



AD990B

### RCBO 1P+N 6kA C-40A 30mA AC Class

#### Technical Features

##### Architecture

|              |      |
|--------------|------|
| Type of pole | 1P+N |
| Curve        | C    |

##### Electric current

|                                                                             |               |
|-----------------------------------------------------------------------------|---------------|
| Rated current                                                               | 40 A          |
| Rated residual operating current I <sub>dn</sub>                            | 30 mA         |
| Rated current -25°C                                                         | 46.90 A       |
| Rated current at -20°C                                                      | 46.30 A       |
| Rated current -15°C                                                         | 45.60 A       |
| Rated current -10°C                                                         | 45 A          |
| Rated current -5°C                                                          | 44.40 A       |
| Rated current at 0°C                                                        | 43.80 A       |
| Rated current 5°C                                                           | 43.10 A       |
| Rated current 10°C                                                          | 42.50 A       |
| Rated current 15°C                                                          | 41.90 A       |
| Rated current at 20°C                                                       | 41.30 A       |
| Rated current 25°C                                                          | 40.60 A       |
| Rated current 30°C                                                          | 40 A          |
| Rated current 35°C                                                          | 39.40 A       |
| Rated current at 40°C                                                       | 38.80 A       |
| Rated current at 45°C                                                       | 38.20 A       |
| Rated current at 50°C                                                       | 37.50 A       |
| Rated current 55°C                                                          | 36.90 A       |
| Rated current 60°C                                                          | 36.20 A       |
| Correction factor of rating current for 2 devices placed side by side       | 1             |
| Min./max. threshold value of the AC thermal operation                       | 1.13 - 1.45 A |
| Correction factor of rating current for 3 devices placed side by side       | 0.95          |
| Correction factor of rating current for 4 and 5 devices placed side by side | 0.90          |
| Correction factor of rating current for 6 devices placed side by side       | 0.85          |

##### Safety

|                               |      |
|-------------------------------|------|
| Residual current type         | AC   |
| Ingress Protection (IP) class | IP20 |

##### Main electrical attributes

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| Rated short-circuit breaking capacity I <sub>cn</sub> AC according to IEC 60898-1 | 6 kA |
|-----------------------------------------------------------------------------------|------|

##### Connectivity

|                    |                |
|--------------------|----------------|
| Type of connection | Screw terminal |
|--------------------|----------------|

##### Voltage

|                                         |       |
|-----------------------------------------|-------|
| Rated insulation voltage U <sub>i</sub> | 500 V |
|-----------------------------------------|-------|

##### Electric current

|                                                                             |      |
|-----------------------------------------------------------------------------|------|
| Rated service breaking capacity I <sub>cs</sub> AC according to IEC 60898-1 | 6 kA |
|-----------------------------------------------------------------------------|------|

##### Voltage

|                                                  |             |
|--------------------------------------------------|-------------|
| Rated impulse withstand voltage U <sub>imp</sub> | 4000 V      |
| Max. operating voltage                           | 240 V       |
| Rated operational voltage U <sub>e</sub>         | 240 - 240 V |
| Overvoltage category according to IEC 60947-1    | 3           |
| Type voltage supply                              | AC          |

##### Power

|                                       |         |
|---------------------------------------|---------|
| Total power loss under I <sub>N</sub> | 11.10 W |
|---------------------------------------|---------|

##### Frequency

|           |            |
|-----------|------------|
| Frequency | 50 - 50 Hz |
|-----------|------------|

**Use conditions**

|               |        |
|---------------|--------|
| Max. Altitude | 2000 m |
|---------------|--------|

**Installation, mounting**

|                                         |                |
|-----------------------------------------|----------------|
| Nominal tightening torque down terminal | 2.10 - 2.10 Nm |
| Nominal tightening torque top terminal  | 2.10 - 2.10 Nm |

**Use conditions**

|                                             |   |
|---------------------------------------------|---|
| Class of energy limitation I <sup>2</sup> t | 3 |
|---------------------------------------------|---|

**Endurance**

|                                        |      |
|----------------------------------------|------|
| Electric endurance in number of cycles | 2000 |
| Number of mechanical operations        | 1000 |

**Connection**

|                                                             |                        |
|-------------------------------------------------------------|------------------------|
| Cross-section rigid conductor                               | 1 - 25 mm <sup>2</sup> |
| Cross-section of input with screws, for flexible conductors | 1 - 16 mm <sup>2</sup> |
| Cross-section of input with screws, for massive conductors  | 1 - 25 mm <sup>2</sup> |

**Installation, mounting**

|                           |                |
|---------------------------|----------------|
| Nominal tightening torque | 2.10 - 2.10 Nm |
|---------------------------|----------------|

**Capacity**

|                   |   |
|-------------------|---|
| Number of modules | 2 |
|-------------------|---|

**Installation, mounting**

|                                               |                |
|-----------------------------------------------|----------------|
| Type of top connection for modular devices    | Screw terminal |
| Type of bottom connection for modular devices | biconnect      |

**Dimensions**

|        |       |
|--------|-------|
| Height | 83 mm |
| Width  | 35 mm |
| Depth  | 68 mm |

**Use conditions**

|                               |             |
|-------------------------------|-------------|
| Operating temperature         | -25 - 40 °C |
| Storage/transport temperature | -25 - 70 °C |

**Connection**

|                                                                        |                        |
|------------------------------------------------------------------------|------------------------|
| Cross-section of input and output with screws, for flexible conductors | 1 - 16 mm <sup>2</sup> |
| Cross-section of input and output with screws, for massive conductors  | 1 - 25 mm <sup>2</sup> |

**Use conditions**

|                                                          |                  |
|----------------------------------------------------------|------------------|
| Degree of pollution according to IEC 60664 / IEC 60947-2 | 2                |
| Air humidity protection                                  | For all climates |

**Sustainability**

|              |     |
|--------------|-----|
| RoHS conform | Yes |
|--------------|-----|