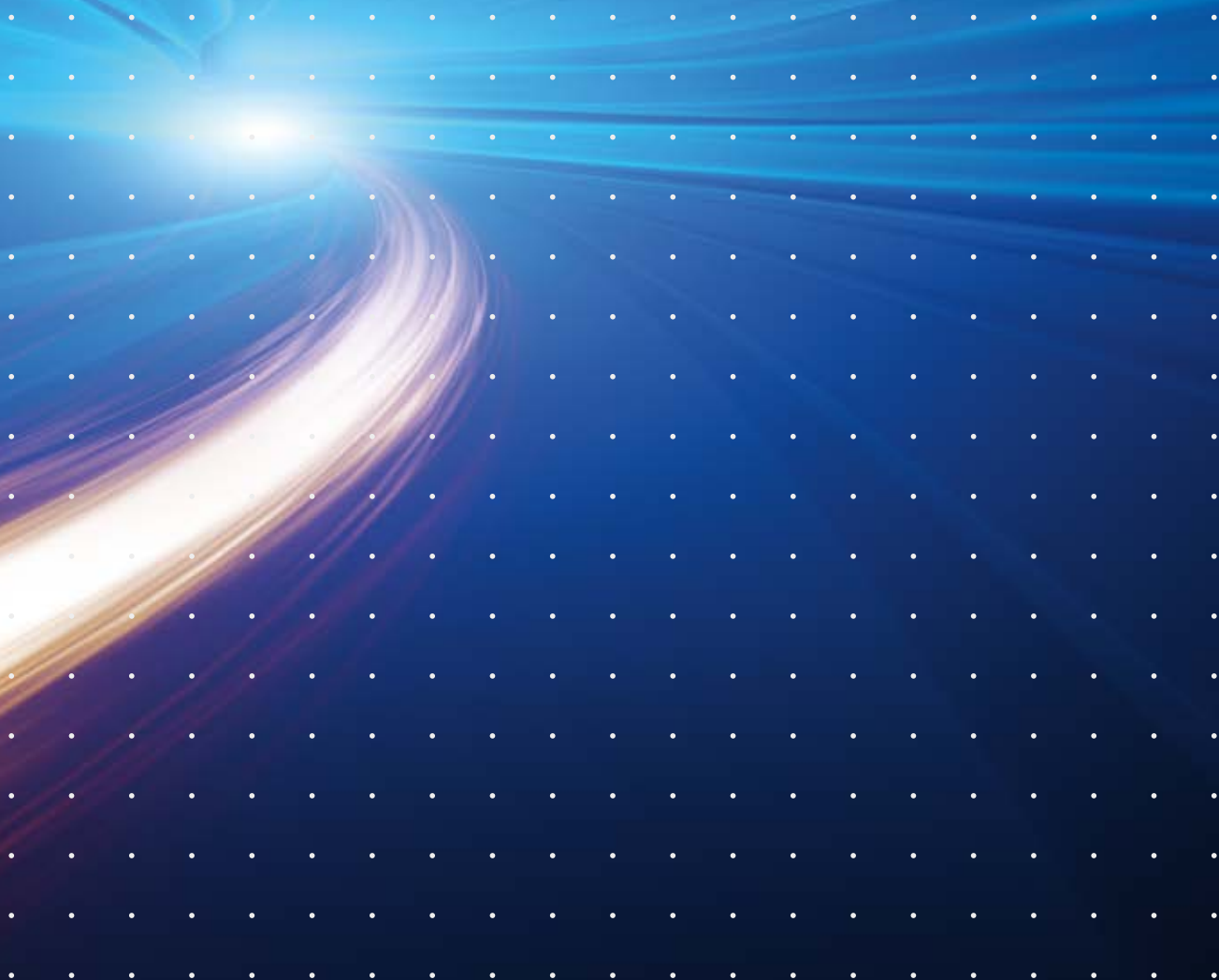


wöhner

MANUAL

2020







INNOVATION IS OUR POWER.

**Wöhner develops system solutions
for the electro-technical market.**

For over 90 years, the Wöhner name has been synonymous with impressive technical achievements and innovations. Today, the Wöhner Group is established worldwide as a specialist for international fuse and busbar systems in the field of power distribution, control technology and renewable energies. Innovations, short response times and the best possible customer service are the factors which enable us to compete in the international market. To help us meet these challenges, we are investing worldwide and continuously searching for skilled employees.



wöhner

QCS
125A
630V a.c.

IEC 60947-3

Wöhner offers in excess of 2400 different products.
The naming structure consists of a combination of basic system
and product family names. The individual products
can be used for one or more systems.

BASIC SYSTEMS



CrossBoard®



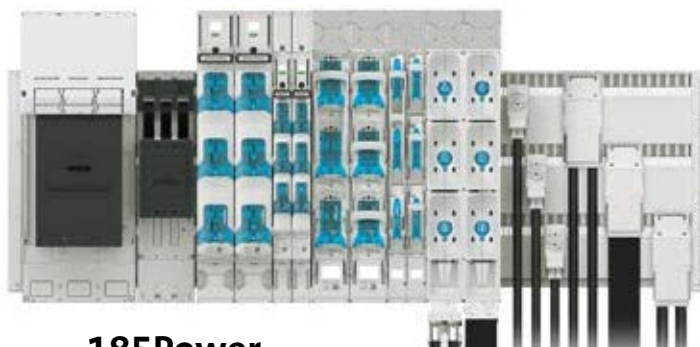
Panel



30Compact



60Classic



185Power

PRODUCT FAMILY



AMBUS®

Busbar mounted fuse-holder



BROOME10®

Power supply unit



CAPUS®

Switch-disconnector



CRITO®

Connection terminal plate



CUSTO®

Busbar mounted fuse-base



EQUES®

Busbar adapter



MOTUS®

Hybrid motor starter



OMUS®

Hybrid switch



QUADRON®

NH busbar mounted fuse-switch-disconnector



SECUR®

D0 switch-disconnector with fuses



TRITON®

Panel mounted fuse-base

Order hotline

+49 9563 751 161

Would you like to order our products? You can reach us in Rödental (Germany) by phone or e-mail: order@woehner.com

Technical hotline

+49 9563 751 260

Questions about technology, worldwide use, UL products? We look forward to your call or message: support@woehner.com

PRETTY SMART! OUR CONFIGURATOR.



Configurator

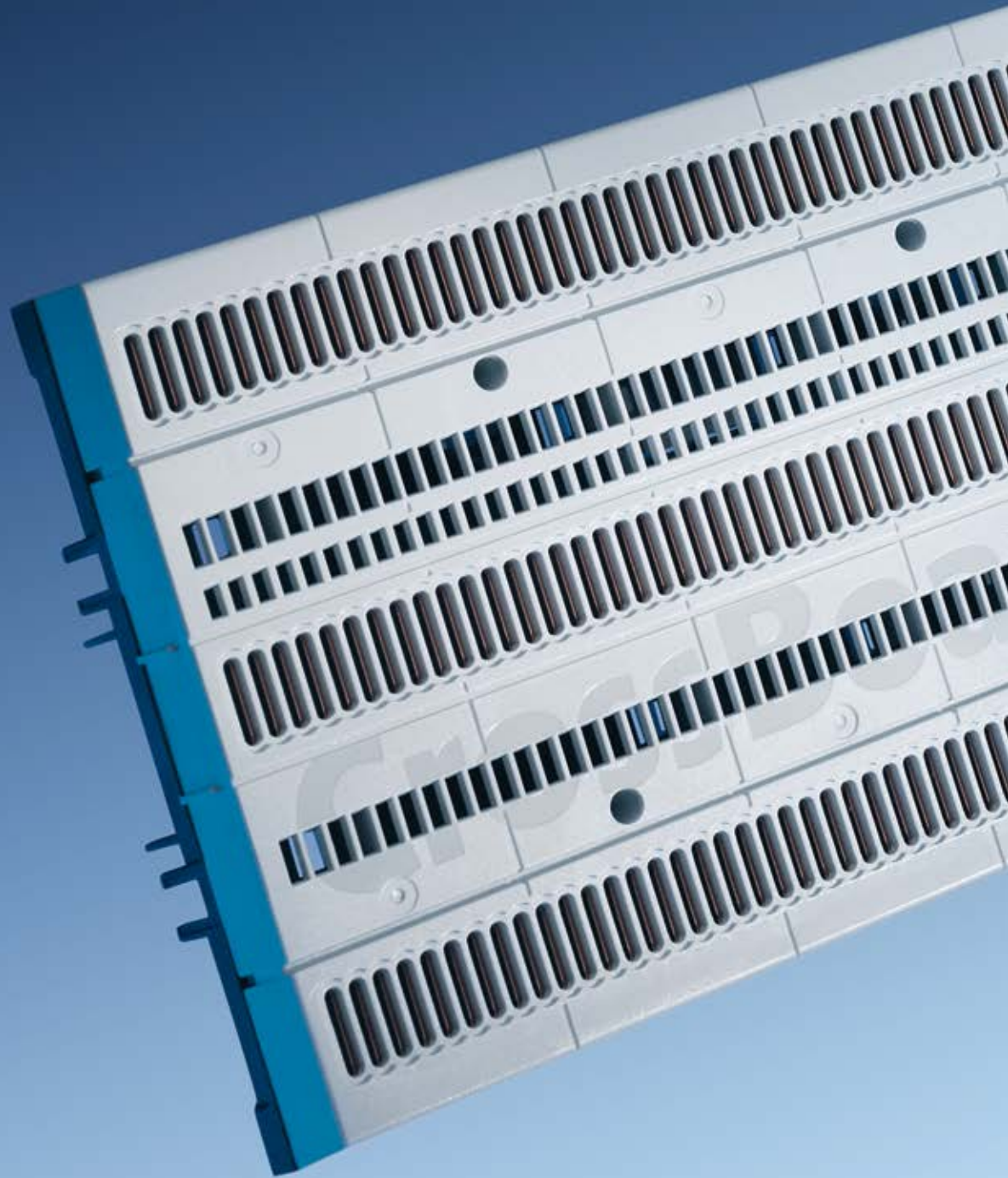
- + 3D planning tool with realistic appearance
- + Guidance by technical parameters
- + Technical documentation

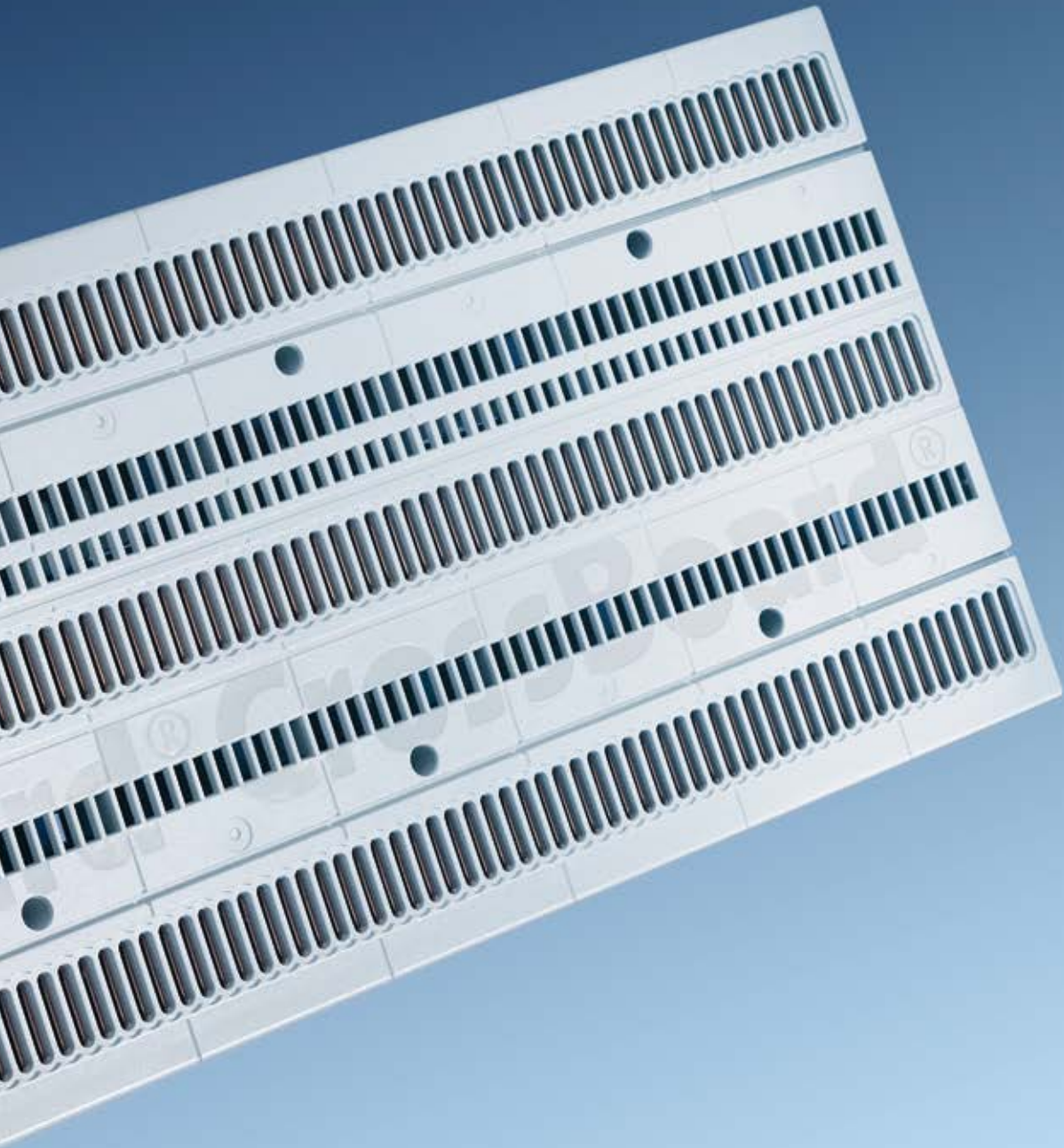
Augmented Reality

- + Presentation of a virtual control cabinet in a real room
- + Import of projects planned by yourself in the configurator is possible

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CrossBoard®





to the product:
<https://qrco.de/crossboard-en>



POWER DISTRIBUTION SYSTEM

CrossBoard®

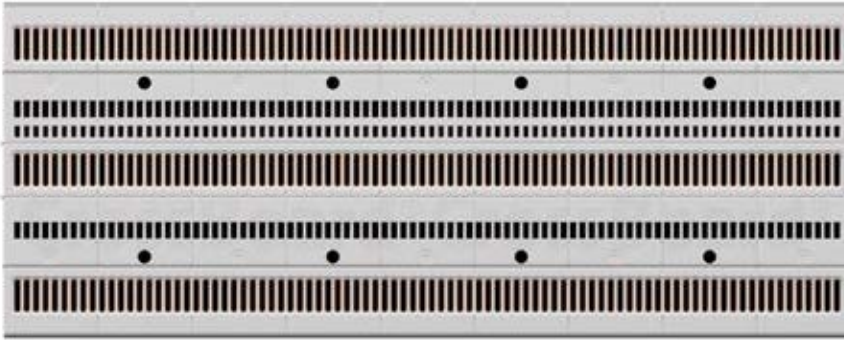


CrossBoard® – the global basic system

Tool-free mounting combined with outstanding safety thanks to integrated touch-safe protection makes CrossBoard® by Wöhner the ideal system solution for power distribution equipment up to 125 A. The user can quickly and easily snap components onto the global basic system. The feeding of the system can be achieved via connection modules or the NH fuse-switch-disconnector size 000. CrossBoard® is suitable mainly for applications in machine tool and plant engineering.

The modular structure ensures that the systems are clearly structured and, when necessary, easy to change or expand. Motors of up to 4 kW can be supplied directly from the CrossBoard® using the MOTUS® hybrid motor starter. The OMUS® hybrid switch is available for resistive loads with its low power dissipation and high life expectancy thanks to hybrid switch technology. The power supply for supplying the devices with control voltage can be integrated directly on the CrossBoard®.





CrossBoard®

Basic system - connection and mounting platform for all components

- rated current 125 A
- equipment width: 225 or 405 mm
- height 160 mm
- short-circuit capacity I_{pk}=25 kA
- rated voltage:
 - 690 V AC / 600 V DC (IEC)
 - 600 V AC / 600 V DC (UL)
- UL listed



EQUES® CrossBoard

- Adapter of 18 mm width, suitable for mounting miniature circuit breakers from various manufacturers.
- rated current: 16 A or 63 A
 - equipment width 18 mm
 - 1 fixed mounting rail
 - connection leads: 2.5 mm² or 10 mm²
 - can be combined into 1- to 4-pole adapters via accessories
 - UL listed



EQUES® CrossBoard

- Adapter for mounting motor protection devices with a fixed DIN rail.
- rated current up to 32 A
 - equipment width 45 mm
 - connection leads: 2.5 mm² or 6 mm²
 - UL listed



OMUS® CrossBoard

- Hybrid switch for switching resistive loads. The hybrid switch technology minimises power dissipation.
- continuous current up to 25 A
 - equipment width 36 mm
 - 4 integrated functions: energy supply, fuse protection, monitoring and switching
 - 3-pole or 1-pole switching
 - UL listed



MOTUS® CrossBoard

- Hybrid motor starter with integrated functions: direct and reversing starter, overload protection and emergency stop function. Significantly reduced space requirements and wiring costs.
- 3 design versions: up to 0.6 A, up to 2.4 A and up to 9 A
 - equipment width 22.5 mm
 - hybrid switch technology
 - up to 30 mil. switching cycles
 - versions with IO-Link interface
 - UL listed



CRITO® CrossBoard

- Connection modules for CrossBoard®. Particularly simple, safe and convenient mounting.
- rated current: 80 A or 125 A
 - equipment width: 22.5 or 45 mm
 - connection range: 1.5 - 16 mm² or 6 - 50 mm²
 - equipment width 22.5 mm with spring clamp technology for tool-free mounting of cables with CRITO® 22.5 mm
 - UL listed



EQUES® CrossBoard

- The EQUES® universal adapter can be used to mount measuring and monitoring relays.
- rated current 16 A
 - equipment width 22.5 mm
 - connection leads 2.5 mm²
 - for 1- to 3- pole devices
 - fuse compartment for 10x38 Class CC fuses up to max. 16 A
 - UL listed



EQUES® CrossBoard

- The EQUES®CrossBoard adapters are available for simple mounting of motor starter combinations from various manufacturers.
- rated current up to 45 A
 - equipment width 45 mm
 - adjustable mounting rail
 - connection leads: 2.5 mm², 4 mm², 6 mm² or 10 mm²
 - accessories for mounting of contactors
 - UL listed



EQUES® CrossBoard

- Adapter, 90 mm wide, to accept circuit breakers of different manufacturers.
- rated current 160 A
 - equipment width 90 mm
 - fixing adjustable to the circuit breaker
 - tool-free mounting of the adapter
 - UL listed



BROOME10® CrossBoard

- Power supply for direct connection on the CrossBoard®.
- rated voltage 24 V DC
 - nominal output current 10 A
 - equipment width 45 mm
 - no back-up fuse required
 - series and parallel connection to expand the current and voltage range
 - UL listed



QUADRON® CrossBoard

- NH fuse-switch-disconnector size 000 with only 49.5 mm equipment width. For feeding the CrossBoard® or a fused tap.
- rated current 125 A
 - for NH fuse-links size 000
 - equipment width 49.5 mm
 - box terminals 6 - 50 mm²
 - connection at top and bottom
 - utilisation category AC 22B, AC 21B

CrossBoard® - CRITO® - QUADRON® - BROOME10®

3-pole



CrossBoard® basic system, touch-safe protected with CrossLink® interface

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
CrossBoard®225	125 A	225	160	1	79.8	06		11225
CrossBoard®405	125 A	405		1	137.2	06		11405



CRITO® CrossBoard connection module, 3-pole, with spring clamp technology, cover cap and CrossLink® interface

Type	For use up to max.	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
with integrated spring terminals 1.5 - 16 mm ² , AWG 14 - 6	80 A	22.5	160	1	21.5	07		01592
with box terminals 6 - 50 mm ² / AWG 10 - AWG 1	125 A	45		1	25.0	07		01593



QUADRON® CrossBoard fuse-switch-disconnector, size NH 000, with CrossLink® interface

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
box terminal	125 A	49.5	174.5	1	41.5	09		33800



BROOME10® CrossBoard power supply, with CrossLink® interface

Type	Nominal output current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
24 V DC, with push-in terminals	10 A	45	160	1	71.8	21		36200

parallel connection for increased current and series connection for increased voltage possible



MOTUS®CrossBoard - OMUS®CrossBoard

hybrid switches for switching of inductive and resistive loads



MOTUS®CrossBoard hybrid motor starter, 3-pole, with reversing function and CrossLink® interface

Type	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.
electronic unit 0.075 - 0.6 A direct and reversing starter	22.5	160	1	50.9	21	36109
electronic unit 0.18 - 2.4 A direct and reversing starter			1	50.7	21	36110
electronic unit 1.5 - 9 A direct and reversing starter			1	51.4	21	36111

MOTUS®CrossBoard hybrid motor starter IO-Link, 3-pole, with reversing function, CrossLink® interface and communication interface

Type	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.
electronic unit IO-Link 0.18 - 3 A direct and reversing starter	22.5	160	1	51.4	21	36130
electronic unit IO-Link 1.5 - 9 A direct and reversing starter			1	51.4	21	36131

Replacement fuse, for MOTUS®CrossBoard

Type	Pack size	Weight kg/100 u.	PG	Part No.
fuse 16 A for version 0.6 A and 2.4 A	3	2.8	21	31567
fuse 20 A for version 9 A	3	2.8	21	31568
fuse 30 A for version 9 A for motors with heavy-duty starting	3	2.8	21	31569



OMUS®CrossBoard hybrid switch, 3- or 1-pole switchable, for resistive loads, with CrossLink® interface

Type	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.
electronic unit, 25 A (IEC)	36	160	1	55.2	21	36154
electronic unit, 20 A (UL)			1	55.2	21	36159

supplied with both load and control plug

Replacement component, for OMUS®CrossBoard

Type	Pack size	Weight kg/100 u.	PG	Part No.
3-pole load plug with spring terminals	1	1.5	21	36916
3-pole load plug with screw terminals	1	1.4	21	36918
12-pole control plug with spring terminals	1	0.6	21	36917

Replacement fuse, for OMUS®CrossBoard

cylindr. fuse link 32 A	10	0.6	22	31189
cylindr. fuse link 30 A, time delay	10	0.8	22	31252



EQUES®CrossBoard - Adapters 16 A - 63 A

1-pole, 3-pole



EQUES®CrossBoard adapter and component support, 1-pole, for MCBs, with CrossLink® interface

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
phase L1, 1 fixed mounting rail, with leads AWG 14 (2.5 mm ²)	16 A	18	160	6	6.0	05		32300
phase L2, 1 fixed mounting rail, with leads AWG 14 (2.5 mm ²)	16 A			6	6.0	05		32301
phase L3, 1 fixed mounting rail, with leads AWG 14 (2.5 mm ²)	16 A			6	6.0	05		32302
phase L1, 1 fixed mounting rail, with leads AWG 8 (10 mm ²)	63 A			6	6.6	05		32307
phase L2, 1 fixed mounting rail, with leads AWG 8 (10 mm ²)	63 A			6	6.6	05		32308
phase L3, 1 fixed mounting rail, with leads AWG 8 (10 mm ²)	63 A			6	6.6	05		32309
without electrical connection, 1 fixed mounting rail				6	3.3	05		32311



EQUES®CrossBoard adapter with fuse-carrier, with leads AWG 14 (2,5 mm²), with CrossLink® interface

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 fixed mounting rail, with fuse-carrier 10x38 / Class CC	16 A	22.5	160	1	12.9	05		36009

Fuse links not included



EQUES®CrossBoard adapter, basic version, with CrossLink® interface

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 fixed mounting rail, with leads AWG 14 (2.5 mm ²)	16 A	45	160	1	12.4	05		32666
1 fixed mounting rail, with leads AWG 10 (6 mm ²)	32 A			1	14.0	05		32682



EQUES®CrossBoard - Adapters 16 A - 160 A

1-pole, 3-pole



EQUES®CrossBoard adapter and component support, comfort version, with CrossLink® interface

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 adjustable mounting rail, with leads AWG 14 (2.5 mm ²)	16 A	45	160	1	14.0	05		32668
1 adjustable mounting rail, with leads AWG 14 (2.5 mm ²) 160 mm long, for devices with spring terminal technology	16 A			1	10.6	05		32669
2 adjustable mounting rails, with double-leads 2x AWG 12 (2x 4 mm ²) 101 / 258 mm long	25 A			1	14.0	05		32677
1 adjustable mounting rail, with leads AWG 12 (4 mm ²)	25 A			1	14.5	05		32676
1 adjustable mounting rail, with leads AWG 10 (6 mm ²)	32 A			1	15.6	05		32684
1 adjustable mounting rail, with leads AWG 10 (6 mm ²) 160 mm long, for devices with spring terminal technology	32 A			1	12.4	05		32686
1 adjustable mounting rail, with leads AWG 8 (10 mm ²)	45 A			1	18.0	05		32692
without electrical connection, 1 adjustable mounting rail				9	9.0	05		32665

Extension component, for adapter comfort version

Article	Type	Width	Pack size	Weight kg/100 u.	PG		Part No.
extension module for direct starters	40 mm extension	45	8	2.2	05		32933
extension set for reversing starters		90	4	7.3	05		32934

Accessories, for adapter comfort version

mounting rail 45 mm			10	1.4	05		32947
positioning piece for Siemens S00 and S0			10	1.7	05		32952
positioning piece for Eaton PKZ			10	1.2	05		32979



EQUES®CrossBoard adapter, with CrossLink® interface

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
ABB Tmax XT1, Allen-Bradley 140G-G, Siemens 3VA10, 3VA11, 3VA51	160 A	90	160	1	40.0	05		32690
ABB Tmax XT2, Allen-Bradley 140G-H, Eaton NZM1, Schneider Electric NSXm	160 A			1	40.0	05		32691



30 Compact





to the product:
<https://qrco.de/30compact-en>



30 MM / 60 MM BUSBAR SYSTEM

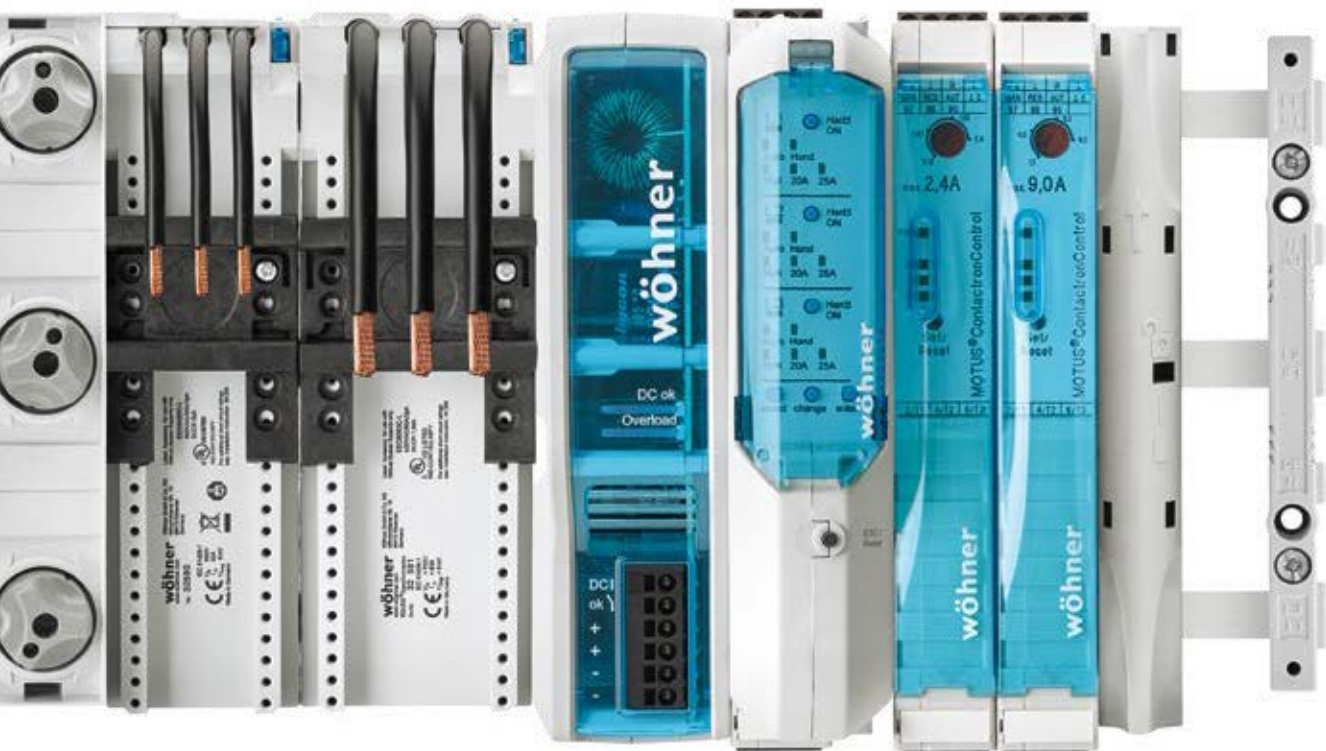
30 Compact



Compact busbar system for control technology and power distribution equipment up to 360 A

The 30Compact busbar system is the ideal solution for distribution boards with a rated current up to 360 A. The installation height of just 160 mm allows a particularly compact system to be realised. The 30Compact busbar system offers a clear space advantage compared to the

60Classic busbar system. Especially with smaller systems and their lower power requirements, valuable space can be saved within the cabinet. For such applications the 30Compact is the ideal system.



30 MM / 60 MM BUSBAR SYSTEM

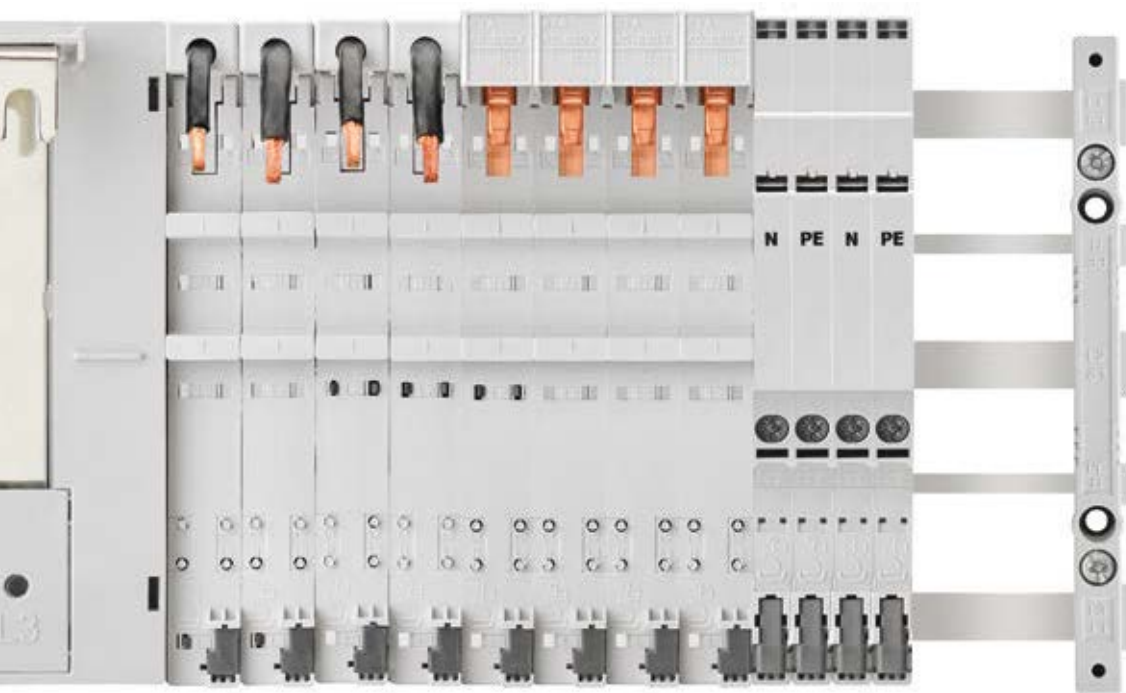
30 Compact



30Compact 5-pole – space-saving solution for distribution systems with miniature circuit breakers

In addition to the 3 phases, N and PE conductors can be arranged between the phase bars maintaining an installation height of just 160 mm. For distribution systems up to 200 A, 5-pole systems can be built in a space-saving manner with convenient connection.

For connection, 1-pole modules for conductors up to 120 mm² or adapters for switch-disconnectors are available. The adapters for mounting miniature circuit breakers up to 63 A can be variably adjusted to the tapping of the different phases and combined as required to form multipole adapters.





Busbars

30Compact

- 12 x 5 mm for 3- and 5-pole applications
- 12 x 10 mm for 3-pole applications
- tin-plated versions
- proven load current capacity
- proven short-circuit capacity
- UL listed



Busbar support

30Compact

- Busbar support for easy and safe installation. 3-pole with 60 mm distance between busbar centres, also for UL-compliant applications.
- 3- to 5- pole busbar support
 - for 12 x 5 and 12 x 10 mm (3-pole only) busbars
 - with end cover
 - UL listed, in connection with 3-pole installation



EQUES®

30Compact

Adapter of 18 mm width, suitable for mounting miniature circuit breakers from various manufacturers.

- rated current: 32 A or 63 A
- equipment width 18 mm
- 1 fixed mounting rail
- connection leads: 6 or 10 mm²
- can be combined into 1- to 4-pole adapters via accessories
- side, PE and N extension modules are available



EQUES®

30Compact

The EQUES®30Compact busbar adapters are available for easy mounting of motor starter combinations from various manufacturers.

- rated current: up to 32 A or up to 63 A
- equipment width: 45 or 54 mm
- adjustable mounting rail
- connection leads: 6 or 10 mm²
- side-mounted module, 9 mm wide
- UL listed



BROOME10®

30Compact

Power supply for direct connection, including adapter with CrossLink®Technology.

- rated voltage 24 V DC
- nominal output current 10 A
- equipment width 45 mm
- no back-up fuse required
- series and parallel connection to expand the current and voltage range
- UL listed



CUSTO®

30Compact

Busbar mounted fuse-base for D02 fuses.

- rated current 63 A
- equipment width 36 mm
- connection range 1.5 - 35 mm²



CRITO® 30Compact

Connection module with spring terminals for 30Compact allows especially simple, safe and convenient mounting.

- rated current max. 80 A
- equipment width 20 mm
- connection range 1.5 - 16 mm²
- spring-loaded technology for quick conductor connection
- UL listed



CRITO® 30Compact

Connection terminal plates. Convenient terminals for drill-less connection technology. Integrated touch-safe protection, complies with air and creepage distances as per UL.

- rated current up to 480 A
- equipment width: 54 or 90 mm
- connection range: 6 - 50 mm² or 35 - 150 mm²
- lam. Cu bars
- UL listed



MOTUS® 30Compact

Hybrid motor starter with integrated functions: direct and reversing starter, overload protection and emergency stop function. Significantly reduced space requirements and wiring costs.

- 3 design versions: up to 0.6 A, up to 2.4 A and up to 9 A
- equipment width 22.5 mm
- hybrid switch technology
- up to 30 mil. switching cycles
- versions with IO-Link interface
- UL listed



OMUS® 30Compact

Hybrid switch for switching resistive loads. The hybrid switch technology minimises power dissipation.

- continuous current up to 25 A
- equipment width 36 mm
- 4 integrated functions: energy supply, fuse protection, monitoring and switching
- 3-pole or 1-pole switching
- UL listed



QUADRON® 30Compact

Extra-slim NH fuse-switch-disconnector for size NH 000 fuses with CrossLink®Technology.

Tool-free mounting, spring-loaded contact and offering a particularly safe connection, changing the direction of outgoing connection is easy and safe.

- rated current 125 A
- for NH fuse-links size 000
- equipment width 49.5 mm
- box terminal 6 - 50 mm²
- utilisation category AC 22B, AC 21B
- connection at top and bottom

30Compact - Busbar systems

3-pole systems, system height 160 mm



Busbar support, with end cover

For busbar	Pack size	Weight kg/100 u.	PG	Part No.
for busbar 3-pole 12 x 5 and 12 x 10	10	6.8	06	01272

UL spacer

Type	Pack size	Weight kg/100 u.	PG	Part No.
suitable for 01272	10	5.2	06	01374



BROOME10®30Compact power supply, with CrossLink®Technology

Type	Nominal output current	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.
24 V DC, with push-in terminals	10 A	45	160	1	71.8	21	36201

parallel connection for increased current and series connection for increased voltage possible



Copper busbar, flat busbar, tin-plated

Type	Length	Crosssection mm ²	Pack size	Weight kg/100 u.	PG	Part No.
12 x 5	2400	60	1	128.4	06	01618
12 x 10		120	1	257.0	06	01623

for current carrying capacity of the busbars visit www.woehner.com; partial lengths on request

Cover section, for 3-pole busbar systems

0.70 m long	2	42.0	06	01314
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Mount for cover section, for 3-pole busbar systems

for 01314	10	1.8	06	01317
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Busbar cover

for 12 x 5 busbar, 1 m long	10	3.2	06	78463
for 12 - 30 x 5 busbar, 1 m long	10	8.7	06	01244
for 12 - 30 x 10 busbar, 1 m long	10	10.1	06	01245



CRITO®30Compact - Connection technology

1-pole and 3-pole, system height 160 mm



Universal connection terminal, 1.5 to 120 mm²

For busbar	Connection min. – max.	Terminal space W x H	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
flat busbars 5 mm	1.5 - 16 mm ² , AWG 16 - 6	7 x 7	180 A	100	2.1	07		01284
	4 - 35 mm ² , AWG 10 - 2	10 x 11	270 A	50	4.6	07		01285
	16 - 70 mm ² , AWG 14 - 2/0	14 x 14	400 A	25	7.1	07		01287
	16 - 120 mm ² , AWG 4 - 250 MCM	17 x 15	440 A	25	10.6	07		01068
flat busbars 10 mm	1.5 - 16 mm ² , AWG 16 - 6	7 x 7	180 A	100	2.3	07		01289
	4 - 35 mm ² , AWG 10 - 2	10 x 11	270 A	50	4.7	07		01290
flat busbars 10 mm and section busbars	16 - 70 mm ² , AWG 14 - 2/0	14 x 14	400 A	25	7.5	07		01292
	16 - 120 mm ² , AWG 4 - 250 MCM	17 x 15	440 A	25	10.9	07		01203

Cover cap, for universal connection terminals

terminal cover, for 01284 and 01289	20	0.5	07		01093
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Brace terminal, up to 150 mm², for round conductors

For busbar	Connection min. - max.	Terminal space W x H	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
12, 15, 20 x 5, 10	* 35 - 150 mm ² , AWG 2 - 300 MCM, lam. Cu. 15 - 20 x 5 - 10	20 x 22	480 A	6	10.2	07		01135

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

Connection module, 3-pole, with spring terminals, with cover cap

For busbar	Connection	Width	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
12 x 5, 10	with integrated spring terminals 1.5 - 16 mm ² , AWG 14 - 6	20	80 A	6	16.0	07		01562

Connection terminal plate, 3-pole, with cover cap

12 x 5, 10	6 - 50 mm ² , AWG 10 - 2/0, lam. Cu. 7 - 9 x 4 - 10	54	300 A	1	20.6	07		01401
12 x 5, 10	35 - 150 mm ² , AWG 2 - 300 MCM, lam. Cu. 15 - 20 x 5 - 10	90	480 A	1	57.5	07		01165

Busbar connecting terminal, for identical busbars

For busbar	System spacing	Width	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
12, 15, 20 x 5, 10	5 - 10	55	520 A	12	19.2	07		01166
12, 15, 20 x 5, 10	100 - 110	150		3	52.4	07		01193

3 pieces required for a 3-pole connection, use 01317 and 01314 as cover



EQUES®30Compact - MOTUS®30Compact - OMUS®30Compact

busbar adapters and hybrid switches for switching of inductive and resistive loads



Busbar adapter with fuse carrier, 16 A, with removable top section, with leads AWG 14 (2.5 mm²)

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 fixed mounting rail, with fuse-carrier 10x38 / Class CC	22.5	160	1	18.0	05		36001

Busbar adapter, 32 A, with leads AWG 10 (6 mm²)

1 adjustable mounting rail	45	160	4	19.8	05		32590
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Busbar adapter, 63 A, with leads AWG 8 (10 mm²)

1 adjustable mounting rail	54	160	4	21.8	05		32591
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Busbar adapter, 160 A, connection to system at the top

for Siemens 3VA10, 11 and VT160	76	160	1	78.0	05		32661
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Side-mounted module, for busbar adapters 32 A to 63 A

for 32590 and 32591	9	160	10	2.0	05		32912
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Hybrid motor starter, MOTUS®30Compact, 3-pole, with reversing function and CrossLink®Technology

0.075 - 0.6 A direct and reversing starter	22.5	160	1	55.3	21		36101
0.18 - 2.4 A direct and reversing starter			1	55.8	21		36104
1.5 - 9 A direct and reversing starter			1	55.9	21		36107

Replacement component, for MOTUS®30Compact

electronic unit 0.075 - 0.6 A direct and reversing starter	1	50.9	21		36109
electronic unit 0.18 - 2.4 A direct and reversing starter	1	50.7	21		36110
electronic unit 1.5 - 9 A direct and reversing starter	1	51.4	21		36111
busbar adapter base with CrossLink® interface	1	9.3	05		36113
fuse 16 A for version 0.6 A and 2.4 A	3	2.8	21		31567
fuse 20 A for version 9 A	3	2.8	21		31568
fuse 30 A for version 9 A for motors with heavy-duty starting	3	2.8	21		31569

Hybrid switch, OMUS®30Compact, 3- or 1-pole switchable, for resistive loads, with CrossLink®Technology

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
25 A (IEC)	36	160	1	62.8	21		36152
20 A (UL)			1	45.2	21		36157

Replacement component, for OMUS®30Compact

electronic unit, 25 A (IEC)	1	55.2	21		36154
electronic unit, 20 A (UL)	1	55.2	21		36159
busbar adapter base with CrossLink® interface	1	10.6	05		36155
3-pole load plug with spring terminals	1	1.5	21		36916
3-pole load plug with screw terminals	1	1.4	21		36918
12-pole control plug with spring terminals	1	0.6	21		36917

Replacement fuse-link, for OMUS®30Compact

cylindr. fuse link 32 A	10	0.6	22		31189
cylindr. fuse link 30 A, time delay	10	0.8	22		31252



CUSTO®30Compact - QUADRON®30Compact

3-pole fuse-bases and fuse-switch-disconnectors, system height 160 mm



D0 busbar mounted fuse-base, with touch-safe protection

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
E 18 / 63 A	36	160	6	13.0	01		31554



NH busbar mounted fuse-switch-disconnector, size 000, 3-pole, connection at top / bottom

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.
box terminal	125 A	49.5	174.5	1	52.5	09	33801
box terminal	125 A	90	160	1	90.0	09	33416

Side-mounted module, for NH busbar mounted fuse-switch-disconnector, size 000

Type	Width	Pack size	Weight kg/100 u.	PG	Part No.
attachable to both sides	3.5	10	2.2	09	33805

to extend the disconnector NH000 33801 to 53 mm wide



Pilot switch, for monitoring the disconnector lid position

Type	Pack size	Weight kg/100 u.	PG	Part No.
changeover 250 V AC / 5 A, 30 V DC / 4 A	1	1.1	09	33156

suitable for disconnector 33416 only

Accessories, busbar adapter base with CrossLink® interface

Type	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.	
with CrossLink® interface	*	49.5	160	2	11.2	05	32619



30Compact - Busbar systems 5-pole (N/PE)

5-pole systems, system height 160 mm



Intermediate busbar brace, 2 mm wide

Type	Pack size	Weight	PG	Part No.
to increase the mechanical strength	10	1.5	06	01376

Busbar support, with end cover

for busbars 5-pole 12 x 5 and 12 x 10, N + PE 12 x 5	10	6.8	06	01272
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Copper busbar, flat busbars, tin-plated

busbar 12 x 5	1	128.4	06	01618
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for current carrying capacity of the busbars visit www.woehner.com; partial lengths on request

Cover section, for 3- to 5-pole busbar systems

700 x 160	2	42.0	06	01314
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Mount for cover section, for 3- to 5-pole busbar systems

for 01314	10	1.8	06	01317
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Base plate

700 x 160	2	26.7	06	01371
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Connection set, 10 to 120 mm², with cover cap

Type	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.
connection set, 3-pole L1-L2-L3	90	160	1	60.0	07	01370
connection module N	30		1	21.5	07	01364
connection module PE			1	21.5	07	01367
connection set, 3-pole L1-L2-L3	60		1	51.5	07	01426
connection module PE + N	30		1	30.0	07	01427

Busbar adapter, 160 A, 4-pole

for Schneider Electric INS 100/125/160, top connection to the system	141	160	1	64.0	05	32640
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EQUES® 30Compact - Busbar adapters 32 A - 63 A

1-pole, for miniature circuit breakers, system height 160 mm



Busbar adapter, 32 A, 1-pole, connection to system at the top

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 fixed mounting rail	18	160	12	6.0	05		32629

connection adjustable to L1, L2, L3 or N

Busbar adapter, 63 A, 1-pole, connection to system at the top

1 fixed mounting rail	18	160	12	6.6	05		32630
1 fixed mounting rail, for Schneider Electric iC60, iC65 and C60	18	160	12	7.0	05		32628

connection adjustable to L1, L2, L3 or N

Busbar component support, without electrical connection

1 fixed mounting rail	18	160	6	3.3	05		32631
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PE/N adapter module, with terminal 16 mm²

module PE	9	160	12	4.4	05		32634
module N *	9	160	12	4.4	05		32632

* without own locking on the busbar system; must be plugged onto busbar adapter

Side-mounted module, for adapters

for single pole busbar adapters	9	160	12	1.2	05		32633
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Accessories

Type	Pack size	Weight kg/100 u.	PG		Part No.
connector to create multipole adapters (100 pieces)	* 1	2.0	05		31390

* for 50 device connections

60Classic





to the product:
<https://qrco.de/60classic-en>



60 MM BUSBAR SYSTEM

60Classic



Busbar system with a large selection of components for many applications

A busbar centre distance of 60 mm is the standard in most low-voltage distribution applications today. Developed by Wöhner, this standard has been implemented in the 60Classic system and has become the most common busbar system in many branches.

Two main reasons for its success: 60Classic is space-saving and provides a huge selection of components. Depending on requirements, busbars of various cross sections can be used; currents up to a maximum of 2500A are possible.



60 MM BUSBAR SYSTEM

60Classic



Busbar system for international use

Thanks to “UL listed” approval, numerous components meet the requirements for use in the USA and Canada. The system is complemented by a number of special components

for UL-compliant fuse systems. In addition, extensive documentation as well as planning and selection tools support the user during the specification phase.



60 MM BUSBAR SYSTEM

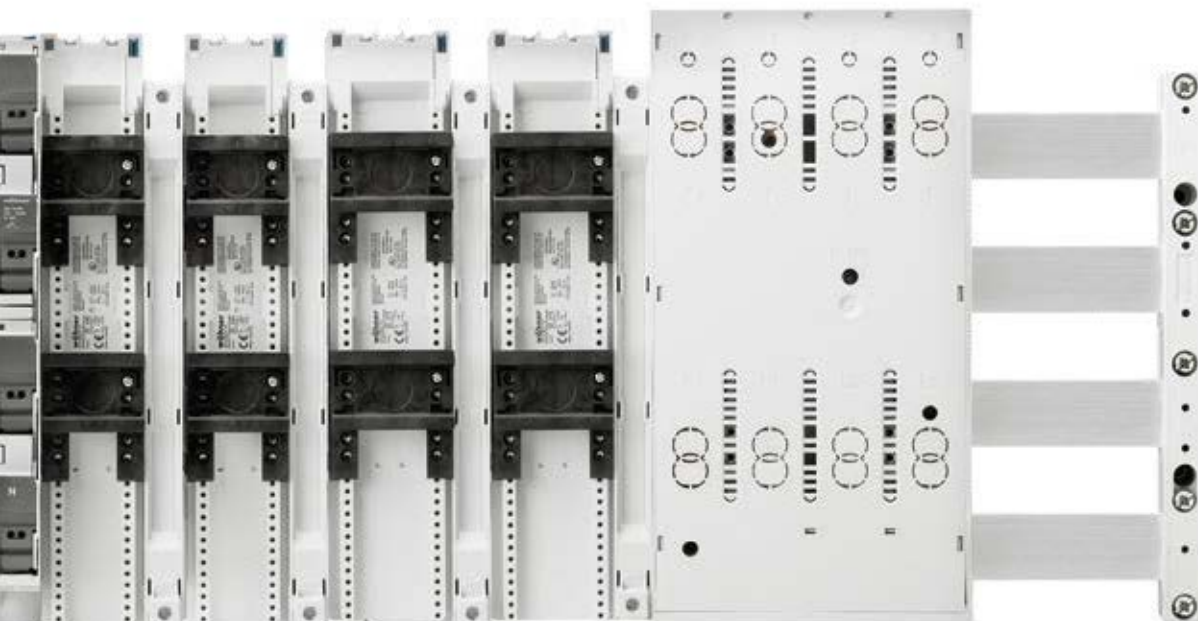
60Classic



Multipole possibilities in the 60 mm busbar system

A whole range of 4-pole components are available: Connection options for different conductor types and cover systems, holders for cylindrical fuses and a selection of adapters for switching devices, also as PE/N adapter module. A 4-pole system can also be set up with double T-bars at a distance

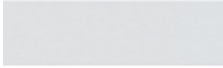
of 60 mm between busbar centres. The 4th busbar is mainly used for the N conductor, alternatively it can be used as PE and as a supplement to the 5-conductor system.





Busbars 60Classic

- 12, 15, 20, 30 x 5, 10 mm
- tin-plated versions
- proven load current capacity
- proven short-circuit capacity
- UL listed



Double-T, triple-T, TCC section busbars 60Classic

- double-T section busbars in 500 mm² and 720 mm²
- triple-T section busbars with 1140 mm²
- TCC section busbars 1600 mm²
- UL listed double-T and triple-T bars



CRITO®60Classic

- Connection module for 60Classic. Particularly simple, safe and convenient mounting. With spring terminals.
- rated current 80 A
 - equipment width 20 mm
 - connection range 1.5 - 16 mm²
 - spring terminal technology for quick conductor connection
 - UL listed



CRITO®60Classic

- Connection technology for many different conductor types up to 300 mm² cross-section and up to 32 mm wide lam. Cu bars.
- rated current up to 800 A
 - equipment width: 54, 81, 135, 153, 204 mm
 - connection range 6 - 300 mm² with different conductor connection terminals
 - UL listed



MOTUS® 60Classic

- Hybrid motor starter with integrated functions: direct and reversing starter, overload protection and emergency stop function. Significantly reduced space requirements and wiring costs.
- 3 design versions: up to 0.6 A, up to 2.4 A and up to 9 A
 - equipment width 22.5 mm
 - hybrid switch technology
 - up to 30 mil. switching cycles
 - versions with IO-Link interface
 - UL listed



OMUS® 60Classic

- Hybrid switch for switching resistive loads. The hybrid switch technology minimises power dissipation.
- continuous current up to 25 A
 - equipment width 36 mm
 - 4 integrated functions: energy supply, fuse protection, monitoring and switching
 - 3-pole or 1-pole switching
 - UL listed



Busbar support 60Classic

- Busbar support for easy and safe construction of systems with 60 mm distance between busbar centres.
- 1-, 2-, 3- and 4-pole versions
 - adjustable for busbars 12 x 5 - 30 x 10 mm
 - versions for double-T and triple-T bars
 - versions in connection with spacer or base plate
 - UL listed



Busbar support 60Classic

- Busbar support for section busbars in the 60Classic system.
- 1- and 3-pole versions
 - versions for double-T, triple-T and TCC section busbars
 - UL listed double-T and triple-T bars



EQUES® 60Classic

- The EQUES® busbar adapters are available for simple mounting of motor starter combinations from various manufacturers.
- rated current up to 80 A
 - equipment width from 45 to 90 mm
 - moveable DIN rails
 - connection leads: 2.5 - 10 mm² terminals up to 16 mm²
 - versions with CrossLink®Technology
 - UL listed



EQUES® 60Classic

- Busbar adapters for circuit breakers up to 630 A.
- 3- and 4-pole versions
 - versions for all commercially available switching devices
 - size aligned to the circuit breaker
 - easy and convenient mounting
 - integrated connection for the respective switching device
 - UL listed



BROOME10® 60Classic

- Power supply for direct connection, including adapter with CrossLink®Technology.
- rated voltage 24 V DC
 - nominal output current 10 A
 - equipment width 45 mm
 - no back-up fuse required
 - series and parallel connection to expand the current and voltage range
 - UL listed



CUSTO® 60Classic

- 3-pole busbar mounted fuse-base for D and D0 fuses.
- covers also available for double widths
 - versions with integrated touch-safe protection
 - rated current up to 63 A
 - equipment width 27 - 57 mm
 - connection range: 1.5 - 25 mm² / 35 mm²
 - optional D-base gauge rings and screw-in gauge rings



SECUR®60Classic PowerLiner

D0 busbar mounted switch-disconnector with proven drawer-type method for higher loads. All phase conductors are conveniently guided downwards.

- captive fuse carrier for commercial gauge rings
- optional side-mounted module, LED display and auxiliary switch
- 3-pole version
- further version for fuses 10x38



SECUR®60Classic EasyLiner

Busbar mounted switch-disconnector for D0 fuses with spring clamp technology. Flat design, especially suitable for use in distribution boards.

- captive fuse carrier for commercial gauge rings
- optional side-mounted module, LED display and auxiliary switch
- 3-pole version
- lockable



QUADRON® 60Classic

NH fuse-switch-disconnector 125 A with CrossLink®Technology.

- for NH fuses size 000
- equipment width 49.5 mm
- box terminals 6 - 50 mm²
- utilisation category AC 22B, AC 21B
- connection at top and bottom



QUADRON® 60Classic

NH busbar mounted fuse-switch-disconnectors up to 630 A with CrossLink®Technology. Spring-loaded for secure connection, tool-free installation, easily change outgoing direction.

- for size NH 000 up to 3 fuses
- versions with fuse monitoring
- various accessories for connection and shrouding



AMBUS® 60Classic

- Busbar mounted fuse-holder for Class CC or 10x38 fuses up to 32 A. Snap-on mounting on busbars, convenient connection with spring-type terminals on outgoing side.
- equipment width 27 mm
 - 2-, 3- and 4-pole versions
 - versions with LED display
 - 1-pole version for photovoltaic applications
 - UL listed



CRITO®

- Brace terminals for round or flat conductor. Simple and convenient connection due to overlap of the busbar and conductor.
- conductor connection possible from top and bottom
 - looping possible
 - for round conductors 35 - 300 mm²
 - for flat conductors 50 - 100 mm wide
 - UL listed



QUADRON® 60Classic

- Class J busbar mounted fuse-base with CrossLink®Technology. Spring-loaded for secure connection, tool-free installation, easily change outgoing direction.
- for Class J to 30 A, 60 A and 100 A as well as 200 A and 400 A fuses
 - integrated fuse adaptor for ease of use
 - UL listed



QUADRON® 60Classic Speed

- The NH busbar mounted switch-disconnector-fuse with CrossLink®Technology is the highlight. Its snap-action switch mechanism enables safe, operator-independent switching.
- tool-free mounting
 - double break
 - lockable in OFF position
 - rotary drive versions or fuse monitoring

60Classic - Busbar systems

1-, 2-, 3-, 4-pole systems, system height 200 mm



Universal busbar support, without end cover

Type	Busbar	Pack size	Weight kg/100 u.	PG		Part No.
2-pole with internal screw holes	12, 20, 30 x 5, 10	1	8.3	06		01602
3-pole with internal screw holes	12, 15, 20, 25, 30 x 5, 10	10	12.7	06		01495
3-pole with additional external screw holes		10	13.7	06		01500
4-pole with internal screw holes		10	26.6	06		01485

UL busbar support, without end cover

3-pole, with internal screw holes	12, 20, 30 x 5, 10	10	14.0	06		01508
4-pole, with internal screw holes		10	19.7	06		01357

UL spacer, for UL busbar supports

suitable for 01508	10	9.1	06		01358
suitable for 01357	10	13.1	06		01359

Base plate, for UL busbar supports 01508, 01231, 01232

240 x 1100	2	73.7	06		01518
240 x 700	2	46.9	06		01515

PE/N busbar support, incl. PE and N labels

Type	Busbar	Pack size	Weight kg/100 u.	PG		Part No.
2-pole, indiv. mountable	* 12, 15, 20, 25, 30 x 5, 10	10	9.5	06		01356
1-pole, indiv. mountable	12, 20, 30 x 5, 10	1	5.9	06		01601

* stepped busbars



BROOME10®60Classic power supply, with CrossLink®Technology

Type	Nominal output current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
24 V DC, with push-in terminals	10 A	45	200	1	71.8	21		36202

parallel connection for increased current and series connection for increased voltage possible



60Classic - Busbar systems with section busbars

1-, 3-, 4-pole systems



Busbar support, for double-T section, without end cover

Type	Pack size	Weight kg/100 u.	PG	Part No.
1-pole, to be attached to 01231 and individually mountable	4	13.0	06	01116
3-pole, with internal screw holes	3	59.1	06	01231

Busbar support, for triple-T section, without end cover

1-pole, to be attached to 01232 and individually mountable	4	15.0	06	01132
3-pole, with internal screw holes	2	69.7	06	01232

Busbar support, for TCC section, without end cover

3-pole, with internal screw holes	2	69.7	06	01422
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End cover, for busbar support for section busbars

for busbar supports 01116 and 01132	4	1.8	06	01373
for busbar supports 01231 and 01232	4	4.8	06	01234
for busbar support 01422	4	5.3	06	01425



Connection busbar support, without end cover

Type	Busbar	Pack size	Weight kg/100 u.	PG	Part No.
3-pole, with integrated terminals 1.5 - 16 mm ²	12, 15, 20, 25, 30 x 5, 10	10	25.6	06	01484

End cover, for universal busbar supports, to cover the busbar ends

Type	Pack size	Weight kg/100 u.	PG	Part No.
for busbar support 01356 and 01601	10	0.7	06	01325
for busbar support 01602	1	1.5	06	01363
for busbar supports 01484, 01495, 01500, 01508 and 01603	10	2.0	06	01573
for busbar supports 01357 and 01485 (1x 01131 = 1 left + 1 right cover)	5	5.6	06	01131



60Classic - Busbar systems - Current transformers

standard copper busbars and section busbars



Copper busbar, flat, tin-plated

Type	Length	Crosssection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
busbar 12 x 5	2400	60	1	128.4	06		01618
busbar 15 x 5	2400	75	1	160.6	06		01619
busbar 20 x 5	2400	100	1	214.4	06		01620
busbar 25 x 5	2400	125	1	267.8	06		01621
busbar 30 x 5	2400	150	1	321.4	06		01622
busbar 12 x 10	2400	120	1	257.0	06		01623
busbar 20 x 10	3600	200	1	650.0	06		01140
busbar 20 x 10	2400		1	428.6	06		01624
busbar 30 x 10	3600	300	1	970.0	06		01204
busbar 30 x 10	2400		1	643.2	06		01625

for current carrying capacity of the busbars visit www.woehner.com; partial lengths on request

Current transformer, for measuring at flat busbars

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 200 A / 5 A	1	2.50 VA	1	13.5	23		37212
current transformer 250 A / 5 A	1	2.50 VA	1	13.5	23		37213
current transformer 400 A / 5 A	1	2.50 VA	1	13.5	23		37214
current transformer 500 A / 5 A	1	2.50 VA	1	13.5	23		37215
current transformer 600 A / 5 A	1	2.50 VA	1	13.5	23		37216
fixing clip for current transformer			3	0.5	23		37900

for additional current transformers see chapter 7 - Accessories



Section copper busbar, tin-plated

Type	Length	Crosssection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
double-T section busbar 500 mm ²	3600	500	1	1596.0	06		01224
double-T section busbar 500 mm ²	2400	500	1	1062.0	06		01609
double-T section busbar 720 mm ²	3600	720	1	2334.0	06		01190
double-T section busbar 720 mm ²	2400	720	1	1554.0	06		01608
triple-T section busbar 1140 mm ²	3600	1140	1	3693.6	06		01227
triple-T section busbar 1140 mm ²	2400	1140	1	2462.4	06		01187
TCC section busbar 1600 mm ²	2400	1600	1	3416.0	06		01610

for current carrying capacity of the busbars visit www.woehner.com; partial lengths on request

Section copper busbar, plain

double-T section busbar 500 mm ²	3600	500	1	1596.0	06		01223
double-T section busbar 500 mm ²	2400		1	1060.0	06		01250
double-T section busbar 720 mm ²	3600	720	1	2332.0	06		01229
double-T section busbar 720 mm ²	2400		1	1556.0	06		01249

for current carrying capacity of the busbars visit www.woehner.com; partial lengths on request



60Classic - Covering systems

1-, 3- and 4-pole versions



Busbar cover, for 1-pole busbars

Type	Pack size	Weight kg/100 u.	PG		Part no.
for 12 - 30 x 5 busbar, 1 m long	10	8.7	06		01244
for 12 - 30 x 10 busbar, 1 m long	10	10.1	06		01245
for double-T and triple-T section, 1m long	5	38.0	06		01252
for 12 x 5 busbar, 1 m long	10	3.2	06		78463

independent from system, for individual busbars

Cover section, for 3-pole busbar systems

700 x 195	2	75.0	06		01025
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Mount, for cover section for 3-pole busbar systems

depth 32 mm, for 01025	10	3.9	06		01026
depth 107 mm, for 01025, 01236, 01237, 01238	8	12.0	06		01320

snaps directly onto busbars 12, 15, 20, 25, 30 x 5, 10, double-T and triple-T section

Holder set, for cover sections for 3-pole busbar systems

set consisting of left and right holder, for covers 01554, 01555 and 01417	1	18.0	07		01136
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Cover section, for holder set for 3-pole busbar systems

front mounted, 1.10 m long, for holder 01136	1	45.1	07		01554
top / bottom, 1.10 m long, for holders 01136 or 01137	2	27.1	07		01555
top / bottom, slotted, 1.10 m long, for holders 01136 or 01137	2	23.0	06		01417

snaps directly onto busbars 12, 15, 20, 25, 30 x 5, 10, double-T and triple-T section

Holder set, for cover sections for 4-pole busbar systems

set consisting of left and right holder, for covers 01599, 01555 and 01417	1	21.0	07		01137
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Cover section, for holder set for 4-pole busbar systems

front mounted, 1.10 m long, for holder 01137	1	58.0	07		01599
top / bottom, 1.10 m long, for holders 01136 or 01137	2	27.1	07		01555
top / bottom, slotted, 1.10 m long, for holders 01136 or 01137	2	23.0	06		01417

Compartment section, for adjusting the installation depth for double-T and triple-T section busbar systems

48 mm deep, 2.40 m long	1	70.0	06		01236
76 mm deep, 2.40 m long	1	105.0	06		01237
106 mm deep, 2.40 m long	1	140.0	06		01238



CRITO®60Classic - Connection technology

3- and 4-pole versions



Connection busbar support, 3-pole, for 12, 15, 20, 25, 30 x 5, 10 busbars, with cover cap

Type	For use up to max. **	Width	Pack size	Weight kg/100 u.	PG		Part No.
3-pole, with integrated terminals 1.5 - 16 mm ²	80 A	20	10	25.6	06		01484

Connection module, 3-pole, for 12, 15, 20, 25, 30 x 5, 10 busbars and section busbars, with spring terminals, with cover cap

with integrated spring terminals 1.5 - 16 mm ² , AWG 14 - 6	80 A	20	8	18.1	07		01563
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Connection terminal plate, 3-pole, for 12 x 5 - 30 x 10 busbars and section busbars, with cover cap

6 - 50 mm ² , AWG 10 - 2/0, lam. Cu. 7 - 9 x 4 - 10	300 A	54	1	45.1	07		01240
35 - 120 mm ² , AWG 2 - 250 MCM, lam. Cu. 9 - 15.5 x 2,4 - 10	440 A	81	1	53.5	07		01243

Accessories, single cover for terminals

Type	Pack size	Weight kg/100 u.	PG		Part No.
for terminal plate 01240	3	0.4	07		01300
for terminal plate 01243	3	0.5	07		01301



Connection terminal plate, 3-pole, for 20 x 5 - 30 x 10 and section busbars, with cover cap

Type	For use up to max. **	Width	Pack size	Weight kg/100 u.	PG		Part No.
95 - 185 mm ²	* 460 A	135	1	132.2	07		01199
95 - 300 mm ²	* 560 A		1	165.7	07		01754
lam. Cu. 20 - 32 x 3 - 15	800 A		1	144.7	07		01753

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

Connection set, 3-pole, for 20 x 5 - 30 x 10 and section busbars, without cover cap

95 - 300 mm ² , AWG 3/0 - 600 MCM	* 560 A	153	1	155.5	07		01537
lam. Cu. 20 - 32 x 3 - 15	800 A		1	132.5	07		01538

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

Connection set, 4-pole, for 20 x 5 - 30 x 10 and section busbars, without cover cap

95 - 300 mm ² , AWG 3/0 - 600 MCM	* 560 A	204	1	210.0	07		01147
lam. Cu. 20 - 32 x 3 - 15	800 A		1	180.0	07		01162

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

** for rated currents see product description at www.woehner.com



CRITO® - Conductor connection terminals

1-pole terminals and multi-pole terminal covers



Universal connection terminal, 1.5 mm² to 120 mm²

For busbar	Connection min. - max.	Terminal space W x H	For use up to max.	Pack size	Weight kg/100 u.	PG	Part No.
flat busbars 5 mm	1.5 - 16 mm ² , AWG 16 - 6	7 x 7	180 A	100	2.1	07	01284
	4 - 35 mm ² , AWG 10 - 2	10 x 11	270 A	50	4.6	07	01285
	16 - 70 mm ² , AWG 14 - 2/0	14 x 14	400 A	25	7.1	07	01287
	16 - 120 mm ² , AWG 4 - 250 MCM	17 x 15	440 A	25	10.6	07	01068
flat busbars 10 mm	1.5 - 16 mm ² , AWG 16 - 6	7 x 7	180 A	100	2.3	07	01289
	4 - 35 mm ² , AWG 10 - 2	10 x 11	270 A	50	4.7	07	01290
flat busbars 10 mm and section busbars	16 - 70 mm ² , AWG 14 - 2/0	14 x 14	400 A	25	7.5	07	01292
	16 - 120 mm ² , AWG 4 - 250 MCM	17 x 15	440 A	25	10.9	07	01203

Cover cap, for universal connection terminals

Type	Pack size	Weight kg/100 u.	PG	Part No.
terminal cover, for 01284 and 01289	20	0.5	07	01093

Brace terminal, up to 300 mm², for round conductors

For busbar	Connection	For use up to max.	Pack size	Weight kg/100 u.	PG	Part No.
12, 15, 20 x 5, 10	* 35 - 150 mm ² , AWG 2 - 300 MCM, lam. Cu. 15 - 20 x 5 - 10	480 A	6	10.2	07	01135
20, 25, 30 x 5, 10 and section busbars	* Cu / Al 95 - 185 mm ²	500 A	6	31.2	07	01318
20, 25, 30 x 5, 10 and section busbars	* Cu / Al 95 - 300 mm ²	600 A	3	42.5	07	01760

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

Brace terminal, 30 to 105 mm wide, for flat conductors

For busbar	Terminal space	End feed	Centre feed	Pack size	Weight kg/100 u.	PG	Part No.
20, 25, 30 x 5, 10 and section busbars	30 x 20	630 A	750 A	6	30.3	07	01319
	32 x 20		800 A	3	34.7	07	01759
30 x 10 and section busbars	55 x 10 - 28	1600 A	2000 A	3	50.0	07	01069
	68 x 10 - 28			3	63.0	07	01070
	105 x 10 - 28		2800 A	3	84.0	07	01071

Cover cap, 3-pole, can also be used as a reserve section cover

For busbar	W x H x D	Pack size	Weight kg/100 u.	PG	Part No.
12, 15, 20, 25, 30 x 5, 10 and section busbars	54 x 200 x 55	1	14.7	07	01590
12, 15, 20, 25, 30 x 5, 10 and section busbars	84 x 200 x 55	10	14.9	07	01413
20, 25, 30 x 5, 10 and section busbars	135 x 200 x 90	1	29.5	07	01756
12, 15, 20, 25, 30 x 5, 10 and section busbars	180 x 200 x 90	1	33.0	07	01539
12, 15, 20, 25, 30 x 5, 10 and section busbars	228 x 200 x 90	1	37.3	07	01596
12, 15, 20, 25, 30 x 5, 10 and section busbars	250 x 200 x 90	1	39.3	07	01540
20, 25, 30 x 5, 10 and section busbars	270 x 200 x 90	1	64.7	07	01757

Cover cap, 4-pole, can also be used as a reserve section cover

12, 15, 20, 25, 30 x 5, 10 and section busbars	228 x 260 x 90	1	45.0	07	01597
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CRITO® - Conductor connection terminals

1-pole



Screw-type terminal, attachable, for DIN 46234 cable lugs

Type	Terminal space	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
flat busbars 5 mm	M5 x 8	360 A	25	4.8	07		01747
	M8 x 8	490 A	20	16.0	07		01748
	M10 x 10	630 A	6	35.8	07		01749
flat busbars 10 mm	M5 x 8	360 A	25	5.0	07		01512
12, 15, 20, 25, 30 x 10 and section busbars	M8 x 8	490 A	20	16.5	07		01514
	M10 x 10	630 A	6	36.2	07		01047

Busbar connector, for connection of flat busbars and laminated copper bar

Type	Terminal space	Pack size	Weight kg/100 u.	PG		Part No.
connection of busbar 25 wide with lam. Cu 20 wide	20	10	14.9	07		01996
connection of busbar 30 wide with lam. Cu 20 wide		10	16.2	07		01997
connection of busbar 30 wide with lam. Cu 30 wide		10	19.8	07		01586
connection of busbar 35 wide with lam. Cu 30 wide		10	21.5	07		01587
connection of busbar 40 wide with lam. Cu 20 wide		10	17.8	07		01206
connection of busbar 40 wide with lam. Cu 32 wide		6	27.6	07		01616

Busbar connection terminal, in longitudinal direction, for cables

Busbar	Round conductor min – max	Flat conductor W x H	Pack size	Weight kg/100 u.	PG		Part No.
20 x 5, 10	120 - 240 mm ²	21 x 4 - 20	3	11.0	07		01201
25 x 5	150 - 300 mm ²	25 x 5 - 20	3	13.4	07		01202

Busbar connecting terminal, in longitudinal direction, for laminated copper bar

the terminal is able to connect flexible copper 32 x 10 in longitudinal direction	32 x 1 - 15	3	50.0	07		01069
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CRITO® - Conductor connection terminals

1-pole profile terminals for round and flat conductors



Profile terminal, for double-T section busbars

Connection cross-section	End feed	Centre feed	Terminal space W x H	Pack size	Weight kg/100 u.	PG		Part No.
320 - 800 mm ²	1600 A	1600 A	41 x 20 - 42	3	67.0	07		01185
500 - 750 mm ²	1600 A		51 x 5 - 28	3	70.5	07		01906
600 - 900 mm ²	1600 A		64 x 5 - 28	3	84.0	07		01907
500 - 1000 mm ²	1600 A	2000 A	51 x 20 - 42	3	73.5	07		01936
600 - 1200 mm ²	1600 A		64 x 20 - 42	3	85.9	07		01911
800 - 1600 mm ²	1600 A	2500 A	81 x 20 - 42	3	101.1	07		01934
1000 - 2000 mm ²	1600 A	2800 A	101 x 20 - 42	3	113.7	07		01935

for the connection of flat busbars and flexible copper busbars

Profile terminal, for triple-T section busbars

320 - 800 mm ²	1600 A	1600 A	41 x 23 - 45	3	105.0	07		01513
500 - 1260 mm ²	2000 A	2500 A	64 x 23 - 45	3	124.0	07		01008
1200 - 3600 mm ²	2500 A	3200 A	101 x 23 - 45	3	172.7	07		01186

for the connection of flat busbars and flexible copper busbars

Brace terminal, for busbars 30 x 10 and section busbars

500 - 1000 mm ²	1600 A	2000 A	55 x 10 - 28	3	50.0	07		01069
600 - 1200 mm ²	1600 A		68 x 10 - 28	3	63.0	07		01070
1000 - 2000 mm ²	1600 A	2800 A	105 x 10 - 28	3	84.0	07		01071

for the connection of flat busbars and flexible copper busbars

Connection terminal

Busbar	For use up to max.	Connection	Pack size	Weight kg/100 u.	PG		Part No.
30 x 10 and section busbars	630 A	95 - 300 mm ²	3	85.7	07		01094
30 x 10 and section busbars	1250 A	40 x 25	3	81.7	07		01092

Flexible copper busbar, plain, insulated, length 2 m

Dimensions (number of laminates x width x thickness)	Rated current at 30 K	Rated current at 50 K	Crosssection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
10x 40 x 1	774 A	1053 A	400	1	746.0	06		01615
10x 50 x 1	914 A	1244 A	500	1	932.0	06		01509
10x 63 x 1	1088 A	1481 A	630	1	1180.0	06		01510
10x 80 x 1	1305 A	1777 A	800	1	1490.0	06		01061
10x 100 x 1	1550 A	2110 A	1000	1	1870.0	06		01273

or additional additional flexible copper busbars see chapter 7 - Accessories



CRITO® - Longitudinal busbar connectors

for flat conductors and section busbars



Busbar connecting terminal, for same-size busbars

For busbar	Length	System spacing	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
12, 15, 20 x 5, 10	55	5 - 10 mm	520 A	12	19.2	07		01166
	150	100 - 110 mm		3	52.4	07		01193
20, 25, 30 x 5, 10	40	9 - 20 mm	630 A	6	23.3	07		01990
	40	13 - 20 mm		6	25.2	07		01823
	95	50 - 60 mm		3	54.4	07		01141
	150	100 - 110 mm		3	86.6	07		01886
double-T section	50	9 - 20 mm	1600 A	6	49.4	07		01827
	95	50 - 60 mm		3	94.3	07		01145
	150	100 - 110 mm		3	146.1	07		01829
triple-T section	95	50 - 60 mm	2500 A	3	120.6	07		01274
	150	100 - 110 mm		3	178.0	07		01275

3 pieces are required for a 3-pole connection, use 01026 or 01320 as well as 01025 as covers (see 3.4)
for a UL-compliant design of the longitudinal busbar connector, one of the UL separation blocks described below must be used

UL separator set, 3-pole, for longitudinal busbar connector

Type	Width	Pack size	Weight kg/100 u.	PG		Part No.
for longitudinal connecting terminals 01990, 01823, 01827 *	105	1	17.2	06		01360
for longitudinal connecting terminals 01141, 01145, 01274 *	145	1	19.6	06		01361
for longitudinal connecting terminals 01886, 01829, 01275	200	1	21.8	06		01362

* the depth gauge must be tailored to fit

Connection set, 3-pole, for section busbars

For busbar	Type	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
double-T section	* 150 mm, flexible longitudinal connection	1600 A	1	536.0	07		30322
double-T section	* 130 mm, flexible corner connection		1	638.0	07		30473
triple-T section	* 200 mm, flexible longitudinal connection	2500 A	1	940.0	07		01295

* supplied as a 3-pole connection set



EQUES® 60Classic CrossLink® - Busbar adapters 16 A - 45 A

removable top section with CrossLink® interface, the touch-protected base remains on the busbar system

**Busbar adapter with fuse-carrier, 16 A, with removable top section, with leads AWG 14 (2.5 mm²)**

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 fixed mounting rail, with fuse-carrier 10x38 / Class CC	22.5	200	1	20.0	05		36003

Busbar adapter, 16 A, with removable top section, with leads AWG 14 (2.5 mm²)

for direct starter Allen-Bradley 140M-RC2E, Eaton PKZM0, Siemens S00, Schneider Electric GV2 with spring terminals	45	200	4	42.7	05		32401
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Busbar adapter, 25 A, with removable top section, with leads AWG 12 (4 mm²)

2 adjustable mounting rails	45	200	4	42.7	05		32400
2 adjustable mounting rails		260	4	45.0	05		32402

Busbar adapter, 32 A, with removable top section, with leads AWG 10 (6 mm²)

2 adjustable mounting rails	54	200	4	49.2	05		32404
2 adjustable mounting rails		260	4	54.4	05		32408

Busbar adapter, 45 A, with removable top section, with leads AWG 8 (10 mm²)

2 adjustable mounting rails	54	200	4	52.9	05		32412
2 adjustable mounting rails		260	4	56.7	05		32416

Busbar component support, with removable top section, without electrical connection

2 adjustable mounting rails	45	200	4	34.9	05		32420
2 adjustable mounting rails	54		4	38.8	05		32421
2 adjustable mounting rails	45	260	4	36.2	05		32425
2 adjustable mounting rails	54		4	42.1	05		32426

Side-mounted module, for busbar adapters with removable top section

attachable to both sides	9	200	10	4.3	05		32964
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Accessories, for CrossLink® busbar adapters

Type	Pack size	Weight kg/100 u.	PG		Part No.
mounting rail 45 mm	10	1.4	05		32947
mounting rail 54 mm	10	1.5	05		32948
mounting rail 63 mm	10	1.8	05		32949
mounting rail 72 mm	10	2.0	05		32950
mounting rail 81 mm	10	2.1	05		32951
mounting rail end stop	50	0.1	05		32969
connecting element, universal	50	0.1	05		32954
8-pole connector, with support, 250 V	10	3.4	05		32511
10-pole connector, with support, 250 V	10	4.0	05		32513
micro switch for CrossLink® adapter	10	0.9	05		32956

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



EQUES®60Classic - Busbar adapters 25 A - 80 A

universal version



Busbar adapter, 25 A, with leads AWG 12 (4 mm²)

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 adjustable mounting rail	45	200	4	32.5	05		32430
2 adjustable mounting rails			4	32.6	05		32431
2 adjustable mounting rails	90		2	57.1	05		32432
2 adjustable mounting rails	45	260	4	35.7	05		32433

Busbar adapter, 25 A, without leads, with screw terminals 6 mm² from rear

2 adjustable mounting rails	45	200	4	32.2	05		32436
		260	4	35.2	05		32439

UL terminal cap

for busbar adapters 32436 and 32439	45	15	4	0.7	05		32973
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Busbar adapter, 32 A, with leads AWG 10 (6 mm²)

1 adjustable mounting rail	45	200	4	33.3	05		32655
1 adjustable mounting rail	54		4	36.6	05		32441
2 adjustable mounting rails			4	38.0	05		32442
1 adjustable mounting rail	63		4	44.5	05		32443
1 adjustable mounting rail	72		4	44.3	05		32444
2 adjustable mounting rails	81		4	49.5	05		32446
2 adjustable mounting rails	54	260	4	43.3	05		32449

Busbar adapter, 63 A, with leads AWG 8 (10 mm²)

1 adjustable mounting rail	54	200	4	39.2	05		32454
2 adjustable mounting rails			4	41.0	05		32455
1 adjustable mounting rail	63		4	44.9	05		32456
1 adjustable mounting rail	72		4	47.6	05		32457
2 adjustable mounting rails	81		4	51.3	05		32459
2 adjustable mounting rails	54	260	4	43.0	05		32461

Busbar adapter, 80 A, without leads, with screw terminals 16 mm² from rear

1 adjustable mounting rail	54	200	4	37.3	05		32466
2 adjustable mounting rails			4	38.9	05		32467
1 adjustable mounting rail	72		4	45.0	05		32469
2 adjustable mounting rails	54	260	4	43.8	05		32472

UL terminal cap

for busbar adapters 32466, 32467, 32469 and 32472	54	15	4	0.8	05		32974
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all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



EQUES®60Classic - Busbar adapters 32 A - 80 A

universal version



Busbar adapter, 32 A, without leads, with spring terminal 1.5 - 6 mm² from front

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
1 adjustable mounting rail	45	200	4	32.5	05		32486
2 adjustable mounting rails		260	4	35.5	05		32487

Busbar adapter, 80 A, without leads, with screw terminals 1.5 - 16 mm² from front

1 adjustable mounting rail	54	200	4	37.3	05		32464
2 adjustable mounting rails		260	4	41.2	05		32465

Busbar component support, without electrical connection

2 adjustable mounting rails	45	200	4	24.8	05		32477
2 adjustable mounting rails	54		4	27.7	05		32478
for direct starter Siemens 3RA6	45		4	24.8	05		32589
2 adjustable mounting rails	54	260	4	27.9	05		32484
2 adjustable mounting rails			4	38.5	05		32485
1 adjustable mounting rail and 1 positioner for Siemens S00	45	200	4	24.8	05		32635
1 adjustable mounting rail and 1 positioner for Siemens S00 and S0		260	4	27.9	05		32636

Side-mounted module, for busbar adapter

attachable to both sides	9	200	10	2.3	05		32963
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PE/N adapter module, with connection terminals 16 mm² top and bottom

attachable to busbar adapter on both sides	18	242	4	14.1	05		32146
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Accessories, for adapter

Type	Pack size	Weight kg/100 u.	PG		Part No.
mounting rail 45 mm	10	1.4	05		32947
mounting rail 54 mm	10	1.5	05		32948
mounting rail 63 mm	10	1.8	05		32949
mounting rail 72 mm	10	2.0	05		32950
mounting rail 81 mm	10	2.1	05		32951
mounting rail end stop	50	0.1	05		32969
connecting element, universal	50	0.1	05		32954
8-pole connector, with support, 250 V	10	3.4	05		32511
10-pole connector, with support, 250 V	10	4.0	05		32513
lead AWG 14 (2.5 mm ²), 105 mm long	*	24	0.3	05	32921
lead AWG 10 (6 mm ²), 130 mm long	*	24	0.7	05	32907
lead AWG 4 (25 mm ²), 210 mm long	*	24	5.1	05	32914
double-lead 2x AWG 10 (2x 6 mm ²), 130 / 280 mm long	*	24	2.5	05	32915

* ultrasonic-welded lead ends

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



EQUES®60Classic - Busbar adapters 16 A - 100 A

aligned to switchgear



Busbar adapter, 16 A, with leads AWG 14 (2.5 mm²)

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
for direct starter Allen-Bradley 140M-RC2E, Eaton PKZM0, Siemens S00, Schneider Electric GV2 with spring terminals	45	200	4	31.0	05		32429
for reversing starter Allen-Bradley 140M-RC2E, Eaton PKZM0, Siemens S00, Schneider Electric GV2 with spring terminals	90		2	57.0	05		32440

Busbar adapter, 25 A, with leads AWG 12 (4 mm²)

for direct starter Eaton PKZM01, PKE12	45	200	4	33.0	05		32450
for reversing starter Eaton PKZM01, PKE12	90		2	54.6	05		32452
for direct starter Siemens S00 with screw connection	45	260	4	33.0	05		32445
for direct starter Siemens S00 with spring terminal connection			4	30.7	05		32637
for reversing starter Siemens S00 with screw connection	90	200	2	54.1	05		32448
for direct starter Siemens S00 with spring terminal connection	45		4	33.0	05		32650

Busbar adapter, 32 A, with leads AWG 10 (6 mm²)

for direct starter ABB MS116/132	45	200	4	36.4	05		32498
for direct starter Eaton PKZM0, PKE32			4	36.4	05		32451
for reversing starter Eaton PKZM0, PKE32	90		2	61.2	05		32453
for direct starter Allen-Bradley 140MC/D	45		4	32.5	05		32533
for reversing starter Allen-Bradley 140M-C/D	54		4	38.0	05		32534
for direct starter Schneider Electric GV2-M/P	45	260	4	33.3	05		32434
for direct starter Schneider Electric GV2-M/P			4	36.2	05		32438
for direct starter Schneider Electric LUB12, LUB32		200	4	32.2	05		32427
for reversing starter Schneider Electric LUB12/32		260	4	35.1	05		32428
for direct starter Siemens S0 with screw connection			4	33.3	05		32639
for direct starter Siemens S0 with spring terminal connection		200	4	32.1	05		32659
for direct starter Siemens S0 with spring terminal connection		260	4	32.1	05		32638
for direct starter Siemens 3RA6		200	4	44.0	05		32588

Busbar adapter, 63 A, with leads AWG 8 (10 mm²)

for direct starter ABB MS45x, Eaton PKZM4, Siemens S2	55	260	4	43.2	05		32460
for direct starter Allen-Bradley 140M-F	54	200	4	43.0	05		32535
for direct starter ABB MS45x and Eaton PKZ5	72	260	2	51.4	05		32463
for motor circuit breaker Eaton PKE65	54	200	4	43.0	05		32079
for direct starter Eaton PKE65	54	260	2	51.4	05		32090

Busbar adapter, 80 A, with leads AWG 4 (25 mm²)

for circuit breaker Siemens Sirius frame size S2, 200 mm long	54	200	1	52.1	05		32662
for direct starter Siemens Sirius frame size S2, 260 mm long		260	1	59.1	05		32663
for reversing starter Siemens Sirius frame size S2, 260 mm long	117		1	87.3	05		32664
for Siemens NGG, HGG, LGG (up to 80 A)	72	200	2	66.0	05		32029

Busbar adapter, 100 A, with leads AWG 4 (25 mm²)

for circuit breaker ABB MS49x and Siemens Sirius frame size S3, 200 mm long	72	200	1	66.0	05		32981
for Schneider Electric GV4	81	200	1	66.0	05		32034

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



EQUES®60Classic - Busbar adapters 160 A - 250 A

aligned to switchgear

**Busbar adapter, 160 A, 3-pole**

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.	
for ABB T-max T1, XT1, T2, XT2, GE FD160, Schneider El. NS80, NSX80, top connection to the system	160 A	90	200	1	81.0	05		32575	
for ABB T-max T1, XT1, XT2, Allen-Bradley 140G-G and H, top connection to system	160 A			1	81.0	05		32018	
for ABB T-max T1, XT1, XT2, Allen-Bradley 140G-G and H, bottom connection to the system	160 A			1	81.0	05		32020	
for Schneider Electric NSXm 160 and NG125, top connection to system	160 A			1	81.0	05		32068	
for Allen-Bradley 140U-H, top connection to the system	160 A			1	81.0	05		32577	
for Eaton NZM1, connection top / bottom	160 A			92	1	81.0	05		32570
for Siemens 3VA10, 11 and VT160, top connection to the system	144 A			76	1	81.0	05		32660
for Siemens 3VA10, 3VA11, 3VA51 and Siemens NGG, LGG, HGG, top connection to the system	160 A			90	1	81.0	05		32028
for Siemens 3VA10, 3VA11, 3VA51 and Siemens NGG, LGG, HGG, bottom connection to the system	125 A				1	81.0	05		32030
for Siemens 3VL1	160 A	105	190		1	95.3	05	32976	

Busbar adapter, 250 A, 3-pole, connection to system at the top / bottom

for ABB T-max T4 and Siemens 3RV1063 *	290 A	105	240	1	122.0	05		32601	
for ABB T-max XT4, Allen-Bradley 140G-J	250 A			190	1	122.0	05		32023
for Eaton JG	250 A				1	90.0	05		32137
for Eaton NZM2-XKR40 and NZM2-XKR4U	250 A				1	90.1	05		32140
for Siemens 3VL2, 3VL3	250 A				1	95.3	05		32977
for Siemens 3VT27, OEZ BD250 *	250 A		240		1	102.0	05		32651
for Siemens 3VA12, 20, 21, 22, 52, 61, 62	250 A			1	102.0	05		32017	
for Schneider Electric NSX100-NSX250, GV7, J250	250 A			190	1	93.8	05		32156
for Terasaki S250-NJ *	250 A		240		1	102.0	05		32592

* connection to system only at the top

Busbar adapter, 250 A, 4-pole, connection to system at the top

for ABB Tmax T4	250 A	140	270	1	180.0	05		32584
for ABB XT3, XT4, Allen-Bradley 140G-J	250 A			1	180.0	05		32586
for Eaton NZM2-XKR40	250 A			1	180.0	05		32580
for Siemens 3VA12, 20, 21, 22, 61, 62	250 A			1	153.0	05		32067
for Siemens 3VL2, 3VL3	250 A			1	180.0	05		32578
for Schneider Electric NSX100-NSX250 *	230 A			251	1	118.6	05	

* top / bottom connection to the system

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



EQUES®60Classic - Busbar adapters 200 A - 630 A

aligned to switchgear or universal busbar adapters



Busbar adapter, 630 A, 3-pole, phase pitch 43 - 45 mm, connection to system at the top / bottom

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
for ABB T-max T5, Allen-Bradley 140G-K and Siemens 3RV1073	580 A	140	300	1	252.0	05		32593
for Allen-Bradley 140U-K, 140U-L, 140M-L	600 A		272	1	212.0	05		32138
for Schneider Electric NS400/630, NSX 400/630	570 A			1	222.6	05		32157
for Eaton NZM3-XKR13O and NZM3-XKR13U	630 A		300	1	250.0	05		32978
for Siemens 3VL4	400 A		295	1	222.4	05		32975
for Siemens 3VA13, 14, 23, 24, 53, 54, 63, 64	590 A		300	1	250.0	05		32031
for Siemens 3VT37, OEZ BH630	600 A			1	250.0	05		32641

Busbar adapter, 630 A, 3-pole, phase pitch 63 mm, connection to system at the top

for Siemens 3VL5	580 A	184	325	1	276.0	05		32980
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Busbar adapter, 650 A, 3-pole, phase pitch 70 mm, connection to system at the top

for ABB T-max T6, Allen-Bradley 140G-M and Siemens 3RV1073	650 A	238	300	1	285.6	05		32064
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Busbar adapter, 630 A, 4-pole, phase pitch 43 - 45 mm, connection to system at the top

for ABB Tmax T5, Allen-Bradley 140G-K	500 A	185	300	1	360.0	05		32585
for Schneider Electric NSX400-NSX630 *	520 A		284	1	283.1	05		32643
for Eaton NZM3-XKR13O	500 A		300	1	350.0	05		32581
for Siemens 3VA13, 14, 23, 24, 53, 54, 63, 64	590 A			1	350.0	05		32033
for Siemens 3VL400	400 A			1	350.0	05		32579

* connection to the system at the top / bottom

Universal busbar adapter, 200 A - 250 A, 3-pole

terminals 70 mm ² at top	200 A	108	222	1	84.2	05		32214
terminals 70 mm ² at bottom	200 A			1	86.0	05		32215
terminals 35 - 120 mm ² at top	250 A	110	320	1	160.4	05		32168
terminals 35 - 120 mm ² at bottom	250 A			1	164.0	05		32216

for all commercially available switchgear with M4 fixing screws (see accessories for M5 screws)

Universal busbar adapter, 630 A, 3-pole

connection screws M12 (top / bottom)	630 A	184	320	1	278.0	05		32004
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Accessories, slide nut M5, for universal busbar adapters 200 A - 250 A

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 32168, 32214, 32215, 32216	4	0.4	05		32937

Accessories, mounting set, adjustable for various MCCBs

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
for adapter 32004	180	315	1	82.0	05		32982

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



MOTUS®60Classic - OMUS®60Classic

for switching of inductive and resistive loads



Hybrid motor starter, MOTUS®60Classic, 3-pole, with reversing function and CrossLink®Technology

Type	Width	Height	Depth	Pack size	Weight kg/100 u.	PG		Part No.
0.075 - 0.6 A direct and reversing starter	22.5	200	156	1	56.1	21		36102
0.18 - 2.4 A direct and reversing starter				1	56.5	21		36105
1.5 - 9 A direct and reversing starter				1	56.6	21		36108

Hybrid motor starter IO-Link, MOTUS®60Classic, 3-pole, with reversing function, CrossLink®Technology and communication interface

Type	Width	Height	Depth	Pack size	Weight kg/100 u.	PG		Part No.
IO-Link 0.18 - 3 A direct and reversing starter	22.5	200	156	1	56.6	21		36125
IO-Link 1.5 - 9 A direct and reversing starter				1	56.6	21		36128

Replacement component, for MOTUS®60Classic

Type	Pack size	Weight kg/100 u.	PG		Part No.
electronic unit 0.075 - 0.6 A direct and reversing starter	1	50.9	21		36109
electronic unit 0.18 - 2.4 A direct and reversing starter	1	50.7	21		36110
electronic unit 1.5 - 9 A direct and reversing starter	1	51.4	21		36111
busbar adapter base with CrossLink® interface	1	11.0	05		36114
fuse 16 A for version 0.6 A and 2.4 A	3	2.8	21		31567
fuse 20 A for version 9 A	3	2.8	21		31568
fuse 30 A for version 9 A for motors with heavy-duty starting	3	2.8	21		31569

Hybrid switch, OMUS®60Classic, 3- or 1-pole switchable, for resistive loads, with CrossLink®Technology

Type	Width	Height	Depth	Pack size	Weight kg/100 u.	PG		Part No.
25 A (IEC)	36	200	144	1	45.8	21		36153
20 A (UL)				1	45.8	21		36158

supplied with both load and control plug

Replacement component, for OMUS®60Classic

Type	Pack size	Weight kg/100 u.	PG		Part No.
electronic unit, 25 A (IEC)	1	55.2	21		36154
electronic unit, 20 A (UL)	1	55.2	21		36159
busbar adapter base with CrossLink® interface	1	10.8	05		36156
3-pole load plug with spring terminals	* 1	1.5	21		36916
3-pole load plug with screw terminals	1	1.4	21		36918
12-pole control plug with spring terminals	1	0.6	21		36917

* maximum load current 20 A

Replacement fuse, for OMUS®60Classic

Type	Pack size	Weight kg/100 u.	PG		Part No.
cylindr. fuse link 32 A	10	0.6	22		31189
cylindr. fuse link 30 A, time delay	10	0.8	22		31252

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



CUSTO®60Classic - D fuse-bases

3-pole DII and DIII fuse-bases



D busbar mounted fuse-base with touch-safe protection incl. strip cover, for gauge rings

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
E 27 / 3P	42	200	8	29.7	01		31946
E 33 / 3P	57		6	39.8	01		31947

D busbar mounted fuse-base with touch-safe protection incl. strip cover, for screw-in gauge rings

E 27 / 3P	42	200	8	28.7	01		31950
E 33 / 3P	57		6	38.7	01		31951

D busbar mounted fuse-base without strip cover, for gauge rings

E 27 / 3P	42	200	10	23.3	01		31918
E 33 / 3P	57		10	32.0	01		31919

D busbar mounted fuse-base without strip cover, for screw-in gauge rings

E 27 / 3P	42	200	10	22.3	01		31441
E 33 / 3P	57		10	30.9	01		31442

D strip cover

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
E 27	42	200	10	4.9	01		31070
E 33	57		10	6.2	01		31071
E 27	84		5	8.4	01		31072
E 33	114		5	10.8	01		31073

Shock protection cover, for all strip covers

attachable on either side			10	1.3	01		79663
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all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars

SECUR®60Classic - CUSTO®60Classic

3-pole D0 switch-disconnectors and D0 D0 fuse-bases



D0 busbar mounted switch-disconnector-fuse, PowerLiner, tall version, 3-pole, 3-pole / 1-pole switching

Type	Rated current	Rated voltage	Utilization category	Depth	Pack size	Weight kg/100 u.	PG		Part No.
for fuse links D01 and D02	63 A	400 V	AC-23A (400 V)	104	1	75.9	01		31158
for D01 and D02 fuses, with LED				104	1	76.5	01		31525

for continuous loads greater than or equal to 35 A, use of the 9 mm side-mounted module is recommended, IEC / EN 61439-2
fuse links not included

Accessory, for busbar mounted switch-disconnectors PowerLiner

Type	Pack size	Weight kg/100 u.	PG		Part No.
pilot switch	1	0.7	01		31903
side-mounted module	5	6.1	01		31901
reducer D02 for D01 fuses 2 - 16 A	20	0.1	01		31902

D0 busbar mounted fuse-base, touch-safe protection, incl. strip cover

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
E 18 / 63 A	*	200	8	14.4	01		31935
E 18 / 63 A	36		6	16.1	01		31936

* the 36 mm wide version allows optimal cable routing and heat removal

D0 busbar mounted fuse-base, without strip cover

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
E 18 / 3P	*	200	10	14.7	01		01647
E 18 / 3P	36		10	15.5	01		01498

* the 36 mm wide version allows optimal cable routing and heat removal

D0 strip cover

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
E 18	27	200	10	2.6	01		01980
	36		10	3.1	01		01424
	54		10	4.0	01		01981

Shock protection cover, for all strip covers

Type	Pack size	Weight kg/100 u.	PG		Part No.
attachable on either side	10	1.3	01		79663

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars

SECUR®60Classic - QUADRON®60Classic

3-pole D0 switch-disconnector-fuses and NH fuse-switch-disconnectors



D0 busbar mounted switch-disconnector-fuse, EasyLiner, flat version, for the 3-pole busbar system, conductor connections with spring clamp technology

Type	Rated current	Rated voltage	Utilization category	Depth	Pack size	Weight kg/100 u.	PG	Part No.
for D01 and D02 fuses	63 A	400 V	AC-22B (400V)	80	1	33.0	01	31574
for D01 and D02 fuses, with LED				80	1	33.0	01	31575

for continuous loads greater than or equal to 35 A, use of the 9 mm side-mounted module is recommended, IEC / EN 61439-2 fuse links not included

D0 busbar mounted switch-disconnector-fuse, EasyLiner, 3-pole, flat version, for the 5-pole busbar system, conductor connections with spring clamp technology

for D01 and D02 fuses	63 A	400 V	AC-22B (400V)	80	1	33.0	01	31578
for D01 and D02 fuses, for busbar systems 250 A, 400 A and 630 A of company Hensel				80	1	33.0	01	31588
for D01 and D02 fuses, with LED				80	1	33.0	01	31579

for continuous loads greater than or equal to 35 A, use of the 9 mm side-mounted module is recommended, IEC / EN 61439-2 fuse links not included

Accessories for D0 busbar mounted switch-disconnector **EasyLiner**

Type	Pack size	Weight kg/100 u.	PG	Part No.
pilot switch	1	0.7	01	31976
9 mm side module for 31574 and 31575	5	6.1	01	31914
9 mm side module for 31578 and 31579	5	6.1	01	31915
reducer D02 for D01 fuses 2 - 16 A	20	0.1	01	31902



Busbar support, 60 mm system, **5-pole**, for the VMS (GE) and AKi (Spelsberg) range of boxes

Type	Pack size	Weight kg/100 u.	PG	Part No.
for busbars 3x (12, 20, 30 x 10) and 2x (12, 20, 25 x 5, 10)	30	16.7	06	01138

Reducer, for 5 mm busbars

reducer for busbar support 01138	100	0.1	06	01170
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NH busbar mounted fuse-switch-disconnector, size 00, connection at top / bottom, 3-pole with short connection module for **5-pole** busbar systems, distribution boards/insulated distribution boards

Type	Size	Width	Height	Pack size	Weight kg/100 u.	PG	Part No.
box terminal	NH 00	106	200	1	100.0	09	33075
screw M8	NH 00			1	100.0	09	33079

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



AMBUS®60Classic - SECUR®60Classic - Fuse-holders

for cylindrical fuses 10x38



Busbar mounted fuse-holder, 1-pole

Type	For busbar	Rated current	Rated voltage	Width	Pack size	Weight kg/100 u.	PG		Part No.
for fuses 10x38 IEC 60269-6	30 x 5, 10	30 A	1000 V	22.5	12	6.1	01		31570
for fuses 10x38 IEC 60269-6, with LED 110 - 690 V AC / DC				22.5	12	6.6	01		31571
for fuses 10x38 IEC 60269-6	20 x 5, 10			22.5	12	6.3	01		31572

Busbar mounted fuse-holder, 2-pole, with spring terminals

for fuses 10x38 IEC 60269-2	12, 15, 20, 25, 30 x 5, 10 and section busbars	32 A	690 V	27	6	12.2	01		31961
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Busbar mounted fuse-holder, 3-pole, with spring terminals

for fuses 10x38 IEC 60269-2	12, 15, 20, 25, 30 x 5, 10 and section busbars	32 A	690 V	27	4	18.5	01		31954
for fuses 10x38 IEC 60269-2, with LED 110 - 690 V AC / DC					4	18.7	01		31955

Busbar mounted fuse-holder, 3-pole +N, all-pole disconnecting, with spring terminals

for fuses 10x38 IEC 60269-2	12, 15, 20, 25, 30 x 5, 10 and section busbars	32 A	690 V	27	4	25.2	01		31963
for fuses 10x38 IEC 60269-2, with LED 110 - 690 V AC / DC					4	25.2	01		31964



Busbar mounted switch-disconnector-fuse, PowerLiner, tall version, 3-pole / 1-pole switching

Type	für Sammel-schiene	Rated current		Width	Pack size	Weight kg/100 u.	PG		Part No.
for fuses 10x38 IEC 60269-2	12, 15, 20, 25, 30 x 5, 10 and section busbars	32 A	690 V	27	1	76.0	01		31232

for continuous loads greater than or equal to 35 A, use of the 9 mm side-mounted module is recommended, IEC / EN 61439-2
fuse links not included

Accessory, for busbar mounted switch-disconnectors PowerLiner

Type		Pack size	Weight kg/100 u.	PG		Part No.
pilot switch		1	0.7	01		31903
side-mounted module		5	6.1	01		31901

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



AMBUS®60Classic - QUADRON®60Classic - Fuse-holders

for fuses according to UL 248



Busbar mounted fuse-holder, 30 A Class CC, AMBUS®60Classic, 3-pole, with spring terminals

Type	Rated current	Rated voltage	Width	Pack size	Weight kg/100 u.	PG		Part No.
for fuses Class CC UL 248-4	30 A	600 V	27	4	18.6	01		31958
for fuses Class CC UL 248-4, with LED 110 - 690 V AC / DC				4	18.8	01		31959

for busbars 12, 20, 20 x 5,10 and section busbars

Busbar mounted fuse-holder, 30 A - 200 A Class J, QUADRON®60Classic, 3-pole, connection at top / bottom

Type	Rated current	Rated voltage	Width	Pack size	Weight kg/100 u.	PG		Part No.
for fuse links Class J 1 - 30 A (21x57)	30 A	600 V	106	1	138.0	16		33421
for fuse links Class J 35 - 60 A (27x60)	60 A			1	135.0	16		33422
for fuse links Class J 70 - 100 A (29 x 118)	* 100 A			1	129.0	16		33402
for fuse links Class J 110 - 200 A (41x146)	* 200 A		184	1	278.0	16		33403

for busbars 12, 20, 20 x 5,10 and section busbars

* do not use fuse links with sharp-edged blades

Busbar mounted fuse-holder, 30 A / 60 A Class J, AMBUS®60Classic, complete solution on busbar adapter, 3-pole

Type	Rated current	Rated voltage	Width	Pack size	Weight kg/100 u.	PG		Part No.
for fuse links Class J 1 - 30 A (21x57), with LED	30 A	600 V	108	1	110.0	16		31968
for fuse links Class J 35 - 60 A (27x60), with LED	60 A		126	1	131.0	16		31970

for busbars 12, 20, 20 x 5,10 and section busbars

Busbar mounted fuse-base, 400 A Class J, QUADRON®60Classic, 3-pole, connection at top or bottom

Type	Rated current	Rated voltage	Width	Pack size	Weight kg/100 u.	PG		Part No.
for fuse links Class J 225 - 400 A (54x181)	400 A	600 V	256	1	690.0	16		33311

for busbars 30 x 10 and section busbars



QUADRON® 60Classic - NH fuse-bases, size 00 - 2

QCC for NH fuses

**NH busbar mounted fuse-base, size 00 - 1, with touch-safe protection, 3-pole connection at top / bottom**

Type	Rated current	Size	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
box terminal	160 A	NH 00	106	200	1	87.0	10		03199
screw M8					1	87.0	10		03299
box terminal	250 A	NH 1	184	210	1	210.5	10		03300
screw M10					1	198.5	10		03301

NH busbar mounted fuse-base, size 00, with touch-safe protection, 3-pole connection at top

Type	Rated current	Size	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
terminal 70 mm ²	160 A	NH 00	99	200	4	66.5	10		03654
screw M8				200	4	64.5	10		03656

NH busbar mounted fuse-base, size 2, with touch-safe protection, 3-pole connection at bottom

Type	Rated current	Size	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
screw M10	400 A	NH 2	206	195	1	291.2	10		03693

Accessories, for NH fuse-bases

Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
grip lug cover	*	00	30	1.2	10	79448
grip lug cover for 03300, 03301		1	3	2.5	10	33916
grip lug cover	**	1 - 3	30	1.5	10	79449
connection for auxiliary line, for box terminal		00	3	0.6	09	33915
prism terminal, single, for Cu and Al cables	***	00	3	3.0	09	33224
tunnel terminal for screw connection M8		00	3	4.2	09	01182
cover for cable lugs, top / bottom attachable		00	1	2.8	09	79811

* 1 piece required per fuse

** 2 pieces required per fuse

*** when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars

QUADRON®60Classic - NH fuse-switch-disconnectors, size 000 - 3

QCB for NH fuses



NH busbar mounted fuse-switch-disconnector, size 000 - 3, connection at top / bottom, 3-pole

Type	Rated current	Size	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
box terminal	125 A	NH 000	49.5	200	1	53.5	09		33802
box terminal			89		1	113.0	09		33216
box terminal	160 A	NH 00	106		1	100.0	09		33198
screw M8					1	103.0	09		33398
box terminal	250 A	NH 1	184	243	1	266.0	09		33600
screw M10					1	266.0	09		33601
screw M10	*	400 A	NH 2	210	288	1	522.0	09	33602
screw M12	**	630 A	NH 3	256	300	1	756.0	09	33603

NH busbar mounted fuse-switch-disconnector size 00 with short connection module for 5-pole busbar systems, distribution boards / insulated distribution boards; see 33075 or 33079

* for size 2 the conversion kit 33148 is required for mounting on 5 mm busbars

** size 3 is not suitable for 5 mm busbars

NH busbar mounted fuse-switch-disconnector, size 00 - 3, connection at top / bottom, 3-pole, with electronic fuse monitoring

box terminal	160 A	NH 00	106	200	1	117.0	09		33324
screw M8					1	117.0	09		33394
screw M10	250 A	NH 1	184	243	1	223.0	09		33325
screw M10	400 A	NH 2	210	288	1	572.0	09		33326
screw M12	*	630 A	NH 3	256	300	1	796.0	09	33327

circuit diagram for fuse monitoring can be found online at www.woehner.com

* size 3 is not suitable for 5 mm busbars

NH busbar mounted fuse-switch-disconnector, size 00 - 3, connection at top / bottom, 3-pole, with electromechanical fuse monitoring

box terminal	160 A	NH 00	106	200	1	180.0	09		33206
screw M8					1	180.0	09		33420
screw M10	250 A	NH 1	184	243	1	333.0	09		33160
screw M10	400 A	NH 2	210	288	1	574.0	09		33161
screw M12	*	630 A	NH 3	256	300	1	824.0	09	33162

circuit diagram for fuse monitoring can be found online at www.woehner.com

* size 3 is not suitable for 5 mm busbars

Accessories, busbar adapter base with CrossLink® interface

Type	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
with CrossLink® interface	49.5	200	4	12.7	05		32620
busbar adapter base with CrossLink® interface	106		2	36.5	05		32594
busbar adapter base with CrossLink® interface	184	210	2	75.5	05		32595



QUADRON® 60Classic - Accessories

for NH fuse-switch disconnectors QCB, size 000 - 3



Pilot switch, for monitoring the disconnector lid position

Type	Size	Pack size	Weight kg/100 u.	PG	Part No.
changeover 250 V AC / 5 A, 30 V DC / 4 A	000 - 3	1	1.1	09	33156
changeover 250 V AC / 5 A, 30 V DC / 4 A	1	1	1.3	09	33917

33156 not suitable for fuse-switch-disconnectors size 1 and part no. 33802

Disconnector lid interlock

for sealing wire	000	10	0.1	09	33051
	00	10	0.2	09	03849
for sealing wire or 3 padlocks with shackle of 4 - 7 mm	1 - 3	10	0.5	09	33157

Barrier for handle

for closing of handle area from rear	1 - 3	10	2.2	09	33155
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Arc chamber

retrofit package for higher utilisation category	1	3	10.7	09	33918
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Conversion kit, for mounting on busbars 12, 15, 20, 25 and 30 x 5, only for size 2

for 5 mm busbars	2	1	6.5	09	33148
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Connection accessories

Type	Connection	Size	Pack size	Weight kg/100 u.	PG	Part No.
connection for auxiliary line, for box terminal	6.3 x 0.8	00	3	0.6	09	33915
box terminal for Cu cables	35 - 185 mm ² / 24 x 3 - 21	1	3	10.0	09	33909
clamp connector for Cu cables	70 - 150 mm ² / 18 x 2 - 14	1	1	6.3	09	33163
clamp connector for Cu cables	120 - 240 mm ² / 21 x 1 - 14	2	1	10.6	09	33164
clamp connector for Cu cables	150 - 300 mm ² / 25 x 1 - 13	3	1	12.5	09	33165
prism terminal, single, for Cu and Al cables	* 16 - 70 mm ²	00	3	3.0	09	33224
prism terminal, single, for Cu and Al cables	* 35 - 150 mm ²	1	1	11.6	09	33166
prism terminal, single, for Cu and Al cables	* 50 - 240 mm ²	2	1	19.9	09	33167
prism terminal, single, for Cu and Al cables	* 150 - 300 mm ²	3	1	24.7	09	33168
prism terminal, double, for Cu cables	2x 35 - 70 mm ²	1	1	16.6	09	33145
prism terminal, double, for Cu cables	2x 70 - 120 mm ²	2	1	27.8	09	33146
prism terminal, double, for Cu cables	2x 150 mm ²	3	1	36.8	09	33147
prism terminal, double, for Cu cables	2x 185 mm ²	3	1	36.8	09	33385
tunnel terminal for screw connection M8	1x 2.5 - 16 mm ² + 2x 2.5 - 25 mm ²	00	3	4.2	09	01182

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

Side-mounted module, for NH busbar mounted fuse-switch-disconnector, size 000

Type	Width	Pack size	Weight kg/100 u.	PG	Part No.
attachable to both sides	3.5	10	2.6	09	33806

to extend the NH000 device 33802 to a width of 53 mm, to enable the installation of two devices in the frame of one NH fuse-switch-disconnector NH00 (106 mm)

QUADRON®60Classic - Accessories

for NH fuse-switch disconnectors QCB, size 00 - 3



Equalising trim, to balance the installation depth

Type	Dimensions W x H x D	Size	Pack size	Weight kg/100 u.	PG		Part No.
trim cover, 2 parts	106 x 350 x 83	00	1	12.4	09		33315
trim strip, attachable at side	20 x 350 x 35	00	2	6.0	09		33317
cover for cable lugs, top / bottom attachable	183 x 65 x 68	1	2	10.7	09		33142
trim cover, 2 parts	210 x 350 x 83	2	1	21.1	09		33316

for trim cut-out 300 to 340 high, 83 in front of the busbar front edge



Cover

Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
cover for cable lugs, top / bottom attachable	00	1	2.8	09		79811
	1	2	10.7	09		33142
	2	2	10.9	09		33143
	3	2	15.6	09		33144
connection shroud	2	2	4.0	09		33418
	3	2	5.4	09		33419

QUADRON® 60Classic Speed - NH switch-disconnector with fuses 125 A / 250 A

QCS with snap-action switch mechanism, module width 106



NH busbar mounted switch-disconnector-fuse, size 00, 3-pole, with multifunction handle (snap-action switch mechanism)

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
box terminal, connection bottom	125 A	106	200	1	219.0	15		33500
box terminal, connection top				1	219.0	15		33501
box terminal, connection bottom, with electronic fuse monitoring				1	236.0	15		33506

fuse not included
circuit diagram for fuse monitoring can be found online at www.woehner.com

NH bus mounting switch-disconnector-fuse, size 00, 3-pole, with door coupling rotary drive (snap-action switch mechanism)

box terminal, connection bottom, for door coupling rotary handle	125 A	106	200	1	208.0	15		33503
box terminal, connection top, for door coupling rotary handle				1	208.0	15		33504

fuse not included
additional extension shaft and door coupling rotary handle required
additional QCS for door coupling rotary handle with lateral actuation on request

NH busbar mounted switch-disconnector-fuse, size 1, 3-pole, with multifunction handle (snap-action switch mechanism)

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
screw M10, connection bottom	250 A	184	286	1	567.0	15		33510
screw M10, connection top	250 A	184	314	1	589.0	15		33511
screw M10, connection bottom, with electronic fuse monitoring	250 A	184	286	1	625.0	15		33516

fuse not included
circuit diagram for fuse monitoring can be found online at www.woehner.com

NH busbar mounted switch-disconnector-fuse, size 1, 3-pole, with door coupling rotary drive (snap-action switch mechanism)

screw M10, connection bottom, for door coupling rotary handle	250 A	184	286	1	555.0	15		33513
screw M10, connection top, for door coupling rotary handle	250 A	184	314	1	577.0	15		33514

fuse not included
additional extension shaft and door coupling rotary handle required

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars

QUADRON® 60 Classic Speed - NH switch-disconnectors 160 A / 320 A

QCS with snap-action switch mechanism, module width 184



Busbar mounted switch-disconnector, 3-pole, with multifunction handle (snap-action switch mechanism)

Type	Rated current	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
box terminal, connection bottom	160 A	106	200	1	216.0	14		33540
box terminal, connection top				1	216.0	14		33541

as main switch or emergency off switch only with the following maximum operating current: 280 A / 400 V AC, 250 A / 690 V AC

Busbar mounted switch-disconnector, 3-pole, with door coupling rotary drive (snap-action switch mechanism)

box terminal, connection bottom, for door coupling rotary handle	160 A	106	200	1	208.0	14		33543
box terminal, connection top, for door coupling rotary handle				1	208.0	14		33544

additional extension shaft and door coupling rotary handle required; as main switch or emergency off switch only with the following maximum operating current: 280 A / 400 V AC, 250 A / 690 V AC

Busbar mounted switch-disconnector, 3-pole, with multifunction handle (snap-action switch mechanism)

screw M10, connection bottom	320 A	184	286	1	565.0	14		33550
screw M10, connection top	320 A	184	314	1	587.0	14		33551

as main switch or emergency off switch only with the following maximum operating current: 280 A / 400 V AC, 250 A / 690 V AC

Busbar mounted switch-disconnector, 3-pole, with door coupling rotary drive (snap-action switch mechanism)

screw M10, connection bottom, for door coupling rotary handle	320 A	184	286	1	543.0	14		33553
screw M10, connection top, for door coupling rotary handle	320 A	184	314	1	565.0	14		33554

as main switch or emergency off switch only with the following maximum operating current: 280 A / 400 V AC, 250 A / 690 V AC
additional extension shaft and door coupling rotary handle required

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars

QUADRON® 60Classic - Accessories

for QCS module width 106 and 184



Accessories

Type	Usable for version	Pack size	Weight kg/100 u.	PG		Part No.
connecting terminal 120 mm ²	QCS-NH00, QCS-160	3	12.1	14		33914
connection for auxiliary line, for box terminal	QCB-NH00, QCS-NH00, QCS-160	3	0.6	09		33915
pilot switch for monitoring the switch position	QCS-NH00, QCS-NH1, QCS-160, QCS-320	1	1.1	14		33908
cover for cable lugs, top / bottom attachable	QCB-NH1, QCS-NH1, QCS-320	2	10.7	09		33142
door coupling rotary handle, black, without shaft *	QCS-NH00, QCS-NH1, QCS-160, QCS-320	1	57.0	14		33910
door coupling rotary handle, red-yellow, without shaft *		1	57.0	14		33911
extension shaft, 290 mm long		1	13.0	14		33912
extension shaft, 490 mm long		1	22.0	14		33913

* switch can also be installed 90° left / right, always with the same handle position



Connection accessories

Type	Connection	Usable for version	Pack size	Weight kg/100 u.	PG		Part No.
box terminal for Cu cables	35 - 185 mm ² / 24 x 3 - 21	QCB-NH1, QCS-NH1, QCS-320	3	10.0	09		33909
prism terminal, single, for Cu and Al cables	35 - 150 mm ²		1	11.6	09		33166
prism terminal, double, for Cu cables	2x 35 - 70 mm ²		1	16.6	09		33145
clamp connector for Cu cables	70 - 150 mm ² / 18 x 2 - 14	QCB-NH1, QCS-NH1, LTS-F 250, LTS 400	1	6.3	09		33163

QUADRON® 60Classic - NH in-line fuse-switch-disconnectors, size 00

for snapping onto the busbar system



NH in-line fuse-switch-disconnector, size 00, 3-pole switchable, connection at top / bottom

Type	Rated current	Size	Width	Height	Pack size	Weight kg/100 u.	PG		Part No.
screw M8 / clamp 70 mm ²	160 A	NH 00	50	455	1	146.0	12		33234
screw M8 / clamp 70 mm ² , with electronic fuse monitoring	160 A	NH 00	50	610	1	146.0	12		33285

with terminal compartment cover
circuit diagram for fuse monitoring can be found online at www.woehner.com



Pilot switch, for monitoring of the disconnector lid position

Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
changeover 250 V AC / 5 A, 30 V DC / 4 A	000 - 3	1	1.1	09		33156

Accessories

Type	Connection	Size	Pack size	Weight kg/100 u.	PG		Part No.
clamp connector	1.5 - 70 mm ² / 12 x 1 - 10	00	3	1.5	09		03727
M8 screw connector	70	00	3	1.4	09		30894
prism terminal, single, for Cu and Al cables	*	16 - 70 mm ²	00	3	09		33224
connection cover		00	2	9.0	12		33280

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars

Special solutions for busbar systems



Busbar support, 60 mm system, 5-pole, for VMS (GE) and AKI (Spelsberg) range of boxes

Type	Pack size	Weight kg/100 u.	PG	Part No.
for busbars 3x (12, 20, 30 x 10) and 2x (12, 20, 25 x 5, 10)	30	16.7	06	01138

Reducer, for 5 mm busbars

reducer for busbar support 01138	100	0.1	06	01170
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3 pieces are required for a busbar support

Busbar support, fits the Striebel & John system

Type	For busbar	Pack size	Weight kg/100 u.	PG	Part No.
3-pole with internal screw holes	12, 20, 30 x 5, 10	10	10.0	06	01603
1-pole, attachable to 01603 or individual mounting, with integrated end cover		1	4.1	06	01355

End cover

for busbar supports 01484, 01495, 01500, 01508 and 01603	10	2.0	06	01573
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NH busbar mounted fuse-switch-disconnector, outgoing terminal at top / bottom, 3-pole with short connection module for 5-pole busbar systems, distribution boards / insulated distribution boards

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG	Part No.
box terminal	NH 00	160 A	1	100.0	09	33075
screw M8	NH 00	160 A	1	100.0	09	33079

Cover frame

for boxes VMS	10	16.6	06	01139
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Reserve section cover, for use only with cover frame 01139

54 x 195, pitch 3 x 18 mm	10	4.5	06	79738
variable, 36 to 64 x 195, with 2 pieces	10	3.2	06	79859

Connection lug with brace terminal, for device connections

Type	For use up to max.	Pack size	Weight kg/100 u.	PG	Part No.
for cables Cu and Al 120 - 300 mm ²	* 600 A	3	36.6	07	01890

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

all devices can be mounted directly on busbars 12, 15, 20, 25, 30 x 5, 10 and section busbars



185Power





to the product:
<https://qrco.de/185power-en>



185 MM BUSBAR SYSTEM

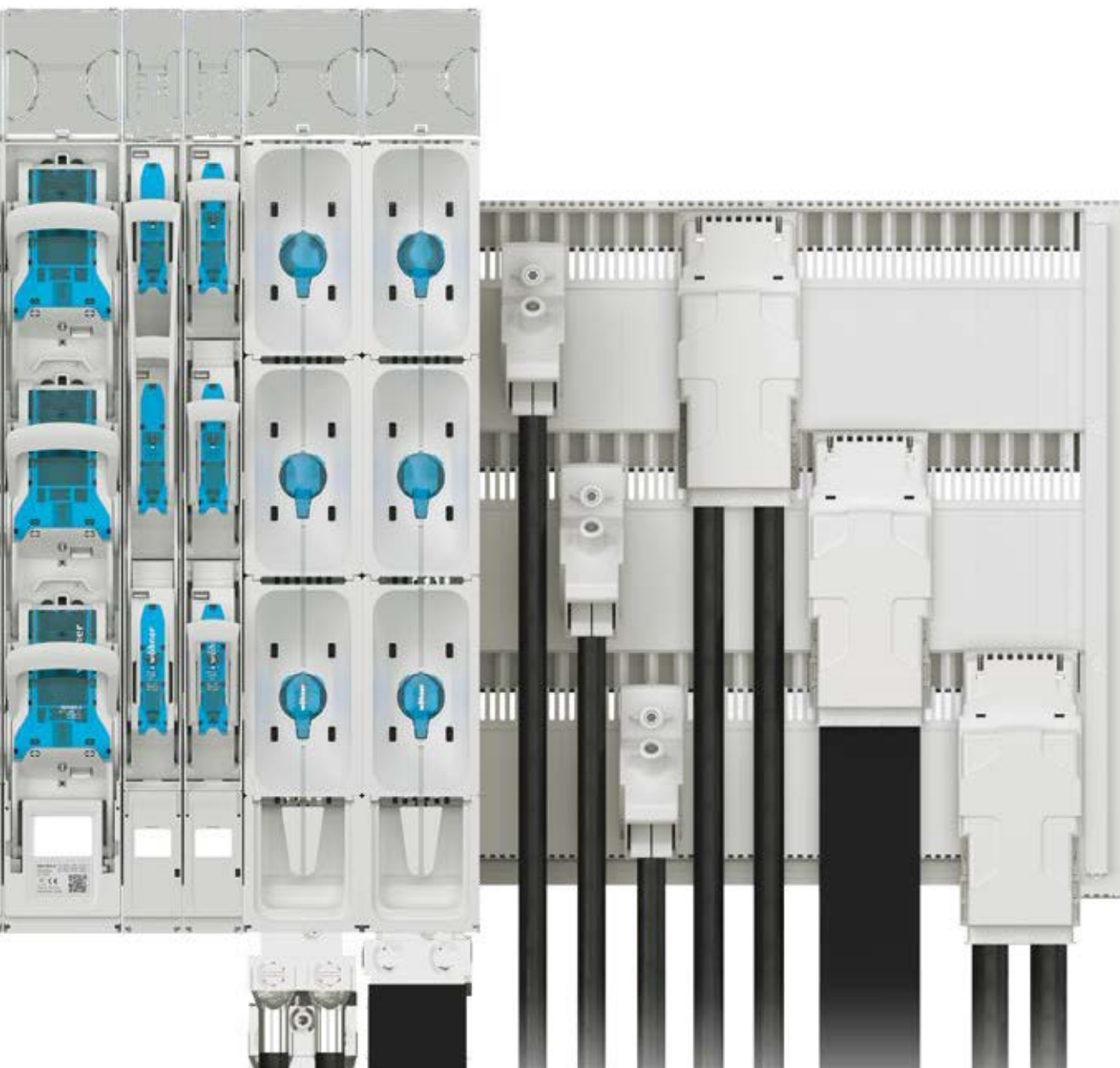
185Power



Powerful system solution with 185 mm busbar spacing

The 185Power busbar system by Wöhner is a modular system for low-voltage power distribution. All the components – NH in-line fuse-switch-disconnectors and in-line NH switch-disconnector-fuses, connection rails, connection modules and EQUES® adapters – fit together perfectly. The NH switch-disconnector-fuse is a particular highlight. This version, with the “Speed” suffix, allows reliable and operator-independent switching. When integrating circuit breakers into the system, EQUES® adapters are available for all commercially available circuit breakers for currents

from 400 A up to 1600 A. The 185Power system offers a wide range of options for integrating current transformers quickly and easily. Retrofitting is possible without additional space requirements. The 185Power allows the user to quickly realise cost-efficient low-voltage distribution systems. The modular structure and compatibility of the components contribute to efficient use of space within the cabinet. Systems based on the 185Power can easily be expanded or modified.





Busbars 185Power

- 30, 40, 60, 80, 100, 120 x 10 mm
- tin-plated versions
- proven load current capacity
- proven short-circuit capacity



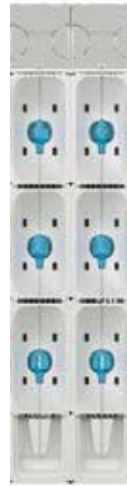
Busbar support 185Power

- Busbar support for easy and safe construction of systems with 185 mm distance between busbar centres.
- can be aligned on busbars
30, 40, 60, 80, 100, 120 x 10
 - end and centre cover as accessories



CRITO®185Power connection module

- Modules for direct connection of cables and flexible copper.
- versions with box terminal, for cable lugs and flat copper up to 80 x 10
 - connection top/bottom
 - mounting on the CrossLink® touch-safe protection modules or directly on the busbar



CRITO®185Power connection rail

- The connection rails allow the convenient connection of round and flat conductors as well as cable lugs.
- rated current: 800 A or 1400 A
 - equipment width 100 mm
 - mounting with terminal clamps on the CrossLink® touch-safe protection modules
 - optional screw mounting
 - current transformer installation without requiring additional space



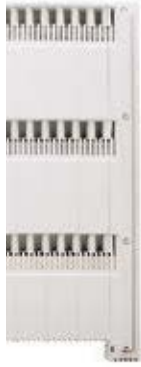
EQUES®185Power adapter

- The universal busbar adapters for fast and compact mounting of commercially available circuit-breakers.
- rated current: 400 A, 630 A
 - equipment width 150 mm
 - fast and safe mounting with clamp terminals on the CrossLink® touch-safe protection modules
 - optional screw mounting
 - current transformer installation without requiring additional space



EQUES®185Power adapter

- The busbar adapters are used for fast and simple installation of all commercially available circuit-breakers.
- rated current: 630 A - 1600 A
 - equipment width 300 mm
 - fast and safe mounting with clamp terminals on the CrossLink® touch-safe protection modules
 - optional screw mounting
 - current transformer installation without requiring additional space



CrossLink® 185Power covering system

In the 185Power system the CrossLink® 185Power covering modules, base plate profile and busbar support cover provide optimal all-around touch-safe protection for the busbar system.

- 50 mm and 100 mm width versions
- reliable connection to each other and to the middle and end cover



CRITO® 185Power connection module

The compact connection up to 500 A with complete touch-safe protection allows a space-saving arrangement on top of each other.

- V-box terminal for connection of cross-sections 70 - 240 mm²
- mounting on the CrossLink® touch-safe protection modules or direct on the busbar



QUADRON® 185Power

Available in sizes 00 to 3, the NH in-line switch-disconnectors allow quick, easy and safe mounting.

- mounting with terminal clamps on CrossLink® touch-safe protection modules or bolt mounting
- current transformer installation without requiring additional space
- innovative ventilation duct



QUADRON® 185Power Speed

These NH in-line switch-disconnector-fuses in sizes 00 to 3 allow operator-independent switching.

- snap-action switch mechanism with double break
- safer fuse technology
- faster and safer mounting with terminal clamp and insulated screw extension
- current transformer installation without requiring additional space

185Power CrossLink® Technology - Busbar systems

3-pole systems



Busbar support and CrossLink® busbar support cover

Article	Type	Pack size	Weight kg/100 u.	PG		Part No.
universal busbar support	for undrilled flat bars 30, 40, 60, 80, 100, 120 x 10	4	50.0	06		01430
end cover for busbar support 01430	set for one left and one right busbar support	1	39.0	06		01431
centre cover for busbar support 01430	when using the busbar support as a centre support	2	17.0	06		01432

additional busbar supports for drilled busbars and section busbars can be found at www.woehner.com

Copper busbar and busbar cover

Article	Type	Crosssection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
busbar 30 x 10	length 2.40 m, tinned	300	1	643.2	06		01625
busbar 40 x 10	length 2.40 m, tinned	400	1	856.8	06		01626
busbar 60 x 10	length 2.40 m, tinned	600	1	1294.0	06		01628
busbar 80 x 10	length 2.40 m, tinned	800	1	1728.0	06		01765
busbar 100 x 10	length 2.40 m, tinned	1000	1	2174.0	06		01766
busbar 120 x 10	length 2.40 m, tinned	1200	1	2572.8	06		01767
busbar cover	for 12 - 30 x 10 busbar, 1 m long		10	10.1	06		01245
busbar cover	for 40 - 60 x 10 busbars, 1m long		5	17.6	06		01251

partial lengths on request

CrossLink®185Power - system cover at front

CrossLink® touch-safe protection cover module	50 mm wide	8	16.0	06		01433
CrossLink® touch-safe protection cover module	100 mm wide	4	34.0	06		01434
front cover IP40	for CrossLink® covers	3	3.0	06		01435
completion section	499 mm long	2	5.6	06		01440
completion section	649 mm long	2	7.6	06		01444

the lengths of the completion sections are matched to the lengths of the rear system shrouding;
completion section, length 499 mm, suitable for 01420; completion section, length 649 mm, suitable for 01436

CrossLink®185Power - system cover at rear

system shrouding, rear	* set for busbar support distance 550 mm (centre to centre)	1	91.3	06		01420
system shrouding, rear	* set for busbar support distance 700 mm (centre to centre)	1	110.0	06		01436
spacer	** set, suitable for 01430	1	13.1	06		01421

* eight spacers are included with the system partitioning

** set consisting of 4 distance pieces, as an accessory when using a centre bar with system partitioning

Busbar connecting terminal, for same-size busbars

longitudinal busbar connector	40 mm	3	48.0	07		01480
longitudinal busbar connector	60 mm	3	72.0	07		01481
touch-safe protection shroud for longitudinal connectors	3-pole, front and rear mounting, cover width 100 mm	1	29.5	06		01482
touch-safe protection shroud for longitudinal connectors	3-pole, front and rear mounting, cover width 150 mm	1	45.0	06		01416

one longitudinal busbar connecting terminal 01480 is required for the connection of 30 x 10 busbars;
two longitudinal busbar connecting terminals 01480 are required for the connection of 80 x 10 busbars;
one longitudinal busbar connecting terminal 01480 and 01481 each is required for the connection of 100 x 10 busbars;
two longitudinal busbar connecting terminals 01481 are required for the connection of 120 x 10 busbars

system mounting instruction: www.woehner.com/en/products/01430.html



CRITO® 185Power CrossLink® - Connection technology

1-pole and 3-pole



Connection rail, 3-pole, screw connection

Article	Type	Rated current	Width	Pack size	Weight kg/100 u.	PG	Part No.
screw M12 *	3-pole	800 A	100	1	484.0	07	01438
for 3 cable lugs 300mm ² (offset arrangement), **	3-pole	1400 A		1	1050.0	07	01439

terminal clamps required for drill-free mounting with and without CrossLink® touch-safe protection cover

* current transformer can be integrated into connection rail

** current carrying capacity 1400 A with screw connection, 1200 A with terminal clamp connection, see product description at www.woehner.com

Terminal clamp, for drill-free mounting on the busbar system

Article	Type	Size	Pack size	Weight kg/100 u.	PG	Part No.
CrossLink® terminal clamp	for busbar systems with CrossLink® touch-safe protection	1 - 3	3	15.0	12	33738
terminal clamp	for busbar systems without system covers		3	10.0	12	33740

Current transformer module, with terminal compartment cover, for connection rail 800 A

Article	Type	Size	Pack size	Weight kg/100 u.	PG	Part No.
universal current transformer module	for mounting in the connection compartment	1 - 3	1	170.0	18	33776

for matching transformer see page 4.20

Current transformer (can be integrated), with terminal

Article	Accuracy class	Rated apparent power	Size	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 800 A / 5 A	1	2.50 VA	1 - 3	1	13.5	23	37217
current transformer 910 A / 5 A				1	13.5	23	37218
current transformer 800 A / 5 A	0.5			1	13.5	23	37224
current transformer 910 A / 5 A				1	13.5	23	37225

further current transformers in other accuracy classes or with declaration of conformity see chapter 7 "Accessories"



Connection modul, 1-pole, CrossLink® clamp connection for drill-free mounting on the busbar system

connection module with cover	for direct cable connection, Cu / Al up to 240 mm ²	42	3	35.0	07	01423
connection module	for direct cable connection, with 2 box terminals 300 mm ²	98	1	133.0	07	01441
connection module	for lam. Cu max. 2x 80 x 10	98	1	94.5	07	01442
connection module	for 4 cable lugs M12	98	1	165.0	07	01443

Cover cap, for connection module 98 mm wide, 1-pole

cover cap incl. rear touch protection cover	130	1	28.0	07	01437
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all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10



EQUES®185Power CrossLink® - Busbar adapters 630 A

universal version



Busbar adapter, 630 A, clamp connection for drill-free mounting on the busbar system with and without **CrossLink®185Power** touch-safe protection module

Type	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection at top, CrossLink® clamp connection	*	1	590.0	05		32741
connection at bottom, CrossLink® clamp connection	*	1	700.0	05		32745

* for rated currents see product description at www.woehner.com



Busbar adapter, 630 A, clamp connection for drill-free mounting on the busbar system, flat installation situation

connection at top, flat clamp connection	*	1	640.0	05		32742
connection at bottom, flat clamp connection	*	1	700.0	05		32746

when installing the adapter incl. circuit breaker, the same installation depth (150 mm supporting edge) is possible as with NH in-line fuse-switch-disconnector

* for rated currents see product description at www.woehner.com

Busbar adapter, 630 A, screw connection M8 for drilled busbars

connection at top / bottom, screw connection	*	1	620.0	05		32743
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* for rated currents see product description at www.woehner.com



Current transformer, with terminals

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 200 A / 5 A	1	2.50 VA	1	13.5	23		37212
current transformer 250 A / 5 A			1	13.5	23		37213
current transformer 400 A / 5 A			1	13.5	23		37214
current transformer 500 A / 5 A			1	13.5	23		37215
current transformer 600 A / 5 A			1	13.5	23		37216
current transformer 200 A / 5 A	0.5		1	13.5	23		37219
current transformer 250 A / 5 A			1	13.5	23		37220
current transformer 400 A / 5 A			1	13.5	23		37221
current transformer 500 A / 5 A			1	13.5	23		37222
current transformer 600 A / 5 A			1	13.5	23		37223

Current transformer with accuracy class 0.5s with declaration of conformity on request

Accessories

Article	Pack size	Weight kg/100 u.	PG		Part No.
fixing clip for current transformer	* 3	0.5	23		37900

* for mounting at busbars and in adapters 630 A



EQUES®185Power CrossLink® - Busbar adapters 1600 A

aligned to switchgear



Busbar adapter 1600 A, connection to the system at the top, clamp connection for drill-free mounting on the busbar system with and without **CrossLink®185Power** touch-safe protection module

ABB

Type	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
ABB Tmax T6, T7 (800 A), Emax E2 (800 A), Siemens 3VA27 (800 A)	800 A	1	2120.0	05		32767
ABB Tmax T7 (1000 A), Emax E2 (1000 A), Siemens 3VA27 (1000 A)	1000 A	1	2100.0	05		32766
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1250 A	1	3010.0	05		32765
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3150.0	05		32807

for rated currents see product description at www.woehner.com

Eaton

Eaton NZM4 (630 A, 800 A, 1000 A)	1000 A	1	2300.0	05		32763
Eaton NZM4 (1250 A)	1250 A	1	2900.0	05		32762
Eaton NZM4 (1600 A), Siemens 3VL8 (1600 A)	1440 A	1	3060.0	05		32761

for rated currents see product description at www.woehner.com

Schneider Electric

Schneider Electric NS630B, NS800, NS1000	1000 A	1	2620.0	05		32758
Schneider Electric NS1250	1250 A	1	3000.0	05		32757
Schneider Electric NS1600	1450 A	1	3100.0	05		32756

for rated currents see product description at www.woehner.com

Siemens

Eaton NZM4 (1600 A), Siemens 3VL8 (1600 A)	1440 A	1	3060.0	05		32761
Siemens 3VL5 (630 A)	630 A	1	2100.0	05		32769
Siemens 3VL6 (630 A, 800 A)	720 A	1	1950.0	05		32754
Siemens 3VL7 (1000 A)	1000 A	1	2200.0	05		32755
Siemens 3VL7 (1250 A)	1150 A	1	2850.0	05		32753
Siemens 3VA25 (630 A, 800 A, 1000 A)	1000 A	1	2200.0	05		32707
ABB Tmax T6, T7 (800 A), Emax E2 (800 A), Siemens 3VA27 (800 A)	800 A	1	2120.0	05		32767
ABB Tmax T7 (1000 A), Emax E2 (1000 A), Siemens 3VA27 (1000 A)	1000 A	1	2100.0	05		32766
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1250 A	1	3010.0	05		32765
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3150.0	05		32807

for rated currents see product description at www.woehner.com

Socomec

Socomec Sirco 1250 A (Socomec-Nr. 26003U21), Sirco 1600 A (Socomec-Nr. 26003U61)	1550 A	1	3350.0	05		32752
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for rated currents see product description at www.woehner.com

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
for further information on current carrying capacity, see product specifications at www.woehner.com



EQUES®185Power CrossLink® - Busbar adapters 1600 A

aligned to switchgear



Busbar adapter 1600 A, connection to the system at the bottom, clamp connection for drill-free mounting on the busbar system with and without **CrossLink®185Power** touch-safe protection module

ABB

Type	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
ABB Tmax T6, T7 (800 A), Emax E2 (800 A), Siemens 3VA27 (800 A)	800 A	1	2300.0	05		32730
ABB Tmax T7 (1000 A), Emax E2 (1000 A), Siemens 3VA27 (1000 A)	1000 A	1	2300.0	05		32729
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	3028.0	05		32726
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3100.0	05		32797

for rated currents see product description at www.woehner.com

Eaton

Eaton NZM4 (630 A, 800 A, 1000 A)	1000 A	1	2400.0	05		32733
Eaton NZM4 (1250 A)	1200 A	1	3180.0	05		32732
Eaton NZM4 (1600 A), Siemens 3VL8 (1600 A)	1400 A	1	2800.0	05		32731

for rated currents see product description at www.woehner.com

Schneider Electric

Schneider Electric NS630B, NS800, NS1000	900 A	1	2400.0	05		32747
Schneider Electric NS1250	1200 A	1	3200.0	05		32737
Schneider Electric NS1600	1400 A	1	3350.0	05		32734

for rated currents see product description at www.woehner.com

Siemens

Eaton NZM4 (1600 A), Siemens 3VL8 (1600 A)	1400 A	1	2800.0	05		32731
Siemens 3VL5 (630 A)	630 A	1	2150.0	05		32796
Siemens 3VL6 (630 A, 800 A)	650 A	1	2350.0	05		32795
Siemens 3VL7 (1000 A)	1000 A	1	2200.0	05		32783
Siemens 3VL7 (1250 A)	1150 A	1	3100.0	05		32771
Siemens 3VA25 (630 A, 800 A, 1000 A)	1000 A	1	2200.0	05		32708
ABB Tmax T6, T7 (800 A), Emax E2 (800 A), Siemens 3VA27 (800 A)	800 A	1	2300.0	05		32730
ABB Tmax T7 (1000 A), Emax E2 (1000 A), Siemens 3VA27 (1000 A)	1000 A	1	2300.0	05		32729
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	3028.0	05		32726
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3100.0	05		32797

for rated currents see product description at www.woehner.com

Socomec

Socomec Sirco 1250 A (Socomec-Nr. 26003U21), Sirco 1600 A (Socomec-Nr. 26003U61)	1500 A	1	3350.0	05		32764
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for rated currents see product description at www.woehner.com

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
for further information on current carrying capacity, see product specifications at www.woehner.com



EQUES®185Power - Busbar adapters 1600 A

aligned to switchgear



**Busbar adapter 1600 A, connection to the system at the top / bottom,
screw connection M12 for drilled busbars**

ABB

Type	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
ABB Tmax T6, T7 (800 A), Emax E2 (800 A), Siemens 3VA27 (800 A)	800 A	1	2150.0	05		32786
ABB Tmax T7 (1000 A), Emax E2 (1000 A), Siemens 3VA27 (1000 A)	1000 A	1	2620.0	05		32785
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	2800.0	05		32784
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	2950.0	05		32808

for rated currents see product description at www.woehner.com

Eaton

Eaton NZM4 (630 A, 800 A, 1000 A)	1000 A	1	2200.0	05		32779
Eaton NZM4 (1250 A)	1200 A	1	2600.0	05		32781
Eaton NZM4 (1600 A), Siemens 3VL8 (1600 A)	1400 A	1	2950.0	05		32780

for rated currents see product description at www.woehner.com

Legrand

GE FK1600, Legrand DPX ³ 1600	*	1440 A	1	2950.0	05	32809
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for rated currents see product description at www.woehner.com

* only connection to system at the top possible

Schneider Electric

Schneider Electric NS630B, NS800, NS1000	900 A	1	2200.0	05		32777
Schneider Electric NS1250	1200 A	1	2900.0	05		32776
Schneider Electric NS1600	1400 A	1	3010.0	05		32775

for rated currents see product description at www.woehner.com

Siemens

Eaton NZM4 (1600 A), Siemens 3VL8 (1600 A)	1400 A	1	2950.0	05		32780
Siemens 3VL6 (630 A, 800 A)	650 A	1	2080.0	05		32774
Siemens 3VL5 (630 A)	630 A	1	2000.0	05		32770
Siemens 3VL7 (1000 A)	1000 A	1	2800.0	05		32773
Siemens 3VL7 (1250 A)	1150 A	1	2800.0	05		32772
Siemens 3VA25 (630 A, 800 A, 1000 A)	1000 A	1	2800.0	05		32709
ABB Tmax T6, T7 (800 A), Emax E2 (800 A), Siemens 3VA27 (800 A)	800 A	1	2150.0	05		32786
ABB Tmax T7 (1000 A), Emax E2 (1000 A), Siemens 3VA27 (1000 A)	1000 A	1	2620.0	05		32785
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	2800.0	05		32784
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	2950.0	05		32808

for rated currents see product description at www.woehner.com

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
for further information on current carrying capacity, see product specifications at www.woehner.com



EQUES®185Power CrossLink® - Busbar adapters 1600 A

aligned to switchgear



Busbar adapter 1600 A, connection to the system at the bottom, phase rotation, clamp connection for drill-free mounting on the busbar system with and without CrossLink®185Power touch-safe protection module

ABB

Type	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	3000.0	05		32723
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3230.0	05		32722

for rated currents see product description at www.woehner.com

Eaton

Eaton NZM4 (1250 A)	1200 A	1	3200.0	05		32788
Eaton NZM4 (1600 A)	1400 A	1	3300.0	05		32787

for rated currents see product description at www.woehner.com

Schneider Electric

Schneider Electric NS1250	1200 A	1	3000.0	05		32719
Schneider Electric NS1600	1400 A	1	3230.0	05		32718

for rated currents see product description at www.woehner.com

Siemens

Siemens 3VL7 (1250 A)	1150 A	1	3222.0	05		32739
Siemens 3VL8 (1600 A)	1320 A	1	3432.0	05		32738
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	3000.0	05		32723
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3230.0	05		32722

for rated currents see product description at www.woehner.com

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
for further information on current carrying capacity, see product specifications at www.woehner.com



EQUES®185Power - Busbar adapters 1600 A

aligned to switchgear



Busbar adapter 1600 A, connection to the system at bottom, phase rotation, screw connection M12 for drilled busbars

ABB

Type	Rated current	Pack size	Weight kg/100 u.	PG	Part No.
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	2900.0	05	32725
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3140.0	05	32724

for rated currents see product description at www.woehner.com; adapters with phase rotation can also be used with connection to the system at the top

Eaton

Eaton NZM4 (1250 A)	1200 A	1	3000.0	05	32790
Eaton NZM4 (1600 A)	1400 A	1	3150.0	05	32789

for rated currents see product description at www.woehner.com; adapters with phase rotation can also be used with connection to the system at the top

Schneider Electric

Schneider Electric NS1250	1200 A	1	2900.0	05	32721
Schneider Electric NS1600	1400 A	1	3140.0	05	32720

for rated currents see product description at www.woehner.com; adapters with phase rotation can also be used with connection to the system at the top

Siemens

Siemens 3VL7 (1250 A)	1150 A	1	3172.0	05	32749
Siemens 3VL8 (1600 A)	1320 A	1	3382.0	05	32748
ABB Tmax T7 (1250 A), Emax E2 (1250 A), Siemens 3VA27 (1250 A)	1220 A	1	2900.0	05	32725
ABB Tmax T7 (1600 A), Emax E2 (1600 A), Siemens 3VA27 (1600 A)	1320 A	1	3140.0	05	32724

for rated currents see product description at www.woehner.com; adapters with phase rotation can also be used with connection to the system at the top

Accessories, cover IP20

Article	Type	Pack size	Weight kg/100 u.	PG	Part No.
IP20 Protection cover (front) for adapter, incl. 3 top covers	for ABB Tmax T6, T7	1	125.6	05	32700
	for Eaton NZM4, Legrand DPX ³ 1600, GE FK1600	1	123.8	05	32701
	for Schneider Electric NS630B - NS1600	1	122.8	05	32702
IP20 Protection cover (front) for adapter, incl. 3 top covers	for Siemens 3VL7, 3VL8	1	123.0	05	32703
	for Siemens 3VL5, 3VL6	1	128.0	05	32706
	for Siemens 3VA25	1	128.0	05	32705
touch-safe protection shroud IP20 (rear installation)	for all adapters	1	9.0	05	32704

Current transformer, with terminals

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 630 A / 5 A	1	5.00 VA	1	14.0	23	32983
current transformer 800 A / 5 A			1	14.0	23	32984
current transformer 1000 A / 5 A			1	14.0	23	32985
current transformer 1250 A / 5 A			1	14.0	23	32986
current transformer 1600 A / 5 A			1	14.0	23	32987

depending on the adapter type, 1 or 2 current transformers can be used per phase; see adapter product description at www.woehner.com

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
for further information on current carrying capacity, see product specifications at www.woehner.com



QUADRON® 185 Power CrossLink® - NH in-line fuse-switch-disconnectors, size 00

3-pole switchable, 1-pole switchable or open



NH in-line fuse-switch-disconnector, size 00, 3-pole switchable, for drill-free mounting, connection at bottom / top

Type		Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
screw M8, high version	*	NH 00	160 A	1	261.5	12		33700
box terminal 70 mm ² , high version	*	NH 00	160 A	1	261.8	12		33770
screw M8, flat version		NH 00	160 A	1	218.2	12		33704
box terminal 70 mm ² , flat version		NH 00	160 A	1	217.4	12		33773

terminal clamps required for mounting

* current transformer can be integrated

NH in-line fuse-switch-disconnector, size 00, 3-pole switchable, for drill-free mounting, with fuse monitoring, connection at bottom / top

screw M8, high version	*	NH 00	160 A	1	270.0	12		33720
box terminal 70 mm ² , high version	*	NH 00	160 A	1	270.0	12		33771
screw M8, flat version		NH 00	160 A	1	220.0	12		33724
box terminal 70 mm ² , flat version		NH 00	160 A	1	220.0	12		33774

terminal clamps required for mounting

* current transformer can be integrated

NH in-line fuse-switch-disconnector, size 00, 1-pole switchable, for drill-free mounting, connection at bottom / top

screw M8, high version	*	NH 00	160 A	1	255.5	12		33715
box terminal 70 mm ² , high version	*	NH 00	160 A	1	256.3	12		33772
screw M8, flat version		NH 00	160 A	1	211.4	12		33719
box terminal 70 mm ² , flat version		NH 00	160 A	1	212.0	12		33775

terminal clamps required for mounting

* current transformer can be integrated

NH fuse-base, size 00, open version, for drill-free mounting, connection at bottom / top

screw M8, flat version		NH 00	160 A	1	190.0	12		33705
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terminal clamps required for mounting



CrossLink® terminal clamp, for drill-free mounting on the busbar system

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
CrossLink® terminal clamp IP20	for busbar systems with touch-safe protection	00	3	4.4	12		33765

for mounting of one device on the CrossLink® touch-safe protection cover modules 3 clamps required

QUADRON® 185Power - NH in-line fuse-switch-disconnectors, size 00

3-pole switchable, 1-pole switchable or open



NH in-line fuse-switch-disconnector, size 00, 3-pole switchable, screw connection M8, connection at bottom / top

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
screw M8, high version	* NH 00	160 A	1	261.5	12		33700
box terminal 70 mm ² , high version	* NH 00		1	261.8	12		33770
screw M8, flat version	NH 00		1	218.2	12		33704
box terminal 70 mm ² , flat version	NH 00		1	217.4	12		33773

terminal clamps enable drill-free mounting

* current transformer can be integrated

NH in-line fuse-switch-disconnector, size 00, 3-pole switchable, screw connection M8, with fuse monitoring, connection at bottom / top

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
screw M8, high version	* NH 00	160 A	1	270.0	12		33720
box terminal 70 mm ² , high version	* NH 00		1	270.0	12		33771
screw M8, flat version	NH 00		1	220.0	12		33724
box terminal 70 mm ² , flat version	NH 00		1	220.0	12		33774

terminal clamps enable drill-free mounting

* current transformer can be integrated

NH in-line fuse-switch-disconnector, size 00, 1-pole switchable, screw connection M8, connection at bottom / top

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
screw M8, high version	* NH 00	160 A	1	255.5	12		33715
box terminal 70 mm ² , high version	* NH 00		1	256.3	12		33772
screw M8, flat version	NH 00		1	211.4	12		33719
box terminal 70 mm ² , flat version	NH 00		1	212.0	12		33775

terminal clamps enable drill-free mounting

* current transformer can be integrated

NH fuse-base, size 00, open version, screw connection M8, connection at bottom / top

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
screw M8, flat version	NH 00	160 A	1	190.0	12		33705

terminal clamps enable drill-free mounting



Accessory terminal clamp, for drill-free mounting on the busbar system

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
terminal clamp	for busbar systems without system covers	00	3	14.0	12		33739

for mounting of one device 3 clamps required

QUADRON® 185 Power CrossLink® - NH in-line fuse-switch-disconnectors, size 1 - 3

3-pole switchable, 1-pole switchable or open



NH in-line fuse-switch-disconnector, size 1 - 3, 3-pole switchable, for drill-free mounting, connection at bottom / top

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
screw M12	NH 1	250 A	1	480.0	12		33701
screw M12	NH 2	400 A	1	480.0	12		33702
screw M12	NH 3	630 A	1	582.3	12		33703

terminal clamps enable drill-free mounting

NH in-line-fuse switch-disconnector, size 1 - 3, 3-pole switchable, for drill-free mounting, with fuse monitoring, connection at bottom / top

screw M12	NH 1	250 A	1	540.0	12		33721
screw M12	NH 2	400 A	1	540.0	12		33722
screw M12	NH 3	630 A	1	640.0	12		33723

terminal clamps enable drill-free mounting

NH in-line fuse-switch-disconnector, size 1 - 3, 1-pole switchable, for drill-free mounting, connection at bottom / top

screw M12	NH 1	250 A	1	495.0	12		33716
screw M12	NH 2	400 A	1	502.0	12		33717
screw M12	NH 3	630 A	1	574.0	12		33718

terminal clamps enable drill-free mounting

Double NH in-line fuse-switch-disconnector, 1250 A, 3-pole switchable, for drill-free mounting, connection at bottom

screw M12, incl. terminal compartment cover	NH 3	1250 A	1	1556.0	12		33731
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terminal clamps enable drill-free mounting, 6 off required per unit

NH in-line fuse-base, size 1 - 3, open version, for drill-free mounting, connection at bottom / top

screw M12	NH 1	250 A	1	365.0	12		33706
screw M12	NH 2	400 A	1	375.1	12		33707
screw M12	NH 3	630 A	1	450.0	12		33708

terminal clamps enable drill-free mounting



CrossLink® terminal clamp, for drill-free mounting on the busbar system

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
CrossLink® terminal clamp	for busbar systems with CrossLink® touch-safe protection	1 - 3	3	15.0	12		33738

for mounting of one device on the CrossLink® touch-safe protection cover modules 3 clamps required

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10

QUADRON®185Power - NH in-line fuse-switch-disconnectors, size 1 - 3

3-pole switchable, 1-pole switchable or open



NH in-line fuse-switch-disconnector, size 1 - 3, 3-pole switchable, screw connection M12, connection at bottom / top

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
screw M12	NH 1	250 A	1	480.0	12		33701
screw M12	NH 2	400 A	1	480.0	12		33702
screw M12	NH 3	630 A	1	582.3	12		33703

terminal clamps enable drill-free mounting

NH in-line fuse-switch-disconnector, size 1 - 3, 3-pole switchable, screw connection M12, with fuse monitoring, connection at bottom / top

screw M12	NH 1	250 A	1	540.0	12		33721
screw M12	NH 2	400 A	1	540.0	12		33722
screw M12	NH 3	630 A	1	640.0	12		33723

terminal clamps enable drill-free mounting

NH in-line fuse-switch-disconnector, size 1 - 3, 1-pole switchable, screw connection M12, connection at bottom / top

screw M12	NH 1	250 A	1	495.0	12		33716
screw M12	NH 2	400 A	1	502.0	12		33717
screw M12	NH 3	630 A	1	574.0	12		33718

terminal clamps enable drill-free mounting

Double NH in-line fuse-switch-disconnector, 1250 A, 3-pole switchable, screw connection M12, connection at bottom

screw M12, incl. terminal compartment cover	NH 3	1250 A	1	1556.0	12		33731
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terminal clamps enable drill-free mounting, 6 off required per unit

NH in-line fuse-base, size 1 - 3, open version, screw connection M12, connection at bottom / top

screw M12	NH 1	250 A	1	365.0	12		33706
screw M12	NH 2	400 A	1	375.1	12		33707
screw M12	NH 3	630 A	1	450.0	12		33708

terminal clamps enable drill-free mounting



Accessory terminal clamp, for drill-free mounting on the busbar system

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
terminal clamp	for busbar systems without system covers	1 - 3	3	10.0	12		33740

for mounting of one device 3 clamps required

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10

QUADRON®185Power - Accessories, size 00

3-pole, 1-pole switchable and open version



Accessories

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
clamp connector	* for Cu 16 - 70 mm ²	00	3	1.5	09		33755
wedge clamp terminal	* for Cu and Al 10 - 95 mm ²	00	3	3.0	12		33734
terminal compartment cover, high version, connection bottom	for 33700, 33715, 33720, 33770, 33771, 33772 and QUADRON®185Power Speed size 00	00	1	18.2	12		33732
terminal compartment cover, flat version, connection bottom	for 33704, 33705, 33719, 33724, 33773, 33774, 33775	00	1	13.4	12		33725
terminal compartment cover, high version, connection top	for 33700, 33715, 33720, 33770, 33771, 33772	00	1	13.4	12		33726
terminal compartment cover, flat version, connection top	for 33704, 33705, 33719, 33724, 33773, 33774, 33775	00	1	13.4	12		33727
pilot switch	changeover 250 V AC / 5 A, 30 V DC / 4 A	000 - 3	1	1.1	09		33156
lateral bearing strip	for front covers	00 - 3	2	10.7	12		33758
lateral cover support	for front covers	00 - 3	4	0.5	12		33113
grip lug cover	** for NH base and 33705	00	30	1.2	10		79448
plug support with mounting rail	for CT wiring	00	1	2.8	12		33766
component support with mount. rails	for fuse monitoring and CT wiring	00	1	5.5	12		33767

when using aluminium conductors, observe the maintenance instructions (see appendix subsection "Conductor connections")

* can only be used for size 00 with connection screws M8

** 1 piece required per fuse

Current transformer (can be integrated), with terminal

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 80 A / 5 A	1	2.50 VA	1	14.0	23		33741
current transformer 150 A / 5 A			1	14.0	23		33742
current transformer 100 A / 5 A	0.5	1.50 VA	1	28.0	23		33749
current transformer 150 A / 5 A			1	28.0	23		33751
current transformer 100 A / 5 A, with decl. of conformity			1	28.0	23		33750
current transformer 150 A / 5 A, with decl. of conformity			1	28.0	23		33752

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

Double adapter, for NH in-line fuse-switch-disconnector, size 00

for 2 devices size NH 00	00	1	55.0	12		33728
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Current transformer, for double adapter, with leads

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 150 A / 5 A	* 1	1.50 VA	1	14.0	23		33744

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

* with leads 2.5 mm², 1.50 m long

QUADRON®185Power - Accessories, size 1 - 3

3-pole switchable, 1-pole switchable or open



Accessories

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
box terminal	* for Cu and Al 70 - 240 mm ²	1 - 3	3	14.5	12		33735
box terminal	* for Cu and Al 120 - 300 mm ²	1 - 3	3	25.5	12		33736
terminal compartment cover	universal for NH-rails size 1 - 3 and connection rail 800 A	1 - 3	1	30.0	12		33733
pilot switch	changeover 250 V AC / 5 A, 30 V DC / 4 A	000 - 3	1	1.1	09		33156
lateral bearing strip	for front covers	00 - 3	2	10.7	12		33758
lateral cover support	for front covers	00 - 3	4	0.5	12		33113
grip lug cover	for 33706, 33707, 33708	00	6	57.5	12		33759
rear touch-safe protection cover	** rear protection for Phase L1	1 - 3	5	0.0	12		33761
plug support with mounting rail	for CT wiring	1 - 3	1	8.8	12		33768
component support with mounting rails	for fuse monitor and CT wiring	1 - 3	1	9.0	12		33769

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

** to get rear finger safety in combination with CrossLink® touch-safe protection modules



Current transformer, for NH inline fuse-switch-disconnector size 1 - 3, with terminals

Article	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 150 A / 5 A	1	1.50 VA	1	14.0	23		33744
current transformer 200 A / 5 A		2.50 VA	1	13.5	23		37212
current transformer 250 A / 5 A		1	13.5	23		37213	
current transformer 400 A / 5 A		1	13.5	23		37214	
current transformer 500 A / 5 A		1	13.5	23		37215	
current transformer 600 A / 5 A		1	13.5	23		37216	
current transformer 200 A / 5 A	0.5	1	13.5	23		37219	
current transformer 250 A / 5 A		1	13.5	23		37220	
current transformer 400 A / 5 A		1	13.5	23		37221	
current transformer 500 A / 5 A		1	13.5	23		37222	
current transformer 600 A / 5 A		1	13.5	23		37223	
current transformer 200 A / 5 A, with decl. of conformity		1	13.5	23		37232	
current transformer 250 A / 5 A, with decl. of conformity		1	13.5	23		37233	
current transformer 400 A / 5 A, with decl. of conformity		1	13.5	23		37234	
current transformer 500 A / 5 A, with decl. of conformity		1	13.5	23		37235	

further current transformers in other accuracy classes or with declaration of conformity see chapter 7 "Accessories"

* with leads 2.5 mm², 1.50 m long

Current transformer module, with terminal compartment cover, for NH in-line fuse-switch-disconnectors size 1 - 3

universal current transformer module	for mounting in the connection compartment	1 - 3	1	170.0	18		33776
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for matching transformer see page 4.20

QUADRON®185 Power Speed CrossLink® - NH switch-disconnector-fuses, size 00

with snap-action switch mechanism



In-line switch-disconnector-fuse NH, size 00, 3-pole switchable,
clamp connection for drill-free mounting **with and without CrossLink® touch-safe protection modules**

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
high version, connection bottom M8	* NH 00	160 A	1	504.0	18		33614
high version, connection top M8	* NH 00		1	459.0	18		33616
flat version, connection bottom M8	NH 00		1	455.3	18		33610
flat version, connection top M8	NH 00		1	467.0	18		33612

with three terminal clamps with insulated screw extension for mounting on the busbar system
* current transformer, can be integrated; combinable with sizes 1 - 3

In-line switch-disconnector-fuse NH size 00, 3-pole switchable, with fuse monitoring,
clamp connection for drill-free mounting **with and without CrossLink® touch-safe protection modules**

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
high version, connection bottom M8	NH 00	160 A	1	481.5	18		33624
high version, connection top M8	NH 00		1	480.0	18		33626
flat version, connection bottom M8	NH 00		1	449.0	18		33620
flat version, connection top M8	NH 00		1	454.0	18		33622

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
fuse links are not included in the scope of delivery

QUADRON® 185Power Speed - NH switch-disconnector-fuses size 00

with snap-action switch mechanism



In-line switch-disconnector-fuse NH size 00, 3-pole switchable,
screw connection M8

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG	Part No.
high version, connection bottom M8	* NH 00	160 A	1	462.5	18	33615
high version, connection top M8	* NH 00		1	450.0	18	33617
flat version, connection bottom M8	NH 00		1	409.0	18	33611
flat version, connection top M8	NH 00		1	415.5	18	33613

with three screws for mounting on the busbar system

* current transformer, can be integrated; combinable with sizes 1 - 3

In-line switch-disconnector-fuse NH size 00, 3-pole switchable, with fuse monitoring,
screw connection M8

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG	Part No.
high version, connection bottom M8	* NH 00	160 A	1	485.0	18	33625
high version, connection top M8	* NH 00		1	483.5	18	33627
flat version, connection bottom M8	NH 00		1	443.0	18	33621
flat version, connection top M8	NH 00		1	448.0	18	33623

with three screws for mounting on the busbar system

* current transformer, can be integrated; combinable with sizes 1 - 3

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
fuse links are not included in the scope of delivery

QUADRON® 185 Power Speed CrossLink® - NH switch-disconnector-fuses, size 1 - 3

with snap-action switch mechanism



In-line switch-disconnector-fuse NH size 1 - 3, 3-pole switchable,
clamp connection for drill-free mounting **with and without CrossLink® touch-safe protection modules**

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection bottom M12	NH 1	250 A	1	1176.0	18		33630
connection top M12	NH 1		1	1194.0	18		33631
connection bottom M12	NH 2	400 A	1	1250.0	18		33632
connection top M12	NH 2		1	1361.0	18		33633
connection bottom M12	NH 3	630 A	1	1421.0	18		33634
connection top M12	NH 3		1	1481.0	18		33635

CrossLink® terminal clamp required for mounting

In-line switch-disconnector-fuse NH size 1 - 3, 3-pole switchable, with fuse monitoring,
clamp connection for drill-free mounting **with and without CrossLink® touch-safe protection modules**

connection bottom M12	NH 1	250 A	1	1267.0	18		33636
connection top M12	NH 1		1	1285.0	18		33637
connection bottom M12	NH 2	400 A	1	1420.0	18		33638
connection top M12	NH 2		1	1452.0	18		33639
connection bottom M12	NH 3	630 A	1	1512.0	18		33640
connection top M12	NH 3		1	1572.0	18		33641

CrossLink® terminal clamp required for mounting



CrossLink® terminal clamp, for free mounting on the busbar system

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
mounting set with 3 terminal clamps	for drill-less mounting on the busbar system, with and without CrossLink® touch-safe protection covers	1 - 3	1	51.0	18		33651
insulated screw extension for terminal clamp	for safe live working with standard tools	1 - 3	3	5.8	18		33652

for mounting of one device on the CrossLink® touch-safe protection cover modules 3 clamps required

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
fuse links are not included in the scope of delivery

QUADRON® 185Power Speed - NH switch-disconnector-fuses size 1 - 3

with snap-action switch mechanism



In-line switch-disconnector-fuse NH size 1 - 3, 3-pole switchable, screw connection M12

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection bottom M12	NH 1	250 A	1	1176.0	18		33630
connection top M12	NH 1		1	1194.0	18		33631
connection bottom M12	NH 2	400 A	1	1250.0	18		33632
connection top M12	NH 2		1	1361.0	18		33633
connection bottom M12	NH 3	630 A	1	1421.0	18		33634
connection top M12	NH 3	500 A	1	1481.0	18		33635

mounting set with 3 screws required

In-line switch-disconnector-fuse NH size 1 - 3, 3-pole switchable, screw connection, with fuse monitoring, screw connection M12

Type	Size	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection bottom M12	NH 1	250 A	1	1267.0	18		33636
connection top M12	NH 1		1	1285.0	18		33637
connection bottom M12	NH 2	400 A	1	1420.0	18		33638
connection top M12	NH 2		1	1452.0	18		33639
connection bottom M12	NH 3	630 A	1	1512.0	18		33640
connection top M12	NH 3	500 A	1	1572.0	18		33641

mounting set with 3 screws required



Mounting set, for mounting on the busbar system

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
mounting set with 3 bolts	for busbar connection on drilled busbars, including positioner	1 - 3	1	31.4	18		33650

all devices can be mounted directly on busbars 30, 40, 60, 80, 100, 120 x 10
fuse links are not included in the scope of delivery

QUADRON®185Power Speed - Accessories size 00



Accessories

Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
terminal compartment cover, high version, connection bottom	for 33700, 33715, 33720, 33770, 33771, 33772 and QUADRON®185Power Speed size 00	00	1	18.2	12		33732
rear touch-safe protection	* for terminal compartment		1	7.0	18		33653
clamp connector	* for Cu 16 - 70 mm ²		3	1.5	09		33755
wedge clamp terminal	* for Cu and Al 10 - 95 mm ²		3	3.0	12		33734
bearing area extension, top	for front covers		1	0.9	18		33645
lateral bearing strip	for front covers	00 - 3	2	10.7	12		33758
lateral cover support	for front covers		4	0.5	12		33113
pilot switch	changeover 250 V AC / 5 A, 30 V DC / 4 A		1	2.9	18		33642

when using aluminium conductors, observe the maintenance instructions (see Appendix subsection "Conductor connections")

* can only be used for size 00 with connection screws M8

Current transformer (can be integrated), with terminal

Type	Accuracy class	Rated apparent power	Size	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 80 A / 5 A	1	2.50 VA	00	1	14.0	23		33741
current transformer 150 A / 5 A				1	14.0	23		33742
current transformer 100 A / 5 A	0.5	1.50 VA		1	28.0	23		33749
current transformer 150 A / 5 A				1	28.0	23		33751
current transformer 100 A / 5 A, with decl. of conformity				1	28.0	23		33750
current transformer 150 A / 5 A, with decl. of conformity				1	28.0	23		33752

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

Double adapter, for NH in-line fuse-switch-disconnector, size 00

for 2 devices size NH 00	00	1	55.0	12		33728
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Current transformer, for double adapter, with leads

Type	Accuracy class	Rated apparent power	Size	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 150 A / 5 A	1	1.50 VA	1 - 3	1	14.0	23		33744

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

QUADRON®185Power Speed - Accessories, size 1 - 3



Current transformer, for In-line switch-disconnector-fuse NH size 1 - 3, with terminals

Article	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 200 A / 5 A	1	1.50 VA	1	10.4	23		37200
current transformer 250 A / 5 A			1	10.4	23		37201
current transformer 400 A / 5 A			1	10.4	23		37202
current transformer 500 A / 5 A			1	10.4	23		37203
current transformer 200 A / 5 A	0.5		1	10.4	23		37204
current transformer 250 A / 5 A			1	10.4	23		37205
current transformer 400 A / 5 A			1	10.4	23		37206
current transformer 500 A / 5 A			1	10.4	23		37207
current transformer 200 A / 5 A, with decl. of conformity			1	10.4	23		37208
current transformer 250 A / 5 A, with decl. of conformity			1	10.4	23		37209
current transformer 400 A / 5 A, with decl. of conformity			1	10.4	23		37210
current transformer 500 A / 5 A, with decl. of conformity			1	10.4	23		37211

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request



Current transformer module, for QUADRON®185Power Speed - NH switch-disconnector fuse, size 1 - 3, with terminal compartment cover

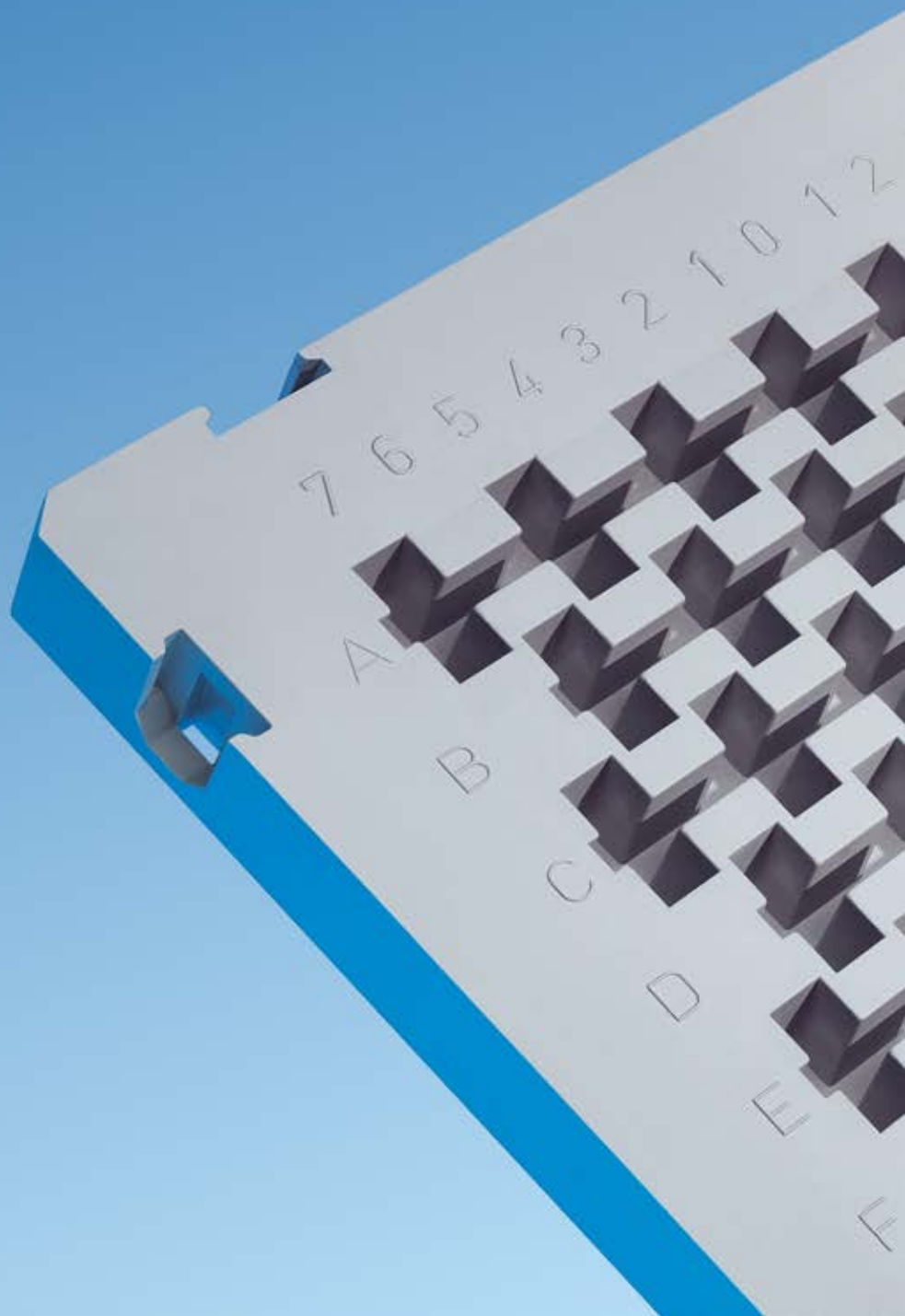
Article	Type	Size	Pack size	Weight kg/100 u.	PG		Part No.
universal current transformer module	for mounting in the connection compartment	1 - 3	1	170.0	18		33776

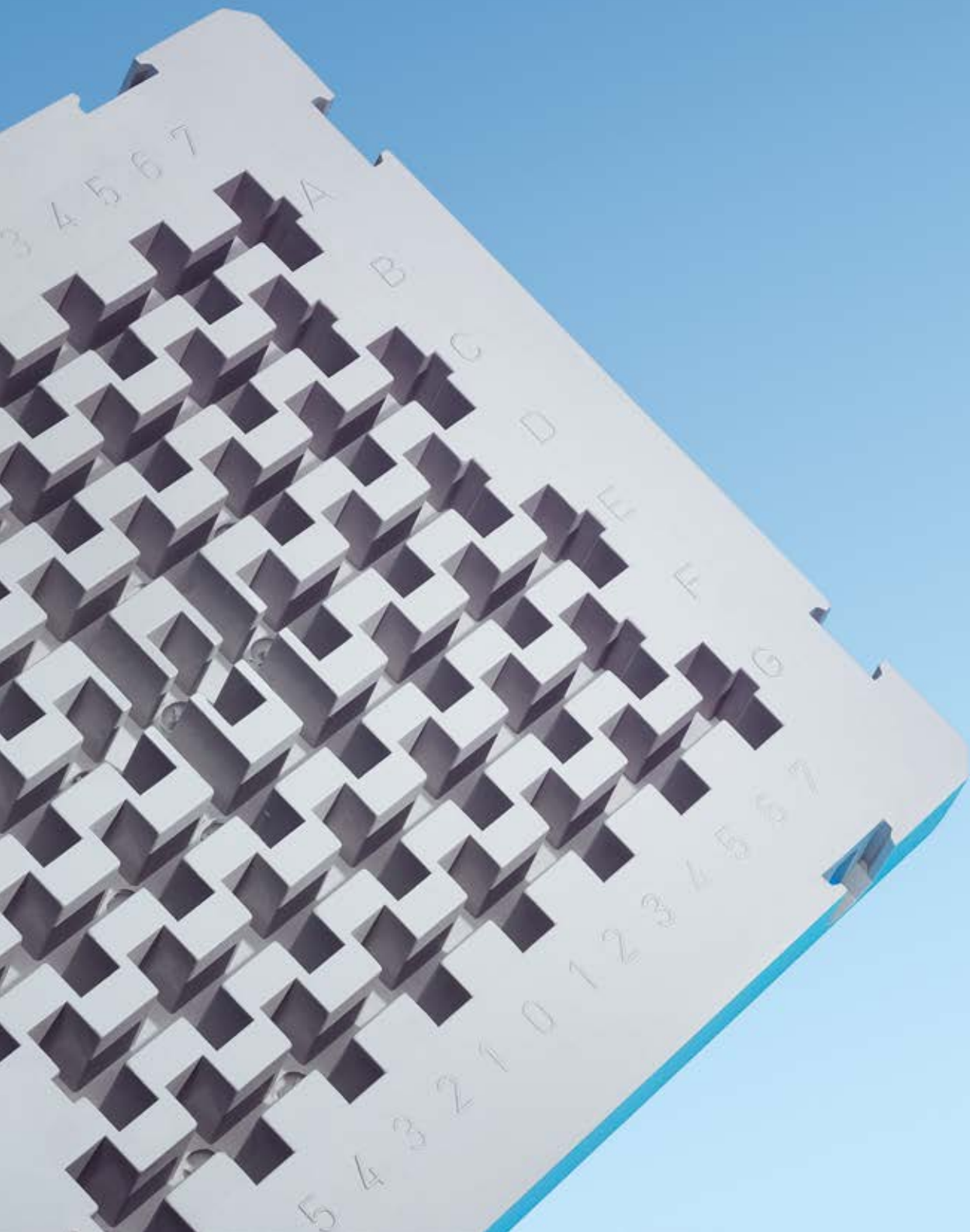
including front and rear cover

Current transformer (can be integrated), with terminal

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG		Part No.
current transformer 200 A / 5 A	1	2.50 VA	1	13.5	23		37212
current transformer 250 A / 5 A			1	13.5	23		37213
current transformer 400 A / 5 A			1	13.5	23		37214
current transformer 500 A / 5 A			1	13.5	23		37215
current transformer 600 A / 5 A			1	13.5	23		37216
current transformer 800 A / 5 A			1	13.5	23		37217
current transformer 200 A / 5 A	0.5		1	13.5	23		37219
current transformer 250 A / 5 A			1	13.5	23		37220
current transformer 400 A / 5 A			1	13.5	23		37221
current transformer 500 A / 5 A			1	13.5	23		37222
current transformer 600 A / 5 A			1	13.5	23		37223
current transformer 800 A / 5 A			1	13.5	23		37224

Centre feed unit





FEEDING SYSTEM

Centre feed unit



Feeding system with high variability and connection convenience

Centre feed unit up to 4000 A combines the advantages of high short-circuit capacity, drill-less mounting, brace terminal technology and a clearly structured design. The fuseless equipment practice of this feeding system puts high requirements on the short-circuit capacity. The busbar supports have been designed specifically for this purpose. This also concerns the large number of connection

options for copper and aluminium conductors – whether for round conductors or laminated and solid flat conductor connections. Industrial production and type tests ensure compliance with the required safety standards. The current rating and short-circuit capacity up to 120 kA determined via the type test meet the demanding requirements for this feeding system.





Double-T, triple-T and TCC section busbars



These well-established section busbars provide safe transmission of currents up to 4000 A. Double-T and triple-T section busbars can be connected on both sides. Versions:

- double-T section busbar
- triple-T section busbar
- TCC section busbar



CRITO® connection technology

These solutions provide for convenient connection of round conductors, flat conductors and cable lugs. Currents up to 3200 A can be brought to the busbar by the individual components.

- brace terminal technology
- round sector and flat conductor
- UL listed



Busbar supports multi-pole

The busbar supports are suitable for 3- or 4-pole systems. Busbars from 300 to 1140 mm² can be used.

- variable configurations
- double-T and triple-T sections busbars can be used



Busbar support 1-pole

The 1-pole lateral busbar support can also accommodate the TCC section busbars. Busbars from 500 to 1600 mm² can also be used.

- variable configurations
- double-T, triple-T and TCC section busbars can be used

Centre feed units

with double-T and triple-T section busbar



Centre feed unit

Cabinet width	Mounting dimensions	Busbar length	Crosssection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
for cabinet width 600 mm	488 - 563	453	500	1	1434.0	11		35007
for cabinet width 800 mm	688 - 763	653		1	1716.0	11		35006
for cabinet width 600 mm	488 - 563	453	720	1	1716.0	11		35005
for cabinet width 800 mm	688 - 763	653		1	2488.0	11		35004
for cabinet width 600 mm	488 - 563	453	1140	1	2200.0	11		35015
for cabinet width 800 mm	688 - 763	653		1	2940.0	11		35016

Universal conductor connection terminal 16 mm² to 300 mm²

For busbar	Connection min. – max.	Terminal space W x H	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
flat busbars 10 mm and section busbars	16 - 120 mm ² , AWG 4 - 250 MCM	17 x 15	440 A	25	10.9	07		01203
30 x 10 and section busbars	95 - 300 mm ²	41 x 25	630 A	3	85.7	07		01094

Brace terminal for round conductors up to 300 mm²

For busbar	Connection min. - max.	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
20, 25, 30 x 5, 10 and section busbars *	Cu / Al 95 - 185 mm ²	500 A	6	31.2	07		01318
20, 25, 30 x 5, 10 and section busbars *	Cu / Al 95 - 300 mm ²	600 A	3	42.5	07		01760

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

Profile terminal, for double-T section busbars, connection at front and back of busbar section

Connection cross-section	End feed	Centre feed	Terminal space W x H	Pack size	Weight kg/100 u.	PG		Part No.
320 - 800 mm ²	1600 A	1600 A	41 x 20 - 42	3	67.0	07		01185
500 - 750 mm ²			51 x 5 - 28	3	70.5	07		01906
600 - 900 mm ²			64 x 5 - 28	3	84.0	07		01907
500 - 1000 mm ²	2000 A	2000 A	51 x 20 - 42	3	73.5	07		01936
600 - 1200 mm ²			64 x 20 - 42	3	85.9	07		01911
800 - 1600 mm ²			2500 A	3	101.1	07		01934
1000 - 2000 mm ²			2800 A	3	113.7	07		01935

for the connection of flat busbars and laminated copper busbars

Profile terminal, for triple-T section busbars, connection at front and back of busbar section

Connection cross-section	End feed	Centre feed	Terminal space W x H	Pack size	Weight kg/100 u.	PG		Part No.
320 - 800 mm ²	1600 A	1600 A	41 x 23 - 45	3	105.0	07		01513
500 - 1260 mm ²	2000 A	2500 A	64 x 23 - 45	3	124.0	07		01008
1200 - 3600 mm ²	2500 A	3200 A	101 x 23 - 45	3	172.7	07		01186

for the connection of flat busbars and laminated copper busbars



Centre feed units

with double-T and triple-T section busbar



Brace terminal, 55 to 105 mm wide, for flat conductors

For busbar	Terminal space W x H	End feed	Centre feed	Pack size	Weight kg/100 u.	PG		Part No.
30 x 10 and section busbars	55 x 10 - 28	1600 A	2000 A	3	50.0	07		01069
30 x 10 and section busbars	68 x 10 - 28			3	63.0	07		01070
30 x 10 and section busbars	105 x 10 - 28		2800 A	3	84.0	07		01071

for the connection of flat busbars and laminated copper busbars

Clip-on screw connection, attachable, for DIN 46234 cable lugs

For busbar	Terminal space	For use up to max.	Pack size	Weight kg/100 u.	PG		Part No.
12, 15, 20, 25, 30 x 10 and section busbars	M8 x 8	490 A	20	16.5	07		01514
12, 15, 20, 25, 30 x 10 and section busbars	M10 x 10	630 A	6	36.2	07		01047

Laminated copper busbar, plain, insulated, length 2 m

Dimensions (Number of laminates x width x thickness)	Rated current at 30 K	Rated current at 50 K	Crosssection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
10x 40 x 1	774 A	1053 A	400	1	746.0	06		01615
10x 50 x 1	914 A	1244 A	500	1	932.0	06		01509
10x 63 x 1	1088 A	1481 A	630	1	1180.0	06		01510
10x 80 x 1	1305 A	1777 A	800	1	1490.0	06		01061
10x 100 x 1	1550 A	2110 A	1000	1	1870.0	06		01273

for additional additional flexible copper busbars see chapter 7 - Accessories

Component, for individual mounting

Article	Type	Pack size	Weight kg/100 u.	PG		Part No.
busbar support, lateral	for centre feed unit with double T and triple T busbars	2	458.0	11		35008
busbar support, 4-pole, centre	for centre feed unit with double T busbars	1	458.0	11		35009
busbar support, 3-pole, centre	for centre feed unit with triple T busbars	1	458.0	11		35001
additional cover holder	for centre feed unit	4	1.4	11		35017

Section busbar, copper

Article	Type	Pack size	Weight kg/100 u.	PG		Part No.
double-T section busbar 500 mm ²	length 453 mm, tinned	1	200.6	06		01225
double-T section busbar 500 mm ²	length 650 mm, tinned	1	288.1	06		01226
double-T section busbar 720 mm ²	length 453 mm, tinned	1	293.3	06		01838
double-T section busbar 720 mm ²	length 653 mm, tinned	1	424.0	06		01831
triple-T section busbar 1140 mm ²	length 453 mm, tinned	1	464.0	06		01188
triple-T section busbar 1140 mm ²	length 653 mm, tinned	1	672.3	06		01189

for current carrying capacity of the busbars visit www.woehner.com



Centre feed units

Components for TCC section busbars



Busbar holder, 1-pole, lateral

Type	Pack size	Weight kg/100 u.	PG	Part No.
for section busbars	6	11.0	06	01369

Section busbar, copper, tin-plated

Type	Length	Pack size	Weight kg/100 u.	PG	Part No.
TCC section busbar 1600 mm ²	2400	1	3416.0	06	01610

for the connection of flat busbars and laminated copper busbars

Connection screw, with nut and spring washer for TCC section busbars

Type	Connection	Pack size	Weight kg/100 u.	PG	Part No.
hammer-head screw for TCC-profile, with nut and spring washer	M10 x 45	12	5.1	07	01379
bolt for TCC-profile, with nut and spring washer	M12 x 60	12	9.1	07	01380

Brace terminal, 95 to 300 mm², for round conductors

For busbar	Connection mm ²	For use up to max.	Pack size	Weight kg/100 u.	PG	Part No.
20, 25, 30 x 5, 10 and section busbars *	95 - 185	500 A	6	31.2	07	01318
20, 25, 30 x 5, 10 and section busbars *		600 A	3	42.5	07	01760

for the connection of flat busbars and laminated copper busbars

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

Brace terminal, 30 to 105 mm wide, for flat conductors

For busbar	Terminal space W x H	End feed	Centre feed	Pack size	Weight kg/100 u.	PG	Part No.
20, 25, 30 x 5, 10 and section busbars	30 x 20	630 A	750 A	6	30.3	07	01319
	32 x 20		800 A	3	34.7	07	01759
30 x 10 and section busbars	55 x 10 - 28	1600 A	2000 A	3	50.0	07	01069
	68 x 10 - 28			3	63.0	07	01070
	105 x 10 - 28		2800 A	3	84.0	07	01071



Panel



DEVICES FOR PANEL MOUNTED AND DIN RAIL

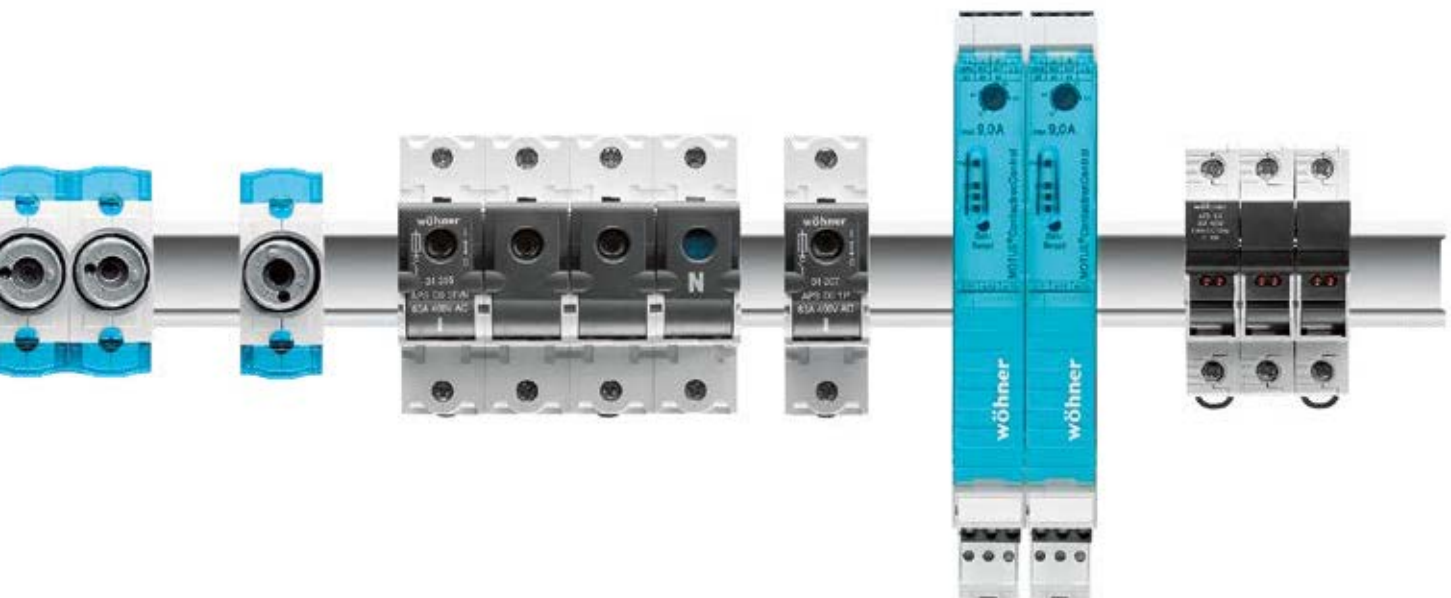
Panel



Components for conventional mounting

For conventional wiring, Wöhner provides a comprehensive range of components for DIN rail or mounting plate assembly. The fuse technology and associated connection technology meet the high safety and quality requirements set by international standards.

Thanks to their snap-action switch mechanisms, the switching devices offer high switching capacity and special protection via operator-independent switching. Selected products are ideal for special applications in the field of photovoltaics.





CUSTO® Panel

The CUSTO® fuse-base D01 and D02 for installation in the 45 mm standard field cutout offer high security and favourable connection conditions.

- large terminal range up to 35 mm²
- dual-function terminal to 35 mm² and 16 mm²
- connection of all types of conductors
- integrated cover and comprehensive touch-safe protection



TRITON® Panel

The TRITON® fuse-base D01, D02, DII and DIII in a particularly robust design with touch-safe protection in accordance with DGUV V3 for industrial applications.

- large terminal range up to 35 mm²
- dual-function incoming terminal
- connection of all types of conductors
- spring-loaded contact



SECUR® Panel

The SECUR® fuse-holder especially for photovoltaic applications allows convenient fuse changes by means of a removable fuse carrier.

- Contacts in the carrier also feature touch-safe protection.
- for 10x85 (14x85) fuses up to 1500 V DC
 - equipment width 22.5 mm
 - UL listed



SECUR® Panel

The D0 fuse-switch-disconnector offers a high degree of safety and comfort for the operator. Fuse replacement is possible only when switched off.

- dual-function terminal to 35 mm²
- captive fuse carrier with commercial gauge ring
- optional auxiliary switch



CAPUS® Panel

Product series of large load switches in three different versions.

- switch-disconnectors with NH fuse-link 160 A - 630 A
- switch-disconnectors from 125 A - 3150 A
- changeover switch from 125 A - 1000 A.
- partly also versions 3-pole + N



CAPUS® Panel

Product series of small load switches.

- switch-disconnectors from 16 A - 160 A
- also versions 3-pole + N
- optional door coupling rotary drives
- UL listed



AMBUS® Panel

The holder for cylindrical fuses is available in 1-, 2- and 3-pole versions as well versions with a neutral conductor, LED, auxiliary switch and for semiconductor protection.

- 32 A (10x38), 50 A (14x51), 100 A (22x58)
- rated voltage to 690 V
- touch-safe protection
- photovoltaic versions to 1000 V DC are also UL listed



AMBUS® Panel

UL version

Versions for Class CC to 30 A and Class J to 60 A fuses according to UL 248-4 / -8. All products are provided with touch-safe protection and convenient connection technology.

- short-circuit capacity up to 200 kA
- rated voltage 600 V
- versions available with LED as fuse indicator



QUADRON® Panel

The NH fuse-switch-disconnectors for sizes 000 to 4a safeguard and disconnect currents up to 1600 A.

- NH 000 to 2 can also be mounted on DIN rails
- NH 00 to 3 versions with fuse monitoring
- various accessories for connection and shrouding



QUADRON® Panel

Speed

One highlight is the QUADRON® Panel switch-disconnector with NH fuses. Its snap-action switch mechanism ensures safe, operator-independent switching.

- double break
- lockable in OFF position
- FLAG indicator for switch position indication
- rotary drive versions or fuse monitoring



MOTUS® Panel

The MOTUS® hybrid motor starter can supply motors up to 4 kW. The integrated functions – direct and reversing starter, overload protection and emergency switch-off – lead to a significant reduction in space and wiring requirements.

- 3 design versions: 0.6 A, 2.4 A and 9 A
- equipment width 22.5 mm
- up to 30 mil. switching cycles
- versions with IO-Link interface
- UL listed

MOTUS®Panel - Hybrid motor starters

for switching of inductive loads



Hybrid motor starter, 3-pole, with reversing function and **CrossLink®Technology**, 22.5 mm wide for mounting on mounting rails TH35 acc. to EN 60715

Type	Width	Height	Depth	Pack size	Weight kg/100 u.	PG		Part No.
0.075 - 0.6 A direct and reversing starter	22.5	175	138	1	58.1	21		36100
0.18 - 2.4 A direct and reversing starter				1	58.5	21		36103
1.5 - 9 A direct and reversing starter				1	59.2	21		36106

Hybrid motor starter IO-Link, 3-pole, with reversing function, **CrossLink®Technology** and **communication interface**, 22.5 mm wide for mounting on mounting rails TH35 acc. to EN 60715

Type	Width	Height	Depth	Pack size	Weight kg/100 u.	PG		Part No.
IO-Link 0.18 - 3 A direct and reversing starter	22.5	175	138	1	59.2	21		36123
IO-Link 1.5 - 9 A direct and reversing starter				1	59.2	21		36126

Accessories

connecting plug with cable connection, 2 units	1	7.6	21			36902
connecting plug with cable connection, 3 units	1	9.0	21			36903
connecting plug with cable connection, 4 units	1	10.9	21			36904

Replacement component

electronic unit 0.075 - 0.6 A direct and reversing starter	1	50.9	21			36109
electronic unit 0.18 - 2.4 A direct and reversing starter	1	50.7	21			36110
electronic unit 1.5 - 9 A direct and reversing starter	1	51.4	21			36111
adapter for MOTUS®Panel	1	12.8	05			36112
fuse 16 A for version 0.6 A and 2.4 A	3	2.8	21			31567
fuse 20 A for version 9 A	3	2.8	21			31568
fuse 30 A for version 9 A for motors with heavy-duty starting	3	2.8	21			31569



CUSTO®Panel - D0 fuse-bases

version with touch-safe protection, dual-function terminal on both sides



D0 fuse-base, version for distribution boards

Type	Rated voltage	Poles	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
E 14 / 16 A / 1P	400 V	1-pole	1.5 - 35	9	7.6	03		31301
E 14 / 16 A / 3P		3-pole		3	23.0	03		31302
E 18 / 63 A / 1P		1-pole		9	7.6	03		31303
E 18 / 63 A / 3P		3-pole		3	23.0	03		31306

Comb-type busbar, length 1 m

Type	Centre feed	End feed	Crosssection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
comb-type busbar, 1-pole, bridge type, pitch 27 mm	130 A	80 A	16	25	19.0	06		31014
	220 A	130 A	35	10	50.0	06		31057
comb-type busbar, 3-pole, bridge type, pitch 27 mm	130 A	80 A	16	10	56.2	06		31012
	220 A	130 A	35	4	125.0	06		31056

Connection terminal, for comb-type busbars, bridge version

Article	Connection min. – max.	Type	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection terminal, side connection	6 - 50 mm ²	for 31014, 31024, 31309, 31311	125 A	25	2.5	07		31028
connection terminal, side connection		for 31012, 31310, 31312		25	2.9	07		31029
connection terminal, front connection				25	2.9	07		31085
connection terminal, front connection	25 - 95 mm ²	for 31057	225 A	3	9.0	07		01198
connection terminal, front connection		for 31056		3	9.3	07		01228

a connection terminal is required for each phase

End cover, for comb-type busbars

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 2-pole and 3-pole comb-type busbars 16 mm ²	50	0.1	06		31027
for 3-pole comb-type busbars 35 mm ²	10	0.2	06		31084

TRITON®Panel - D0 panel mounted fuse-bases

touch-safe protection in accordance with EN 50274 for industrial applications

with dual-function terminal on incoming connection, box terminal on outgoing terminal



D0 fuse-base, industrial version, pitch 27 mm

Type	Rated voltage	Poles	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
E 14 / 16 A / 1P	400 V	1-pole	1.5 - 35	9	12.8	02		31286
E 14 / 16 A / 3P	400 V	3-pole		3	38.4	02		31288
E 18 / 63 A / 1P	400 V	1-pole		9	13.9	02		31291
E 18 / 63 A / 3P	400 V	3-pole		3	41.4	02		31293

Comb-type busbar, length 1 m

Type	Crosssection mm ²	Centre feed	End feed	Pack size	Weight kg/100 u.	PG		Part No.
comb type busbar, 1-pole, fork type, pitch 27 mm	16	130 A	80 A	25	24.6	06		31024
comb type busbar, 3-pole, fork type, pitch 27 mm	16			10	56.0	06		31026
comb-type busbar, 1-pole, bridge type, pitch 27 mm	16			25	19.0	06		31014
comb-type busbar, 3-pole, bridge type, pitch 27 mm	16	220 A	130 A	10	56.2	06		31012
	35			4	125.0	06		31056

End cover, for comb-type busbars

for 2-pole and 3-pole comb-type busbars 16 mm ²	50	0.1	06		31027
for 3-pole comb-type busbars 35 mm ²	10	0.2	06		31084

Connection terminal, for comb-type busbars, bridge version

Article	Type	Connection mm ²	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection terminal, side connection	for 31014, 31024, 31309, 31311	6 - 50	125 A	25	2.5	07		31028
connection terminal, side connection	for 31012, 31310, 31312			25	2.9	07		31029
connection terminal, front connection	for 31012, 31310, 31312			25	2.9	07		31085
connection terminal, front connection	for 31056	25 - 95	225 A	3	9.3	07		01228

a connection terminal is required for each phase

Label holder

Type	Pack size	Weight kg/100 u.	PG		Part No.
for Triton, snap-on	100	0.1	02		31086

Label, for label holder

clip 20 x 9	100	0.1	03		31004
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SECUR®Panel - D0 switch-disconnector-fuses 63 A

touch-safe protection in accordance with EN 50274, dual-function terminal on both sides



D0 switch-disconnector-fuse

Type	Rated current	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
1-pole	63 A	1.5 - 35	3	14.0	03		31307
1-pole+N			2	26.2	03		31308
2-pole			2	27.8	03		31313
3-pole			1	42.0	03		31314
3-pole+N			1	54.0	03		31315

400 V AC / 130 V DC for 2-pole version

D0 switch-disconnector-fuse, with LED

Type	Rated current	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
1-pole	63 A	1.5 - 35	3	14.2	03		31556
3-pole			1	42.6	03		31557

400 V AC / 130 V DC for 2-pole version

LED signals blown fuse

Reducer

Type	Pack size	Weight kg/100 u.	PG		Part No.
reducer D02 for D01 fuses 2 - 16 A	20	0.1	01		31902

Pilot switch, for monitoring the switch position, 9 mm wide

1 NO / 1 NC : 400 V AC / 2 A, 24 V DC / 6 A	1	5.4	03		31316
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Comb-type busbar, length 1 m

Type	Crosssection mm ²	Centre feed	End feed	Pack size	Weight kg/100 u.	PG		Part No.
comb-type busbar, 1-pole, bridge type, pitch 27 mm	16	130 A	80 A	25	19.0	06		31014
	35	220 A	130 A	10	50.0	06		31057
comb-type busbar, 3-pole, bridge type, pitch 27 mm	16	130 A	80 A	10	56.2	06		31012
	35	220 A	130 A	4	125.0	06		31056

End cover, for comb-type busbars

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 2-pole and 3-pole comb-type busbars 16 mm ²	50	0.1	06		31027
for 3-pole comb-type busbars 35 mm ²	10	0.2	06		31084

Connection terminal, for comb-type busbars, bridge version

Article	Type	Connection mm ²	Pack size	Weight kg/100 u.			Part No.
connection terminal, side connection	for 31014, 31024, 31309, 31311	6 - 50	25	2.5	07		31028
	for 31012, 31310, 31312		25	2.9	07		31029
connection terminal, front connection	for 31012, 31310, 31312		25	2.9	07		31085
	for 31057	25 - 95	3	9.0	07		01198
	for 31056		3	9.3	07		01228

a connection terminal is required for each phase

fuse links not included

TRITON®Panel - D fuse-bases

touch-safe protection in accordance with EN 50274 for industrial applications



D fuse-base, industrial version, for screw-in gauge rings

Type	Rated voltage	Poles	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
E 27 / 25 A / 1P, for screw-in gauge rings	500 V	1	1.5 - 35	9	15.2	02		31173
E 27 / 25 A / 3P, for screw-in gauge rings	500 V	3		3	45.7	02		31174
E 33 / 63 A / 1P, for screw-in gauge rings	500 V	1		9	18.6	02		31175
E 33 / 63 A / 3P, for screw-in gauge rings	500 V	3		3	53.8	02		31176

* acc. to VDE 0636-31 also for 690 V AC / 600 V DC

Comb-type busbar, length 1 m

Type	Crosssection mm ²	Centre feed	End feed	Pack size	Weight kg/100 u.	PG		Part No.
1-pole comb-type busbar, for E27, pitch 40 mm	16	130 A	80 A	25	21.5	06		31309
3-pole comb-type busbar, for E27, pitch 40 mm				10	51.4	06		31310
1-pole comb-type busbar, for E33, pitch 50 mm				25	21.0	06		31311
3-pole comb-type busbar, for E33, pitch 50 mm				10	50.5	06		31312

End cover, for comb-type busbars

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 2-pole and 3-pole comb-type busbars 16 mm ²	50	0.1	06		31027

Connection terminal, for comb-type busbars

Article	Type	Connection mm ²	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection terminal, side connection	for 31014, 31024, 31309, 31311	6 - 50	125 A	25	2.5	07		31028
connection terminal, side connection	for 31012, 31310, 31312			25	2.9	07		31029
connection terminal, front connection				25	2.9	07		31085

a connection terminal is required for each phase

Label holder

Type	Pack size	Weight kg/100 u.	PG		Part No.
for Triton, snap-on	100	0.1	02		31086

Label, for label holder

clip 20 x 9	100	0.1	03		31004
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AMBUS®Panel - Fuse-holders for IEC cylindrical fuses

type AES with box terminals, for fuse-links acc. to IEC / HD 60269-2, with touch-safe protection in accordance with EN 50274



Fuse-holder for cylindrical fuses, standard version

Type	Rated current	Poles	Connection	Width	Pack size	Weight kg/100 u.	PG		Part No.
10x38	32 A	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	5.2	17		31110
		2-pole		36	6	10.3	17		31112
		3-pole		54	4	15.5	17		31113
14x51	50 A	1-pole	1.5 - 35 mm ² / AWG 14 - 2	27	6	9.7	17		31115
		2-pole		54	3	20.2	17		31117
		3-pole		81	2	30.4	17		31118
22x58	100 A	1-pole	4 - 50 mm ² / AWG 10 - 1/0	36	6	15.8	17		31120
		2-pole		72	3	32.2	17		31122
		3-pole		108	2	48.6	17		31123

Fuse-holder for cylindrical fuses, standard version with LED 110 - 690 V AC / DC

10x38	32 A	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	5.7	17		31130
10x38		2-pole		36	6	11.3	17		31132
10x38		3-pole		54	4	17.0	17		31133
14x51	50 A	1-pole	1.5 - 35 mm ² / AWG 14 - 2	27	6	9.8	17		31135
14x51		3-pole		81	2	30.5	17		31138
22x58	100 A	1-pole	4 - 50 mm ² / AWG 10 - 1/0	36	6	15.9	17		31140
22x58		3-pole		108	2	48.7	17		31143

LED signals blown fuse

Fuse-holder for cylindrical fuses, standard version with LED 12 - 72 V AC / DC

10x38	32 A	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	5.7	17		31930
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LED signals blown fuse

Fuse-holder for cylindrical fuses, standard version, neutral conductor on right

10x38	32 A	1-pole+N	0.75 - 25 mm ² / AWG 18 - 4	36	6	11.3	17		31111
10x38		3-pole+N		72	3	21.7	17		31114
14x51	50 A	1-pole+N	1.5 - 35 mm ² / AWG 14 - 2	54	3	21.8	17		31116
14x51		3-pole+N		108	1	42.7	17		31119
22x58	100 A	1-pole+N	4 - 50 mm ² / AWG 10 - 1/0	72	3	35.8	17		31121
22x58		3-pole+N		144	1	67.5	17		31124

Fuse-holder for cylindrical fuses, standard version, neutral conductor on left

14x51	50 A	3-pole+N	1.5 - 35 mm ² / AWG 14 - 2	108	1	42.7	17		31168
22x58	100 A	3-pole+N	4 - 50 mm ² / AWG 10 - 1/0	144	1	67.5	17		31171

Fuse-holder for cylindrical fuses, standard version, integrated neutral conductor (left)

10x38	32 A	1-pole+N	1.5 - 10 mm ²	18	12	9.0	17		31273
10x38		3-pole+N	1.5 - 10 mm ²	54	4	22.0	17		31274

N-module

10x38	32 A	N	0.75 - 25 mm ² / AWG 18 - 4	18	12	6.2	17		31258
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AMBUS®Panel - Fuse-holders for IEC cylindrical fuses

type AES with box terminals, for fuse-links acc. to IEC / HD 60269-2, with touch-safe protection in accordance with EN 50274



Fuse-holder for cylindrical fuses, version for semiconductor protection fuses

Type	Rated current	Poles	Connection	Width	Pack size	Weight kg/100 u.	PG		Part No.
10x38	32 A	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	5.2	17		31275
		2-pole		36	6	10.3	17		31276
		3-pole		54	4	15.5	17		31277
14x51	50 A	1-pole	1.5 - 35 mm ² / AWG 14 - 2	27	6	9.7	17		31278
		2-pole		54	3	20.2	17		31279
		3-pole		81	2	30.4	17		31280
22x58	100 A	1-pole	4 - 50 mm ² / AWG 10 - 1/0	36	6	15.8	17		31281
		2-pole		72	3	32.2	17		31282
		3-pole		108	2	48.6	17		31283

Fuse-holder for cylindrical fuses, version for semiconductor protection fuses, with pilot switch

14x51	50 A	1-pole	1.5 - 35 mm ² / AWG 14 - 2	27	6	11.6	17		31940
14x51		2-pole		54	3	23.5	17		31972
14x51		3-pole		81	2	34.6	17		31941
22x58	100 A	1-pole	4 - 50 mm ² / AWG 10 - 1/0	36	6	18.1	17		31942
22x58		2-pole		72	3	36.6	17		31957
22x58		3-pole		108	2	54.1	17		31943

pilot switch indicates when no fuse is inserted, holder is open, or fuse (with striker) is tripped

Fuse holder for cylindrical fuses, photovoltaic version, 1000 V

10x38 / 1P	30 A	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	5.2	17		31971
10x38 / 1P / LED *		1-pole		18	12	5.7	17		31973
10x38 / 2P		2-pole		36	6	10.3	17		31974

* LED indicates blown fuse, operating range 400 - 1000 V

Fuse-holder for cylindrical fuses, photovoltaic version, 1500 V

10x85 *	32 A	1-pole	0.75 - 25 mm ² / AWG 18 - 4	22.5	5	9.2	17		31555
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* also suitable for 14x85 fuses



AMBUS®Panel - Accessories

for AES fuse-holder for cylindrical fuses



Comb-type busbar, length 1 m

Type	Crosssection mm ²	Centre feed	End feed	Pack size	Weight kg/100 u.	PG		Part No.
comb-type busbar, 1-pole, bridge type, pitch 18 mm	16	130 A	80 A	25	21.8	06		31101
comb-type busbar, 3-pole, bridge type, pitch 18 mm				10	59.4	06		31102
comb-type busbar, 1-pole, bridge type, pitch 27 mm				25	19.0	06		31014
comb-type busbar, 3-pole, bridge type, pitch 27 mm				10	56.2	06		31012
comb-type busbar, 1-pole, bridge type, pitch 18 mm	25	200 A	100 A	10	47.5	06		31548
comb-type busbar, 2-pole, bridge type, pitch 18 mm				10	81.0	06		31561
comb-type busbar, 3-pole, bridge type, pitch 18 mm				10	113.3	06		31549
comb-type busbar, 1-pole, bridge type, pitch 27 mm	35	220 A	130 A	10	50.0	06		31057
comb-type busbar, 3-pole, bridge type, pitch 27 mm				4	125.0	06		31056

End cover, for comb-type busbars

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 2-pole and 3-pole comb-type busbars 16 mm ²	50	0.1	06		31027
for 1-pole comb-type busbars 25 mm ²	20	0.1	06		31042
for 2-pole and 3-pole comb-type busbars 25 mm ²	20	0.2	06		31552
for 3-pole comb-type busbars 35 mm ²	10	0.2	06		31084

Connection terminal, for comb-type busbars

Article	Type	Connection mm ²	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
connection terminal, side connection	for 31101, 31102	6 - 25	80 A	50	1.2	07		31103
connection terminal, front connection	for 31101, 31102			50	1.2	07		31157
	for 31548	6 - 35	115 A	10	3.0	07		31039
	for 31549, 31561			10	3.5	07		31550
connection terminal, side connection	for 31014, 31024, 31309, 31311	6 - 50	125 A	25	2.5	07		31028
	for 31012, 31310, 31312			25	2.9	07		31029
connection terminal, front connection	for 31012, 31310, 31312			25	2.9	07		31085
	for 31057	25 - 95	225 A	3	9.0	07		01198
	for 31056			3	9.3	07		01228

a connection terminal is required for each phase

Feeder terminal, 1 pol

Article	Type	Connection mm ²	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
direct feeding of the comb-type busbar	31548, 31549, 31561	6 - 35	115 A	10	3.0	07		31562

Connection set, for custom combinations of multipole units

Type	Pack size	Weight kg/100 u.	PG		Part No.
connection kit 10x38, 2-pole	1	2.5	17		31564
connection kit 10x38, 3-pole	1	3.6	17		31565
connection kit 14x51, 2-pole	1	3.6	17		31269

10 multipole devices can be produced with each set, depending on the version (2 or 3-pole)

Spacer 4.5 mm, set for 50 fuse holders

set for 50 fuse holders 31971 and 31973, for arrangement with 22.5 mm pitch	1	1.2	17		31563
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AMBUS®Panel - Fuse-holders for fuses Class CC

type AES with box terminals, with touch-safe protection in accordance with EN 50274, for fuses that conform to UL 248-4



Class CC fuse-holder

Type	Poles	Connection	Width	Pack size	Weight kg/100 u.	PG		Part No.
30 A / 600 V	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	5.5	17		31295
30 A / 600 V	2-pole		36	6	11.3	17		31296
30 A / 600 V	3-pole		54	4	17.0	17		31297

Class CC fuse-holder, with LED 110 - 690 V AC / DC

30 A / 600 V	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	6.2	17		31298
30 A / 600 V	2-pole		36	6	12.3	17		31299
30 A / 600 V	3-pole		54	4	18.5	17		31300

LED signals blown fuse

Class CC fuse-holder, with LED 12 - 72 V AC / DC

30 A / 12 - 72 V	1-pole	0.75 - 25 mm ² / AWG 18 - 4	18	12	6.2	17		31929
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LED signals blown fuse

Comb-type busbar, length 1 m

Type	Crosssection mm ²	Centre feed	End feed	Pack size	Weight kg/100 u.	PG		Part No.
comb-type busbar, 1-pole, bridge type, pitch 18 mm	25	200 A	100 A	10	47.5	06		31548
comb-type busbar, 2-pole, bridge type, pitch 18 mm				10	81.0	06		31561
comb-type busbar, 3-pole, bridge type, pitch 18 mm				10	113.3	06		31549

Feeder terminal, 1 pol

Article	Type	Connection mm ²	Rated current	Pack size	Weight kg/100 u.	PG		Part No.
direct feeding of the comb-type busbar	31548, 31549, 31561	6 - 35	115 A	10	3.0	07		31562

Connection terminal, for comb-type busbars

Type	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
for 31548	6 - 35	10	3.0	07		31039
for 31549, 31561		10	3.5	07		31550

a connection terminal is required for each phase

End cover, for comb-type busbars

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 1-pole comb-type busbars 25 mm ²	20	0.1	06		31042
for 2-pole and 3-pole comb-type busbars 25 mm ²	20	0.2	06		31552



AMBUS®Panel - QUADRON®Panel - Fuse-holders for fuses Class J

with touch-safe protection, for fuses that comply with UL 248-8



Class J fuse-holder, AMBUS®Panel, DIN rail mounted

Type	Poles	Connection	Width	Pack size	Weight kg/100 u.	PG		Part No.
30 A / 600 V (21x57)	1-pole	0.75 - 50 mm ² / AWG 18 - 1	36	6	15.8	16		31284
	2-pole		72	3	32.2	16		31285
	3-pole		108	2	48.6	16		31287
60 A / 600 V (27x60)	1-pole	2.5 - 50 mm ² / AWG 14 - 1	40	6	18.2	16		31920
	2-pole		80	3	37.0	16		31921
	3-pole		120	2	55.9	16		31922

Class J fuse-holder, AMBUS®Panel, DIN rail mounted, with LED 110 - 600 V AC / DC

30 A / 600 V (21x57)	1-pole	0.75 - 50 mm ² / AWG 18 - 1	36	6	15.8	16		31932
30 A / 600 V (21x57)	2-pole		72	3	32.2	16		31933
30 A / 600 V (21x57)	3-pole		108	2	48.6	16		31934
60 A / 600 V (27x60)	1-pole	2.5 - 50 mm ² / AWG 14 - 1	40	6	18.2	16		31923
60 A / 600 V (27x60)	2-pole		80	3	37.0	16		31924
60 A / 600 V (27x60)	3-pole		120	2	55.9	16		31925

LED signals blown fuse

Class J fuse-holder, QUADRON®Panel, for screwing onto mounting plate

100 A / 600 V (29x118) *	3-pole	4 - 50 mm ² / AWG 14 - 2/0	106	1	107.0	16		33408
200 A / 600 V (41x146) *		35 - 150 mm ² / AWG 2 - 300 MCM	184	1	203.0	16		33409
400 A / 600 V (54x181)		25 - 300 mm ² / AWG 4 - 600 MCM	256	1	672.0	16		33308

* do not use fuse links with sharp-edged blades



QUADRON® Panel - Fuse-bases for NH fuses size 00 - 3L

for standard and long version (PV)



NH fuse-base for photovoltaic, 1-pole, with touch-safe protection, screw on both sides, 1000 V AC / 1500 V DC

Type	Rated current	Rated voltage	Size	Pack size	Weight kg/100 u.	PG	Part No.
both sides screw M10	250 A	1500 V	NH 1XL	3	51.0	10	03290
both sides screw M12 *	600 A		NH 2XL / 3L	3	106.0	10	03294

* for fuse-link NH 2XL or NH 3L in accordance with IEC 60269-6 with max. 100 W power dissipation

NH fuse-base for photovoltaic, 1-pole, with touch-safe protection, 1000 V AC / 1500 V DC

incoming connection screw M10, outgoing connection to busbar 2x 30 x 10	250 A	1500 V	NH 1XL	3	58.0	10	03289
incoming connection screw M10, outgoing connection to busbar 2x 30 x 10, for integrated mounting of CTs type LEM HTA	250 A			3	63.0	10	03288
incoming connection screw M10, outgoing connection to busbar 2x 40 x 10 *	600 A		NH 2XL / 3L	3	110.0	10	03293

* for fuse-link NH 2XL or NH 3L in accordance with IEC 60269-6 with max. 100 W power dissipation; information on rated load factors with regard to current carrying capacity is available on request or at www.woehner.com

Accessories

Type	Pack size	Weight kg/100 u.	PG	Part No.
grip lug cover *	30	1.5	10	79449

* 2 pieces required per fuse

NH fuse-base, size 00, barrier version

Type	Rated current	Size	Number of poles	Connection mm ²	Pack size	Weight kg/100 u.	PG	Part No.
both sides screw M8, without barrier	160 A	NH 00	1	70	10	12.6	10	03350
both sides screw, with 2 barriers			3		4	45.7	10	03351
both sides terminal, without barrier			1		10	13.0	10	03354
both sides clamp, with 2 barriers			3		4	45.5	10	03355

NH fuse-base, size 00 – 1 – 2 – 3, version with touch-safe protection

both sides screw M8	160 A	NH 00	1	70	12	15.2	10	03758
			3		4	48.4	10	03759
both sides clamp			1		12	15.5	10	03760
			3		4	49.4	10	03761
both sides screw M10	250 A	NH 1	1	150	3	48.6	10	03762
			3		1	158.3	10	03763
both sides clamp			3		1	161.6	10	03765
both sides screw M10	400 A	NH 2	1	240	3	93.1	10	03766
			3		1	288.3	10	03767
both sides screw M12	630 A	NH 3	1		3	110.8	10	03768
			3		1	340.0	10	03769



QUADRON® Panel - Accessories

for NH fuse-bases



Grip lug cover, fits NH bases with touch-safe protection

Type	Size	Pack size	Weight kg/100 u.	PG	Part No.	
for NH base and 33705	*	00	30	1.2	10	79448
for NH fuse-base	**	1 - 3	30	1.5	10	79449

* 1 piece required per fuse

** 2 pieces required per fuse

Barrier and barrier support

Article	Type	Pack size	Weight kg/100 u.	PG	Part No.
barrier	for 03350, 03351, 03354, 03355	100	2.2	10	03377
barrier support, for lateral barrier		10	0.8	10	03359

Neutral conductor, screw-on mounting

Rated current	Type	Connection mm ²	Pack size	Weight kg/100 u.	PG	Part No.
160 A	clamp, both sides	70	10	14.1	10	03620
160 A	screw M8 at both sides		10	14.2	10	03519

Neutral conductor, disconnectable, screws-on or clip-on onto mounting rail TH 35 EN 60715

63 A	10	50	2.6	10	05188
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Neutral conductor, disconnectable, screw-on mounting

Rated current	Type	Length	Connection mm ²	Pack size	Weight kg/100 u.	PG	Part No.
160 A	clamp on both sides	70	120	10	19.2	10	03668
250 A	screw M8 at both sides	120		10	19.5	10	03657
400 A	screw M10 at both sides	240	200	3	58.9	10	03757
630 A	screw M12 at both sides			3	58.9	10	03213

Connecting terminal

160 A	60 mm long, both sides clamp	60	70	10	9.1	10	03193
160 A	125 mm long, both sides clamp	125		10	14.6	10	03173
250 A	100 mm long, both sides screw M10	100	120	10	16.8	10	03195
250 A	200 mm long, both sides screw M10	198		10	30.6	10	03196
630 A	100 mm long, both sides screw M12	100	240	10	25.6	10	03197
630 A	200 mm long, both sides screw M12	198		10	42.0	10	03198

possible combinations: 3-pole NH bases with neutral conductor

(neutral conductor attachable to NH base)

03355 + 03620 (clamp on both sides)

03351 + 03519 (M8 screw on both sides)

other combinations possible if the neutral conductors are fitted separately

QUADRON® Panel - NH fuse-switch-disconnectors size 000 - 4a

type LTS and QCB for panel mounted



NH fuse-switch-disconnector, size 000 - 3, 3-pole

Type	Rated current	Size	Pack size	Weight kg/100 u.	PG		Part No.
box terminal	125 A	NH 000	1	57.2	09		33217
clamp 70 mm ²	160 A	NH 00	1	78.0	09		33199
screw M8			1	77.7	09		33200
box terminal	250 A	NH 1	1	191.0	09		33393
screw M10			1	171.0	09		33201
screw M10	400 A	NH 2	1	362.0	09		33202
screw M12	630 A	NH 3	1	490.0	09		33203

NH fuse-switch-disconnector, size 4a, 3-pole

2x screw M12	1600 A	NH 4a	1	1534.0	09		33204
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NH fuse-switch-disconnector, size 00, 3-pole, with short touch-safe protection

clamp 70 mm ² , with short protection cover	160 A	NH 00	1	71.6	09		33221
screw M8, with short protection cover			1	71.9	09		33222

NH fuse-switch-disconnector, size 00 - 3, 3-pole, with electronic fuse monitoring

clamp 70 mm ²	160 A	NH 00	1	93.0	09		33328
screw M8			1	92.0	09		33329
screw M10	250 A	NH 1	1	229.0	09		33330
screw M10	400 A	NH 2	1	380.0	09		33331
screw M12	630 A	NH 3	1	524.0	09		33332

circuit diagram for fuse monitoring is available at www.woehner.com

NH fuse-switch-disconnector, size 00 - 3, 3-pole, with electromechanical fuse monitoring

clamp 70 mm ²	160 A	NH 00	1	127.0	09		33207
screw M8			1	126.0	09		33208
screw M10	250 A	NH 1	1	255.0	09		33149
screw M10	400 A	NH 2	1	412.0	09		33150
screw M12	630 A	NH 3	1	556.0	09		33151

circuit diagram for fuse monitoring is available at www.woehner.com



QUADRON® Panel - Accessories

for NH fuse-switch-disconnectors size 000 - 3



Comb-type busbar, closed version with end covers

Type	Crosssection mm ²	Usable with	Pack size	Weight kg/100 u.	PG		Part No.
comb-type busbar, 3-pole, for 2 NH fuse switch disconnectors	35	33217	4	23.0	09		33906
comb-type busbar, 3-pole, for 2 NH fuse switch disconnectors		33200	4	27.1	09		33376
comb-type busbar, 3-pole, for 3 NH fuse switch disconnectors			4	44.7	09		33377
comb-type busbar, 3-pole, for 4 NH fuse switch disconnectors			4	62.3	09		33392

Connection terminal, for comb-type busbars

Type	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
for 3-pole comb-type busbar 35 mm ² , suitable for NH-fuse-switch-disconnector size 000 with box terminal	6 - 35	3	4.0	09		33907
for 3-pole comb-type busbar 35 mm ² , suitable for NH-fuse-switch-disconnector size 00 with screw connection	25 - 95	3	12.1	09		33378



Connection accessories

Type	Connection	Size	Pack size	Weight kg/100 u.	PG		Part No.
box terminal for Cu cables	35 - 185 mm ² / 24 x 3 - 21	1	3	10.0	09		33909
clamp connector	1.5 - 70 mm ² / 12 x 1 - 10	00	3	1.5	09		03727
clamp connector for Cu cables	70 - 150 mm ² / 18 x 2 - 14	1	1	6.3	09		33163
clamp connector for Cu cables	120 - 240 mm ² / 21 x 1 - 14	2	1	10.6	09		33164
clamp connector for Cu cables	150 - 300 mm ² / 25 x 1 - 13	3	1	12.5	09		33165
M8 screw connector	70	00	3	1.4	09		30894
prism terminal, single, for Cu and Al cables	* 16 - 70 mm ²	00	3	3.0	09		33224
prism terminal, single, for Cu and Al cables	* 35 - 150 mm ²	1	1	11.6	09		33166
prism terminal, single, for Cu and Al cables	* 50 - 240 mm ²	2	1	19.9	09		33167
prism terminal, single, for Cu and Al cables	* 150 - 300 mm ²	3	1	24.7	09		33168
prism terminal, double, for Cu cables	2x 35 - 70 mm ²	1	1	16.6	09		33145
prism terminal, double, for Cu cables	2x 70 - 120 mm ²	2	1	27.8	09		33146
prism terminal, double, for Cu cables	2x 150 mm ²	3	1	36.8	09		33147
prism terminal, double, for Cu cables	2x 185 mm ²	3	1	36.8	09		33385
tunnel terminal for screw connection M8	1x 2.5 - 16 mm ² + 2x 2.5 - 25 mm ²	00	3	4.2	09		01182

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

QUADRON® Panel - Accessories

for NH fuse-switch-disconnectors size 000 - 3



Cover, for cable lugs, attachable at the top and bottom

Type	Size	Pack size	Weight kg/100 u.	PG	Part No.
for 33200, 33208, 33329, 33394, 33398, 33420	00	1	2.8	09	79811
for 33221, 33222		2	4.8	09	33223
for QCB-NH1, QCS-NH1, QCS-320	1	2	10.7	09	33142
for QCB-NH2	2	2	10.9	09	33143
for QCB-NH3	3	2	15.6	09	33144

Cover, for connection area, attachable at the top and bottom

for NH fuse-switch-disconnector size 2	2	2	4.0	09	33418
for NH fuse-switch-disconnector size 3, max. 600 A	3	2	5.4	09	33419

Barrier for handle

for closing of handle area from rear	1 - 3	10	2.2	09	33155
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Trim frame, cover with front plate assembly

Type	W x L	Size	Pack size	Weight kg/100 u.	PG	Part No.
trim frame, single	130 x 210 x 2	000	10	3.1	09	33219
trim frame, double	199 x 166 x 2		10	3.9	09	33220
trim frame, single	130 x 210 x 2	00	10	1.9	09	78893
trim frame, double	232 x 210 x 2		10	2.9	09	78105
trim frame, triple	340 x 210 x 2		10	3.8	09	78139
trim frame, single *	143 x 210 x 2		10	3.3	09	33225
trim frame, double *	250 x 210 x 2		10	5.6	09	33226
trim frame, single	215 x 330 x 2		1	1	11.7	09
trim frame, single	248 x 330 x 2	2	1	9.4	09	33153
trim frame, single	290 x 330 x 2	3	1	13.2	09	33154

* for 33221, 33222

QUADRON®Panel - Accessories

for NH fuse-switch-disconnectors size 000 - 3



Pilot switch, for monitoring the disconnector lid position

Type	Size	Pack size	Weight kg/100 u.	PG	Part No.
changeover 250 V AC / 5 A, 30 V DC / 4 A	1	1	1.3	09	33917
changeover 250 V AC / 5 A, 30 V DC / 4 A	000 - 3	1	1.1	09	33156

33156 not usable for fuse switch disconnectors size 1

Disconnecter lid interlock

for sealing wire	000	10	0.1	09	33051
for sealing wire	00	10	0.2	09	03849
for sealing wire or 3 padlocks with shackle of 4 - 7 mm	1 - 3	10	0.5	09	33157

Rapid mounting set, for rails in accordance with EN 60715 (TH 35 x 7.5 mm)

for 1 mounting rail	000	1	0.6	09	33247
for 2 mounting rails, rails centre distance 125 mm or 150 mm	00	1	18.5	09	33193
for 2 mounting rails, rails centre distance 125 mm or 150 mm	1 - 2	1	51.0	09	33158

Arc chamber

retrofit package for higher utilisation category	1	3	10.7	09	33918
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QUADRON® Panel - Switch-disconnectors 160 A - 320 A and size 00 - 1

type QCS, with snap-action switch mechanism



Switch-disconnector, 3-pole switchable, with snap-action switch mechanism, with multifunction handle

Type	Rated current	Width	Pack size	Weight kg/100 u.	PG		Part No.
box terminal *	160 A	106	1	203.0	14		33542
screw M10 *	320 A	184	1	539.0	14		33552

* as main switch or emergency off switch only with the following maximum operating current:
160 A version: 125 A / 690 V AC; 320 A version: 280 A / 400 V AC, 250 A / 690 V AC

Switch-disconnector, 3-pole switchable, with snap-action switch mechanism, with door coupling rotary drive

box terminal, for door coupling twist handle *	160 A	106	1	203.0	14		33545
screw M10, for door coupling rotary handle *	320 A	184	1	516.0	14		33555

additional extension shaft and door coupling rotary handle required
* as main switch or emergency off switch only with the following maximum operating current:
160 A version: 125 A / 690 V AC; 320 A version: 280 A / 400 V AC, 250 A / 690 V AC

NH switch-disconnector-fuse, 3-pole switchable, with snap-action switch mechanism, with multifunction handle

Type	Rated current	Size	Width	Pack size	Weight kg/100 u.	PG	Part No.
box terminal	125 A	NH 00	106	1	208.0	15	33502
box terminal, with electronic fuse monitoring	125 A			1	208.0	15	33507
screw M10	250 A	NH 1	184	1	540.0	15	33512

fuse monitoring on request
fuses are not included in the scope of delivery

NH switch-disconnector-fuse, 3-pole switchable, with snap-action switch mechanism, with door coupling rotary drive

box terminal, for door coupling rotary handle	125 A	NH 00	106	1	201.6	15	33505
screw M10, for door coupling rotary handle	250 A	NH 1	184	1	528.0	15	33515

additional extension shaft and door coupling rotary handle required
fuses are not included in the scope of delivery

Accessories

Type	Usable for version	Connection mm ²	Pack size	Weight kg/100 u.	PG	Part No.
connection for auxiliary line, for box terminal	QCB-NH00, QCS-NH00, QCS-160	6.3 x 0.8	3	0.6	09	33915
connecting terminal 120 mm ²	QCS-NH00, QCS-160	120	3	12.1	14	33914
box terminal for Cu cables	QCB-NH1, QCS-NH1, QCS-320	35 - 185 mm ² / 24 x 3 - 21	3	10.0	09	33909
prism terminal, single, for Cu and Al cables *			1	11.6	09	33166
prism terminal, double, for Cu cables			1	16.6	09	33145
cover for cable lugs, top / bottom attachable			2	10.7	09	33142
pilot switch for monitoring the switch position			1	1.1	14	33908
door coupling rotary handle, black, without shaft **	QCS-NH00, QCS-NH1, QCS-160, QCS-320		1	57.0	14	33910
door coupling rotary handle, red-yellow, without shaft **			1	57.0	14	33911
extension shaft, 290 mm long			1	13.0	14	33912
extension shaft, 490 mm long			1	22.0	14	33913

for current capacity of the terminals visit www.woehner.com

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

** switch can also be installed 90° left / right, always with the same handle position

fuse links not included

CAPUS®Panel - Switch-disconnectors 3-pole 16 A - 160 A

type SD1, SD2, SD3; clip-on mounting on rail TH 35 mm to EN 60715



Switch-disconnector, 3-pole, with rotary handle graphite-grey

Article	Type	Rated current	Dimensions	Pack size	Weight kg/100 u.	PG		Part No.
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-3-16	16 A	36 x 81 x 79	1	15.5	14		33808
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-3-25	25 A		1	15.5	14		33812
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-3-32	32 A		1	15.5	14		33816
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-3-40	40 A		1	15.5	14		33820
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-3-63	63 A		1	15.5	14		33824
box terminal 16 - 50 mm ² , graphite grey handle	SD2-3-63	63 A	52 x 100 x 80	1	26.5	14		33868
box terminal 16 - 50 mm ² , graphite grey handle	SD2-3-80	80 A		1	26.5	14		33872
box terminal 16 - 50 mm ² , graphite grey handle	SD2-3-100	100 A		1	26.5	14		33876
box terminal 50 - 70 mm ² , graphite grey handle	SD3-3-125	125 A	66 x 113 x 81	1	39.5	14		33027
box terminal 50 - 70 mm ² , graphite grey handle	SD3-3-160	160 A		1	39.5	14		33031



Switch-disconnector, 3-pole, with rotary handle red-yellow

box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-3-16	16 A	36 x 81 x 79	1	15.5	14		33838
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-3-25	25 A		1	15.5	14		33842
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-3-32	32 A		1	15.5	14		33846
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-3-40	40 A		1	15.5	14		33850
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-3-63	63 A		1	15.5	14		33854
box terminal 16 - 50 mm ² , yellow-red handle	SD2-3-63	63 A	52 x 100 x 80	1	26.5	14		33884
box terminal 16 - 50 mm ² , yellow-red handle	SD2-3-80	80 A		1	26.5	14		33888
box terminal 16 - 50 mm ² , yellow-red handle	SD2-3-100	100 A		1	26.5	14		33892
box terminal 50 - 70 mm ² , yellow-red handle	SD3-3-125	125 A	66 x 113 x 81	1	39.5	14		33035
box terminal 50 - 70 mm ² , yellow-red handle	SD3-3-160	160 A		1	39.5	14		33040



CAPUS®Panel - Switch-disconnectors 3-pole + N, 16 A - 160 A

type SD1, SD2, SD3; clip-on mounting on rail TH 35 mm to EN 60715



Switch-disconnector, 3-pole + N, with rotary handle graphite-grey

Article	Type	Rated current	Dimensions	Pack size	Weight kg/100 u.	PG		Part No.
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-4-16	16 A	51 x 81 x 79	1	20.5	14		33809
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-4-25	25 A		1	20.5	14		33813
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-4-32	32 A		1	20.5	14		33817
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-4-40	40 A		1	20.5	14		33821
box terminal 2.5 - 16 mm ² , graphite grey handle	SD1-4-63	63 A		1	20.5	14		33825
box terminal 16 - 50 mm ² , graphite grey handle	SD2-4-63	63 A	69 x 100 x 80	1	40.5	14		33869
box terminal 16 - 50 mm ² , graphite grey handle	SD2-4-80	80 A		1	40.5	14		33873
box terminal 16 - 50 mm ² , graphite grey handle	SD2-4-100	100 A		1	40.5	14		33877
box terminal 50 - 70 mm ² , graphite grey handle	SD3-4-125	125 A	88 x 113 x 81	1	53.5	14		33028
box terminal 50 - 70 mm ² , graphite grey handle	SD3-4-160	160 A		1	53.5	14		33032



Switch-disconnector, 3-pole + N, with rotary handle red-yellow

box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-4-16	16 A	51 x 81 x 79	1	20.5	14		33839
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-4-25	25 A		1	20.5	14		33843
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-4-32	32 A		1	20.5	14		33847
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-4-40	40 A		1	20.5	14		33851
box terminal 2.5 - 16 mm ² , yellow-red handle	SD1-4-63	63 A		1	20.5	14		33855
box terminal 16 - 50 mm ² , yellow-red handle	SD2-4-63	63 A	69 x 100 x 80	1	40.5	14		33885
box terminal 16 - 50 mm ² , yellow-red handle	SD2-4-80	80 A		1	40.5	14		33889
box terminal 16 - 50 mm ² , yellow-red handle	SD2-4-100	100 A		1	40.5	14		33893
box terminal 50 - 70 mm ² , yellow-red handle	SD3-4-125	125 A	88 x 113 x 81	1	53.5	14		33037
box terminal 50 - 70 mm ² , yellow-red handle	SD3-4-160	160 A		1	53.5	14		33041



CAPUS®Panel - Handles and accessories

for switch-disconnector type SD1, SD2, SD3



Rotary handle, for door coupling drive, without shaft

Type	Usable for version	Pack size	Weight kg/100 u.	PG		Part No.
black, with door inter-locking	SD1-3, SD1-4, SD2-3, SD2-4, SD3-3, SD3-4	1	5.5	14		33665
red-yellow, with door inter-locking	SD1-3, SD1-4, SD2-3, SD2-4, SD3-3, SD3-4	1	5.5	14		33666
black, with defeatable door inter-locking	SD1-3, SD1-4, SD2-3, SD2-4, SD3-3, SD3-4	1	10.5	14		33669
red-yellow, with defeatable door inter-locking	SD1-3, SD1-4, SD2-3, SD2-4, SD3-3, SD3-4	1	10.5	14		33670



Extension shaft

extension shaft, length 100 mm	SD1-3, SD1-4, SD2-3, SD2-4, SD3-3, SD3-4	1	2.0	14		33680
extension shaft, length 200 mm	SD1-3, SD1-4, SD2-3, SD2-4, SD3-3, SD3-4	1	3.6	14		33681
extension shaft, length 300 mm	SD1-3, SD1-4, SD2-3, SD2-4, SD3-3, SD3-4	1	5.4	14		33682



Pilot switch, for monitoring the switch position

1 n/c + 1 n/o, screw terminal		1	4.3	14		33692
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Terminal space cover

set connection space cover 3-pole	SD1-3, SD1-4	1	1.8	14		33694
set connection space cover 3-pole	SD2-3, SD2-4	1	2.2	14		33695
set connection space cover 3-pole	SD3-3, SD3-4	1	3.4	14		33696
set connection space cover for 4th pole	SD1-4	1	1.2	14		33697
set connection space cover for 4th pole	SD2-4	1	1.4	14		33698
set connection space cover for 4th pole	SD3-4	1	1.6	14		33699



CAPUS®Panel - NH switch-disconnector-fuses size 00 - 3

type LTS-F



NH switch-disconnector-fuse, 3-pole, 690 V AC, with rotary handle

Type	Rated current	Rated voltage	Size	Pack size	Weight kg/100 u.	PG	Part No.
screw M8, graphite-grey handle	160 A	690 V	NH 00	1	230.0	15	33337
screw M10, graphite-grey handle	250 A		NH 1	1	726.0	15	33338
screw M10, graphite-grey handle	400 A		NH 2	1	760.0	15	33339
screw M12, graphite-grey handle	630 A		NH 3	1	1310.0	15	33340
screw M8, red handle	160 A		NH 00	1	230.0	15	33359
screw M10, red handle	250 A		NH 1	1	724.0	15	33360
screw M10, red handle	400 A		NH 2	1	768.0	15	33361
screw M12, red handle	630 A		NH 3	1	1280.0	15	33362

fuses and terminal compartment covers are not included in the scope of delivery

Terminal space cover, attachable at top and bottom

Type	Usable with	Pack size	Weight kg/100 u.	PG	Part No.
for covering all connections, dark grey	LTS-250, LTS-F 160	2	4.0	14	33350
	LTS-400/630, LTS-F 250/400	2	12.0	14	33351
	LTS-800, LTS-F 630	2	20.0	14	33352

Pilot switch, for monitoring the switch position

1 n/c + 1 n/o, plug connectors 6.3 x 0.8	LTS, LTS-F	1	2.5	14	33347
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Door coupling drive, without rotary handle

door coupling rotary drive, graphit-grey blind cover	LTS-250/400/630 LTS-F 160/250/400	1	23.5	14	33342
	LTS-800, LTS-F 630	1	44.0	14	33343
door coupling rotary drive, graphite-grey blind cover	LTS-250/400/630, LTS-F160/250/400	1	38.0	14	33345
	LTS-800, LTS-F630	1	67.0	14	33346
door coupling rotary drive, red-yellow blind cover	LTS-250/400/630, LTS-F 160/250/400	1	38.0	14	33348
	LTS-800, LTS-F 630	1	56.0	14	33349
extension shaft, 300 mm long	LTS-250/400/630, LTS-F 160/250/400	1	30.0	14	33246
	LTS-800, LTS-F 630	1	57.3	14	33283
extension shaft, 550 mm long	LTS-250/400/630, LTS-F 160/250/400	1	29.0	14	33380
	LTS-800, LTS-F 630	1	38.0	14	33381

Connection accessories

Type	Usable with	Connection	Pack size	Weight kg/100 u.	PG	Part No.
clamp connector for Cu conductors	LTS-F 160	2.5 - 70 mm ² / 12 x 10	3	2.9	14	33363
clamp connector for Cu cables	QCB-NH1, QCS-NH1, LTS-F 250, LTS 400	70 - 150 mm ² / 18 x 2 - 14	1	6.3	09	33163
clamp connector for Cu cables	QCB-NH2, LTS-F 400, LTS 630	120 - 240 mm ² / 21 x 1 - 14	1	10.6	09	33164
clamp connector for Cu cables	QCB-NH3, LTS-F 630, LTS 800	150 - 300 mm ² / 25 x 1 - 13	1	12.5	09	33165
wedge clamp terminal, single, for Cu and Al cond.	LTS-F 250, LTS 400	70 - 150 mm ²	3	11.6	14	33366
wedge clamp terminal, single, for Cu and Al cond.	LTS-F 400, LTS 630	120 - 240 mm ²	3	20.0	14	33367

when using aluminium conductors, observe the maintenance instructions (see appendix subsection "Conductor connections")

fuse links not included

CAPUS®Panel - Switch-disconnectors 250 A - 800 A

type LTS



Switch-disconnector, 3-pole, 500 V AC, with rotary handle

Type	Rated current	Rated voltage	Pack size	Weight kg/100 u.	PG		Part No.
screw M10, graphite-grey handle	250 A	500 V	1	194.0	14		33333
	400 A	500 V	1	538.0	14		33334
	630 A	500 V	1	546.0	14		33335
screw M12, graphite-grey handle	800 A	500 V	1	944.0	14		33336
screw M10, red handle	250 A	500 V	1	194.0	14		33355
	400 A	500 V	1	546.0	14		33356
	630 A	500 V	1	544.0	14		33357
screw M12, red handle	800 A	500 V	1	940.0	14		33358

fuses and terminal compartment covers are not included in the scope of delivery.

Terminal space cover, attachable at top / bottom

Type	Usable with	Pack size	Weight kg/100 u.	PG		Part No.
for covering all connections, dark grey	LTS-250, LTS-F 160	2	4.0	14		33350
	LTS-400/630, LTS-F 250/400	2	12.0	14		33351
	LTS-800, LTS-F 630	2	20.0	14		33352

Pilot switch, for monitoring the switch position

1 n/c + 1 n/o, plug connectors 6.3 x 0.8	LTS, LTS-F	1	2.5	14		33347
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Door coupling drive, without rotary handle

door coupling rotary drive, graphit-grey blind cover	LTS-250/400/630 LTS-F 160/250/400	1	23.5	14		33342
	LTS-800, LTS-F 630	1	44.0	14		33343
door coupling rotary drive, graphite-grey blind cover	LTS-250/400/630, LTS-F160/250/400	1	38.0	14		33345
	LTS-800, LTS-F630	1	67.0	14		33346
door coupling rotary drive, red-yellow blind cover	LTS-250/400/630, LTS-F 160/250/400	1	38.0	14		33348
	LTS-800, LTS-F 630	1	56.0	14		33349
extension shaft, 300 mm long	LTS-250/400/630, LTS-F 160/250/400	1	30.0	14		33246
	LTS-800, LTS-F 630	1	57.3	14		33283
extension shaft, 550 mm long	LTS-250/400/630, LTS-F 160/250/400	1	29.0	14		33380
	LTS-800, LTS-F 630	1	38.0	14		33381

Connection accessories

Type	Usable with	Connection mm ²	Pack size	Weight kg/100 u.	PG		Part No.
clamp connector for lam. Cu	LTS 250	14 x 9	3	3.5	14		33364
clamp connector for Cu cables	QCB-NH1, QCS-NH1, LTS-F 250, LTS 400	18 x 10	1	6.3	09		33163
clamp connector for Cu cables	QCB-NH2, LTS-F 400, LTS 630	21 x 13	1	10.6	09		33164
clamp connector for Cu cables	QCB-NH3, LTS-F 630, LTS 800	25 x 13	1	12.5	09		33165
wedge clamp terminal, single, for Cu and Al cond. *	LTS 250	70 – 120	3	6.7	14		33365
wedge clamp terminal, single, for Cu and Al cond. *	LTS-F 250, LTS 400	70 – 150	3	11.6	14		33366
wedge clamp terminal, single, for Cu and Al cond. *	LTS-F 400, LTS 630	120 – 240	3	20.0	14		33367

* when using aluminium conductors, observe the maintenance instructions (see chapter 8 - Appendix subsection "Conductor connections")

CAPUS®Panel - Switch-disconnectors 125 A - 3150 A

type LTS-T



Switch-disconnector, 3-pole, without rotary handle, without shaft

Type	Rated current	Rated voltage	Pack size	Weight kg/100 u.	PG		Part No.
box terminal 95 mm ²	125 A	690 V	1	80.0	14		33424
screw M8	125 A		1	80.0	14		33425
box terminal 95 mm ²	160 A		1	80.0	14		33426
screw M8	160 A	400 V	1	80.0	14		33427
screw M10	200 A		1	80.0	14		33428
screw M10	250 A	690 V	1	90.0	14		33429
screw M10	315 A		1	170.0	14		33430
screw M10	400 A		1	170.0	14		33431
screw M10	630 A	400 V	1	420.0	14		33432
screw M10	800 A		1	420.0	14		33433
screw M14 *	1250 A		1	700.0	14		33434
screw M14	1600 A		1	1850.0	14		33435
screw M14	1800 A		1	1850.0	14		33436
screw M12	2000 A		1	5500.0	14		33437
screw M12	2500 A		1	5500.0	14		33438
screw M12	3150 A		1	5600.0	14		33439

* delivery time on request

Switch-disconnector, 3-pole + N, without rotary handle, without shaft

Type	Rated current	Rated voltage	Pack size	Weight kg/100 u.	PG		Part No.
box terminal 95 mm ²	125 A	690 V	1	90.0	14		33440
screw M8	125 A		1	90.0	14		33441
box terminal 95 mm ²	160 A	400 V	1	90.0	14		33442
screw M8	160 A		690 V	1	90.0	14	
screw M10	200 A	1		90.0	14		33444
screw M10	250 A	1		100.0	14		33445
screw M10	315 A	400 V	1	190.0	14		33446
screw M10	400 A		1	190.0	14		33447
screw M10	630 A		1	450.0	14		33448
screw M10	800 A		1	450.0	14		33449
screw M14 *	1250 A		1	760.0	14		33450
screw M14	1600 A		1	2100.0	14		33451
screw M12	2000 A		1	7500.0	14		33452
screw M12	2500 A		1	7500.0	14		33453
screw M12	3150 A		1	7600.0	14		33454

* delivery time on request

CAPUS®Panel - Handles and accessories

for switch-disconnectors type LTS-T

**Rotary handle**

Type	Usable with	Pack size	Weight	PG	Part No.
rotary handle for door coupling drive, graphite grey, with shaft	LTS-T 125,160,200,250	1	25.0	14	33921
door coupling rotary handle, graphite grey, with shaft	LTS-T 315,400	1	35.0	14	33922
	LTS-T 630,800	1	50.0	14	33923
	LTS-T 1250	1	80.0	14	33924
	LTS-T 1600,1800,2000,2500,3150	1	80.0	14	33925
door coupling rotary handle, yellow-red, with shaft	LTS-T 125,160,200,250	1	25.0	14	33970
	LTS-T 315,400	1	35.0	14	33971
	LTS-T 630,800	1	50.0	14	33972
	LTS-T 1250	1	80.0	14	33973
	LTS-T 1600,1800,2000,2500,3150	1	80.0	14	33974
direct rotary handle, graphite grey, with shaft	LTS-T 125,160,200,250	1	5.0	14	33926
	LTS-T 315,400	1	20.0	14	33927
	LTS-T 630,800	1	25.0	14	33928
	LTS-T 1250	1	30.0	14	33929
	LTS-T 1600,1800,2000,2500,3150	1	30.0	14	33930

Terminal cover

for covering all terminals at one side of the switch, transparent	LTS-T 315	1	10.0	14	33939
	LTS-T 630,800	1	15.0	14	33940
	LTS-T 1250	1	20.0	14	33941
	LTS-T 1600,1800	1	45.0	14	33942

Terminal space cover

for covering all terminals at one side of the switch, transparent	LTS-T 125,160,200,250	1	10.0	14	33943
	LTS-T 315,400	1	15.0	14	33944
	LTS-T 630,800	1	20.0	14	33945

Pilot switch, for monitoring of the switch position

1 n/c + 1 n/o, plug connectors 6.3 x 0.8	LTS-T, LTSU-T	1	5.0	14	33946
2 n/c + 2 n/o, plug connectors 6.3 x 0.8		1	10.0	14	33947

Rapid mounting set

rapid mounting set for 1 mounting rail TH 35	LTS-T 125,160	1	4.0	14	33177
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CAPUS®Panel - Changeover switches 125 A - 1000 A

type LTSU-T



Changeover switch, 3-pole, without rotary handle, without shaft

Type	Rated current	Rated voltage	Pack size	Weight kg/100 u.	PG		Part No.
screw M8	* 125 A	400 V	1	180.0	14		33455
screw M8	* 160 A		1	180.0	14		33456
screw M10	* 200 A		1	190.0	14		33457
screw M10	250 A		1	550.0	14		33458
screw M10	315 A		1	550.0	14		33459
screw M10	400 A		1	550.0	14		33460
screw M12	630 A		1	1260.0	14		33461
screw M12	800 A		1	1260.0	14		33462
screw M14	1000 A		1	2430.0	14		33463

* bridge cable required; 6 or 8 connections available

Changeover switch, 3-pole + N, without rotary handle, without shaft

Type	Rated current	Rated voltage	Pack size	Weight kg/100 u.	PG		Part No.
screw M8	* 125 A	400 V	1	210.0	14		33464
screw M8	* 160 A		1	210.0	14		33465
screw M10	* 200 A		1	220.0	14		33466
screw M10	250 A		1	590.0	14		33467
screw M10	315 A		1	590.0	14		33468
screw M10	400 A		1	590.0	14		33469
screw M12	630 A		1	1370.0	14		33470
screw M12	800 A		1	1370.0	14		33471
screw M14	1000 A		1	2680.0	14		33472

* bridge cable required; 6 or 8 connections available

Rotary handle

Type	Usable with	Pack size	Weight kg/100 u.	PG		Part No.
door coupling rotary handle, graphite grey, with shaft	LTSU-T 125, 160, 200	1	25.0	14		33931
	LTSU-T 250, 315, 400	1	50.0	14		33932
	LTSU-T 630, 800	1	70.0	14		33933
	LTSU-T 1000	1	80.0	14		33934
direct rotary handle, graphite grey, with shaft	LTSU-T 125, 160, 200	1	5.0	14		33935
	LTSU-T 250, 315, 400	1	5.0	14		33936
	LTSU-T 630, 800	1	30.0	14		33937
	LTSU-T 1000	1	30.0	14		33938

Terminal cover

Type	Usable with	Pack size	Weight kg/100 u.	PG		Part No.
terminal cover, transparent, 3-pole, for incoming II	LTSU-T 200, 250, 315, 400	1	10.0	14		33963
terminal cover, transparent, 3-pole, for incoming I		1	10.0	14		33964
terminal cover, transparent, 3-pole, for outgoing		1	10.0	14		33968
terminal cover, transparent, 4-pole, for incoming I and II	LTSU-T 250, 315, 400	1	10.0	14		33967
terminal cover, transparent, 4-pole, for outgoing		1	10.0	14		33969

Pilot switch

Type	Usable with	Pack size	Weight kg/100 u.	PG		Part No.
1 n/c + 1 n/o, plug connectors 6.3 x 0.8	LTS-T, LTSU-T	1	5.0	14		33946
2 n/c + 2 n/o, plug connectors 6.3 x 0.8		1	10.0	14		33947

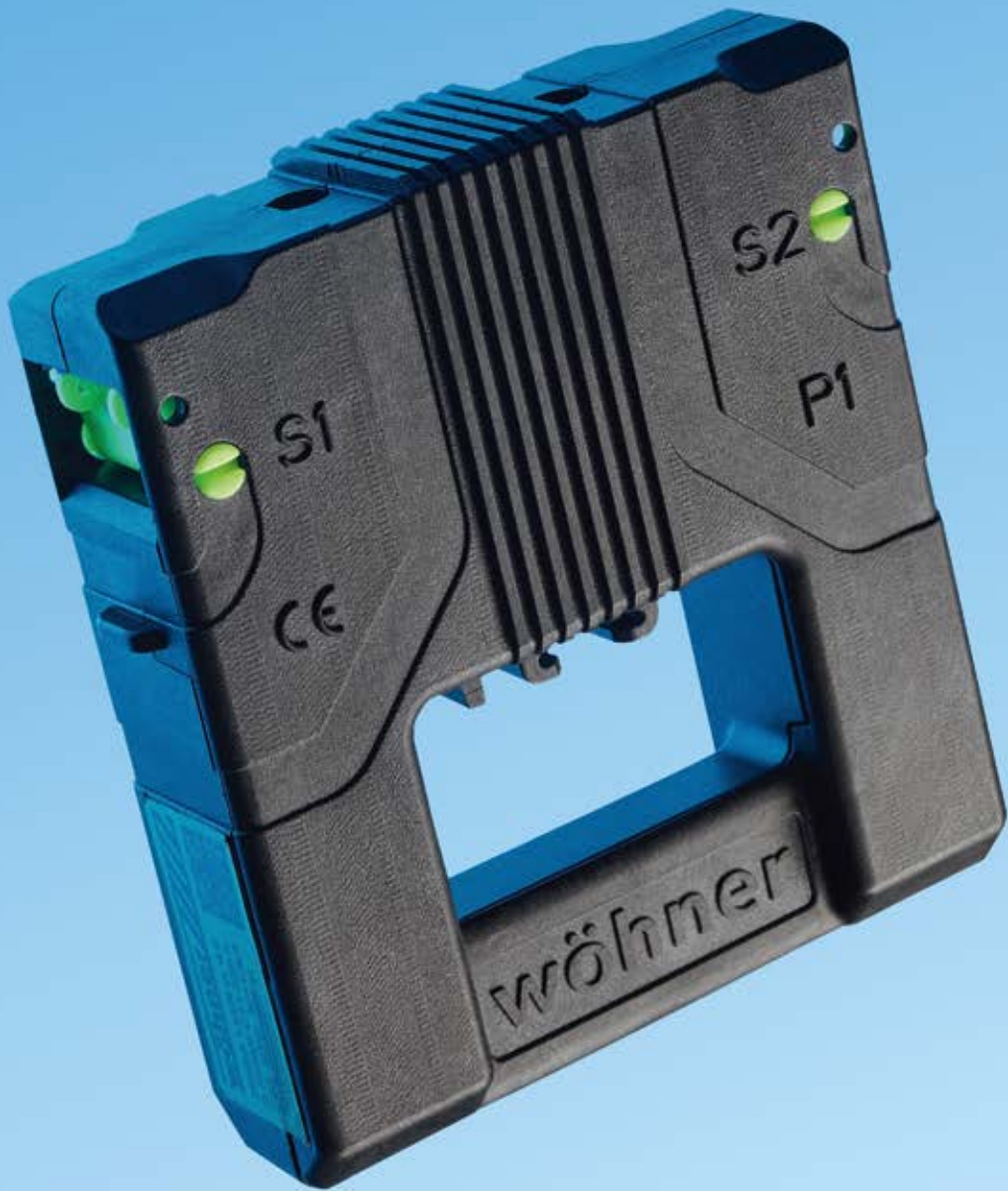
Accessories

for switch-disconnector LTS-T and changeover switch LTSU-T



Extension shaft

Type	Usable with	Pack size	Weight kg/100 u.	PG	Part No.
extension shaft, 250 mm long	LTS-T 125-250, LTSU-T 125-200	1	10.0	14	33954
extension shaft, 376 mm long	LTS-T 315/400, LTSU-T 250-400	1	31.0	14	33955
extension shaft, 345 mm long	LTS-T 630/800	1	52.0	14	33956
extension shaft, 336 mm long	LTS-T 1250, LTSU-T 630-1000	1	52.0	14	33957
extension shaft, 485 mm long	LTS-T 1600/1800	1	75.0	14	33958
extension shaft, 387 mm long	LTS-T 125-250, LTSU-T 125-200	1	17.0	14	33959
extension shaft, 536 mm long	LTS-T 315/400	1	43.0	14	33960
extension shaft, 525 mm long	LTS-T 630/800	1	85.0	14	33961
extension shaft, 635 mm long	LTS-T 1600/1800	1	100.0	14	33962



Current transformers

for 60Classic busbars 25 - 30 x 5 to 12 - 30 x 10 and for current transformer module



Current transformer, with terminals

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 200 A / 5 A	1	2.50 VA	1	13.5	23	37212
current transformer 250 A / 5 A			1	13.5	23	37213
current transformer 400 A / 5 A			1	13.5	23	37214
current transformer 500 A / 5 A			1	13.5	23	37215
current transformer 600 A / 5 A			1	13.5	23	37216
current transformer 800 A / 5 A			1	13.5	23	37217
current transformer 910 A / 5 A			1	13.5	23	37218
current transformer 200 A / 5 A	0.5	2.50 VA	1	13.5	23	37219
current transformer 250 A / 5 A			1	13.5	23	37220
current transformer 400 A / 5 A			1	13.5	23	37221
current transformer 500 A / 5 A			1	13.5	23	37222
current transformer 600 A / 5 A			1	13.5	23	37223
current transformer 800 A / 5 A			1	13.5	23	37224
current transformer 200 A / 5 A, with decl. of conformity			1	13.5	23	37232
current transformer 250 A / 5 A, with decl. of conformity	1	13.5	23	37233		
current transformer 400 A / 5 A, with decl. of conformity	1	13.5	23	37234		
current transformer 500 A / 5 A, with decl. of conformity	1	13.5	23	37235		
current transformer 250 A / 5 A	0.5s	2.50 VA	1	13.5	23	37226
current transformer 400 A / 5 A			1	13.5	23	37227
current transformer 500 A / 5 A			1	13.5	23	37228
current transformer 600 A / 5 A			1	13.5	23	37229
current transformer 800 A / 5 A			1	13.5	23	37230
current transformer 250 A / 5 A, with decl. of conformity			1	13.5	23	37236
current transformer 400 A / 5 A, with decl. of conformity			1	13.5	23	37237
current transformer 500 A / 5 A, with decl. of conformity	1	13.5	23	37238		

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

Accessories

Article	Pack size	Weight kg/100 u.	PG	Part No.
fixing clip for current transformer	* 3	0.5	23	37900

* for mounting at busbars and in adapters 630 A

Current transformers

for EQUES®185Power busbar adapters 630 A and 1600 A



Current transformer, for busbar adapters 630 A

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 200 A / 5 A	1	2.50 VA	1	13.5	23	37212
current transformer 250 A / 5 A			1	13.5	23	37213
current transformer 400 A / 5 A			1	13.5	23	37214
current transformer 500 A / 5 A			1	13.5	23	37215
current transformer 600 A / 5 A			1	13.5	23	37216
current transformer 200 A / 5 A	0.5		1	13.5	23	37219
current transformer 250 A / 5 A			1	13.5	23	37220
current transformer 400 A / 5 A			1	13.5	23	37221
current transformer 500 A / 5 A			1	13.5	23	37222
current transformer 600 A / 5 A			1	13.5	23	37223
current transformer 200 A / 5 A, with decl. of conformity			1	13.5	23	37232
current transformer 250 A / 5 A, with decl. of conformity			1	13.5	23	37233
current transformer 400 A / 5 A, with decl. of conformity			1	13.5	23	37234
current transformer 500 A / 5 A, with decl. of conformity			1	13.5	23	37235
current transformer 600 A / 5 A, with decl. of conformity			1	13.5	23	37236
current transformer 250 A / 5 A	0.5s		1	13.5	23	37226
current transformer 400 A / 5 A			1	13.5	23	37227
current transformer 500 A / 5 A			1	13.5	23	37228
current transformer 600 A / 5 A			1	13.5	23	37229

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

Accessories

Article	Pack size	Weight kg/100 u.	PG	Part No.
fixing clip for current transformer	* 3	0.5	23	37900

* for mounting at busbars and in adapters 630 A



Current transformer, for busbar adapters 1600 A

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 630 A / 5 A	1	5.00 VA	1	14.0	23	32983
current transformer 800 A / 5 A			1	14.0	23	32984
current transformer 1000 A / 5 A			1	14.0	23	32985
current transformer 1250 A / 5 A			1	14.0	23	32986
current transformer 1600 A / 5 A			1	14.0	23	32987

depending on the adapter type, 1 or 2 current transformers can be used per phase; see adapter product description at www.woehner.com

Current transformers

for QUADRON®185Power and QUADRON®185Power Speed size 00



Current transformer, for NH inline fuse-switch-disconnectors and NH switch-disconnector-fuses Speed size 00, with terminals

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 80 A / 5 A	1	2.50 VA	1	14.0	23	33741
current transformer 150 A / 5 A			1	14.0	23	33742
current transformer 100 A / 5 A	0.5	1.50 VA	1	28.0	23	33749
current transformer 150 A / 5 A			1	28.0	23	33751
current transformer 100 A / 5 A, with decl. of conformity			1	28.0	23	33750
current transformer 150 A / 5 A, with decl. of conformity			1	28.0	23	33752

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

Current transformer, for double adapter, with leads

Type	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 150 A / 5 A *	1	1.50 VA	1	14.0	23	33744

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

* with leads 2.5 mm², 1.50 m long

Current transformers

for QUADRON®185Power size 1 - 3



Current transformer, for NH inline fuse-switch-disconnector size 1 - 3, with terminals

Article	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 150 A / 5 A *	1	1.50 VA	1	14.0	23	33744
current transformer 200 A / 5 A			1	13.5	23	37212
current transformer 250 A / 5 A		1	13.5	23	37213	
current transformer 400 A / 5 A		1	13.5	23	37214	
current transformer 500 A / 5 A		1	13.5	23	37215	
current transformer 600 A / 5 A		1	13.5	23	37216	
current transformer 200 A / 5 A	0.5	2.50 VA	1	13.5	23	37219
current transformer 250 A / 5 A			1	13.5	23	37220
current transformer 400 A / 5 A			1	13.5	23	37221
current transformer 500 A / 5 A			1	13.5	23	37222
current transformer 600 A / 5 A			1	13.5	23	37223
current transformer 200 A / 5 A, with decl. of conformity			1	13.5	23	37232
current transformer 250 A / 5 A, with decl. of conformity			1	13.5	23	37233
current transformer 400 A / 5 A, with decl. of conformity			1	13.5	23	37234
current transformer 500 A / 5 A, with decl. of conformity			1	13.5	23	37235

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
 Current transformer with accuracy class 0.5s with declaration of conformity on request
 * with leads 2.5 mm², 1.50 m long

Current transformers

for QUADRON®185Power Speed size 1 - 3



Current transformer, for In-line switch-disconnector-fuse NH size 1 - 3, with terminals

Article	Accuracy class	Rated apparent power	Pack size	Weight kg/100 u.	PG	Part No.
current transformer 200 A / 5 A	1	1.50 VA	1	10.4	23	37200
current transformer 250 A / 5 A			1	10.4	23	37201
current transformer 400 A / 5 A			1	10.4	23	37202
current transformer 500 A / 5 A			1	10.4	23	37203
current transformer 200 A / 5 A	0.5		1	10.4	23	37204
current transformer 250 A / 5 A			1	10.4	23	37205
current transformer 400 A / 5 A			1	10.4	23	37206
current transformer 500 A / 5 A			1	10.4	23	37207
current transformer 200 A / 5 A, with decl. of conformity			1	10.4	23	37208
current transformer 250 A / 5 A, with decl. of conformity			1	10.4	23	37209
current transformer 400 A / 5 A, with decl. of conformity			1	10.4	23	37210
current transformer 500 A / 5 A, with decl. of conformity			1	10.4	23	37211

current transformers with declaration of conformity: national laws must be observed; in addition to the net price of the current transformers, the following cost are charged per transformer for the declaration of conformity, the costs cannot be discounted: current transformers up to 500 A: EUR 37; current transformers from 500 A to 1000 A: EUR 54
Current transformer with accuracy class 0.5s with declaration of conformity on request

D0 fuses

in accordance with IEC / HD / DIN VDE 60269-3



Fuse-link gG (gL)

Size	Rated voltage	Rated breaking capacity	Pack size	Weight kg/100 u.	PG	Part No.
D01 fuse link 2 A	400 V AC / 250 V DC	50 kA AC / 8 kA DC	10	0.6	22	01685
D01 fuse link 4 A			10	0.6	22	01686
D01 fuse link 6 A			10	0.6	22	01687
D01 fuse link 10 A			10	0.6	22	01688
D01 fuse link 16 A			10	0.7	22	01689
D02 fuse link 20 A			10	1.2	22	01690
D02 fuse link 25 A			10	1.3	22	01691
D02 fuse link 32 A			100 kA AC / 8 kA DC	10	1.3	22
D02 fuse link 35 A		50 kA AC / 8 kA DC	10	1.3	22	01692
D02 fuse link 40 A		100 kA AC / 8 kA DC	10	1.3	22	01698
D02 fuse link 50 A		50 kA AC / 8 kA DC	10	1.5	22	01693
D02 fuse link 63 A		10	1.5	22	01694	

Ferrule gauge ring for E 14

D01 gauge ring 2 A	50	0.1	22	01715
D01 gauge ring 4 A	50	0.1	22	01716
D01 gauge ring 6 A	50	0.1	22	01717
D01 gauge ring 10 A	50	0.1	22	01718

Ferrule gauge ring for E 18

special D01 gauge ring 2 A	50	0.1	22	01724
special D01 gauge ring 4 A	50	0.1	22	01725
special D01 gauge ring 6 A	50	0.1	22	01726
special D01 gauge ring 10 A	50	0.1	22	01727
special D01 gauge ring 16 A	50	0.1	22	01728
D02 gauge ring 20 A	50	0.1	22	01719
D02 gauge ring 25 A	50	0.1	22	01720
D02 gauge ring 32 A	50	0.1	22	01723
D02 gauge ring 35 A / 40 A	50	0.1	22	01721
D02 gauge ring 50 A	50	0.1	22	01722

D0 fuses

in accordance with IEC / HD / DIN VDE 60269-3



Screw cap, 400 V AC / 250 V DC

Size	Type	Pack size	Weight kg/100 u.	PG	Part No.
D01 screw cap, porcelain	E 14	20	1.9	22	01103
D01 screw cap, plastic		20	1.2	22	31005
D02 screw cap, porcelain	E 18	20	1.8	22	01104
D02 screw cap, plastic		20	1.3	22	31006
D02 screw cap, plastic, with reducer for D01		20	1.4	22	31104

Retaining cap

locking cap D01 version "industry"	E 14	36	1.1	22	31909
locking cap D01 version "utility"		36	1.1	22	31908
locking cap D02 version "industry"	E 18	36	1.1	22	31910
locking cap D02 version "utility"		36	1.1	22	31904

Special retaining spring

Size	Rated current	Pack size	Weight kg/100 u.	PG	Part No.
special-retaining spring for D01 - E 18	2 - 16 A	50	0.1	22	01729

Gauge ring tool

D01 - D03	1	2.8	22	01730
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Special key for retaining cap

"industry" version D and D0	1	3.6	22	31913
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D fuses

in accordance with IEC / HD / DIN VDE 60269-3



Fuse-link gG (gL)

Size	Rated voltage	Rated breaking capacity	Type	Pack size	Weight kg/100 u.	PG	Part No.
D-fuse link 2 A	500 V AC / 500 V DC	50 kA AC / 8 kA DC	E 27	5	2.7	22	01670
D-fuse link 4 A				5	2.8	22	01671
D-fuse link 6 A				5	2.8	22	01672
D-fuse link 10 A				5	2.8	22	01673
D-fuse link 16 A				5	2.9	22	01674
D-fuse link 20 A				5	3.1	22	01675
D-fuse link 25 A				5	3.2	22	01676
D-fuse link 35 A				E 33	5	4.8	22
D-fuse link 50 A			5		5.0	22	01678
D-fuse link 63 A			5		5.2	22	01679

Screw-in gauge ring

screw-in gauge ring 2 A	E 27 / E 33	25	1.3	22	01741
screw-in gauge ring 4 A		25	1.2	22	01701
screw-in gauge ring 6 A		25	1.2	22	01702
screw-in gauge ring 10 A		25	1.2	22	01703
screw-in gauge ring 16 A		25	1.2	22	01704
screw-in gauge ring 20 A		25	1.2	22	01705
screw-in gauge ring 25 A		25	1.2	22	01706
screw-in gauge ring 35 A		E 33	25	2.0	22
screw-in gauge ring 50 A	25		2.0	22	01708
screw-in gauge ring 63 A	25		2.0	22	01709

Snap-in gauge ring

gauge ring 2 A	E 27	50	0.4	22	01541
gauge ring 4 A		50	0.4	22	01542
gauge ring 6 A		50	0.4	22	01543
gauge ring 10 A		50	0.4	22	01544
gauge ring 16 A		50	0.4	22	01545
gauge ring 20 A		50	0.4	22	01546
gauge ring 25 A		50	0.4	22	01547
gauge ring 35 A		E 33	50	0.4	22
gauge ring 50 A	50		0.4	22	01549
gauge ring 63 A	50		0.4	22	01550

D fuses

in accordance with IEC / HD / DIN VDE 60269-3



Screw cap

Size	Type	Rated voltage	Pack size	Weight kg/100 u.	PG	Part No.
D-screw cap, porcelain	E 27	500 V	20	4.8	22	01098
D-screw cap, plastic			20	2.8	22	31098
D-screw cap, porcelain	E 33		20	7.9	22	01100
D-screw cap, plastic			20	4.8	22	31100

Retaining cap

locking cap DII version "industry"	E 27	500 V	20	1.7	22	31911
locking cap DII version "utility"			20	1.7	22	31905
locking cap DIII version "industry"	E 33		10	2.6	22	31912
locking cap DIII version "utility"			10	2.6	22	31906

Key for screw-in gauge ring

Type	Pack size	Weight kg/100 u.	PG	Part No.
E 27 / E 33	1	4.7	22	01998

Key for snap-in gauge ring

E 27 / E 33	1	3.7	22	01059
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Special key for retaining cap

"industry" version D and D0	1	3.6	22	31913
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NH fuses

in accordance with IEC / HD / DIN VDE 60269-2



Fuse-link gG (gL)

Size	Rated current	Rated voltage, AC	Rated voltage, DC	Pack size	Weight kg/100 u.	PG	Part No.
NH 000	125 A	400 V	250 V	3	12.2	22	03243
	6 A	500 V		3	13.0	22	03523
	10 A			3	13.0	22	03524
	16 A			3	13.0	22	03525
	20 A			3	13.0	22	03526
	25 A			3	13.0	22	03527
	32 A			3	13.0	22	03535
	35 A			3	13.0	22	03528
	40 A			3	13.0	22	03536
	50 A			3	13.0	22	03529
	63 A			3	13.0	22	03530
	80 A			3	13.0	22	03531
	100 A			3	13.0	22	03532
	NH 00			125 A	400 V	440 V	3
160 A		3	18.3	22			03534
6 A		690 V	250 V	3	12.7	22	03908
10 A				3	12.7	22	03909
16 A				3	12.7	22	03910
20 A				3	12.7	22	03911
25 A				3	12.7	22	03912
32 A				3	12.7	22	03913
35 A				3	12.7	22	03914
40 A				3	12.7	22	03915
50 A				3	12.7	22	03916
63 A				3	12.7	22	03917
80 A				3	19.0	22	03918
100 A				3	20.5	22	03919

NH fuses in accordance with size 000 can be used in NH fuse bases, fuse-switch disconnectors and NH fuse-switch units of size 00

Knife link

Size	Rated current	Pack size	Weight kg/100 u.	PG	Part No.
NH 00	160 A	3	7.0	22	03161
NH 1	250 A	3	14.9	22	03162
NH 2	400 A	3	20.7	22	03163
NH 3	630 A	3	28.0	22	03164
NH 4a	1600 A	3	85.0	22	03185

NH universal slip-on handle

Size	Type	Pack size	Weight kg/100 u.	PG	Part No.
000 - 3	without sleeve	1	28.4	10	03502

NH fuses

in accordance with IEC / HD / DIN VDE 60269-2



Fuse-link gG

Size	Rated current	Rated voltage, AC	Rated voltage, DC	Pack size	Weight kg/100 u.	PG		Part No.	
NH 1	20 A	500 V	440 V	3	26.3	22		03550	
	35 A			3	26.3	22		03552	
	50 A			3	26.3	22		03553	
	80 A			3	26.3	22		03555	
	100 A			3	26.3	22		03556	
	125 A			3	26.3	22		03557	
	160 A			3	26.3	22		03558	
	200 A			3	26.3	22		03559	
	224 A			3	26.3	22		03560	
	250 A			3	26.3	22		03561	
	160 A	690 V	250 V	3	35.0	22		03929	
	200 A			3	35.0	22		03930	
	250 A			3	35.0	22		03924	
NH 2	100 A	500 V	440 V	3	47.8	22		03566	
	160 A			3	47.8	22		03568	
	200 A			3	47.8	22		03569	
	224 A			3	47.8	22		03570	
	250 A			3	47.8	22		03571	
	300 A			3	47.8	22		03572	
	315 A			3	47.8	22		03573	
	355 A			250 V	3	47.8	22		03574
	400 A				3	47.8	22		03575
	250 A				690 V	3	62.6	22	
	315 A	3	62.6	22			03943		
	NH 3	315 A	500 V	440 V	3	65.4	22		03577
		400 A			3	65.4	22		03579
500 A		3			65.4	22		03581	
630 A		3			65.4	22		03582	
400 A		690 V			3	96.0	22		03946
500 A			3	105.0	22		03947		
NH 4a	800 A	500 V	440 V	1	260.0	22		03181	
	1000 A			1	260.0	22		03182	
	1250 A			1	266.0	22		03183	

Cylindrical fuses gG

in accordance with IEC / HD 60269-2



Fuse-link gG (gI)

Size	Rated current	Rated voltage	Rated breaking capacity	Power dissipation	Pack size	Weight kg/100 u.	PG		Part No.	
10x38	1 A	500 V	120 kA	0.5 W	10	0.6	22		31008	
	2 A			0.7 W	10	0.6	22		31182	
	4 A			0.8 W	10	0.6	22		31183	
	6 A			0.9 W	10	0.6	22		31184	
	8 A			0.9 W	10	0.6	22		31009	
	10 A			1.3 W	10	0.6	22		31185	
	12 A			1.3 W	10	0.6	22		31010	
	16 A			1.9 W	10	0.6	22		31186	
	20 A			2.3 W	10	0.6	22		31187	
	25 A			2.8 W	10	0.6	22		31188	
	32 A			3.0 W	400 V		10	0.6	22	
	14x51	2 A	690 V	80 kA	0.8 W	10	1.9	22		31011
6 A		1.0 W			10	1.9	22		31017	
10 A		120 kA		1.8 W	10	1.9	22		31190	
16 A		80 kA		2.5 W	10	1.9	22		31191	
20 A		3.0 W		10	1.9	22		31192		
25 A		3.5 W		10	1.9	22		31193		
32 A		500 V		3.8 W	10	1.9	22		31194	
40 A			4.4 W	10	1.9	22		31195		
50 A			400 V	120 kA	4.7 W	10	1.9	22		31196
22x58	32 A	690 V	80 kA	4.3 W	10	5.0	22		31198	
	40 A			5.1 W	10	5.0	22		31199	
	50 A			5.5 W	10	5.0	22		31200	
	63 A			6.7 W	10	5.0	22		31201	
	80 A	500 V	120 kA	8.0 W	10	5.0	22		31202	
	100 A			9.0 W	10	5.0	22		31203	
	125 A			400 V		12.5 W	10	5.0	22	

Fuse-link gG (gI), with striker

14x51	6 A	500 V	80 kA	1.1 W	10	2.0	22		31366	
	10 A			1.3 W	10	2.0	22		31368	
	16 A			2.0 W	10	2.0	22		31370	
	20 A			2.5 W	10	2.0	22		31371	
	25 A			3.3 W	10	2.0	22		31372	
	32 A			120 kA	3.5 W	10	2.0	22		31373
	40 A				4.8 W	10	2.0	22		31374
22x58	50 A	690 V	80 kA	5.2 W	10	5.2	22		31385	
	63 A	500 V		6.9 W	10	5.2	22		31386	
	80 A			7.8 W	10	5.2	22		31387	

Cylindrical fuses gR and gPV

gR in accordance with IEC / EN 60269-4 and gPV in accordance with IEC / EN 60269-6



Fuse-link gR

Size	Rated current	Rated voltage	Rated breaking capacity	Power dissipation	Pack size	Weight kg/100 u.	PG		Part No.
10x38	1 A	690 V	200 kA	0.9 W	10	0.6	22		31205
	2 A			1.0 W	10	0.6	22		31206
	4 A			1.1 W	10	0.6	22		31207
	6 A			1.6 W	10	0.6	22		31208
	10 A			2.1 W	10	0.6	22		31209
	12 A			3.1 W	10	0.6	22		31210
	16 A			4.4 W	10	0.6	22		31211
	20 A			5.8 W	10	0.6	22		31212
	25 A			6.8 W	10	0.6	22		31213
	30 A			8.2 W	10	0.6	22		31214
14x51	10 A			2.6 W	10	1.9	22		31215
	16 A			4.7 W	10	1.9	22		31216
	20 A			6.0 W	10	1.9	22		31217
	32 A			9.5 W	10	1.9	22		31219
	40 A			10.0 W	10	1.9	22		31220
	50 A			12.0 W	10	1.9	22		31221
22x58	50 A			15.0 W	10	5.0	22		31226
	63 A			16.0 W	10	5.0	22		31227
	80 A			18.0 W	10	5.0	22		31228
	100 A			19.0 W	10	5.0	22		31229

Fuse-link gPV, for photovoltaic applications

10x38	8 A	1000 V	30 kA	1.6 W	10	0.6	22		31543
	10 A			2.0 W	10	0.6	22		31544
	12 A			2.4 W	10	0.6	22		31545
	16 A			2.1 W	10	0.6	22		31546
	20 A			2.5 W	10	0.6	22		31547
14x85	16 A	1100 V		3.8 W	20	2.7	22		31560
	20 A			4.7 W	20	2.7	22		31559
	25 A			5.9 W	20	2.7	22		31558



Cylindrical fuses Class CC

in accordance with UL 248-4



Fuse-link, Class CC, time delay

Size	Rated current	Rated voltage	SCCR	Pack size	Weight kg/100 u.	PG		Part No.
Class CC	0.5 A	600 V	200 kA	10	0.8	22		31394
	1 A			10	0.8	22		31244
	1.5 A			10	0.8	22		31395
	2 A			10	0.8	22		31245
	2.5 A			10	0.8	22		31396
	3 A			10	0.8	22		31397
	4 A			10	0.8	22		31246
	5 A			10	0.8	22		31398
	6 A			10	0.8	22		31247
	8 A			10	0.8	22		31399
	10 A			10	0.8	22		31248
	12 A			10	0.8	22		31400
	15 A			10	0.8	22		31249
	20 A			10	0.8	22		31250
	25 A			10	0.8	22		31251
	30 A			10	0.8	22		31252

Fuse-link, Class CC, fast acting

Size	Rated current	Rated voltage	SCCR	Pack size	Weight kg/100 u.	PG		Part No.
Class CC	0.5 A	600 V	200 kA	10	0.8	22		31401
	1 A			10	0.8	22		31235
	2 A			10	0.8	22		31236
	3 A			10	0.8	22		31404
	4 A			10	0.8	22		31237
	5 A			10	0.8	22		31405
	6 A			10	0.8	22		31238
	8 A			10	0.8	22		31406
	10 A			10	0.8	22		31239
	12 A			10	0.8	22		31407
	15 A			10	0.8	22		31240
	20 A			10	0.8	22		31241
	25 A			10	0.8	22		31242
	30 A			10	0.8	22		31243



Cylindrical fuses Class J

in accordance with UL 248-8



Fuse-link, Class J, time delay

Size	Rated current	Rated voltage	SCCR	Pack size	Weight kg/100 u.	PG		Part No.
Class J, 21x57	1 A	600 V	200 kA	10	5.0	22		31333
	2 A			10	5.0	22		31338
	3 A			10	5.0	22		31342
	4 A			10	5.0	22		31345
	6 A			10	5.0	22		31349
	8 A			10	5.0	22		31351
	10 A			10	5.0	22		31353
	12 A			10	5.0	22		31354
	15 A			10	5.0	22		31355
	20 A			10	5.0	22		31357
	25 A			10	5.0	22		31358
	30 A			10	5.0	22		31359
	Class J, 27x60			35 A			10	8.5
40 A				10	8.5	22		31361
45 A				10	8.5	22		31362
50 A				10	8.5	22		31363
60 A				10	8.5	22		31364
Class J, 29x118	70 A			1	14.5	22		03228
	80 A			1	14.5	22		03229
	90 A			1	14.5	22		03230
	100 A			1	14.5	22		03231
Class J, 41x146	125 A			1	35.5	22		03233
	150 A			1	35.5	22		03234
	175 A			1	35.5	22		03235
	200 A			1	35.5	22		03236
Class J, 54x181	250 A			1	67.0	22		03238
	300 A			1	67.0	22		03239
	350 A			1	67.0	22		03240
	400 A			1	67.0	22		03241



Cylindrical fuses Class J

in accordance with UL 248-8



Fuse-link Class J, fast acting

Size	Rated current	Rated voltage	SCCR	Pack size	Weight kg/100 u.	PG		Part No.		
Class J, 21x57	10 A	600 V	200 kA	10	5.0	22		31323		
	15 A			10	5.0	22		31324		
	20 A			10	5.0	22		31325		
	25 A			10	5.0	22		31326		
	30 A			10	5.0	22		31327		
Class J, 27x60	35 A					10	8.5	22		31511
	40 A					10	8.5	22		31512
	50 A					10	8.5	22		31514
	60 A					10	8.5	22		31515
Class J, 29x118	70 A					1	14.5	22		03214
	80 A			1	14.5	22		03215		
	100 A			1	14.5	22		03217		
Class J, 41x146	125 A			1	35.0	22		03219		
	150 A			1	35.5	22		03220		
	175 A			1	38.2	22		03221		
	200 A			1	35.5	22		03222		
Class J, 54x181	250 A			1	67.0	22		03224		
	300 A			1	67.0	22		03225		
	350 A			1	67.0	22		03226		
	400 A			1	67.0	22		03227		



Insulators



Insulator, with female thread

Total height	Female thread, both sides	Width across flats	Rated voltage	Pack size	Weight kg/100 u.	PG		Part No.
20	M6	17	600 V	100	1.2	06		05779
25	M5	22	1000 V	20	3.5	06		05793
30	M6	30	1500 V	20	5.4	06		05780
30	M8			20	5.3	06		05792
35	M6	32		20	7.0	06		05781
35	M8			20	7.2	06		05782
40	M8	40	2000 V	20	10.2	06		05783
40	M10			20	10.8	06		05784
40	M12			20	11.8	06		05791
45	M8	46		20	14.8	06		05786
45	M10			20	15.3	06		05787
50	M8	36		20	10.9	06		05790
50	M10		20	12.2	06		05788	
60	M10	40	3000 V	20	16.2	06		05789

Insulator, with threaded bolt and female thread

Gsamthöhe	Female thread, both sides	Width across flats	Rated voltage	Pack size	Weight kg/100 u.	PG		Part No.
30	M6	30	1500 V	20	5.3	06		05800
35	M6	32		20	6.0	06		05801
35	M8			20	8.2	06		05802

Laminated copper busbars



Laminated copper busbar, plain, insulated (105°C), length 2 m

Dimensions (number of laminates x width x thickness)	Crosssection mm ²	Rated current 30 K	Rated current 50 K	Pack size	Weight kg/100 u.	PG		Part No.
3x 9 x 0.8	21.6	119 A	162 A	1	40.4	06		01054
6x 9 x 0.8	43.2	176 A	240 A	1	80.6	06		01194
4x 15.5 x 0.8	49.6	205 A	279 A	1	92.8	06		01196
6x 15.5 x 0.8	74.4	257 A	350 A	1	139.2	06		01035
10x 15.5 x 0.8	124	345 A	470 A	1	232.0	06		01583
3x 20 x 1	60	240 A	326 A	1	112.4	06		01027
6x 20 x 1	120	351 A	477 A	1	225.0	06		01028
10x 20 x 1	200	470 A	640 A	1	375.0	06		01029
4x 24 x 1	96	322 A	438 A	1	180.0	06		01253
5x 24 x 1	120	363 A	494 A	1	225.0	06		01611
6x 24 x 1	144	402 A	547 A	1	270.0	06		01255
8x 24 x 1	192	471 A	641 A	1	360.0	06		01323
10x 24 x 1	240	534 A	727 A	1	450.0	06		01184
5x 32 x 1	160	453 A	617 A	1	299.0	06		01612
10x 32 x 1	320	657 A	894 A	1	598.0	06		01613
5x 40 x 1	200	541 A	736 A	1	373.0	06		01614
6x 40 x 1	240	594 A	809 A	1	447.6	06		01256
10x 40 x 1	400	774 A	1053 A	1	746.0	06		01615
5x 50 x 1	250	646 A	880 A	1	466.0	06		01060
8x 50 x 1	400	818 A	1114 A	1	746.0	06		01343
10x 50 x 1	500	914 A	1244 A	1	932.0	06		01509
5x 63 x 1	315	779 A	1061 A	1	590.0	06		01324
10x 63 x 1	630	1088 A	1481 A	1	1180.0	06		01510
10x 80 x 1	800	1305 A	1777 A	1	1490.0	06		01061
10x 100 x 1	1000	1550 A	2110 A	1	1870.0	06		01273

the pure copper weight is given, this does not include the weight of the insulation.



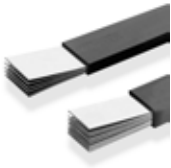
Holder for laminated busbars

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 1x lam. Cu of 6x 15.5 x 0.8 to 10x 63 x 1	3	11.3	06		01298
for multiple fastening for lam. Cu of 5x 40 x 1 to 10x 100 x 1	4	16.6	06		01299

for mounting on standard C-rail



Laminated copper busbars



Laminated copper busbar, tin-plated, insulated (105°C), length 2 m

Dimensions (number of laminates x width x thickness)	Crosssection mm ²	Rated current 30 K	Rated current 50 K	Pack size	Weight kg/100 u.	PG		Part No.
4x 15.5 x 0.8	49.6	205 A	279 A	1	92.8	06		01089
6x 15.5 x 0.8	74.4	257 A	350 A	1	139.2	06		01090
10x 15.5 x 0.8	124	345 A	470 A	1	232.0	06		01091
6x 20 x 1	120	351 A	477 A	1	225.0	06		01063
10x 20 x 1	200	470 A	640 A	1	375.0	06		01064
5x 24 x 1	120	363 A	494 A	1	225.0	06		01075
10x 24 x 1	240	534 A	727 A	1	450.0	06		01076
5x 32 x 1	160	453 A	617 A	1	299.0	06		01095
10x 32 x 1	320	657 A	894 A	1	598.0	06		01096
5x 40 x 1	200	541 A	736 A	1	373.0	06		01097
10x 40 x 1	400	774 A	1053 A	1	746.0	06		01099
5x 50 x 1	250	646 A	880 A	1	466.0	06		01112
10x 50 x 1	500	914 A	1244 A	1	932.0	06		01113
10x 63 x 1	630	1088 A	1481 A	1	1180.0	06		01123

the pure copper weight is given, this does not include the weight of the insulation.



Holder for laminated busbars

Type	Pack size	Weight kg/100 u.	PG		Part No.
for 1x lam. Cu of 6x 15.5 x 0.8 to 10x 63 x 1	3	11.3	06		01298
for multiple fastening for lam. Cu of 5x 40 x 1 to 10x 100 x 1	4	16.6	06		01299

for mounting on standard C-rail



Connection bars for PE or N



PE and N busbar, current capacity 63 A, with self-locking screws

Connection mm ²	Number of contact positions	Dimensions L x W x D	Pack size	Weight kg/100 u.	PG		Part No.
10	8 terminal points	52 x 9 x 6.5	100	2.2	06		01126
	12 terminal points	78 x 9 x 6.5	100	3.2	06		01127
	16 terminal points	104 x 9 x 6.5	100	4.3	06		01128
	24 terminal points	156 x 9 x 6.5	50	6.7	06		01129
	151 terminal points	1000 x 9 x 6.5	1	43.0	06		01130

Connection terminal

35	suitable for PE and N busbars 01126 - 01130		100	1.4	07		01114
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PE and N busbar, with terminal clamp, current capacity 63 A, with self-locking screws

Connection	Type	Dimensions L x W x H	Pack size	Weight kg/100 u.	PG		Part No.
without terminal clamp	6 terminal points 10mm ² , screw-on, 61.5 mm long	62 x 9 x 6.5	100	2.5	06		01926
1 terminal clamp 25 mm ²	12 terminal points 10mm ² , screw-on, 124.0 mm long	124 x 9 x 6.5	50	5.5	06		01927
2 terminal clamps 25 mm ²	18 terminal points 10mm ² , screw-on, 186.5 mm long	187 x 9 x 6.5	60	9.6	06		01928
3 terminal clamps 25 mm ²	24 terminal points 10mm ² , screw-on, 249.0 mm long	249 x 9 x 6.5	50	11.5	06		01929
4 terminal clamps 25 mm ²	30 terminal points 10mm ² , screw-on, 311.5 mm long	312 x 9 x 6.5	50	16.7	06		01930
5 terminal clamps 25 mm ²	36 terminal points 10mm ² , screw-on, 374.0 mm long	374 x 9 x 6.5	100	17.6	06		01931
15 terminal clamps 25 mm ²	96 terminal points 10mm ² , screw-on, 1000 mm long	1000 x 9 x 6.5	1	48.0	06		01932

for 10 mm² incoming connection the connection clamp must be reversed

Connection clamp

25 mm ²	for PE/N bars 01926 - 01932		100	0.3	06		08824
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Clip-on mounting

for mounting rail 35 x 7.5	for PE/N bars 01126 - 01129 and 01926 - 01932		100	0.2	06		08825
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Terminal support, for PE and N busbars

screw-on			50	1.4	06		01120
snap-on to mounting rail TH 35			50	1.6	06		01121
screw-on			50	0.1	06		01119

Connection and connecting terminals



Insulated PE and N terminal

Rated current		Connection mm ²	Type	Pack size	Weight kg/100 u.	PG		Part No.
63 A	*	7x 10 mm ²	PE-terminal, green/yellow	50	2.7	06		01144
63 A	*		neutral terminal, blue	50	2.7	06		01143
63 A	**		PE-terminal, green/yellow	50	2.9	06		01258
63 A	**		neutral terminal, blue	50	2.9	06		01257

* for mounting on flat busbars 12 x 2 mm

** for clip-on mounting

Connecting terminal

160 A	70	60 mm long, both sides clamp	10	9.1	10		03193
		125 mm long, both sides clamp	10	14.6	10		03173
250 A	120	100 mm long, both sides screw M10	10	16.8	10		03195
		200 mm long, both sides screw M10	10	30.6	10		03196
630 A	240	100 mm long, both sides screw M12	10	25.6	10		03197
		200 mm long, both sides screw M12	10	42.0	10		03198

Label, self-adhesive, Ø 15 mm

PE green-yellow	200	0.1	06		78442
N blue	200	0.1	06		78443
PE/N green-yellow / blue	200	0.1	06		78447

Terms of delivery and payment

The current terms of delivery and payment apply. Further information is available at www.woehner.com under the heading "Media/ Downloads".

General technical information

Wöhner busbar systems and components are the result of expert development based on many years of experience. They have been exhaustively tested and hold many approvals. The correct selection of busbars and components is the responsibility of the system designer. For parts used in "low-voltage switching device assemblies" as defined by the IEC or EN 61439 standards, the planning, construction requirements and the required design verification are mandatory. In order to safely exclude risks to people and property when handling electrical power, expert handling of the equipment and compliance with the applicable regulations are fundamental requirements.

In particular, installation, assembly, maintenance, modifications and retrofitting must only be carried out in compliance with the country-specific installation and safety regulations for work on power installations, as well as in consideration of the further customer-specific requirements.

Operating conditions

Unless special instructions are given, the information contained in the documentation applies for the recommended mounting position and the ambient conditions of indoor installation (contamination level 3; 2 in exceptional cases) according to IEC/EN 61439-1/-2/-3. The user must inform the manufacturer about any special operating conditions that deviate from this standard!

Plant-specific reduction factors must be considered, depending on the exact conditions of use. The assumed loading factors listed below represent guide values and refer to a maximum +35 °C temperature of the air directly surrounding the products.

In products intended to hold fuse-links, please observe the requirements governing connected cross-sections from the relevant product standards. Comply with the stated temperature specifications of all plastics used. Some of the material properties described here refers to several products. In isolated cases, values may exceed the levels stated.

Wöhner worldwide

Information to the Wöhner subsidiaries and agencies are available at www.woehner.com under the heading "Contact".

Technical standards must be observed and the interaction of the components must be taken into account. It is essential that all accessible parts are electrically isolated during installation and maintenance. All connections must be correctly tightened with the specified torque (Md), correct gauges must be used and components that provide protection against accidental contact with live parts must be fitted. After transportation, all connections must be checked and, if necessary, re-tightened.

Products are to be used and operated correctly in the manner intended.

The technical information contained in the Manual and the installation instructions should be observed and retained for future modifications, maintenance or additions to the installation. Wöhner reserves the right to make modifications to its components, as the result of developments and technical advances.

IEC 61439-2 Table 101	
Type of load	Assumed loading factor
Distribution – 2 and 3 circuits	0.9
Distribution – 4 and 5 circuits	0.8
Distribution – 6 to 9 circuits	0.7
Distribution – 10 or more circuits	0.6
Electric actuator	0.2
Motors ≤ 100 kW	0.8
Motors > 100 kW	1.0

IEC 61439-3 Table 101	
Number of outgoing circuits	Assumed loading factor
2 and 3	0.8
4 and 5	0.7
6 to 9 inclusive	0.6
10 and above	0.5

Further information for each article are available at www.woehner.com under the heading “Products”.

We recommend vertically mounting the device on a horizontal busbar system. All information and test values for busbar systems refer to the use of flat copper bars according to EN 13601:2013 or section busbars according to EN 13605:2013. For further information, see section “Use of busbars”.

The fixing handle must be placed on top for switchgears mounted vertically. For this mounting position, the assumed loading factors shown in table 101 apply for the components with the worst-case permissible power dissipation and the ambient conditions as per IEC/EN 61439-2/-3, section 7.1.1.1.

In case of deviating mounting positions and conditions, all influencing factors on maximum temperature must be accounted for by applying additional correction factors. For example:

- power dissipation of the fuse-links and the devices in operation
- simultaneous full and partial load cycles
- arrangement in the system, mutual influence of the devices
- busbar cross-section, conductor cross-section

Requirements for the dimensioning of parallel main circuits in a switchgear and controlgear assembly

When planning a switchgear and controlgear assembly, the interactions of the devices in parallel current paths must be considered.

The standard takes account of this situation by means of a switchgear assemblies rated diversity factor (RDF). This states the factor of the rated current to which all power circuits of a power distribution unit in a switchgear assembly can be permanently and simultaneously subjected. Here, the values from the table in the section “Operating conditions” apply, in accordance with IEC/EN 61439-2/-3.

If, for example, a SECUR®60Classic PowerLiner is equipped with 35 A - D02 fuses in a power distribution unit, the switchgear device will be able to carry its nominal current of 35 A continuously on its own. However, this value must be reduced through thermal interaction with neighbouring devices. The rated diversity factors must always be selected in conformity with the application of the switch fuse unit, in accordance with IEC/EN 61439-2/-3. See table in section “Operating conditions”.

- ambient temperature, flow conditions, ventilation or cooling

Mounting positions are prohibited where gravity and direction of mounting are opposed.

Air and creepage distances must be calculated in compliance with IEC/EN 60664-1 (VDE 0110 part 1). For values of 12 mm and greater, these requirements are automatically satisfied up to 690 V AC in compliance with IEC. Additional specifications, such as the minimum distance to earthed parts, must be observed. This is especially relevant for applications in compliance with UL.

Detrimental effects from chemical substances during storage, processing and operation must be prevented.

In order to ease the locking of the busbar components and the insertion of the NH fuse units, the spring clips will be lubricated with special grease during manufacturing. On other parts, especially on screw threads, it must be ensured that no supplementary change of the friction coefficient takes place.

It must always be ensured that the assumed loading factor applies to the rated current of the applied fuse-link and not the rated current of the fuse-combination unit or fuse-base. It is also advisable to use fuse-links with silver-plated contacts. The size of the copper conductors must be in accordance with the applicable product standard, e.g. IEC/EN 60947-3 for SECUR®60Classic PowerLiner.

Non-compliance with these assumed loading factors leads to unacceptably high temperatures in switchgear assemblies. This may in turn result in damaged or spurious tripping of switchgear devices. Both fuse-links and cable insulation age rapidly when exposed to high temperatures.

For the correct design and layout of conductors, accumulation – as well as the ambient temperature – need to be taken into consideration. Here too, mutual thermal influence leads to high temperatures and so to lower permitted currents. It is important to consider size and the corresponding factors.

Conductor connections

Specifications regarding conductor connection terminals apply for all copper conductors. The maintenance-free resistance to ageing for selected connections has been verified by testing.

The contact positions need to be checked, taking the operating conditions and applicable application-related specifications into account.

In the case of unfavourable operating conditions or frequent temperature fluctuations at the contact positions, shorter inspection intervals may be necessary. Temperature measurement strips that record the maximum values can be placed in the immediate vicinity of the contact positions and used for objective assessment during the regular tests.

All contact positions are suitable for connecting one conductor, unless expressly otherwise indicated on the device, in the installation instructions or in the technical description on our website. Devices with dual-function terminals have two separate contact positions.

The tightening torques specified on the device, in the installation instructions or in the technical description on our website must always be applied. Where no limits are specified, the tolerance on the tightening torque M_d of screw and clamp connections may be a maximum of $\pm 20\%$ of the nominal value.

If no range is specified for terminal cross-sections, the terminal range is limited downwards to the next two smaller cross-sections. If no information about the conductor type is present on the device, this can be found in the installation instructions or the technical description on our website.

The relationships between conductor cross-sections in mm^2 and AWG / MCM sizes are listed below:

0.75 mm^2	AWG 18 = 0.82 mm^2
1.5 mm^2	AWG 16 = 1.3 mm^2
2.5 mm^2	AWG 14 = 2.1 mm^2
4 mm^2	AWG 12 = 3.3 mm^2
6 mm^2	AWG 10 = 5.3 mm^2
10 mm^2	AWG 8 = 8.4 mm^2
16 mm^2	AWG 6 = 13.3 mm^2
25 mm^2	AWG 4 = 21.2 mm^2
35 mm^2	AWG 2 = 33.6 mm^2
50 mm^2	AWG 0 = 53.5 mm^2
70 mm^2	AWG 2/0 = 67.4 mm^2
95 mm^2	AWG 3/0 = 85.0 mm^2
120 mm^2	250 MCM = 127 mm^2
150 mm^2	300 MCM = 152 mm^2
185 mm^2	350 MCM = 177 mm^2
240 mm^2	500 MCM = 253 mm^2
300 mm^2	600 MCM = 304 mm^2

Conductor types are designated as follows:

Description	Short name	Standard designation
solid round	re	Class 1 (IEC / EN 60228)
stranded round	rm	Class 2 (IEC / EN 60228)
solid sectored	se	Class 1 (IEC / EN 60228)
stranded sectored	sm	Class 2 (IEC / EN 60228)
flexible	f	Class 5 (IEC / EN 60228)
stranded	str	Class B (UL 486E)

The following abbreviations are also used:

Laminated copper busbar	lam. Cu
Wire-end ferrule	AE

Wire-end ferrules are only permitted for applications in compliance with IEC / EN standards. Wöhner has tested the use of wire end ferrules. This does not result in a general approval for different ferrules and crimping methods. The maximum conductor cross-sections may need to be reduced. Conductor connections are to be set up with consideration given to the requirements as per IEC / EN 60999-1/-2. Conductor connections are to be set up such that no load tension and no alternating bending load occur in the application.

Additional information on aluminium conductor connections

Optimum routing and fastening of the cables is achieved through the shaping and dimensioning of the contact pieces in the contact position. The contours present in the contact pieces enable an electrical connection with low contact resistance. Any impurity layers present to a limited extent following the proper pretreatment of aluminium conductors are penetrated by special crimping contours. When the specified tightening torques are observed, the required contact force is applied to the contact positions. Due to the elastic behaviour of the connection terminals, periodic retightening of the clamping screws is not necessary. Retightening of the clamping screws of the connection terminal during maintenance is expressly not recommended and can result in degradation of the clamp.

To achieve a high-quality connection of aluminium conductors with low contact resistances, proper pretreatment is essential. In addition, immediately after shortening and stripping, the surfaces on the ends of the conductors are to be freed of all impurity or oxide layers. The impurity layers are to be removed with a suitable knife or a suitable wire brush; it is essential to prevent deposits of metal residues. Immediately thereafter, the surfaces of the conductor ends must be protected against further oxidation by a generous application of a suitable grease (acid- and alkali-free) or an aluminium contact paste. The proper and – with sectored conductors – position-oriented connection in the contact positions must be performed immediately thereafter. Proper positioning of the conductor ends in the contact positions is to be ensured; the clamping screws are to be tightened once to the specified tightening torque.

Tests of electrical resistance to ageing were performed to verify the resistance to ageing of connection terminals for aluminium conductors. The aluminium conductors were pretreated prior to starting the tests according to the relevant recommendations for the removal of impurity and oxide layers. Immediately thereafter, the surfaces on the conductor ends were protected against further oxidation by means of grease and connected in the contact positions. The clamping screws were tightened to the respective, specified tightening torque. During the conducted test certifications, the maximum temperatures that occur in normal operation were taken into account. The clamping screws of the test objects were not retightened at any point during the entire loading period. Each of the cyclical current loads was performed under constant test conditions.

To ensure proper operation of switching device combinations, inspections must be performed at defined intervals. The necessary intervals between these inspections depend largely on the given installation and operating conditions. The inspections of contact positions with aluminium conductors are, for practical reasons, performed by way of visual examinations and, if necessary, temperature measurements. A high contact quality is ensured by observing the specifications for the proper connection of aluminium conductors. In addition to selecting appropriate connection terminals for the aluminium conductors with respect to conductor cross-sections and conductor types, the specifications for the pretreatment of aluminium conductors must be observed. Make certain that the required work steps up to tightening of the clamping screws to the specified tightening torques are performed in immediate succession. Subsequent tightening of the clamping screws results in no improvement of the contact quality and may even have a negative impact.

Special requirements for sizing AC string collectors

When AC string collectors are used, a few strings supply one inverter. The power of several string inverters is pooled on the alternating current side, e.g. via a 60 mm busbar system.

When dimensioning components for a busbar system of this kind, the direction of the energy – which is inverted to that of industrial applications – is unimportant. The same types of fuse (gG) are also used. It is the cables and leads going to the inverter that have to be protected from overload and short circuit. However, the rated diversity factor of the switch-gear and the simultaneity factor (= 1) of this application do not match.

This means, for example, that from 10 devices or more, the SECUR®60Classic PowerLiner (rated current 63 A) with side-mounted module and 35 A fuse-links may be operated at 21 A maximum. Here, the rated current of the fuse is reduced to 60 %. If the maximum current of the inverter does not exceed this value, and if fuse protection at 35 A is permitted by the wiring and the inverter datasheet, the dimensions are correct. If higher power ratings with correspondingly higher currents need to be pooled, there are two choices for adaptation:

With the right conductor dimensions, the nominal current of the fuse-links can be increased. However, this must fit in with the requirements for inverter fuse protection. In this example the use of a 50 A fuse permits a maximum current of 30 A.

Alternatively, the thermal influence of the switchgear is reduced by modifying the layout. With the SECUR®60Classic PowerLiner fuse-switch-disconnector, in a test with 6 power circuits, a distance equal to the width of two devices (54 mm) between the switchgear devices increased the rated diversity factor from 0.7 to 0.9. This is only possible because the distance considerably reduces the thermal influence of the fuse-links. Based on the example with the 35 A fuse, the new arrangement would enable an inverter current of 31 A.

If the conductors to the inverters in the AC string collector are routed in a cable duct (routing method F), and ambient temperatures of 50 °C are anticipated there, when 6 conductors are used the permitted current capacity reduces to less than 50 % of the nominal current.

When cables and fuses have the correct dimensions, they also produce less dissipation, and therefore less waste heat. This in turn makes both cabinet selection and thermal management easier.

NH (busbar mounted) fuse-switch-disconnectors and NH in-line fuse-switch-disconnectors

NH fuses are only intended for use by authorized electricians or trained electrical personnel, see IEC / EN 60269-2.

When switching devices observe the following instructions:

- only electricians or personnel trained in electrical engineering are permitted to operate the equipment (disconnect, switch on, switch off or change fuses) in accordance with VDE 0105-100

- quick activation of fuse lid using the relevant operating handle
- before switching on, care must be taken that the fuse lid is located correctly in the open position
- the specifications for the IP protection class only apply when the fuse lid is closed

Use of busbars

To ensure safe mounting and connection of the single and multi-pole busbar components, the busbars used must comply with the adjacent tolerances. The busbars supplied by Wöhner meet these requirements.

Tensile strength: min. 300 N / mm²

Permitted tolerances:

Radius R 0.3 ... 0.7

Width: + 0.1 / - 0.5

Thickness: + 0.1 / - 0.1

Centre distance:

+ 0.5 / - 0.5 (60 mm system)

+ 1.0 / - 1.0 (100 mm system, 185 mm system)

Deviation in the contact level: 0.4

Use of comb-type busbars

A range of Wöhner fuse-holders and switches are suitable for use with comb-type busbars. We recommend the use of the comb-type busbars listed at the relevant places in the current Wöhner Manual (pollution degree 2 in accordance with IEC/EN 61439-1/-2). Ensure that the required air and creepage distances left in standard installation positions are

observed (comb-type busbars are angled towards the operator). Power must be supplied via the connection terminals sold separately by Wöhner. The additional connection terminal is not required for Wöhner products with double-function terminals. Connect terminals using the maximum torque stated on the fuse-holder.

Machining and use of plastic sections

The sections listed in the Wöhner Manual as covers for busbars or busbar systems and bottom troughs have been optimised with regard to their mechanical, thermal and electrical properties. Take particular care when mechanically cutting the profiles to avoid the formation of cracks (narrow saw blade, high speed of cutting, low tooth advance and strong saw guiding).

The cutting of profiles with a circular saw and an AKE circular saw blade for plastics is reliable with the following specific values:

D = 300 mm, B = 2.2 mm, Z = 120 W
with 5° negative tooth change (w),
cutting speed of 50 - 65 m/s,
tooth feed 0.05 - 0.1 mm.

The plastic parts must be clamped in order to exclude vibrations.

When processing and using plastic profiles, contact with oil, grease and other chemicals must be avoided.

Dimensions

All specified length dimensions are always in mm unless otherwise indicated. Mounting rails of adapters and clip-on fixings generally comply with IEC/EN 60715.

CE marking

In association with the 2006/95/EG low voltage directive, Wöhner products are subject to the CE marking commitment. The CE mark is applied via the label on the packaging and on the products themselves in compliance with the provisions of the Low Voltage Directive. Wöhner thus confirms its compliance with the directive.

The corresponding EU Declarations of Conformity for each article are available at www.woehner.com under the heading "Products".

Additional requirements in accordance with UL



Components that have also been tested for feeder circuits up to 600 V AC in compliance with UL 508 A are labelled in the approval overview.

Directives

RoHS Directive

Currently, Wöhner products do not come under the scope of RoHS Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment, or WEEE Directive 2012/19/EU governing waste electrical and electronic equipment. Irrespective of these directives, measures have been initiated, which ensure that the use of pollutant-free plastics complies with the RoHS Directive. The metallic surface coatings shall correspond to the substance ban in accordance with the RoHS Directive. Fuse-links may contain function-specific components which do not comply with the RoHS Directive.

REACH Regulation

Our products are “products” within the meaning of the REACH Regulation (EC) No. 1907/2006. The information requirements under Article 33 regarding substances in products applies only to so-called substances of very high concern which meet the criteria listed Article 57. Wöhner reviews and updates the REACH Regulation in accordance with Annex VII of the Candidate List (SVHC list).

WEEE Directive

The products from Wöhner are marked accordingly with the crossed-out dustbin symbol.

Certificates are available at www.woehner.com under the heading “Media/Downloads”.

Insulation coordination

All specifications apply for overvoltage category III in accordance with IEC/EN 61439-1. The usability for other overvoltage categories can be derived based on the rated impulse withstand voltage U_{imp} .

The following clearances must be maintained:

Rated impulse withstand voltage U_{imp}	Minimum clearance
4 kV	3.0 mm
6 kV	5.5 mm
8 kV	8.0 mm
12 kV	14 mm

All specifications apply for pollution degree 3 in accordance with IEC/EN 61439-1 (Wöhner uses insulating parts made from materials in material class IIIa).

The following creepage distances must be maintained:

Rated insulation impulse withstand voltage U_i	Creepage distance
400 V AC/DC	6.3 mm
500 V AC/DC	8.0 mm
690 V AC/DC	10.0 mm
800 V AC/DC	12.5 mm
1000 V AC/DC	16.0 mm
1250 V DC	20.0 mm
1500 V DC	25.0 mm

The user is responsible for maintaining the proper clearances and creepage distances, taking the installation conditions into account. The maximum permitted power dissipation of the fuse-links must be taken into account with components having fuses. Short circuit data for DC applications is available upon request.

You can find an overview of the applicability of Wöhner products in terms of the operation voltage (according to IEC standards) at www.woehner.com/insulation_coordination

Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size
01008	3.8, 5.1	3	01162	3.5	1	01299	7.18, 7.19	4
01025	3.4	2	01165	2.2	1	01300	3.5	3
01026	3.4	10	01166	2.2, 3.9	12	01301	3.5	3
01027	7.18	1	01170	3.19, 3.30	100	01314	2.1, 2.5	2
01028	7.18	1	01182	3.22, 3.24, 6.14	3	01317	2.1, 2.5	10
01029	7.18	1	01184	7.18	1	01318	3.6, 5.1, 5.3	6
01035	7.18	1	01185	3.8, 5.1	3	01319	3.6, 5.3	6
01047	3.7, 5.2	6	01186	3.8, 5.1	3	01320	3.4	8
01054	7.18	1	01187	3.3	1	01323	7.18	1
01059	7.9	1	01188	5.2	1	01324	7.18	1
01060	7.18	1	01189	5.2	1	01325	3.2	10
01061	3.8, 5.2, 7.18	1	01190	3.3	1	01343	7.18	1
01063	7.19	1	01193	2.2, 3.9	3	01355	3.30	1
01064	7.19	1	01194	7.18	1	01356	3.1	10
01068	2.2, 3.6	25	01196	7.18	1	01357	3.1	10
01069	3.6, 3.7, 3.8, 5.2, 5.3	3	01198	6.2, 6.4, 6.8	3	01358	3.1	10
01070	3.6, 3.8, 5.2, 5.3	3	01199	3.5	1	01359	3.1	10
01071	3.6, 3.8, 5.2, 5.3	3	01201	3.7	3	01360	3.9	1
01075	7.19	1	01202	3.7	3	01361	3.9	1
01076	7.19	1	01203	2.2, 3.6, 5.1	25	01362	3.9	1
01089	7.19	1	01204	3.3	1	01363	3.2	1
01090	7.19	1	01206	3.7	10	01364	2.5	1
01091	7.19	1	01223	3.3	1	01367	2.5	1
01092	3.8	3	01224	3.3	1	01369	5.3	6
01093	2.2, 3.6	20	01225	5.2	1	01370	2.5	1
01094	3.8, 5.1	3	01226	5.2	1	01371	2.5	2
01095	7.19	1	01227	3.3	1	01373	3.2	4
01096	7.19	1	01228	6.2, 6.3, 6.4, 6.8	3	01374	2.1	10
01097	7.19	1	01229	3.3	1	01376	2.5	10
01098	7.9	20	01231	3.2	3	01379	5.3	12
01099	7.19	1	01232	3.2	2	01380	5.3	12
01100	7.9	20	01234	3.2	4	01401	2.2	1
01103	7.7	20	01236	3.4	1	01413	3.6	10
01104	7.7	20	01237	3.4	1	01416	4.1	1
01112	7.19	1	01238	3.4	1	01417	3.4	2
01113	7.19	1	01240	3.5	1	01420	4.1	1
01114	7.20	100	01243	3.5	1	01421	4.1	1
01116	3.2	4	01244	2.1, 3.4	10	01422	3.2	2
01119	7.20	50	01245	2.1, 3.4, 4.1	10	01423	4.2	3
01120	7.20	50	01249	3.3	1	01424	3.18	10
01121	7.20	50	01250	3.3	1	01425	3.2	4
01123	7.19	1	01251	4.1	5	01426	2.5	1
01126	7.20	100	01252	3.4	5	01427	2.5	1
01127	7.20	100	01253	7.18	1	01430	4.1	4
01128	7.20	100	01255	7.18	1	01431	4.1	1
01129	7.20	50	01256	7.18	1	01432	4.1	2
01130	7.20	1	01257	7.21	50	01433	4.1	8
01131	3.2	5	01258	7.21	50	01434	4.1	4
01132	3.2	4	01272	2.1, 2.5	10	01435	4.1	3
01135	2.2, 3.6	6	01273	3.8, 5.2, 7.18	1	01436	4.1	1
01136	3.4	1	01274	3.9	3	01437	4.2	1
01137	3.4	1	01275	3.9	3	01438	4.2	1
01138	3.19, 3.30	30	01284	2.2, 3.6	100	01439	4.2	1
01139	3.30	10	01285	2.2, 3.6	50	01440	4.1	2
01140	3.3	1	01287	2.2, 3.6	25	01441	4.2	1
01141	3.9	3	01289	2.2, 3.6	100	01442	4.2	1
01143	7.21	50	01290	2.2, 3.6	50	01443	4.2	1
01144	7.21	50	01292	2.2, 3.6	25	01444	4.1	2
01145	3.9	3	01295	3.9	1	01480	4.1	3
01147	3.5	1	01298	7.18, 7.19	3	01481	4.1	3

Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size
01482	4.1	1	01624	3.3	1	01759	3.6, 5.3	3
01484	3.2, 3.5	10	01625	3.3, 4.1	1	01760	3.6, 5.1, 5.3	3
01485	3.1	10	01626	4.1	1	01765	4.1	1
01495	3.1	172	01628	4.1	1	01766	4.1	1
01498	3.18	10	01647	3.18	10	01767	4.1	1
01500	3.1	10	01670	7.8	5	01823	3.9	6
01508	3.1	10	01671	7.8	5	01827	3.9	6
01509	3.8, 5.2, 7.18	1	01672	7.8	5	01829	3.9	3
01510	3.8, 5.2, 7.18	1	01673	7.8	5	01831	5.2	1
01512	3.7	25	01674	7.8	5	01838	5.2	1
01513	3.8, 5.1	3	01675	7.8	5	01886	3.9	3
01514	3.7, 5.2	20	01676	7.8	5	01890	3.30	3
01515	3.1	2	01677	7.8	5	01906	3.8, 5.1	3
01518	3.1	2	01678	7.8	5	01907	3.8, 5.1	3
01537	3.5	1	01679	7.8	5	01911	3.8, 5.1	3
01538	3.5	1	01685	7.6	10	01926	7.20	100
01539	3.6	1	01686	7.6	10	01927	7.20	50
01540	3.6	1	01687	7.6	10	01928	7.20	60
01541	7.8	50	01688	7.6	10	01929	7.20	50
01542	7.8	50	01689	7.6	10	01930	7.20	50
01543	7.8	50	01690	7.6	10	01931	7.20	100
01544	7.8	50	01691	7.6	10	01932	7.20	1
01545	7.8	50	01692	7.6	10	01934	3.8, 5.1	3
01546	7.8	50	01693	7.6	10	01935	3.8, 5.1	3
01547	7.8	50	01694	7.6	10	01936	3.8, 5.1	3
01548	7.8	50	01697	7.6	10	01980	3.18	10
01549	7.8	50	01698	7.6	10	01981	3.18	10
01550	7.8	50	01701	7.8	25	01990	3.9	6
01554	3.4	1	01702	7.8	25	01996	3.7	10
01555	3.4	2	01703	7.8	25	01997	3.7	10
01562	2.2	6	01704	7.8	25	01998	7.9	1
01563	3.5	8	01705	7.8	25	03161	7.10	3
01573	3.2, 3.30	10	01706	7.8	25	03162	7.10	3
01583	7.18	1	01707	7.8	25	03163	7.10	3
01586	3.7	10	01708	7.8	25	03164	7.10	3
01587	3.7	10	01709	7.8	25	03173	6.12, 7.21	10
01590	3.6	1	01715	7.6	50	03181	7.11	1
01592	1.1	1	01716	7.6	50	03182	7.11	1
01593	1.1	1	01717	7.6	50	03183	7.11	1
01596	3.6	1	01718	7.6	50	03185	7.10	3
01597	3.6	1	01719	7.6	50	03193	6.12, 7.21	10
01599	3.4	1	01720	7.6	50	03195	6.12, 7.21	10
01601	3.1	1	01721	7.6	50	03196	6.12, 7.21	10
01602	3.1	1	01722	7.6	50	03197	6.12, 7.21	10
01603	3.30	10	01723	7.6	50	03198	6.12, 7.21	10
01608	3.3	1	01724	7.6	50	03199	3.22	1
01609	3.3	1	01725	7.6	50	03213	6.12	3
01610	3.3, 5.3	1	01726	7.6	50	03214	7.16	1
01611	7.18	1	01727	7.6	50	03215	7.16	1
01612	7.18	1	01728	7.6	50	03217	7.16	1
01613	7.18	1	01729	7.7	50	03219	7.16	1
01614	7.18	1	01730	7.7	1	03220	7.16	1
01615	3.8, 5.2, 7.18	1	01741	7.8	25	03221	7.16	1
01616	3.7	6	01747	3.7	25	03222	7.16	1
01618	2.1, 2.5, 3.3	1	01748	3.7	20	03224	7.16	1
01619	3.3	1	01749	3.7	6	03225	7.16	1
01620	3.3	1	01753	3.5	1	03226	7.16	1
01621	3.3	1	01754	3.5	1	03227	7.16	1
01622	3.3	1	01756	3.6	1	03228	7.15	1
01623	2.1, 3.3	1	01757	3.6	1	03229	7.15	1

Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size
03230	7.15	1	03577	7.11	3	05802	7.17	20
03231	7.15	1	03579	7.11	3	08824	7.20	100
03233	7.15	1	03581	7.11	3	08825	7.20	100
03234	7.15	1	03582	7.11	3	11225	1.1	1
03235	7.15	1	03620	6.12	10	11405	1.1	1
03236	7.15	1	03654	3.22	4	30322	3.9	1
03238	7.15	1	03656	3.22	4	30473	3.9	1
03239	7.15	1	03657	6.12	10	30894	3.29, 6.14	3
03240	7.15	1	03668	6.12	10	31004	6.3, 6.5	100
03241	7.15	1	03693	3.22	1	31005	7.7	20
03243	7.10	3	03727	3.29, 6.14	3	31006	7.7	20
03288	6.11	3	03757	6.12	3	31008	7.12	10
03289	6.11	3	03758	6.11	12	31009	7.12	10
03290	6.11	3	03759	6.11	4	31010	7.12	10
03293	6.11	3	03760	6.11	12	31011	7.12	10
03294	6.11	3	03761	6.11	4	31012	6.2, 6.3, 6.4, 6.8	10
03299	3.22	1	03762	6.11	3	31014	6.2, 6.3, 6.4, 6.8	25
03300	3.22	1	03763	6.11	1	31017	7.12	10
03301	3.22	1	03765	6.11	1	31024	6.3	25
03350	6.11	10	03766	6.11	3	31026	6.3	10
03351	6.11	4	03767	6.11	1	31027	6.2, 6.3, 6.4, 6.5, 6.8	50
03354	6.11	10	03768	6.11	3	31028	6.2, 6.3, 6.4, 6.5, 6.8	25
03355	6.11	4	03769	6.11	1	31029	6.2, 6.3, 6.4, 6.5, 6.8	25
03359	6.12	10	03849	3.24, 6.16	10	31039	6.8, 6.9	10
03377	6.12	100	03908	7.10	3	31042	6.8, 6.9	20
03502	7.10	1	03909	7.10	3	31056	6.2, 6.3, 6.4, 6.8	4
03519	6.12	10	03910	7.10	3	31057	6.2, 6.4, 6.8	10
03523	7.10	3	03911	7.10	3	31070	3.17	10
03524	7.10	3	03912	7.10	3	31071	3.17	10
03525	7.10	3	03913	7.10	3	31072	3.17	5
03526	7.10	3	03914	7.10	3	31073	3.17	5
03527	7.10	3	03915	7.10	3	31084	6.2, 6.3, 6.4, 6.8	10
03528	7.10	3	03916	7.10	3	31085	6.2, 6.3, 6.4, 6.5, 6.8	25
03529	7.10	3	03917	7.10	3	31086	6.3, 6.5	100
03530	7.10	3	03918	7.10	3	31098	7.9	20
03531	7.10	3	03919	7.10	3	31100	7.9	20
03532	7.10	3	03924	7.11	3	31101	6.8	25
03533	7.10	3	03929	7.11	3	31102	6.8	10
03534	7.10	3	03930	7.11	3	31103	6.8	50
03535	7.10	3	03942	7.11	3	31104	7.7	20
03536	7.10	3	03943	7.11	3	31110	6.6	12
03550	7.11	3	03946	7.11	3	31111	6.6	6
03552	7.11	3	03947	7.11	3	31112	6.6	6
03553	7.11	3	05188	6.12	50	31113	6.6	4
03555	7.11	3	05779	7.17	100	31114	6.6	3
03556	7.11	3	05780	7.17	20	31115	6.6	6
03557	7.11	3	05781	7.17	20	31116	6.6	3
03558	7.11	3	05782	7.17	20	31117	6.6	3
03559	7.11	3	05783	7.17	20	31118	6.6	2
03560	7.11	3	05784	7.17	20	31119	6.6	1
03561	7.11	3	05786	7.17	20	31120	6.6	6
03566	7.11	3	05787	7.17	20	31121	6.6	3
03568	7.11	3	05788	7.17	20	31122	6.6	3
03569	7.11	3	05789	7.17	20	31123	6.6	2
03570	7.11	3	05790	7.17	20	31124	6.6	1
03571	7.11	3	05791	7.17	20	31130	6.6	12
03572	7.11	3	05792	7.17	20	31132	6.6	6
03573	7.11	3	05793	7.17	20	31133	6.6	4
03574	7.11	3	05800	7.17	20	31135	6.6	6
03575	7.11	3	05801	7.17	20	31138	6.6	2

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31140	6.6	6	31242	7.14	10	31349	7.15	10
31143	6.6	2	31243	7.14	10	31351	7.15	10
31157	6.8	50	31244	7.14	10	31353	7.15	10
31158	3.18	1	31245	7.14	10	31354	7.15	10
31168	6.6	1	31246	7.14	10	31355	7.15	10
31171	6.6	1	31247	7.14	10	31357	7.15	10
31173	6.5	9	31248	7.14	10	31358	7.15	10
31174	6.5	3	31249	7.14	10	31359	7.15	10
31175	6.5	9	31250	7.14	10	31360	7.15	10
31176	6.5	3	31251	7.14	10	31361	7.15	10
31182	7.12	10	31252	1.2, 2.3, 3.16, 7.14	10	31362	7.15	10
31183	7.12	10	31258	6.6	12	31363	7.15	10
31184	7.12	10	31269	6.8	1	31364	7.15	10
31185	7.12	10	31273	6.6	12	31366	7.12	10
31186	7.12	10	31274	6.6	4	31368	7.12	10
31187	7.12	10	31275	6.7	12	31370	7.12	10
31188	7.12	10	31276	6.7	6	31371	7.12	10
31189	1.2, 2.3, 3.16, 7.12	10	31277	6.7	4	31372	7.12	10
31190	7.12	10	31278	6.7	6	31373	7.12	10
31191	7.12	10	31279	6.7	3	31374	7.12	10
31192	7.12	10	31280	6.7	2	31385	7.12	10
31193	7.12	10	31281	6.7	6	31386	7.12	10
31194	7.12	10	31282	6.7	3	31387	7.12	10
31195	7.12	10	31283	6.7	2	31390	2.6	1
31196	7.12	10	31284	6.10	6	31394	7.14	10
31198	7.12	10	31285	6.10	3	31395	7.14	10
31199	7.12	10	31286	6.3	9	31396	7.14	10
31200	7.12	10	31287	6.10	2	31397	7.14	10
31201	7.12	10	31288	6.3	3	31398	7.14	10
31202	7.12	10	31291	6.3	9	31399	7.14	10
31203	7.12	10	31293	6.3	3	31400	7.14	10
31204	7.12	10	31295	6.9	12	31401	7.14	10
31205	7.13	10	31296	6.9	6	31404	7.14	10
31206	7.13	10	31297	6.9	4	31405	7.14	10
31207	7.13	10	31298	6.9	12	31406	7.14	10
31208	7.13	10	31299	6.9	6	31407	7.14	10
31209	7.13	10	31300	6.9	4	31441	3.17	10
31210	7.13	10	31301	6.2	9	31442	3.17	10
31211	7.13	10	31302	6.2	3	31511	7.16	10
31212	7.13	10	31303	6.2	9	31512	7.16	10
31213	7.13	10	31306	6.2	3	31514	7.16	10
31214	7.13	10	31307	6.4	3	31515	7.16	10
31215	7.13	10	31308	6.4	2	31525	3.18	1
31216	7.13	10	31309	6.5	25	31543	7.13	10
31217	7.13	10	31310	6.5	10	31544	7.13	10
31219	7.13	10	31311	6.5	25	31545	7.13	10
31220	7.13	10	31312	6.5	10	31546	7.13	10
31221	7.13	10	31313	6.4	2	31547	7.13	10
31226	7.13	10	31314	6.4	1	31548	6.8, 6.9	10
31227	7.13	10	31315	6.4	1	31549	6.8, 6.9	10
31228	7.13	10	31316	6.4	1	31550	6.8, 6.9	10
31229	7.13	10	31323	7.16	10	31552	6.8, 6.9	20
31232	3.20	1	31324	7.16	10	31554	2.4	6
31235	7.14	10	31325	7.16	10	31555	6.7	5
31236	7.14	10	31326	7.16	10	31556	6.4	3
31237	7.14	10	31327	7.16	10	31557	6.4	1
31238	7.14	10	31333	7.15	10	31558	7.13	20
31239	7.14	10	31338	7.15	10	31559	7.13	20
31240	7.14	10	31342	7.15	10	31560	7.13	20
31241	7.14	10	31345	7.15	10	31561	6.8, 6.9	10

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31562	6.8, 6.9	10	31968	3.21	1	32438	3.13	4
31563	6.8	1	31970	3.21	1	32439	3.11	4
31564	6.8	1	31971	6.7	12	32440	3.13	2
31565	6.8	1	31972	6.7	3	32441	3.11	4
31567	1.2, 2.3, 3.16, 6.1	3	31973	6.7	12	32442	3.11	4
31568	1.2, 2.3, 3.16, 6.1	3	31974	6.7	6	32443	3.11	4
31569	1.2, 2.3, 3.16, 6.1	3	31976	3.19	1	32444	3.11	4
31570	3.20	12	32004	3.15	1	32445	3.13	4
31571	3.20	12	32017	3.14	1	32446	3.11	4
31572	3.20	12	32018	3.14	1	32448	3.13	2
31574	3.19	1	32020	3.14	1	32449	3.11	4
31575	3.19	1	32023	3.14	1	32450	3.13	4
31578	3.19	1	32028	3.14	1	32451	3.13	4
31579	3.19	1	32029	3.13	2	32452	3.13	2
31588	3.19	1	32030	3.14	1	32453	3.13	2
31901	3.18, 3.20	5	32031	3.15	1	32454	3.11	4
31902	3.18, 3.19, 6.4	20	32033	3.15	1	32455	3.11	4
31903	3.18, 3.20	1	32034	3.13	1	32456	3.11	4
31904	7.7	36	32064	3.15	1	32457	3.11	4
31905	7.9	20	32067	3.14	1	32459	3.11	4
31906	7.9	10	32068	3.14	1	32460	3.13	4
31908	7.7	36	32079	3.13	4	32461	3.11	4
31909	7.7	36	32090	3.13	2	32463	3.13	2
31910	7.7	36	32137	3.14	1	32464	3.12	4
31911	7.9	20	32138	3.15	1	32465	3.12	4
31912	7.9	10	32140	3.14	1	32466	3.11	4
31913	7.7, 7.9	1	32146	3.12	4	32467	3.11	4
31914	3.19	5	32156	3.14	1	32469	3.11	4
31915	3.19	5	32157	3.15	1	32472	3.11	4
31918	3.17	10	32168	3.15	1	32477	3.12	4
31919	3.17	10	32214	3.15	1	32478	3.12	4
31920	6.10	6	32215	3.15	1	32484	3.12	4
31921	6.10	3	32216	3.15	1	32485	3.12	4
31922	6.10	2	32300	1.3	6	32486	3.12	4
31923	6.10	6	32301	1.3	6	32487	3.12	4
31924	6.10	3	32302	1.3	6	32498	3.13	4
31925	6.10	2	32307	1.3	6	32511	3.10, 3.12	10
31929	6.9	12	32308	1.3	6	32513	3.10, 3.12	10
31930	6.6	12	32309	1.3	6	32533	3.13	4
31932	6.10	6	32311	1.3	6	32534	3.13	4
31933	6.10	3	32400	3.10	4	32535	3.13	4
31934	6.10	2	32401	3.10	4	32570	3.14	1
31935	3.18	8	32402	3.10	4	32575	3.14	1
31936	3.18	6	32404	3.10	4	32577	3.14	1
31940	6.7	6	32408	3.10	4	32578	3.14	1
31941	6.7	2	32412	3.10	4	32579	3.15	1
31942	6.7	6	32416	3.10	4	32580	3.14	1
31943	6.7	2	32420	3.10	4	32581	3.15	1
31946	3.17	8	32421	3.10	4	32584	3.14	1
31947	3.17	6	32425	3.10	4	32585	3.15	1
31950	3.17	8	32426	3.10	4	32586	3.14	1
31951	3.17	6	32427	3.13	4	32588	3.13	4
31954	3.20	4	32428	3.13	4	32589	3.12	4
31955	3.20	4	32429	3.13	4	32590	2.3	4
31957	6.7	3	32430	3.11	4	32591	2.3	4
31958	3.21	4	32431	3.11	4	32592	3.14	1
31959	3.21	4	32432	3.11	2	32593	3.15	1
31961	3.20	6	32433	3.11	4	32594	3.23	2
31963	3.20	4	32434	3.13	4	32595	3.23	2
31964	3.20	4	32436	3.11	4	32601	3.14	1

Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size
32619	2.4	2	32731	4.5	1	32933	1.4	8
32620	3.2.3	4	32732	4.5	1	32934	1.4	4
32628	2.6	12	32733	4.5	1	32937	3.15	4
32629	2.6	12	32734	4.5	1	32947	1.4, 3.10, 3.12	10
32630	2.6	12	32737	4.5	1	32948	3.10, 3.12	10
32631	2.6	6	32738	4.7	1	32949	3.10, 3.12	10
32632	2.6	12	32739	4.7	1	32950	3.10, 3.12	10
32633	2.6	12	32741	4.3	1	32951	3.10, 3.12	10
32634	2.6	12	32742	4.3	1	32952	1.4	10
32635	3.1.2	4	32743	4.3	1	32954	3.10, 3.12	50
32636	3.1.2	4	32745	4.3	1	32956	3.10	10
32637	3.1.3	4	32746	4.3	1	32963	3.12	10
32638	3.1.3	4	32747	4.5	1	32964	3.10	10
32639	3.1.3	4	32748	4.8	1	32969	3.10, 3.12	50
32640	2.5	1	32749	4.8	1	32973	3.11	4
32641	3.1.5	1	32752	4.4	1	32974	3.11	4
32642	3.1.4	1	32753	4.4	1	32975	3.15	1
32643	3.1.5	1	32754	4.4	1	32976	3.14	1
32650	3.1.3	4	32755	4.4	1	32977	3.14	1
32651	3.1.4	1	32756	4.4	1	32978	3.15	1
32655	3.1.1	4	32757	4.4	1	32979	1.4	10
32659	3.1.3	4	32758	4.4	1	32980	3.15	1
32660	3.1.4	1	32761	4.4	1	32981	3.13	1
32661	2.3	1	32762	4.4	1	32982	3.15	1
32662	3.1.3	1	32763	4.4	1	32983	4.8, 7.2	1
32663	3.1.3	1	32764	4.5	1	32984	4.8, 7.2	1
32664	3.1.3	1	32765	4.4	1	32985	4.8, 7.2	1
32665	1.4	9	32766	4.4	1	32986	4.8, 7.2	1
32666	1.3	1	32767	4.4	1	32987	4.8, 7.2	1
32668	1.4	1	32769	4.4	1	33027	6.18	1
32669	1.4	1	32770	4.6	1	33028	6.19	1
32676	1.4	1	32771	4.5	1	33031	6.18	1
32677	1.4	1	32772	4.6	1	33032	6.19	1
32682	1.3	1	32773	4.6	1	33035	6.18	1
32684	1.4	1	32774	4.6	1	33037	6.19	1
32686	1.4	1	32775	4.6	1	33040	6.18	1
32690	1.4	1	32776	4.6	1	33041	6.19	1
32691	1.4	1	32777	4.6	1	33051	3.24, 6.16	10
32692	1.4	1	32779	4.6	1	33075	3.19, 3.30	1
32700	4.8	1	32780	4.6	1	33079	3.19, 3.30	1
32701	4.8	1	32781	4.6	1	33113	4.13, 4.14, 4.19	4
32702	4.8	1	32783	4.5	1	33142	3.25, 3.28, 6.15, 6.17	2
32703	4.8	1	32784	4.6	1	33143	3.25, 6.15	2
32704	4.8	1	32785	4.6	1	33144	3.25, 6.15	2
32705	4.8	1	32786	4.6	1	33145	3.24, 3.28, 6.14, 6.17	1
32706	4.8	1	32787	4.7	1	33146	3.24, 6.14	1
32707	4.4	1	32788	4.7	1	33147	3.24, 6.14	1
32708	4.5	1	32789	4.8	1	33148	3.24	1
32709	4.6	1	32790	4.8	1	33149	6.13	1
32718	4.7	1	32795	4.5	1	33150	6.13	1
32719	4.7	1	32796	4.5	1	33151	6.13	1
32720	4.8	1	32797	4.5	1	33152	6.15	1
32721	4.8	1	32807	4.4	1	33153	6.15	1
32722	4.7	1	32808	4.6	1	33154	6.15	1
32723	4.7	1	32809	4.6	1	33155	3.24, 6.15	10
32724	4.8	1	32907	3.12	24	33156	2.4, 3.24, 3.29, 4.13, 4.14, 6.16	1
32725	4.8	1	32912	2.3	10	33157	3.24, 6.16	10
32726	4.5	1	32914	3.12	24	33158	6.16	1
32729	4.5	1	32915	3.12	24	33160	3.23	1
32730	4.5	1	32921	3.12	24	33161	3.23	1

Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size
33162	3.23	1	33346	6.21, 6.22	1	33444	6.23	1
33163	3.24, 3.28, 6.14, 6.21, 6.22	1	33347	6.21, 6.22	1	33445	6.23	1
33164	3.24, 6.14, 6.21, 6.22	1	33348	6.21, 6.22	1	33446	6.23	1
33165	3.24, 6.14, 6.21, 6.22	1	33349	6.21, 6.22	1	33447	6.23	1
33166	3.24, 3.28, 6.14, 6.17	1	33350	6.21, 6.22	2	33448	6.23	1
33167	3.24, 6.14	1	33351	6.21, 6.22	2	33449	6.23	1
33168	3.24, 6.14	1	33352	6.21, 6.22	2	33450	6.23	1
33177	6.24	1	33355	6.22	1	33451	6.23	1
33193	6.16	1	33356	6.22	1	33452	6.23	1
33198	3.23	270	33357	6.22	1	33453	6.23	1
33199	6.13	196	33358	6.22	1	33454	6.23	1
33200	6.13	196	33359	6.21	1	33455	6.25	1
33201	6.13	1	33360	6.21	1	33456	6.25	1
33202	6.13	1	33361	6.21	1	33457	6.25	1
33203	6.13	1	33362	6.21	1	33458	6.25	1
33204	6.13	1	33363	6.21	3	33459	6.25	1
33206	3.23	1	33364	6.22	3	33460	6.25	1
33207	6.13	1	33365	6.22	3	33461	6.25	1
33208	6.13	1	33366	6.21, 6.22	3	33462	6.25	1
33216	3.23	1	33367	6.21, 6.22	3	33463	6.25	1
33217	6.13	1	33376	6.14	4	33464	6.25	1
33219	6.15	10	33377	6.14	4	33465	6.25	1
33220	6.15	10	33378	6.14	3	33466	6.25	1
33221	6.13	1	33380	6.21, 6.22	1	33467	6.25	1
33222	6.13	1	33381	6.21, 6.22	1	33468	6.25	1
33223	6.15	2	33385	3.24, 6.14	1	33469	6.25	1
33224	3.22, 3.24, 3.29, 6.14	3	33392	6.14	4	33470	6.25	1
33225	6.15	10	33393	6.13	1	33471	6.25	1
33226	6.15	10	33394	3.23	1	33472	6.25	1
33234	3.29	1	33398	3.23	270	33500	3.26	1
33246	6.21, 6.22	1	33402	3.21	1	33501	3.26	1
33247	6.16	1	33403	3.21	1	33502	6.17	1
33280	3.29	2	33408	6.10	1	33503	3.26	1
33283	6.21, 6.22	1	33409	6.10	1	33504	3.26	1
33285	3.29	1	33416	2.4	1	33505	6.17	1
33308	6.10	1	33418	3.25, 6.15	2	33506	3.26	1
33311	3.21	1	33419	3.25, 6.15	2	33507	6.17	1
33315	3.25	1	33420	3.23	1	33510	3.26	1
33316	3.25	1	33421	3.21	1	33511	3.26	1
33317	3.25	2	33422	3.21	1	33512	6.17	1
33324	3.23	1	33424	6.23	1	33513	3.26	1
33325	3.23	1	33425	6.23	1	33514	3.26	1
33326	3.23	1	33426	6.23	1	33515	6.17	1
33327	3.23	1	33427	6.23	1	33516	3.26	1
33328	6.13	1	33428	6.23	1	33540	3.27	1
33329	6.13	1	33429	6.23	1	33541	3.27	1
33330	6.13	1	33430	6.23	1	33542	6.17	1
33331	6.13	1	33431	6.23	1	33543	3.27	1
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33333	6.22	1	33433	6.23	1	33545	6.17	1
33334	6.22	1	33434	6.23	1	33550	3.27	1
33335	6.22	1	33435	6.23	1	33551	3.27	1
33336	6.22	1	33436	6.23	1	33552	6.17	1
33337	6.21	1	33437	6.23	1	33553	3.27	1
33338	6.21	1	33438	6.23	1	33554	3.27	1
33339	6.21	1	33439	6.23	1	33555	6.17	1
33340	6.21	1	33440	6.23	1	33600	3.23	1
33342	6.21, 6.22	1	33441	6.23	1	33601	3.23	1
33343	6.21, 6.22	1	33442	6.23	1	33602	3.23	1
33345	6.21, 6.22	1	33443	6.23	1	33603	3.23	1

Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size	Part no.	Chapter.Page	Pack size
33610	4.15	1	33718	4.11, 4.12	1	33842	6.18	1
33611	4.16	1	33719	4.10, 4.9	1	33843	6.19	1
33612	4.15	1	33720	4.10, 4.9	1	33846	6.18	1
33613	4.16	1	33721	4.11, 4.12	1	33847	6.19	1
33614	4.15	1	33722	4.11, 4.12	1	33850	6.18	1
33615	4.16	1	33723	4.11, 4.12	1	33851	6.19	1
33616	4.15	1	33724	4.10, 4.9	1	33854	6.18	1
33617	4.16	1	33725	4.13	1	33855	6.19	1
33620	4.15	1	33726	4.13	1	33868	6.18	1
33621	4.16	1	33727	4.13	1	33869	6.19	1
33622	4.15	1	33728	4.13, 4.19	1	33872	6.18	1
33623	4.16	1	33731	4.11, 4.12	1	33873	6.19	1
33624	4.15	1	33732	4.13, 4.19	1	33876	6.18	1
33625	4.16	1	33733	4.14	1	33877	6.19	1
33626	4.15	1	33734	4.13, 4.19	3	33884	6.18	1
33627	4.16	1	33735	4.14	3	33885	6.19	1
33630	4.17, 4.18	1	33736	4.14	3	33888	6.18	1
33631	4.17, 4.18	1	33738	4.11, 4.2	3	33889	6.19	1
33632	4.17, 4.18	1	33739	4.10	3	33892	6.18	1
33633	4.17, 4.18	1	33740	4.12, 4.2	3	33893	6.19	1
33634	4.17, 4.18	1	33741	4.13, 4.19, 7.3	1	33906	6.14	4
33635	4.17, 4.18	1	33742	4.13, 4.19, 7.3	1	33907	6.14	3
33636	4.17, 4.18	1	33744	4.13, 4.14, 4.19, 7.3, 7.4	1	33908	3.28, 6.17	1
33637	4.17, 4.18	1	33749	4.13, 4.19, 7.3	1	33909	3.24, 3.28, 6.14, 6.17	3
33638	4.17, 4.18	1	33750	4.13, 4.19, 7.3	1	33910	3.28, 6.17	1
33639	4.17, 4.18	1	33751	4.13, 4.19, 7.3	1	33911	3.28, 6.17	1
33640	4.17, 4.18	1	33752	4.13, 4.19, 7.3	1	33912	3.28, 6.17	1
33641	4.17, 4.18	1	33755	4.13, 4.19	3	33913	3.28, 6.17	1
33642	4.19	1	33758	4.13, 4.14, 4.19	2	33914	3.28, 6.17	3
33645	4.19	1	33759	4.14	6	33915	3.22, 3.24, 3.28, 6.17	3
33650	4.18	1	33761	4.14	5	33916	3.22	3
33651	4.17	1	33765	4.9	3	33917	3.24, 6.16	1
33652	4.17	3	33766	4.13	1	33918	3.24, 6.16	3
33653	4.19	1	33767	4.13	1	33921	6.24	1
33665	6.20	1	33768	4.14	1	33922	6.24	1
33666	6.20	1	33769	4.14	1	33923	6.24	1
33669	6.20	1	33770	4.10, 4.9	1	33924	6.24	1
33670	6.20	1	33771	4.10, 4.9	1	33925	6.24	1
33680	6.20	1	33772	4.10, 4.9	1	33926	6.24	1
33681	6.20	1	33773	4.10, 4.9	1	33927	6.24	1
33682	6.20	1	33774	4.10, 4.9	1	33928	6.24	1
33692	6.20	1	33775	4.10, 4.9	1	33929	6.24	1
33694	6.20	2	33776	4.14, 4.2, 4.20	1	33930	6.24	1
33695	6.20	2	33800	1.1	1	33931	6.25	1
33696	6.20	2	33801	2.4	1	33932	6.25	1
33697	6.20	2	33802	3.23	1	33933	6.25	1
33698	6.20	2	33805	2.4	10	33934	6.25	1
33699	6.20	2	33806	3.24	10	33935	6.25	1
33700	4.10, 4.9	1	33808	6.18	1	33936	6.25	1
33701	4.11, 4.12	1	33809	6.19	1	33937	6.25	1
33702	4.11, 4.12	1	33812	6.18	1	33938	6.25	1
33703	4.11, 4.12	1	33813	6.19	1	33939	6.24	1
33704	4.10, 4.9	1	33816	6.18	1	33940	6.24	1
33705	4.10, 4.9	1	33817	6.19	1	33941	6.24	1
33706	4.11, 4.12	1	33820	6.18	1	33942	6.24	1
33707	4.11, 4.12	1	33821	6.19	1	33943	6.24	1
33708	4.11, 4.12	1	33824	6.18	1	33944	6.24	1
33715	4.10, 4.9	1	33825	6.19	1	33945	6.24	1
33716	4.11, 4.12	1	33838	6.18	1	33946	6.24, 6.25	1
33717	4.11, 4.12	1	33839	6.19	1	33947	6.24, 6.25	1

Part no.	Chapter.Page	Pack size
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33968	6.25	1
33969	6.25	1
33970	6.24	1
33971	6.24	1
33972	6.24	1
33973	6.24	1
33974	6.24	1
35001	5.2	1
35004	5.1	1
35005	5.1	1
35006	5.1	1
35007	5.1	1
35008	5.2	2
35009	5.2	1
35015	5.1	1
35016	5.1	1
35017	5.2	4
36001	2.3	1
36003	3.10	1
36009	1.3	1
36100	6.1	1
36101	2.3	1
36102	3.16	1
36103	6.1	1
36104	2.3	1
36105	3.16	1
36106	6.1	1
36107	2.3	1
36108	3.16	1
36109	1.2, 2.3, 3.16, 6.1	1
36110	1.2, 2.3, 3.16, 6.1	1
36111	1.2, 2.3, 3.16, 6.1	1
36112	6.1	1
36113	2.3	1
36114	3.16	1
36123	6.1	1
36125	3.16	1
36126	6.1	1
36128	3.16	1
36130	1.2	1
36131	1.2	1
36152	2.3	1
36153	3.16	1
36154	1.2, 2.3, 3.16	1
36155	2.3	1
36156	3.16	1
36157	2.3	1
36158	3.16	1

Part no.	Chapter.Page	Pack size
36159	1.2, 2.3, 3.16	1
36200	1.1	1
36201	2.1	1
36202	3.1	1
36902	6.1	1
36903	6.1	1
36904	6.1	1
36916	1.2, 2.3, 3.16	1
36917	1.2, 2.3, 3.16	1
36918	1.2, 2.3, 3.16	1
37200	4.20, 7.5	1
37201	4.20, 7.5	1
37202	4.20, 7.5	1
37203	4.20, 7.5	1
37204	4.20, 7.5	1
37205	4.20, 7.5	1
37206	4.20, 7.5	1
37207	4.20, 7.5	1
37208	4.20, 7.5	1
37209	4.20, 7.5	1
37210	4.20, 7.5	1
37211	4.20, 7.5	1
37212	3.3, 4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37213	3.3, 4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37214	3.3, 4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37215	3.3, 4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37216	3.3, 4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37217	4.2, 4.20, 7.1	1
37218	4.2, 7.1	1
37219	4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37220	4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37221	4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37222	4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37223	4.14, 4.20, 4.3, 7.1, 7.2, 7.4	1
37224	4.2, 4.20, 7.1	1
37225	4.2	1
37226	7.1, 7.2	1
37227	7.1, 7.2	1
37228	7.1, 7.2	1
37229	7.1, 7.2	1
37230	7.1	1
37232	4.14, 7.1, 7.2, 7.4	1
37233	4.14, 7.1, 7.2, 7.4	1
37234	4.14, 7.1, 7.2, 7.4	1
37235	4.14, 7.1, 7.2, 7.4	1
37236	7.1	1
37237	7.1	1
37238	7.1	1
37900	3.3, 7.1	3
78105	6.15	10
78139	6.15	10
78442	7.21	200
78443	7.21	200
78447	7.21	200
78463	2.1, 3.4	10
78893	6.15	10
79448	3.22, 4.13, 6.12	30

Part no.	Chapter.Page	Pack size
79449	3.22, 6.11, 6.12	30
79663	3.17, 3.18	10
79738	3.30	10
79811	3.22, 3.25, 6.15	1
79859	3.30	10

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