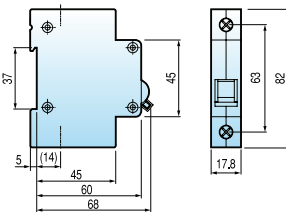
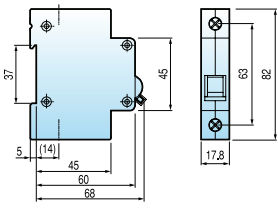
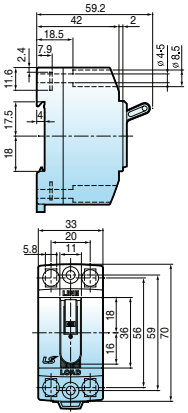


## Miniature Circuit Breakers

# 1, 2, 3 and 4pole series up to 125AF [IEC 60898, IEC 60947-2]



| Type                                  | MCB                                                                                                                                                                                                                                                                                                        |       |                                                                                                                                                                                                                                                                              |       |                                                                                       |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------|
|                                       | BKN                                                                                                                                                                                                                                                                                                        | BKN-c | BKN-b                                                                                                                                                                                                                                                                        | BS32c | BS32d                                                                                 |
| Protection                            | Overload and short circuit                                                                                                                                                                                                                                                                                 |       | Overload and short circuit                                                                                                                                                                                                                                                   |       | Overload and short circuit                                                            |
| Rated current                         | 1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63A                                                                                                                                                                                                                                                         |       | 1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A                                                                                                                                                                                                                               |       | 6, 10, 15, 20, 30A                                                                    |
| Characteristic                        | B, C, D curve                                                                                                                                                                                                                                                                                              |       | B, C, D curve                                                                                                                                                                                                                                                                |       | -                                                                                     |
| Poles                                 | 1P, 1P+N, 2P, 3P, 3P+N, 4P                                                                                                                                                                                                                                                                                 |       | 1P, 1P+N, 2P, 3P, 3P+N, 4P                                                                                                                                                                                                                                                   |       | -                                                                                     |
| Breaking capacity                     | 1pole                                                                                                                                                                                                                                                                                                      |       | 1pole                                                                                                                                                                                                                                                                        |       | 2pole                                                                                 |
|                                       | 1A ~ 63A<br>6kA at 230/400VAC<br>(NF: 4.5kA)                                                                                                                                                                                                                                                               |       | 1A ~ 63A<br>10kA at 240/415VAC                                                                                                                                                                                                                                               |       | 1.5kA                                                                                 |
| Standard                              | IEC 60898                                                                                                                                                                                                                                                                                                  |       | IEC 60898, IEC 60947-2                                                                                                                                                                                                                                                       |       | IEC 60898, KS                                                                         |
| Approval                              | CCC, SABS, SEMKO CB                                                                                                                                                                                                                                                                                        |       | KEMA CB, SABS, CE, NF*                                                                                                                                                                                                                                                       |       | CCC                                                                                   |
| Type of trip                          | Thermal magnetic release                                                                                                                                                                                                                                                                                   |       | Thermal magnetic release                                                                                                                                                                                                                                                     |       | -                                                                                     |
| Endurance                             | 4,000 operations                                                                                                                                                                                                                                                                                           |       | 4,000 operations                                                                                                                                                                                                                                                             |       | 4,000 operations                                                                      |
|                                       | 10,000 operations                                                                                                                                                                                                                                                                                          |       | 10,000 operations                                                                                                                                                                                                                                                            |       | 10,000 operations                                                                     |
| Mount                                 | On 35mm DIN rail                                                                                                                                                                                                                                                                                           |       | On 35mm DIN rail                                                                                                                                                                                                                                                             |       | DIN rail / Screw                                                                      |
| Width                                 | 17.8mm per pole                                                                                                                                                                                                                                                                                            |       | 17.8mm per pole                                                                                                                                                                                                                                                              |       | 33mm per pole                                                                         |
| Terminal                              | Lug type<br>(Cable up to 25mm <sup>2</sup> )                                                                                                                                                                                                                                                               |       | Lug type (Cable up to 25mm <sup>2</sup> )                                                                                                                                                                                                                                    |       | Screw clamp type<br>(Cable up to 5.5mm <sup>2</sup> )                                 |
| Auxiliary switch, AX & AL<br>Optional |  <p>1 changeover contact<br/>6A at 240VAC, 3A at 415VAC (AX)<br/>6A at 230VAC, 3A at 415VAC (AL)<br/>2A at 48VDC, 1A at 125VDC<br/>Lug terminal<br/>Cable capacity 2.5mm<sup>2</sup><br/>9mm wide<br/>*Only for BKN</p> |       |  <p>1 changeover contact<br/>6A at 240VAC, 3A at 415VAC (AX/ AL)<br/>6A at 24VDC, 2A at 48VDC, 1A at 130VDC<br/>Lug terminal<br/>Cable capacity 0.75~2.5mm<sup>2</sup><br/>8.8mm wide</p> |       |                                                                                       |
| Dimension                             |                                                                                                                                                                                                                         |       |                                                                                                                                                                                          |       |  |
| Characteristic curve                  | See page 45                                                                                                                                                                                                                                                                                                |       | See page 45                                                                                                                                                                                                                                                                  |       | -                                                                                     |
| Remarks                               | -                                                                                                                                                                                                                                                                                                          |       | -                                                                                                                                                                                                                                                                            |       | -                                                                                     |

\* NF : Breaking capacity 6kA



| MCB                                       |                              |                                           |                                                   |                                              |                            |                          |
|-------------------------------------------|------------------------------|-------------------------------------------|---------------------------------------------------|----------------------------------------------|----------------------------|--------------------------|
| BKH                                       |                              | BKP                                       | BF-a                                              | BF-c                                         | BFN                        |                          |
| Overload and short circuit                |                              | Overload and short circuit                | Overload and short circuit                        |                                              | Overload and short circuit |                          |
| 63, 80, 100, 125A                         |                              | 3, 6, 10, 16, 20, 25, 32A                 | 10~100A                                           |                                              | 5, 10, 15, 20, 30, 40, 50A |                          |
| C, D curve                                |                              | B, C, D curve                             | -                                                 |                                              | -                          |                          |
| 1P, 2P, 3P, 3P+N, 4P                      |                              | 1P+N                                      | 1p, 2p, 3p                                        |                                              | 1p, 2p, 3p                 |                          |
| 1pole                                     | 2~4pole                      | -                                         | -                                                 |                                              | 1pole                      | 2~3pole                  |
| 63A ~ 125A<br>10kA at 230VAC              | 63A ~ 125A<br>10kA at 400VAC | 3A ~ 32A<br>4.5kA at 230VAC (NF: 3kA)     | 10A~100A<br>10kA at 240VAC<br>2.5kA at 415VAC     | 10A~100A<br>5kA at 240VAC<br>2.5kA at 415VAC | 5A~50A<br>10kA at 230VAC   | 5A~50A<br>10kA at 400VAC |
| IEC 60947-2                               |                              | IEC 60898                                 | IEC 60947-2                                       |                                              | IEC 60947-2                |                          |
| CCC, SEMKO CB, SABS, CE                   |                              | CCC, SEMKO CB, NF, SABS, CE               | -                                                 |                                              | SEMKO CB, CE               |                          |
| Thermal magnetic release                  |                              | Thermal magnetic release                  | Thermal magnetic release                          |                                              | Thermal magnetic release   |                          |
| 1,500 operations                          |                              | 4,000 operations                          | 1,500 operations                                  |                                              | 1,500 operations           |                          |
| 10,000 operations                         |                              | 10,000 operations                         | 10,000 operations                                 |                                              | 10,000 operations          |                          |
| On 35mm DIN rail                          |                              | On 35mm DIN rail                          | Holder mounting<br>(Bolt on with fixing brackets) |                                              | Plug-in                    |                          |
| 27mm per pole                             |                              | 17.8mm                                    | 25mm per pole                                     |                                              | 25mm per pole              |                          |
| Lug type (Cable up to 50mm <sup>2</sup> ) |                              | Lug type (Cable up to 10mm <sup>2</sup> ) | Clamp type                                        |                                              | Lug type (14-6 AWG.)       |                          |
|                                           |                              |                                           |                                                   |                                              |                            |                          |
| See page 45                               |                              | See page 45                               | See page 46                                       |                                              | See page 47                |                          |
| IEC 60947-2 (SABS)                        |                              | -                                         | -                                                 |                                              | -                          |                          |