

# WGBU

Transformer with built-in earth leakage relay



## Description

The **WGBU** Series is a compact earth leakage protection system. It is composed of a toroidal transformer with a built-in earth leakage relay.

- Multi-range electronic relay
  - The sensitivity can be adjusted to 0.03 ... 3 A
  - Trigger delay of 0.02 ... 1 ws, adjustable
- Type A relay with high frequency current filtering and high immunity. Monitoring in true root mean square (TRMS).
- LED indicators:
  - Grid connection LED
  - Pre-alarm and trigger LED: 1 flash every 2 s, leak between 25 and 50 % of the sensitivity selected; 1 flash every 1 s, leak between 50 and 75 % of the sensitivity selected; 1 flash every 0.5 s, leak exceeding 75 % of the sensitivity selected; permanently lit, trigger of the earth leakage protection.

## Application

The **WGBU** series offers a reliable earth leakage protection, with simpler cabling and savings in the assembly time. In addition, installation is very simple, thanks to its compact dimensions.

## Features

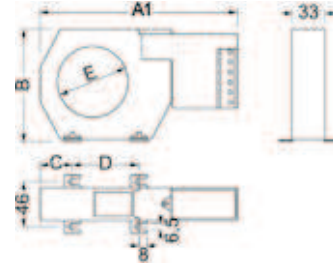
| Earth leakage                                | Protection                                                                                                                   |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Class                                        | A superimmunized                                                                                                             |
| Measurement                                  | True root mean square (TRMS)                                                                                                 |
| Sensitivity                                  | 0.03 ... 3 A                                                                                                                 |
| Delay                                        | 0.02 ... 1 s                                                                                                                 |
| Earth leakage transformer                    | Built-in transformers of the <b>WG</b>                                                                                       |
| Test and Reset                               | With built-in buttons, T & R                                                                                                 |
| Associated circuit breaker                   | Contact or Circuit breaker + trigger coil                                                                                    |
| LED indicator                                | <ul style="list-style-type: none"> <li>• Power supply voltage</li> <li>• Trip due to leakage</li> <li>• Pre-alarm</li> </ul> |
| Remote Control (inputs)                      | External Test Option                                                                                                         |
| Circuit breaker control                      | Through an NO/NC switched relay, depending on the connection with the circuit breaker                                        |
| Features                                     |                                                                                                                              |
| Auxiliary power supply                       | 230 Vac ( $\pm 20\%$ ) 50 / 60 Hz                                                                                            |
| Output contacts                              | 250 Vac, 6 A                                                                                                                 |
| Operating temperature                        | -10 ... +50 °C                                                                                                               |
| Construction features                        |                                                                                                                              |
| Fixing                                       | DIN Panel / Rail                                                                                                             |
| Dimensions                                   | Depending on the type                                                                                                        |
| Weight                                       | Depending on the type                                                                                                        |
| Degree of protection                         | IP 20 Terminals, IP 41 back panel                                                                                            |
| Standards                                    |                                                                                                                              |
| IEC 60947-2, IEC 60755, IEC 62020, IEC 61008 |                                                                                                                              |

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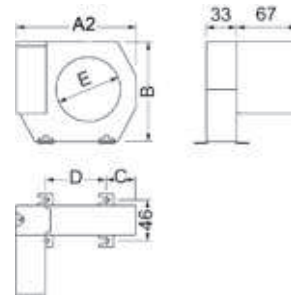
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## Dimensions

WGBU



WGBU-90



| Type                             | A1  | A2  | B   | C    | D    | E   |
|----------------------------------|-----|-----|-----|------|------|-----|
| WGBU-35 (A1) / WGBU-90-35 (A2)   | 166 | 100 | 79  | 26   | 48,5 | 35  |
| WGBU-70 (A1) / WGBU-90-70 (A2)   | 196 | 130 | 110 | 332  | 66   | 70  |
| WGBU-105 (A1) / WGBU-90-105 (A2) | 236 | 170 | 146 | 38   | 94   | 105 |
| WGBU-140 (A1) / WGBU-90-140 (A2) | 286 | 220 | 196 | 48,5 | 123  | 140 |
| WGBU-210 (A1) / WGBU-90-210 (A2) | 365 | 299 | 284 | 69   | 161  | 210 |

## References

| Weight (g) | Useful diameter (mm) | $I_n$ (A)  | Delay (s)  | Type        | Code   |
|------------|----------------------|------------|------------|-------------|--------|
| 380        | 35 Ø                 | 0,03 ... 3 | 0,02 ... 1 | WGBU-35     | P16011 |
| 474        | 70 Ø                 | 0,03 ... 3 | 0,02 ... 1 | WGBU-70     | P16012 |
| 744        | 105 Ø                | 0,03 ... 3 | 0,02 ... 1 | WGBU-105    | P16013 |
| 1422       | 140 Ø                | 0,03 ... 3 | 0,02 ... 1 | WGBU-140    | P16014 |
| 2240       | 210 Ø                | 0,03 ... 3 | 0,02 ... 1 | WGBU-210    | P16015 |
| 380        | 35 Ø                 | 0,03 ... 3 | 0,02 ... 1 | WGBU-90-35  | P16021 |
| 474        | 70 Ø                 | 0,03 ... 3 | 0,02 ... 1 | WGBU-90-70  | P16022 |
| 744        | 105 Ø                | 0,03 ... 3 | 0,02 ... 1 | WGBU-90-105 | P16023 |
| 1422       | 140 Ø                | 0,03 ... 3 | 0,02 ... 1 | WGBU-90-140 | P16024 |
| 2240       | 210 Ø                | 0,03 ... 3 | 0,02 ... 1 | WGBU-90-210 | P16025 |

The delay is cancelled in all relays with a sensitivity adjustment of 0.03 A.

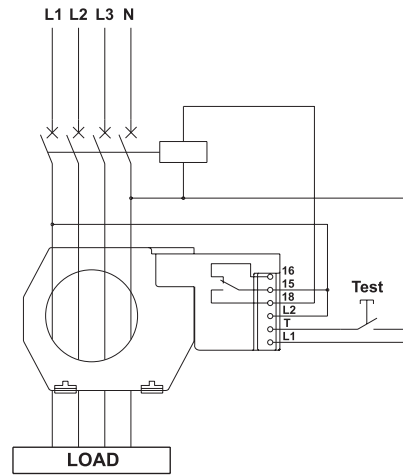
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## Connections



### Shunt coil



### Undervoltage coil

