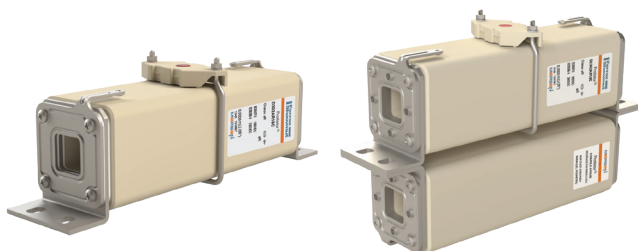


Protistor® size 302 and 2x302 aR

1800VDC for Railway application

SEMICONDUCTOR PROTECTION FUSES

SQUARE BODY HIGH-SPEED FUSE-LINKS DC PROTECTION



Mersen DC fuses offer high-performance solutions designed specifically for railway power circuit protection, ensuring service continuity in transportation networks.

Based on our expertise, Mersen DC high-speed fuses have been engineered to provide improved performance, required by modern DC embedded equipment.

Compared to conventional fuse types:

- they are qualified under IEC 60077-5 for use in harsh environments (shock, vibrations...) and are dedicated to rolling stock applications,
- they provide lower I^2t , minimizing damage to protected components during short circuits,
- they have lower watt losses and longer lifetime.

Our Application Engineering team remains at your disposal for any additional information or support tailored to your specific needs.

TECHNICAL DATA OVERVIEW

Voltage Range DC (IEC 60077-5)	1800VDC
Ampere Range (A)	160A...570A
Speed/Characteristic	aR
Product Size	302 and 2x302
Maximum Rated Breaking Capacity	90kA @1800V, L/R=10ms
Package	1

FEATURES & BENEFITS

- Designed for demanding Railway applications
- Low minimum breaking current
- Extremely fast acting
- Very low I^2t
- Superior cycling ability

APPLICATIONS

- Protection of auxiliary inverters
- Protection of tractions inverters
- Protection of embedded EES systems
- Protection of embedded DC power line
- AC lines: please consult us

STANDARDS

- IEC 60077-5 compliant
- IEC 60269-4 compliant

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PRODUCT RANGE



Size 302 aR 1800VDC

D302AR18C160QFB

Catalog number	Item number	Rated voltage DC (IEC 60077-5)	Rated current I_n (IEC 60077-5)	Minimum Breaking Capacity (MBC) @ Rated Voltage, L/R=30ms	Pre-arcing I^2t	Max Clearing I^2t @ Rated Voltage, L/R=30ms	Watt Loss @ $0,8I_n$	Watt Loss @ I_n	Weight
D302AR18C160QFB	D1070446	1800 V	160 A	690 A	3,2 kA ² s	16,5 kA ² s	69 W	135 W	1,83 kg
D302AR18C300QFB	E1070447	1800 V	300 A	1280 A	26,5 kA ² s	141,4 kA ² s	81 W	158 W	1,83 kg
D302AR18C320QFB	F1070448	1800 V	320 A	1285 A	39,7 kA ² s	237,3 kA ² s	73 W	144 W	1,83 kg



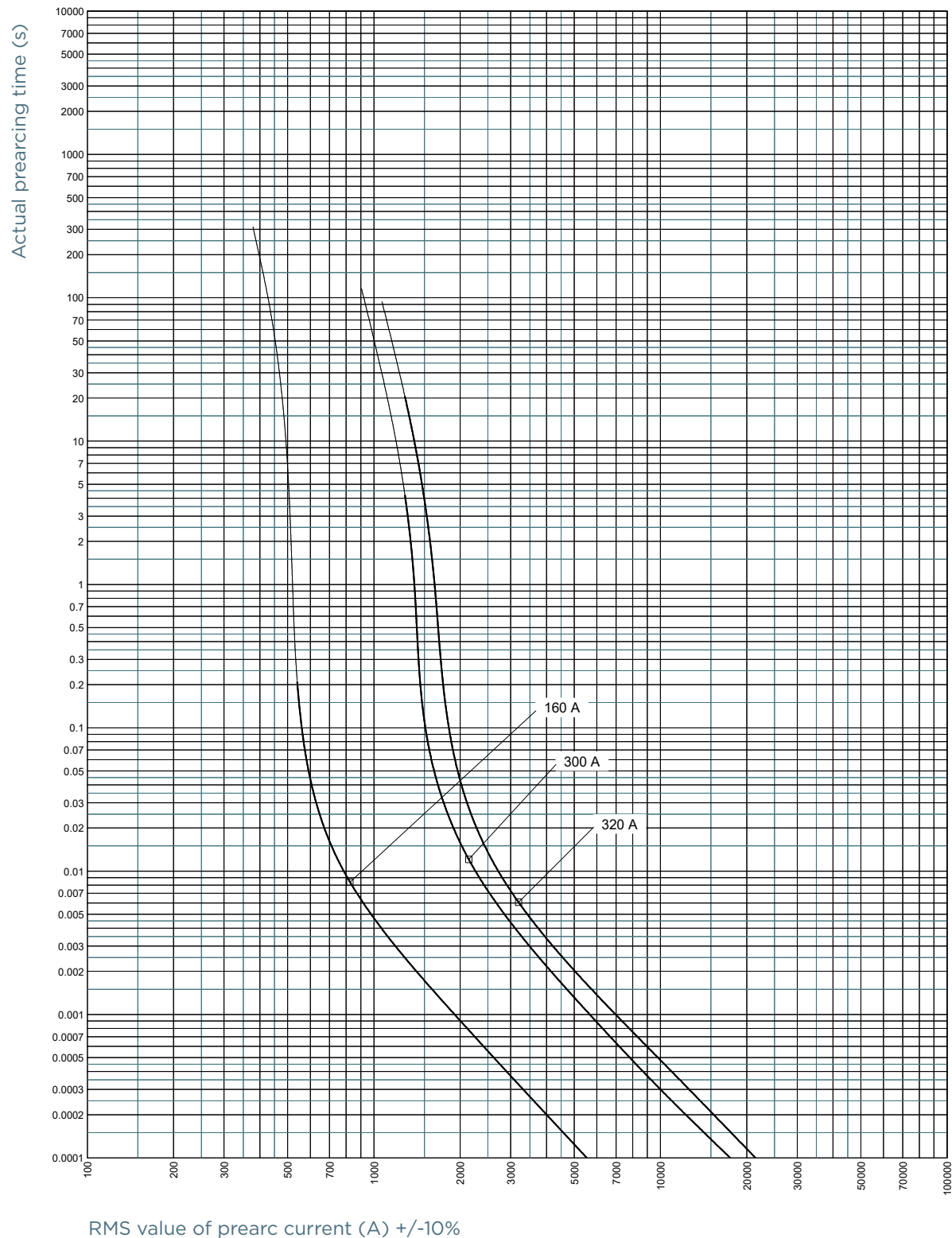
Size 2x302 aR 1800VDC

D2302AR18C360QFB

Catalog number	Item number	Rated voltage DC (IEC 60077-5)	Rated current I_n (IEC 60077-5)	Minimum Breaking Capacity (MBC) @ Rated Voltage, L/R=30ms	Pre-arcing I^2t	Max Clearing I^2t @ Rated Voltage, L/R=30ms	Watt Loss @ $0,8I_n$	Watt Loss @ I_n	Weight
D2302AR18C360QFB	G1070449	1800 V	360 A	1530 A	26,5 kA ² s	143 kA ² s	111 W	218 W	4,4 kg
D2302AR18C540QFB	H1070450	1800 V	540 A	2590 A	106,2 kA ² s	451,7 kA ² s	138 W	270 W	4,4 kg
D2302AR18C570QFB	J1070451	1800 V	570 A	2250 A	158,6 kA ² s	756,4 kA ² s	111 W	217 W	4,4 kg

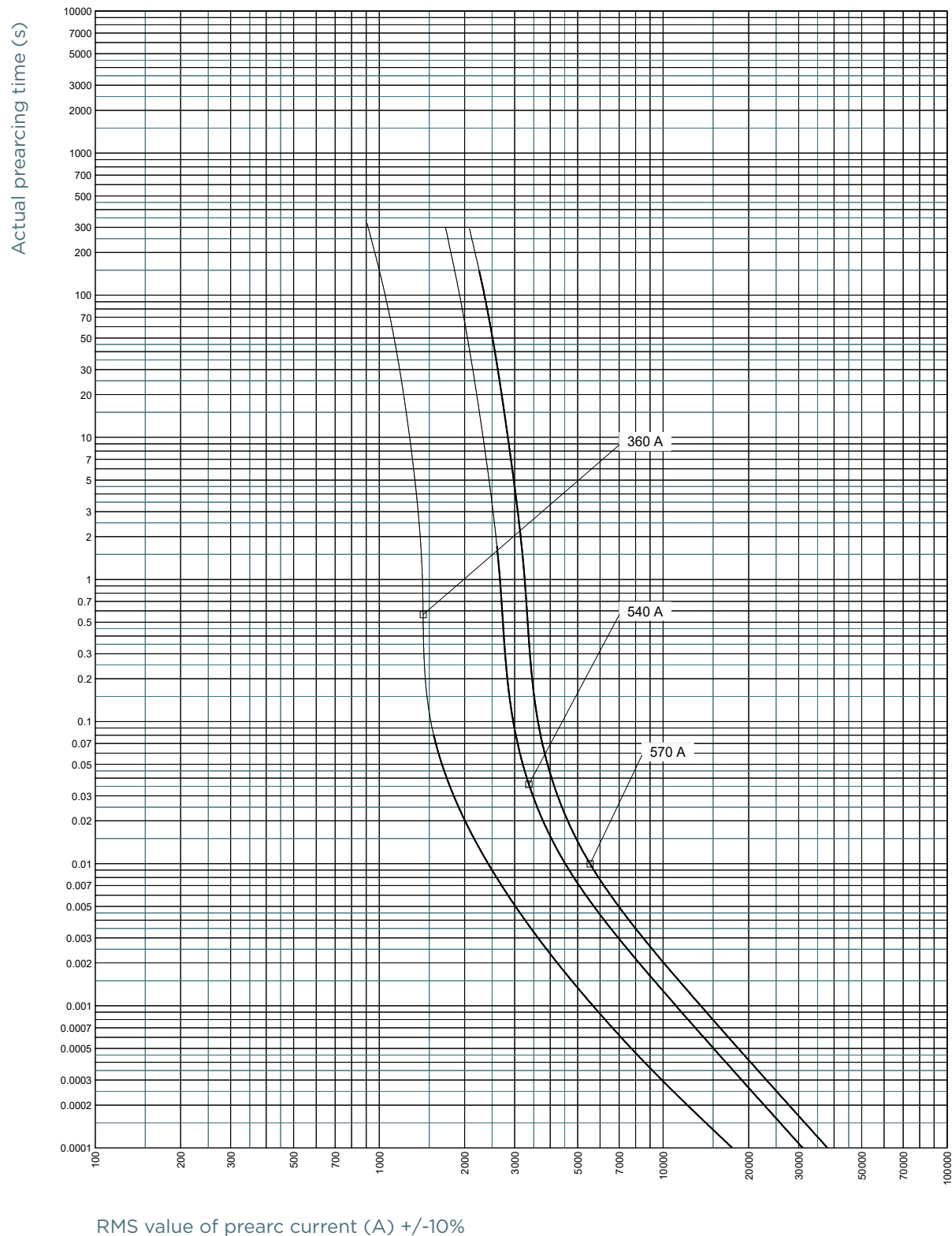
TIME CURRENT CHARACTERISTIC CURVES

Size 302 aR 1800VDC 160A-320A



TIME CURRENT CHARACTERISTIC CURVES

Size 2x302 aR 1800VDC 360A-570A

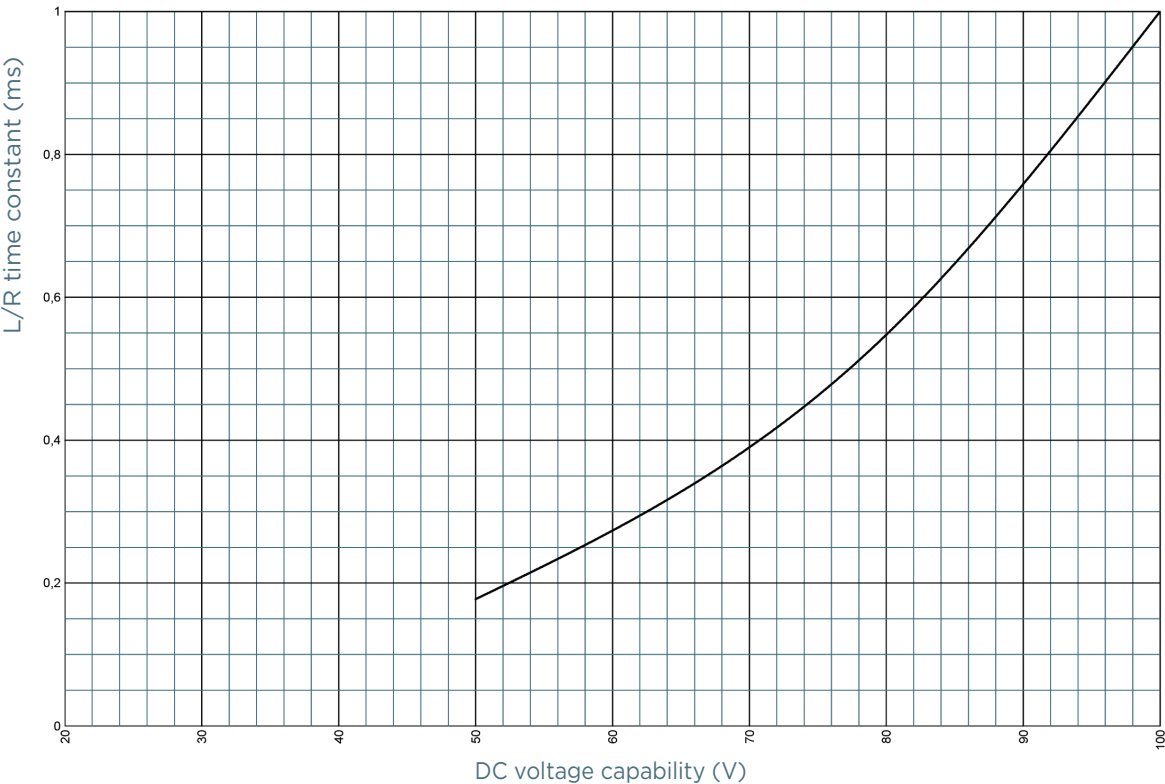


Protistor® size 302 and 2x302 aR

1800VDC for Railway application

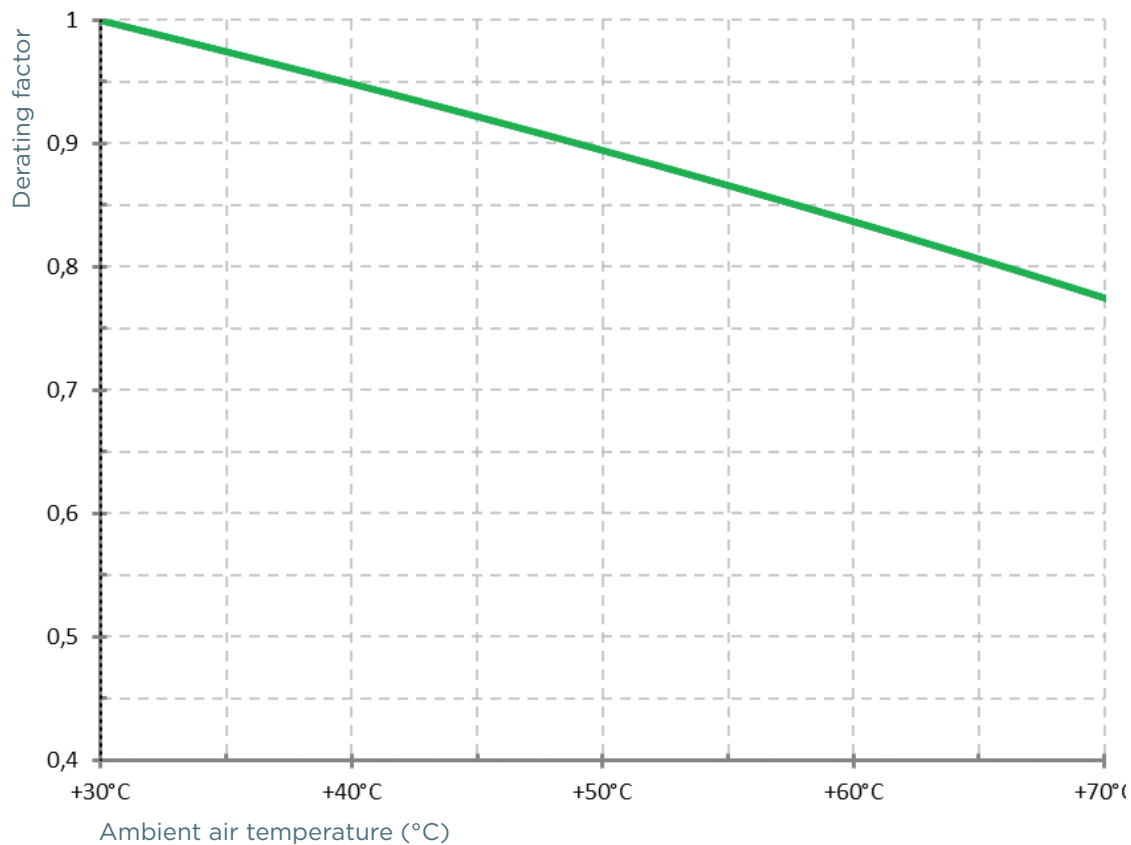
POWER DISSIPATION

Size 302 and 2x302 aR 1800VDC



TEMPERATURE DERATING

Derating factor of rated current according to ambient air temperature (°C)



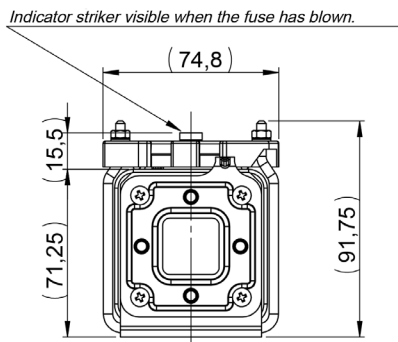
Protistor® size 302 and 2x302 aR

1800VDC for Railway application

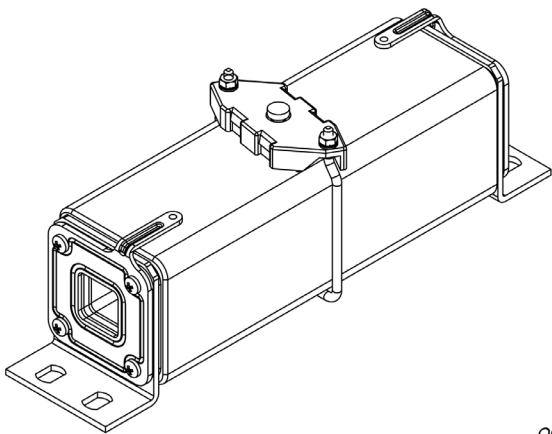
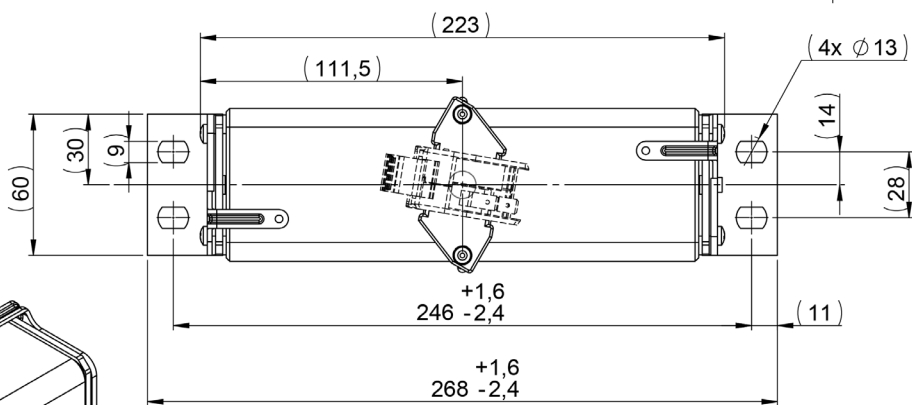
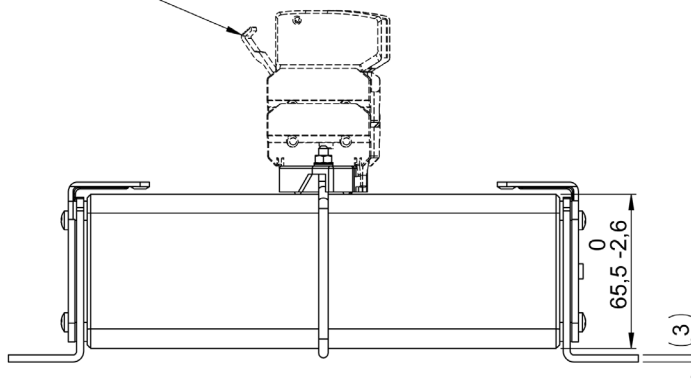
DIMENSIONS

Size 302 aR 1800VDC

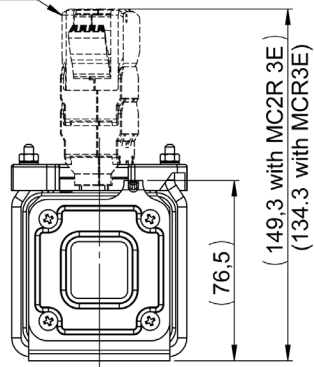
View without auxiliary contact device.



Indicator lever visible when the fuse has blown.



Optionnal auxiliary contact device.

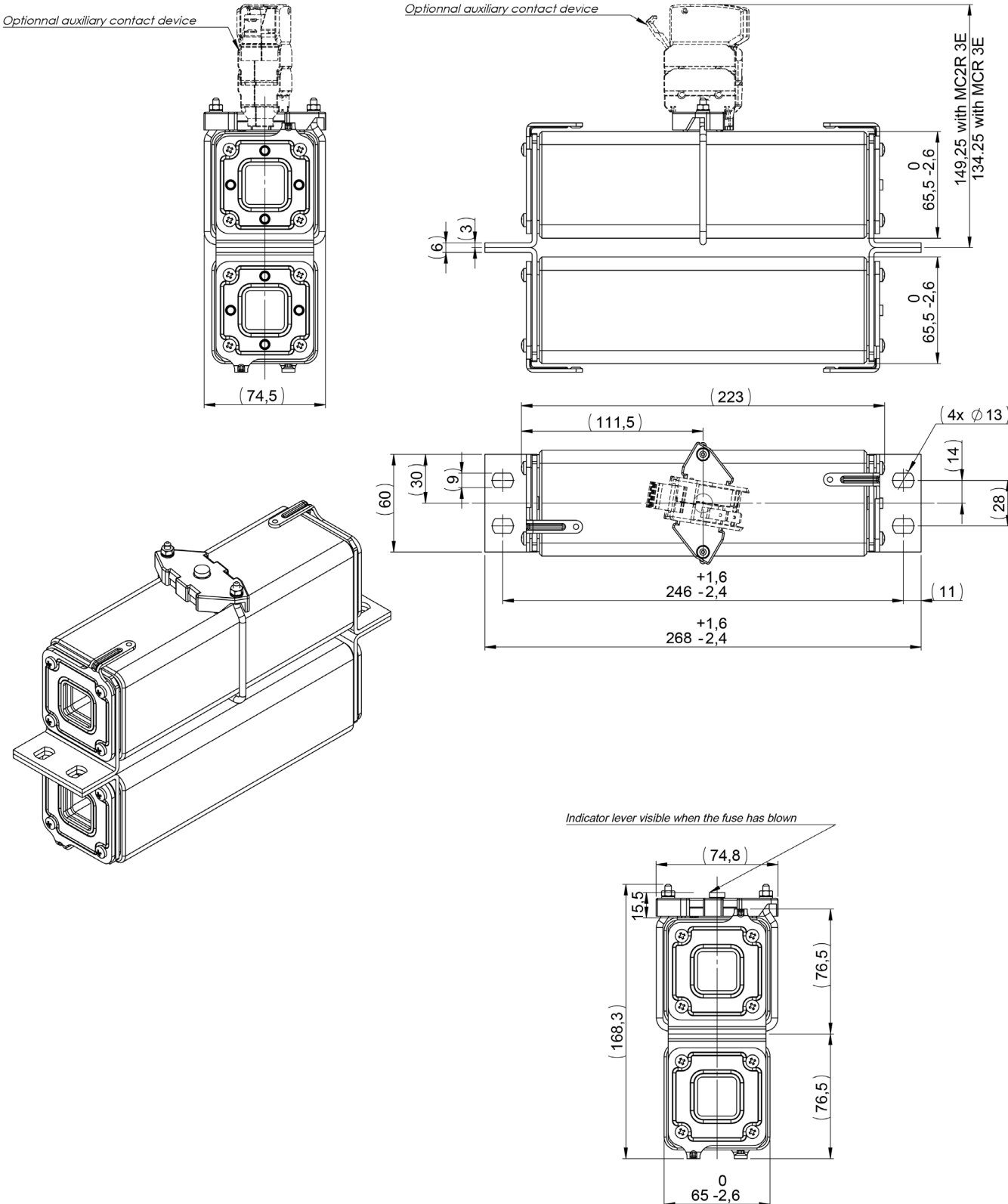


Dimensions in mm

1800VDC for Railway application

DIMENSIONS

Size 2x302 aR 1800VDC



Dimensions in mm