



12kV Motor control center with incomer circuit breaker, DOL starter and PFC

- Solution for direct on line motor starting with integral capacitor unit for pf correction
- Inrush-current limiting reactors for capacitor circuit
- Metal enclosed and metal segregated design with sections for incoming supply, bus voltage transformers and motor starter with PFC
- Busbars in separate compartment with interlocked earth switch and access
- Motor starter and PFC capacitor compartment with interlocked motor feeder earth switch and access
- Sheet steel and angle frame construction
- Engineered as per specific application



Technical Details

Rated voltage	12kV
Rated frequency	50 Hz
Power frequency withstand voltage	28kVrms
Lightning impulse voltage	75kVpeak
Short time current withstand capacity	25kA for 1 sec
Degree of protection for enclosure	IP4X
Design ambient temperature	50°C



Motor control section: Individual motor control sections receive supply from busbars. Motor sections are segregated from busbars by through type bushings. Motor section is provided with:

- Motor protection fuses with fuse fail monitoring
- Vacuum contactor
- Measuring and protection current transformers
- Surge diverters for protection from switching surges
- Feeder earth switch for power cables
- Power factor correction capacitor
- Inrush-current limiting reactors
- Numerical motor protection relay
- Other control and protection apparatus



Quality assurance: Power Economy assures quality of all its product and services. Power Economy business process is certified for ISO:9001-2000

Enclosures: The enclosure is angle frame construction made up of cut and welded steel angles. Covers and doors are made-up of sheet steel and are fabricated using CNC and NC machines. Structure and fabricated components are powder painted for protection against environment.

Enclosure is separated in sections for incoming supply, bus voltage transformers and motor control.

Incomer section: Incomer section receives power through incoming power cables, which are provided with earth switch and voltage indicators. Incomer cable compartment doors have mechanical interlocks for safe access. 3-position Isolator and vacuum circuit breaker controls the incoming supply and also provides metal partition between cable compartment and busbars. Incoming section has measuring and protection current transformers with protection relay and digital multifunction meter.

Bus VT & Main earth switch section: The incomer isolator connects to busbars which runs on top of starter. The busbars are provided with bus voltage transformers having primary fuses for protection. This section is also provided with an earth switch to earth the busbars.



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