



V-Line
NH Fuse-Switches, vertical design and Fuse-Rails

The new V-Line

Distributing power and protecting grids with optimal efficiency

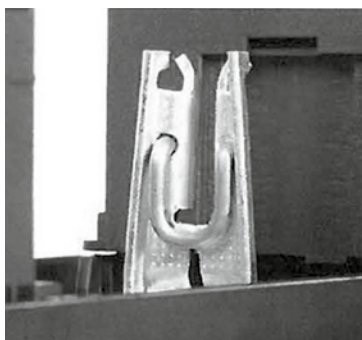
For any utility company a reliable power supply is on top of the priorities list. Specific operating conditions call for failsafe energy distribution systems with superb usability.

In addition to easy operation and application, safety and reliability are of core importance as well. When it comes to safe handling and ease of installation, EFEN's V-Line NH Fuse-Switches, vertical design and Fuse-Rails are unrivaled. Thanks to their compact design, the devices can be integrated into low-profile distribution cabinets. The functional elements of the NH Fuse-Switches, vertical design provide ease of operation and feature an ergonomic design. Open NH Fuse-Rails of size 00/185 and 1/2 complement the V-Line product range to suit even the most diverse applications. Contact and terminal covers prevent unintentional touching in accordance with BGV A3 regulations. All plastic parts are made of halogen-free, self-extinguishing materials with a very high thermal resistance.



Multiple connection options

The proven multiple-use terminals can be used with cable lugs and unassembled cable ends up to 240 mm² alike. Other connection types are available as accessories and can be easily retrofitted for maximum flexibility.



Extended service life

To ensure a maximum service life, we only use topnotch materials for our products. Live parts are treated with tin or silver for minimal contact resistance and performance loss.



All performance data at one glance

Performance data and switch state of the NH Fuse-Links can be easily seen through the transparent cover window.



Space-saving design

Thanks to the specific base design, V-Line products can be installed over busbar supports. This allows the entire mounting surface to be used.

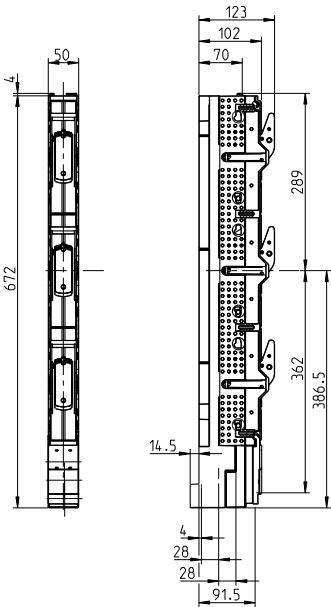
Technical data		Unit	NH Fuse-Switch, vertical design		NH Fuse-Rail	
			Size 00/185	Size 1/2	Size 00/185	Size 1/2
Rated operational current I_e	400 V	A	160	400	160	400
	500 V	A	160	400	160	400
	690 V	A	160	315	160	400
Conventional free-air thermic current I_{th}		A	220	400	250	400
Rated operating voltage U_e		V	690	690	690	690
Rated insulation voltage U_i		V	1.000	800	800	800
Rated impulse withstand-current U_{imp}		kV	8	8	6	8
Conditional rated short-circuit current (when protected by NH fuse-links)	400 V	kA	120	50	120	50
	500 V	kA	120	50	120	50
	690 V	kA	120	50	50	50
Utilization category VDE 0660 T107 / EN/IEC 60947-3	400 V		AC-23B	AC-22B		
	500 V		AC-22B	AC-21B	-	-
	690 V		AC-22B	AC-21B		
Mechanical service life		Cycles	1.400	800	-	-
Electrical service life		Cycles	200	200	-	-
Permissible ambient temperature		C°	-25 bis +55	-25 bis +55	-25 bis +55	-25 bis +55
Degree of protection acc. to DIN/EN 60529 / VDE 0470 T1		IP	20	20	20*	20*
Maximum power dissipation of the NH Fuse-Link		W	12	34	12	45
Total power dissipation (device without Fuse-Link)		W	22	80	18	75
Pollution degree			3	3	3	3
Overvoltage category			IV	IV	IV	IV
Rated frequency		Hz	50-60	50-60	50-60	50-60
Weight without NH Fuse-Links		kg	2,00	3,1	1,30	2,8

* with ISO gripping lugs

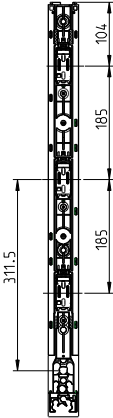
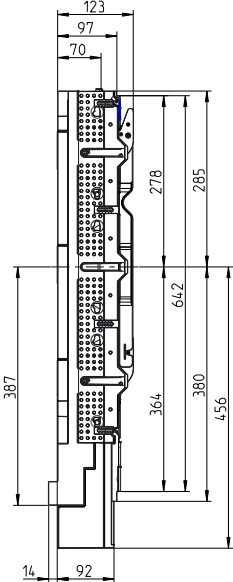
Dimensions drawing

V-Line NH Fuse-Switches, vertical design
Size 00/185

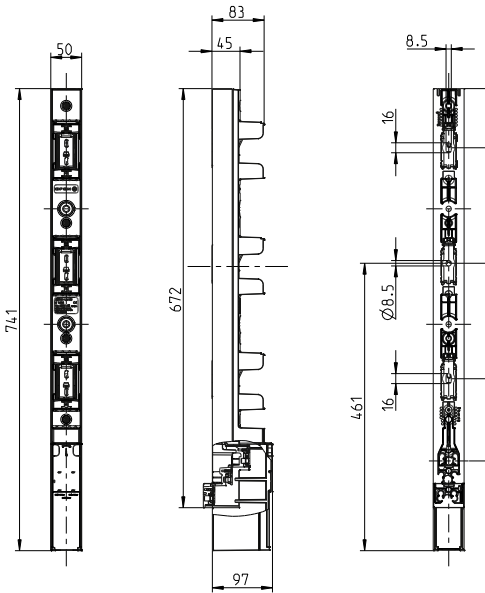
1-pole switching



3-pole switching



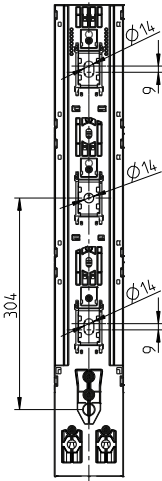
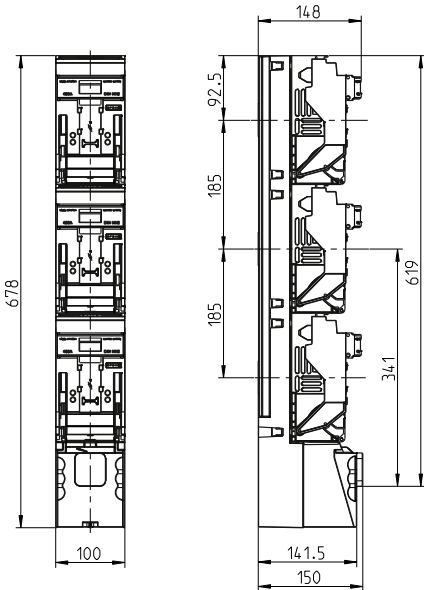
V-Line NH Fuse-Rail
Size 00/185



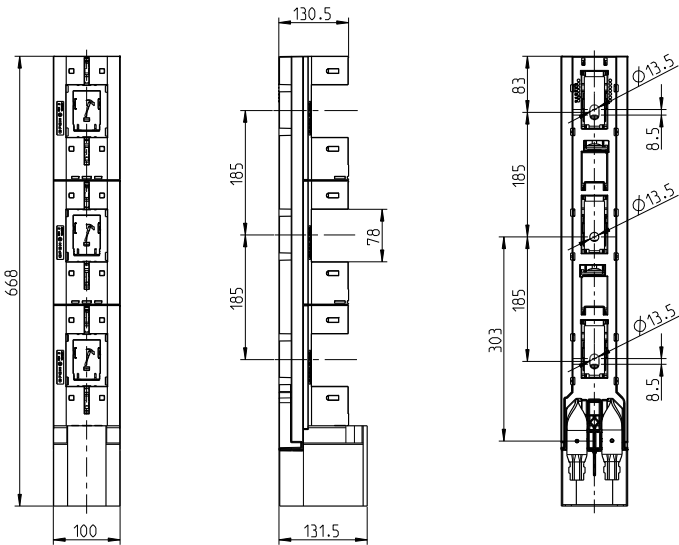
V-Line NH Fuse-Switches, vertical design
Size 1/2

1-pole switching

geschlossen
closed



V-Line NH Fuse-Rail
Size 1/2



V-Line NH Fuse-Switch, vertical design, size 00/185, 1-pole and 3-pole switching, 160 A, for 185-mm busbars



Designation	Size	Amps	Product name	PU	Order no.
Multiple-use terminal, 1-pole switching (for bolt M8) Not including connecting material	00/185	160	V-Line NH-LA-LEI 00/185 1P U5	160	38064-0009
V2-terminal (not including V-clamps)	00/185	160	V-Line NH-LA-LEI 00/185 1P V2	160	38065-0009
Multiple-use terminal, 3-pole switching (for bolt M8) Not including connecting material	00/185	160	V-Line NH-LA-LEI 00/185 3P U5	160	38064-0029
V2-terminal (not including V-clamps)	00/185	160	V-Line NH-LA-LEI 00/185 3P V2	160	38065-0029
Accessories					
Terminal kit M8 for cable connection			V-Line Anschlusset M8 00/185	480	36803-0010
Clamp 150 mm² se			V-Line Klemme VAL 00 150se	480	36804-0010

V-Line NH Fuse-Switch, vertical design, size 1-2, 1-pole switching, 400 A, for 185-mm busbars



Designation	Size	Amps	Product name	PU	Order no.
Clinch nut M12, 1-pole switching	2	400	V-Line NH-LA-LEI 1-2 1P S6	64	38664-0009
V2N-terminal, 1-pole switching (not including V-clamps)	2	400	V-Line NH-LA-LEI 1-2 1P V2N	64	38665-0009
Accessories					
Carrier for identification label			V-Line Infoträger NH-LA-LEI 1-2	64	36761-0010
V-clamp 240mm² sm			V-Line Klemme VAL 240sm	192	36760-0010
Terminal kit M12 for cable connection			V-Line Anschlusset M12 NH-LA-LEI 1-2	192	36762-0010
Busbar cover, internally mounted			V-Line SaS-Anschlussabdeckung	192	36765-0010

V-Line NH Fuse-Rail, size 00/185, 160 A, for 185-mm busbars



Designation	Size	Amps	Product name	PU	Order no.
Multiple-use terminal (for bolt M8) Not including connecting material	00/185	160	V-Line NH-Lei 00/185 U5	160	38764-0009
V2-terminal (not including V-clamps)	00/185	160	V-Line NH-Lei 00/185 V2	160	38765-0009
Accessories					
Terminal kit M8 for cable connection			V-Line M8 00/185	480	36803-0010
V-clamp 150mm² se			V-Line Klemme VAL 00 150se	480	36804-0010

V-Line NH Fuse-Rail, size 1-2, 400 A, for 185-mm busbars

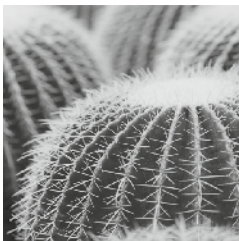


Designation	Size	Amps	Product name	PU	Order no.
Clinch nut M12	2	400	V-Line NH-LEI 1-2 S6	120	38864-0009
V2N-terminal (not including V-clamps)	2	400	V-Line NH-LEI 1-2 1P V2N	120	38865-0009
Accessories					
Carrier for identification label			V-Line Infoträger NH-LA-LEI 1-2	120	36758-0010
V-clamp 240mm² sm			V-Line Klemme VAL 240sm	192	36760-0010
Terminal kit M12 for cable connection			V-Line Anschlusset M12 NH-LA-LEI 1-2	360	36757-0010



Efficient distribution

When it comes to reliable power supply, replacing nuclear power by renewable energies is one of the greatest challenges. To this end, EFEN offers consistent solutions for safety interfaces from power generation to power storage and to the selective control of consumers.



Reliable protection

Reliable protection of people and assets is a key requirement of any power distribution system. The comprehensive solutions from EFEN ensure maximum safety in all areas of power supply, infrastructure and industry.



Smart control

Higher energy efficiency reduces peak loads and also lower energy costs. Early-warning systems ensure minimal unplanned plant downtimes. Smart solutions from EFEN allow for and support reliable communication as well as maximum availability of power distribution systems.

EFEN GmbH
Große Hub 10c
65344 Eltville, Germany
Tel. + 49 (0) 6123 7045-0
Fax + 49 (0) 6123 7045-122
e-Mail: mail@efen.com
www.efen.com

Slovakia
EFEN Slovakia s.r.o
Odborárska 3
831 02 Bratislava
Slovensko/Slovakia
Tel. 00421 55 633 9898
Fax 00421 55 633 9898
e-Mail: efen@nexta.sk

Logistic - Center
EFEN GmbH
Gewerbepark Nord 6
04938 Uebigau
Germany
Tel. +49 35365 893 0
Fax +49 35365 893 35
e-Mail: efen@efen.com

Hungary
EFEN Division
Guba Sándor u. 87
7400 Kaposvár
Hungary
Tel. +36-82-417559
Fax +36-82-417529
e-Mail: info@efen-hungaria.hu

Poland
EFEN zo.o.
Aleja Młodych 26-28
41-106 Siemianowice Śląskie
Poland
Tel. +48 32 201 09 42
Fax +48 32 220 00 64
e-Mail: efen@efen.com.pl

China
EFEN Shanghai Office
800 Shangchen Rd (1090 New Century Ave)
Room 517 CIMIC Building Shanghai 200120
China
Tel. +86 21 6575-8878
Fax +86 21 6575-8876
e-Mail: efen-shanghai@efen.com.cn

