

# Type N & NL AC & DC operated

Control relays



N40E-1



NE12E-1

## A.C. operated

Contact configuration		Catalog number
N.O.	N.C.	
4	0	N40E-84
3	1	N31E-84
2	2	N22E-84
4	4	N44E-84
5	3	N53E-84
6	2	N62E-84
7	1	N71E-84
8	0	N80E-84

## Coil voltage selection

All AC operated catalog numbers include a 120VAC coil. All DC operated catalog numbers include a 110VDC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the first digit after the last dash in the catalog number.

Ex.: A 240V coil is required for an N80 control relay: N80E-80

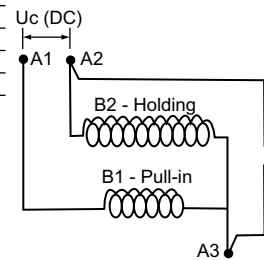
## Coil voltage selection chart

Hz	Relay type	Volts															
		12	24	48	110	120	125	208	220	240	277	380	415	440	480	500	600
60	N		81	83	84	84		34	36	80	42		86	86	51	53	55
50	N		81	83	84				80			85	86			55	
DC	NE, NL	80	81	83	86		87		88	89							

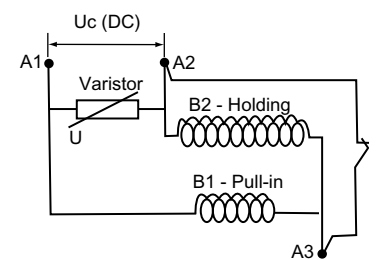
## D.C. operated

Contact configuration		Catalog number
N.O.	N.C.	
4	0	NL40E-86
3	1	NL31E-86
2	2	NL22E-86
4	4	NL44E-86 ①
5	3	NL53E-86 ①
6	2	NL62E-86 ①
7	1	NL71E-86
8	0	NL80E-86
1	2	NE12E-86
2	1	NE21E-86
3	0	NE30E-86
4	3	NE43E-86 ①
5	2	NE52E-86 ①
6	1	NE61E-86 ①
7	0	NE70E-86 ①

## Block diagrams for NE... contactor relay coil supply



Coil supply  $U_c < 110$  VDC



Coil supply via built-in varistor  $U_c \leq 110$  VDC

① NE43 – NE70 and NL44 – NL62 control relays cannot accept any front mounted auxiliary contact blocks.

## General information

### Type N, AC operated

#### Description

- AC operated with laminated magnetic circuit.
- 2 versions: 4 pole or 8 pole. The width of 8 pole devices is identical to that of 4 pole devices; only the depth is increased.
- Side by side mounting possible.
- Self cleaning auxiliary contacts.
- Alone or by itself or with a 4 pole CA5 auxiliary contact block, these devices offer “positive safety” between their auxiliary contacts.

#### Application

Type N control relays are used for switching auxiliary circuits and control circuits.

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Holes for screw mounting (screws not supplied). Distances between holes according to EN50 002.

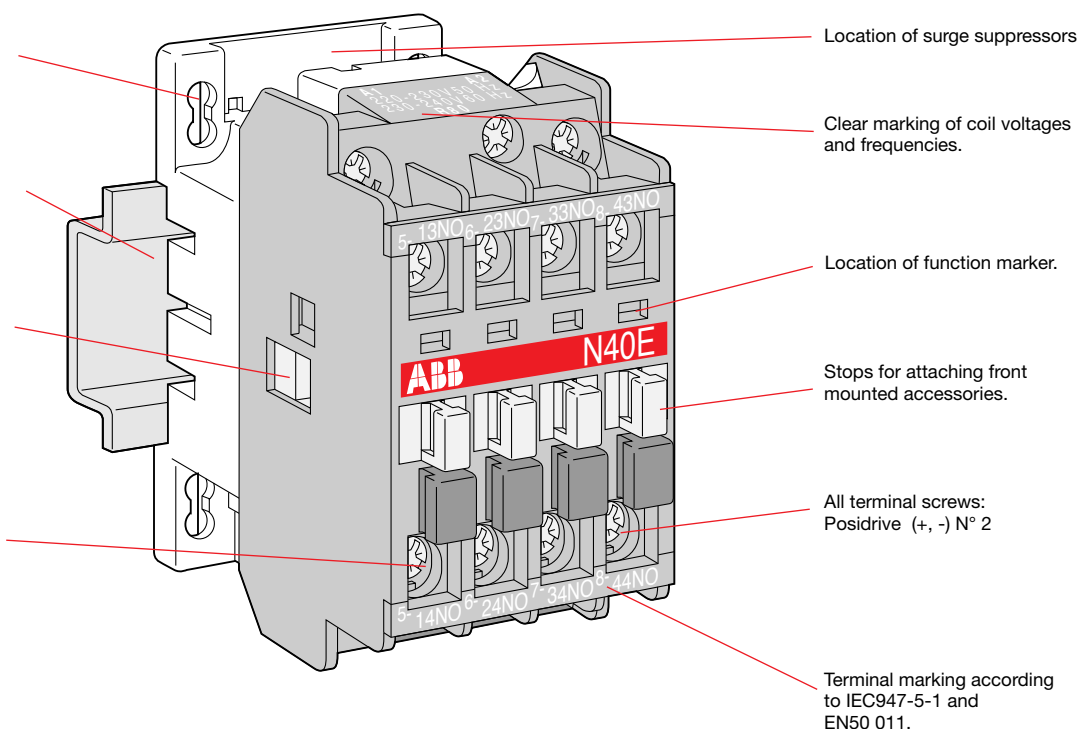
Quick mounting on 35 x 7.5mm DIN mounting rail according to IEC715 and EN50 022.

Location of side mounted accessories: mounting on right or left hand side.

Terminals delivered in open position with captive screws (screws of unused terminals should be tightened).

Screwdriver guidance for all screws makes it possible to use motorized screwdrivers.

All terminals provide protection against accidental direct contact with live parts according to VDE0106 – Part. 100 and offer IP 20 degree of protection according to IEC947-1.



#### Catalog number explanation

**N 40E-84**

Frame type

Coil voltage  
(see coil voltage chart below)

Contact configuration

#### Coil voltage selection chart

Hz	Relay type	12	24	48	110	120	125	208	220	240	277	380	415	440	480	500	600
60	N		81	83	84	84		34	36	80	42		86	86	51	53	55
50	N		81	83	84				80			85	86			55	
DC	NE, NL	80	81	83	86		87		88	89							

## General information

### Type NL & TNL, DC operated

#### Type NL

##### Description

- Magnetic circuit variants: NL types: d.c. operated with solid magnetic circuits.
- 2 versions: 4 pole or 8 pole  
The width of 8 pole devices is identical to that of 4 pole devices; only the depth is increased.
- Bifurcated auxiliary contacts.
- Alone or mounted with a 4 pole CA5 auxiliary contact block, these devices offer "positive safety" between their auxiliary contacts.

##### Application

Type NL control relays are used for switching auxiliary circuits and control circuits.

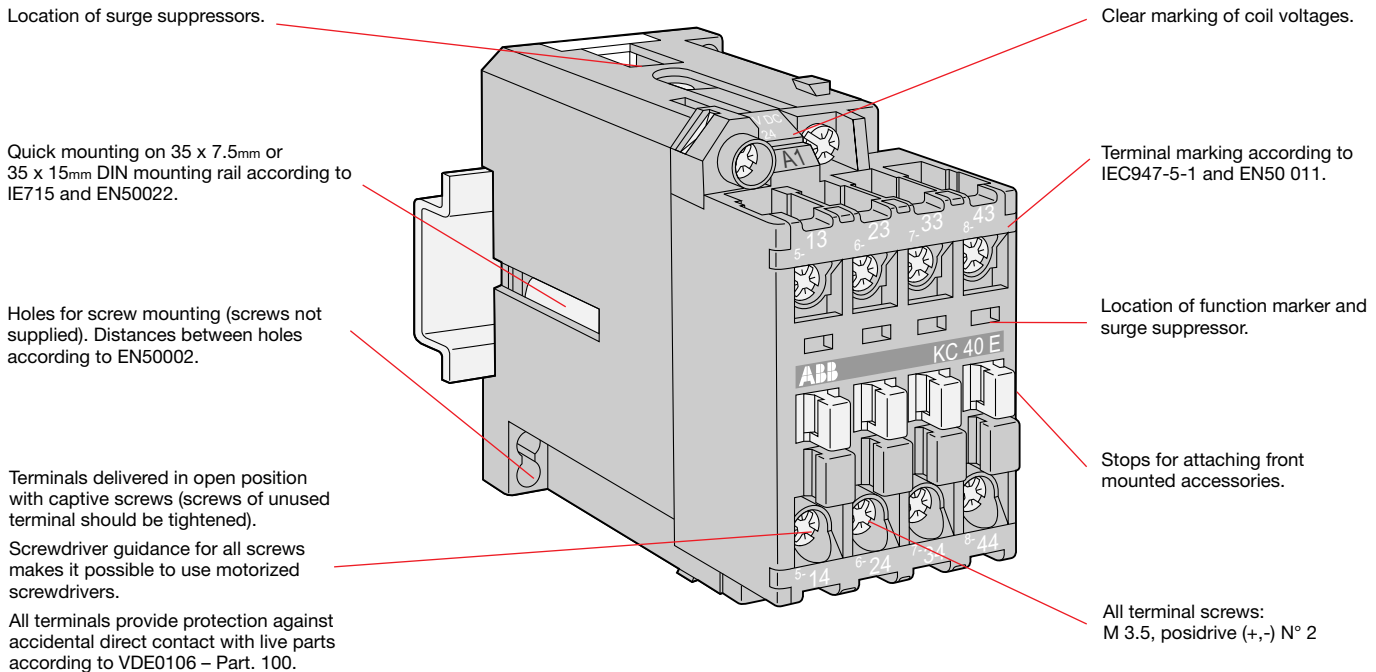
#### Type TNL

##### Description

- Magnetic circuit variants
  - NL types: D.C. operated with solid magnetic circuits.
  - TNL types: D.C. operated with solid magnetic circuit and large coil voltage range.
- 2 versions
  - 4-pole/1-stack or 8-pole/2-stack
  - The width of 8-pole devices is identical to that of 4 pole devices; only the depth is increased.
- Double sharp auxiliary contacts.
- Alone or mounted with a 4-pole CA 5 auxiliary contact block, these devices offer "positive safety" between their auxiliary contacts.

##### Application

Type NL and TNL control relays are used for switching auxiliary circuits and control circuits.



### Catalog number explanation

**(T)NL 44E-84**

Frame type

Coil voltage  
(see coil voltage chart below.)

Contact configuration

#### Coil voltage selection chart

Hz	Relay type	12	24	48	110	120	125	208	220	240	277	380	415	440	480	500	600
60	N		81	83	84	84		34	36	80	42		86	86	51	53	55
50	N		81	83	84				80			85	86			55	
DC	NE, NL	80	81	83	86		87		88	89							