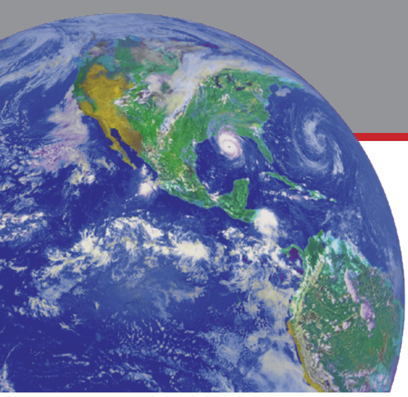
MERKUR®
ELECTROTECHNOLOGY

DC Components



MERKUR®
GERMAN TECHNOLOGY

DC Components 2013

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DC - Distribution and Protection Components

Introduction

Photovoltaic systems are composed by photovoltaic panels, cables, fuses, switches, overvoltage arresters and power inverter. Photovoltaic panels utilize the power of sunlight to converters photons to DC current.

Electricity generated by solar panels is then fed into a power inverter that converts DC current to AC current. gPV fuse has been developed to protect cable and panel against «reverse» over current.

MERTRONIC B, C-PV series of over voltage surge protective devices has been developed to protect against direct and indirect lightning discharges and is intended to protect photovoltaic systems.

The circuit topology consists of two varistors stages each protected by a thermal disconnection device.

Over Current Protection

• PV module protection from »DC REVERSE« current on DC side
Array with three or more strings of panels:

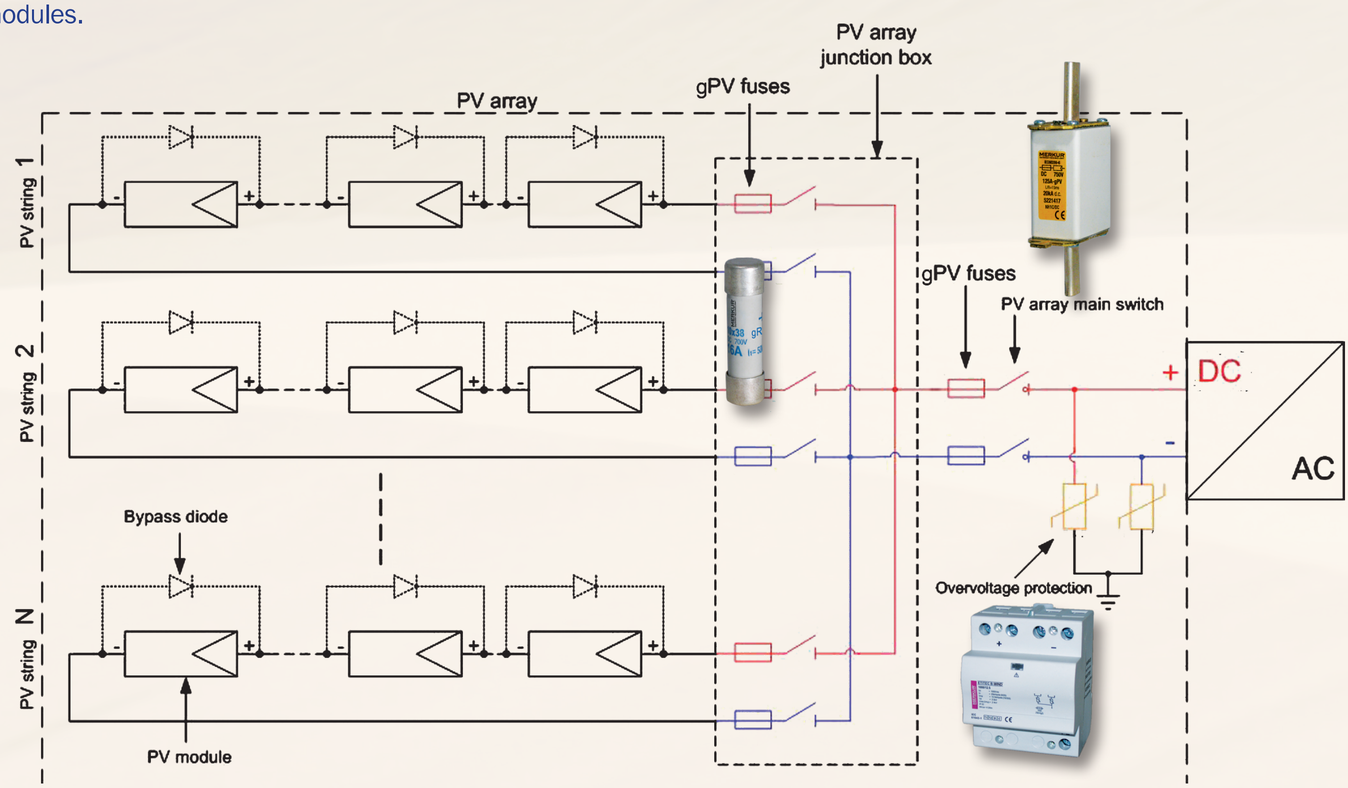
PV systems that have three or more strings connected in parallel need to have each string protected by fuses.

Systems that have less than three strings will not generate enough fault current to damage the conductors/solar panels.

Normally there are two gPV fuses connected on each string (+ and - pole) that protect conductors/solar panels from damage and eliminate any safety hazards.

Fuses isolate the faulted string. The rest of PV system can continue to generate electricity.
• PV module protection from »AC REVERSE« current caused by defective inverter

If an inverter becomes defective (transformer less ...), AC reverse current can feed into DC strings and destroy PV modules.



CH 10 gPV Fuse Selection

Define panel data:
- I_{sc} (string)
- U_{oc} (STC) - open circuit voltage at standard conditions
- number of panels
- number of strings

Does module number in protected string exceed TWO?

NO → No gPV string fusing required

YES ↓

gPV string fuse In!
1, 4 x I_{sc} (panel)
gPV string fuse Un!
1, 2 x Uoc (STC)
(panel) x number of panels

→ Apply gPV string fuse to + and - pole of string

NH gPV Fuse Selection

Define panel data:
-I_{sc} (panel)
-U_{oc} (STC) - open circuit voltage at standard conditions
-number of panels
-number of strings

→ NH PV fuse $I_n \geq 1{,}5 \times I_{sc}$ (panel) x number of strings
NH PV fuse $U_n \geq 1{,}2 \times U_{oc}$ (STC) (panel) x number of panels

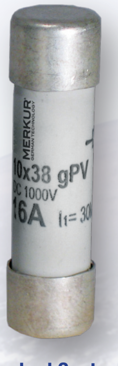
→ Apply NH PV fuse to + and - pole of string

CH 10gPV - Fuse-Links

General Characteristics	UL file: E347771
Rated voltage	1000V d.c. L/R=2ms
Breaking capacity	30kA d.c.
Standards	IEC 60269-6 ed 1.0 (2010-9)
Application	For protection of photovoltaic modules

lead-free

RoHS 2002/95/EC

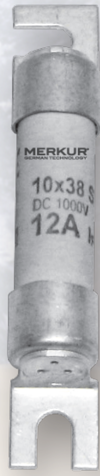


Standard Contacts

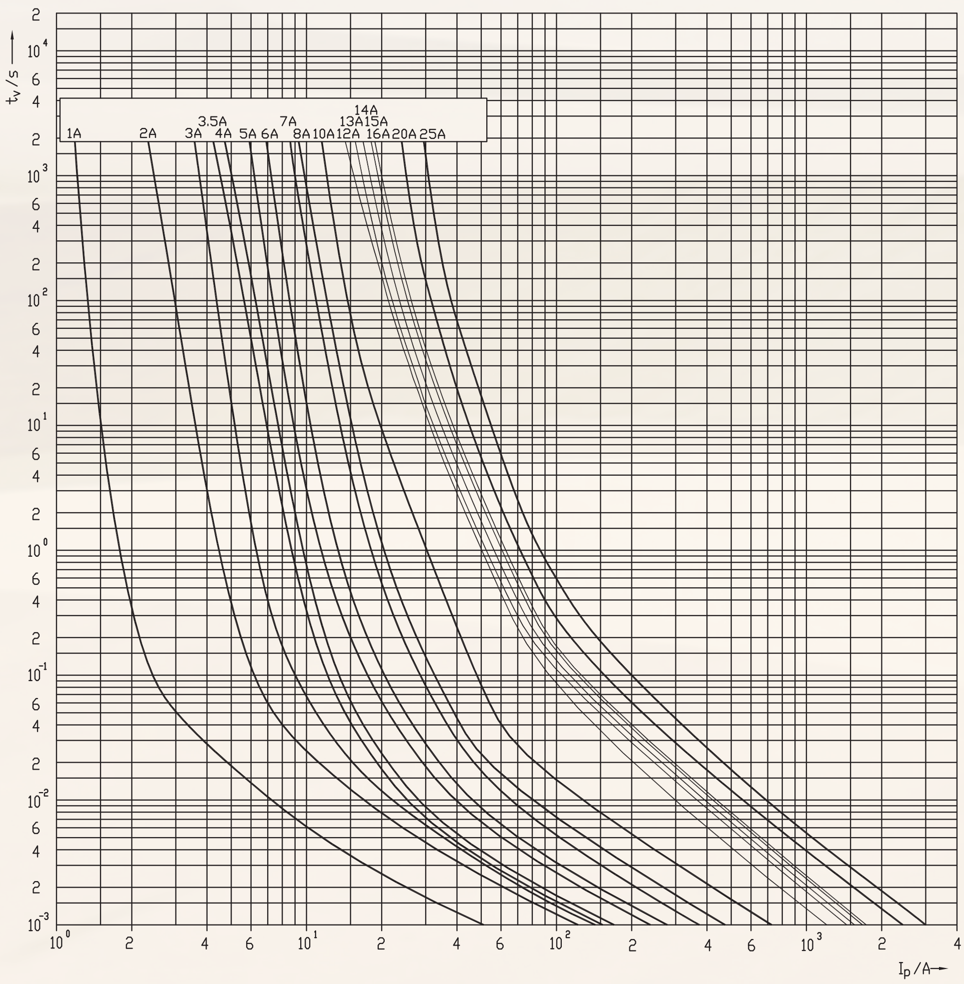
CH 10 gPV

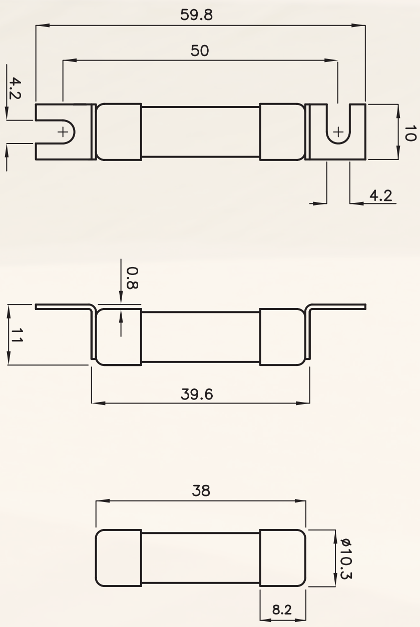
Size	In(A)	Code No. «standard contacts»	Code No. «type SU contacts»	Pre-arcing Joule integral (A²s) L/R=2ms	Operating Joule integral (A²s) L/R=2ms	Power dissipation (0,7xIn) Pd (W)	Power dissipation (In) Pd(W)	Weight (g)	Packaging (pcs)
	1	113736249	113736239	0.8	2.5	0.4	1		
	2	113736212	113736226	1.3	3.5	0.52	1.25		
	3	113736211	113736224	2.6	7.5	0.55	1.3		
	3.5	113736246	113736238	3	9.5	0.48	1.16		
	4	113736213	113736227	4	13	0.52	1.25		
	5	113736222	113736235	7.4	23	0.63	1.49		
	6	113736214	113736228	10	45	0.73	1.65		
	7	113736221	113736225	13	57	0.79	1.92		
10x38	8	113736215	113736229	17	62	0.84	2	10/12	10/500 SU:10/380
	10	113736216	113736229	21	88	0.97	2.3		
	12	113736217	113736231	28	110	0.95	2.2		
	13	113736248	113736239	30	160	1	2.3		
	14	113736247	113736237	31	180	1.1	2.5		
	15	113736223	113736236	33	260	1	2.4		
	16	113736218	113736232	35	270	1.1	2.6		
	20	113736219	113736233	50	430	1.3	3		
	25*	113736210	113736234	75	620	1.6	4		

*900V d.c.



Type SU Contacts





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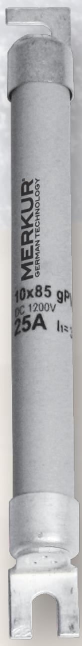
CH 10x85 gPV - Fuse-Links

Standard Contacts



Type SU Contacts

lead-free

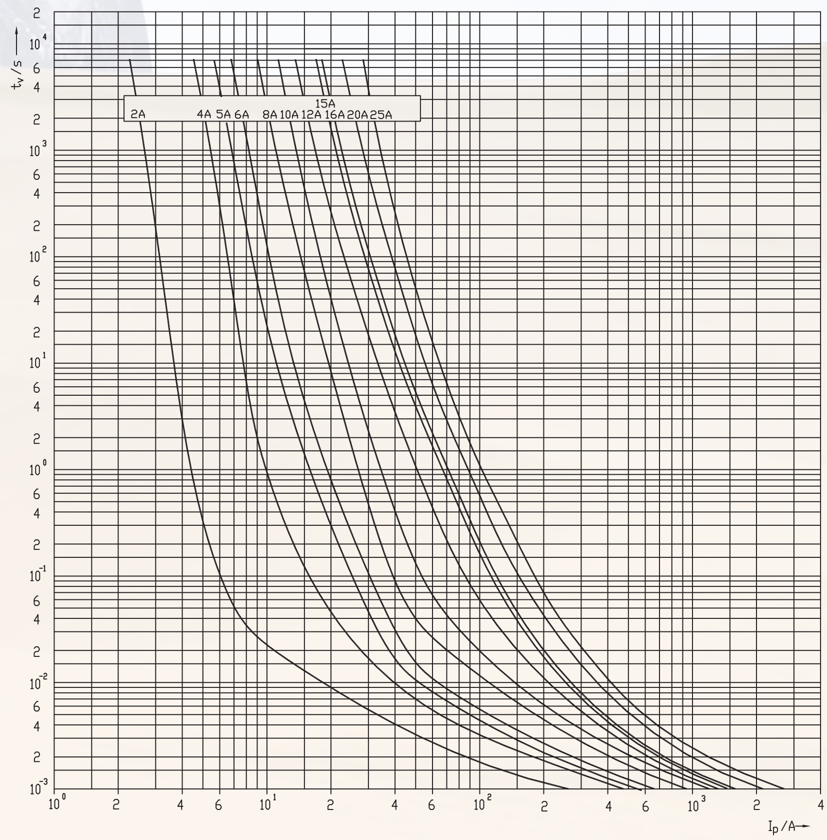
RoHS 2002/95/EC

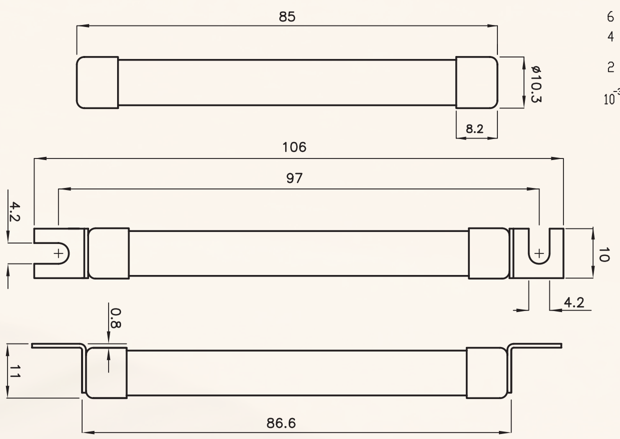
General Characteristics	UL file: E347771
Rated voltage	1500V d.c. L/R=2ms
Breaking capacity	30kA d.c.
Standards	IEC 60269-6 ed 1.0 (2010-9)
Application	For protection of photovoltaic modules

CH 10x85 gPV

Size	In(A)	Code No. «standard contacts»	Code No. «type SU contacts»	Pre-arcing Joule integral (A²s) L/R=1ms	Operating Joule integral (A²s) L/R=1ms	Power dissipation (0,7xIn) Pd (W)	Power dissipation (In) Pd(W)	Weight (g)	Packaging (pcs)
	2	113736311	113736321	1.6	2.2	1.13	2.72		
	4	113736312	113736322	7	11	1.19	2.96		
	5	113736340	113736310	11	13	1.25	3.1		
	6	113736313	113736323	21	37	1.33	3.2		
	8	113736314	113736324	22	80	1.6	4.19		
10x85	10	113736315	113736325	53	119	1.63	4.2	15/17	10/210 SU:10/160
	12	113736316	113736326	41	82	1.31	3.47		
	15	113736351	113736320	49	240	1.4	3.55		
	16	113736317	113736327	141	230	1.57	3.65		
	20*	113736318	113736328	212	408	1.68	3.85		
	25*	113736319	113736329	273	570	2.17	5		

***1200V d.c.**





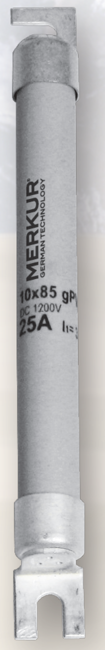
CH 10x85 PV - Fuse-Links

General Characteristics	
Rated voltage	1200V d.c. L/R=2ms
Breaking capacity	30kA d.c.
Standards	IEC 60269-4
Characteristic	gR

lead-free

RoHS
2002/95/EC

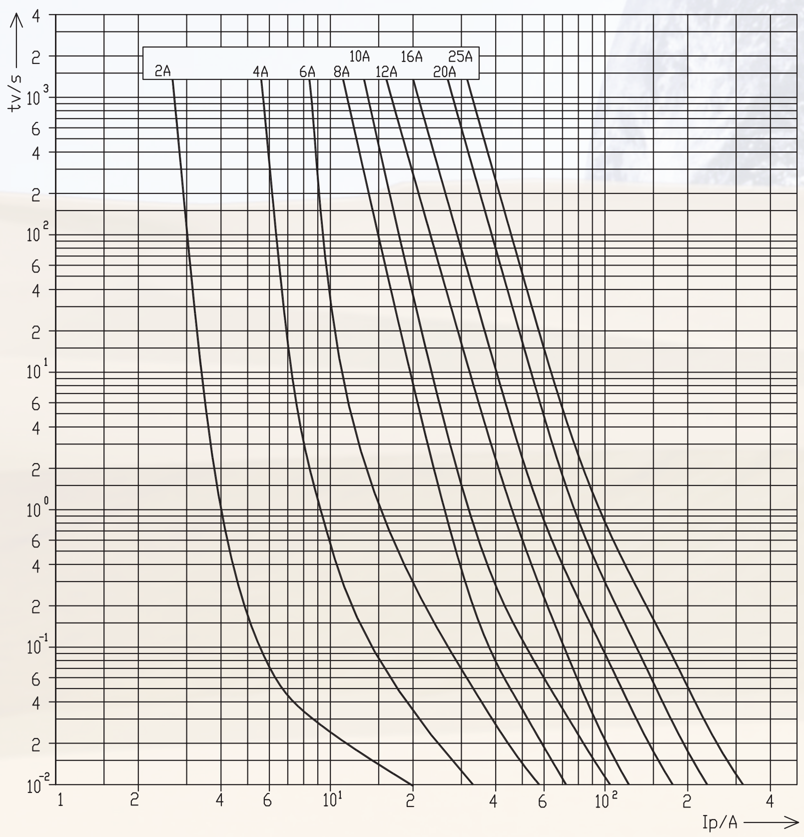
Standard Contacts

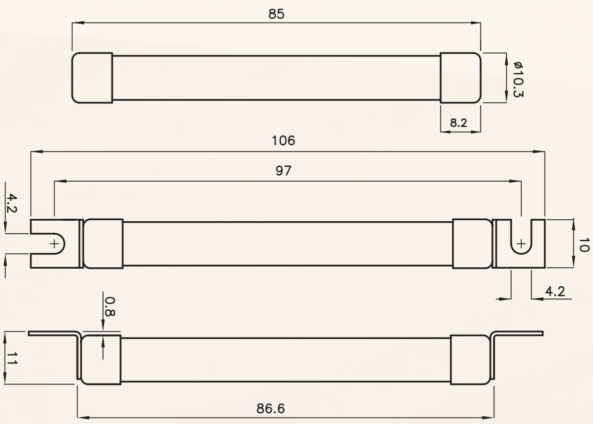


Type SU Contacts

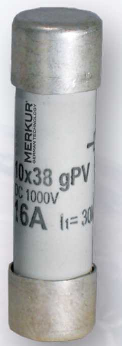
CH 10x85 PV

Size	In(A)	Code No. «standard contacts»	Code No. «type SU contacts»	Pre-arcing Joule integral (A²s) L/R=1ms	Operating Joule integral (A²s) L/R=1ms	Power dissipation (0,7xIn) Pd (W)	Power dissipation (In) Pd(W)	Weight (g)	Packaging (pcs)
10x85	2	113736331	113736341	1.6	1.7	1.13	2.74	15/17	10/210 SU:10/160
	4	113736332	113736342	12.5	13	1.19	2.96		
	6	113736333	113736343	21	28	1.33	3.20		
	8	113736334	113736344	22	61	1.60	4.19		
	10	113736335	113736345	53	91	1.63	4.20		
	12	113736336	113736346	41	63	1.31	3.47		
	16	113736337	113736347	141	177	1.57	3.65		
	20	113736338	113736348	212	314	1.68	3.85		
	25	113736339	113736349	273	438	2.17	5.00		

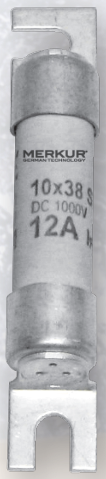




CH 10 PV - Fuse-Links



Standard Contacts



Standard Contacts

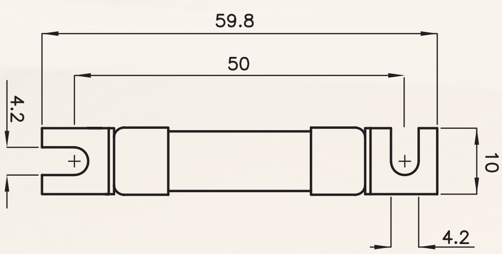
lead-free

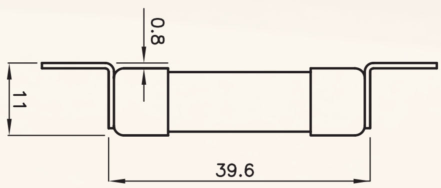
RoHS
2002/95/EC

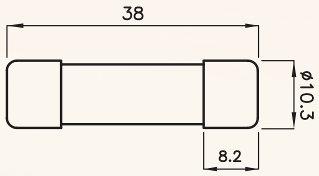
General Characteristics	
Rated voltage	700V a.c./d.c. L/R=2ms
Breaking capacity	30kA a.c./d.c.
Standards	IEC 60269-4
Characteristic	gR

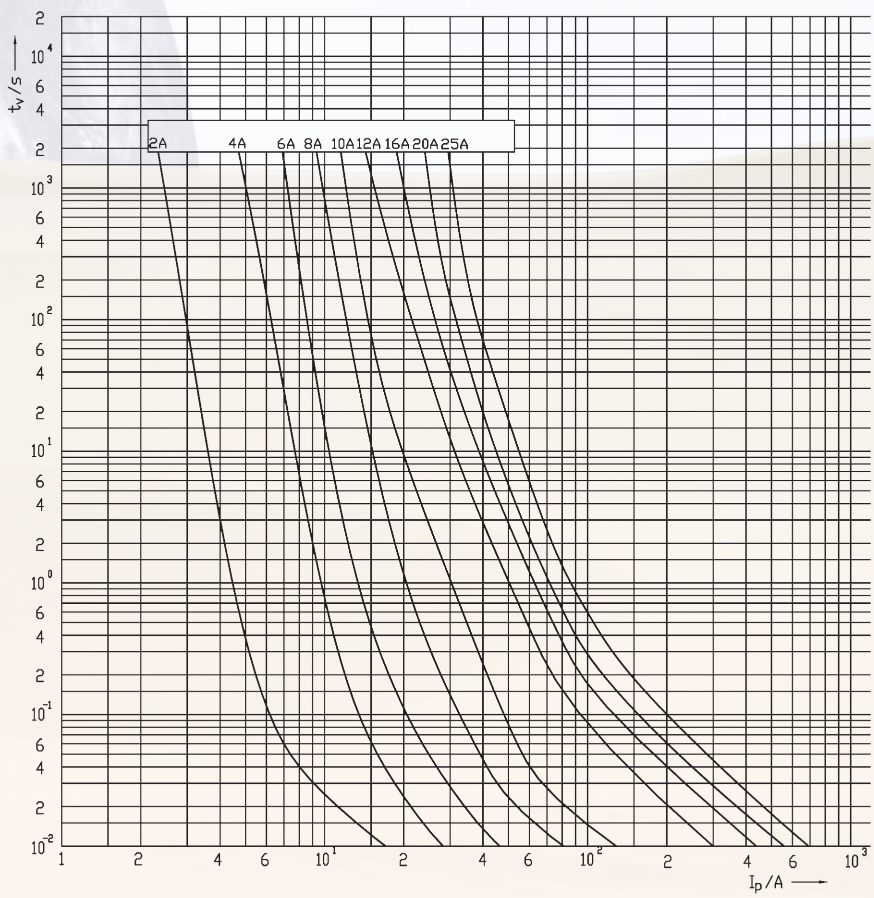
CH 10 PV

Size	In(A)	Code No. «standard contacts»	Code No. «type SU contacts»	Pre-arcing Joule integral (A²s) L/R=2ms	Operating Joule integral (A²s) L/R=2ms	Power dissipation (0,7xIn) Pd (W)	Power dissipation (In) Pd(W)	Weight (g)	Packaging (pcs)
	2	113736128	113736411	1.2	1.41	0.44	1.10		
	4	113736129	113736412	7.6	28	0.55	1.30		
	6	113736120	113736413	14	63	0.73	1.70		
	8	113736131	113736414	30	98	0.70	1.62		
10x38	10	113736132	113736415	20	73	0.98	2.44	10/12	10/500 SU:10/380
	12	113736133	113736416	48	122	0.82	1.85		
	16	113736134	113736417	97	182	1.06	2.61		
	20	113736135	113736418	164	301	1.27	3.00		
	25	113736136	113736419	246	434	1.61	4.00		









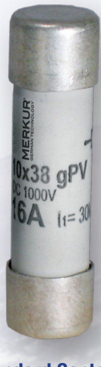
CH 10 PV I/t characteristics

CH 10 PV - Fuse-Links

General Characteristics (UL pending)	
Rated voltage	900V a.c./d.c. L/R=2ms
Breaking capacity	30kA a.c./d.c.
Standards	IEC 60269-4
Characteristic	gR

lead-free

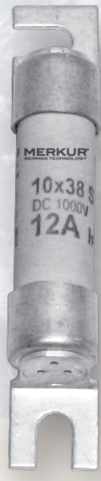
RoHS 2002/95/EC



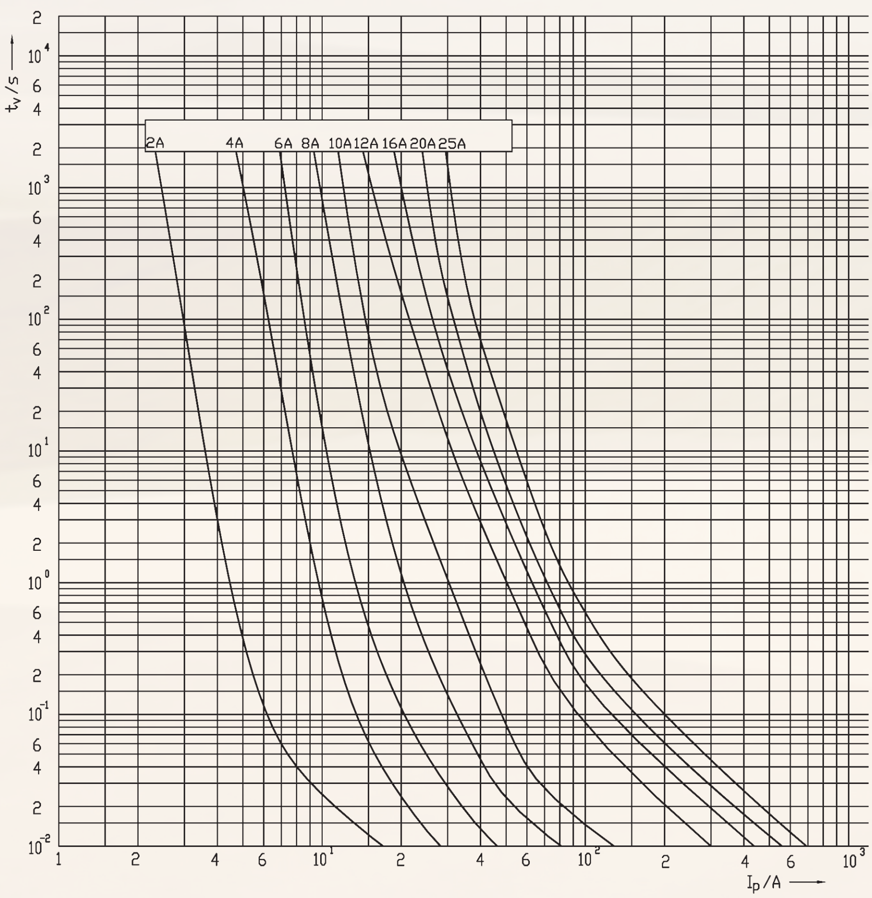
Standard Contacts

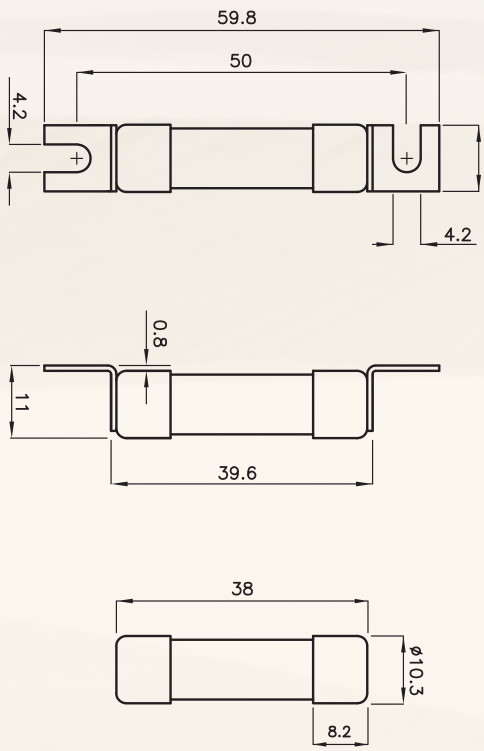
CH 10 PV

Size	In(A)	Code No. «standard contacts»	Code No. «type SU contacts»	Pre-arcing Joule integral (A²s) L/R=2ms	Operating Joule integral (A²s) L/R=2ms	Power dissipation (0,7xIn) Pd (W)	Power dissipation (In) Pd(W)	Weight (g)	Packaging (pcs)
	2	113736138	113736421	1.2	1.89	0.44	1.10		
	4	113736139	113736422	7.6	37	0.55	1.30		
	6	113736130	113736423	14	81	0.73	1.70		
	8	113736141	113736424	30	126	0.70	1.62		
10x38	10	113736142	113736425	20	94	0.98	2.44	10/12	10/500 SU:10/380
	12	113736143	113736426	48	157	0.82	1.85		
	16	113736144	113736427	97	234	1.06	2.61		
	20	113736145	113736428	164	387	1.27	3.00		
	25	113736146	113736429	246	558	1.61	4.00		



Standard Contacts





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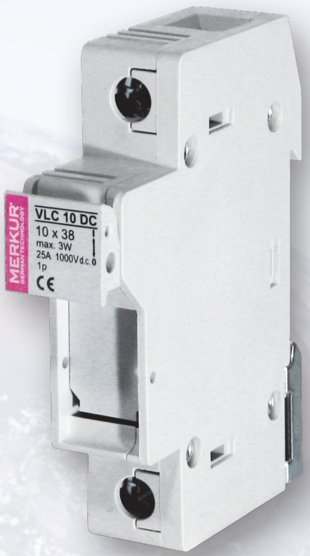
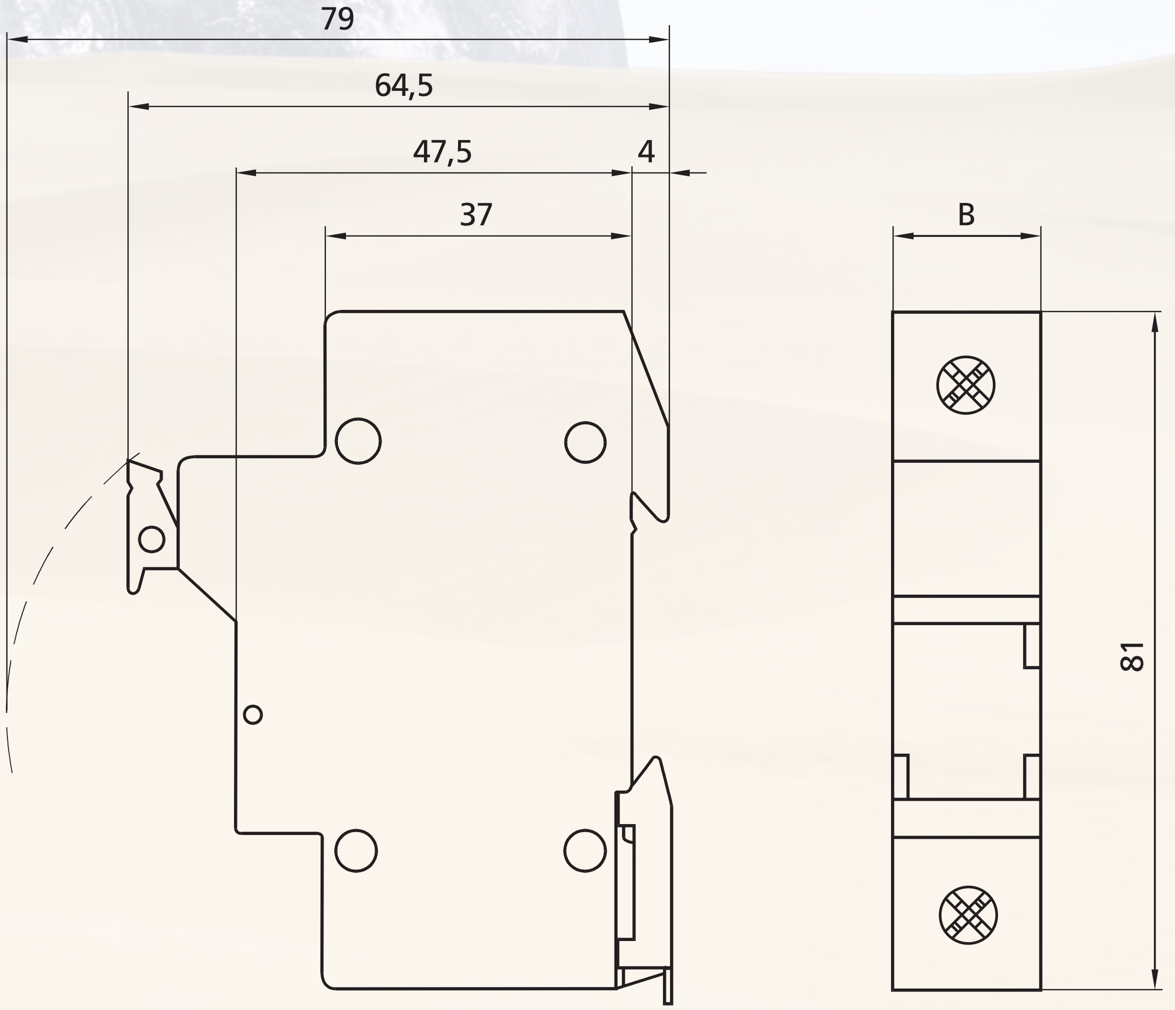
VLC 10 DC - Fuse Disconnector



General Characteristics	UL file: E212627
Rated voltage	1000V d.c.
Rated current	max. 25A
Max. fuse link power dissipation	3W
Cross section of connecting wir	1,5 mm²-25mm²
Pole build-in width	18 mm
Mouting on the rail	EN 60715
Utilization category	DC-20B
Standards Fuse-links	IEC 60269-2:2006 UL 284-4
Standards - Fuse disconnector	IEC 60947-1 Ed. 4.0 EN 60947-1:1999+A1+A2 IEC 60947-3 Ed. 2.1 EN 60947-3:1999+A1:2001

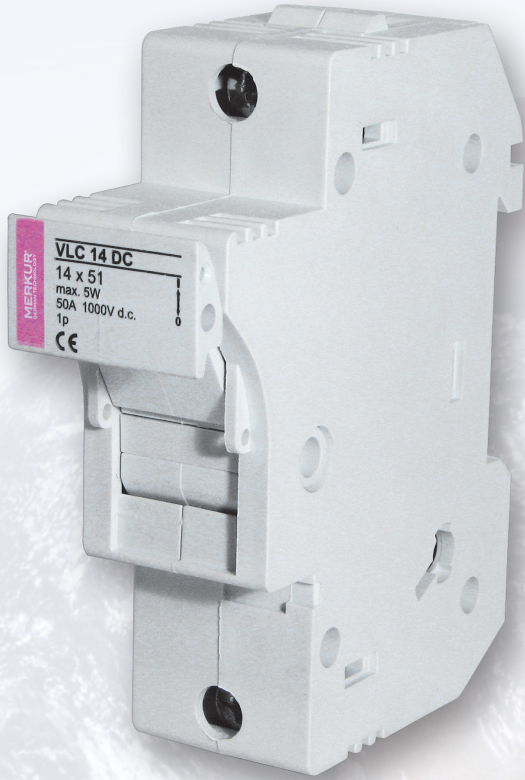
VLC 10 DC

Number of poles	Ue/Ui [V]	Imax.[A]	Code No.	Indicator	Weight [g]	Packing [pcs]
1P	1000	25	113652113	-	65	12/108
2P	1000	25	113654113	-		6/54
1P	1000	25	113652213	LED		12/108
2P	1000	25	113654213	LED		6/54



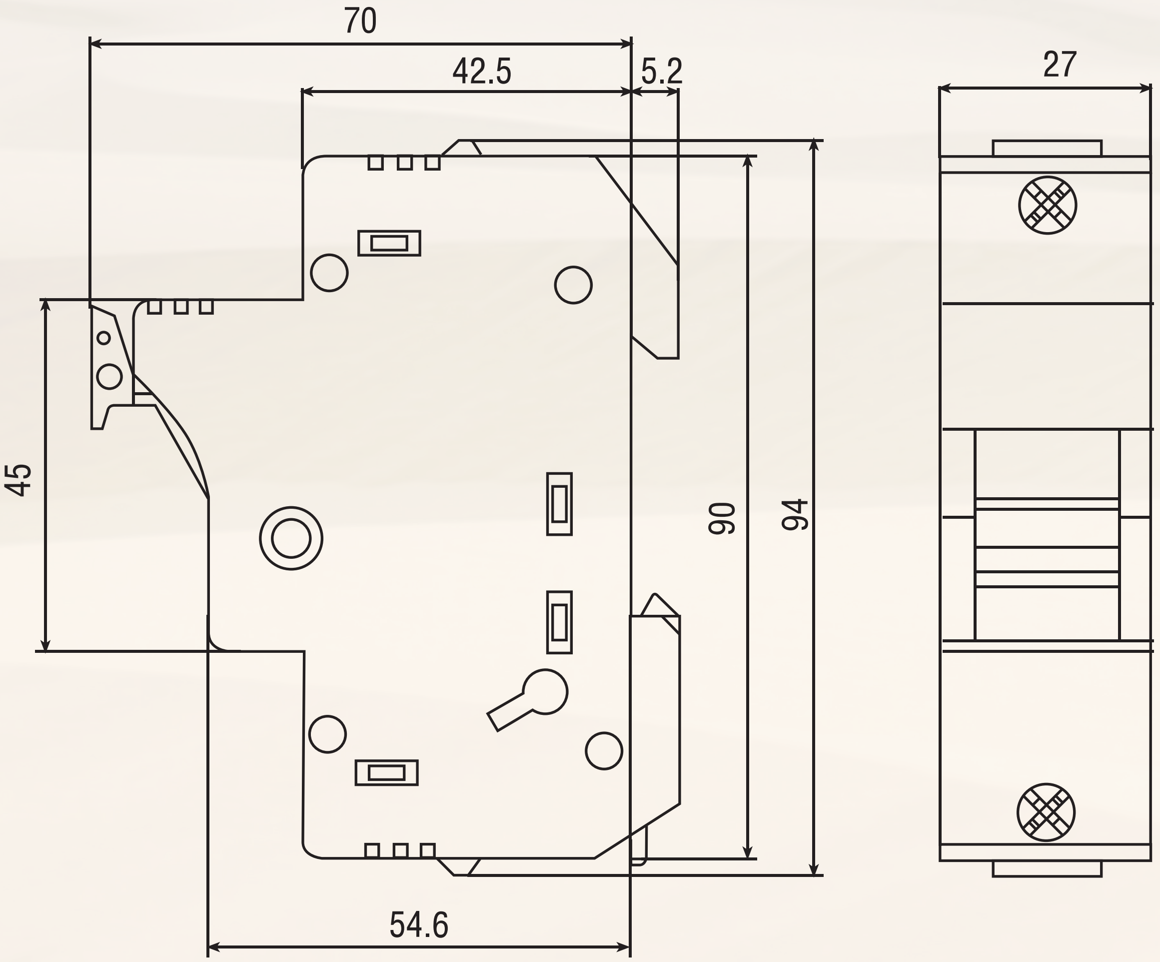
VLC 14 DC - Fuse Disconnector

General Characteristics	UL file: E212627
Rated voltage	1000V d.c.
Rated current	max. 25A
Max. fuse link power dissipation	3W
Cross section of connecting wir	1,5 mm²-25mm²
Pole build-in width	18 mm
Mouting on the rail	EN 60715
Utilization category	DC-20B
Standards Fuse-links	IEC 60269-2:2006 UL 284-4
Standards - Fuse disconnector	IEC 60947-1 Ed. 4.0 EN 60947-1:1999+A1+A2 IEC 60947-3 Ed. 2.1 EN 60947-3:1999+A1:2001



VLC 14 DC

Number of poles	Ue/Ui [V]	Imax.[A]	Code No.	Indicator	Weight [g]	Packing [pcs]
1P	1000	50	113672113	-	100	12/96
2P	1000	50	113674113	-		6/48
1P	1000	50	113672213	LED		12/96
2P	1000	50	113674213	LED		6/48

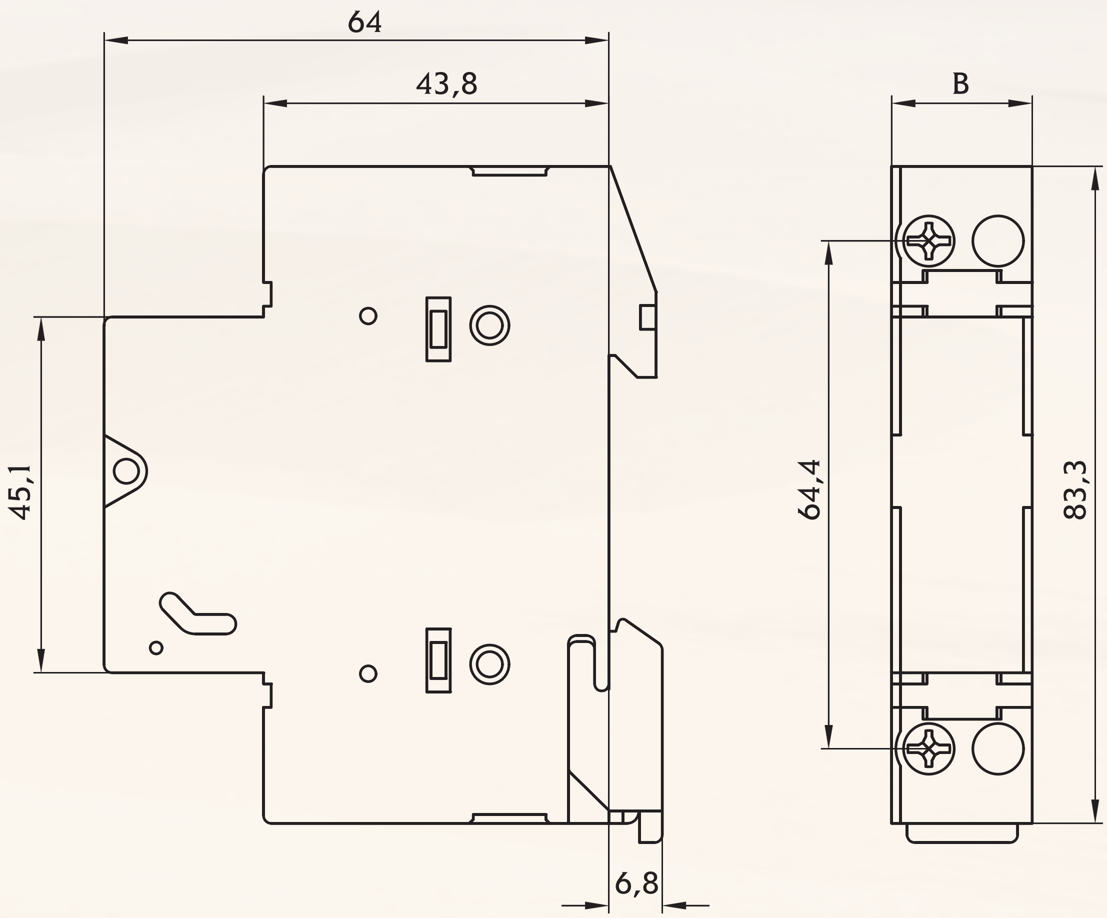


PCF 10 DC - Fuse Disconnector

General Characteristics	UL file: E212627
Rated voltage	1000V d.c.
Rated current	max. 25A
Max. fuse link power dissipation	3W
Cross section of connecting wir	1,5 mm²-25mm²
Pole build-in width	18 mm
Mouting on the rail	EN 60715
Utilization category	DC-20B
Standards Fuse-links	IEC 60269-2:2006 UL 284-4
Standards - Fuse disconnector	IEC 60947-1 Ed. 4.0 EN 60947-1:1999+A1+A2 IEC 60947-3 Ed. 2.1 EN 60947-3:1999+A1:2001

PCF 10 DC

Number of poles	Ue/Ui [V]	Imax.[A]	Code No.	Indicator	Weight [g]	Packing [pcs]
1P	1000	25	113661312	-	58	12/108
2P	1000	25	113661314	-	120	6/54
1P	1000	25	113661322	LED	58	12/108
2P	1000	25	113661324	LED	120	6/54



Section Rail

PCF 10 DC, VLC 10 DC

Type	Description	Code No.	Cross section (mm²)	Length (m)	Weight [g]	Packing [pcs]
IZS10/1F/54	10mm², 1 pole, 54 mod	113032212	10	1	150	40
IZS16/1F/54	16mm², 1 pole, 54 mod	113032222	16	1	220	40

VLC 14 DC

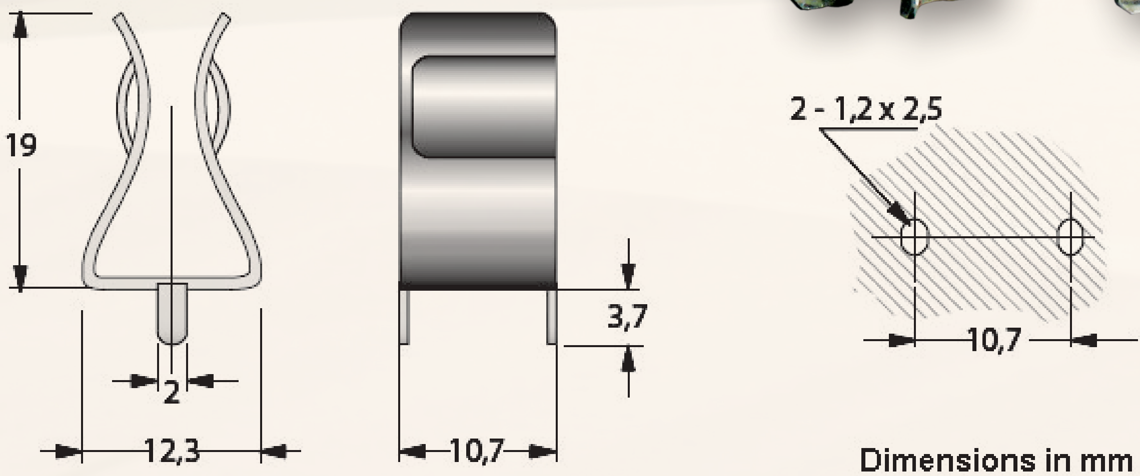
Type	Description	Code No.	Cross section (mm²)	Length (m)	Weight [g]	Packing [pcs]
IZS16/1F/36	16mm², 1 pole, 36 mod	113032232	16	1	280	40

Fuseholder for 10 x 38 mm Fuse Links

Fuseholder for 10 x 38 mm Fuse Links

Code	Type	Weight [g]	Packing [pcs]
117821446	HK10383	1	250

Type	Dimensions[mm]							
	A	B	C	D	E	F	G	H
HK10383	12.3	9.8	19	2.0	2.0	0.75	11.0	4.0



Dimensions in mm

NH DC 750V - Fuse-Links

lead-free

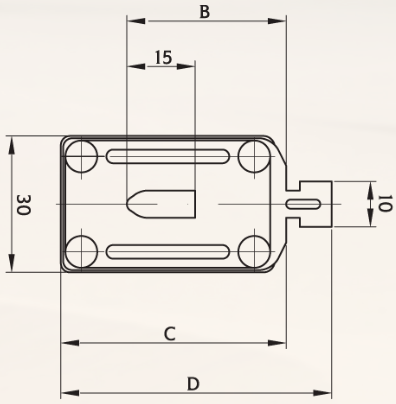
RoHS 2002/95/EC

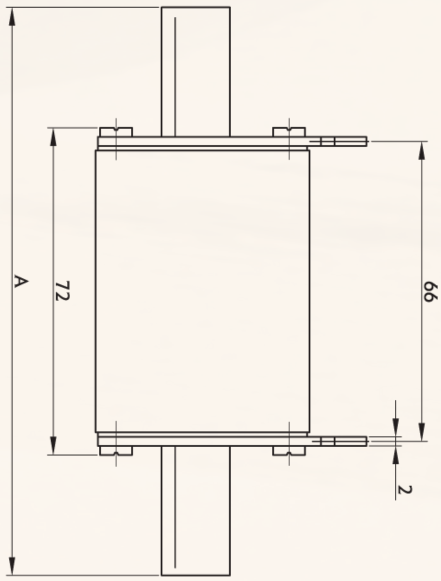
General Characteristics	
Rated voltage	750V d.c. (L/R=15ms)
Breaking capacity	20kA d.c.
Standards	IEC 60269-6 ed 1.0 (2010-9), IEC 60269-4
Application	Fuse-link for DC application. Applied in fuse base PK0 and PK1 DC.

DC 750V

In(A)	gPV		PV (gR)		Power dissipation [W]	Pre-arcing Joule integral [I²t] (L/R=15ms)	Operating Joule integral [I²t] (L/R=15ms)	Weight (g)	Packaging (pcs)
	Code No. Size 0	Code No. Size 1C	Code No. Size 0	Code No. Size 1C					
32	115221419	115221411	115221611	115221621	7.6	70	370	280/0 300/1C	3/24
40	115221421	115221412	115221613	115221623	8.8	135	650		
50	115221422	115221413	115221614	115221624	11.0	250	1,000		
63	115221423	115221414	115221615	115221625	13.5	520	1,790		
80	115221424	115221415	115221616	115221626	17.0	1,050	3,000		
100	115221425	115221416	115221617	115221627	21.0	2,580	6,140		
125	115221426	115221417	115221618	115221628	22	6,300	14,090		
160	115221427	115221418	115221619	115221629	22.8	13,060	27,220		

Size	A	B	C	D
0	125	35	50	60
1C	135	40	55	65





NH DC 1000V - Fuse-Links

General Characteristics	
Rated voltage	1000V d.c. (L/R=2ms)
Breaking capacity	20kA d.c.
Standards	IEC 60269-6 ed 1.0 (2010-9), IEC 60269-4
Application	Fuse-link for DC application. Applied in fuse base PK0 and PK1 DC.

Pb lead-free

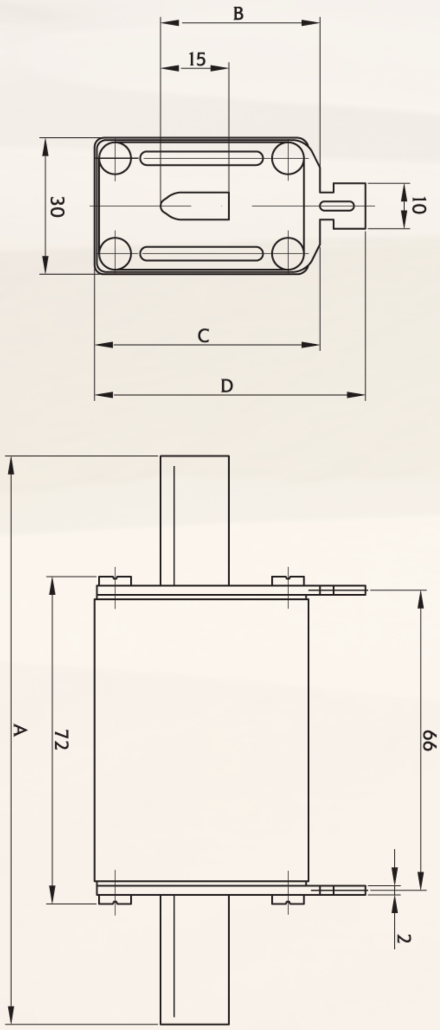
RoHS 2002/95/EC

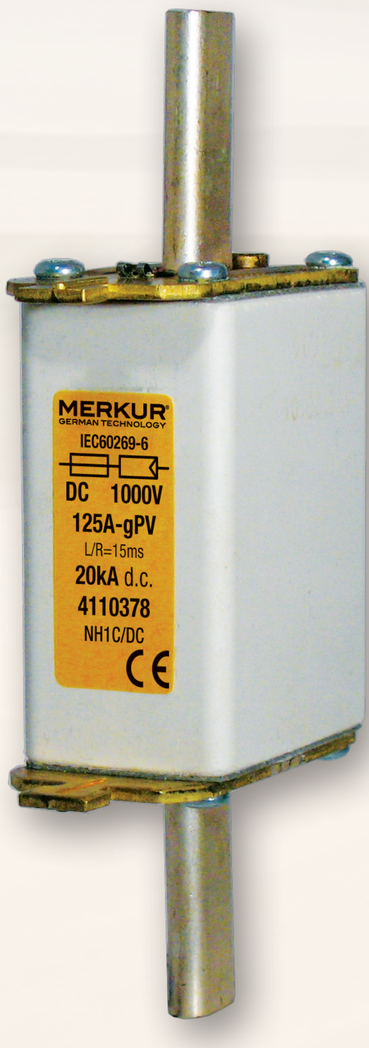
DC 1000V

In(A)	gPV		PV (gR)		Power dissipation [W]	Pre-arcing Joule integral [I²t] (L/R=2ms)	Operating Joule integral [I²t] (L/R=2ms)	Weight (g)	Packaging (pcs)
	Code No. Size 0	Code No. Size 1C	Code No. Size 0	Code No. Size 1C					
32	115221492	115221482	115221631	115221641	7.6	52	430	280/0 300/1C	3/24
40	115221494	115221484	115221633	115221643	8.8	96	730		
50	115221495	115221485	115221634	115221644	11.0	155	920		
63	115221496	115221486	115221635	115221645	13.5	290	1,760		
80	115221497	115221487	115221636	115221646	17.0	520	3,160		
100	115221498	115221488	115221637	115221647	21.0	1,110	5,280		
125	115221499	115221489	115221638	115221648	22	2,800	11,340		
160*	115221490	115221480	115221639	115221649	22.8	5,950	20,750		

*900V d.c.

Size	A	B	C	D
0	125	35	50	60
1C	135	40	55	65





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NH DC 1100V - Fuse-Links

lead-free

RoHS 2002/95/EC

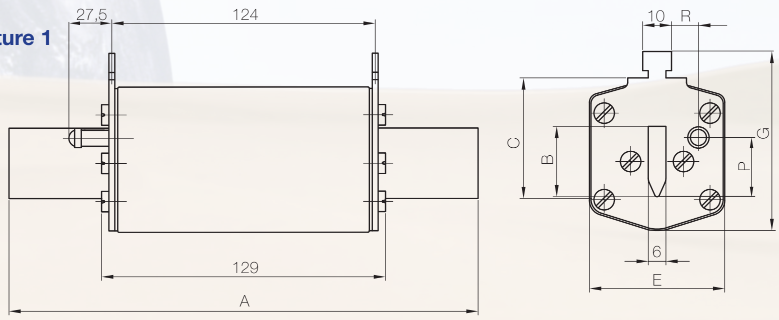
General Characteristics	
Rated voltage	1100V d.c. (L/R=5ms)
Breaking capacity	10kA d.c.
Standards	IEC 60269-6 ed 1.0 (2010-9), IEC 60269-4
Application	Fuse-link for DC application. Applied in fuse base U1-3-1/1200/H

DC 1100V

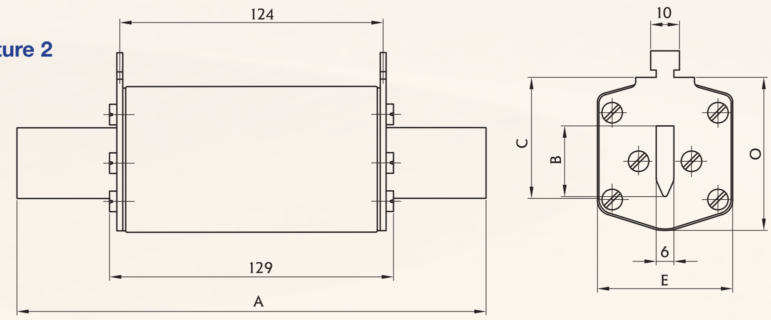
Size	In(A)	gPV			PV (gR)		Power dissipation (0,7xIn) Pd [W]	Power dissipation [W]	Pre-arcing Joule integral [I²t] (L/R=5ms)	Operating Joule integral [I²t] (L/R=5ms)	Weight (g)	Packaging (pcs)
		Standard indicator (pic. 1)	Trip indicator - K (pic. 2)	S170 screw contact (pic. 3)	Standard indicator (pic 1)	Trip indicator - K (pic. 2)						
1XL	63	115221537	115221542	115221546	115221651	115221661	6.2	15.0	2,720	3,520	750	1/16
	80	115221538	115221543	115221547	115221652	115221662	7.0	17.0	4,000	5,500		
	100	115221539	115221544	115221548	115221653	115221663	8.2	20.0	6,500	9,000		
	125	115221540	115221545	115221549	115221654	115221664	9.6	23.0	11,000	15,000		
	160	115221521	115221525	115221531	115221655	115221665	14.6	35.0	19,400	28,640		
	200	115221522	115221527	115221540	115221696	115221697	13.9	32.6	42,600	83,400		
2XL	200	115221541	115221526	115221532	115221656	115221666	17.8	42	40,000	60,000	1050	1/15
	250	115221524	115221528	115221534	115221657	115221667	17.9	46	85,260	117,400		
3L	315	115221536	115221520	115221535	115221658	115221668	25.2	54.0	166,800	221,900	1360	1/22
	350	115221551	115221553	115221555	115221659	115221669	28.2	60.5	175,000	260,000		
	400	115221552	115221554	115221556	115221650	115221660	28.8	67.0	235,000	345,000		
	500*	115221557	/	115221558	/	/	37.7	80.8	493,000	584,000		

*1000V d.c., L/R=2ms

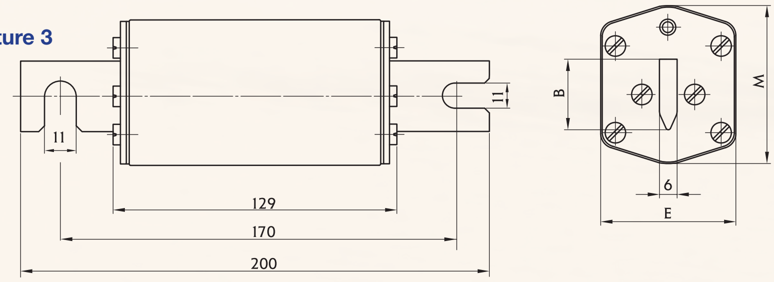
Picture 1



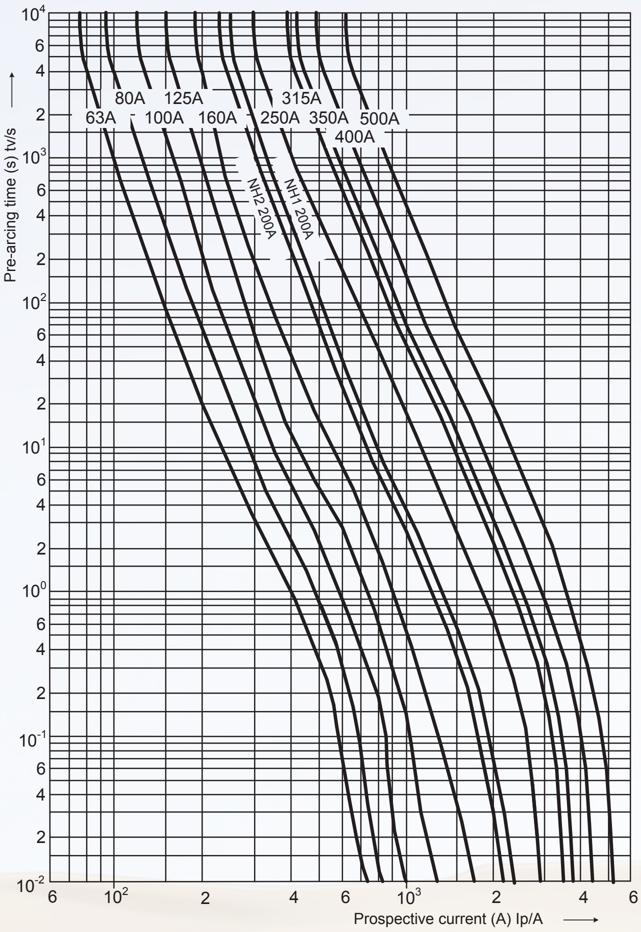
Picture 2

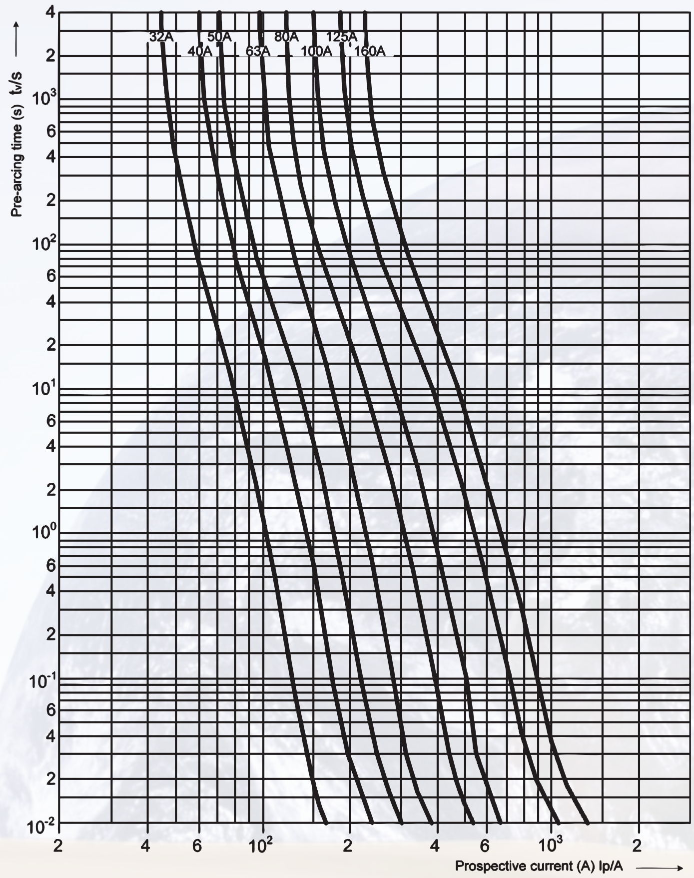


Picture 3



Size	Dimensions[mm]								
	A	B	C	E	G	P	R	M	O
1XL	194	24	40	46	61.5	20.5	13.7	50	52
2XL	209	30	48	54	71	27.3	16.2	59	61
3L	209	37	60	64	82	35.6	17.0	70	74



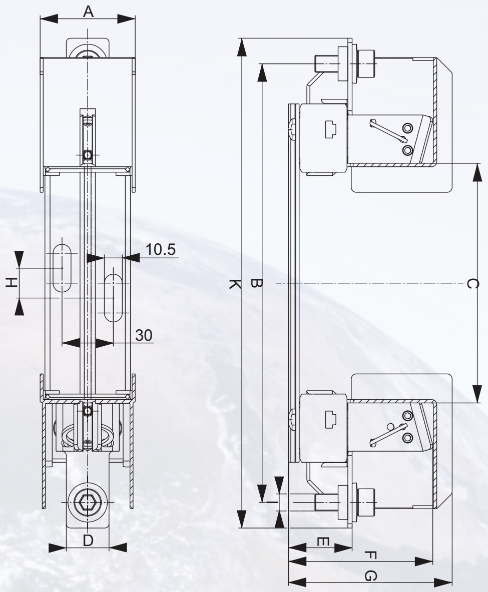


gPV, PV(gR) 750V, 1000V t-I Characteristics

gPV, PV(gR) 1100V t-I Characteristics

Fuse Base U1-3 DC 1200V

General Characteristics							
Type			U1-1/1200			U2-1/1200	U3-1/1200
Rated voltage				1200V d.c.			
Rated current			250A		400A		630A
fuse links size			1XL		2XL		3L
Conv. Free air thermal current with fuse-links			200A		315A		630A
Conv. Free air thermal current with solid links			325A		520A		1000A
Max. permis. Power dissipation per fuse-link			35W		46W		70W
Cable terminal	Flat terminal	Screw	M10		M10		M10
		Cable lug (DIN46235)	25-150mm²		25-240mm²		25-300mm²
		Flat termination	30x10 mmx-mm		30x10 mmx-mm		40x10 mmx-mm
		Rated torque	30-35Nm		30-35Nm		30-35Nm
	Terminal	Clamping cross-section	KM2G	25-300mm²	KM2G	25-300mm²	
		Rated torque		32Nm		32Nm	
Degree of protection - Front side, device fitted			IP 00		IP 00		IP 00
Operating conditions	Ambient temperature*		-25°C to +55°C				
	Rated operating mode		Continuous operation				
	Actuation		-				
	Mounting position		Vertical, horizontal				
	Altitude		up to 2000 m				
	Pollution degree		3				
	Overvoltage category		III				
Insulation class			C-VDE 0110				
Standards			EN 60269, IEC 60269, DIN VDE 0636, DIN 43620, DIN 43623				



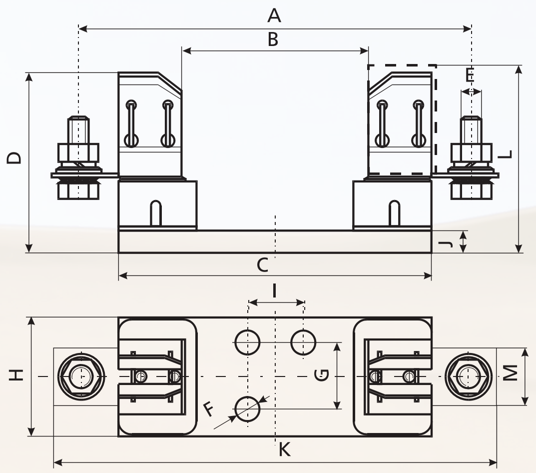
Fuse Base U1-3 DC 1200V

Type	In(A)	Code No.	Max. Connection (mm²)	Mechanical fuse monitor	Weight (g)	Packaging (pcs)
U1-232/1200/H	250	115233145	150	without	500	2
U1-1/1200/H	250	115233138	150	without	550	
U1-1/1200/H/K	250	115233139	150	with	600	
U2-1/1200/H	400	115233130	240	without	930	1
U2-1/1200/H/K	400	115233141	240	with	1000	
U3-1/1200	630	115233142	300	without	1200	
U3-1/1200/K	630	115233143	300	with	1250	

Type	Dimensions[mm]									
	A	B	C	D	E	F	G	H	I	K
U1-232/1200/H	56	232	140	25	37	84.5	96	17.5	M10	262
U1-1/1200/H	56	257	140	25	37	84.5	96	17.5	M10	287
U2-1/1200/H	64	257	140	30	37	100	103	17.5	M10	287
U3-1/1200	68	270	140	40	38	103	-	25	M12	307

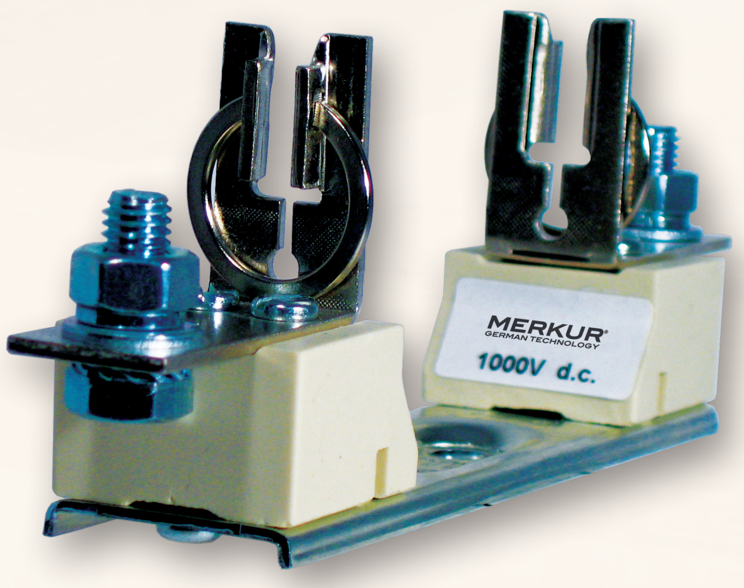
Fuse Base U1-3 DC 1200V

General Characteristics	
Rated voltage	1000V d.c.
Rated current	160A, 250A
Insulation class	C-VDE 0110
Standards	EN 60269, IEC 60269, DIN VDE 0636, DIN 43620, DIN 43623



Type	In [A]	Code No.	Weight [g]	Packing [pcs]
PK1 DC	250	115233136	598	3/42
PK0 DC	160	115233136	258	3/90

Type	Dimensions[mm]											
	A	B	C	D	E	F	G	H	I	J	K	M
PK1 DC	175	80	141	81	M10	ø 10, 5	30	55	25	10	200	26
PK0 DC	150	74	130	60	M8-M8	ø 7, 5	-	33	25	4.5	170	20

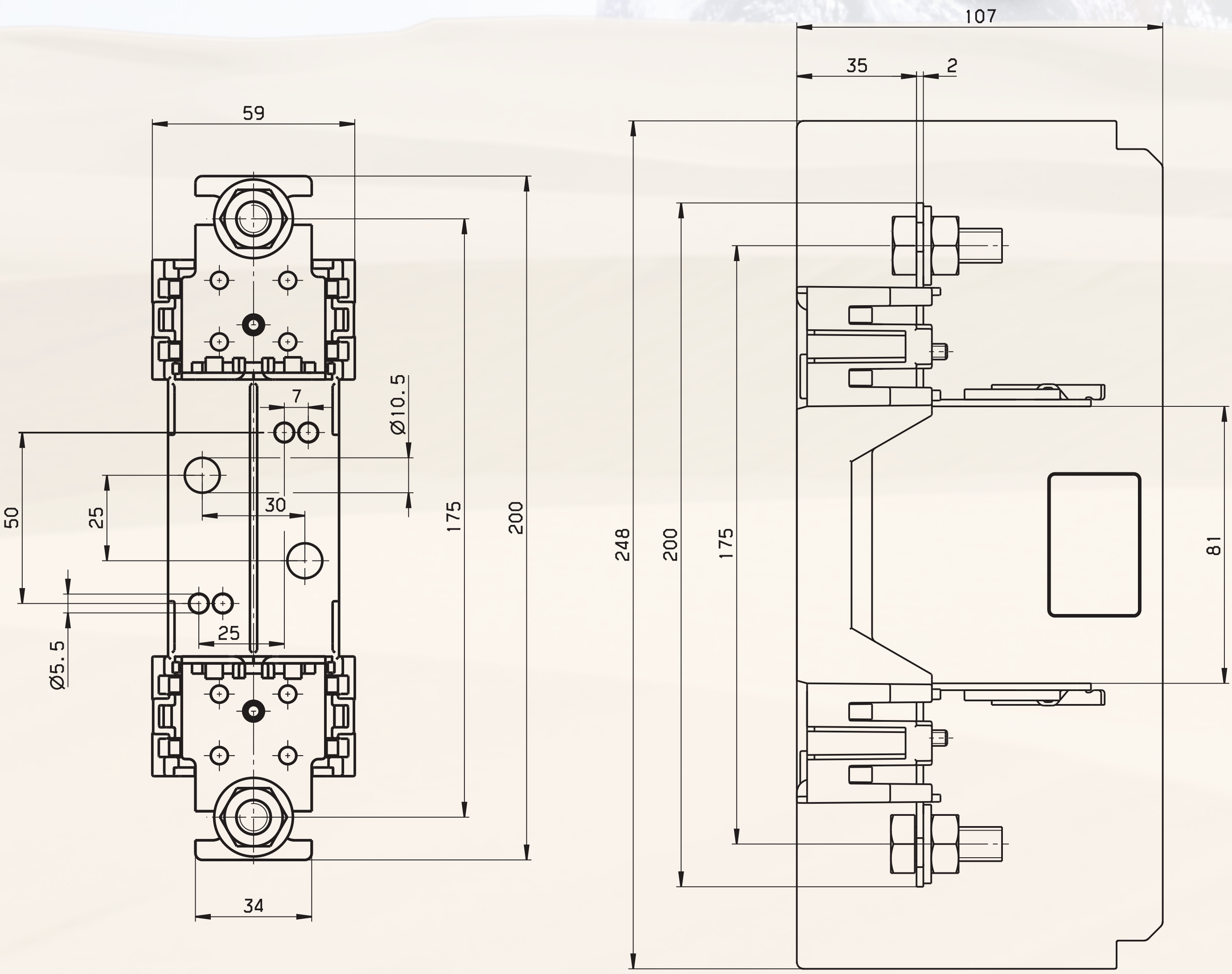


Fuse Base U1-1/GZ/PV

General Characteristics			
Rated voltage			1000V d.c.
Rated current			160A
fuse links size			1C, 1
Conv. Free air thermal current with fuse-links			160A
Conv. Free air thermal current with solid links			325A
Max. permis. Power dissipation per fuse-link			31W
Cable terminal - Flat terminal	Flat terminal	Screw	M10
		Cable lug (DIN46235)	25-150mm²
		Flat termination	30x10 mmx-mm
		Rated torque	30-35Nm

Fuse Disconnector TL1-1/9/1000V/PV

Type	In [A]	Code No.	Max. Connection (mm²)	Weight [g]	Packing [pcs]
U1-1/GZ/PV	160	115233146	150	387	1



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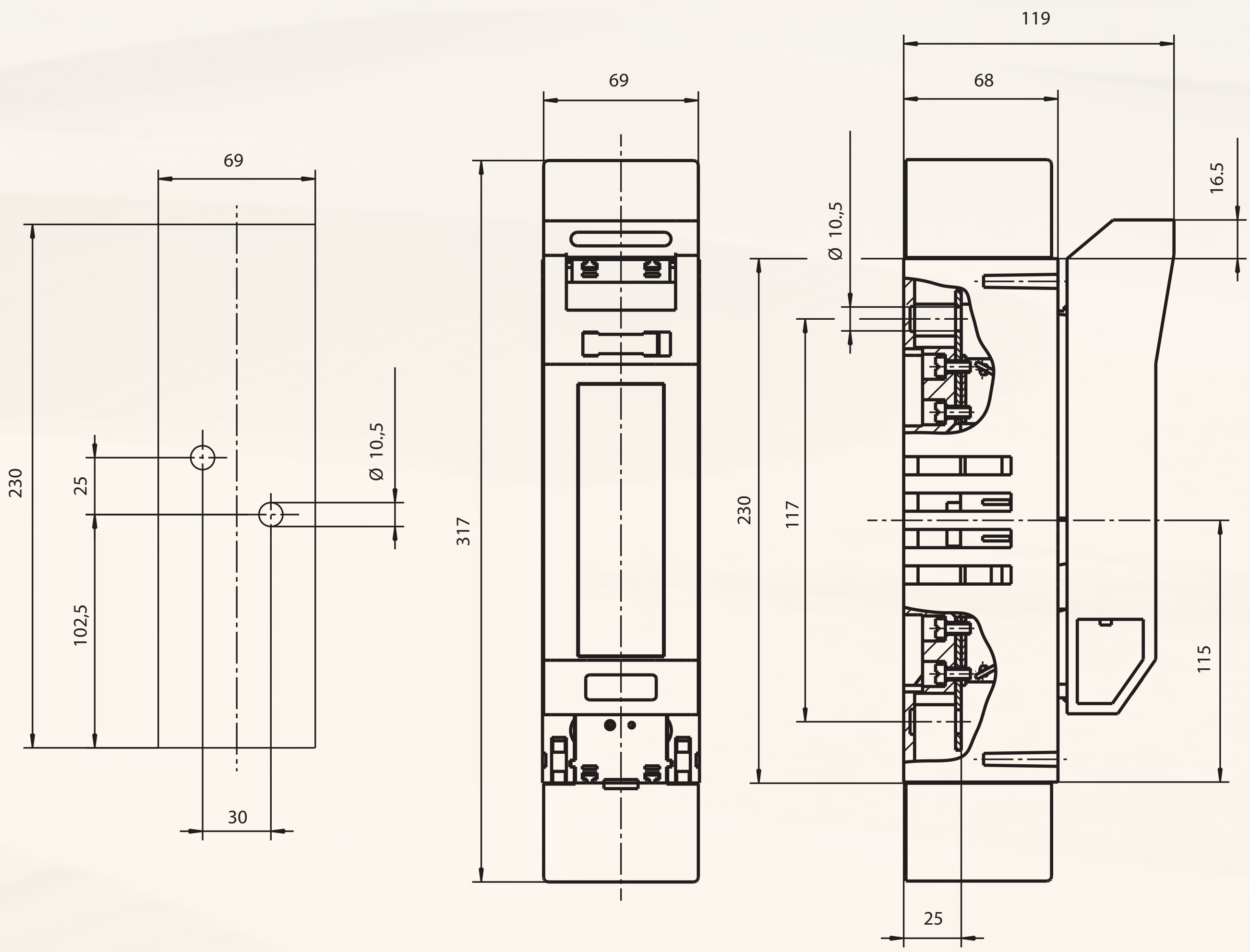
Fuse Disconnector TL1-1/9/1000V/PV

General characteristics		
Number of poles		1
Rated voltage		1000V d.c.
Rated current		160A
Conv. Free air thermal current with fuse-links		160A
Utilization category		DC-20B
Fuse-links	Size to DIN 43620	1C,1
	Max. rated current (gL/gG)	160A
	Max. permis. Power loss per fuse-link	25W
Cable terminal	Screw	M10
	Cable lug (DIN 46235)	25-240mm²
	Flat termination	30x10 mm
	Rated torque	30-35Nm
Type of protection - front side, device fitted		IP20, IP10
Operating conditions	Ambient temperature*	-25 to +55
	Rated operating mode	Cont. operation
	Actuation	Dependent manual actuation
	Mounting position	Vertical, horizontal
	Altitude	up to 2000 m
	Pollution degree	3
	Overvoltage category	III

Fuse Disconnector TL1-1/9/1000V/PV

Type	In [A]	Code No.	Max. Connection (mm²)	Terminal	Weight [g]	Packing [pcs]
TL1-1/9/1000V/PV	160	115233149	150	M10	387	1



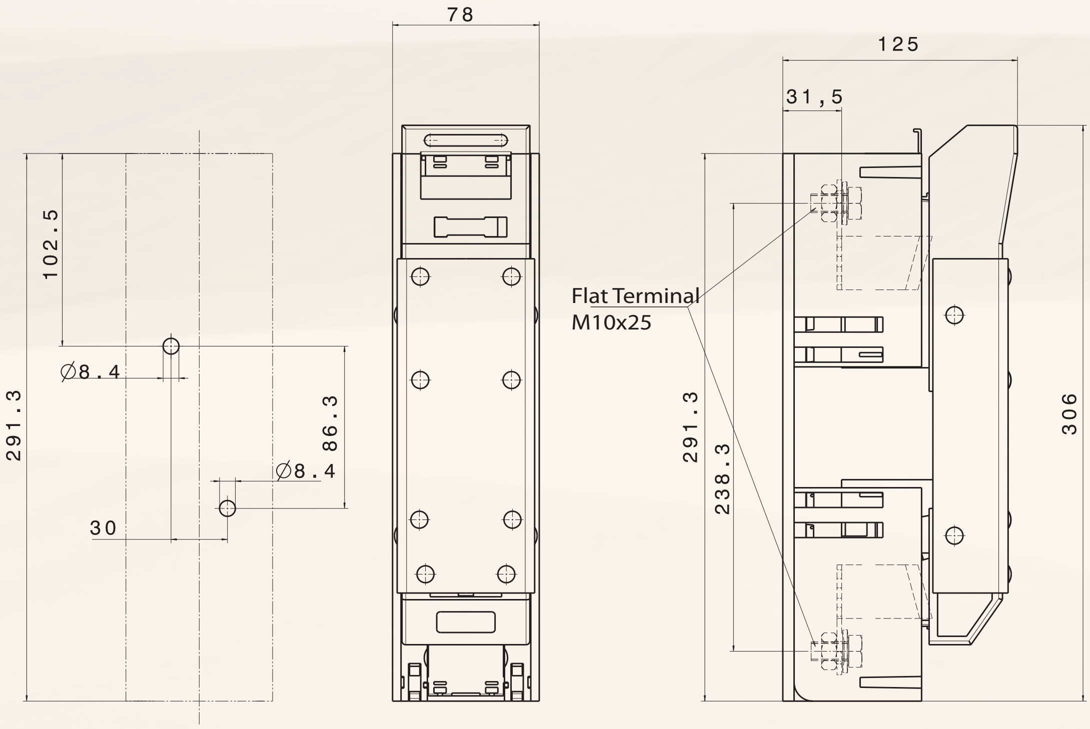
Fuse Disconnector TL1,3-1/9/1200V

General Characteristics			
Type		TL1/1200V	TL3/1200V
For NH fuse-lins/extended length/acc. To DIN VDE 0636-2	Size	a1=194mm, a4=124mm	a1=209mm, a4=124mm
Rated voltage		1200V a.c. / 1000V d.c.	1200V a.c. / 1000V d.c.
Rated current		250A	630A
fuse link size		1XL	2XL, 3L
Conv. Free air thermal current with fuse-links		250A	630A
Conv. Free air thermal current with solid links		325A	1000A
Rated frequency		40-60Hz	40-60HZ
Utilization category		AC-20B, DC-20B	AC-20B, DC-20B
Max. permis. Power loss per fuse-link		25W	70W
Cable terminal-Flat terminal	Bolt diameter	M10	M12
	Cable lug (DIN 46235)	25-150mm²	25-300mm²
	Flat bar	30x10 mm	40x10 mm
	Rated torque	30-35Nm	30-35Nm
Type of protection - front side, device fitted	Operating condition	IP20	IP20
	Switching cover open	IP10	IP10
Operating conditions	Ambient temperature*	-25 to +55	
	Rated operating mode	Cont. operation	
	Actuation	Dependent manual actuation	
	Mounting position	Vertical, horizontal	
	Altitude	up to 2000 m	
	Pollution degree	3	
	Overvoltage category	III	

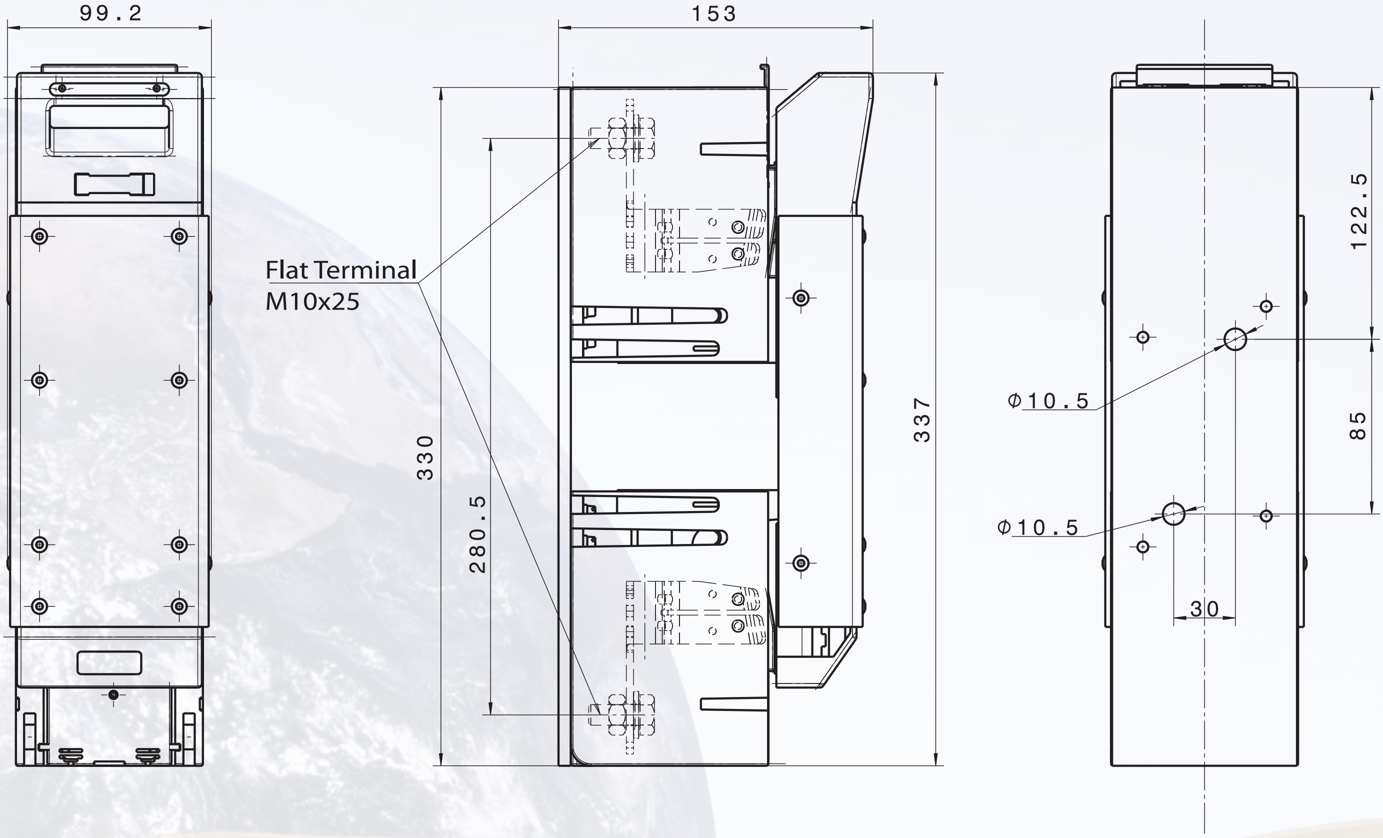
*35°C normal temperature, 55°C with reduced operating current

Fuse Disconnector TL1,3-1/9/1200V

Type	In [A]	Code No.	Max. Connection (mm²)	Terminal	Weight [g]	Packing [pcs]
TL1-1/9/1200V	250	115233147	150	M10	1485	1
TL3-1/9/1200V	630	115233148	300	M12	2535	1



TL3-1/9/1200V



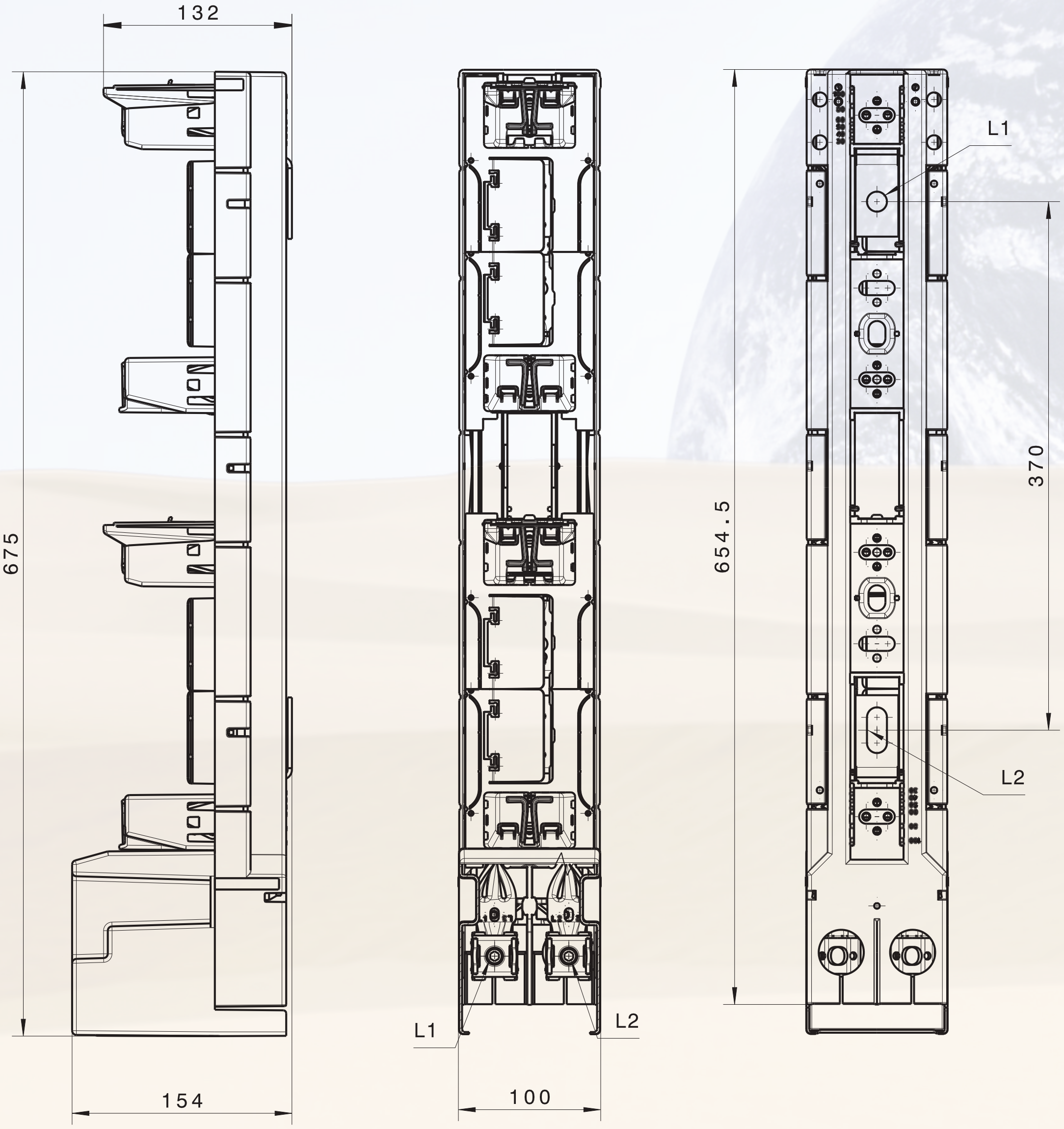
Nh Strip-Fuseways L2,3-2/1200V

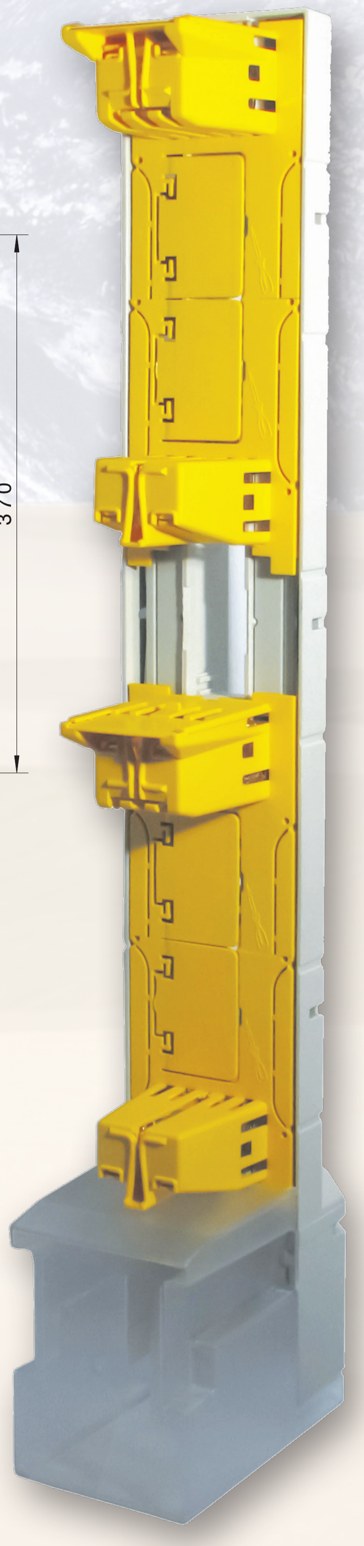
General Characteristics				
Type			L2	L3
For NH fuse-links acc. to IEC 60269-6	Size		2 (extended body)	3 (extended body)
Rated voltage			1200V d.c.	1200V d.c.
Rated current			250A	400A
fuse links size			1XL, 2XL	3L
Conv. Free air thermal current with fuse-links			250A	400A
Rated insulation voltage			1200V d.c.	1200V d.c.
Max. permis. Power loss per fuse-link			46W	75W
Cable terminal	Flat terminal	Bolt diameter	M12	M12
		Cable lug (DIN46235)	1x25-240mm²	1x25-240mm²
		Flat bar	30x10 mm	30x10 mm
		Tightening torque	35-40Nm	35-40Nm
	Clamp KM2G	Clamping cross-section	25-150mm²/185-300 mm²	25-150mm²/185-300 mm²
		Tightening torque	32Nm	32Nm
	Clamp KM2G-F	Clamping cross-section	25-240 mm²	25-240 mm²
		Tightening torque	32 Nm	32 Nm
Type of protection- front side, device fitted - with front side strip cover			IP 10	IP 10
Operating conditions	Ambient temperature*		-25 to +55	
	Rated operating mode		Cont. Operation	
	Actuation		Dependent manual operation	
	Mounting position		Vertical	
	Altitude		up to 2000 m	
	Pollution degree		3	
	Overvoltage category		III	

*35°C normal temperature, 55°C with reduced operating current

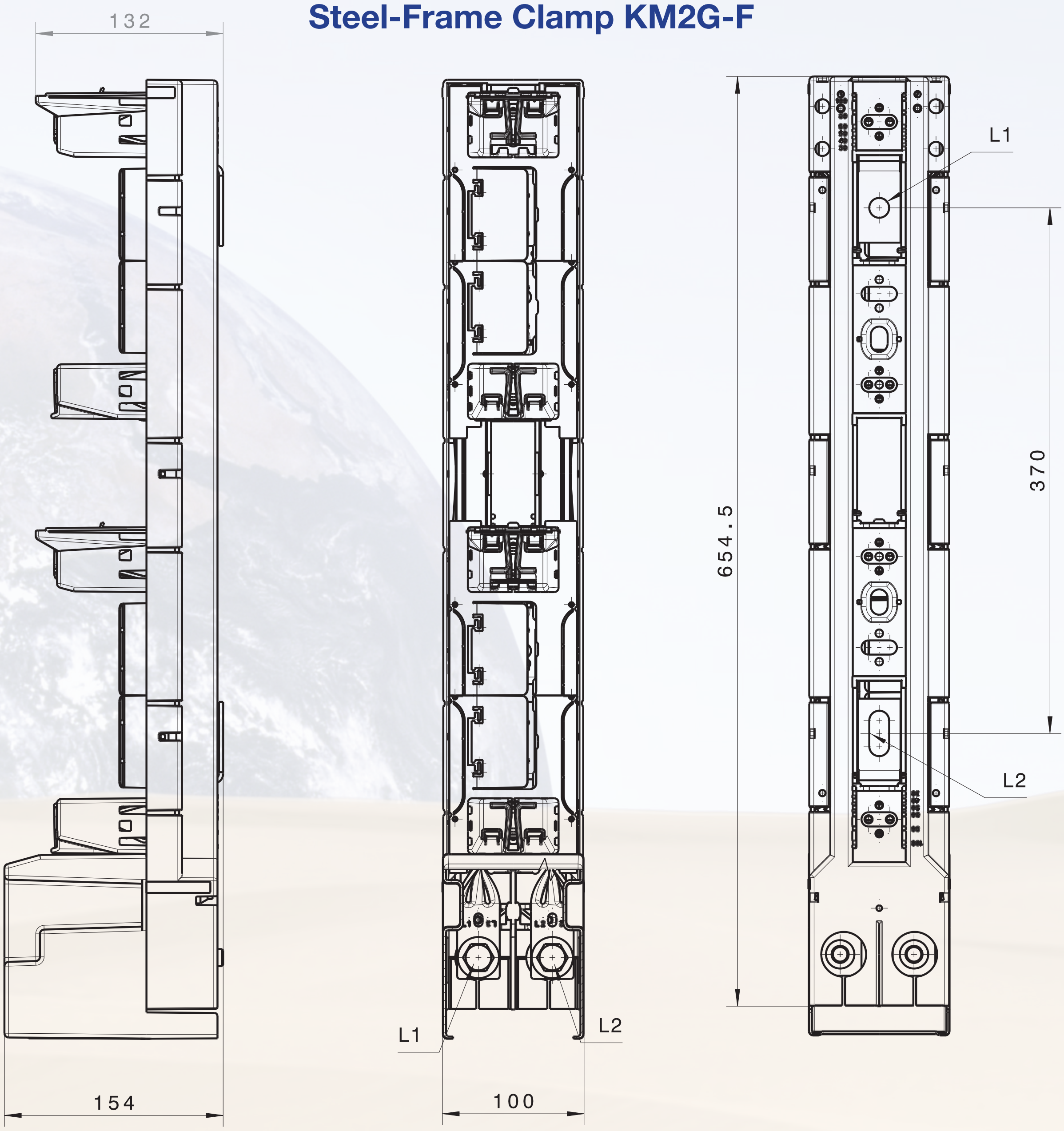
Nh Strip-Fuseways L2,3-2/1200V

General Characteristics						
Type	In(A)	Code No.	Max. Connection (mm^2)	Terminal	Weight (g)	Packaging (pcs)
L2-2/1200/3A/HA/PV	250	115233140	25-240	2.5	3500	1
L2-2/1200/9/KM2G-F/HA/PV	250	115233151	25-240	3.5	3650	1
L3-2/1200/3A/HA/PV	400	115233151	25-240	7.5	4110	1
L3-2/1200/9/KM2G-F/HA/PV	400	115233153	25-240	9.5	4260	1



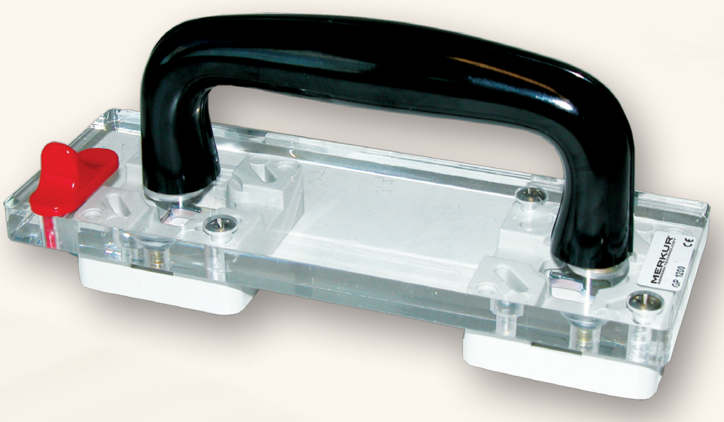


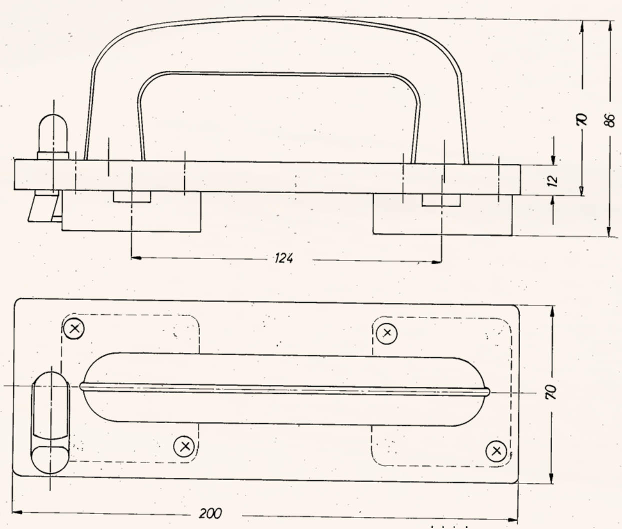
Steel-Frame Clamp KM2G-F



NH Handle for Fuse Link DC 1100V

NH Handle for Fuse Link DC 1100V			
Code	Type	Weight (g)	Packing (pcs)
115052223	GP 1200	400g	1

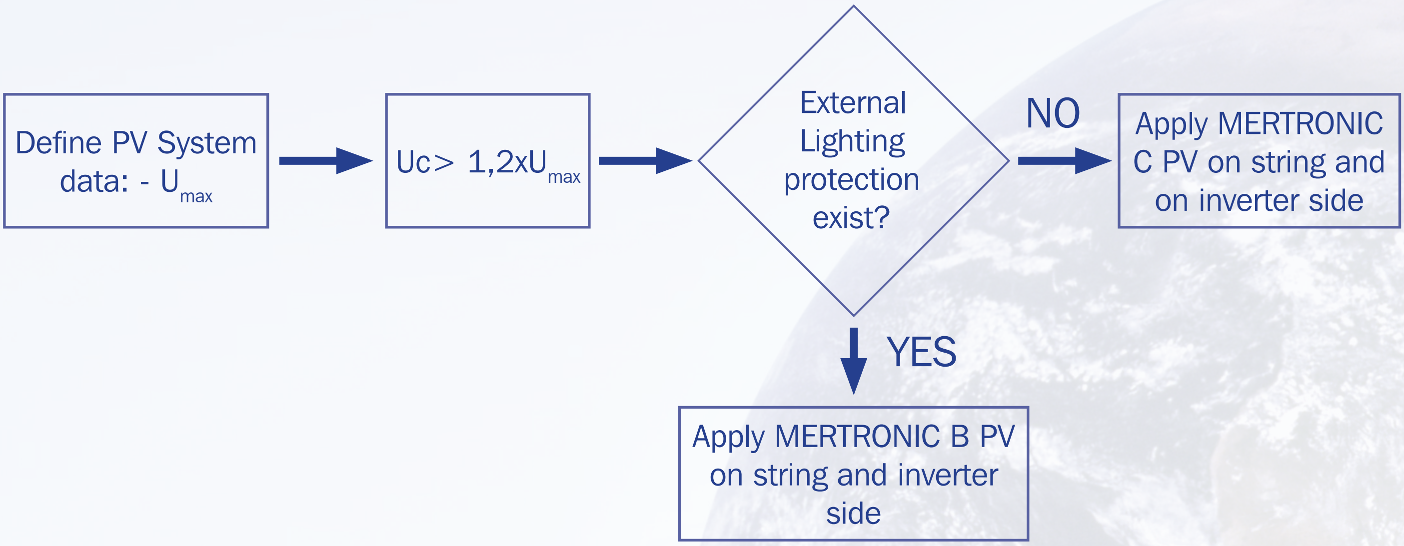




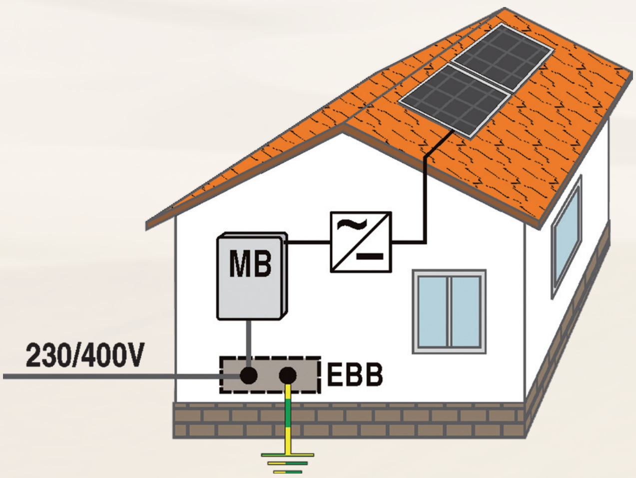
MERTRONIC - Lightning and Surge Arresters

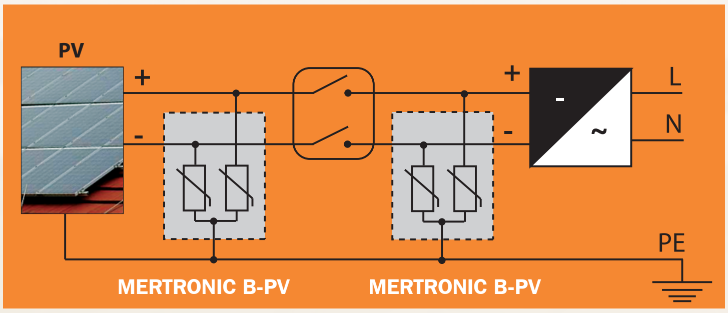
Overvoltage Protection Selection

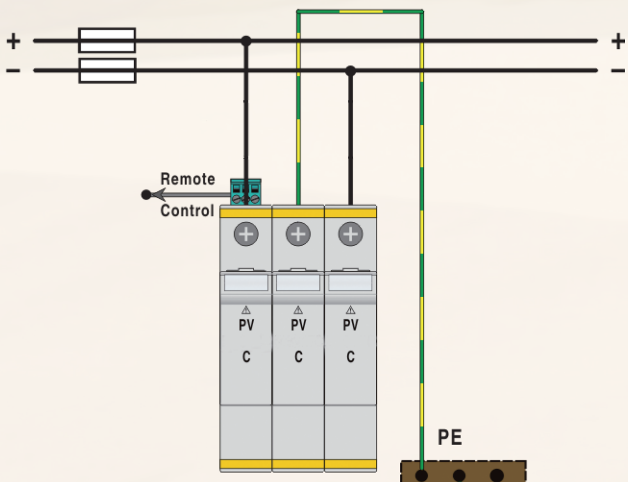
MERTRONIC PV Selection



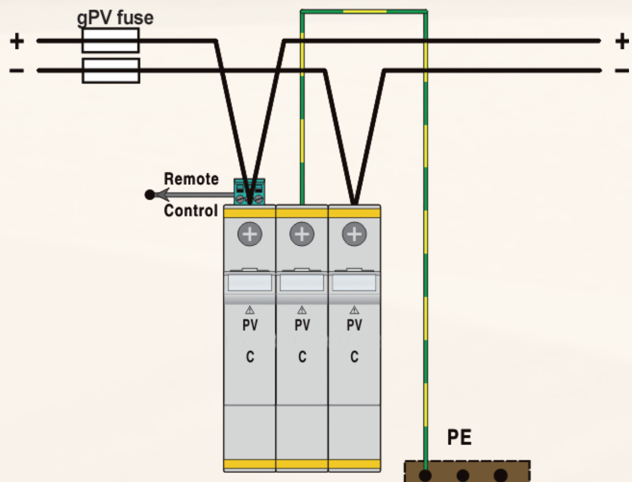
MERTRONIC B-PV for Photovoltaic System on a Building with External Lightning Protection







T - Connection MERTRONIC B-PV



V - Connection MERTRONIC B-PV

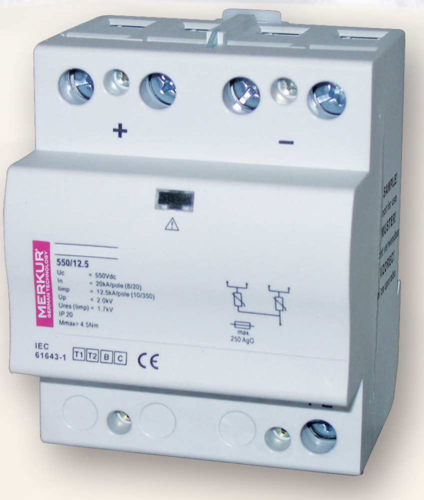
MERTRONIC B-PV series of overvoltage surge protective devices has been developed to protect against direct and indirect lightning discharges and is intended to protect photovoltaic systems.

The circuit topology consist of two varistors stages each protected by a thermal disconnection device.

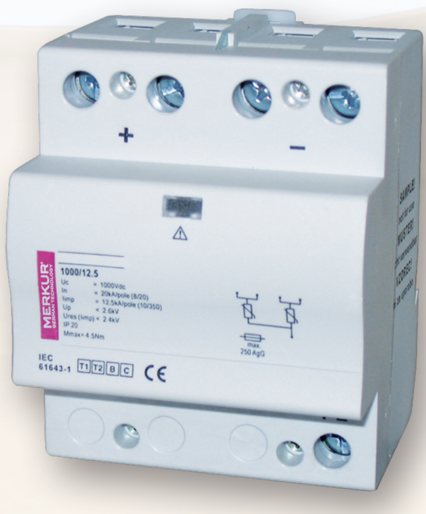
General Characteristics	
Category IEC/EN/VDE Class I,II/Type 1,2/B+C	High surge discharge ratings, Ilmp =12,5kA/pole, Imax =40kA/ per pole
Location of use: Photovoltaic systems-PV module side	Internal protection and safety: Separate thermal disconnector for each MOV block
Protective element: High Engery MOVs	Status indication: Mechanical flag + remote signalization contacts (RC)

General Characteristics					
Type	**Code No.**	**Uc [V DC]**	**Iimp [kA]**	**Weight (g)**	**Packaging (pcs)**
MERTRONIC B-PV 550/12,5 (10/350)	125556325	550	12.5	300	1/3
MERTRONIC B-PV 1000/12,5 (10/350)	125556314	1000		350	
MERTRONIC B-PV 550/12,5 (10/350) RC	125556315	550		310	
MERTRONIC B-PV 1000/12,5 (10/350) RC	125556316	1000		360	

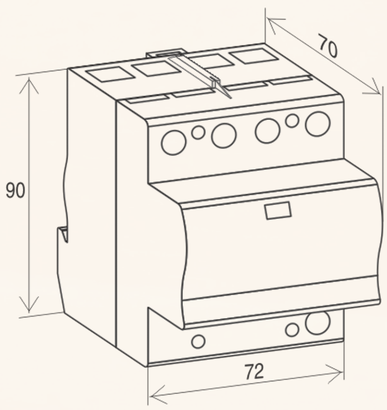
RC - Remote signalization contracts

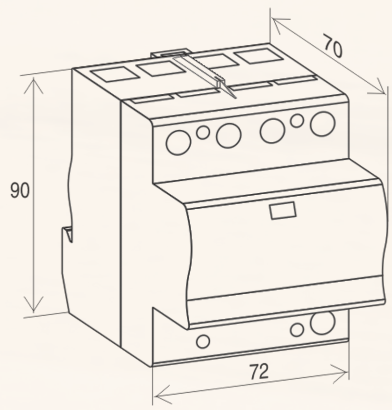


MERTRONIC B-PV 550/12,5 (10/350)



MERTRONIC B-PV 1000/12,5 (10/350)

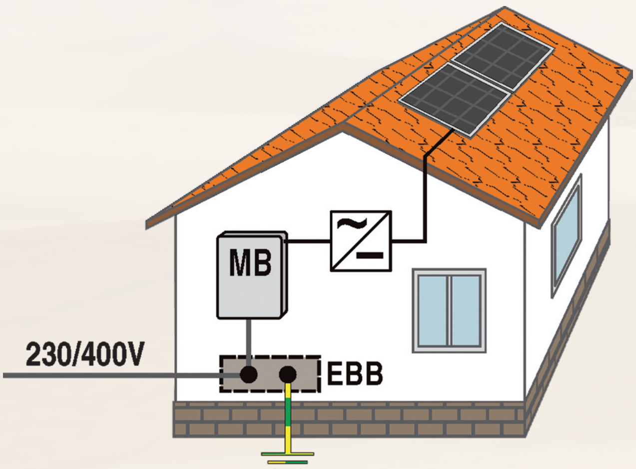


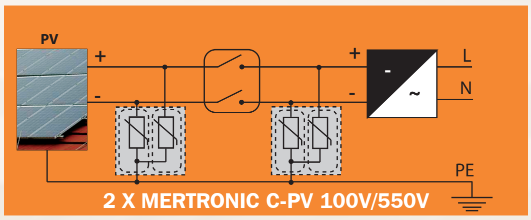


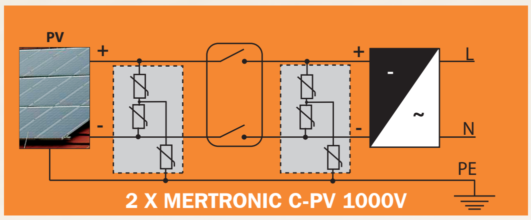
Technical Data

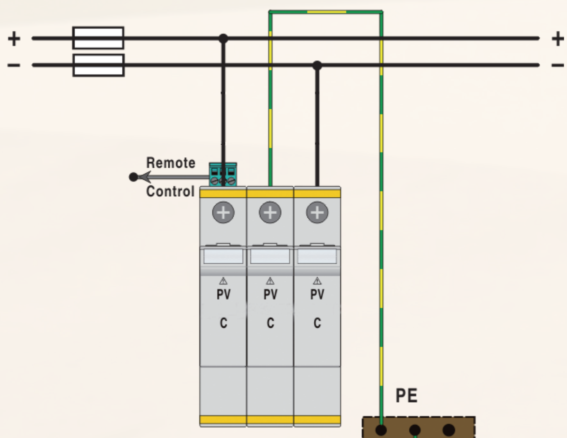
Type	MERTRONIC B-PV xxxx/12,5 (10/350)	
	550V	1000V
In accordance with	IEC-61643-1	
Max. contionous operating voltage Uc(DC)	550V	1000V
Nominal discharge current In(8/20)	20kA	20kA
Max. discharge current Imax (8/20)	40kA	40kA
Impulse current limp (10/350)	12,5kA	12,5kA
Specific energy	39kJ/Ω	39kJ/Ω
Charge	6,25 As	6,25 As
Protection level Up at In (8/20)	< 2,0kW	< 2,6kW
Protection level Up at limp (10/350)	<1,7 kW	< 2,4 kW
Follow current If	No	
Response time tA	<25 ns	
Residual current at Uc	< 2,5 mA	
Thermal protection	yes	
Short-circuit withstand current	25 kA / 50Hz	
Temperature range	-40°C+80°C	
Terminal cross section	35 mm² (solid)/25 mm² (stranded)	
Terminal screw torque	Max. 4,5 Nm	
Mounting EN 60715	35 mm top-hat rall	
Degree of protection	IP 20	
Housing material	Thermoplastic, exthinguishing degree Ul 94 V-0	
Dimensions DIN 43880	4 TE	
Remote contacts - type ….RC		
Contacts ratings	AC 250V /0,5A; 125V/2A	
Terminal cross section	Max. 1,5 mm²	
Terminal screw torque	0,25 Nm	
Packaging dimensions	108 mm x 79 mm x 76 mm	

MERTRONIC C-PV for Photovoltaic System on a Building without External Lightning Protection

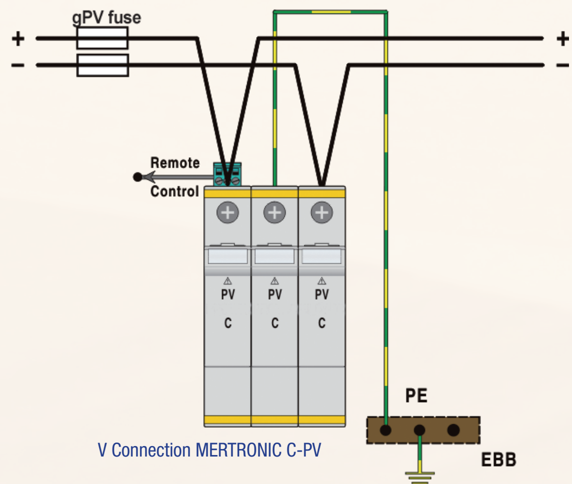








T Connection MERTRONIC C-PV



V Connection MERTRONIC C-PV

Note: If distance between string and inverter is less than 7 m, then you need only one MERTRONIC (B,C).

MERTRONIC C-PV series of overvoltage surge protective devices has been developed to protect against indirect discharges and is intended to protect photovoltaic systems.

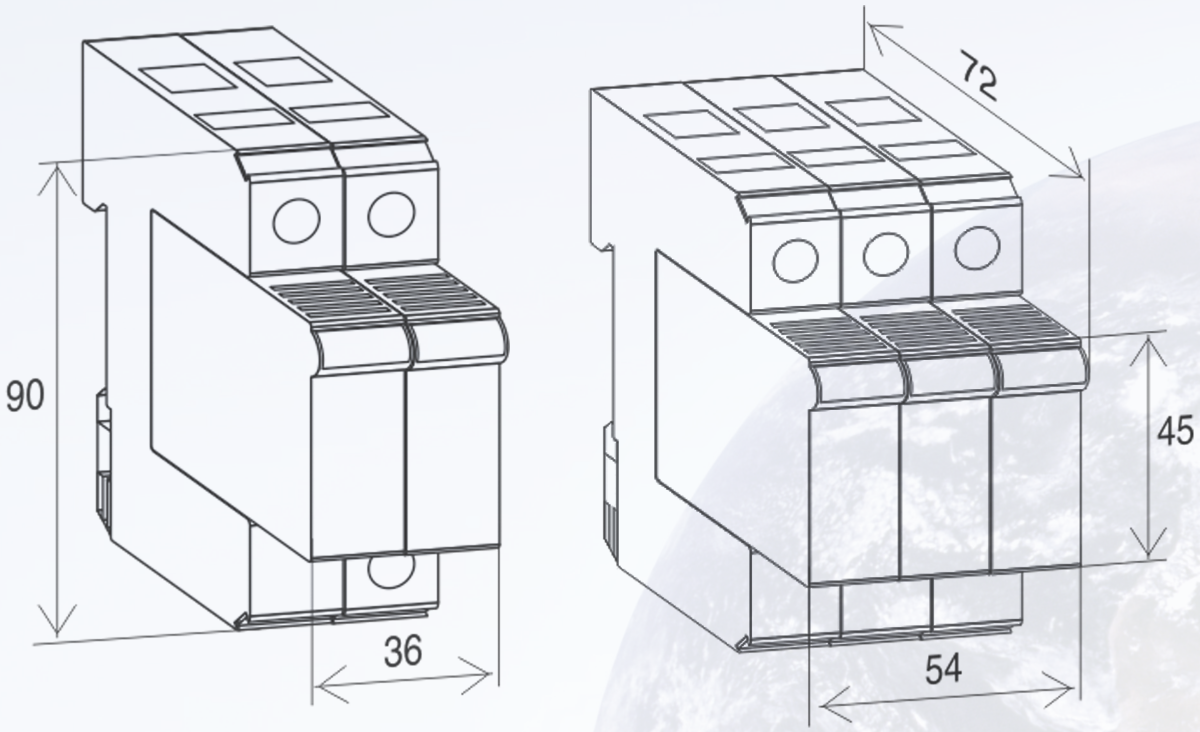
The circuit topology consist of two (three) varistors stages each protected by a thermal disconnection device.

General Characteristics	
Category IEC/EN/VDE Class II/Type 2/C	High surge discharge ratings, Iln =20kA/pole, Imax =40kA/per pole
Location of use: Branch sub-distribution boards	Internal protection and safety: Thermal disconnector for each MOV block
Protective element: High Engery MOVs	Status indication: Mechanical flag + remote signalization contacts (RC)

MERTRONIC C - PV					
Type	Code No.	Uc [V DC]	Iimp [kA]	Weight (g)	Packaging (pcs)
MERTRONIC C-PV 100/20	125556317	100		200	1/7
MERTRONIC C-PV 550/20	125556318	550		255	1/7
MERTRONIC C-PV 1000/20	125556319	1000		365	1/5
MERTRONIC C-PV 100/20 RC	125556310	100		210	1/7
MERTRONIC C-PV 550/20 RC	125556321	550	20	265	1/7
MERTRONIC C-PV 1000/20 RC	125556322	1000		375	1/85
MODULE MERTRONIC C-PV 100/20	125556332	100		52	12/24
MODULE MERTRONIC C-PV 550/20	125556333	550		52	12/24
MODULE MERTRONIC C-PV 1000/20	125556334	1000		52	12/24
RC - Remote signalization contracts					

MERTRONIC C-PV 100, 550/20

MERTRONIC C-PV 1000/20



Technical Data

Type	MERTRONIC B-PV xxxx/12,5 (10/350)		
	100 V	550V	1000V
In accordance with	IEC-61643-1		
Max. contionous operating voltage Uc(DC)	100V	550V	1000V
Nominal discharge current In(8/20)	20kA	20kA	20kA
Max. discharge current Imax (8/20)	40kA	40kA	40kA
Impulse current limp (10/350)	-	-	-
Specific energy	-	-	-
Charge	-	-	-
Protection level Up at In (8/20)	< 0,7 kV	< 2,1 kV	< 4,0kV
Protection level Up at limp (10/350)	-	-	-
Follow current If	No		
Response time tA	<25 ns		
Residual current at Uc	< 1,5 mA		
Thermal protection	yes		
Short-circuit withstand current	25 kA / 50Hz		
Temperature range	-40°C+80°C		
Terminal cross section	35 mm² (solid)/25 mm² (stranded)		
Terminal screw torque	Max. 4,5 Nm		
Mounting EN 60715	35 mm top-hat rall		
Degree of protection	IP 20		
Housing material	Thermoplastic, exthinguishing degree Ul 94 V-0		
Dimensions DIN 43880	2 TE	2 TE	3 TE
Remote contacts - type ….RC			
Contacts ratings	AC 250V /0,5A; 125V/2A		
Terminal cross section	Max. 1,5 mm²		
Terminal screw torque	0,25 Nm		
Packaging dimensions	108 mm x 79 mm x 76 mm		

General Characteristics

The construction of the switch ensures reliable switching up to 58A with 1000V in the category DC 21B.

The construction of the contacts and the material selection guarantee that no oxidation (small switching frequency develops, and is thus prevented inadmissible heating-up.

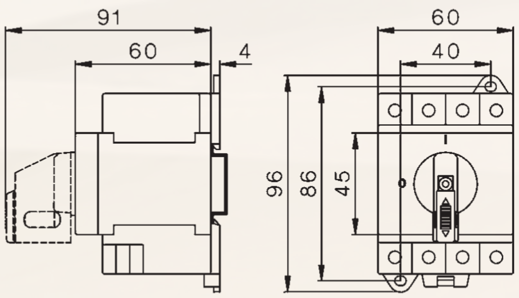
The switch disconnector has 2, 4 or 4+2 contacts, by serial / paralel wiring of the contacts the contact rating will be increased.

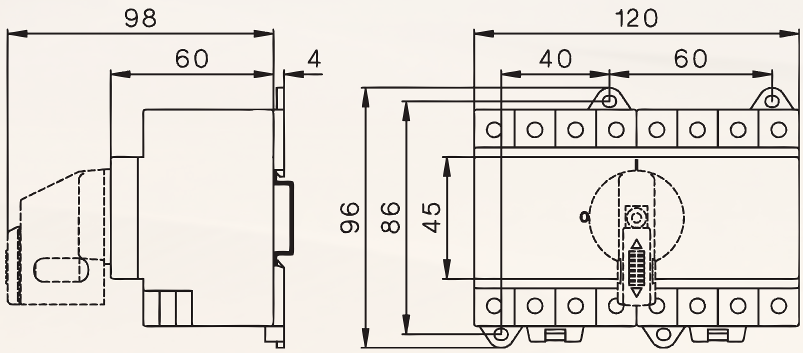
The switching speed at the manually operated handle does not have an effect on the switching attitude of the contacts.

General Characteristics	
Rated voltage	Up to 1000V d.c.
Rated current	Up to 58A d.c.
Standards	IEC 60364-7-712
Applications	For interupting the DC/AC inverter from the solar panels

PV Switch Disconnector for Photovoltaic

Code	Type		Weight (g)	Packing (pcs)
115771171	LS16 SMA A2	2-pole	150	1
115771172	LS25 SMA A2			
115771173	LS32 SMA A2			
115771174	LS16 SMA A4	4-pole		
115771175	LS25 SMA A4			
115771176	LS32 SMA A4			
115771177	LS32 SMA A4 + 2	4+2 pole	430	





Switch Disconnectors and Load

Technical data according to IEC 60947-3, VDE0660			DC 21B 500V	DC 21B 600V	DC 21B 800V	DC 21B 1000V
LS16..	1 2	2 poles in series	16A	16A	16A	9A
	1 2 3 4	4 poles in series	16A	16A	16A	16A
LS25..	1 2	2 poles in series	25A	25A	20A	11A
	1 2 3 4	4 poles in series	25A	25A	25A	25A
LS32..	1 2	2 poles in series	32A	32A	23A	25A
	1 2 3 4	4 poles in series	32A	32A	32A	32A
LS32..A4+2	1 3 5 7 1 3 5 7 / 2 4 6 8 2 4 6 8	4 Poles in series + 2 poles parallel	58A	58A	58A	58A

Because of very high breaking point capacity, switch disconnectors «LS…» are suitable for many different operating conditions

IP65 Wall Mounted Distribution Boards ECH

Available in 4, 8, 12, 24, 36 modules

Applications:
Watertight wall-mounted distribution boards apply in domestic and industry architecture for mounting modular equipment for protection (IP65) against wet, dust and another dirtiness

Structure:
Enclosure is made of high thermal stability material - ASA (Acrylonitrile-Acrylic-Styrene), plastic with good dielectrical and mechanical attributes, UV resistant (colour stability)

Advantages: Aesthetic and attractive look, easy and quick montage

Main elements:
- Bottom cover with DIN rail, PE and N bars and holes for PG cable inlets properly marked
- Top cover with seal of the door
- Transparent door made of polycarbonate (PC) with plastic lock (in standard) or metal lock with key (in option)

Technical Data:	
Protection class	IP65
Isolation class	II
Impact kit	IK 07
Nominal voltage	400V AC
Temperature range	-25°C do +60°C
IEC compatibility	IEC-60670-24 Œ

Type	Code number	Description	Number of terminals at PE/N	Dimensions (HxWxD) (mm)	Weight (kg)	Packaging (pcs.)
ECH-4G	112212171	Wall mounted encl. 4 mod, IP-65 transparent door	4/4	201x128x120	0.46	1/5
ECH-8G	112212172	Wall mounted encl. 8 mod, IP-65 transparent door	8/8	201x202x120	0.68	1/5
ECH-12PT	112212173	Wall mounted encl. 12 mod, IP-65 transparent door	10/10	256x319x144	1.24	1/5
ECH-24PT	112212174	Wall mounted encl. 24 mod, IP-65 transparent door	15/15	384x319x144	1.7	1/5
ECH-36PT	112212175	Wall mounted encl. 36 mod, IP-65 transparent door	15/15	535x319x144	2.31	1/5
Accessories						
ECH-Lk	112212176	Lock with key for ECH	-	-	0.017	1

Enclosure Designation

Type → **E C H ...G** ← Vertical door opening (4 or 8 modules)

...PT ← Horizontal door opening (12, 24 or 36 modules)

Modules (4, 8, 12, 24, 36)

12 Modules PV Distribution Boards 1,2 Inputs

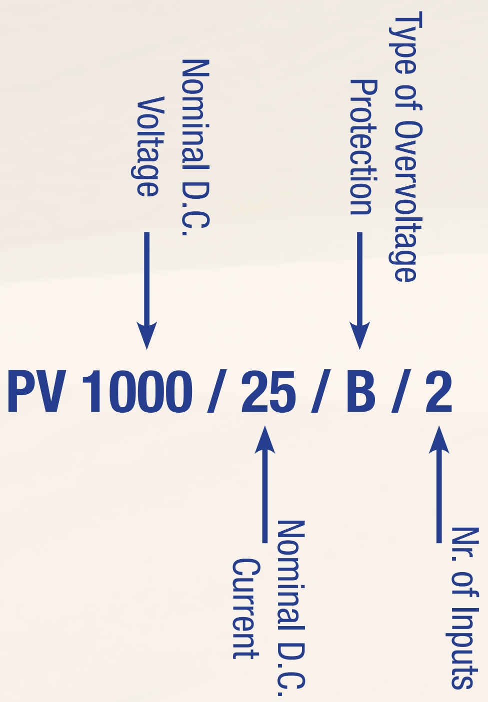
General Characteristics	
Rated voltage	500V, 1000V d.c.
Rated current	25A, 25A d.c.
Standards	IEC 60364-7-712:2005, EN60439-1, Type test ICEM-TC Maribor
Protection class	IP54
Category(switch)	DC21B
Isolation class	
Temperature range	-25°C to + 60°C
Application	As PV distribution board in photovoltaic power plant

	Voltage	Overvoltage Protection	Inputs	13a D.C.		25a D.C.		Weight (g)	Pack.
12 modules (318x258x142mm)	500V d.c.	B	1	112214112	PV500/25/B/1	112214128	PV500/25/B/1	1860	1
			2	112214125	PV500/25/B/2	112214129	PV500/25/B/2	1980	
		C	1	112214116	PV500/25/C/1	112214252	PV500/25/C/1	1860	
			2	112214117	PV500/25/C/2	112214253	PV500/25/C/2	1980	
	1000V d.c.	B	1	112214110	PV1000/25/B/1	112214256	PV1000/25/B/1	1860	
			2	112214121	PV1000/25/B/2	112214257	PV1000/25/B/2	1980	
		C	1	112214124	PV1000/25/C/1	112214250	PV1000/25/C/1	1860	
			2	112214125	PV1000/25/C/2	112214141	PV1000/25/C/2	1980	

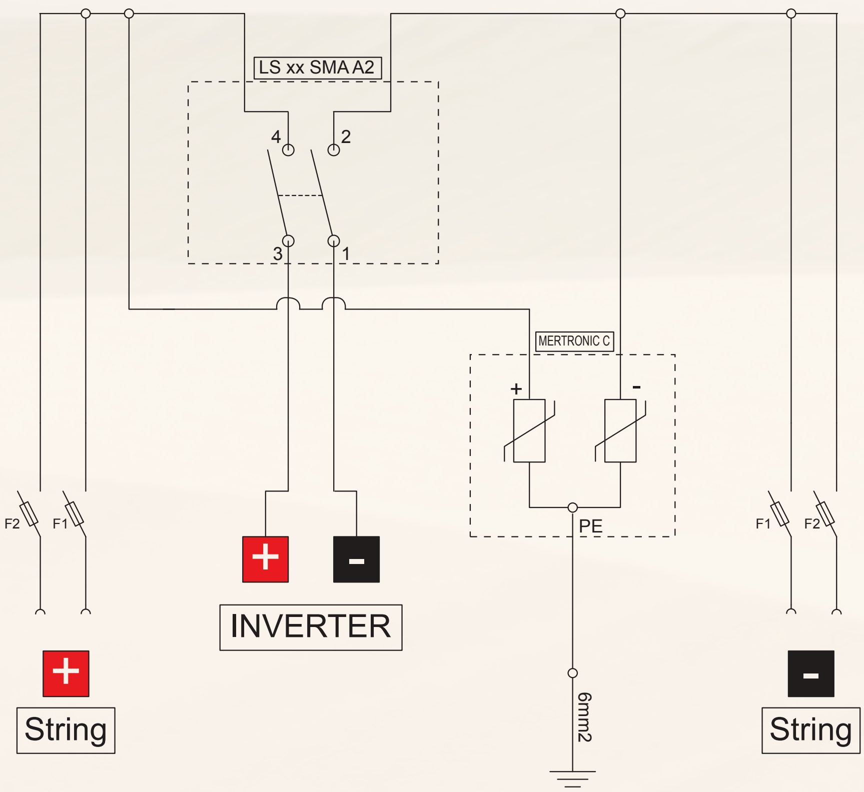
Overvoltage Protection	Ground Cable
Type B	16mm²
Type C	6mm²

Important !
CH 10 gPV fuse-links are not included in the distribution board package and need to be ordered separately.

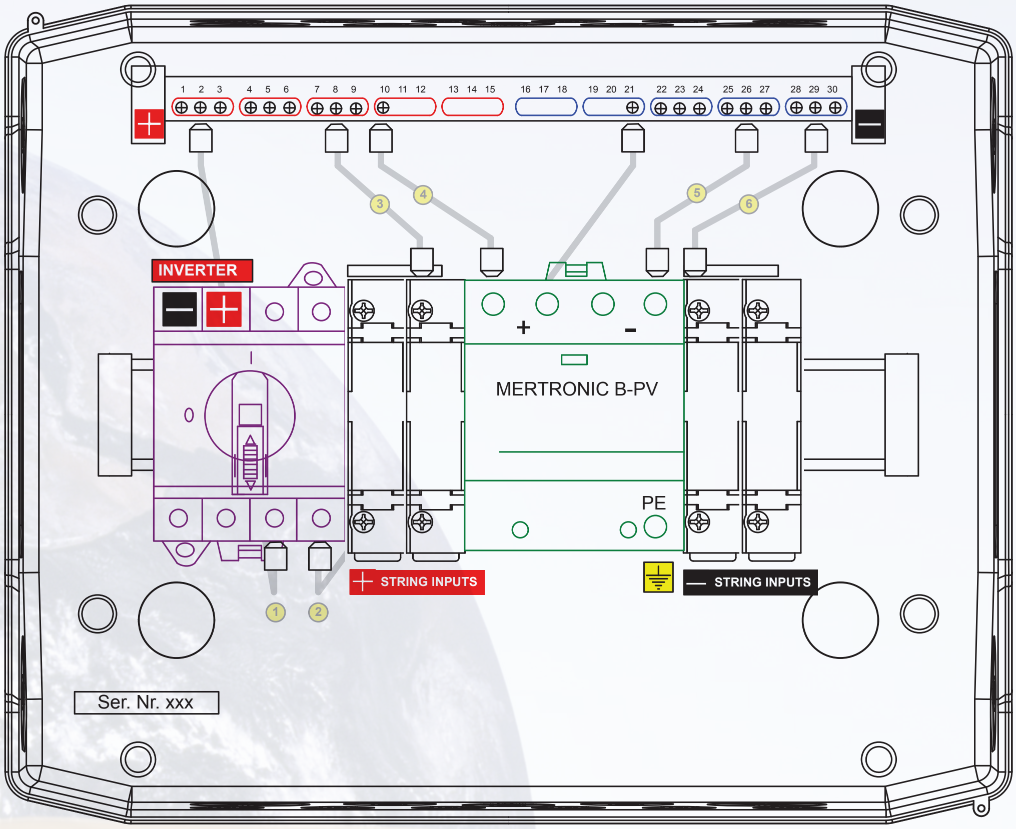
Type Designation



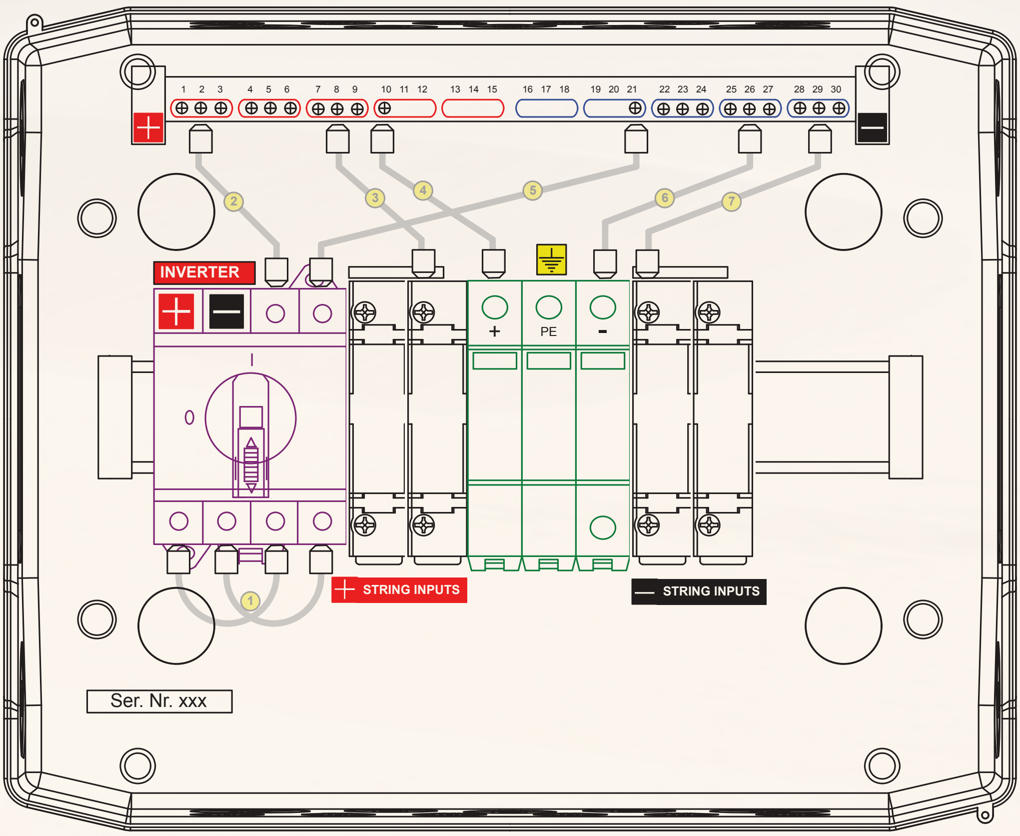
Electric Scheme:



PV 500 / B / 25 / 2



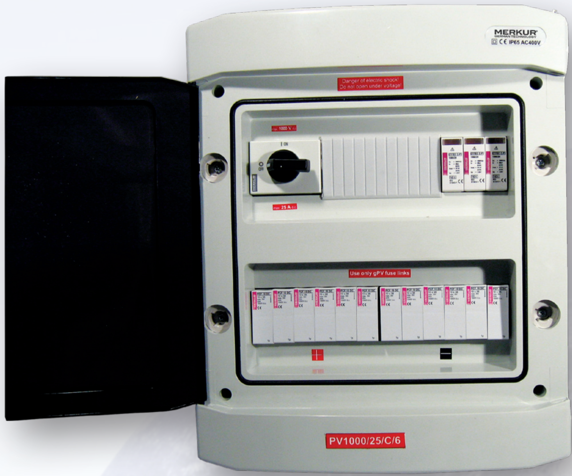
PV 1000 / C / 25 / 2



24 Modules PV Distribution Boards (3,4,5,6 Inputs)

General Characteristics	
Rated voltage	500V, 1000V d.c.
Rated current	13A, 25A d.c.
Standards	IEC 60364-7-712:2005, EN 60439-1, Type test ICEM-TC Maribor
Protection class	IP54
Category (switch)	DC 21B
Isolation class	II ⧈
Temperature range	-25 °C to +60°C
Application	As PV distribution board in photovoltaic power plant

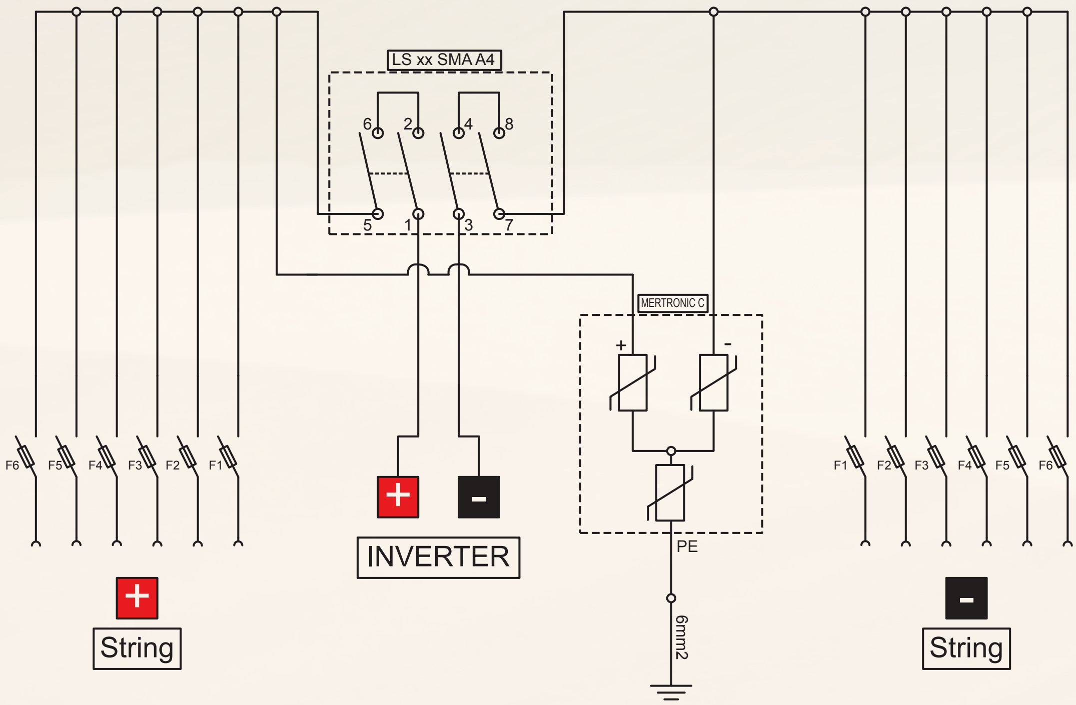
Important!
CH 10 gPV fuse-links are not included in the distribution board package and need to be ordered separately.



	Voltage	Overvoltage Protection	Inputs	13a D.C.		25a D.C.		Weight (g)	Pack.
24 modules (318x383x142mm)	500V d.c.	B	3	112214176	PV500/13/B/3	112214144	PV500/25/B/3	2560	1
			4	112214177	PV500/13/B/4	112214145	PV500/25/B/4	2680	
			5	112214178	PV500/13/B/5	112214146	PV500/25/B/5	2800	
			6	112214179	PV500/13/B/6	112214147	PV500/25/B/6	2920	
		C	3	112214184	PV500/13/C/3	112214152	PV500/25/C/3	2560	
			4	112214185	PV500/13/C/4	112214153	PV500/25/C/4	2680	
			5	112214186	PV500/13/C/5	112214154	PV500/25/C/5	2800	
			6	112214187	PV500/13/C/6	112214155	PV500/25/C/6	2920	
	1000V d.c.	B	3	112214192	PV1000/13/B/3	112214150	PV1000/25/B/3	2560	
			4	112214193	PV1000/13/B/4	112214161	PV1000/25/B/4	2680	
			5	112214194	PV1000/13/B/5	112214162	PV1000/25/B/5	2800	
			6	112214195	PV1000/13/B/6	112214163	PV1000/25/B/6	2920	
		C	3	112214190	PV1000/13/C/3	112214168	PV1000/25/C/3	2560	
			4	112214101	PV1000/13/C/4	112214169	PV1000/25/C/4	2680	
			5	112214102	PV1000/13/C/5	112214160	PV1000/25/C/5	2800	
			6	112214103	PV1000/13/C/6	112214171	PV1000/25/C/6	2920	

Overvoltage Protection	Ground Cable
Type B	16mm²
Type C	6mm²

Electric Scheme:



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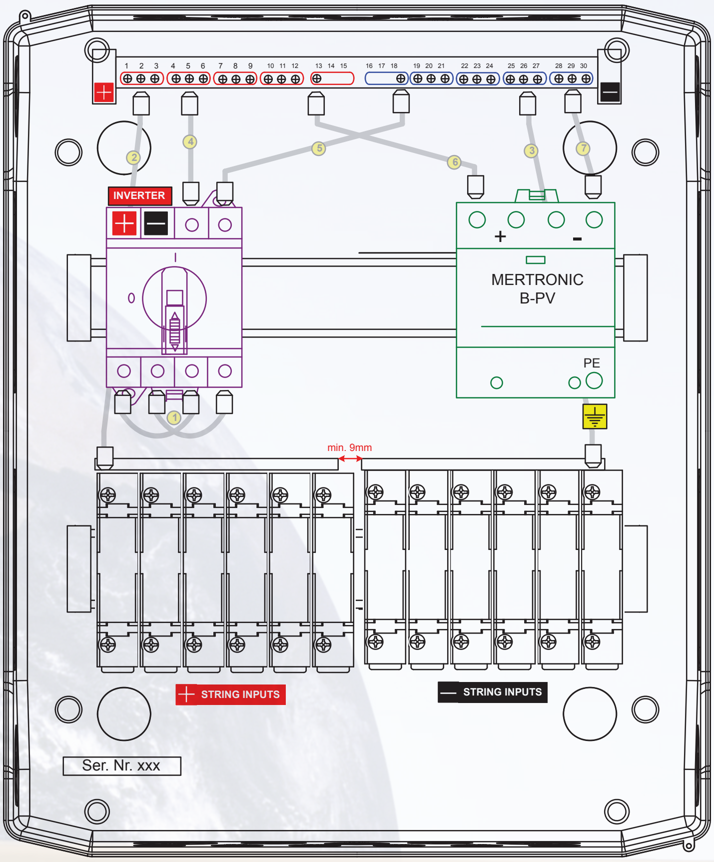
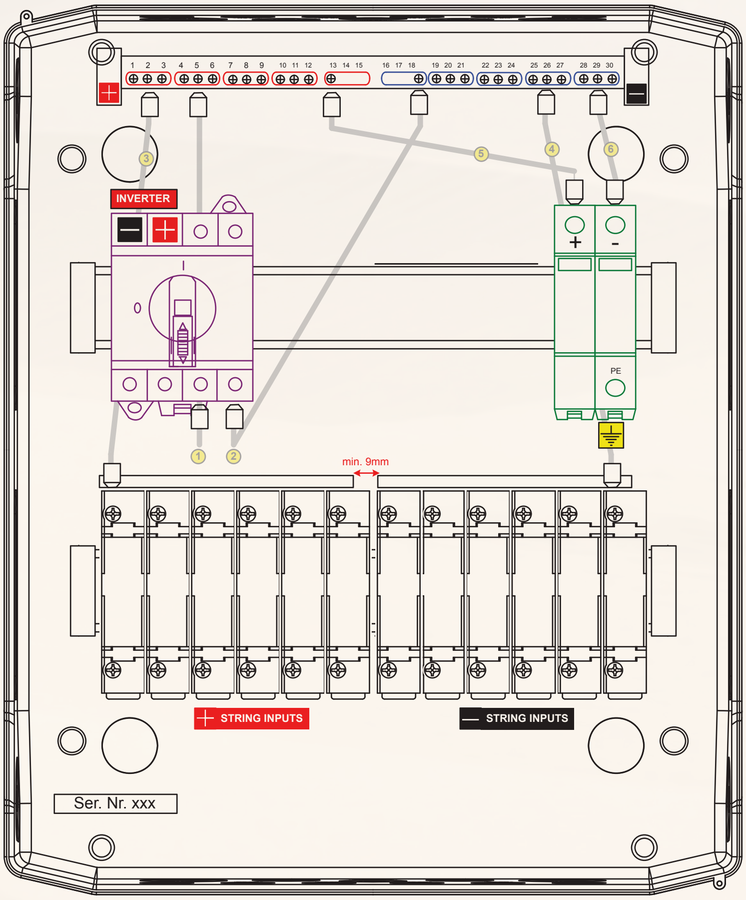
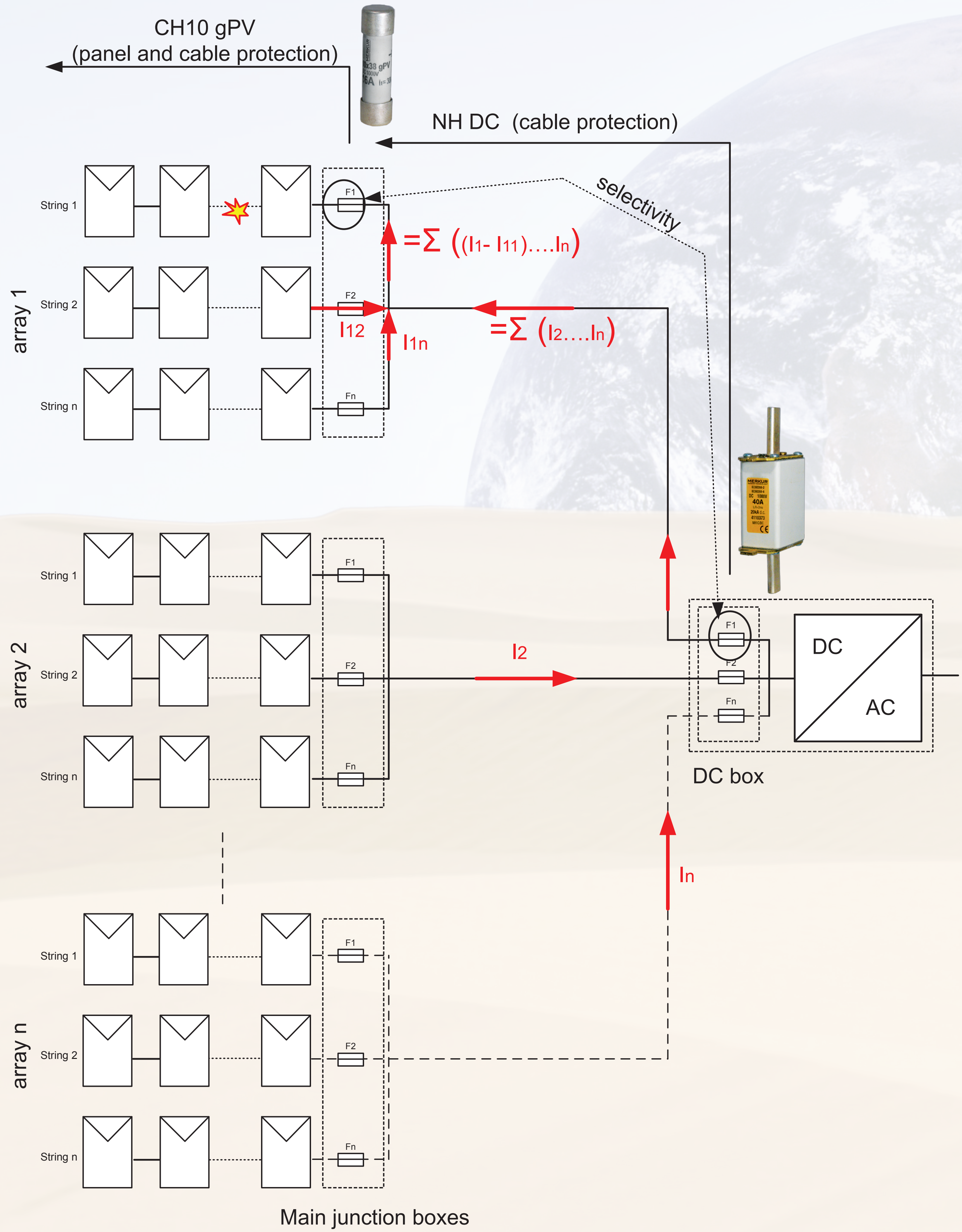
PV1000/B/25/6



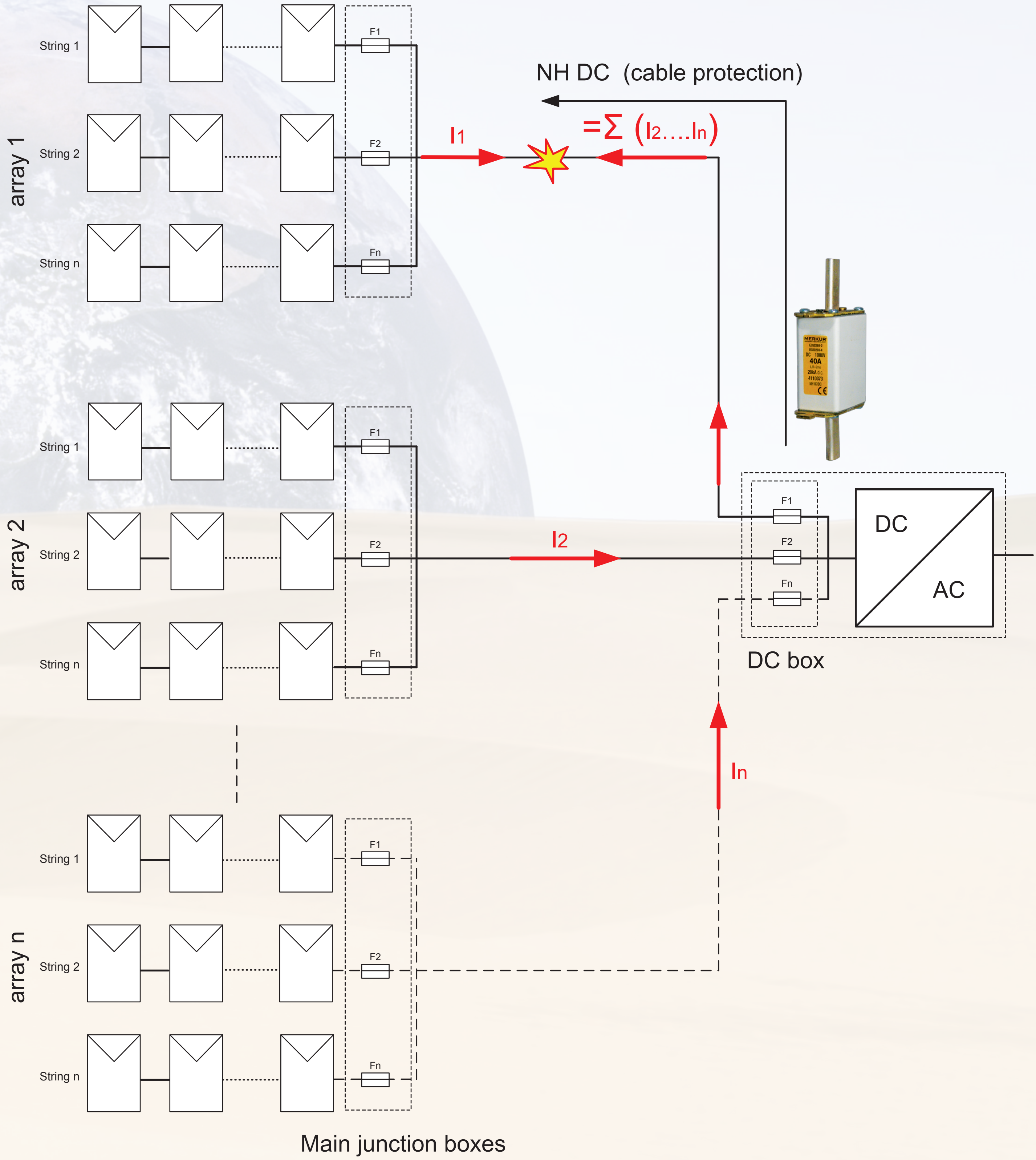
PV500/C/25/6



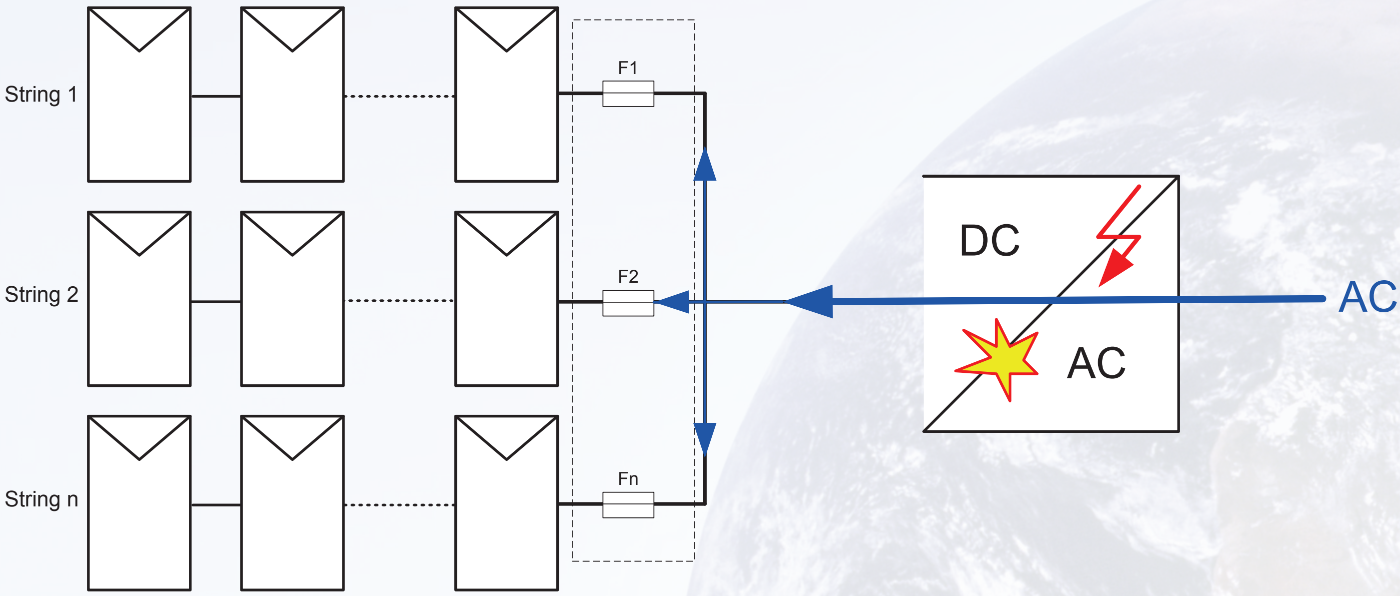
Protection of PV Modules on REVERSE Current by CH gPV Fuse Link



Protection of the Wiring Between ARRAYS from Short-Circuit



Protection from “AC REVERSE Current” (Transformerless Inverter)



AC - Distribution and Protection Components

This part of the catalogue is only for informational purposes. All required commercial and technical information on the following products is available in our General Catalogue and in Leaflet Special Purpose Fuses.

ASTI - Miniature Circuit Breakers and Residual Current Devices

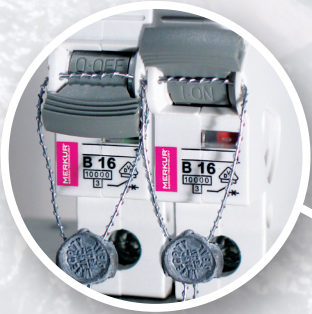
Advantages of Miniature Circuit Breakers TRONIC11

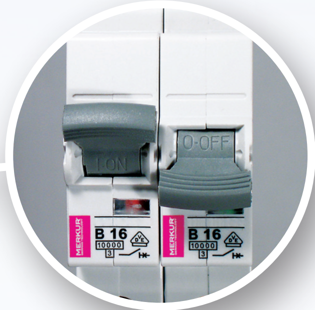
➔ Available in versions: 1-p, 1-p+N, 2-p, 3-p, 3-p+N with a wide range of accessories

➔ New special version TRONIC11 remote control (RC) is a miniature circuit breaker with remote control mechanism.

➔ Sealing Cover

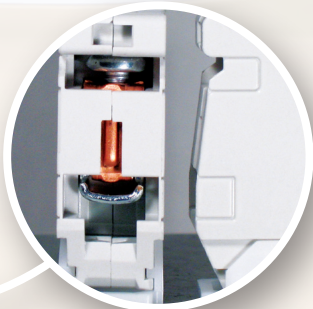
➔ Sealing Possibility





➔ "ON/OFF" mark on the switch button

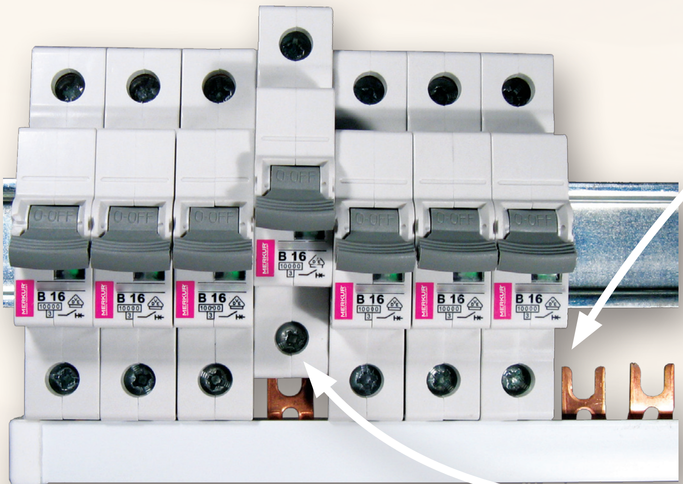
➔ Locking Device



➔ Better protection of terminals against touching the parts under voltage

➔ Rated current:
Characteristic B; 6 - 63 A
Characteristic C; 0,5 - 63 A
Characteristic D; 0,5 - 32 A
Characteristic K; 0,5 - 32 A

➔ New method of mounting on the DIN rail and simple replacement

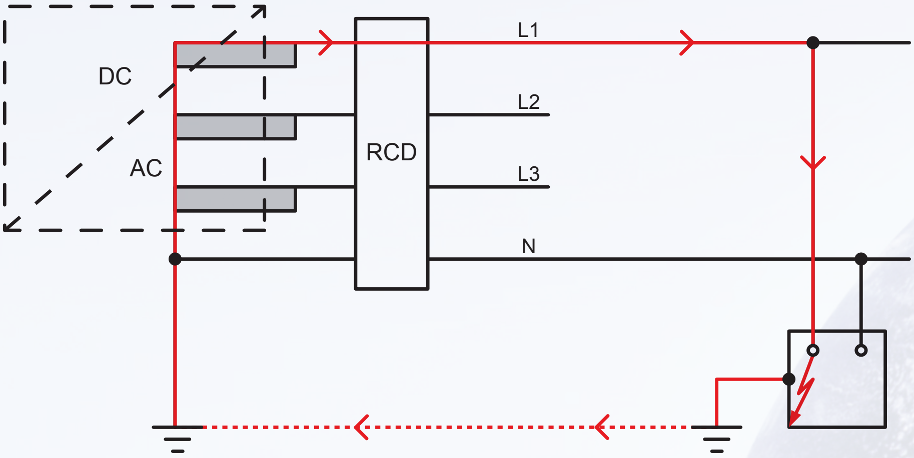


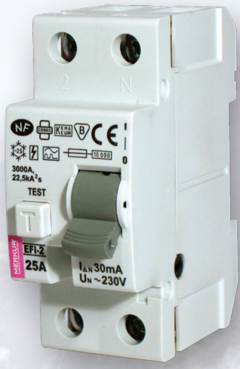
➔ Double connection possibility

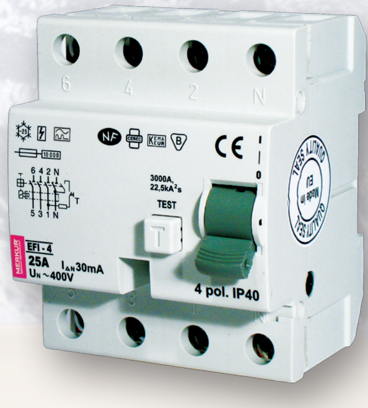
➔ Every product is marked with EAN code

Residual Current Circuit Breakers RCCBs EFI Type A

Application:



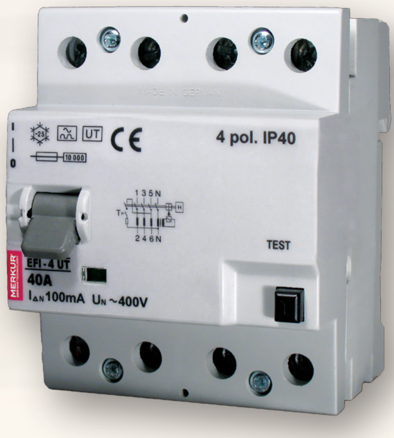




EFI type A can be used in DC/AC inverters with transformers or in DC/AC inverters for which the producer excludes the possibility of DC leakage currents on AC side.

	EFI 2 Type A	EFI 4 Type A	Type S	Type UT
For alternating and pulsating direct residual current	√	√		√
Short-circuit capacity with back-up fuse	√	√	√	√
Lower temperature limit of application -25°C	√	√	√	√
VDE 0664, part 1 (up to 80 A)	√	√		
Selective (time delayed min. 40 ms)			√	
Unwanted tripping				√

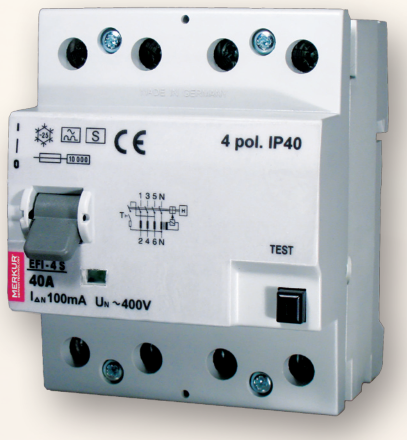
Note: Tripping time according to standard IEC 61008



EFI-4 UT and EFI-4 S

RCCB EFI-4 UT is surge current resistant type UT (unwanted tripping) up to 5kA 8/20µs. RCCB type A (Un 230/400V AC, 230V AC) recognizes sinusoidal alternating and pulsating direct residual currents (according to IEC/ EN 61008).

RCCB EFI-4 S (selective) time delayed to exclude unwanted tripping because of possible occurance of short time leakage currents.



EVE - Modular Devices

Utility grid monitoring relays HRN-54 and HRN-54N serves to monitor voltage, phase failure and phase sequence and perform anti-islanding protection together with ETI multifunction time relays CRM-91H and CRM-93H.

- HRN-54
- HRN-54N
- CRM-91H
- CRM-93H

Application:
Anti-islanding protection for photovoltaic systems.

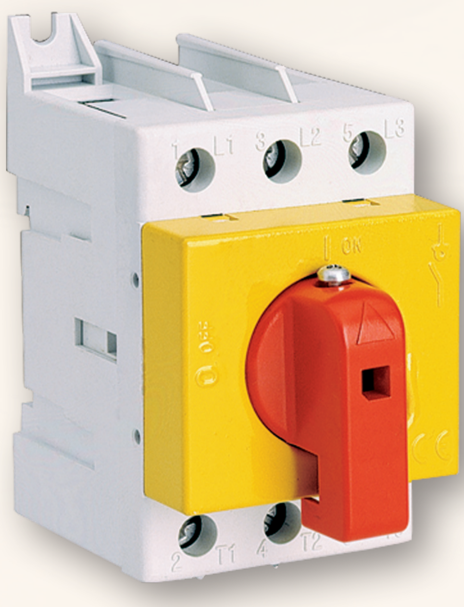
Build-in switch is used as a main switch in distribution boxes in houses or as a switch for individual electric circuits. With a build-in switch we can completely replace the cam switch. Build-in switch can be sealed either in ON or OFF position.

Available in 1-, 2-, 3- and 4-pole versions.

MERSWITCH - Switch Disconnectors

MERSWITCH Switch diconnectors series LAS and built-in switches series SV serves as control switches, load break switches and disconnecting devices in AC distribution/protection cabinets.

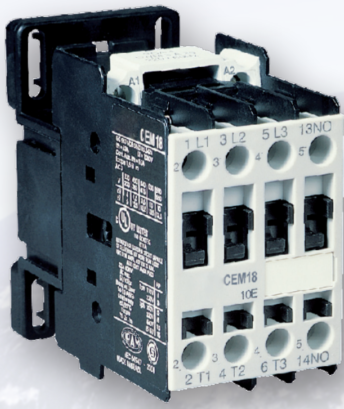
- LAS16 up to LAS125 (3,4-pole, from 16 to 125A)
- SV1100 up to SV4100 (1, 2, 3, and 4-pole; 100A)



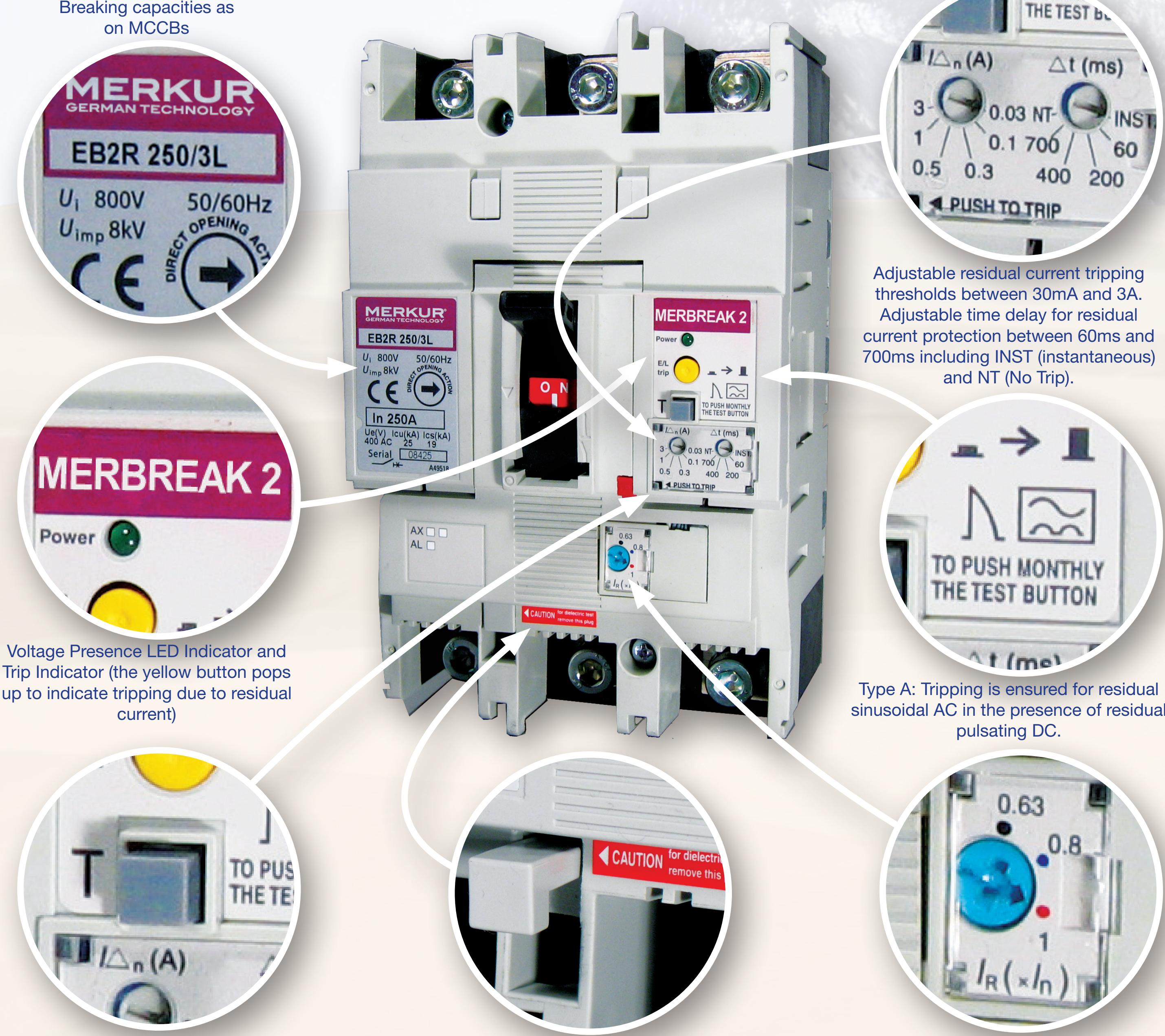
MERTRONIC - Motor Contactors and MERBREAK - MCCBs

MERTRONIC power contactors are used as separation device actuated on anti-islanding protection signal between photovoltaic inverter and AC utility grid. For the same purpose MERBREAK moulded case circuit breakers series EB2 assembled with motor operators enabling remote controlled operations can be used. EB2R moulded case circuit breakers with integrated residual current protection provides combined protection against overloads, short-circuits and residual currents.

- CEM 9 up to CEM300 (AC3 9 up to 300A)
- MERBREAK EB2 (from 20 up to 630A)
- MERBREAK EB2R (from 20 up to 250A)



Low Voltage Moulded Case Circuit Breakers with Residual Current Protection EB2R



Breaking capacities as on MCCBs

Adjustable residual current tripping thresholds between 30mA and 3A. Adjustable time delay for residual current protection between 60ms and 700ms including INST (instantaneous) and NT (No Trip).

Voltage Presence LED Indicator and Trip Indicator (the yellow button pops up to indicate tripping due to residual current)

Type A: Tripping is ensured for residual sinusoidal AC in the presence of residual pulsating DC.

Test Button (to test the residual current detection and tripping system)

Dielectric test device plug (to allow dielectric testing with the EB2R closed – ON)

Adjustable overload protection Ir can be set between 63% and 100% of I_n

MERTRONIC - Surge Arresters

MERTRONIC surge arresters protect photovoltaic system AC components against direct and indirect lightning discharges and utility grid operating overvoltages.

- MERTRONIC class T1+T2: MERTRONIC B, B-F and MERTRONIC WENT
- MERTRONIC class T2: MERTRONIC C

NV/NH - Low Voltage Knife Blade Fuses and Disconnectors

MERKUR offers 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.

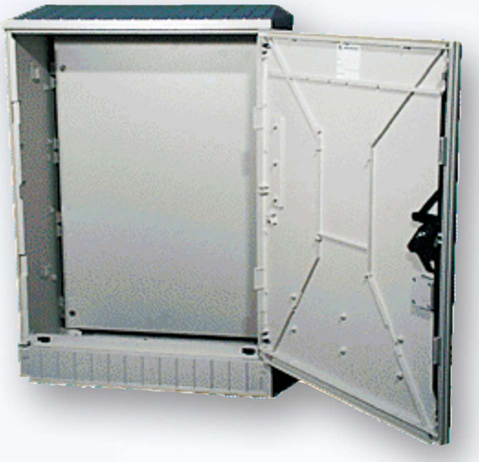
Fuse links with gG characteristic with rated voltages 400V a.c., 500V a.c., 690V a.c. and 1000V a.c are available in versions with and without striker pin, with rated current from 2 A to 1600 A, depending on the selected product. We also offer:

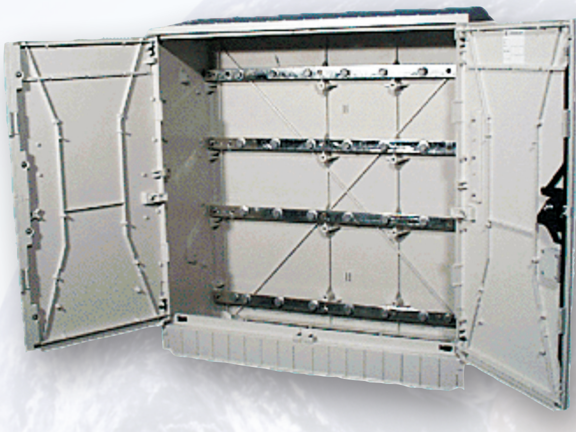
- NV fuse-rails sizes 00, 1, 2, 3 with accessories
- NV disconnectors with fuses siyes 00, 1, 2, 3, 4a.

MERKUR can also design and produce special non-standard fuse-links on customers' request.

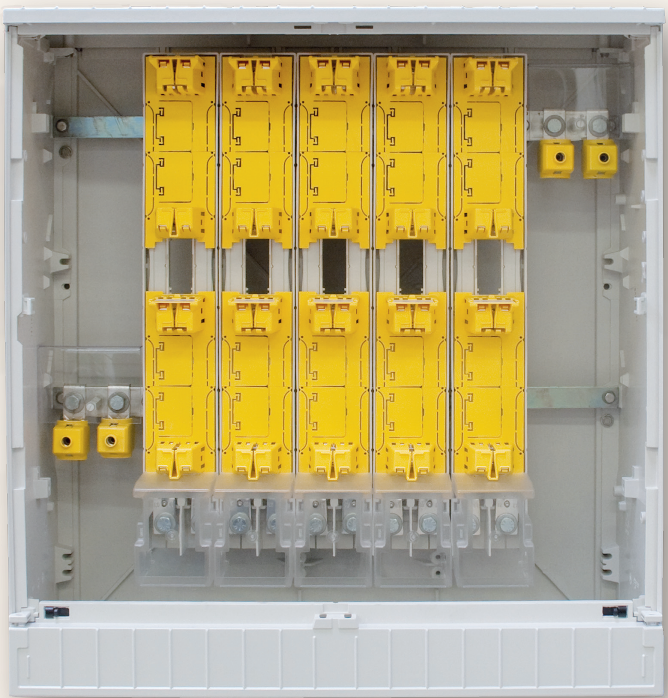
KVS - Free-Standing Cable Distribution Cabinets

Application:
- DC collector (connecting the DC cabling for PV inverters)
- AC collector (connecting the AC cabling for PV inverters)
- AC cabinets
- DC cabinets

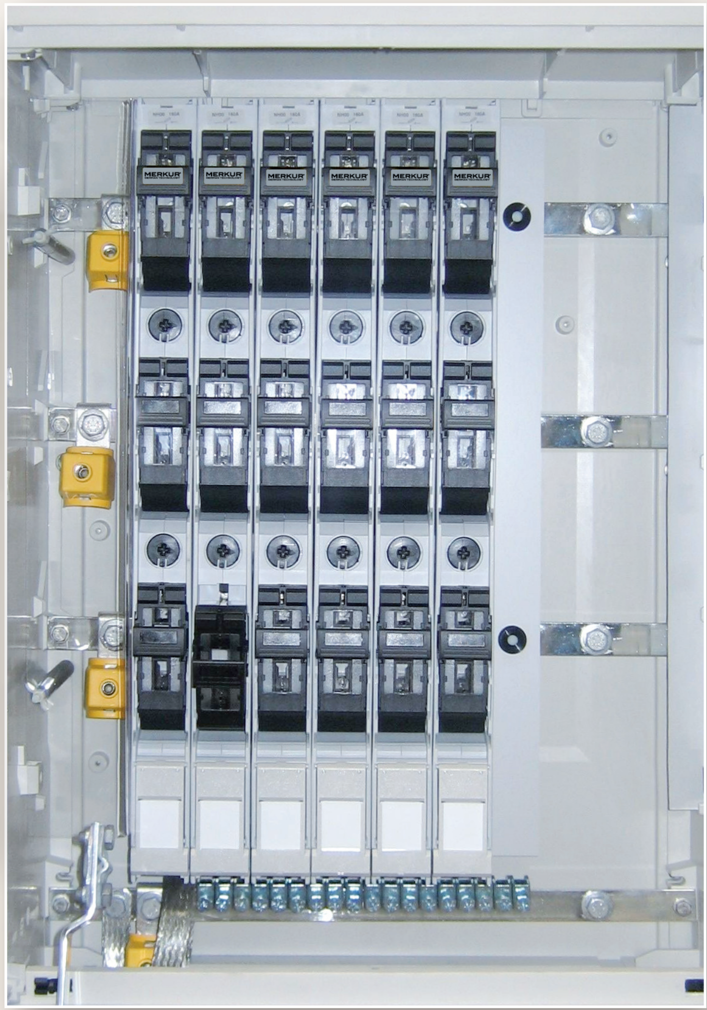




DC Collector

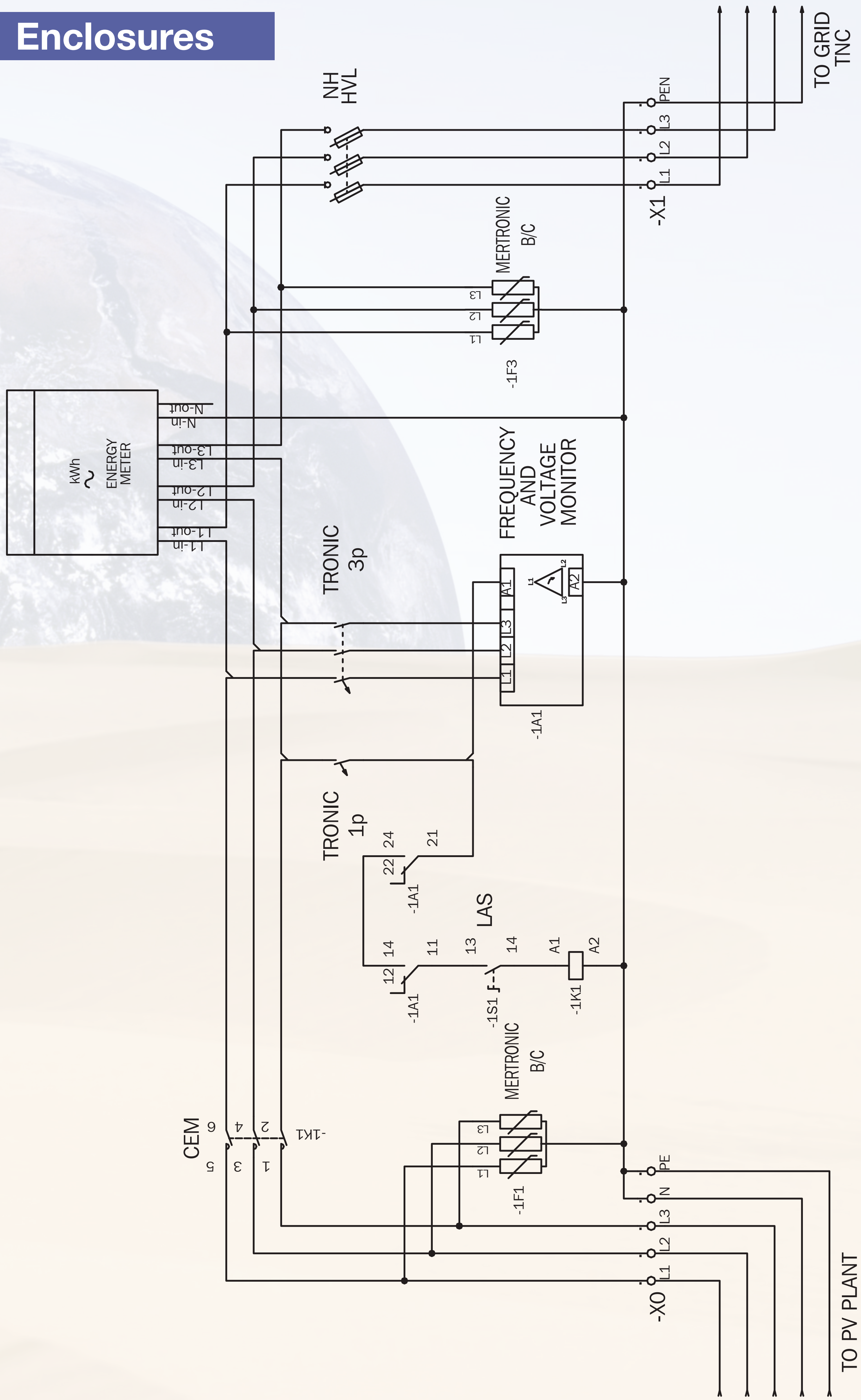


AC Collector

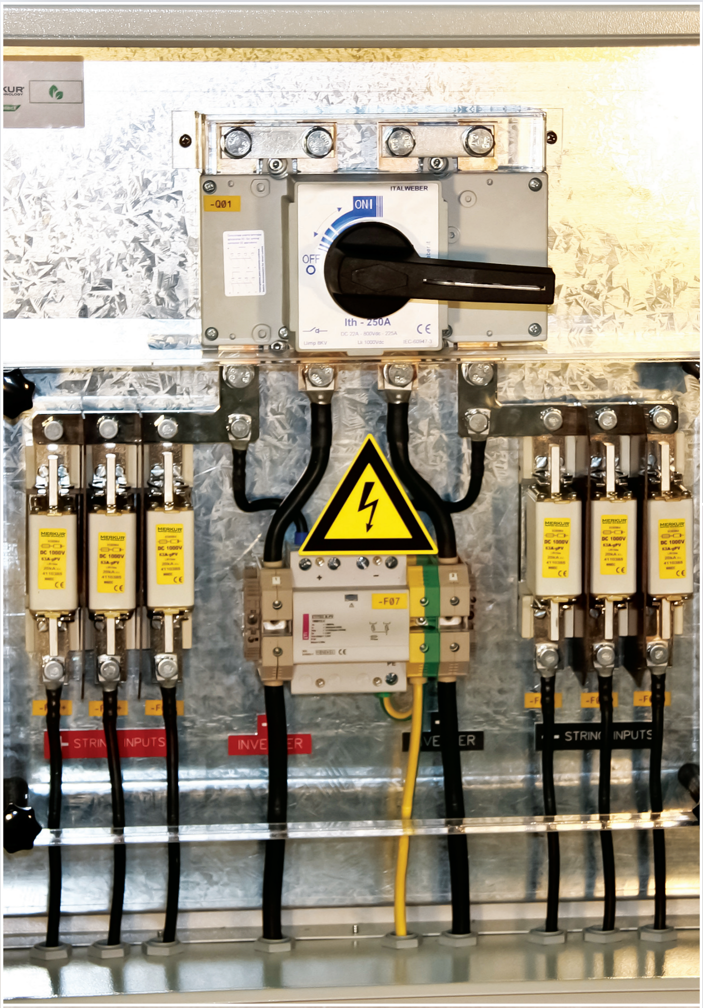


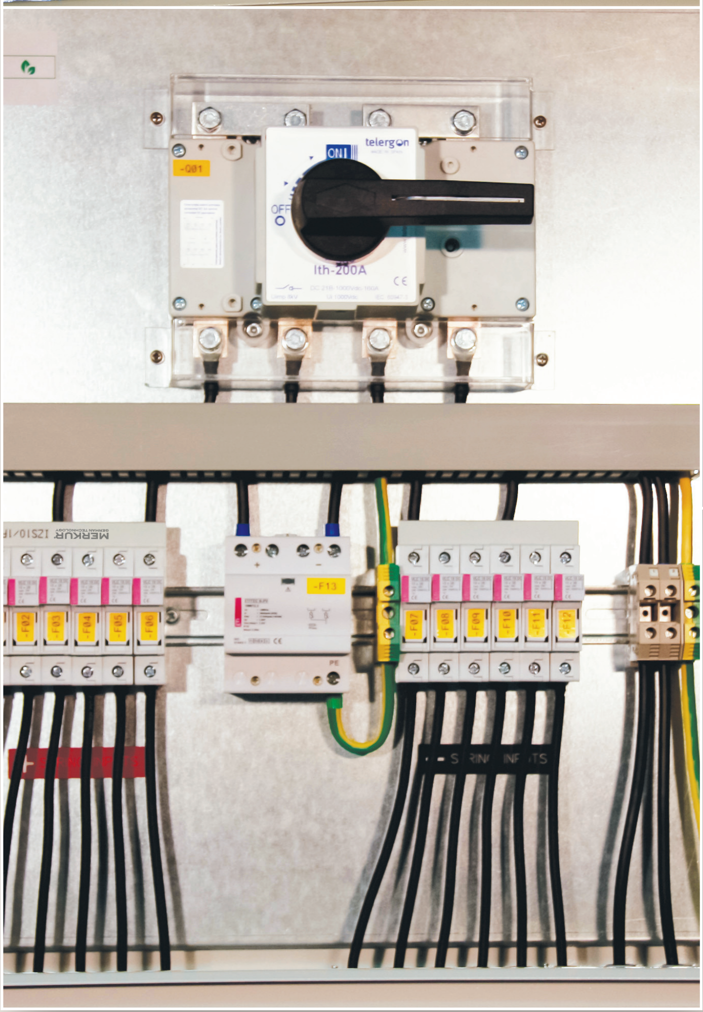
MERKUR GERMAN TECHNOLOGY

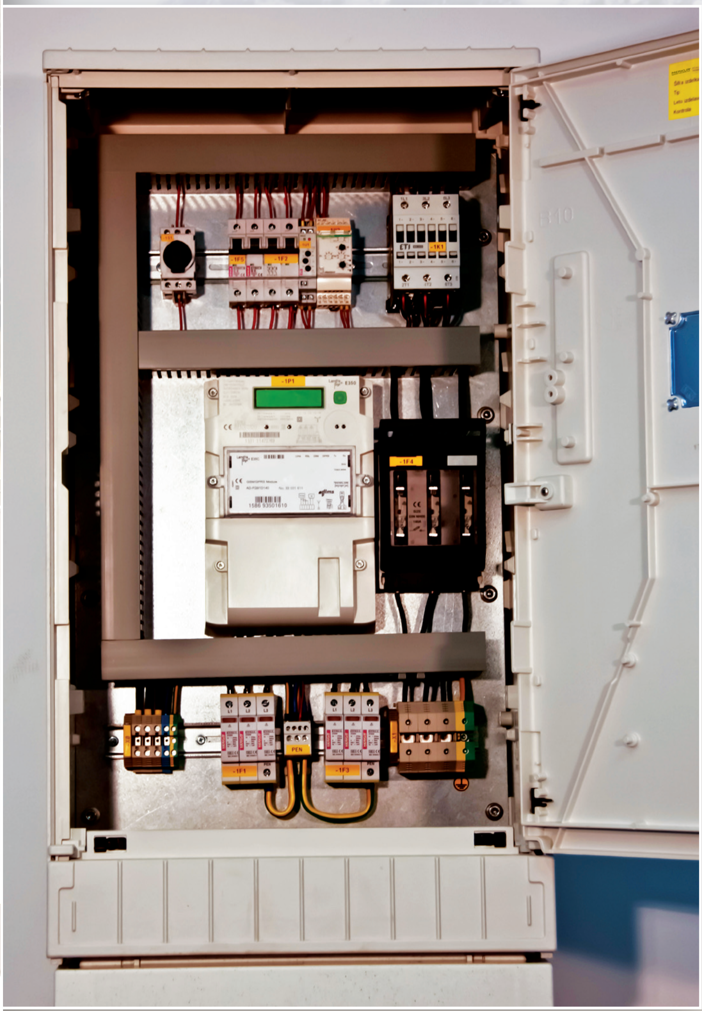
Enclosures



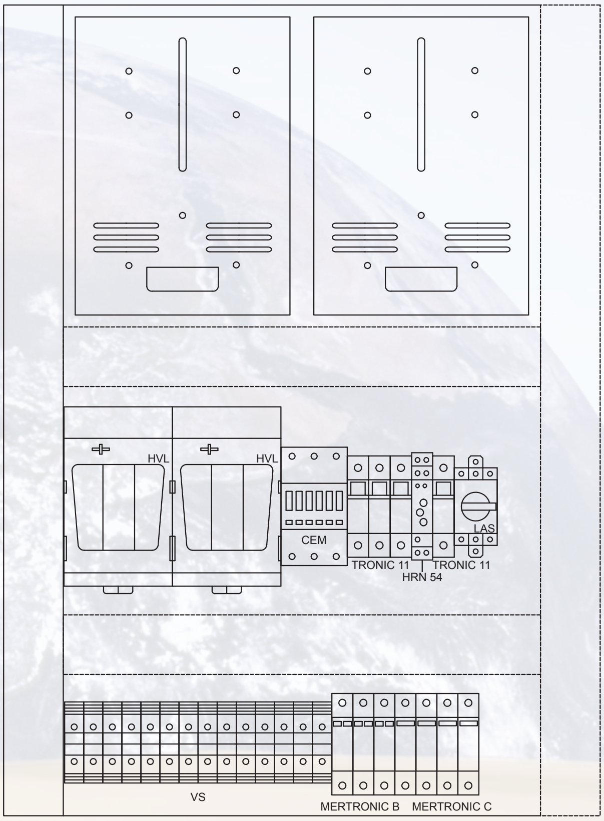
Design on Customer's Request

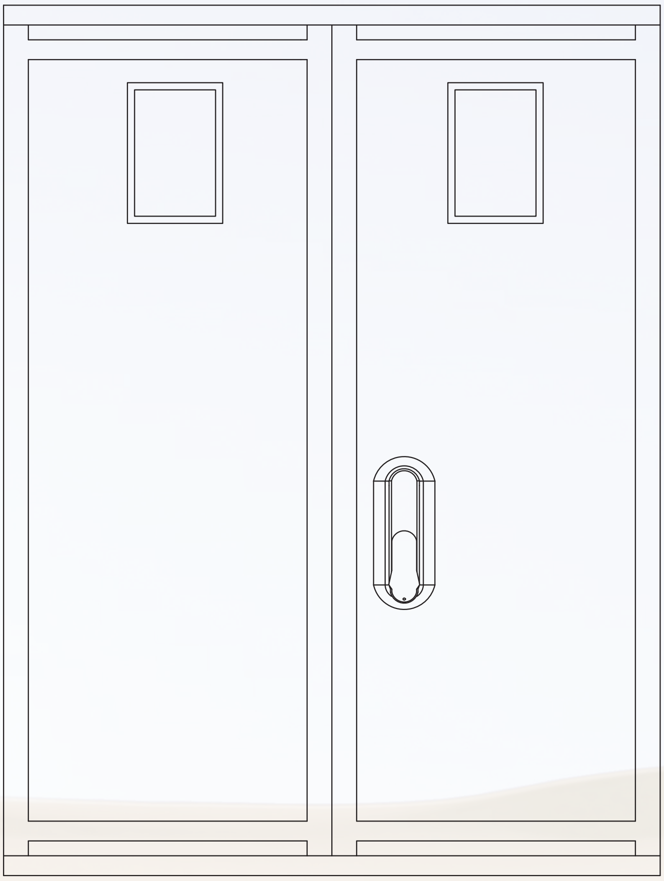




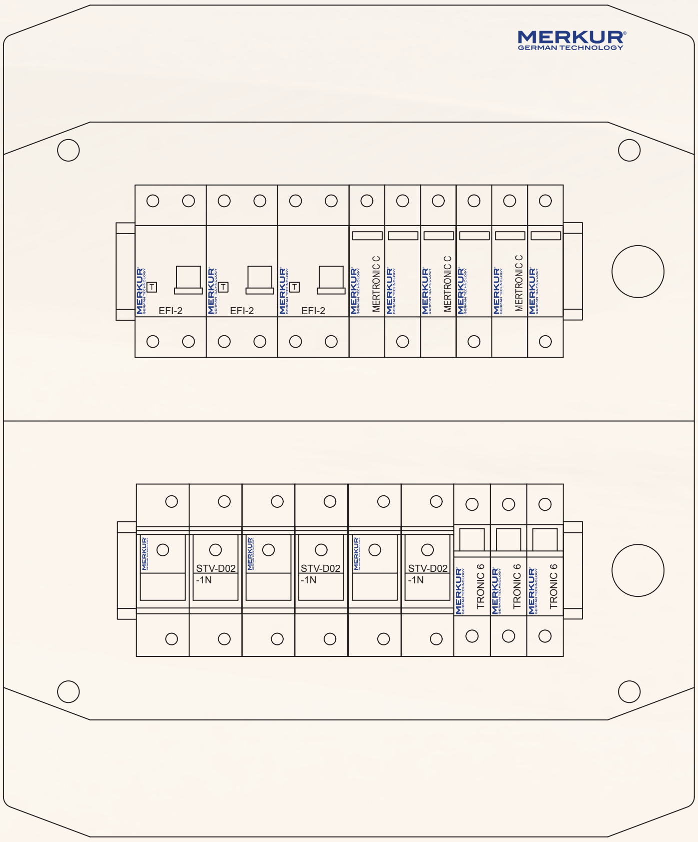


Meter Distribution Cabinet

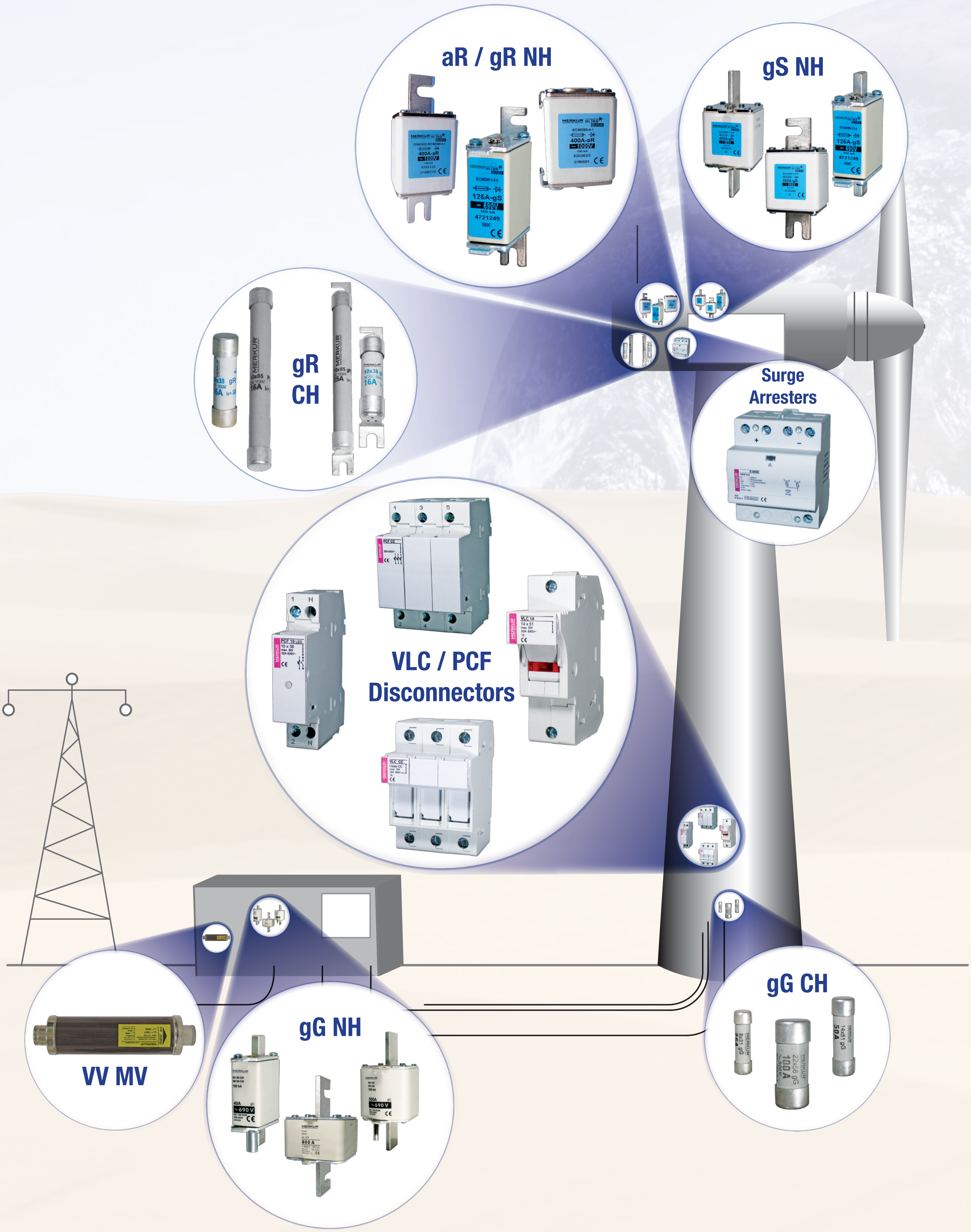




AC Collector



Overcurrent and Overvoltage Protection for Wind Power Generation



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