

# OBC AF/GF duplex receptacle

|                 |              |
|-----------------|--------------|
| Project Name:   | Prepared By: |
| Project Number: | Date:        |
| Catalog Number: | Type:        |

## Description

2-pole, 3-wire grounding  
 15A, 125V/AC  
 20A, 125V/AC



5-15R



5-20R



TRAFGF15W

## Design features

- Provides both arc fault protection per UL1699A and ground fault protection per UL943 in one convenient device
- Protects from both series and parallel arcs downstream from the Outlet Branch Circuit (OBC) AF/GF receptacle
- OBC AF/GF receptacles also protect from upstream series arcs
- Trip indicators make it easy to diagnose arc and ground faults
- Device self-tests periodically to ensure proper function of both the ground fault and arc fault protection elements
- Meets and exceeds 10ka short circuit testing and Underwriters Laboratories (UL) UL943 safety standards
- Ground termination with backwire clamp provides secure wiring and reduces installation time
- Automatic grounding system eliminates the need for bonding jumper in grounded metal enclosure; provides redundant measure of ground continuity when jumper is used
- Tapered backwire openings handle multiple wire sizes and types for applications up to #10 AWG solid or stranded wire
- When downstream receptacles are wired from load side, a 20A feed-through rating offers full protection
- Lock-out functionality prevents miswired line-load connections and GFCI/AFCI circuitry damage
- Visual indicator light provides quick visual reference of a tripped or "end of life" condition
- Tamper resistant (TR) shutters comply with 2017 and 2020 NEC Article 406.12
- Black tamper resistant shutters create seamless look
- Terminal screws backed out and ready to wire
- Matching standard size thermoplastic wallplate included

**Table 1. Commercial grade AF/GF duplex receptacles**

| Catalog no.                          | Description   | Rating |      |       | Color suffix           |
|--------------------------------------|---|--------|------|-------|------------------------|
|                                      |   | A      | V/AC | NEMA  |                        |
| <input type="checkbox"/> TRAFGF15___ | Duplex self test AF/GF with standard-size wallplate, back & side wire | 15     | 125  | 5-15R | A, B, BK, GY, LA, V, W |
| <input type="checkbox"/> TRAFGF20___ | Duplex self test AF/GF with standard-size wallplate, back & side wire | 20     | 125  | 5-20R | A, B, BK, GY, LA, V, W |



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## Applications

AF/GF receptacles are designed with the safety of the user in mind. Eaton's AF/GF receptacles protect against both unexpected paths to ground and unseen arc faults that can result in electrical fires. The NEC requires GFCI or AFCI protection on certain circuits in residential, commercial, and industrial – in some cases both AFCI and GFCI protection are required on the same circuit. These receptacles are UL Listed and fully compliant with all of the latest UL943 Class A GFCI and UL1699A requirements. Eaton's AF/GF receptacles include tamper resistant shutters to provide compliance with the 2017 and 2020 NEC Article 406.12 that states that all receptacles installed in dwelling units must be tamper resistant. Additionally, these AF/GF receptacles incorporate lock-out functionality to protect against mis-wired line-load connections and damage to the AFCI/GFCI circuitry.

**Table 2. Specifications**

|                                      |   |
|--------------------------------------|---|
| <b>Catalog no.</b>                   | <b>TRAFGF15, TRAFGF20</b>   |
| <b>Device type</b>                   | <b>OBC AFCI/GFCI duplex receptacle</b>  |
| <b>Wiring type</b>                   | Back & side wire  |
| <b>Testing &amp; code compliance</b> | <ul style="list-style-type: none"> <li>• cULus Listed to UL 498 and UL 943, file no. E482200</li> <li>• Meets all UL 943 (GFCI), UL 498 (receptacles), UL1699A and applicable CSA requirements</li> <li>• NOM certified</li> </ul>  |
| <b>Environmental specifications</b>  | <b>Flammability:</b> Meets UL 94 requirements; V2 rated<br><b>Temperature rating:</b> -35°C to 66°C (-31°F to 150.8°F)  |
| <b>Electrical specifications</b>     | <b>Dielectric voltage:</b> Withstands 2000V per UL 498<br><b>Current interrupting:</b> Yes, at full-rated current<br><b>Temperature rise:</b> Max. 30°C (86°F) after 100 cycles of overload @ 150% of rated current (DC)<br><b>Trip time:</b> 0.025 seconds (Class A)<br><b>Frequency:</b> 60 Hz; Voltage: 125V; Amperage: 15A/20A 20A feed-through<br><b>Short circuit testing:</b> Meets and exceeds 10 kA<br><b>Maximum interrupting capacity:</b> 20 Amps |
| <b>Mechanical specifications</b>     | <b>Terminal accommodation:</b> #14 - 10 AWG<br><b>Voltage ratings:</b> Permanently marked on device   |

**Table 3. Materials**

|                                     |  |
|-------------------------------------|--|
| <b>Catalog no.</b>                  | <b>TRAFGF15, TRAFGF20</b>  |
| <b>Top housing</b>                  | Thermoplastic, polycarbonate   |
| <b>Bottom housing</b>               | Thermoplastic, PVC   |
| <b>Strap</b>                        | 0.047" thick steel, zinc-plated  |
| <b>Line contacts</b>                | 0.030" thick brass   |
| <b>Ground contact</b>               | Brass  |
| <b>Terminal &amp; ground screws</b> | #8-32 steel, brass-plated;<br>neutral screw nickel-plated,<br>ground screw green |
| <b>Terminal clamps</b>              | 0.070" thick steel   |

**Table 4. Color ordering information**

For ordering devices, include Cat. no. followed by the color code: A (Almond), B (Brown), BK (Black), GY (Gray), LA (Light Almond), V (Ivory), W (White)

|          |          |           |           |            |          |          |
|----------|----------|-----------|-----------|------------|----------|----------|
| <b>A</b> | <b>B</b> | <b>BK</b> | <b>GY</b> | <b>LA</b>  | <b>V</b> | <b>W</b> |
| Almond   | Brown    | Black     | Gray      | Lt. Almond | Ivory    | White    |

**Table 5. AF/GF status indicator**

| Test indicator Red LED | Test indicator Amber LED | Reset button status | Diagnosis  | Action  |
|------------------------|--------------------------|---------------------|--|---|
| OFF                    | OFF                      | In                  | "Device is functioning properly OR branch circuit may have no power"                     | Manually press the TEST button to trip the device. <b>Amber</b> light should come ON <ul style="list-style-type: none"> <li>• If <b>Amber</b> light does not come ON, check if there is power to the branch</li> <li>• If <b>Amber</b> light does come ON, manually press the RESET button to restore power the the device</li> <li>• If AF/GF receptacle does NOT reset, replace AF/GF receptacle</li> <li>• If AF/GF receptacle does reset, device is functioning properly</li> </ul> |
| OFF                    | <b>ON</b>                | Out                 | Device is in tripped state (either from manually pressing TEST button or from GFCI trip) | Manually press the RESET button to restore power to the device <ul style="list-style-type: none"> <li>• If AF/GF receptacle does not reset, replace the AF/GF receptacle</li> </ul>   |
| OFF                    | <b>2 Blinks</b>          | Out                 | GENERAL SERIES ARC   | Manually press the RESET button to restore power to the device <ul style="list-style-type: none"> <li>• If AF/GF receptacle continues to trip, contact an electrician to locate and repair the low current arc fault</li> </ul>   |
| OFF                    | <b>3 Blinks</b>          | Out                 | PARALLEL ARC   | Manually press the RESET button to restore power to the device <ul style="list-style-type: none"> <li>• If AF/GF receptacle continues to trip, contact an electrician to locate and repair the parallel arc fault</li> </ul>  |
| OFF                    | <b>4 Blinks</b>          | Out                 | OVERVOLTAGE  | Manually press the RESET button to restore power to the device <ul style="list-style-type: none"> <li>• If AF/GF receptacle continues to trip, contact an electrician to locate and repair the overvoltage condition</li> </ul>   |
| OFF                    | <b>5 Blinks</b>          | Out                 | AFCI self-test failure   | Manually press the RESET button to restore power to the device <ul style="list-style-type: none"> <li>• If it does not reset and/or the blinking continues, replace the AF/GF receptacle</li> </ul>   |
| <b>Blinking</b>        | ON or OFF                | In or Out           | GFCI self-test failure   | Manually press the RESET button to restore power to the device <ul style="list-style-type: none"> <li>• If it does not reset and/or the blinking continues, replace the AF/GF receptacle</li> </ul>   |

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**Product dimensions**

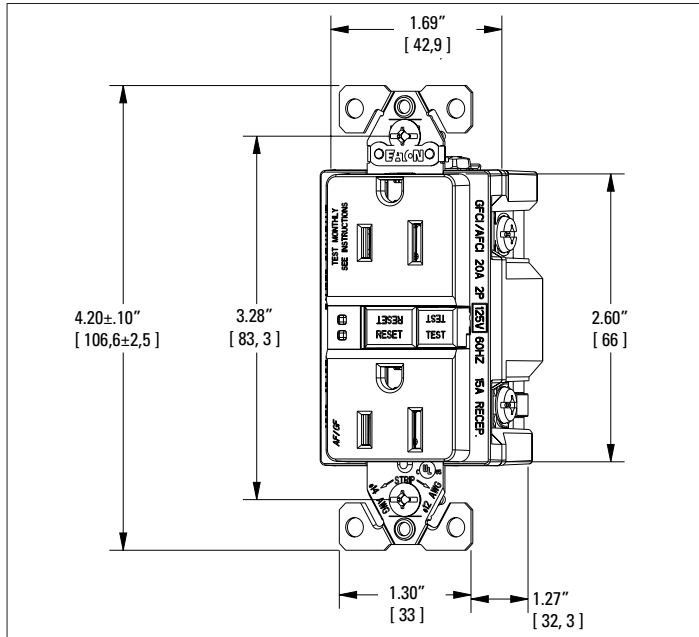


Figure 1. OBC TRAFGF 15A Line art with dimensions

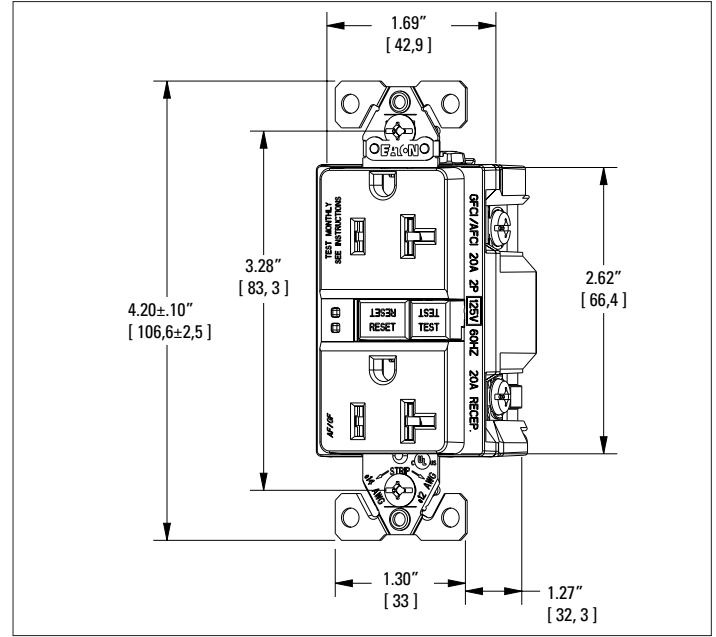




Figure 2. OBC TRAFGF 20A Line art with dimensions

**Certifications & compliances**

| Catalog no. |  |  |
|-------------|---|---|
| TRAFGF15    | •   | •   |
| TRAFGA20    | •   | •   |

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