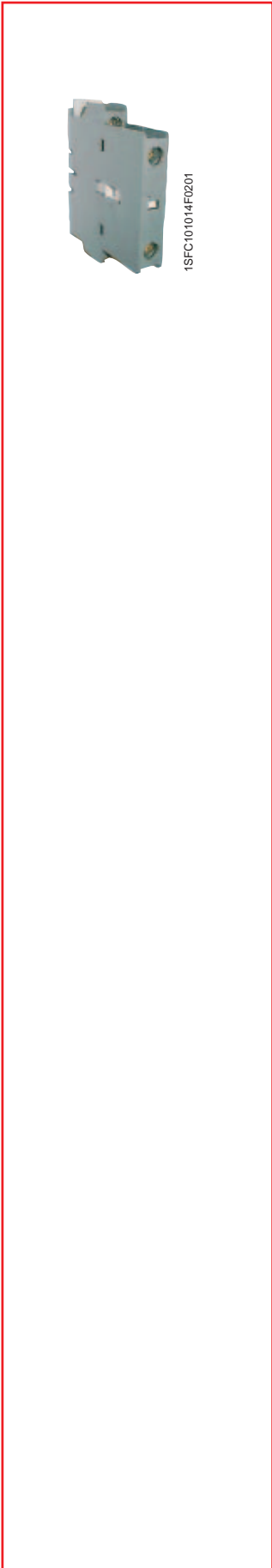


Auxiliary Contact Blocks

Side Mounting

New CAL18



Application

The auxiliary contact blocks are used for the operation of auxiliary circuits and control circuits.

Description

Type of auxiliary contact block in standard version for general use:

- **CAL18** 2-pole block instantaneous N.O. + N.C. contacts.

The auxiliary contact block is:

- Equipped with screw type connecting terminals delivered open.
- Protected against accidental direct contact.
- Marked in accordance with relevant standards.

Mirror contacts

The auxiliary contact block is designed to meet the requirements in IEC 60947-4-1.

In short this means: A normally closed auxiliary contact which can not be in closed position simultaneously with the normally open main contact.



(AF1350/1650: Use two N.C. auxiliary contacts in series for mirror contacts, one block on each side of the contactor).

Fitting Details

Clipped onto the right and/or lefthand side of the contactors.

The **CAL18-11B** is a second block for mounting in addition to a first **CAL18-11** block, right and/or lefthand of the A145 ... A300 and AF145 ... AF1650 contactors.

Ordering Details

| For contactors | Max. number of blocks | Contacts blocks | Type | Order code | Pack ^{ing} pieces | Weight kg |
|----------------------------------|-------------------------|---|-----------|-----------------|----------------------------|-----------|
| | |   | | | | 1 piece |
| 2-pole auxiliary contacts | | N.O. N.C. | | | | |
| A95 ... A300 | 2 blocks | } 1 1 | CAL18-11 | 1SFN010720R1011 | 2 | 0.050 |
| AF95 ... AF1650 | 2 blocks | | | | | |
| UA95 ... UA110 | 2 blocks | | | | | |
| A145 ... A300 | 2 blocks ⁽¹⁾ | } 1 1 | CAL18-11B | 1SFN010720R3311 | 2 | 0.050 |
| AF145 ... AF1650 | 2 blocks ⁽¹⁾ | | | | | |
| UA95 ... UA110 | 2 blocks ⁽¹⁾ | | | | | |

⁽¹⁾ 2 blocks CAL 18-11 + 2 blocks CAL 18-11B

Auxiliary device including an insertion contact and a varistor.

To be used only with AE 95/110 and TAE 95/110.




| | | | | | |
|---------------|---|----------|-----------------|---|-------|
| AE95, AE110 | } | CCL18-01 | 1SFN014328R1001 | 1 | 0,040 |
| TAE95, TAE110 | | | | | |

Auxiliary Contact Blocks

Side Mounting

New CAL18

Technical Data

| Types | CAL18-11 | CAL18-11B |
|--|--|--|
| Compliance with standards | IEC 60947-5-1, EN 60947-5-1 | |
| Certification and approvals | CE, UL, CSA, CCC | |
| Rated insulation voltage U_i according to IEC 60947-5-1 | V | 690 |
| according to UL/CSA | V | 690 |
| Rated operational voltage U_e | V a.c. | 24 to 690 |
| Conventional free air thermal current I_{th} | A | 16 |
| Rated operational current I_e acc. to IEC 60947-5-1 | | |
| AC-15 | 24-127 V a.c. | A 6 |
| | 220-240 V a.c. | A 4 |
| | 380-440 V a.c. | A 3 |
| | 500-690 V a.c. | A 2 |
| DC-13 | 24 V d.c. | A 6 |
| | 48 V d.c. | A 2.8 |
| | 72 V d.c. | A 1 |
| | 125 V d.c. | A 0.55 |
| | 250 V d.c. | A 0.3 |
| Short-circuit protection - gG type fuses | A | 10 |
| Rated making capacity | | 10 x I_e AC-15 |
| Rated breaking capacity | | 10 x I_e AC-15 |
| Rated short-time withstand current I_{cw} 1 s | A | 100 |
| $\theta = 40\text{ }^\circ\text{C}$ 0.1 s | A | 140 |
| Power loss per pole at 6 A | W | 0.15 |
| Min. switching capacity | V / mA | 24 / 50 (0.5 millions of operating cycles) |
| Mechanical durability – millions of operating cycles – max. mech. switching frequency | cycles / h | 5 (A/AF95 ... A/AF185), 3 (A/AF210 ... AF750), 0.5 (AF1350/AF1650) 3600 |
| Electrical durability – millions of operating cycles – max. elec. switching frequency | cycles / h | see diagram below 1200 |
| Connecting terminals (Delivered in open position. Terminal screws not used should be tightened.) | | M3.5 (+,-) pozidriv 2 screw with cable clamp |
| Tightening torque – recommended – max. | Nm Nm | 1.00 1.20 |
| Connecting capacity (min. ... max.) | | |
| Rigid solid |  1 or 2 x mm ² | 1 ... 4 |
| Flexible with cable end |  1 or 2 x mm ² | 0.75 ... 2.5 |
| Lugs |  L mm ≤ l mm > | 8 3.7 |
| Degree of protection according to IEC 60529, IEC 60144 | | IP 20 |

Electrical Durability for AC-15 Utilization Category

AC-15 utilization category according to IEC 60947-5-1 / EN 60947-5-1:

– making current: $10 \times I_e$ with $\cos \varphi = 0.7$ and U_e

– breaking current: I_e with $\cos \varphi = 0.4$ and U_e

These curves represent the electrical durability of the add-on auxiliary contacts in relation to the breaking current.

These curves are valid for resistive and inductive loads up to 690 V, 40 ... 60 Hz.

