

# Slim MCBs Ex9B40J, 6 kA

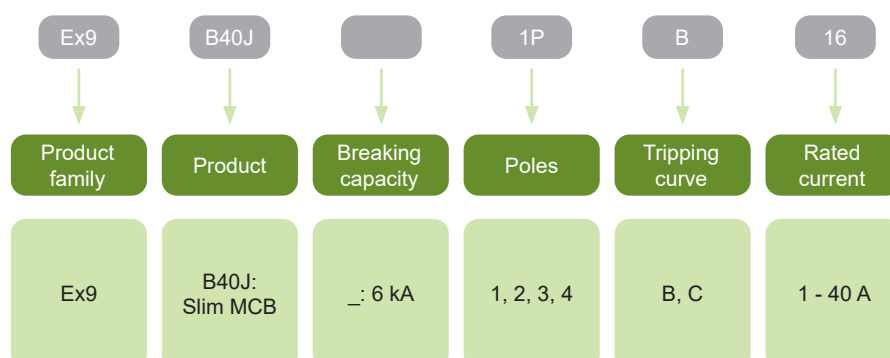


- Slim Miniature Circuit Breakers according to IEC/EN 60898-1
- Rated short circuit breaking capacity 6 kA
- 1 up to 4-pole versions
- Tripping characteristics B, C
- Rated current up to 40 A
- Rated operational voltage 230/400 V AC,
- Wide range of accessories

Slim miniature circuit breakers Ex9B40J are devices suitable for domestic as well as commercial applications. The 3/4 module width - 13.5mm width per pole instead of 18mm of regular devices, makes this series the best option for space demanding installations.

It has been preserved the internal structure of the regular Ex9B product family in the slim miniature circuit breakers, making the Ex9B40J full compatible with the accessories of the regular circuit breakers: shunt trip releases, undervoltage and overvoltage releases, auxiliary contacts and alarm contacts. It can be used up to three units of auxiliary or alarm contacts plus up to two release units.

## Type Key

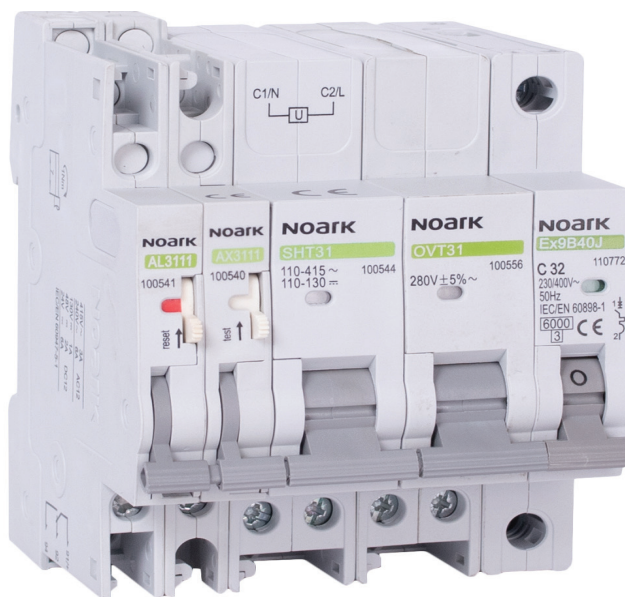


## Certification marks



# Slim MCBs Ex9B40J, 6 kA

## Accessories



Auxiliary or signal contacts  
**AX, AL, AXL**  
Up to 3 units

Voltage or trip releases  
**SHT, UVT, OVT**  
Up to 2 units

MCB  
**Ex9B40J**  
1, 2, 3, 4-pole

Auxiliary contacts AX3111, AX3122

Alarm contact AL3111

Auxiliary and alarm contact AXL31

Shunt trip releases SHT31, SHT3111

Undervoltage releases UVT31, UVT3101, UVT3110

Overvoltage release OVT31

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## B-Characteristic, 1-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing  |
|---------------|-------|-------|-------------|----------------|----------|
| 1 A           | 1     | B     | 110719      | Ex9B40J 1P B1  | 1/16/192 |
| 2 A           | 1     | B     | 110720      | Ex9B40J 1P B2  | 1/16/192 |
| 3 A           | 1     | B     | 110721      | Ex9B40J 1P B3  | 1/16/192 |
| 4 A           | 1     | B     | 110722      | Ex9B40J 1P B4  | 1/16/192 |
| 6 A           | 1     | B     | 110723      | Ex9B40J 1P B6  | 1/16/192 |
| 10 A          | 1     | B     | 110724      | Ex9B40J 1P B10 | 1/16/192 |
| 16 A          | 1     | B     | 110725      | Ex9B40J 1P B16 | 1/16/192 |
| 20 A          | 1     | B     | 110726      | Ex9B40J 1P B20 | 1/16/192 |
| 25 A          | 1     | B     | 110727      | Ex9B40J 1P B25 | 1/16/192 |
| 32 A          | 1     | B     | 110728      | Ex9B40J 1P B32 | 1/16/192 |
| 40 A          | 1     | B     | 110729      | Ex9B40J 1P B40 | 1/16/192 |

## B-Characteristic, 2-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing |
|---------------|-------|-------|-------------|----------------|---------|
| 1 A           | 2     | B     | 110730      | Ex9B40J 2P B1  | 1/8/96  |
| 2 A           | 2     | B     | 110731      | Ex9B40J 2P B2  | 1/8/96  |
| 3 A           | 2     | B     | 110732      | Ex9B40J 2P B3  | 1/8/96  |
| 4 A           | 2     | B     | 110733      | Ex9B40J 2P B4  | 1/8/96  |
| 6 A           | 2     | B     | 110734      | Ex9B40J 2P B6  | 1/8/96  |
| 10 A          | 2     | B     | 110735      | Ex9B40J 2P B10 | 1/8/96  |
| 16 A          | 2     | B     | 110736      | Ex9B40J 2P B16 | 1/8/96  |
| 20 A          | 2     | B     | 110737      | Ex9B40J 2P B20 | 1/8/96  |
| 25 A          | 2     | B     | 110738      | Ex9B40J 2P B25 | 1/8/96  |
| 32 A          | 2     | B     | 110739      | Ex9B40J 2P B32 | 1/8/96  |
| 40 A          | 2     | B     | 110740      | Ex9B40J 2P B40 | 1/8/96  |

## B-Characteristic, 3-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing |
|---------------|-------|-------|-------------|----------------|---------|
| 1 A           | 3     | B     | 110741      | Ex9B40J 3P B1  | 1/5/60  |
| 2 A           | 3     | B     | 110742      | Ex9B40J 3P B2  | 1/5/60  |
| 3 A           | 3     | B     | 110743      | Ex9B40J 3P B3  | 1/5/60  |
| 4 A           | 3     | B     | 110744      | Ex9B40J 3P B4  | 1/5/60  |
| 6 A           | 3     | B     | 110745      | Ex9B40J 3P B6  | 1/5/60  |
| 10 A          | 3     | B     | 110746      | Ex9B40J 3P B10 | 1/5/60  |
| 16 A          | 3     | B     | 110747      | Ex9B40J 3P B16 | 1/5/60  |
| 20 A          | 3     | B     | 110748      | Ex9B40J 3P B20 | 1/5/60  |
| 25 A          | 3     | B     | 110749      | Ex9B40J 3P B25 | 1/5/60  |
| 32 A          | 3     | B     | 110750      | Ex9B40J 3P B32 | 1/5/60  |
| 40 A          | 3     | B     | 110751      | Ex9B40J 3P B40 | 1/5/60  |

## B-Characteristic, 4-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing |
|---------------|-------|-------|-------------|----------------|---------|
| 1 A           | 4     | B     | 110752      | Ex9B40J 4P B1  | 1/4/48  |
| 2 A           | 4     | B     | 110753      | Ex9B40J 4P B2  | 1/4/48  |
| 3 A           | 4     | B     | 110754      | Ex9B40J 4P B3  | 1/4/48  |
| 4 A           | 4     | B     | 110755      | Ex9B40J 4P B4  | 1/4/48  |
| 6 A           | 4     | B     | 110756      | Ex9B40J 4P B6  | 1/4/48  |
| 10 A          | 4     | B     | 110757      | Ex9B40J 4P B10 | 1/4/48  |
| 16 A          | 4     | B     | 110758      | Ex9B40J 4P B16 | 1/4/48  |
| 20 A          | 4     | B     | 110759      | Ex9B40J 4P B20 | 1/4/48  |
| 25 A          | 4     | B     | 110760      | Ex9B40J 4P B25 | 1/4/48  |
| 32 A          | 4     | B     | 110761      | Ex9B40J 4P B32 | 1/4/48  |
| 40 A          | 4     | B     | 110762      | Ex9B40J 4P B40 | 1/4/48  |

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## C-Characteristic, 1-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing  |
|---------------|-------|-------|-------------|----------------|----------|
| 1 A           | 1     | C     | 110763      | Ex9B40J 1P C1  | 1/16/192 |
| 2 A           | 1     | C     | 110764      | Ex9B40J 1P C2  | 1/16/192 |
| 3 A           | 1     | C     | 110765      | Ex9B40J 1P C3  | 1/16/192 |
| 4 A           | 1     | C     | 110766      | Ex9B40J 1P C4  | 1/16/192 |
| 6 A           | 1     | C     | 110767      | Ex9B40J 1P C6  | 1/16/192 |
| 10 A          | 1     | C     | 110768      | Ex9B40J 1P C10 | 1/16/192 |
| 16 A          | 1     | C     | 110769      | Ex9B40J 1P C16 | 1/16/192 |
| 20 A          | 1     | C     | 110770      | Ex9B40J 1P C20 | 1/16/192 |
| 25 A          | 1     | C     | 110771      | Ex9B40J 1P C20 | 1/16/192 |
| 32 A          | 1     | C     | 110772      | Ex9B40J 1P C32 | 1/16/192 |
| 40 A          | 1     | C     | 110773      | Ex9B40J 1P C40 | 1/16/192 |

## C-Characteristic, 2-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing |
|---------------|-------|-------|-------------|----------------|---------|
| 1 A           | 2     | C     | 110774      | Ex9B40J 2P C1  | 1/8/96  |
| 2 A           | 2     | C     | 110775      | Ex9B40J 2P C2  | 1/8/96  |
| 3 A           | 2     | C     | 110776      | Ex9B40J 2P C3  | 1/8/96  |
| 4 A           | 2     | C     | 110777      | Ex9B40J 2P C4  | 1/8/96  |
| 6 A           | 2     | C     | 110778      | Ex9B40J 2P C6  | 1/8/96  |
| 10 A          | 2     | C     | 110779      | Ex9B40J 2P C10 | 1/8/96  |
| 16 A          | 2     | C     | 110780      | Ex9B40J 2P C16 | 1/8/96  |
| 20 A          | 2     | C     | 110781      | Ex9B40J 2P C20 | 1/8/96  |
| 25 A          | 2     | C     | 110782      | Ex9B40J 2P C25 | 1/8/96  |
| 32 A          | 2     | C     | 110783      | Ex9B40J 2P C32 | 1/8/96  |
| 40 A          | 2     | C     | 110784      | Ex9B40J 2P C40 | 1/8/96  |

## C-Characteristic, 3-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing |
|---------------|-------|-------|-------------|----------------|---------|
| 1 A           | 3     | C     | 110785      | Ex9B40J 3P C1  | 1/5/60  |
| 2 A           | 3     | C     | 110786      | Ex9B40J 3P C2  | 1/5/60  |
| 3 A           | 3     | C     | 110787      | Ex9B40J 3P C3  | 1/5/60  |
| 4 A           | 3     | C     | 110788      | Ex9B40J 3P C4  | 1/5/60  |
| 6 A           | 3     | C     | 110789      | Ex9B40J 3P C6  | 1/5/60  |
| 10 A          | 3     | C     | 110790      | Ex9B40J 3P C10 | 1/5/60  |
| 16 A          | 3     | C     | 110791      | Ex9B40J 3P C16 | 1/5/60  |
| 20 A          | 3     | C     | 110792      | Ex9B40J 3P C20 | 1/5/60  |
| 25 A          | 3     | C     | 110793      | Ex9B40J 3P C25 | 1/5/60  |
| 32 A          | 3     | C     | 110794      | Ex9B40J 3P C32 | 1/5/60  |
| 40 A          | 3     | C     | 110795      | Ex9B40J 3P C40 | 1/5/60  |

## C-Characteristic, 4-pole



| Rated current | Poles | Char. | Article No. | Type           | Packing |
|---------------|-------|-------|-------------|----------------|---------|
| 1 A           | 4     | C     | 110796      | Ex9B40J 4P C1  | 1/4/48  |
| 2 A           | 4     | C     | 110797      | Ex9B40J 4P C2  | 1/4/48  |
| 3 A           | 4     | C     | 110798      | Ex9B40J 4P C3  | 1/4/48  |
| 4 A           | 4     | C     | 110799      | Ex9B40J 4P C4  | 1/4/48  |
| 6 A           | 4     | C     | 110800      | Ex9B40J 4P C6  | 1/4/48  |
| 10 A          | 4     | C     | 110801      | Ex9B40J 4P C10 | 1/4/48  |
| 16 A          | 4     | C     | 110802      | Ex9B40J 4P C16 | 1/4/48  |
| 20 A          | 4     | C     | 110803      | Ex9B40J 4P C20 | 1/4/48  |
| 25 A          | 4     | C     | 110804      | Ex9B40J 4P C25 | 1/4/48  |
| 32 A          | 4     | C     | 110805      | Ex9B40J 4P C32 | 1/4/48  |
| 40 A          | 4     | C     | 110806      | Ex9B40J 4P C40 | 1/4/48  |

# Technical Data Ex9B40J

## Slim Miniature Circuit Breakers, 6 kA

### General parameters

Normal limiting of short circuit current

Suitable for household as well as commercial applications

Accessories

|                             |                         |                                             |
|-----------------------------|-------------------------|---------------------------------------------|
| Auxiliary contacts          | AX3111, AX3122          | 100540, 100542                              |
| Alarm contact               | AL3111                  | 100541                                      |
| Auxiliary and alarm contact | AXL31                   | 100543                                      |
| Shunt trip releases         | SHT31, SHT3111          | 100544-100546, 100547-100549                |
| Undervoltage releases       | UVT31, UVT3101, UVT3110 | 100550-100551, 100552-100553, 100554-100555 |
| Overvoltage release         | OVT31 280V AC±5%        | 100556                                      |

Max. number of installed accessories is 3 pcs of one contact units (AX3111, AL3111)  
or 2 pcs of two contact units (AX3122, AXL31) and 2 pcs of releases (SHT31, UVT31, OVT31)

### Electrical parameters

|                                           |                          |
|-------------------------------------------|--------------------------|
| Tested according to                       | IEC / EN 60898-1         |
| Rated op. voltage $U_e$                   | 230/400 V AC             |
| Rated frequency                           | 50 Hz                    |
| Rated breaking capacity $I_{cn}$          | 6 kA                     |
| Rated current                             | 1 — 40 A                 |
| Tripping characteristics                  | B, C                     |
| Rated impulse withstand voltage $U_{imp}$ | 4 kV                     |
| Rated insulation voltage $U_i$            | 690 V AC                 |
| Mechanical service life                   | 15 000 operation cycles  |
| Electrical service life                   | 10 000 operation cycles  |
| Selectivity class                         | 3                        |
| Line voltage connection                   | arbitrary above or below |

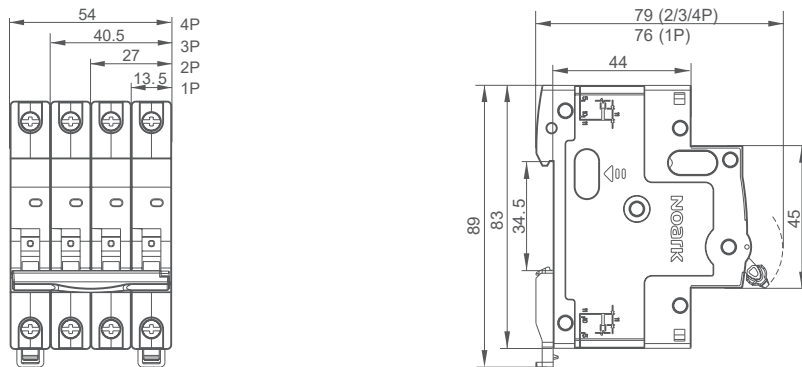
### Mechanical parameters

|                                 |                                             |
|---------------------------------|---------------------------------------------|
| Device width                    | 13.5 mm (per pole)                          |
| Device height                   | 83 mm (89 mm including rail clip)           |
| Frame size                      | 45 mm                                       |
| Mounting                        | easy fastening onto 35 mm device rail (DIN) |
| Degree of protection            | IP20                                        |
| Terminals                       | open mouthed                                |
| Terminal capacity               | 1 — 16 mm <sup>2</sup>                      |
| Fastening torque of terminals   | 1.5 Nm                                      |
| Ambient temperature             | -25 — +70 °C                                |
| Altitude                        | ≤ 2000 m                                    |
| Relative humidity               | ≤ 95 %                                      |
| Resistance to humidity and heat | class 2                                     |
| Pollution degree                | 2                                           |
| Installation class              | III                                         |
| Weight                          | 0.086 kg (per pole)                         |

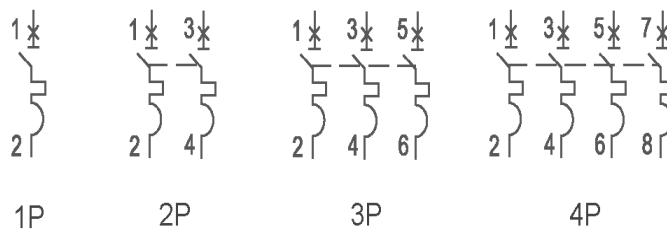
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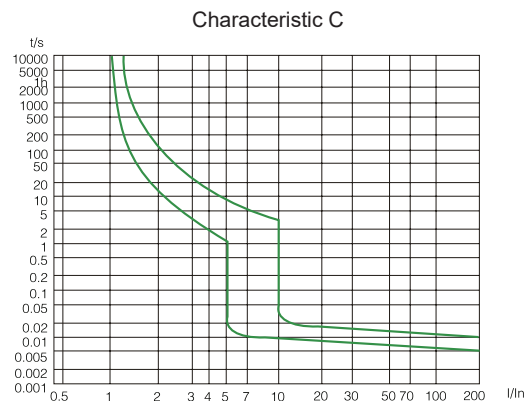
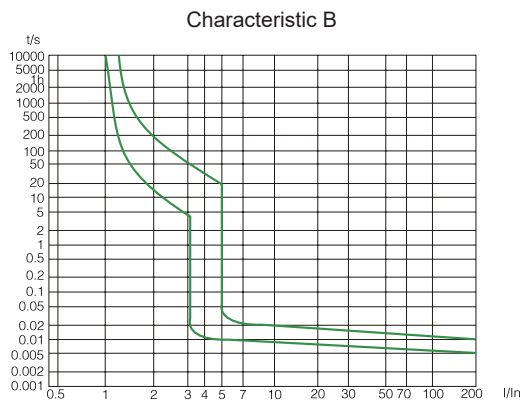
### Dimensions



### Wiring diagrams



### Tripping characteristics



### Power loss per pole

| $I_n$ [A] | 1   | 2   | 3   | 4   | 6   | 10  | 16  | 20  | 25  | 32  | 40  |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P [W]     | 1.9 | 2.2 | 1.9 | 2.2 | 2.4 | 1.6 | 2.2 | 1.8 | 2.3 | 3.3 | 3.4 |