

MULTIVERT® 160A/185mm

Size 00, 690VAC, single pole switching

NH Vertical Fuse Switch Disconnecter

MULTIVERT® NH vertical fuse switch disconnectors meet all functions of NH fuse switch disconnectors. They are designed for installation on to bus bars in triple pole arrangements.

MULTIVERT® 160A 185 mm single pole switching are for installation on to 185 mm bus bar systems.

MULTIVERT® 160A are designed for NH fuse-links in accordance with IEC/EN 60269-2, VDE 0636-2, size 00: 160A.

The system is a modular system, that allows the installation of individual components. MULTIVERT® offer the user the possibility of fast and easy installation as well as a high degree of protection during installation and maintenance.

Features Benefits

- Installation on to 185 mm bus bar system
- Symmetrical switch - top/bottom cable terminal connection
- Touch protection IP 30 with central cover
- Parking position of switch operating cover even with fuse-links inserted
- Varieties of cable termination: screw, clamp strap, AlCu clamp, frame clamp, V-terminal
- Electronic fuse monitoring or indicator for switch door position - optional

Applications

- House incoming units
- Meter distribution units
- Switch boards for industrial applications
- Residential and industrial distribution units
- Cable distribution cabinets
- Feeder pillars

Technical data overview

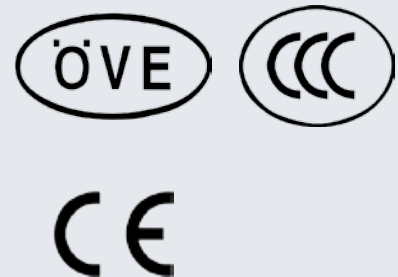
Volt (VAC)	690 VAC
Amper (A)	160 A
Size per Standard	00
Mounting	bus bar system 185 mm
SCCR	Ue = AC 500 V; Ie = 160 A 80kA
Number of Poles	3
Switchability	3 x single pole



Standards

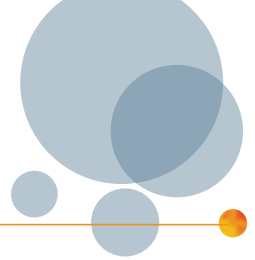
IEC/EN 60 947-3

For NH-fuse links size 000/00 in accordance with IEC/EN 60 269-2, VDE 0636-2



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Product range

MULTIVERT® 160 A size 00 185 mm 3 x single pole switching

Catalog number	Reference number	Cable termination components	Design	Weight kg ¹⁾	Package
M01N0G	Y228756	3 M8 terminal screws	with cover shroud MZ00KH	1.90	1 piece
M01S0G	X1023152	3 clamp straps Cu 4-70 mm ²	with cover shroud MZ00KH	1.90	1 piece
M01A0G	Q1023146	3 Al/Cu clamps 1,5-70 mm ²	with cover shroud MZ00KH	1.90	1 piece
1.000.910	G1023138	with V-terminal for V-terminal clamps size 00	with cover shroud 1.000.915	1.90	1 piece
1.001.725	M1023143	V-terminal with 3 V-terminal clamps size 00	with cover shroud 1.000.915	1.10	1 piece
M01N0E11G	R1023147	3 M8 terminal screws	MULTIVERT® M01N0G with cabling of instrument leads	2.25	1 piece
M01S0E11G	W1023151	3 clamp straps Cu 4-70 mm ²	MULTIVERT® M01S0G with cabling of instrument leads	2.25	1 piece
M01A0E11G	P1023145	3 Al/Cu clamps 1,5-70 mm ²	MULTIVERT® M01A0G with cabling of instrument leads	2.25	1 piece
1.000.911	L1023142	with V-terminal for V-terminal clamps size 00	MULTIVERT® 1.000.910 with cabling of instrument leads	2.25	1 piece



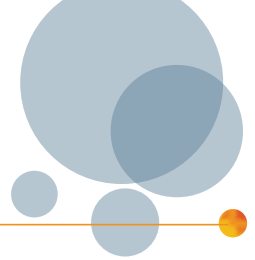
M01N0G 1.001.725



1) weight in kg per piece or set including package

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Technical data in accordance with EN / IEC 60947

	160 A, 185 mm 3 x single pole switching
Installation mode	bus bar installation
Size	00
Number of poles/phases	3
Conventional free air thermal current with NH-fuse links I_{th}	160 A
Max. power dissipation of fuse links P_n	12 W
Conventional free air thermal current with solid links I_{th}	200 A
Max. power dissipation of solid links P_n	1,2 W
Utilization category to IEC/EN 60947-3 $U_e = AC 400 V; I_e = 160 A$ $U_e = AC 690 V; I_e = 125 A$	AC 22 B AC 20 B
Rated operational voltage U_e	690 V
Rated insulation voltage U_i	1000 V
Rated impulse withstand voltage U_{imp}	4 kV
Rated frequency	50 ... 60 Hz
Degree of protection	IP 20
Degree of pollution	3
Rated duty	uninterrupted duty
Rated short circuit making capacity with solid links I_{cm}	6.3 kAsw
Rated short circuit making capacity with fuse links $U_e = AC 500 V; I_e = 160 A$	50 kA
Rated short circuit withstand current I_{cw}	4.2 kA / 1 s
Cable terminal connection	
Standard cable terminal	M8
for cable lugs Cu max.	70 mm ²
for cable lugs Al max.	70 mm ²
for copper bars with max. dimensions	20 x 5 mm
V-shaped lugs for V-terminal clamps	10 - 95 mm ²
Bus bar terminal connection	
Standard bus bar terminal	M8
Hooked clamp for bus bar with thickness	5 ... 10 mm
Bus bar system	185 mm

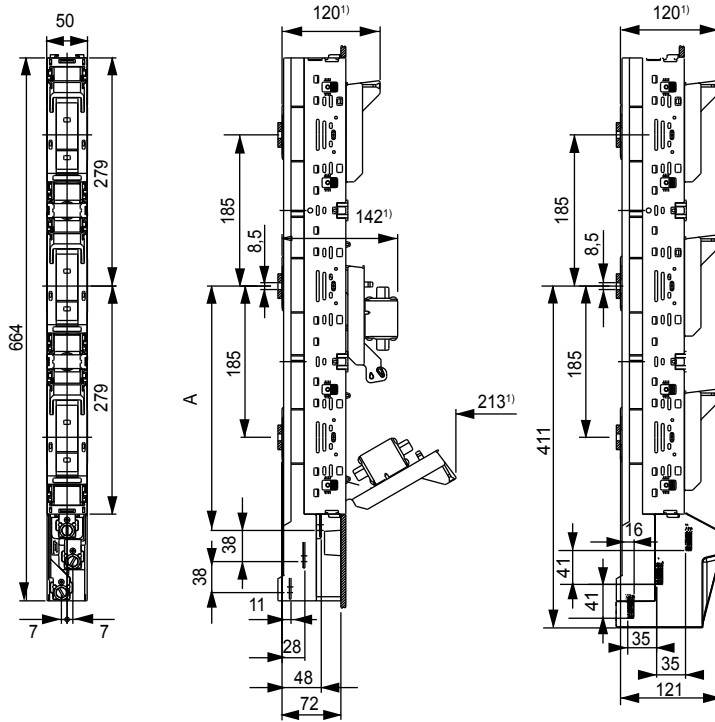
MULTIVERT® 160A/185mm

Size 00, 690VAC, single pole switching

Dimensions

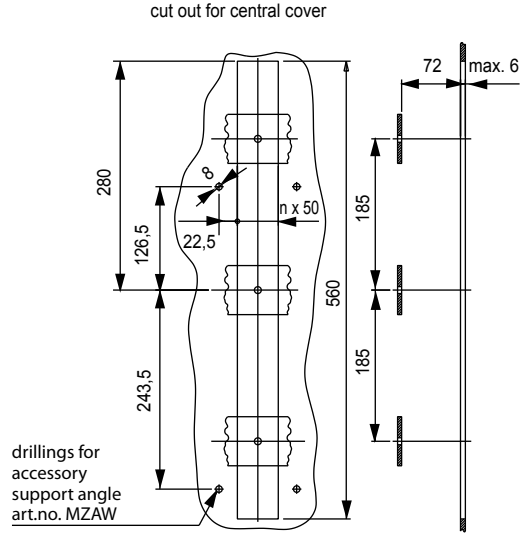
MULTIVERT® 160A/185mm NH-vertical fuse switch disconnecter
direct installation with screws on to 185mm bus bar system

(M01092b)



1) dimensions from upper edge of bus bar

Dimensions in mm



type of terminal	A
M8 screw	299
clamp strap/AlCu clamp	292

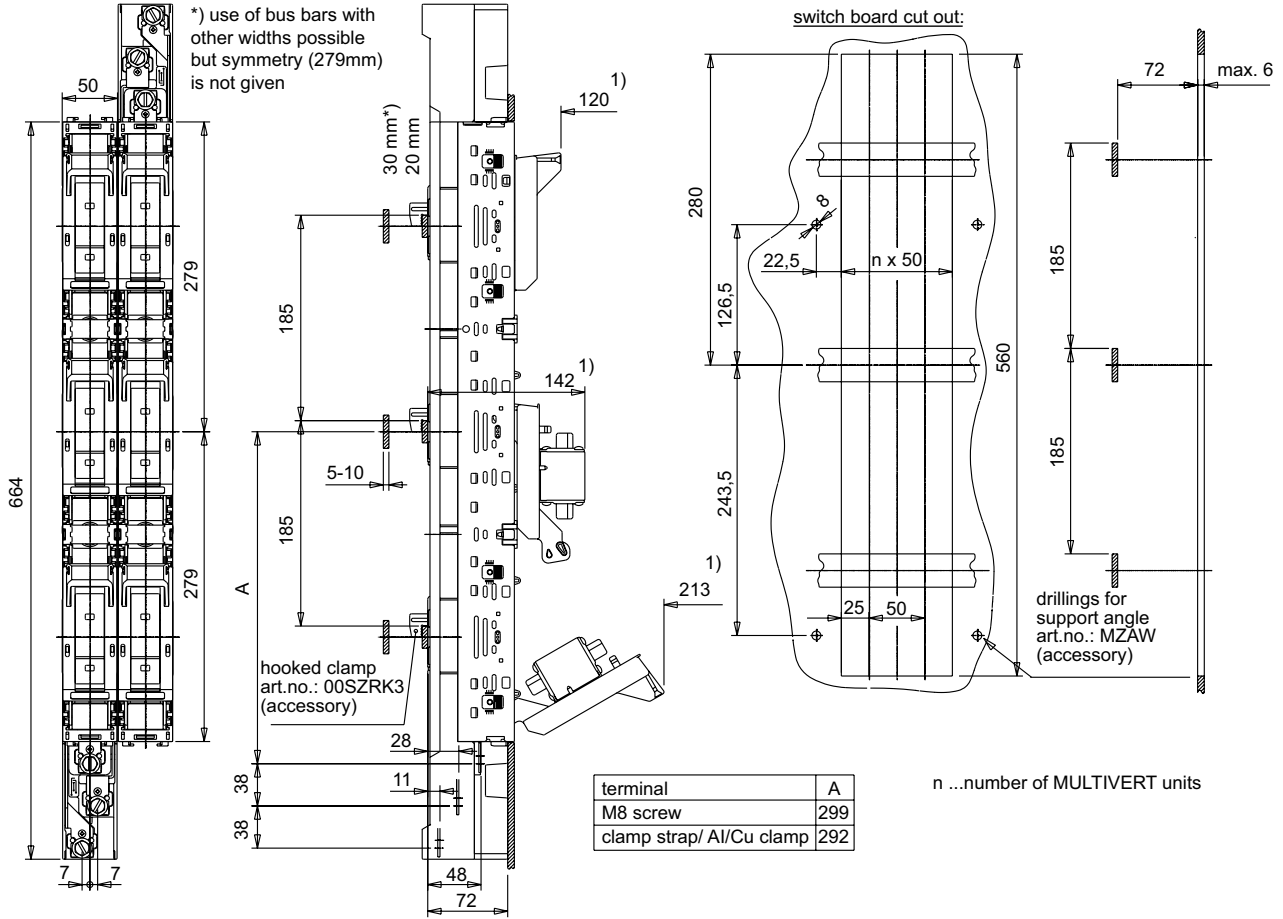
n ... number of units

MULTIVERT® 160A/185mm

Size 00, 690VAC, single pole switching

Dimensions

MULTIVERT® 160A/185mm NH-vertical fuse switch disconnecter direct installation without drilling with hooked clamps on to 185mm bus bar system (M01093d)



1) dimensions from upper edge of bus bar

Dimensions in mm

MULTIVERT® 160A/185mm

Size 00, 690VAC, single pole switching

Dimensions

Cable termination MULTIVERT® 160A (MA107d)

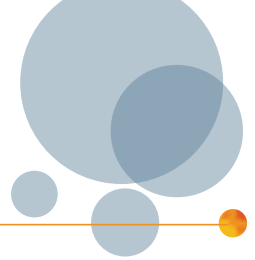
reference	N	S	A	V	R	K
article number	00SZS	00ZESK	00SA70	00SZVK1 ((accessory))	*	1.003.433
type of terminal	screw	clamp strap	Al/Cu clamp	V-clamp	frame clamp	clamping block
cross section	Cu 16-17	Cu 4-70	Cu 1,5-70	Cu 10-50	Cu 2,5-70	Cu 1,5-16
[mm ²]	Al 16-95	-	Al 1,5-70/95 se	Al 35-70/95 se	-	-
M [Nm]	15-17	3-4	3-4	5-6	6	3,4

*) installed on to MULTIVERT 160A, 1x triple pole switching
 art. no. 1.000.904 (for 100mm bus bar system) and art. no. 1.002.489 (for 60mm bus bar system)

Dimensions in mm

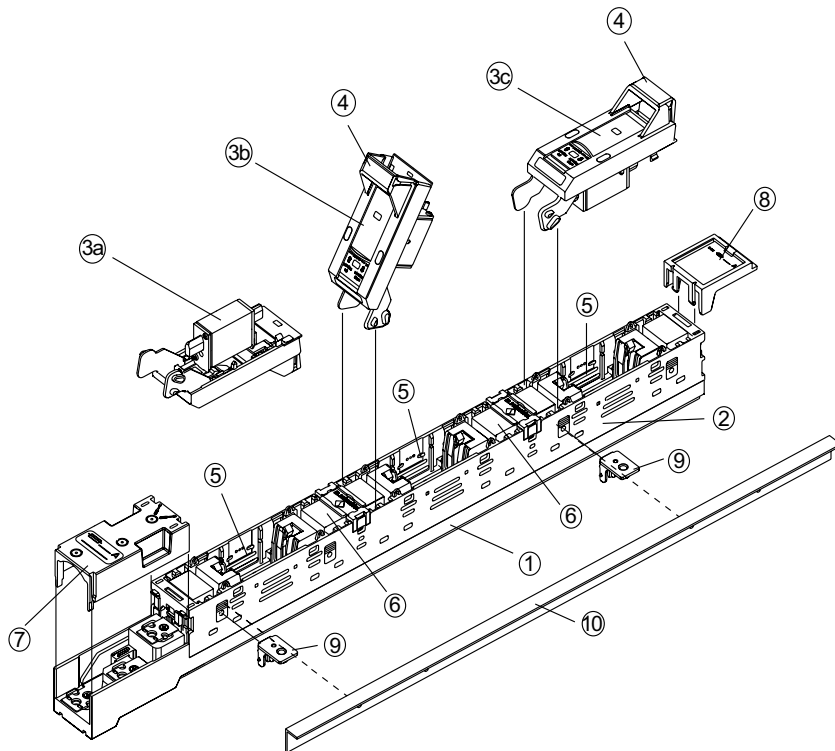
MULTIVERT® 160A/185mm

Size 00, 690VAC, single pole switching



Exploded sketch

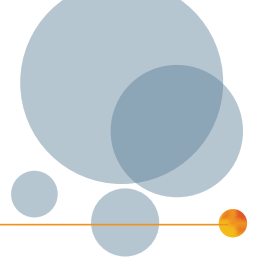
MULTIVERT® 160A 3x single pole switching (E 1.002.098)



no.	articlenumber	short description
1		Main base
2		Protection cover
3		Switch operating cover: 3a. parking position; 3b. open; 3c closed
4		Handle
5		Bus bar fixing access/protective door
6		Labelling area/label
7	MZ00KH	Cover shroud 106mm
8	MZ00BT2	Label holder
9	MZAW	Support angle, 1 set = 4 pieces
10	1.001.510	cover shield, length 605mm, set=2 pieces

MULTIVERT® 160A/185mm

Size 00, 690VAC, single pole switching



Accessories



MZ00KH



MZ00KA



1.000.915



1.000.914



MZ00KAD



MZ01AS



MZAW

Cover/shrouds for cable termination

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
MZ00KH	F1023298	cover shroud length 106 mm for MULTIVERT®/BSL 160 A	0.02	1 piece
MZ00KA	L1023464	extended cover shroud for cover shroud MZ00KH	0.04	1 piece
1.000.915	H1023300	cover shroud for MULTIVERT®/BSL 160 A with V-terminal	0.05	1 piece
1.000.914	E1023274	rear cover for MULTIVERT®/BSL 160 A with V-terminal	0.004	1 piece
MZ00KAD	G1023299	cover shroud length 156 mm for MULTIVERT®/BSL 160 A	0.06	1 piece

Covers/level & system adjustment covers

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
MZ01AS	F228763	adjustment to adapt to MULTIVERT® 250 A, 400 A, 630 A (top terminal)	0.01	1 piece
MZAW	D218687	support angle for support of cover plate 1 set = 4 pieces	0.03	1 set

Covers/spare way covers

Catalog number	Reference number	Design	Application	Weight kg ¹⁾	Package
MZ01LPAP	C1023410	spare way cover without level adjustment width 50 mm, length 500 mm including fixing material	bus bar system 185 mm	0.06	1 piece
1.002.493	N1002283	spare way cover width 50 mm, length 630 mm for covering of open installation spaces in distribution units with central cover	bus bar system 185 mm	0.13	1 piece
1.002.830	E1023412	spare way cover width 50 mm, length 630 mm with level adjustment 123 mm for bus bar installation, set = cover + fixing set (2 distance pieces, 2 screw rivets)	bus bar system 185 mm	0.20	1 set



MZ01LPAP



1.002.493

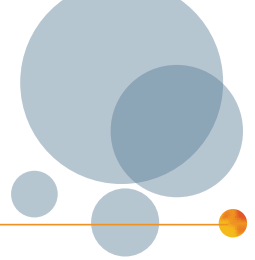


1.002.830

1) weight in kg per piece or set including package

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Accessories



00SZRK3



1.002.646

Installation devices/bus bar installation

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
00SZRK3	K215105	hooked clamp size 00, M = 5 Nm 1 set = 3 pieces	0.10	1 set
1.002.646	W1023450	M10 insert nut, size 00 1 set = 30 pieces	0.12	1 set

Adapter für installation on to bus bars with clamp terminal

Catalog number	Reference number	Design	Application	Weight kg ¹⁾	Package
1.001.300	Z1023292	double adapter 185/185 mm with increased touch protection to obtain uniform profile in height for combined installation with MULTIVERT 250 A, 400 A, 630 A	MULTIVERT® 160 A/185 mm 3x1-pole	0.75	1 piece



1.001.300

Adapter für installation on to bus bars with screw terminal

Catalog number	Reference number	Design	Application	Weight kg ¹⁾	Package
MZ01DSA	G228764	double adapter 185/185 mm with increased touch protection to obtain uniform profile in height for combined installation with MULTIVERT®/BSL 250 A, 400 A, 630 A	MULTIVERT® 160 A/185 mm 1x3-pole	0.70	1 piece
MZ01ESA	H228765	single adapter 185/185 mm (for installation of MULTIVERT®/BSL with screws M8) to obtain uniform profile in height for combined installation with MULTIVERT®/BSL 250 A, 400 A, 630 A	MULTIVERT® 160 A/185 mm 1x3-pole	0.40	1 piece

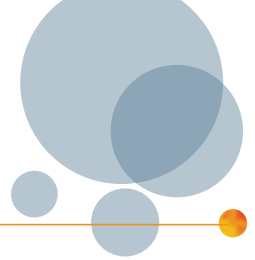


MZ01DSA MZ01ESA

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Accessories



1.002.939



MZ00ESM



MZHD

Indication facilities

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
1.002.939	Y1023452	electronic fuse monitoring ESÜ size 00 for MULTIVERT® 160 A with cabling of instrument leads	0.06	1 piece
MZ00ESM	D228761	Electronic System Monitor ESM size 00 for MULTIVERT® 160 A with cabling of instrument leads	0.35	1 piece
MZHD	M1023442	indicator for switch door position 1 "a" contact/ 1 "b" contact, 5 A, 250 V for MULTIVERT® 160 A/bus bar system 185 mm 3 x single pole switching	0.01	1 piece



1.000.106



1.000.107



1.000.100



1.000.101

Amperemeter units

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
1.000.106	R1023285	size 00, 100 A, with drag indicator, triple pole measurement (optional L1, L2, L3)	0.34	1 piece
1.000.107	S1023286	size 00, 150 A, with drag indicator, triple pole measurement (optional L1, L2, L3)	0.34	1 piece
1.000.100	K1023279	size 00, 100 A, with drag indicator, single pole measurement	0.34	1 piece
1.000.101	L1023280	size 00, 150 A, with drag indicator, single pole measurement	0.34	1 piece



1.000.119 +
1.000.123



1.000.120 +
1.000.124

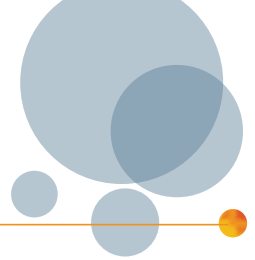
Current transformers in combination with adapter

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
1.000.121	F1024609	current transformer for adapter for single pole measurement up to 100 A set = 1 piece current transformer + 3 pieces distance tubes art.no. 1.000.125 for level adjustment, 1 piece installed, 2 pieces additionally packed	0.51	1 set
1.000.123	H1024611	current transformer for adapter for single pole measurement up to 150 A set = 1 piece current transformer + 3 pieces distance tubes art.no. 1.000.125 for level adjustment, 1 piece installed, 2 pieces additionally packed	0.52	1 set
1.000.122	G1024610	current transformer for adapter for triple pole measurement up to 100 A set = 3 pieces current transformer with distance tubes art.no. 1.000.125 for level adjustment 3 pieces installed	0.78	1 set
1.000.124	J1024612	current transformer for adapter for triple pole measurement up to 150 A set = 3 pieces current transformer with distance tubes art.no. 1.000.125 for level adjustment 3 pieces installed	0.81	1 set
1.000.125	V1024599	distance tube for adapter for level adjustment supplementary set for neighbouring MULTIVERT® without measurement to obtain uniform profile in height 1 set = 3 pieces	0.37	1 set
1.000.117	R1023446	single adapter 100/185 mm for circuit transformer	0.34	1 piece
1.000.119	A1023293	double adapter 100/185 mm for circuit transformer	0.58	1 piece
1.000.120	B1023294	double adapter 185/185 mm for circuit transformer	0.56	1 piece

1) weight in kg per piece or set including package

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Accessories



MZ003SW100



SZ1SW150



MZ00PR150



MZ00EM



MZEGK



MZ00BT2

Current transformers/external current transformers

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
MZ001SW100	C1024606	current transformer up to 100 A for single pole measurement between bus bar and MULTIVERT® set = 1 piece current transformer + 3 pieces distance tubes for level adjustment, 1 piece installed in the current transformer, 2 pieces additionally packed	0.55	1 set
MZ001SW150	E1024608	current transformer up to 150 A for single pole measurement between bus bar and MULTIVERT® set = 1 piece current transformer + 3 pieces distance tubes for level adjustment, 1 piece installed in the current transformer, 2 pieces additionally packed	0.55	1 set
MZ003SW100	B1024605	current transformer up to 100 A for triple pole measurement between bus bar and MULTIVERT® set = 3 pieces current transformer with distance tubes for level adjustment, 3 pieces installed in the current transformer	1.84	1 set
MZ003SW150	D1024607	current transformer up to 150 A for triple pole measurement between bus bar and MULTIVERT® set = 3 pieces current transformer with distance tubes for level adjustment, 3 pieces installed in the current transformer	1.85	1 set
SZ1SW100	H1024565	current transformer up to 100 A for single pole measurement between bus bars (incoming and outgoing bar)	0.32	1 piece
SZ1SW150	J1024566	current transformer up to 150 A for single pole measurement between bus bars (incoming and outgoing bar)	0.33	1 piece
MZ00PR150	R1024596	distance tube for level adjustment, up to 150 A, supplementary set for neighbouring MULTIVERT® without measurement to obtain uniform profile in height 1 set = 3 pieces	0.40	1 set

Earthing unit

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
MZ00EM	X1024578	earthing link size 00	0.30	1 piece
MZEGK	V1024576	complete earthing unit including 3 pieces earthing links	5.40	1 piece

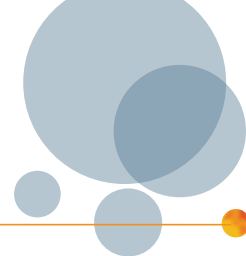
Labelling facilities

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
MZ00BT2	K215611	label holder size 00	0.01	1 piece

1) weight in kg per piece or set including package

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Accessories

Varieties of cable termination

Catalog number	Reference number	Design	Weight kg ¹⁾	Package
00SZS	M229298	M8 terminal screw for switch gear size 00 1 set = 3 pieces	0.03	1 set
00SZESK	E214594	clamp strap Cu 4–70 mm ² for switch gear size 00 1 set = 3 pieces	0.04	1 set
00SZA70	R211523	Al/Cu clamp 1,5–70 mm ² for switch gear size 00 1 set = 3 pieces	0.08	1 set
1.003.571	V1033684	Al/Cu clamp 50–95 mm ² round stranded for switch gear size 00 1 set = 3 pieces	0.10	1 set
1.003.433	L1022958	triple clamp per pole 1.5 up to 16 mm ² 1 set = 3 pieces	-	1 piece
00SZVK1	D1023434	V-terminal clamp size 00, 10–70 mm ² round stranded, 10–95 mm ² round solid, 35–95 mm ² single stranded, 50–95 mm ² single solid, M = 12 Nm	0.04	1 piece
1.000.098	E1023435	insulation cap for V-terminal clamp size 00	0.002	1 piece

1) weight in kg per piece or set including package