K-DON® CIRCUIT BREAKERS

K-DON-600 AND K-DON-1600

200,000 AMPERE INTERRUPTING RATING • 600 AND 1600 CONTINUOUS AMPERES

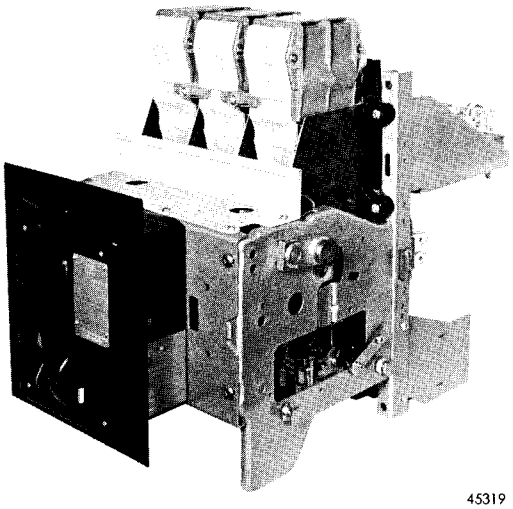
240, 480 AND 600 VOLTS A-C • 2- OR 3-POLE DRAWOUT CONSTRUCTION

SAFE-COORDINATED CURRENT LIMITING FAULT PROTECTION FOR HIGH CAPACITY SYSTEMS

GENERAL

The K-Don circuit breaker is a compact versatile protective device which incorporates all of the features of the K-Line® circuit breaker and the current-limiting characteristics of the Amp-trap† fuse. It is essentially a K-Line circuit breaker with such proven features as expanded range direct acting trip, manual or electrical stored-energy closing, undervoltage trip, shunt trip, auxiliary switches, and other K-Line features. Physically connected in series with the line side at the rear are standard Amp-trap current-limiting fuses.

The circuit breaker performs its normal functions of time delay and instantaneous tripping throughout its entire range of interrupting capacity. At any selected point either below or at the interrupting rating of the circuit breaker the fuse takes over giving protection up to 200,000 amperes. The fuse does not blow below the pre-selected area thus saving nuisance replacements. This system affords vast flexibility in applying pin-pointed protection to any type of electrical apparatus.



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K-DON-600 manually operated

FEATURES

Current-limiting protection for high capacity faults.

Instantaneous tripping for medium capacity faults.

Time-delay tripping for medium and low capacity faults.

Direct-acting trip on high capacity faults.

No single phasing—three-phase opening on all type faults through integral-mounted Anti-Single-Phasing Device.

Direct-acting trip and Anti-Single-Phasing Device require no external tripping power.

Adjustable long-time, short-time, and instantaneous settings.

Easy mounting of current-limiting fuses.

Electrical and Manual stored energy operation.

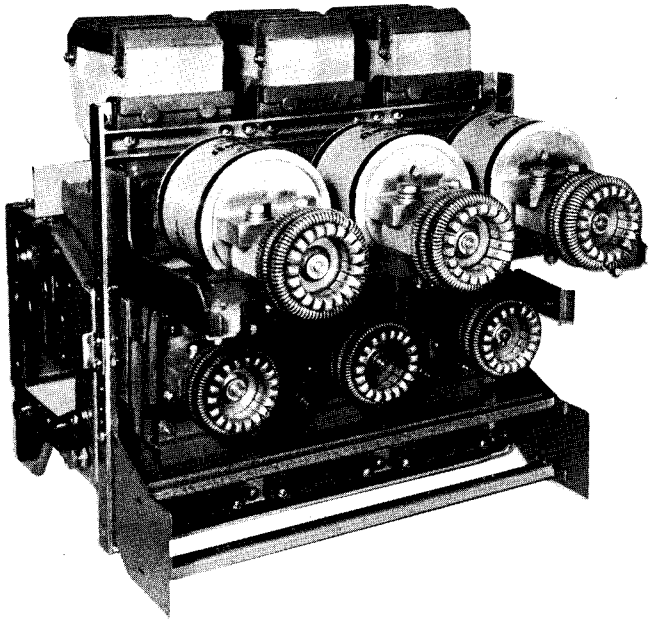
Drawout mounting in Urelite® and One-High enclosures or switchgear assemblies.

Absolutely safe maintenance.

TABLE 1—RATINGS

Circuit Breaker	Frame Size Amperes	A-C Voltage	Maximum Continuous Current Amperes	Maximum Interrupting Rating Rms Amperes Symmetrical	Maximum Interrupting Rating Rms Amperes Asymmetrical	Range of Circuit Breaker Pickup Settings Amperes	Range of Amp-Trap Continuous Rating Amperes
K-Don-600	600	Up to 600	600	200,000	235,000	40–600	300–2000
K-Don-1600	1600	Up to 600	1600	200,000	235,000	120-1600	300–3000

† Reg. TM—The Chase-Shawmut Co.



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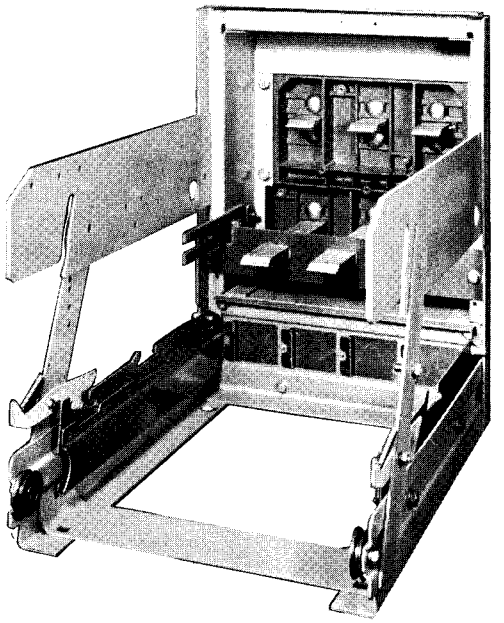
K-DON-1600, rear view, manually operated



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K-DON-600 drawout cradle

AMP-TRAP FUSE MOUNTING

For all K-DON Circuit Breakers the current-limiting Amp-trap fuses are mounted in a horizontal position, and are inaccessible until the breaker is withdrawn from the cradle compartment. In addition, the breaker cannot be withdrawn until it is tripped open. This is a very important safety consideration as it prevents any contact with the fuses until the circuit has been opened and the breaker and fuses isolated from the circuit. Mounting holes are provided so that a wide range of current-limiting fuse sizes can be supplied in accordance with the customer's specific application.

ANTI-SINGLE PHASE DEVICE

The Anti-Single-Phase Device supplied on all 3-pole K-DON Circuit Breakers is integrally mounted and consists of Anti-Single Phasing Coils which are in parallel with the current limiting Amp-trap fuses. Spring-loaded linkage operates the circuit breaker trip bar if any of the coils are energized. There is no need for external electrical tripping power. The circuit breaker remains trip free until all blown Amp-trap fuses are replaced and the device is reset by pushing the target on the circuit breaker's left side sub-panel.

Projection of the Anti-Single-Phase Device target on sub-panel and overcurrent indicator on escutcheon indicates fault current tripping of the K-DON Circuit Breaker.

DRAWOUT CRADLE

A cradle comprises stationary power and control—separable contacts and other drawout mechanisms in a complete jig welded rigid assembly. There is no dependence upon an external frame for any critical alignment.

All K-DON Circuit Breakers and their corresponding cradles can be mounted in a 22½" high compartment thereby allowing four-high construction in a typical 90 inch high board.

Each cradle has provisions for mounting up to three (3) I-T-E Current Transformers which are front accessible with the K-DON element removed from the cradle.

KIRK KEY INTERLOCK

Kirk Key Interlocks have found major use as a safety device to provide safe working conditions, to prevent unauthorized equipment operation and to protect against damage to expensive industrial machinery.

Kirk lock type F(x) ¼E is required for use with all K-DON Circuit Breakers. Key interlock adapters must be supplied on all K-DON breakers and cradles for use with customer furnished Kirk locks.