



MicroVersaTrip Plus™ and MicroVersaTrip PM™ Rating Plugs

Power Break® and AKR Circuit Breakers
MicroVersaTrip Plus & PM Conversion Kits

Function

MicroVersaTrip Plus™ and MicroVersaTrip PM™ Trip Units are designed with UL-listed interchangeable Rating Plugs. These Rating Plugs change the per-unit (1X) continuous current rating of the breaker. A circuit breaker frame equipped with a suitable Rating Plug has a long-time trip value equal to the ampere rating marked on the Rating Plug.

For example, a breaker frame with a 1600 A sensor and an 800 A Rating Plug has an 800 A continuous current (long-time) rating.

Several Rating Plugs are available for each sensor rating and each Rating Plug is keyed for a particular sensor rating.

The available Rating Plugs for the AKR and Power Break® families are listed in Table 1.

Front Label

The front label, shown in Figure 1, is visible when the Rating Plug is installed. The items listed are:

- Sensor Rating (S) The ampere rating of the corresponding breaker frame.
- Rating Plug Amps (X) The Rating Plug continuous current in amperes.
- Test The test-jack receptacle is used with Test Kit catalog number TVRMS2 for overcurrent and ground-fault functional testing.
- Catalog Number Follows the format TRppBqqqq, where pp refers to the sensor rating (S) and qqqq refers to the plug rating (X).

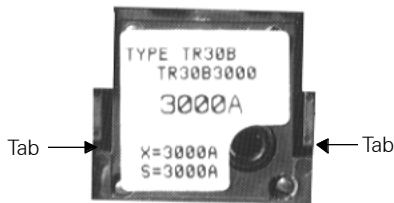


Figure 1. Front of Rating Plug, showing label.

UL Label

The UL label is mounted on the side of the Rating Plug and is not visible when the Rating Plug is installed. The label lists the circuit breaker frames that will accept that Rating Plug.

Installation

Before installing a Rating Plug into a MicroVersaTrip Plus or PM Trip Unit, inspect the plug for damage, then follow these steps:

1. Verify that the Rating Plug catalog number matches the desired continuous current rating (X) and the sensor rating (S) on the breaker frame.
2. Hold the Rating Plug between the thumb and forefinger, then push it into the Trip Unit. Proper engagement is verified by a click.

CAUTION: Do not attempt to push the Rating Plug into the Trip Unit if there is resistance. This may indicate the wrong Rating Plug for the sensor rating. Stop immediately and verify that the breaker sensor rating (S) and the Rating Plug nameplate “S=” value are the same.

Removal

The Rating Plug is seated firmly in the Trip Unit. As illustrated in Figure 1, there are tabs at the sides of the Rating Plug for removal. A Rating Plug Removal Tool, catalog number TRTOOL, also known as an integrated circuit (DIP) extractor, is required to remove the Rating Plug. Grasp the tabs of the Rating Plug with the tool, as illustrated in Figure 2. Be careful to hold the tabs and not the front cover, as the Rating Plug could be damaged otherwise. Gently pry the Rating Plug out by pulling away from the Trip Unit. A left-right wiggling motion assists the removal. Insure that the tabs are held securely until the Rating Plug is completely removed.

NOTE: Protection to the breaker is maintained at only 25% of the sensor rating when the Rating Plug is removed. If the breaker is carrying more than 25% of the sensor load rating, the breaker will trip after the time-delay setting.

Catalog Number	Sensor Rating, Amps	Plug Rating	Breaker Frames
TR1B60 TR1B80 TR1B100 TR1B125 TR1B150	150	60 80 100 125 150	AKR30 AKR30H Conversion Kits
TR2B100 TR2B150 TR2B200	200	100 150 200	SSD, SSF, SHD, SHF TP82, THP82 TC82, THC82
TR225B100 TR225B150 TR225B225	225	100 150 225	Conversion Kits
TR4B150 TR4B200 TR4B225 TR4B250 TR4B300 TR4B400	400	150 200 225 250 300 400	SSD, SSF, SHD, SHF AKR30, AKR30H TP84, THP84 TC84, THC84 Conversion Kits
TR6B300 TR6B400 TR6B450 TR6B500 TR6B600	600	300 400 450 500 600	Conversion Kits
TR8B300 TR8B400 TR8B450 TR8B500 TR8B600 TR8B700 TR8B800	800	300 400 450 500 600 700 800	SSD, SSF, SHD, SHF TP88, THP88 TC88, THC88 AKR30, AKR30H AKR50S, AKR50H
TR10B400 TR10B600 TR10B800 TR10B1000	1000	400 600 800 1000	SSD, SSF, SHD, SHF TC1610, THC1610 TP1610, THP1610 TC2510, THC2510 TP2510, THP2510
TR16B600 TR16B800 TR16B1000 TR16B1100 TR16B1200 TR16B1600	1600	600 800 1000 1100 1200 1600	SSD, SSF, SHD, SHF TC1610, THC1610 AKR50H TP1616, THP1616 Conversion Kits
TR20B750 TR20B800 TR20B1000 TR20B1200 TR20B1500 TR20B1600 TR20B2000	2000	750 800 1000 1200 1500 1600 2000	SSD, SSF, SHD, SHF TC2020, THC2020 TC2520, THC2520 TP2020, THP2020 TP2520, THP2520 AKRT50H Conversion Kits

Catalog Number	Sensor Rating, Amps	Plug Rating	Breaker Frames
TR25B1600 TR25B2000 TR25B2500	2500	1600 2000 2500	SSD, SSF, SFB SHD, SHF, SHB TC2525, THC2525 TP2525, THP2525
TR30B1200 ² TR30B1600 ² TR30B2000 TR30B2500 TR30B3000	3000	1200 1600 2000 2500 3000	SSD, SSF, SFB SHD, SHF, SHB TC3030, THC3030 TP3030, THP3030 Conversion Kits
TR32B1200 TR32B1600 TR32B2400 TR32B3200	3200	1200 1600 2400 3200	AKR75, AKR75H Conversion Kits
TR40B1600 TR40B2000 TR40B2500 TR40B3000 TR40B3600 ¹ TR40B4000	4000	1600 2000 2500 3000 3600 4000	SSD, SSF, SHD, SHF TC4040, THC4040 TP4040, THP4040 AKR100 Conversion Kits
TR50B3200 TR50B4000 TR50B5000	5000	3200 4000 5000	AKR125
TRK4B3000 TRK4B3200 TRK4B4000	4000	3000 3200 4000	ITE K4000 Conversion Kits

¹ Not for use with Type AKR breakers.

² Conversion kits only.

Table 1. Rating plug catalog numbers.



Figure 2. Rating Plug removal.

These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to your local GE ED&C Sales Office.



GE Industrial Systems

General Electric Company
41 Woodford Ave., Plainville, CT 06062