Low Consumption
d.c. Operated Contactors
Automation Solution
A new range of AL contactors
"low consumption"

Contactors with a low consumption DC coil for power circuits and motor control from 4 to 18.5 kW at a voltage up to 690 V - 50 Hz and up to 440 V DC.

**AL contactors:** 6 ratings available from AL 9 to AL 40 with integral auxiliary contacts on all three pole versions.

**NL contactor relays** are available with 4 or 8 poles. Versions TAL and TNL with a large coil operating range (0.7 to 1.25 x Ue) complete the AL series. Their conformity to traction requirements makes it a range particularly well suited to railway applications.

**Installation**

The AL contactors have a large utilisation flexibility. It is even possible to mount them in non-standard positions.

**Direct control by PLC**

The increased use of PLCs in industry has lead to a reduction of the required power necessary to control a contactor. The 2.4/3 W consumption of the AL 9 to AL 16 and 3.5 W of the AL 26 to AL 40 allows a direct control by all PLC transistor outputs without the use of an interface relay. When operated by a battery this low consumption gives a greatly increased battery life.
A new range of AL contactors

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- **AL** contactors: 6 ratings available from AL 9 to AL 40 with integral auxiliary contacts on all three pole versions.
- **NL** contactor relays are available with 4 or 8 poles Versions TAL and TNL with a large coil operating range (0.7 to 1.25 x Uc) complete the AL series.

Their conformity to traction requirements makes it a range particularly well suited to railway applications.

### Other advantages

- Possibility of coils with large operating ranges in versions TAL or TNL. Typical applications are batteries or railways. Example: coil 17…32 V DC.
- Check-reset functions
- Materials selected in accordance with acrological factors. They are fully recyclable and contain no elements dangerous to health.
- An insulation voltage of 1000V for the whole range
- Conformity to International standards
- Main approvals: UL, CSA, CCC (China)

### Installation

The AL contactors have a large utilisation flexibility. It is even possible to mount them in non-standard positions:

- Spring terminals for AL 9 to AL 16 contactors to reduce cabling time and maintenance programs.
- Ring tongue terminals particularly adapted to applications subjected to strong vibrations i.e. traction.
- Cable clamps and double connectors for small cable sizes and cage clamps for larger cable sizes. This enables a large connection capacity as standard.

### Other possibilities

- Spring terminals for AL 9 to AL 16 contactors to reduce cabling time and maintenance programs.
- Ring tongue terminals particularly adapted to applications subjected to strong vibrations i.e. traction.

### ABB contactors, a global offer

All of the contactors in the A series are aesthetically identical. They use the same accessories whether they are front mounting, side mounting or when used in conjunction with an overload relay. Furthermore, ABB offers a complete range of block contactors from 4 to 400 kW (AC-3) to be controlled by AC or DC current.

### AL contactor technical characteristics

<table>
<thead>
<tr>
<th>3-pole contactors</th>
<th>AL 9</th>
<th>AL 12</th>
<th>AL 15</th>
<th>AL 25</th>
<th>AL 30</th>
<th>AL 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power AC-3 400 V</td>
<td>kW</td>
<td>kW</td>
<td>kW</td>
<td>kW</td>
<td>kW</td>
<td>kW</td>
</tr>
<tr>
<td>Current AC-3 / 400 V</td>
<td>A</td>
<td>1</td>
<td>1.5</td>
<td>2</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Current AC-1 / 40 °C</td>
<td>A</td>
<td>9</td>
<td>12</td>
<td>17</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Coil consumption</td>
<td>W</td>
<td>2.4/3</td>
<td>2.4/3</td>
<td>2.4/3</td>
<td>3.5</td>
<td>3.5</td>
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<th>AL 16</th>
<th>AL 25</th>
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<tr>
<td>Current AC-3 / 400 V</td>
<td>A</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Current AC-1 / 40 °C</td>
<td>A</td>
<td>25</td>
<td>30</td>
</tr>
</tbody>
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### Accessories

- Auxiliary contacts (front or side mounting)
- Overload relays
- Mechanical / electrical interlocks
- Surge suppressors
- Etc...

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<tr>
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<td>25</td>
<td>30</td>
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<tr>
<td>Current AC-1 / 40 °C</td>
<td>A</td>
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*with restrictions
ABB provides the complete solution to all your motor starting needs in both AC and DC. It has never been simpler to incorporate ABB products and systems into your projects.

An offer integrated in the platform

IndustrialIT enabled