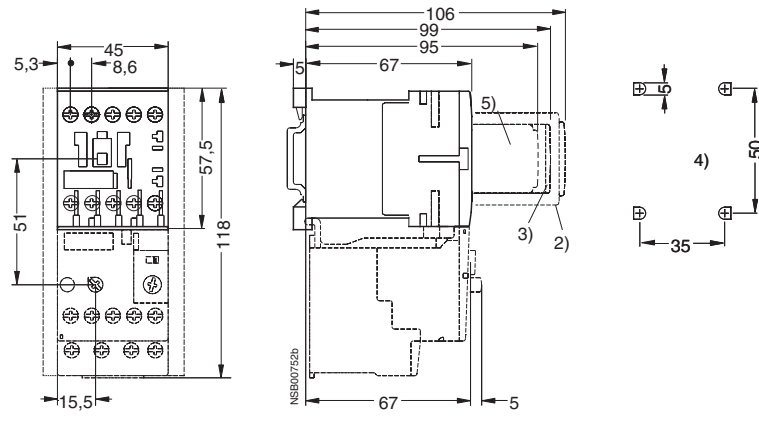


Dimensional drawings

3RT10 contactors, 3-pole

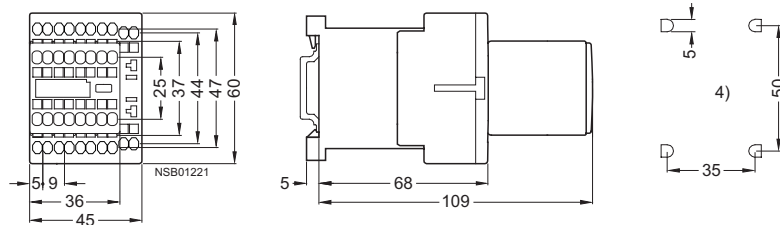
3RT10 1 contactors, size S00
Screw terminals
with surge suppressor, auxiliary switch block and mounted overload relay

Lateral distance to
grounded components = 6 mm

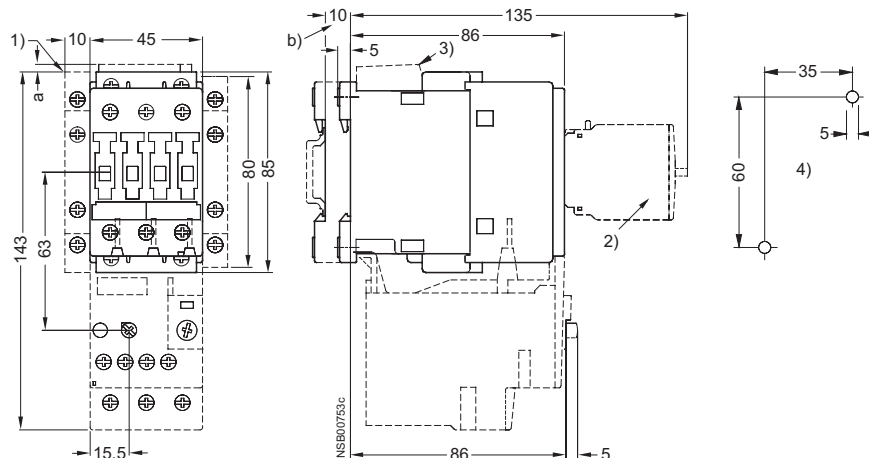


- 2) Auxiliary switch block
(also 3RH19 11- . NF . . solid-state compatible version)
- 3) Surge suppressor
(also 3RT19 16-1GA00 additional load module)
- 4) Drilling pattern
- 5) Auxiliary switch block
1-pole

3RT10 1 contactors, size S00
Cage Clamp terminals with auxiliary switch block



3RT10 2 contactors, 3RT10 2 coupling relays, size S0
Screw terminals
with surge suppressor, auxiliary switch blocks and mounted overload relay



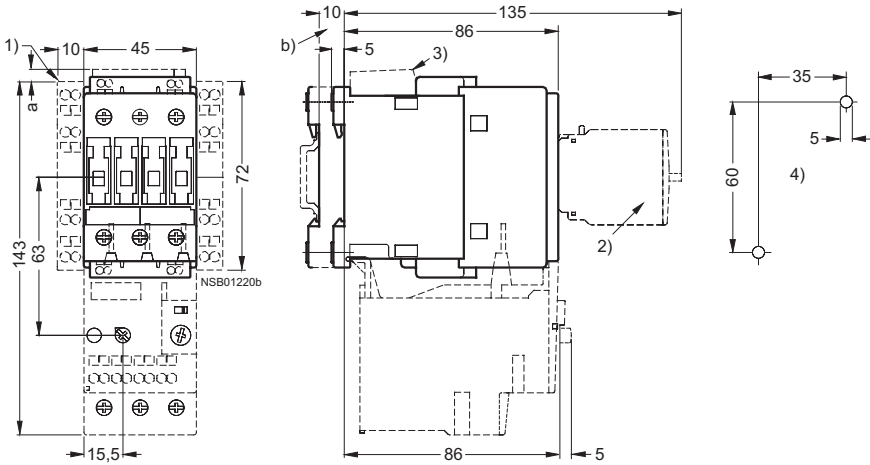
- For size S0:
- a = 3 mm at < 240 V
 - a = 7 mm at > 240 V
 - b = DC 10 mm deeper than AC
 - 1) Auxiliary switch block, laterally mountable
 - 2) Auxiliary switch block, mountable on the front,
1, 2 and 4-pole (also 3RH19 21- .FE22 solid-state compatible version)
 - 3) Surge suppressor
 - 4) Drilling pattern

Controls – Contactors and Contactor Assemblies

Project planning aids

3RT10 contactors, 3-pole

3RT10 2 contactors, 3RT10 2 coupling relays, size S0
Cage Clamp terminals
with surge suppressor, auxiliary switch blocks and mounted overload relay



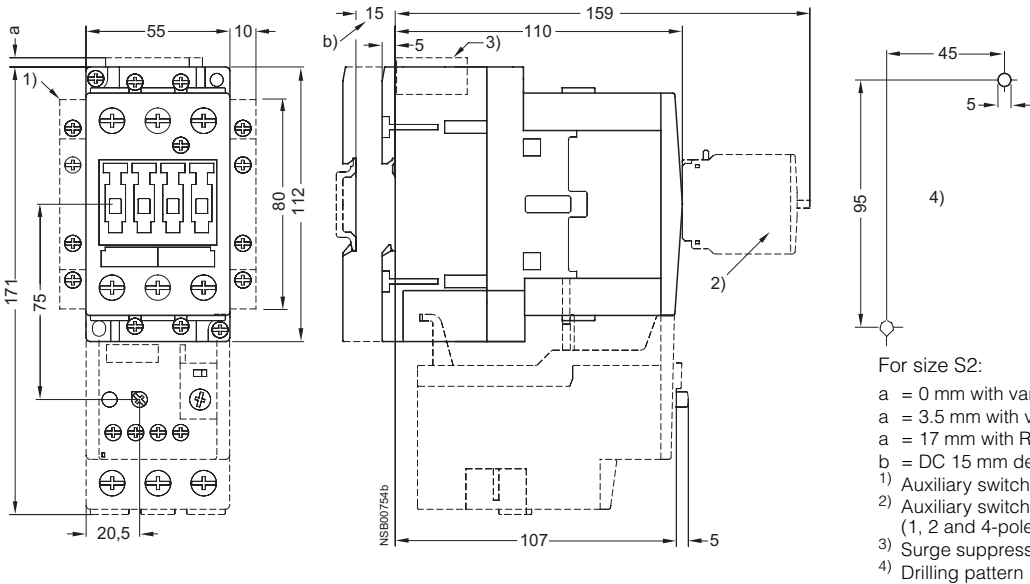
For size S0:

- a = 0 mm with varistor < 240 V, diode assembly
- a = 3.5 mm with varistor > 240 V
- a = 17 mm with RC element

- b = DC 10 mm deeper than AC
- 1) Auxiliary switch block, laterally mountable
- 2) Auxiliary switch block, mountable on the front, (1, 2 and 4-pole)
- 3) Surge suppressor
- 4) Drilling pattern

3RT10 3 contactors, size S2

Screw terminals
with surge suppressor, auxiliary switch blocks and mounted overload relay



For size S2:

- a = 0 mm with varistor < 240 V, diode assembly
- a = 3.5 mm with varistor > 240 V
- a = 17 mm with RC element

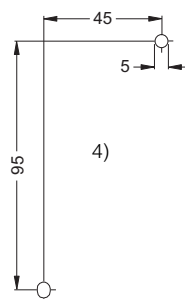
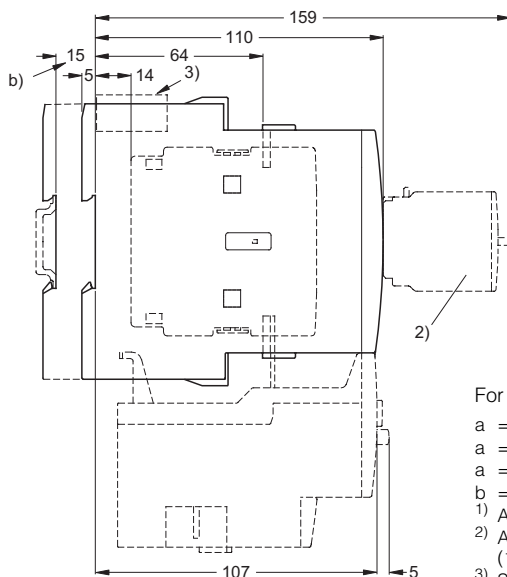
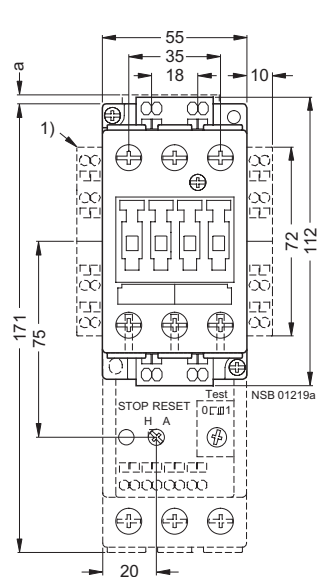
- b = DC 15 mm deeper than AC
- 1) Auxiliary switch block, laterally mountable
- 2) Auxiliary switch block, mountable on the front, (1, 2 and 4-pole)
- 3) Surge suppressor
- 4) Drilling pattern

3RT10 and 3RT14 contactors, 3-pole

3RT10 3 contactors, size S2

Cage Clamp terminals

with surge suppressor, auxiliary switch blocks and mounted overload relay



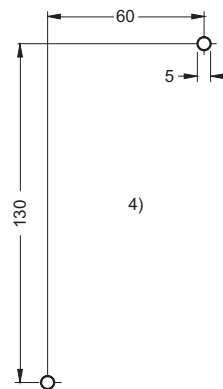
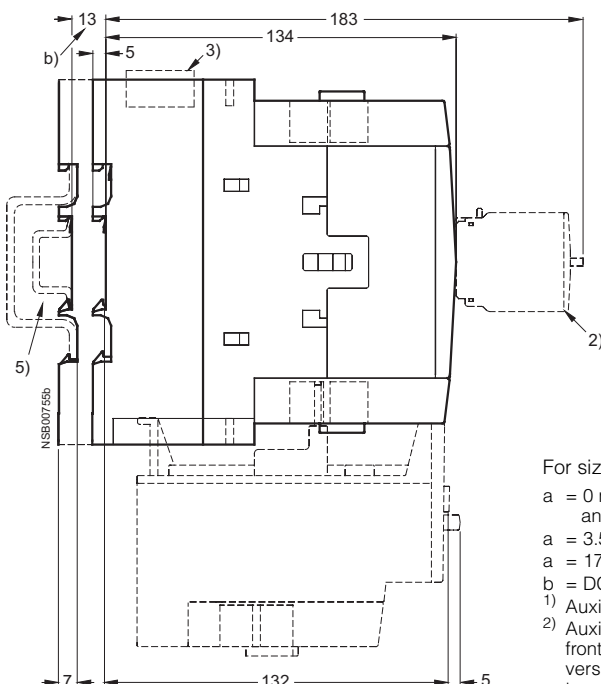
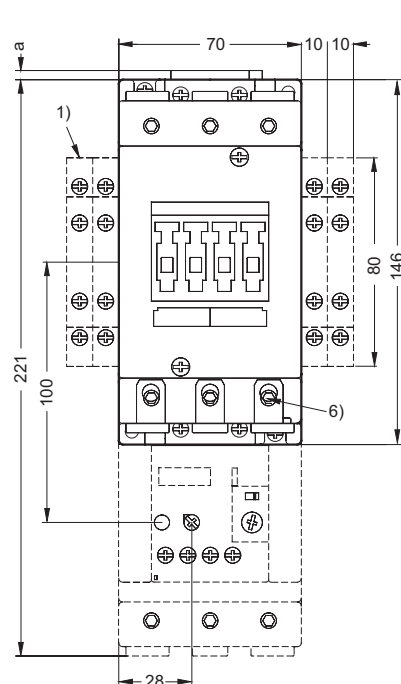
For size S2:

- a = 0 mm with varistor < 240 V, diode assembly
- a = 3.5 mm with varistor > 240 V
- a = 17 mm with RC element
- b = DC 15 mm deeper than AC
- 1) Auxiliary switch block, laterally mountable
- 2) Auxiliary switch block, mountable on the front, (1, 2 and 4-pole)
- 3) Surge suppressor
- 4) Drilling pattern

3RT10 4, 3RT14 46 contactors, size S3

Screw terminals

with surge suppressor, auxiliary switch blocks and mounted overload relay



For size S3:

- a = 0 mm with varistor, diode assembly and < 240 V
- a = 3.5 mm with varistor and > 240 V
- a = 17 mm with RC element
- b = DC 13 mm deeper than AC
- 1) Auxiliary switch block, laterally mountable
- 2) Auxiliary switch block, mountable on the front (1, 2 and 4-pole), same dimensions for versions with screw or Cage Clamp terminals
- 3) Surge suppressor
- 4) Drilling pattern
- 5) For mounting on TH 35 standard mounting rail according to EN 60715 (15 mm deep) or TH 75 standard mounting rail according to EN 60715
- 6) Allen screw 4 mm

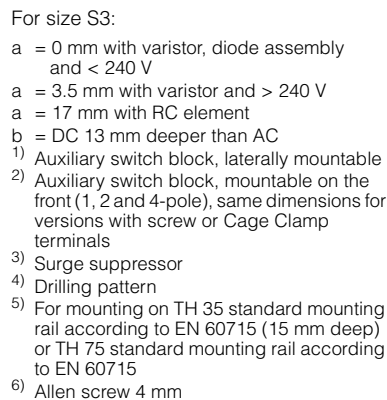
Lateral distance to grounded components = 6 mm

Project planning aids

3RT10 4 contactors, size S3

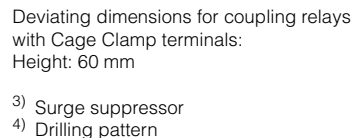
Cage Clamp terminals

with surge suppressor, auxiliary switch blocks and mounted overload relay



3RT10 coupling relays, size S00

with surge suppressor

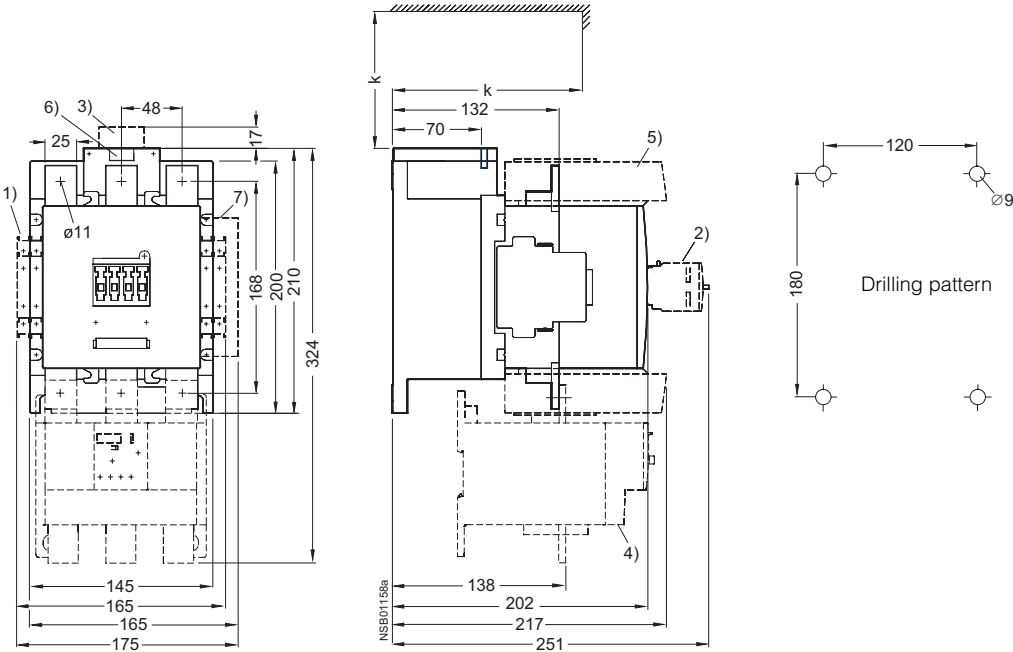


Controls – Contactors and Contactor Assemblies

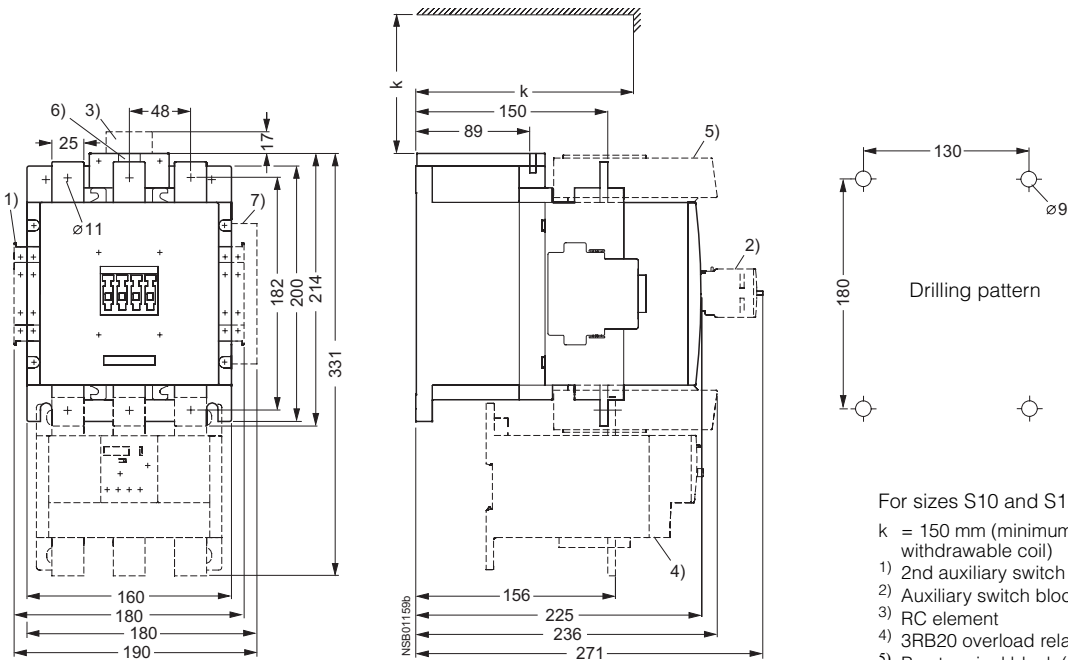
Project planning aids

3RT10 and 3RT14 contactors, 3-pole

3RT10 6, 3RT14 6 contactors, size S10
with lateral and front mounted auxiliary switch block
mounted overload relay and box terminals,
lateral solid-state module with remaining lifetime indicator



3RT10 7, 3RT14 7 contactors, size S12
with lateral and front mounted auxiliary switch block
mounted overload relay and box terminals,
lateral solid-state module with remaining lifetime indicator



For sizes S10 and S12:
Distance from grounded parts
Lateral: 10 mm
Front: 20 mm

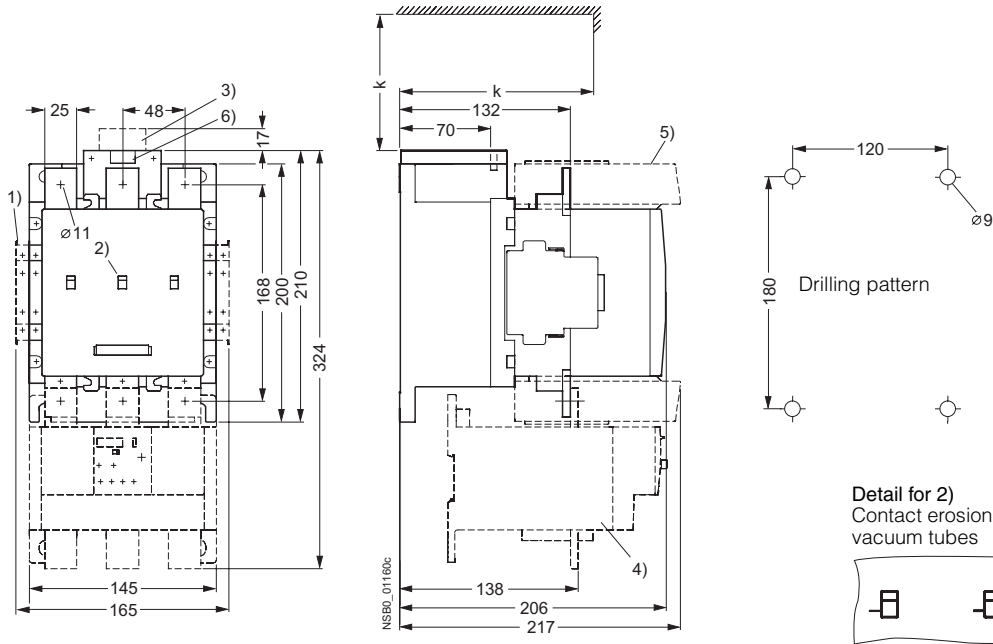
For sizes S10 and S12:
k = 150 mm (minimum clearance for removing the withdrawable coil)
1) 2nd auxiliary switch block, lateral
2) Auxiliary switch block, mountable on the front
3) RC element
4) 3RB20 overload relay, mounted
5) Box terminal block (Allen screw 6 mm)
6) PLC connection 24 V DC and changeover switch (for 3RT1...-N)
7) Solid-state module with remaining lifetime indicator (auxiliary switch block not mountable on right-hand side)

Controls – Contactors and Contactor Assemblies

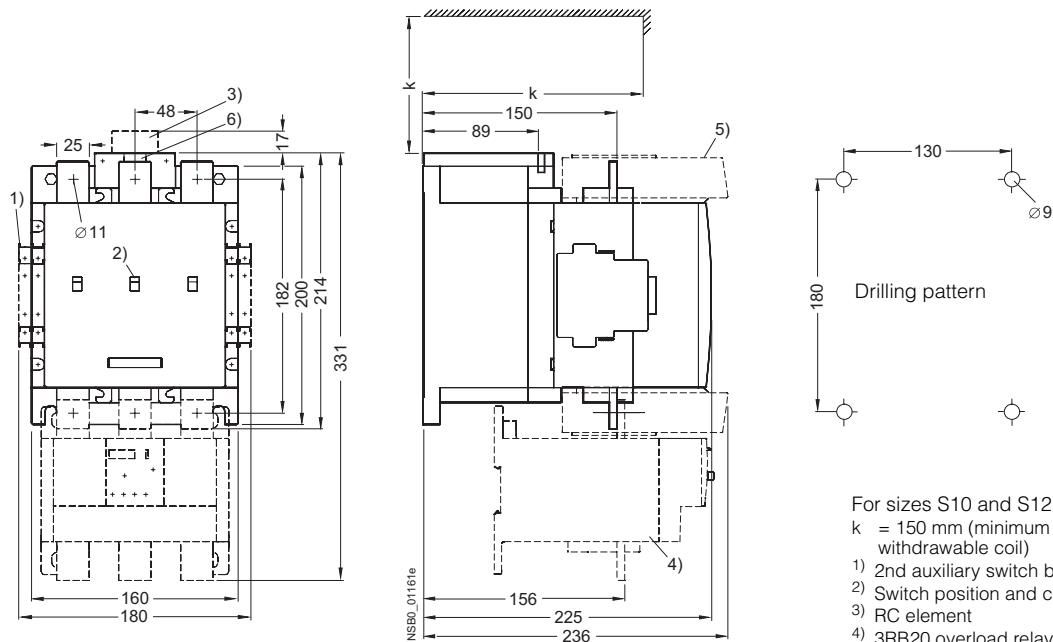
Project planning aids

3RT12 vacuum contactors, 3-pole

3RT12 6 vacuum contactors, size S10
with lateral auxiliary switch block,
mounted overload relay and box terminals



3RT12 7 vacuum contactors, size S12
with lateral auxiliary switch block,
mounted overload relay and box terminals

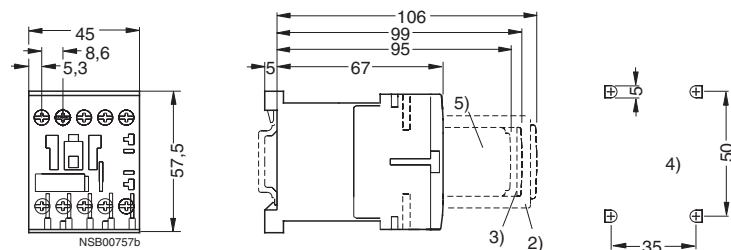


Controls – Contactors and Contactor Assemblies

Project planning aids

3RT13 and 3RT15 contactors, 4-pole

3RT13 1 and 3RT15 1 contactors, size S00,
Screw terminal
with surge suppressor and auxiliary switch block



Lateral distance to
grounded components = 6 mm

For size S00:

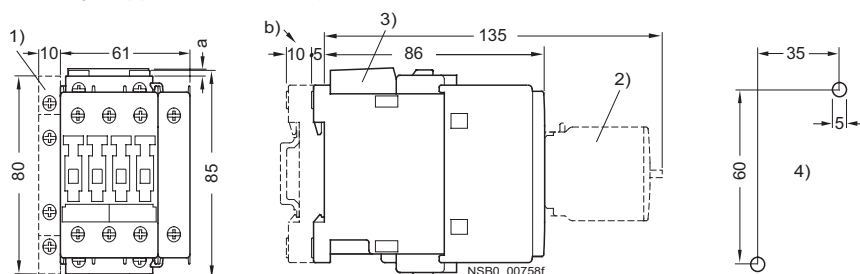
Deviating dimensions for contactors
with **Cage Clamp terminals**:

Height: 60 mm

Mounting depth with auxiliary switch block:
110 mm

- 2) Auxiliary switch block
(also 3RH19 11-...N... solid-state
compatible version)
- 3) Surge suppressor
(also 3RT19 16-1GA00
additional load module)
- 4) Drilling pattern
- 5) Auxiliary switch block 1-pole

3RT13 2 and 3RT15 2 contactors, size S0
with surge suppressor and auxiliary switch block



For size S0:

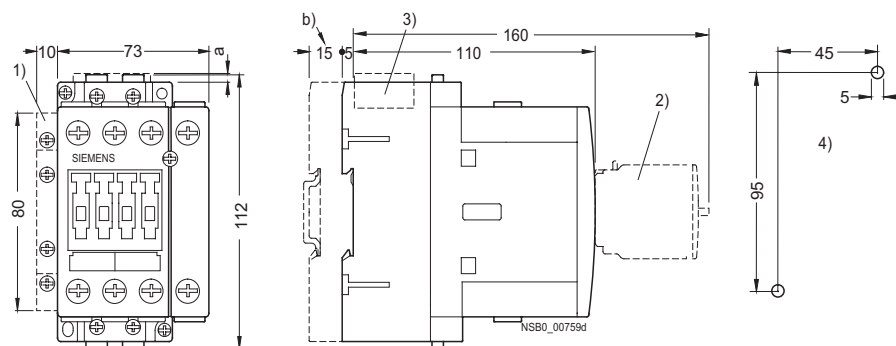
a = 3 mm at < 250 V and mounting of
surge suppressor

a = 7 mm at > 250 V and mounting of
surge suppressor

b = DC 10 mm deeper than AC

- 1) Auxiliary switch block,
laterally mountable (left)
- 2) Auxiliary switch block,
mountable on the front
- 3) Surge suppressor
- 4) Drilling pattern

3RT13 3 and 3RT15 3 contactors, size S2
with surge suppressor and auxiliary switch block



For sizes S2 and S3:

a = 0 mm with varistor < 240 V

a = 3.5 mm with varistor > 240 V

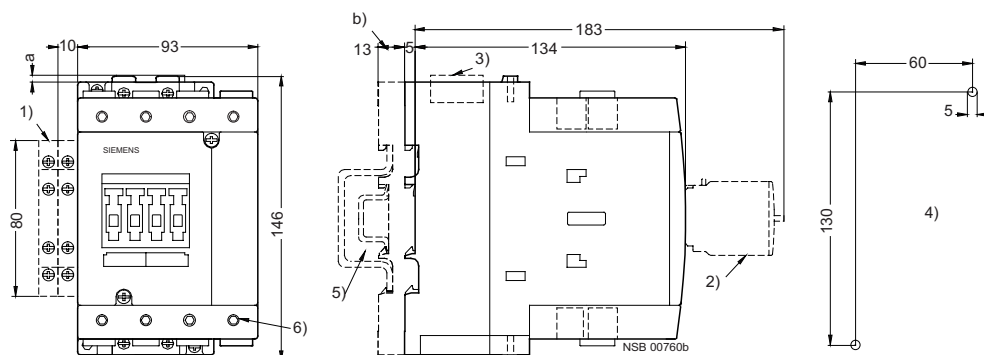
a = 17 mm with RC element and diode
assembly

b = S2: DC 15 mm deeper than AC

S3: DC 13 mm deeper than AC

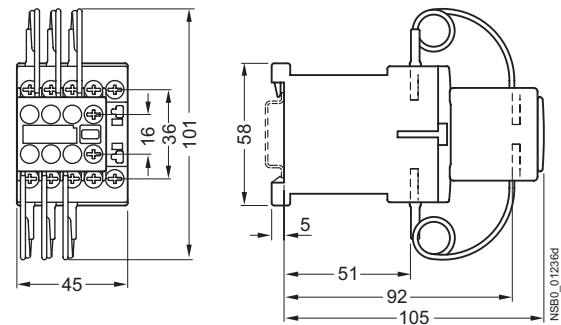
- 1) Auxiliary switch block, laterally mountable
(right or left)
- 2) Auxiliary switch block, mountable on the
front, (1, 2 and 4-pole, also
3RH19 21-1FE22 solid-state compatible
version)
- 3) Surge suppressor
- 4) Drilling pattern
- 5) For mounting on TH 35 standard mounting
rail according to EN 60715 (15 mm deep)
or for size S3 also to TH 75 standard
mounting rail according to EN 60715
- 6) Allen screw 4 mm

3RT13 4 contactors, size S3
with surge suppressor and auxiliary switch block

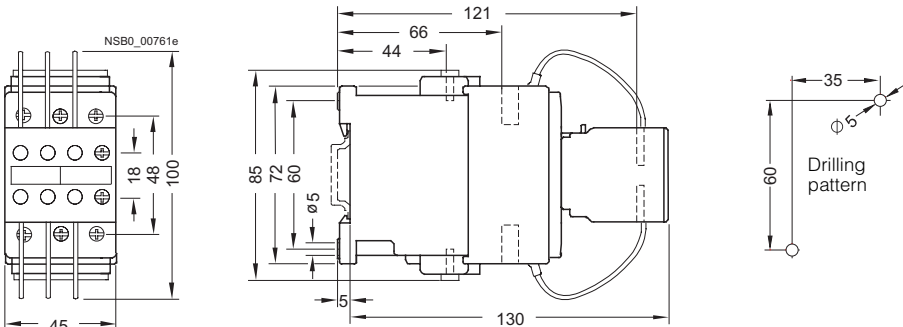


3RT16 capacitor contactors

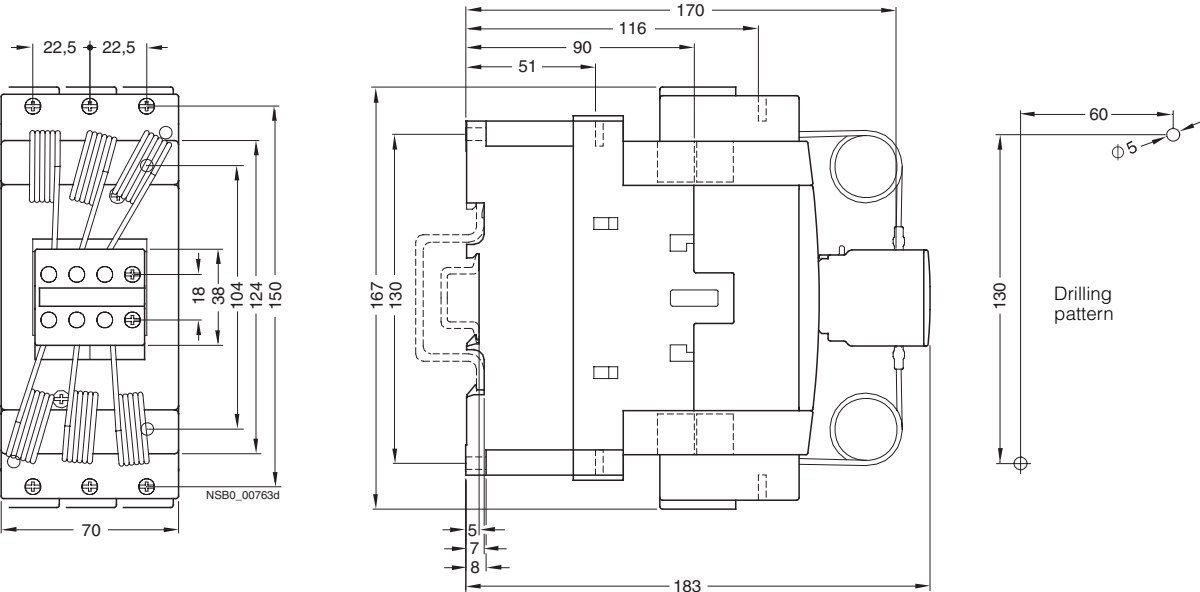
3RT16 17 capacitor contactors, size S00



3RT16 27 capacitor contactors, size S0



3RT16 47 capacitor contactors, size S3

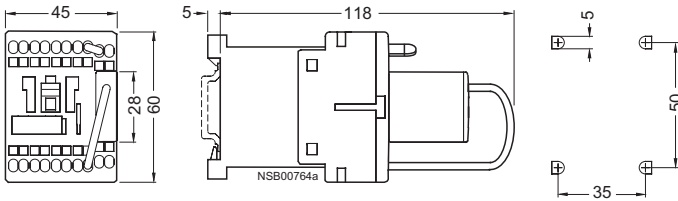


Controls – Contactors and Contactor Assemblies

Project planning aids

Contactors with extended operating range 0.7 to 1.25 x U_s

Size S00



Without series resistor:

3RH11 22-2KB40

-2KF40

3RT10 17-2KB41

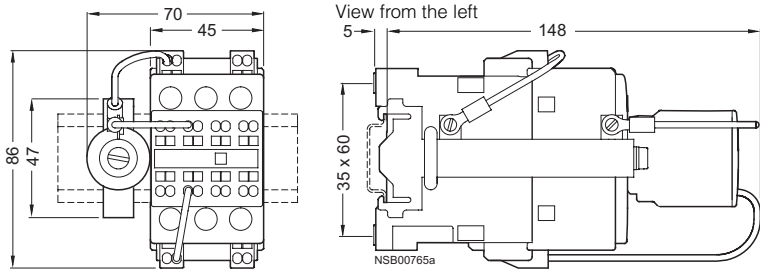
-2KF41

-2KB42

-2KF42

For dimensions see page 3/175 (size S00)

Size S0¹⁾



Without series resistor:

3RT10 25-3KB40

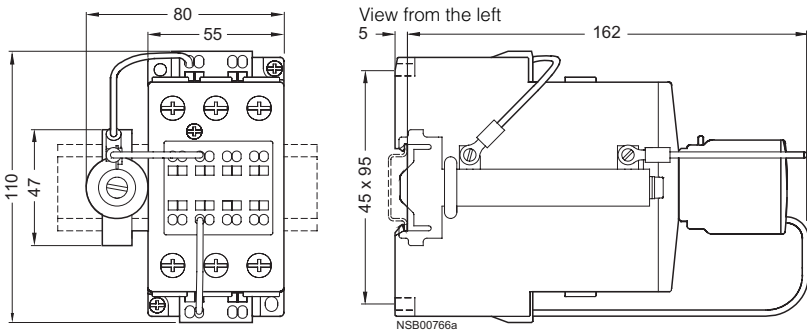
-3KF40

3RT10 26-3KB40

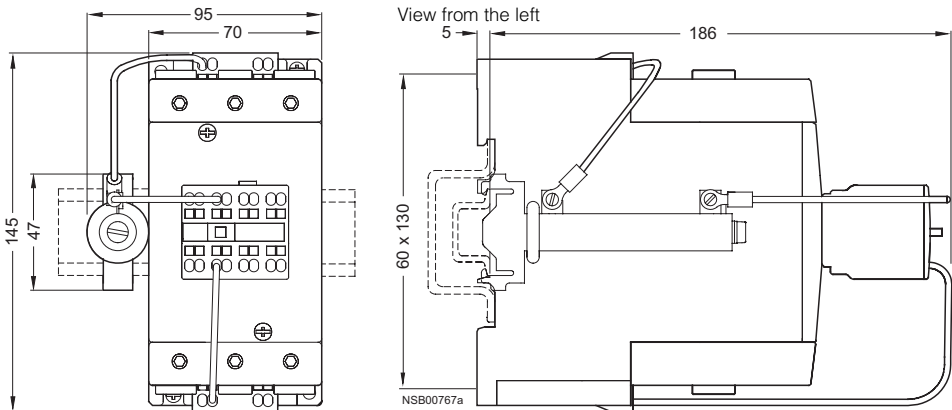
-3KF40

For dimensions see page 3/176 (size S0)

Size S2¹⁾



Size S3¹⁾



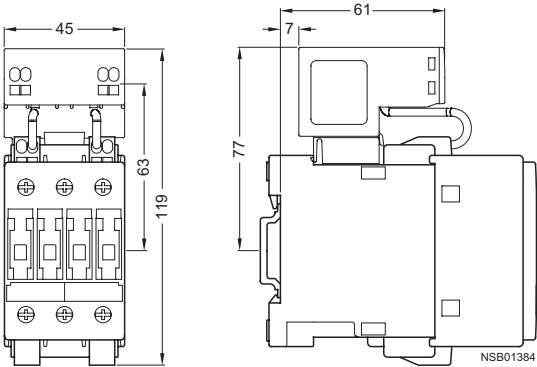
¹⁾ Sizes S0 to S3: Contactor series-resistor must be connected by customer.
The series resistor is equipped with the necessary connecting cables.

Controls – Contactors and Contactor Assemblies

Project planning aids

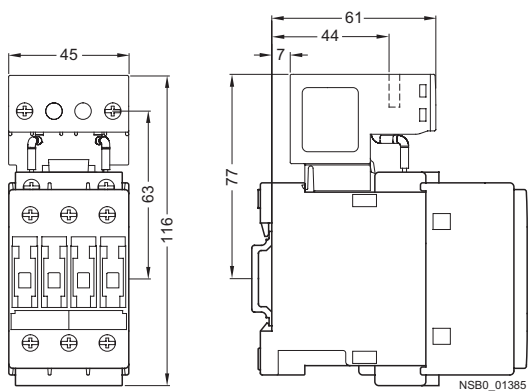
3RT10 2 -3X . 40-0LA2 contactors, size S0

Cage Clamp terminals



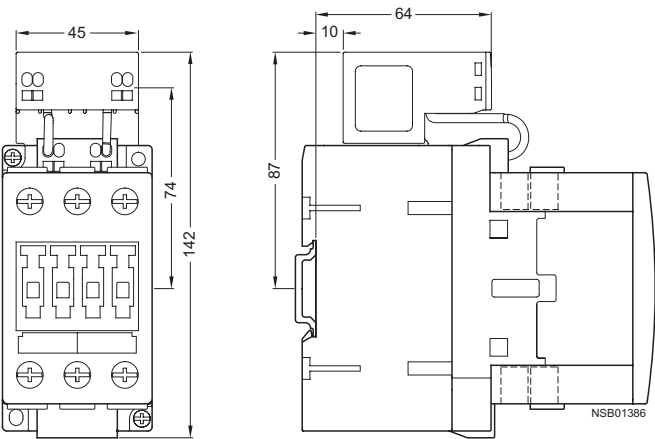
3RT10 2 -1X . 40-0LA2 contactors, size S0

Screw terminals



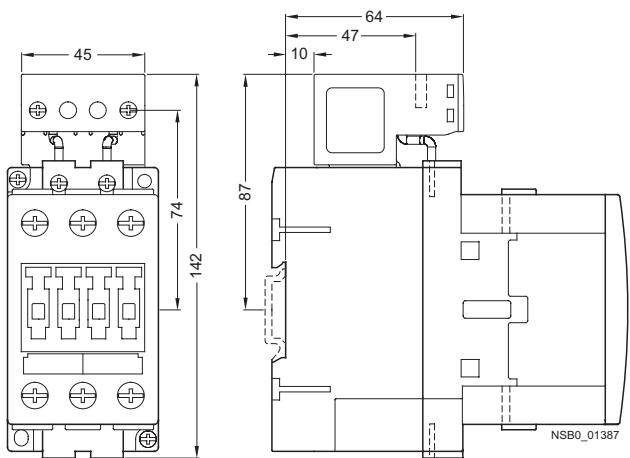
3RT10 3 .-3X. 40-0LA2 contactors, size S2

Cage Clamp terminals



3RT10 3 .-1X. 40-0LA2 contactors, size S2

Screw terminals



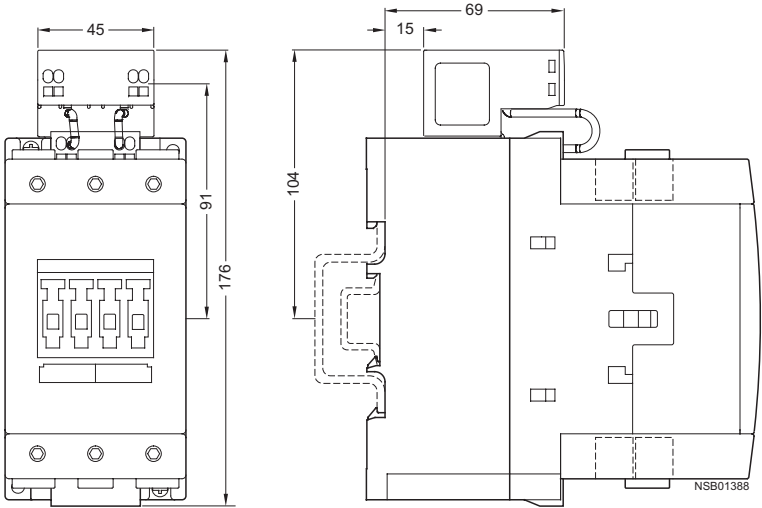
All dimensions not mentioned are identical to those of the contactors with DC operation (see page 3/176 to page 3/178).

Controls – Contactors and Contactor Assemblies

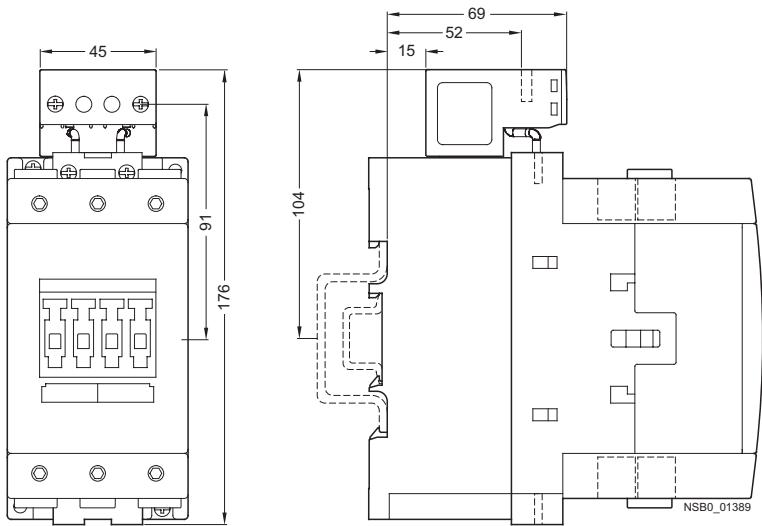
Project planning aids

Contactors with extended operating range 0.7 to 1.25 x U_s

3RT10 4.-3X.40-0LA2 contactors, size S3
Cage Clamp terminals



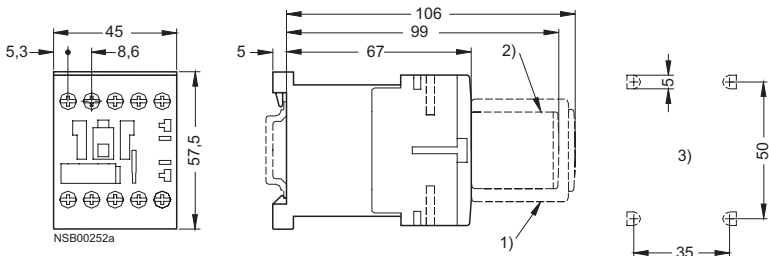
3RT10 4.-1X.40-0LA2 contactors, size S3
Screw terminals



All dimensions not mentioned are identical to those of the contactors with DC operation (see page 3/176 to page 3/178).

3RH11 and 3RH14 contactor relays

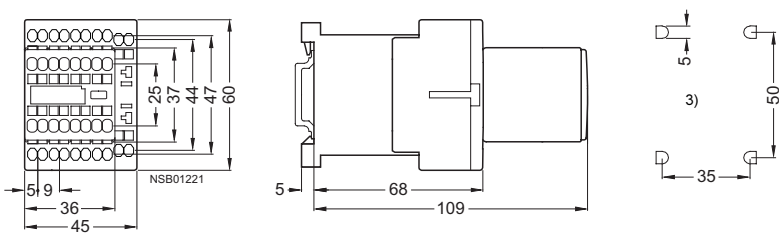
3RH11 contactor relays, size S00
with screw terminals,
with surge suppressor and auxiliary switch block



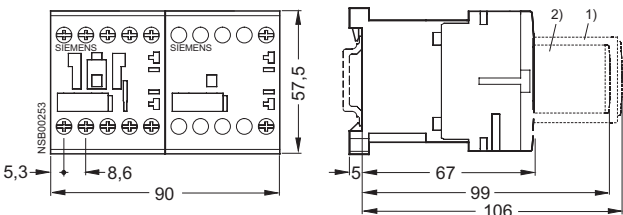
Lateral distance to grounded components = 6 mm

- 1) Auxiliary switch block
- 2) Surge suppressor
- 3) Drilling pattern

with Cage Clamp terminals,
with auxiliary switch block



3RH14 latched contactor relays, size S00
with surge suppressor and auxiliary switch block



3RH11 coupling relays

3RH11 coupling relays, size S00
with screw terminals,
with surge suppressor



- 1) Surge suppressor
- 2) Drilling pattern

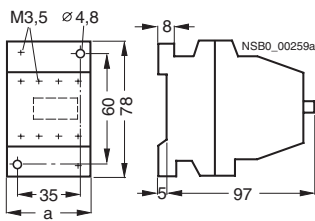
Deviating dimensions for coupling relays
with Cage Clamp terminals:
Height: 60 mm

Controls – Contactors and Contactor Assemblies

Project planning aids

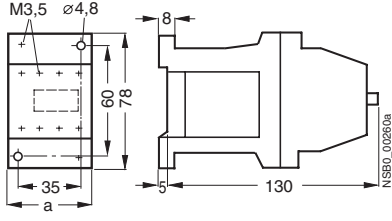
3TH42/3TH43

AC operation



Contactor a	
type	
3TH42	45
3TH43	55

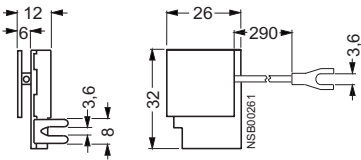
DC operation



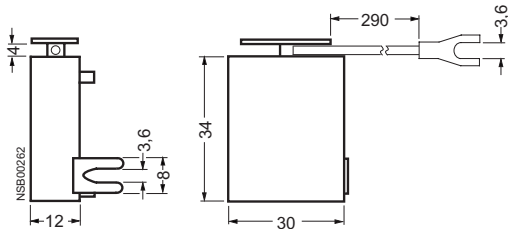
Contactor a	
type	
3TH42	45
3TH43	55

Accessories for 3TH42/3TH43 contactor relays

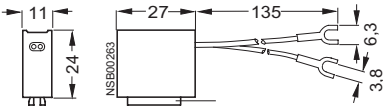
3TX7 402-3 varistors,
3TX7 402-3A noise suppression diode,
3TX7 402-3D diode assemblies
(for DC operation) for 3TH42/3TH43 contactor relays
for mounting onto the coil terminal



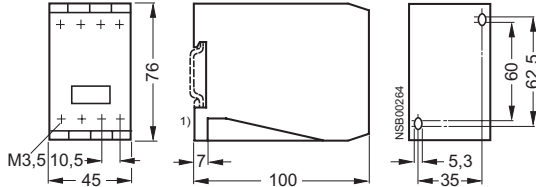
3TX7 402-3 RC elements
for 3TH42/3TH43 contactor relays for mounting onto the coil terminal



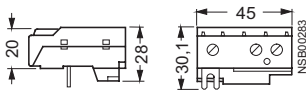
3TX4 180-0A ON-delay devices
for 3TH42/3TH43 contactor relays



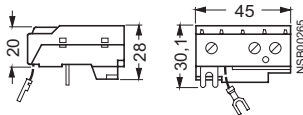
3TX4 701 OFF-delay devices
for 3TH42/3TH43 contactor relays



3TX4 090-0C coupling link
for mounting onto the contactor coil of 3TH42/3TH43 contactor relays,
without surge suppression



3TX4 090-0D coupling link
for mounting onto the contactor coil of 3TH42/3TH43
contactor relays, with surge suppression



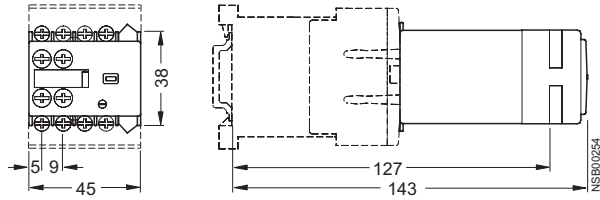
¹⁾ For 35 mm standard mounting rail.

Controls – Contactors and Contactor Assemblies

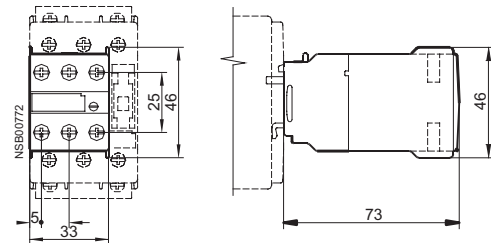
Project planning aids

Accessories for 3RT1 contactors

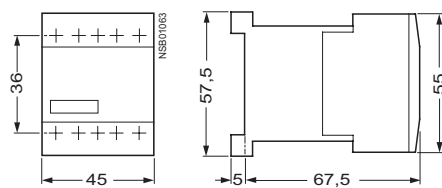
3RT19 16-2E . . . , 3RT19 16-2F . . . , 3RT19 16-2G . . .
solid-state, time-delay auxiliary switch blocks
for contactors, size S00



3RT19 26-2E . . . , 3RT19 26-2F . . . , 3RT19 26-2G . . .
solid-state, time-delay auxiliary switch blocks
for contactors, sizes S0 to S3

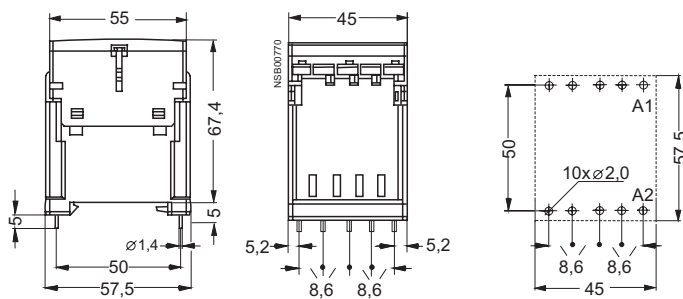


3RT19 16-2B.01
OFF-delay devices for contactors, sizes S00 to S3



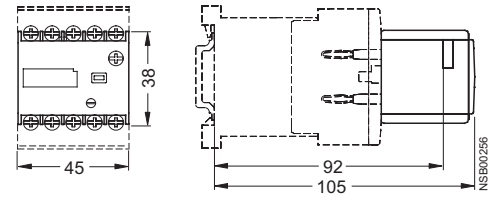
3RT19 16-4KA1
solder pin adapters
Size S00

Mounted onto 3RT10 1. contactors with 1 auxiliary contact
in the basic unit



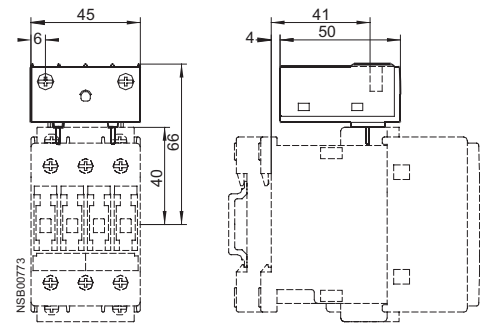
3RT19 16-2
solid-state time-delay blocks, ON-delay
Size S00

for mounting onto the front of contactors
(the dimensions are also valid for time-delay blocks
with an OFF-delay)



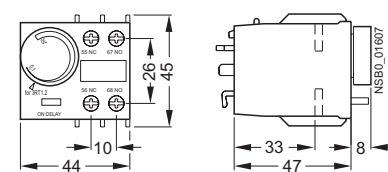
3RT19 26-2
solid-state time-delay blocks, ON-delay
Sizes S0 to S3

for mounting onto the top of the contactors
(the dimensions are also valid for time-delay blocks
with an OFF-delay and for 3RH19 24-1GP11 coupling links)

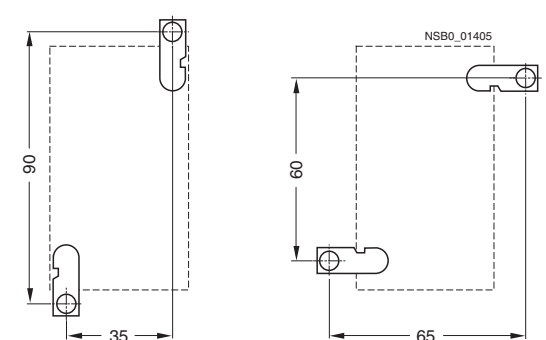


3RT19 26-2P. . 1
pneumatic delay block
for contactors, size S0

for mounting onto the front of 3RT1 . 2 contactors



3RT19 26-4P
screw adapters
for contactors of size S0

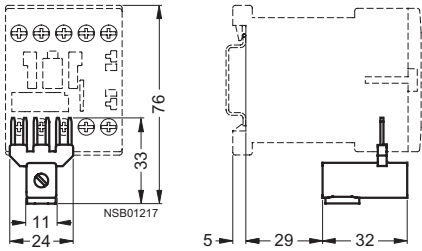


Controls – Contactors and Contactor Assemblies

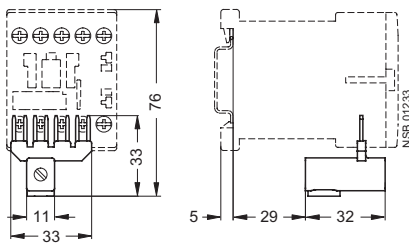
Project planning aids

Accessories for 3RT1 contactors

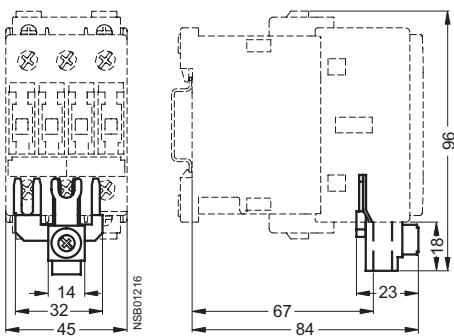
3RT19 16-4BB31
parallel connector
Size S00
3-pole, with terminal



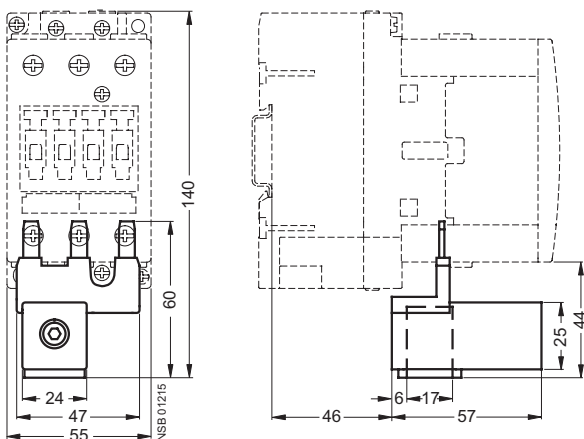
3RT19 16-4BB41
parallel connector
Size S00
4-pole, with terminal



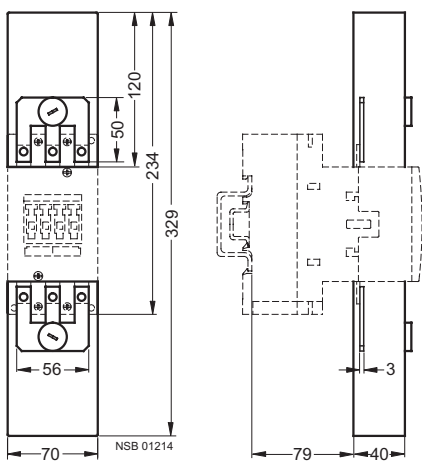
3RT19 26-4BB31
parallel connector
Size S0
3-pole, with terminal



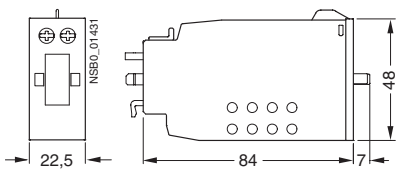
3RT19 36-4BB31
parallel connector
Size S2
3-pole, with terminal



3RT19 46-4BB31
parallel connector
Size S3
3-pole, with through hole and cover for touch protection

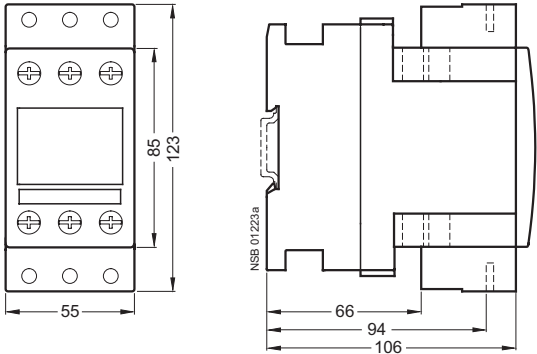


3RT19 26-3A.
mechanical latching block

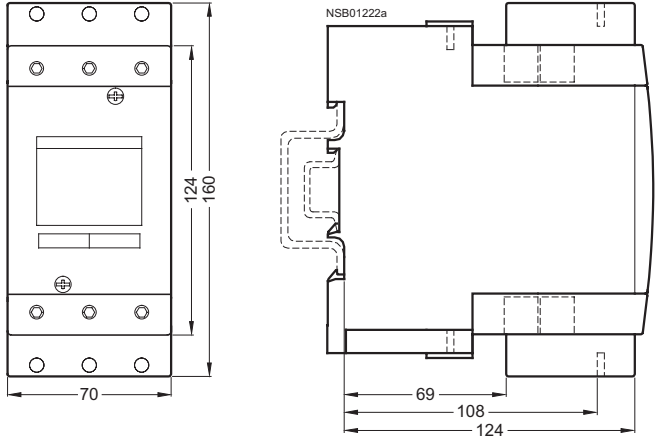


Accessories for 3RT1 contactors

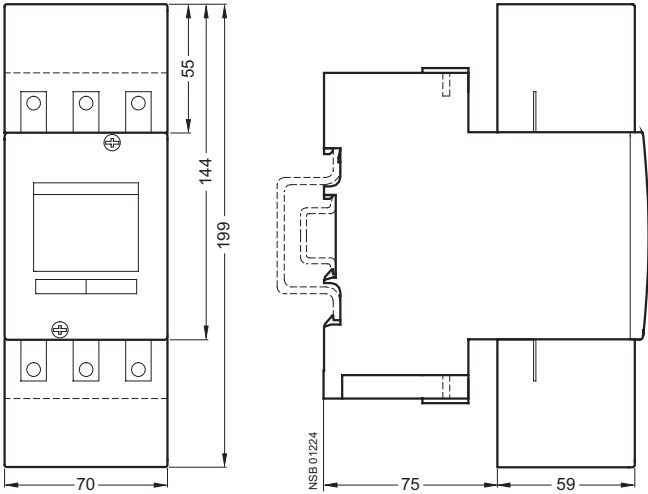
3RT19 36-4EA2 terminal cover for box terminals
for size S2



3RT19 46-4EA2 terminal cover for box terminals
for size S3



3RT19 46-4EA1 terminal cover for cable lug and bar connection
for size S3

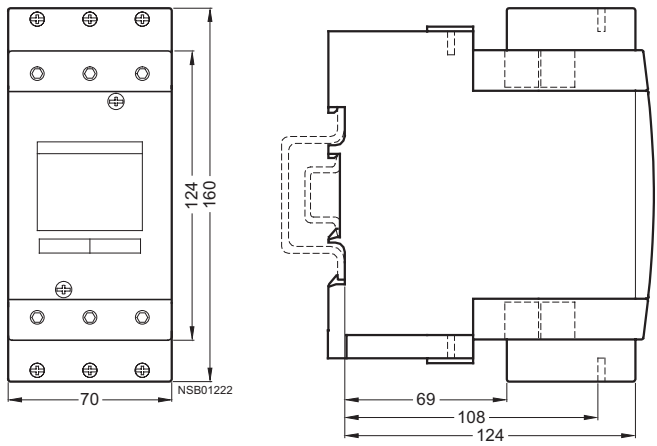


Controls – Contactors and Contactor Assemblies

Project planning aids

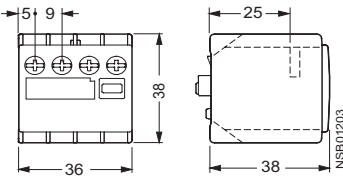
Accessories for 3RT1 contactors

3RT19 46-4F
auxiliary conductor terminal, 3-pole
Size S3
Mounted on contactor



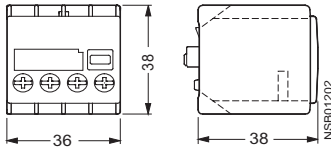
3RH19 11-1AA . . , 3RH19 11-1LA . .
auxiliary switch block
for size S00

Screw terminals
2-pole
Cable entry from above



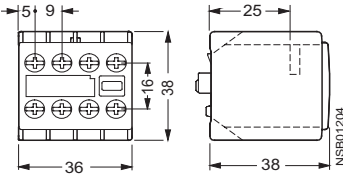
3RH19 11-1BA . . , 3RH19 11-1MA . .
auxiliary switch block
for size S00

Screw terminals
2-pole
Cable entry from below



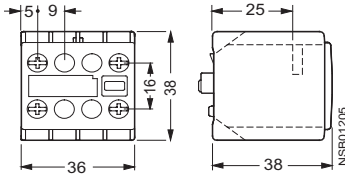
3RH19 11-1F . . , 3RH19 11-1H . .
auxiliary switch block according to EN 50012 and EN 50005
for size S00

Screw terminals
1- to 4-pole



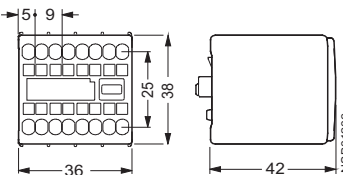
3RH19 11-. NF . .
solid-state compatible auxiliary switch block according to EN 50005
for size S00

Screw terminals ¹⁾



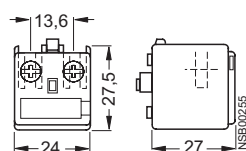
3RH19 11-2F . . . , 3RH19 11-2H . . .
auxiliary switch block according to EN 50005 and EN 50012
for size S00

Cage Clamp terminals
1- to 4-pole



3RH19 11-1AA . . , 3RH19 11-1BA . .
auxiliary switch block, 1-pole
Size S00

Cable entry from one side



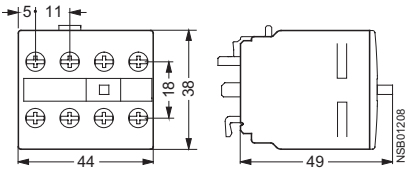
¹⁾ Deviating dimension for auxiliary switch block with Cage Clamp terminals:
Mounting depth 42 mm.

Controls – Contactors and Contactor Assemblies

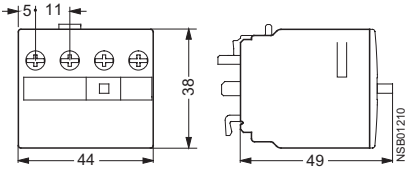
Project planning aids

Accessories for 3RT1 contactors

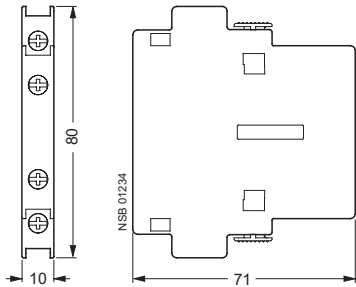
3RH19 21- . HA . . , 3RH19 21- . F . . .
auxiliary switch block according to EN 50005 and EN 50012
for sizes S0 to S12
Screw and Cage Clamp terminals
4-pole



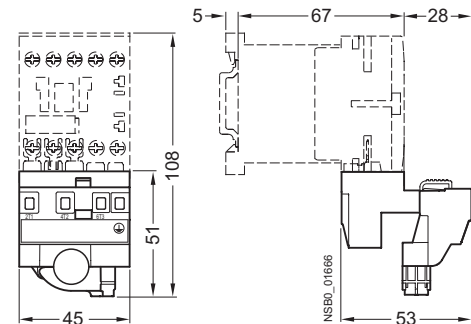
3RH19 21-1LA . .
auxiliary switch block according to EN 50005
for sizes S0 to S12
Screw terminals
2-pole
Cable entry from above



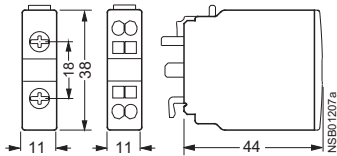
3RH19 21-1D . . . , 3RH19 21-1J . . . , 3RH19 21-1E . . . , 3RH19 21-1K . . .
auxiliary switch block, laterally mountable,
for sizes S0 to S12
Screw terminals
2-pole



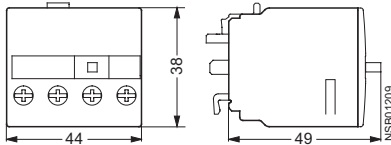
3RT19 00-4RE01 and 3RT19 16-4RD01
connection module for contactors with screw terminals
Size S00



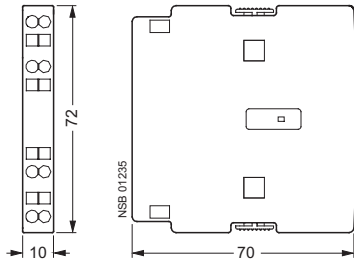
3RH19 21- . C . . .
auxiliary switch block according to EN 50005 and EN 50012
for sizes S0 to S12
Screw and Cage Clamp terminals
1-pole



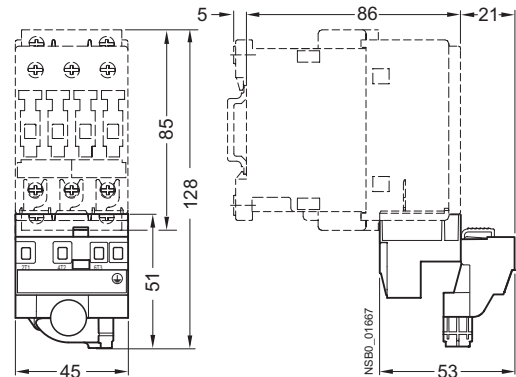
3RH19 21-1MA . .
auxiliary switch block according to EN 50005
for sizes S0 to S12
Screw terminals
2-pole
Cable entry from below



3RH19 21-2D . . . , 3RH19 21-2J . . . , 3RH19 21-2E . . . , 3RH19 21-2K . . .
auxiliary switch block, laterally mountable,
for sizes S0 to S12
Cage Clamp terminals
2-pole



3RT19 00-4RE01 and 3RT19 26-4RD01
connection module for contactors with screw terminals
Size S0

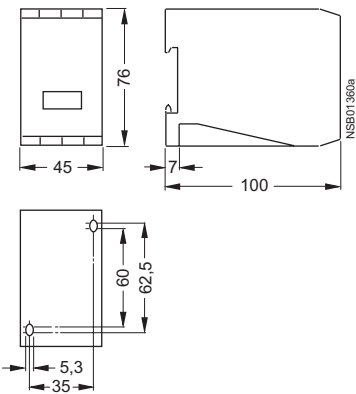


Controls – Contactors and Contactor Assemblies

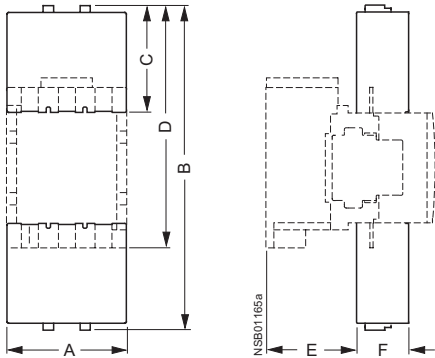
Project planning aids

Accessories for 3RT1 contactors

3RT19 66-1PV3
main circuit damping module
for 3RT12 vacuum contactors, sizes S10 and S12
Connected to outgoing side of contactor (2-T1/4-T2/6-T3)
using approx. 350 mm long, molded cable

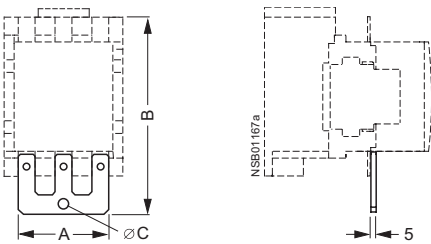


3RT19 .6-4EA1
terminal cover for bar connection
Sizes S6 to S12
for mounting onto the contactor enclosure



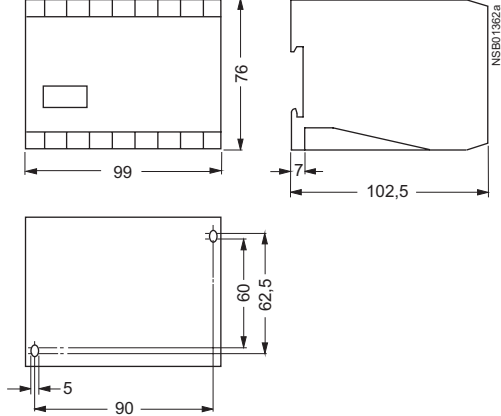
	A	B	C	D	E	F
S6	119	324	107	241	91	52
S10	145	385	128	289	106	66
S12	145	399	128	303	124	66

3RT19 .6-4BA31
links for paralleling
Sizes S6 to S12

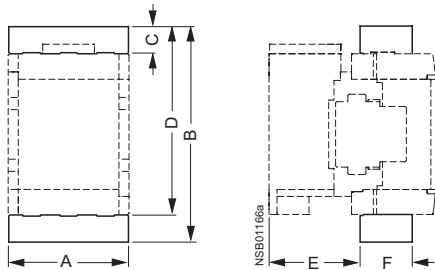


	A	B	ØC
S6	91	199	10.5
S10	121	244	12.5
S12	121	258	12.5

3RT19 66-1PV4
main circuit damping module
for 3RT12 vacuum contactors, sizes S10 and S12
Connected to outgoing side of contactor (2-T1/4-T2/6-T3)
using approx. 350 mm long, molded cable



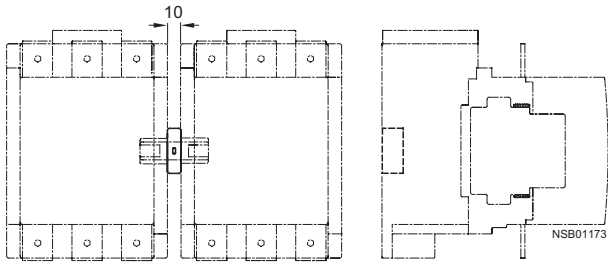
3RT19 .6-4EA2
terminal cover for box terminals
Sizes S6 to S12
for mounting onto box terminal



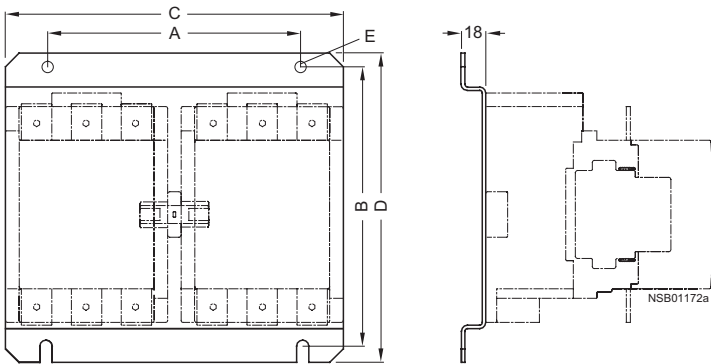
	A	B	C	D	E	F
S6	119	215	27	190	91	52
S10	145	265	30	235	106	66
S12	145	279	30	249	124	66

Accessories for 3RA1 contactor assemblies

3RA19 54-2A
mechanical interlock
Sizes S6 to S12

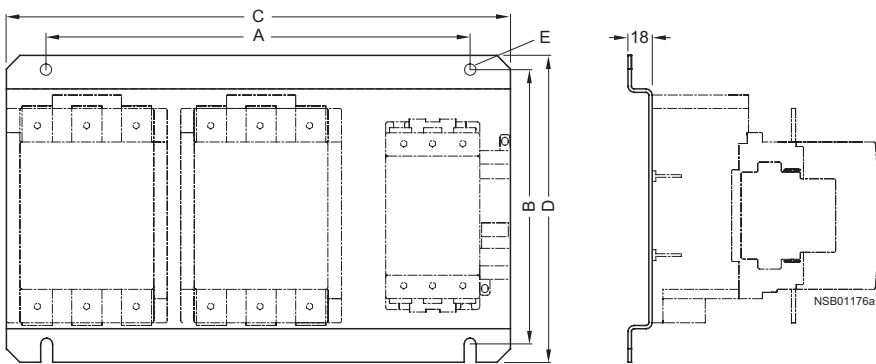


3RA19 .2-2A base plates for reversing contactor assemblies



	A	B	C	D	E
S6	190	205	250	229	9
S10	240	249	300	275	11
S12	280	249	330	275	11

3RA19 .2-2E, 3RA19 .2-2F
base plates for wye-delta assemblies



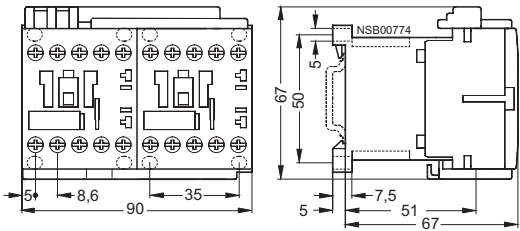
	A	B	C	D	E
S6-S6-S3	316	205	376	229	9
S6-S6-S6	343	205	403	229	9
S10-S10-S6	393	250	453	275	11
S10-S10-S10	423	250	483	275	11
S12-S12-S10	450	250	510	275	11
S12-S12-S12	465	250	525	275	11

Controls – Contactors and Contactor Assemblies

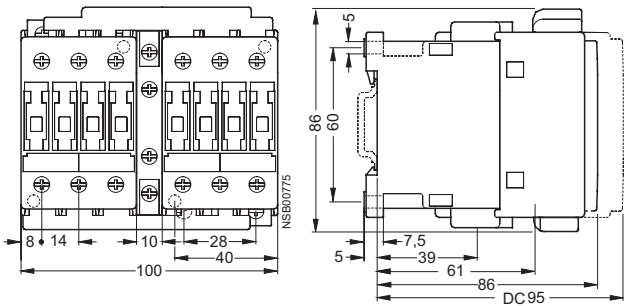
Project planning aids

3RA13 reversing contactor assemblies

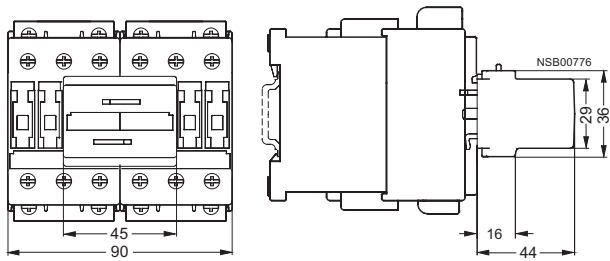
Size S00



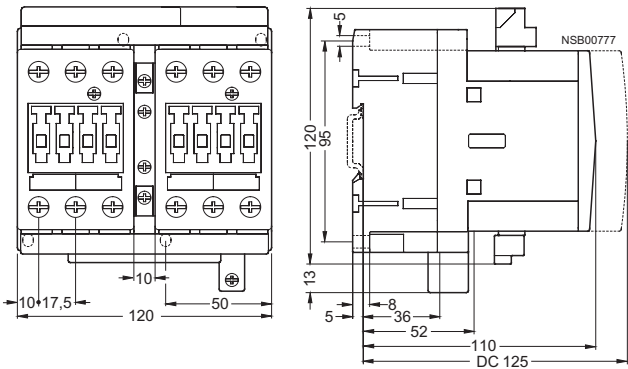
Size S0
with 3RA19 24-2B mechanical interlock
Laterally mountable



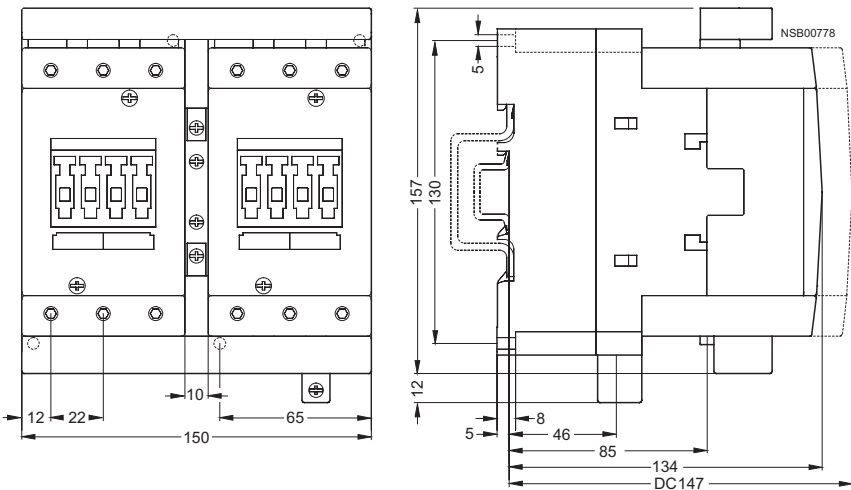
With 3RA19 24-1A mechanical interlock
On front



Size S2

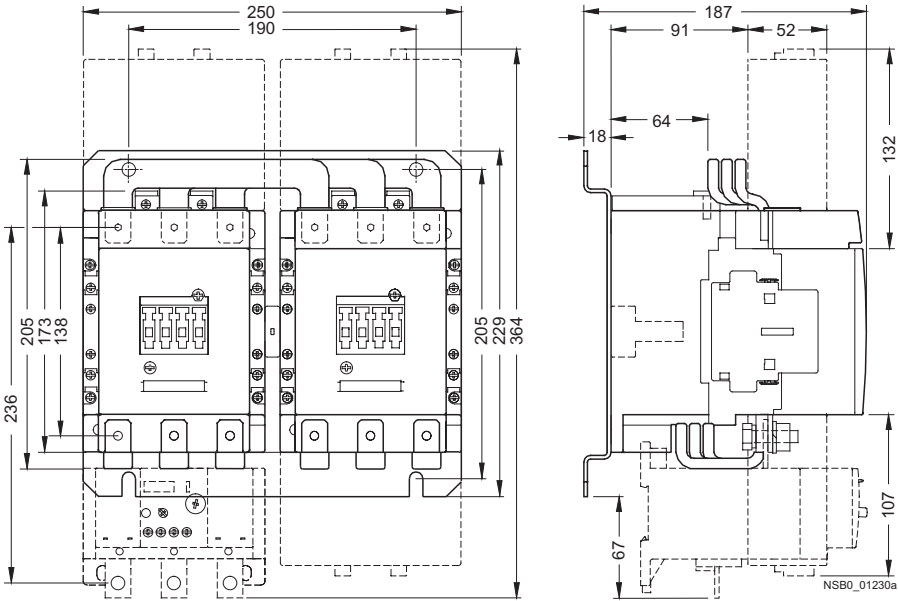


Size S3

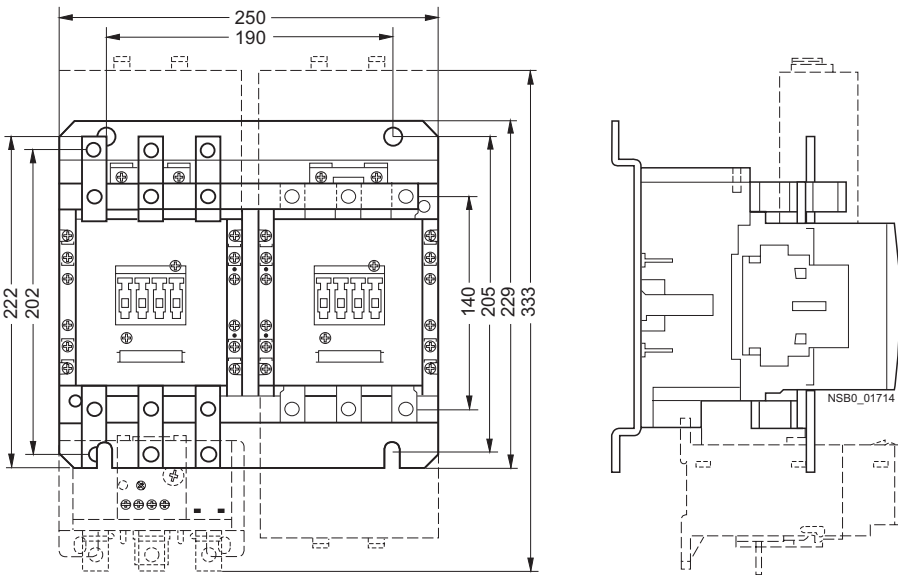


3RA13 reversing contactor assemblies

Size S6 with 3RA19 53-2A wiring module



Size S6 with 3RA19 53-2M wiring module

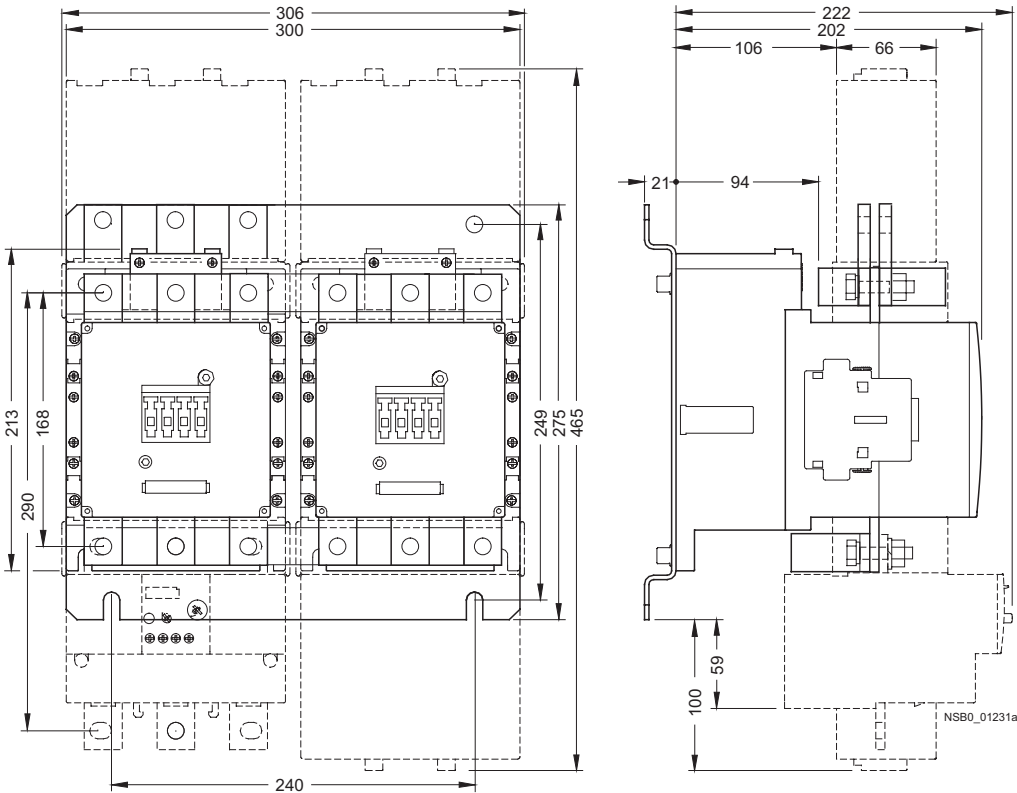


Controls – Contactors and Contactor Assemblies

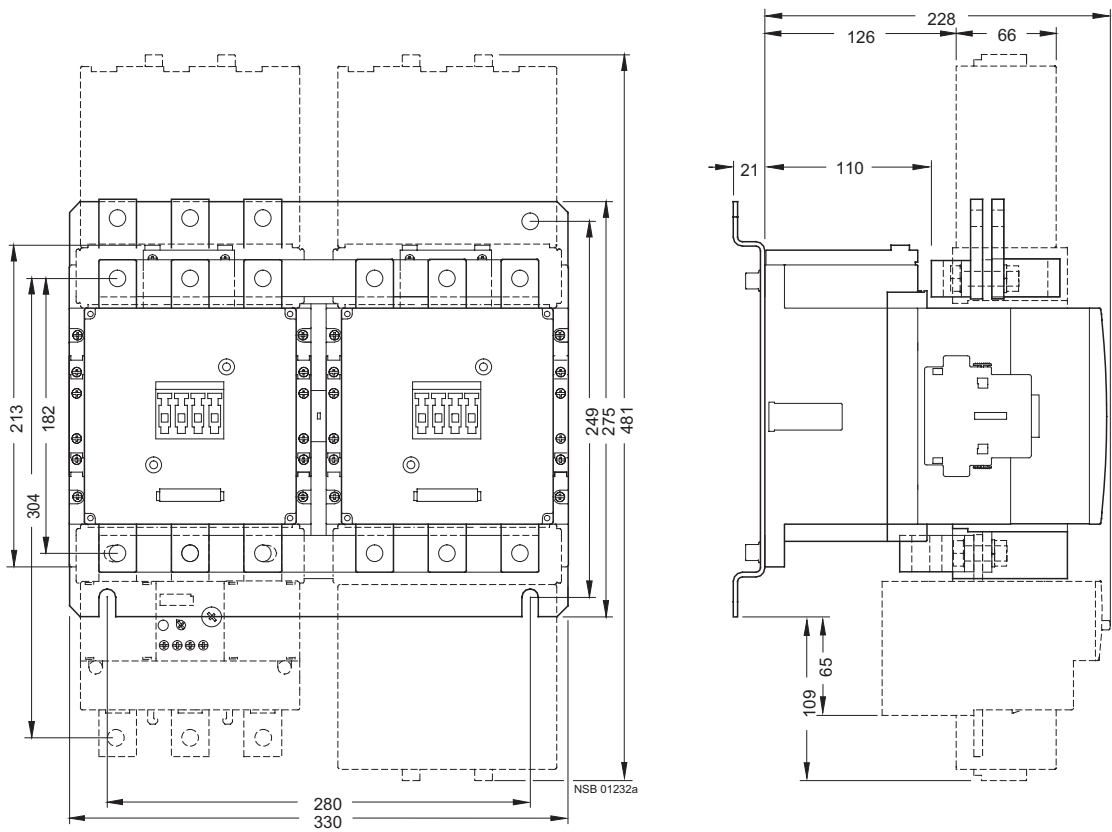
Project planning aids

3RA13 reversing contactor assemblies

Size S10



Size S12

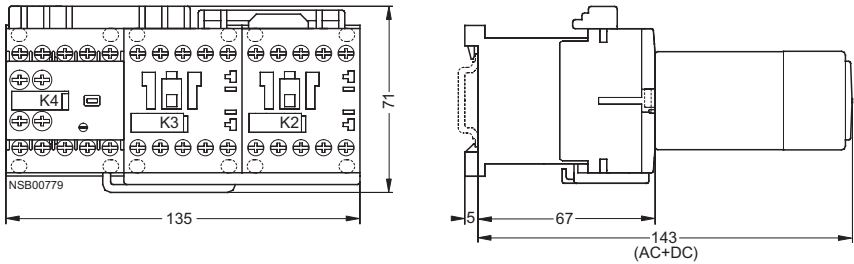


Controls – Contactors and Contactor Assemblies

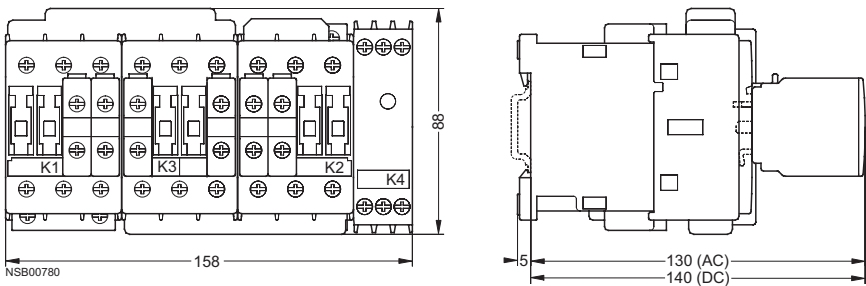
Project planning aids

3RA14 contactor assemblies for wye-delta starting

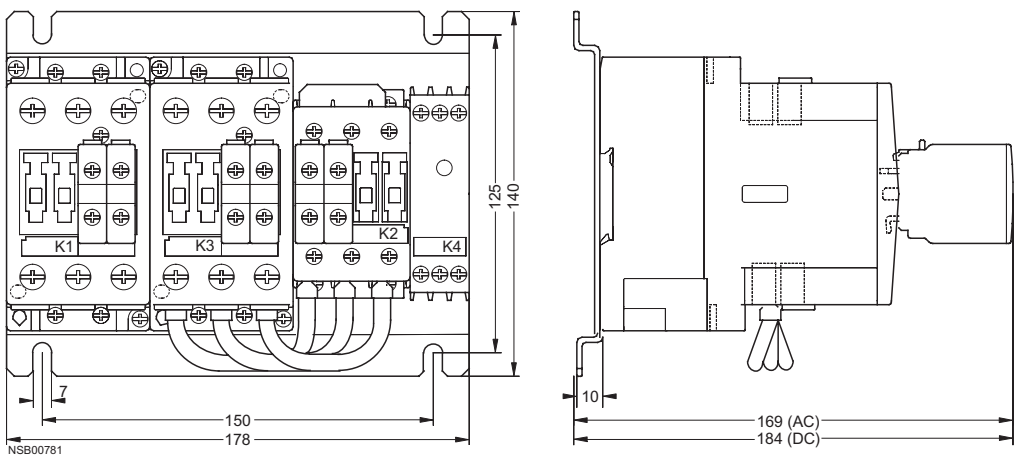
Sizes S00 – S00 – S00



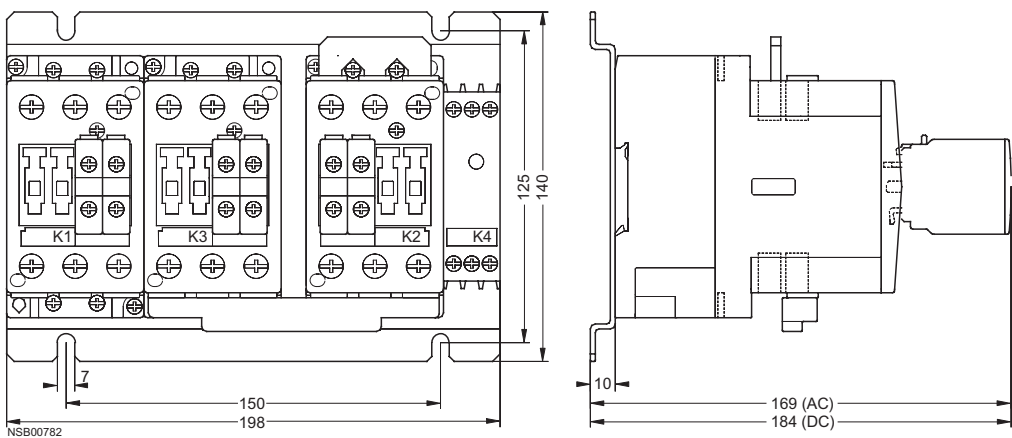
Sizes S0 – S0 – S0



Sizes S2 – S2 – S0



Sizes S2 – S2 – S2

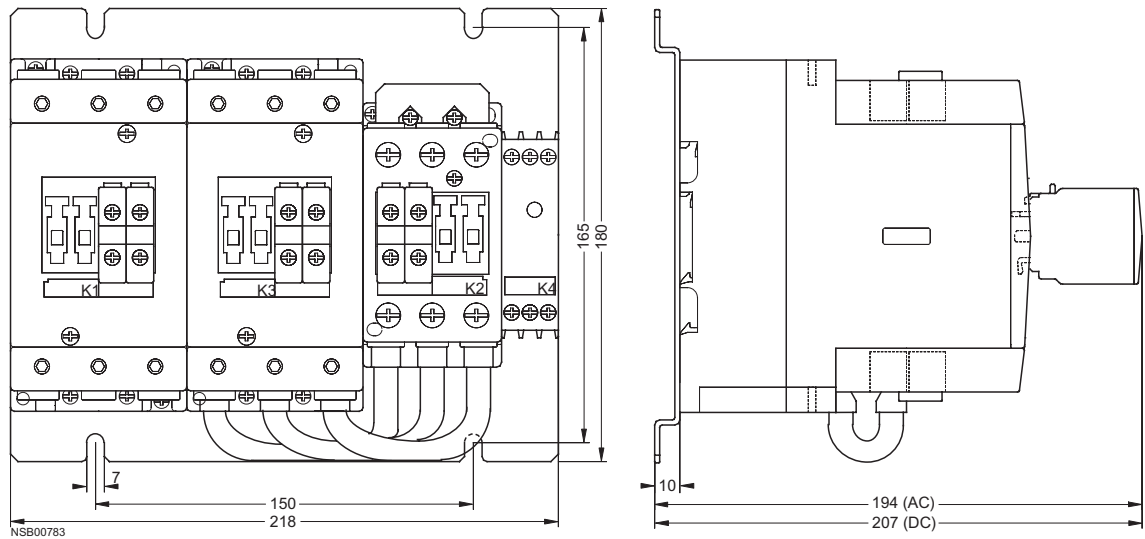


Controls – Contactors and Contactor Assemblies

Project planning aids

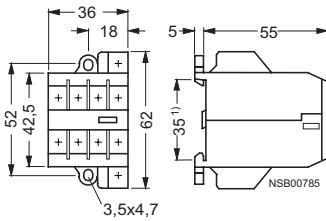
3RA14 contactor assemblies for wye-delta starting

Sizes S3 – S3 – S2

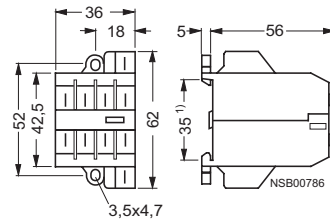


3TG10 miniature contactors

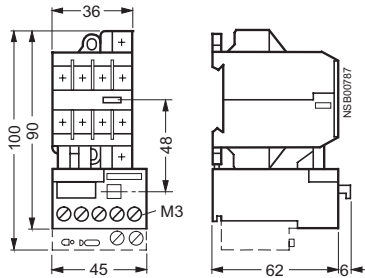
3TG10 ...-0... contactors
with screw terminals



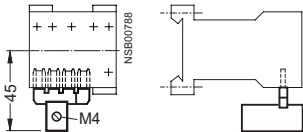
3TG10 ...-1... contactors
with tab connectors



3TG10 contactors
with 3UA7 overload relay



3RT19 16-4BB41
links for paralleling, 4-pole, with connection terminal
for 3TG10 contactors



The links for paralleling can be reduced by one pole.

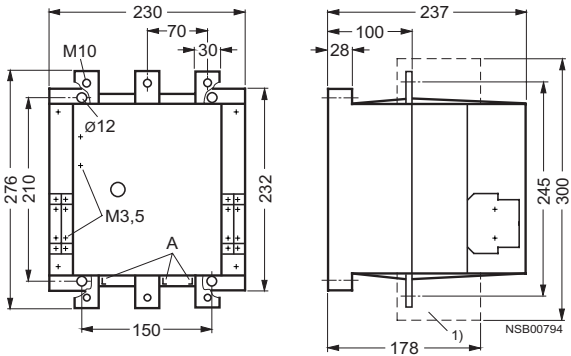
¹⁾ Can be snapped onto 35 mm standard mounting rail.

Controls – Contactors and Contactor Assemblies

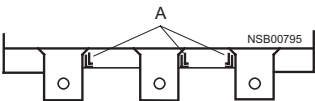
Project planning aids

3TF68 and 3TF69 vacuum contactors, 3-pole

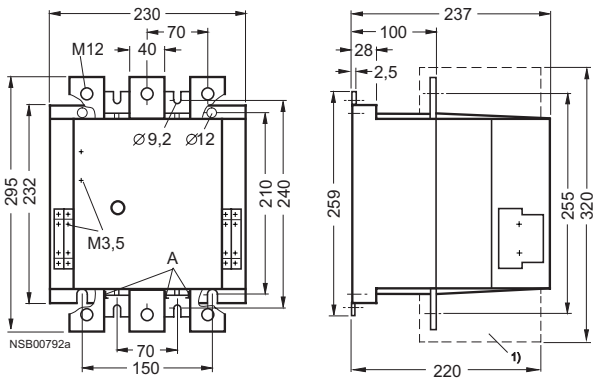
3TF68 vacuum contactors



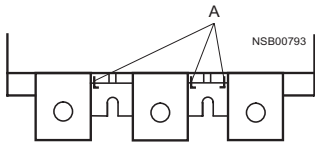
Detail
A = Contact erosion indication for vacuum interrupter contacts



3TF69 vacuum contactors



Detail
A = Contact erosion indication for vacuum interrupter contacts



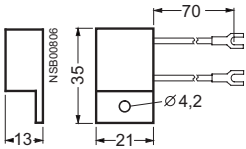
1) With box terminals for laminated copper bars (accessories).

Controls – Contactors and Contactor Assemblies

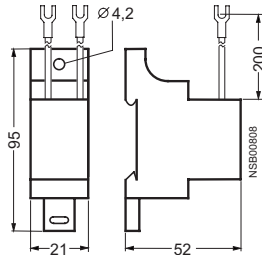
Project planning aids

Accessories for 3T contactors

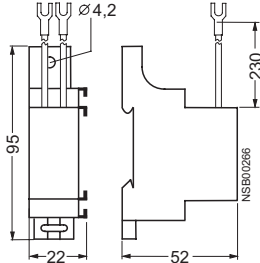
3TX7 462-3. varistors



3TX7 462-3., 3TX7 522-3.,
3TX7 572-3.
RC elements and varistors

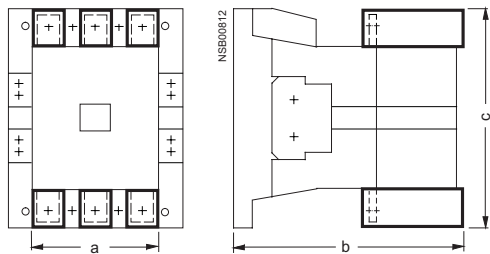


3TX7 090-0D coupling link
for laterally snapping onto
contactors



3TX7 box terminals for laminated copper bars

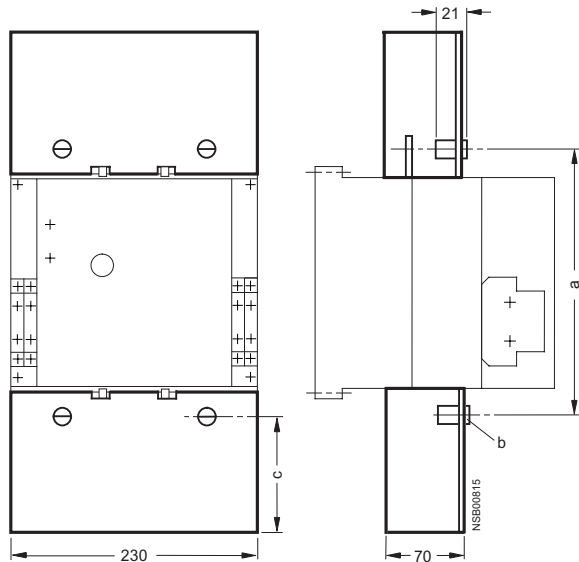
Box terminals with cover, mounted to contactor



For contactor type	Box terminal	a	b	c
3TF68	3TX7 570-1.	182	178	300
3TF69	3TX7 690-1F	200	219	320

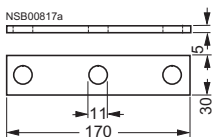
3TX7 686-0A and 3TX7 696-0A terminal covers

for 3TF68 and 3TF69 contactors, size 14,
mountable to free screw end of the two outer conducting paths

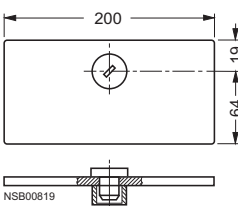


For contactor type	Terminal covers	a	b	c
3TF68	3TX7 686-0A	245	M10	104
3TF69	3TX7 696-0A	255	M12	99

3TX7 680-0D link for paralleling
for 3TF68 contactors

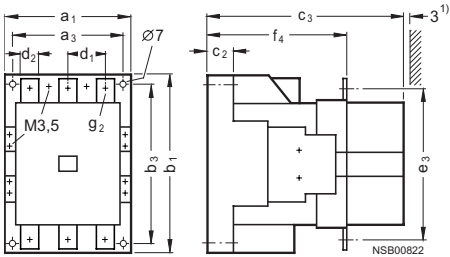


3TX7 680-0E cover plate
for 3TX7 680-0D link for paralleling for 3TF68 contactor



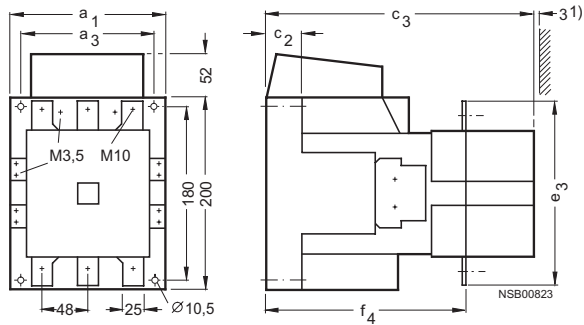
3TB5 contactors

3TB50 and 3TB52 contactors
Sizes 6 and 8



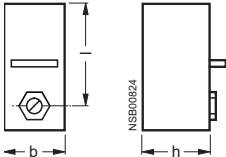
Type	a ₁	a ₃	b ₁	b ₃	c ₂	c ₃	d ₁	d ₂	e ₃	f ₄	g ₂
3TB50	120	100	150	130	23	198	37	15	133	137.5	M6
3TB52	135	110	180	160	28	217	42	20	154	147	M8

3TB54 and 3TB56 contactors
Sizes 10 and 12



Type	a ₁	a ₃	c ₂	c ₃	e ₃	f ₄
3TB54	145	120	30.5	264	168	188
3TB56	160	130	39	282	178	200

3TX6 . . 6-3B terminal covers

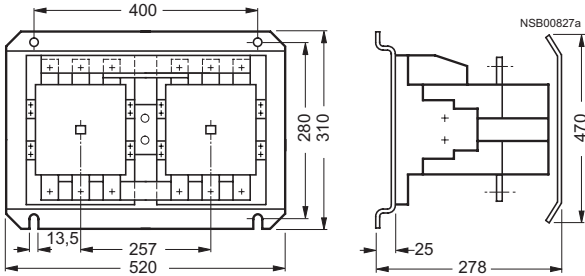


For contactor Size	Type	b	h	l
6	3TB50	27	33	58
8	3TB52	34	44	75
10 up to 12	3TB54 to 3TB56	38	56	95

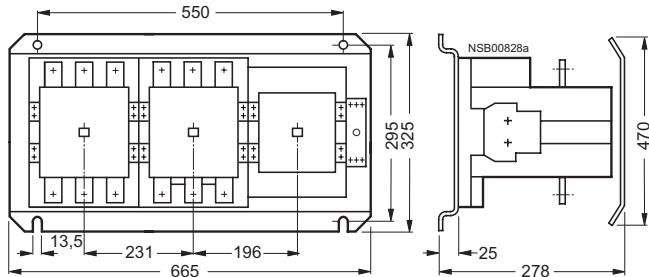
¹⁾ Minimum clearance from insulated components 3 mm.
Minimum clearance from grounded components 10 mm.

3TD68, 3TE68 contactor assemblies

3TD68 contactor assemblies



3TE68 contactor assemblies



Controls – Contactors and Contactor Assemblies

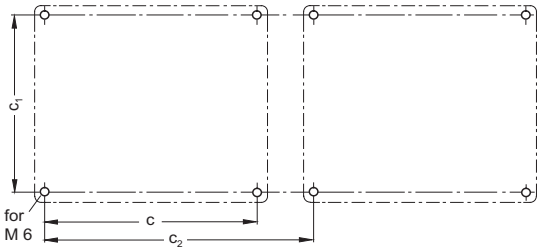
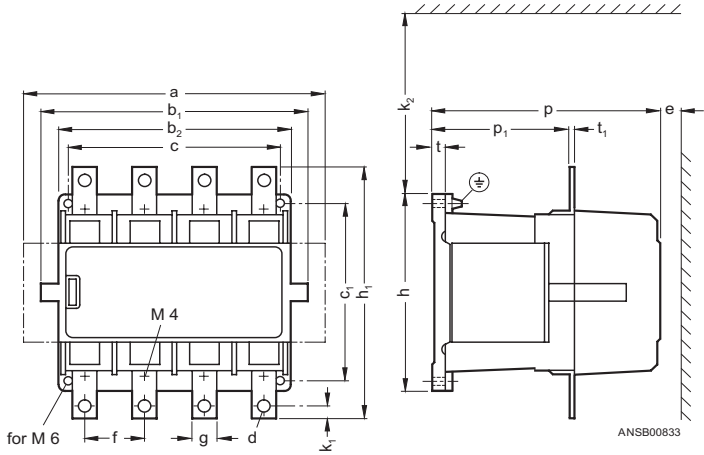
Project planning aids

3TK10 to 3TK17 contactors

3TK10 to 3TK17 contactors

The scope of supply includes screws and rubber buffers.

⊕ M10 grounding screw for 3TK14 to 3TK17



Contactor Type	a	b ₁	b ₂	c	c ₁	c ₂ ¹⁾	c ₂ ²⁾	d ³⁾	e min.	f	g	h	h ₁	k ₁	k ₂ ⁴⁾	p	p ₁	t	t ₁
3TK10	186	165	136	120	140	166	187	6.6	40	41	15	156	156	7.5	134	154.5	102.3	10	4
3TK11	186	165	136	120	140	168	187	11	40	42	20	156	172	10	134	154.5	102.3	10	4
3TK12	225	201	176	160	140	202	226	11	15	45	20	156	198	10	134	172	106.7	10	5
3TK13	225	201	176	160	140	202	226	11	15	45	20	156	198	10	134	172	106.7	10	5
3TK14	266	244	244	220	200	271	293	11	40	67	25	223	272	12.5	--	225.5	139.5	23 ⁵⁾	6
3TK15	266	244	244	220	200	271	293	11	40	67	25	223	273	12.5	--	225.5	139.5	23 ⁵⁾	6
3TK17	266	244	244	220	200	271	293	11	40	67	40	223	273	12.5	--	225.5	139.5	23 ⁵⁾	6

1) Clearance when 2 contactors, each with one auxiliary switch block opposite, are mounted.

2) Clearance when 2 contactors, each with two auxiliary switch blocks opposite, are mounted.

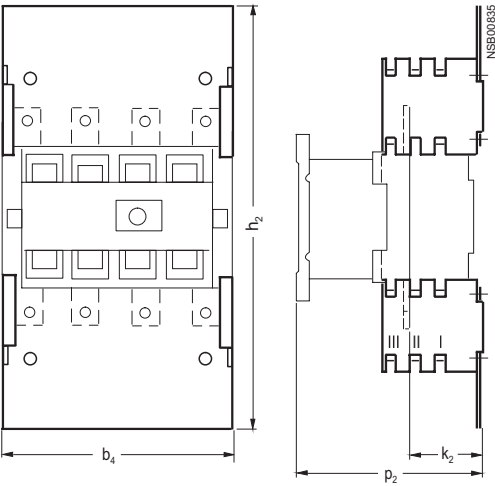
3) Nuts, bolts, screws and washers are supplied.

4) Minimum clearance for removing the withdrawable coil.

5) Damping elements are supplied.

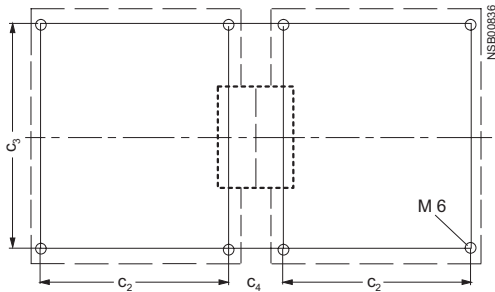
Accessories for 3TK1 contactors

3TK19 4.terminal cover



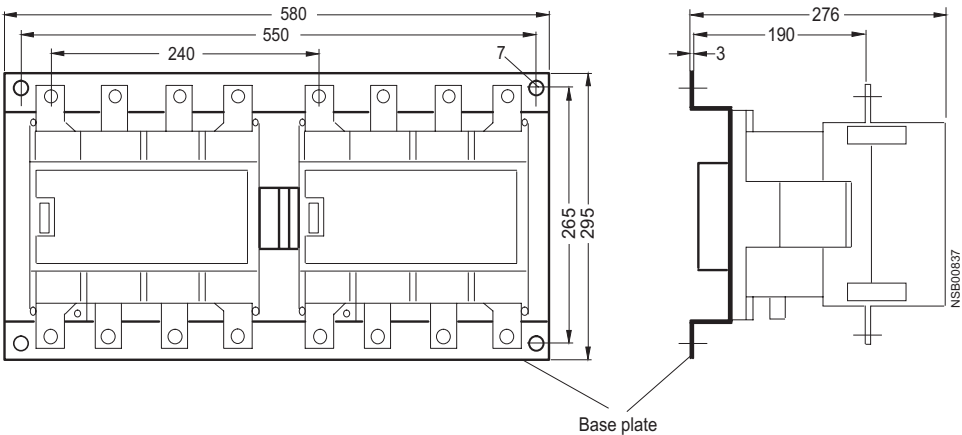
Contactors Type	Terminal cover	h_2	p_2 for			k_2 for			b_4
			I	II	III	I	II	III	
3TK10, 3TK11	3TK19 40-0A	372	153	178	203	47	72	97	168
3TK12, 3TK13	3TK19 42-0A	399	158	183	208	47	72	97	202
3TK14, 3TK15	3TK19 44-0A	464	193	218	243	47	72	97	268
3TK17	3TK19 46-0A	464	193	218	243	47	72	97	268

3TK19 20 and 3TK19 22 locking devices
for mechanical locking of two identical
3TK10 to 3TK13 contactors,
mounted side by side on the mounting plate



Contactors Type	Locking device	c_2	c_3	c_4
3TK10, 3TK11	3TK19 20-0A	120	140	65
3TK12, 3TK13	3TK19 22-0A	160	140	63.5

3TK19 24 locking device
for mechanical locking of two identical
3TK14, 3TK15 or 3TK17 contactors,
mounted side by side on the mounting plate

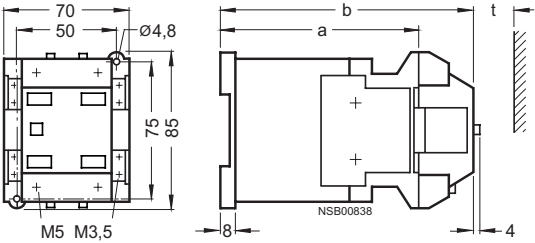


Controls – Contactors and Contactor Assemblies

Project planning aids

3TC4 and TC5 contactors

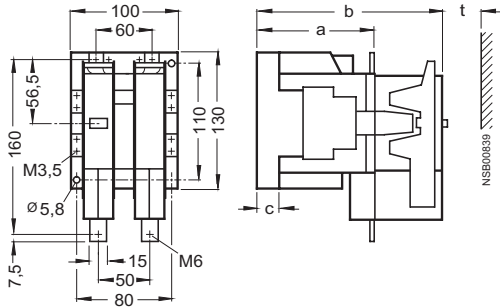
3TC44 contactors
Size 2, AC and DC operation



t = minimum clearance
from insulated components: 15 mm (600 V and 750 V)
from grounded components: 30 mm (600 V and 750 V)

	a	b
DC operation	109	141
AC operation	68	100

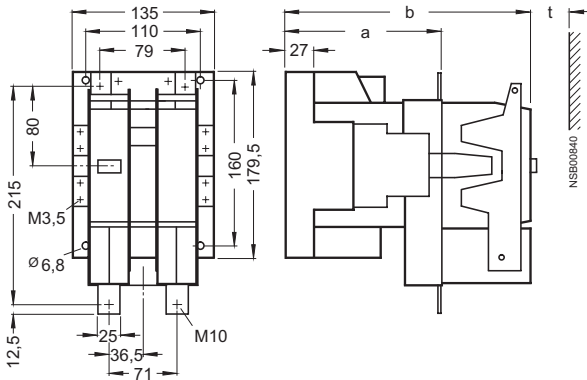
3TC48 contactors
Size 4, AC and DC operation



t = minimum clearance from insulated components: 15 mm (600 V), 20 mm (750 V)
from grounded components: 35 mm (600 V), 55 mm (750 V)

	a	b	c
DC operation	112	180	21.5
AC operation	86	154	23.5

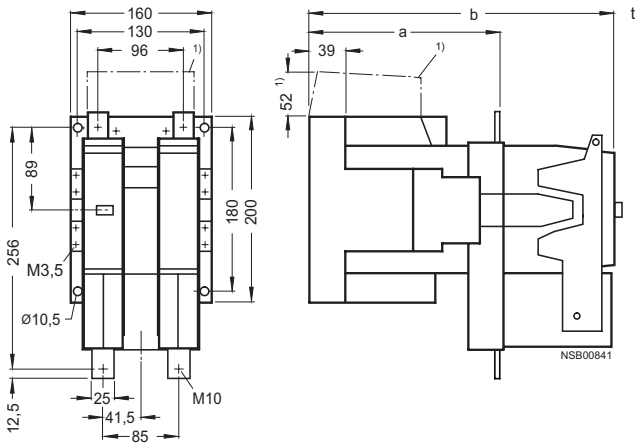
3TC52 contactors
Size 8, AC and DC operation



t = minimum clearance from insulated components: 20 mm (600 V and 750 V)
from grounded components: 70 mm (600 V and 750 V)

	a	b
DC operation	147	232
AC operation	115	200

3TC56 contactors
Size 12, AC and DC operation



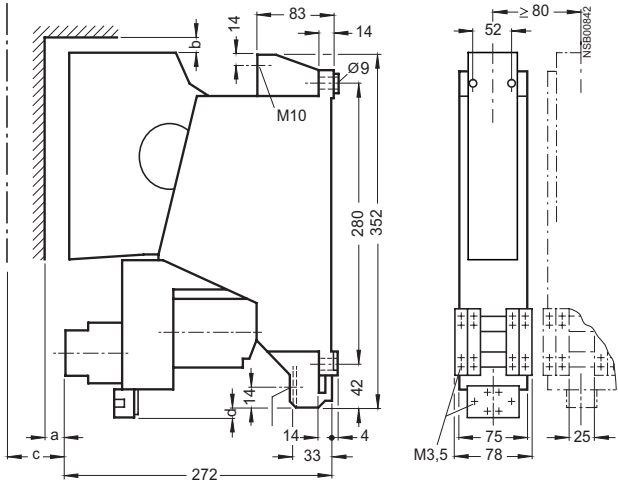
t = minimum clearance from insulated components: 25 mm (600 V and 750 V)
from grounded components: 80 mm (600 V), 100 mm (750 V)

	a	b
DC operation	200	310
AC operation	141	251

¹⁾ DC operation only.

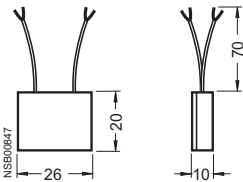
Project planning aids

3TC74 contactors
Size 12, DC and AC operation



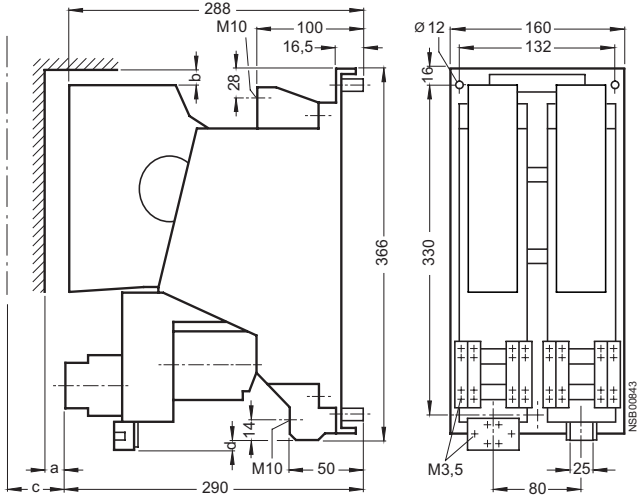
Dimensions	Minimum clearance from insulated components	grounded components
a	≥ 20	≥ 50
b	≥ 10	≥ 25
c	≥ 180 (clearance for removing arc chute)	

3TX2 746-2. varistors
for 3TC74 and 3TC78 contactors



3TC78 contactors

Size 12, DC and AC operation



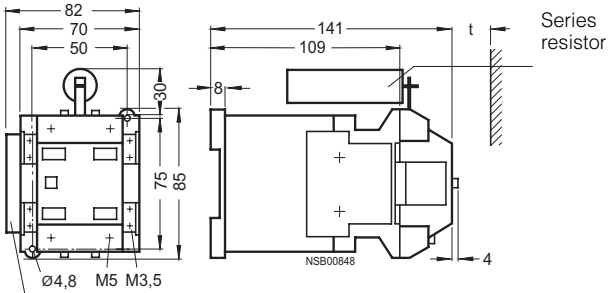
Dimensions	Minimum clearance from insulated components	grounded components
a	≥ 20	≥ 50
b	≥ 10	≥ 25
c	≥ 180 (clearance for removing arc chute)	
d	Coil connection 3TC78 14-0E: 8 mm 3TC78 14-1C: 16 mm	

Controls – Contactors and Contactor Assemblies

Project planning aids

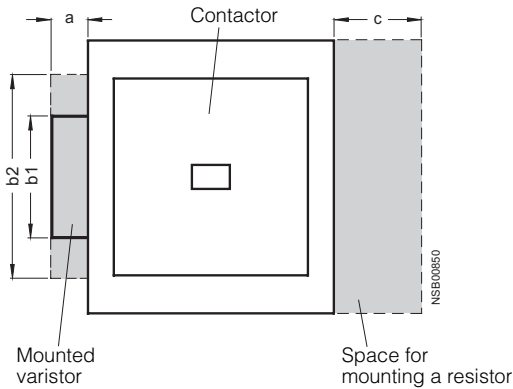
Contactors with extended operating range 0.7 to 1.25 x U_s

3TC44 17-0L contactors, size 2, DC operation

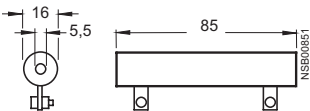


Varistor
 t = minimum clearance from insulated components: 15 mm (600 V and 750 V)
from grounded components: 30 mm (600 V and 750 V)

Additional space requirements for mounting resistors and varistors
For 3TB50 to 3TB56, 3TC48 to 3TC56 contactors



Separately mounted series resistor



For contactors	Additional space requirements			
	for series resistor c	for varistor a	b ₁	b ₂ *)
3TB50	30	13	70	110
3TB52, 3TB54, 3TB56	--	15	82	120
3TC48	30	13	70	110
3TC52, 3TC56	--	15	82	120

*) Terminal compartment

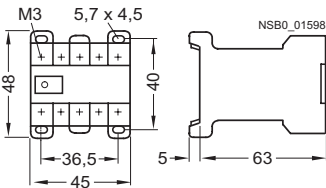
For contactors	Number of series resistors
3TB52, 3TC52	1
3TB54, 3TB56	2
3TC56	2

Project planning aids

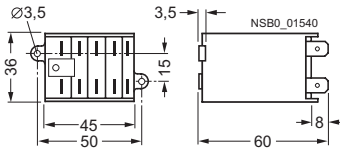
¹⁾ Holes required only for integrated overvoltage damping in the plug-in base.

Project planning aids

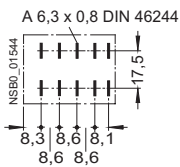
3TK20
with screw terminals,
for snap-on and screw fixing,
AC and DC operation



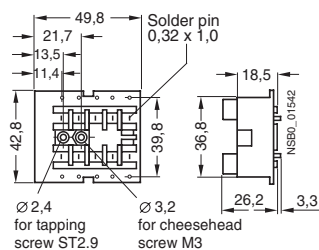
3TK20
with flat connectors 6.3 mm x 0.8 mm,
for screw fixing (diagonal),
AC and DC operation



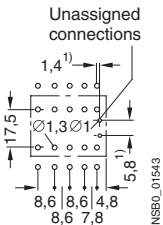
Grid size for flat connectors



3TX4 491-2A plug-in base
with solder pin connectors for printed circuit boards

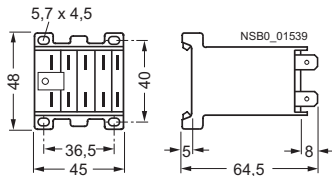


Hole pattern
for plug-in base

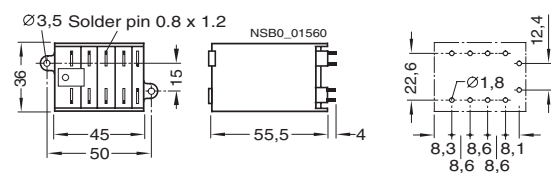


1) Holes required only for integrated overvoltage damping in the plug-in base.

3TK20
with flat connectors 6.3 mm x 0.8 mm,
for snap-on and screw fixing,
AC and DC operation



3TK20
with solder pin connectors for printed circuit boards,
for screw fixing (diagonal),
AC and DC operation



Hole pattern
for solder pin connections

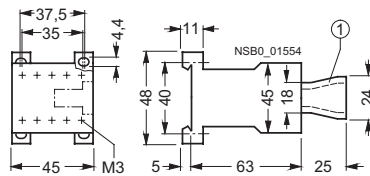
Controls – Contactors and Contactor Assemblies

Project planning aids

3TH2 contactor relays, width 45 mm, size S00

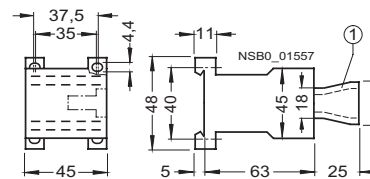
3TH20 with 4 contacts
with screw terminals,
AC and DC operation

- ① 3TX4 490
surge suppressor

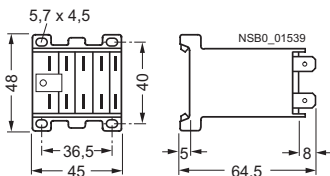


3TH20 with 4 contacts
AC and DC operation

- ① 3TX4 490
surge suppressor

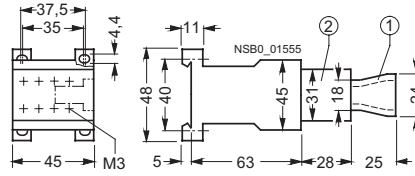


3TH20
with flat connectors 6.3 mm x 0.8 mm,
for snap-on and screw fixing,
AC and DC operation



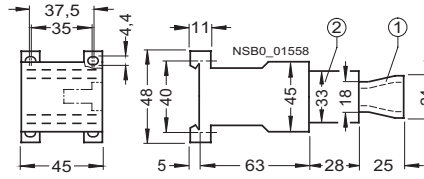
**3TH20 with 6 and 8 contacts,
3TH22 with 8 contacts**
with screw terminals,
AC and DC operation

- ① 3TX4 490
surge suppressor
② Auxiliary switch block

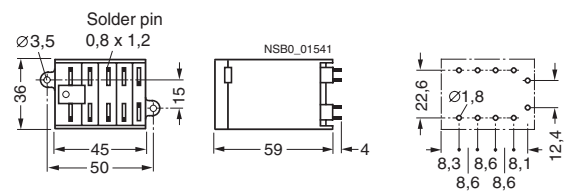


**3TH20 with 6 and 8 contacts,
3TH22 with 8 contacts**
AC and DC operation

- ① 3TX4 490
surge suppressor
② Auxiliary switch block



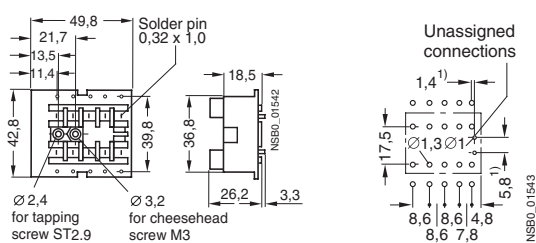
3TH20
with solder pin connectors for printed circuit boards
for screw fixing (diagonal),
AC and DC operation



Hole pattern
for solder pin connections

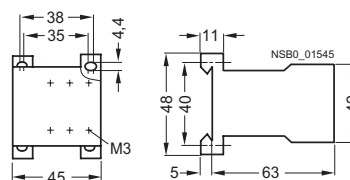
3TX4 491-2A plug-in base

with solder pin connectors for printed circuit boards



Hole pattern for
plug-in base

3TX4 490 OFF-delay device



¹⁾ Holes required only for integrated overvoltage damping
in the plug-in base.

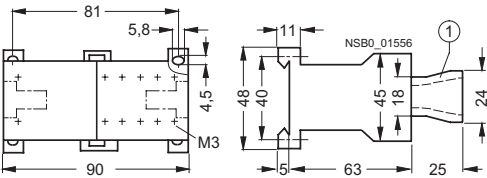
Controls – Contactors and Contactor Assemblies

Project planning aids

3TH27 latched contactor relays, width 90 mm, size S00

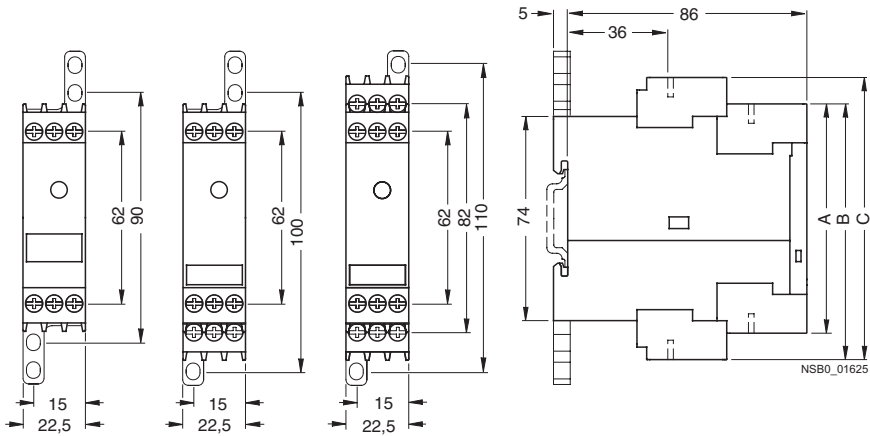
3TH27 with 4 contacts
with screw terminals,
for screw and snap-on mounting,
AC and DC operation

① 3TX4 490
surge suppressor



Coupling relays in industrial enclosure

3RS18



	A	B	C
	3RS18 00-A	3RS18 00-B	3RS18 00-H
Removable terminal			
Spring-loaded terminal	84	94	103
Screw terminal	83	92	102

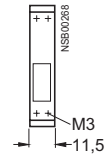
Controls – Contactors and Contactor Assemblies

Project planning aids

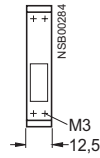
Coupling relays with narrow design

3TX7 002, 3TX7 003 coupling links in terminal block design

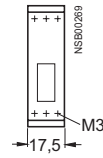
3TX7 00 .-1AB . . ,
3TX7 00 .-2A . . . ,
3TX7 002-3AB01



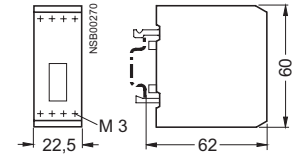
3TX7 002-3AB00,
3TX7 002-4A . . .



3TX7 00 .-1BB00,
3TX7 00 .-1BF00,
3TX7 002-2BF02



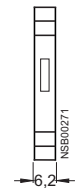
3TX7 00 .-1CB00,
3TX7 002-1FB02



3TX7 004, 3TX7 005 coupling links in two-tier design

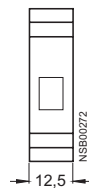
3TX7 00 .-1MB00,
3TX7 00 .-1MF00,
3TX7 00 .-1L . 0 . ,
3TX7 00 .-2M . . .
relay coupling links

3TX7 00 .-3AB04,
3TX7 00 .-4AB04,
3TX7 00 .-3PB . . ,
3TX7 00 .-3PG74,
3TX7 00 .-3RB43
semiconductor coupling links

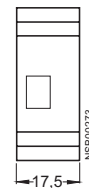


3TX7 00 .-1AB10,
3TX7 00 .-1BB00,
3TX7 00 .-1BB10,
3TX7 00 .-1CB00,
3TX7 00 .-1BF05
relay coupling links

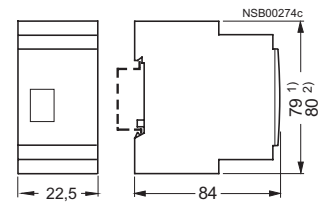
3TX7 00 .-3AC04,
3TX7 00 .-3AC14,
3TX7 00 .-3AC03
semiconductor coupling links



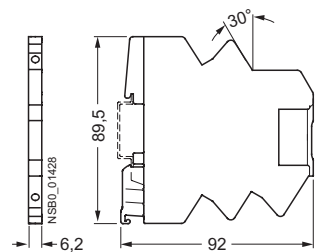
3TX7 00 .-1HB00
relay coupling links



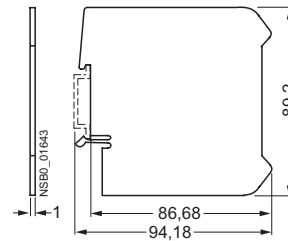
3TX7 00 .-1GB00
relay coupling links



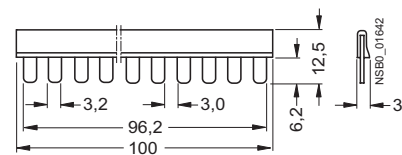
3TX7 014, 3TX7 015
relay couplers with plug-in design



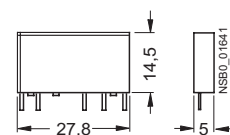
3TX7 014-7CE00
galvanic isolation plate



3TX7 014-7AA00
connecting comb, 16-pole



3TX7 014-7B.0.
individual relay module



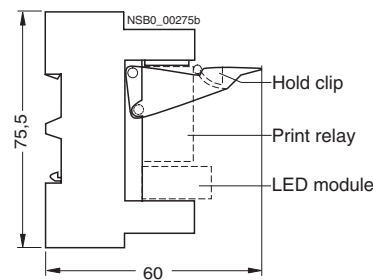
- 1) Dimensions for 3TX7 004 coupling links (screw terminals).
- 2) Dimensions for 3TX7 005 coupling links (spring-loaded terminals).

Controls – Contactors and Contactor Assemblies

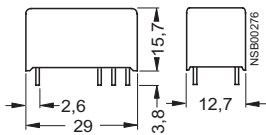
Project planning aids

LZX plug-in relays

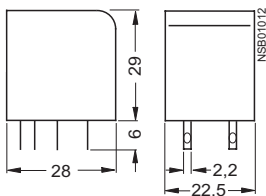
LZX:RT3/RT4 complete unit



LZX:RT3/RT4 print relay

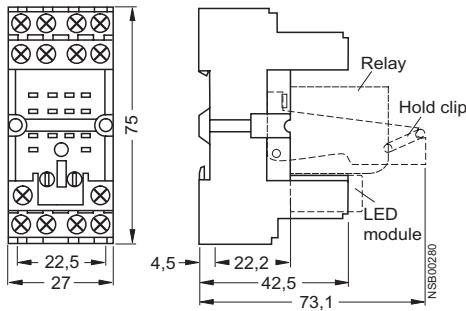


LZX:PT270 industrial relay

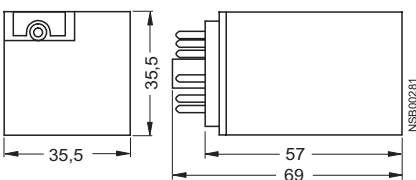


LZX:PT78704 plug-in base

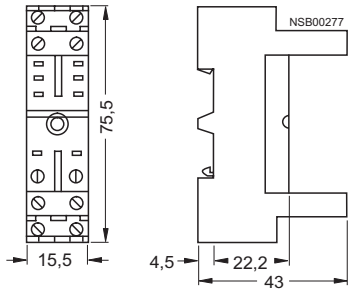
for industrial relays
(side view: LZX:PT complete unit)



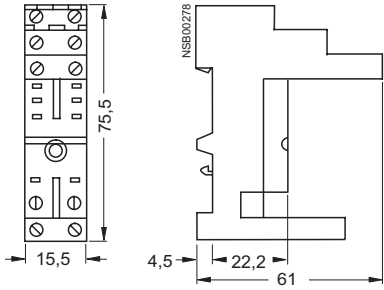
LZX:MT32 industrial relay



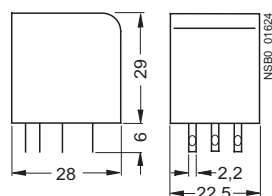
LZX:RT78625 plug-in base for print relays



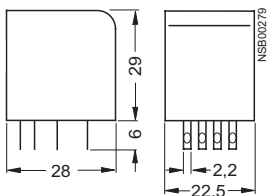
LZX:RT78626 plug-in base with safe isolation for print relays



LZX:PT370 industrial relay



LZX:PT570 industrial relay



LZX:MT78750 plug-in base for industrial relays

