# TGB2D-125RW Series, 6KA Photovoltaic & Building Dedicated Miniature Circuit Breaker

## 1 Overview

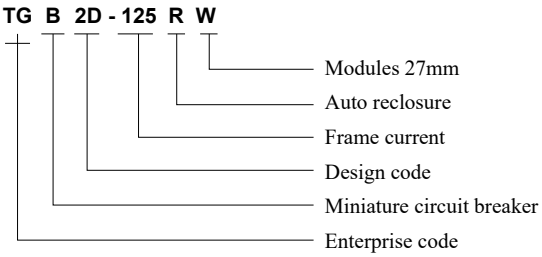
TGB2D-125RW photovoltaic grid-connected system dedicated circuit breaker is suitable for distributed photovoltaic grid-connected system for detection and determination of voltage on the photovoltaic power distribution line. The circuit breaker will open in delay automatically in case of overvoltage, undervoltage or voltage loss on the photovoltaic power distribution line, and will be closed when the voltage recovers to the normal value.

TGB2D-125RW self-recovery overvoltage & undervoltage protector (hereinafter referred to as building dedicated circuit breaker) is suitable for household low-voltage power distribution system or for similar application. It will open automatically in case of overvoltage or undervoltage caused by line failure, and can detect the line voltage automatically, and will be closed when the line voltage recovers to the normal value.

The photovoltaic dedicated circuit breaker complies with the following Standard: IEC60898-1

The building dedicated circuit breaker complies with the following Standard: IEC60898-1

## 2 Type Designation




## 3 Technical Parameters

3.1 Main technical parameters

| Product name | TGB2D-125RW Photovoltaic dedicated / TGB2D-125RW Building dedicated |
|---|---|
| Rated current(A) In | 63, 80, 100, 125 |
| Number of poles | 2P/4P |
| Rated voltage(V) Ue | AC230V/2P |
| | AC400V/4P |
| Rated insulation voltage(V) Ui | 690 |
| Rated impulse withstand voltage(kV) Uimp | 6 |
| Rated short-circuit breaking capacity(kA) Ics | 6 |
| Rated short-circuit breaking capacity(kA) Icn | 6 |
| Instantaneous trip characteristics | C |
| Mechanical life | 10,000 times |
| Electrical life | 6,000 times |
| temperaure | -25℃ ~ +65℃ |
| Altitude | Not exceed 2,000 meters |
| Installation category | Class II and Class III |
| Pollution degree | 2 |
| Protection grade | IP20 |

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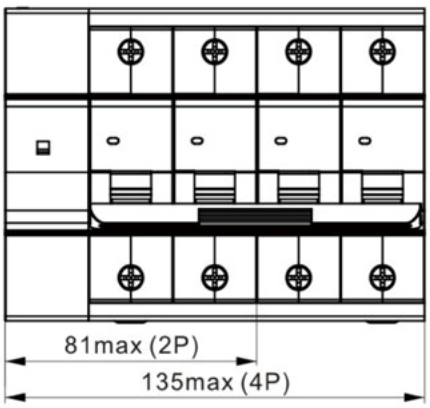
3.2 Recommended nominal sectional area of connecting copper wire

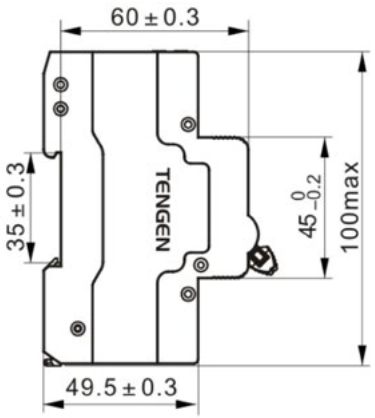
| Rated current (A) | 63 | 80 | 100 | 125 |
|---|---|---|---|---|
| Sectional area of wire ($mm^2$) | 16 | 25 | 35 | 50 |

3.3 Judgement of power voltage and control of action state of circuit breaker

| No. | Power voltage | | Starting state | State after action | | Continuous power voltage state holding time |
|---|---|---|---|---|---|---|
| | Circuit breaker for photovoltaic | Circuit breaker for building | | Auto mode | Manual mode | |
| 1 | 180V≤U≤270V | 185V≤U≤255V | Open | Closed | Open | 0-10s |
| 2 | 160V≤U≤290V | 165V≤U≤275V | Closed | Closed | Closed | Stay initial state |
| 3 | U<160V | U<165V | Closed | Open | Open | 0-10s |
| 4 | U<180V | U<185V | Open | Open | Open | Stay initial state |
| 5 | U>290V | U>275V | Closed | Open | Open | 0-10s |
| 6 | U>270V | U>255V | Open | Open | Open | Stay initial state |
| 7 | U<45V (power outage and voltage loss) | U<45V (power outage and voltage loss) | Closed | Open | Closed | 0-10s |
| 8 | Phase loss (only for three-phase four-wire) | Phase loss (only for three-phase four-wire) | Open | Open | Open | Stay initial state |
| 9 | Phase loss (only for three-phase four-wire) | Phase loss (only for three-phase four-wire) | Closed | Open | Open | 0-10s |

## 4 Outline and Installation Dimensions



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## 5 Ordering Notice

Please specify the following items when ordering:

5.1 Product name, such as TGB2D-125RW photovoltaic dedicated circuit breaker;

5.2 Number of poles: such as 4P;

5.3 Instantaneous trip type: such as C type;

5.4 Rated current, such as 80A;

5.5 Qty.: such as 100 pcs

5.6 Order example: TGB2D-125RW photovoltaic dedicated 4P C80 100 pcs.