NV/NH horizontal fuse-switch disconnectors KVL for busbar mounting

Uniform cover cutout

KVL - horizontal fuse-switch disconnectors with different sizes can be combined together and form uniform cover cutout. The new assortment contains four cover support levels at 32, 60, 70 and 90 mm above the uper of busbar. KVL fuse-switch disconnectors can be mounted on busbars (for baseplates and DIN rails see chapter NV/NH).

- Available with 1- and 3-pole versions
- Four sizes: size 00, size 1, size 2, size 3
- Use with NV/NH Fuse-links 000, 00, 1, 2, 3

Busbar mounting

KVL-00 to KVL-3 can be mounted onto 60mm busbar systems - no drilling required
KVL-1 to KVL-3 can be also mounted onto 100mm busbar systems - drilling required

KVL size 00
Ie = 160A
Overall width: 106mm
System size: 195mm

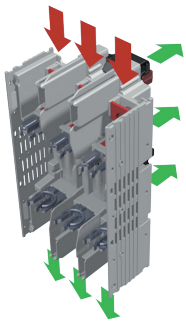
KVL size 1
Ie = 250A
Overall width: 184mm
System size: 300mm

KVL size 2
Ie = 400A
Overall width: 210mm
System size: 300mm

KVL size 3
Ie = 630A
Overall width: 250mm
System size: 300mm

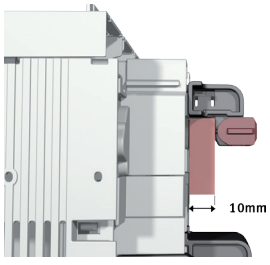
Practical advantages

Uniform cover cutout for all sizes disconnectors
- Changeable installation depth by 4 differenet field supporting surfaces (32mm, 60mm, 70mm, 90mm)

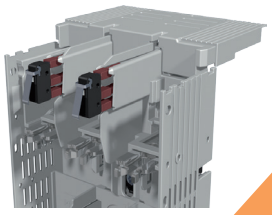


Area-saving
- integrated feeding terminal
- Busbar supply and safe outgoing cable outlet
- Busbar supports up to 20mm width, 19mm height max.

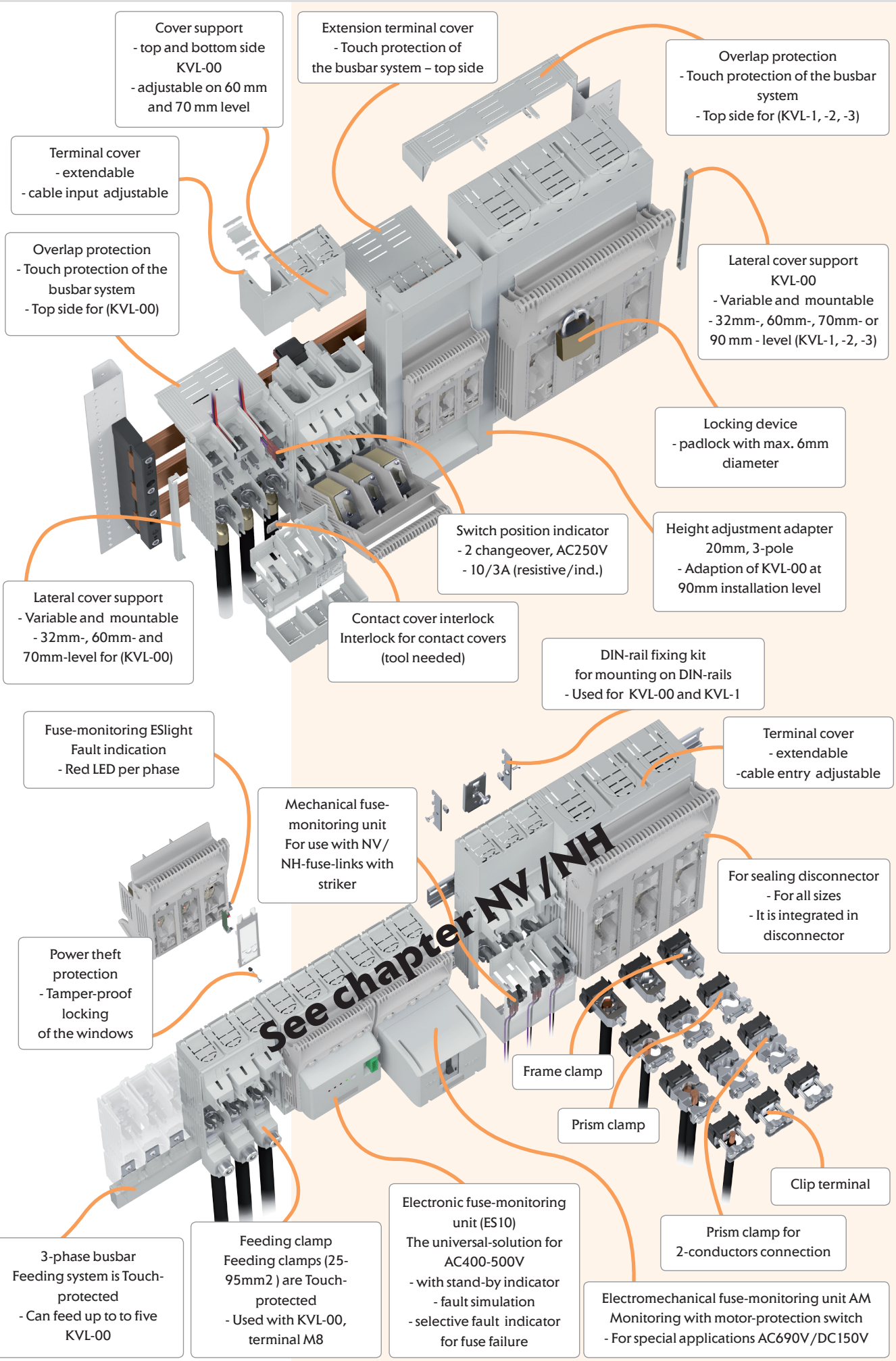
Easy adjustments
- adjustment to 5mm or 10mm thick bars
- simple modification of cable terminal from bottom side to top side



Retrofittable switch position indicator
-Dual monitoring in each unit
- Separate circuits function
- Wide range of applications due to high switching capacity 10/3A (resistive/ind.) AC250V



New generation!

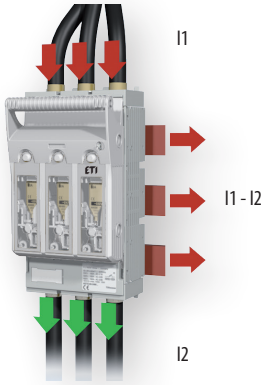

Cover support
- top and bottom side KVL-00
- adjustable on 60 mm and 70 mm level
Extension terminal cover
- Touch protection of the busbar system – top side
Overlap protection
- Touch protection of the busbar system
- Top side for (KVL-1, -2, -3)
Terminal cover
- extendable
- cable input adjustable
Overlap protection
- Touch protection of the busbar system
- Top side for (KVL-00)
Lateral cover support KVL-00
- Variable and mountable
- 32mm-, 60mm-, 70mm- or 90 mm - level (KVL-1, -2, -3)
Locking device
- padlock with max. 6mm diameter
Switch position indicator
- 2 changeover, AC250V
- 10/3A (resistive/ind.)
Height adjustment adapter 20mm, 3-pole
- Adaption of KVL-00 at 90mm installation level
Lateral cover support
- Variable and mountable
- 32mm-, 60mm- and 70mm-level for (KVL-00)
Contact cover interlock
Interlock for contact covers (tool needed)
DIN-rail fixing kit
for mounting on DIN-rails
- Used for KVL-00 and KVL-1
Fuse-monitoring ESlight
Fault indication
- Red LED per phase
Terminal cover
- extendable
-cable entry adjustable
Mechanical fuse-monitoring unit
For use with NV/NH-fuse-links with striker
See chapter NV/NH
For sealing disconnector
- For all sizes
- It is integrated in disconnector
Power theft protection
- Tamper-proof locking of the windows
Frame clamp
Prism clamp
Clip terminal
Prism clamp for 2-conductors connection
3-phase busbar
Feeding system is Touch-protected
- Can feed up to to five KVL-00
Feeding clamp
Feeding clamps (25-95mm2) are Touch-protected
- Used with KVL-00, terminal M8
Electronic fuse-monitoring unit (ES10)
The universal-solution for AC400-500V
- with stand-by indicator
- fault simulation
- selective fault indicator for fuse failure
Electromechanical fuse-monitoring unit AM
Monitoring with motor-protection switch
- For special applications AC690V/DC150V

3-pole, 60mm busbar, thickness 5 mm or 10 mm

Size	Code No.	Type	Weight [kg]	Packaging [pcs]
00	001690910	KVL-B-00 3p M8-M8	0,9	1
	001690911	KVL-B-00 3p BC95-BC95	0,92	1
1	001690912	KVL-B-1 3p M10-M10	2,14	1
2	001690913	KVL-B-2 3p M10-M10	3,53	1
3	001690914	KVL-B-3 3p M10-M10	4,13	1

3-pole, 60mm busbar, Integrated Feeding Terminal

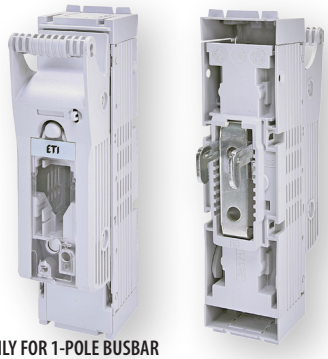
Size	Code No.	Type	Feeding side - Line - I1	Load side I2	I1	I2	Weight [kg]	Packaging [pcs]
00	001690920	KVL-B/FT-00 3p M8-M8	top/bottom	top/bottom	400	160	1,05	1
1	001690921	KVL-B/FT-1 3p M10-M10 TOP	bottom	top	500	250	2,39	1
	001690922	KVL-B/FT-1 3p M10-M10 BOTTOM	top	bottom			2,39	1
2	001690923	KVL-B/FT-2 3p M10-M10 TOP	bottom	top	800	400	3,9	1
	001690924	KVL-B/FT-2 3p M10-M10 BOTTOM	top	bottom			3,9	1



1-pole busbar

Size	Code No.	Type	Fixation	Weight [kg]	Packaging [pcs]
00	001690930	KVL-B/SF-00 1p M8-M8	screw fixation	0,35	2
	001690931	KVL-B/CF-00 1p M8-M8	clamp fixation	0,39	2
1	001690932	KVL-B/SF-1 1p M10-M10	screw fixation	0,98	1
2-3	001690933	KVL-B/SF-3 1p M10-M10	screw fixation	1,59	1

DO NOT USE WITH 3-pole 60 mm busbar system !!!

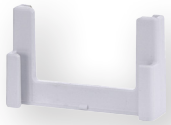


!!! ONLY FOR 1-POLE BUSBAR

Accessories for KVL busbar 60 mm

Type	Code No.	Description	Packaging [pcs]
HA KVL-00 3p T/B 340-370	001690980	Height adjusting adapter, 70 to 90mm, 3-pole, System size 340-370mm, top + bottom, size 00	2
HA KVL-00 3p T/B 300	001690981	Height adjusting adapter, 70 to 90mm, 3-pole, System size 300mm, top + bottom, size 00	2
HA KVL-00 3p L/R 340-370	001690982	Height adjusting adapter, 70 to 90mm, 3-pole, System size 340-370mm, right + left, size 00	2
HA KVL-00 3p L/R 300	001690983	Height adjusting adapter, 70 to 90mm, 3-pole, System size 300mm, right + left, size 00	2
PRSEXT KVL-00 3p/34-39	001690984	Terminal cover extension, 3-pole, h1 = 39 or 34mm, size 00, *	2
PRSEXT KVL-00 3p/32	001690985	Terminal cover extension, 3-pole, h1 = 32mm, size 00, *	2
UGS KVL-00 3p/34-39	001690986	Overlap protector for busbar systems, h1 = 39 or 34mm, for terminal F, S00, P00, R95, size 00	2
UGS KVL-00 3p/32	001690987	Overlap protector for busbar systems, h1 = 32mm, for terminal F, S00, P00, R95, size 00	2
UGS KVL-00 3p/R95T/34-39	001690988	Overlap protector for busbar systems, h1 = 39 or 34mm, for terminal R95T, size 00	2
UGS KVL-00 3p/R95T/32	001690989	Overlap protector for busbar systems, h1 = 32mm, for terminal R95T, size 00	2
UGS KVL-1 3p/34-39	001690990	Overlap protector for busbar systems, h1 = 39 or 34mm, size 1	2
UGS KVL-1 3p/32	001690991	Overlap protector for busbar systems, h1 = 32mm, size 1	2
UGS KVL-2 3p/39-34	001690992	Overlap protector for busbar systems, h1 = 39 or 34mm, size 2	2
UGS KVL-2 3p/32	001690993	Overlap protector for busbar systems, h1 = 32mm, size 2	2
UGS KVL-3 3p/39-34	001690994	Overlap protector for busbar systems, h1 = 39 or 34mm, size 3	2
UGS KVL-3 3p/32	001690995	Overlap protector for busbar systems, h1 = 32mm, size 3	2
BLA KVL-00 top/bottom	001690961	Cover support, top or bottom side, level 60mm, 70mm, size 00	10
BLAL KVL-00 lateral	001690962	Cover support, lateral, level 32mm, 60mm, 70mm, size 00	10
BLA KVL-123	001690963	Cover support, top or bottom side, lateral, level 32mm, 60mm, 70mm, size 1, 2, 3	10

* h1 = Distance top edge busbar to base plate



BLA_KVL-00_top-bottom

BLAL_KVL

HA KVL-00 3p T/B 300

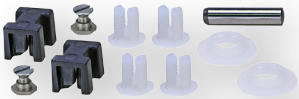
Technical data on page 637

PRS KVL-00 1p

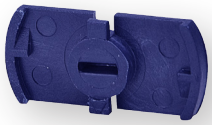
PRS KVL-00 1p S

SP KVL... P2

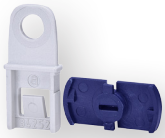
SP KVL-1 V



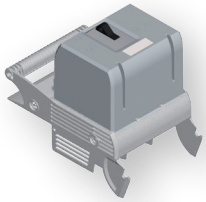
CK KVL-00 2p/4p



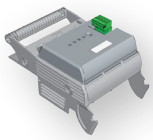
LP KVL-00123



IC KVL-00123



MPFMU



EFMU

PRS KVL-00 3p L

Accessories for KVL

Type	Code No.	Description	Packaging [pcs]
SP KVL00	001692701	Clip terminal, 1,5 – 70 mm² Cu	set=3
SP KVL1	001692702	Clip terminal, 25– 150 mm² Cu	set=3
SP KVL2	001692703	Clip terminal, 25– 240 mm² Cu	set=3
SP KVL3	001692704	Clip terminal, 11x21 mm² Cu	set=3
SP KVL00 P1	001692760	Prism clamp, 10 – 70 mm² Al/Cu	set=3
SP KVL1 P1	001692761	Prism clamp, 70 – 150 mm² Al/Cu	set=3
SP KVL2 P1	001692762	Prism clamp, 120 – 240 mm² Al/Cu	set=3
SP KVL3 P1	001692763	Prism clamp, 120 – 300 mm² Al/Cu	set=3
SP KVL1 P2	001692764	Prism clamp for 2-conductors connection, 2x70 – 95 mm² Al/Cu	set=3
SP KVL2 P2	001692765	Prism clamp for 2-conductors connection, 2x120 – 150 mm² Al/Cu	set=3
SP KVL3 P2	001692766	Prism clamp for 2-conductors connection, 2x120 – 240 mm² Al/Cu	set=3
SP KVL-1 V	001690940	Frame clamp, 35-150mm² Al/Cu	set=3
SP KVL-23 V	001690941	Frame clamp, 95-300mm² Al/Cu	set=3
SP KVL-00 FC95	001690942	Feeding clamp, 25-95mm² Cu/Al, isolated, terminal M8,*	set=3
MST KVL-00 1p	001690947	Switch position indicator, 1-pole, size 00, **	1
MST KVL-00 3p	001690948	Switch position indicator, 3-pole, size 00, **	1
MST KVL-123 1p/2p/3p	001690949	Switch position indicator, 1/2/3 -pole, size 1, 2, 3, **	1
MFM KVL-00 1p/2p/3p	001690950	Mechanical fuse monitor, size 00, **	3
MFM KVL-123 1p/2p/3p	001690951	Mechanical fuse monitor, size 1, 2, 3, **, ***	3
PRS KVL-00 3p L	001690952	Terminal cover, 3-pole, variable to open, Length 66mm, size 00	2
PRS KVL-00 3p S	001690953	Terminal cover, 3-pole, variable to open, Length 36mm, size 00	2
PRS KVL-1 3p	001690954	Terminal cover, 3-pole, variable to open, Length 42mm, size 1	2
PRS KVL-2 3p	001690955	Terminal cover, 3-pole, variable to open, Length 42mm, size 2	2
PRS KVL-3 3p	001690956	Terminal cover, 3-pole, variable to open, Length 42mm, size 3	2
PRS KVL-00 1p L	001690957	Terminal cover, 1-pole, variable to open, Length 66mm, size 00	2
PRS KVL-00 1p S	001690958	Terminal cover, 1-pole, variable to open, Length 36mm, size 00	2
PRS KVL-1 1p	001690959	Terminal cover, 1-pole, variable to open, Length 42mm, size 1	2
PRS KVL-3 1p	001690960	Terminal cover, 1-pole, variable to open, Length 42mm, size 3	2
EFMU KVL-00 3p	001690966	Electronic fuse monitoring unit, 3-pole, size 00, ****	1
EFMU KVL-1 3p	001690967	Electronic fuse monitoring unit, 3-pole, size 1, ****	1
EFMU KVL-2 3p	001690968	Electronic fuse monitoring unit, 3-pole, size 2, ****	1
EFMU KVL-3 3p	001690969	Electronic fuse monitoring unit, 3-pole, size 3, ****	1
MPFMU KVL-00 3p	001690974	Elektromechanical fuse monitoring unit (AM), 3-pole, size 00, ****	1
MPFMU KVL-1 3p	001690975	Elektromechanical fuse monitoring unit (AM), 3-pole, size 1, ****	1
MPFMU KVL-2 3p	001690976	Elektromechanical fuse monitoring unit (AM), 3-pole, size 2, ****	1
MPFMU KVL-3 3p	001690977	Elektromechanical fuse monitoring unit (AM), 3-pole, size 3, ****	1
LP KVL-00123	001690972	Interlock device, locking with padlock, diameter 6mm max., size 00, 1, 2, 3	10
IC KVL-00123	001690973	Contact cover interlock, only be operated by tool, size 00-3	10

* Feeding clamp, AC690V/DC1000V-250A
** 1 Changeover, AC250V, 10/3A (ohmic/ind.)
*** Only in combination with ETI fuse-links with striker-pin; not in combination with frame-clamp or 2-wire-prism clamp.
**** For monitoring of fuse-links with live gripping lugs

Technical data on page 637

Horizontal fuse-switch disconnector type KVL size 00, 1, 2, 3

Technical data (in accordance with IEC/EN 60947-3)														
Size			**00**					**1**						
Technical Characteristics														
Rated operational voltage	U_e	V	400 AC	500 AC	690 AC	250 DC	440 DC	400 AC	500 AC	690 AC	250 DC	440 DC		
Rated operational current	I_e	A	160	160	160	160	160	250	250	250	250	250		
Conv. free air thermal current with fuse-links, *	I_{th}	A	160					250						
Conv. free air thermal current with solid-links, *	I_{th}	A	On request					On request						
Rated frequency	f	Hz	40-60	40-60	40-60	/	/	40-60	40-60	40-60	/	/		
Rated insulation voltage	U_i	V	800 AC					800 AC						
Total power loss (without fuse)	P_v	W	1P - 5 W, 3P - 14 W					1P - 7 W, 3P - 22 W						
Power loss at 80% Ith (without fuse-links), **	P_v	W	1P - 3 W, 3P - 9 W					1P - 4,7 W, 3P - 14,1 W						
Rated impulse withstand voltage	U_{imp}	kV	8					8						
Utilisation category***			AC-23B	AC-22B	AC-21B	DC-22B	DC-21B	AC-23B	AC-22B	AC-21B	DC-22B	DC-21B		
Rated conditional short-circuit current, ***, ****		kA	120 (500V), 100 (690V)					120 (500V), 100 (690V)						
Rated short-time withstand current	I_{cw}	kA	5/1s					8,6/1s						
Fuse links														
Size - DIN VDE 0636-2	-	-	000/00					1						
Max. rated current (gG)	I_n	A	160	160	160	160	160	250	250	250	250	250		
Max. permissible power lose per fuse link	P_a	W	12					23						
Cable terminal														
Flat terminal-Screw			M8					M10						
Tightening torque	Ma	Nm	12-15					30-35						
Clip terminal, Clamping cross-section		mm^2	Round conductor: 1,5-70 Cu, Strip conductor: 6 x 9 x 0,8 Cu					Round conductor: 2,5-150 Cu, Strip conductor: 6 x 16 x 0,8 Cu						
Tightening torque	Ma	Nm	2,6					9,5						
Prism Clamp, Clamping cross-section		mm^2	(SP KVL00 P1); 10-70 Al/Cu , 35-95 Al/Cu					(SP KVL1 P1); 10-150 Al/Cu						
Tightening torque	Ma	Nm	(SP KVL00 P1); 2,6					(SP KVL1 P1); 4,5						
Prism Clamp, Clamping cross-section		mm^2						(SP KVL1 P2); 2 x (10-150) Al/Cu						
Tightening torque	Ma	Nm						(SP KVL1 P2); 4,5						
Frame clamp, Clamping cross-section		mm^2	1,5-95 Al/Cu , (Al 95: max. 125A)					35-150 Al/Cu						
Torque	Ma	Nm	4,5					12						
Degree of Protection, front side device														
Front cover close	-	-	IP20					IP20						
Front cover open	-	-	IP10					IP10						
With clamp- and lateral cover	-	-	IP2XC					IP2XC						
Operating condition														
Ambient temperature *****	T_{amb}	°C	-25 ... +55					-25 ... +55						
Operating condition	-	-	Continuous operation											
Mounting	-	-	vertical, horizontal											
Altitude	-	m	≤ 2000											
Pollution degree	-	-	3											
Overvoltage category	-	-	III					III						

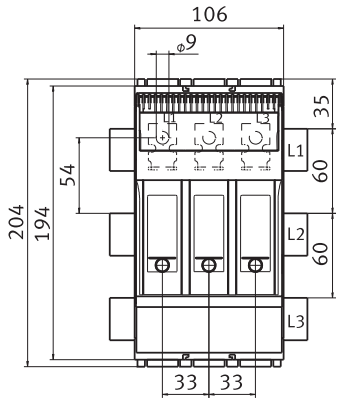
* Mounting of several units in low voltage switchgear-combinations, please think about rated diversity factors acc. to DIN EN 61439.
** Reference value for replacement of devices acc. to DIN EN 61439-1 clause 10.10.4.2.
*** minimum distance to earthed, conductive parts: Lateral: 20mm/Above: 50mm
*** a) Lateral: 50mm/Above: 100mm
**** Type tested with NH fuse-links characteristic gG
***** 35°C Normal temperature, at 55°C with reduced operating current

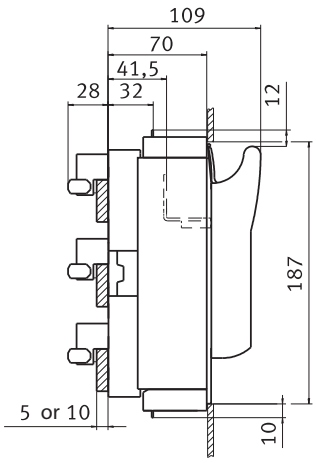
Technical data (in accordance with IEC/EN 60947-3)

Size			2				3			
Technical Characteristics										
Rated operational voltage	U_e	V	400 AC	500 AC	690 AC	440 DC	400 AC	500 AC	690 AC	440 DC
Rated operational current	I_e	A	400	400	400	400	630	630	630	630
Conv. free air thermal current with fuse-links, *	I_{th}	A	400				630			
Conv. free air thermal current with solid-links, *	I_{th}	A	On request				On request			
Rated frequency	f	Hz	40-60	40-60	40-60	/	40-60	40-60	40-60	/
Rated insulation voltage	U_i	V	800 AC				800 AC			
Total power loss (without fuse)	P_v	W	1P - 12 W, 3P - 36 W				1P - 29 W, 3P - 86 W			
Power loss at 80% Ith (without fuse-links), **	P_v	W	1P - 7,7 W, 3P - 23 W				1P - 18,3 W, 3P - 55 W			
Rated impulse withstand voltage	U_{imp}	kV	8				8			
Utilisation category***			AC-23B	AC-22B	AC-21B	DC-22B	AC-23B	AC-22B	AC-21B	DC-22B
Rated conditional short-circuit current, ***, ****		kA	120 (500V), 100 (690V)				120 (500V), 100 (690V)			
Rated short-time withstand current	I_{cw}	kA	15/1s				15/1s			
Fuse links										
Size - DIN VDE 0636-2	-	-	2				3			
Max. rated current (gG)	I_n	A	400	400	400	400	630	630	630	630
Max. permissible power lose per fuse link	P_a	W	34				48			
Cable terminal										
Flat terminal-Screw			M10				M10 / M12			
Tightening torque	Ma	Nm	30-35				30-35			
Clip terminal, Clamping cross-section		mm^2	Round conductor: 25-150 Cu, Strip conductor: 10 x 16 x 0,8 Cu				Strip conductor: 11 x 21 x 1 Cu			
Tightening torque	Ma	Nm	23				23			
Prism Clamp, Clamping cross-section		mm^2	(SP KVL2 P1); 120-240 Al/Cu				(SP KVL3 P1); 120-300 Al/Cu			
Tightening torque	Ma	Nm	(SP KVL2 P1); 11				(SP KVL3 P1); 11			
Prism Clamp, Clamping cross-section		mm^2	(SP KVL2 P2); 2 x (120-150) Al/Cu				(SP KVL3 P2); 2 x (120-240) Al/Cu			
Tightening torque	Ma	Nm	(SP KVL2 P2); 11				(SP KVL3 P2); 11			
Frame clamp, Clamping cross-section		mm^2	95 -300 Al/Cu				95-300 Al/Cu			
Torque	Ma	Nm	20				20			
Degree of Protection, front side device										
Front cover close	-	-	IP20				IP20			
Front cover open	-	-	IP10				IP10			
With clamp- and lateral cover	-	-	IP2XC				IP2XC			
Operating condition										
Ambient temperature *****	T_{amb}	°C	-25 ... +55				-25 ... +55			
Operating condition	-	-	Continuous operation							
Mounting	-	-	vertical, horizontal							
Altitude	-	m	≤ 2000							
Pollution degree	-	-	3							
Overvoltage category	-	-	III				III			

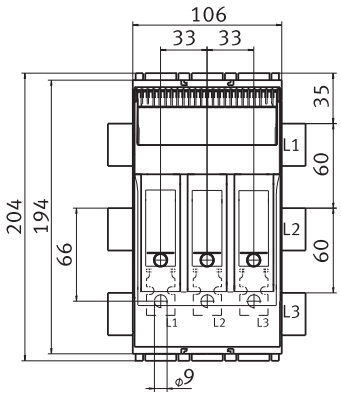
* Mounting of several units in low voltage switchgear-combinations, please think aboout rated diversity factors acc. to DIN EN 61439.
** Reference value for replacement of devices acc. to DIN EN 61439-1 clause 10.10.4.2.
*** minimum distance to earthed, conductive parts: Lateral: 20mm/Above: 50mm
*** a) Lateral: 50mm/Above: 100mm
**** Type tested with NH fuse-links characteristic gG
***** 35°C Normal temperature, at 55°C with reduced operating current

Load cable terminal at topside



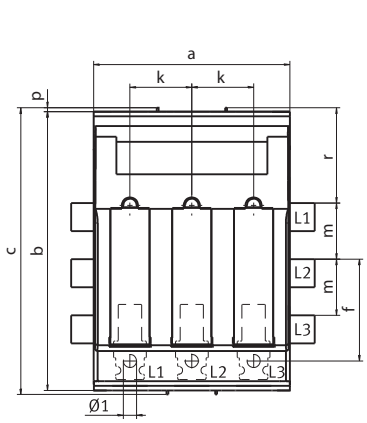


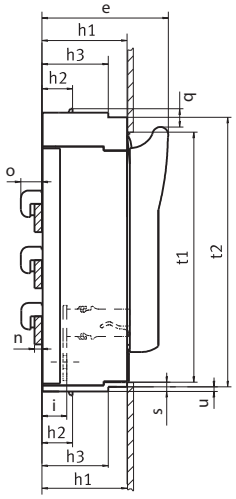
Load cable terminal at bottom side



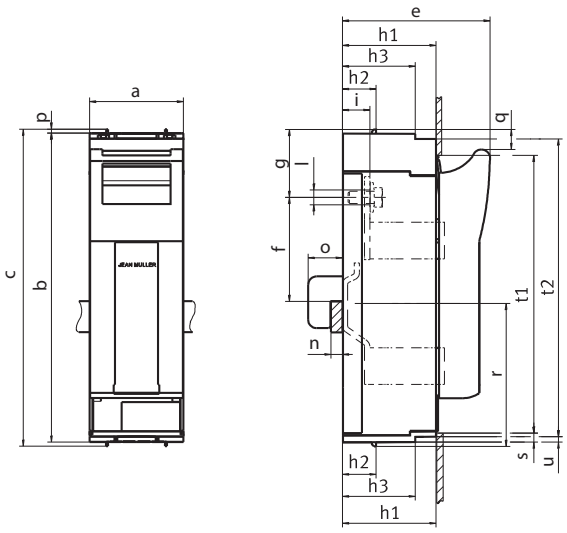
KVL-B-00 3p M8-M8
KVL-B-00 3p BC95-BC95
KVL-B/FT-00 3p M8-M8

Load cable terminal at bottom side

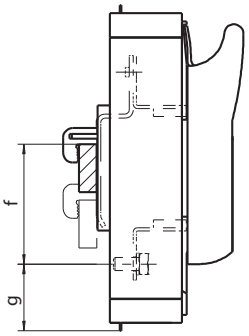




	a	b	c	e	f	h1	h2	h3	i	k	l	m	n	o	p	q	r	s	t1	t2	u
KVL-B-1 3p M10-M10 KVL-B/FT-1 3p M10-M10 TOP KVL-B/FT-1 3p M10-M10 BOTTOM	184	298	306	117	98	70	32	–	25,5	58	Ø10,5	60	4-10	25	4	19	102	5	272	–	–
KVL-B-2 3p M10-M10 KVL-B/FT-2 3p M10-M10 TOP KVL-B/FT-2 3p M10-M10 BOTTOM	210	298	306	135	109	90	32	70	26,5	66	Ø14	60	4-10	25	4	19	102	10	268	289	5
KVL-B-3 3p M10-M10	250	298	306	143	109	90	32	70	26,5	82	Ø14	60	4-10	25	4	19	102	10	268	289	5



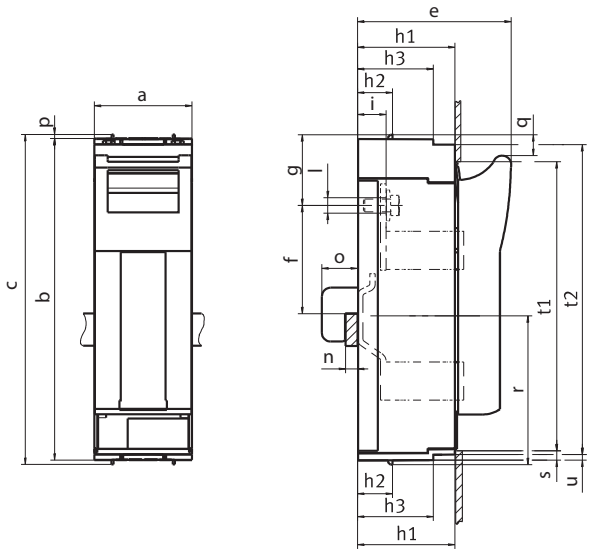
Load cable terminal at topside (Ao)



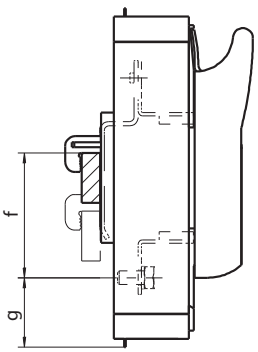
Load cable terminal at bottom side (Au)

	a	b	c	e	f-Ao	f-Au	g-Ao	g-Au	h1	h2	i	l	n	o	p	q	r	s	t1
KVL-B/SF-00 1p M8-M8 KVL-B/CF-00 1p M8-M8	50	195	204	92	45,50,55 ... 75	75,70,65 ... 45	42	42	53	15	24,5	Ø9	4-10	22	4,5	12	102	5	187

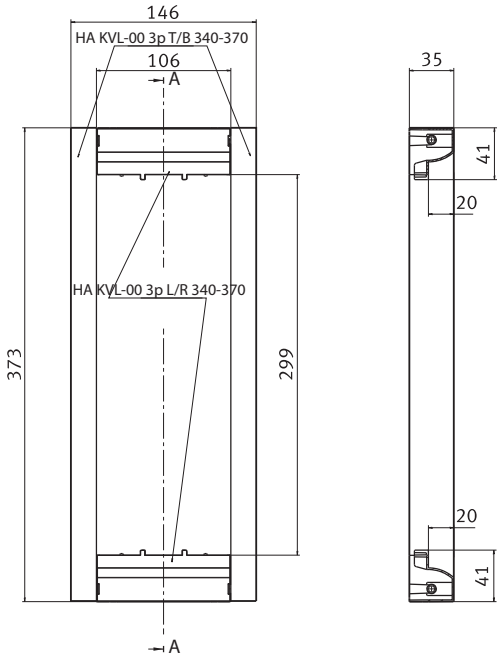
Load cable terminal at topside (Ao)

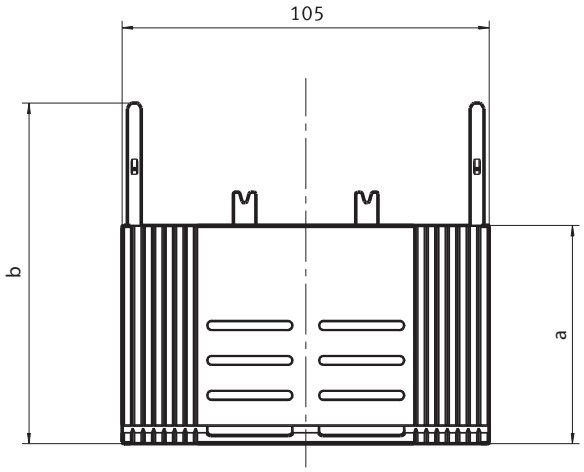


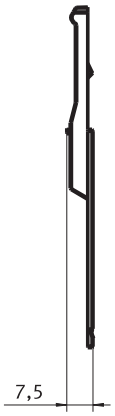
Load cable terminal at bottom side (Au)



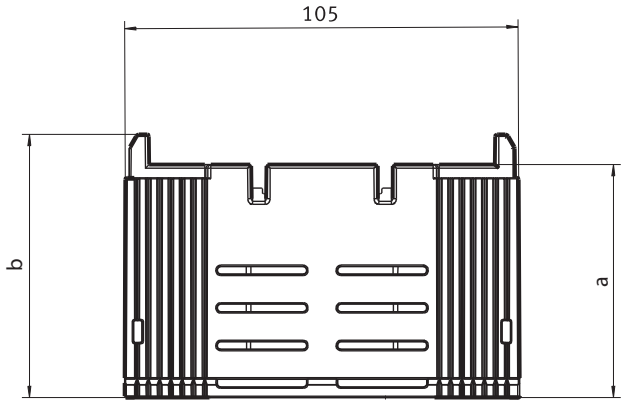
	a	b	c	e	f-Ao	f-Au	g-Ao	g-Au	h1	h2	h3	i	l	n	o	p	q	r	s	t1	t2	u
KVL-B/SF-1 1p M10-M10	69	298	306	117	93	93	76	44	70	32	–	25,5	Ø10,5	5-10	33	4	19	138	5	272	–	–
KVL-B/SF-3 1p M10-M10	91	298	306	143	100	104	66	36	90	32	70	26,5	Ø14	5-10	33	4	19	138	10	268	289	5



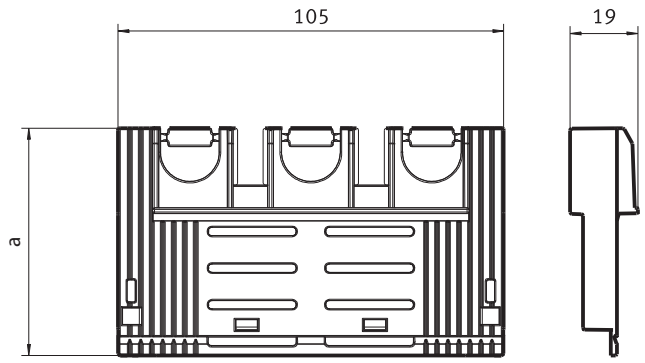




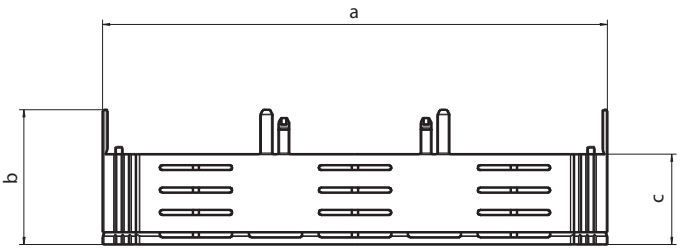
	a	b
PRSEXT KVL-00 3p/34-39	62,5	97,5
PRSEXT KVL-00 3p/32	55,5	90,5



	a	b
UGS KVL-00 3p/34-39	62	70
UGS KVL-00 3p/32	55	63



	a
UGS KVL-00 3p/R95T/34-39	62
UGS KVL-00 3p/R95T/32	55



	a	b	c	d
UGS KVL-1 3p/32	184	51,5	30,5	16
UGS KVL-1 3p/34-39	184	58,5	37,5	16
UGS KVL-2 3p/32	210	49	30,5	28,5
UGS KVL-2 3p/39-34	210	56	37,5	28,5
UGS KVL-3 3p/32	250	49	30,5	28,5
UGS KVL-3 3p/39-34	250	56	37,5	28,5

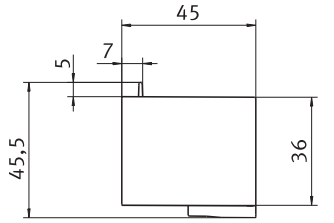
Technical data - Feeding clamps

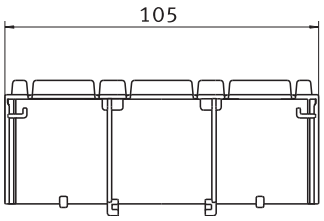
Technical Characteristics			
Max. electrical load			AC690V/DC1000V-250A
Heat deflection temp.			125°C UL94: V0
Comparative tracking index			600
Cross sections			
Conductor - Max. Diameter Ø14 mm			
single wire		mm^2	25 - 95
multi wire		mm^2	25 - 95
fine wire (with end sleeve)		mm^2	25 - 70
Torque	Ma	Nm	13
Degree of protection			IP20
Regulations			EN 60998-1:2004; EN 60998-2:2004; EN 60999-1:2000; EN 60999-2:2003

Important
This Terminal is suitable for Al and Cu conductors. Please pay attention to the common handling guidelines when connecting the Aluminium conductors. Clean and brush the contact surfaces and lubricate them with an appropriate grease.

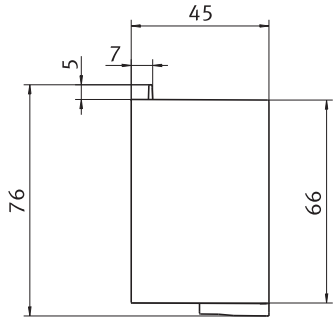
Technical data - Phase busbars

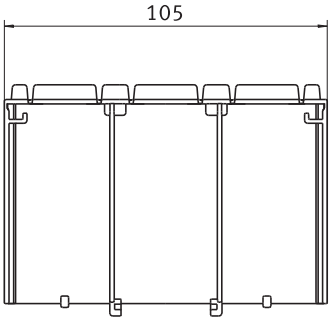
Technical Characteristics			
		mm^2	50
Impulse voltage strenght		kV	≥8,5
Min. air distance		mm	>8
Min. creeping distance		mm	>9
Max. operating voltage		V	AC690
Protection class			IP20
Short circuit rating			IPK=25kA/0,1s, Surge energy capacity IPK, ICC 100kA - NH3 355A gL 500V
Dielectric strenght	kV/mm		≥32
Capacity at 35°C ambient temperature depending of feeding point cross section		mm^2	50
Busbar lenght		mm	Max. 300
Feeding at beginning/ending			
Max. current Is /Phase		A	250
Connection cross current		mm^2	95
Other feedings			
Max. feeding current Ie /Phase		A	250
Connection cross current		mm^2	95
Overvoltage category / degree of pollution			III / 2
Regulations			IEC 60947-1:2007

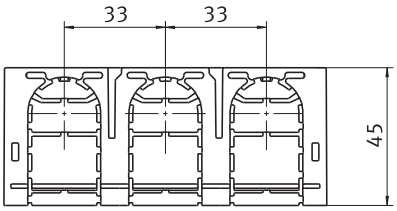


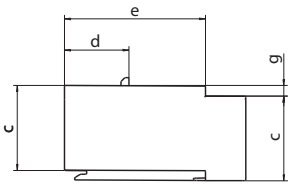


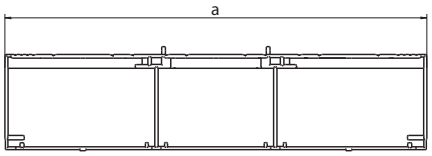
PRS KVL-00 3p S
PRS KVL-00 3p L



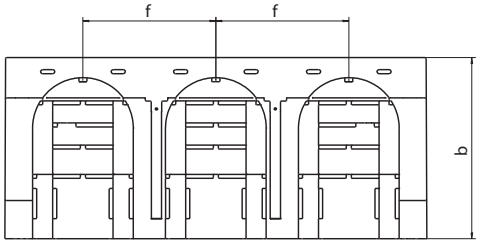




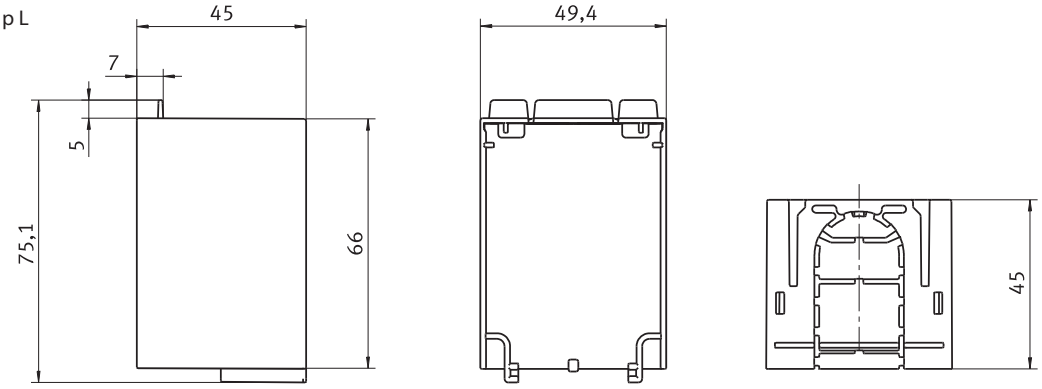




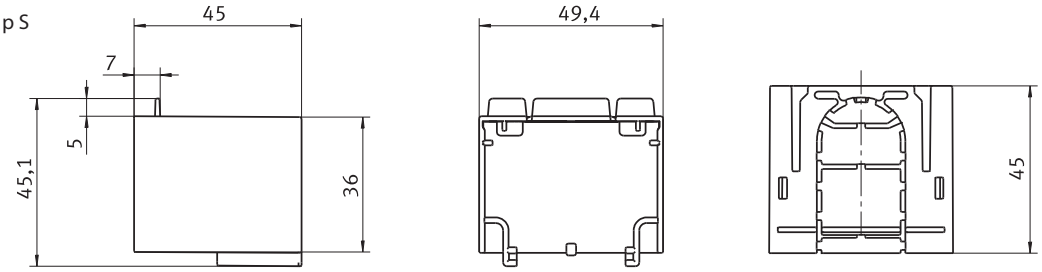
	a	b	c	d	e	f	g
PRS KVL-1 3p	184	70	42	32	–	58	–
PRS KVL-2 3p	210	90	42	32	70	66	5
PRS KVL-3 3p	250	90	42	32	70	82	5



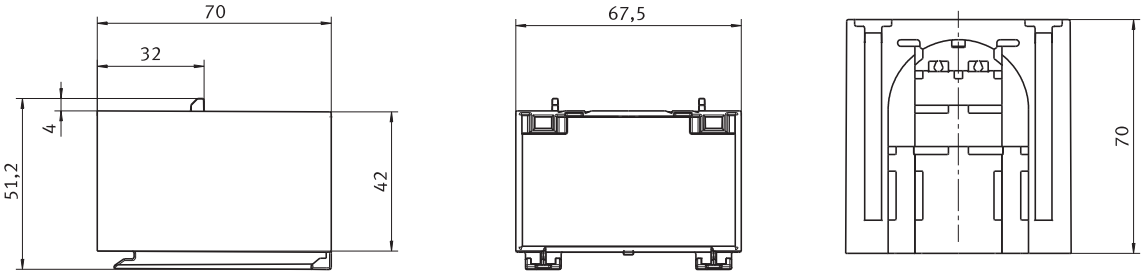
PRS KVL-00 1p L



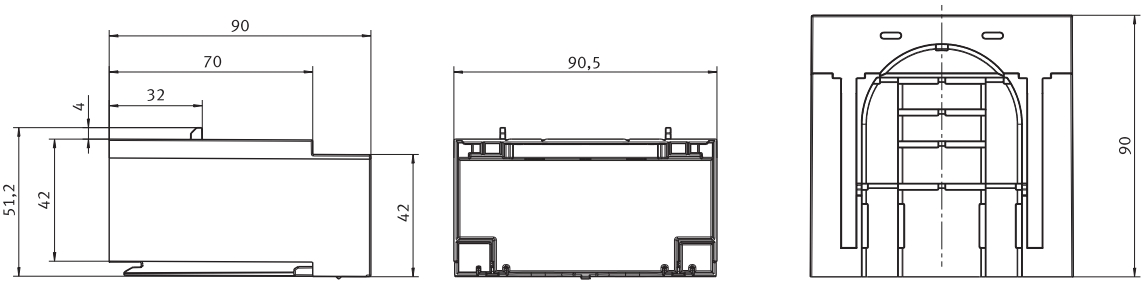
PRS KVL-00 1p S

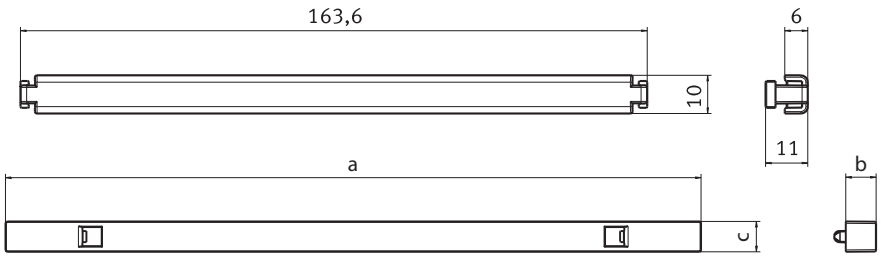


PRS KVL-1 1p

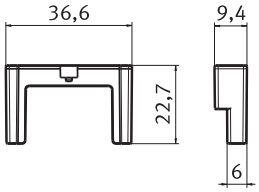


PRS KVL-3 1p



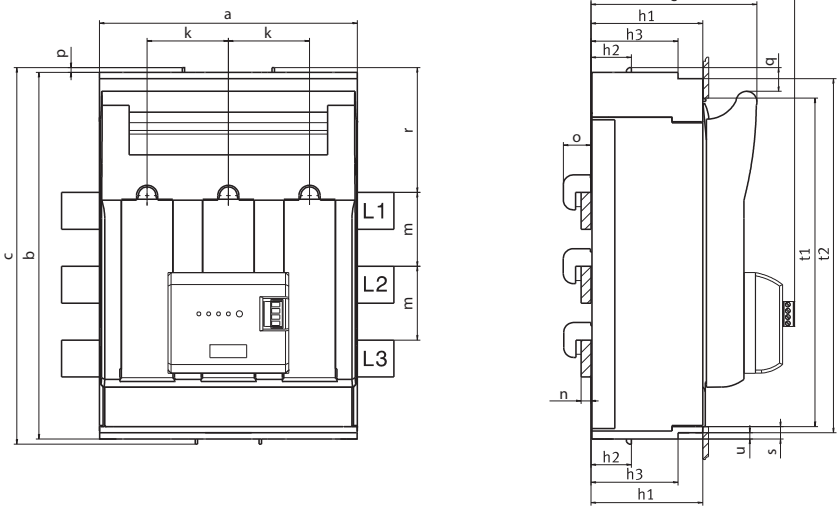


	a	b	c	d	d	d	d	e
BLA KVL-00 top/bottom	183	8	8	32	60	70	–	60
BLAL KVL-00 lateral	183	8	8	32	60	70	90	60
BLA KVL-123	183	8	8	32	60	70	90	60



Technical data - Electronic fuse monitoring unit EFMU KVL			
Technical Characteristics			
Rated operational voltage	U_e	V	AC400-500 (+/-10%)
Power supply			Self-powered
Input power		VA	1,5
Overvoltage category			230/400 V : III , (4kV) 500 V : II , (4kV)
Rated frequency	f	Hz	50-60
Input resistance			>1k Ohm/V
Output channels			
Relay output			1NC/1NO
Maximum voltage		V	AC250/DC24
Maximum switching current		A	1
General data			
Operation indicator			1 LED green
Alarm indicator			3 LED (F1, F2, F3) red
Functional test			Test key for relay + LEDs
EMC			IEC 61000-4-5/IEC 61000-4-4
Degree of protection			IP 3X
Operating conditions			
Ambient temperature	T_{amb}	°C	-5 ... +55

No single detection of parallel connected fuses!



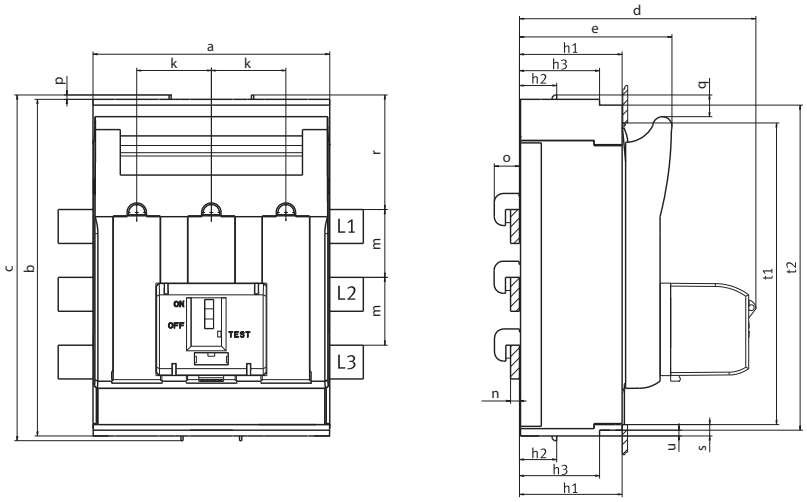
	a	b	c	d	e	h1	h2	h3	k	m	n	o	p	q	r	s	t1	t2	u
KVL-B-1 3p M10-M10 + EFMU KVL-1 3p KVL-B/FT-1 3p M10-M10 TOP + EFMU KVL-1 3p KVL-B/FT-1 3p M10-M10 BOTTOM + EFMU KVL-1 3p	184	298	306	148	117	70	32	–	58	60	4-10	25	4	19	102	5	272	–	–
KVL-B-2 3p M10-M10 + EFMU KVL-2 3p KVL-B/FT-2 3p M10-M10 TOP + EFMU KVL-2 3p KVL-B/FT-2 3p M10-M10 BOTTOM + EFMU KVL-2 3p	210	298	306	165	135	90	32	70	66	60	4-10	25	4	19	102	10	268	289	5
KVL-B-3 3p M10-M10 + EFMU KVL-3 3p	250	298	306	173	143	90	32	70	82	60	4-10	25	4	19	102	10	268	289	5

Technical data - Electromechanical fuse monitoring unit MPFMU KVL			
Technical Characteristics			
Rated operational voltage	U_e	V	"AC24…690 DC24…150"
Rated short-circuit breaking capacity	I_{cn}	kA	100
Overvoltage category			230/400V : III (4kV) 500V : II (4kV)
Output channels			
Relay output			1NC/1NO
Maximium voltage		V	AC230/DC24
Maximum switching current		A	AC3/DC1

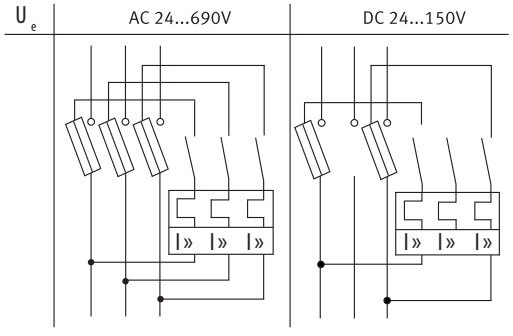
No single detection of parallel connected fuses!

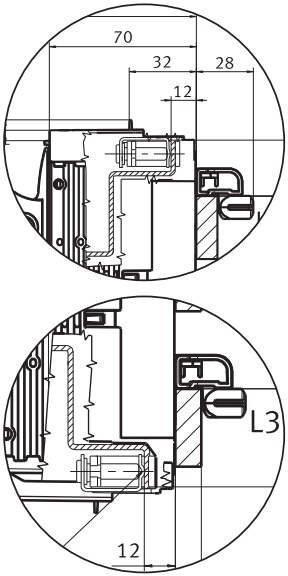
Safety notes

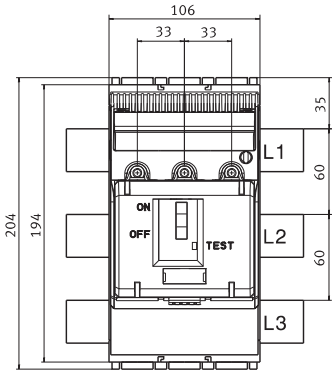
May not be used for safety monitoring in feeders with power control units where, in the event of a fault, it is possible for a DC feedback of >300V (or >600V where 3 current paths are connected in parallel) to occur. If equipment has to be disconnected on the load side of the fuses to be monitored, make sure that no parasitic voltages can arise in the circuit-breaker that is connected in parallel with the fuse-monitoring device.

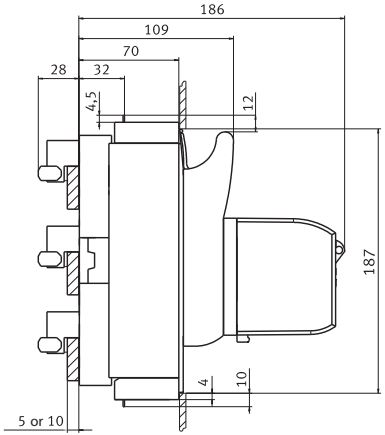


	a	b	c	d	e	h1	h2	h3	k	m	n	o	p	q	r	s
KVL-B-1 3p M10-M10 + MPFMU KVL-1 3p KVL-B/FT-1 3p M10-M10 TOP + MPFMU KVL-1 3p KVL-B/FT-1 3p M10-M10 BOTTOM + MPFMU KVL-1 3p	184	298	306	192	117	70	32	–	58	60	4-10	25	4	19	102	5
KVL-B-2 3p M10-M10 + MPFMU KVL-2 3p KVL-B/FT-2 3p M10-M10 TOP + MPFMU KVL-2 3p KVL-B/FT-2 3p M10-M10 BOTTOM + EFMU KVL-2 3p	210	298	306	209	135	90	32	70	66	60	4-10	25	4	19	102	10
KVL-B-3 3p M10-M10 + MPFMU KVL-3 3p	250	298	306	217	143	90	32	70	82	60	4-10	25	4	19	102	10









KVL-B-00 3p M8-M8 + MPFMU KVL-00 3p
KVL-B-00 3p BC95-BC95 + MPFMU KVL-00 3p
KVL-B/FT-00 3p M8-M8 + MPFMU KVL-00 3p