

QCM MOTOR CONTROL CENTER

Low Voltage Motor Control Center with Withdrawable Units

The QCM series Motor Control Center :

The QCM Motor Control Center is a low voltage switchgear for controlling and protecting motors; it is shaped for:

- modular structure divided into cubicles - fixed or withdrawable;
- service continuity;
- Guarantee of maximum safety;
- easy inspection and maintenance;
- to be designed to suits customer's requirements.

Reference standards

International standards	IEC EN 61439-1/2; IEC/TR 61641
Italian standards	CEI EN 61439-1/2, CEI EN 60529, CEI EN 60865-1; CEI 17-86

Type tests

CESI Certification under standards CEI EN 60439-1, IEC/TR 61641 for low voltage switchgears.

Tested for:

- Temperature-rise limits
- Dielectric properties
- Clearance and creepage distance
- Test under condition of arcing due to internal fault
- Verification of the short circuit withstanding strength of the main circuits
- Verification of the effectiveness of the protective circuit

Ue= 400 V In= 2500 A I_{p arc}= 70 kA
 Ui= 1000 V I_{cw}= 70 kA per 1 sec t_{arc}= 300 ms
 U_{imp}= 12 kV I_{pk}= 154 kA



Main Electrical features

Rated voltage up to	690 Vca
Rated voltage up to	1000 V
Rated current	fino a 3200 A
Rated short-term withstand current	154 kA
Rated impulse voltage	70 kA
Rated frequency	70 kA
Rated short-term withstand current	300 ms
Rated impulse voltage	12 kV
Rated frequency	50-60 Hz

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Features of Construction

Protection degree	from IP30 to IP54
Opened doors protection degree	IP 20

IP54 protection class is with a transparent tempered glass door as per standards.

Service and environmental conditions

Type of installation	Outdoor
Maximum ambient temperature	+ 50° C
Minimum ambient temperature	- 5 ° C
Relative humidity	90%

Standard dimensions

Maximum length	625/800+200/400 (cable lift) + 50 mm (lateral side)
Compartment height	2000/2200/2400 mm
Compartment depth	500/625/800/1000/1200/1400/1550 mm (possible for both sites)

Switchgear composition

1- Main busbar unit

Main busbar unit located in the upper side of the cabinet, with metallic segregation; accessible from the front, the rear and the top. Nominal capacity: 630A-800A-1000A-1250A-1600A-1800A-2000A-2500A-2900A-3200A.

On request it may be designed with a busbar system:

- Completely insulated with thermoplastic material;
- Silver-plated;
- With silver-plated terminals.

2 - Distribution busbar unit

The distribution busbar unit is located on the left side, insulated and accessible from the back.

3 - Cubicle unit

The cubicle unit is located on the front of the cabin and contains both removable and fixed cubicles for each motor starter/electrical device.

4 - Wiring unit

The wiring unit is located on the right side of the front, with front and rear access for easy installation, operation and maintenance.

