Breakers and Switches

InLine II - ZUBM/ZLBM/ZHBM

Fuse Switch Disconnectors

Power and productivity
for a better world™

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Fusible protection
Safe, reliable and cost efficient solution

The InLine II fuse switch disconnector fulfils the highest requirements for modern switch fuses with a total safety concept. The fuse switches are tested according to the EN/IEC 60947-3 standard, meeting all the requirements for isolation, current making, performance and safety.

Selectivity

The melting curves and current limiting diagrams for NH fuse links are given in the EN/IEC 60269-2 standard. The standardised fuse characteristics and high degree of current limitation ensure a simple and effective co-ordination with fuse links and other devices. Selecting the right fuse type for your installation is very simple and can be done without complicated calculations or tools.

Fuses provide selective coordination. When a fault occurs, only the fuse nearest a fault trips without upstream fuses being affected.

When more power is needed in an installation, more feeders can be added without changing the present structure or any new selectivity calculations. Fuse links will assure selectivity in the installation by 1,6:1 difference in the rated current.

Reduction of downtime and lower maintenance cost

Fuse links withstand high short circuit levels. After fuse operation, only the fuse link needs to be replaced and the rest of the network remains functional. The fuses can be replaced easily and quickly, decreasing the plant downtime and maintenance cost.

High performance and reliability

Fuses have very high limiting capability, clearing faults rapidly at different voltage and short circuit levels.

As the fuse link body is filled with quartz sand, there will be no emission of gases or arcs when a short circuit occurs. This again leads to less stress on the network and a higher degree of personal safety.

InLine II
Designed for the future

ABB is proud to introduce the latest technology of Fuse Switch Disconnectors to ensure stability and the highest safety in the power distribution network. The new generation InLine II offers the highest level of personal safety during operation and service.

Save installation time and costs

- InLine II is available in two different versions:
  - ZLBM with reduced depth (121 mm) for space saving in Cable Distribution Cabinets
  - ZHBM for easy integration of current transformers at the back (depth 154 mm).

The dimensions are equivalent to similar products in the market.

- Wide variety of accessories and cable terminals for a flexible installation
- Variants with integrated V clamps and universal terminal bolts offering standing bolt or fixed nut for high flexibility of cable connections.
- InLine II is suitable for horizontal or vertical installations.

High level of personal safety

The degree of protection is IP30 (front). InLine II has been designed for an easy and safe replacement of NH fuse links and for a safe and reliable operation ON/OFF.

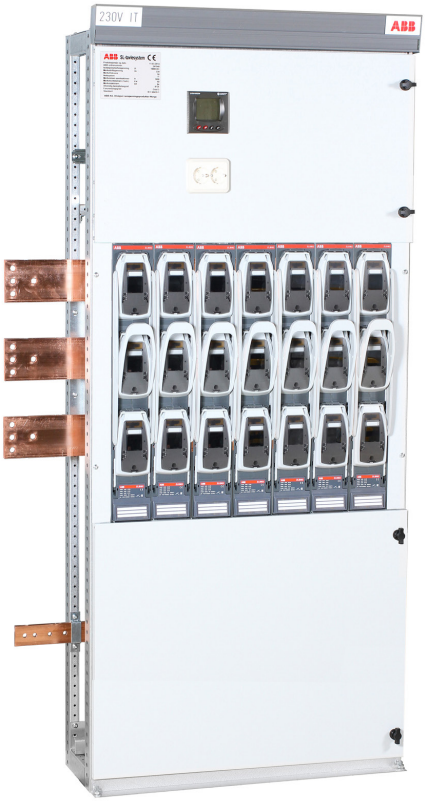
High performance

InLine II supports a high level of stability in the electrical distribution network,

InLine II
Designed for the future

Features
- Available as 160A, 250A, 400A and 630A types in combination with NH/DIN HRC Fuse Links according to EN/IEC 60269
- Type tested in accordance to EN/IEC 60947-3
- 1 - pole and 3 - pole variants
- For vertical and horizontal installations
- Designed for 185mm busbar distance
- IP30 degree of protection from the front
  - Padlocking in open and closed position at the 3-pole version
  - Padlocking in closed position at the 1-pole version
- Park position with possible padlocking at the 1 - pole type
- Sealing solutions
- Wide range of accessories and cable terminal connections
- Compatible dimensions to equivalent products in the market

Areas of application
- Cable distribution cabinets (CDC)
- Low voltage distribution panel in compact secondary substations (CSS)
- Distribution boards for industrial, residential and commercial buildings
- Installations



InLine II in proE power switchboard

InLine II
Variant size NH00 / 160 for 100 mm busbar systems

- For 100 mm busbar systems
- 3 pole operated
- Parkposition
- Padlock possibilty in ON position
- AC 23B breaking capacity at 160 A / 500 V
- 3xM8 terminal bolts as standard
- IP 30 at the front in closed position
- Symmetric body for terminals up or down
- Cable shroud included
- Type tested acc. to EN / IEC 60947-3
- Wide range of accessories

ZLBM00-100

Open position

Park position

Padlocked position

Apparatus
Variants size NH00-3 / 160-630A

1-pole versions

ZLBM 00
160A

ZLBM 1
250A

ZLBM 2
400A

ZLBM 3
630A

3-pole versions

ZLBM 00
160A

ZLBM 1
250A

ZLBM 2
400A

ZLBM 3
630A

Apparatus
Double NH 2-3 / 800 / 1250 A

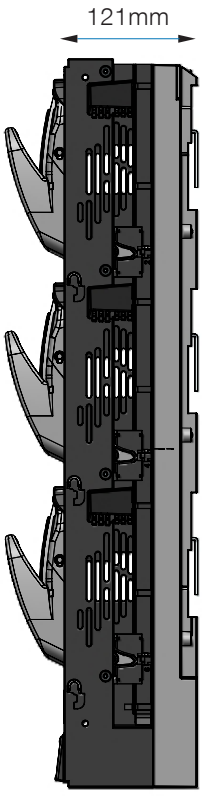
1 pole operated
2x ZLBM 2 / 3
800/1250 A

3 pole operated
2x ZLBM 2 / 3
800/1250 A

Apparatus
Two alternative depths ZLBM - ZHBM

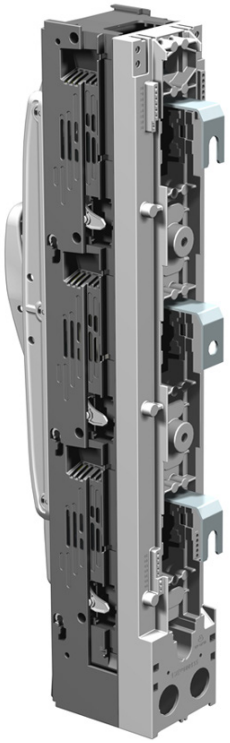
ZLBM

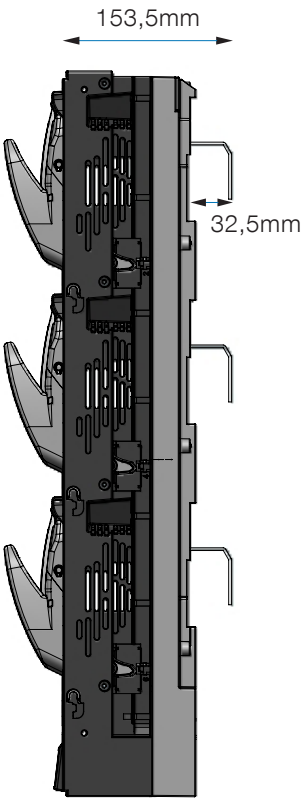
ZLBM with reduced depth.

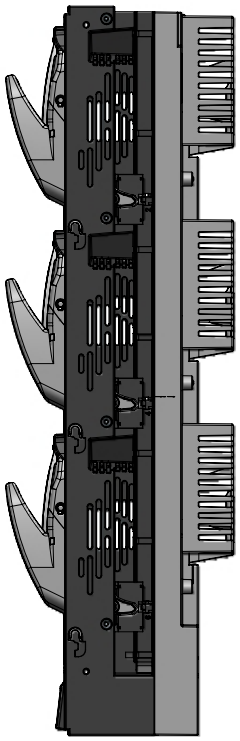


ZHBM

ZHBM depth, +32,5mm for integration of current transformers at the rear side. The ZHBM has compatible dimensions to equivalent products in the market.







Apparatus
Fuse rails ZUBM

ZUBM 00
160A

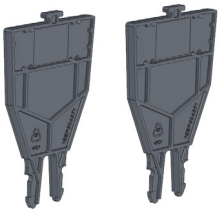
ZUBM 1
250A

ZUBM 2
400A

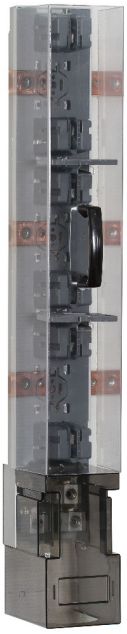
ZUBM 3
630A

Phase barriers and cable shrouds are available separately

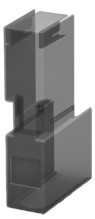
Phase barrier
kit for ZUBM00
Fuse rail



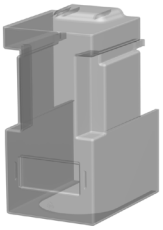
Phase barrier kit for
ZUBM123 Fuse rail



Fuse protection cov-
ers carried by phase
barriers

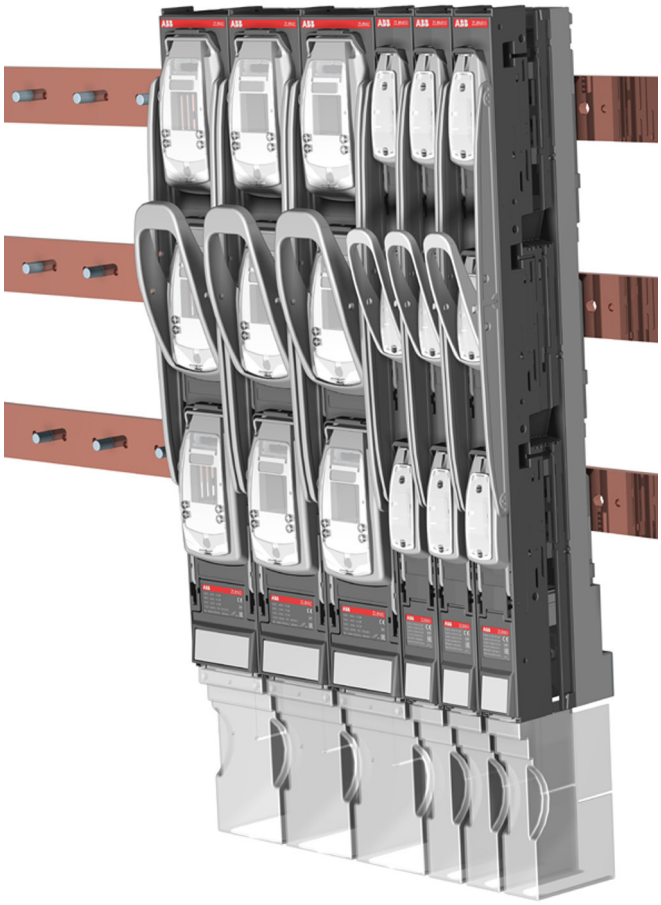


Cable shroud for
ZUBM00 Fuse rail

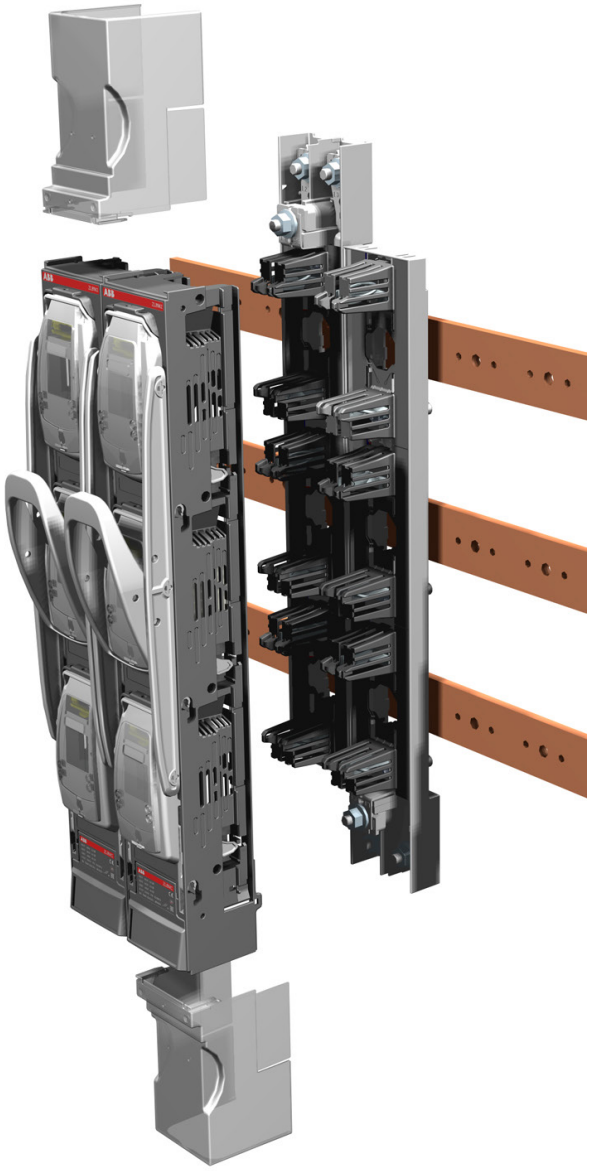


Cable shroud for
ZUBM123 Fuse rail

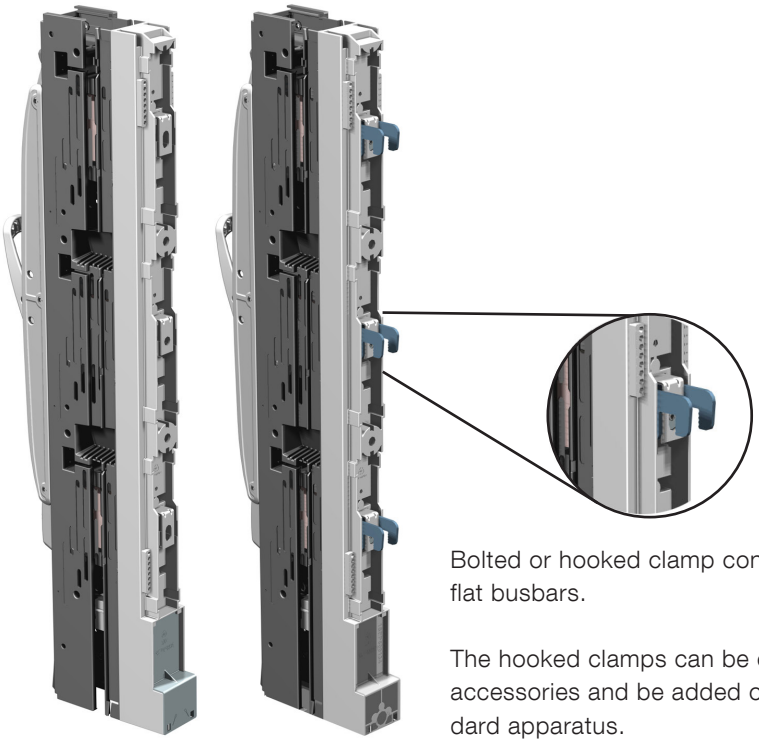
Apparatus
Installation



Installation at busbars with 185mm centre distance between the phases



Symmetric front position independent of the cable terminations are UP or DOWN



Bolted or hooked clamp connection to the flat busbars.

The hooked clamps can be ordered as accessories and be added on the standard apparatus.

Apparatus
Operation

ZLBM - ZHBM 1-pole

ON - Closed position

OFF - Open position

Replacement of fuses position

ZLBM - ZHBM 3-pole

ON - Closed position

OFF - Open position

Replacement of fuses position

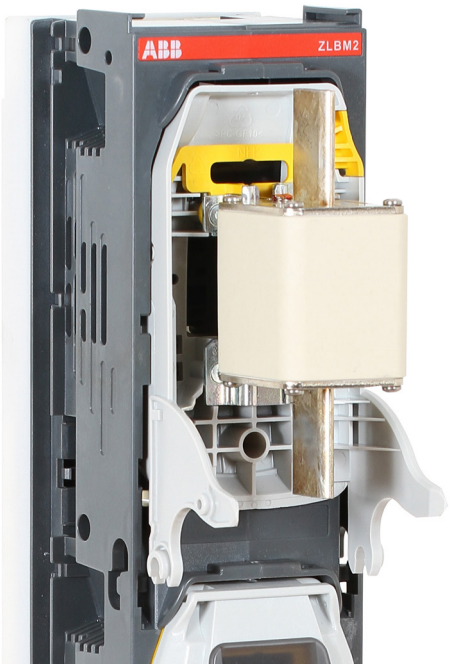
Apparatus
Padlocking and sealing

Each front cover can be padlocked with up to 2 padlocks pr phase, or up to 3 padlocks pr phase by using the padlock hasp. The ZLBM/ZHBM 3–pole, can also be padlocked with up to 2 padlocks in open position. Sealing can be done in the same way as done with the padlocks.

Park position

The front covers of the ZLBM/ZHBM 1-pole variants can be placed in park position with the possibility to be padlocked.

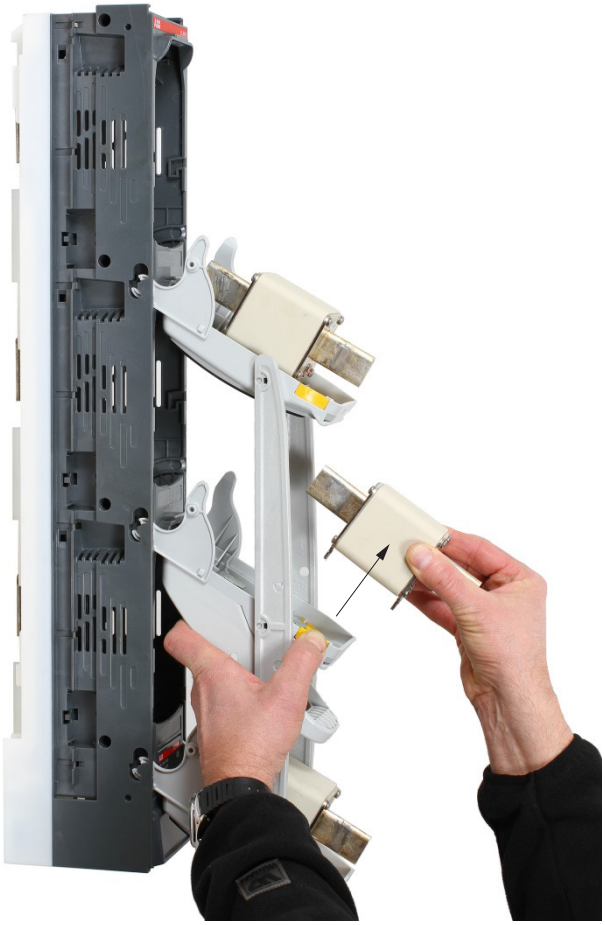
The padlock hasp can also be used in this position when up to 3 padlocks pr phase is requested.



Apparatus
Replacement of the NH Fuse links

NH fuses can be easily and safely replaced by using the integrated yellow release button

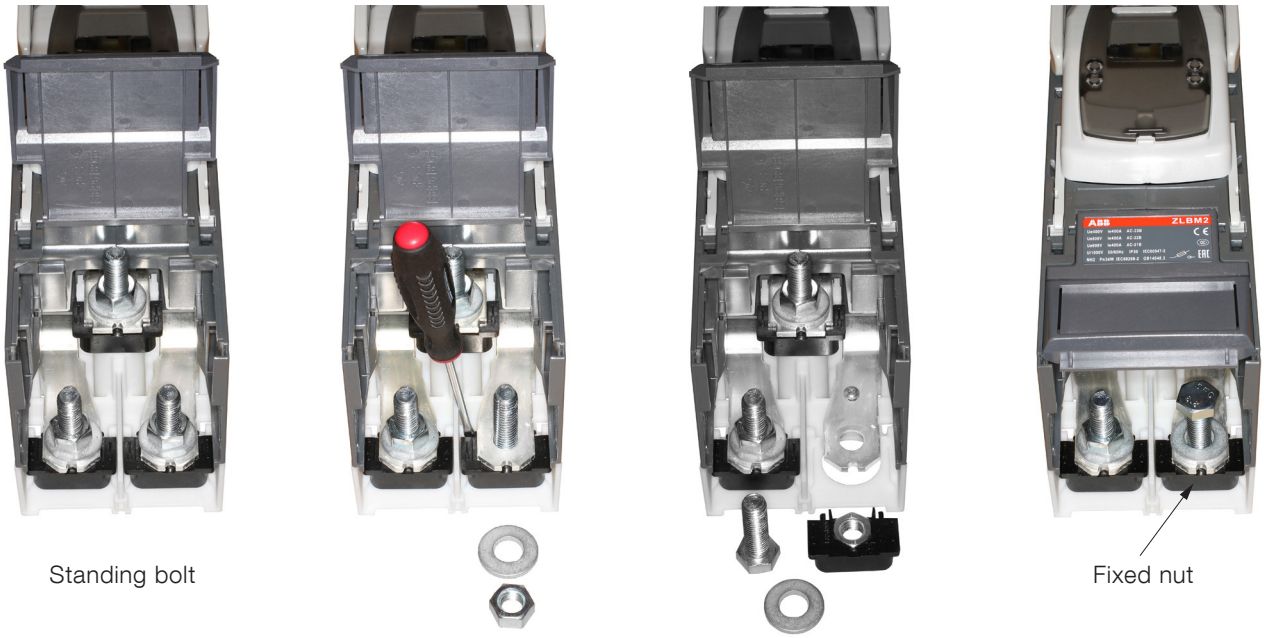
Release button



Apparatus
Cable terminations

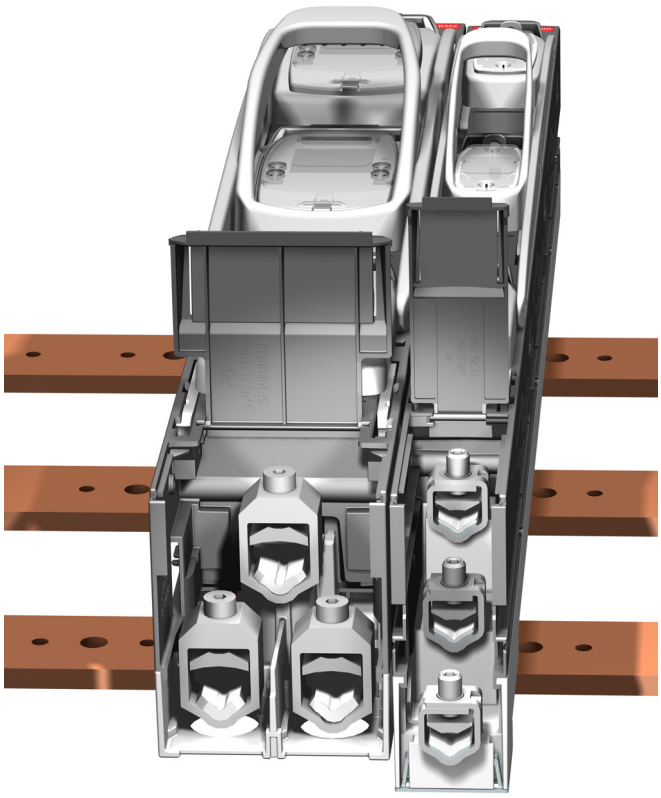
Universal terminal bolts

The ZLBM/ZHBM 123 are delivered with standing M12 bolts at the cable terminals as standard. However, if the demand is to insert the M12 bolt from the front, the nut and the bolt can easily be exchanged as shown below:



Integrated terminal V-clamps

The ZLBM/ZHBM 00/123 can be delivered with integrated V-clamps



Apparatus
Properties

Voltage measurement
The front windows can be slided up to give access for voltage measuserement at the fuse contacts

Circuit labels
The integrated front terminal shroud has a dedicated area for circuit labels.

This integrated front terminal shroud is interlocked when the cable terminal shroud is mounted.

Optimized ventilation ribs
The design of the ZLBM/ZHBM body has been given priority to give the most optimized ventilation of the apparatus.

An integrated ventilation channel at the side of the body will also support the air ventilation upwards between the apparatuses when they are installed side by side.

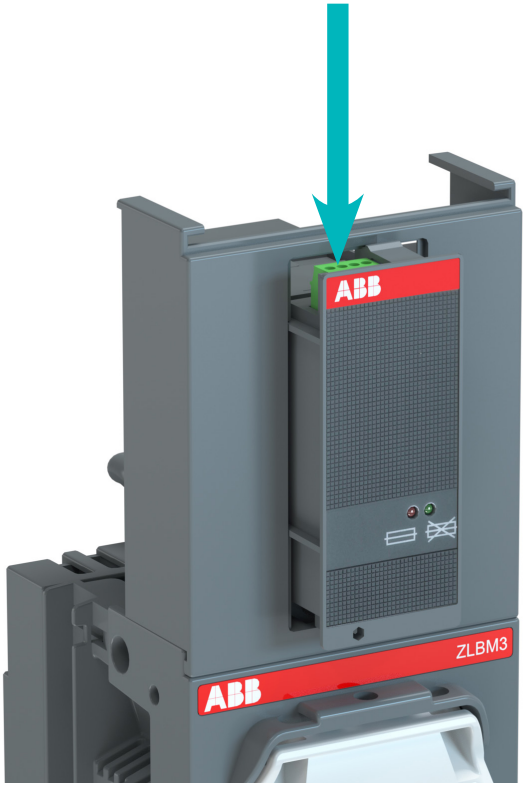
Accessories
Electronic Fuse Monitoring (EFM)

The ZLBM/ZHBM electronic fuse monitoring (EFM) gives an alarm if any fault conditions, if 1, 2, and/or 3 fuses are blown.

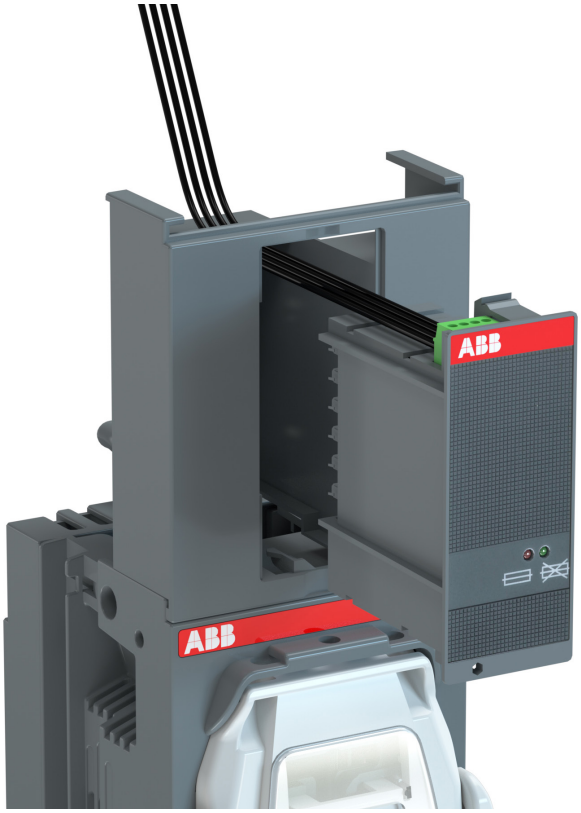
- An internal output relay (1NC + 1NO) ensures a signal for a remote fuse blown alarm.
- The EFM unit is self supplied - no additional power supply is required.
- Park position: The EFM unit can be completely disconnected from the live fuse contacts by pulling the unit out from the EFM house. This is an advantage when doing a dielectric insulation test of the whole installation in a switchboard.
- The green LED in the front panel indicates all fuses are OK. The red LED will turn on in the case of one or more fuses are blown.
- The EFM will automatically be reset after the blown fuse has been replaced and the ZLBM/ZHBM is switched into ON position again.

EFM for ZLBM00

EFM for ZLBM123

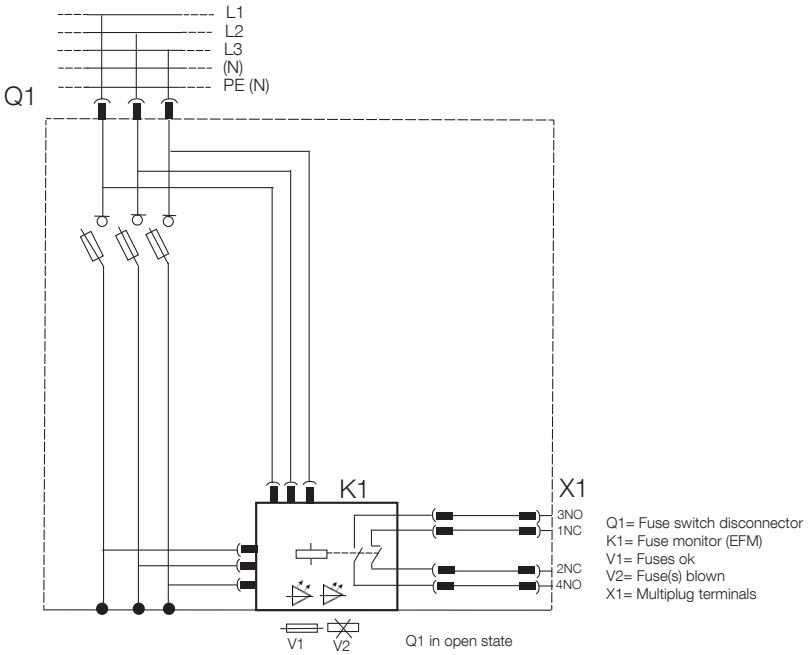


EFM in park position



Cabling

Accessories
Electronic Fuse Monitoring (EFM)



Note

- The EFM requires power supply from the bus-bar side phase L2 and L3.
- If there is a loss of the power supply voltage after a blown fuse alarm is created, there must be a minimum period of 10 seconds before the power supply can be connected again. This is to ensure correct alarm positioning of the EFM relay.

Fuse status			Relay contacts			
1. Closed	Green LED	Red LED	NO contact 3-4		NC contact 1-2	
			Open	Closed	Open	Closed
Fuses ok	**ON**	•	X			X
Fuses blown	•	**ON**		X	X	
2. Open						
Fuses ok	•	•	X			X
Fuses blown	•	•	X			X

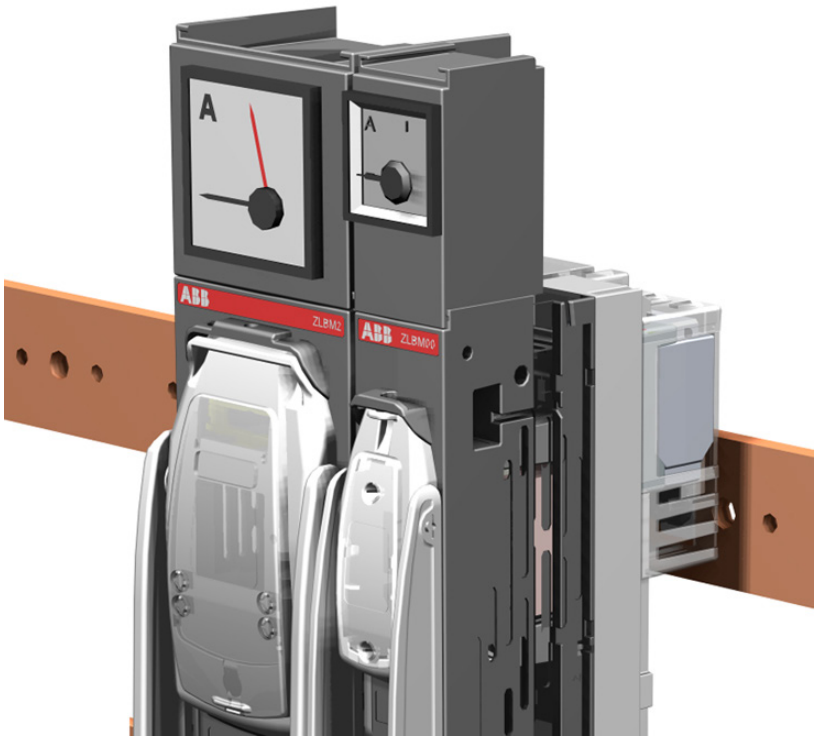
EFM Technical data	
Minimum operating voltage	340 V
Maximum operating voltage	770 V
Uimp. over a blown fuse	12.3 kV
Uimp. between phases	9.8 kV
Uimp. between main circuit / relay contacts	9.8 kV
Dielectric test voltage input / output	3.5 kV / 50 Hz / 1 minute
Electrostatic Discharge	EN 61000-4-2 +/- 4 kV
Electrical Fast Transient	EN 61000-4-4 +/- 2 kV
Conducted Fast Transient	EN 61000-4-6 10 Vrms / 150 kHz – 80 MHz
Wire size	0.22 – 1.5 mm2
EMC tested	Yes (Acc. to IEC 60947-1 : 2007, will be acc. to IEC 60947-1 : 2010 in Q1/16)
EFM Relay	
Nominal current	3A
Maximum switching voltage	250 VAC/ 24 VDC

Accessories

Ammeters

Ammeter can be installed into the ammeter house which can be clicked into position at the top of the ZLBM/ZHBM or at the bottom side if the cable terminals are upwards.

- 48x48 mm ammeter at ZLBM / ZHBM 00
- 72x72 mm ammeter at ZLBM / ZHBM 1/2/3



Plug in Ammeters

Plug in Ammeter through the front window by using a special NH2 Fuse link together with a slide in CT.

Accessories

Auxiliary switches

In the ZLBM / ZHBM the auxiliary switches 1 NO or 1 NC can be clicked into position at the side of the apparatus.

The body of the apparatus have integrated cable channels for easy connection down or up to a possible multi plug for external connection.

ZLBM/ZHBM 00: 1 Aux. Switch pr phase
ZLBM/ZHBM 123: 2 Aux. Switches pr phase

ZLBM/ZHBM 00

ZLBM/ZHBM 123

Huckepack

A plug in Huckepack for temporary additional output can be plugged through the front window into the incoming fuse contact in the apparatus.

The huckepack is prepared for a NH 00 fuse link inside, and is equipped with its own cable terminal at the bottom side.

Label holder

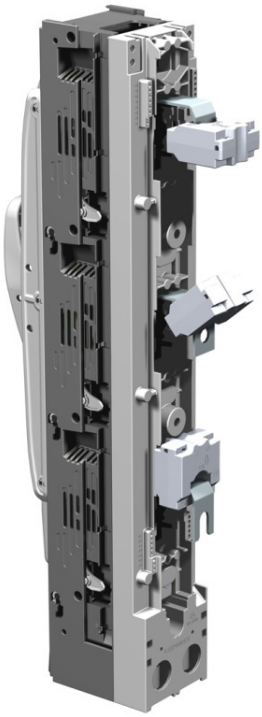
A label holder is available for both ZLBM/ZHBM00 and ZLBM/ZHBM123.

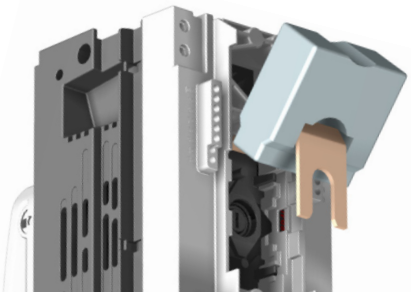
The label holder is prepared with a hole to be used with a selection switch in case it is needed together with an A-meter/CT solution.

Accessories

Current transformers in ZHBM

The ZHBM 00/123 variants (with the additional depth +32,5mm) makes it possible to slide on one current transformer (CT) at the rear side pr phase.

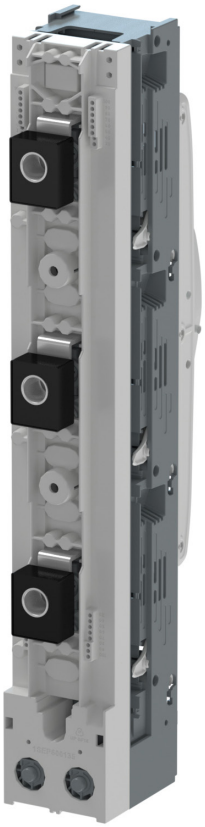




The CT shrouds have integrated cable channels for easy cabel supply up to a multi plug for external connection.

Current transformers in ZLBM

Current transformers can also be installed at the rear side of the ZLBM 00 and ZLBM 1,2,3 , by using the CT busbar kits, which is a complete kit of 3 CT's and 3 Cu Tubes of 32 mm.



Technical data
ZLBM/ZHBM

Fuse Switch Disconnectors

ZLBM/ZHBM 00/123 - Type tested according to EN/IEC 60947-3*

		ZLBM00-100	ZLBM/ZHBM 00	ZLBM/ZHBM 1	ZLBM/ZHBM 2	ZLBM/ZHBM 3
For NH fuse links acc. to IEC60269-2-1		00	00	1	1/2	3
Rated operational voltage Ue	(V)	500 / 690	400 / 500 / 690	400 / 500 / 690	400 / 500 / 690	400 / 500 / 690
Rated operational current Ie	(A)	160 / 125	160 / 160 / 125	250	400	630
Rated insulation voltage Ui	(V)	1000	1000	1000	1000	1000
Rated impulse withstand voltage Uimp	(kV)	8	8	8	8	8
Fuse protected short circuit withstand current	(kArms)	100	100	100	100	100
Fuse protected short circuit making	(kArms)	100	100	100	100	100
Rated making and breaking capacity	400 V 500 V 690 V	AC 23B AC 22B	AC 23B AC 22B AC 21B	AC 23B AC 22B AC 21B	AC 23B AC 22B AC 21B	AC 23B AC 22B AC 21B
Rated frequency	(Hz)	50/60	50/60	50/60	50/60	50/60
Max permis. power loss per fuse link	Pv (W)	12	12	18 / 23 / 32	28 / 34 / 45	40 / 48 / 60
Degree of protection from the front	Open	IP 20	IP20	IP20	IP20	IP20
	Closed	IP 30	IP30	IP30	IP30	IP30

ZLBM 800...1250 - Type tested according to EN/IEC 60947-3*

		ZLBM 800	ZLBM 1250
For NH fuse links acc. to IEC60269-2-1		2	3
Rated operational voltage Ue	(V)	500	500
Rated operational current Ie	(A)	800	1250
Rated insulation voltage Ui	(V)	1000	1000
Rated impulse withstand voltage Uimp	(kV)	8	8
Fuse protected short circuit withstand current	(kArms)	100	100
Fuse protected short circuit making	(kArms)	100	100
Rated making and breaking capacity		AC 21B	AC 21B
Rated frequency	(Hz)	50/60	50/60
Max permis. power loss per fuse link	Pv (W)	34	48
Degree of protection from the front	Open	IP20	IP20
	Closed	IP 30	IP 30

*The performances of fuse switch disconnectors do not change if installed horizontally. More information about derating in switchboard is available in the declaration refering to IEC61439.

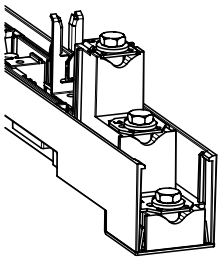
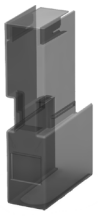
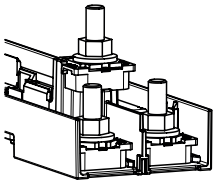
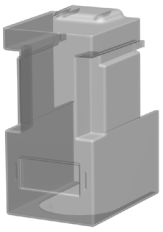
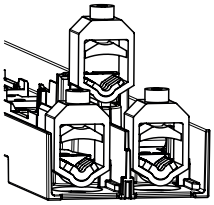
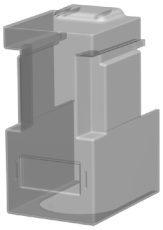
ZUBM Fuse rails

Type tested according to EN/IEC 60269-2

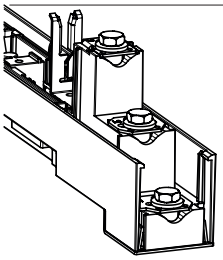
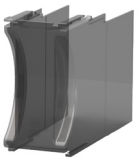
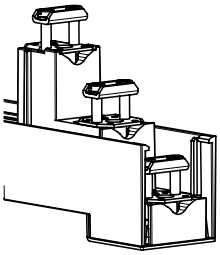
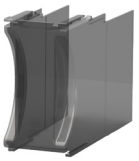
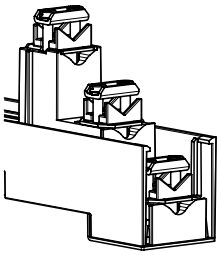
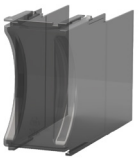
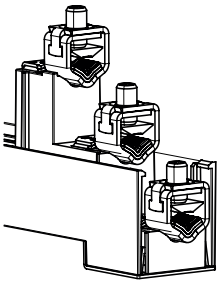
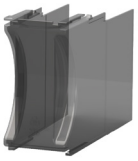
		ZUBM 00	ZUBM 1	ZUBM 2	ZUBM 3
For NH fuse links acc. to IEC60269-2-1		00	1	2	3
Rated operational voltage Ue	(V)	400 / 500 / 690	400 / 500 / 690	400 / 500 / 690	400 / 500 / 690
Rated operational current Ie	(A)	160 / 160 / 125	250	400	630
Rated insulation voltage Ui	(V)	1000	1000	1000	1000
Rated impulse withstand voltage Uimp	(kV)	8	8	8	8
Fuse protected short circuit withstand current	(kA_{rms})	100	100	100	100
Rated frequency	(Hz)	50/60	50/60	50/60	50/60
Max permis. power loss per fuse link	Pv (W)	12	18 / 23 / 32	28 / 34 / 45	40 / 48 / 60
Degree of protection from the front		IP 20*	IP 20*	IP20*	IP20*

* When used with cable shroud and fuse protection cover

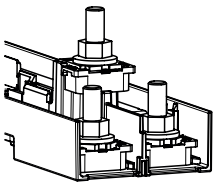
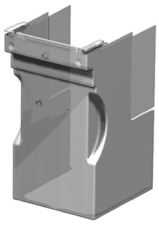
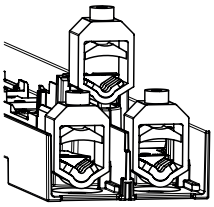
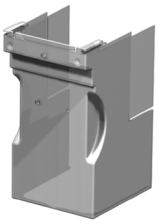
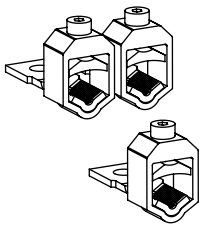
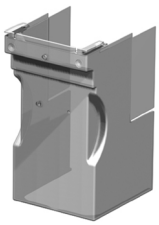
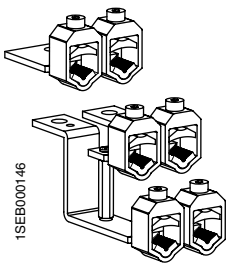
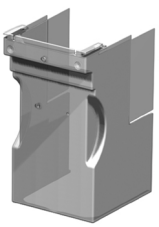
Cable terminations and cable shrouds
ZUBM00/123

	Type of clamp/bolt	Conductor cross section min-max		Torque (Nm)	Type of cable shroud (up/down)
		Rm/Sm (mm^2)	Re/Se (mm^2)		
	Bolt M8x16 (Standard) - for ZUBM00	Max 95	Max 95	10	 1SEP619686R0001
	Bolt M12x40 (Standard) - for ZUBM123	Max 240	Max 240	25	 1SEP619717R0001
	V-clamp - for ZUBM123	**Rm:** 16-35 50-185 **Sm:** 35-50 70-240	**Re:** 16-70 70-150 **Se:** 35-70 95-300	25	 1SEP619717R0001

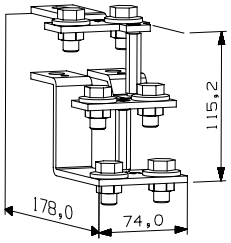
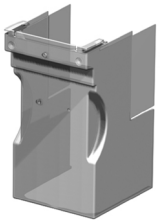
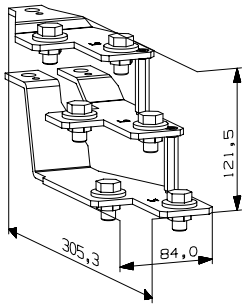
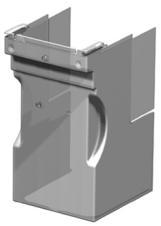
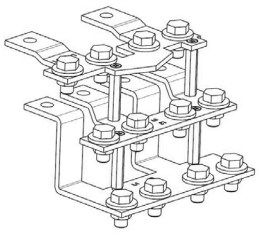
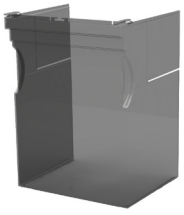
Cable terminations and cable shrouds
ZLBM00/ZHBM00

	Type of clamp/bolt with order code	Conductor cross section min-max		Torque (Nm)	Type of cable shroud (can be used for both, top and bottom)	
		Rm/Sm (mm^2)	Re/Se (mm^2)			
 1SEB000340	Bolt M8x16 (Standard)	Max 95	Max 95	10	 1SEP619690R0001	1SEP619207R0001
 1SEB000347	Bridge clamp (3 x BC) 1SEP407733R0001	1,5 - 50	1,5 - 50	3,5	 1SEP619690R0001	1SEP619207R0001
 1SEB000348	Single prism clamp (3 x SPC) 1SEP407732R0005	1,5 - 95	1,5 - 95	3,5	 1SEP619690R0001	1SEP619207R0001
 1SEB000341	V-clamp - integrated	1,5 - 95	1,5 - 95	3,5	 1SEP619690R0001	1SEP619207R0001

Cable terminations and cable shrouds
ZLBM123/ZHBM123

	Type of clamp/bolt	Conductor cross section min-max		Torque (Nm)	Type of cable shroud (can be used for both, top and bottom)
		Rm/Sm (mm^2)	Re/Se (mm^2)		
 1SEB000336	Bolt M12x40 (Standard)	Max 240	Max 240	25	 1SEP619210R0001 1SEP619211R0001
 1SEB000337	Integrated V-clamp	**Rm:** 16-35 50-185 **Sm:** 35-50 70-240	**Re:** 16-70 70-150 **Se:** 35-70 95-300	25	 1SEP619210R0001 1SEP619211R0001
 1SEB000149	V-clamp kit 1SEP304446R0001	**Rm:** 16-35 50-185 **Sm:** 35-50 70-240	**Re:** 16-70 70-150 **Se:** 35-70 95-300	25	 1SEP619210R0001 1SEP619211R0001
 1SEB000146 1SEB000146	Double V-clamp kit for switchboards 1SEP621078R0001	**Rm:** 2 x 16-35 2 x 50-185 **Sm:** 2 x 35-50 2 x 70-240	**Re:** 2 x 16-70 2 x 70-150 **Se:** 2 x 35-70 2 x 95-300	25	 1SEP619210R0001 1SEP619211R0001 1SEP6192130001

Cable terminations and cable shrouds
ZLBM123/ZHBM123

	Type of clamp/ bolt	Conductor cross section min-max		Torque (Nm)	Type of cable shroud (can be used for both, top and bottom)
		Rm/Sm (mm^2)	Re/Se (mm^2)		
 1SEB000417	Double cable lug kit f/ SWB 1SEP619276R0001	2 x Max 240	2 x Max 240	25	 1SEP619210R0001 1SEP619211R0001 1SEP6192130001
 1SEB000416	Double cable lug kit 1SEP619277R0001	2 x Max 300	2 x Max 300	25	 1SEP619210R0001 1SEP619211R0001 1SEP6192130001
	Integrated double terminal lug for 800/ 1250A versions	4 x Max 240	4 x Max 240	25	 1SEP6192120001

Ordering information
ZLBM Fuse switch disconnectors

ZLBM00-100

ZLBM00-1P

ZLBM123-1P

ZLBM00-3P

ZLBM123-3P

Type	Ie (A)	Description	Ident No.	Weight (kg)
ZLBM00 3 pole, 100 mm busbar distance				
ZLBM00-100-3P-M8	160	3 x M8 Bolt	1SEP620150R3000	
ZLBM 1 pole, Depth 121 mm				
ZLBM00-1P-M8	160	3 x M8 Bolt	1SEP620010R1000	1,75
ZLBM00-1P-V	160	3 x V-Clamps	1SEP620010R1020	1,90
ZLBM00-1P-3U-M8	160	3U shape busbars - 3xM8 Bolt	1SEP620170R1200	
ZLBM1-1P-M12	250	3 x M12 Universal Bolt	1SEP620011R1000	3,56
ZLBM1-1P-V	250	3 x V-Clamps	1SEP620011R1020	3,56
ZLBM1-L-1P-3U-M12	250	Long terminal cover-3U shape busbars - 3 x M12 Universal Bolt	1SEP620171R1200	
ZLBM2-1P-M12	400	3 x M12 Universal Bolt	1SEP620012R1000	4,04
ZLBM2-1P-V	400	3 x V-Clamps	1SEP620012R1020	4,02
ZLBM2-L-1P-3U-M12	400	Long terminal cover-3U shape busbars - 3 x M12 Universal Bolt	1SEP620172R1200	
ZLBM3-1P-M12	630	3 x M12 Universal Bolt	1SEP620013R1000	4,65
ZLBM3-1P-V	630	3 x V-Clamps	1SEP620013R1020	4,65
ZLBM3-L-1P-3U-M12	630	Long terminal cover-3U shape busbars - 3 x M12 Universal Bolt	1SEP620173R1200	
ZLBM800A-1P-M12	800	6 x M12 Universal Bolt	1SEP620014R1000	11,20
ZLBM 3 pole, Depth 121 mm				
ZLBM00-3P-M8	160	3 x M8 Bolt	1SEP620010R3000	1,82
ZLBM00-3P-V	160	3 x V-Clamps	1SEP620010R3020	1,97
ZLBM00-3P-3U-M8	160	3U shape busbars - 3xM8 Bolt	1SEP620170R3200	
ZLBM1-3P-M12	250	3 x M12 Universal Bolt	1SEP620011R3000	3,63
ZLBM1-3P-V	250	3 x V-Clamps	1SEP620011R3020	3,64
ZLBM1-L-3P-3U-M12	250	Long terminal cover-3U shape busbars - 3 x M12 Universal Bolt	1SEP620171R3200	
ZLBM2-3P-M12	400	3 x M12 Universal Bolt	1SEP620012R3000	4,13
ZLBM2-3P-V	400	3 x V-Clamps	1SEP620012R3020	4,12
ZLBM2-L-3P-3U-M12	400	Long terminal cover-3U shape busbars - 3 x M12 Universal Bolt	1SEP620172R3200	
ZLBM3-3P-M12	630	3 x M12 Universal Bolt	1SEP620013R3000	4,73
ZLBM3-3P-V	630	3 x V-Clamps	1SEP620013R3020	4,72
ZLBM3-L-3P-3U-M12	630	Long terminal cover-3U shape busbars - 3 x M12 Universal Bolt	1SEP620173R3200	
ZLBM800A-3P-M12	800	6xM12 Universal Bolt	1SEP620014R3000	11,10
ZLBM800A-3P-V	800	6xV-Clamps	1SEP620014R3020	
ZLBM1250A-3P-M12	1250	6xM12 Universal Bolt	1SEP620015R3000	12,25
ZLBM1250A-3P-V	1250	6xV-Clamps	1SEP620015R3020	

Ordering information
ZLBM Fuse switch disconnectors with electronic fuse monitoring (EFM)

ZLBM00-EFM

ZLBM123-EFM

Type	Ie (A)	Description	Ident No.	Weight (kg)
ZLBM 1 pole, Depth 121 mm				
ZLBM00-1P-M8-EFM	160	3xM8 Bolt	1SEP620010R1001	
ZLBM00-1P-V-EFM	160	3xV-Clamps	1SEP620010R1021	
ZLBM1-1P-M12-EFM	250	3xM12 Universal Bolt	1SEP620011R1001	
ZLBM1-1P-V-EFM	250	3xV-Clamps	1SEP620011R1021	
ZLBM2-1P-M12-EFM	400	3xM12 Universal Bolt	1SEP620012R1001	
ZLBM2-1P-V-EFM	400	3xV-Clamps	1SEP620012R1021	
ZLBM3-1P-M12-EFM	630	3xM12 Universal Bolt	1SEP620013R1001	
ZLBM3-1P-V-EFM	630	3xV-Clamps	1SEP620013R1021	
ZLBM 3 pole, Depth 121 mm				
ZLBM00-3P-M8-EFM	160	3xM8 Bolt	1SEP620010R3001	
ZLBM00-3P-V-EFM	160	3xV-Clamps	1SEP620010R3021	
ZLBM1-3P-M12-EFM	250	3xM12 Universal Bolt	1SEP620011R3001	
ZLBM1-3P-V-EFM	250	3xV-Clamps	1SEP620011R3021	
ZLBM2-3P-M12-EFM	400	3xM12 Universal Bolt	1SEP620012R3001	
ZLBM2-3P-V-EFM	400	3xV-Clamps	1SEP620012R3021	
ZLBM3-3P-M12-EFM	630	3xM12 Universal Bolt	1SEP620013R3001	
ZLBM3-3P-V-EFM	630	3xV-Clamps	1SEP620013R3021	

Ordering information
ZHBM Fuse switch disconnectors

ZHBM00-1P

ZHBM123-1P

ZHBM00-3P

ZHBM123-3P

Type	Ie (A)	Description	Ident No.	Weight (kg)
ZHBM 1 pole, Depth 154 mm				
ZHBM00-1P-M8	160	3 x M8 Bolt	1SEP620020R1000	1,83
ZHBM00-1P-V	160	3 x V-Clamps	1SEP620020R1020	1,93
ZHBM1-1P-M12	250	3 x M12 Universal Bolt	1SEP620021R1000	3,60
ZHBM1-1P-V	250	3 x V-Clamps	1SEP620021R1020	3,60
ZHBM2-1P-M12	400	3 x M12 Universal Bolt	1SEP620022R1000	4,17
ZHBM2-1P-V	400	3 x V-Clamps	1SEP620022R1020	4,15
ZHBM3-1P-M12	630	3 x M12 Universal Bolt	1SEP620023R1000	4,74
ZHBM3-1P-V	630	3 x V-Clamps	1SEP620023R1020	4,73
ZHBM 3 pole, Depth 154 mm				
ZHBM00-3P-M8	160	3 x M8 Bolt	1SEP620020R3000	1,90
ZHBM00-3P-V	160	3 x V-Clamps	1SEP620020R3020	2,00
ZHBM1-3P-M12	250	3 x M12 Universal Bolt	1SEP620021R3000	3,69
ZHBM1-3P-V	250	3 x V-Clamps	1SEP620021R3020	3,68
ZHBM2-3P-M12	400	3 x M12 Universal Bolt	1SEP620022R3000	4,24
ZHBM2-3P-V	400	3 x V-Clamps	1SEP620022R3020	4,24
ZHBM3-3P-M12	630	3 x M12 Universal Bolt	1SEP620023R3000	4,81
ZHBM3-3P-V	630	3 x V-Clamps	1SEP620023R3020	4,81
ZHBM800A-3P-M12	800	6xM12 Universal Bolt	1SEP620024R3000	11,20
ZHBM800A-3P-V	800	6xV-Clamps	1SEP620024R3020	
ZHBM1250A-3P-M12	1250	6xM12 Universal Bolt	1SEP620025R3000	12,45
ZHBM1250A-3P-V	1250	6xV-Clamps	1SEP620025R3020	

Ordering information
ZHBM Fuse switch disconnectors with electronic fuse monitoring (EFM)

ZHBM00-EFM

ZHBM123-EFM

Type	Ie (A)	Description	Ident No.	Weight (kg)
ZHBM 1 pole, Depth 154 mm				
ZHBM00-1P-M8-EFM	160	3xM8 Bolt	1SEP620020R1001	
ZHBM00-1P-V-EFM	160	3xV-Clamps	1SEP620020R1021	
ZHBM1-1P-M12-EFM	250	3xM12 Universal Bolt	1SEP620021R1001	
ZHBM1-1P-V-EFM	250	3xV-Clamps	1SEP620021R1021	
ZHBM2-1P-M12-EFM	400	3xM12 Universal Bolt	1SEP620022R1001	
ZHBM2-1P-V-EFM	400	3xV-Clamps	1SEP620022R1021	
ZHBM3-1P-M12-EFM	630	3xM12 Universal Bolt	1SEP620023R1001	
ZHBM3-1P-V-EFM	630	3xV-Clamps	1SEP620023R1021	
ZHBM 3 pole, Depth 154 mm				
ZHBM00-3P-M8-EFM	160	3xM8 Bolt	1SEP620020R3001	
ZHBM00-3P-V-EFM	160	3xV-Clamps	1SEP620020R3021	
ZHBM1-3P-M12-EFM	250	3xM12 Universal Bolt	1SEP620021R3001	
ZHBM1-3P-V-EFM	250	3xV-Clamps	1SEP620021R3021	
ZHBM2-3P-M12-EFM	400	3xM12 Universal Bolt	1SEP620022R3001	
ZHBM2-3P-V-EFM	400	3xV-Clamps	1SEP620022R3021	
ZHBM3-3P-M12-EFM	630	3xM12 Universal Bolt	1SEP620023R3001	
ZHBM3-3P-V-EFM	630	3xV-Clamps	1SEP620023R3021	

Ordering information
ZUBM Fuse rails and accessories

ZUBM 00

ZUBM 123

Fuse rails

Phase barriers and cable shrouds are available separately.

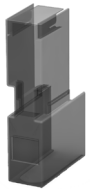
Type	I_e (A)	Description	Ident No.	Weight (kg)
ZUBM00-M8	160	3xM8 Bolt	1SEP620000R1000	1,20
ZUBM1-M12	250	3xM12 Universal Bolt	1SEP620001R1000	2,10
ZUBM1-V	250	3xV-Clamps	1SEP620001R1020	2,00
ZUBM2-M12	400	3xM12 Universal Bolt	1SEP620002R1000	2,52
ZUBM2-V	400	3xV-Clamps	1SEP620002R1020	2,50
ZUBM3-M12	630	3xM12 Universal Bolt	1SEP620003R1000	3,15
ZUBM3-V	630	3xV-Clamps	1SEP620003R1020	3,00

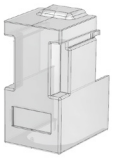
ZUBM00 Fuse protection cover

Accessories for fuse rails

Type	Ident No.	Weight (kg)
Accessories for ZUBM 00		
ZUBM00 Fuse protection cover	1SEP619752R0001	0,40
ZUBM/ XUBM00 Phase barrier kit	1SEP304442R0001	0,10
ZUBM00 Cable shroud	1SEP619686R0001	0,13
Accessories for ZUBM 1/2/3		
ZUBM/ XUBM123 Fuse protection cover	1SEP201499R0001	0,40
ZUBM/ XUBM123 Phase barrier kit	1SEP304395R0001	0,07
ZUBM123 Cable shroud	1SEP619717R0001	0,18

ZUBM123 Fuse protection cover

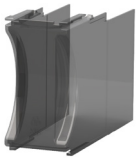

ZUBM00 Cable shroud


ZUBM123 Cable shroud

Ordering information
ZLBM/ZHBM - Accessories

Cabling and mounting accessories for ZLBM00-100

Type	Ident No.	Weight (kg)
ZLBM00-100 Side Panel Support	1SEP621064R0001	
ZLBM00-100 Label Holder	1SEP621065R0001	
ZLBM00-100 Single adapter for 60mm busbar distance	1SEP304064R0001	
ZLBM00-100 Single adapter for 100 to 185mm busbar distance	1SEP304066R0001	
ZLBM00-100 Double adapter for 100 to 185mm busbar distance	1SEP304065R0001	
00 Bridge clamp 1,5-50mm2 (3pcs)	1SEP407733R0001	
00 Single prism clamp 1,5-95mm2 (3pcs)	1SEP407732R0005	
ZLBM00-100 Aux switch NO/ NC	1SEP621097R0001	
ZLBM00-100 Hooked clamp kit	1SEP621220R0001	

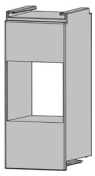


Cable shroud L86

Cable shroud L177

Cabling and mounting accessories for ZLBM/ZHBM 00

Type	Ident No.	Weight (kg)
ZLBM00 Cable shroud L86	1SEP619690R0001	
ZLBM00 Cable shroud L177	1SEP619207R0001	0,2
ZLBM / ZHBM 00 Label holder	1SEP619208R0001	0,02
00 Bridge clamp 1,5-50mm^2 (3pcs)	1SEP407733R0001	0,04
00 Single prism clamp 1,5-95mm^2 (3pcs)	1SEP407732R0005	0,1
00 Single adapter M12 to M8 for 185mm busbar dist.	1SEP304072R0001	0,4
ZLBM00 Double adapter 185mm	1SEP619388R0001	0,11
ZLBM00 Hooked clamp kit	1SEP619499R0001	0,30
ZLBM00 Spare way cover	1SEP304069R0001	



A-meter housing

A-meters and housing for ZLBM/ZHBM 00

Type	Ident No.	Weight (kg)
ZLBM / ZHBM 00 A-meter house for A-meter 48x48 mm	1SEP619209R0001	0,04
Max. A-meter QB48, 0-150-180/5A	NHSN 714003P1150	

Current transformers (CT) and busbar kit for ZLBM00

By using busbar kits, CT can be mounted at the rear side of fuse swtich disconnectors ZBLM00.

Type	Ident No.	Weight (kg)
ZLBM/XLBM CT rear side with Cu Tube 160/5A 2,5VA Cl.1 (3pcs)	1SEP408149R0001	1,3

ZHBM 00 CT

Current transformers (CT) and accessories for ZHBM 00

CT can be fitted on the rear side of fuse swtich disconnectors ZHBM00. 1 CT per phase.

Type	Ident No.	Weight (kg)
ZHBM 00 CT Slide on rear side 80/1A 1,0VA Cl.0,5	1SEP619863P0001	0,15
ZHBM 00 CT Slide on rear side 80/1A 1,5VA Cl.1	1SEP619864P0001	0,15
ZHBM 00 CT Slide on rear side 100/1A 1,5VA Cl.0,5	1SEP619865P0001	0,15
ZHBM 00 CT Slide on rear side 100/1A 1,5VA Cl.0,5s	1SEP619866P0001	0,15
ZHBM 00 CT Slide on rear side 100/1A 2,0VA Cl.1	1SEP619867P0001	0,15
ZHBM 00 CT Slide on rear side 120/1A 1,5VA Cl.0,5	1SEP619868P0001	0,15
ZHBM 00 CT Slide on rear side 120/1A 1,5VA Cl.0,5s	1SEP619869P0001	0,15

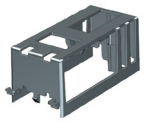
Ordering information
ZLBM/ZHBM - Accessories

ZHBM 00 CT

Current transformers (CT) for ZHBM 00

CT can be fitted on the rear side of fuse swtich disconnectors ZHBM123. 1 CT per phase.

Type	Ident No.	Weight (kg)
ZHBM 00 CT Slide on rear side 120/1A 2,5VA Cl.1	1SEP619870P0001	0,15
ZHBM 00 CT Slide on rear side 125/1A 1,5VA Cl.0,5	1SEP619871P0001	0,15
ZHBM 00 CT Slide on rear side 125/1A 1,5VA Cl.0,5s	1SEP619872P0001	0,15
ZHBM 00 CT Slide on rear side 125/1A 2,5VA Cl.1	1SEP619873P0001	0,15
ZHBM 00 CT Slide on rear side 150/1A 2,0VA Cl.0,5	1SEP619874P0001	0,15
ZHBM 00 CT Slide on rear side 150/1A 1,5VA Cl.0,5s	1SEP619875P0001	0,15
ZHBM 00 CT Slide on rear side 150/1A 2,5VA Cl.1	1SEP619876P0001	0,15
ZHBM 00 CT Slide on rear side 160/1A 2,5VA Cl.0,5	1SEP619877P0001	0,15
ZHBM 00 CT Slide on rear side 160/1A 1,5VA Cl.0,5s	1SEP619878P0001	0,15
ZHBM 00 CT Slide on rear side 160/1A 2,5VA Cl.1	1SEP619879P0001	0,15
ZHBM 00 CT Slide on rear side 80/5A 1,0VA Cl.0,5	1SEP619880P0001	0,15
ZHBM 00 CT Slide on rear side 80/5A 1,0VA Cl.1	1SEP619881P0001	0,15
ZHBM 00 CT Slide on rear side 100/5A 1,0VA Cl.0,5	1SEP619882P0001	0,15
ZHBM 00 CT Slide on rear side 100/5A 1,0VA Cl.0,5s	1SEP619883P0001	0,15
ZHBM 00 CT Slide on rear side 100/5A 1,5VA Cl.1	1SEP619510P0001	0,15
ZHBM 00 CT Slide on rear side 120/5A 1,5VA Cl.0,5	1SEP619884P0001	0,15
ZHBM 00 CT Slide on rear side 120/5A 1,5VA Cl.0,5s	1SEP619885P0001	0,15
ZHBM 00 CT Slide on rear side 120/5A 2,0VA Cl.1	1SEP619886P0001	0,15
ZHBM 00 CT Slide on rear side 125/5A 1,5VA Cl.0,5	1SEP619887P0001	0,15
ZHBM 00 CT Slide on rear side 125/5A 1,5VA Cl.0,5s	1SEP619888P0001	0,15
ZHBM 00 CT Slide on rear side 125/5A 2,5VA Cl.1	1SEP619889P0001	0,15
ZHBM 00 CT Slide on rear side 150/5A 2,0VA Cl.0,5	1SEP619890P0001	0,15
ZHBM 00 CT Slide on rear side 150/5A 1,5VA Cl.0,5s	1SEP619891P0001	0,15
ZHBM 00 CT Slide on rear side 150/5A 2,5VA Cl.1	1SEP619511P0001	0,15
ZHBM 00 CT Slide on rear side 160/5A 2,0VA Cl.0,5	1SEP619892P0001	0,15
ZHBM 00 CT Slide on rear side 160/5A 1,5VA Cl.0,5s	1SEP619893P0001	0,15
ZHBM 00 CT Slide on rear side 160/5A 2,5VA Cl.1	1SEP619894P0001	0,15
ZHBM00 CT Covers Kit, Spare Parts	1SEP619566R0001	0,90
CT terminal 160A/5A 5VA cl.0,5	1SEP408149R0006	0,6



ZHBM 00 CT Covers kit

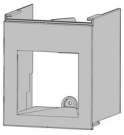
Ordering information
ZLBM/ZHBM - Accessories

Cable shroud L86

Cable shroud L77

Cable shroud L390

Cable shroud L268



A-meter housing

CT for ZLBM123

Cabling and mounting accessories for ZLBM/ZHBM 123

Type	Ident No.	Weight (kg)
ZLBM123 Cable shroud L86	1SEP619211R0001	0,07
ZLBM123 Cable shroud L177	1SEP619210R0001	0,12
ZLBM800/1250 Cable shroud L268	1SEP619212R0001	0,37
ZLBM123 Cable shroud L390	1SEP619213R0001	0,38
ZLBM123 Phase barrier for cable terminal	1SEP619682R0001	0,02
ZLBM / ZHBM 123 Label holder	1SEP619214R0001	0,06
ZLBM / ZHBM 123 Label holder (250 pcs in a package)	1SEP619214R0250	TBD
ZLBM/XLBM123 V-clamp kit	1SEP304446R0001	0,5
ZLBM/XLBM123 Double V-clamp kit f/SWBD	1SEP621078R0001	
ZLBM123 Double cable lug kit f/SWBD	1SEP619276R0001	
ZLBM123 Cable lug kit 2x300 mm^2	1SEP619277R0001	
ZLBM kit for mounting 2 x 400/630A-3P	1SEP619216R0001	
ZLBM kit for mounting 2 x 400/630A-1P	1SEP621008R0001	
ZLBM123 Hooked clamp kit	1SEP619498R0001	

A-meters and housing for ZLBM/ZHBM 123

Type	Ident No.	Weight (kg)
ZLBM / ZHBM 123 A-meter housing for A-meter 72x72 mm	1SEP619215R0001	0,13
Max A-meter QB72, 0-150-180/5A	NHSN714004P2206	0,20
Max A-meter QB72, 0-200-300/5A	NHSN714004P2208	0,20
Max A-meter QB72, 0-400-480/5A	NHSN714004P2210	0,20
Max A-meter QB72, 0-600-720/5A	NHSN714004P2212	0,20

Current transformers (CT) busbar kits for ZLBM123

By using busbar kits, CT can be mounted at the rear side of fuse swtich disconnectors ZBLM123

Type	Ident No.	Weight (kg)
ZLBM/XLBM CT rear side with Cu Tube 200A/5A 3,75VA cl.1 (3pcs)	1SEP408149R0002	1,3
ZLBM/XLBM CT rear side with Cu Tube 400A/5A 5VA cl.1 (3pcs)	1SEP408149R0003	1,3
ZLBM/XLBM CT rear side with Cu Tube 600A/5A 5VA cl.1 (3pcs)	1SEP408149R0004	1,3
ZLBM/XLBM CT rear side with Cu Tube 600A/5A 5VA cl.0,5 (3pcs)	1SEP408149R0005	1,3

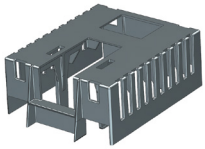
Ordering information
ZLBM/ZHBM - Accessories

ZHBM 1/2/3 CT

Current transformers (CT) for ZHBM 123

CT can be fitted on the rear side of fuse swtich disconnectors ZHBM123. 1 CT per phase.

Type	Ident No.	Weight (kg)
ZHBM CT Slide on rear side 250/1A 3,75VA Cl.0,5	1SEP619895P0001	0,20
ZHBM CT Slide on rear side 250/1A 2,5VA Cl.0,5s	1SEP619896P0001	0,20
ZHBM CT Slide on rear side 250/1A 5,0VA Cl.1	1SEP619897P0001	0,20
ZHBM CT Slide on rear side 300/1A 3,75VA Cl.0,5	1SEP619898P0001	0,20
ZHBM CT Slide on rear side 300/1A 3,75VA Cl.0,5s	1SEP619899P0001	0,20
ZHBM CT Slide on rear side 300/1A 5,0VA Cl.1	1SEP619900P0001	0,20
ZHBM CT Slide on rear side 400/1A 5,0VA Cl.0,5	1SEP619901P0001	0,20
ZHBM CT Slide on rear side 400/1A 5,0VA Cl.0,5s	1SEP619902P0001	0,20
ZHBM CT Slide on rear side 400/1A 5,0VA Cl.1	1SEP619903P0001	0,20
ZHBM CT Slide on rear side 500/1A 5,0VA Cl.0,5	1SEP619904P0001	0,20
ZHBM CT Slide on rear side 500/1A 5,0VA Cl.0,5s	1SEP619905P0001	0,20
ZHBM CT Slide on rear side 500/1A 5,0VA Cl.1	1SEP619906P0001	0,20
ZHBM CT Slide on rear side 600/1A 5,0VA Cl.0,5	1SEP619907P0001	0,20
ZHBM CT Slide on rear side 600/1A 5,0VA Cl.0,5s	1SEP619908P0001	0,20
ZHBM CT Slide on rear side 600/1A 5,0VA Cl.1	1SEP619909P0001	0,20
ZHBM CT Slide on rear side 250/5A 3,75VA Cl.0,5	1SEP619910P0001	0,20
ZHBM CT Slide on rear side 250/5A 2,5VA Cl.0,5s	1SEP619911P0001	0,20
ZHBM CT Slide on rear side 250/5A 5VA Cl.1	1SEP619512P0001	0,20
ZHBM CT Slide on rear side 300/5A 3,75VA Cl.0,5	1SEP619912P0001	0,20
ZHBM CT Slide on rear side 300/5A 3,75VA Cl.0,5s	1SEP619913P0001	0,20
ZHBM CT Slide on rear side 300/5A 5,0VA Cl.1	1SEP619914P0001	0,20
ZHBM CT Slide on rear side 400/5A 5,0VA Cl.0,5	1SEP619915P0001	0,20
ZHBM CT Slide on rear side 400/5A 5,0VA Cl.0,5s	1SEP619916P0001	0,20
ZHBM CT Slide on rear side 400/5A 5VA Cl.1	1SEP619513P0001	0,20
ZHBM CT Slide on rear side 500/5A 5,0VA Cl.0,5	1SEP619917P0001	0,20
ZHBM CT Slide on rear side 500/5A 5,0VA Cl.0,5s	1SEP619918P0001	0,20
ZHBM CT Slide on rear side 500/5A 5,0VA Cl.1	1SEP619919P0001	0,20
ZHBM CT Slide on rear side 600/5A 5,0VA Cl.0,5	1SEP619920P0001	0,20
ZHBM CT Slide on rear side 600/5A 5,0VA Cl.0,5s	1SEP619921P0001	0,20
ZHBM CT Slide on rear side 600/5A 5VA Cl.1	1SEP619514P0001	0,20
Multiplug kit size 123	1SEP619504R0001	0,10
ZHBM123 CT Covers Kit, Spare Parts	1SEP619565R0001	0,20
ZLBM/XLBM123 Terminal Kit for CT's	1SEP618948R0001	



ZHBM 1/2/3 CT Covers kit

Ordering information
ZLBM/ZHBM - Accessories

Huckepack

Huckepack for ZLBM/ZHBM 123

Plug-in huckepack for temporary additional output

Type	Ident No.	Weight (kg)
ZLBM/XLBM123 Huckepack	NHSN722068P0002	0,3

Plug in A-meter and CT at NH2 fuse link

Plug-in ammeters and CT for ZLBM/ZHBM 123

Type	Ident No.	Weight (kg)
Plug in A-meter, front cover inst. 200-400/5A	NHPL046270R0001	0,20
Plug in CT for front cover inst. A-meter 200/5A 3,5VA cl.3	NHSN718050P2525	0,10
Plug in CT for front cover inst. A-meter 400/5A 5VA cl.3	NHSN718050P2540	0,10
NH2 Fuse link 400V/100A for plug in CT	NHPL046265R0001	0,50
NH2 Fuse link 400V/125A for plug in CT	NHPL046266R0001	0,50
NH2 Fuse link 400V/160A for plug in CT	NHPL046267R0001	0,50
NH2 Fuse link 400V/200A for plug in CT	NHPL046268R0001	0,50
NH2 Fuse link 400V/224A for plug in CT	NHPL046269R0001	0,55
NH2 Fuse link 400V/250A for plug in CT	NHPL046272R0001	0,55
NH2 Fuse link 400V/315A for plug in CT	NHPL046273R0001	0,50
NH2 Fuse link 400V/400A for plug in CT	NHPL046275R0001	0,55

CT terminals for ZLBM/ZUBM

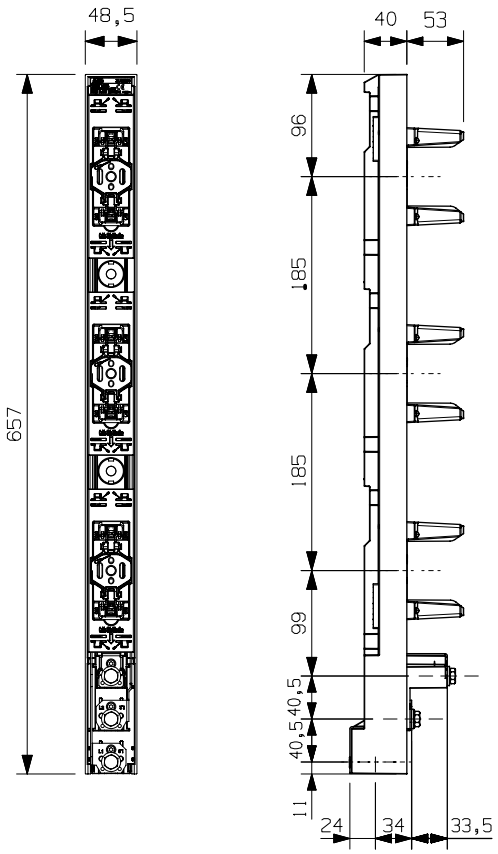
Type	Ident No.	Weight (kg)
ZLBM/ZUBM CT Terminal 200/5A 3,75VA Cl.1	1SEP619506R0001	
ZLBM/ZUBM CT terminal 400/5A 5VA Cl.1	1SEP619516R0001	
ZLBM/ZUBM CT terminal 600/5A 5VA Cl.1	1SEP619517R0001	
ZLBM/ZUBM CT terminal 600/5A 5VA Cl.0,5	1SEP619519R0001	

Auxiliary switches for ZLBM/ZHBM

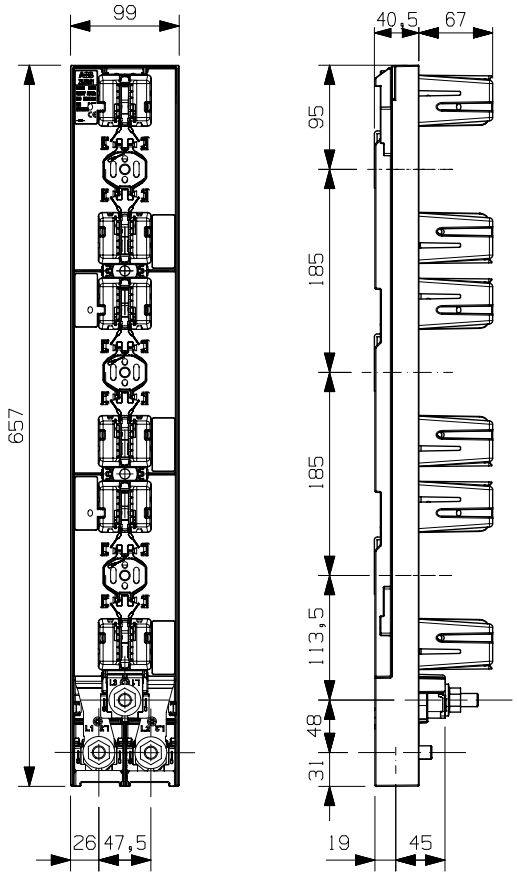
Type	Ident No.	Weight (kg)
ZLBM Aux switch NC	1SEP619554R0001	0,02
ZLBM Aux switch NO	1SEP619555R0001	0,02

Dimension drawings
ZUBM

ZUBM00
(1SEB000402)

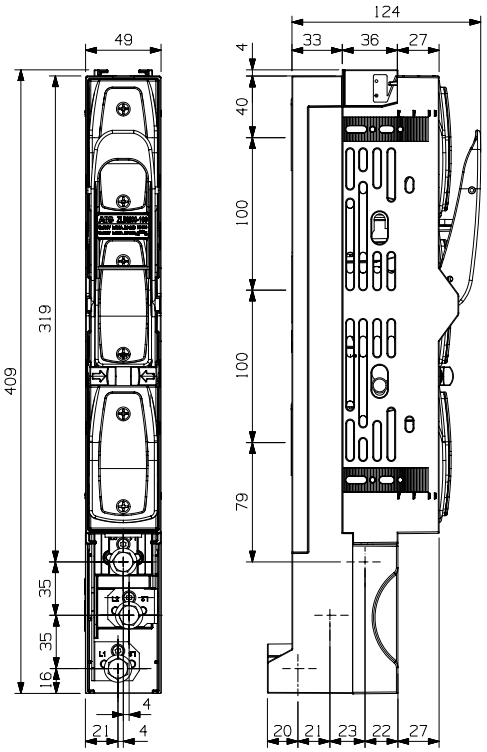


ZUBM123
(1SEB000403)



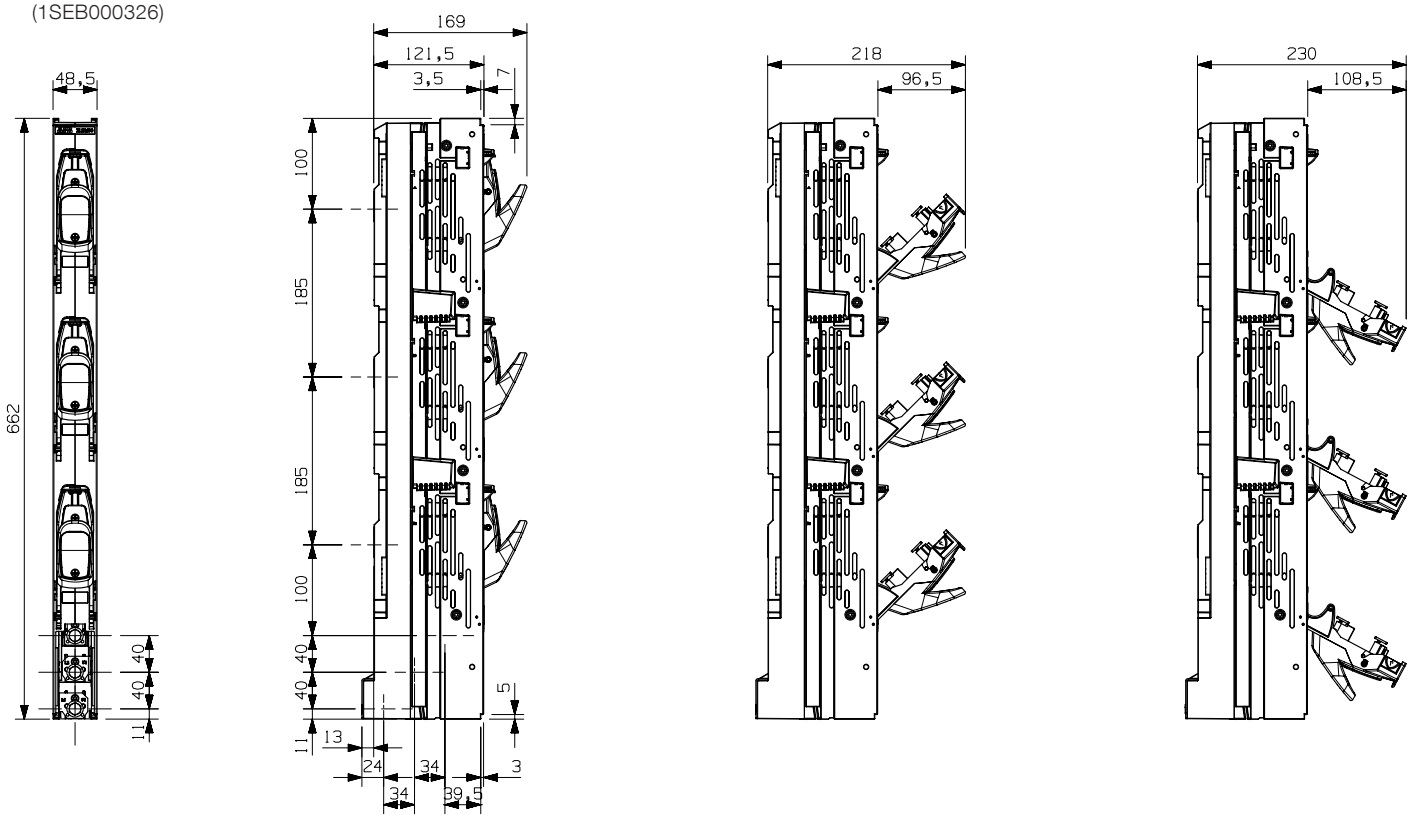
Dimension drawings
ZLBM00

ZLBM00-100



ZLBM00-1P, ZLBM00-1P-3U-M8

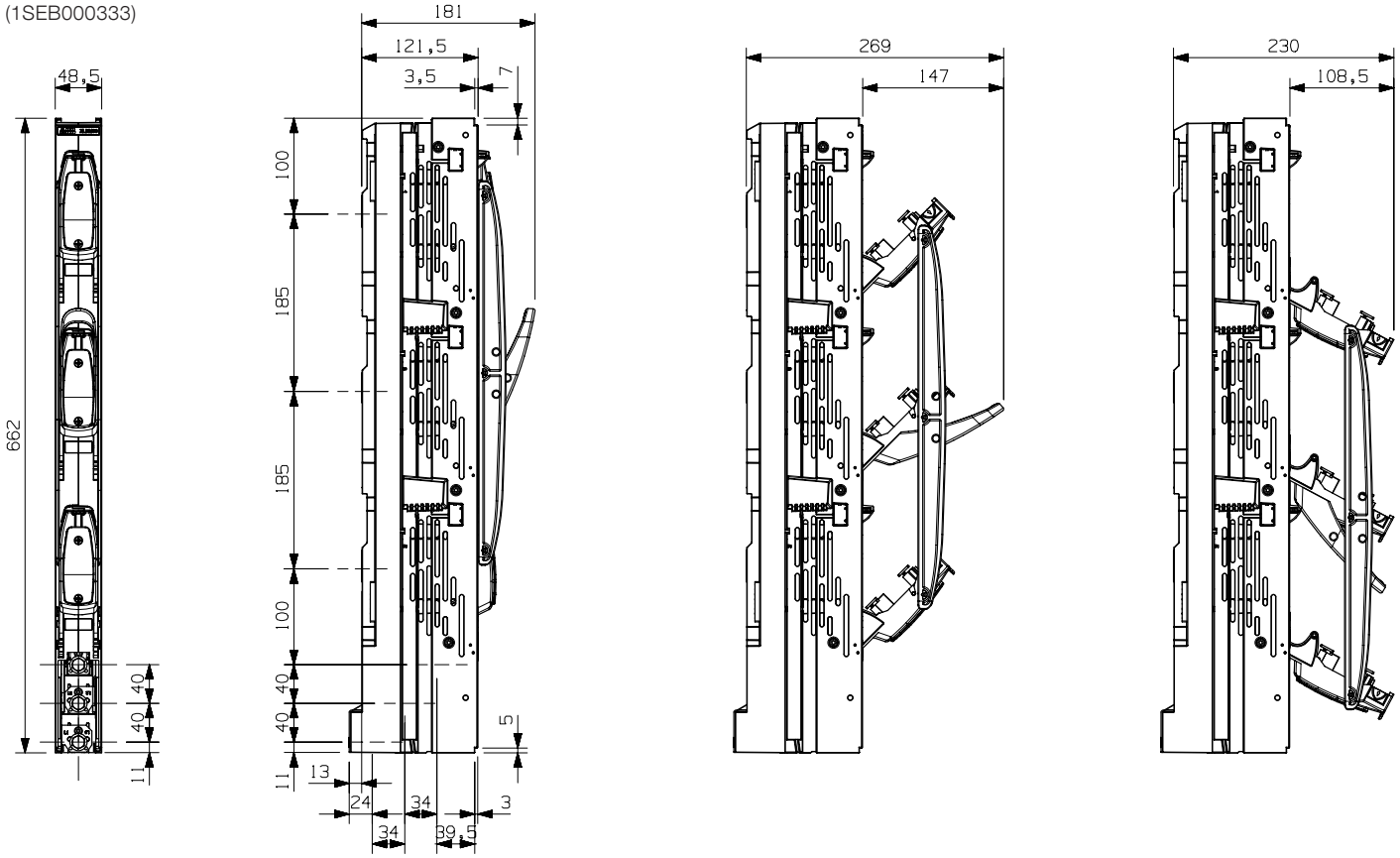
(1SEB000326)



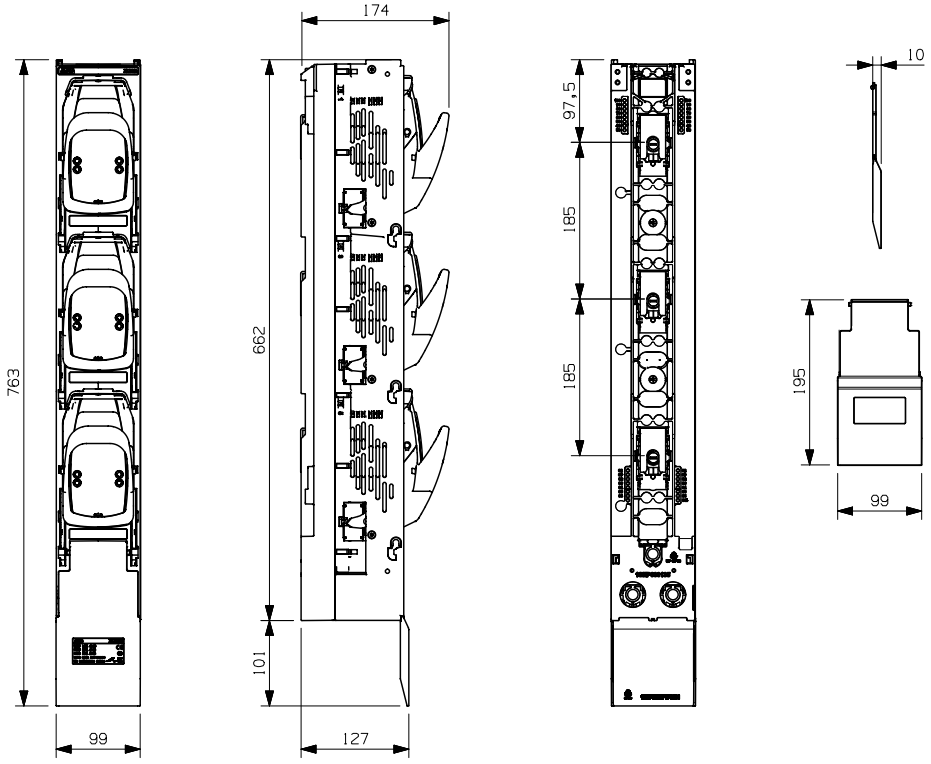
Dimension drawings
ZLBM00/123

ZLBM00-3P, ZLBM00-3P-3U-M8

(1SEB000333)

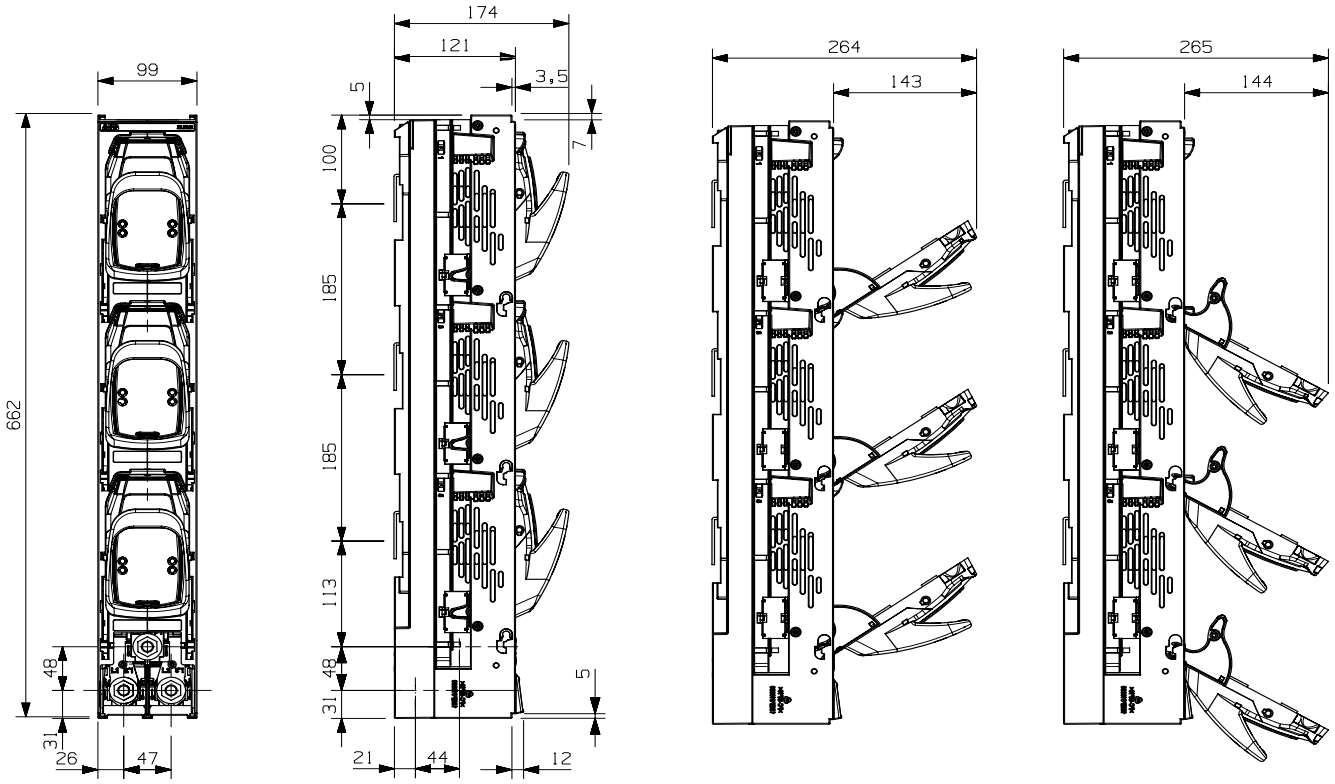


ZLBM123-3U-M12



Dimension drawings
ZLBM123

ZLBM123-1P
(1SEB000325)



ZLBM123-3P
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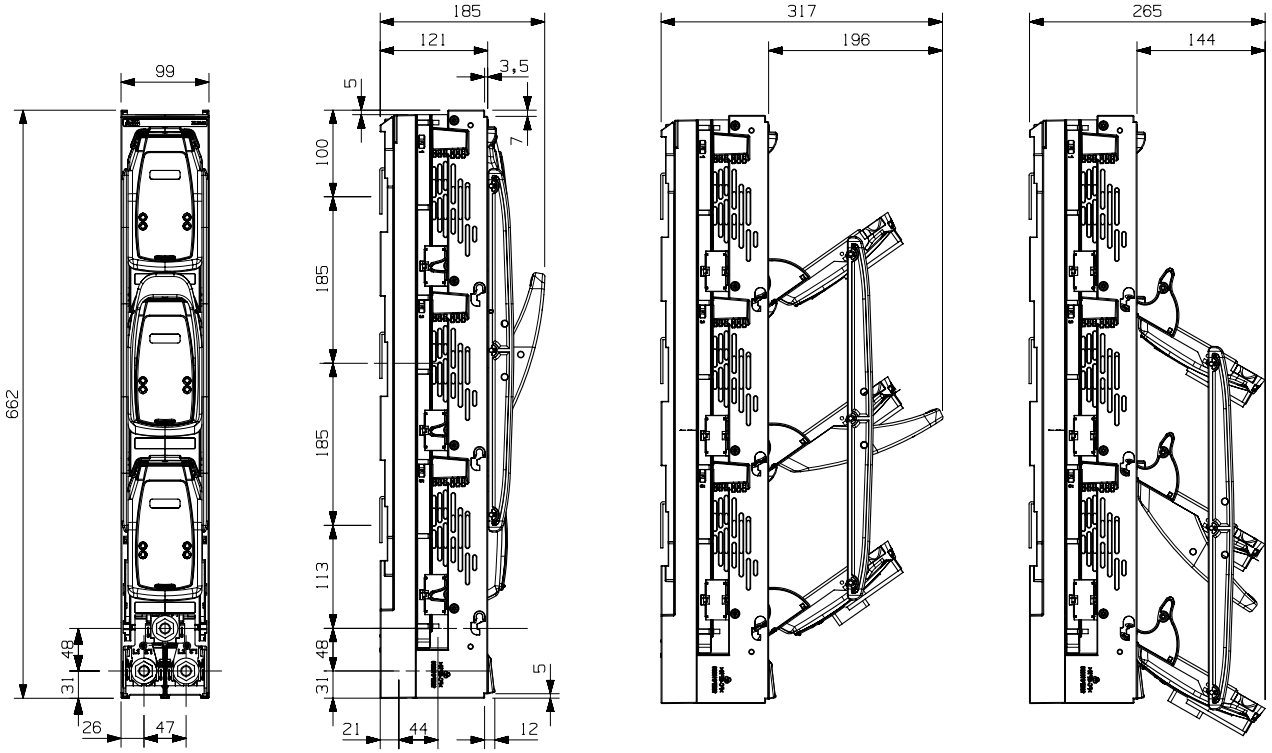

Dimension drawings
ZLBM123

ZLBM800/1250-1P
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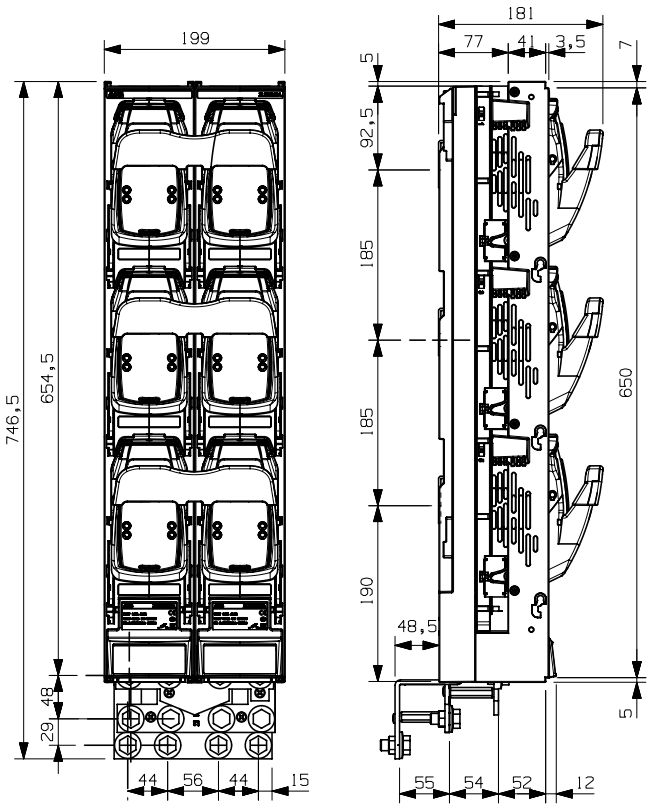
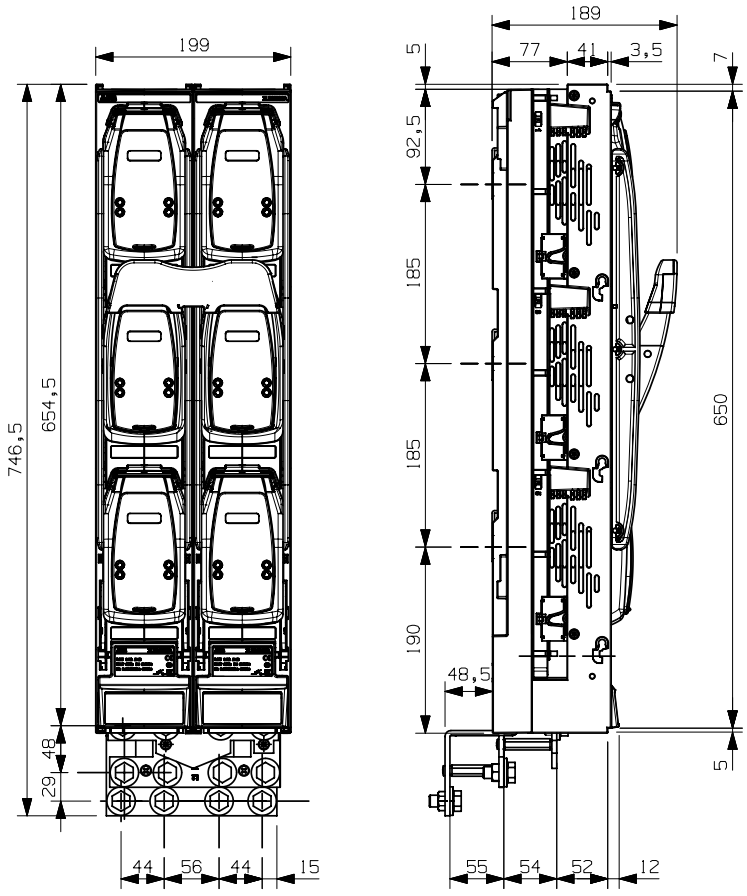


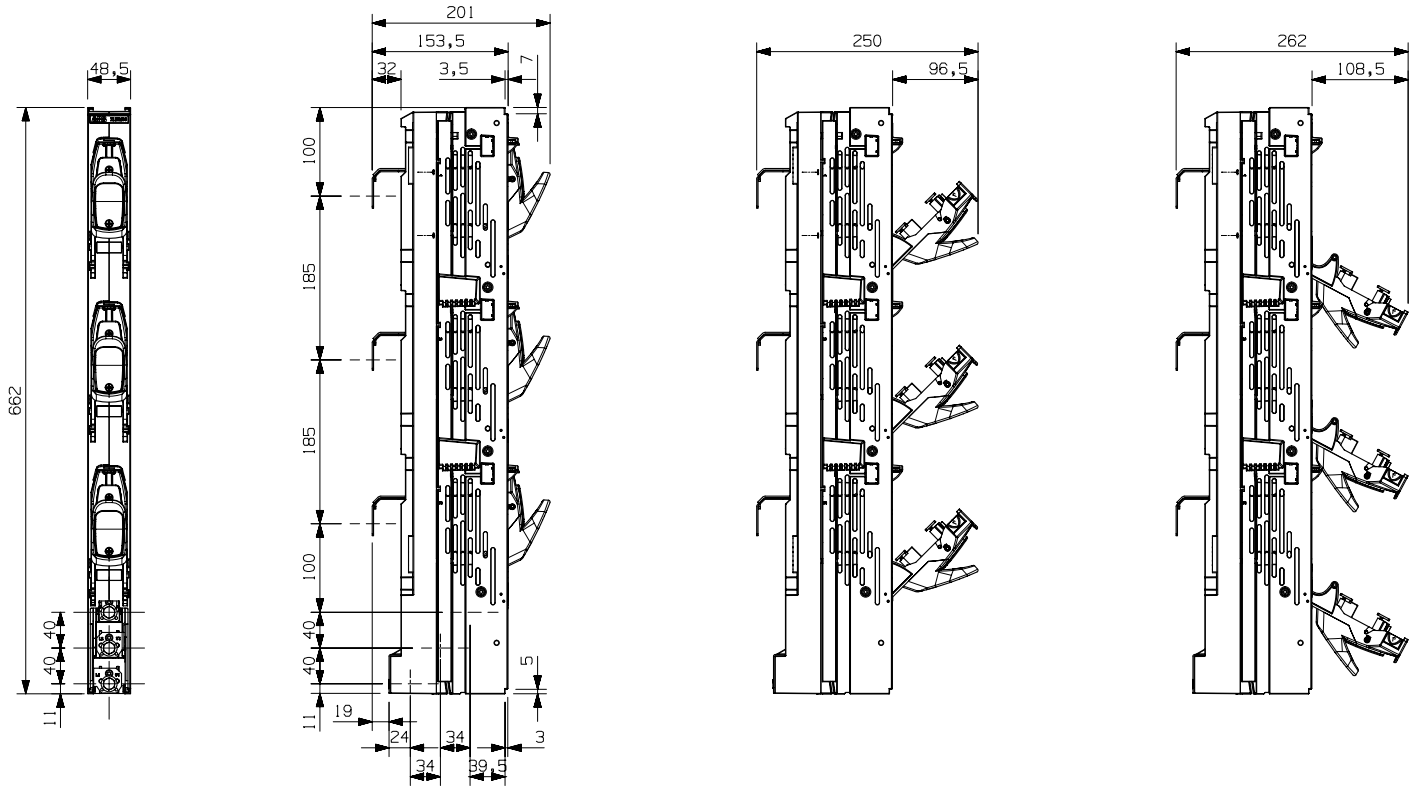
ZLBM800/1250-3P
(1SEB000410)



Dimension drawings
ZHBM00

ZHBM00-1P

(1SEB000330)



ZHBM00-3P

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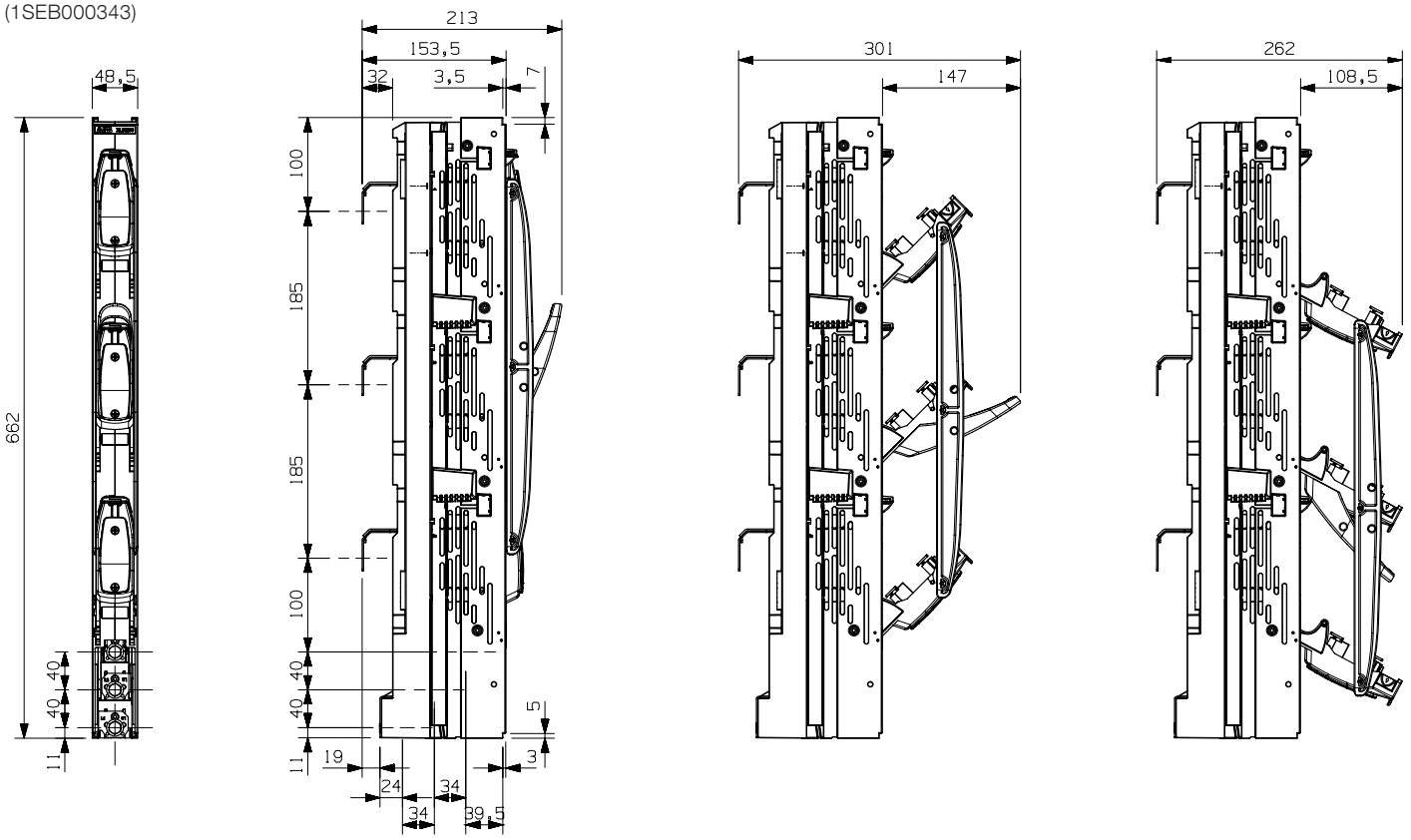
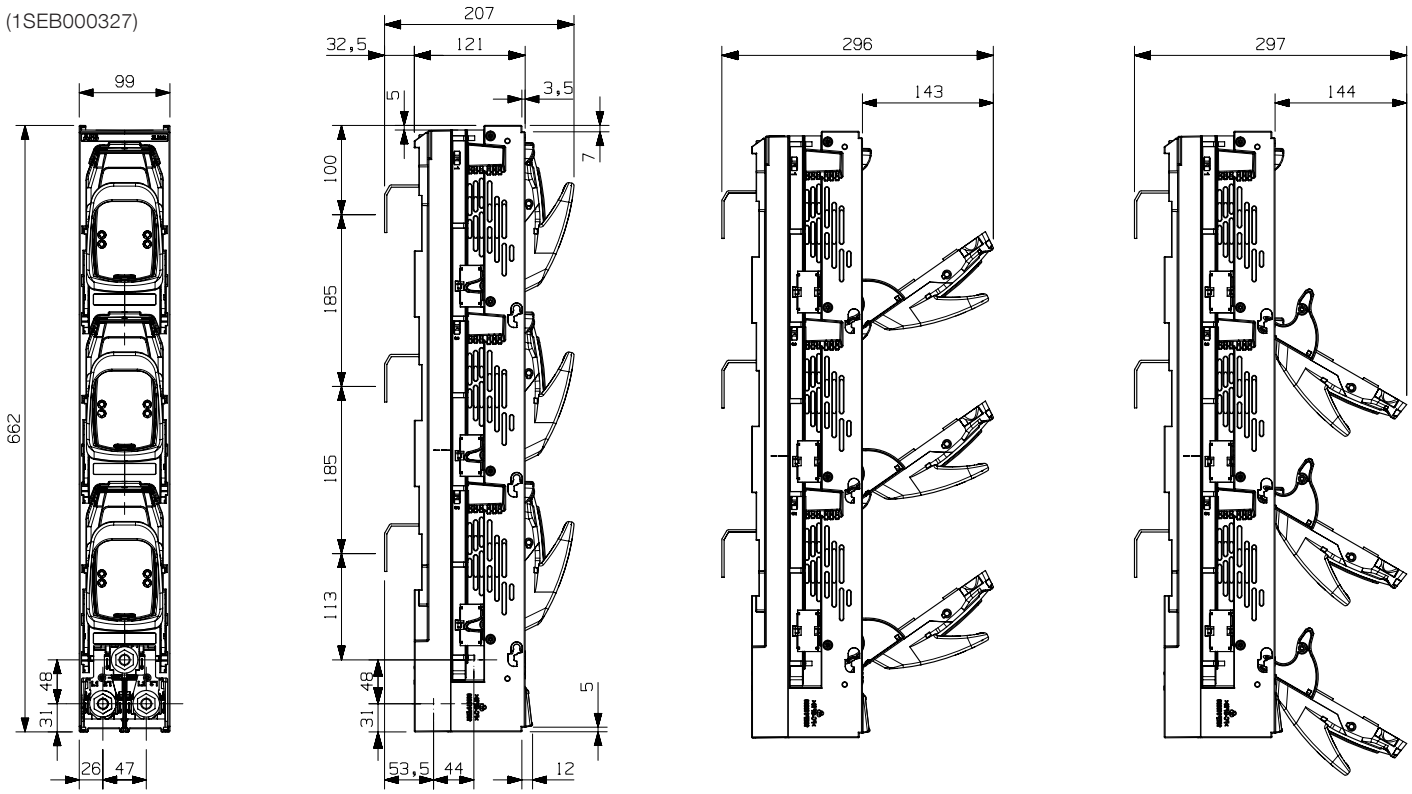


Dimension drawings
ZHBM123

ZHBM123-1P
(1SEB000327)



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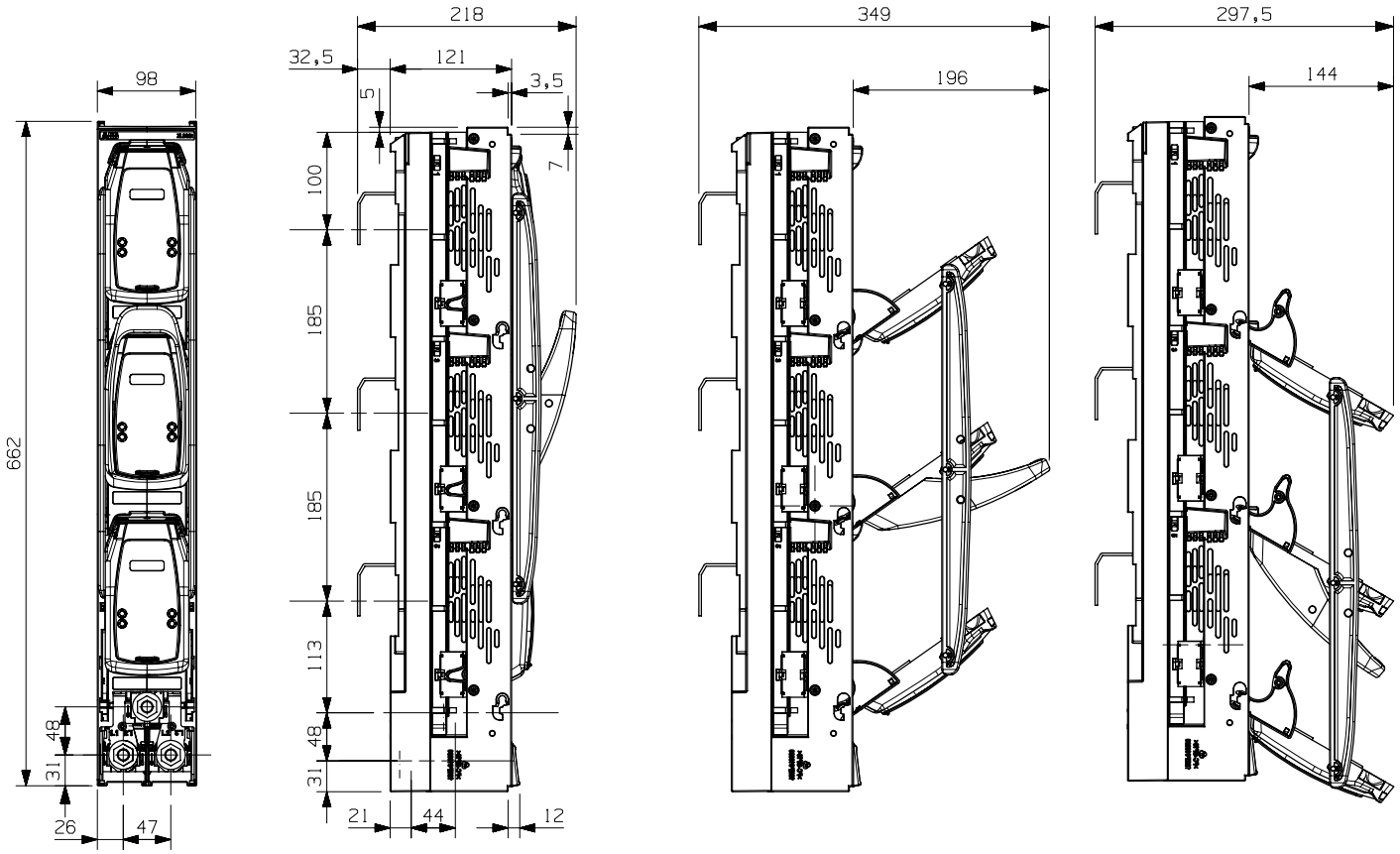
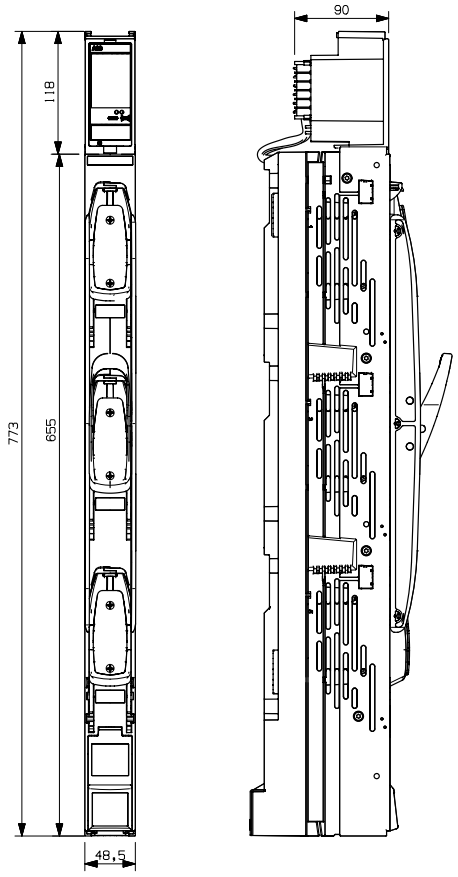


Dimension drawings
Electronic Fuse Monitoring (EFM)

ZLBM00-EFM



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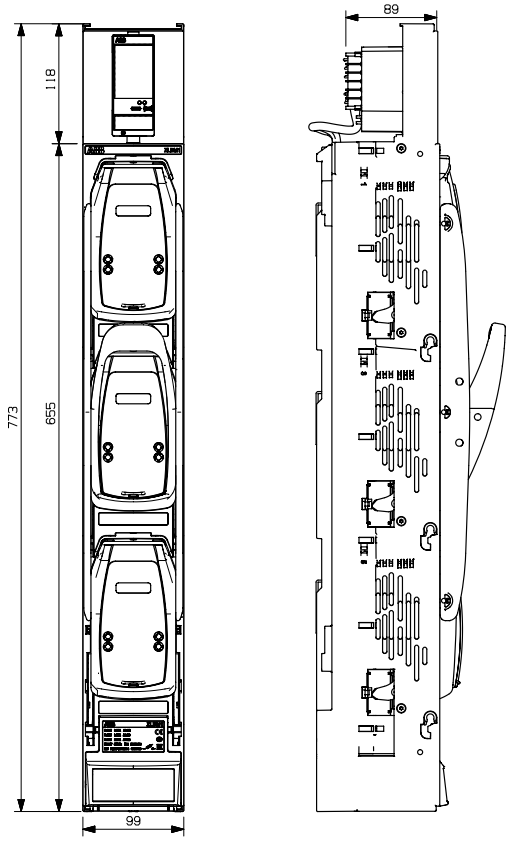

Dimension drawings
Cable shrouds

ZLBM00
(1SEB000345)

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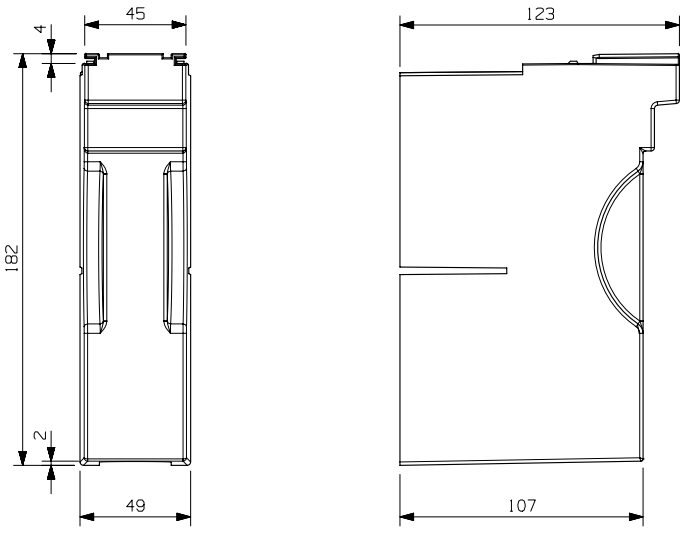

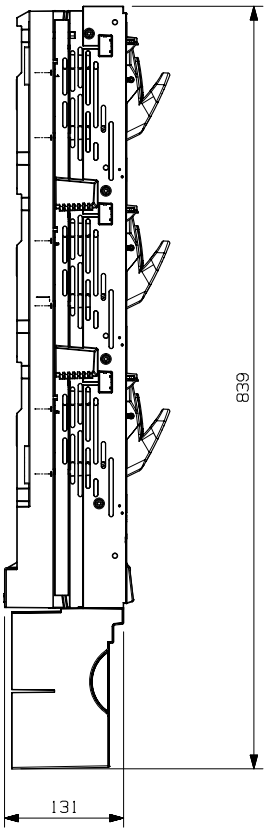

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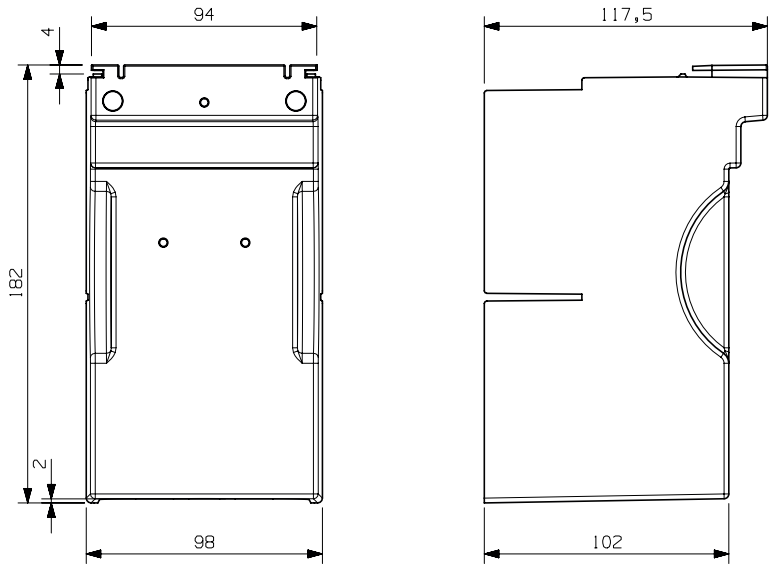
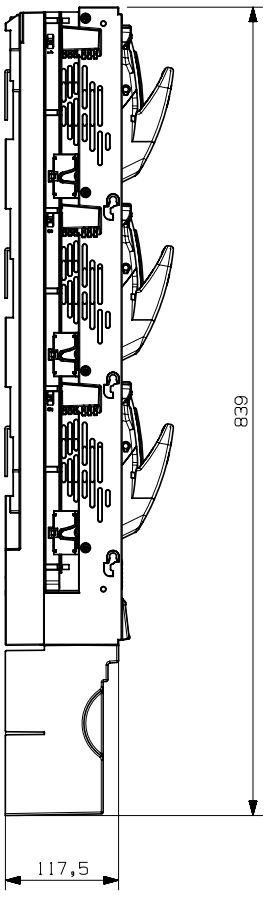
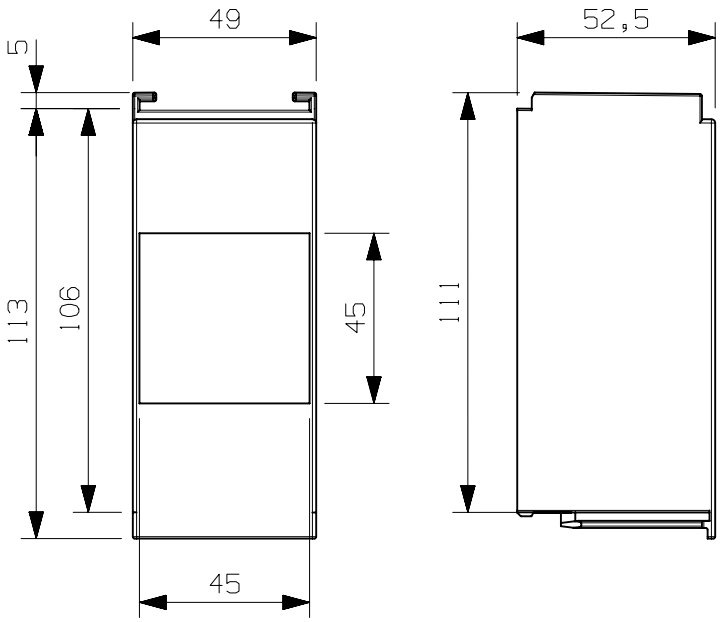


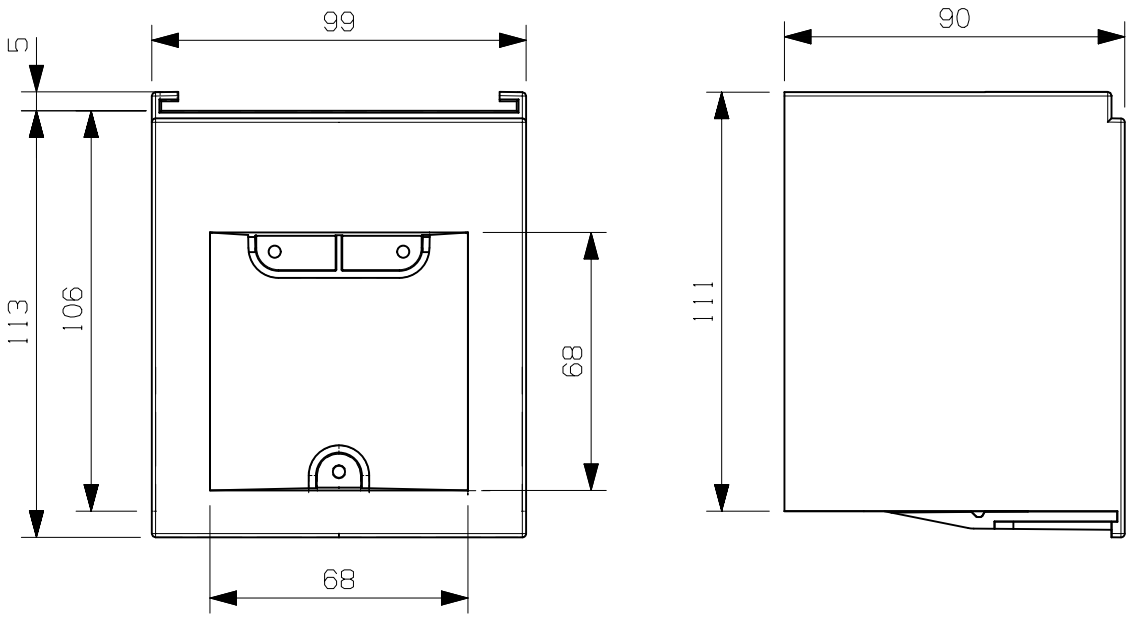


Dimension drawings
Ammeter house

ZLBM00
(1SEB000392)

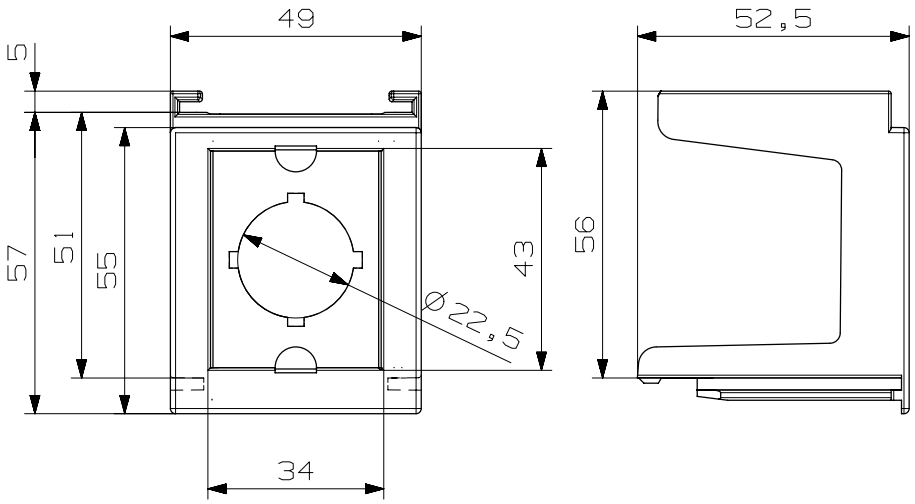


ZLBM123
(1SEB000399)



Dimension drawings
Label holders

ZLBM00
(1SEB000391)



ZLBM123
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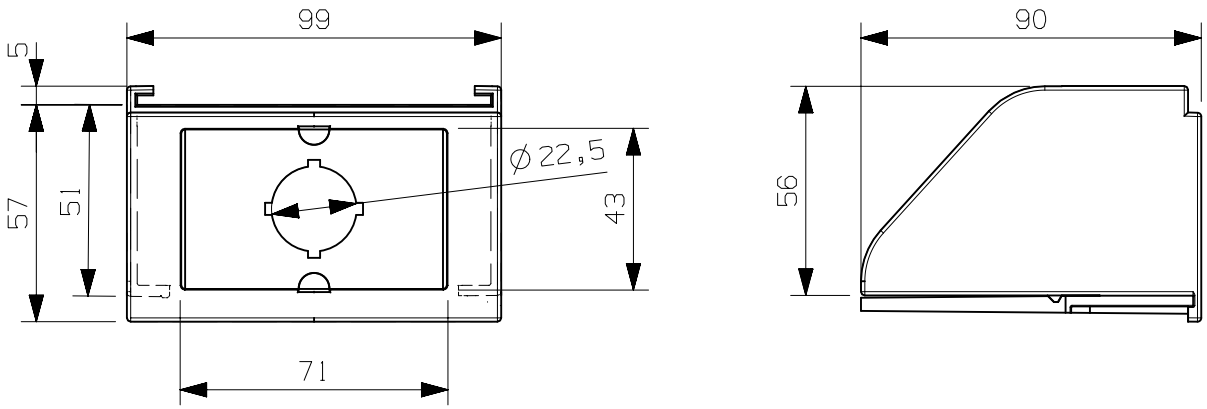

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