



Fact Sheet

ERMCO COMPONENTS, INC.

*Dry-well Fuseholders For
Current-limiting Fuses*

The trend toward higher system voltage, increased load density, and larger substations has caused higher fault current potentials on the distribution system and the need to interrupt those higher currents when a fault exists.

Current-limiting fusing provides both a high interrupting current rating and limits the peak value of current and the amount of energy to within acceptable levels for protection of the transformer.

FEATURES

The growth in dead-front pad-mount transformers requires a method of placing dead-front type current-limiting fuses within the transformer. ERMCO Components' dry-well fuseholder design is suited to both single- and three-phase pad-mount applications.

With the addition of the loadbreak function, the fuseholder provides an economical combination current-limiting fuse and loadbreak switch. The design provides the benefit of easy hotstick operability to a single fuse.

IMPROVED DESIGN

Housing - The dry-well housing consists of filament-wound glass tubing with a resin-rich outer surface. This outer surface serves as the barrier against oil permeation through the tubing wall (See Figures 1, 2 and 3).

Dry-well fuseholder location - In padmounted transformer applications, the dry-well fuseholder is mounted on the transformer front plate, below the oil level. Because the current-limiting fuses that these fuse-holders are designed to accept will not function prop-

erly if exposed to transformer oil, the interior of the fuseholder must remain oil tight.

Non-loadbreak fuseholders - Non-loadbreak fuseholders for pad-mounted transformer applications are available at 8.3, 15.2, and 21.1 kV (125 kV BIL), both standard and submersible construction. The 21.1 kV (150 kV BIL) rating is available in standard construction only. The applicable device ratings are listed in Table I.

For those applications where an inter-

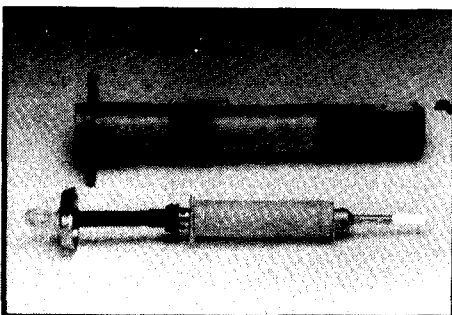


Figure 1
Typical loadbreak standard construction fuse-holder and current-limiting fuse assembly.

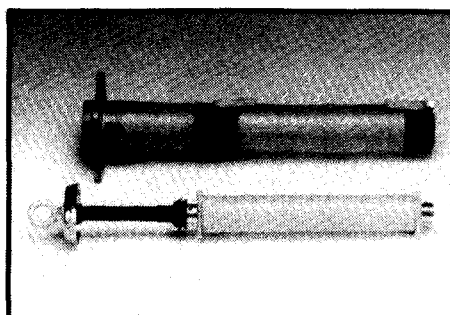


Figure 2
Typical non-loadbreak standard construction fuseholder and current-limiting fuse assembly.

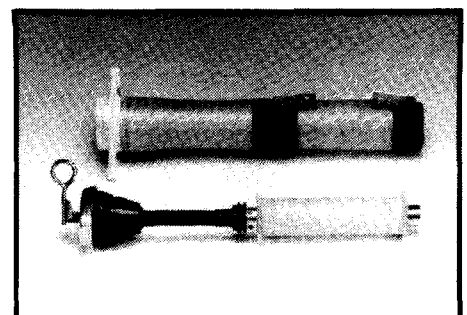


Figure 3
Typical non-loadbreak submersible construction fuseholder and current-limiting fuse assembly.

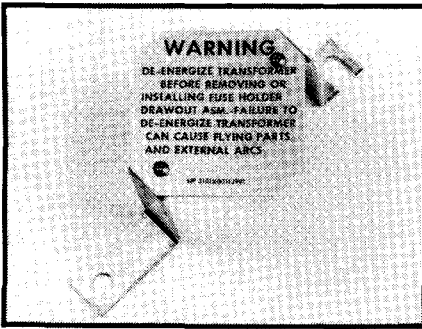


Figure 4
Typical non-loadbreak (8.3, 15.2 or 21.1 kV) fuseholder warning plate.

locked loadbreak switch is not used in conjunction with the non-loadbreak fuseholder, an important feature of the non-loadbreak fuseholder is an integral warning plate to warn against operation while energized, and safety baffle that must be moved to gain access to the fuse (Figure 4). This optional warning baffle assembly is available from ERMCO Components, Inc.

Loadbreak fuseholders - The ERMCO Components loadbreak current-limiting fuseholder functions both as a dry-well holder and as a loadbreak switch. The rod and bore principle, upon which load-break termination operations is based, is the means by which switching is accom-

plished within the fuseholder. Fuse removal is accomplished by a hot-stick.

The material that provides the arc-quenching action is a formulation developed for use in ECI Sure Make terminations. It has superior properties that maximize the number of switching operations while providing excellent thermal stability. Testing resulted in the fuseholder loadbreak ratings listed in Table II.

ECI also has an 8.3 kV three-phase rated loadbreak fuse tube.

A summary of the ECI ratings follows:

Table I Non-Loadbreak - Standard and Submersible

Line to Ground	8.3 kV	15.2 kV	21.1 kV	21.1 kV**
Impulse Withstand	95 kV BIL	125 kV BIL	125 kV BIL	150 kV BIL
Corona Extinction	11 kV	19 kV	26 kV	26 kV
Momentary Current (without fuse)	10,000 Amps*	10,000 Amps*	10,000 Amps*	10,000 Amps*
Continuous Current (without fuse)	160 Amps*	160 Amps*	160 Amps*	160 Amps*
Max Fault Current Interrupting Ability	EQUAL TO FUSE RATING			

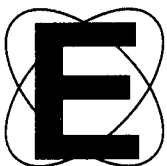
*rms Symmetrical

**Not available in submersible design

Table II Loadbreak

Line to Ground	8.3 kV (1Ø)	8.3/14.4 kV (3Ø)	15.2 kV (1Ø)
Impulse Withstand	95 kV BIL	95 kV BIL	125 kV BIL
Corona Extinction	11 kV	11 kV	19 kV
Momentary Current (without fuse)	10,000 Amps*	10,000 Amps*	10,000 Amps*
Continuous Current (without fuse)	160 Amps*	160 Amps*	160 Amps*
Max Fault Current Interrupting Ability	EQUAL TO FUSE RATING		
Load Make Operations at 200A, 75% Power Factor	20	20	10
Load Break Operations at 200 A, 75% Power Factor	20	20	10
Loadbreak Current	200	150	200

*rms Symmetrical



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GET-6118C

ECI DRYWELL FUSEHOLDERS for DISTRIBUTION CURRENT-LIMITING FUSES

CATALOG NUMBER and FEATURE TABLE

NON-LOADBREAK

kV	BIL	Load Make/Break Rating	Catalog Number	Outline Drawing Number
NON-LOADBREAK (Aluminum Flange Canister Assembly) (Drawout Rod Assembly with Plated Steel Cap)				
8.3	95 kV		7559ZC8599	B2571K229 Sht 1 B2571K229 Sht 2 Tube: 2571K223G03
15.2	125 kV		7559ZC8499	B2571K229 Sht 1 B2571K229 Sht 2 Tube: 2571K223G02
21.1	125 kV		7559ZC8399	B2571K229 Sht 1 B2571K229 Sht 2 Tube: 2571K223G01
NON-LOADBREAK (Plastic Flange Canister Assembly) (Drawout Rod Assembly with Plated Steel Cap)				
21.1	150 kV		7559ZC2599	B2571K189 Sht 3 Tube: 2571K187G02

NOTE: Aluminum flange canister units listed above replaced the plastic flange canister units effective approximately April 1, 1988. Aluminum flange units are direct replacements for plastic flange units.

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CATALOG NUMBER and FEATURE TABLE

LOADBREAK

kV	BIL	Load Make/Break Rating	Catalog Number	Outline Drawing Number
LOADBREAK (Aluminum Flange Canister Assembly) (Drawout Rod Assembly with Plated Steel Cap)				
8.3	95 kV	Single-phase	7559ZB8299	B2571K230 Sht 1 B2571K230 Sht 2 Tube: 2571K222G02
8.3	95 kV	Three-phase	7559ZB8499	B2571K230 Sht 1 B2571K230 Sht 2 Tube: 2571K222G02
8.3	95 kV	Three-phase (special)	7559ZB8799	B2571K230 Sht 1 B2571K230 Sht 2 Tube: 2571K222G02
15.2	125 kV	Single-phase	7559ZB8399	B2571K230 Sht 1 B2571K230 Sht 2 Tube: 2571K222G01
LOADBREAK (Aluminum Flange Canister Assembly) (Drawout Rod Assembly with Plated Steel Cap)				
8.3	95 kV	For parallel application	7559ZB8899	B2571K174 Sht 1 B2571K174 Sht 2 Tube: 2571K224G01

NOTE: Aluminum flange canister units listed above replaced the plastic flange canister units effective approximately April 1, 1988. Aluminum flange units are direct replacements for plastic flange units.