SECTION 262823

ENCLOSED CIRCUIT BREAKERS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Molded case enclosed circuit breakers.

B. Insulated case enclosed circuit breakers.

1.2 RELATED SECTIONS

A. Section 26 05 29 - Supporting Devices.

B. Section 26 05 53 - Electrical Identification: Engraved nameplates.

1.3 REFERENCES

A. NECA Standard of Installation (National Electrical Contractors Association).

B. NEMA AB 1 - Molded Case Circuit Breakers.

C. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (International Electrical Testing Association).

D. NFPA 70 - National Electrical Code.

1.4 SUBMITTALS FOR REVIEW

A. Division 01 - Submittals: Procedures for submittals.

B. Product Data: Provide catalog sheets showing ratings, trip units, time current curves, dimensions, and enclosure details.

1.5 SUBMITTALS FOR INFORMATION

A. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by Product testing agency specified under Regulatory Requirements. Include instructions for storage, handling, protection, examination, preparation, and installation of Product.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Square D.

B. General Electric.

C. Cutler-Hammer.

D. Siemens.

2.2 MOLDED CASE CIRCUIT BREAKER

A. Circuit Breaker: NEMA AB 1.

2.3 TRIP UNITS

A. Field-Adjustable Trip Circuit Breaker: Circuit breakers with frame sizes 100 amperes and larger have mechanism for adjusting long time short time instantaneous current pickup current setting for automatic operation.

B. Field-Changeable Ampere Rating Circuit Breaker: Circuit breakers with frame sizes 200 amperes and larger have changeable trip units.

C. Current Limiting Circuit Breaker: Circuit breaker indicated as current limiting have automatically resetting current limiting elements in each pole. Let-through Current and Energy: Less than permitted for same size Class RK-5 fuse.

D. Solid-State Circuit Breaker: Electronic sensing, timing, and tripping circuits for adjustable current settings; instantaneous trip; and adjustable short time trip.

2.4 CURRENT LIMITERS

A. Current Limiter: Designed for application with molded case circuit breaker.

B. Coordinate limiter size with trip rating of circuit breaker to prevent nuisance tripping and to achieve interrupting current rating specified for circuit breaker.

C. Interlocks trip circuit breaker and prevent closing circuit breaker when limiter compartment cover is removed or when one or more limiter is not in place or has operated.

2.5 PRODUCT OPTIONS AND FEATURES

A. Accessories: As scheduled. Conform to NEMA AB 1.

B. Shunt Trip Device: 120 volts, AC.

C. Undervoltage Trip Device: 120 volts, AC.

D. Auxiliary Switch: 120 volts, AC.

E. Alarm Switch: 120 volts, AC.

F. Electrical Operator: 120 volts, AC.

G. Handle Lock: Provisions for padlocking.

H. Grounding Lug: In each enclosure.

I. Products suitable for use as service entrance equipment where so applied.

2.6 ENCLOSURE

A. Enclosure: NEMA AB 1, Type 1.

B. Fabricate enclosure from aluminum.

C. Finish using manufacturer's standard enamel finish, gray color.

PART 3 EXECUTION

3.1 INSTALLATION

A. Install in accordance with NECA "Standard of Installation".

B. Install enclosed circuit breakers plumb. Provide support in accordance with Section 26 05 29.

C. Height: 5 ft. (1500 mm) to operating handle.

D. Locate and install engraved plastic nameplates under the provisions of Section 26 05 53.

3.2 FIELD QUALITY CONTROL

A. Inspect and test in accordance with NETA ATS, except Section 4.

B. Perform inspections and tests listed in NETA ATS, Section 7.6.1.1.

3.3 ADJUSTING

A. Division 01 - Contract Closeout: Adjusting installed work.

B. Adjust trip settings so that circuit breakers coordinate with other overcurrent protective devices in circuit.

C. Adjust trip settings to provide adequate protection from overcurrent and fault currents.

END OF SECTION