NV/NH

HR

Low voltage NH knife-blade fuses

ETI Power needs control

Low voltage NH knife-blade fuse-links

NV KOMBI advantages

ETI is introducing a new generation of low-voltage fuse-links from size NV00C up to to NV3 with new, dual indication of fuse-link operation, called KOMBI. The indicator is easily visible on the top and centre of the fuse link, whether it is situated in a standard fuse base or vertical fuse rail or in fuse-switch disconnector.

The most important advantages of NV/NH KOMBI fuse-links:

- High breaking capacity, 120 kA
- Rated voltages: 400V a.c., 500 Va.c., 690V a.c. and 1000V a.c and up to 440V d.c. In case of use in d.c. voltages, consultation with ETI technical team is recommended.
- Two versions of covers: aluminium, when the removal tag is under voltage and plastic, when insulated metal removal tag is incorporated into the plastic cover
- VDE certificates and CCA/CB test reports

General about NV/NH fuse-links

Theirs dimensions correspond with DIN 43620, other technical characteristics correspond with the requirements of the following standards:

- Rated voltage 400V/500V/690V/gG/gL: IEC 60269-1:2005 / EN 60269-1:1998+A1:2005 IEC 60269-2:1986+Corr.1:1996+A11995+A2:2001 / EN 60269-2:1995+A1:1998+A2:2002 IEC 60269-2-1:2004 / HD 60269-2-1:2005
- Rated voltage 690V/aM: VDE 0636-2011
- Rated voltage 400V/gF: PN-IEC 60269-2
- Rated voltage 400V/gTr: VDE 0636-2011

Short description of constituent parts for NV fuse-links

The body of the fuse-link is made of quality steatite which is highly resistant against temperature overloads.
In the inner part of the steatite body there is placed a copper melting element which is welded on a specially shaped inner part of the contact knife by spot welding. By careful shaping of this part we achived that during assembly the melting element is placed exactly into the middle of the inner place. The remaining inside place of the ceramic body is filled up with precisely determined granulation and chemical structure quarz sand. All contact knives are additionally protected with a layer of silver or on special order of nickel. On the base of cyclic tests we have proved that the fusing characteristics are very stable and the tolerance on the current axis can be up to ± 10%.

Fuse-link NV/NH gG/gL

Rated current	Breaking capacity	Rated voltage
2-1600 A	**120 kA**	**400, 500, 690 V**

	NV/NH 00 C KOMBI gG			NV/NH 00 CI KOMBI gG*				
rated current	code No.			code No.			weight	packaging
[A]	~ 400V	~ 500V	~ 690V	~ 400V	~ 500V	~ 690V	[g]	[pcs]
2	004181101	004181201	004181301	004191101	004191201	004191301	125	3/120
4	004181102	004181202	004181302	004191102	004191202	004191302	125	3/120
6	004181103	004181203	004181303	004191103	004191203	004191303	125	3/120
10	004181104	004181204	004181304	004191104	004191204	004191304	125	3/120
16	004181105	004181205	004181305	004191105	004191205	004191305	125	3/120
20	004181106	004181206	004181306	004191106	004191206	004191306	125	3/120
25	004181107	004181207	004181307	004191107	004191207	004191307	125	3/120
32	004181108	004181208	004181308	004191108	004191208	004191308	125	3/120
35	004181109	004181209	004181309	004191109	004191209	004191309	125	3/120
40	004181110	004181210	004181310	004191110	004191210	004191310	125	3/120
50	004181111	004181211	004181311	004191111	004191211	004191311	125	3/120
63	004181112	004181212		004191112	004191212		125	3/120
80	004181113	004181213		004191113	004191213		125	3/120
100	004181114	004181214		004191114	004191214		125	3/120

* INSULATED

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NEW!

NV/NH 00 C gG with striker pin

rated current [A]	code No. ~ 690 V	weight [g]	packaging [pcs]
2	004111172	135	3
4	004111173	135	3
6	004111174	135	3
10	004111175	135	3
16	004111176	135	3
20	004111177	135	3
25	004111178	135	3
32	004111179	135	3
35	004111180	135	3
40	004111181	135	3

	NV/NH 00 KOMBI gG			NV/NH 00 I KOMBI gG*				
rated current [A]	code No. ~ 400 V	~ 500 V	~ 690 V	~ 400 V	~ 500 V	~ 690 V	weight [g]	packaging [pcs]
63			004182312			004192312	173	3/90
80			004182313			004192313	173	3/90
100			004182314			004192314	173	3/90
125	004182115	004182215	004182315	004192115	004192215	004192315	173	3/90
160	004182116	004182216		004192116	004192216		173	3/90

* INSULATED

NEW!

NV/NH 00 gG with striker pin

rated current [A]	code No. ~ 690 V	weight [g]	packaging [pcs]
50	004111182	205	3
63	004111183	205	3
80	004111184	205	3
100	004111185	205	3
125	004111186	205	3

NV/NH 0 KOMBI gG

rated current [A]	code No. ~ 500 V	~690 V	weight [g]	packaging [pcs]
6	004183203	004183303	226	3/45
10	004183204	004183304	226	3/45
16	004183205	004183305	226	3/45
20	004183206	004183306	226	3/45
25	004183207	004183307	226	3/45
32	004183208	004183308	226	3/45
35	004183209	004183309	226	3/45
40	004183210	004183310	226	3/45
50	004183211	004183311	226	3/45
63	004183212	004183312	226	3/45
80	004183213	004183313	226	3/45
100	004183214	004183314	226	3/45
125	004183215	004183315	226	3/45
160	004183216		226	3/45

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rated current [A]	NV/NH 1 C KOMBI gG code No. ~ 400V	~ 500V	~ 690V	NV/NH 1 CI KOMBI gG* code No. ~ 400V	~ 500V	~ 690V	weight [g]	packaging [pcs]
25	004184107	004184207	004184307	004194107	004194207	004194307	233	3/45
32	004184108	004184208	004184308	004194108	004194208	004194308	233	3/45
35	004184109	004184209	004184309	004194109	004194209	004194309	233	3/45
40	004184110	004184210	004184310	004194110	004194210	004194310	233	3/45
50	004184111	004184211	004184311	004194111	004194211	004194311	233	3/45
63	004184112	004184212	004184312	004194112	004194212	004194312	233	3/45
80	004184113	004184213	004184313	004194113	004194213	004194313	233	3/45
100	004184114	004184214	004184314	004194114	004194214	004194314	233	3/45
125	004184115	004184215	004184315	004194115	004194215	004194315	233	3/45
160	004184116	004184216		004194116	004194216		233	3/45

* INSULATED

rated current [A]	NV/NH 1 KOMBI gG/gL code No. ~ 400 V	~ 500 V	~ 690 V	NV/NH 1 I KOMBI gG/gL* code No. ~ 400 V	~ 500 V	~ 690 V	weight [g]	packaging [pcs]
63	004184120	004184220	004184320	004194120	004194220	004194320	430	3/24
80	004184121	004184221	004184321	004194121	004194221	004194321	430	3/24
100	004184122	004184222	004184322	004194122	004194222	004194322	430	3/24
125	004184123	004184223	004184323	004194123	004194223	004194323	430	3/24
160	004184124	004184224	004184324	004194124	004194224	004194324	430	3/24
200	004184117	004184217	004184317	004194117	004194217	004194317	430	3/24
224	004184118	004184218	004184318	004194118	004194218	004194318	430	3/24
250	004184119	004184219	004184319	004194119	004194219	004194319	430	3/24

* INSULATED

NEW!

NV/NH 1 gG with striker pin			
rated current [A]	code No. ~ 690 V	weight [g]	packaging [pcs]
63	004113340	452	3
80	004113341	452	3
100	004113342	452	3
125	004113343	452	3
160	004113344	452	3
200	004113345	452	3
224	004113346	452	3
250	004113347	452	3

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	NV/NH 2 C KOMBI gG			NV/NH 2 CI KOMBI gG*				
rated current	code No.			code No.			weight	packaging
[A]	~ 400 V	~ 500 V	~ 690 V	~ 400 V	~ 500 V	~ 690 V	[g]	[pcs]
63	004185112	004185212	004185312	004195112	004195212	004195312	430	3/15
80	004185113	004185213	004185313	004195113	004195213	004195313	430	3/15
100	004185114	004185214	004185314	004195114	004195214	004195314	430	3/15
125	004185115	004185215	004185315	004195115	004195215	004195315	430	3/15
160	004185116	004185216	004185316	004195116	004195216	004195316	430	3/15
200	004185117	004185217	004185317	004195117	004195217	004195317	430	3/15
224	004185118	004185218	004185318	004195118	004195218	004195318	430	3/15
250	004185119	004185219	004185319	004195119	004195219	004195319	430	3/15

* INSULATED

	NV/NH 2 KOMBI gG			NV/NH 2 I KOMBI gG*				
rated current	code No.			code No.			weight	packaging
[A]	~ 400 V	~ 500 V	~ 690 V	~ 400 V	~ 500 V	~ 690 V	[g]	[pcs]
280	004185120	004185220	004185320	004195120	004195220	004195320	500	3/15
300	004185121	004185221	004185321	004195121	004195221	004195321	500	3/15
315	004185122	004185222	004185322	004195122	004195222	004195322	500	3/15
355	004185123	004185223		004195123	004195223		500	3/15
400	004185124	004185224		004195124	004195224		500	3/15

* INSULATED

NEW!

NV/NH 2 gG with striker pin			
rated current	code No.	weight	packaging
[A]	~ 690 V	[g]	[pcs]
160	004114345	593	3
200	004114346	593	3
224	004114347	593	3
250	004114348	593	3
300	004114349	593	3
315	004114350	593	3

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rated current [A]	NV/NH 3 C KOMBI gG code No. ~ 400 V	~ 500 V	~ 690 V	weight [g]	packaging [pcs]
250	004186119	004186219	004186319	510	3/12
280	004186120	004186220	004186320	510	3/12
300	004186121	004186221	004186321	510	3/12
315	004186122	004186222	004186322	510	3/12
355	004186123	004186223		510	3/12
400	004186124	004186224		510	3/12

rated current [A]	NV/NH 3 KOMBI gG code No. ~ 400 V	~ 500 V	~ 690 V	NV/NH 3 I KOMBI gG* code No. ~ 400 V	~ 500 V	~ 690 V	weight [g]	packaging [pcs]
200				004196123	004196223	004196323	923	3/12
225				004196124	004196224	004196324	923	3/12
250				004196125	004196225	004196325	923	3/12
300				004196126	004196226	004196326	923	3/12
315				004196127	004196227	004196327	923	3/12
355			004186328	004196128	004196228	004196328	923	3/12
400			004186329	004196129	004196229	004196329	923	3/12
425	004186130	004186230	004186330	004196130	004196230	004196330	923	3/12
500	004186131	004186231	004186331	004196131	004196231	004196331	923	3/12
560	004186132	004186232		004196132	004196232		923	3/12
630	004186133	004186233		004196133	004196233		923	3/12

NEW!

NV/NH 3 gG with striker pin rated current [A]	code No. ~ 690 V	weight [g]	packaging [pcs]
250	004115120	895	3
300	004115121	895	3
315	004115122	895	3
400	004115123	895	3
425	004115124	895	3
500	004115125	895	3

NV/NH 4 gG rated current [A]	code No. 500 V	weight [g]	packaging [pcs]
630	004116101	2130	1/12
710	004116102	2130	1/12
800	004116103	2130	1/12
900	004116105	2130	1/12
1000	004116104	2130	1/12
1250	004116106	2130	1/12

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NV/NH 4a gG

rated current [A]	code No. 500 V		code No. 690 V	weight [g]	packaging [pcs]
		SI			
630	004116108	004176026	004176105	2170	1/12
710	004116109	004176027	004176106	2170	1/12
800	004116110	004176028	004176107	2170	1/12
900	004116111	004176029	004176108	2170	1/12
1000	004116112	004176030	004176109	2170	1/12
1250	004116113	004176031	004176110	2170	1/12
1500	004116119	004176032		2170	1/12
1600	004116120	004176033		2170	1/12

NEW!

NV/NH 4a gG with striker pin

rated current [A]	code No. ~ 690 V	weight [g]	packaging [pcs]
500	004116186	2835	1
630	004116187	2835	1
800	004116188	2835	1
1000	004116189	2835	1
1250	004116190	2835	1

NV/NH 1 1000 V a.c. gG

rated current [A]	code No.	weight [g]	packaging [pcs]
10	004113703	487	3/24
16	004113704	487	3/24
20	004113705	487	3/24
25	004113706	487	3/24
32	004113707	487	3/24
35	004113708	487	3/24
40	004113710	487	3/24
50	004113711	487	3/24
63	004113712	487	3/24
80	004113713	487	3/24
100	004113714	487	3/24
125	004113715	487	3/24
160	004113716	487	3/24
200	004113717	487	3/24

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Fuse-link NV/NH aM

Rated current	Breaking capacity	Rated voltage
2-1250 A	**100 kA**	**690 V**

Fuse-links with aM characteristics are intended for protection of switchgears and controlgears as well as motors in motor drives where gG characteristics do not comply with all requirements of succesful protection of these devices. They are made in all standard NV sizes from 00 to 4a for all standard rated currents and for voltages to 690 V. Their main duty is to enable a full usage of switchgears and controlgears in the region of starting currents and to prevent sparking or descruction of protective contacts in case of short-circuit currents. It should be noted that these fuse-links are intended only for protection in the limited region (in the region of short-circuit currents).

NV/NH fuse-link aM

rated current [A]	code No. 690 V							
	NV 00 C kombi	NV 00 kombi	NV 0	NV 1 kombi	NV 2 C kombi	NV 2 kombi	NV3 kombi	NV4a
2	004181401							
4	004181402							
6	004181403							
10	004181404			004184425				
16	004181405		004112125**	004184426				
20	004181406		004112126**	004184427				
25	004181407		004112127**	004184428				
32	004181408		004112128**					
35	004181409		004112129**	004184429	004185429			
40	004181410		004112130**	004184430	004185430			
50	004181411	004182411	004112131**	004184431	004185431			
63	004181412	004182412	004112132**	004184420	004185412			
80	004181413*	004182413	004112133**	004184421	004185413			
100	004181414*	004182414	004112134**	004184422	004185414			
125		004111735**	004112135**	004184423	004185415			
160		004111736**	004112136**	004184424	004185416	004185425		
200				004184417	004185417	004185426		
224				004184418	004185418	004185427		
250				004184419	004185419	004185428		
280						004185420		
300						004185421		
315						004185422		
355						004185423	004186428	
400						004185424	004186429	
425							004186430	
500							004186431	
630								004187432**
710								004187433**
800								004187434**
900								004187435**
1000								004187436**
1250								004187437**

Weight and packaging the same as for gG fuse-links.
* 500 V
** NOT in KOMBI version

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Fuse-link NV/NH gF

Rated current	Breaking capacity	Rated voltage
20-250 A	**100 kA**	**400 V**

Fuse-links with gF current characteristics are intendend for protection of low voltage installations and energy lines, where expected short circuit currents are low. We offer all standard rated currents in sizes NV00C, NV00, NV1C and NV1 for voltages of up to 400V.

NV/NH fuse-link gF

rated current	code No. 400 V				weight	packaging
[A]	NV/NH 00 C	NV/NH 00	NV/NH 1 C	NV/NH 1	[g]	[pcs]
20	004119200		004139200		the same as for gG fuse-links	the same as for gG fuse-links
25	004119201		004139201			
32	004119202		004139202			
40	004119203		004139203			
50	004119204		004139204			
63		004119100	004139205			
80		004119101	004139206			
100		004119102	004139207			
125		004119103	004139208			
160		004119104	004139209			
200				004139100		
250				004139101		

Fuse-link NV/NH gTr

Rated transformer power	Breaking capacity	Rated voltage
50-1000 kVA	**100 kA**	**400 V**

NV/NH fuse-link gTr

rated transformer power	code No.			weight	packaging
[kVA]	NV/NH 2	NV/NH 3	NV/NH 4a	[g]	[pcs]
50	004114400*	004115400*	004116400	the same as for gG fuse-links	the same as for gG fuse-links
75	004114401*	004115401*	004116401		
100	004114402*	004115402*	004116402		
125	004114403*	004115403*	004116403		
160	004114404*	004115404*	004116404		
200	004114405*	004115405*	004116405		
250	004114406*	004115406*	004116406		
315		004115407*	004116407		
400		004115408*	004116408		
500		004115409	004116409		
630		004115410	004116410		
800			004116411		
1000			004116412		

* KOMBI version

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Fuse bases

Fuse base for NV/NH knife-blade fuse-links

Rated current **125-1250 A**

Rated voltage **690 V**

1-pole fuse base NVPP 00

type	I_n [A]	code No.	weight [g]	packaging [pcs]
NVPP 00 M8-2M6	160	004121101	147	3/111
NVPP 00 M8-M8	160	004121102	147	3/111
NVPP 00 2M6-2M6	160	004121103	147	3/111
NVPPI 00 M8-2M6	160	004121115	187	3/75
NVPPI 00 M8-M8	160	004121116	187	3/75
NVPPI 00 2M6-2M6	160	004121117	187	3/75
NVPPIP 00 M8-2M6	160	004121130	204	3/75
NVPPIP 00 M8-M8	160	004121131	204	3/75
NVPPIP 00 2M6-2M6	160	004121132	204	3/75
NVPPN 00 M8-2M6	160	004121106	147	3/111
NVPPN 00 M8-M8	160	004121107	147	3/111
NVPPN 00 2M6-2M6	160	004121108	147	3/111
NVPPNI 00 M8-2M6	160	004121121	187	3/75
NVPPNI 00 M8-M8	160	004121122	187	3/75
NVPPNI 00 2M6-2M6	160	004121123	187	3/75
NVPPNIP 00 M8-2M6	160	004121136	204	3/75
NVPPNIP 00 M8-M8	160	004121137	204	3/75
NVPPNIP 00 2M6-2M6	160	004121138	204	3/75

NVPP basic version of the fuse base.
NVPPI fuse base with insulating sleeves.
NVPPIP fuse base with insulating sleeves and protection cover.

NVPPN basic version of the fuse base with possibility of fastening on mounting rail.
NVPPNI fuse base with insulating sleeves with possibility of fastening on mounting rail.
NVPPNIP fuse base with insulating sleeves, protection cover and with possibility of fastening on mounting rail.

1-pole fuse base PK and PKI

type	I_n [A]	code No.	weight [g]	packaging [pcs]
PK 00 M8 - 2 x M6	160	004122001	170	3/120
PK 00 M8 - M8	160	004121007	170	3/120
PK 00 2 x M6 - 2xM6	160	004122007	170	3/120
PK 0 M8 - 2 x M6	160	004122009	258	3/90
PK 0 M8 - M8	160	004122002	258	3/90
PK 02 x M6 - 2 x M6	160	004122008	258	3/90
PK 1	250	004122003	598	3/42
PK 2	400	004122004	995	3/30
PK 3	630	004122005	1202	3/24
PK 4	1250	004122006	3030	1/7
PKI 1	250	004122010	624	3/42
PKI 2	400	004122011	1033	3/30
PKI 3	630	004122012	1241	3/24
PK 1/1000V	250	004132014	665	3/30

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1-pole fuse base PPR

type	I_n [A]	code No.	weight [g]	packaging [pcs]
PPR 00	125	004121003	137	3/75
PPR 00 D1	125	004121008	265	3/42

3-pole fuse base NVPP 00

type	I_n [A]	code No.	weight [g]	packaging [pcs]
NVPP 00/3 M8-2M6	160	004131101	490	1/25
NVPP 00/3 M8-M8	160	004131102	490	1/25
NVPP 00/3 2M6-2M6	160	004131103	490	1/25
NVPPI 00/3 M8-2M6	160	004131115	560	1/25
NVPPI 00/3 M8-M8	160	004131116	560	1/25
NVPPI 00/3 2M6-2M6	160	004131117	560	1/25
NVPPIP 00/3 M8-2M6	160	004131130	610	1/25
NVPPIP 00/3 M8-M8	160	004131131	610	1/25
NVPPIP 00/3 2M6-2M6	160	004131132	610	1/25
NVPPN 00/3 M8-2M6	160	004131106	490	1/25
NVPPN 00/3 M8-M8	160	004131107	490	1/25
NVPPN 00/3 2M6-2M6	160	004131108	490	1/25
NVPPNI 00/3 M8-2M6	160	004131121	560	1/25
NVPPNI 00/3 M8-M8	160	004131122	560	1/25
NVPPNI 00/3 2M6-2M6	160	004131123	560	1/25
NVPPNIP 00/3 M8-2M6	160	004131136	610	1/25
NVPPNIP 00/3 M8-M8	160	004131137	610	1/25
NVPPNIP 00/3 2M6-2M6	160	004131138	610	1/25

NVPP basic version of the fuse base.
NVPPI fuse base with insulating sleeves.
NVPPIP fuse base with insulating sleeves and protection cover.

NVPPN basic version of the fuse base with possibility of fastening on mounting rail.
NVPPNI fuse base with insulating sleeves with possibility of fastening on mounting rail.
NVPPNIP fuse base with insulating sleeves, protection cover and with possibility of fastening on mounting rail.

3-pole fuse base PK and PKI

type	I_n [A]	code No.	weight [g]	packaging [pcs]
PK 00/3 M8 - 2 x M6	160	004132001	555	1/25
PK 00/3 M8 - M8	160	004132008	555	1/25
PK 00/3 2xM6 - 2xM6	160	004132015	555	1/25
PK 0/3 M8 - 2 x M6	160	004132007	650	1/18
PK 0/3 M8 - M8	160	004132002	650	1/18
PK 0/3 2xM6 - 2xM6	160	004132016	650	1/18
PK 1/3	250	004132003	1900	1/10
PK 2/3	400	004132004	3035	1/6
PK 3/3	630	004132005	3800	1/6
PK I 1/3	250	004132009	1990	1/10
PKI 2/3	400	004132010	2990	1/6
PKI 3/3	630	004132011	3890	1/10

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3-pole fuse base Z

type	I_n [A]	code No.	weight [g]	packaging [pcs]
PPI 00Z	160	004121012	830	2
PK2Z	400	004132006	3360	2
PKI2Z	400	004132012	3480	2

3-pole fuse base PPR D

type	I_n [A]	code No.	weight [g]	packaging [pcs]
PPR 00 D	125	004121004	776	1/15

Earth clamp

type	I_n [A]	code No.	weight [g]	packaging [pcs]
NVPP 00/0 M8-2M6	160	004941501	140	3/111
NVPPN 00/0 M8-2M6	160	004941510	140	3/111
PP 00/0 M8-2M6	160	004941401	224	3/120
PK 00/0 M8-2M6	160	004941402	224	3/120
PK 1/0	250	004941404	590	3/42
PK 2/0	400	004941405	920	3/30
PK 3/0	630	004941406	920	3/24

Accessories

NV separator uninsulated

type	I_N [A]	code No.	weight [g]	packaging [pcs]
NV L 00	160	004941201	82	5/60
NV L 0	160	004941202	115	5/40
NV L 1	250	004941203	137	5/40
NV L 2	400	004941204	208	5/40
NV L 3	630	004941205	294	5/40

NV separator insulated

tip	I_N [A]	code No.	weight [g]	packaging [pcs]
NVLI 0	160	004941215	70	5/60
NVLI 0	160	004941216	120	5/40
NVLI 1	250	004941217	145	5/40
NVLI 2	400	004941218	215	5/40
NVLI 3	630	004941219	315	5/40

Handle

type	I_N [A]	code No.	weight [g]	packaging [pcs]
R 00-3	2-630	004941111	276	10
VR 00-3	2-630	004941100	420	30

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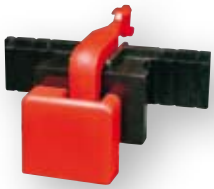
Signal Switch NVS 5			
type	code No.	weight [g]	packaging [pcs]
NVS 5	004117001	11,5	10/340

NVS 5 is used for signaling of interruption of fuse-links of the type NV/NH of the size NV/NH 00 C to NV/NH 3 (except NV/NH 1 ultra with knives for fastening with screws). NVS is activated through the indicator spring.



Insulating sleeve of contact spring NVPP 00			
type	code No.	weight [g]	packaging [pcs]
NVPP 00	004129301	33	24/168

Insulating sleeve of contact spring PK and PP			
type	code No.	weight [g]	packaging [pcs]
PP 00	004129201	15	24/168
PK 1	004129001	13	42/504
PK 2	004129002	19	18/216
PK 3	004129003	19	21/315

Protection cover NVPP 00			
type	code No.	weight [g]	packaging [pcs]
NVPP 00	004129310	16	24/168

Protection fuse-link			
type	code No.	weight [g]	packaging [pcs]
NVL00	004941206	30	10
NVL 1-3	004941207	78	10

Base separating element			
type	code No.	weight [g]	packaging [pcs]
NVPP 00	004941310	18	40/1000

Base separating elements			
type	code No.	weight [g]	packaging [pcs]
PP 00, PK 00	004941301	50	20/100
PK 0	004941302	50	20/100
PK 1	004941303	50	20/100
PK 2	004941304	50	20/100
PK 3	004941305	50	20/100

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Low voltage fuse-rails

NV fuse-rail sizes 00, 1, 2, 3

Characteristics of LV NV fuse-rails

The LV NV fuse-rails are three-pole bases of LV fuse-links, intended for busbar mounting. The LV NV fuse-rails comprises three single-pole connections in one unit. Each contact at an individual phase is connected to the phase on the busbar system. The other contacts are fitted with cable connecting terminals or intended for attachment of the following busbar system.

Use

The LV NV fuse-rails are mainly used for cable distribution and power supply systems.

Principle of operation

The LV NV fuse-rails are intended for insertion of LV fuse-links that are inserted and removed from the LV NV fuse-rails by means of a special handle (refer to Catalogue ETI - LV fuse-links, code number 4941111 and 4941100).

Design of LV NV fuse-rails

The insulated supporting body is made of one piece, the material is polyester reinforced with glass fibres. A silver-plated contact system, fitted with tinned extinction chambers, ensures a low power dissipation, optimum thermal characteristics, and a high breaking capacity. The contact derived parts are intended for cable connections or for attachment of the next busbar system. All the live parts are protected against accidental contacts - in conformity with BVG A2. A special form of the contact part cover provides for safe insertion and removal of the LV fuse-links.

Short description

The LV NV fuse-rails are manufactured in compliance with the DIN 43623 standard, and are mostly used for installation into cable distribution cabinets and power supply systems.
They are available in sizes of 00/160 A to 3/630 A. Covers provide insulation protection for all live parts.
All the LV NV fuse-rails are fitted with new, modern Delta contact systems allowing optimum pressure contact between the fuse cartridge and the LV NV fuse-rails, resulting in extremely low level of power dissipation and heating-up.
All standard insulated LV NV fuse-rails shown in the Catalogue are intended for general usage.
By the customer's request can be designed and made, indeed, appropriate individual configurations - in such cases please contact our sales engineers, or call us to the factory.

Advantages

- upper or lower cable connection - as required
- optimum pull contact
- simple installation
- modular design

General LV NV fuse-rail table

size	code No.	busbar system	product designation	connection description	protection cover	weight [kg]	packaging [pcs]
00	001691015	100	VL00/100 M8-2	flat connection – screw M8	/	0,8	1/1
00	001691016	100	VL00/100 SP.95-2	prism 35 - 95 mm²	/	0,8	1/1
00	001691020	185	VL00 M8	flat connection – screw M8	/	1,5	1/1
00	001691021	185	VL00 SP.95	V-clip 10-95 mm²	/	1,5	1/1
1	001691024	185	VL1 M10	screw M10	terminal compartment cover	3,5	1/1
1	001693024	185	VL1G M10	screw M10	terminal compartment cover	3,5	1/1
1	001691025	185	VL1 SP.300	V-clip 25-300 mm²	terminal compartment cover	3,5	1/1
1	001693025	185	VL1G SP.300	V-clip 25-300 mm²	terminal compartment cover	3,5	1/1
2	001691022	185	VL2 M12	screw M12	terminal compartment cover	3,8	1/1
2	001693022	185	VL2G M12	screw M12	terminal compartment cover	3,8	1/1
2	001691023	185	VL2 SP.300 P	V-clip 25-300 mm²	terminal cover	3,8	1/1
2	001693031	185	VL2G SP.300	V-clip 25-300 mm²	terminal compartment cover	3,8	1/1
2	001691026	185	VL2 SP.240	V-clip 25-240 mm²	terminal compartment cover	3,8	1/1
2	001693026	185	VL2G SP.240	V-clip 25-240 mm²	terminal compartment cover	3,8	1/1
2	001691029	185	VL2 M12x35	screw M12x35	terminal compartment cover	3,8	1/1
2	001693029	185	VL2G M12x35	screw M12x35	terminal compartment cover	3,8	1/1
2	001691030	185	VL2 SP.240 P	V-clip 25-240 mm²	terminal cover	3,8	1/1
2	001691031	185	VL2 SP.300	V-clip 25-300 mm²	terminal compartment cover	3,8	1/1
3	001691027	185	VL3 M12	screw M12	terminal compartment cover	4,3	1/1
3	001691028	185	VL3 SP.300	V-clip 25-300 mm²	terminal compartment cover	4,3	1/1

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Table of accessories for LV NV fuse-rails

type	code No.	description	packaging [pcs]
busbar connection KS 00/5-10	001691040	busbar thickness 5-10mm	1/3
busbar connection KS 00/10-15	001691041	busbar thickness 10-15mm	1/3
busbar connection KS 123/10	001692460	busbar thickness 10mm	1/3
protection covering of contact connections ZP 123/10HA	001691045	for sizes 1,2,3	1/1
busbar covering PZ 00/185	001691046	mounting thread M8	1/1
busbar covering PZ 00/100	001691047	mounting thread M8	1/1
busbar covering PZ 123/185	001691048	mounting thread M12	1/1
busbar support PP 100/185	001691055	for busbar system 100 mm and 185 mm	1/1

busbar support

busbar connection

busbar covering

protection covering of contact connections

Busbar connection

Busbar connections are used for drill-free direct contacting of the strip-fuseways on the busbars.

Protection cover

The terminal compartment and terminal covers provide probe-safe frontal protective covering of the terminal compartment.

Busbarcover, screw-type

The screw-type covers of 100 mm width are fixed at busbars withM 12 thread or stud. The covers of 50mm width are fixed on busbars or adapters with M8 thread.

Busbar support

The 3-polebusbar support is used for the fixing of flat bars at 100 mm and 185 mm distances.

Strip type fuse-switch-disconnectors

NV strip type fuse-switch-disconnector sizes 00, 1, 2, 3

Characteristics of the NV strip type fuse-switch-disconnectors

The NV strip type fuse-switch-disconnectors are three-pole bases of NV fuse cartridges, intended for busbar mounting. A NV strip type fuse-switch-disconnectors comprises three single-pole connections in one unit. Each contact at an individual phase is connected to the phase on the busbar system. The other contacts are fitted with cable connecting terminals or intended for attachment of the following busbar system.

Use

The NV strip type fuse-switch-disconnectors are mainly used for cable distribution and power supply systems, transformer systems, where they are connected when electric energy transmission is required. The following rated currents are available: 160 A, 250 A, 400 A, 630 A.

Principle of operation

The NV strip type fuse-switch-disconnectors are used in combination with NV fuse cartridges protecting the circuit against shorts. The upper part of the NV strip type fuse-switch-disconnectors with insulation class IP3X is provided with a separate test opening through which the live state can be tested according to DIN VDE 0680, part 5.

Design of the NV strip type fuse-switch-disconnectors

The insulated supporting body is made of one piece, the material is polyester reinforced with glass fibres. A silver-plated contact system, fitted with tinned extinction chambers, ensures a low power dissipation, optimum thermal characteristics, and a high breaking capacity. The contact derived parts are intended for cable connections or for attachment of the next busbar system. All the live parts are protected against accidental contacts - in conformity with BVG A2. A special form of the contact part cover provides for safe insertion and removal of the NV fuse cartridges.

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Short description

The NV strip type fuse-switch-disconnectors are mostly used for installation into cable distribution cabinets and power supply systems - in accordance with IEC/EN 60439-1. The NV strip type fuse-switch-disconnectors have been tested in accordance with IEC/EN 60947-3. They are available for the sizes of fuse cartridges from 00 to 3, with both single-pole and three-pole switching-on.

Advantages

- upper or lower cable connection - as required
- optimum pull contact
- direct connection
- double strip connection up to 1250 A
- universal cover
- high breaking capacity
- low power disipation
- use of standard earthing connections
- modular conctruction

Main types of the NV strip type fuse-switch-disconnectors - characteristics

Basically, as shown, there are several types of the NV strip type fuse-switch-disconnectors:

- for a three-pole switching-in
- for a single-pole switching-in
- for attachment directly to a busbar system
- with side contacts for a busbar system

All the NV strip type fuse-switch-disconnectors are fitted with new, modern Delta contact systems allowing optimum pressure contact between the fuse cartridge and the NV strip type fuse-switch-disconnectors, resulting in extremely low level of power dissipation and heating-up. All the standard NV strip type fuse-switch-disconnectors shown in the catalogue are intended for general usage. By the customer's request can be designed and made, indeed, appropriate individual configurations - in such cases please contact our sales engineers, or call us to the factory.

General table of NV strip type-fuse-switch-disconnector-single-pole switching-in

size	code No	busbar system	product designation	product designation	switch lever	weight [kg]	packaging [pcs]
00	001692010	185	SL00 1P M8	flat connection - screw M8	standard	2,4	1/1
00	001692011	185	SL00 1P M8 P	flat connection - screw M8	retracable handle	2,4	1/1
00	001692012	185	SL00 1P SP.95	V-clip 10-95 mm^2	standard	2,4	1/1
1	001692110	185	SL1 1P M10	screw M10	standard	4,9	1/1
1	001694110	185	SL1G 1P M10	screw M10	standard	4,9	1/1
1	001692111	185	SL1 1P SP.300	V-clip 25-300 mm^2	standard	4,9	1/1
1	001694111	185	SL1G 1P SP.300	V-clip 25-300 mm^2	standard	4,9	1/1
1	001692112	185	SL1 1P SP.240	V-clip 25-240 mm^2	standard	4,9	1/1
1	001694112	185	SL1G 1P SP.240	V-clip 25-240 mm^2	standard	4,9	1/1
2	001692210	185	SL2 1P M12	screw M12	standard	4,9	1/1
2	001694210	185	SL2G 1P M12	screw M12	standard	4,9	1/1
2	001692211	185	SL2 1P SP.300	V-clip 25-300 mm^2	standard	4,9	1/1
2	001694211	185	SL2G 1P SP.300	V-clip 25-300 mm^2	standard	4,9	1/1
2	001692212	185	SL2 1P SP.240	V-clip 25-240 mm^2	standard	4,9	1/1
2	001694212	185	SL2G 1P SP.240	v-CLIP 25-240 mm^2	standard	4,9	1/1
3	001692310	185	SL3 1P M12	screw M12	standard	5,6	1/1
3	001692311	185	SL3 1P SP.300	V-clip 25-300 mm^2	standard	5,6	1/1
3	001692312	185	SL3 1P SP.240	V-clip 25-240 mm^2	standard	5,6	1/1

General tabel of NV strip type fuse-switch-disconnector-three-pole switching-in

size	code No	busbar system	product designation	connection description	weight [kg]	packaging [pcs]
00	001692034	100	SL00/100 3P M8-2	flat connection – screw M8	1	1/1
00	001692035	100	SL00/100 3P SP.70-2	V-clip 10-70 mm^2	1	1/1
00	001692032	185	SL00 3P M8	flat connection – screw M8	2,4	1/1
00	001692033	185	SL00 3P SP.95	V-clip 10-95 mm^2	2,4	1/1
1	001692130	185	SL1 3P M10	screw M10	4,9	1/1
1	001694130	185	SL1G 3P M10 *	screw M10	4,9	1/1
1	001692131	185	SL1 3P SP.300	V-clip 25-300 mm^2	4,9	1/1
1	001694131	185	SL1G 3P SP.300 *	V-clip 25-300 mm^2	4,9	1/1
1	001692132	185	SL1 3P SP.240	V-clip 25-240 mm^2	4,9	1/1
2	001692000	185	SL2 3P SP.300	V-clip 25-300 mm^2	4,9	1/1
2	001694000	185	SL2G 3P SP.300 *	V-clip 25-300 mm^2	4,9	1/1
2	001692230	185	SL2 3P M12	screw M12	4,9	1/1
2	001694230	185	SL2G M12 *	screw M12	4,9	1/1
2	001692231	185	SL2 3P SP.240	V-clip 25-240 mm^2	4,9	1/1
3	001692330	185	SL3 3P M12	screw M12	5,6	1/1
3	001692331	185	SL3 3P SP.300	V-clip 25-300 mm^2	5,6	1/1
3	001692332	185	SL3 3P SP.240	V-clip 25-240 mm^2	5,6	1/1

** "Gamma" contact (make short - circuit current 80 kA)

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NV strip type fuse-switch-disconnector with current transformer

size	code No	busbar system	product designation	product designation	tokovni transformator	weight [kg]	packaging [pcs]
00	001693000	100	SL00/100 3P M8 150/5 Kl.1	flat connection, M8	150/5 class 1	1,7	1/1
1	001693010	185	SL1 3P M10 250/5 Kl.1	screw M10	250/5 class 1	3,1	1/1
2	001693020	185	SL2 3P M12 400/5 Kl.1	screw M12	400/5 class 1	4,6	1/1
3	001693030	185	SL3 3P M12 600/5 Kl.1	screw M12	600/5 class 1	4,6	1/1
00	001693040	100	SL00/100 3P SP.70 150/5 Kl.1	V-clip 10-70mm^2	150/5 class 1	1,7	1/1
1	001693050	185	SL1 3P SP.300 250/5 Kl.1	V-clip 25-300mm^2	250/5 class 1	3,1	1/1
2	001693060	185	SL2 3P SP.300 400/5 Kl.1	V-clip 25-300mm^2	400/5 class 1	4,6	1/1
3	001693070	185	SL3 3P SP.300 600/5 Kl.1	V-clip 25-300mm^2	600/5 class 1	4,6	1/1

Table of accessories for NV strip type fuse-switch-disconnector

type	code No.	description	packaging [pcs]
busbar connection KS 00/5-10	001691040	busbar thickness 5-10mm	1/3
busbar connection KS 00/10-15	001691041	busbar thickness 10-15mm	1/3
busbar connection KS 123/10	001692460	for size 1,2,3	1/1
adapter DA 185/185 42	001692411	for system 185 mm height 42 mm	1/1
adapter DA 185/100 52	001692412	for system 185/100mm, height 52 mm, for 2 x SL00	1/1
protection covering of contact connections ZP 00 HA	001692420	for size 00	1/1
protection covering of contact connections ZP 123/10HA	001692421	for size 1,2,3	1/1
busbar covering PZ 00/185	001691046	mounting thread M8	1/1
busbar covering PZ 00/100	001691047	mounting thread M8	1/1
busbar covering PZ 123/185	001691048	mounting thread M12	1/1
nameplate NP 00	001692430	for size 00	1/1
nameplate NP 123	001692431	for size 1,2,3	1/1
busbar support PP 100/185	001691055	for systems 100 mm and 185 mm	1/1
Deriv. connection OP L	001692440	for size 1,2,3	1/1
double connection DP 3x2 (6)*	001692450	for size 1,2,3	1/1
double protection cover 3x2/10HA*	001692422	for size 1,2,3	1/1
double terminal connections VS3/1250*	001692423	for size 1,2,3	1/1

* accessories for assembling: SL 1250 (2 paralel conected fuse-switch-disconnector)

busbar connection

adapter

busbar support

busbar covering

protection covering of contact connections

BUSBAR CONNECTION

Busbar connections are used for drill-free direct contacting of the strip-fuseways on the busbars.

PROTECTION COVER

The terminal compartment and terminal covers provide probe-safe frontal protecive covering of the terminal compartment.

BUSBARCOVER, SCREW-TYPE

The screw-type covers of 100 mm width are fixed at busbars with M12 thread or stud. The covers of 50 mm width are fixed on busbars or adapters with M8 thread.

BUSBAR SUPPORT

The 3-pole busbar support is used for the fixing of flat bars at 100 mm and 185 mm distances.

DOUBLE CONNECTOR

The connector kits are used for parallel switching of 2 strips.

DOUBLE TERMINAL CONNECTION

The kit for 1250 A allows 2 strips to be connected at the terminal and 3 or 4 cables per phase to be connected.

NAMEPLATE

The designation plate mount is plugged on the strips at the end face. It allows fitting of an additional designation plate. When fitted in switch boards, it can also be used as support for a system cover.

BUSBAR ADAPTERS

The adapters are required for combining different strip sizes, e.g. size 00 with sizes 1 to3.

DERIVED CONNECTION

The derived connection enables fuse-protected temporary connections (worksite electrical supply) to size 1 to 3 LV NV strip-fuseways.

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NV disconnectors with fuses

NV disconnectors with fuses, sizes 00, 1, 2, 3, 4a

Disconnectors with fuses are intended for power distribution and protection of electric equipment and cords from undesired effects of overloads and short-circuits. Naturally, these benefits apply when the disconnectors are used with appropriate NV fuse-links with characteristics that are suited for the protection of cords or motors.
We offer a wide array of disconnectors with fuses, sizes 00, 1, 2, 3, and 4a, that are suitable for installation onto mounting brackets and DIN rails. You can choose from various sizes of 1-pole and 3-pole version; 2-pole and 4-pole versions will be supplied upon special request.

1-pole

size	code No.	type	weight [kg]	packaging [pcs]
00	001692492	HVL 00 1-p M8-M8	0,45	1/1
1	001692494	HVL 1 1-p M10-M10	1,5	1/1
3	001692496	HVL 3 1-pM10-M10	1,9	1/1
4a	001692498	HVL 4a 1-p M16 1250	5,3	1/1
4a	001692499	HVL 4a 1-p M16 1600	5,3	1/1

3-pole

size	code No.	type	weight [kg]	packaging [pcs]
00	001692550	HVL 00 3-p M8-M8 P	0,72	1/1
00	001692555	HVL 00 3-p SP70 P	0,72	1/1
00	001692556	HVL 00 3-p M8-SP70P	0,72	1/1
1	001692560	HVL 1 3-p M10-M10	2,5	1/1
2	001692570	HVL 2 3-p M10-M10	3,1	1/1
3	001692580	HVL 3 3-pM10-M10	4,8	1/1
4a	001692620	HVL 4a 3-p M16 1250	15,7	1/1
4a	001692630	HVL 4a 3-p M16 1600	15,7	1/1

terminal strip

micro switch

cover

DIN rail fitting element

Accessories

type	code No.	description	packaging [pcs]
1,5-70 mm² SP HVL00	001692701	Terminal strip	3
SP HVL1	001692702	Terminal strip	3
SP HVL2	001692703	Terminal strip	3
SP HVL3	001692704	Terminal strip	3
MST 00	001692711	Micro switch	1
MST 1-3 1-p	001692712	Micro switch	1
MST 1-3 3-p	001692713	Micro switch	1
MST 4a 1p + 3p	001692714	Micro switch	1
PRS 00	001692721	Additional terminal strip cover	1
PRS 1 TOP	001692722	Additional terminal strip cover	1
PRS 2 TOP	001692723	Additional terminal strip cover	1
PRS 3 TOP	001692724	Additional terminal strip cover	1
PRS 1 BOTTOM	001692725	Additional terminal strip cover	1
PRS 2 BOTTOM	001692726	Additional terminal strip cover	1
PRS 3 BOTTOM	001692727	Additional terminal strip cover	1
DIN 00 100-150 mm	001692731	Element for fitting onto DIN rail	1

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Universal earthing and short circuiting devices

Description

Earthing and short circuiting device is assembled from highly flexible copper leads with a transparent plastic insulation. Connection pieces are compresed and aditionally bolted. Joints from the connection piece or cable lug to the cable insulation are enclosed by a stabilized tenacious elastic and transparent sleeve. Mechanical kinking protection guarantees reliable sealing against moisture ingress.Transparent insulation of the copper cables allows permanent visual inspection. Any damaged strands are recognized Immediately. In order to protect the cable lugs against torsion and to reduce the dynamic forces in case of a short circuit, each cable lug sleeve is equipped with a share pin. The light-weight construction of the connection piece together with the soft kinking protection offers an improved protection for persons and installation. The device is rated for a temperature range of -25 °C up to +70 °C.

Universal earthing and short circuiting device	
code No.	Standard
004589100	DIN VDE 0683 T1/03.88

3-phase earthing and short circuiting device

Cables made of highly flexible copper leads, cross section 35sqmm, with PVC-insulation. Connection piece compressed, bolted and equipped with a moulded, transparent and waterproof protection cover. Fully insulated screw-in connection coupling to be fixed with the earthing handle.
Short circuiting cables supplied in lengths:
320 / 520 / 720 mm
Length of the earthing cable: 1000mm.
Rated current ant time (Ir/tr): 10kA/0.5s.

Plug-in blades for DIN-fuse holders

Plug-in blades made of red plastic material, metal part with threaded hole for torison-safe connection to fully-insulated connection coupling, fitted using the earthing handle

Earth connection clamp

Insulated earth connection clamp with flexible handle for screwing onto flat bars (width 3-6 mm), to be clam-ped from the top side. The flexible handle allows connections to be made when depth is limited.

Earthing handle

Earthing handle, one end is used to insert the plug-in blades and on the other end to fix the earthing and short circuiting device.

Notes