3RT10 contactors, 3-pole

Selection and ordering data
AC operation

nsb0058

3RT10 2.-1A.00

nsb0706g

3RT10 2.-3A.00

NSB0604g

3RT10 2.-1A.04

NSB0640g

3RT10 2.-1AL24-3MA0

Ratings Utilization category			Auxiliary contacts			Rated control supply voltage U_s	DT	Screw connection		DT	Cage Clamp connection for coil terminals		Weight approx.
AC-2 and AC-3 T_u: up to 60 °C		AC-1 T_u: 40 °C	Ident. no.	Design				Order No.	Price		Order No.	Price	
Operational current I_e at	Rating of three-phase motors at 50 Hz and	Operational current I_e											
400 V	**400 V**	up to 690 V											
A	**kW**	A		NO NC	AC			PG 101	1 unit		PG 101	1 unit	kg
For screwing and snapping onto 35 mm standard mounting rail													
• Size S0													
9	**4**	40 [1]	**–**	–	–	24 V, 50 Hz	▶	**3RT10 23-1AB00**		▶	**3RT10 23-3AB00**		0.32
						110 V, 50 Hz	▶	**3RT10 23-1AF00**		▶	**3RT10 23-3AF00**		
						230 V, 50 Hz	▶	**3RT10 23-1AP00**		▶	**3RT10 23-3AP00**		
12	**5.5**	40 [1]	**–**	–	–	24 V, 50 Hz	▶	**3RT10 24-1AB00**		▶	**3RT10 24-3AB00**		0.32
						110 V, 50 Hz	▶	**3RT10 24-1AF00**		▶	**3RT10 24-3AF00**		
						230 V, 50 Hz	▶	**3RT10 24-1AP00**		▶	**3RT10 24-3AP00**		
17	**7.5**	40 [1]	**–**	–	–	24 V, 50 Hz	▶	**3RT10 25-1AB00**		▶	**3RT10 25-3AB00**		0.32
						110 V, 50 Hz	▶	**3RT10 25-1AF00**		▶	**3RT10 25-3AF00**		
						230 V, 50 Hz	▶	**3RT10 25-1AP00**		▶	**3RT10 25-3AP00**		
25	**11**	40 [1]	**–**	–	–	24 V, 50 Hz	▶	**3RT10 26-1AB00**		▶	**3RT10 26-3AB00**		0.32
						110 V, 50 Hz	▶	**3RT10 26-1AF00**		▶	**3RT10 26-3AF00**		
						230 V, 50 Hz	▶	**3RT10 26-1AP00**		▶	**3RT10 26-3AP00**		
• Size S0 with mounted auxiliary switch block (**removable**) Terminal designations according to EN 50 012													
9	**4**	40 [1]	**22 E**	2	2	24 V, 50 Hz	▶	**3RT10 23-1AB04**			–		0.38
						110 V, 50 Hz	▶	**3RT10 23-1AF04**			–		
						230 V, 50 Hz	▶	**3RT10 23-1AP04**			–		
12	**5.5**	40 [1]	**22 E**	2	2	24 V, 50 Hz	▶	**3RT10 24-1AB04**			–		0.38
						110 V, 50 Hz	▶	**3RT10 24-1AF04**			–		
						230 V, 50 Hz	▶	**3RT10 24-1AP04**			–		
17	**7.5**	40 [1]	**22 E**	2	2	24 V, 50 Hz	▶	**3RT10 25-1AB04**			–		0.38
						110 V, 50 Hz	▶	**3RT10 25-1AF04**			–		
						230 V, 50 Hz	▶	**3RT10 25-1AP04**			–		
25	**11**	40 [1]	**22 E**	2	2	24 V, 50 Hz	▶	**3RT10 26-1AB04**			–		0.38
						110 V, 50 Hz	▶	**3RT10 26-1AF04**			–		
						230 V, 50 Hz	▶	**3RT10 26-1AP04**			–		
• Size S0 with permanently mounted auxiliary switch block [2] Terminal designations according to EN 50 012													
12	**5.5**	40 [1]	**22 E**	2	2	230 V, 50/60 Hz	B	**3RT10 24-1AL24-3MA0**			–		0.38
17	**7.5**	40 [1]	**22 E**	2	2	230 V, 50/60 Hz	B	**3RT10 25-1AL24-3MA0**			–		0.38
25	**11**	40 [1]	**22 E**	2	2	230 V, 50/60 Hz	B	**3RT10 26-1AL24-3MA0**			–		0.38

For further voltages, see page 3/37.
For accessories, see page 3/42.
For spare parts, see page 3/62.
For technical data, see page 3/92, 3/119.
For description, see page 3/12.
For int. circuit diagrams, see page 3/148.
For dimension drawings, see page 3/216.

1) Minimum conductor cross-section 10 mm².
2) Further designs/voltages on request.

3RT10 contactors, 3-pole

Selection and ordering data
DC operation · DC solenoid system

nsb0058

3RT10 2.-1B.40

NSB0707g

3RT10 2.-3B.40

NSB0604g

3RT10 2.-1B.44

NSB0640g

3RT10 2.-1BB44-3MA0

Ratings Utilization category			Auxiliary contacts			Rated control supply voltage U_s		Screw connection			Cage Clamp connection for coil terminals			Weight approx.
AC-2 and AC-3 T_u: up to 60 °C		AC-1 T_u: 40 °C	Ident. no.	Design			DT	Order No.	Price	DT	Order No.	Price		
Operational current I_e at 400 V	Rating of three-phase motors at 50 Hz and **400 V**	Operational current I_e up to 690 V												
A	**kW**	A		NO	NC	DC V		PG 101	1 unit		PG 101	1 unit		kg
For screwing and snapping onto 35 mm standard mounting rail														
• Size S0														
9	**4**	40 [1]	**–**	–	–	24	▶	**3RT10 23-1BB40**		▶	**3RT10 23-3BB40**			0.56
						220	B	**3RT10 23-1BM40**		▶	**3RT10 23-3BM40**			
12	**5.5**	40 [1]	**–**	–	–	24	▶	**3RT10 24-1BB40**		▶	**3RT10 24-3BB40**			0.56
						220	▶	**3RT10 24-1BM40**		▶	**3RT10 24-3BM40**			
17	**7.5**	40 [1]	**–**	–	–	24	▶	**3RT10 25-1BB40**		▶	**3RT10 25-3BB40**			0.56
						220	▶	**3RT10 25-1BM40**		▶	**3RT10 25-3BM40**			
25	**11**	40 [1]	**–**	–	–	24	▶	**3RT10 26-1BB40**		▶	**3RT10 26-3BB40**			0.56
						220	▶	**3RT10 26-1BM40**		▶	**3RT10 26-3BM40**			
• Size S3 with mounted auxiliary switch block (**removable**) Terminal designations according to EN 50 012														
9	**4**	40 [1]	**22 E**	2	2	24	▶	**3RT10 23-1BB44**			**–**			0.62
						220	B	**3RT10 23-1BM44**			**–**			
12	**5.5**	40 [1]	**22 E**	2	2	24	▶	**3RT10 24-1BB44**			**–**			0.62
						220	▶	**3RT10 24-1BM44**			**–**			
17	**7.5**	40 [1]	**22 E**	2	2	24	▶	**3RT10 25-1BB44**			**–**			0.62
						220	▶	**3RT10 25-1BM44**			**–**			
25	**11**	40 [1]	**22 E**	2	2	24	▶	**3RT10 26-1BB44**			**–**			0.62
						220	▶	**3RT10 26-1BM44**			**–**			
• Size S0 with permanently mounted auxiliary switch block [2] Terminal designations according to EN 50 012														
12	**5.5**	40 [1]	**22 E**	2	2	24	B	**3RT10 24-1BB44-3MA0**			**–**			0.62
17	**7.5**	40 [1]	**22 E**	2	2	24	B	**3RT10 25-1BB44-3MA0**			**–**			0.62
25	**11**	40 [1]	**22 E**	2	2	24	B	**3RT10 26-1BB44-3MA0**			**–**			0.62

For further voltages, see page 3/37.
For accessories, see page 3/42.
For technical data, see page 3/96, 3/119.
For description, see page 3/12.
For int. circuit diagrams, see page 3/148.
For dimension drawings, see page 3/216.

1) Minimum conductor cross-section 10 mm².
2) Further designs/voltages on request.

Accessories for contactors

Selection and ordering data

nsb0078

3RH19 21-1F . . .

nsb0731g

3RH19 21-2F . . .

NSB0603g

3RH19 21-1C . . .

nsb0644g

3RH19 21-2C . . .

nsb0080

3RH19 21-1LA . .

nsb0081g

3RH19 21-1MA . .

For contactors	Rated operational current	Auxiliary contacts						Screw connection			Cage Clamp connection		Weight approx.	Pack.
	I_e/AC-15/AC-14	Ident. no.	Design				DT	Order No.	Price	DT	Order No.	Price		
	at 230 V		NS2SYM01	NS2SYM02	NS2SYM05	NS2SYM04								
Type	A		NC	NC	NC	NC		PG 101	1 unit		PG 101	1 unit	kg	
Auxiliary switch blocks for snapping onto the front acc. to EN 50 005														
Sizes S0 to S12 [1]														
	4-pole auxiliary switch blocks													
3RT10 2, 3RT1. 3 to 3RT1. 7, 3RT11	**6**	**40**	4	–	–	–	▶	**3RH19 21-1FA40**		▶	**3RH19 21-2FA40**		0.065	1 unit
		31	3	1	–	–	▶	**3RH19 21-1FA31**		▶	**3RH19 21-2FA31**			
		22	2	2	–	–	▶	**3RH19 21-1FA22**		▶	**3RH19 21-2FA22**			
		04	–	4	–	–	▶	**3RH19 21-1FA04**		▶	**3RH19 21-2FA04**			
		22 U	–	–	2	2	▶	**3RH19 21-1FC22**		A	**3RH19 21-2FC22**			
	Single-pole auxiliary switch blocks acc. to EN 50 005 and EN 50 012 (1 pack = 10 units)													
3RT1. 2 to 3RT1. 7, 3RT11	**6**	**–**	1	–	–	–	▶	**3RH19 21-1CA10**		▶	**3RH19 21-2CA10**		0.015	1 pack
		–	–	1	–	–	▶	**3RH19 21-1CA01**		▶	**3RH19 21-2CA01**			
		–	–	–	1	–	A	**3RH19 21-1CD10**			**–**			
		–	–	–	–	1	A	**3RH19 21-1CD01**			**–**			
	2-pole auxiliary switch blocks with cable entry from one side • **Cable entry from above**													
3RT10 2, 3RT1. 3 to 3RT1. 7, 3RT11	**6**	**–**	1	1	–	–	▶	**3RH19 21-1LA11**			**–**		0.065	1 unit
		–	2	–	–	–	▶	**3RH19 21-1LA20**			**–**			
		–	–	2	–	–	▶	**3RH19 21-1LA02**			**–**			
	• **Cable entry from below**													
	6	**–**	1	1	–	–	▶	**3RH19 21-1MA11**			**–**		0.065	1 unit
		–	2	–	–	–	▶	**3RH19 21-1MA20**			**–**			
		–	–	2	–	–	▶	**3RH19 21-1MA02**			**–**			

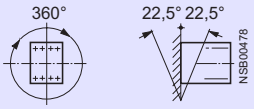
For int. circuit diagrams, see page 3/149.
For position of terminals, see page 3/154.

1) Exception: 3RT16 .

Only supplied in packings

3RT10 2. contactors

Technical data

Contactor	Size Type			S0 3RT10 2.
General data				
Permissible mounting position The contactors are designed for operation on a vertical mounting surface.		AC and DC operation		
Upright mounting position:				
		AC operation		Standard design
		DC operation		Special design required; also applies to 3RT10 2 . - . K . 40 coupling relays Positions 13 to 16 of the Order No. must be changed to **-1AA0**. In the case of 3RT10 2 . -3K . 44-0LA0 contactors with extended coil voltage tolerance, positions 13 to 16 of the Order No. are changed to **-1LA0**. Additional charge
Mechanical endurance	Basic units Basic unit with snap-on auxiliary switch block Solid-state compatible aux. switch block		Oper. cycles	10 million 10 million 5 million
Electrical endurance				See page 3/86
Rated insulation voltage U_i (pollution degree 3)			V	690
Rated impulse withstand voltage U_{imp}			kV	6
Safe isolation between coil and main contacts (acc. to DIN VDE 0106 Part 101 and A1 [draft 2/89])			V	400
Positively driven operation • There is positively driven operation if the NC and NO contacts cannot be closed at the same time		3RT10 2., 3RT13 2. (removable aux. switch block)		Yes, between main contacts and auxiliary NC contacts and within the auxiliary switch blocks acc. to ZH 1/457, IEC 60 947-4-1, Annex H (draft 17B/996/DC)
• Positively driven operation for contactors with solid-state compatible auxiliary switch block according to Swiss regulations (SUVA) on request.		3RT10 2., 3RT13 2. (permanent aux. switch block)		Yes, between main contacts and auxiliary NC contacts and within the auxiliary switch blocks acc. to ZH 1/457, IEC 60 947-4-1, Annex H (draft 17B/996/DC), Swiss regulations (SUVA)
Permissible ambient temperature		in operation when stored	°C °C	–25 ... +60 –55 ... +80
Degree of protection acc. to IEC 60 947-1 and DIN 40 050				IP 20, coil system IP 20
Shock resistance	Rectangular pulse	AC operation DC operation	*g*/ms *g*/ms	8.2/5 and 4.9/10 10/5 and 7.5/10
	Sine pulse	AC operation DC operation	*g*/ms *g*/ms	12.5/5 and 7.8/10 15/5 and 10/10
Conductor cross-sections				See page 3/95

Contactor	Size Type			S0 3RT10 23, 3RT10 24, RT10 25	S0 3RT10 26
Short-circuit protection of contactors without overload				For short-circuit protection of contactors with overload relays, see Part 4. For short-circuit protection of weld-free contactors, see Part 5. (overload and short-circuit protection only with 3RV10 circuit-breaker). For short-circuit protection of fuseless load feeders, see Part 5.	
Main circuit Fuse links, utilization category gL/gG NH Type 3NA, DIAZED Type 5SB, NEOZED Type 5SE					
With fuse links – acc. to IEC 60 947-4-1/EN 60 947-4-1		Type of coord. "1" [1] Type of coord. "2" [1] Weld-free [2]	A A A	63 25 10	100 35 16
or miniature circuit-breaker with C-characteristic (short-circuit current 3 kA, type of coordination "1") [1]			A	25	32
Auxiliary circuit Fuse links, utilization category gL/gG DIAZED Type 5SB, NEOZED Type 5SE (weld-free protection at $I_k \geq 1$ kA)			A	10	10
or miniature circuit-breaker with C-characteristic (short-circuit current $I_k < 400$ A)			A	10	10

1) According to excerpt from IEC 60 947-4-1 (VDE 0660 Part 102):
Type of coordination "1":
Destruction of the contactor and the overload relay is permissible. The contactor and/or overload relay must be replaced if necessary.

Type of coordination "2":
No damage can be tolerated to the overload relay, but contact welding on the contactor is permitted if the contacts can be easily separated.

2) Test conditions acc. to IEC 60 947-4-1.
For 3RT11 weld-free contactors, see Part 5 (overload and short-circuit protection only with 3RV10 circuit-breaker).

Technical data

Contactor	Size / Type			S0 3RT10 2.			
Control circuit							
Coil voltage tolerance	AC/DC			0.8 ... 1.1 × U_s			
Power consumption of the coils (with coil in cold state and 1.0 × U_s)				**Standard design**		**For USA and Canada**	
AC operation			Hz	50	50/60	50	60
	closing		VA	61	64 /63	61	69
	p.f.			0.82	0.72/ 0.74	0.82	0.76
	closed		VA	7.8	8.4 / 6.8	7.8	7.5
	p.f.			0.24	0.24/ 0.28	0.24	0.28
DC operation	closing = closed		W	5.4			
Permissible residual current of the electronics (with 0 signal)							
	AC operation		mA	< 6 mA x $\left(\frac{230\ V}{U_s}\right)$			
	DC operation		mA	< 16 mA x $\left(\frac{24\ V}{U_s}\right)$			
Operating times at 0.8 ... 1.1 × U_s [1] Break-time = opening time + arcing time							
AC operation	closing time		ms	8 ... 44			
	opening time		ms	4 ... 20			
DC operation	closing time		ms	50 ... 170			
	opening time		ms	13.5 ... 15.5			
Arcing time			ms	10			
Operating times at 1.0 × U_s [1]							
AC operation	closing time		ms	10 ... 17			
	opening time		ms	4 ... 20			
DC operation	closing time		ms	55 ... 85			
	opening time		ms	14 ... 15.5			

Contactor	Size / Type			S0 3RT10 23, 3RT10 23	S0 3RT10 23, 3RT10 24	S0 3RT10 25	S0 3RT10 26
Main circuit							
Load ratings with AC							
AC-1 utilization category, switching resistive load							
Rated operational currents I_e	at 40 °C up to 690 V		A	40			
	at 60 °C up to 690 V		A	35			
Ratings of three-phase loads [2] p.f. = 0.95 (at 60 °C)	at 230 V		kW	13.3			
	400 V		kW	23			
	500 V		kW	29			
	690 V		kW	40			
Minimum conductor cross-section with $I_{e\ load}$	at 40 °C		mm²	10			
	60 °C		mm²	10			
AC-2 and AC-3 utilization categories							
Rated operational currents I_e	up to 400 V		A	9	12	17	25
	500 V		A	6.5	12	17	18
	690 V		A	5.2	9	13	13
Ratings of slipring or squirrel-cage motors at 50 Hz and 60 Hz	at 110 V		kW	1.1	1.5	2.2	3
	230 V		kW	3	3	4	5.5
	400 V		kW	4	5.5	7.5	11
	500 V		kW	4.5	7.5	10	11
	660/690 V		kW	5.5	7.5	11	11
Thermal loading capacity	10 s current [3]		A	80	110	150	200
Power loss per conducting path	at I_e/AC-3		W	0.4	0.5	0.9	1.6

1) The opening times of the NO contacts and the closing times of the NC contacts increase if the contactor coils are protected against voltage peaks (varistor +2 ms to 5 ms, diode assemblies: 2 to 6 times).

2) Industrial furnaces and electric heaters with resistance heating, for example (higher current input allowed for during heating up).

3) Acc. to VDE 0660 Part 102. For rated values for various starting conditions, see Part 4.

Technical data

Contactor / Size / Type				S0 3RT10 23	S0 3RT10 23	S0 3RT10 25	S0 3RT10 26
Main circuit							
Load ratings with AC							
AC-4 utilization category (at $I_a = 6 \times I_e$)							
Rated operational current I_e	up to 400 V	A		8.5	12.5	15.5	15.5
Ratings of squirrel-cage motors at 50 Hz and 60 Hz	at 400 V	kW		4	5.5	7.5	7.5
• For a contact endurance of approx. 200 000 operating cycles:							
Rated operational currents I_e	up to 400 V	A		4.1	5.5	7.7	9
	690 V	A		3.3	5.5	7.7	9
Ratings of squirrel-cage motors at 50 Hz and 60 Hz	at 110 V	kW		0.5	0.73	1	1.2
	230 V	kW		1.1	1.5	2	2.5
	400 V	kW		2	2.6	3.5	4.4
	500 V	kW		2	3.3	4.6	5.6
	690 V	kW		2.5	4.6	6	7.7
AC-5a utilization category, switching gas discharge lamps per main conducting path at 230 V [1]							
Rating per lamp	Rated operational current per lamp (A)						
uncorrected							
L 18 W	0.37		units	95			
L 36 W	0.43		units	81			
L 58 W	0.67		units	52			
lead-lag							
L 18 W	0.11		units	318			
L 36 W	0.21		units	166			
L 58 W	0.32		units	109			
Switching gas discharge lamps with correction, electronic ballast per main conducting path at 230 V							
Rating per lamp	Capacitor (µF)	Rated operational current per lamp (A)					
Parallel correction							
L 18 W	4.5	0.11	units	37			61
L 36 W	4.5	0.21	units	37			61
L 58 W	7	0.32	units	23			39
With electronic ballast, single lamp							
L 18 W	6.8	0.10	units	105			105
L 36 W	6.8	0.18	units	58			97
L 58 W	10	0.27	units	38			64
With electronic ballast, twin lamp							
L 18 W	10	0.18	units	58			97
L 36 W	10	0.35	units	30			50
L 58 W	22	0.52	units	20			33
AC-5b utilization category, switching incandescent lamps per main conducting path at 230/220 V			kW	3			4
AC-6a utilization category, switching three-phase transformers with inrush			n	30	20		30 20
Rated operational current I_e	up to 400 V		A	7.6	11.4		13.5 20,2
Ratings of three-phase transformers with an inrush of n = 30 or 20. The ratings must be re-calculated for other inrush factors x:	at 230 V		kVA	3	4.5		5.4 8
	400 V		kVA	5.2	7.9		9.3 13.9
	500 V		kVA	6.6	9.9		11.7 15.5
	690 V		kVA	9.1	13.6		15.5 15.5
$P_x = P_{n\,30} \cdot \frac{30}{x}$							
AC-6b utilization category, switching low-inductance (low-loss, metallized-dielectric) three-phase capacitors							
Rated operational currents I_e	up to 400 V		A	5.8			10.8
Ratings of single capacitors or of capacitor banks (minimum inductance between parallel capacitors 6 µH) at 50 Hz, 60 Hz and	at 230 V		kvar	2.5			4
	400 V		kvar	4			7.5
	500 V		kvar	4			7.5
	690 V		kvar	4			7.5

1) I_e/AC-1 = 35 A (60 °C) and with the corresponding minimum conductor cross-section 10 mm².

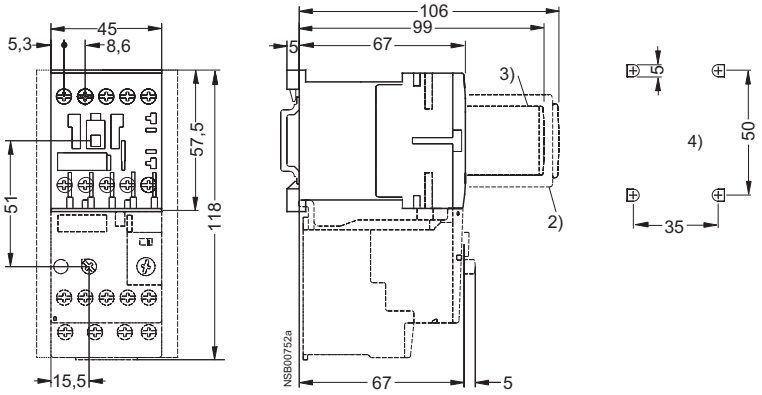
Technical data

Contactor	Size Type			S0 3RT10 23, 3RT10 24, 3RT10 25			S0 3RT10 26	
Main circuit								
Load ratings with DC								
DC-1 utilization category, switching resistive load (L/R ≤ 1 ms)								
Rated operational current I_e (at 60 °C)								
	Number of conducting paths connected in series			1	2	3		
		up to 24 V	A	35	35	35		
		60 V	A	20	35	35		
		110 V	A	4.5	35	35		
		220 V	A	1	5	35		
		440 V	A	0.4	1	2.9		
		600 V	A	0.25	0.8	1.4		
DC-3 and DC-5 utilization categories, shunt and series motors (L/R ≤ 15 ms)								
Rated operational current I_e (at 60 °C)								
	Number of conducting paths connected in series			1	2	3		
		up to 24 V	A	20	35	35		
		60 V	A	5	35	35		
		110 V	A	2.5	15	35		
		220 V	A	1	3	10		
		440 V	A	0.09	0.27	0.6		
		600 V	A	0.06	0.16	0.6		
Operating frequency								
Operating frequency *z* in operating cycles per hour				AC	DC		AC	DC
Contactors without overload relays	No-load operating frequency		1/h	5000	1500		5000	1500
Dependence of the operating frequency z' on the operational current I' and the operational voltage U': $z' = z \cdot \frac{I_e}{I'} \cdot \left(\frac{400\ V}{U'}\right)^{1.5}$ 1/h				AC/DC			AC/DC	
	for AC-1		1/h	1 000			1 000	
	for AC-2		1/h	1 000			750	
	for AC-3		1/h	1 000			750	
	for AC-4		1/h	300			250	
Contactors with overload relays (mean value)			1/h	15			15	
Conductor cross-sections								
Screw connections (1 or 2 conductor connections possible)	**Main conductor:**							
	Solid		mm²	2 × (1 ... 2.5); 2 × (2.5 ... 6)				
	Finely stranded with end sleeve		mm²	2 × (1 ... 2.5); 2 × (2.5 ... 6) acc. to IEC 60 947; max. 1 × 10				
	AWG conductor connections,	– solid	AWG	2 × (16 ... 12)				
		– solid or stranded	AWG	2 × (14 ... 10)				
		– stranded	AWG	1 × 8				
	– Terminal screws			M4 (Pozidriv size 2)				
	– Tightening torque		Nm	2.0 ... 2.5 (18 ... 22 lb.in)				
	Auxiliary conductor:							
	Solid		mm²	2 × (0.5 ... 1.5); 2 × (0.75 ... 2.5) acc. to IEC 60 947; max. 2 × (0.75 ... 4)				
	Finely stranded with end sleeve		mm²	2 × (0.5 ... 1.5); 2 × (0.75 ... 2.5)				
	AWG conductor connections, solid or stranded		AWG	2 × (20 ... 16); 2 × (18 ... 14); 1 × 12				
	– Terminal screws			M 3				
	– Tightening torque		Nm	0.8 ... 1.2 (7 ... 10.3 lb.in)				
Cage Clamp connections (1 or 2 conductor connections possible)	**Auxiliary conductor:**							
	Solid		mm²	2 × (0.25 ... 2.5)				
	Finely stranded with end sleeve		mm²	2 × (0.25 ... 1.5)				
	Finely stranded without end sleeve		mm²	2 × (0.25 ... 2.5)				
	AWG conductor connections, solid or stranded		AWG	2 × (24 ... 14)				

- For tool for opening the Cage Clamp connection, see accessories on page 3/52.
- An "insulation stop" must be used for conductor cross-sections ≤ 1 mm², see accessories on page 3/52.
- Max. outer diameter of conductor insulation: 3.6 mm.
- For information about Cage Clamp connections, see page 4.

Dimension drawings

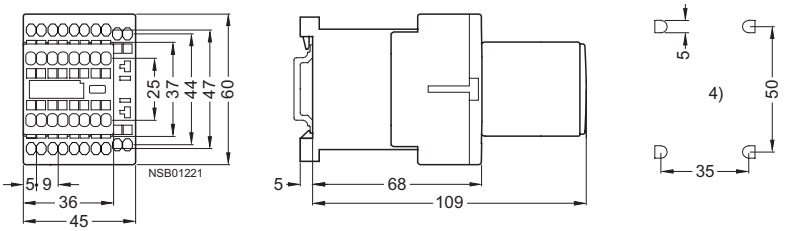
3RT10 1 contactors
Size S00, screw connection
with surge suppressor, auxiliary switch block and mounted overload relay



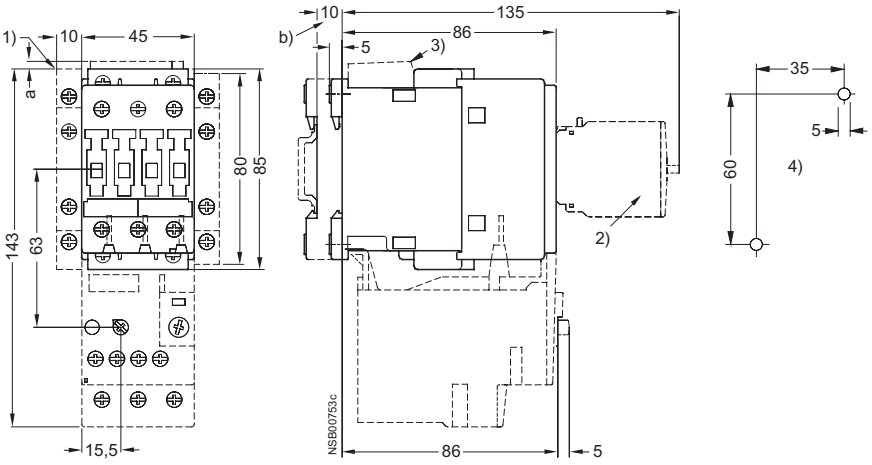
Lateral clearance from earthed parts = 6 mm

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

3RT10 1 contactors
Size S00, Cage Clamp connection
with auxiliary switch block



3RT10 2 contactors, 3RT10 2 coupling relays
Size S0, screw connection
with surge suppressor, auxiliary switch blocks and mounted overload relay

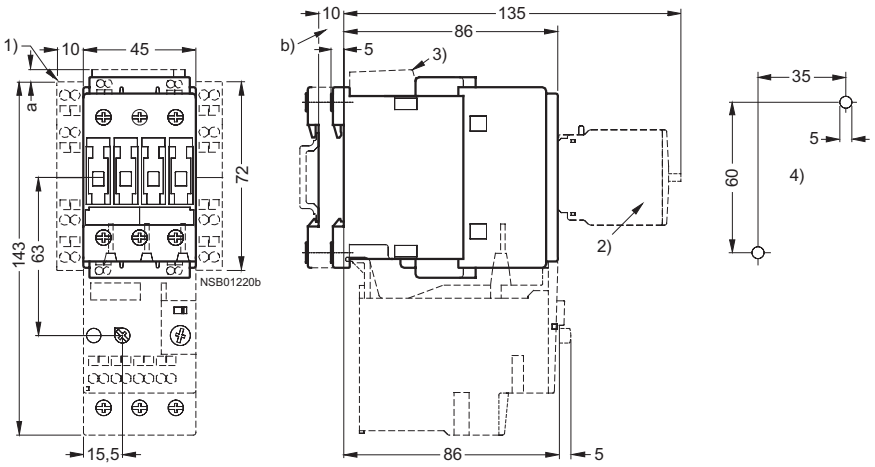


For size S0:
a = 3 mm at < 240 V
a = 7 mm at > 240 V
b = DC 10 mm deeper than AC

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 design)
3) Surge suppressor
4) Drilling pattern

Dimension drawings

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

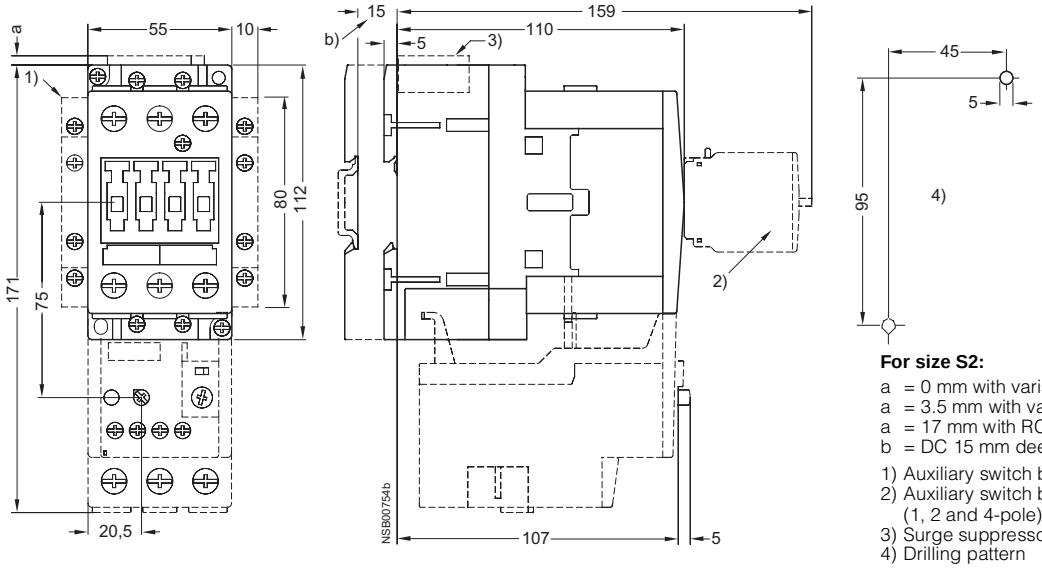


For size S0:

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 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 3 contactors
Size S2, screw connection
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