

# MULTIVERT® 160A/60 mm

Size 00, 690VAC, Triple 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 60 mm triple pole switching are for installation on to 60 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 60 mm bus bar system  
bus bar width 20 - 30 mm, bus bar thickness 10 mm
- Design for bottom or top 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, AICu clamp, frame clamp, V-terminal

### Applications

- House incoming units
- Meter distribution units
- Measuring transformer cabinets
- Transmitting stations for telecommunications
- 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 60 mm
SCCR	Ue = AC 400 V; Ie = 160 A 80kA Ue = AC 500 V; Ie = 160 A 80kA Ue = AC 690 V; Ie = 100 A 50kA
Number of Poles	3
Switchability	1 x triple pole



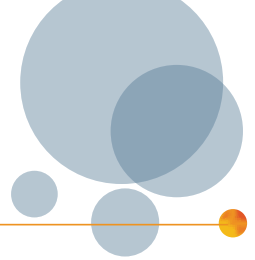
### Standards

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 60 mm bus bar system 1 x triple pole switching



1.000.909



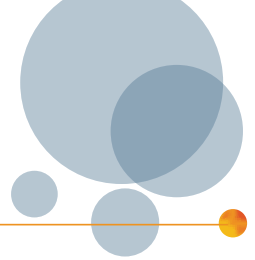
1.003.307

Catalog number	Reference number	Cable termination components	Design	Weight kg <sup>1)</sup>	Package
1.000.909	E1022183	3 M8 terminal screws/3 clamp straps 4-70 mm <sup>2</sup>	bottom terminal with cover shroud MZ00KH	1.45	1 piece
1.002.489	Z1023154	3 frame clamps Cu 2,5-70 mm <sup>2</sup>	bottom terminal with cover shroud MZ00KH	1.30	1 piece
1.003.140	A1023155	3 M8 terminal screws/3 clamp straps 4-70 mm <sup>2</sup>	bottom terminal MULTIVERT® 1.000.909 with cabling of instrument leads	1.50	1 piece
1.003.307	C1023157	3 M8 terminal screws/3 clamp straps 4-70 mm <sup>2</sup>	top terminal with cover shroud MZ00KH	1.50	1 piece
1.003.309	E1023159	3 frame clamps Cu 2,5-70 mm <sup>2</sup>	top terminal with cover shroud MZ00KH	1.30	1 piece
1.003.308	D1023158	3 M8 terminal screws/3 clamp straps 4-70 mm <sup>2</sup>	top terminal MULTIVERT® 1.003.307 with cabling of instrument leads	1.50	1 piece

1) weight in kg per piece or set including package

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## Technical data in accordance with EN / IEC 60947

**160 A, 60 mm**  
**1 x triple 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 $I_{th}$	250 A
Max. power dissipation of solid links $P_n$	1,2 W
Utilization category to IEC/EN 60947-3 $U_e = AC 400 V; I_e = 160 A$ $U_e = AC 500 V; I_e = 160 A$ $U_e = AC 690 V; I_e = 100 A$	AC 23 B AC 22 B AC 21 B
Rated operational voltage $U_e$	690 V
Rated insulation voltage $U_i$	1000 V
Rated impulse withstand voltage $U_{imp}$	8 kV
Rated frequency	50 ... 60 Hz
Degree of protection	IP 0
Degree of pollution	3
Rated duty	uninterrupted duty
Rated short circuit making capacity with solid links $I_{cm}$	4.5 kAsw
Rated short circuit making capacity with fuse links $U_e = AC 400 V; I_e = 160 A$ $U_e = AC 500 V; I_e = 160 A$ $U_e = AC 690 V; I_e = 100 A$	80 kA 80 kA 50 kA
Rated short circuit withstand current $I_{cw}$	4.5 kA / 1 s
Power dissipation by $I_{th}$ without NH-fuse links	20 W
Power dissipation by $I_{th}$ without solid links	49 W

### Cable terminal connection

Standard cable terminal	M8
for cable lugs Cu max.	70 mm <sup>2</sup>
for cable lugs Al max.	70 mm <sup>2</sup>
for copper bars with max. dimensions	20 x 5 mm
V-shaped lugs for V-terminal clamps	10 - 95 mm <sup>2</sup>

### Bus bar terminal connection

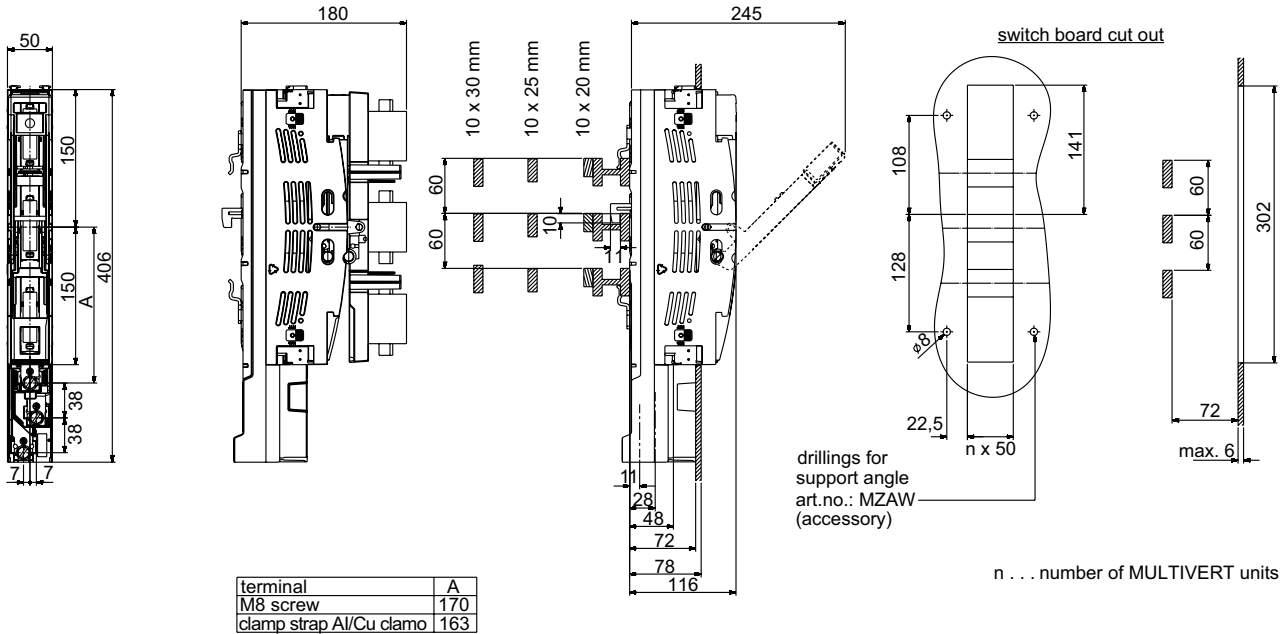
Standard bus bar terminal	ready fitted hooked clamps
Hooked clamp for bus bar with thickness	10 mm
Bus bar system	60 mm
Bus bar thickness (bus bar system = 60 mm)	20 ... 30 mm

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## Dimensions

MULTIVERT® NH-vertical fuse switch disconnecter 160A/60mm  
direct installation without drilling on to 60mm bus bar system (M01147a)



Dimensions in mm

## Cable termination MULTIVERT® 160A (MA107d)

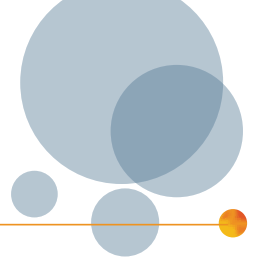
reference	N	S	A	V	R	K
article number	00SZS	00SZESK	00SZA70	00SZVK1 ((accessory))	*	1.003.433
type of terminal	screw	clamp strap	Al/Cu clamp	V-clamp	frame clamp	clamping block
cross section	Cu 16-17	Cu 4-70	Cu 1,5-70	Cu 10-50	Cu 2,5-70	Cu 1,5-16
[mm²]	Al 16-95	-	Al 1,5-70/95 se	Al 35-70/95 se	-	-
M [Nm]	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

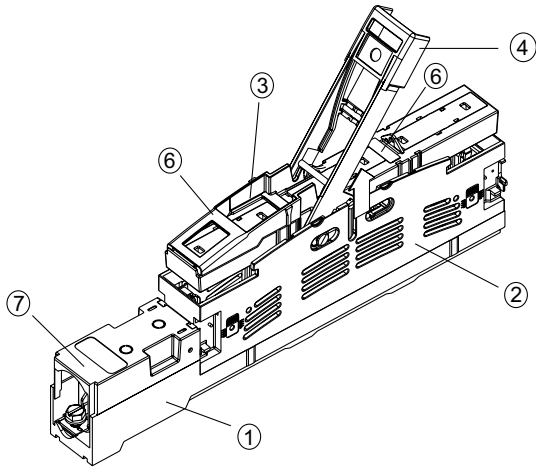
# MULTIVERT® 160A/60 mm

Size 00, 690VAC, Triple Pole Switching



## Exploded sketch

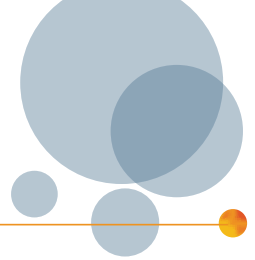
MULTIVERT® 160A 1x triple pole switching (E 1.000.857)



no.	articlenumber	short description
1		Main base
2		Protection cover
3		Switch operating cover
4		Handle
5		-
6		Labelling area/label
7	MZ00KH	Cover shroud 106mm

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## Accessories



MZ00KH



MZ00KA



1.000.915



1.000.914

### Cover/shrouds for cable termination

Catalog number	Reference number	Design	Weight kg <sup>1)</sup>	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



MZ00AAD



MZAW

### Covers/level & system adjustment covers

Catalog number	Reference number	Design	Weight kg <sup>1)</sup>	Package
MZ00AAD	X214081	2 piece adjustment, with integrated area for labeling to adapt to MULTIVERT® for 185 mm bus bar system	0.10	1 set
MZAW	D218687	support angle for support of cover plate 1 set = 4 pieces	0.03	1 set



MZ00AAD



1.002.939



MZ00ESM

### Indication facilities

Catalog number	Reference number	Design	Weight kg <sup>1)</sup>	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
1.000.852	Q1002285	indicator for switch door position micro switch, 1 change-over contact 5 A, 250 V	0.00	1 piece



1.000.852

1) weight in kg per piece or set including package

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## Accessories



1.000.106



1.000.107



1.000.100



1.000.101

### Amperemeter units

Catalog number	Reference number	Design	Weight kg <sup>1)</sup>	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



MZ00EM



MZEGK

### Earthing unit

Catalog number	Reference number	Design	Weight kg <sup>1)</sup>	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



MZ00BT2

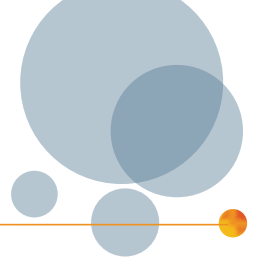
### Labelling facilities

Catalog number	Reference number	Design	Weight kg <sup>1)</sup>	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 <sup>1)</sup>	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 <sup>2</sup> for switch gear size 00 1 set = 3 pieces	0.04	1 set
00SZA70	R211523	Al/Cu clamp 1,5–70 mm <sup>2</sup> for switch gear size 00 1 set = 3 pieces	0.08	1 set
1.003.571	V1033684	Al/Cu clamp 50–95 mm <sup>2</sup> 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 <sup>2</sup> 1 set = 3 pieces	-	1 piece
00SZVK1	D1023434	V-terminal clamp size 00, 10–70 mm <sup>2</sup> round stranded, 10–95 mm <sup>2</sup> round solid, 35–95 mm <sup>2</sup> single stranded, 50–95 mm <sup>2</sup> 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