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More information!

SEMICONDUCTOR TECHNOLOGY IN DC PROTECTION TECHNOLOGY

# Go direct! With the SENTRON 3QD2 semiconductor circuit breaker

## The first of its kind – redefining the future of DC switching technology

The requirements for safe, efficient and highly dynamic switching solutions in industrial power distribution are growing steadily. Whether in modern industrial plants, energy infrastructures or demanding DC applications: The change towards decentralized supply systems and renewable energies poses new technical challenges for operators. With our new SENTRON 3QD2 semiconductor circuit breaker (SCCB), we present the first of its kind – developed for DC applications in industry and infrastructure. As a pioneering technology, it combines maximum reliability with exceptional switching performance, setting new standards for the protection of systems and components.

**Extremely fast switching. Maximum precision. Maximum safety.**

**SENTRON 3QD2**
Ordering information

| | |
|---|---|
| **Semiconductor Circuit Breaker** | |
| 250 A | 3QD2225-0SQ22 |
| **Communication module** | |
| COM210 | 3QD9982-0TC21 |
| **Accessories and spare parts** | |
| Terminal cover | 3QD9202-0WF20 |
| Padlock | 3QD9202-0LB10 |
| Fan | 3QD9202-0KF00 |

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# SENTRON 3QD2 semiconductor circuit breaker

By using innovative semiconductor technology, the 3QD2 semiconductor circuit breaker switches in extremely short response times – significantly faster than conventional mechanical systems. It works completely arc-free, which means that neither components nor the environment are thermally or electrically stressed. The result: maximum protection of sensitive system parts, noticeably higher system availability and overall more efficient operation.

**Made for the future.**

The semiconductor circuit breaker has been designed to integrate seamlessly into modern energy and automation architectures. Its innovative technology creates optimal conditions for applications that require maximum dynamics, fast response times and maximum operational reliability – developed according to IEC60947-10 and across industry boundaries.

### Semiconductor circuit breakers with accessories

SCCB SENTRON 3QD2

| | |
|---|---|
| Rated voltage $U_e$ | 1,000 V |
| Rated current $I_n$ | 250 A |
| Number of poles | 2 |
| Electr. direction of operation | Bidirectional |
| Overload protection function | LSI protection |
| Short-circuit breaking capacity $I_{cu} = I_{cs}$ | 150 kA |
| Overload setting value $I_r$ | 50 A ... 250 A |
| Communication | Modbus TCP and PROFINET via COM210 |
| Standard | IEC 60947-10 |

## Highlights

**Ultra-fast shutdown in microseconds**

- Shutdown in microseconds
- Protection against over-current and shortcircuits
- Maximum safety for sensitive components and equipment

**Optimized for DC grids of the next generation**

- Designed for modern DC architectures
- Ideal for industry, infrastructure, data centers
- Perfect for battery storage, marine and railway

**Multifunctional and space-saving**

- Compact design
- High energy efficiency
- Versatile integration into modern DC systems

**Maintenance-free and extremely durable**

- No mechanical wear parts
- Long service life even with frequent electronic switching
- Robust, semiconductor-based technology

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