Empowering Your Business with

Motor Control Centers (MCC)

POWERING CONNECTIONS

Mactek Solutions

Advanced Motor Control & Protection Systems

✓ Centralized Motor Control and Protection: Design, assembly, and installation of Low Voltage Motor Control Centers (MCCs) for centralized control, protection, and monitoring of multiple electric motors and associated loads in industrial processes, water treatment plants, and manufacturing facilities.

✓ Intelligent Motor Management: Integration of advanced motor protection relays (e.g., thermal overload, phase loss, unbalance), variable frequency drives (VFDs), soft starters, and intelligent electronic devices (IEDs) for optimized motor performance, energy efficiency, and predictive maintenance.

✓ Modular and Scalable Design: Fabrication of custom MCCs with withdrawable or fixed-type modules, allowing for easy addition, removal, or maintenance of motor starter units without disrupting other sections, ensuring flexibility and future expandability.

✓ Enhanced Personnel Safety: Implementation of robust safety features including compartmentalized construction (Form 4b), mechanical interlocks, arc-resistant designs, and clearly labeled isolation points to protect operators during maintenance and fault conditions.

Technical Specifications

Features	Specifications
System Type	Low Voltage Motor Control Center (Fixed or Withdrawable)
Rated Voltage	Up to 690V AC, 3-phase, 4-wire + Earth
Rated Current	Main Busbar: Up to 4000A; Feeder: Up to 630A per starter
Short-Circuit Withstand	Up to 100kA for 1 second (Icw)
Frequency	50⁄60 Hz
Form of Separation	Up to Form 4b (Type 1, 2, 3, 4) as per IEC 61439-2
Motor Starter Types	Direct-on-Line (DOL), Star-Delta, Soft Starter, Variable Frequency Drive (VFD)
Protection Devices	Thermal Overload Relays, Electronic Motor Protection Relays, MCCBs, Fuses
Control Voltage	24V DC, 110V AC, 230V AC
Communication	Modbus RTU/TCP, Profibus DP, Ethernet/IP, OPC UA for SCADA/DCS integration
Enclosure Protection	IP31 (Indoor) to IP54 (Outdoor with canopy)
Compliance	IEC 61439-1 & IEC 61439-2, UL 845 (optional)

Why Choose Us?

01. Optimized Control and Efficiency: Our LV MCCs provide a centralized, intelligent platform for precise motor control, integrating VFDs and soft starters to optimize motor performance, reduce energy consumption, and extend equipment lifespan, leading to significant operational savings.

02. Superior Safety and Reliability: Engineered to IEC 61439 standards with advanced protection schemes and robust compartmentalization (Form 4b), our MCCs offer unparalleled safety for personnel and critical equipment, minimizing downtime and enhancing overall plant reliability.

03. Flexible and Future-Ready: The modular, withdrawable design of our MCCs ensures maximum flexibility for system expansion, maintenance, and upgrades, allowing your operations to adapt quickly to changing production demands with minimal interruption.

GET IN TOUCH WITH US

Phone
+971 (0) 429 67114

Mail
info@mactek.ae

Website
www.mactek.ae

Location
805B Ibn Battuta Gate, Dubai, UAE