



AD990J

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

#### Technical Features

##### Architecture

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

##### Electric current

|                                                                                        |               |
|----------------------------------------------------------------------------------------|---------------|
| Rated current                                                                          | 40 A          |
| Rated residual operating current $I_{dn}$                                              | 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 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             |
| 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          |
| Min./max. threshold value of the AC thermal operation                                  | 1.13 - 1.45 A |
| Rated short-circuit breaking capacity $I_{cn}$ under 230 V AC according to IEC 60898-1 | 6 kA          |

##### Safety

|                               |      |
|-------------------------------|------|
| Residual current type         | A    |
| Ingress Protection (IP) class | IP2X |

##### Main electrical attributes

|                                                                            |      |
|----------------------------------------------------------------------------|------|
| Rated short-circuit breaking capacity $I_{cn}$ AC according to IEC 60898-1 | 6 kA |
|----------------------------------------------------------------------------|------|

##### Connectivity

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

##### Voltage

|                                               |             |
|-----------------------------------------------|-------------|
| Rated insulation voltage $U_i$                | 500 V       |
| Rated impulse withstand voltage $U_{imp}$     | 4000 V      |
| Max. operating voltage                        | 240 V       |
| Rated operational voltage $U_e$               | 240 - 240 V |
| Overvoltage category according to IEC 60947-1 | 3           |

##### Power

|                              |         |
|------------------------------|---------|
| Total power loss under $I_N$ | 11.10 W |
|------------------------------|---------|

##### Frequency

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

##### Use conditions

|                                   |        |
|-----------------------------------|--------|
| Max. Altitude                     | 2000 m |
| Class of energy limitation $I^2t$ | 3      |

---

**Endurance**

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

**Connection**

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

**Sustainability**

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