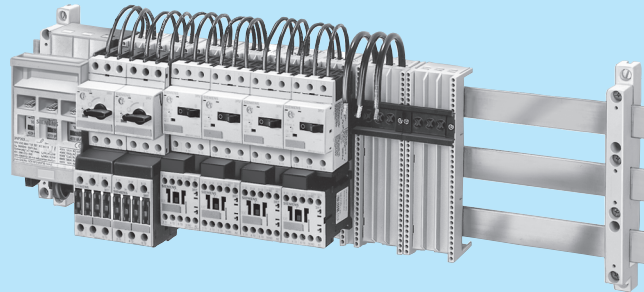


Contents

8US and Fast Bus busbar adapter system

8US1



60 mm system

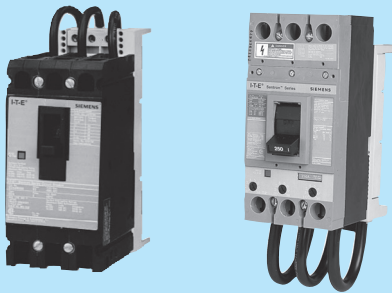
Page

Selection and ordering data

• Busbar holders	5/7
• Fast Bus adapter shoes	5/7, 5/9, 5/10
• Incoming supply terminals	5/6, 5/8
• Copper busbar	5/7, 5/10
• Busbar covers	5/8–12
• Other accessories	5/2
	5/3–5
	5/13–27

Overview	5/2
Introduction	5/3
Technical data	5/3
Dimension drawings	5/13

FBCB Fast Bus circuit breakers



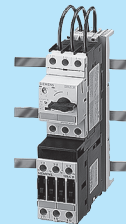
FBCB Fast Bus main and feeder circuit breakers

Page

Selection and ordering data

• Fast Bus circuit breakers	5/7
• Fast Bus adapter shoes	5/6, 5/8

3RA1 Fast Bus combination starters



3RA1 Fast Bus combination starters

Selection and ordering data

- See section 4

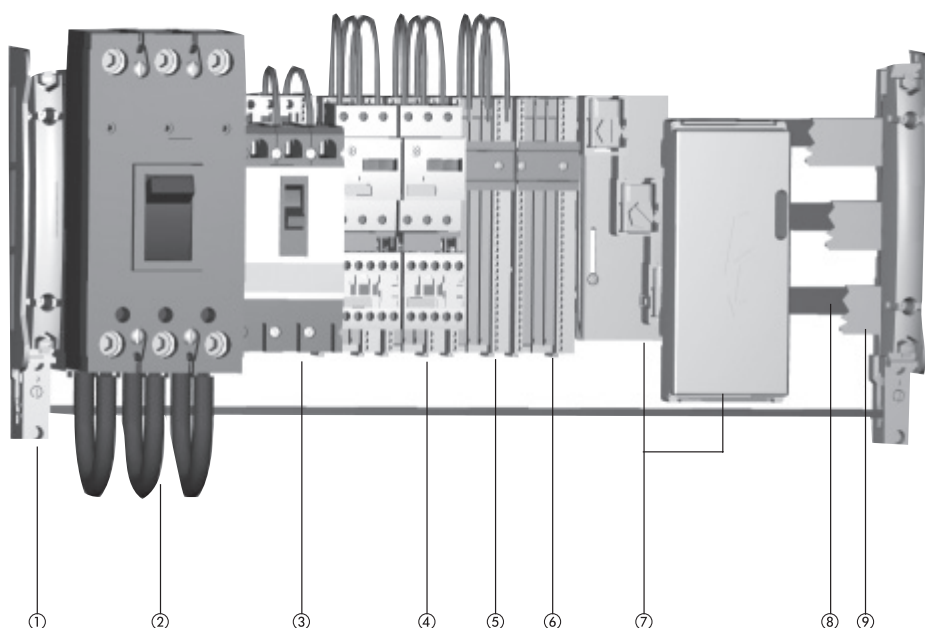
Fast Bus

8US and Fast Bus Busbar Adapter System

Overview

Busbar adapter systems

Busbar adapter systems
with busbar centerline spacing of 40 mm or 60 mm,



60 mm busbar system		Page		Page		Page
for sharp-edged copper busbars to DIN 46 433, width 12 mm to 30 mm, thickness 5 mm and 10 mm	① Busbar holder		④ 3RA1 Combination Starters	see section 5	⑦ Incoming supply terminals	5/10
	End and intermediate holders for flat copper profiles	5/7, 5/10				
	② Fast Bus main circuit breakers	5/7	⑤ Busbar adapter shoe	5/6, 5/8	⑧ Copper Busbar	5/7, 5/10
	from 100 to 250A		with wire, for SIRIUS devices size S00 (12.5 A) to S3 (100 A), or other devices (e.g. 5SY supplementary protectors)		⑨ Busbar covers	5/10
	③ Fast Bus circuit breakers	5/7	⑥ Busbar adapter shoe	5/6, 5/8	12 mm x 5 mm up to 30 mm x10 mm	
	from 15 to 250A		without wire for holding SIRIUS devices size S00 (12.5 A) to S2 (100 A), or for selfwiring			

Fast Bus

8US and Fast Bus Busbar Adapter System

Introduction

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General

The Fast Bus Multi-Motor Control system is a 3-phase insulated busbar system used to reduce wire connections and hole drilling when building control panels. SIRIUS 3RV/3RT starter combinations built from components and Siemens circuit breakers use Fast Bus for convenient mounting.

Fast Bus is not new to Siemens. However, due to the narrower SIRIUS starter components, more starters will fit on the same run of Fast Bus.

Features

- Simple economical installation
- Compact design
- Requires fewer mounting holes
- Domestic and International approvals
- Touch safe
- Modular design
- Provision for system expansion
- Clip-on shoes provide mechanical and electrical connections to panel mounted busbar
- Main and Feeder breakers mount to busbars

Benefits

- Saves installation time
- Reduces space requirements
- Minimizes layout time
- Allows flexibility for domestic and export business
- Protection for maintenance personnel
- Improves equipment mounting density
- Reduces time and costs associated with system expansion
- Reduces mounting and wiring time and provides trouble free connections
- Allows for quick retrofitting of breakers

How to Select Fast Bus

1) Determine the required load.

2) Select method to power Fastbus.

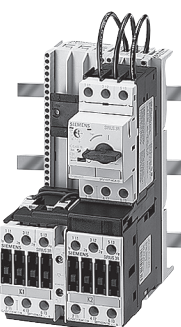
—Main lug up to 600A

—Circuit breakers, 15A to 250A

If load exceeds 250A, the CB must be separately panel mounted.

3) Select 3RV MSP & 3RT contactor components and appropriate adapter shoe or select 3RA factory assemblies.

4) Select appropriate length busbar, busbar support kit, insulation covers and any other required components.



General Ratings of Fast Bus System

	IEC	Domestic
Rated operating voltage	690V	600V
Rated insulation voltage, IEC VDE	AC 1000V	N/A
Temperature stability	Up to 105 degrees C	N/A
Busbar support and adapter shoe material	Glass-reinforced polyamide	Same
Color	RAL 7035, light gray	Same

Ampacity

3 single busbars

.19" x .75"	Domestic	362A
5 X 20 mm	IEC	362A

3 double-stacked busbars

.37" x .75"	Domestic	564A
10 x 20 mm	IEC	564A

For technical information on E and F frame circuit breakers used as main and feeder breakers, see section 17

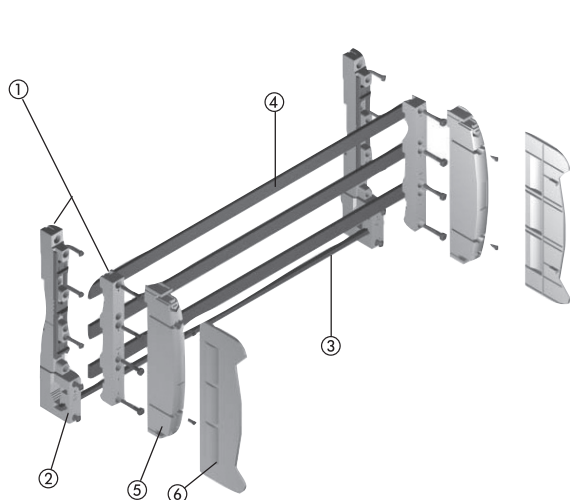
Thermal busbar currents, E-Cu, bare, at 35 °C ambient temperature in accordance with DIN 436711

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

Fast Bus

8US and Fast Bus Busbar Adapter System

Introduction



Fast Bus set-up

The Fast Bus system is designed to be easy to use and to save set up time.

8US Busbar holders

Because the 8US Busbar holders are adjustable, they can be used with a number of different busbar sizes allowing you to standardize on one style of busbar holder for busbars with a width and thickness of 12mm x 5mm up to 30mm x 10 mm thus providing a wide range of current carrying capability.

High quality material

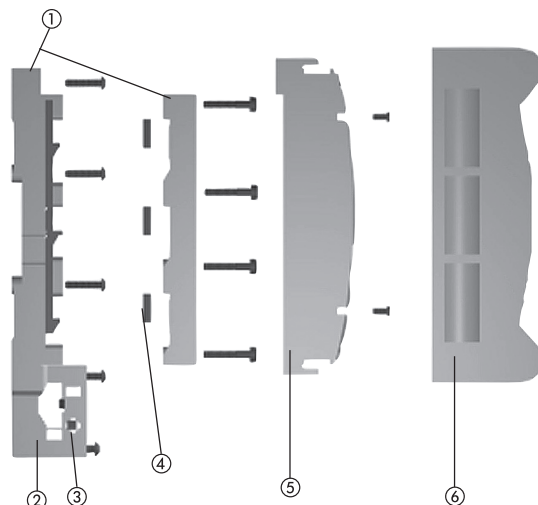
Busbar supports and fuse bases are manufactured from glass-fiber reinforced, thermoplastic polyester with the color RAL 7035, light gray. The material ensures excellent mechanical, chemical and electrical properties. Furthermore, the material has an extremely low flammability and meets the requirements of UL 94 V0.

8WC Busbar and busbar systems

The most common size busbar for applications in the US is the 8WC5026 (20mm x 5mm), however there are other styles available depending on your application.

Busbar systems with 40 mm and 60 mm busbar center-to-center clearance have now become firmly established on the world market. In the US market the 60 mm busbar center-to-center clearance is the more commonly used system.

The permissible busbar temperature is a decisive factor when dimensioning the busbars. The busbar temperature is dependent on the current, the current distribution, the busbar cross-section, the busbar surface, the position of the busbar, the convection and the ambient temperature. The values stated in the table on page 5/3 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.

Simple Fast Bus system

The two illustrations above show the very basic items needed when setting up a Fastbus system.

- ① 8US1 Busbar holder (5/10)
- ② 5SH3 Ground busbar support (shown attached however can be mounted separately 5/10)
- ③ Ground busbar 6mm x 6mm
- ④ 8WC Busbar (8WC5026 shown 5/10) FBB36, FBB60 Busbar (5/7)
- ⑤ 5SH3532 profile holder (Holds top partition slotted 5SH3531/non-slotted 5SH3528, and end cover 5SH3533)
- ⑥ End cover 5SH3533 5/9

Short-circuit strength

The short-circuit strength of the busbar system is dependent on the clearance 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 protection.

Applications

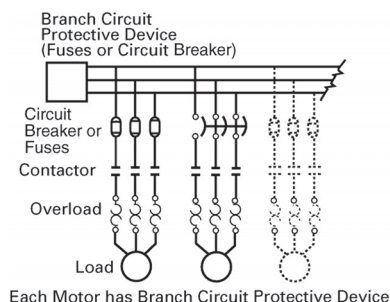
The 8US Fast Bus distribution system is ideal for control panel builders with multiple motor applications. These applications are most common in the material handling, automotive, food processing, pharmaceutical and paper processing industries.

Fast Bus combination starters and group installation assemblies

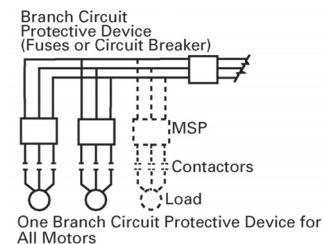
Ratings for Group Installations per NEC 430-53

Group Installation is an approach to building multiple motor control systems in accordance with Section 430-53 of the National Electrical Code. In Group installation, multiple motor starters can be grouped under one short circuit protective device. The 3RV MSP's have been UL listed for use in Group Installations both with and without 3RT contactors when mounted on the Fast Bus system. A 3RT contactor is added when remote operation of the motor is required.

Standard Installation, NEC 430-52



Group Installation, NEC 430-53



MSP Type	Through FLA range Amps	Maximum rating of Group Branch Circuit Protective Device		Short Circuit Current Ratings	
		Fuse	Circuit Breaker	480V	575V
3RV101	0, 11-12	The main fuse should be selected based on the FUSE selection procedure listed below.	The main CB should be selected based on the CIRCUIT BREAKER selection procedure listed below.	65kA	10kA
3RV102	0, 11-12.5			65kA	30kA
3RV102	11-25			65kA	10kA
3RV103	11-50			65kA	30kA
3RV104	28-100			65kA	30kA

The selection of components for Group Installation is a simple process of the following three steps:

1. Selection of the Branch Circuit Protective Device, fuse or circuit breaker.
2. Selection of the Motor Starter protector based on the motor Full Load Amps.
3. Selection of the 3RT contactor based on the HP and voltage rating of the motor.

Circuit Breaker Selection

Select a circuit breaker (CB) between:

Minimum CB size (per NEC430-110):
Sum of all motor FLC (per NEC table 430-150) x115%.

Maximum CB size (per NEC430-53c):
250% x FLC of the largest motor + FLC of all other motors.

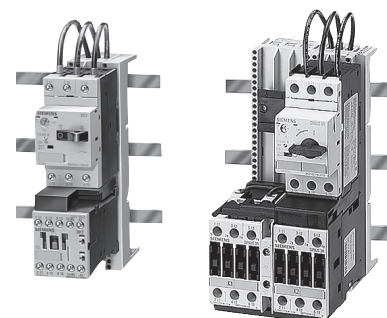
Fuse Selection

Calculate the maximum fuse size per NEC430-53c.

Max Fuse Size = 175% x FLC of largest motor + FLC of all other motors (FLC's from NEC table 430-150).

MSP Type	Through FLA range Amps	Short Circuit Current Ratings (Type E) ¹⁾		
		240V	480Y/277V	600Y/347V
3RV102	0, 11-22	65kA	65kA	30kA
3RV103	11-50	65kA	65kA	25kA
3RV104	28-100	65kA	65kA	30kA (up to 75A)

¹⁾ MSP sizes S0 and S3 require additional terminal kits for type E applications. See section 1

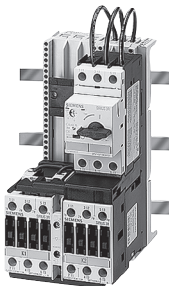
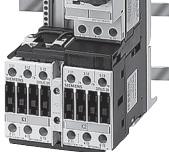


Fast Bus

8US and Fast Bus Busbar Adapter System

60 mm system

Selection and ordering data

for sharp-edged copper busbars to DIN 46 433, width 12 mm to 30 mm, thickness 5 mm and 10 mm		Busbar adapters	Number of mounting rails (35 mm)	Rated current	Connecting leads	Adapter length	Adapter width	Rated voltage	Order No.	List Price \$	Standard Package Quantity
				A	AWG	mm	mm	V			
For SIRIUS devices											
	Direct feeder	Size S00/S0									
		MSP	1	25	12	182	45	690	8US12 51-5DM07	39.00	
	Contactor + overload relay	–	–	–	–	–	–	–			
	Direct feeder	–	–	–	–	–	–	–			
	Reversing feeder adapter	–	–	–	–	–	–	–			
	+ switching device holder	1	–	–	–	182	45	–	+ 8US12 50-5AM00	40.00	
	+ connection keys (2 units needed for attachment) (packg. with 100 units)	–	–	–	–	–	–	–	+ 8US19 98-1AA00	1.05 ea.	100
		Size S00 – Cage Clamp									
	Direct feeder	1	12.5	14	182	45	690	8US12 51-5CM47	39.00		
		Size S2									
	MSP	–	56	8	182	55	690	8US12 61-5FM08	54.00		
	Contactor + overload relay	–	–	–	–	–	–	–			
	Direct feeder	1	56	8	242	55	690	8US12 61-5FP08	56.00		
	Reversing feeder adapter	1	56	8	242	55	690				
	+ switching device holder ¹⁾	–	–	–	–	242	55	–	+ 8US12 60-5AP00	35.00	
	+ connection keys (2 units needed for attachment) (packg. with 100 units)	–	–	–	–	–	–	–	+ 8US19 98-1AA00	1.05 ea.	100
		Size S3									
	MSP	–	100	Busbars	182	70	to 460 ²⁾	8US11 11-4SM00	102.00		
	MSP	–	80 ⁴⁾	4	182	72	480 ... 690 ³⁾	8US12 11-4TM00	91.00		
For ED and FD circuit-breakers											
	For E or F frame circuit breakers (includes mounting plate)	–	250	4-2/0	270	108	600	FBS250108	282.00		
	For E or F frame circuit breakers (includes mounting plate) terminals on the bottom of the shoe	–	250	4-2/0	270	108	600	FBS250108M	282.00		

8US12 50-5RM07



Busbar adapters with supply terminals (at top) for any arrangement of components

1.5 mm ² up to 4 mm ²	1	25	–	182	45	690	8US12 50-5RM07	32.00
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8US12 60-5AM00



Switching device holders for lateral attachment to busbar adapter of the same length

Switching device holder	1	–	–	182	45	–	8US12 50-5AM00	40.00		
Switching device holder	1	–	–	182	55	–	8US12 60-5AM00	42.00		
Switching device holder	–	–	–	242	55	–	8US12 60-5AP00	45.00		
Connection keys (2 units needed for attachment) (packg. with 100 units)	–	–	–	–	–	–	8US19 98-1AA00	1.05 ea.	100	

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

Lateral module	–	–	–	182	13,5	–	8US19 98-2BM00	12.00
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Cross Reference

Function	MLFB	MLFB
Adapter shoe w/wire for SIRIUS S00 and S0	FBS2545	8US1251-5DM07
Adapter shoe w/wire for SIRIUS S2	FBS5055	8US1261-5FM08
Adapter shoe w/wire for SIRIUS S2 combos	FBS5055L	8US1261-5FP08
Adapter shoe for SIRIUS S3	FBS10070	8US1111-4SM00
Adapter shoe w/o wire for SIRIUS S00 and S0	FBS0045	8US1250-5AM00
Adapter shoe w/o wire for SIRIUS S2	FBS0055	8US1260-5AM00
Adapter shoe w/o wire for SIRIUS S2 combos	FBS0055L	8US1250-5AP00

1) Spacer and fixing screws for reverse contactor are included in the scope of supply.

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

3) 480 V to 525 V max. 30 kA, 525 V to 690 V max. 12 kA.

4) 80 A UL 100 A IEC

Fast Bus

8US and Fast Bus Busbar Adapter System

60 mm system

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Description	Order No.	List Price \$
Busbar kits		
FB36		
 ① Copper Busbar FB36 includes: Qty. (3) 36 inches long x 5mm x 20mm Tinned Copper Busbar FB60 includes: Qty. (3) 60 inch long x5mm x 20mm Tinned Copper Busbar Qty. (1) FB3XP - Intermediate support kit	FB36 FB60	118.00 226.00
FBS400		
 Busbar Support Kit End Support Kit - FBS400 includes: Qty.(2) - 5SH3533 End Covers Qty.(2) - 5SH3532 Holder for Edge Profile and End Covers Qty.(2) - 8US1923-2AA01 3Pole Busbar holder with Outside Fixing	FBS400	93.00
Ground Busbar and Support Kit (not shown) FBG36 Includes: Qty.(2) - 5SH3506 - Ground Busbar Holders Qty.(1) - 36 inch long x 6mm x 6mm Busbar (135A) FBG60 Includes: Qty.(2) - 5SH3506 - Ground Busbar Holders Qty.(1) - 60 inch long x 6mm x 6mm Copper Busbar (135A)	FBG36 FBG60	120.00 168.00
Intermediate Support and Cover FB3XP - Intermediate support kit includes: Qty.(1) 8US1923-2AA01 Busbar holder with Outside Fixing Qty.(1) 5SH3532 Holder for Edge Profile and End Covers	FB3XP	37.00
Power Take-Off Support and Cover Rated 80 ams; wire size 16-6 AWG	FB3PT080	44.00

Selection and ordering data

FBCB Fast Bus circuit breakers
- Offer a full range of circuit breakers from 15A to 250A pre-assembled on 60mm fast-bus adapter shoes and ready to place on the busbar.

Also a full range of main circuit breakers from 100A to 250A come in pre-packaged kits that include the circuit breaker, fastbus adapter with mounting plate and mounting hardware.

Design	Breaker frame	Order No.	List Price \$
Circuit breakers			
FBCB030			
			
Feeder 3 pole/600V with Fast Bus "snap on" adapter shoes (wires from shoe to breaker on top side)			
15 amp	ED	FBCB015	360.00
20 amp	ED	FBCB020	360.00
25 amp	ED	FBCB025	360.00
30 amp	ED	FBCB030	360.00
35 amp	ED	FBCB035	360.00
40 amp	ED	FBCB040	360.00
45 amp	ED	FBCB045	360.00
50 amp	ED	FBCB050	360.00
60 amp	ED	FBCB060	360.00
70 amp	ED	FBCB070	449.00
80 amp	ED	FBCB080	449.00

Feeder circuit breakers

FBCB100			
			
3 pole/600V with bolt on shoes (wires from shoe to breaker on top side)			
100 amp	ED	FBCB100	526.00
125 amp	ED	FBCB125	1271.00
150 amp	FXD	FBCB150	1283.00
175 amp	FXD	FBCB175	1335.00
200 amp	FXD	FBCB200	1335.00
225 amp	FXD	FBCB225	1335.00
250 amp	FXD	FBCB250	2093.00

Main circuit breakers

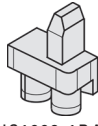
FBCB250M			
			
3 pole/600V with bolt on shoes (wires from shoe to breaker on bottom side)			
100 amp	ED	FBCB100M	526.00
125 amp	ED	FBCB125M	1271.00
150 amp	FXD	FBCB150M	1283.00
175 amp	FXD	FBCB175M	1335.00
200 amp	FXD	FBCB200M	1335.00
225 amp	FXD	FBCB225M	1335.00
250 amp	FXD	FBCB250M	2093.00

① UL recognized to nominal rating of 362 Amps.

Fast Bus

8US and Fast Bus Busbar Adapter System

Adapter shoes and accessories

Illustration	Adapter Shoes Provide mechanical mounting and electrical power connection to busbar system.	Width	Length	For use with Device Type	Catalog No	List Price \$
 FBS2545	With wire: 25 amp rated (12AWG)	45 mm	182 mm	3RV101, 3RV102	FBS2545	39.00
	With wire: 50 amp rated	55 mm	185 mm	3RV103	FBS5055	54.00
		55 mm	242 mm		FBS5055L	56.00
	With terminals for wire size #10–#6: 80 amp rated	72 mm	182 mm	FBCB15-80	FBS8072	77.00
 FBS0045	With wire: 100 amp rated	70 mm	182 mm	3RV104	FBS10070	102.00
	With terminals for wire #4–2/0 Includes mounting plate for mounting E or F frame breakers Rated 250 amps (terminals on top of shoe)	108 mm	270 mm	FBCB	FBS250108	282.00
	With terminals for wire #4–2/0 Includes mounting plate for mounting E or F frame breakers Rated 250 amps (terminals on bottom of shoe)	108 mm	270 mm	FBCB	FBS250108M	282.00
	Without wire: For mechanical mounting only Contactor Support	45 mm	182mm	3RV101	FBS0045	40.00
		55 mm	185 mm	3RV102	FBS0055	42.00
55 mm		242 mm	3RV103	FBS0055L	56.00	
 8US1998–2BM00	Support Bracket for 3RT104 Contactor For use with FBS10070	70 mm	—	3RT104	FBS0070B	23.00
	Side module for Adaptor Shoe expansion	10 mm	182 mm	—	8US1998-2BM00	12.00
	Feeder Breaker Mounting Plate For mounting 3-pole E-frame Siemens circuit breakers through 80 amps. Mounts to FBS8072 Adaptor Shoe.	72 mm	160 mm	FBCB15-80	FBP80	49.00
 FBC20	Fast Clips For fastening 2 or more shoes together. 2 required per pair of shoes. .	—	—	—	FBC20	9.00 Pack of 20
	Spacer For supporting a 3RT101 or 3RT102 contactor to a Fastbus shoe when used with a 3RV MSP. 1 required per contactor.	—	—	—	8US1998-1BA00	.78 ea. Standard pkg quantity = 100
 8US1998-1BA00						

Cross Reference

Function

Adapter shoe w/wire for SIRIUS S00 and S0
 Adapter shoe w/wire for SIRIUS S2
 Adapter shoe w/wire for SIRIUS S2 combos
 Adapter shoe for SIRIUS S3
 Adapter shoe w/o wire for SIRIUS S00 and S0
 Adapter shoe w/o wire for SIRIUS S2
 Adapter shoe w/o wire for SIRIUS S2 combos

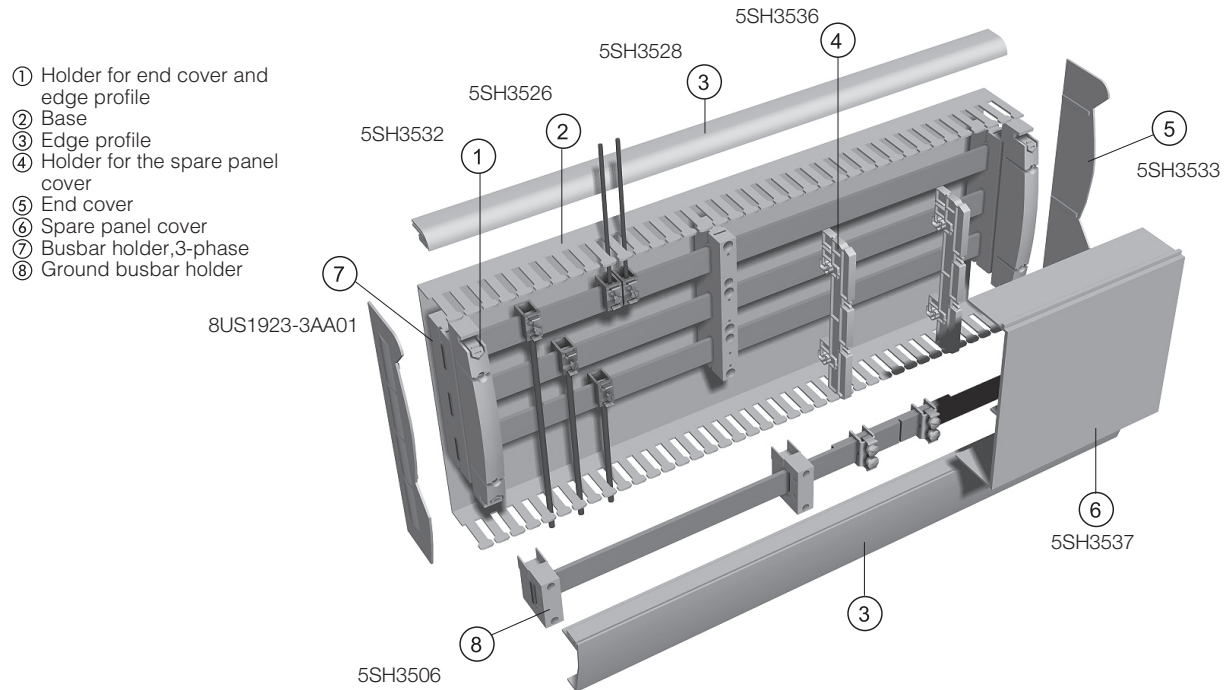
MLFB	MLFB
FBS2545	8US1251-5DM07
FBS5055	8US1261-5FM08
FBS5055L	8US1261-5FP08
FBS10070	8US1111-4SM00
FBS0045	8US1250-5AM00
FBS0055	8US1260-5AM00
FBS0055L	8US1250-5AP00

Fast Bus 8US and Fast Bus Busbar Adapter System

60 mm system

Selection and ordering data

for sharp-edged copper
busbars to DIN 46 433,
width 12 mm to 30 mm,
thickness 5 mm and 10 mm



Description				Order No.	List Price \$	Pack Units
Busbar holders ⑦						
	with outside fixing (3-pole)	L1-L3	1)	8US19 23-2AA01	46.00	
	with inside fixing (3-pole)	L1-L3		8US19 23-3AA01	41.00	
	with inside fixing (4-pole)	L1-L3 + PE/N		8US19 23-4AA00	59.00	
Endcover for 3-pole busbar holders and 4-pole busbar holders ⑤						
	3 pole endcover for use with 5SH3532	229 mm high		5SH3533	12.80	
	4 pole endcover for use with 5SH3532	289 mm high		5SH3534	30.50	
Partition profile						
	slotted	2 000 mm long	1)	8US19 22-1EA00	236.00	
	closed	2 000 mm long		8US19 22-1FA00	139.00	
Base ②						
	3-pole system	1 100 mm long	230 mm in width	5SH3 526	155.00	
	4-pole system (or 3-pole system with wiring duct)	1 100 mm long	290 mm in width	5SH3 527	163.00	
Holder for edge profile and partiion profile ①						
	for 5SH3 528 and 5SH3 530			5SH3 532	23.00	
Edge profile ③						
	not slotted	1 100 mm long	17 mm x 36 mm	5SH3 528	68.00	
	slotted	1 100 mm long	77 mm x 36 mm	5SH3 530	136.00	
	slotted	1 100 mm long		5SH3 531	119.00	
Spare panel cover holder (for spare panel cover) ④						
		32 mm deep	1000 mm long	5SH3 536	25.00	
Spare panel cover ⑥						
	Mounting on spare panel holder 5SH3 523	1 000 mm long	202 mm in width	5SH3 537	130.00	
Ground busbar holder ⑧						
				5SH3506	18.00	

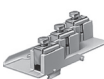
1) Discount Code: Fast Bus

Fast Bus

8US and Fast Bus Busbar Adapter System

Accessories for 60 mm system

Selection and ordering data

	Description	Order No.	List Price \$	Standard pkg qty		
 8US19 23-2AA00  5SH3506	Busbar holders					
	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)	L1-L3	8US19 23-2AA01	46.00		
	with inside fixing (3-pole)	L1-L3	8US19 23-3AA01	41.00		
	with inside fixing (4-pole)	L1-L3 + PE/N	8US19 23-4AA00	59.00		
	Ground busbar holder for flat copper profiles 12 mm x 5 mm to 20 mm x 10 mm, also 25 mm x 5 mm and 30 mm x 5 mm					
	Attachment to 8US19 23-2AA01 or independent installation		① 5SH3 506	18.00		
	End covers for 60-mm busbar system (see p. 5/9) '1)					
	for covering unterminated busbar ends					
for 8US19 23-2AA00 (3-pole)		L1-L3	8US19 22-1AC00	14.10 ea.	10	
for 8US19 23-3AA00 (3-pole)		L1-L3	8US19 22-1AC00	14.10 ea.	10	
for 8US19 23-4AA00 (4-pole)		L1-L3 + PE/N (1 unit = 2 pieces)	8US19 22-1AB00	32.00		
 8GS40200  8US19 22-2A	Busbar copper (flat copper, approx. 2 m long, bare, to EN 12 167)					
	6 mm x 6 mm		8WC5 020	33.00		
	12 mm x 5 mm, common size for 40mm system		8WC5 023	104.00		
	20 mm x 5 mm, common size for 60mm system		8WC5 026	118.00		
	30 mm x 5 mm		8WC5 033	220.00		
	20 mm x 10 mm		8WC5 028	226.00		
	30 mm x 10 mm		8WC5 034	256.00		
	Cover profiles for busbars					
	12 mm x 5 mm, 12 mm x 10 mm		210 mm long	8GS4 0200	16.00 ea.	5
	20 mm x 5 mm		1 000 mm long	8US19 22-2AA00	35.50	
25 mm x 5 mm		1 000 mm long	8US19 22-2AA00	35.50		
30 mm x 5 mm		1 000 mm long	8US19 22-2AA00	35.50		
20 mm x 10 mm		1 000 mm long	8US19 22-2BA00	38.00		
30 mm x 10 mm		1 000 mm long	8US19 22-2BA00	38.00		
20 - 30 mm x 5 mm		1 meter long	FBC72	35.50 ea.	3	
 8US19 21-1AA00	Incoming supply terminals for 60 mm busbar system					
	Terminal plate with cover (35 mm² to 120 mm², 3-pole)		200 mm long 84 mm wide	8US19 21-1AA00	98.00	
	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	8US12 00-0AA00	60.00	
	Three Pole Lug Plate assembly with cover					
	Wire Size	Amp Rating				
	2-250 MCM	440 amps	FBT250	98.00		
	3/0-350 MCM	460 amps	FBT350	193.00		
	300-600 MCM	560 amps	FBT600	205.00		
	 FBT250					

1) For masking unterminated busbar ends up to 5 mm busbar thickness (ground clearance at 10 mm busbar thickness: 17 mm).

Cross Reference

Function

Incoming power terminal

MLFB	MLFB
FBT250	8US1921-1AA00

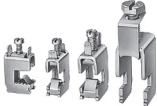
① Discount Code: Siemens AG

Fast Bus

8US and Fast Bus Busbar Adapter System

Accessories for 60 mm system

Selection and ordering data

	Description	Conductor cross-section	Order No.	List Price \$	Pack Units
 8US19 21-2AA00 8US19 21-2B00	Terminals for round conductors (See below for cross reference information)				
	5 mm busbar thickness				
	from 12 mm x 5 mm up to 30 mm x 5 mm	1.5 – 16 mm ² 4 – 35 mm ² 16 – 120 mm ²	8US19 21-2AA00 8US19 21-2AB00 8US19 21-2AC00	4.00 ea. 5.10 ea. 20.00 ea.	100 50 50
	from 20 mm x 5 mm up to 30 mm x 5 mm	95 – 185 mm ² 150 – 300 mm ²	8US19 41-2AA01 8US19 41-2AA02	35.00 ea. 45.00 ea.	6 3
	10 mm busbar thickness				
	from 12 mm x 10 mm up to 30 mm x 10 mm	1.5 – 16 mm ² 16 – 70 mm ² 16 – 120 mm ²	8US19 21-2BA00 8US19 21-2BD00 8US19 21-2BC00	6.50 ea. 15.00 ea. 20.00 ea.	100 50 50
	from 20 mm x 10 mm up to 30 mm x 10 mm	95 – 185 mm ² 150 – 300 mm ²	8US19 41-2AA01 8US19 41-2AA02	35.00 ea. 45.00 ea.	6 3
	Terminals for Single Busbars (See below for cross reference information)				
	AWG 16 – 6 12 – 2 6 – 2/0 6 – 250 MCM	Amp Rating 180 amps 270 amps 400 amps 440 amps	FBT166-1 FBT122-1 FBT620-1 FBT6250-1	4.34 ea. 5.34 ea. 15.34 ea. 21.34 ea.	3 3 3 3
	Terminals for Double Stack Busbars				
	AWG 16 – 6 12 – 2 6 – 2/0 6 – 250 MCM	Amp Rating 180 amps 270 amps 400 amps 440 amps	FBT166-2 FBT122-2 FBT620-2 FBT6250-2	6.67 ea. 7.67 ea. 15.34 ea. 21.34 ea.	3 3 3 3
 8US19 41-2AA00	Terminals for Single or Double Stack Busbars (See below for cross reference information)				
	AWG 3/0 – 350 MCM 300 – 600 MCM	Amp Rating 460 amps 560 amps	FBT30350 FBT300600	35.00 ea. 45.00 ea.	3 3
	Covering cap for supply terminals for round conductors (attachment to busbar)				
	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	40.00 85.00
	Terminal Covers (mount to busbars) for terminals up to 250 MCM for terminals up to 600 MCM			FBC84 FBC135	40.00 85.00
	Supply terminals for cable lugs, copper bars or laminated copper bands				
	10 mm busbar thickness for cable lugs up to 240 mm ² for 20 mm x 5 mm up to 30 mm x 10 mm	(bolts threaded M 10)		8US19 41-2AC00 8US19 41-2BB00	21.00 20.00
	Terminals to fit wire gauge size #16-2 3 lugs per set with cover			FBT162	58.00
	Ground Terminals for Ground Busbar	Connection for: 12 AWG 4 AWG 2 AWG		8WA2860 ¹⁾ 8WA2868 ¹⁾ 8WA2870 ¹⁾	0.40 1.25 1.50
	Cross Reference Numbers				
 8US19 22-1GA00	FBT166-1	16-6 AWG	180 A =	8US19 21-2AA00	1.5 – 16 mm ²
	FBT122-1	12-2 AWG	270 A =	8US19 21-2AB00	4.0 – 35 mm ²
	FBT6250-1	6-250 MCM	440 A =	8US19 21-2AC00	16.0 – 120 mm ²
	FBT620-1	6-2/0 AWG	400 A =	8US19 21-2AD00	16.0 – 70 mm ²
	FBT30350	3/0-350 MCM	460 A =	8US19 41-2AA01	95.0 – 185 mm ²
	FBT300600	300-600 MCM	560 A =	8US19 41-2AA02	150.0 – 300 mm ²
	FBC84	Cover 84 mm wide		8US19 22-1GA00	
	FBC135	Cover 135 mm wide			
		Cover 270 mm wide			
			=	8US19 22-1GA02	

1) Discount Code: Terminal Blocks

Fast Bus

8US and Fast Bus Busbar Adapter System

Accessories for 60 mm system

Selection and ordering data

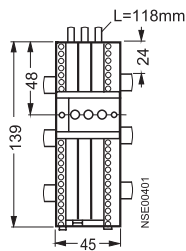
	Description	Conductor cross-section	Order No.	List Price \$	Pack Units
	Extension and connection terminals				
	for 2 abutting busbars ¹⁾	12 mm x 5 mm (1 set = 2 units)	① 8JK3 201	16.00 ea.	Std. Pkg Qty=10
	Accessories for busbar adapters and switching device holders				
 8US19 98-4AA00  8US19 98-3AA00	Mounting rail (35 mm) – plastic complete with fixing screws	45 mm wide 55 mm wide 70 mm wide 110 mm wide	8US19 98-7CA15 8US19 98-7CA16 8US19 98-4AA00 8US19 98-7CA10	4.00 ea. 5.00 ea. 6.20 ea. 10.00 ea.	Std. Pkg Qty=10 Std. Pkg Qty=10 Std. Pkg Qty=10 Std. Pkg Qty=10
	Connection holder (for vertical busbar assembly) fixes the circuit-breaker to the mounting rail ²⁾ (for SIRIUS size S00/S0)		8US19 98-1DA00	2.45 ea.	Std. Pkg Qty=20
	Screw holder for supplementary screw fixing of the feeder (for SIRIUS size S00/S0)		8US19 98-1CA00	5.50 ea.	Std. Pkg Qty=20
	Spacer fixes the feeder to the busbar adapter (for SIRIUS size S00/S0)		8US19 98-1BA00	0.78 ea.	Std. Pkg Qty=20
	Connection keys for mechanical linking of adapters and switching device holders (2 units per combination)		8US19 98-1AA00	1.05 ea.	Std. Pkg Qty=100
 8US19 98-8AA10	Outgoing terminal rail 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	8US19 98-8AM07 8US19 98-8AA10	35.00 ea. 98.00 ea.

- 1) Terminal bar must be made up in-house.
2) For 45 mm and 55 mm mounting rail.

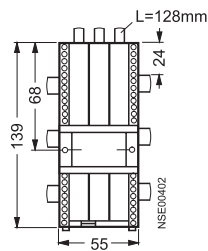
① Discount Code: Siemens AG

Dimension drawings

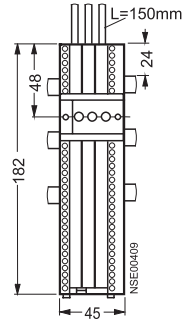
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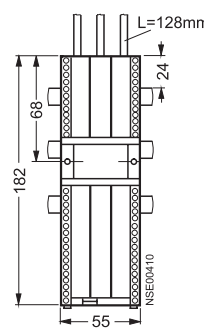
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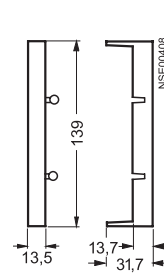
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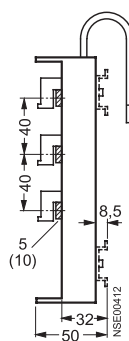
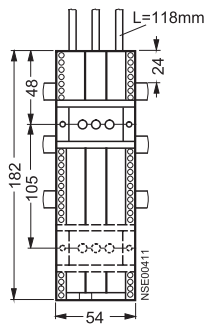
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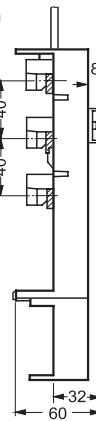
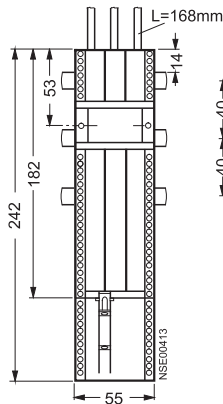
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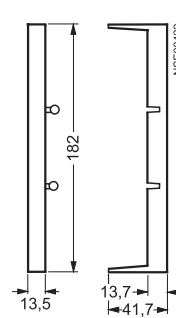
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8US10 61-6NA00



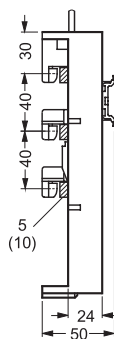
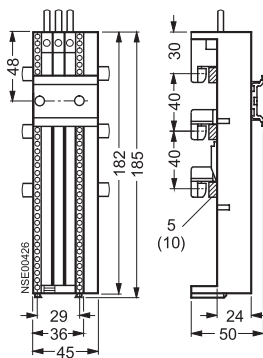
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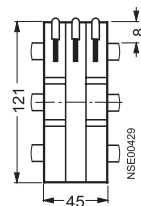
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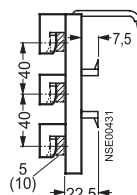
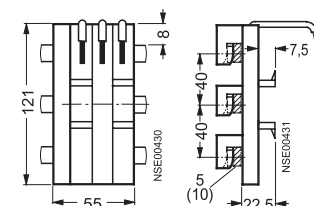
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8US10 51-5DJ07



8US10 61-5DJ07



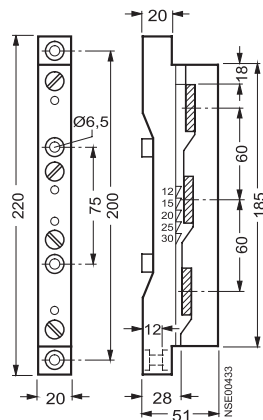
Fast Bus

8US and Fast Bus Busbar Adapter System

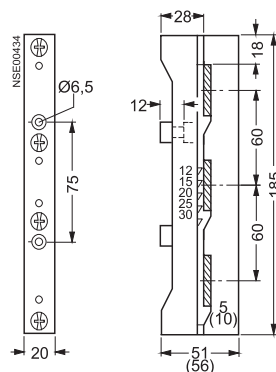
60 mm system

Dimension drawings

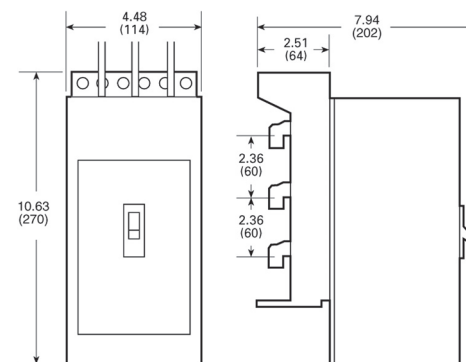
8US19 23-2AA00



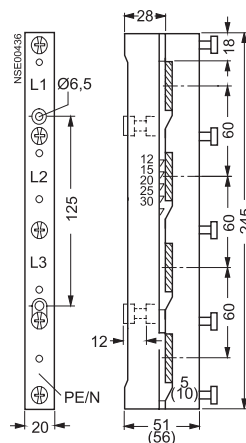
8US19 23-3AA00



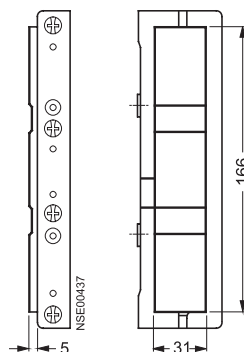
FBCB150, FBCB200, FBCB225, FBCB250



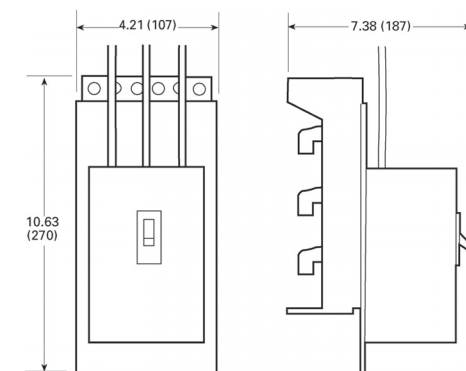
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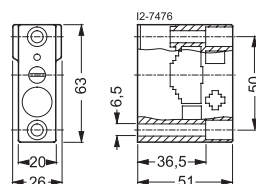
8US19 22-1AC00
with 8US19 23-3AA00



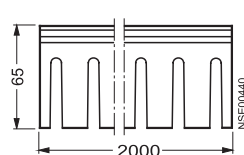
FBCB100, FBCB125



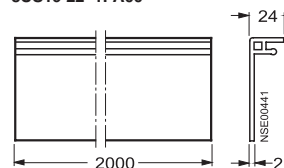
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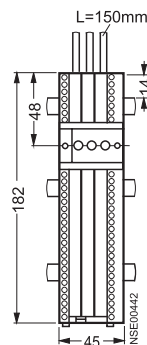
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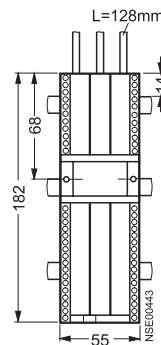
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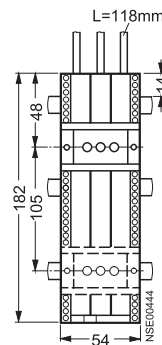
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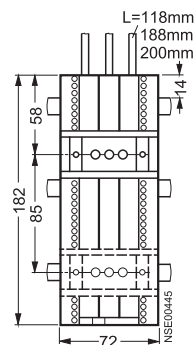
8US12 61-5FM08



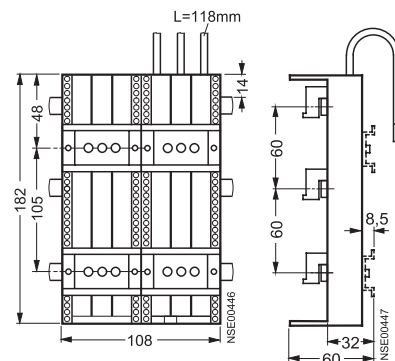
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8US12 61-6NA00



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



8US12 81-6NA00



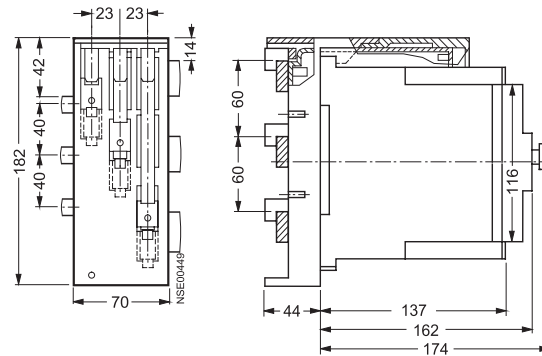
Fast Bus

8US and Fast Bus Busbar Adapter System

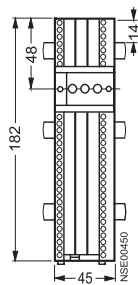
60 mm system

Dimension drawings

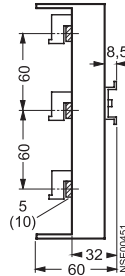
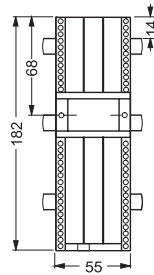
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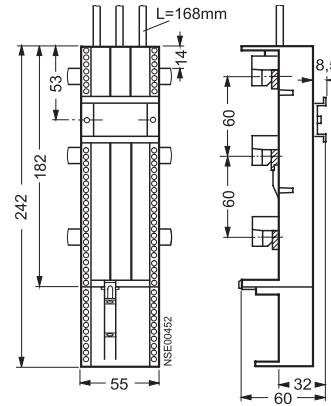
8US12 50-5AM00



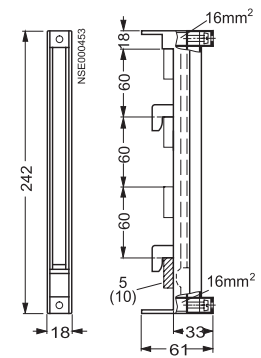
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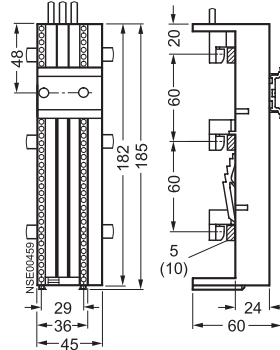
8US12 60-5AP00
8US12 61-5FP08



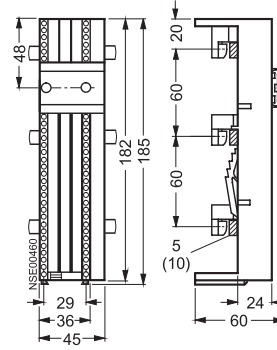
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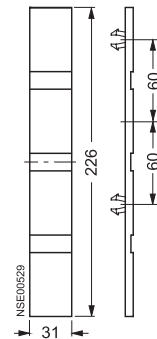
8US12 51-5CM47



1)
8US12 50-5RM07



8US19 22-1AB00



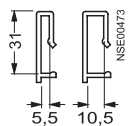
Fast Bus

8US and Fast Bus Busbar Adapter System

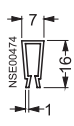
Accessories for 40 mm and 60 mm system

Dimension drawings

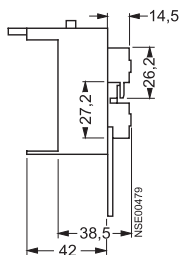
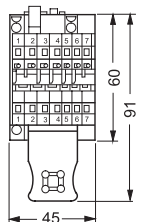
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8US19 22-2BA00



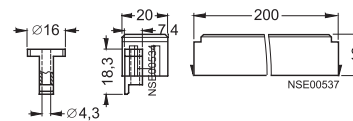
8GR5 010



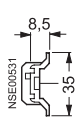
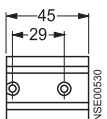
8US19 98-8AM07



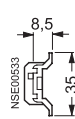
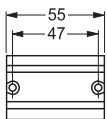
8US19 22-1CA00



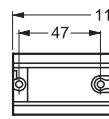
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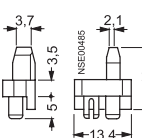
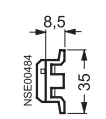
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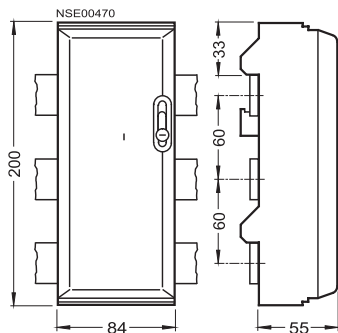
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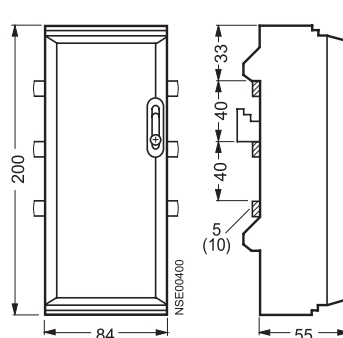
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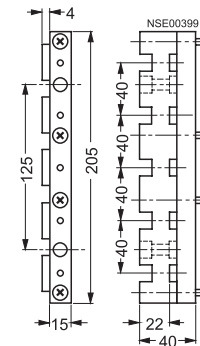
8US19 22-1GA00



8US19 22-1GA00

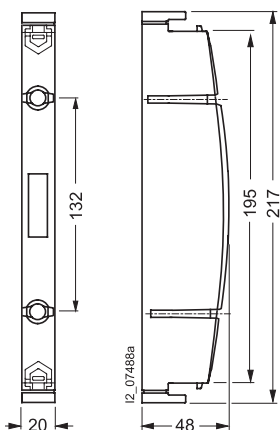


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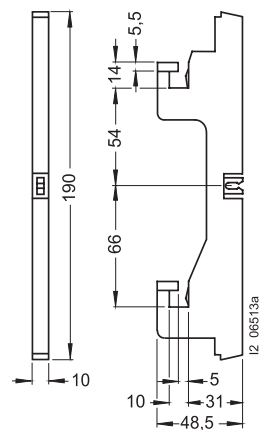
Holder for edge profile

5SH3 532



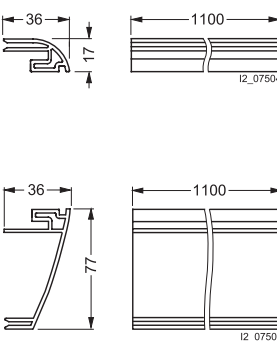
Spare panel holder

5SH3 523



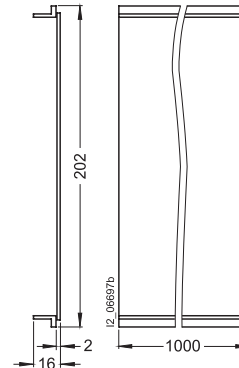
Edge profile

5SH3 528, 5SH3 530



Spare panel cover

5SH3 525



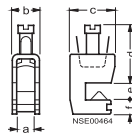
Fast Bus

8US and Fast Bus Busbar Adapter System

Accessories for 40 mm and 60 mm system

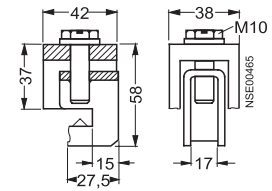
Dimension drawings

8US19 21-2..00

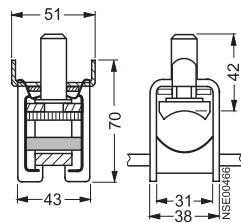


Type	a	b	c	d	e	f
8US19 21-2AA00	7,5	11,5	22,5	25	5	10
-2AB00	10,5	15,5	29	35	5	10
-2AC00	17	23,5	36	55	5	12
-2AD00	14,5	20,5	32	42	5	12
8US19 21-2BA00	7,5	11,5	22,5	25	10	10
-2BB00	10,5	15,5	29	35	10	10
-2BC00	17	23,5	36	55	10	12
-2BD00	14,5	20,5	32	42	10	12

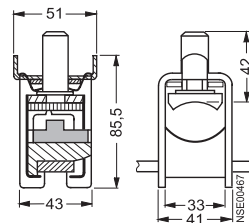
8US19 41-2AC00



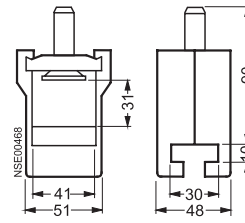
8US19 41-2AA01
8US19 41-2BB00



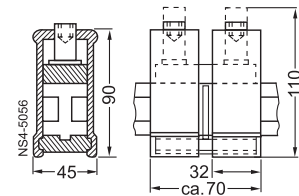
8US19 41-2AA02



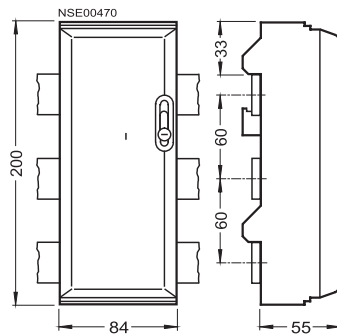
8US19 41-2BA00



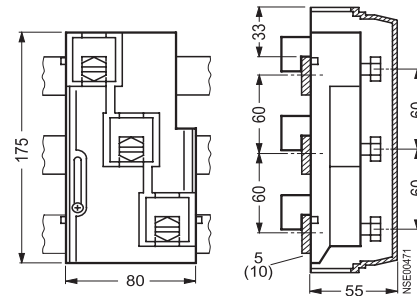
8US19 41-2BF00



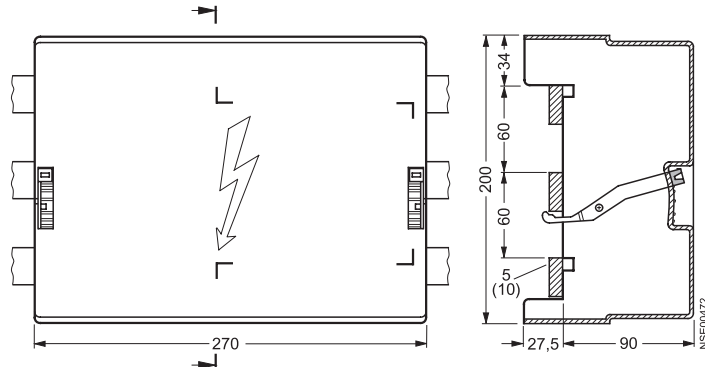
8US19 22-1GA00



8US19 21-1AA00



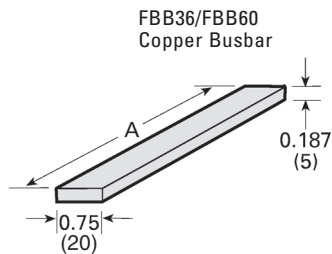
8US19 22-1GA02



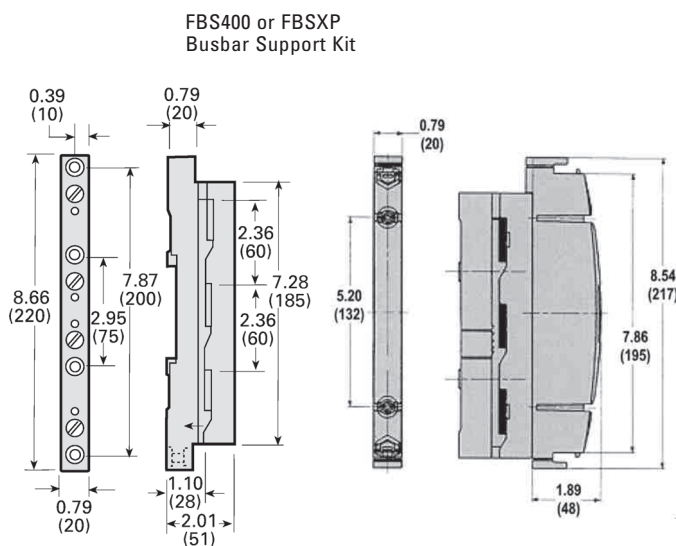
Fast Bus

8US and Fast Bus Busbar Adapter System

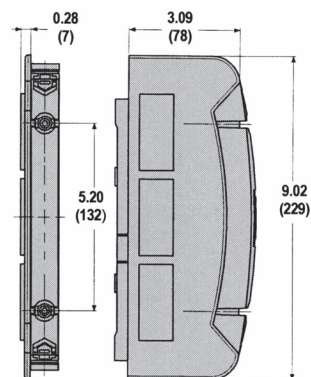
Dimensions



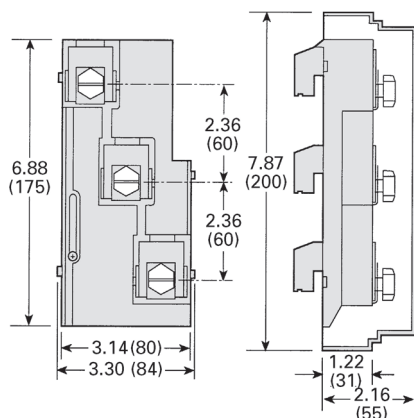
Dimension	A
FBB36	36 (914)
FBB60	60 (1524)



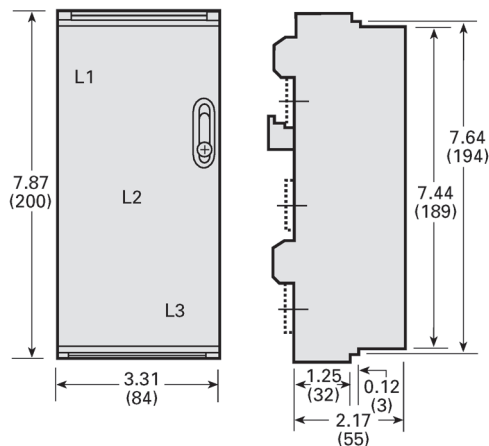
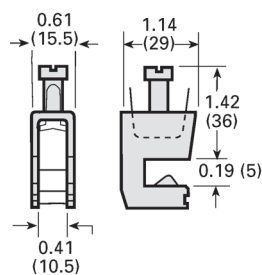
FBIC



FBT250
Three-Pole Lug Plate
(uses same cover as 8US1922-1GA00)



FBT162/FBC84
Terminals and Cover



All dimensions shown in inches (millimeters). For reference purposes only. Not to be used for design or construction purposes.

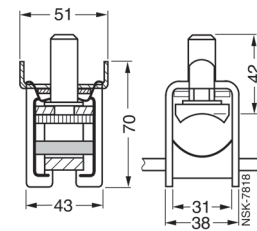
Fast Bus

8US and Fast Bus Busbar Adapter System

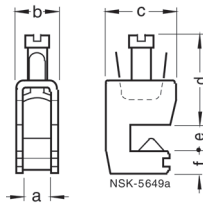
Dimensions

Type	a	b	c	d	e	f
FBT166-1	7.5	11.5	22.5	25	5	10
FBT122-1	10.5	15.5	29	35	5	10
FBT6250-1	17	23.5	36	55	5	12
FBT620-1	14.5	20.5	32	42	5	12
FBT166-2	7.5	11.5	22.5	25	10	10
FBT122-2	10.5	15.5	29	35	10	10
FBT6250-2	17	23.5	36	55	10	12
FBT620-2	14.5	20.5	32	42	10	12

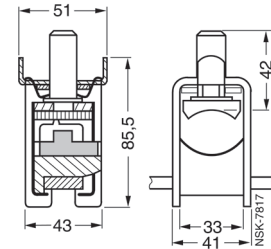
FBT30350



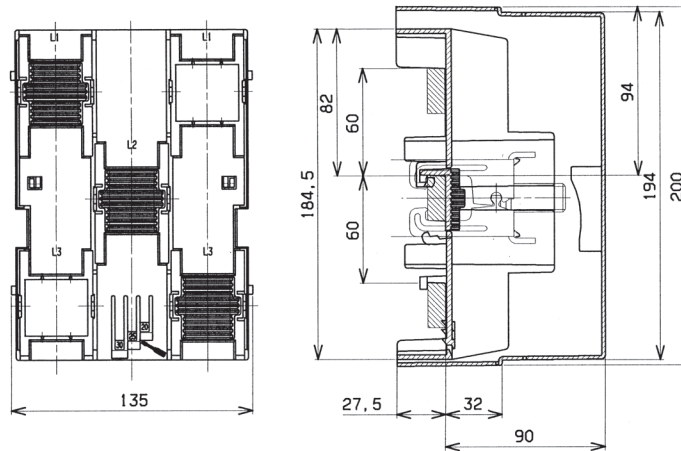
FBT



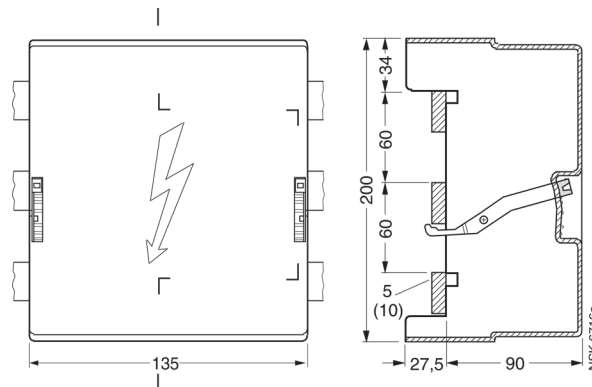
FBT300600



FBT350/FBT600
(Uses same cover as FBC135)



FBC135



All dimensions shown in millimeters. For reference purposes only. Not to be used for design or construction purposes.

Fast Bus

8US and Fast Bus Busbar Adapter System

Selection

Required Components for Fast Bus Mounting

3RV101 with 3RT101

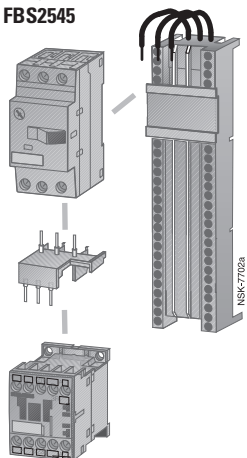
Adapter Shoe
FBS2545

MSP
3RV101

Link Module
3RA1911-1A

Contactor
3RT101

Spacer for Contactor
8US1998-1BA00



3RV102 with 3RT101

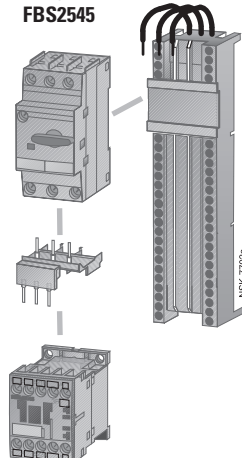
Adapter Shoe
FBS2545

MSP
3RV102

Link Module
3RA1921-1D

Contactor
3RT101

Spacer for Contactor
8US1998-1BA00



3RV102 with 3RT102

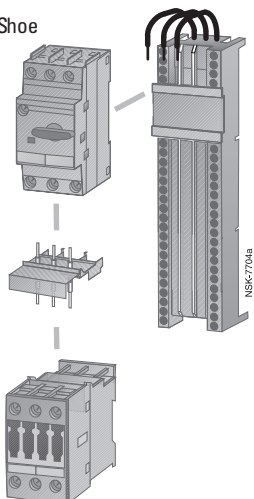
Adapter Shoe
FBS2545

MSP
3RV102

Link Module
for AC: 3RA1921-1A
for DC: 3RA1921-1B

Contactor
3RT102

Spacer for Contactor
8US1998-1BA00



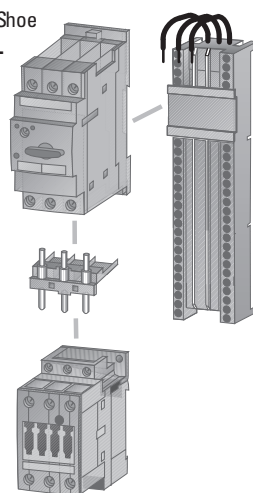
3RV103 with 3RT103

Adapter Shoe
FBS5055L

MSP
3RV103

Link Module
for AC: 3RA1931-1A
for DC: 3RA1931-1B

Contactor
3RT103



3RV104 with 3RT104

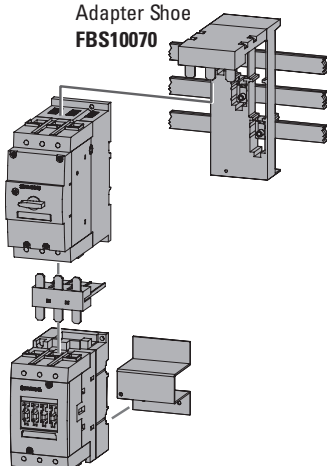
Adapter Shoe
FBS10070

MSP
3RV104

Link Module
for AC: 3RA1941-1A
for DC: 3RA1941-1B

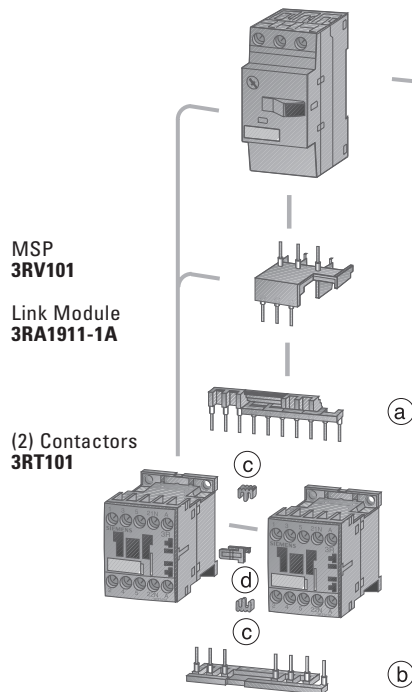
Contactor
3RT104

Bracket
FBS0070B



Required Components for Fast Bus Mounting

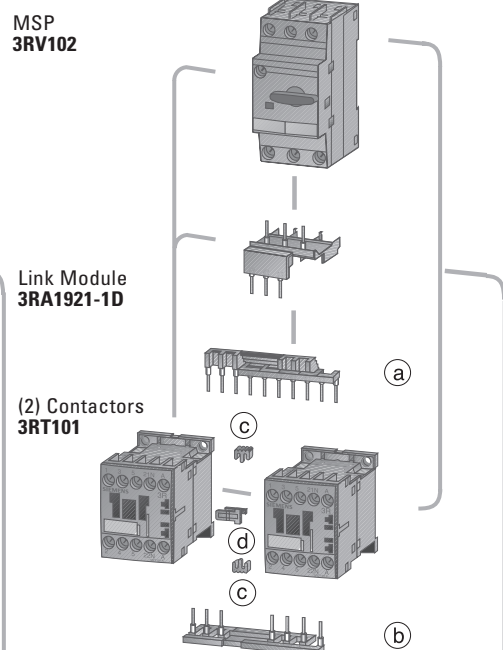
3RV101 with Reversing 3RT101



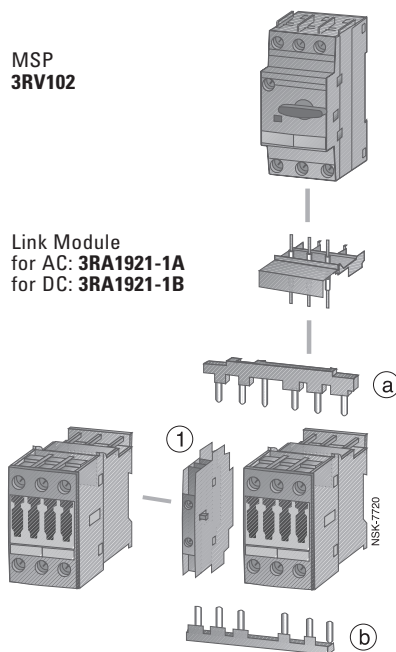
3RA1913-2A Wiring Kit

- (a) Upper Wiring Module
- (b) Lower Wiring Module
- (c) 2 Connecting Clips
- (d) Mechanical Interlock

3RV102 with Reversing 3RT101



3RV102 with Reversing 3RT102



3RA1923-2A Wiring Kit

- (a) Upper Wiring Module
- (b) Lower Wiring Module

Contactor Support for 3RT101: FBS0045
Contactor Support for 3RT102: FBS0055

Adapter Shoe FBS2545

- ① 3RA1924-2B Mechanical Interlock
- ② FBC20 Fast Clips
- ③ 8US1998 - 1BA00 Spacers for Contactors
1 Required per Contactor

Fast Bus

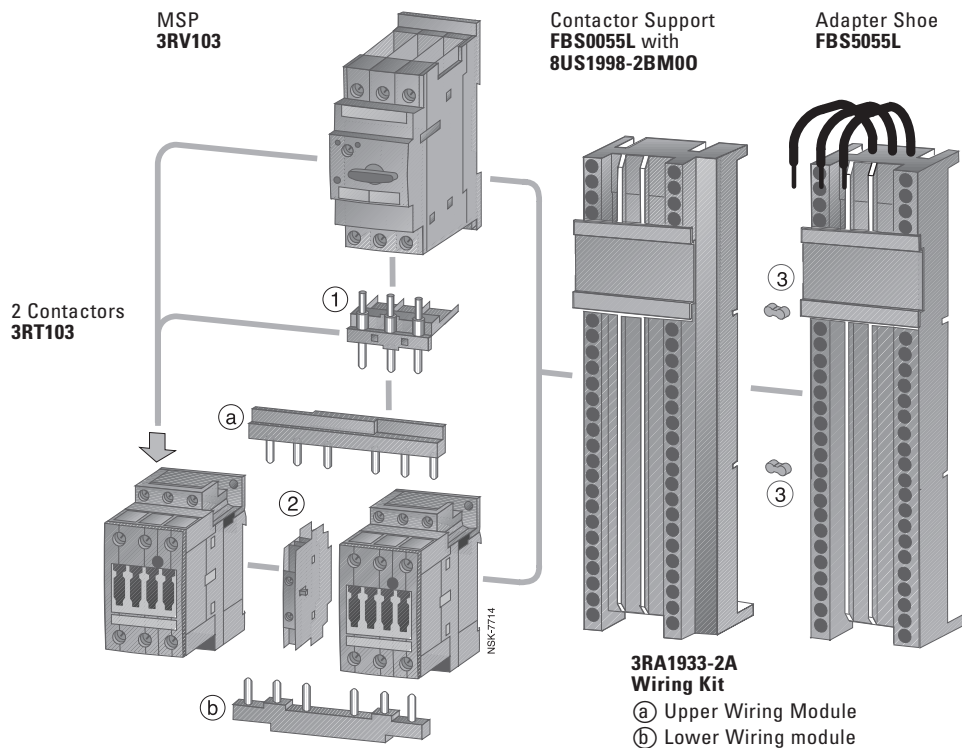
8US and Fast Bus Busbar Adapter System

Selection

Required Components for Fast Bus Mounting

3RV103 with Reversing 3RT103

- ① Link Module for AC: **3RA1931-1A**
for DC: **3RA1931-1B**
- ② Mechanical Interlock **3RA1924-2B**
- ③ Fast Clips **FBC20**

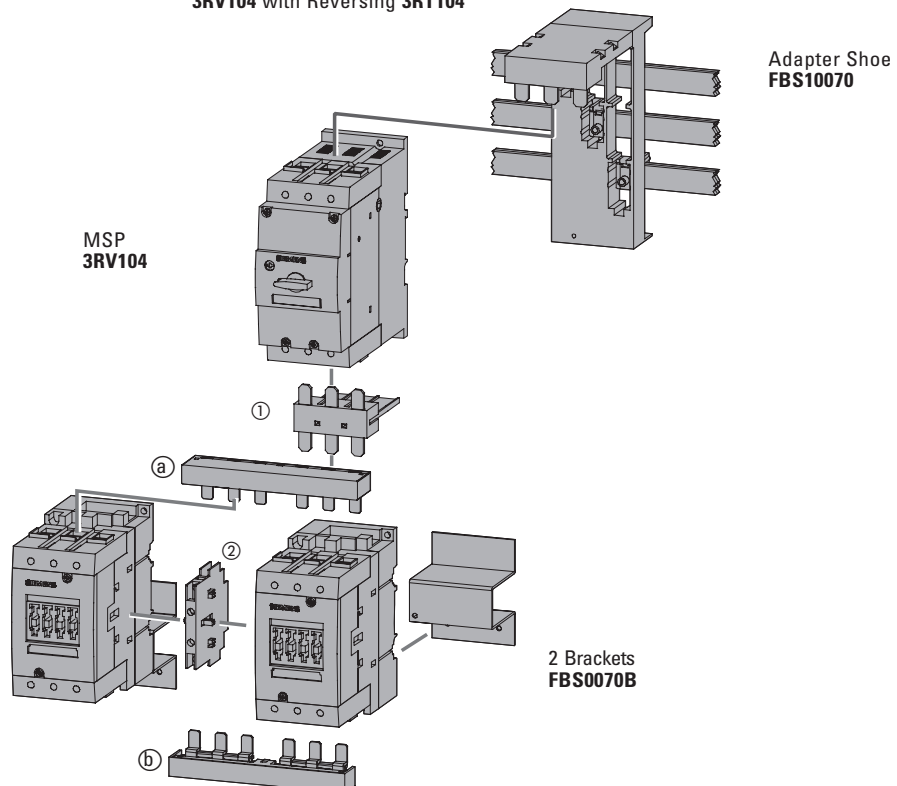


3RV104 with Reversing 3RT104

- ① Link Module for AC: **3RA1941-1A**
for DC: **3RA1941-1B**
- ② Mechanical Interlock **3RA1924-2B**

- 3RA1943-2A Wiring Kit**
- ① Upper Wiring Module
- ② Lower Wiring Module

2 Contactors
3RT104



Fast Bus

8US and Fast Bus Busbar Adapter System

Dimensions

1

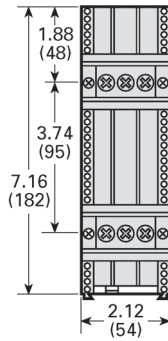
2

3

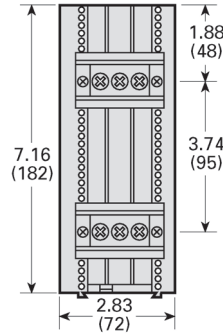
4

5

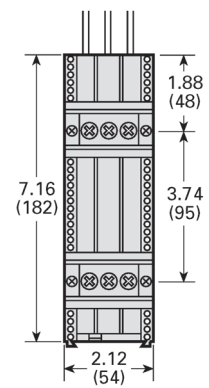
FBS0054
Adapter Shoe



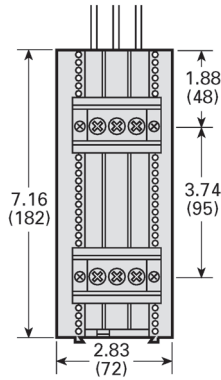
FBS0072
Adapter Shoe



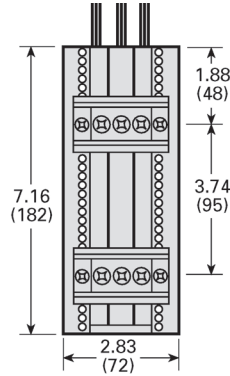
FBS3254
Adapter Shoe



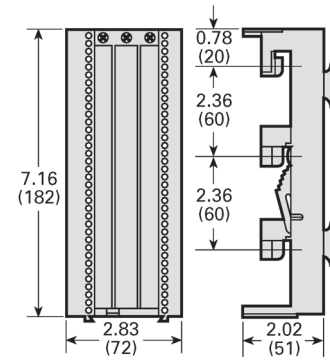
FBS3272
Adapter Shoe



FBS6572
Adapter Shoe



FBS8072^①
Adapter Shoe



All dimensions shown in inches (millimeters). For reference purposes only. Not to be used for design or construction purposes.

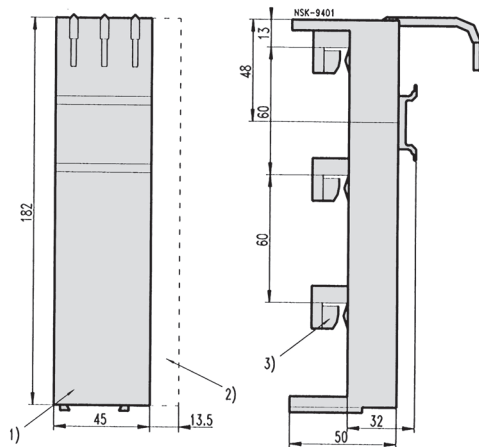
①Side profile dimension is generic for all FBS type shoes.

Fast Bus

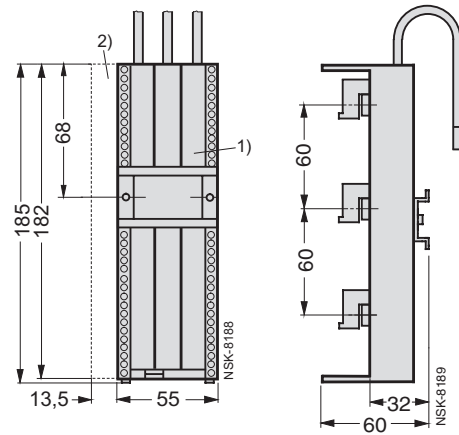
8US and Fast Bus Busbar Adapter System

Dimensions

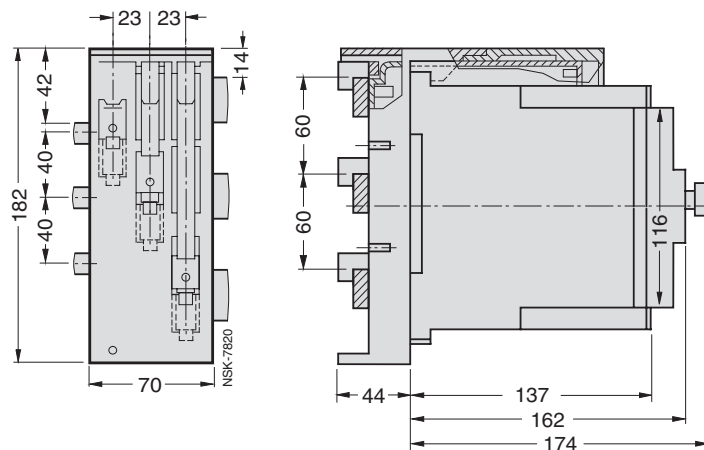
- 1) FBS2545
Adapter Shoe
- 2) 8US1998-2BM00
Side Module
- 3) for busbar
width: 12 to 30 mm
thickness: 5 and 10 mm



- 1) FBS5055
Adapter Shoe
- 2) 8US1998-2BM00
Side Module

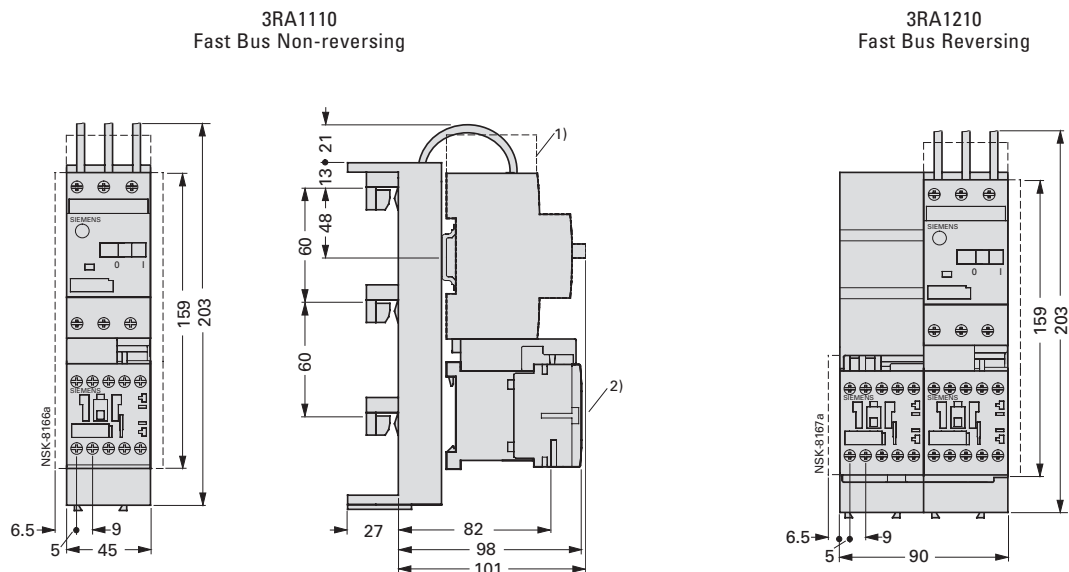


FBS10070
Adapter Shoe
with 3RV104 mounted



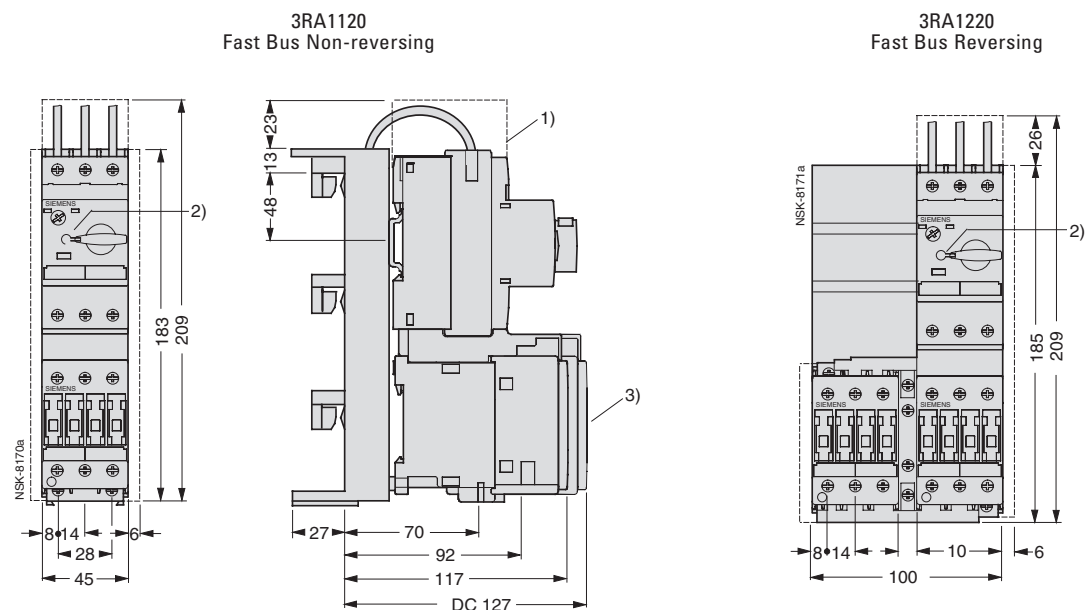
All dimensions shown in millimeters. For reference purposes only. Not to be used for design or construction purposes.

Dimensions, 3RV101 with 3RT101



- 1) Arcing space
- 2) When a front auxiliary is installed on the contactor, add 39 mm to the depth of the contactor.

Dimensions, 3RV102 with 3RT101



- 1) Arcing space
- 2) Lockable in OFF position. Padlock diameter 5 mm.
- 3) When a front mount auxiliary is installed on the contactor, add 49 mm to the depth of the contactor.

All dimensions shown in millimeters. For reference purposes only. Not to be used for design or construction purposes.

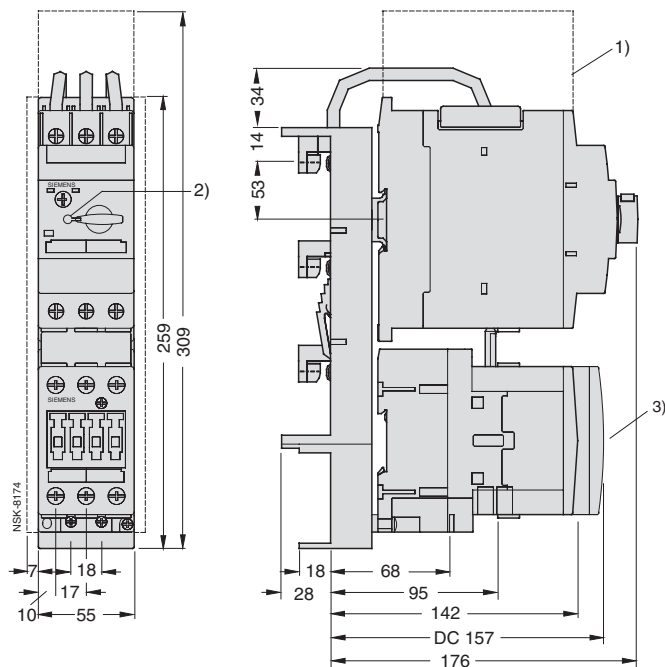
Fast Bus

8US and Fast Bus Busbar Adapter System

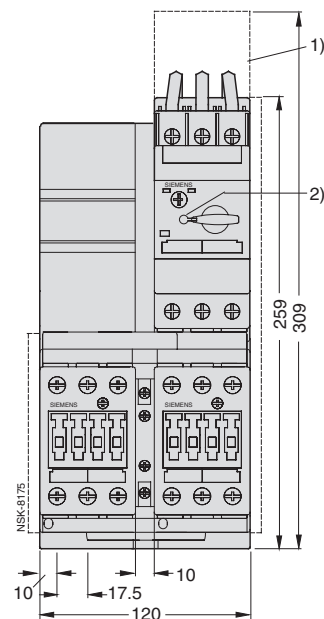
Dimensions

3RV103 with 3RT103

3RA1130
Fast Bus Non-reversing



3RA1230
Fast Bus Reversing

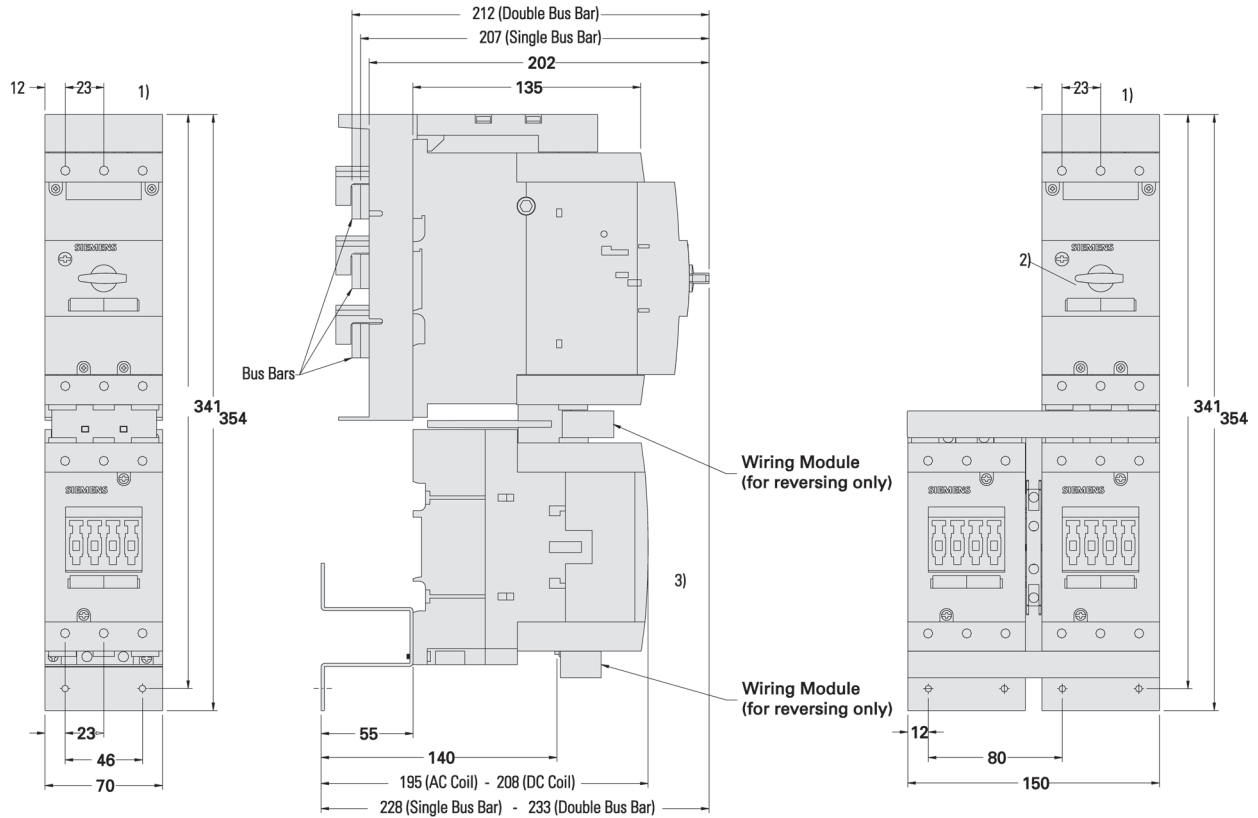


Lateral clearance to grounded components minimum 6 mm.

- 1) Arcing space
- 2) Lockable in OFF position with padlock diameter 5 mm.
- 3) When a front mount auxiliary is installed on the contactor, add 49 mm to the depth of the contactor.

All dimensions shown in millimeters. For reference purposes only. Not to be used for design or construction purposes.

3RV104 with 3RT104



Lateral clearance to grounded components minimum 6 mm.

- 1) Arcing space
- 2) Lockable in OFF position with padlock diameter 5 mm.
- 3) When a front mount auxiliary is installed on the contactor, add 49 mm to the depth of the contactor.

All dimensions shown in millimeters. For reference purposes only. Not to be used for design or construction purposes.

