

Terminal Marking Terminal Positioning

Connecting of the Contactors

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Terminal Marking and Positioning

General

Standards

Terminal marking of contactors, contactor relays, auxiliary contacts and overload relays generally complies with international and European standards IEC 60445, IEC 60947-1 and EN 50005. In addition, the marking of these devices also meets the following specific standards:

- IEC 60947-4-1, EN 60947-4-1 and EN 50012 for contactors and their auxiliary contacts,
- IEC 60947-5-1 and EN 50011 for contactor relays,
- IEC 60947-4-1 and EN 60047-4-1 for overload relays.

Contactor Marking

Marking of contactor main pole terminals

Main pole terminals are marked by codes made up of a figure followed by an alphanumeric combination: e.g. 1L1-2T1, 3L2-4T2, etc.

Marking of contactor auxiliary contact terminals

Contactor auxiliary contacts are marked by two-figure numbers:

- The **figure of the units** marks the **function**:

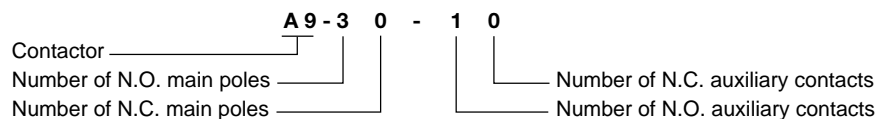
- | | | | |
|---------------------|----|---|----|
| - for N.C. contacts | -1 | - for N.C. contacts with a special function | -5 |
| | -2 | | -6 |
| - for N.O. contacts | -3 | - for N.O. contacts with a special function | -7 |
| | -4 | | -8 |

- The **figure of the tens** is a serial number allocated in continuous order starting from 1 (except for the contactors with one NC built-in auxiliary contact), regardless of the function of the contacts and running from left to right on the device starting with the 1st stack for 2-stack devices.

Furthermore, to meet the requirements of the American market these numbers are followed by the **NO** letters for **N**ormally **O**pen contacts and **NC** for **N**ormally **C**losed contacts.

Identification of contacts in contactor codes

Example :



Depending on device ratings, we deliver the following auxiliary contact arrangements (defined in standard EN 50012): 00, 10, 01, 11, 22, 32.

Other arrangements are possible by adding additional auxiliary contacts: 11, 12, 13, 21, 22, 23, 31, 32, 41.

Contactor Relay Marking

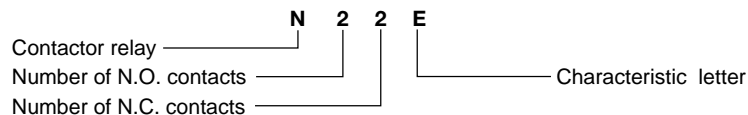
The marking of contactor relays complies with EN 50011 which outlines:

- The specific positioning of the contacts (the figures of the tens)
- The adequate function marking of the terminals of these contacts (the figures of the units, e.g. ⁻¹ ₋₂ ⁻³ ₋₄) as described above.

Furthermore, to meet the requirements of the American market these numbers are followed by the **NO** letters for **N**ormally **O**pen contacts and **NC** for **N**ormally **C**losed contacts.

According to EN 50011, contactor relays are designated by characteristic numbers and letters:

Example:



N, NL, NL Z and TNL contactor relays include these characteristic numbers and letters in their type code and are supplied in the following variants from the preferential **E** series:

- 22E-31E-40E for N, NL, NL Z and TNL contactor relays with 4 contacts
- 44E-53E-62E-71E-80E for N, NL contactor relays with 8 contacts
- 44E-62E-80E for TNL contactor relays with 8 contacts.

Other contact combinations are possible by adding auxiliary contact blocks.



A 9-30-10 contactor + CA5-10 aux. contact block one pole



N 22 E contactor relay

>> A... and AF... 3-pole Contactors pages 8/4 ... 8/6	>> A, AF, AL, AE, TAL, TAE 4-pole Contactors page 8/8
>> EH 1200 3-pole Contactors page 8/6	>> EK... 4-pole Contactors page 8/9
>> AL... TAL..., AE..., TAE... 3-pole Contactors page 8/7	>> UA..., UA..RA Contactors page 8/10

Terminal Marking and Positioning

General

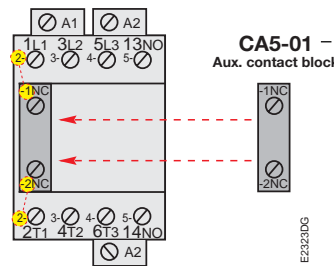
Add-on Auxiliary Contact Block Terminal Marking

Front mounting

- CA 5.., CC 5.. and CE 5.. one-pole auxiliary contact blocks only bear the **figure of the units** which refers to the **function** e.g. $\overset{-3}{-}$ followed by the two **NO** letters for **Normally Open** contacts and $\overset{-1}{-}$ followed by the two **NC** letters for **Normally Closed** contacts (see opposite pictures)

The figure of the units is then to be combined with the **figure of the tens** marked on the contactor itself which is a serial number allocated in continuous order, starting from 1 (except for the contactors with one NC built-in auxiliary contact), regardless of the function of the contacts and running from left to right on the contactor.

Example: **A9-30-10** Contactor ----- In this example the first auxiliary contact is the **N.O. built-in auxiliary contact** marked $\overset{13}{1}$ **NO**
 $\overset{14}{2}$ **NO**

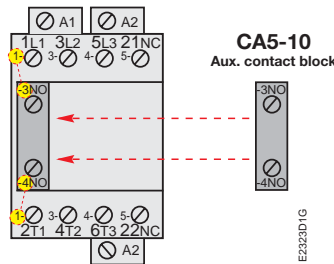


The second auxiliary contact is the **CA5-01 N.C. add-on auxiliary contact block** marked $\overset{-1}{-}$ **2**

The complete terminal marking reads $\overset{21}{2}$ **NC**
 $\overset{22}{2}$ **NC**

A third or fourth or fifth CA5-.. one-pole add-on auxiliary contact block might be added following the same rule.

Example: **A9-30-01** Contactor



In this example the first auxiliary contact is the **N.C. built-in auxiliary contact** marked $\overset{21}{2}$ **NC**
 $\overset{22}{2}$ **NC**

The second auxiliary contact is the **CA5-10 N.O. add-on auxiliary contact block** marked $\overset{-3}{-}$ **4**

The complete terminal marking reads $\overset{13}{1}$ **NO**
 $\overset{14}{1}$ **NO**

A third or fourth or fifth CA5-.. one-pole add-on auxiliary contact block might be added following the same rule.

CA 5.. 4-pole auxiliary contact blocks bear both the **figure of the units** which refers to the **function** and the **figure of the tens** (serial number allocated in continuous order), followed by the two **NO** letters for **Normally Open** contacts and the two **NC** letters for **Normally Closed** contacts (see opposite picture).

Note: For contactors with NC built-in auxiliary contacts use CA5-..U 4-pole auxiliary contact block with terminal marking according to standards.

The CA5-..U bears only the figure of the units which refers to the function, followed by two letters **NO** or **NC**. The figure of the units is then to be combined with the **figure of the tens** marked on the contactor itself.

Side mounting

- CAL 5.., CCL 5.. or CAL 18.. two-pole auxiliary contact blocks and CEL 18.. one-pole auxiliary contact blocks bear both the **figure of the units** which refers to the function and the **figure of the tens** (serial number allocated in continuous order), followed by the two **NO** letters for **Normally Open** contacts and the two **NC** letters for **Normally Closed** contacts (see opposite picture).

The additional **X** letter refers to the **side mounting** location on the contactors for the CAL 5.., CCL 5.. and CAL 18 blocks and so differentiate them from the CA 5.. auxiliary contact blocks used for front mounting.

- CAL 16.. and CCL 16.. two-pole auxiliary contact blocks bear both the **figure of the units** which refers to the **function** and the **figure of the tens** (serial number allocated in continuous order), followed by the two **NO** letters for **Normally Open** contacts and the two **NC** letters for **Normally Closed** contacts (see opposite picture)

Thermal and Electronic Overload Relay Terminal Marking

Marking of main terminals

The main terminals of the thermal and electronic overload relays are marked on the motor side by codes made up of a figure followed by an alphanumeric combination: 2T1, 4T2, 6T3.

Marking of auxiliary terminals

The auxiliary terminals are marked:

- 95-96 for N.C. contact,
- 97-98 for N.O. contact.

>> GA 75, GAE 75, AM.. Contactors page 8/11
>> Contactor Relays page 8/12
>> Add-on Auxiliary Contacts page 8/14

>> Thermal and Electronic Overload Relays page 8/15
>> Manual Motor Starters page 8/16
>> Mini Contactors and Mini Contactor Relays ... page 8/17

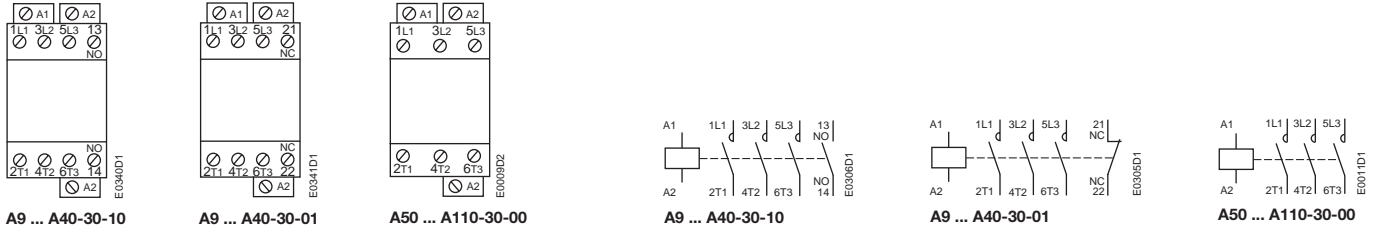


Terminal Marking and Positioning

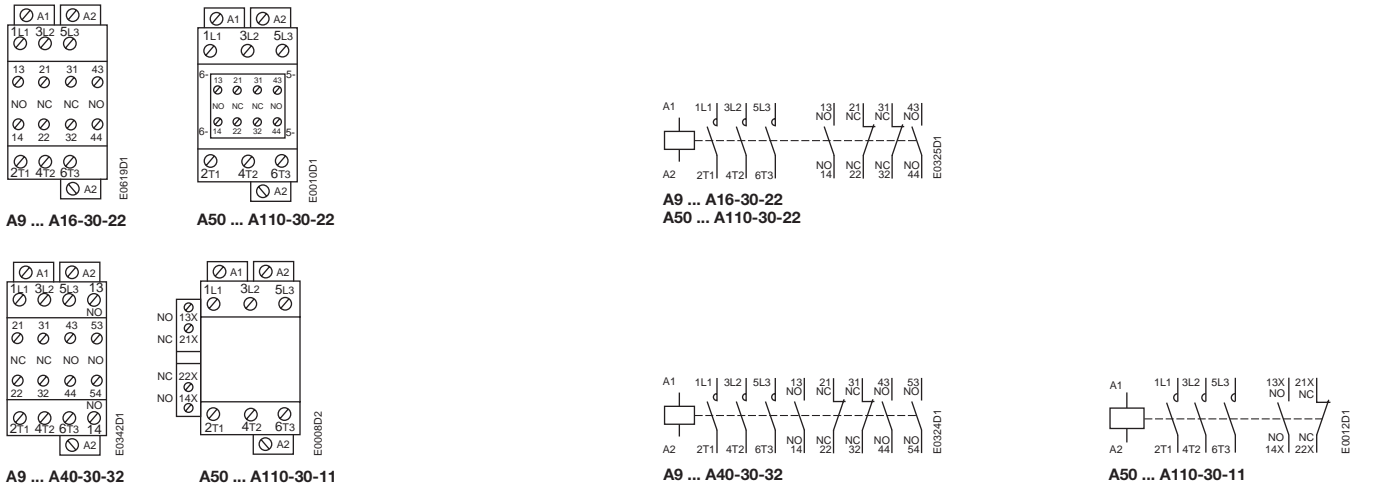
A 9 ... A 110 and AF 50 ... AF 110 3-pole Contactors

A 9 ... A 110 Contactors - a.c. operated

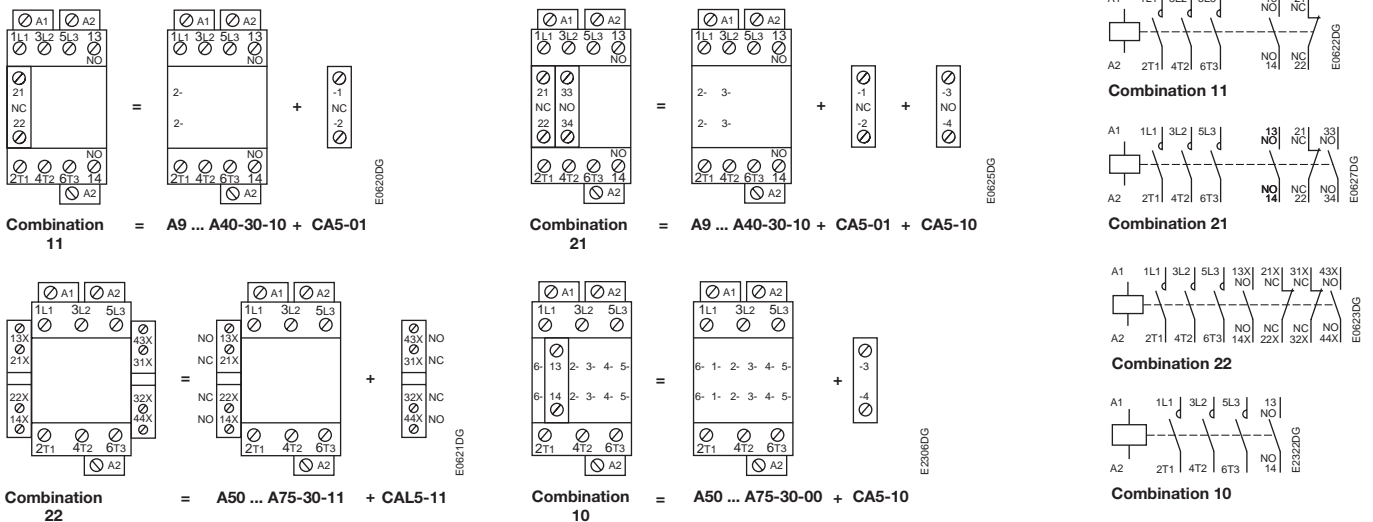
Standard devices without addition of auxiliary contacts



Standard devices with factory mounted auxiliary contacts

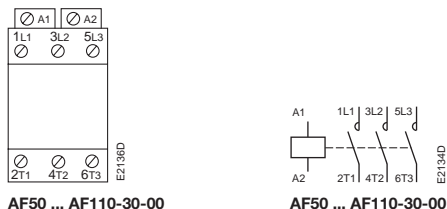


Other possible contact combinations with auxiliary contacts added by the user

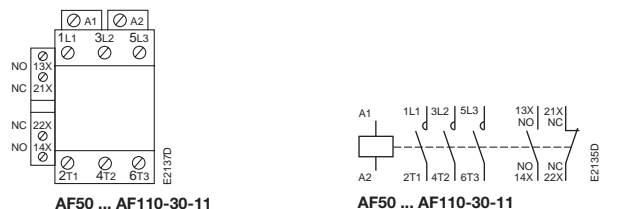


AF 50 ... AF 110 Contactors - a.c. / d.c. operated

Standard devices without addition of auxiliary contacts



Standard devices with factory mounted auxiliary contacts

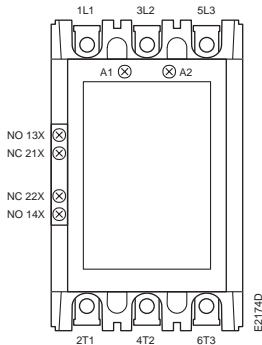


Terminal Marking and Positioning

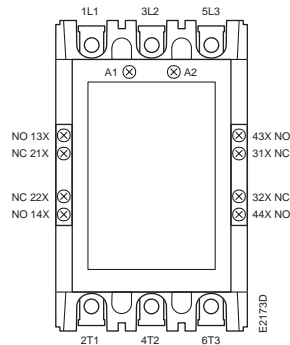
A 145 ... A 300 and AF 145 ... AF 750 3-pole Contactors

A 145 ... A 300 Contactors - a.c. operated

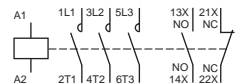
Standard devices with factory mounted auxiliary contacts



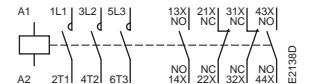
A145 ... A300-30-11



A145 ... A300-30-22



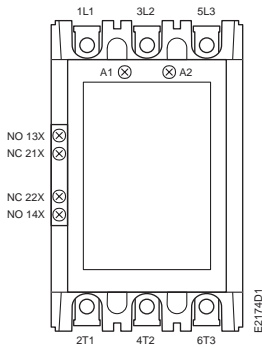
A145 ... A300-30-11



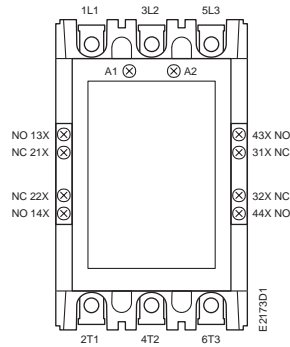
A145 ... A300-30-22

AF 145 ... AF 300 Contactors - a.c. / d.c. operated

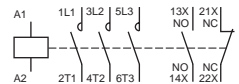
Standard devices with factory mounted auxiliary contacts



AF145 ... AF300-30-11



AF145 ... AF300-30-22



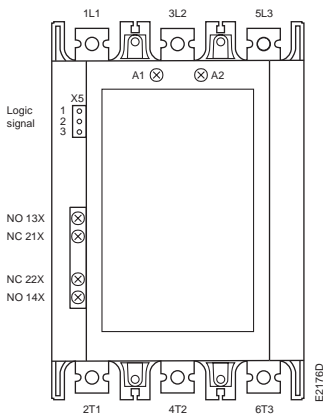
AF145 ... AF300-30-11



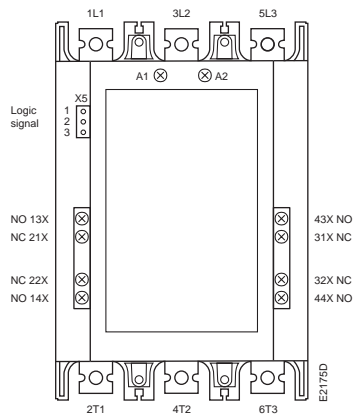
AF145 ... AF300-30-22

AF 400 ... AF 750 Contactors - a.c. / d.c. operated

Standard devices with factory mounted auxiliary contacts

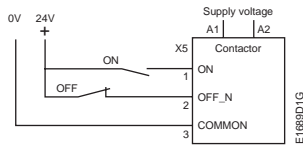


AF400 ... AF750-30-11

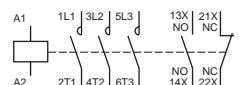


AF400 ... AF750-30-22

Control with logic signal



AF400 ... AF750-30-11, AF400 ... AF750-30-22



AF400 ... AF750-30-11



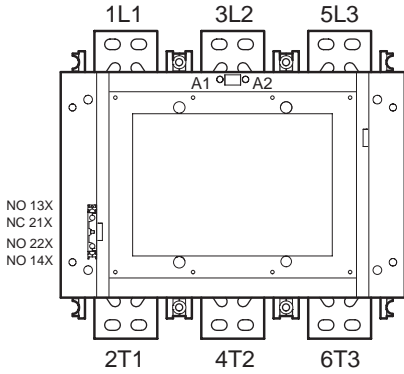
AF400 ... AF750-30-22

Terminal Marking and Positioning

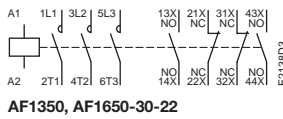
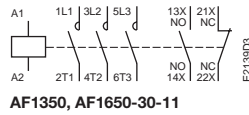
AF 1350, AF 1650 and EH 1200 3-pole Contactors

AF 1350 ... AF 1650 Contactors - a.c. / d.c. operated

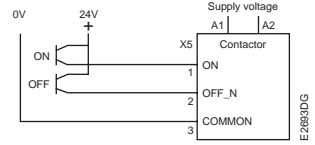
Standard devices with factory mounted auxiliary contacts



AF1350-30-11, AF1650-30-11

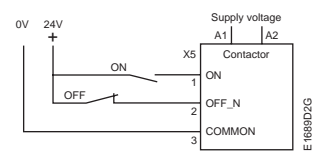


Wiring diagrams when used with transistor output



AF1350, AF1650

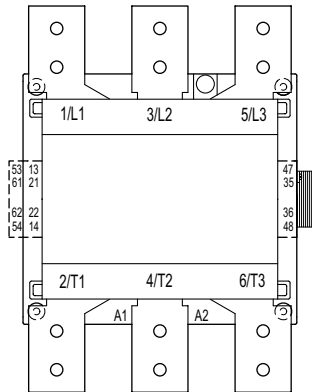
when used with switches



AF1350, AF1650

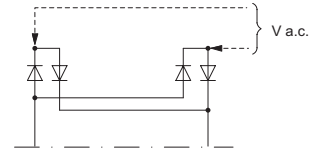
EH 1200 Contactors - a.c. or d.c. operated

Standard devices with factory mounted auxiliary contacts



Coil Wiring

Coil codes
EF, EL, EP

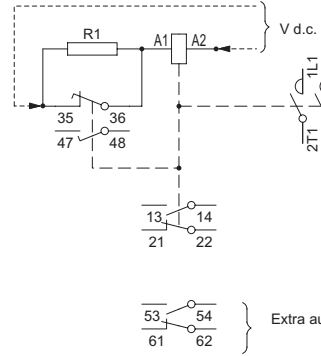


Coil codes
DB, DE

Right hand side

Left hand side

Left hand side



R1 Economic resistor

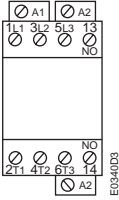
Terminal Marking and Positioning

AL 9 ... AL 40, TAL 9 ... TAL 40

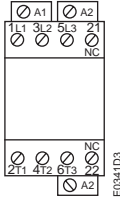
and AE 50 ... AE 110, TAE 50 ... TAE 110 3-pole Contactors

3-pole Contactors - d.c. operated (the polarity A1+, A2- must be respected)

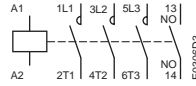
Standard devices without addition of auxiliary contacts



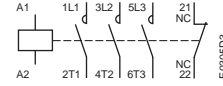
AL9 ... AL40-30-10
AL9 Z ... AL16 Z-30-10
TAL9 ... TAL40-30-10



AL9 ... AL40-30-01
AL9 Z ... AL16 Z-30-01
TAL9 ... TAL40-30-01

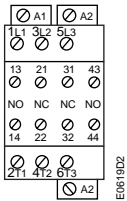


AL9 ... AL40-30-10
AL9 Z ... AL16 Z-30-10
TAL9 ... TAL40-30-10



AL9 ... AL40-30-01
AL9 Z ... AL16 Z-30-01
TAL9 ... TAL40-30-01

Standard devices with factory mounted auxiliary contacts

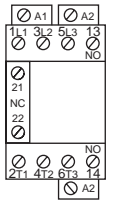


AL9 ... AL40-30-22

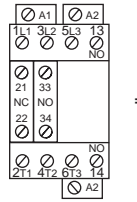
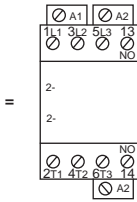


AL9 ... AL40-30-22

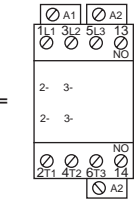
Other possible contact combinations with auxiliary contacts added by the user



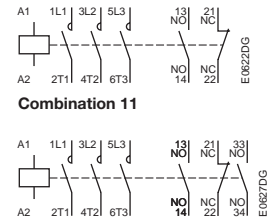
Combination 11



Combination 21



Combination 21 = AL9 ... AL40-30-10 + CA5-01 + CA5-10
= AL9 Z ... AL16 Z-30-10 + CA5-01 + CA5-10
= TAL9 ... AL40-30-10 + CA5-01 + CA5-10

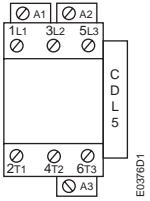


Combination 11

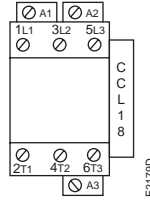
Combination 21

AE... and TAE... Contactors - d.c. operated

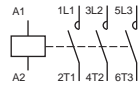
Standard devices without addition of auxiliary contacts



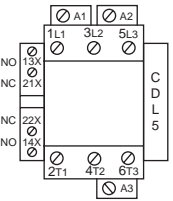
AE50 ... AE75-30-00
TAE50/75-30-00



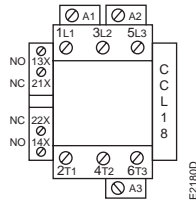
AE95/110-30-00
TAE95/110-30-00



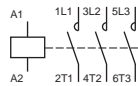
AE50 ... AE110-30-00
TAE50 ... TAE110-30-00



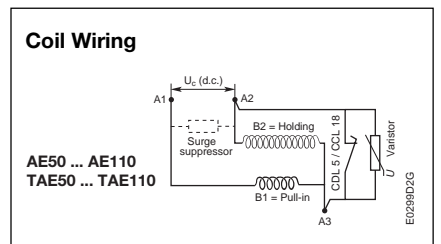
AE50 ... AE75-30-11
TAE50/75-30-11



AE95/110-30-11
TAE95/110-30-11



AE50 ... AE110-30-11
TAE50 ... TAE110-30-11

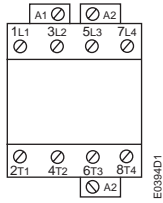


Terminal Marking and Positioning

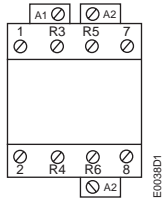
A..., AF..., AL..., AE..., TAE.. 4-pole Contactors

A 9 ... A 75 Contactors - a.c. operated

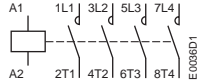
Standard devices without addition of auxiliary contacts



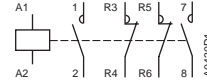
A9 ... A26-40-00
A45 ... A75-40-00



A9 ... A26-22-00
A45/75-22-00



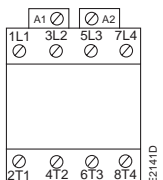
A9 ... A26-40-00
A45 ... A75-40-00



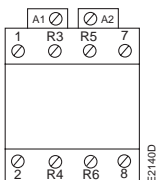
A9 ... A26-22-00
A45/75-22-00

AF 45 ... AF 75 Contactors - a.c. / d.c. operated

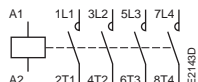
Standard devices without addition of auxiliary contacts



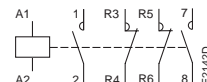
AF45 ... AF75-40-00



AF45/75-22-00



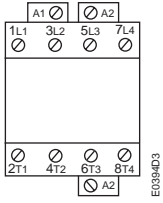
AF45 ... AF75-40-00



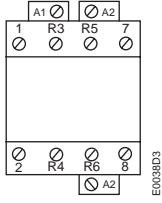
AF45/75-22-00

AL... Contactors - d.c. operated (the polarity A1+, A2- must be respected)

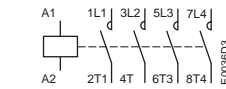
Standard devices without addition of auxiliary contacts



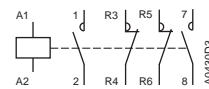
AL9 ... AL26-40-00
TAL9 ... TAL26-40-00



AL9 ... AL26-22-00
TAL9 ... TAL26-22-00



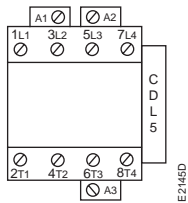
AL9 ... AL26-40-00
TAL9 ... TAL26-40-00



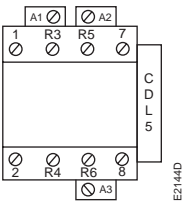
AL9 ... AL26-22-00
TAL9 ... TAL26-22-00

AE... and TAE... Contactors - d.c. operated

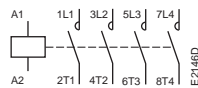
Standard devices without addition of auxiliary contacts



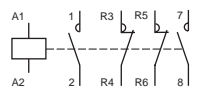
AE45 ... AE75-40-00
TAE45 ... TAE75-40-00



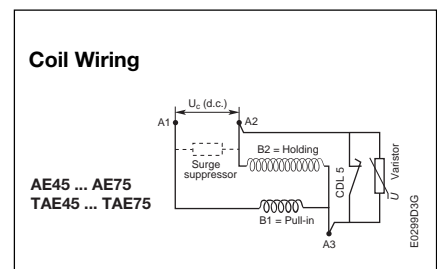
AE45/75-22-00



AE45 ... AE75-40-00
TAE45 ... TAE75-40-00



AE45/75-22-00

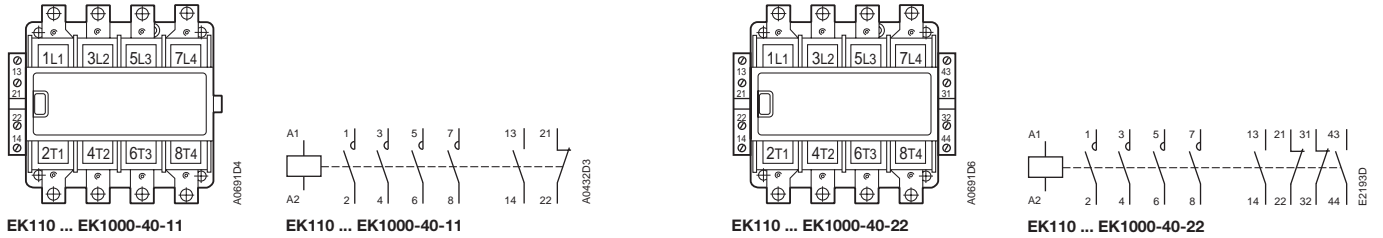


Terminal Marking and Positioning

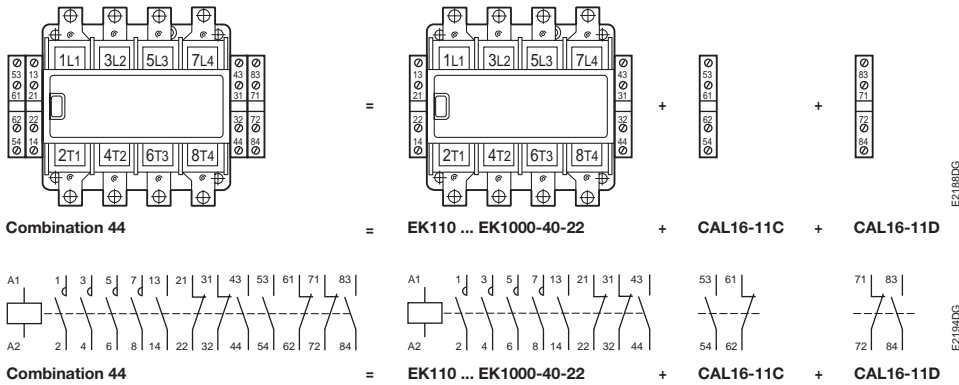
EK... 4-pole Contactors

EK 110 ... EK 1000 Contactors - a.c. operated

Standard devices

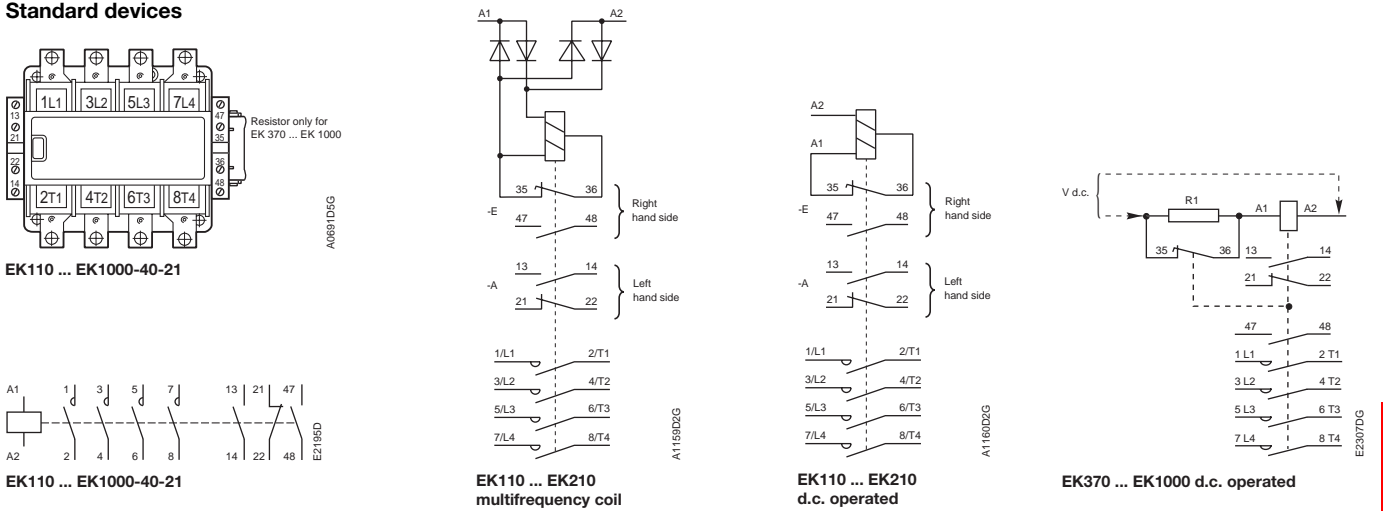


Other possible contact combinations with auxiliary contacts added by the user

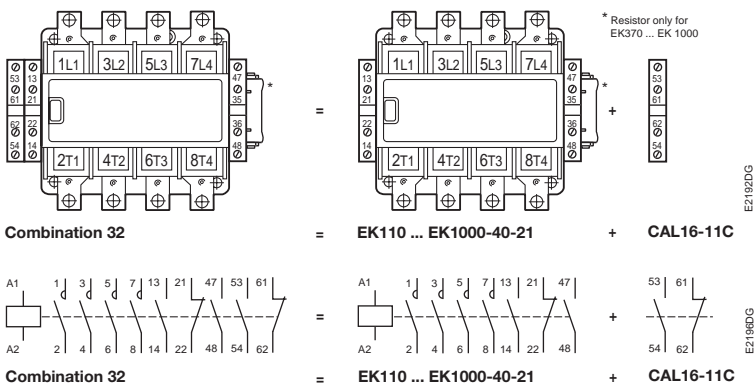


EK 110 ... EK 1000 Contactors - with multifrequency coil or d.c. operated

Standard devices



Other possible contact combinations with auxiliary contacts added by the user

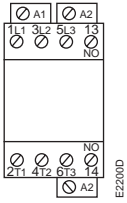


Terminal Marking and Positioning

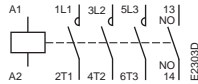
UA... and UA..RA Contactors

UA... Contactors - a.c. operated

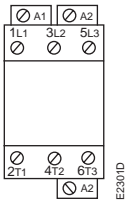
Standard devices without addition of auxiliary contacts



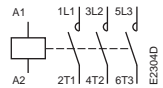
UA16 ... UA30-30-10



UA16 ... UA30-30-10

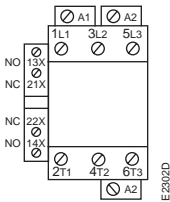


UA50 ... UA110-30-00

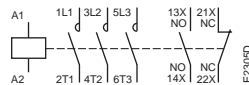


UA50... UA110-30-00

Standard devices with factory mounted auxiliary contacts



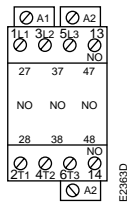
UA50 ... UA110-30-11



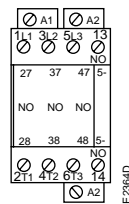
UA50... UA110-30-11

UA..RA Contactors - a.c. operated

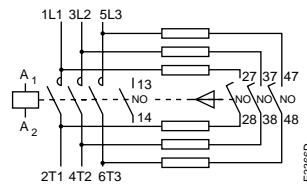
Standard devices without addition of auxiliary contacts



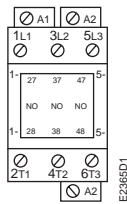
UA16-30-10 RA
UA26-30-10 RA



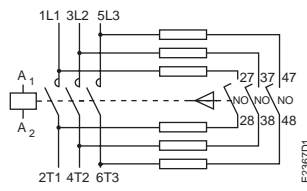
UA30-30-10 RA



UA16 ... 30-30-10 RA



UA50 ... 110-30-00 RA



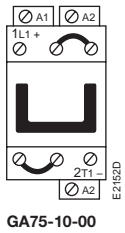
UA50 ... 110-30-00 RA

Terminal Marking and Positioning

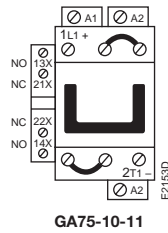
GA 75, GAE 75 and AM... Contactors

GA 75 Contactors - a.c. operated

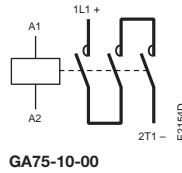
Standard devices without addition of auxiliary contacts



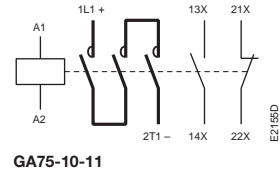
GA75-10-00



GA75-10-11



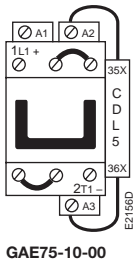
GA75-10-00



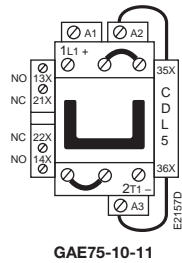
GA75-10-11

GAE 75 Contactors - d.c. operated

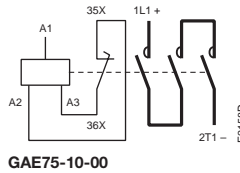
Standard devices without addition of auxiliary contacts



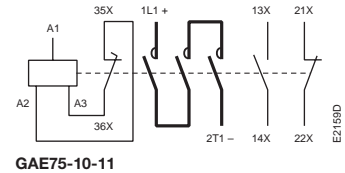
GAE75-10-00



GAE75-10-11



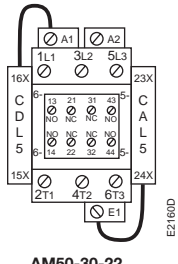
GAE75-10-00



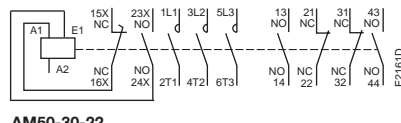
GAE75-10-11

AM... Contactors - d.c. operated

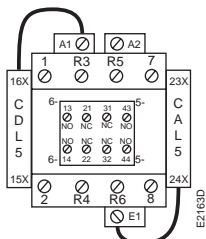
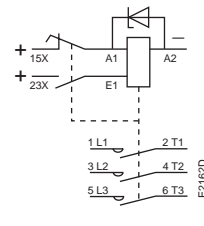
Standard devices without addition of auxiliary contacts



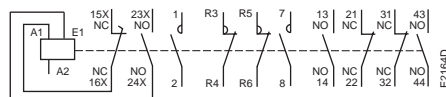
AM50-30-22
AM75-30-22



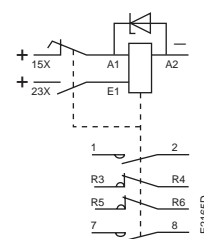
AM50-30-22
AM75-30-22



AM45-22-22
AM75-22-22



AM45-22-22
AM75-22-22

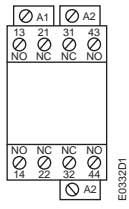


Terminal Marking and Positioning

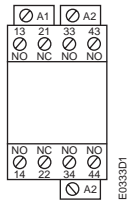
N... Contactor Relays

N... Contactor Relays - a.c. operated

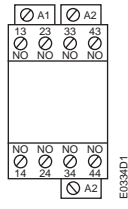
Standard devices without addition of auxiliary contacts



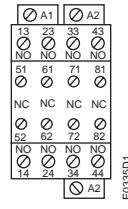
N 22 E



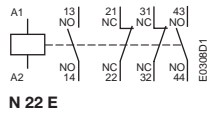
N 31 E



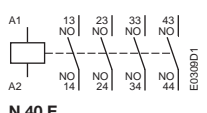
N 40 E



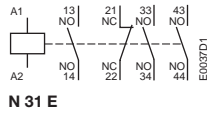
N 44 E



N 22 E



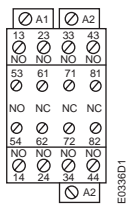
N 31 E



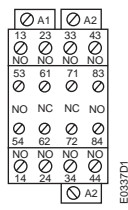
N 40 E



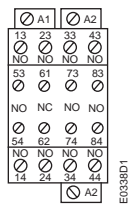
N 44 E



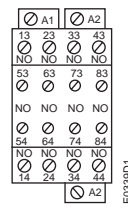
N 53 E



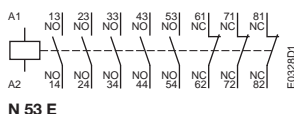
N 62 E



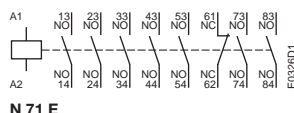
N 71 E



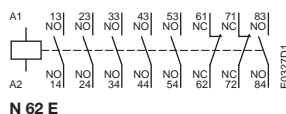
N 80 E



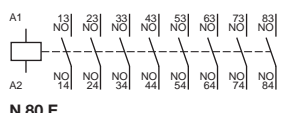
N 53 E



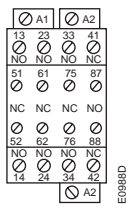
N 71 E



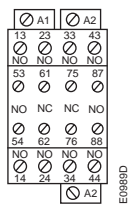
N 62 E



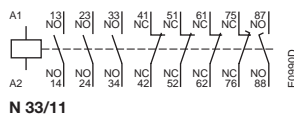
N 80 E



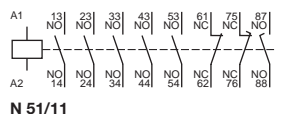
N 33/11



N 51/11

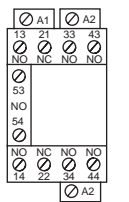


N 33/11

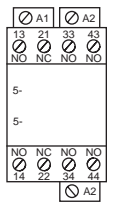


N 51/11

Other possible contact combinations with auxiliary contacts added by the user



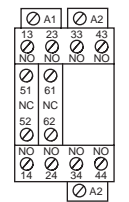
Combination 41 E



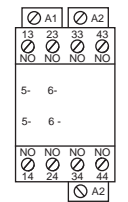
N 31 E



CA5-10



Combination 42 E



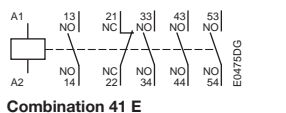
N 40 E



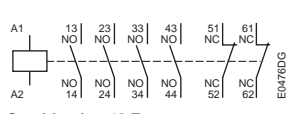
CA5-01



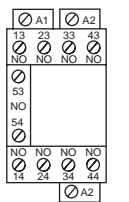
CA5-01



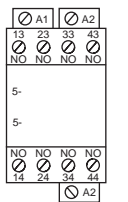
Combination 41 E



Combination 42 E



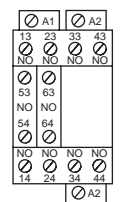
Combination 50 E



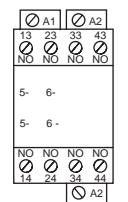
N 40 E



CA5-10



Combination 60 E



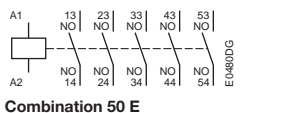
N 40 E



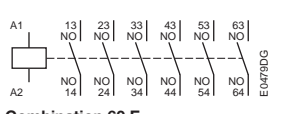
CA5-10



CA5-10



Combination 50 E



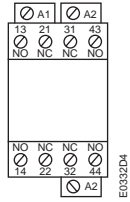
Combination 60 E

Terminal Marking and Positioning

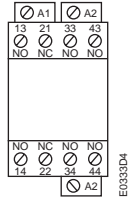
NL., TNL.. Contactor Relays

NL.. Contactor Relays - d.c. operated (the polarity A1+, A2- must be respected)

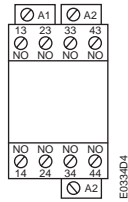
Standard devices without addition of auxiliary contacts



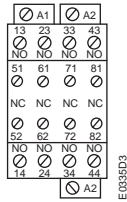
NL 22 E
NL Z 22 E
TNL 22 E



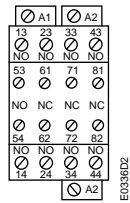
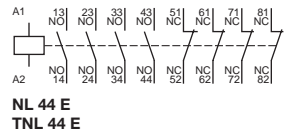
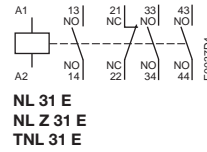
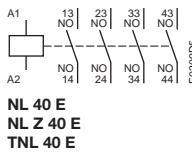
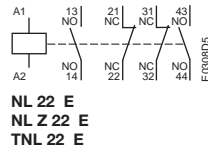
NL 31 E
NL Z 31 E
TNL 31 E



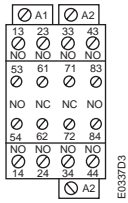
NL 40 E
NL Z 40 E
TNL 40 E



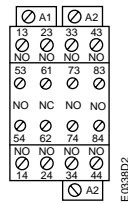
NL 44 E
TNL 44 E



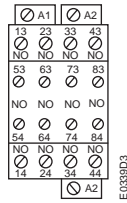
NL 53 E



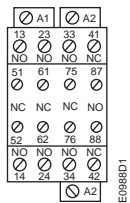
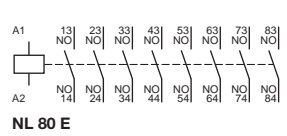
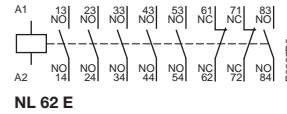
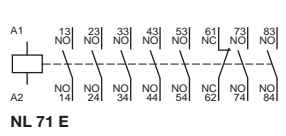
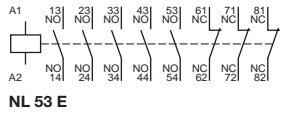
NL 62 E
TNL 62 E



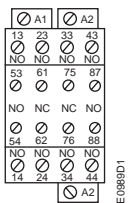
NL 71 E



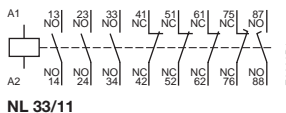
NL 80 E
TNL 80 E



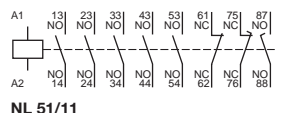
NL 33/11



NL 51/11

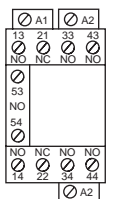


NL 33/11

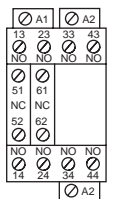
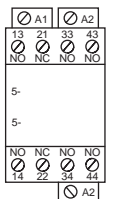


NL 51/11

Other possible contact combinations with auxiliary contacts added by the user

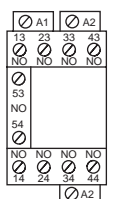


Combination 41 E

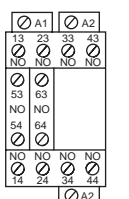
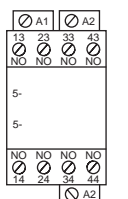


Combination 41 E = **NL 31 E** + **CA5-10**
 = **NL Z 31 E** + **CA5-10**
 = **TNL 31 E** + **CA5-10**

Combination 42 E = **NL 40 E** + **CA5-01** + **CA5-01**
 = **NL Z 40 E** + **CA5-01** + **CA5-01**
 = **TNL 40 E** + **CA5-01** + **CA5-01**

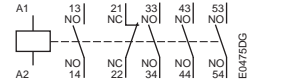


Combination 50 E



Combination 50 E = **NL 40 E** + **CA5-10**
 = **NL Z 40 E** + **CA5-10**
 = **TNL 40 E** + **CA5-10**

Combination 60 E = **NL 40 E** + **CA5-10** + **CA5-10**
 = **NL Z 40 E** + **CA5-10** + **CA5-10**
 = **TNL 40 E** + **CA5-10** + **CA5-10**



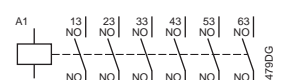
Combination 41 E



Combination 42 E



Combination 50 E



Combination 60 E

Terminal Marking and Positioning

Add-on Auxiliary Contacts

One-pole auxiliary contacts



CA5-01



CA5-10



CE5-01, CEL18-01



CE5-10, CEL18-10

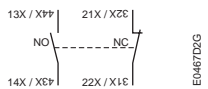


CC5-01

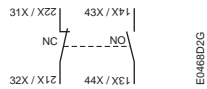


CC5-10

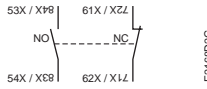
Two-pole auxiliary contacts



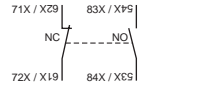
CAL5-11, CAL18-11
(L. h. s. mounted)



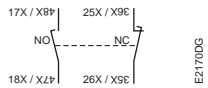
CAL5-11, CAL18-11
(R. h. s. mounted)



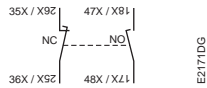
CAL18-11B
(L. h. s. mounted)



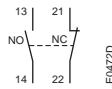
CAL18-11B
(R. h. s. mounted)



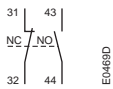
CCL5-11 (L. h. s. mounted)



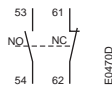
CCL5-11 (R. h. s. mounted)



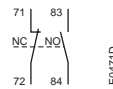
CAL16-11 A



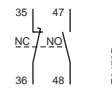
CAL16-11 B



CAL16-11 C

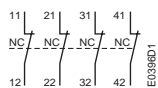


CAL16-11 D

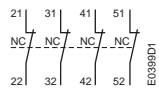


CCL16-11 E

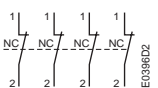
Four-pole auxiliary contacts



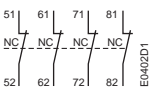
CA5-04 E



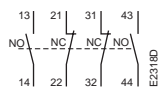
CA5-04 M



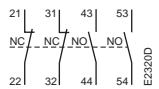
CA5-04 U



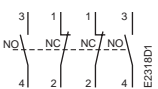
CA5-04 N



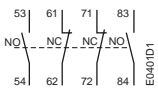
CA5-22 E



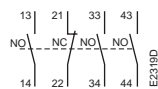
CA5-22 M



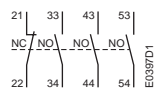
CA5-22 U



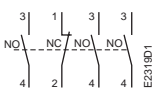
CA5-22 N



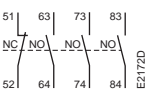
CA5-31 E



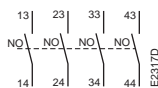
CA5-31 M



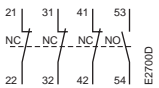
CA5-31 U



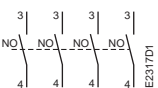
CA5-31 N



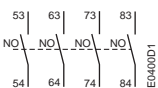
CA5-40 E



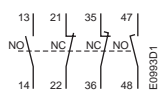
CA5-13 M



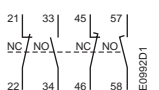
CA5-40 U



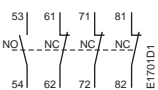
CA5-40 N



CA5-11/11 E



CA5-11/11 M



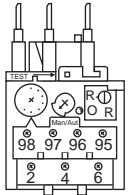
CA5-13 N

Terminal Marking and Positioning

Thermal Overload Relays

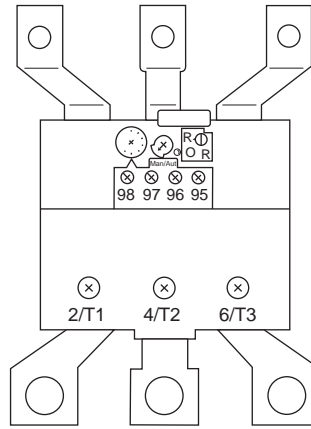
Electronic Overload Relays

TA... Thermal Overload Relays



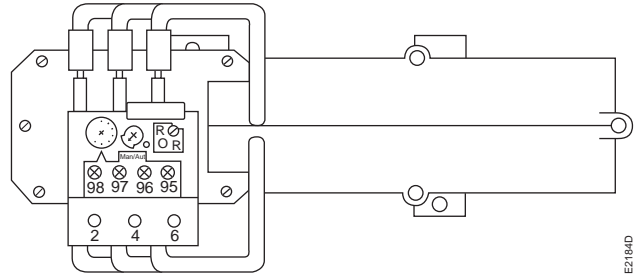
TA 25 DU, TA 42 DU,
TA 75 DU, TA 80 DU

AG471D1



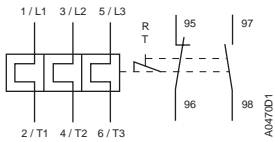
TA 110 DU, TA 200 DU

AG467D1



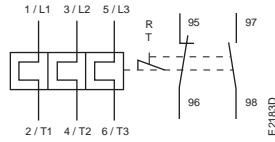
TA 450 DU/SU

E2184D



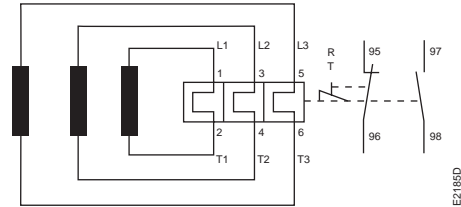
TA 25 DU, TA 42 DU,
TA 75 DU, TA 80 DU

AG470D1



TA 110 DU, TA 200 DU

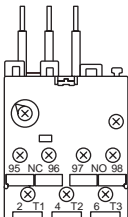
E2183D



TA 450 DU/SU

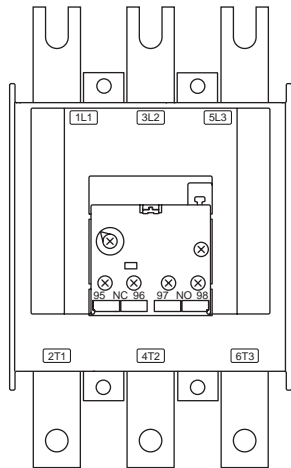
E2185D

E... Electronic Overload Relays



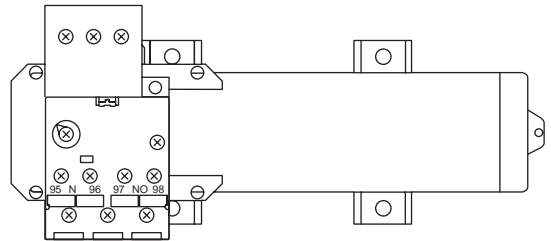
E 16 DU

E2187D



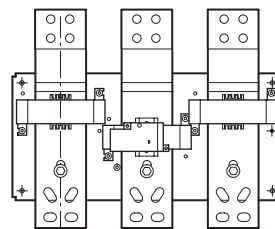
E 200 DU, E 320 DU

E2188D

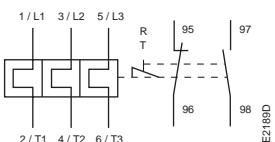


E 500 DU, E 800 DU

E2189D

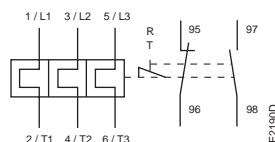


E 1250 DU



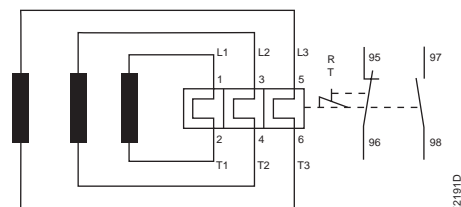
E 16 DU

E2186D



E 200 DU, E 320 DU

E2188D

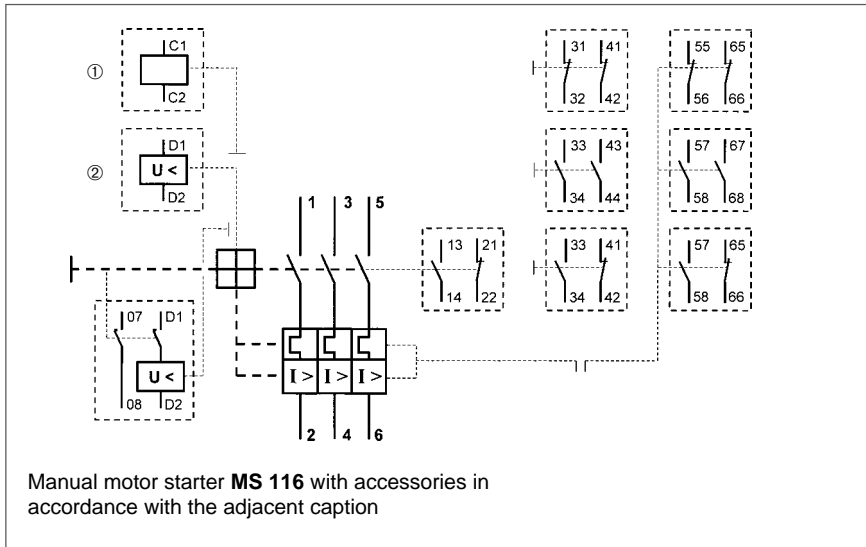


E 500 DU, E 800 DU, E 1250 DU

E2191D

Terminal Marking and Positioning

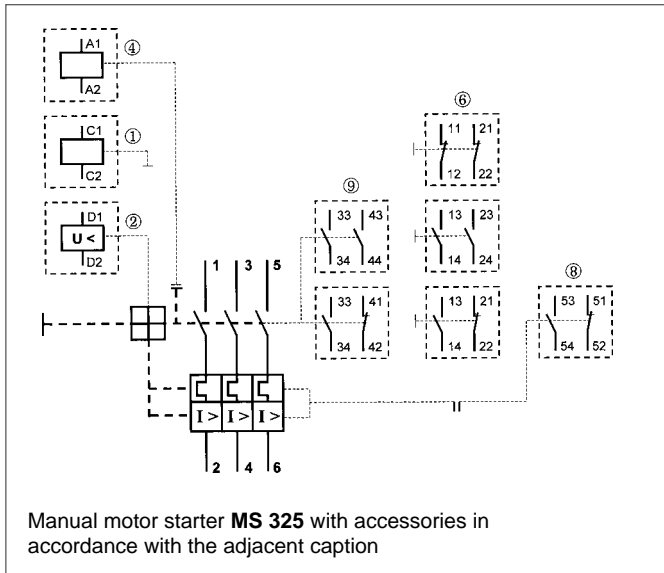
Manual Motor Starters MS...



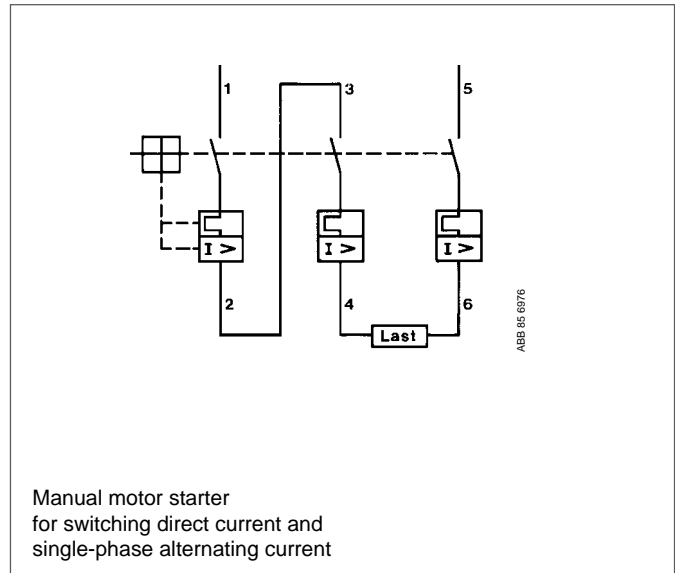
Caption

- ① Open-circuit shunt release
- ② Undervoltage release
- ③ Undervoltage release with leading auxiliary switch 2 SV
- ④ Indexing mechanism, only MS 325
- ⑥ Auxiliary switch blocks for lateral attachment
- ⑧ Tripped alarm switch block (signalling contact)
- ⑨ Auxiliary switches which can be plugged on at the front
- ⑩ Alarm switch for short-circuits and general tripping

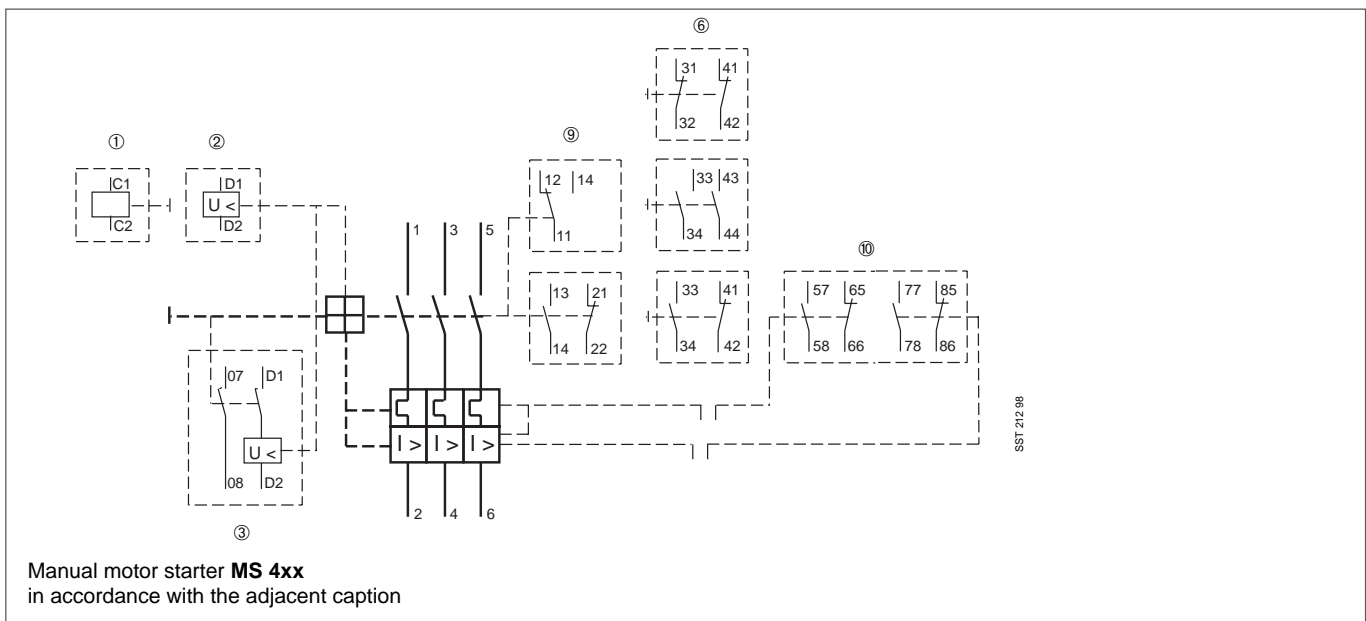
Manual motor starter **MS 116** with accessories in accordance with the adjacent caption



Manual motor starter **MS 325** with accessories in accordance with the adjacent caption



Manual motor starter for switching direct current and single-phase alternating current



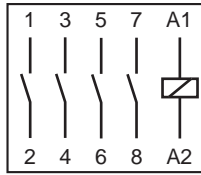
Manual motor starter **MS 4xx** in accordance with the adjacent caption

Terminal Marking and Positioning

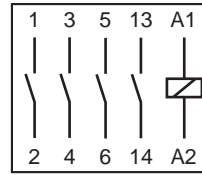
Mini Contactors and Mini Contactor Relays

Thermal Overload Relay for Mini Contactors

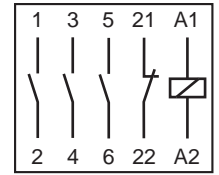
Mini Contactors



B 6-40-00, B 7-40-00

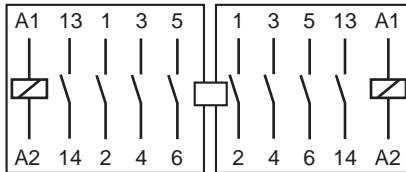


B 6-30-10, B 7-30-10
BC 6-30-10, BC 7-30-10
TBC 7-30-10, B 6 S-30-10

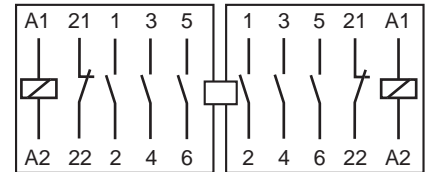


B 6-30-01, B 7-30-01
BC 6-30-01, BC 7-30-01
TBC 7-30-01, B 6 S-30-01

Compact Reversing Contactors

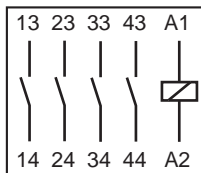


VB 6-30-10, VB 7-30-10
VBC 6-30-10, VBC 7-30-10
VB 6A-30-10, VB 7A-30-10
VBC 6A-30-10, VBC 7A-30-10

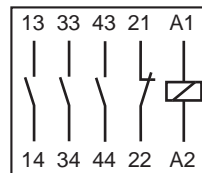


VB 6-30-01, VB 7-30-01
VBC 6-30-01, VBC 7-30-01
VB 6A-30-01, VB 7A-30-01
VBC 6A-30-01, VBC 7A-30-01

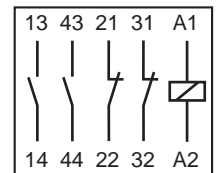
Mini Contactor Relays



K 6-40 E, KC 6-40 E
TKC 6-40 E



K 6-31 Z, KC 6-31 Z
TKC 6-31 Z



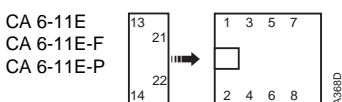
K 6-22 Z, KC 6-22 Z
TKC 6-22 Z

Add-on Auxiliary Contacts Blocks

CA 6 and **CAF 6** auxiliary contacts for B 6, B 7, BC 6, BC 7 mini contactors, and K 6, KC 6 mini contactor relays.
Except: contactors with coils < 3.5 W

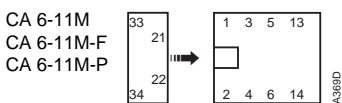
CA 6 Side mounting auxiliary contact blocks
(Cannot be attached on compact reversing contactors)
Screw connection, Flat pin connection, Soldering connection

Auxiliary contacts

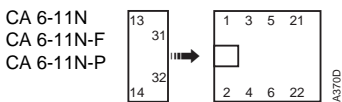


Contactors types

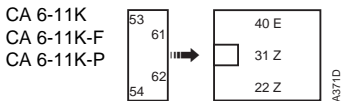
B(C) 6-40-00, B(C) 7-40-00
B(C) 6-40-00-F, B(C) 7-40-00-F
B(C) 6-40-00-P, B(C) 7-40-00-P



B(C) 6-30-10, B(C) 7-30-10
B(C) 6-30-10-F, B(C) 7-30-10-F
B(C) 6-30-10-P, B(C) 7-30-10-P



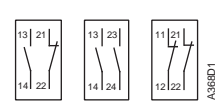
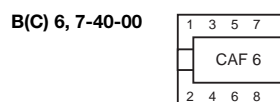
B(C) 6-30-01, B(C) 7-30-01
B(C) 6-30-01-F, B(C) 7-30-01-F
B(C) 6-30-01-P, B(C) 7-30-01-P



K 6..., KC 6...
K 6... F, KC 6... F
K 6... P, KC 6... P

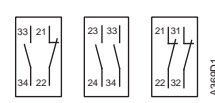
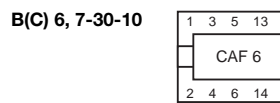
CAF 6 Front mounting auxiliary contact blocks
(Also in the case of reversing contactors)
Screw connection

Contactors types

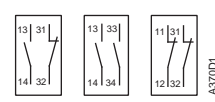
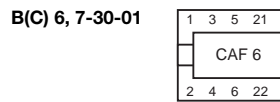


Auxiliary contacts

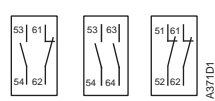
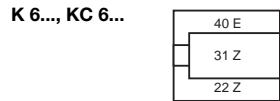
1 = CAF 6-11E
2 = CAF 6-20E
3 = CAF 6-02E



1 = CAF 6-11M
2 = CAF 6-20M
3 = CAF 6-02M



1 = CAF 6-11N
2 = CAF 6-20N
3 = CAF 6-02N



1 = CAF 6-11K
2 = CAF 6-20K
3 = CAF 6-02K

Thermal Overload Relay for Mini Contactors

