1. ELECTRICAL AND MECHANICAL CHARACTERISTICS

Symbol: 

Technology: 
- Electromagnetic residual current operating by sensitive relay

Product range: 
- Four pole - 4 module (4 x 17.8 mm)
- Version with neutral on right side

Rated current: 
25 / 32 / 40 / 63 / 80 A

Sensitivity: 
30 mA / 100 mA / 300 mA / 500 mA

Type: 
- AC (residual sinusoidal alternating current)
- A (residual alternating current with a DC component)
- AC-S (selective)
- A-S (selective)
- AC-G (protected from unwanted trippings)
- A-Hpi (protected from unwanted trippings)

Rated voltage / Frequency: 
- 400 V ~ - 50/60 Hz

Insulation voltage: 
- Uᵢ = 500 V

Operation at 400Hz: 
- Do not operate

Dielectric strength: 
- 2000 V – 50 Hz

Insulation resistance: 
- 2 MΩ

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(continued)

Pollution degree: 
- 2

Rated residual breaking capacity: 
- Iᵦm = 1000 A according to EN/IEC 61008-1

Rated making and breaking capacity: 
According to EN/IEC 61008-1
In = 25 / 32 / 40 A : Im = 500 A
In = 63 A : Im = 630 A
In = 80 A : Im = 800 A

Rated conditional short-circuit current: 
- Iₑc = 10 kA according to EN/IEC 61008-1

Rated conditional residual short-circuit current: 
- Iₑc = 10 kA according to EN/IEC 61008-1

Ambient working temperature: 
- 25°C / + 40°C

Ambient storage temperature: 
- - 40°C / + 70°C

Insulation against an impulse voltage: 
- Uimp = 6 kV

Working positions: 

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1. ELECTRICAL AND MECHANICAL CHARACTERISTICS

(continued)

Total dissipated power:
- By device loaded at In

<table>
<thead>
<tr>
<th>IΔn</th>
<th>25 A</th>
<th>40 A</th>
<th>63 A</th>
<th>80 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 mA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 A</td>
<td>14 W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 A</td>
<td>17 W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63 A</td>
<td>22 W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80 A</td>
<td>29 W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All others</td>
<td>5.5 W</td>
<td>14.5 W</td>
<td>38.5 W</td>
<td>50 W</td>
</tr>
</tbody>
</table>

Protection against unwanted tripping:
- 0.5µs/100 kHz ring wave: 200A
- 8/20 µs surge current:
  - type A - AC : 250 A
  - type S, Hpi, G : 3000 A

Mechanical and electrical endurance:
- According to EN/IEC 61008-1:
  - 20 000 operations without load
  - 10 000 operations with load (under In x Cos φ 0,9)
  - 1000 operations by test
  - 1000 operations by earth fault current

Limit rated voltages for test operation triphase network with or without neutral:
- Rated voltage for operation: 400 V

<table>
<thead>
<tr>
<th>IΔn</th>
<th>U mini</th>
<th>U maxi</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 mA</td>
<td>195 V</td>
<td>440 V</td>
</tr>
<tr>
<td>100 mA</td>
<td>230 V</td>
<td>440 V</td>
</tr>
<tr>
<td>300 mA</td>
<td>215 V</td>
<td>440 V</td>
</tr>
<tr>
<td>300 mA</td>
<td></td>
<td>230 V</td>
</tr>
<tr>
<td>500 mA</td>
<td>190 V</td>
<td>440 V</td>
</tr>
<tr>
<td>500 mA</td>
<td>295 V</td>
<td>440 V</td>
</tr>
<tr>
<td>500 mA</td>
<td></td>
<td>230 V</td>
</tr>
<tr>
<td>500 mA</td>
<td>Hpi / G</td>
<td>210 V</td>
</tr>
</tbody>
</table>

* Operate in 230 V triphase network

Protection degree:
- Terminals protection against touching: IP20 (connected device)
- Front face protection against touching: IP40
- Class II refered to metallic parts
- Protection against shocks: IK04

Isolating distance (distance between contacts):
- Handle in open position (OFF):
  - Neutral pole: over 4,5 mm
  - Phase pole: over 5,5 mm

Heat and fire resistance:
- Self extinguishing (glow wire test):
  - Base, Top and Test: 960°C
  - Handle: 750°C

Average weight per item:
0.38 kg

Volume and quantity when packed:

<table>
<thead>
<tr>
<th>Volume</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>For all rated currents</td>
<td>0.7 dm3</td>
</tr>
</tbody>
</table>

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R.C.C.B.'s four-pole LEXIC™

Cat. N°(s): 0088 64/65/66/83/84, 0089 93/94/95/96/99, 0090 00/01/02/06/07/11/12/13/14/18, 0091 40/41/42/43/46/47/48/49/58/59/60/61/64, 0091 65/66/67/71/72/77/78/79, 6021 08/09/10/18, 6027 42
1. ELECTRICAL AND MECHANICAL CHARACTERISTICS (continued)

Mains parts of R.C.C.B.:

- DIN rail clamp
- IN
- OUT
- Plug-in
- Contacts
- Mecanism lock
- Handle
- Test bottom
- Polarized relay with shield plate
- Core subassembly
- Terminals
2. INSTALLATION

Fixing:
- On symmetric rail EN 50.022 or DIN 35

Supply:
- From the top or the bottom

Connection:
- Terminals with release type captive screw (feeder equipped preventing the insertion of a wire cable under the terminal, terminal half-opened or closed)
- Alignment and spacing of terminals allowing busbar connection with other products of the same range
- Terminal depth: 14 mm
- Terminal capacity: 60 mm²
- Max acceptable wire size:
  - 35 mm² flexible cables
  - 50 mm² rigid cables
- Screw head: mixed, slotted and philips/ pozidriv n°2

Tightening torque:
- Minimum / Maximum: 1,2 Nm / 3,5 Nm
- Recommended: 2,5 Nm

Wire:

<table>
<thead>
<tr>
<th>Wire type</th>
<th>Without ferrule</th>
<th>With ferrule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rigid cables</td>
<td>1 x 0,75 à 50 mm²</td>
<td>1 x 0,75 à 25 mm²</td>
</tr>
<tr>
<td></td>
<td>ou</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 x 0,75 à 16 mm²</td>
<td></td>
</tr>
<tr>
<td>Flexible cables</td>
<td>1 x 0,75 à 35 mm²</td>
<td>1 x 0,75 à 25 mm²</td>
</tr>
<tr>
<td></td>
<td>ou</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 x 0,75 à 16 mm²</td>
<td></td>
</tr>
</tbody>
</table>

Wiring accessories:
- Supply busbar (réf. 049 44/45)
- Terminal screw covers (réf. 044 44)
- Lexicile line distributor (réf. 37 316/317) + wires

Tools required:
- For terminals:
  - 5,5 mm or pozidriv n°2 screwdriver recommended
- For fixing:
  - 5,5 mm recommended screwdriver

Sealing:
- Possible in open or closed position

Locking:
- Possible with support for padlock (réf. 044 42)

Marking:
- Circuits marking on front (with label holder)
- With label design software
- With electronic title printer + ribbon
- With plates of symbols

2. INSTALLATION (continued)

installation software:
- XL PRO

Auxiliaries clipped on the left-hand side of the R.C.C.B.'s

Auxiliaries list:

Signalisation auxiliaries:
- Auxiliary changeover switch (ref. 073 50) (0,5 module)
- Fault signalling changeover switch (ref. 073 51) (0,5 module)
- Auxiliary changeover switch, can be modified to a fault signalling switch (ref. 073 53) (0,5 module)
- Auxiliary changeover switch + fault signalling switch, can be modified to 2 auxiliary changeover switches (ref. 073 54) (1 module)

Control auxiliaries:
- Shunt trip (ref. 073 60/61) (1 module)
- Undervoltage release (ref. 073 65/66/68) (1 module)

Possible combinations of auxiliaries and R.C.C.B.'s:
Maximum number of auxiliaries = 3.
- Maximum number of 0.5 module auxiliary = 1
- Maximum number of signalling auxiliaries = 2
- Maximum number of control auxiliaries = 1
- Control auxiliary must be positioned on the left-hand side of signalling auxiliaries in case of use of these two kinds of auxiliaries with the same R.C.C.B.

3. STANDARDS

Compliance with standards:
- NF EN 61008-1 / IEC 61008-1
- EN/IEC 60 529 (IP)
- EN 50 102 (IK)

4. RESPECT OF ENVIRONMENT

Compliance with European Union Rules:
- Conformity with directive 2002/95/CE of 27/01/03 called « RoHS » that provides interdiction of dangerous material like lead, mercury, cadmium, hexavalent chrome, retarding of polybromobiphenyls (PBB) and polybromodiphylethers (PBDE) bromed flame from july 2006 the 1st.
- Conformity with directive 91/338/CEE of 18/06/91 and decree 94-647 of 27/07/94.

Plastic material:
- Enclosure plastic parts without halogen:
  - Base, Top and Test: PA 6
  - Handle: PBT
- Plastic parts marking according to ISO 11469 and ISO 1043

Packaging:
- Packing design and manufacture according to decree 98-638 of 20/07/98 and directive 94/62/CE
5. OVERALL DIMENSIONS

6. MARKING

Front face marking: by permanent pad printing.

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8. ASSOCIATION WITH UPSTREAM PROTECTION

Protection against overloads:
- R.C.C.B. must be protected (upstream or downstream) against overloads by a m.c.b. or a fuse at maximum with the same rate.

Protection against short-circuits:
- R.C.C.B. must be protected (upstream) against short-circuits by a m.c.b. or u fuse according to the hereunder tables.

400/415 V three phases + neutral network: Maximum value of short-circuit withstand of R.C.C.B.'s in terms of associated protection

<table>
<thead>
<tr>
<th>downstream</th>
<th>upstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.C.C.B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M.C.B.</td>
</tr>
<tr>
<td></td>
<td>DX</td>
</tr>
<tr>
<td>25 A</td>
<td>10 kA</td>
</tr>
<tr>
<td>32 / 40 A</td>
<td>10 kA</td>
</tr>
<tr>
<td>63 A</td>
<td>10 kA</td>
</tr>
<tr>
<td>80 A</td>
<td>10 kA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>downstream</th>
<th>upstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.C.C.B</td>
<td>gG FUSE</td>
</tr>
<tr>
<td>Rated current</td>
<td></td>
</tr>
<tr>
<td>25 A</td>
<td>100 kA</td>
</tr>
<tr>
<td>32 / 40 A</td>
<td>100 kA</td>
</tr>
<tr>
<td>63 A</td>
<td>100 kA</td>
</tr>
<tr>
<td>80 A</td>
<td>100 kA</td>
</tr>
</tbody>
</table>
9. RESIDUAL CURRENT TRIPPING CURVES

Curve of tripping time in terms of residual current

**TYPE AC**

![Graph of tripping time in terms of residual current for Type AC with curves for different types including Type S, Type G, and Type Standard.](image-url)
9. RESIDUAL CURRENT TRIPPING CURVES (continued)

Curve of tripping time in terms of residual current

**TYPE A**

![Graph showing tripping time in terms of residual current for different types of residual current trip units](image)