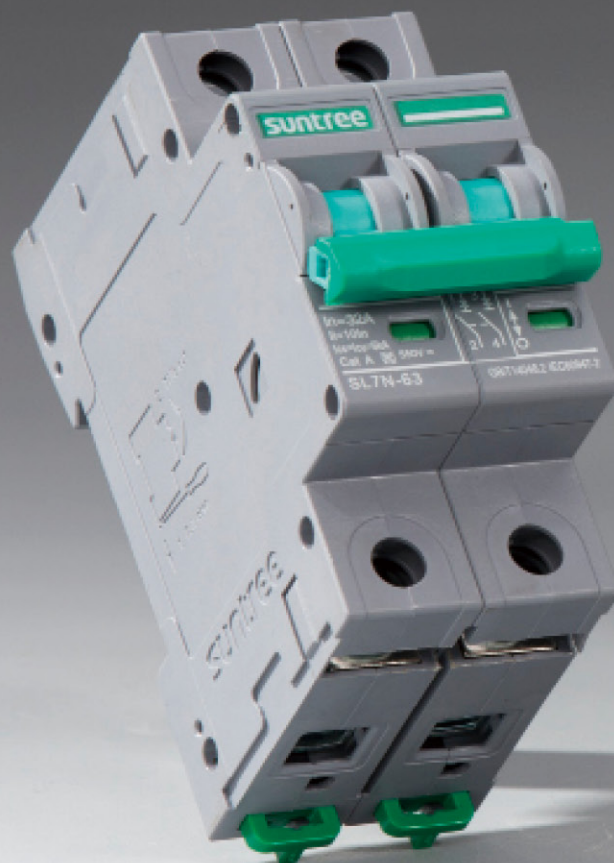
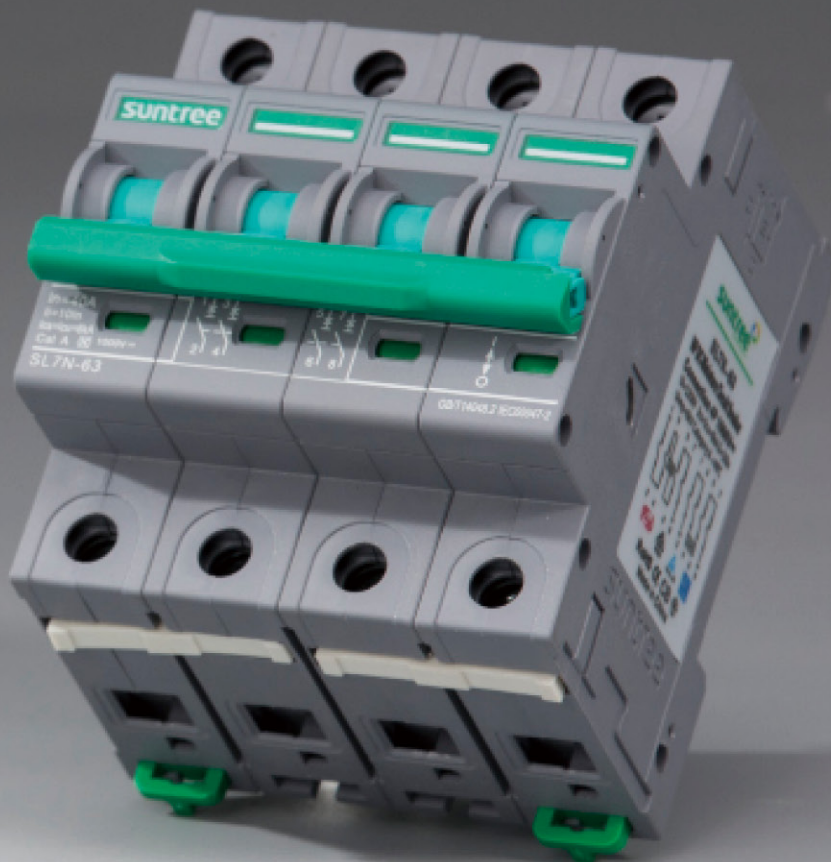


# SL7N-63 MINIATURE DC CIRCUIT BREAKER







## SL7N-63 None Polarity Miniature Dc Circuit Breaker

- Short-current interruption overload protection
- 6 kA High breaking capacity
- Reversible wiring, free of incorrect connection
- 63 A Rated working current
- Clearance  $\geq 9\text{mm}$ , swift arc breaking
- Maze arc-extinguishing room



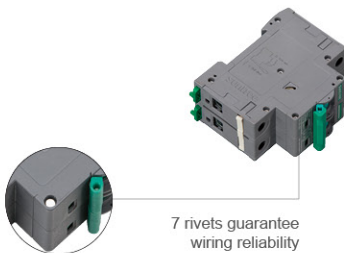
### Model Number

| Model Number         | Pole                | Trip Characteristic | Current (A)                                 | Voltage       | Wiring Mode |                       | Item        | Voltage                                                      |
|----------------------|---------------------|---------------------|---------------------------------------------|---------------|-------------|-----------------------|-------------|--------------------------------------------------------------|
| SL7N-63              | 1P                  | B C                 | 6<br>10<br>16<br>25<br>32<br>40<br>50<br>63 | I:15V         | -           | Optional<br>Accessory | OF          | -                                                            |
|                      |                     |                     |                                             | II:24V        | -           |                       | 20F         |                                                              |
|                      |                     |                     |                                             | III:48V       | -           |                       | SD          |                                                              |
|                      |                     |                     |                                             | IV:60V        | -           |                       | OF+SD       |                                                              |
|                      |                     |                     |                                             | V:100V        | -           |                       |             |                                                              |
|                      |                     |                     |                                             | VI:180V       | -           |                       |             |                                                              |
|                      |                     |                     |                                             | rated:250V    | -           |                       |             |                                                              |
|                      | 2P                  |                     |                                             | I:24V         | H           |                       | MX          | I:DC12V<br>II:DC24V-48V<br>III:DC110V-400V<br>IV:AC220V-380V |
|                      |                     |                     |                                             | II:48V        | H           |                       | MX+OF       |                                                              |
|                      |                     |                     |                                             | III:125V      | H           |                       | OF+MX+OF    |                                                              |
|                      |                     |                     |                                             | IV:375V       | H           |                       | 20F+MX+OF   |                                                              |
|                      |                     |                     |                                             | rated:550V    | H           |                       | SD+MX+OF    |                                                              |
|                      |                     |                     |                                             | III:600V      | H           |                       | OF+SD+MX    |                                                              |
|                      |                     |                     |                                             | rated:800V    | H           |                       | OF+SD+MX+OF |                                                              |
|                      |                     |                     |                                             | I:125V        | G           |                       |             |                                                              |
|                      |                     |                     |                                             | II:375V       | G           |                       |             |                                                              |
|                      |                     |                     |                                             | rated:550V    | G           |                       |             |                                                              |
|                      |                     |                     |                                             | III:600V      | G           |                       |             |                                                              |
|                      |                     |                     |                                             | IV:800V       | G           |                       |             |                                                              |
|                      | 3P                  |                     |                                             | rated:750V    | H           |                       |             | AC230V<br>AC400V                                             |
|                      |                     |                     |                                             | I:800V        | H           |                       | OF+MN       |                                                              |
|                      |                     |                     |                                             | rated:750v    | G           |                       | SD+MN       |                                                              |
|                      |                     |                     |                                             | I:800V        | G           |                       | OF+SD+MN    |                                                              |
|                      | 4P                  |                     |                                             | I:800V        | H           |                       |             |                                                              |
|                      |                     |                     |                                             | rated:1000V   | H           |                       |             |                                                              |
|                      |                     |                     |                                             | II:1200V      | H           |                       |             |                                                              |
|                      |                     |                     |                                             | I:800V        | G           |                       |             |                                                              |
|                      |                     |                     |                                             | rated:1000V   | G           |                       |             |                                                              |
|                      |                     |                     |                                             | II:1200V      | G           |                       |             |                                                              |
| Suntree Model Number | Shell Frame Current | Rated Current       | Pole                                        | Rated Voltage | Wiring Mode | Accessory and Voltage |             |                                                              |
| SL7N                 | -63                 | C32                 | 2P                                          | II            | G           | MX+OF I               |             |                                                              |

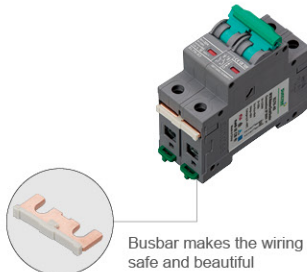
| Suntree Model Number | Shell Frame Current | Rated Current | Pole | Rated Voltage | Wiring Mode | Accessory and Voltage |
|----------------------|---------------------|---------------|------|---------------|-------------|-----------------------|
| SL7N                 | -63                 | C32           | 2P   | II            | G           | MX+OF I               |

SL7N-63 C32/4PIIGMX+OFI

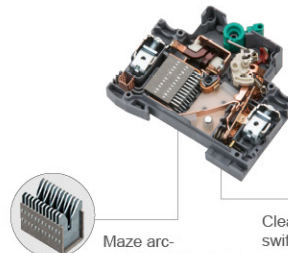
DC Miniature Circuit Breaker 2P 40 A 600 V; C curve; up-out and down-in; DC12V MX+OF accessory



7 rivets guarantee wiring reliability



Busbar makes the wiring safe and beautiful



Maze arc-extinguishing room

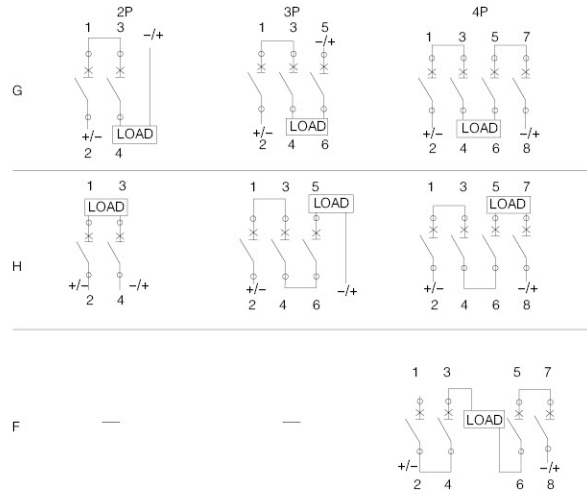


Clearance  $\geq 9\text{mm}$  swift arc breaking

## Parameters

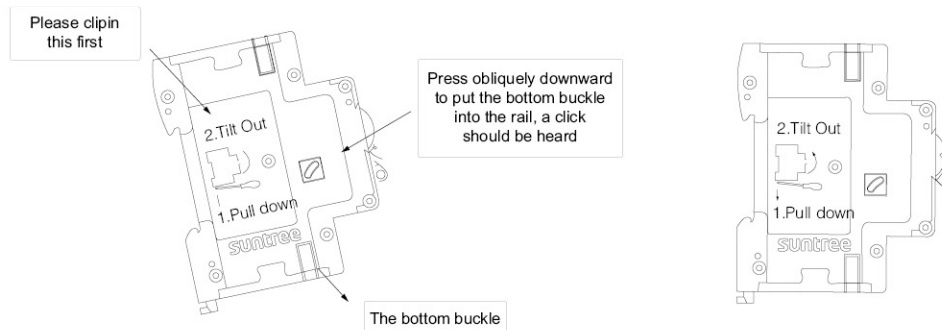
| Item                                                 | Parameter                                                                                                                |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Rated Insulation Voltage (Ui)                        | 1250 V                                                                                                                   |
| Rated Operational Voltage (Ue)                       | DC(1P):15V,24V,48V,60V,100V,180V,250V ; DC(2P):24V,48V,125V,375V,550V,600V,800V<br>DC(3P):750V,900V ; DC(4P):1000V,1200V |
| Rated Shell Frame Current                            | 63 A                                                                                                                     |
| Current (In)                                         | 6 A 10 A 16 A 20 A 25 A 32 A 40 A 50 A 63 A                                                                              |
| Pole                                                 | 1P 2P 3P 4P                                                                                                              |
| Rated Short Circuit Breaking Capacity (Ics)          | 6kA(2kA for 800Vdc and 1200Vdc)                                                                                          |
| Rated Ultimate Short Circuit Breaking Capacity (Icu) | 6kA(2kA for 800Vdc and 1200Vdc)                                                                                          |
| Mechanical Life                                      | 20000 times                                                                                                              |
| Electrical Life                                      | <DC125 V/1P or <DC250 V/2P: 10000 times; other voltage: 1500 times                                                       |
| Certification                                        | CB CE SAS CCC A                                                                                                          |
| Fishbone Busbar and Wire Connector                   | YES                                                                                                                      |
| Rated Impulse Withstand Voltage (Uimp)               | 6 kV                                                                                                                     |
| Trip Characteristics                                 | B/C                                                                                                                      |
| Trip Type                                            | thermo-magnetic                                                                                                          |
| Overvoltage Category                                 | III                                                                                                                      |
| Pollution Degree                                     | 3                                                                                                                        |
| Protection Degree                                    | IP40; IP20 (seam)                                                                                                        |
| Damp Heat Resistance                                 | type 2                                                                                                                   |
| Relative Humidity                                    | ≤95%                                                                                                                     |
| Standard                                             | IEC 60947-2 GB/T 14048.2                                                                                                 |
| Vibration Resistance                                 | According to IEC60068-2-6                                                                                                |
| Mechanical Shock Resistance                          | According to IEC60068-2-27                                                                                               |
| Working Temperature                                  | -30°C to 70°C                                                                                                            |
| Damp Heat Resistance (IEC 60068-4)                   | Db ( 6 cycles at 55°C )                                                                                                  |
| Storage Temperature                                  | -40°C to 85°C                                                                                                            |
| Installation                                         | DIN                                                                                                                      |
| Altitude                                             | ≤2000                                                                                                                    |
| Weight                                               | 0.12 kg/P                                                                                                                |
| Accessory                                            | OF/SD/MX/MN/MX+OF                                                                                                        |
| MX Us                                                | DC:12V, 24V, 220V; AC:110V,220V,380V; Power Supply recommended over 75W                                                  |
| MN Un                                                | AC 220 V AC 380 V                                                                                                        |

## Wiring

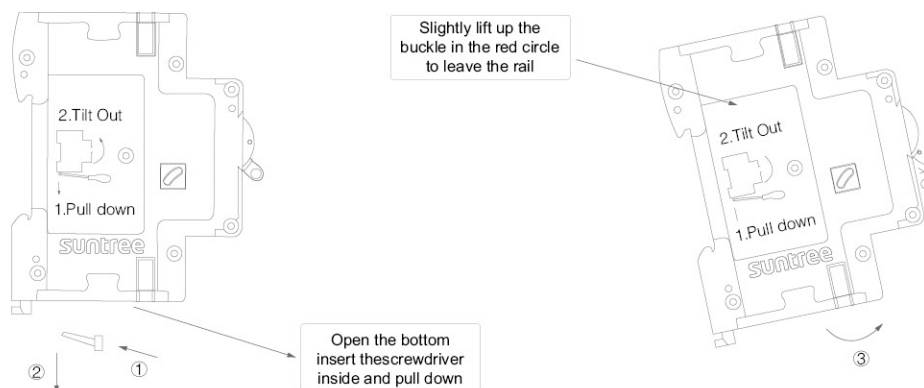


## Installation

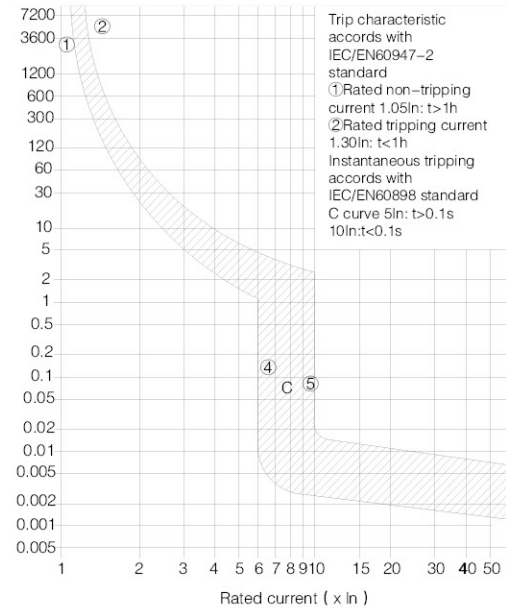
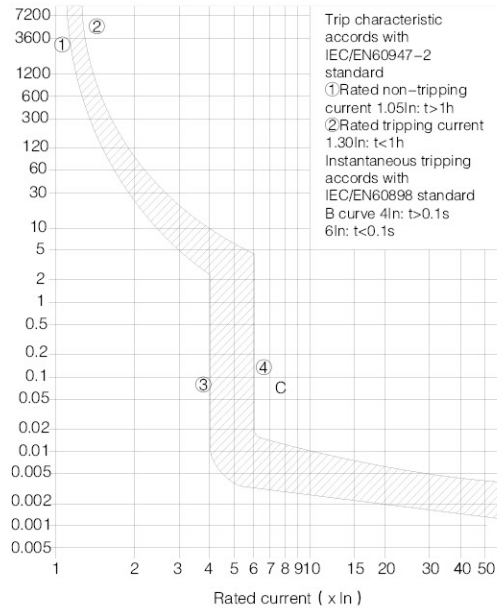
This product is installed with 35 mm DIN rail. No additional tool needed, simply buckle the product into the rail. Please put the upper hook of the bottom into the rail first, making the product angled about 30°. Then press down to buckle it. When you finish, the product should stay vertical as shown in the right picture.



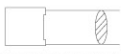
## Dismantling



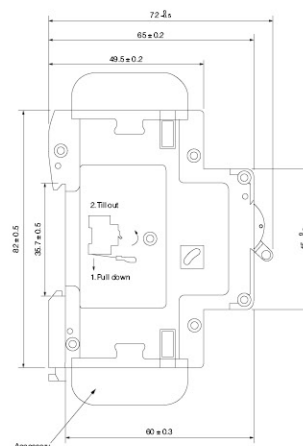
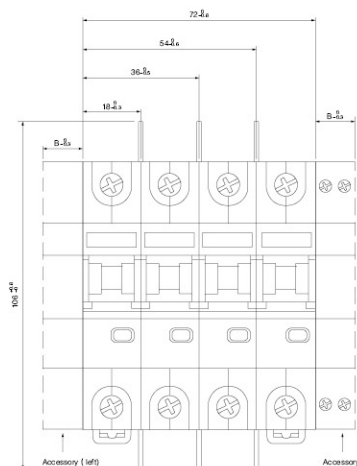
## Trip Characteristic



## Wiring Capacity

| project name                                                                                                                        | diagram                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Wiring tool                                      |  |
| Wiring Capacity <sup>2</sup> (mm <sup>2</sup> )  | 1-25 mm <sup>2</sup> (mm )                                                            |
| Tightening torque (Nm)                           | 2-2.3 Nm (Nm)                                                                         |

## Appearance And Mounting Dimension

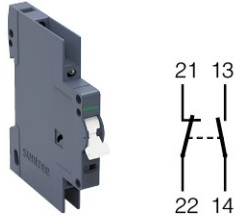


## Auxiliary Contact And Alarm Contact

Auxiliary contact: Accessory connected in the auxiliary circuit of switch apparatus, which indicates whether the circuit breaker is on or off

Alarm contact: Accessory to indicate whether the circuit breaker is in trip state (Trip) or not (ON or OFF). When it says Trip, there may be three causes:

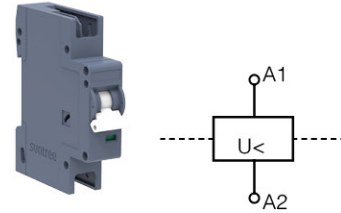
overload or short circuit fault;  
shunt release tripping;  
line fault, undervoltage release activated



| Mechanical Parameter                                                    | Value                                   |
|-------------------------------------------------------------------------|-----------------------------------------|
| Contact                                                                 | OF、SD、OF+SD                             |
| Rated Voltage                                                           | 250V                                    |
| Frequency                                                               | 50/60Hz                                 |
| Rated Current                                                           | 8A                                      |
| Rated Thermal Current                                                   | 8A                                      |
| Rated Working Current                                                   | 6A/250V AC<br>2A/440VAC                 |
| Rated Working Current                                                   | 0.5A/230V DC<br>2A/110V DC<br>4A/60V DC |
| Rated Insulation Voltage                                                | 250V AC                                 |
| Minimum Operating Voltage (per contact)                                 | 24V AC/DC                               |
| Minimum Operating Current                                               | 50mA AC/DC                              |
| Rated Peak Withstand Voltage                                            | 1 kV                                    |
| "Conditional Short-circuit Current ( with 6A backup fuse or FAZ-B4-HS)" | 1 kA                                    |
| Max Backup Fuse, Overload and Short-circuit                             | 6 A gL/FAZ-4/.B-HS                      |
| Mechanical Parameter                                                    | Value                                   |
| Installation                                                            | in switch apparatus                     |
| Protection Degree (built-in)                                            | IP20                                    |
| Terminal Installation                                                   | Open                                    |
| Terminal Wiring Capacity                                                | 0.5–1.5 mm <sup>2</sup>                 |
| Terminal Screw                                                          | M3 (PoziDrive Z0)                       |
| Screw Tightening Torque                                                 | max: 0.8–1.0 Nm                         |
| B Size                                                                  | 9 mm                                    |
| Installation Side                                                       | left                                    |

## Undervoltage Release

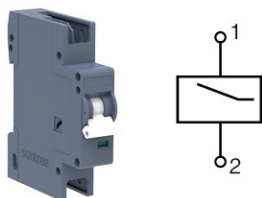
Undervoltage release: act when the line voltage is lower than the setting voltage.



| Mechanical Parameter         | Value                                                              |
|------------------------------|--------------------------------------------------------------------|
| Rated Voltage (Un)           | 230V/400V AC                                                       |
| Frequency                    | 50–60 Hz                                                           |
| Cut-in Voltage               | 80%Un                                                              |
| Tripping Voltage             | 50%Un                                                              |
| Mechanical Parameter         | Value                                                              |
| Dimensions                   | 45 mm                                                              |
| Height                       | 80 mm                                                              |
| Width                        | 17.5 mm (1MU)                                                      |
| Installation                 | Quick installation on rail ( IEC/ EN60715)                         |
| Protection Degree (built-in) | IP20                                                               |
| Terminal Installation        | Open/Lifting                                                       |
| Terminal Wiring Capacity     | 0.5–1.5 mm <sup>2</sup>                                            |
| Terminal Protection          | finger and hand touch protection meet the BGV A3.OVE-EN 6 standard |
| B Size                       | 18 mm                                                              |
| Installation Side            | left or right                                                      |

## Shunt Release

When the voltage is at 70% to 110% of the rated control supply voltage, the shunt release shall reliably trip the circuit breaker.



| Shunt Release Parameter                     | Value                    |                          |
|---------------------------------------------|--------------------------|--------------------------|
| Electrical Parameter                        | DC12 V DC24–48 V         | 110–400 V                |
| Minimum Pulse Duration                      | 15 ms                    | 15 ms                    |
| Internal Impedance                          | 2 $\Omega$               | 120 $\Omega$             |
| Duty Cycle                                  | 100%                     | 100%                     |
| Tripping Time                               | <20 ms                   | <20 ms                   |
| Peak Withstand Voltage ( 1.2/50 $\mu$ s )   | 2.5 kV                   | 2.5 kV                   |
| Electrical Life                             | > 4000 times             | > 4000 times             |
| Operating Limit                             | 10 V                     | 10 V                     |
| Working Voltage                             | 12–48 V                  | 110–400 V                |
| Maximum Circuit Current Consumption         | 3 A                      | 3 A                      |
| Outflow Time at Maximum Current Consumption | 10 ms                    | 10 ms                    |
| Operating Limit                             | 9 V                      | 9 V                      |
| Working Voltage                             | 12–48 V                  | 110–400 V                |
| Maximum Circuit Current Consumption         | 3 A                      | 3 A                      |
| Outflow Time at Maximum Current Consumption | 2 ms                     | 2 ms                     |
| <b>Mechanical Parameter</b>                 |                          |                          |
| Dimensions                                  | 45 mm                    | 45 mm                    |
| Height                                      | 80 mm                    | 80 mm                    |
| Width                                       | 18 mm (1MU)              | 18 mm (1MU)              |
| Installation                                | Adhesion                 | Adhesion                 |
| Protection Degree (built-in)                | IP40                     | IP40                     |
| Terminal Installation ( upper and lower )   | Open/Lifting             | Open/Lifting             |
| Terminal Wiring Capacity                    | 0.15–0.5 mm <sup>2</sup> | 0.15–0.5 mm <sup>2</sup> |
| Screw Tightening Torque                     | max: 0.8–1 N             | max: 0.8–1 N             |
| B Size                                      | 18 mm                    | 18 mm                    |
| Installation Side                           | left or right            | left or right            |