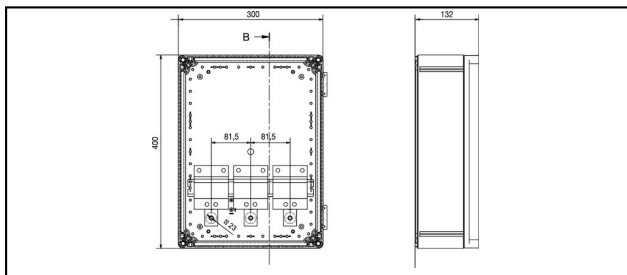
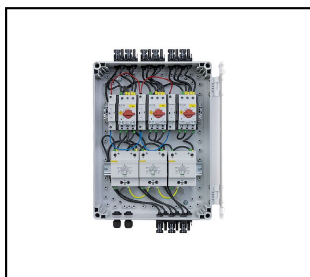


## Generators combiner boxes

### GAK 303-MC4 Junction box PV



#### Characteristics

Generator boxes with preassembled surge protection:

#### Legend

- a) type 1+2 GAK DIS 60 VGPVS-1000-6ST-3MPP
- b) type 1+2 GAK DIS 50 PVS-1000-6ST-3MPP
- c) type 1+2 GAK DIS 50 VGPVS-1000-6ST-3MPP
- d) type 2 GAK DIS 50 PV-1000-6ST-3MPP

| Article-Nr. | E-Number    | Typ/Type | V<br>U <sub>C</sub> | kA<br>I <sub>imp</sub> | kA<br>I <sub>max</sub> | ns<br>t <sub>A</sub> | kV<br>U <sub>P</sub> | mm <sup>2</sup> |    |   |
|-------------|-------------|----------|---------------------|------------------------|------------------------|----------------------|----------------------|-----------------|----|---|
| 296.050.303 | 969 112 334 | T1 / T2  | ≤1200VDC            | 12.5                   | 40                     | ≤25                  | 2.8                  | 6 - 35          | a) | 1 |
| 296.050.903 | 969 112 484 | T1 / T2  | ≤1200VDC            | 6.25                   | 40                     | ≤25                  | 2.6                  | 2.5 - 25        | b) | 1 |
| 296.050.503 | 969 112 384 | T1 / T2  | ≤1200VDC            | 6.25                   | 40                     | ≤25                  | 2.8                  | 2.5 - 25        | c) | 1 |
| 296.050.703 | 969 112 434 | T2       | ≤1200VDC            | 5                      | 40                     | ≤25                  | 2.6                  | 2.5 - 25        | d) | 1 |

## Technical Specifications: Junction box PV GAK 303-MC4

|                                                             | 296.050.303                          | 296.050.903                            | 296.050.503                          | 296.050.703                            |
|-------------------------------------------------------------|--------------------------------------|----------------------------------------|--------------------------------------|----------------------------------------|
| SPD type                                                    | T1 / T2                              |                                        |                                      | T2                                     |
| Number of poles                                             | 2                                    |                                        |                                      |                                        |
| max. discharge current (I <sub>max</sub> )                  | 40 kA                                |                                        |                                      |                                        |
| Nominal line voltage U <sub>n</sub> DC                      | 1000 V                               |                                        |                                      |                                        |
| Impulse current [I <sub>imp</sub> ] (10/350)                | 12.5 kA                              | 6.25 kA                                |                                      | 5 kA                                   |
| Discharge current max. (8/20) μs [I <sub>max</sub> ]        | 40 kA                                |                                        | 60 kA                                |                                        |
| Nominal discharge surge current (8/20)                      | 20 kA                                | 15 kA                                  |                                      | 15 kA                                  |
| Voltage protection level [U <sub>p</sub> ]                  | 2.8 kV                               | 2.6 kV                                 | 2.8 kV                               | 2.6 kV                                 |
| Protection level max. (at 5kA)                              | 2.1 kV                               |                                        |                                      |                                        |
| Protection level max. (at 12.5kA)                           | 2.3 kV                               |                                        |                                      |                                        |
| Operation voltage max. [U <sub>c</sub> ]                    | ≤1200VDC                             |                                        |                                      |                                        |
| Operating current [I <sub>c</sub> ]                         | 0 kA                                 |                                        | 0 kA                                 |                                        |
| Follow current [I <sub>F</sub> ]                            | 0 kA                                 |                                        |                                      |                                        |
| follow current extinguishing capability [I <sub>fi</sub> ]  | Unendlich kA eff                     |                                        | Unendlich kA eff                     |                                        |
| Response time [t <sub>a</sub> ]                             | ≤25 ns                               |                                        |                                      |                                        |
| Short circuit resistance (I <sub>cw</sub> )                 | 25 kA                                | 1 kA                                   | 10 kA                                | 1 kA                                   |
| Fault indication                                            | Mechanisch, Rot                      | mechanisch, Rot                        | Mechanisch, Rot                      | mechanisch, Rot                        |
| Temperature range                                           | -40 - 85                             |                                        |                                      |                                        |
| Total discharge current (8/20) (L N-PE)                     |                                      | 60 kA                                  |                                      | 60 kA                                  |
| Degree of protection                                        | IP20                                 |                                        |                                      |                                        |
| Signaling on the device                                     | Optic                                |                                        |                                      |                                        |
| Signaling contact                                           | Yes                                  |                                        |                                      |                                        |
| Connection cross section solid / stranded max.              | 1.5 mm <sup>2</sup>                  |                                        |                                      |                                        |
| Switching capacity signaling contact                        | 250 V / 0,5 A (AC) - 30 V / 2 A (DC) | 250 V / 0,5 A (AC) / - 30 V / 2 A (DC) | 250 V / 0,5 A (AC) - 30 V / 2 A (DC) | 250 V / 0,5 A (AC) / - 30 V / 2 A (DC) |
| Energetically coordinated protective effect to the terminal | Yes                                  |                                        |                                      |                                        |
| System configuration DC                                     | Yes                                  |                                        |                                      |                                        |
| Construction size                                           | 4 modular spacing                    | 3 modular spacing                      |                                      |                                        |
| Nominal discharge current [I <sub>n</sub> ]                 | 20/Pol                               | 15/Pol                                 |                                      |                                        |
| Nominal cross section conductor                             | 6 - 35 mm <sup>2</sup>               | 2.5 - 25 mm <sup>2</sup>               | 2.5 - 25                             | 2.5 - 25 mm <sup>2</sup>               |
| Integrated backup fuse                                      | No                                   |                                        |                                      |                                        |
| Exhausting                                                  | No                                   |                                        |                                      |                                        |
| Mounting method                                             | DIN rail (top hat rail) 35 mm        |                                        |                                      |                                        |
| Degree of protection (IP)                                   | IP20                                 |                                        |                                      |                                        |
| <b>Casing</b>                                               |                                      |                                        |                                      |                                        |
| degree of protection                                        | IP65                                 |                                        |                                      |                                        |
| number of modules                                           | 28                                   |                                        |                                      |                                        |
| contract rail                                               | DIN-Schiene                          |                                        |                                      |                                        |
| String / MPP                                                | 6ST-3MPP                             |                                        |                                      |                                        |
| inputs PG / MC4                                             | MC 4                                 |                                        |                                      |                                        |
| outputs PG / MC4                                            | MC 4                                 |                                        |                                      |                                        |
| <b>Switch</b>                                               |                                      |                                        |                                      |                                        |
| Switching capacity voltage max. U <sub>oc</sub> Max.        | 1000 V                               |                                        |                                      |                                        |
| Switching current max. I <sub>sc</sub> Max.                 | 30 A                                 |                                        |                                      |                                        |
| Cross-sectional area                                        | 6 mm <sup>2</sup>                    |                                        |                                      |                                        |
| <b>Standards</b>                                            |                                      |                                        |                                      |                                        |
| Test standards USA                                          | UL 1449 ed.3                         |                                        |                                      |                                        |
| Test standards Europe                                       | FprEN 50539-11                       | EN 50539-11                            |                                      |                                        |
| Test standards France                                       | UTE C61-740-51                       |                                        |                                      |                                        |
| Homologation                                                | VDE, ÖVE und UL                      |                                        | VDE, ÖVE und UL                      |                                        |
| <b>Commercial specification</b>                             |                                      |                                        |                                      |                                        |
| Customs number                                              | 85372000                             |                                        |                                      |                                        |
| country of origin                                           | CH                                   |                                        |                                      |                                        |