

NH Vertical fuse switch disconnectors - EBV range



Product description

Eaton's Bussmann® series NH Vertical fuse switch disconnectors are specifically designed to be used with NH fuse links. All energized metal parts are fully protected against accidental contact. They are suitable for direct installation on horizontal or vertical busbar systems. The three poles can be switched independently or simultaneously depending upon the version. These are manually operated switches and the making and breaking is dependent on the speed of the operation. The EBV range is provided complete with the clamps(i.e. screws/V-terminals/2V-terminals) and shrouds for cable termination.

Standard features

- Touch protection IP 30 from the front.
- Top/bottom cable termination possibility
- Test holes provided on the cover to measure the voltage across the link
- Various options for cable terminations
- Wide range of accessories

Catalogue symbol:

- EBV (see table below)

Standard/Approvals:

- IEC 60947-1 and 3
- EN 60947-1 and 3

Compatible fuse links:

- NH 400, 500 and 690 V NH gG and aM fuse links

Technical data

- Voltage: 690 V a.c.
- Current: 160 to 630 A
- Utilisation category:
 - AC21B 690 V a.c. Size 3
 - AC22B 500 V a.c. Sizes 00 to 3
 - AC23B 400 V a.c. Size 00 to 3.

Functionality

- Designed for installation onto 100 mm or 185 mm busbar system
- Making and breaking operation should be done with determined movement
- Parallel moving, double contact system
- Suitable for top cable termination connection

Operating conditions

- Suitable for installation in environments free of any dust, explosive or aggressive gases.
- Altitude up to 2000 metre above sea level
- Can be used in outdoor environments if they are installed in IP34 cabinets
- Relative air humidity should not be higher than 50% temperature of +40°C
- Ambient temperature from -25°C to +55°C

Busbar mounting options

- Size 00 NH gear are available in two versions suitable for installations onto 100 mm busbar and 185 mm busbar system. 100 mm rails can be installed on the 185 mm busbar system by using an adaptor
- Sizes 1,2 and 3 are suitable for installation onto 185 mm busbar system

Packaging

- 1 per carton.

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Table 1. Technical data

Type		EBV 00/ 100 mm	EBV 00	EBV 2	EBV 3
Rated thermal current with fuse links $I_{th} = I_n$	A	160	160	400	630
Rated thermal current with solid links I_{th}	A	N/A	N/A	600	750
Voltage U_n	V	690	690	690	690
Utilisation category	690 V a.c.	AC-22B	AC-22B	AC-22B	AC-21B
	500 V a.c.	N/A	N/A	N/A	AC-22B
	400 V a.c.	AC-23B	AC-23B	AC-23B	AC-23B
Rated switching current I_e	A	160	160	400	630 ⁴
Rated short-circuit making current	690 V a.c.	25	80	100	80
	500 V a.c.	25	N/A	100	100
	400 V a.c.	25	100	100	100
Rated short-circuit withstand current	690 V a.c.	100	80	100	80
	500 V a.c.	100	N/A	100	100
	400 V a.c.	100	100	100	100
Rated insulation voltage U_i	V	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp}	kV	8	12	12	12
Rated short time withstand current I_{cw}	kA	N/A	N/A	12 ² / 15 ³)	14 ² / 16 ³)
Rated frequency	Hz	50/60	50/60	50/60	50/60
Mechanical durability	No. of cycles	1600	1600	1000	1000
Electrical durability		200	200	200	200
IP Rating	IP	30	20	30	30
Fuse links size		00	00	1, 2	3

1: fuse link gTr 630 kVA, DIN 43620, VDE 0636/2011 voltage

2 For disconnectors 1-phase disconnected

3: For disconnectors 3-phase disconnector

4 : EBV3 can safely "switch" at 910A under AC22B condition

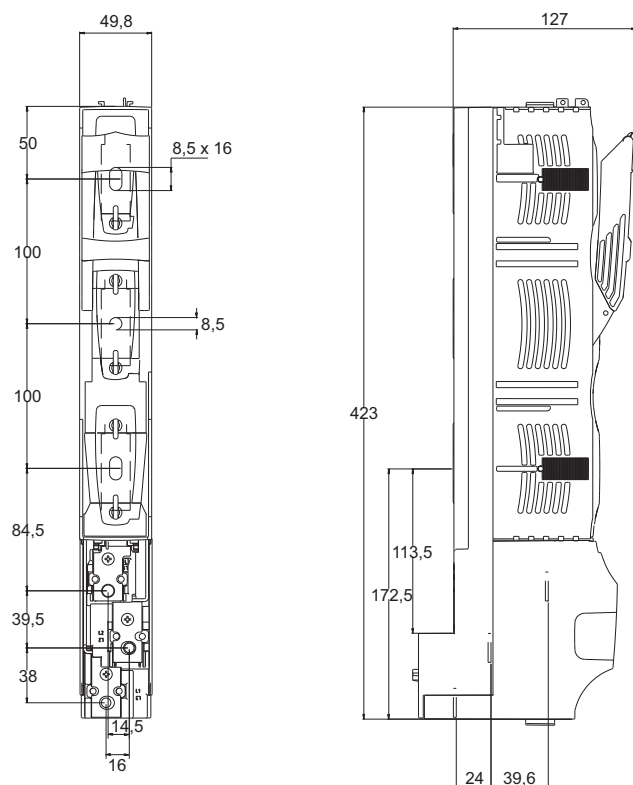
Table 2. Catalogue numbers

Size	Current (Amps)	Busbar System	Catalogue Numbers	Cable Terminals	Pack Quantity	Weight	Compatible Fuse Links Size
Vertical fuse switch disconnecter for NH Size 00 for 100 mm busbar system - simultaneous 3 phase switching							
00	160	100	EBV0023TS8	Bridge terminals with bridge clamps (s) 4-70mm ² , screw terminals with M8 screws	1	1.3 kg	00
			EBV0023TV1	V-terminals with V-clamps 25-120SW		1.5 kg	
			EBV0023TV0	V-terminals, without V-clamps		1.3 kg	
Vertical fuse switch disconnecter for NH Size 00 for 185 mm busbar system - each phase switching separately							
00	160	185	EBV0033SS8	Bridge terminals with bridge clamps (s) 4-70 mm ² , screw terminals with M8 screws	1	2.8 kg	00
			EBV0033SV1	V-terminals with V-clamps 25-120SW		2.9 kg	
			EBV0033SV0	V-terminals, without V-clamps		2.8 kg	
Vertical fuse switch disconnecter for NH Size 00 for 185 mm busbar system - simultaneous 3 phase switching							
00	160	185	EBV0033TS8	Bridge terminals with bridge clamps (s) 4-70 mm ² , screw terminals with M8 screws	1	2.7 kg	00
			EBV0033TV1	V-terminals with V-clamps 25-120SW		2.8 kg	
			EBV0033TV0	V-terminals without V-clamps		2.7 kg	
Vertical fuse switch disconnecter for NH Sizes 1 and 2 for 185 mm busbar system - each phase switching separately							
2	400	185	EBV233SV1	V-terminals with V-clamps 240 mm ²	1	5.8 kg	1 and 2
			EBV233SM1	Screw terminals with pressed nuts M10		5.7 kg	
			EBV233SW1	2V-terminals with double clamps 240 mm ²		6.4 kg	
			EBV233SV0	V-terminals without V-clamps		5.5 kg	
			EBV233SW0	2V-terminals without double V-clamps		6.9 kg	
Vertical fuse rail suitable for NH Sizes 1 and 2 fuses for 185mm busbar system - simultaneous 3 phase switching							
2	400	185	EBV233TV1	V-terminals with V-clamps 240 mm ²	1	5.8 kg	1 and 2
			EBV233TM1	Screw terminals with pressed nuts M10		5.7 kg	
			EBV233TW1	2V-terminals with double V-clamps 240 mm ²		6.4 kg	
			EBV233TV0	V-terminals without V-clamps		5.5 kg	
			EBV233TW0	2V-terminals without double V-clamps		6.9 kg	
Vertical fuse rail suitable for NH size 3 fuses for 185mm busbar system - each phase switching separately							
3	630	185	EBV333SV1	V-terminals with V-clamps 240 mm ²	1	6.6 kg	3
			EBV333SM2	Screw terminals with pressed nuts M12		6.5 kg	
			EBV333SW1	2V-terminals with double V-clamps 240mm ²		7.2 kg	
			EBV333SV0	V-terminals without V-clamps		6.3 kg	
			EBV333SW0	2V-terminals without double V-clamps		6.7 kg	
Vertical fuse rail suitable for NH size 3 fuses for 185 mm busbar system - simultaneous 3 phase switching							
3	630	185	EBV333TV1	V-terminals with V-clamps 240 mm ²	1	6.6 kg	3
			EBV333TM2	Screw terminals with pressed nuts M12		6.5 kg	
			EBV333TW1	2V-terminals with double V-clamps 240 mm ²		7.2 kg	
			EBV333TV0	V-terminals without V-clamps		6.3 kg	
			EBV333TW0	2V-terminals without double V-clamps		6.7 kg	

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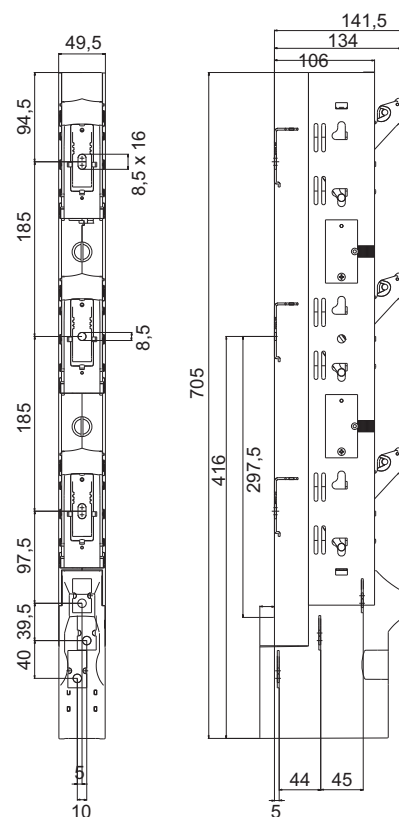
Dimensions (mm)

EBV 00 100 mm



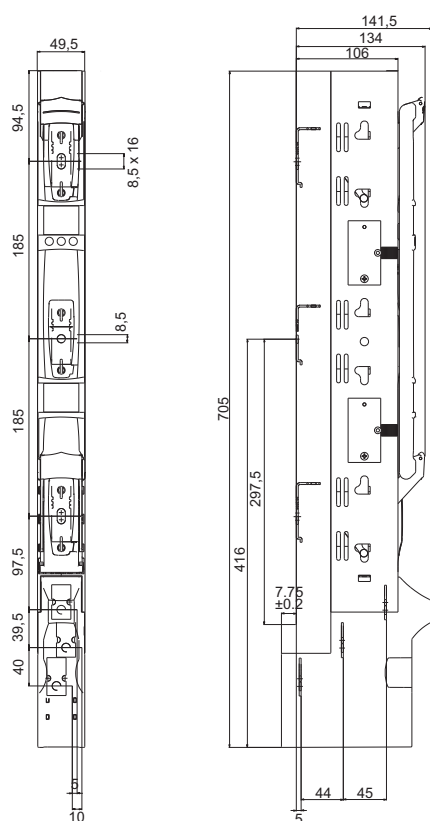
M8 Screws

EBV 00 (each phase switching separately)



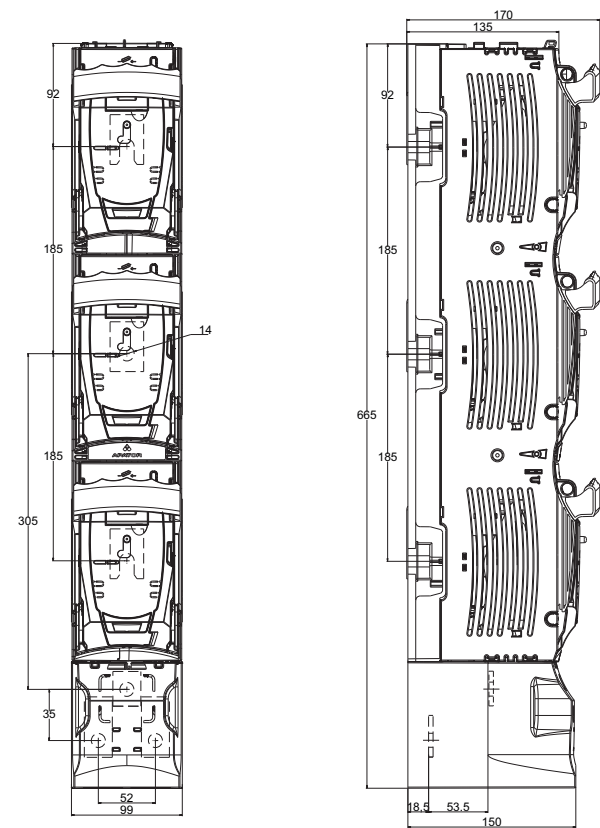
M10 Screws

EBV 00 (Three phase switching simultaneously)

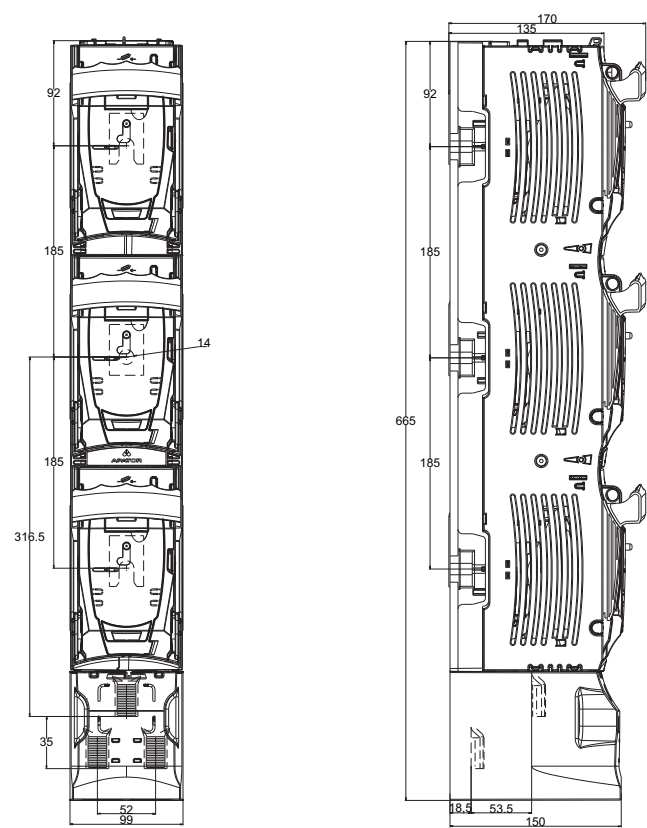


Dimensions (mm)

EBV 2 (Each phase switching separately)

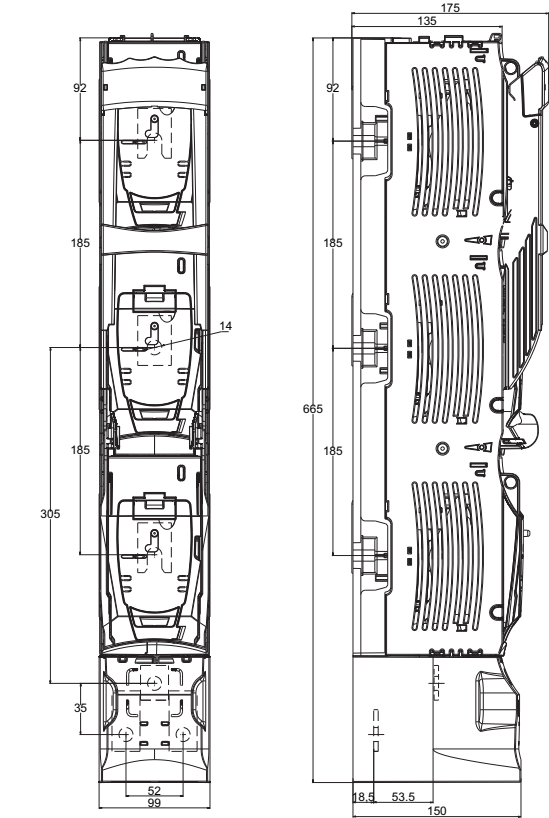


M12 Screws

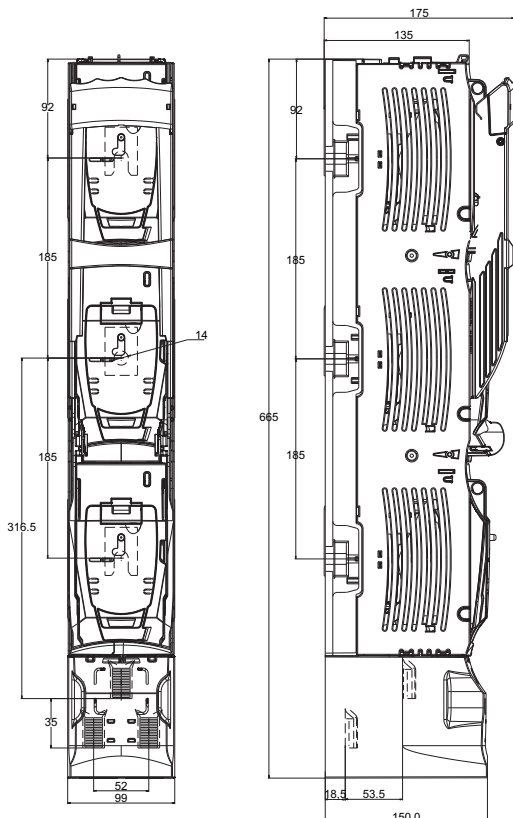


V-Terminals

EBV 2 (Three phase switching simultaneously)

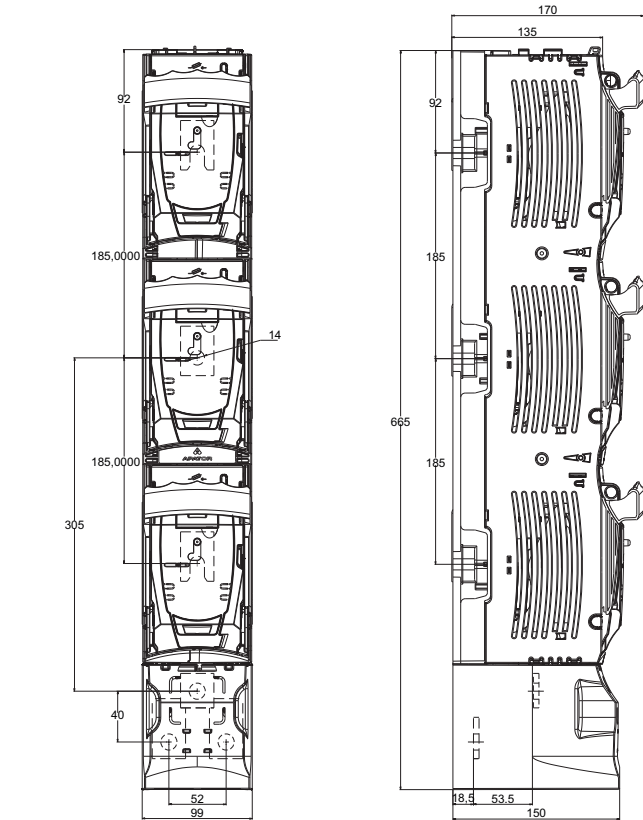


M12 Screws

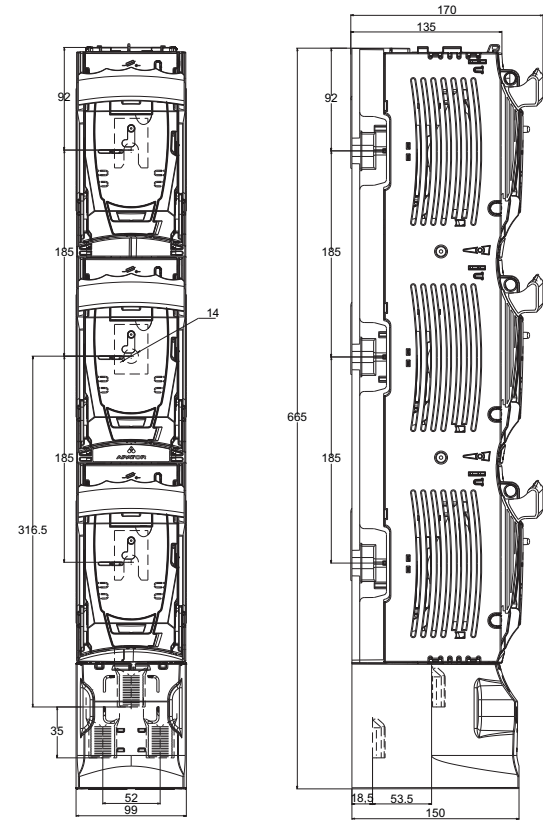


V-Terminals

Dimensions (mm) -
EBV 3 (One phase)

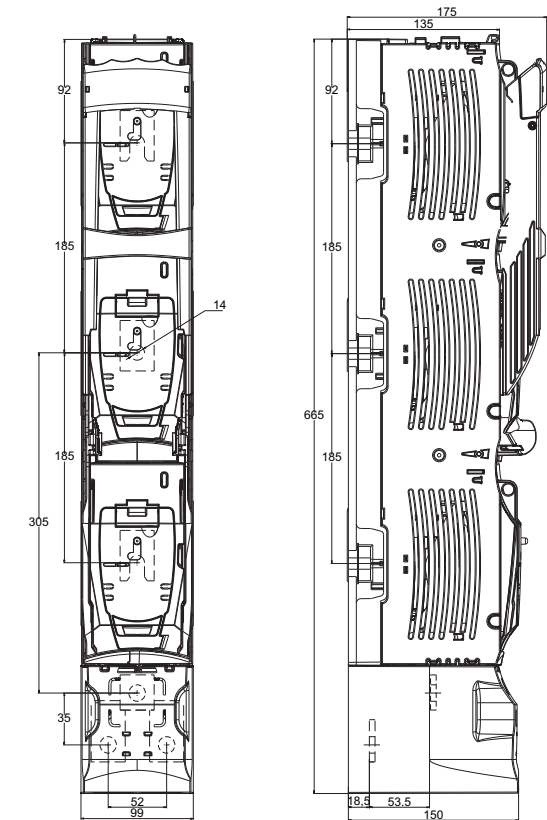


M12 Screws

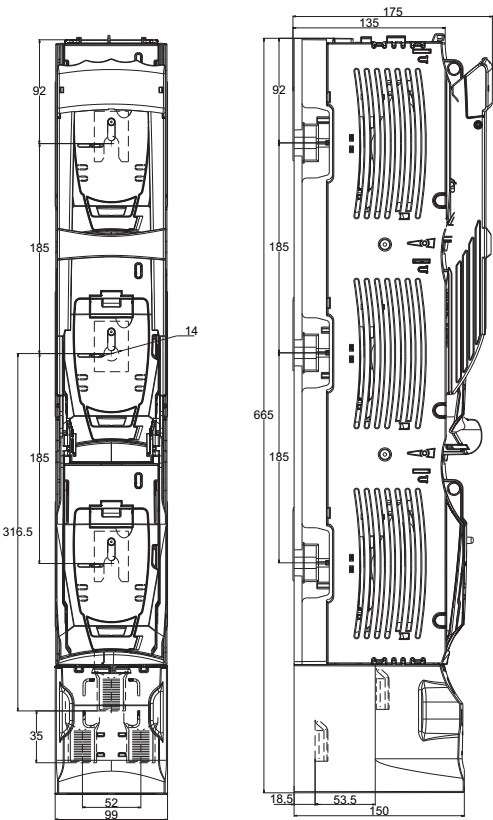


V-Terminals

Dimensions (mm) - EBV 3 (Three phase)



M12 Screws



V-Terminals

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