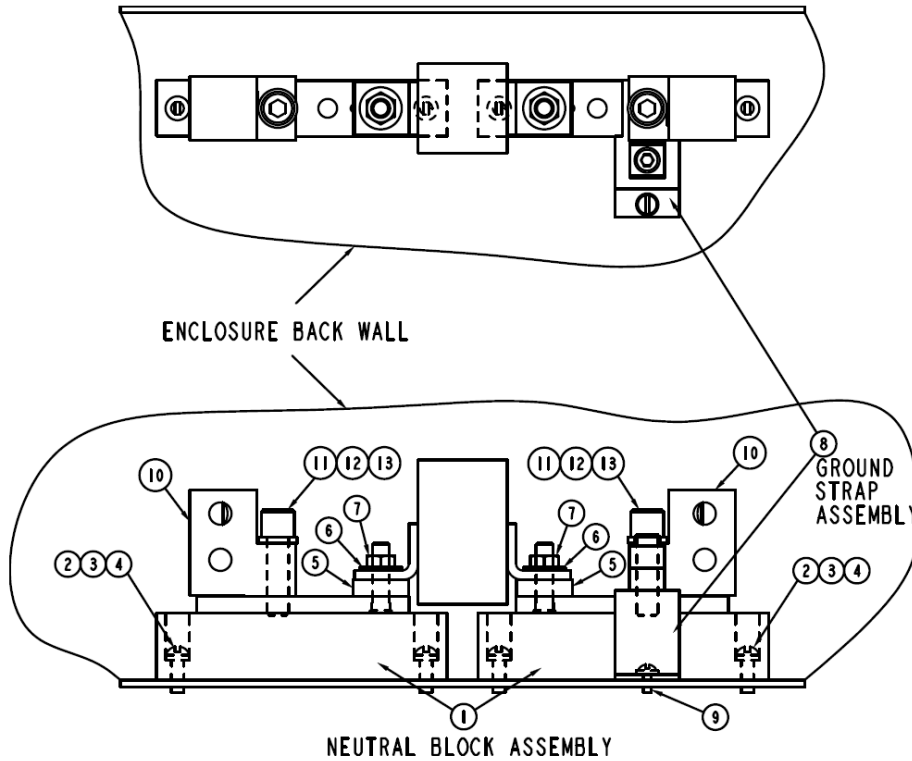




GEH4646 INSTALLATION INSTRUCTIONS

Molded Case Circuit Breaker Enclosures


ABB Enclosure Neutral and Ground Fault Current Transformer
Catalog Nos.: TNIA-400GGF, TNIA-600GGF



Application

For use with Record plus Circuit Breaker Enclosures type FG600*. This kit is for installing the enclosure neutral and ground fault current transformer required for the circuit breaker ground fault protection feature.

NOTE: Ground Fault Current Transformer is purchased separately.



WARNING: Danger of electrical shock or injury. Turn OFF power ahead of the enclosure working inside the equipment or removing any component. Equipment is to be installed and maintained by properly trained and qualified personnel only.

Kit Contents

Item No.	Description	Qty	Step
1	Neutral Block Assembly	2	2
2	#12-24 x 3/4" Screw	4	2
3	#12 Flat Washer	5	2
4	#12 Lock Washer	5	2
5	Neutral Spacer	2	3
6	3/8" Belleville Washer	2	3
7	3/8-16 Nut	2	3
8	Ground Strap Assembly	1	4
9	#12-24 x 3/8" Screw	1	4
10	Lugs	2	5
11	1/2-13 x 1 3/4" Screw	2	5
12	1/2" Belleville Washer	2	5
13	1/2" Lock Washer	2	5

Installation

- Confirm the contents of the kit:** The kit contains parts to make the neutral connection for circuit breaker enclosures with ground fault protection. In the following instructions and figures, the numbers in brackets refer to the item numbers shown in the table.
- Locate the neutral mounting holes in the back of the enclosure to the side of the breaker:** Place the two identical neutral block assemblies (1) so that the side with the protruding studs face each other and mount to the enclosure back wall with the #12-24 x 3/4" screws (2), #12 flat washers (3), and #12 lock washers (4). Torque to 30-35 in-lbs.
- Assemble the ground fault current transformer:** Place the two neutral spacers (5) over the studs in the neutral block assemblies (1). Position the ground fault current transformer over the studs on top of the spacers.

IMPORTANT: Be sure the CT is mounted in the correct orientation. Refer to the current transformer for the line and load side markings. Secure the CT in place with 3/8" Belleville washer (6) and 3/8-16 nuts (7). Torque to 250-300 in-lbs.

For Service Equipment Applications:

Proceed to Step 4.

For Non-Service Equipment Applications:

Skip step 4 and proceed to Step 5.

- Install ground strap assembly:** Position ground strap assembly (8) so that the 1/2" hole on one end aligns with the hole where the neutral lug will be mounted and the bottom of the strap rests against the back of the enclosure. Attach the ground strap assembly to the enclosure with one #12-24 x 3/8" screw (9), a #12 flat washer (3), and a #12 lock washer (4). Torque to 20 in-lbs.



CAUTION: Bond neutral only on the line side of the ground fault current transformer. If neutral becomes grounded on the load side, partial or complete desensitization of ground fault detection circuitry will result.

- Install neutral lugs:** Pre-wire two lugs (10) and position over neutral block assemblies (1) so wire faces away from the ground fault current transformer. Align the 1/2" lug hole and anti-turn feature with the mating holes on the neutral block. Secure in place with 1/2"-13 x 1 3/4" screw (11), 1/2" Belleville washer (12), and 1/2" lock washer (13). Torque to 275 in-lbs.
- Wire ground fault current transformer** to the molded case circuit breaker per the CT and breaker instructions. Be careful to keep control wires away from moving mechanism parts. Accidental shorting or grounding of control wires may cause breaker to trip.

Device Description	Amp Rating	Ground fault Current Transformer Cat. No	Connector wire size
TNIA400GGF	250	FGGS0250	(2) 1/0-250 MCM CU/AL
	400	FGGS0400	(1) 4-600 MCM CU/AL
TNIA600GGF	600	FGGS0600	(2) 2/0-500 MCM CU/AL

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 the ABB Company.