



LOW-VOLTAGE SWITCHGEAR



Overview:

Low-Voltage Switchgear provides comprehensive power distribution, protection, and control for commercial, industrial, and utility applications. Built to IEC 61439-2:2020 standards with flexible configurations supporting voltage classes up to 1000V, these modular systems deliver reliable performance across diverse operational environments.

Features:

- Modular Design:** Standardized functional units support flexible configuration and future expansion.
- Multiple Panel Types:** Draw-out, fixed separation, drawer, MCC, capacitor, bus tie, and VFD configurations available.
- Flexible Voltage Ratings:** Maximum insulation voltage of 1000V; operating voltage of 400V or 690V.
- High Current Capacity:** Main busbar ratings up to 6300A; distribution busbar up to 3200A.
- Enhanced Safety:** Internal separation forms 1 through 4b available; protection levels from IP30 to IP43.
- Intelligent Integration:** Network communication and monitoring capabilities across all configurations.
- Custom Cable Management:** Site-specific cable paths with integrated repair components for fast field deployment.

Lead Time:

Approximately **18-30 months** after drawings approved.

LOW-VOLTAGE SWITCHGEAR

Parameters	Specifications
Standard Compliance	IEC 61439-2:2020
Max Insulation Voltage	Up to 1000V
Max Operating Voltage	Up to 400V / 690V
Rated Frequency	50/60Hz
Main Busbar Rated Current	Up to 6300A
Distribution Busbar Rated Current	Up to 3200A (fixed), 1800A (drawer)
Drawer Maximum Current	630A
Main Busbar Short-Time Withstand	Up to 100kA/1s
Distribution Busbar Short-Time	Up to 85kA/1s
Rated Peak Withstand Current	Up to 220kA
Enclosure Protection	IP30, IP40, IP43
Internal Separation Forms	1, 2a/2b, 3a/3b, 4a/4b
Rated Impulse Withstand Voltage	Up to 12kV
Arc Fault Resistance	100kA/1s

Product Configurations:

- **Draw-Out Switchgear** – Removable circuit breakers for safe maintenance without full system shutdown
- **Fixed Separation Switchgear** – High-current distribution (up to 3200A) with strict internal compartmentalization
- **Drawer Switchgear** – Compact, high-density units supporting up to 36 outgoing circuits per drawer
- **Fixed Panel Switchgear** – Primary incoming, outgoing, and bus tie panels with current ratings up to 6300A
- **Motor Control Center (MCC)** – Dedicated motor control with support for multiple starting schemes
- **Capacitor Panel** – Intelligent power factor correction and harmonic filtering
- **Bus Tie Panel** – Flexible busbar interconnection for load management and redundancy
- **Variable Frequency Drive (VFD) Panel** – Optimized enclosures for VFD integration with enhanced cooling



GRID INFRASTRUCTURE SOLUTIONS

5 Park Plaza, Suite 640
Irvine, CA 92614

Email: sales@grid-infrastructure.com
Phone: +1 (949) 570-8998
Website: grid-infrastructure.com