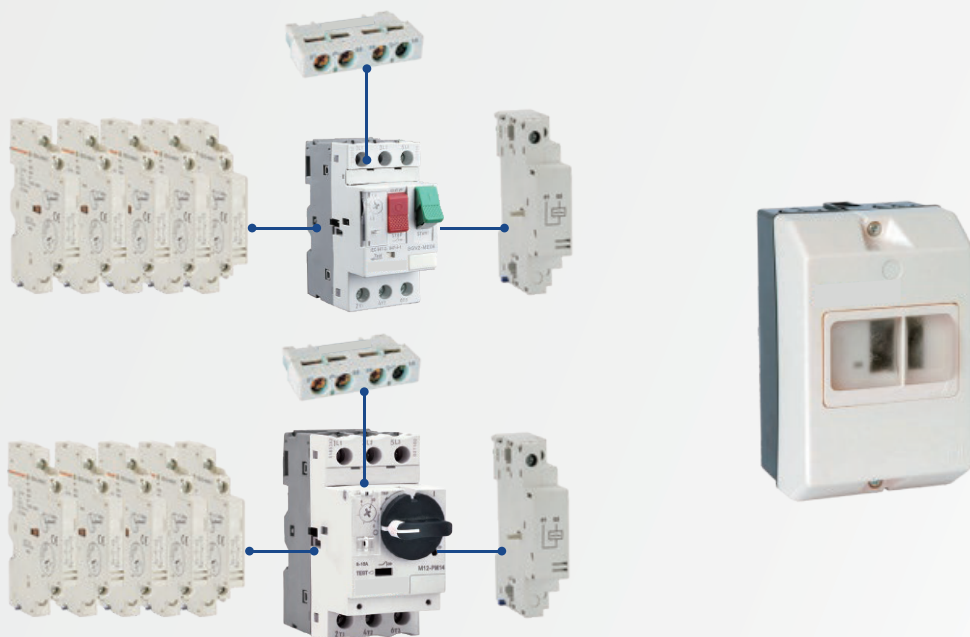


## SGV2-ME/PM Series Motor Protection Circuit Breaker

### Technical data

|                                          |                                 |      |
|------------------------------------------|---------------------------------|------|
| Standard                                 | IEC60947-2, IEC60947-4-1        |      |
| Approvals                                | CE                              |      |
| Utilization Category                     | According to IEC60947-2         | A    |
|                                          | According to IEC60947-4-1       | AC-3 |
| Rated insulation voltage Ui(V)           | 690                             |      |
| Rated operational voltage Ue(V)          | 230/240,400/415,440,500,660/690 |      |
| Rated impulse withstand voltage Uimp(kA) | 8                               |      |
| Electrical life in AC-3(times)           | 10000                           |      |
| Mechanical life(times)                   | 20000                           |      |
| Tightening torque(N.m)                   | 1.7                             |      |
| Degree of Protection                     | IP 20; IP65 with enclosure      |      |
| Ambient air temperature(°C )             | - 5 to + 40, max. 95% humidity  |      |
| Storage temperature(°C )                 | -40~+70                         |      |
| Maximum operating altitude(meters)       | ≤2000                           |      |



## 1. Technical specifications for SGV2-ME, PM series

|                                                                                   | Type      | Current setting range (A) | Instantaneous short-circuit release(A) | Thermal current I <sub>th</sub> (A) | Standard rated power of three-phase (kW) |       |       |       |
|-----------------------------------------------------------------------------------|-----------|---------------------------|----------------------------------------|-------------------------------------|------------------------------------------|-------|-------|-------|
|                                                                                   |           |                           |                                        |                                     | 230/240V                                 | 400V  | 415V  | 440V  |
|  | SGV2-ME01 | 0.1-0.16                  | 1.5                                    | 0.16                                | -                                        | -     | -     | -     |
|                                                                                   | SGV2-ME02 | 0.16-0.25                 | 2.4                                    | 0.25                                | -                                        | -     | -     | -     |
|                                                                                   | SGV2-ME03 | 0.25-0.4                  | 5.0                                    | 0.4                                 | -                                        | -     | -     | -     |
|                                                                                   | SGV2-ME04 | 0.4-0.63                  | 8.0                                    | 0.63                                | -                                        | -     | -     | -     |
|                                                                                   | SGV2-ME05 | 0.63-1                    | 13.0                                   | 1                                   | -                                        | -     | -     | 0.37  |
|                                                                                   | SGV2-ME06 | 1-1.6                     | 22.5                                   | 1.6                                 | -                                        | 0.37  | -     | 0.55  |
|                                                                                   | SGV2-ME07 | 1.6-2.5                   | 33.5                                   | 2.5                                 | 0.37                                     | 0.75  | 0.75  | 1.10  |
|                                                                                   | SGV2-ME08 | 2.5-4                     | 51.0                                   | 4                                   | 0.75                                     | 1.50  | 1.50  | 1.50  |
|                                                                                   | SGV2-ME10 | 4-6.3                     | 78.0                                   | 6.3                                 | 1.10                                     | 2.20  | 2.20  | 3.00  |
|                                                                                   | SGV2-ME14 | 6-10                      | 138                                    | 9                                   | 2.20                                     | 4.00  | 4.00  | 4.00  |
|                                                                                   | SGV2-ME16 | 9-14                      | 170                                    | 13                                  | 3.00                                     | 5.50  | 5.50  | 7.50  |
|                                                                                   | SGV2-ME20 | 13-18                     | 223                                    | 17                                  | 4.00                                     | 7.50  | 9.00  | 9.00  |
|                                                                                   | SGV2-ME21 | 17-23                     | 327                                    | 21                                  | 5.50                                     | 11.00 | 11.00 | 11.00 |
|                                                                                   | SGV2-ME22 | 20-25                     | 327                                    | 23                                  | 5.50                                     | 11.00 | 11.00 | 11.00 |
|                                                                                   | SGV2-ME32 | 24-32                     | 416                                    | 24                                  | 7.50                                     | 15.00 | 15.00 | 15.50 |
|                                                                                   | SGV3-ME40 | 25-40                     | 480                                    | 32                                  | 11.00                                    | 18.50 | 22.00 | 22.00 |
|                                                                                   | SGV3-ME63 | 40-63                     | 550                                    | 50                                  | 15.00                                    | 30.00 | 33.00 | 33.00 |
|                                                                                   | SGV3-ME80 | 56-80                     | 665.5                                  | 64                                  | 22.00                                    | 40.00 | 45.00 | 45.00 |

|                                                                                     | Type      | Current setting range (A) | Instantaneous short-circuit release(A) | Thermal current I <sub>th</sub> (A) | Standard rated power of three-phase(kW) |       |       |       |
|-------------------------------------------------------------------------------------|-----------|---------------------------|----------------------------------------|-------------------------------------|-----------------------------------------|-------|-------|-------|
|                                                                                     |           |                           |                                        |                                     | 230/240V                                | 400V  | 415V  | 440V  |
|  | SGV2-PM01 | 0.1-0.16                  | 1.5                                    | 0.16                                | -                                       | -     | -     | -     |
|                                                                                     | SGV2-PM02 | 0.16-0.25                 | 2.4                                    | 0.25                                | -                                       | -     | -     | -     |
|                                                                                     | SGV2-PM03 | 0.25-0.4                  | 5.0                                    | 0.4                                 | -                                       | -     | -     | -     |
|                                                                                     | SGV2-PM04 | 0.4-0.63                  | 8.0                                    | 0.63                                | -                                       | -     | -     | -     |
|                                                                                     | SGV2-PM05 | 0.63-1                    | 13.0                                   | 1                                   | -                                       | -     | -     | 0.37  |
|                                                                                     | SGV2-PM06 | 1-1.6                     | 22.5                                   | 1.6                                 | -                                       | 0.37  | -     | 0.55  |
|                                                                                     | SGV2-PM07 | 1.6-2.5                   | 33.5                                   | 2.5                                 | 0.37                                    | 0.75  | 0.75  | 1.10  |
|                                                                                     | SGV2-PM08 | 2.5-4                     | 51.0                                   | 4                                   | 0.75                                    | 1.50  | 1.50  | 1.50  |
|                                                                                     | SGV2-PM10 | 4-6.3                     | 78.0                                   | 6.3                                 | 1.10                                    | 2.20  | 2.20  | 3.00  |
|                                                                                     | SGV2-PM14 | 6-10                      | 138                                    | 9                                   | 2.20                                    | 4.00  | 4.00  | 4.00  |
|                                                                                     | SGV2-PM16 | 9-14                      | 170                                    | 13                                  | 3.00                                    | 5.50  | 5.50  | 7.50  |
|                                                                                     | SGV2-PM20 | 13-18                     | 223                                    | 17                                  | 4.00                                    | 7.50  | 9.00  | 9.00  |
|                                                                                     | SGV2-PM21 | 17-23                     | 327                                    | 21                                  | 5.50                                    | 11.00 | 11.00 | 11.00 |
|                                                                                     | SGV2-PM22 | 20-25                     | 327                                    | 23                                  | 5.50                                    | 11.00 | 11.00 | 11.00 |
|                                                                                     | SGV2-PM32 | 24-32                     | 416                                    | 24                                  | 7.50                                    | 15.00 | 15.00 | 15.50 |

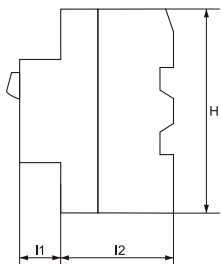
## 2. SGV2-ME, PM Breaking Capacity

| Type                                      |               |             |    |         |     |    |     |     |    |    |         |     |
|-------------------------------------------|---------------|-------------|----|---------|-----|----|-----|-----|----|----|---------|-----|
|                                           |               |             |    | 01-06   | 07  | 08 | 10  | 14  | 16 | 20 | 21 & 22 | 32  |
| Rated Current(A)                          |               |             | A  | 0.1-1.6 | 2.5 | 4  | 6,3 | 10  | 14 | 18 | 23 & 25 | 32  |
| Breaking Capacity<br>Comply to IEC60947-2 | 230/<br>240 V | Icu         | kA | ★       | ★   | ★  | ★   | ★   | ★  | ★  | 50      | 50  |
|                                           |               | Ics<br>%(1) |    | ★       | ★   | ★  | ★   | ★   | ★  | ★  | 100     | 100 |
|                                           | 400/<br>415 V | Icu         | kA | ★       | ★   | ★  | ★   | ★   | 15 | 15 | 15      | 10  |
|                                           |               | Ics<br>%(1) |    | ★       | ★   | ★  | ★   | ★   | 50 | 50 | 40      | 50  |
|                                           | 440 V         | Icu         | kA | ★       | ★   | ★  | 50  | 15  | 8  | 8  | 6       | 6   |
|                                           |               | Ics<br>%(1) |    | ★       | ★   | ★  | 100 | 100 | 50 | 50 | 50      | 50  |
|                                           | 500 V         | Icu         | kA | ★       | ★   | ★  | 50  | 10  | 6  | 6  | 4       | 4   |
|                                           |               | Ics<br>%(1) |    | ★       | ★   | ★  | 100 | 100 | 75 | 75 | 75      | 75  |
|                                           | 690 V         | Icu         | kA | ★       | 3   | 3  | 3   | 3   | 3  | 3  | 3       | 3   |
|                                           |               | Ics<br>%(1) |    | ★       | 75  | 75 | 75  | 75  | 75 | 75 | 75      | 75  |

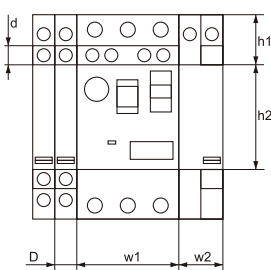
### 3.Overall and mounting dimensions

◆ SGV2-ME Series

Dimensions



Auxiliary contact

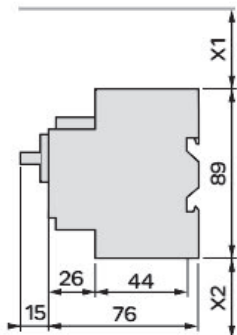
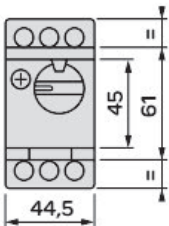
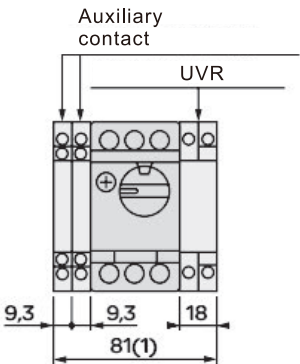


UVR

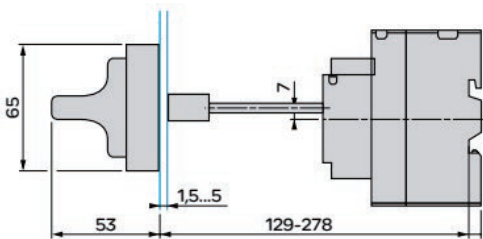
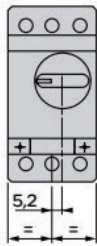
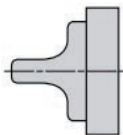
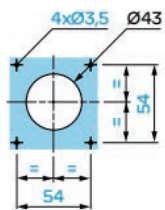
Dimension(mm)

| H    | I1 | I2 | d  | D   |
|------|----|----|----|-----|
| 89   | 16 | 50 | 10 | 9,2 |
| w1   | w2 | h1 | h2 |     |
| 44,5 | 18 | 22 | 45 |     |

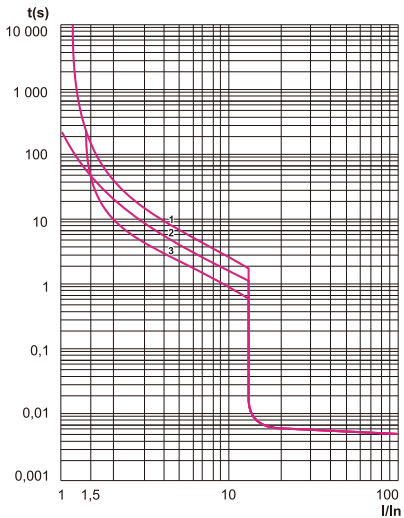
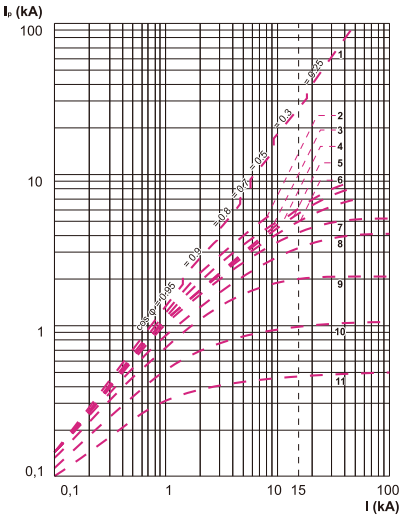
◆ SGV2-PM Series



◆ SGV2-PMN Series



### 4. Curve characteristics



## Auxiliary Devices of Motor Protection Circuit Breaker

|                                                                                                            |               |                                     |                                                             |                                    |                                           |
|------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------|-------------------------------------------------------------|------------------------------------|-------------------------------------------|
| <b>Voltage-release</b>    | Type          | Rated operational voltage $U_e$ (V) | Voltage range of operation                                  | Rated insulation voltage $U_i$ (V) | Frequency (Hz)                            |
|                                                                                                            | SGV2-ME AU115 | 110-127                             | 35%-70% $U_e$                                               | 690                                | 50/60                                     |
|                                                                                                            | SGV2-ME AU225 | 220-240                             | 35%-70% $U_e$                                               | 690                                | 50/60                                     |
|                                                                                                            | SGV2-ME AU385 | 380-415                             | 35%-70% $U_e$                                               | 690                                | 50/60                                     |
| <b>Auxiliary contact</b>  | Type          | Mounting Type                       | Auxiliary Contacts                                          |                                    | Conventional thermal current $I_{th}$ (A) |
|                                                                                                            | SGV2-AE11     | Top                                 | 1                                                           | 1                                  | 2.5                                       |
|                                                                                                            | SGV2-AE20     | Top                                 | 2                                                           | 0                                  | 2.5                                       |
| <b>Auxiliary contact</b>  | SGV2-ME AN11  | Side                                | 1                                                           | 1                                  | 6                                         |
|                                                                                                            | SGV2-ME AN20  | Side                                | 2                                                           | 0                                  | 6                                         |
| <b>Enclosure</b>         | Type          | Protection of degree                | Material                                                    |                                    | Suitable SGV2-M                           |
|                                                                                                            | SGV2-ME E     | IP 65                               | Plastic box<br>wear resistance of UV rays and non-flammable | Screen<br>silicon                  | Up to 32A                                 |

