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Components for Distribution Systems



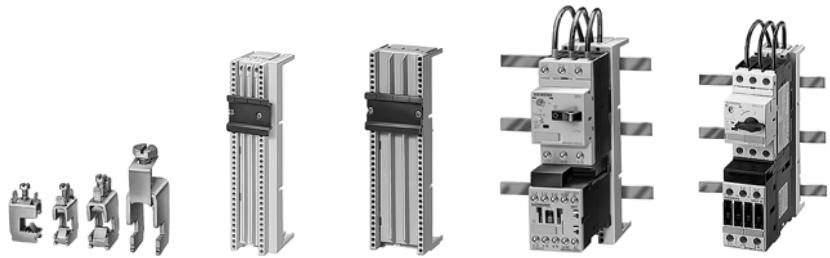
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Components for Distribution Systems

Introduction

Overview



Type

40 mm system

60 mm system

8US1 busbar adapter system

Adapters for SIRIUS size S00/S0

Circuit-breaker	✓	✓
Circuit-breaker + lateral auxiliary switch	✓	✓
Contactor + overload relay	✓	✓
Direct feeder	✓	✓
Reversing feeder	✓	✓

Adapters for SIRIUS size S2

Circuit-breaker	✓	✓
Circuit-breaker + lateral auxiliary switch	✓	✓
Contactor + overload relay	✓	✓
Direct feeder	✓	✓
Reversing feeder	✓	✓

Adapters for SIRIUS size S3

Circuit-breaker	✓	✓
Adapters for circuit-breakers		

3VF3	✓	✓
3VF4		✓
3VF5		✓

Adapters for SENTRON circuit-breakers

3VL1	✓	✓
3VL2		✓
3VL3		✓
3VL4		✓

Adapters for SENTRIC switch disconnectors

3KA52		✓
3KA53		✓
3KA55		✓
3KA57		✓
3KA58		✓

Adapters for SENTRIC fuse switch disconnectors

3NP50 60		✓
3NP52		✓
3NP53		✓
3NP54		✓

Components for Distribution Systems

Introduction



Performance P_n VA 1 1.5 2.5 5 10 15 30

Current transformers from 50 A to 4000 A

Rated primary current I_{pn} (A) / rated secondary current (A)

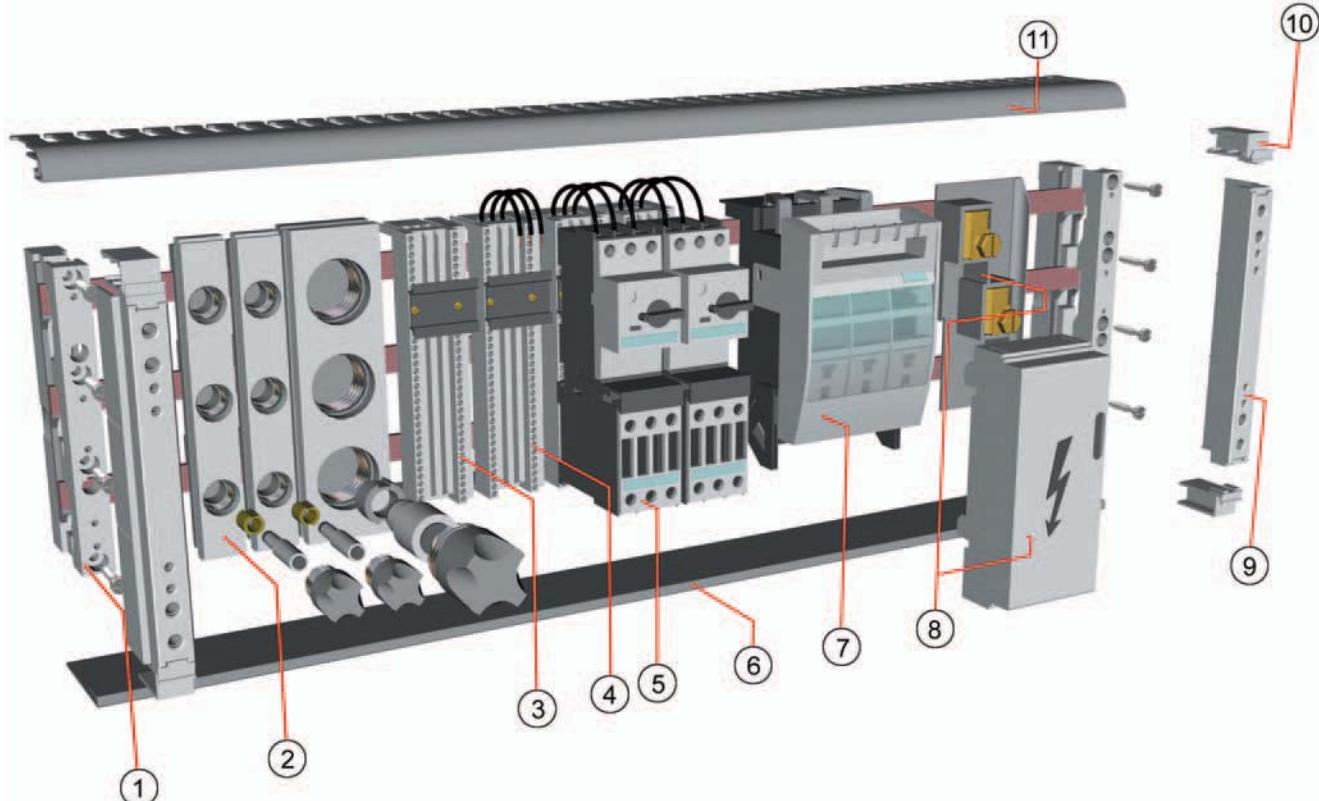
50/1	✓						
50/5	✓						
60/1	✓						
60/5	✓						
75/1		✓	✓				
75/5		✓	✓				
80/1		✓	✓				
80/5		✓	✓				
100/1		✓		✓			
100/5		✓		✓			
125/1		✓		✓			
125/5		✓		✓			
150/1		✓		✓			
150/5		✓		✓			
200/1		✓		✓			
200/5		✓		✓			
250/1		✓		✓	✓		
250/5		✓		✓	✓	✓	
300/1		✓		✓	✓	✓	
300/5		✓		✓	✓	✓	
400/1		✓		✓	✓	✓	
400/5		✓		✓	✓	✓	
500/1		✓		✓	✓	✓	
500/5		✓		✓	✓	✓	
600/1		✓		✓	✓	✓	✓
600/5		✓		✓	✓	✓	✓
750/1		✓		✓	✓		
750/5		✓		✓	✓		
800/1				✓	✓	✓	
800/5				✓	✓	✓	
1000/1				✓	✓	✓	
1000/5				✓	✓	✓	
1200/1				✓	✓	✓	
1200/5				✓	✓	✓	
1500/1				✓	✓	✓	
1500/5				✓	✓	✓	
2000/1					✓		
2000/5						✓	
2500/1						✓	
2500/5							✓
3000/1						✓	✓
3000/5						✓	
4000/1						✓	

Busbar Adapter Systems

General data

Overview

Busbar adapter systems
with busbar center-to-center distance of 40 mm or 60 mm



40 mm busbar system

for copper busbars
to DIN 46433,
width 12 mm, thickness 5 mm
and 10 mm

- ① **Busbar holders**
End and intermediate holders for flat copper profiles
- ③ **Switching device holders**
for SIRIUS reversing feeders sizes S00 (12.5 A) to S2 (56 A)

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- ④ **Busbar adapters**
for SIRIUS switchgear sizes S00 (12.5 A) to S3 (100 A), 3VF, 3VL and 3VU circuit-breakers, 3NP and 3K switch disconnectors as well as for any configuration (e.g. 5SX miniature circuit-breakers)

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- ⑤ **Motor feeders**
SIRIUS size S0
- ⑦ **LV HRC fuse switch disconnectors** from 100 A to 250 A
- ⑧ **Incoming supply via terminals**

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60 mm busbar system

for copper busbars
to DIN 46433,
width 12 mm to 30 mm,
thickness 5 mm and 10 mm
as well as for T and double-T
special profiles

- ① **Busbar holders**
End and intermediate holders for flat copper profiles
- ② **Bar-mounting fuse bases**
D02/63, DII/25 and DIII/63 for 5 mm and 10 mm busbar thickness, covers
- ③ **Switching device holders**
for SIRIUS reversing feeders sizes S00 (12.5 A) to S2 (56 A)

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- ④ **Busbar adapters**
for SIRIUS switchgear sizes S00 (12.5 A) to S3 (100 A), 3VF, 3VL and 3VU circuit-breakers, 3NP, 3K and 3KL switch disconnectors as well as for any configuration (e.g. 5SX miniature circuit-breakers)
- ⑤ **Motor feeders**
SIRIUS size S0

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- ⑥ **Partition profile closed**
- ⑦ **LV HRC fuse switch disconnectors** from 63 A to 630 A
- ⑧ **Infeed**
- ⑨ **End covers for busbar holder**
- ⑩ **Holders for partition profile**
- ⑪ **Partition profiles slotted**
- ⑫ **Terminal cover**

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Accessories for 40 mm and 60 mm busbar system

- ① **Busbar holders**
End and intermediate holders for flat copper profiles as well as for T and TT profiles
- ⑧ **Infeed**

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- ⑫ **End covers for busbar ends**
- ⑯ **Terminals for circular conductors**
- ⑮ **Cover profiles for busbars**
12 mm x 5 mm to 30 mm x 10 mm
- ⑰ **Extension and connection terminals**

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- ⑯ **Covering cap for supply terminals**
- ⑯ **Terminals for circular conductors**
- ⑯ **Terminals for copper bars**
- ⑯ **Terminals for laminated copper bands**

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Benefits

Compared to conventional configuration in switchgear and control cubicles, this technique allows important cost savings and offers the following advantages: mechanical fixing and electrical contacting is achieved in one action; input wiring is dispensable, use of busbar terminals is reduced to a minimum and it provides a double utilization of the busbar space. All this is effective especially in cases where many feeders of the same power range are required.

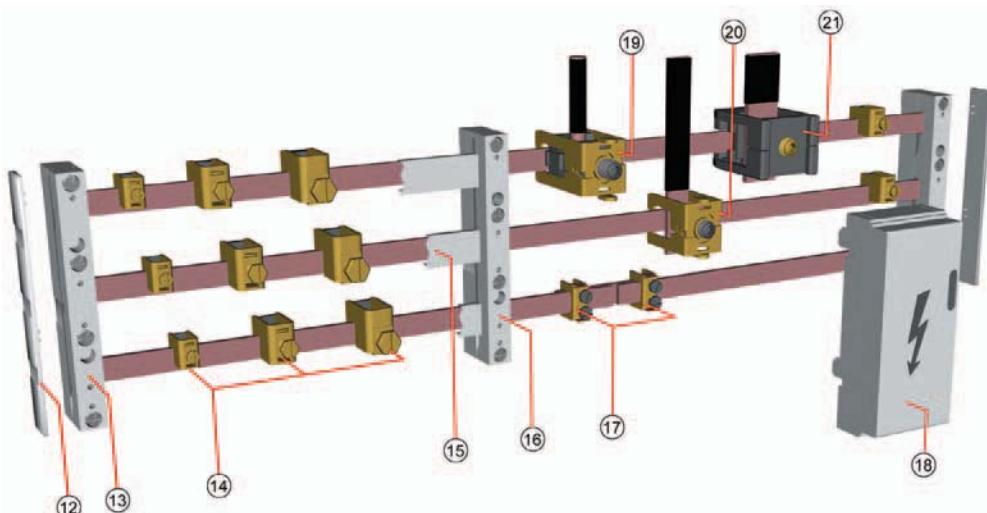
During operation, an easily traceable arrangement and rapid and uncomplicated replacement of single devices and assemblies are the most effective advantages. The busbar system is completely finger-safe because it is covered by adapters and switching device holders. A high operational safety is therefore guaranteed.

Area of application

Mounting current-limiting (protection) devices such as fuse switch disconnectors and circuit-breakers, but also complete

load feeders, directly onto busbars has become a commonly used technique.

Design



Busbar systems with 40 mm and 60 mm busbar center-to-center distance as well as flat copper profiles have now become firmly established on the world market. The permissible busbar temperature is a decisive factor when dimensioning the busbars. The busbar temperature is dependent on the current and the current distribution, on the busbar cross-section and the busbar surface, on the position of the busbars, convection and the ambient temperature. The values stated in the table below can only

be considered as reference values because the conditions vary with each location. The values are based on constant current over the whole busbar length.

The trend toward busbars proves most advantageous when the incoming supply is centrally located and the load is distributed symmetrically on both sides.

Functions

Short-circuit strength

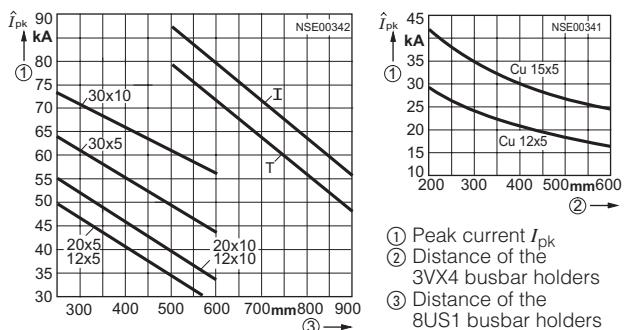
The short-circuit strength of the busbar system is dependent on the distance of the busbar holders and on the busbar cross-section.

The short-circuit strength of the whole system is dependent on the short-circuit strength of the busbars and of the adapters with circuit-breakers or switch disconnectors (see "Molded-case

circuit-breakers (MCCB)" and "SENTRIC switch disconnectors and fuse switch disconnectors").

If one of these values is lower than the prospective short-circuit current at the mounting point, a current-limiting protective device has to be mounted upstream of the busbar system. This may also be mounted as a feeder circuit-breaker on the busbar system itself.

Characteristics



Busbar Adapter Systems

General data

Technical specifications

**Uninterrupted current for busbars, E-Cu bare,
at 35 °C ambient temperature in accordance with DIN 43671**

Busbar dimensions mm	System mm	Uninterrupted current at 65°C busbar temperature A	85°C A	105°C A
12 × 5	40 + 60	188	248	295
15 × 5	40 + 60	222	293	349
20 × 5	60	274	362	430
25 × 5	60	327	432	513
30 × 5	60	379	500	595
12 × 10	40 + 60	302	398	474
20 × 10	60	427	564	670
30 × 10	60	573	756	900
I profile	60	1020	1020	1600

Technical specifications of the system components

Rated operating voltage U_e	Up to AC 690 V (50/60Hz)
Rated insulation voltage U_i	AC 1000 V
Short-circuit strength of the 8US1 busbar adapters	Current limiting by means of associated circuit-breakers/load feeders up to 50 kA
of the busbar systems	see Characteristics
Material of the busbar holders, busbar adapters and 8US1 switching device holders	Fiberglass-strengthened polyamide
Color	RAL 7035, light gray
Thermal stability of the busbar holders, busbar adapters and 8US1 switching device holders	120°C
of the AWG connecting leads	105°C
of the cover profiles and end covers	70° C
Approvals Busbar holders, busbar adapters, switching device holders and terminals	  

Busbar Adapter Systems

40 mm system

Selection and ordering data

for copper busbars to DIN 46433, width 12 mm, thickness 5 mm and 10 mm	Busbar adapters	Number of mounting rails (35 mm)	Rated current	Connecting lead	Adapter length	Adapter width	Rated voltage	DT	Order No.	PS*	Weight per PU approx.						
			A	AWG	mm	mm	V										
For SIRIUS																	
Size S00/S0																	
Direct feeder	Circuit-breaker	1	25	12	121	45	690	▶	8US10 51-5DJ07	1 unit	0.106						
	Circuit-breaker + lateral auxiliary switch	1	25	12	121	55	690	▶	8US10 61-5DJ07	1 unit	0.119						
	Contactor + overload relay	1	25	12	139	45	690	▶	8US10 51-5DK07	1 unit	0.164						
	Direct feeder	1	25	12	182	45	690	▶	8US10 51-5DM07	1 unit	0.184						
	Reversing feeder Adapter	1	25	12	182	45	690	▶	8US10 51-5DM07	1 unit	0.184						
	+ switching device holder	1	—	—	182	45	—	▶	+8US10 50-5AM00	1 unit	0.182						
	+ connection keys (2 units needed for attachment)	—	—	—	—	—	—	▶	+8US19 98-1AA00	100 units	0.051						
	(pack of 100 units)																
	Size S00 – Cage Clamp																
	Direct feeder	1	12.5	14	182	45	690	▶	8US10 51-5CM47	1 unit	0.193						
Size S2																	
Reversing feeder	Circuit-breaker	1	56	8	139	55	690	▶	8US10 61-5FK08	1 unit	0.231						
	Circuit-breaker + lateral auxiliary switch	1	56	8	139	55	690	▶	8US10 61-5FK08	1 unit	0.231						
	Contactor + overload relay	1	56	8	182	55	690	▶	8US10 61-5FM08	1 unit	0.278						
	Direct feeder	1	56	8	242	55	690	▶	8US10 61-5FP08	1 unit	0.308						
	Reversing feeder Adapter	1	56	8	242	55	690	▶	8US10 61-5FP08	1 unit	0.308						
	+ switching device holder ¹⁾	—	—	—	242	55	—	▶	+8US10 60-5AP00	1 unit	0.244						
	+ connection keys (2 units needed for attachment)	—	—	—	—	—	—	▶	+8US19 98-1AA00	100 units	0.051						
	(pack of 100 units)																
	Size S3																
	Circuit-breaker	—	100	Busbars	182	70	up to 460 ²⁾	▶	8US11 11-4SM00	1 unit	0.541						
	Circuit-breaker	1	100	4	182	72	480 to 690 ³⁾	▶	8US10 11-4TM00	1 unit	0.478						
For 3VF circuit-breakers																	
3VF3																	
205 Busbars 175 108 690 A 8US10 11-4SB00 1 unit 0.500																	
For 3VL circuit-breakers⁴⁾																	
3VL1 — 160 Busbars 175 108 690 A 8US10 11-4SL01 1 unit 0.585																	
With supply terminals (at top) for any arrangement of components																	
1.5 mm ² to 4 mm ² 1 25 — 139 45 690 A 8US10 50-5RK07 1 unit 0.149																	
1.5 mm ² to 4 mm ² 1 25 — 182 45 690 A 8US10 50-5RM07 1 unit 0.177																	
16 mm ² (at top) and 35 mm ² (at bottom). Can be used simultaneously as incoming unit and outgoing unit. 1 80 — 139 54 690 A 8US10 60-5AK00 1 unit 0.295																	
Switching device holders for lateral attachment to busbar adapters of the same length																	
Switching device holder 1 — — 139 45 — A 8US10 50-5AK00 1 unit 0.149																	
Switching device holder 1 — — 139 55 — A 8US10 60-5AK08 1 unit 0.162																	
Switching device holder 1 — — 182 45 — ▶ 8US10 50-5AM00 1 unit 0.182																	
Switching device holder 1 — — 182 55 — ▶ 8US10 60-5AM00 1 unit 0.197																	
Switching device holder — — 242 55 — ▶ 8US10 60-5AP00 1 unit 0.244																	
Connection keys (2 units needed for attachment) (packg. of 100 units) — — — — — ▶ 8US19 98-1AA00 100 units 0.051																	
Lateral modules for extending busbar adapters and switching device holders of the same length																	
Lateral module — — — 139 13.5 — A 8US19 98-2BK00 4 units 0.023																	
Lateral module — — — 182 13.5 — A 8US19 98-2BM00 4 units 0.036																	

1) Spacer and fixing screw for reversing contactor are included in the scope of supply.

2) ≤ 400 V max. 50 kA, 100 V to 460 V max. 25 kA.

3) 460 V to 525 V max. 30 kA, 525 V to 690 V max. 12 kA.

4) Please note the short-circuit strength of the busbar system. Short-circuit strength > 50 kA on request.

Busbar Adapter Systems

60 mm system

Selection and ordering data

for copper busbars to DIN 46433, width 12 mm to 30 mm, thickness 5 mm and 10 mm as well as for T and I special profiles	Busbar adapters	Number of mounting rails (35 mm)	Rated current	Connecting lead	Adapter length	Adapter width	Rated voltage	DT	Order No.	PS*	Weight per PU approx.						
			A	AWG	mm	mm	V										
For SIRIUS																	
Size S00/S0																	
Direct feeder	Circuit-breaker	1	25	12	182	45	690	▶	8US12 51-5DM07	1 unit	0.183						
	Contactor + overload relay	1	25	12	182	45	690	▶	8US12 51-5DM07	1 unit	0.183						
	Direct feeder	1	25	12	182	45	690	▶	8US12 51-5DM07	1 unit	0.183						
	Reversing feeder adapter	1	25	12	182	45	690	▶	8US12 51-5DM07	1 unit	0.183						
	+ switching device holder + connection keys (2 units needed for attachment) (pack of 100 units)	1	—	—	182	45	—	▶	+8US12 50-5AM00	1 unit	0.158						
	+ switching device holder + connection keys (2 units needed for attachment) (pack of 100 units)	—	—	—	—	—	—	▶	+8US19 98-1AA00	100 units	0.051						
	Size S00 – Cage Clamp	Direct feeder	1	12.5	14	182	45	690	▶	8US12 51-5CM47	1 unit	0.190					
	Size S2																
	Circuit-breaker	1	56	8	182	55	690	▶	8US12 61-5FM08	1 unit	0.263						
	Contactor + overload relay	1	56	8	182	55	690	▶	8US12 61-5FM08	1 unit	0.263						
Reversing feeder	Direct feeder	1	56	8	242	55	690	▶	8US12 61-5FP08	1 unit	0.292						
	Reversing feeder Adapter	1	56	8	242	55	690	▶	8US12 61-5FP08	1 unit	0.292						
	+ switching device holder ¹⁾ + connection keys (2 units needed for attachment) (pack of 100 units)	—	—	—	242	55	—	▶	+8US12 60-5AP00	1 unit	0.243						
	+ switching device holder ¹⁾ + connection keys (2 units needed for attachment) (pack of 100 units)	—	—	—	—	—	—	▶	+8US19 98-1AA00	100 units	0.051						
	Size S3																
	Circuit-breaker	1	100	Busbars	182	70	up to 460 ²⁾	▶	8US11 11-4SM00	1 unit	0.541						
	Circuit-breaker	—	100	4	182	72	480 to 690 ³⁾	A	8US12 11-4TM00	1 unit	0.498						
For 3VF circuit-breakers																	
8US12 11-4SB00 with 3VF3	3VF3, 3VF4 ⁴⁾	Mounting plate	200	Busbars	175	108	690	A	8US12 11-4SB00	1 unit	0.580						
	3VF4 ⁵⁾ , 3VF5 ⁵⁾	Mounting plate	200	Terminals 70 mm ²	254	108	690	A	8US12 10-4AA04	1 unit	1.140						
8US12 10-4AF00 with 3VL	3VF4 ⁵⁾ , 3VF5 ⁵⁾	Mounting plate	630	M 10 stud terminal	320	185	690	A	8US12 10-4AF00	1 unit	2.760						
	3VL1, 3VL1 and RCD module	—	160	Busbars	175	108	690	A	8US12 10-4AF00	1 unit	0.501						
8US12 11-4SL01 with 3VL	3VL1	—	160	M 10 stud terminal	320	184	690	A	8US12 11-4SL01	1 unit	0.597						
	3VL1 and RCD module	—	160	Busbars	175	108	690	A	8US12 10-4AF00	1 unit	2.760						
	3VL2	—	160	Busbars	175	108	690	A	8US12 11-4SL01	1 unit	0.575						
	3VL3	—	250	Busbars	175	108	690	A	8US12 11-4SL00	1 unit	0.662						
8US12 10-4AF00 with 3VL	3VL4	—	400	M 10 stud terminal	320	184	690	A	8US12 10-4AF00	1 unit	2.760						
	3VL1	—	160	Busbars	175	108	690	A	8US12 10-4AF00	1 unit	0.575						
	3VL2	—	160	M 10 stud terminal	320	184	690	A	8US12 11-4SL01	1 unit	0.597						
	3VL3	—	250	Busbars	175	108	690	A	8US12 11-4SL00	1 unit	0.662						
For switch disconnectors																	
8US12 10-4AG00 with 3KA	3KA52 ⁵⁾ , 3KA53 ⁵⁾ , 3KL52 ⁵⁾ , 3KL53 ⁵⁾	—	630	M 10 stud terminal	320	184	690	A	8US12 10-4AF00	1 unit	2.760						
	3KA55 ⁵⁾ , 3KA57 ⁵⁾ , 3KA58 ⁵⁾ , 3KL55 ⁵⁾ , 3KL57 ⁵⁾ , 3KL58 ⁵⁾	—	630	M 10 stud terminal	320	250	690	A	8US12 10-4AG00	1 unit	3.060						
For 3NP5 fuse switch disconnectors																	
8US12 91-4SB00 with 3NP50	3NP50 60 (NH00)	—	160	Busbars	175	108	690	A	8US12 91-4SB00	1 unit	0.551						
	3NP52 ⁵⁾ , 3NP53 ⁵⁾	1	630	M 10 stud terminal	320	250	690	A	8US12 10-4AG00	1 unit	3.060						
	3NP54 ⁴⁾	—	630	M 10 stud terminal	320	276	690	A	8US12 10-4AG00	1 unit	3.060						

1) Spacer and fixing screw for reversing contactor are included in the scope of supply.

2) ≤ 400 V max. 50 kA, 400 V to 460 V max. 25 kA.

3) 460 V to 525 V max. 30 kA, 525 V to 690 V max. 12 kA.

4) Without connecting leads. The connecting lead adapter/device should be made up as a circular conductor to suit the rated current, for instance using H07V-R bared at both ends for tunnel terminals.

5) Without connecting leads. The connecting lead adapter/device should be made up as a circular conductor to suit the rated current, for instance using H07V-R with cable lug, or as a ribbon cable for a M10 stud terminal.

6) Please note the short-circuit strength of the busbar system. Short-circuit strength > 50 kA on request.

Busbar Adapter Systems

60 mm system

Selection and ordering data

for copper busbars to DIN 46433, width 12 mm to 30 mm, thickness 5 mm and 10 mm as well as for T and I special profiles	Busbar adapters	Number of mounting rails (35 mm)	Rated current A	Connecting lead AWG	Adapter length mm	Adapter width mm	Rated voltage V	DT	Order No.	PS*	Weight per PU approx. kg
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Busbar adapters with supply terminals (at top) for any arrangement of components

1.5 mm ² ... 4 mm ²	1	25	-	182	45	690	A	8US12 50-5RM07	1 unit	0.174
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Switching device holders for lateral attachment to busbar adapters of the same length

Switching device holder	1	-	-	182	45	-	►	8US12 50-5AM00	1 unit	0.158
Switching device holder	1	-	-	182	55	-	►	8US12 60-5AM00	1 unit	0.202
Switching device holder	-	-	-	242	55	-	►	8US12 60-5AP00	1 unit	0.243
Connection keys (2 units needed for attachment) (pack of 100 units)	-	-	-	-	-	-	►	8US19 98-1AA00	100 units	0.051

Lateral modules for extending busbar adapters and switching device holders of the same length

Lateral module	-	-	-	182	13.5	-	A	8US19 98-2BM00	4 units	0.036
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Bar-mounting fuse bases

- to DIN VDE 0636
- with open captive +/- screws

• for attachment to industry-standard, unprocessed copper busbars with 12 mm to 30 mm bar width.

for copper busbars to DIN 46433, width 12 mm to 30 mm, thickness 5 mm and 10 mm as well as for T and I special profiles	Size	Rated current A	Rated voltage V	DT	Order No.	PS*	Weight per PU approx. kg
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Mounting parts

NEOZED bar-mounting base SR60 for 5 mm busbar thickness for NEOZED gauge pieces 3-pole D02	63	400	A	5SG6 202	1 unit	0.141
over-width with free space for wiring D02 for 10 mm busbar thickness for NEOZED gauge pieces 3-pole D02	63	400	A	5SG6 204	1 unit	0.154
over-width with free space for wiring D02 for 10 mm busbar thickness for NEOZED gauge pieces 3-pole D02	63	400	A	5SG6 203	1 unit	0.138
over-width with free space for wiring D02	63	400	A	5SG6 205	1 unit	0.149

* This quantity or a multiple thereof can be ordered.

Busbar Adapter Systems

60 mm system

Bar-mounting fuse base

- to DIN VDE 0636
- with open captive +/- screws

- for attachment to industry-standard, unprocessed copper busbars with 12 mm to 30 mm bar width.

for copper busbars to DIN 46433, width 12 mm to 30 mm, thickness 5 mm and 10 mm as well as for T and I special profiles	Size	Rated current A	Rated voltage V	DT	Order No.	PS*	Weight per PU approx.
							kg

Mounting parts

DIAZED bar-mounting base SR60

for 5 mm busbar thickness
for use of DIAZED gauge rings SR60

3-pole

DII

DIII

25

63

500

690

A

A

5SF6 014

5SF6 214

1 unit

1 unit

0.230

0.318

for use of DIAZED adapter screws

3-pole

DII

DIII

25

63

500

690

A

A

5SF6 015

5SF6 215

1 unit

1 unit

0.222

0.310

for 10 mm busbar thickness

for use of DIAZED gauge rings SR60

3-pole

DII

DIII

25

63

500

690

A

A

5SF6 016

5SF6 216

1 unit

1 unit

0.233

0.316

for use of DIAZED adapter screws

3-pole

DII

DIII

25

63

500

690

A

A

5SF6 017

5SF6 217

1 unit

1 unit

0.220

0.328

Size

Width

DT

Order No.

PS*

kg

Mounting parts

NEOZED cover SR60

D02

27

A

5SH5 241

1 unit

0.026

over-width with free space for wiring

D02

36

A

5SH5 242

1 unit

0.031

with double width for more free space for wiring

D02

54

A

5SH5 243

1 unit

0.040

DIAZED cover SR60

DII

42

A

5SH2 042

1 unit

0.050

DIII

57

A

5SH2 242

1 unit

0.061

with double width for more free space for wiring

DII

84

A

5SH2 043

1 unit

0.084

DIII

114

A

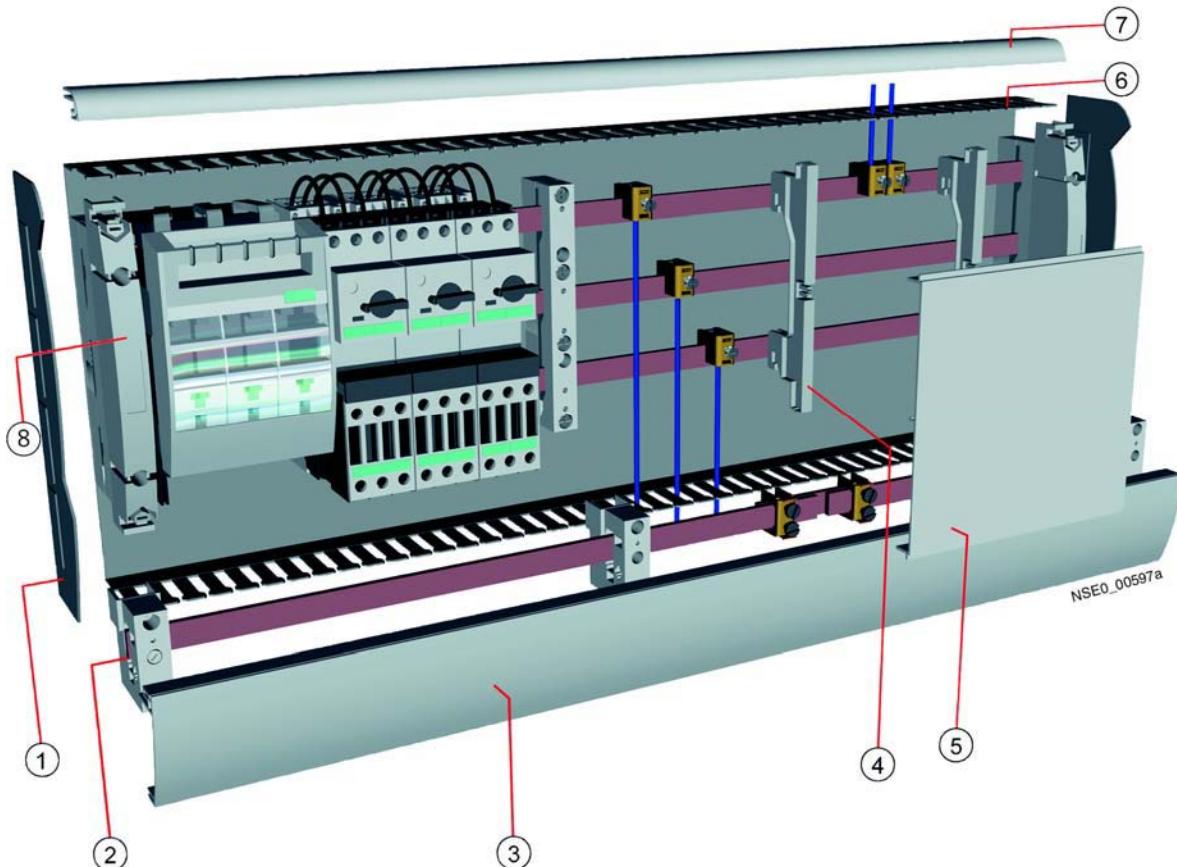
5SH2 243

1 unit

0.106

Selection and ordering data

for copper busbars to DIN 46433,
width 12 mm to 30 mm, thickness 5 mm and 10 mm as well as for T and I special profiles



Description	DT	Order No.	PS*	Weight per PU approx. kg
Busbar holders (see Page 8/4 ①)				
with outside fixing (3-pole)	L1-L3	A	8US19 23-2AA00	10 units 0.214
with inside fixing (3-pole)	L1-L3	A	8US19 23-3AA00	10 units 0.200
with inside fixing (4-pole)	L1-L3 + PE/N	A	8US19 23-4AA00	10 units 0.269
Cover for 3-pole busbar holders (with location for holder for partition profile) (see Page 8/4 ⑨)				
for end holder (with end cover)		A	8US19 22-1BA00	1 unit 0.077
for intermediate holder		A	8US19 22-1CA00	1 unit 0.050
Holder for partition profile (see Page 8/4 ⑩)				
for 8US19 22-1EA00 and 8US19 22-1FA00		A	8US19 22-1DA00	1 unit 0.009
Partition profile (see Page 8/4 ⑥ ⑥)				
slotted	2000 mm long	A	8US19 22-1EA00	1 unit 0.098
closed	2000 mm long	A	8US19 22-1FA00	1 unit 0.116
Bottom shell ⑥				
3-pole system	1100 mm long	230 mm in width	A	5SH3 526
4-pole system (or 3-pole system with wiring duct)	1100 mm long	290 mm in width	A	5SH3 527
Holder for edge profile ⑧				
for 5SH3 528 and 5SH3 530		A	5SH3 532	1 unit 0.106
Edge profile ③ ⑦				
for bottom shell 230 mm	1100 mm long	17 mm x 36 mm	A	5SH3 528
for bottom shell 290 mm	1100 mm long	77 mm x 36 mm	A	5SH3 530
Spare panel holder (for spare panel cover) ④				
(2 units per spare panel section) mounting to busbar	10 mm long	190 mm in width	A	5SH3 536
Spare panel cover ⑤				
Mounting on 5SH3 523 spare panel holder	1000 mm long	202 mm in width	A	5SH3 525

* This quantity or a multiple thereof can be ordered.

Busbar Adapter Systems

Accessories

Selection and ordering data

Description	DT	Order No.	PS*	Weight per PU approx. kg
Busbar adapters				
40 mm system				
End and intermediate holders for flat copper profiles 12 mm x 5 mm to 12 mm x 10 mm				
with inside fixing (5-pole) with inside fixing (3-pole) (1 set = 2 busbar holders including inlay parts for bar thickness 5 mm, lateral covering caps finger-safe)	L1-L3 + N + PE/N	A A	8US19 03-5AA00 8US19 03-3AB00	1 unit 1 unit on request
60 mm system				
End and intermediate holders for flat copper profiles 12 mm x 5 mm to 30 mm x 10 mm				
with outside fixing (3-pole) with inside fixing (3-pole) with inside fixing (4-pole)	L1-L3 L1-L3 L1-L3 + PE/N	A A A	8US19 23-2AA00 8US19 23-3AA00 8US19 23-4AA00	10 units 10 units 10 units
N/PE busbar holder for flat copper profiles 12 mm x 5 mm ... 20 mm x 10 mm, also 25 mm x 5 mm and 30 mm x 5 mm				
Attachment to 8US19 23-2AA00 or independent installation		A	5SH3 506	1 unit
I profile				
End and intermediate holders (3-pole) with finger-safe busbar cover (1 set = 2 busbar holders + finger-safe end covers)	L1-L3 (1 set = 2 units)	A	8US19 43-3AA00	1 set
End covers for 60 mm busbar system (see Page 8/11 ①)				
for covering unterminated busbar ends				
for 8US19 23-2AA00 (3-pole)	L1-L3	A	8US19 22-1AC00	10 units
for 8US19 23-3AA00 (3-pole)	L1-L3	A	8US19 22-1AC00	10 units
for 8US19 23-4AA00 (4-pole)	L1-L3 + PE/N (1 set = 2 units)	A	8US19 22-1AB00	5 units
Busbar copper (flat copper, approx. 2 m long, bare, to EN 12167)				
12 mm x 5 mm		B	8WC5 023	1 unit
20 mm x 5 mm		B	8WC5 026	1 unit
25 mm x 5 mm		B	8WC5 031	1 unit
30 mm x 5 mm		B	8WC5 033	1 unit
40 mm x 5 mm		B	8WC5 035	1 unit
50 mm x 5 mm		B	8WC5 037	1 unit
20 mm x 10 mm		B	8WC5 028	1 unit
30 mm x 10 mm		B	8WC5 034	1 unit
40 mm x 10 mm		B	8WC5 036	1 unit
50 mm x 10 mm		B	8WC5 038	1 unit
60 mm x 10 mm		B	8WC5 040	1 unit
80 mm x 10 mm		B	8WC5 041	1 unit
100 mm x 10 mm		B	8WC5 042	1 unit
6 mm x 6 mm		B	8WC5 020	1 unit
20 mm x 8 mm		B	8WC5 027	1 unit
Busbar copper (special profiles, approx. 2.4 m long, tinned)				
I profile	720 mm ²	A	8US19 48-2AA00	1 unit
Cover profiles for busbars				
12 mm x 5 mm	1000 mm long	C	8GR5 010	1 m
20 mm x 5 mm	1000 mm long	A	8US19 22-2AA00	10 units
25 mm x 5 mm	1000 mm long	A	8US19 22-2AA00	10 units
30 mm x 5 mm	1000 mm long	A	8US19 22-2AA00	10 units
20 mm x 10 mm	1000 mm long	A	8US19 22-2BA00	10 units
30 mm x 10 mm	1000 mm long	A	8US19 22-2BA00	10 units
Cover profiles for 40 mm busbar system (3-pole, complete)				
12 mm x 5 mm	55 mm wide	A	8US19 02-3AA00	1 unit
12 mm x 5 mm	430 mm wide	A	8US19 02-4AA00	1 unit
12 mm x 10 mm	55 mm wide	A	8US19 02-3AA00	1 unit
12 mm x 10 mm	430 mm wide	A	8US19 02-4AA00	1 unit
Incoming supply for 60 mm busbar system				
Terminal plate with cover (35 mm ² to 120 mm ² , 3-pole)	200 mm long 84 mm wide	A	8US19 21-1AA00	1 unit
Outgoing module for PE/N				
Connection module for 4-pole (PE/N) up to 16 mm must be attached to an adapter/ switching device holder	242 mm long 18 mm wide	A	8US12 00-0AA00	1 unit



Busbar Adapter Systems

Accessories

Description	Conductor cross-section	DT	Order No.	PS*	Weight per PU approx.		
					kg		
Terminals for circular conductors							
5 mm busbar thickness							
	from 12 mm x 5 mm to 30 mm x 5 mm	1.5 – 16 mm ² 4 – 35 mm ² 16 – 70 mm ² 16 – 120 mm ²	▶ ▶ ▶ ▶	8US19 21-2AA00 8US19 21-2AB00 8US19 21-2AD00 8US19 21-2AC00	100 units 50 units 50 units 50 units	0.021 0.046 0.072 0.107	
	from 20 mm x 5 mm to 30 mm x 5 mm	95 – 185 mm ² 150 – 300 mm ²	▶ ▶	8US19 41-2AA01 8US19 41-2AA02	6 units 3 units	0.315 0.425	
10 mm busbar thickness as well as T profile and I profile							
	from 12 mm x 10 mm to 30 mm x 10 mm	1.5 – 16 mm ² 4 – 35 mm ² 16 – 70 mm ² 16 – 120 mm ²	▶ ▶ ▶ ▶	8US19 21-2BA00 8US19 21-2BB00 8US19 21-2BD00 8US19 21-2BC00	100 units 50 units 50 units 50 units	0.022 0.048 0.074 0.109	
	from 20 mm x 10 mm to 30 mm x 10 mm	95 – 185 mm ² 150 – 300 mm ²	▶ ▶	8US19 41-2AA01 8US19 41-2AA02	6 units 3 units	0.315 0.425	
Covering caps for supply terminals for circular conductors (attachment to busbar)							
40 mm system							
	for terminals up to 35 mm ² for terminals up to 120 mm ²	130 mm long 200 mm long	70 mm wide 84 mm wide	▶ ▶	3UX42 80-2S 8US19 22-1GA00	1 unit 10 units	0.053 0.126
60 mm system							
	for terminals up to 120 mm ² for terminals up to 300 mm ²	200 mm long 200 mm long	84 mm wide 270 mm wide	▶ ▶	8US19 22-1GA00 8US19 22-1GA02	10 units 1 unit	0.126 0.696
Supply terminals for cable lugs, copper bars or laminated copper bands							
10 mm busbar thickness as well as T profile and I profile							
	for cable lugs to 240 mm ² for 20 mm x 5 mm to 30 mm x 10 mm for 2 x 40 mm x 10 mm	(bolts threaded M 10)	A A A	8US19 41-2AC00 8US19 41-2BB00 8US19 41-2BA00	6 units 6 units 3 units	0.368 0.307 0.824	
Extension and connection terminals							
	for 2 abutting busbars ¹ for T and I profiles	12 mm x 5 mm (1 set = 2 units) (1 terminal per connection position)	A A	8JK3 201 8US19 41-2BF00	1 set 3 units	0.100 1.130	
Accessories for busbar adapters and switching device holders							
Mounting rail (35 mm) – plastic							
	complete with fixing screws (1 package = 10 units)	45 mm wide 55 mm wide 72 mm wide 110 mm wide	A A A A	8US19 98-7CA15 8US19 98-7CA16 8US19 98-4AA00 8US19 98-7CA10	10 units 10 units 10 units 10 units	0.085 0.100 0.143 0.219	
	Connection holder (for vertical busbar assembly) fixes the circuit-breaker to the mounting rail ² (for SIRIUS size S00/S0) (1 pack = 20 units)		A	8US19 98-1DA00	20 units	0.018	
	Screw holder for supplementary screw fixing of the feeder (for SIRIUS size S00/S0) (1 pack = 20 units)		B	8US19 98-1CA00	20 units	0.054	
	Spacer fixes the feeder to the busbar adapter (for SIRIUS size S00/S0) (1 pack = 100 units)		▶	8US19 98-1BA00	100 units	0.071	
	Connection keys for mechanical linking of adapters and switching device holders (2 units per combination) (1 pack = 100 units)		▶	8US19 98-1AA00	100 units	0.051	
Outgoing terminal rails for busbar adapter							
Plug-type terminal (complete with supporting element for attachment to busbar adapter and switching device holder)							
	3 x 2.5 mm ² (400 V) and 4 x 1.5 mm ² (250 V) 7 x 2.5 mm ² (400 V)	91 mm long 91 mm long	45 mm wide 54 mm wide	A C	8US19 98-8AM07 8US19 98-8AA10	1 unit 1 unit	0.061 0.072

1) Terminal bar must be made up in-house.

2) For 45 mm and 55 mm mounting rail.

3) Attachment to 8US19 03-3AB00 busbar holder.

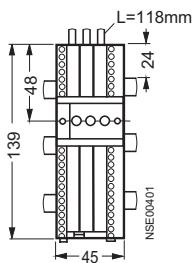
Busbar Adapter Systems

Project planning aids

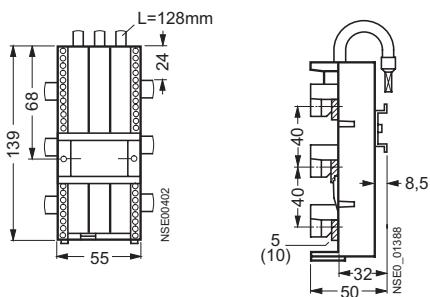
Dimension drawings

40 mm system

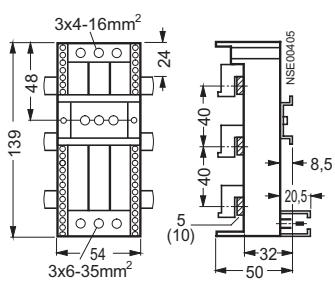
8US10 51-5DK07



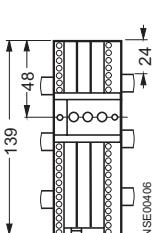
8US10 61-5FK08



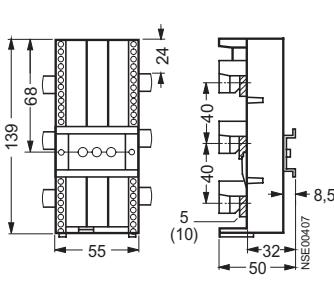
8US10 60-5AK00



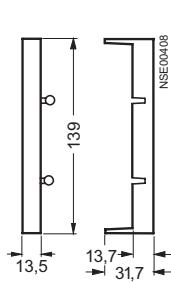
8US10 50-5AK00



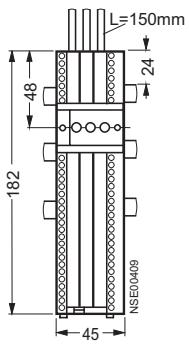
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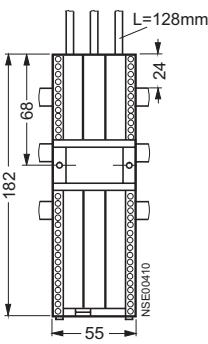
8US19 98-2BK00



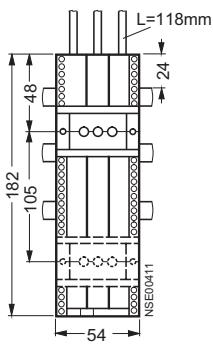
8US10 51-5DM07



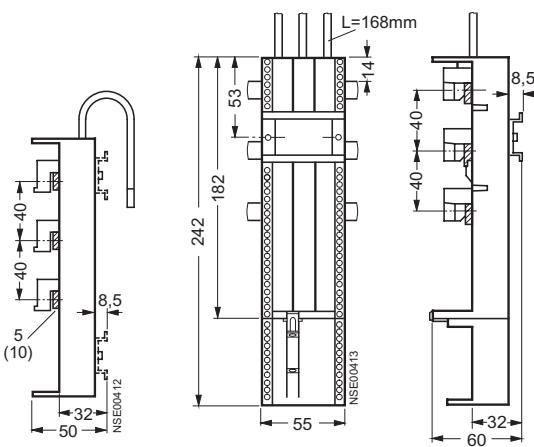
8US10 61-5FM08



8US10 61-5NA00,



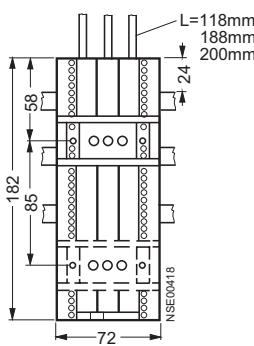
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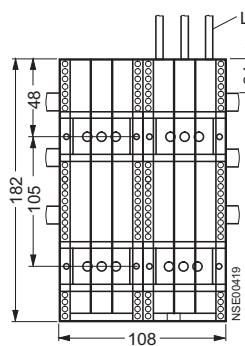
Busbar Adapter Systems

Project planning aids

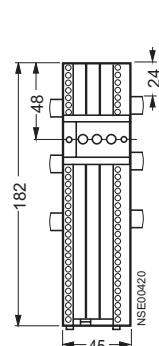
**8US10 11-5NE00,
8US10 71-2NA20,
8US10 71-6MA20**



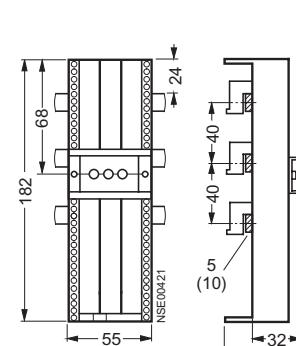
8US10 81-6NA00



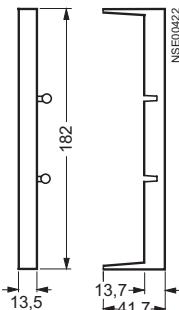
8US10 50-5AM00



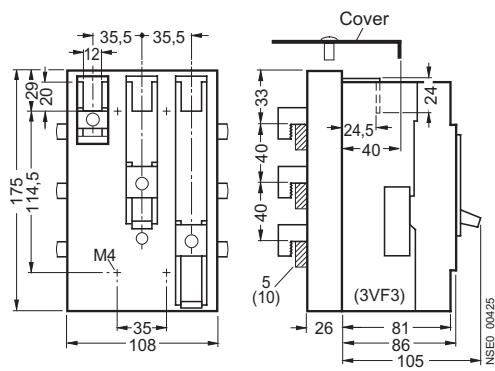
8US10 60-5AM00



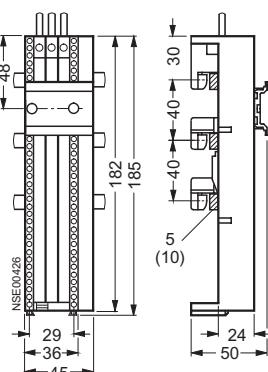
8US19 98-2BM00



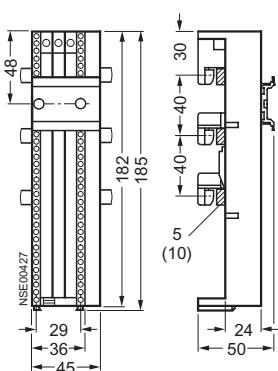
**8US10 11-4SB00
with 3VF3**



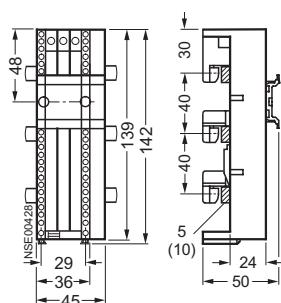
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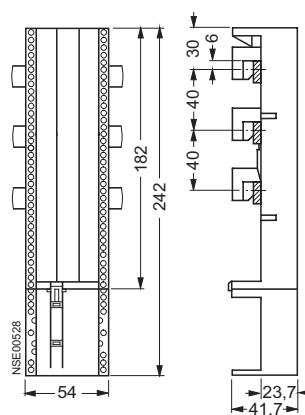
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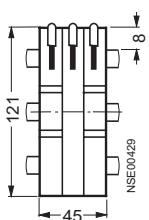
8US10 50-5RK07



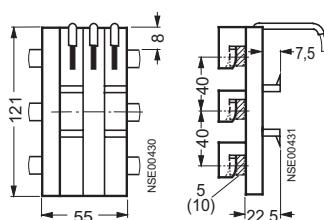
8US10 50-5AP00



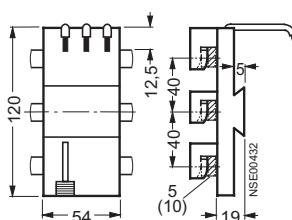
8US10 51-5DJ07



8US10 61-5DJ07



3VU91 35-0AA00



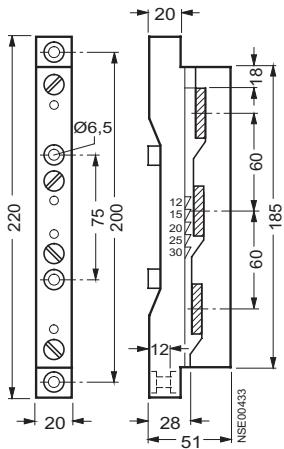
For terminals and further accessories, see 60 mm system.

Busbar Adapter Systems

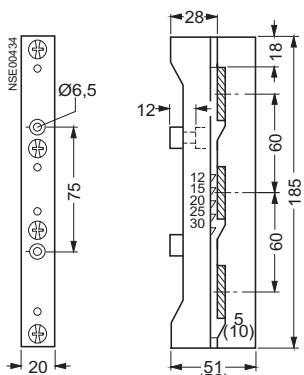
Project planning aids

60 mm system

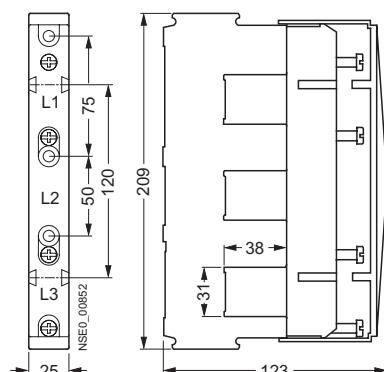
8US19 23-2AA00



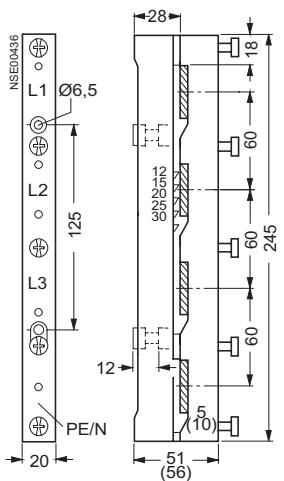
8US19 23-3AA00



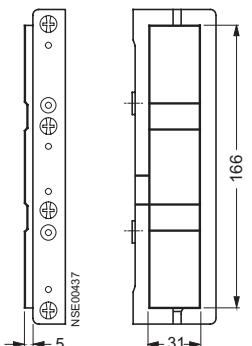
8US19 43-1AA00, 8US19 43-2AA00



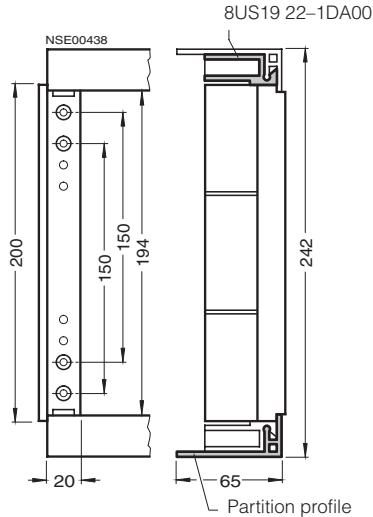
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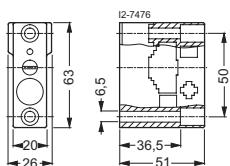
8US19 22-1AC00 with 8US19 23-3AA00



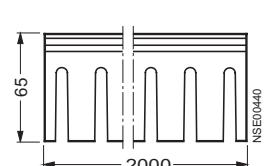
8US19 22-1BA00 with 8US19 22-1DA00 and partition profile



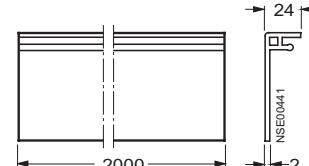
5SH3 506



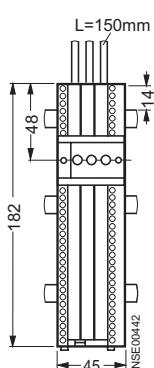
8US19 22-1EA00



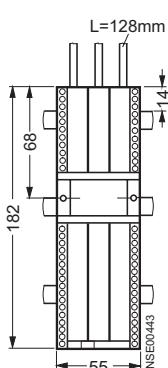
8US19 22-1FA00



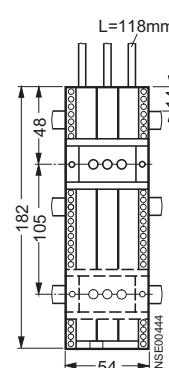
8US12 51-5DM07



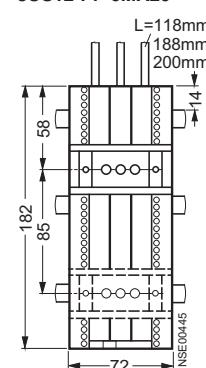
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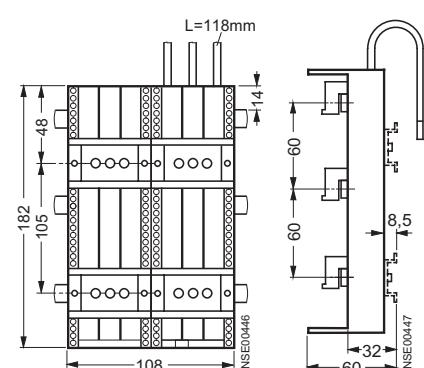
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8US12 61-6NA00



8US12 11-5NE00
8US12 71-2NA20
8US12 71-6MA20



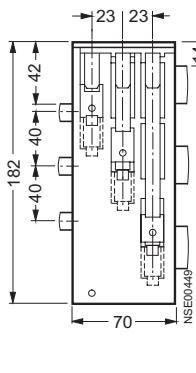
8US12 81-6NA00



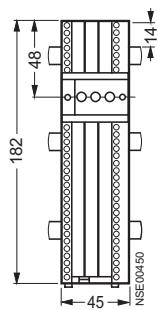
Busbar Adapter Systems

Project planning aids

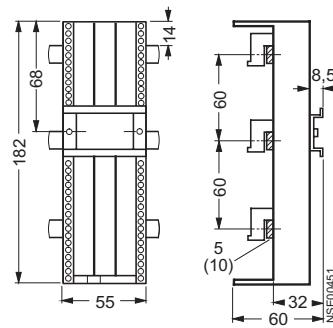
8US11 11-4SM00



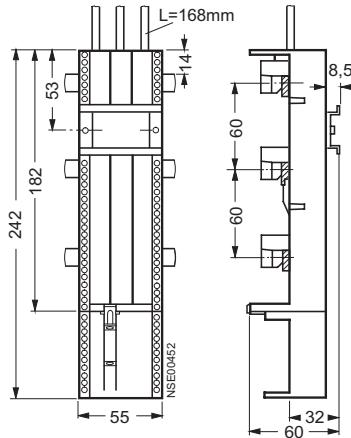
8US12 50-5AM00



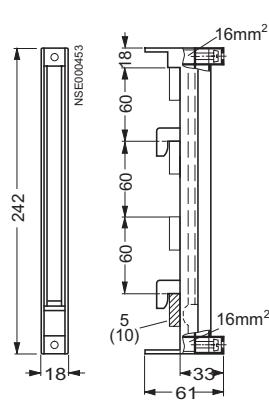
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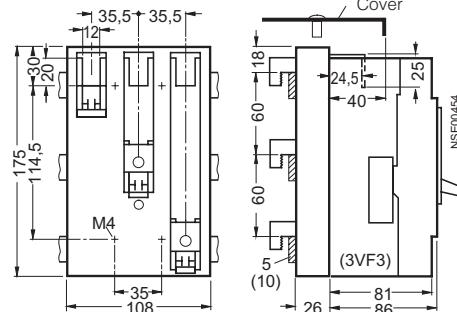
**8US12 60-5AP00
8US12 61-5FP08**



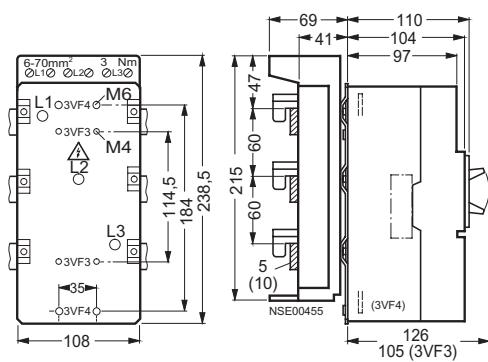
8US12 00-0AA00



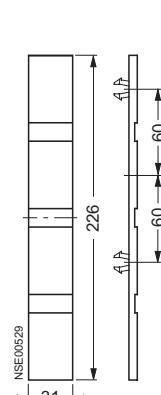
**8US12 11-4SB00
with 3VF3**



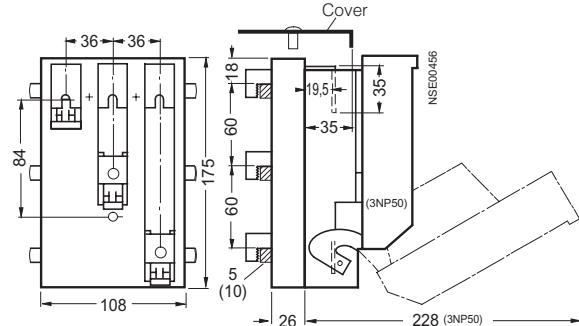
**8US12 10-4AA04
with 3VF4¹⁾**



8US19 22-1AB00



**8US12 91-4SB00²⁾
with 3NP50**



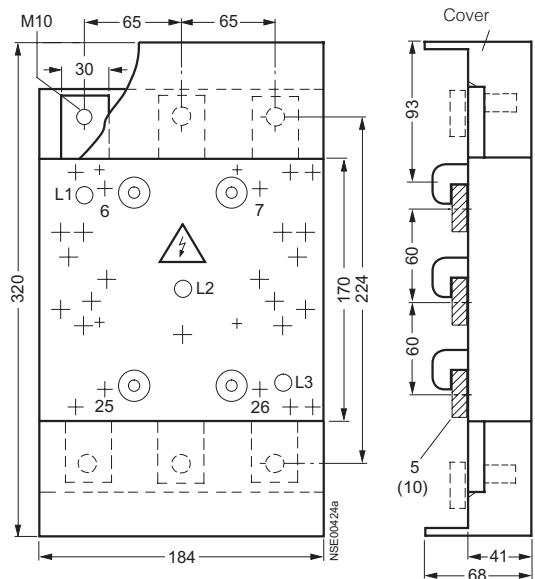
1) 3VF4 mounts flush with the adapter at the top and covers the terminal screws.

2) Note device dimensions (width).

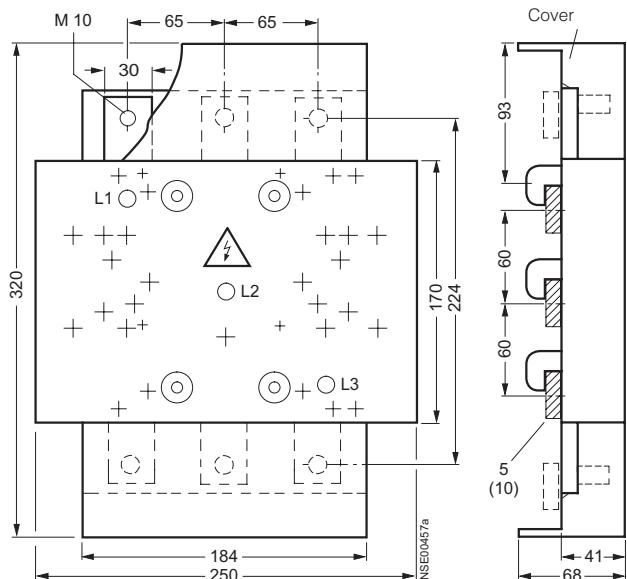
Busbar Adapter Systems

Project planning aids

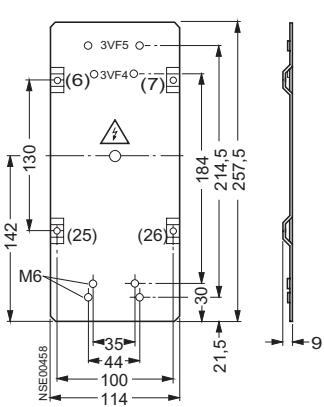
8US12 10-4AF00



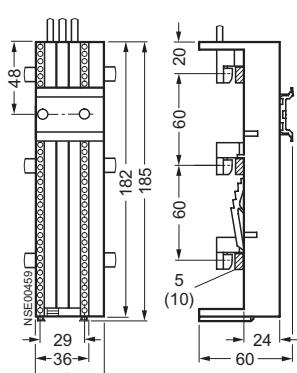
8US12 10-4AG00



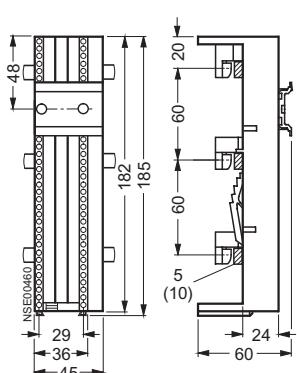
8US19 27-4AF00



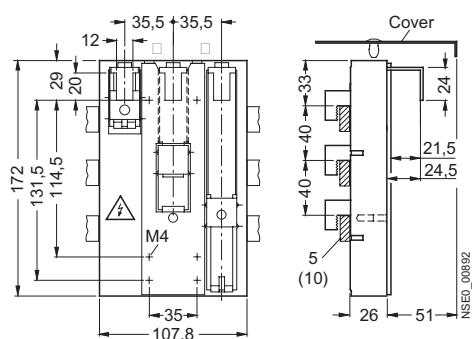
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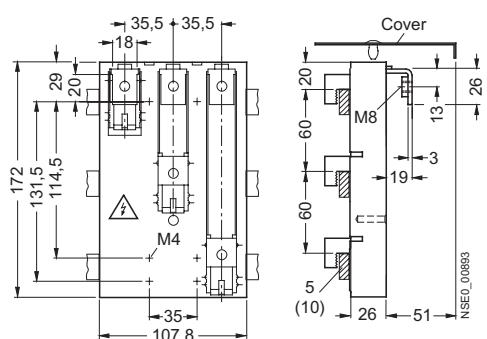
8US12 50-5RM07



8US10 11-4SL01



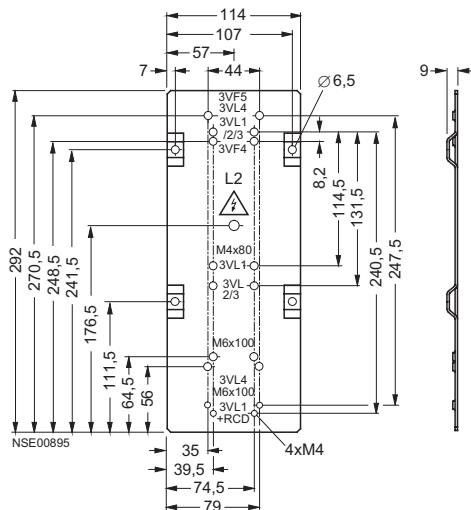
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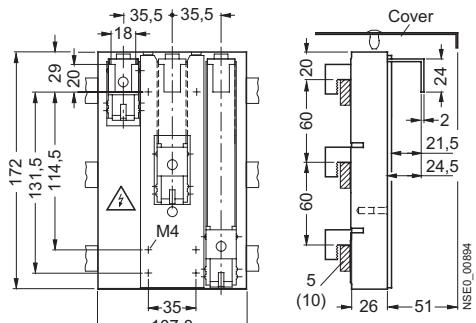
Busbar Adapter Systems

Project planning aids

8US12 11-4SL01



8US19 27-4AF01

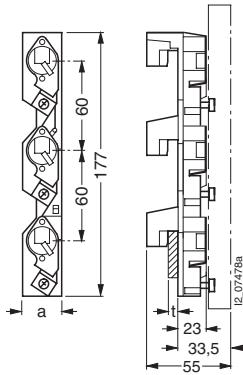


Busbar Adapter Systems

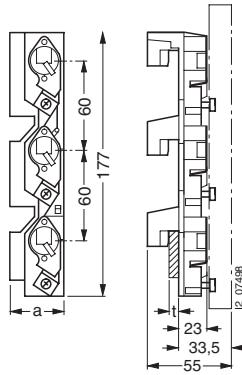
Project planning aids

5SG6, 5SF6 bar-mounting fuse bases

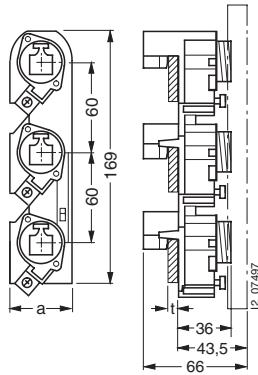
5SG6 202 ($t = 5$ mm),
5SG6 203 ($t = 10$ mm)
D02/63 A ($a = 27$ mm)
(t = busbar thickness)



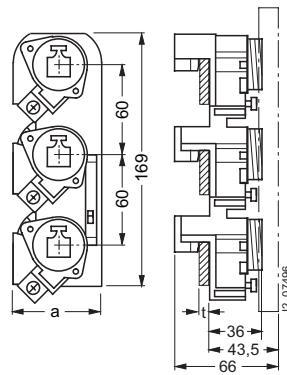
5SG6 204 ($t = 5$ mm),
5SG6 205 ($t = 10$ mm)
D02/63 A ($a = 42$ mm)



5SF6 014, 5SF6 015 ($t = 5$ mm),
5SF6 016, 5SF6 017 ($t = 10$ mm)
DII/25 A ($a = 57$ mm)

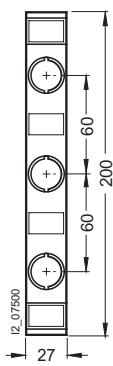


5SF6 214, 5SF6 215 ($t = 5$ mm),
5SF6 216, 5SF6 217 ($t = 10$ mm)
DIII/63 A ($a = 42$ mm)

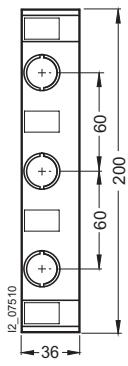


Cover for 5SH bar-mounting fuse base

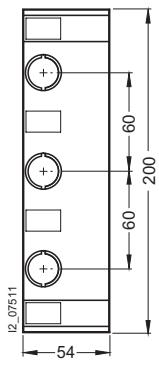
5SH5 241
single
D02/63 A



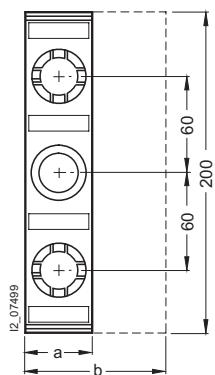
5SH5 242
1.33 fold



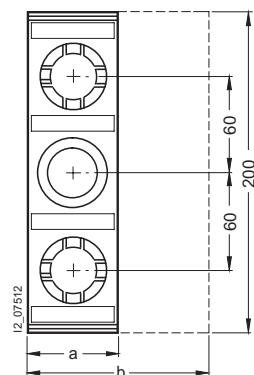
5SH5 243
double



5SH2 042 (single: $a = 42$ mm)
5SH2 043 (double: $b = 84$ mm)
DII/25 A

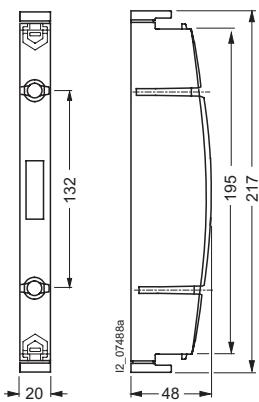


5SH2 242 (single: $a = 57$ mm)
5SH2 243 (double: $b = 114$ mm)
DIII/63 A



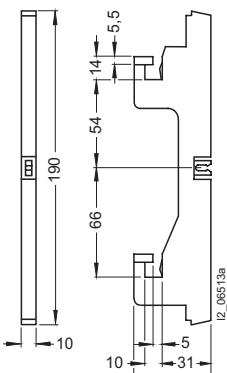
Holder for edge profile

5SH3 532



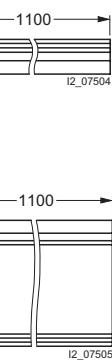
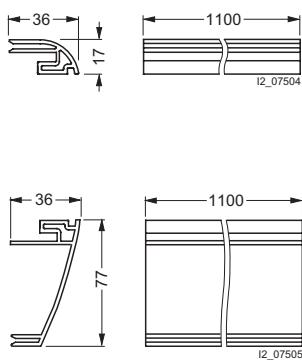
Spare panel holder

5SH3 523



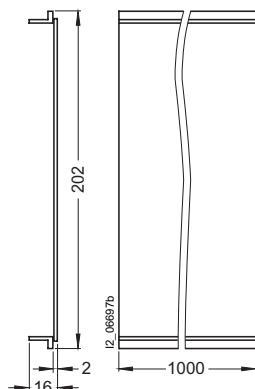
Edge profile

5SH3 528, 5SH3 530



Spare panel cover

5SH3 525

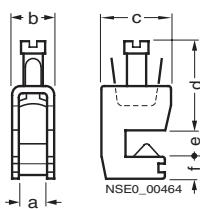


Busbar Adapter Systems

Project planning aids

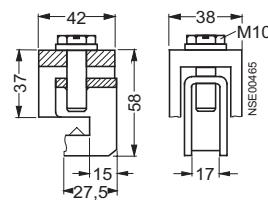
Accessories for 40 mm and 60 mm system

8US19 21-2..00

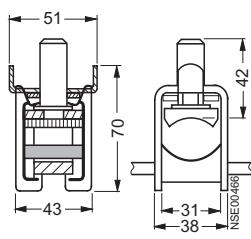


Type	a	b	c	d	e	f
8US19 21-2AA00	7.5	11.5	22.5	25	5	10
8US19 21-2AB00	10.5	15.5	29	35	5	10
8US19 21-2AC00	17	23.5	36	55	5	12
8US19 21-2AD00	14.5	20.5	32	42	5	12
8US19 21-2BA00	7.5	11.5	22.5	25	10	10
8US19 21-2BB00	10.5	15.5	29	35	10	10
8US19 21-2BC00	17	23.5	36	55	10	12
8US19 21-2BD00	14.5	20.5	32	42	10	12

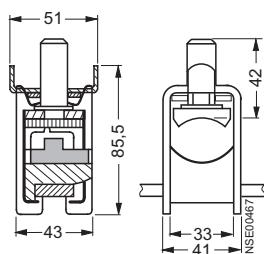
8US19 41-2AC00



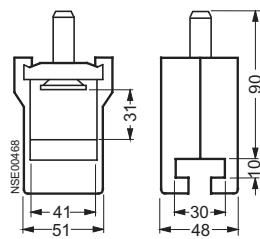
**8US19 41-2AA01
8US19 41-2BB00**



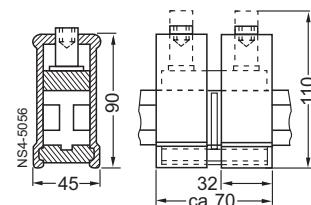
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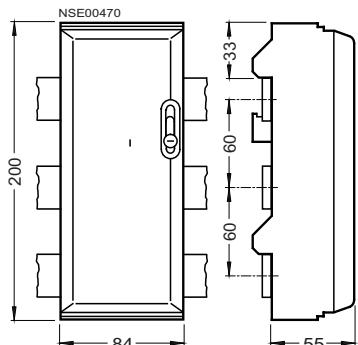
8US19 41-2BA00



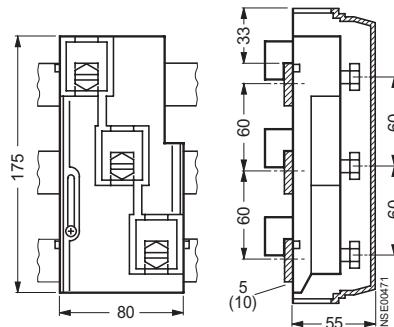
8US19 41-2BF00



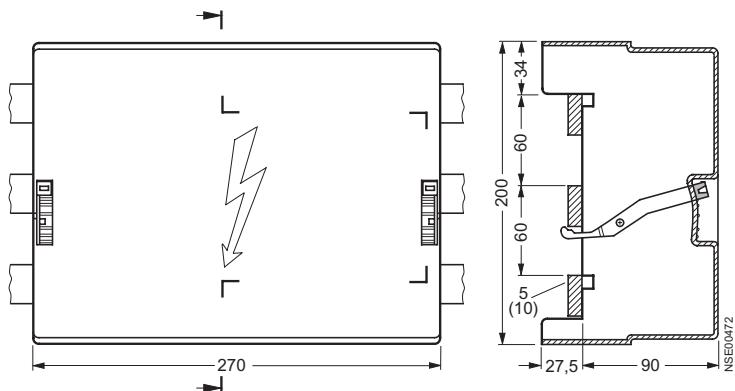
8US19 22-1GA00



8US19 21-1AA00



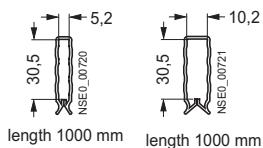
8US19 22-1GA02



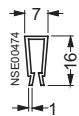
Busbar Adapter Systems

Project planning aids

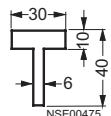
**8US19 22-2AA00
8US19 22-2BA00**



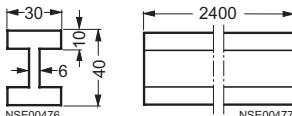
8GR5 010



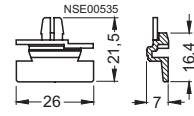
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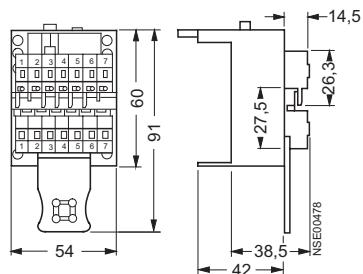
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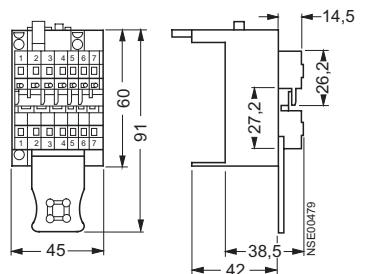
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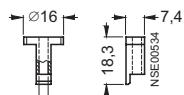
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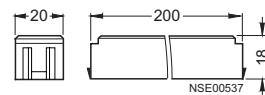
8US19 98-8AM07



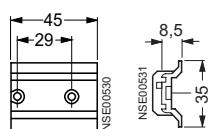
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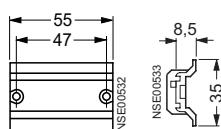
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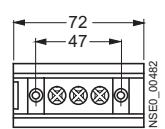
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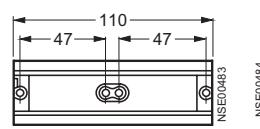
8US19 98-7CA16



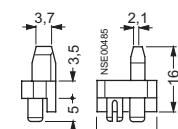
8US19 98-4AA00



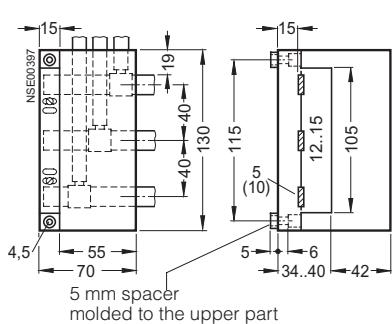
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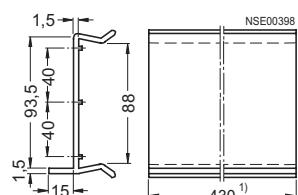
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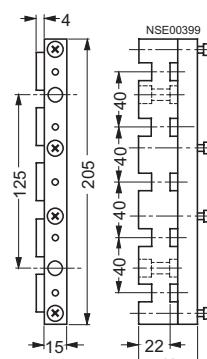
3VX4 280-2R with 3VX4 280-2S



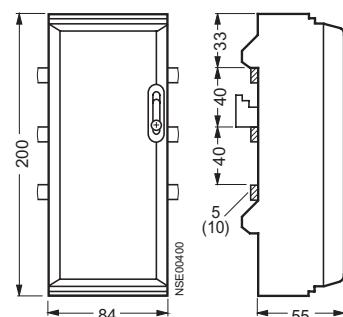
**8US19 02-3AA00¹⁾,
8US19 02-4AA00**



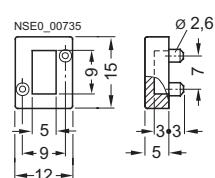
8US19 03-5AA00



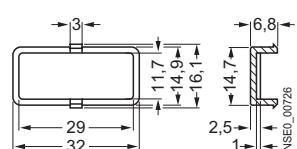
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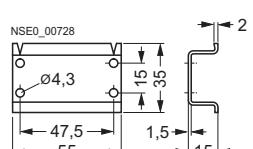
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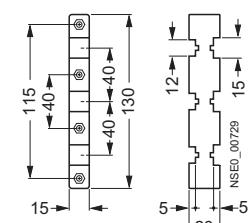
8US19 22-1AD01



8US19 98-7CA26



8US19 03-3AB00



¹⁾ 8US19 02-3AA00: 54 mm wide.

Door-Coupling Rotary Mechanisms

General data

Overview

6 standard sizes of operating mechanisms are available.

Size	Rated torque ¹⁾ Nm	Shaft profile mm x mm	Masking plate mm x mm
1	4	6 x 6	75 x 75
2	7.5	8 x 8	75 x 75
3	16	10 x 10 or 12 x 12	100 x 100
4	30	12 x 12	100 x 100
5	55	12 x 12	100 x 100
6	100	12 x 12	100 x 100

1) Operating mechanisms tested with triple torque (IEC 60947-3, DIN VDE 0660 Part 107). They are therefore qualified for use in all switching devices, especially for disconnectors.

Area of application

8UC6 door-coupling rotary mechanisms can be used in electrical controls, distribution and switchboards in cases where switches have to be mounted behind covers, end plates and doors that must be opened and where they are to be operated manually from outside.

Operating conditions and ambient conditions

The temperature range for operation of the rotary operating mechanisms is between -25 °C and +60 °C.

Thanks to the use of glass fiber-reinforced material for handles and masking plates as well as metal components with surface protection, the rotary operating mechanisms are suitable for rough conditions, high air humidity and aggressive atmospheres.

Degree of protection

Degree of protection when installed is IP65.

Protective measures

All rotary operating mechanisms are fully insulated.

Standards

8UC6 door-coupling rotary mechanisms are in line with the following regulations:

IEC 60204-1 EN 60204-1 VDE 0113	Electrical equipment of machines	IEC 60439-1 EN 60439-1 VDE 0660 Part 500	Low-voltage switchgear assem- blies
IEC 60947-3	Low-voltage switchgear and controllgear ...	VDE 0660 Part 107	Low-voltage switchgear

Design

Operating mechanisms consist of a masking plate with handle including gasket and fixing screws for door installation and of shaft coupling, extension shaft (300 mm) and coupling driver to be mounted onto the switch shaft. Operating mechanisms for 3KA/3KL/3KM switch disconnectors do not have an shaft coupling since the extension shaft is fitted directly into the switch. Extension shafts with a length of 600 mm are available.

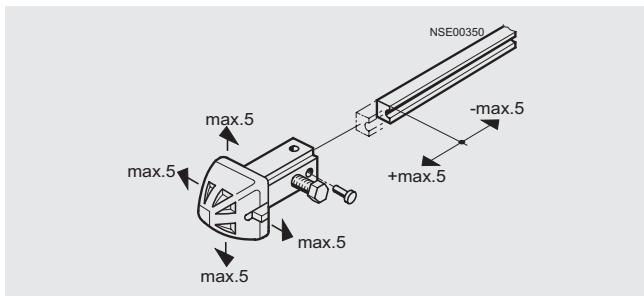
Masking plates are light-gray with black inscription, handles are black. For EMERGENCY-STÖP switches, a yellow indicator plate with black inscription is mounted; the handles are red. The retractable locking device (light-gray) for padlocks is integrated in the handle.

The door interlock on the operating mechanisms is suitable for padlocks with shackle diameters of 4.5 mm to 8.5 mm (padlocks to DIN 7465).

Up to three padlocks with shackle diameter of 8.5 mm or up to five padlocks with shackle diameter of 6 mm can be fitted.

Mounting instructions containing mounting dimensions and hints on activation or modification of interlocking conditions are delivered with each operating mechanism.

8UC 6 door-coupling rotary mechanisms are capable of taking up a radial eccentricity (see figure) of max. 5 mm between the actuating shaft of the switching device and the operating mechanism. Supporting the extension shaft is recommended with greater tolerances. ± 5 mm can be compensated in axial direction. The distance between the door hinge and the center of rotary operating mechanism must not be less than 100 mm.

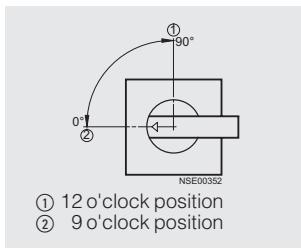


Permissible radial eccentricity and axial tolerance compensation

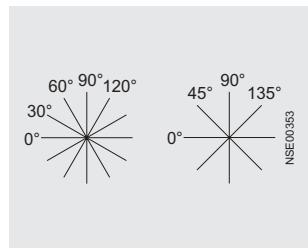
Switching position

In order to ensure compliance with locking and interlocking conditions, the switches and operating mechanisms must be installed such that, with two-position switches, the "0" position is at 9 o'clock, and the "I" position is at 12 o'clock.

With multi-position switches, the "I" position(s) can also be at 30°, 45°, 60°, 90° etc.



Positions for two-position switches with 90° switching angle



Positions for multi-position switches

Door-Coupling Rotary Mechanisms

General data

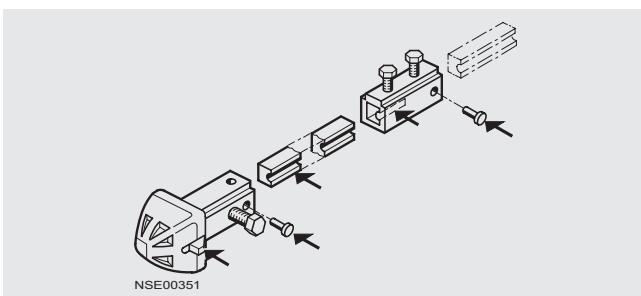
Non-interchangeability

In order to ensure that, when installing switches and door-coupling operating mechanisms, all components – the actuating shaft, shaft coupling, extension shaft, coupling driver and door-coupling operating mechanism – are assembled in the correct position with respect to one another, all the above-mentioned parts are provided with non-interchangeability features (groove and lug).

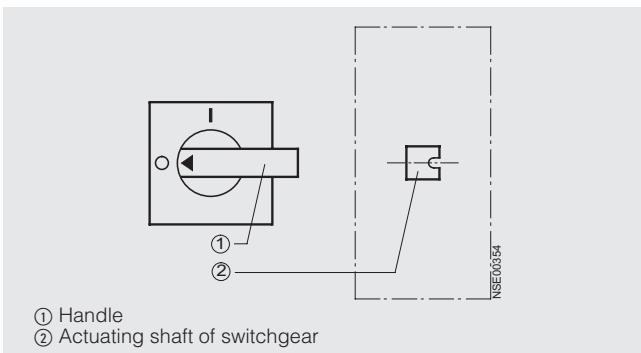
For switches whose non-interchangeability groove is not at 3 o'clock in the "0" position or switches that can be installed at an angle of 90° to the left or right, the non-interchangeability groove can be repositioned.

When the switch and the door coupling are fitted, the rivet in the shaft coupling or coupling driver is moved accordingly. All door-coupling rotary mechanisms listed in this catalog are supplied with the "0" position of the mechanism at 9 o'clock and the "I" position at 12 o'clock. This refers to switches to be installed in the normal position.

In operation and when performing maintenance, these non-interchangeability features preclude the risk of accidents caused by incorrect handling or incorrect switching operations.



Non-interchangeability features (see arrows) of rotary operating mechanisms



Correlation between handle of rotary operating mechanism and actuating shaft

Stops

To prevent damage to smaller switches, an excessive manual operating torque can be absorbed by stops fitted on the inside of sizes 1 and 2 rotary operating mechanisms. These stops are supplied loose with the operating mechanisms and can be fitted as required after consulting the operating instructions. Depending on the switching angle of the switches, the stops can be offset by the user in steps of 15°.

Stops are fitted at the factory to size 1 and 2 operating mechanisms with a 90° actuating angle (exception: 3V. circuit-breakers).

Pull-out strength

The pull-out strength of interlocked operating mechanisms, e.g. pulling off the shaft or destruction of the operating mechanism, amounts to ≥ 800 N when the pulling force acts directly onto the operating mechanism in direction of shaft.

General data

Functions

The basic (standard) versions of the rotary operating mechanisms satisfy the following interlocking conditions:

1. Operating mechanism and switch in "0" (OFF) position:

The control cabinet door can be opened, the operating mechanism is uncoupled and the handle of the operating mechanism engages.

If padlocks are fitted with the control cabinet door closed and the actuator is set to "0", the operating mechanism (and switch) cannot be actuated and the door cannot be opened.

2. Operating mechanism and switch in "I" (ON) position:

The control cabinet door cannot be opened in this position. The interlocking mechanism can, however, be overridden by trained personnel (pressing of a concealed latch with a screwdriver or the like), thus making it possible to open the control cabinet door in the "I" position of the switch for performing checks. The handle engages in the "I" setting with the door open. In the "I" position it is not possible to fit padlocks to lock the operating mechanisms.

Other interlocking conditions

1. If no door interlock is required, the user can remove the door interlocking plate of the rotary operating mechanism after consulting the operating instructions.

2. If provision is to be made for fitting padlocks to the mechanism in the "I" position as well, the user can easily achieve this after consulting the operating instructions by knocking out a lug. Such a measure must not, however, be implemented with EMERGENCY-STOP rotary operating mechanisms.

If padlocks are fitted in the "I" position of the rotary operating mechanism, the mechanism cannot be actuated, the control cabinet door cannot be opened and the operating mechanism cannot be overridden in order to open the door.

3. If necessary the rotary operating mechanisms can also be locked in the 45°, 90°, 135° etc. as well as in the "0" position.

The measures listed under item 2 must be carried out by the user.

4. In the case of rotary operating mechanisms for switches without "0" position, such as stepping switches without "0" position, the door interlocking plate is removed.

Door-Coupling Rotary Mechanisms

For switch disconnectors

Selection and ordering data

Switching device	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: handle, masking plate
Type	A	mm	Nm	Size	
Switch disconnectors with or without fuses					
3KL50, 3KM50	63	6 × 6	3	1	
3KA50	63	6 × 6	3		
3KA51	80	6 × 6	3		
3KL52, 3KM52	125	8 × 8	7.5	2	
3KL53, 3KM53	160	8 × 8	7.5		
3KA53	160	8 × 8	7.5		
3KL55, 3KM55	250	10 × 10	16	3	
3KL57, 3KM57	400	10 × 10	16		
3KA55	250	10 × 10	16		
3KA57, 3KA58	400	10 × 10	16		
3KE42	250	12 × 12	15	3	
3KE43	400	12 × 12	15		
3KL61 ¹⁾	630	12 × 12	30	4	
3KE44	630	12 × 12	24		
3KE45	1000	12 × 12	24	4	
Switch disconnectors as changeover switches with break-before-make feature					
3KE42 (2 units)	250	12 × 12	20	5	
3KE43 (2 units)	400	12 × 12	20		
3KE44 (2 units)	630	12 × 12	30		
3KE45 (2 units)	1000	12 × 12	30		
Switch disconnectors as changeover switches ²⁾ without break-before-make feature					
3KE42 (2 units)	250	12 × 12	40	5	
3KE43 (2 units)	400	12 × 12	40		
3KE44 (2 units)	630	12 × 12	55		
3KE45 (2 units)	1000	12 × 12	55		
Switch disconnectors with operating linkage (for parallel connection)					
3KE42 (2 units)	250	12 × 12	40	5	
3KE43 (2 units)	400	12 × 12	40		
3KE44 (2 units)	630	12 × 12	55		
3KE45 (2 units)	1000	12 × 12	55		

1) Additionally required for 3KL61: 1 shaft coupling, Order No. **8UC92 53**
(see Page 8/37).

2) The door interlocking plate must be removed.

3) With shortened 8UC60 16/8UC60 17 coupling driver and reduced tolerance compensation.

Door-Coupling Rotary Mechanisms

For switch disconnectors

Door-coupling rotary mechanisms, complete

can be padlocked, with door interlocking

Supplied with gasket and fixing screws

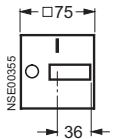
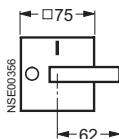
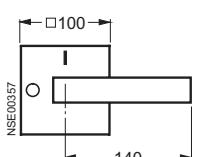
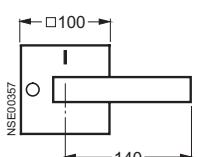
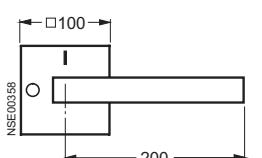
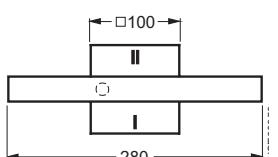
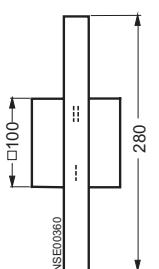
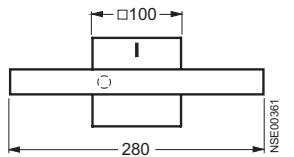
Black handle, light-gray masking plate with black inscription

DT	Rotary operating mechanism, complete Order No.	PS* kg	Weight per PU approx.	Components of the 8UC6 rotary operating mechanism	Order No.
► 3) B	8UC61 11-1BB10	1 unit	0.347	Handle with masking plate	8UC61 10-1BB
	8UC61 61-1BB10	1 unit	0.300	Coupling driver for shaft □ 6 mm Extension shaft □ 6 mm, 300 mm long	8UC60 11 8UC60 16 8UC60 31
► 3) B	8UC62 12-1BB20	1 unit	0.404	Handle with masking plate	8UC62 10-1BB
	8UC62 62-1BB20	1 unit	0.370	Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long	8UC60 12 8UC60 17 8UC60 32
►	8UC63 13-1BB30	1 unit	0.973	Handle with masking plate Coupling driver for shaft □ 10 mm Extension shaft □ 10 mm, 300 mm long	8UC63 10-1BB 8UC60 13 8UC60 33
B	8UC63 14-1BB44	1 unit	1.150	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 10-1BB 8UC60 14 8UC60 34 8UC60 24
►	8UC64 14-1BB44	1 unit	1.170	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC64 10-1BB 8UC60 14 8UC60 34 8UC60 24
B	8UC65 14-1BF44	1 unit	1.180	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 10-1BF 8UC60 14 8UC60 34 8UC60 24
B	8UC65 14-1FG44	1 unit	1.130	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 10-1FG 8UC60 14 8UC60 34 8UC60 24
B	8UC65 14-1BB44	1 unit	1.260	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 10-1BB 8UC60 14 8UC60 34 8UC60 24

* This quantity or a multiple thereof can be ordered.

Door-Coupling Rotary Mechanisms

For switch disconnectors

Switching device	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: handle, masking plate
Type	A	mm 	Nm	Size	
Switch disconnectors with or without fuses					
3KL50, 3KM50	63	6 × 6	3	1	
3KA50	63	6 × 6	3		
3KA51	80	6 × 6	3		
3KL52, 3KM52	125	8 × 8	7.5	2	
3KL53, 3KM53	160	8 × 8	7.5		
3KA53	160	8 × 8	7.5		
3KL55, 3KM55	250	10 × 10	16	3	
3KL57, 3KM57	400	10 × 10	16		
3KA55	250	10 × 10	16		
3KA57, 3KA58	400	10 × 10	16		
3KE42	250	12 × 12	15	3	
3KE43	400	12 × 12	15		
3KL61 ¹⁾	630	12 × 12	30	4	
3KE44	630	12 × 12	24		
3KE45	1000	12 × 12	24	4	
Switch disconnectors as changeover switches with break-before-make feature					
3KE42 (2 units)	250	12 × 12	20	5	
3KE43 (2 units)	400	12 × 12	20		
3KE44 (2 units)	630	12 × 12	30		
3KE45 (2 units)	1000	12 × 12	30		
Switch disconnectors as changeover switches ²⁾ without break-before-make feature					
3KE42 (2 units)	250	12 × 12	40	5	
3KE43 (2 units)	400	12 × 12	40		
3KE44 (2 units)	630	12 × 12	55		
3KE45 (2 units)	1000	12 × 12	55		
Switch disconnectors with operating linkage (for parallel connection)					
3KE42 (2 units)	250	12 × 12	40	5	
3KE43 (2 units)	400	12 × 12	40		
3KE44 (2 units)	630	12 × 12	55		
3KE45 (2 units)	1000	12 × 12	55		

1) Additionally required for 3KL61: 1 shaft coupling, Order No. **8UC92 53**
(see Page 8/37).

2) The door interlocking plate must be removed.

Door-Coupling Rotary Mechanisms

For switch disconnectors

EMERGENCY-STOP door-coupling rotary mechanisms, complete
can be padlocked, with door interlocking

Supplied with gasket and fixing screws
Red handle, yellow indicator plate with black inscription

DT	Rotary operating mechanism, complete Order No.	PS*	Weight per PU approx. kg	Components of the 8UC6 rotary operating mechanism	Order No.
►	8UC61 21–3BB10	1 unit	0.353	Handle with masking plate Coupling driver for shaft □ 6 mm Extension shaft □ 6 mm, 300 mm long	8UC61 20–3BB 8UC60 11 8UC60 31
►	8UC62 22–3BB20	1 unit	0.426	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long	8UC62 20–3BB 8UC60 12 8UC60 32
►	8UC63 23–3BB30	1 unit	0.999	Handle with masking plate Coupling driver for shaft □ 10 mm Extension shaft □ 10 mm, 300 mm long	8UC63 20–3BB 8UC60 13 8UC60 33
►	8UC63 24–3BB44	1 unit	1.170	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 20–3BB 8UC60 14 8UC60 34 8UC60 24
►	8UC64 24–3BB44	1 unit	1.180	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC64 20–3BB 8UC60 14 8UC60 34 8UC60 24
—	—	—	—	—	—
—	—	—	—	—	—
B	8UC65 24–3BB44	1 unit	1.220	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 20–3BB 8UC60 14 8UC60 34 8UC60 24

Door-Coupling Rotary Mechanisms

For circuit-breakers

Selection and ordering data

Switching device	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: handle, masking plate
Type	A	mm	Nm	Size	
3VF and 3VL circuit-breakers ²⁾					
3VF1	63/80	6 × 6	0.8	1	
3VF3	16 ... 225	8 × 8	2	2	
3VF4	125 ... 250	8 × 8	6		
3VF5	200 ... 400	8 × 8	6		
3VL1	16 ... 160	8 × 8	³⁾	2	
3VL2	50 ... 160	8 × 8			
3VL3	200 ... 250	8 × 8			
3VF6	315 ... 800	12 × 12	16	3	
3VL4	200 ... 400	12 × 12	³⁾	3	
3VL5	315 ... 600	12 × 12			
3VL6	320 ... 800	12 × 12			
3VL7	400 ... 1250	12 × 12			
3VL8	640 ... 1600	12 × 12			
3VF7	800 ... 1250	12 × 12	25	5	
3VF8	1600 ... 2500	12 × 12	50		

1) For 3RV circuit-breakers see Catalog LV 10.

2) 3VF and 3VL circuit-breakers require in addition a front-operated rotary operating mechanism with shaft butt for direct mounting to the switch.
For details of ordering the complete operating mechanism, see "Molded-case circuit-breakers (MCCB)".

3) On request.

Door-Coupling Rotary Mechanisms

For circuit-breakers

Door-coupling rotary mechanisms, complete

can be padlocked, with door interlocking

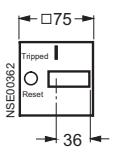
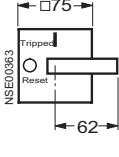
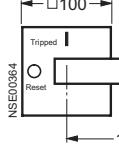
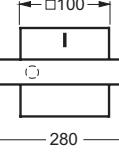
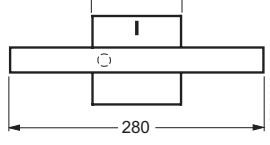
Supplied with gasket and fixing screws

Black handle, light-gray masking plate with black inscription

DT	Rotary operating mechanism, complete Order No.	PS*	Weight per PU approx. kg	Components of the 8UC6 rotary operating mechanism	Order No.
2) B	8UC61 12–1BD22	1 unit	0.417	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Shaft coupling □ 8 mm to □ 8 mm	8UC61 10–1BD ²⁾ 8UC60 12 8UC60 32 8UC60 22
2) B	8UC62 12–1BD22	1 unit	0.440	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Shaft coupling □ 8 mm to □ 8 mm	8UC62 10–1BD ²⁾ 8UC60 12 8UC60 32 8UC60 22
A	8UC62 62–6BD22	1 unit	0.406	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Shaft coupling □ 8 mm to □ 8 mm	8UC62 10–6BD ²⁾ 8UC60 17–2AA 8UC60 32 8UC60 22
2) B	8UC63 14–1BD44	1 unit	1.150	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 10–1BD ²⁾ 8UC60 14 8UC60 34 8UC60 24
A	8UC63 14–6BD44	1 unit	1.150	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 10–6BD ²⁾ 8UC60 14 8UC60 34 8UC60 24
1) B	8UC65 14–1BB44	1 unit	1.260	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 10–1BB ²⁾ 8UC60 14 8UC60 34 8UC60 24

Door-Coupling Rotary Mechanisms

For circuit-breakers

Switching device	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: handle, masking plate
Type	A	mm 	Nm	Size	
3VF and 3VL circuit-breakers ²⁾					
3VF1	63/80	6 × 6	0.8	1	 NSE00362
3VF3	16 ... 225	8 × 8	2	2	 NSE00363
3VF4	125 ... 250	8 × 8	6		
3VF5	200 ... 400	8 × 8	6		
3VL1	16 ... 160	8 × 8	³⁾	2	 NSE00364
3VL2	50 ... 160	8 × 8			
3VL3	200 ... 250	8 × 8			
3VF6	315 ... 800	12 × 12	16	3	 NSE00365
3VL4	200 ... 400	12 × 12	³⁾	3	
3VL5	315 ... 600	12 × 12			
3VL6	320 ... 800	12 × 12			
3VL7	400 ... 1250	12 × 12			
3VL8	640 ... 1600	12 × 12			
3VF7	800 ... 1250	12 × 12	25	5	 NSE00361
3VF8	1600 ... 2500	12 × 12	50		

1) For 3RV circuit-breakers see Catalog LV 10.

2) 3VF and 3VL circuit-breakers require in addition a front-operated rotary operating mechanism with shaft butt for direct mounting to the switch. For details of ordering the complete operating mechanism, see "Molded-case circuit-breakers (MCCB)".

3) On request.

Door-Coupling Rotary Mechanisms

For circuit-breakers

EMERGENCY-STOP door-coupling rotary mechanisms, complete
can be padlocked, with door interlocking

Supplied with gasket and fixing screws
Red handle, yellow indicator plate with black inscription

DT	Rotary operating mechanism, complete Order No.	PS*	Weight per PU approx. kg	Components of the 8UC6 rotary operating mechanism	Order No.
2) B	8UC61 22-3BD22	1 unit	0.402	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Shaft coupling □ 8 mm to □ 8 mm	8UC61 20-3BD ²⁾ 8UC60 12 8UC60 32 8UC60 22
2) B	8UC62 22-3BD22	1 unit	0.445	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Shaft coupling □ 8 mm to □ 8 mm	8UC62 20-3BD ²⁾ 8UC60 12 8UC60 32 8UC60 22
A	8UC62 72-8BD22	1 unit	0.413	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Shaft coupling □ 8 mm to □ 8 mm	8UC62 20-8BD ²⁾ 8UC60 17-2AA 8UC60 32 8UC60 22
2) B	8UC63 24-3BD44	1 unit	1.172	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 20-3BD ²⁾ 8UC60 14 8UC60 34 8UC60 24
A	8UC63 24-8BD44	1 unit	1.160	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 20-8BD ²⁾ 8UC60 14 8UC60 34 8UC60 24
1) B	8UC65 24-3BB44	1 unit	1.221	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 20-3BB ²⁾ 8UC60 14 8UC60 34 8UC60 24

Door-Coupling Rotary Mechanisms

Individual parts

Selection and ordering data

Type	mm x mm	Cross-section of the actuating shaft	A: Indicator lgr Handle bl B: Indicator ye Handle rd	DT	Components for 8UC6 door-coupling rotary mechanisms	PS*	Weight per PU approx.
					Order No.	kg	
	6 x 6		A: exceptions B: A B	¹⁾ B ²⁾ B ¹⁾ B ²⁾ B	8UC61 10-□□□ 8UC61 10-1BB 8UC61 10-1BD 8UC61 20-□□□ 8UC61 10-1ZZ JOY + KOY 8UC61 20-3ZZ JOY + KOY	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	0.190 0.189 0.189 0.190 0.190 0.190 0.190 0.190
	8 x 8		A: exceptions B: A B	¹⁾ B ²⁾ B ¹⁾ B ²⁾ B ²⁾ B	8UC62 10-□□□ 8UC62 10-1BB 8UC62 10-1BD 8UC62 20-□□□ 8UC62 10-1ZZ JOY + KOY 8UC62 20-3ZZ JOY + KOY	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	0.200 0.188 0.190 0.200 0.200 0.200 0.200 0.200
	10 x 10 or 12 x 12		A: exception B: A	¹⁾ B ¹⁾ B ²⁾ B	8UC63 10-□□□ 8UC63 10-1BB 8UC63 20-□□□ 8UC63 10-1ZZ JOY + KOY	1 unit 1 unit 1 unit 1 unit 1 unit	0.500 0.485 0.513 0.500 0.500
	12 x 12		A: exception B: A	¹⁾ B ¹⁾ B ²⁾ B	8UC64 10-□□□ 8UC64 10-1BB 8UC64 20-□□□ 8UC6410-1ZZ JOY + KOY	1 unit 1 unit 1 unit 1 unit	0.520 0.511 0.540 0.520
	12 x 12		A: B A	¹⁾ B ¹⁾ B ²⁾ B	8UC65 10-□□□ 8UC65 20-□□□ 8UC65 10-1ZZ JOY + KOY	1 unit 1 unit 1 unit	0.580 0.552 0.580
	12 x 12		A: A	¹⁾ B ²⁾ B	8UC66 10-□□□ 8UC66 10-1ZZ JOY + KOY	1 unit 1 unit	0.620 0.620

8

Order No. supplement

Version	Order No. supplement 8UC6 .0-□□□
Indicator plates/masking plates	
light gray with black font	
yellow with black font	
Operating angles	
180°	
90°	
30°	
Inscriptions	
according to symbol	
according to symbol with tripped position	



1) For complete Order No. see Pages 8/26 to 8/33.

2) When ordering, in addition to the Order No. with order codes "JOY" and "KOY" also specify the actuating angle and inscription in plain text. Furthermore, please add sketch.

Door-Coupling Rotary Mechanisms

Individual parts

Type	Cross-section of the actuating shaft mm × mm	DT	Components for 8UC6 door-coupling rotary mechanisms		PS*	Weight per PU approx. kg
			Order No.			
Coupling drivers						
8UC61	6 × 6	B	8UC60 11		1 unit	0.078
8UC62	8 × 8	B	8UC60 12		1 unit	0.075
8UC62 ²⁾	8 × 8	A	8UC60 17		1 unit	0.043
8UC62 ³⁾	8 × 8	A	8UC60 17–2AA		1 unit	0.050
8UC63	10 × 10	B	8UC60 13		1 unit	0.251
8UC63 ... 8UC66	12 × 12	B	8UC60 14		1 unit	0.253
Extension shafts 300 mm long						
8UC61	6 × 6	B	8UC60 31		1 unit	0.068
8UC62	8 × 8	B	8UC60 32		1 unit	0.132
8UC63	10 × 10	C	8UC60 33		1 unit	0.217
8UC63 ... 8UC65	12 × 12	B	8UC60 34		1 unit	0.315
8UC66	12 × 12	4) B	8UC60 35		1 unit	0.323
Extension shafts 600 mm long						
8UC61	6 × 6	B	8UC60 81		1 unit	0.136
8UC62	8 × 8	B	8UC60 82		1 unit	0.265
8UC63	10 × 10	B	8UC60 83		1 unit	0.430
8UC63 ... 8UC65	12 × 12	B	8UC60 84		1 unit	0.640
Shaft couplings						
8UC61	6 × 6	B	8UC60 21		1 unit	0.031
8UC62	8 × 8	B	8UC60 22		1 unit	0.023
8UC63	10 × 10	B	8UC60 23		1 unit	0.085
8UC63 ... 8UC66	12 × 12	B	8UC60 24		1 unit	0.077
8UC64 (3KL61)	12 × 12	►	8UC92 53		1 unit	0.115
Adjustment template for all 8UC6 operating mechanisms						
		B	8UC60 46		1 unit	0.085

1) Non-interchangeability features.

2) Shortened coupling driver with reduced tolerance compensation.

3) Shortened coupling driver with reduced tolerance compensation
for 3VL1 to 3VL3.

4) Hardened.

Door-Coupling Rotary Mechanisms

Operating mechanisms with special inscription

Selection and ordering data

Size	Cross-sec-tion of the actuating shaft mm x mm	Masking plate mm x mm	Torque Nm	DT	8UC6 door-coupling rotary mechanisms, complete Order No.	PS*	Weight per PU approx. kg	Components of the rotary operating mechanism		Type (for complete ordering details see Page 8/37)
1	6 x 6	75 x 75	4	1) B	8UC61 11-1ZZ11 JOY + KOY		1 unit	0.570	Handle with masking plate Coupling driver for shaft □ 6 mm Extension shaft □ 6 mm, 300 mm long	8UC61 10-1ZZ
2	8 x 8	75 x 75	7.5	1) B	8UC62 12-1ZZ22 JOY + KOY		1 unit	0.630	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Shaft coupling □ 8 mm to □ 8 mm	8UC62 10-1ZZ
3	10 x 10	100 x 100	16	1) B	8UC63 13-1ZZ33 JOY + KOY		1 unit	1.030	Handle with masking plate Coupling driver for shaft □ 10 mm Extension shaft □ 10 mm, 300 mm long Shaft coupling □ 10 mm to □ 10 mm	8UC63 10-1ZZ
3	12 x 12	100 x 100	16	1) B	8UC63 14-1ZZ44 JOY + KOY		1 unit	1.210	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 10-1ZZ
4	12 x 12	100 x 100	30	1) B	8UC64 14-1ZZ44 JOY + KOY		1 unit	1.220	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC64 10-1ZZ
5	12 x 12	100 x 100	55	1) B	8UC65 14-1ZZ44 JOY + KOY		1 unit	1.250	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 10-1ZZ
6	12 x 12	100 x 100	100	1) B	8UC66 14-1ZZ54 JOY + KOY		1 unit	1.450	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long, hardened Shaft coupling □ 12 mm to □ 12 mm	8UC66 10-1ZZ

1) When ordering, in addition to the Order No. with order codes "**JOY**" and "**KOY**" also specify the actuating angle and slide inscription in plain text. Furthermore, please add sketch.

Door-Coupling Rotary Mechanisms

Operating mechanisms for fixed mounting

Selection and ordering data

For switch disconnectors

Switching device	Cross-section of the actuating shaft	Torque of the operating mechanism ¹⁾	Operating mechanism	Color of handle	DT	Operating mechanism for fixed mounting	PS*	Weight per PU approx.
Type	mm x mm	Nm	Size	Order No.	kg	1 unit	0.031	
3KA50, 3KA51, 3KL50, 3KM50	6 x 6	4	1	black 2) ²⁾ B	8UC93 54	1 unit	0.031	
3KA53, 3KL52, 3KM52, 3KL53, 3KM53	8 x 8	7.5	2	black red B	8UC93 62 8UC93 63	1 unit	0.041	
3KL55, 3KM55, 3KL57, 3KM57	10 x 10	16	3	black B	8UC93 65	1 unit	0.138	
3KA55, 3KA57, 3KA58	12 x 12	16	3	red B	8UC93 66	1 unit	0.160	
3KE42, 3KE43	12 x 12	16	3	red B	8UC93 70	1 unit	0.128	
3KE44, 3KE43	12 x 12	30	4	black B	8UC93 74	1 unit	0.145	
3KL61	12 x 12	55	5	red B	8UC93 75	1 unit	0.165	
				black C	8UC93 81	1 unit	0.264	
				red B	8UC93 82	1 unit	0.273	

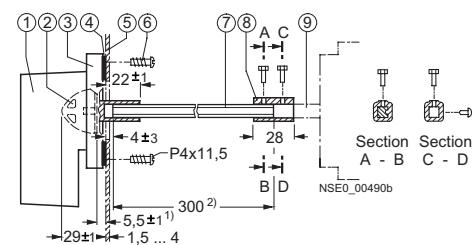
1) Operating mechanisms tested with triple torque (DIN VDE 0660 Part 107). They are therefore qualified for use in all switching devices, especially for disconnectors.

2) Red handle available on request.

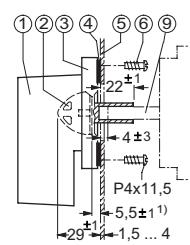
3) Also required: **3KX2 210-0H** coupling socket.

Dimension drawings

8UC61 and 8UC62 door-coupling rotary mechanisms, sizes 1 and 2



with extension shaft

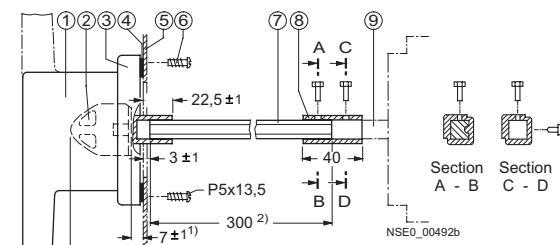


without extension shaft

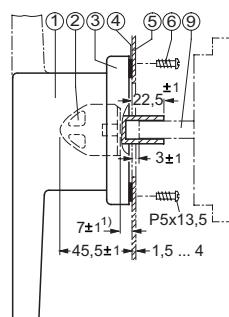
- ① Knob
- ② Coupling driver
- ③ Masking plate
- ④ Gasket
- ⑤ Door
- ⑥ Fixing screw, 4 units
- ⑦ Extension shaft
- ⑧ Shaft coupling
- ⑨ Operating shaft of the controlgear

Door cutout with fastening holes

8UC63 to 8UC66 door-coupling rotary mechanisms, sizes 3 to 6



with extension shaft



without extension shaft

- ① Handle or twin handle
- ② Coupling driver
- ③ Masking plate
- ④ Gasket
- ⑤ Door
- ⑥ Fixing screws, 4 units
- ⑦ Extension shaft
- ⑧ Shaft coupling
- ⑨ Operating shaft of the controlgear

Door cutout with fastening holes

1) Adjustable by means of the adjustment template.

2) Length of extension shaft can be cut to fit mounting depth. Extension shaft also available in 600 mm length.

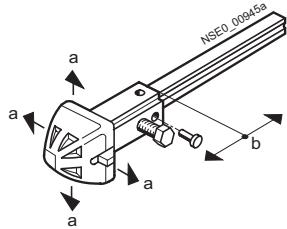
Door-Coupling Rotary Mechanisms

Project planning aids

Dimension drawings

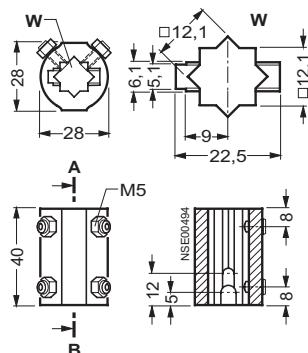
Door-coupling rotary mechanisms

8UC60 coupling driver

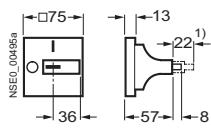


Coupling driver	a	b	Shaft length
with tolerance compensation	+5	± 5	x
without tolerance compensation	+1.5	± 2.5	x+23.5

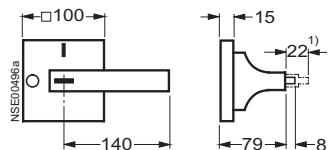
8UC92 53 shaft coupling



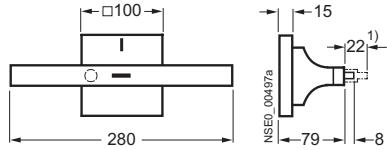
Size 1



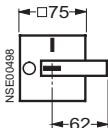
Size 3



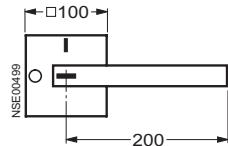
Size 5



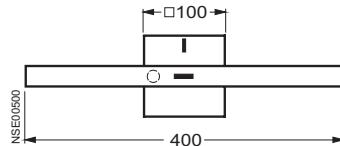
Size 2



Size 4



Size 6

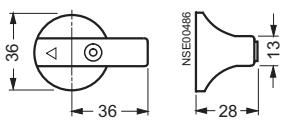


Handles with masking plate, sizes 1 to 6

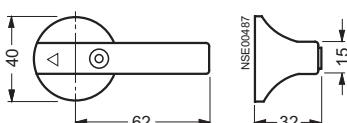
1) Padlock feature of handle pulled out.

Operating mechanism for fixed mounting

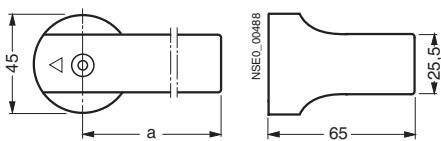
8UC93 54 operating mechanisms for fixed mounting, size 1



8UC93 60 to 8UC93 63 operating mechanisms for fixed mounting, size 2

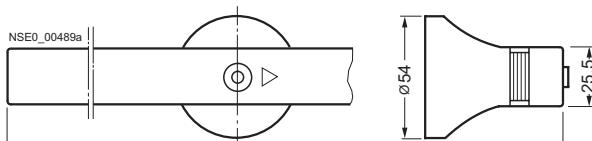


8UC93 65 to 8UC93 75 operating mechanisms for fixed mounting, sizes 3 and 4



Size	Shape	a
3		140
4		200

8UC93 81 to 8UC93 82 operating mechanisms for fixed mounting, size 5



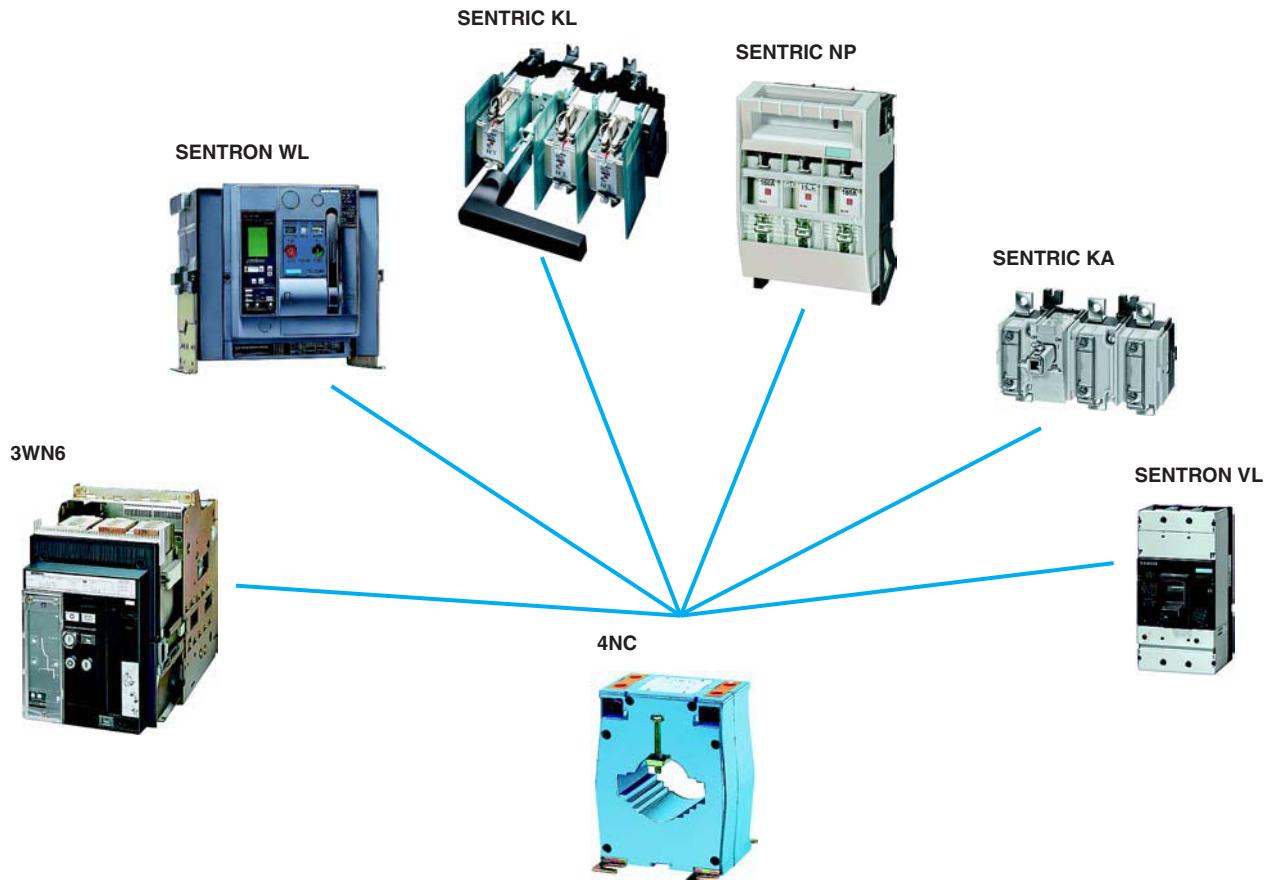
Size	Shape	a
5		280

Current Transformers for Measurement Purposes

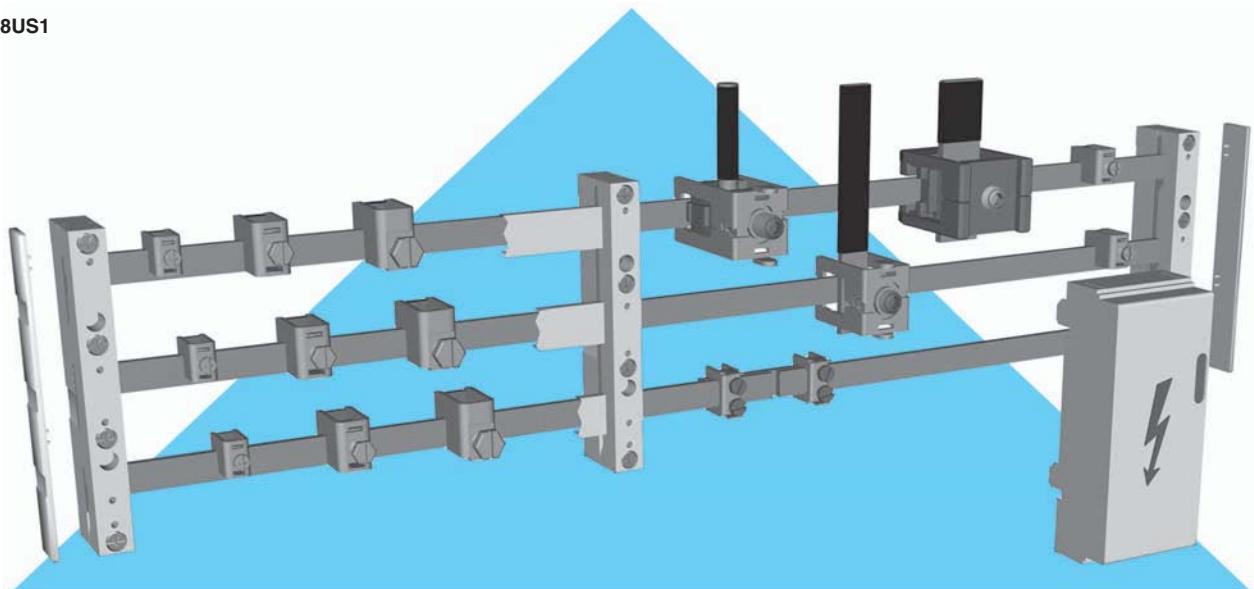
General data

Overview

Our current transformers fit!



8US1



Current Transformers for Measurement Purposes

General data

General criteria for the selection of current transformers for measurement purposes

Standards	IEC 60185, DIN VDE 0414 Parts 1 and 2		
Window-type current transformers	<p>The conductor to be measured (busbar or wire) is passed through the window opening and creates the primary circuit of the window-type current transformer.</p> <p>Pin-wound transformer: An economical solution especially for small primary currents of 5 A to 75 A is achieved when the conductor to be measured is pin-wound several times.</p>		
Rated primary current I_{pn}	Current transformers can be continuously loaded with 1.3 times the primary rated current (I_{pn}).		
Rated secondary current I_{sn}	1 A Particularly suitable for longer measuring leads. Cable losses of only 4% in contrast to 5 A current transformers.	5 A 5 A current transformers create 25 times the power losses on measurement leads as compared with 1 A current transformers. These stray losses result in higher power in the case of long leads. Only recommended for use with short measurement leads.	
Accuracy class	<p>Class 1 Operation measurement, internal metering Current error $\pm 1\%$ at $1 \times I_{pn}$ and $1.2 \times I_{pn}$</p> <p>Class 3 Coarse measurement Current error $\pm 3\%$ at $0.5 \times I_{pn}$ and $1.2 \times I_{pn}$</p>		
Rated output power P_n	<p>The rated output power of transformers is specified in VA. The actual load should be similar to the rated output power; a lower actual load (underburden) increases the overcurrent factor and measuring instruments may be damaged in case of a short-circuit; a higher actual load (overburden) has a negative effect on the accuracy.</p> <p>With a frequency of 60 Hz the rated output power increases to 1.2 times. With $16^{2/3}$ Hz the output power decreases to $1/3$ of the rated output power.</p>		
Maximum voltage for equipment U_m	<p>This is the rms value of the maximum voltage between the conductors of a system. For this voltage the insulation must be rated at normal operating conditions.</p> <p>The 4NC3 and 4NC5 current transformers are suitable for 720 V.</p>		
Rated overcurrent factor FS	<p>The overcurrent limiting factor is expressed using the letters FS and a factor, e.g. FS5 or FS10.</p> <p>When a short-circuit current flows through the primary winding of a current transformer, the load on the measuring instruments connected to the current transformer is the lower the smaller the current factor is.</p>		
Rated short-time thermal current I_{th}	The rated short-time thermal current I_{th} is the rms value of the primary current with a duration of one second, whose heat effect the current transformer can resist without being damaged in the event of a short-circuited secondary winding.		
Rated impulse current I_{dyn}	<p>The rated impulse current I_{dyn} is the highest instantaneous value of the current after a short-circuit whose force the current transformer can resist without being damaged.</p> <p>The rated impulse current is specified as peak value.</p>		

Standards	IEC 60185, DIN VDE 0414 Parts 1 and 2
Rated primary current I_{pn}	50 A ... 4000 A For use as pin-wound transformer for low currents from 5 A to 75 A.
Rated secondary current I_{sn}	1 A or 5 A
Maximum voltage for equipment U_m	720 V
Frequency	50 Hz up to 60 Hz
Rated overcurrent factor FS	FS5 (DIN VDE/IEC)
Max. continuous current	$1.2 \times I_{pn}$
Rated short-time thermal current I_{th}	$60 \times I_{pn}$
Rated impulse current I_{dyn}	$2.5 \times I_{th}$ or $150 \times I_{pn}$
Accuracy class	1 (3)

Ambient temperature	+55 °C at $1.0 \times I_{pn}$ +40 °C at $1.2 \times I_{pn}$ -10 °C minimum
Max. busbar temperature	+120 °C
Insulation class	E (max. 120 °C continuously)
Insulation	Thermoplastic enclosure, halogen-free
Test voltage	AC 3 kV
Secondary terminals	4NC5: double terminal using M 4 captive screws, finger-safe to DIN VDE 0106 Part 100 4NC3 solid 4NC5 two-wire $2 \times (2.5 \text{ mm}^2)$ $2 \times (2.5 \text{ mm}^2 \dots 6 \text{ mm}^2)$ $2 \times (1.5 \text{ mm}^2 \dots 4 \text{ mm}^2)$ $2 \times (1.5 \text{ mm}^2 \dots 4 \text{ mm}^2)$
Terminals have the same polarity	primary \rightarrow secondary K/P1 \rightarrow k/S1 (DIN VDE/IEC) L/P2 \rightarrow l/S2 (DIN VDE/IEC)
Mounting	4NC3 and 4NC5: Alternatively, busbar or foot mounting 4NC30, 4NC31, 4NC36 to 4NC38: using accessories 4NX3120 can be snapped onto 35 mm standard mounting rail

Current Transformers for Measurement Purposes

Classes 1 and 3, from 50 A to 1500 A

Selection and ordering data

Rated primary current I_{pn}	Power P_n	DT	4NC5 current transformers Rated secondary current 1 A	PS*	Weight per PU approx.	DT	4NC5 current transformers Rated secondary current 5 A	PS*	Weight per PU approx.
A	VA		Order No.		kg		Order No.		kg
For circular conductors with max. diameter 17.5 mm for busbars up to max. — 12 mm × 10 mm									
50	2.5	A	4NC51 12–0BC20 4NC51 13–0BC20 4NC51 15–0BC20	1 unit	0.428 A	4NC51 12–2BC20 4NC51 13–2BC20 4NC51 15–2BC20	1 unit	0.426	
60	2.5	A		1 unit	0.432 A		1 unit	0.430	
75	2.5	A		1 unit	0.425 A		1 unit	0.431	
Class 3									
For circular conductors with max. diameter 17.5 mm for busbars up to max. — 12 mm × 10 mm									
100	2.5	A	4NC51 17–0CC20 4NC51 21–0CC20	1 unit	0.335 A	4NC51 17–2CC20 4NC51 21–2CC20	1 unit	0.340	
150	2.5	A		1 unit	0.327 A		1 unit	0.327	
200	5	A	4NC51 22–0CE20 4NC51 23–0CE20	1 unit	0.356 A	4NC51 22–2CE20 4NC51 23–2CE20	1 unit	0.339	
250	5	A		1 unit	0.352 A		1 unit	0.345	
Class 1									
For circular conductors with max. diameter 28 mm for busbars up to max. — 30 mm × 10 mm — 25 mm × 5 mm									
200	5	A	4NC52 22–0CE20 4NC52 23–0CE20 4NC52 24–0CE20 4NC52 25–0CE20	1 unit	0.464 A	4NC52 22–2CE20 4NC52 23–2CE20 4NC52 24–2CE20 4NC52 25–2CE20	1 unit	0.467	
250	5	A		1 unit	0.477 A		1 unit	0.474	
300	5	A		1 unit	0.363 A		1 unit	0.356	
400	5	A		1 unit	0.373 A		1 unit	0.379	
Class 1									
For circular conductors with max. diameter 36 mm for busbars up to max. — 50 mm × 10 mm — 40 mm × 5 mm									
400	5	A	4NC53 25–0CE20 4NC53 26–0CE20 4NC53 27–0CE20 4NC53 28–0CE20	1 unit	0.469 A	4NC53 25–2CE20 4NC53 26–2CE20 4NC53 27–2CE20 4NC53 28–2CE20	1 unit	0.452	
500	5	A		1 unit	0.410 A		1 unit	0.406	
600	5	A		1 unit	0.424 A		1 unit	0.425	
750	5	A		1 unit	0.391 A		1 unit	0.379	
Class 1									
For circular conductors with max. diameter 45 mm for busbars up to max. — 60 mm × 10 mm — 60 mm × 10 mm — 60 mm × 5 mm									
1000	10	A	4NC54 31–0CH20 4NC54 33–0CH20 4NC54 34–0CH20	1 unit	0.644 A	4NC54 31–2CH20 4NC54 33–2CH20 4NC54 34–2CH20	1 unit	0.660	
1250	10	A		1 unit	0.667 A		1 unit	0.631	
1500	10	A		1 unit	0.713 A		1 unit	0.669	

* This quantity or a multiple thereof can be ordered.

Current Transformers for Measurement Purposes

Class 1, from 50 A to 4000 A

Selection and ordering data

Rated primary current I_{pn}	Power P_n	DT	4NC3 current transformers Rated secondary current 1 A	PS*	Weight per PU approx.	DT	4NC3 current transformers Rated secondary current 5 A	PS*	Weight per PU approx.
A	VA		Order No.		kg		Order No.		kg
For circular conductors with max. diameter 20 mm									
	50	1	A	4NC39 12-0CA03	1 unit	0.162 A	4NC39 12-2CA03	1 unit	0.164
	60	1	A	4NC39 13-0CA03	1 unit	0.164 A	4NC39 13-2CA03	1 unit	0.160
	75	1.5	A	4NC39 15-0CB03	1 unit	0.162 A	4NC39 15-2CB03	1 unit	0.165
	80	1.5	A	4NC39 16-0CB03	1 unit	0.160 A	4NC39 16-2CB03	1 unit	0.166
	100	2.5	A	4NC39 17-0CC03	1 unit	0.165 A	4NC39 17-2CC03	1 unit	0.165
	125	2.5	A	4NC39 20-0CC03	1 unit	0.167 A	4NC39 20-2CC03	1 unit	0.171
	150	2.5	A	4NC39 21-0CC03	1 unit	0.170 A	4NC39 21-2CC03	1 unit	0.177
	200	2.5	A	4NC39 22-0CC03	1 unit	0.174 A	4NC39 22-2CC03	1 unit	0.171
For circular conductors with max. diameter 20 mm for busbars up to max. — 20 mm × 10 mm									
	75	2.5	A	4NC36 15-0CC03	1 unit	0.414 A	4NC36 15-2CC03	1 unit	0.406
	100	5	A	4NC36 17-0CE03	1 unit	0.418 A	4NC36 17-2CE03	1 unit	0.416
	125	5	A	4NC36 20-0CE03	1 unit	0.403 A	4NC36 20-2CE03	1 unit	0.411
	150	5	A	4NC36 21-0CE03	1 unit	0.286 A	4NC36 21-2CE03	1 unit	0.415
	200	5	A	4NC36 22-0CE03	1 unit	0.283 A	4NC36 22-2CE03	1 unit	0.291
For circular conductors with max. diameter 22 mm									
	50	1	A	4NC30 12-0CA03	1 unit	0.378 A	4NC30 12-2CA03	1 unit	0.375
	75	2.5	A	4NC30 15-0CC03	1 unit	0.381 A	4NC30 15-2CC03	1 unit	0.375
	80	2.5	C	4NC30 16-0CC03	1 unit	0.378 C	4NC30 16-2CC03	1 unit	0.373
	100	2.5	A	4NC30 17-0CC03	1 unit	0.380 A	4NC30 17-2CC03	1 unit	0.377
	150	2.5	A	4NC30 21-0CC03	1 unit	0.295 C	4NC30 21-2CC03	1 unit	0.288
	200	2.5	A	4NC30 22-0CC03	1 unit	0.295 A	4NC30 22-2CC03	1 unit	0.294
	100	5	A	4NC30 17-0CE03	1 unit	0.378 A	4NC30 17-2CE03	1 unit	0.378
	150	5	A	4NC30 21-0CE03	1 unit	0.385 A	4NC30 21-2CE03	1 unit	0.387
	200	5	A	4NC30 22-0CE03	1 unit	0.490 A	4NC30 22-2CE03	1 unit	0.285
	250	5	A	4NC30 23-0CE03	1 unit	0.223 A	4NC30 23-2CE03	1 unit	0.302
	300	5	A	4NC30 24-0CE03	1 unit	0.228 A	4NC30 24-2CE03	1 unit	0.291
	400	5	A	4NC30 25-0CE03	1 unit	0.229 A	4NC30 25-2CE03	1 unit	0.314
	500	5	C	4NC30 26-0CE03	1 unit	0.246 C	4NC30 26-2CE03	1 unit	0.220
	250	10	C	4NC30 23-0CH03	1 unit	0.395 C	4NC30 23-2CH03	1 unit	0.305
For circular conductors with max. diameter 24 mm for busbars up to max. — 30 mm × 10 mm — 25 mm × 5 mm — 15 mm × 5 mm									
	150	2.5	A	4NC37 21-0CC03	1 unit	0.215 A	4NC37 21-2CC03	1 unit	0.212
	200	5	A	4NC37 22-0CE03	1 unit	0.206 A	4NC37 22-2CE03	1 unit	0.213
	250	5	A	4NC37 23-0CE03	1 unit	0.207 A	4NC37 23-2CE03	1 unit	0.212
	300	5	C	4NC37 24-0CE03	1 unit	0.195 A	4NC37 24-2CE03	1 unit	0.193
	400	5	A	4NC37 25-0CE03	1 unit	0.213 A	4NC37 25-2CE03	1 unit	0.189
	500	5	A	4NC37 26-0CE03	1 unit	0.200 A	4NC37 26-2CE03	1 unit	0.194
For circular conductors with max. diameter 28 mm for busbars up to max. — 30 mm × 10 mm									
	100	2.5	A	4NC38 17-0CC03	1 unit	0.284 A	4NC38 17-2CC03	1 unit	0.295
	150	2.5	C	4NC38 21-0CC03	1 unit	0.212 A	4NC38 21-2CC03	1 unit	0.297
	200	2.5	A	4NC38 22-0CC03	1 unit	0.220 C	4NC38 22-2CC03	1 unit	0.240
	250	2.5	A	4NC38 23-0CC03	1 unit	0.227 A	4NC38 23-2CC03	1 unit	0.220
	300	2.5	C	4NC38 24-0CC03	1 unit	0.235 C	4NC38 24-2CC03	1 unit	0.224
	400	2.5	A	4NC38 25-0CC03	1 unit	0.212 A	4NC38 25-2CC03	1 unit	0.205
	150	5	A	4NC38 21-0CE03	1 unit	0.300 A	4NC38 21-2CE03	1 unit	0.297
	200	5	C	4NC38 22-0CE03	1 unit	0.292 A	4NC38 22-2CE03	1 unit	0.292
	250	5	A	4NC38 23-0CE03	1 unit	0.253 A	4NC38 23-2CE03	1 unit	0.300
	300	5	C	4NC38 24-0CE03	1 unit	0.225 C	4NC38 24-2CE03	1 unit	0.224
	400	5	A	4NC38 25-0CE03	1 unit	0.235 A	4NC38 25-2CE03	1 unit	0.258
	500	5	A	4NC38 26-0CE03	1 unit	0.249 A	4NC38 26-2CE03	1 unit	0.238
	600	5	C	4NC38 27-0CE03	1 unit	0.256 A	4NC38 27-2CE03	1 unit	0.247
	750	5	A	4NC38 28-0CE03	1 unit	0.217 C	4NC38 28-2CE03	1 unit	0.240
	250	10	A	4NC38 23-0CH03	1 unit	0.305 C	4NC38 23-2CH03	1 unit	0.550
	300	10	C	4NC38 24-0CH03	1 unit	0.600 C	4NC38 24-2CH03	1 unit	0.297
	400	10	A	4NC38 25-0CH03	1 unit	0.320 A	4NC38 25-2CH03	1 unit	0.310
	500	10	A	4NC38 26-0CH03	1 unit	0.239 A	4NC38 26-2CH03	1 unit	0.234
	600	10	A	4NC38 27-0CH03	1 unit	0.251 C	4NC38 27-2CH03	1 unit	0.239

Current Transformers for Measurement Purposes

Class 1, from 50 A to 4000 A

Rated primary current I_{pn}	Power P_n	DT	4NC3 current transformers Rated secondary current 1 A	PS*	Weight per PU approx.	DT	4NC3 current transformers Rated secondary current 5 A	PS*	Weight per PU approx.
A	VA		Order No.		kg		Order No.		kg
For circular conductors with max. diameter 28 mm for busbars up to max. — 40 mm × 10 mm — 40 mm × 5 mm									
Class 1									
	200	5	A	4NC31 22–0CE03 4NC31 23–0CE03	1 unit	0.257 A	4NC31 22–2CE03 4NC31 23–2CE03	1 unit	0.244
	250	5	A		1 unit	0.234 A		1 unit	0.256
	300	7.5	A	4NC31 24–0CG03	1 unit	0.256 A	4NC31 24–2CG03	1 unit	0.250
	400	10	A	4NC31 25–0CH03	1 unit	0.257 A	4NC31 25–2CH03	1 unit	0.258
	500	10	A	4NC31 26–0CH03	1 unit	0.250 A	4NC31 26–2CH03	1 unit	0.229
	600	10	A	4NC31 27–0CH03	1 unit	0.241 A	4NC31 27–2CH03	1 unit	0.235
	750	10	A	4NC31 28–0CH03	1 unit	0.249 A	4NC31 28–2CH03	1 unit	0.244
	800	10	A	4NC31 30–0CH03	1 unit	0.257 A	4NC31 30–2CH03	1 unit	0.249
For circular conductors with max. diameter 30 mm for busbars up to max. — 60 mm × 10 mm — 60 mm × 10 mm — 60 mm × 5 mm									
Class 1									
	800	15	A	4NC33 30–0CK03 4NC33 31–0CK03 4NC33 32–0CK03	1 unit	0.388 A	4NC33 30–2CK03 4NC33 31–2CK03 4NC33 32–2CK03	1 unit	0.381
	1000	15	A		1 unit	0.402 A		1 unit	0.396
	1200	15	A	4NC33 33–0CK03	1 unit	0.389 A		1 unit	0.397
	1250	15	A	4NC33 33–0CK03	1 unit	0.413 A	4NC33 33–2CK03	1 unit	0.414
	1500	15	A	4NC33 34–0CK03	1 unit	0.430 A	4NC33 34–2CK03	1 unit	0.429
For circular conductors with max. diameter 45 mm for busbars up to max. — 60 mm × 10 mm — 50 mm × 10 mm — 50 mm × 5 mm									
Class 1									
	600	15	A	4NC32 27–0CK03	1 unit	0.327 A	4NC32 27–2CK03	1 unit	0.380
For circular conductors with max. diameter 84 mm for busbars up to max. — 100 mm × 10 mm — 100 mm × 10 mm — 100 mm × 5 mm									
Class 1									
	2000	15 30	A	4NC34 36–0CK03 — 4NC34 37–0CK03	1 unit	0.759 D	— 4NC34 36–2CN00 — 4NC34 37–2CN00	1 unit	0.780
	2500	15 30	A		1 unit	0.806 A		1 unit	0.793
For circular conductors with max. diameter 70 mm for busbars up to max. — 120 mm × 10 mm — 120 mm × 10 mm — 120 mm × 10 mm — 120 mm × 10 mm									
Class 1									
	2500	15	A	4NC35 37–0CK03 4NC35 38–0CK03 4NC35 40–0CK03	1 unit	1.150	— 4NC35 38–2CK03 —	1 unit	0.993
	3000	15	A		1 unit	1.290 A			
	4000	15	A		1 unit	1.550			
	3000	30	D	4NC35 38–0CN03	1 unit	1.160	—		

* This quantity or a multiple thereof can be ordered.

Current Transformers for Measurement Purposes

Accessories

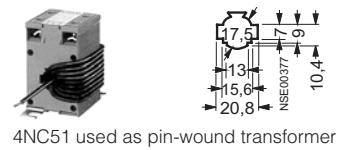
Selection and ordering data

	For current transformer	DT	Accessories	PS*	Weight per PU approx. kg
			Order No.		
Terminal cover for current transformer	4NC30, 31, 36, 38	A	4NX3 110	1 unit	0.006
	4NC32, 33	A	4NX3 210	1 unit	0.010
	4NC34, 35	A	4NX3 410	1 unit	0.011
	4NC37	C	4NX3 710	1 unit	0.007
Standard mounting rail fixing	4NC30, 31, 36, 37, 38	A	4NX3 120	1 unit	0.012
Primary conductor	4NC30	D	4NX3 034	1 set	0.240
	4NC31	C	4NX3 133	1 unit	0.430
	4NC36	C	4NX3 631	1 unit	0.218
	4NC37	C	4NX3 732	1 unit	0.298
	4NC39	D	4NX3 935	1 set	0.320

4NC51 window-type transformers, used as pin-wound transformers, Classes 1 and 3, from 5 A to 75 A

Pin-winding increases the primary current of the current transformer. Consequently, window-type transformers can also be used for low primary currents.

Basic type	4NC51 12	4NC51 13	4NC51 15	4NC51 17	4NC51 21	4NC51 22	4NC51 23		
	Rated primary current	A	50	60	75	100	150	200	250
Output power	VA	2.5	2.5	2.5	2.5	2.5	5	5	5
	Primary current to be measured	Number of required pin windings							



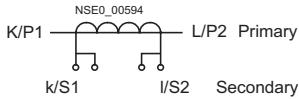
4NC51 used as pin-wound transformer

A	Class 3			Class 1		
	10	—	—	—	—	—
5	5	6	—	10	—	—
10	—	4	5	—	10	—
15	—	—	—	—	—	—
20	—	3	—	5	—	10
25	2	—	3	4	6	8
30	—	2	—	—	5	—
40	—	—	—	—	—	5
50	—	—	—	2	3	4
75	—	—	—	—	2	—

Project planning aids

Dimension drawings

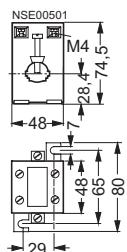
Connection designation to IEC 60185, DIN VDE 0414



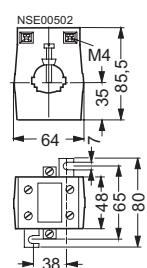
Current Transformers for Measurement Purposes

Project planning aids

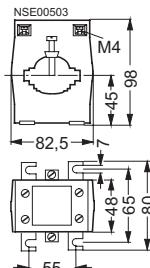
4NC51



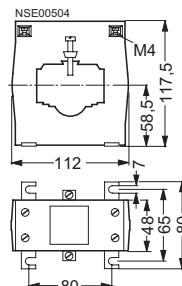
4NC52



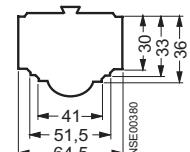
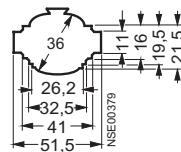
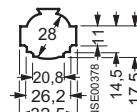
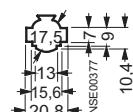
4NC53



4NC54



Window openings



– for busbars

Number 1

1 2

1 2

1 2 3

Width x thickness mm
12 x 5
12 x 10
20 x 5

20 x 5
20 x 10
25 x 5
30 x 5
30 x 10

25 x 5
30 x 5
30 x 10
40 x 5
40 x 10

40 x 10
40 x 5
40 x 10
50 x 5
50 x 10
60 x 5
60 x 10

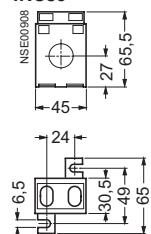
– for circular conductors max. mm 17.5 Ø

28 Ø

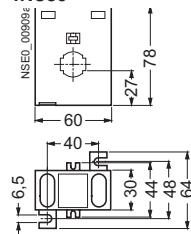
36 Ø

45 Ø

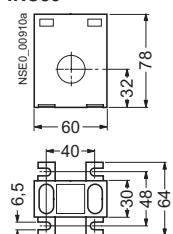
4NC39



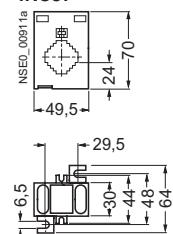
4NC36



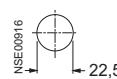
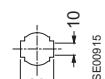
4NC30



4NC37



Window openings



– for busbars

Number

1

1 2 3

Width x thickness mm
20 x 5
20 x 10

20 x 5
20 x 10

10 x 5 10 x 5 10 x 5
10 x 10 10 x 10 10 x 10
15 x 5 15 x 5 15 x 5
15 x 10 20 x 5 20 x 5
20 x 5 20 x 10 20 x 10
25 x 5 25 x 5 25 x 5
25 x 10 30 x 5 30 x 5
30 x 5 30 x 10 30 x 10

– for circular conductors max. mm 20 Ø

20 Ø

22 Ø

24 Ø

Current Transformers for Measurement Purposes

Project planning aids

	4NC38	4NC31	4NC33	4NC32
Window openings				
- for busbars	Number 1	1	1	1
Width x thickness mm	30 x 5 30 x 10	40 x 5 40 x 10	60 x 5 60 x 10 60 x 10	60 x 5 60 x 10 50 x 5 50 x 10
- for circular conductors	max. mm 28 Ø	28 Ø	2 x 30 Ø	45 Ø

	4NC35 4	4NC34	4NC35 3
Window openings			
- for busbars	Number 1 2 3 4	1 2 3	1 2 3 4
Width x thickness mm	80 x 5 100 x 5 100 x 5 100 x 5 80 x 10 100 x 10 100 x 10 100 x 10 100 x 5 120 x 5 120 x 5 120 x 5 100 x 10 120 x 10 120 x 10 120 x 10 120 x 5 120 x 5 120 x 5 120 x 5 120 x 10 120 x 10 120 x 10 120 x 10	80 x 5 80 x 5 80 x 10 80 x 10 100 x 5 100 x 5 100 x 10 100 x 10	80 x 5 100 x 5 100 x 5 100 x 5 80 x 10 100 x 10 100 x 10 100 x 10 100 x 5 120 x 5 120 x 5 120 x 5 100 x 10 120 x 10 120 x 10 120 x 10 120 x 5 120 x 5 120 x 5 120 x 5 120 x 10 120 x 10 120 x 10 120 x 10
- for circular conductors	max. mm 70 Ø	84 Ø	98 Ø