



Molded Case Circuit Breaker

TYPE TKM FRAME, 800 AMPERES MAXIMUM RATING

RATINGS

Poles	Amperes	Volts
2	125-600	600 a-c, 250 d-c
	700-800	600 a-c
3	125-800	600 a-c

CIRCUIT BREAKERS

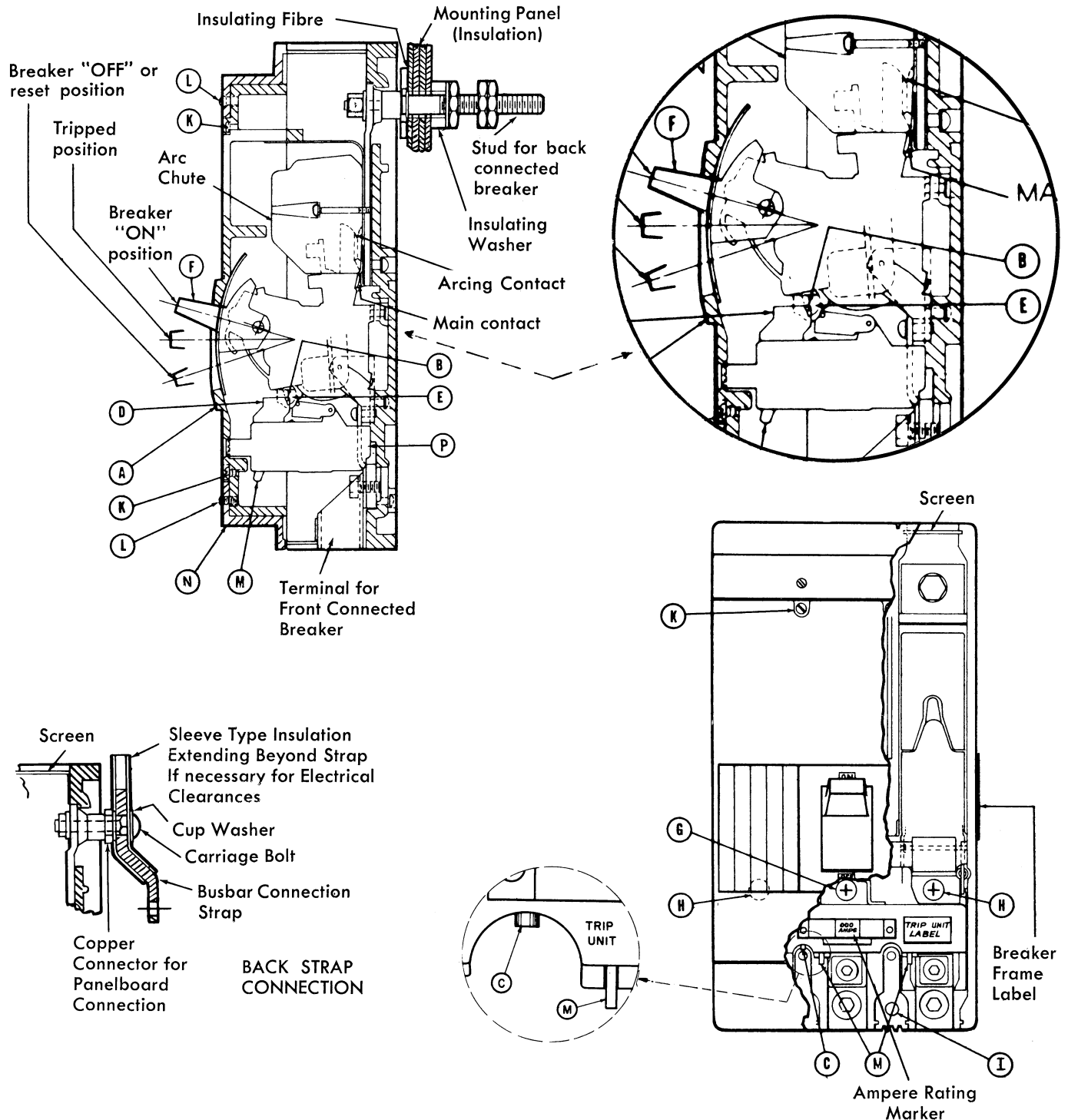
This circuit breaker is designed to open an electrical circuit under normal or abnormal conditions without injury to itself. The complete breaker consists of a rated trip unit, and lugs or fittings of a corresponding rating assembled in a frame.

The current rating of this breaker or its trip unit is based on installation and opera-

tion in open air at 25 C. Operation in enclosures, or at other ambient temperatures will affect the continuous current capacity.

TRIP UNITS

Thermal-magnetic trip units for 25 C ambient application are listed by the Underwriters' Laboratories, Inc. Special trip units for higher ambients or magnetic trip only are available, but not U.L. listed.



Three-pole trip units are used in both two- and three-pole frames. Trip units having both thermal and instantaneous magnetic trip elements are available in these ampere ratings: 125, 150, 175, 200, 225, 250, 300, 350, 400, 500, 600, 700 and 800.

The thermal trip gives time delay protection on overload in an inverse ratio; that is, the greater the overload, the quicker the breaker will trip. This thermal trip element is sealed at the factory to prevent tampering with the calibration.

The magnetic trip will operate instantaneously on high overloads or short circuits. The unit is adjustable and can be set to trip at levels from approximately three to ten times the current value specified on the rating tab. Operating tolerances on A.C. are within plus or minus 10% of the trip setting when the adjusting levers "M" (see Fig. 1) are set at "HIGH", and within plus or minus 25% when set at "LOW". Access to levers "M" is obtained by removing lug cover "N". On direct current the tripping values are approximately 40% higher than on A.C. The 700- and 800-ampere trips have no d-c rating.

INSTALLATION (See Fig. 1)

Mounting and Wiring

Figure 1 indicates three ways of making main terminal connections to the TKM circuit breaker. Terminal lugs, shown at lower end of breaker, are used for front connections. Two ways of making back connections are illustrated, both permitting removal of the breaker from the front: with studs, used in switchboard mounting, or with back strap connectors and busbar connection straps, used in panelboard mounting.

Access to breaker mounting holes "I" and to lugs is made by loosening captive screws "L" and removing the lug covers.

Installation of Trip Unit into Frame For 3-Pole Frame

(1) Remove screws "K" and take off breaker cover "A". (2) Remove cotter pin "B" from breaker frame. (3) Put trip unit mounting screws, lockwashers and flat washers into trip unit conductor holes at "G" and "H". Make sure lockwashers are between screw heads and flat washers. (4) Put trip unit into breaker frame; while doing this, push and hold in trip button "C" and engage hooks "D" into slots "E". (5) Release trip button "C". (6) Push breaker handle "F" to "ON" position and hold there. This will move shutter on handle "F" and permits access to screw "G". Tighten screw "G". (7) Release handle "F" and tighten screws "H". (8) Reset and reclose breaker by pushing handle to extreme "OFF" position, then "ON". Trip by pushing button "C", then reset and reclose to check for correct assembly and operation.

Be sure screws "G" and "H" are tight. (9) Replace cover "A". (10) Remove lug covers "N" to connect lugs, bus straps or screws "L".

High lug covers for triple cable lugs are supplied with 700 and 800 ampere trip

units and should be used instead of the low lug covers "N" usually supplied on breaker frames only, or on complete breakers rated 600 amperes and below.

Hex socket nuts are supplied with 700 and 800 ampere trip units. They are used when assembling studs or panelboard strap connectors to the trip unit end of the circuit breaker since clearances are restricted by 700 and 800 ampere trip unit construction.

When breaker is back connected to studs or busbars, insert screens into grooves provided in base. Make certain all connections are tight otherwise heating may cause thermal tripping at less than rated load.

For 2-Pole Frame: Follow above instructions except do not use screw "G" or any screw in center pole.

Removal of Trip Unit

(1) Push breaker handle "OFF" and be sure circuit to breaker is de-energized. (2) Remove cover "A". (3) Trip mechanism by pushing button "C". (4) Remove load side lugs, bus straps and nuts or back-connecting studs. (5) Loosen screws "H" and "G". (6) Remove trip unit by lifting it out while holding in trip button "C" and disengaging hooks "D" from slots "E".

FRAMES ONLY:

2-Pole.....Catalog No. TKM826F000

3-Pole.....Catalog No. TKM836F000

COMPLETE BREAKERS AND TRIP UNITS

Complete Breaker Catalog No.	No. of Poles	Thermal-magnetic Trip Unit Catalog No.	Ampere Rating	Magnetic Trip Range*	
				High	Low
TKM826125	2	TKM836T125	125	1250	450
TKM826150	2	TKM836T150	150	1500	500
TKM826175	2	TKM836T175	175	1750	550
TKM826200	2	TKM836T200	200	2000	600
TKM826225	2	TKM836T225	225	2250	650
TKM826250	2	TKM836T250	250	2500	700
TKM826300	2	TKM836T300	300	3000	800
TKM826350	2	TKM836T350	350	3500	1000
TKM826400	2	TKM836T400	400	4000	1100
TKM826500	2	TKM836T500	500	5000	1300
TKM826600	2	TKM836T600	600	6000	1500
TKM826700	2	TKM836T700	700	7000	3000
TKM826800	2	TKM836T800	800	8000	3300
TKM836125	3	TKM836T125	125	1250	450
TKM836150	3	TKM836T150	150	1500	500
TKM836175	3	TKM836T175	175	1750	550
TKM836200	3	TKM836T200	200	2000	600
TKM836225	3	TKM836T225	225	2250	650
TKM836250	3	TKM836T250	250	2500	700
TKM836300	3	TKM836T300	300	3000	800
TKM836350	3	TKM836T350	350	3500	1000
TKM836400	3	TKM836T400	400	4000	1100
TKM836500	3	TKM836T500	500	5000	1300
TKM836600	3	TKM836T600	600	6000	1500
TKM836700	3	TKM836T700	700	7000	3000
TKM836800	3	TKM836T800	800	8000	3300

* Trip values given are for A.C. Trip values for D.C. (rating 125 through 600 amperes) are approximately 40% higher.

Catalog Information

INSPECTION AND MAINTENANCE FOR MOLDED CASE CIRCUIT BREAKERS

Field replacement of parts other than trip units is not recommended because UL listing is based on factory assembly, adjustment and calibration, and special tools often required for proper adjustment and calibration are available only at the factory. A longer life of satisfactory operation will be obtained if the following inspection and preventive maintenance instructions are followed after first de-energizing the circuit:

1. Inspect for tight terminal connections to insure a satisfactory connection and prevent heating.
2. Occasionally operate the breaker manually to keep the contacts clean.
3. Keep breaker clean and free of dust, grit, etc. Remove breaker cover and blow dust out, first de-energizing the circuit.
4. While the breaker cover is off, trip, reset and reclose the breaker once or twice using the trip button "C", thus checking the operation of the tripping and relatching mechanism.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

CIRCUIT PROTECTIVE DEVICES DEPARTMENT

GENERAL ELECTRIC

PLAINVILLE, CONNECTICUT