

## RCCB type B



## RCCB, RCBO type F [IR]



# RCD type overview

|                                |                                                                                                                        |                                                                                                                         |                                                                                                                            |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                         |   |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Increasing<br>of<br>protection | <div></div> <div>Type <b>AC</b></div> | <div></div> <div>Type <b>A</b></div> | <div></div> <div>Type <b>A IR</b></div> | <div><br/></div> <div>Type <b>F</b></div> | <div><br/><br/></div> <div>Type <b>B</b></div> |   |
|                                | Earth leakage alternating current                                                                                      | ●                                                                                                                       | ●                                                                                                                          | ●                                                                                                                                                                                                               | ●                                                                                                                                                                                                                                                                                                       | ● |
|                                | Earth leakage detection of direct pulsating current                                                                    |                                                                                                                         | ●                                                                                                                          | ●                                                                                                                                                                                                               | ●                                                                                                                                                                                                                                                                                                       | ● |
|                                | Untimely trip high immunity                                                                                            |                                                                                                                         |                                                                                                                            | ●                                                                                                                                                                                                               | ●                                                                                                                                                                                                                                                                                                       | ● |
|                                | High frequency earth leakage detection up to 1kHz                                                                      |                                                                                                                         |                                                                                                                            |                                                                                                                                                                                                                 | ●                                                                                                                                                                                                                                                                                                       | ● |
|                                | Earth leakage detection with continuous component                                                                      |                                                                                                                         |                                                                                                                            |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                         | ● |

# RCCB type B



# RCCB type B

## APPLICATIONS



AC-AC frequency  
converters  
for three phase motor  
(elevator, pump,  
electromedical)



DC-AC converters  
(photovoltaic)



EV charger

# RCCB type B

## RANGE OVERVIEW

RANGE



| Poles | In [A] | Idn [mA] | Code    |
|-------|--------|----------|---------|
| 2P    | 25     | 30       | GWD4502 |
|       |        | 300      | GWD4504 |
|       | 40     | 30       | GWD4507 |
|       |        | 300      | GWD4509 |
|       | 63     | 30       | GWD4512 |
|       |        | 300      | GWD4514 |
| 4P    | 25     | 30       | GWD4527 |
|       |        | 300      | GWD4529 |
|       | 40     | 30       | GWD4532 |
|       |        | 300      | GWD4534 |
|       | 63     | 30       | GWD4537 |
|       |        | 300      | GWD4539 |

MARKS:



IMQ



VDE

# RCCB type B

## RANGE OVERVIEW

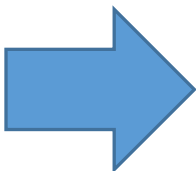
WARNING!!

PHASE-OUT CURRENT RANGE

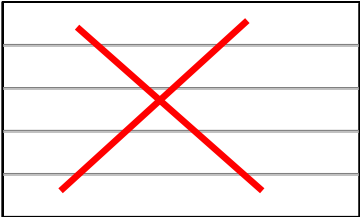


| Codes   | Poles             | In (A) | Idn (mA) | Type   |
|---------|-------------------|--------|----------|--------|
| GW95701 | 2                 | 25     | 30       | B [IR] |
| GW95706 |                   | 40     | 30       |        |
| GW95716 | 4                 | 25     | 30       |        |
| GW95718 |                   |        | 300      |        |
| GW95721 |                   | 40     | 30       |        |
| GW95723 |                   |        | 300      |        |
| GW95726 |                   | 63     | 30       |        |
| GW95728 |                   |        | 300      |        |
| GW96007 | Auxiliary contact |        |          |        |

|         |   |    |     |        |
|---------|---|----|-----|--------|
| GW95731 | 4 | 80 | 30  | B [IR] |
| GW95733 |   |    | 300 |        |
| GW95729 |   | 63 | 500 | B [S]  |
| GW95737 |   |    | 300 |        |
| GW95743 |   | 80 | 300 |        |



| New codes |
|-----------|
| GWD4502   |
| GWD4507   |
| GWD4527   |
| GWD4529   |
| GWD4532   |
| GWD4534   |
| GWD4537   |
| GWD4539   |
| GWD6002   |



No alternative in new version

# RCCB type B

## TECHNICAL CHARACTERISTICS



### IDP type B

|                               |                                |
|-------------------------------|--------------------------------|
| Standards                     | IEC/EN 61008-1<br>IEC/EN 62423 |
| Rated current $I_n$           | 25/40/63A                      |
| Rated operating voltage $U_e$ | 230/400V                       |
| Rated frequency               | 50Hz                           |
| Poles                         | 2/4P                           |
| Type of protection            | B [IR]                         |
| $I_{dn}$                      | 30/300mA                       |
| Immunity (8/20 $\mu$ s)       | 3kA                            |
| Supply                        | Top/bottom                     |
| Operating temperature         | -25..+60°C (*)                 |
| Width                         | 4 modules                      |

(\*) With In derating

# ReStart type B

FITTABLE TO RESTART

| RCCB<br>type B                                                                      | RESTART 4P<br>PRO |
|-------------------------------------------------------------------------------------|-------------------|
| 4 MOD                                                                               | 3 MOD             |
|    |                   |
| 7 MOD                                                                               |                   |
|  |                   |

| RESTART                    |                |
|----------------------------|----------------|
| Standards                  | EN 50557       |
| Rated operating voltage Ue | 230            |
| Rated frequency            | 50Hz           |
| Check of the system        | Yes            |
| Reclosing                  | 10s            |
| Operation number           | 4000           |
| Operating temperature      | -25..+60°C (*) |
| Width                      | 3 modules      |

(\*) Daily average temperature  $\leq +35^{\circ}\text{C}$

# RESTART AUTOTEST / AUTOTEST type B

## RANGE OVERVIEW

### RANGE

| Device     | Idn [mA] | In [A] | 2 Poles                                                                              | 4 Poles                                                                              |
|------------|----------|--------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| AT and ATR | 30       | 25     |  |  |
|            |          | 40     |                                                                                      |                                                                                      |
|            |          | 63     |                                                                                      |                                                                                      |
|            | 300      | 25     |                                                                                      |                                                                                      |
|            |          | 40     |                                                                                      |                                                                                      |
|            |          | 63     |                                                                                      |                                                                                      |

### MARKS:



IMQ

Only for  
ATR version



VDE

Only for  
AT version

# ReStart Autotest Type B / Autotest Type B

## TECHNICAL CHARACTERISTICS



7 MODULES

### RCCB type B

|                                        |                                                                           |
|----------------------------------------|---------------------------------------------------------------------------|
| Standard                               | IEC/EN 61008-1<br>IEC/EN 62423<br>EN50557 (for ATR)<br>VDE V 0664(for AT) |
| Rated current I <sub>n</sub>           | 25/40/63A                                                                 |
| Rated operating voltage U <sub>e</sub> | 230/400V                                                                  |
| Rated frequency                        | 50Hz                                                                      |
| Poles                                  | 2/4P                                                                      |
| Type of protection                     | B [IR]                                                                    |
| I <sub>dn</sub>                        | 30/300mA                                                                  |
| Immunity (8/20μs)                      | 3kA                                                                       |
| Supply                                 | Top                                                                       |
| Operating temperature                  | -25..+60°C (*)                                                            |
| Width                                  | 7 modules                                                                 |

(\*) Daily average temperature ≤ +35°C

# RCCB, RCBO type F [IR]



# RCCB, RCBO type F [IR]



## APPLICATIONS

- Household appliances and motors with single phase inverters
- A single phase inverter is a commonly used electric drive which regulates the speed of an electric motor, operating on supply voltage and frequency.



Cooling system



Washing machine



Motors with single inverter

# RCCB type F [IR]

## RANGE OVERVIEW



| Type                     | Poles | In [A] | I <sub>dn</sub> [mA] | Code    |
|--------------------------|-------|--------|----------------------|---------|
| Neutral<br>on the right  | 2P    | 25     | 30                   | GWD4261 |
|                          |       | 40     | 30                   | GWD4265 |
|                          |       | 63     | 30                   | GWD4269 |
|                          |       | 100    | 30                   | GWD4277 |
|                          | 4P    | 25     | 30                   | GWD4281 |
|                          |       | 40     | 30                   | GWD4285 |
|                          |       | 63     | 30                   | GWD4289 |
|                          |       | 100    | 30                   | GWD4297 |
| Neutral<br>on the left   | 4P    | 25     | 30                   | GWD4307 |
|                          |       | 40     | 30                   | GWD4327 |
|                          |       | 63     | 30                   | GWD4347 |
| 3 modules<br>(DE market) | 4P    | 40     | 30                   | GW94977 |

# RCCB type F [IR]

## TECHNICAL CHARACTERISTICS



| RCCB type F[IR]                        |                              |
|----------------------------------------|------------------------------|
| Standards                              | IEC/EN 61008<br>IEC/EN 62423 |
| Rated current I <sub>n</sub>           | 25/40/63/100 A               |
| Rated operating voltage U <sub>e</sub> | 230/400 V                    |
| Rated frequency                        | 50/60 Hz                     |
| Poles                                  | 2P/4P                        |
| Type of protection                     | F [IR]                       |
| I <sub>dn</sub>                        | 30 mA                        |
| Immunity (8/20μs)                      | 3kA                          |
| Supply                                 | Top/bottom                   |
| Operating temperature                  | -25..+60°C                   |
| Width                                  | 2/4 modules                  |

# RCBO type F [IR]

## RANGE OVERVIEW



| Idn [mA] | Icn [kA] | Poles | Curve | In | Code    |
|----------|----------|-------|-------|----|---------|
| 30mA     | 6kA      | 2P    | C     | 6  | GW95975 |
|          |          |       |       | 10 | GW95976 |
|          |          |       |       | 13 | GW95981 |
|          |          |       |       | 16 | GW95977 |
|          |          |       |       | 20 | GW95978 |
|          |          |       |       | 25 | GW95979 |
|          |          |       |       | 32 | GW95980 |
|          |          |       | B     | 6  | GW95935 |
|          |          |       |       | 10 | GW95936 |
|          |          |       |       | 13 | GW95941 |
|          |          |       |       | 16 | GW95937 |
|          |          |       |       | 20 | GW95938 |
|          |          |       |       | 25 | GW95939 |
|          |          |       |       | 32 | GW95940 |
|          | 10kA     | 2P    | C     | 6  | GW95955 |
|          |          |       |       | 10 | GW95956 |
|          |          |       |       | 13 | GW95961 |
|          |          |       |       | 16 | GW95957 |
|          |          |       |       | 20 | GW95958 |
|          |          |       |       | 25 | GW95959 |
|          |          |       |       | 32 | GW95960 |
|          |          |       | B     | 6  | GW95965 |
|          |          |       |       | 10 | GW95966 |
|          |          |       |       | 13 | GW95971 |
|          |          |       |       | 16 | GW95967 |
|          |          |       |       | 20 | GW95968 |
|          |          |       |       | 25 | GW95969 |
|          |          |       |       | 32 | GW95970 |

# RCBO type F [IR]

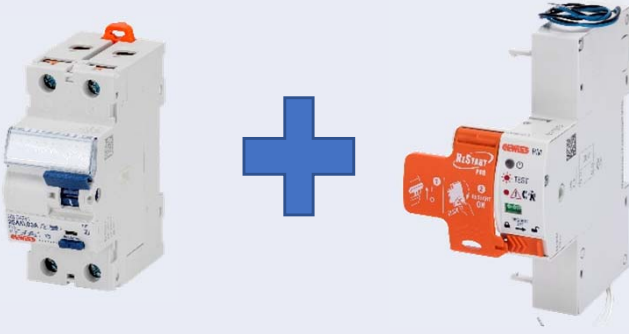
## TECHNICAL CHARACTERISTICS



| RCBO type F[IR]                        |                              |
|----------------------------------------|------------------------------|
| Standards                              | IEC/EN 61009<br>IEC/EN 62423 |
| I <sub>cn</sub> [kA]                   | 6000 / 10000 A               |
| Curve                                  | B/C                          |
| Rated current I <sub>n</sub>           | 6÷32 A                       |
| Rated operating voltage U <sub>e</sub> | 230/400V                     |
| Rated frequency                        | 50/60 Hz                     |
| Poles                                  | 2P                           |
| Type of protection                     | F [IR]                       |
| I <sub>dn</sub>                        | 30 mA                        |
| Immunity (8/20μs)                      | 3 kA                         |
| Supply                                 | Top/bottom                   |
| Operating temperature                  | -25..+40°C                   |
| Width                                  | 2 modules                    |

# ReStart type F [IR]

## 3. FITTABLE TO RESTART (for RCCB also available Restart 4P)

| RCCB / RCBO<br>type F [IR]                                                            | RESTART 2P /<br>RESTART 2P PRO |
|---------------------------------------------------------------------------------------|--------------------------------|
| 2 MOD                                                                                 | 1 MOD                          |
|     |                                |
| 3 MOD                                                                                 |                                |
|  |                                |

# Thank you for your kind attention