INCOMING			
CABLE	✓	✓	✓
BUSWAY		✓	✓
TRANSFORMER		✓	✓
THROUGH BUS TO QED		✓	
MAIN DEVICE			
Individual Fixed			
BOLTED PRESSURE SWITCH	4000 A ✓	5000 A ✓	
THERMAL-MAGNETIC CIRCUIT BREAKER	2500 A ✓	2500 A ✓	2500 A ✓
ELECTRONIC CIRCUIT BREAKER	2500 A ✓	2500 A ✓	2500 A ✓
MICROLOGIC® CIRCUIT BREAKER	2500 A ✓	2500 A ✓	
STORED ENERGY	4000 A ✓	5000 A ✓	5000 A ✓
Individual Drawout			
MASTERPACT NW CIRCUIT BREAKER		5000 A ✓	5000 A ✓
Group			
THERMAL-MAGNETIC CIRCUIT BREAKER (I-LINE)	1200 A ✓	1200 A ✓	
ELECTRONIC CIRCUIT BREAKER (I-LINE)	1200 A ✓	1200 A ✓	
MICROLOGIC CIRCUIT BREAKER (I-LINE)	1200 A ✓	1200 A ✓	
FUSIBLE SWITCH (QMB)	1200 A ✓	1200 A ✓	
FEEDER			
Individual Fixed			
BOLTED PRESSURE SWITCH	4000 A ✓	4000 A ✓	
THERMAL-MAGNETIC CIRCUIT BREAKER	2500 A ✓	2500 A ✓	1200 A ✓
ELECTRONIC CIRCUIT BREAKER	2500 A ✓	2500 A ✓	
MICROLOGIC CIRCUIT BREAKER	2500 A ✓	2500 A ✓	1200 A ✓
STORED ENERGY CIRCUIT BREAKER	4000 A ✓	4000 A ✓	
Individual Drawout			
MASTERPACT® NT CIRCUIT BREAKER			1200 A ✓
MASTERPACT NW CIRCUIT BREAKER		4000 A ✓	
Group			
THERMAL-MAGNETIC CIRCUIT BREAKER (I-LINE)	1200 A ✓	1200 A ✓	
ELECTRONIC CIRCUIT BREAKER (I-LINE)	1200 A ✓	1200 A ✓	
MICROLOGIC CIRCUIT BREAKER (I-LINE)	1200 A ✓	1200 A ✓	
FUSIBLE SWITCH (QMB)	1200 A ✓	1200 A ✓	
UTILITIES			
SELECTED	✓		
ALL		✓	
CUSTOMER METERING			
POWER METER (A, V, W, COMM.)	✓	✓	✓
CIRCUIT MONITOR (A, V, W, WAVEFORM, COMM.)	✓	✓	✓
ACCESS			
FRONT	✓	✓	
FRONT & REAR	✓	✓	
COMPARTMENTALIZATION			
CIRCUIT BREAKER			✓
BUSSING			✓
LOAD LUGS			✓
OPTIONS			
SELECTED	✓		
ALL		✓	
ENGINEERING			
STANDARD	✓		
CUSTOM		✓	

You can create an efficient electrical distribution system that meets your needs today, while building a foundation for the future. This is the SQUARE D difference.

POWER-STYLE® Switchboards

The Difference is in the Details

- 100% rated phase and neutral through bus
- No deration of through bus
- Through bus extends the entire section (no through bus extensions required for additional sections)
- Captive splice bars
- Continuously plated bussing
- Front and rear alignment
- I-LINE® group-mounted distribution requires no additional hardware kit to add future circuit breakers
- Sectionalized shipment available for easier handling
- Removable lifting bars on NEMA Type 1 Enclosures
- NEMA Type 1 or 3R Non-Walk-In Enclosures
- ANSI 49 corrosion-resistant paint finish
- Removable top plate
- UL891 Labeled
- Switchboard frame suitable for use as floor sills
- 80% and 100% rated MICROLOGIC® electronic trip circuit breakers through 1200 A for group-mounted distribution
- POWERLOGIC® system customer metering from ammeter, voltmeter, wattmeter to waveform capture, data logging, alarm/relay functions, disturbance monitoring and programmable logic

SPEED-D® Service Section Switchboards

UL listed and available from distributor or warehouse stock, these switchboards contain a EUSERC utility metering compartment and a main circuit breaker with either a 42-circuit NQOD interior or a 27" I-LINE interior. It is also available with a QMB interior for six circuit main applications. Each section is suitable for use as service entrance equipment and is available in either Type 1 or Type 3R construction. Accessories include an indoor underground pull section, outdoor (3R) underground pull section, lug landing kit and loadside wireway.

- Mains rating: 400, 600, or 800 A
- Voltage: 120/240, 208Y/120, 240/120, or 480Y/277 VAC
- Systems: 1Ø3W or 3Ø4W
- Dimensions: Type 1 enclosure – 90" high, 14" deep, 36" wide
- Type 3R enclosure – 90" high, 24.5" deep, 36" wide

