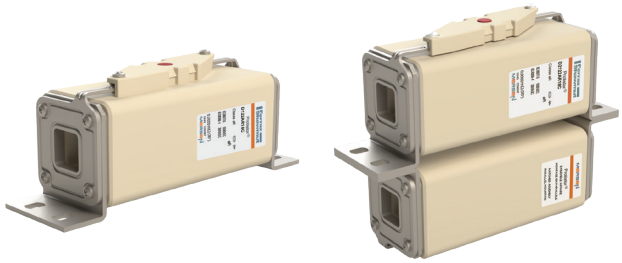
Protistor® size 122 and 2x122 aR

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...),
- they 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 DC (IEC 60077-5)	1800 VDC
Ampere Range (A)	230A - 650A
Speed/Characteristic	aR
Product Size	122 and 2x122
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

PRODUCT RANGE

D122AR18C230QF

Size 122 aR 1800VDC

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
D122AR18C230QFB	D1068330	1800 V	230 A	990 A	9,03 kA²s	61 kA²s	60 W	115W	1,81 kg
D122AR18C315QFB	E1068331	1800 V	315 A	1300 A	21 kA²s	126,3 kA²s	82 W	156 W	1,81 kg
D122AR18C360QFB	F1068332	1800 V	360 A	1500 A	39,7 kA²s	208,7 kA²s	66 W	125 W	1,81 kg

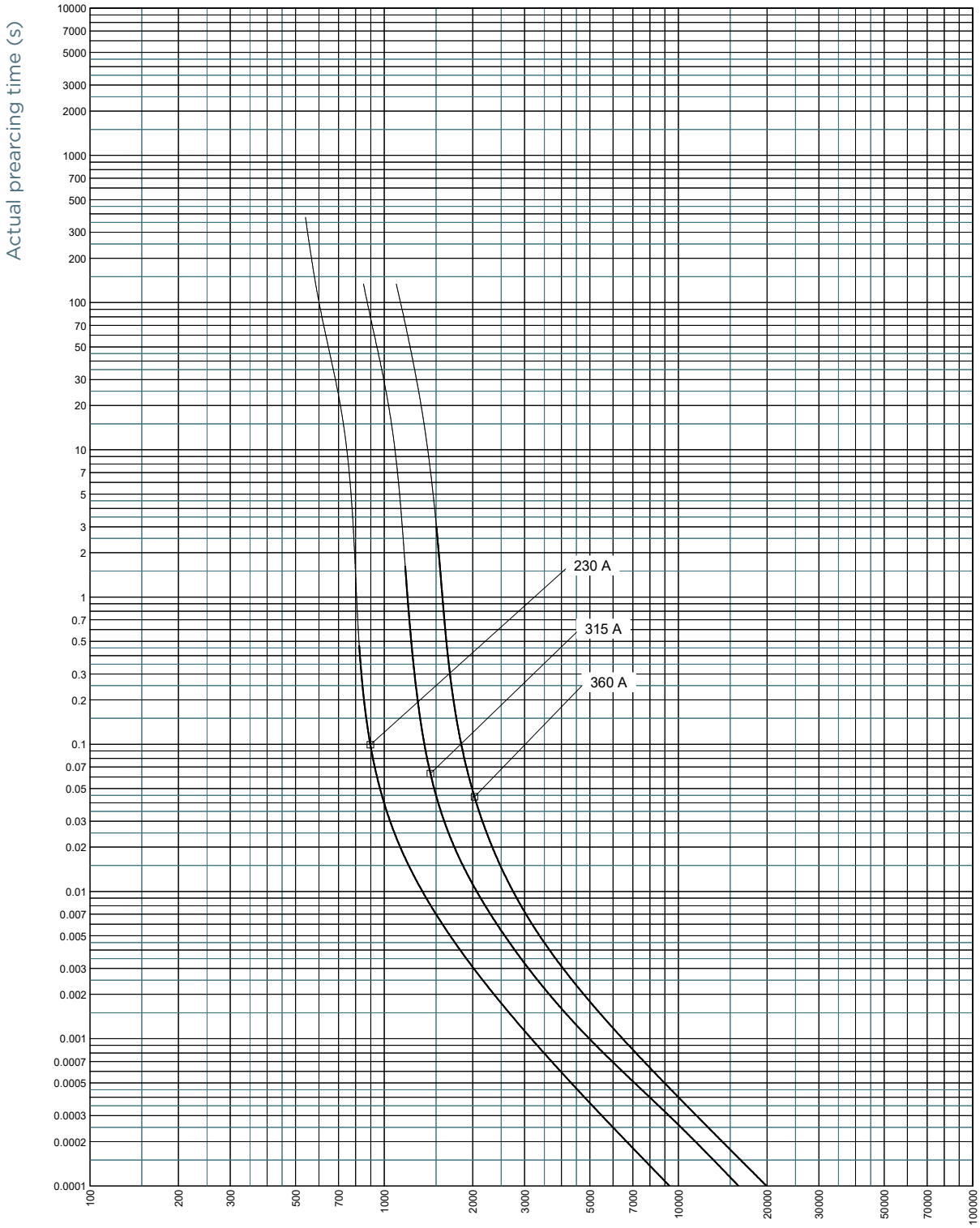
D2122AR18C440QFB

Size 2 x 122 aR 1800VDC

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
D2122AR18C440QFB	G1068333	1800	440 A	1840 A	36,1 kA²s	194,5 kA²s	106 W	196 W	3,35 kg
D2122AR18C530QFB	H1068334	1800	530 A	2250 A	83,9 kA²s	419,7 kA²s	100 W	185 W	3,35 kg
D2122AR18C650QFB	J1068335	1800	650 A	2850 A	158,6 kA²s	921,3 kA²s	110 W	205 W	3,35 kg

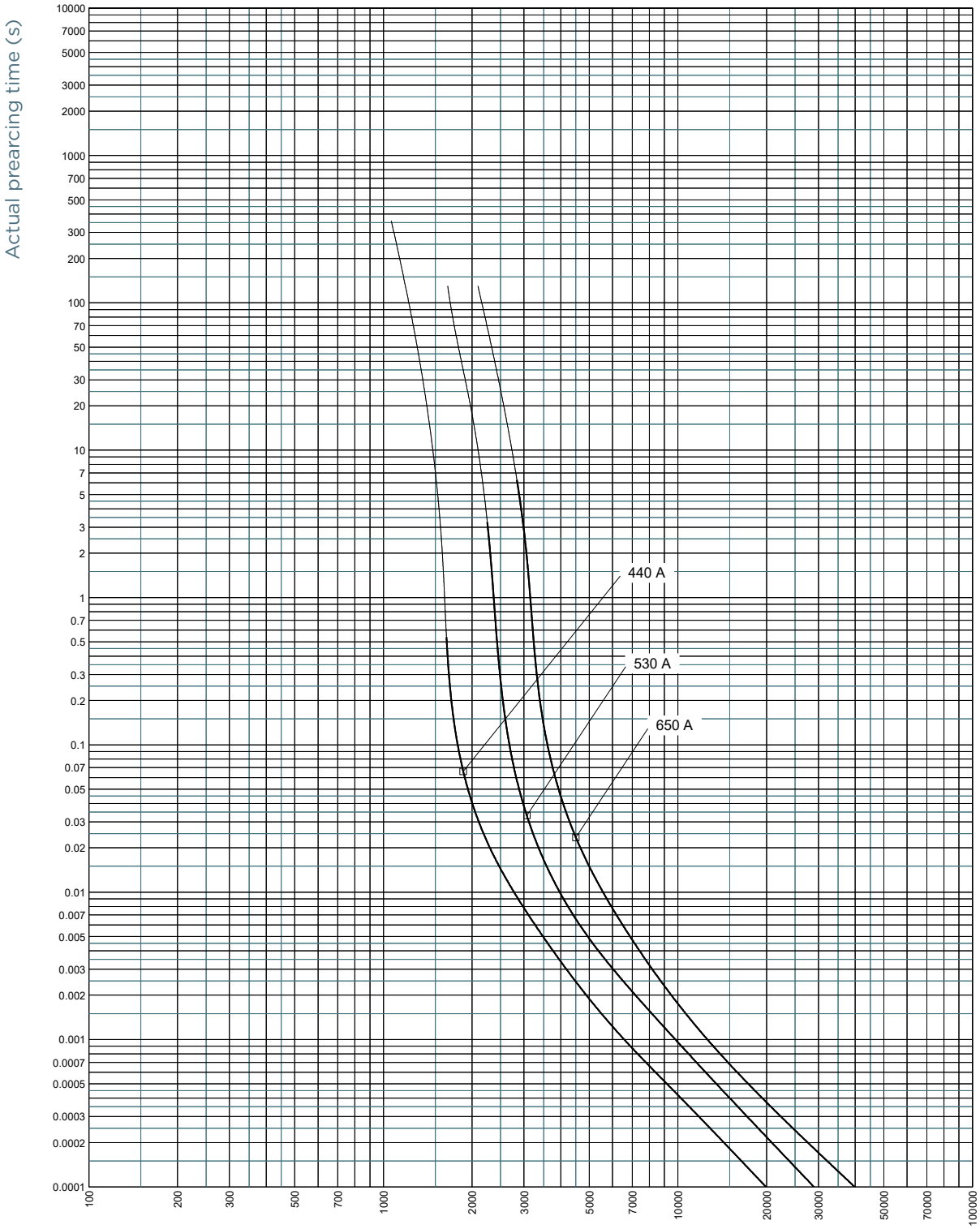
TIME CURRENT CHARACTERISTIC CURVES

Size 122 aR 1800VDC 230A-360A



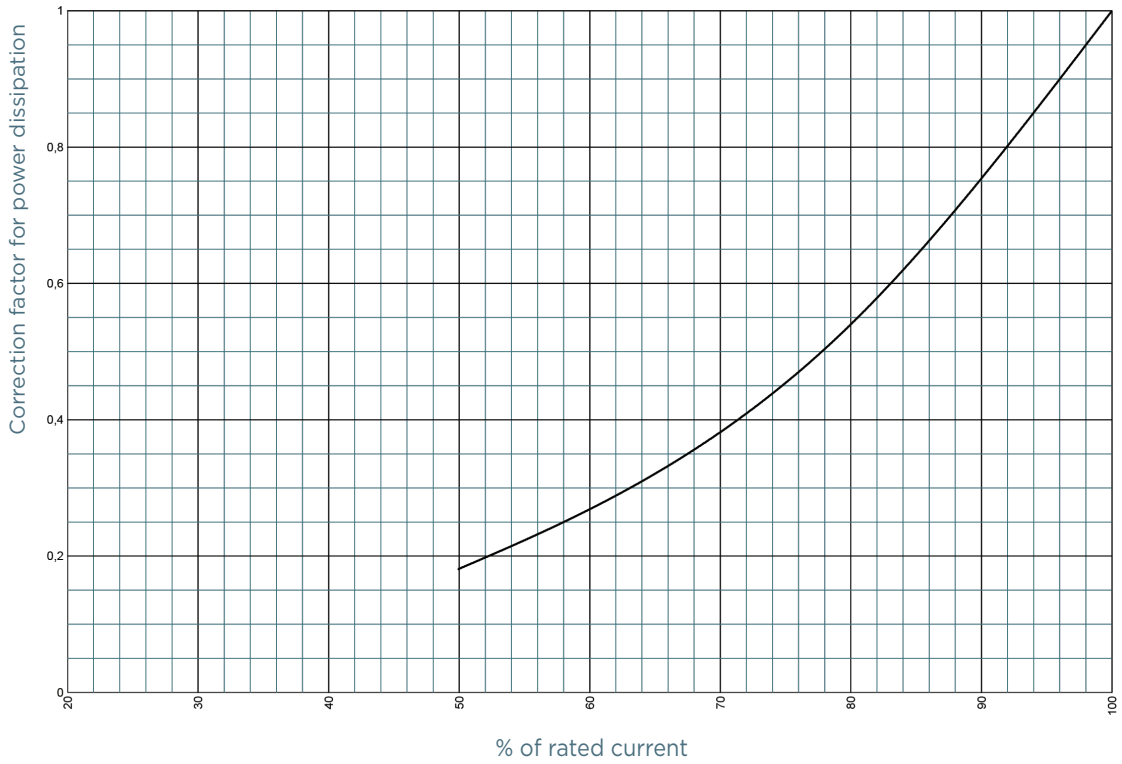
TIME CURRENT CHARACTERISTIC CURVES

Size 2x122 aR 1800VDC 440A-650A



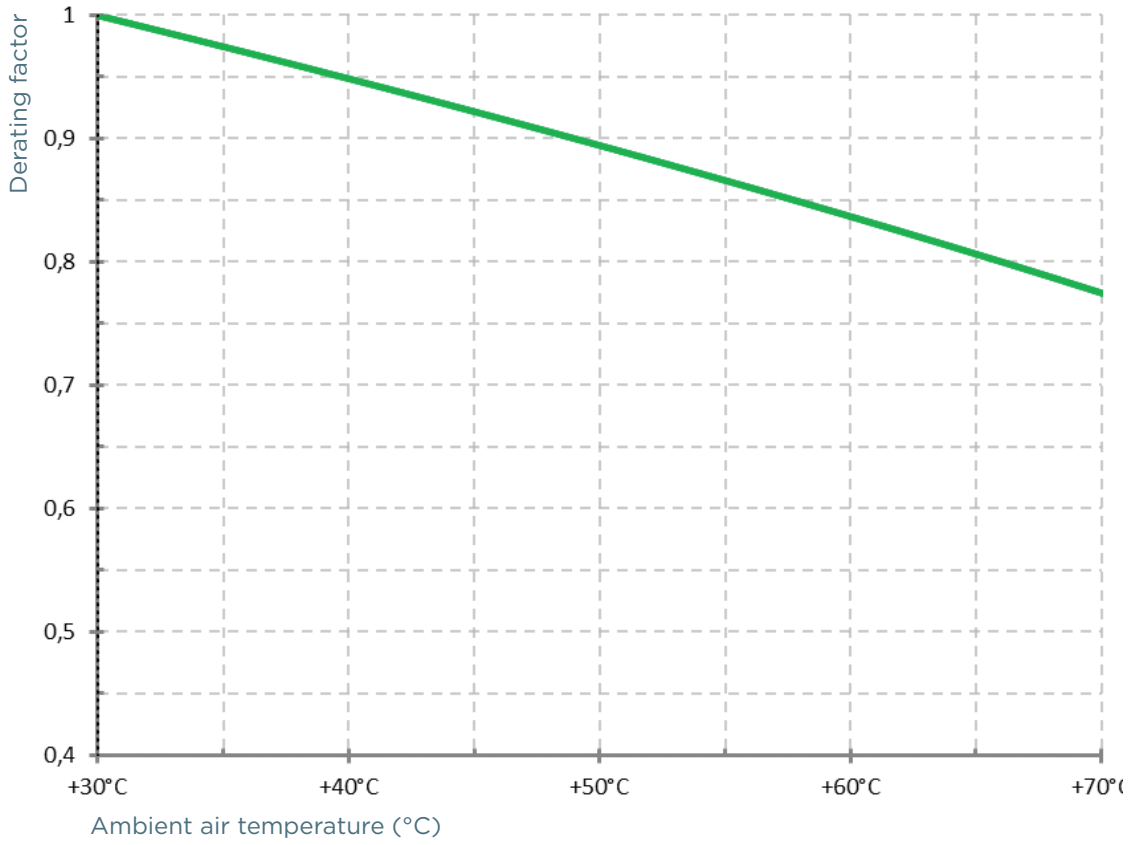
POWER DISSIPATION

Size 122 and 2x122 aR 1800VDC



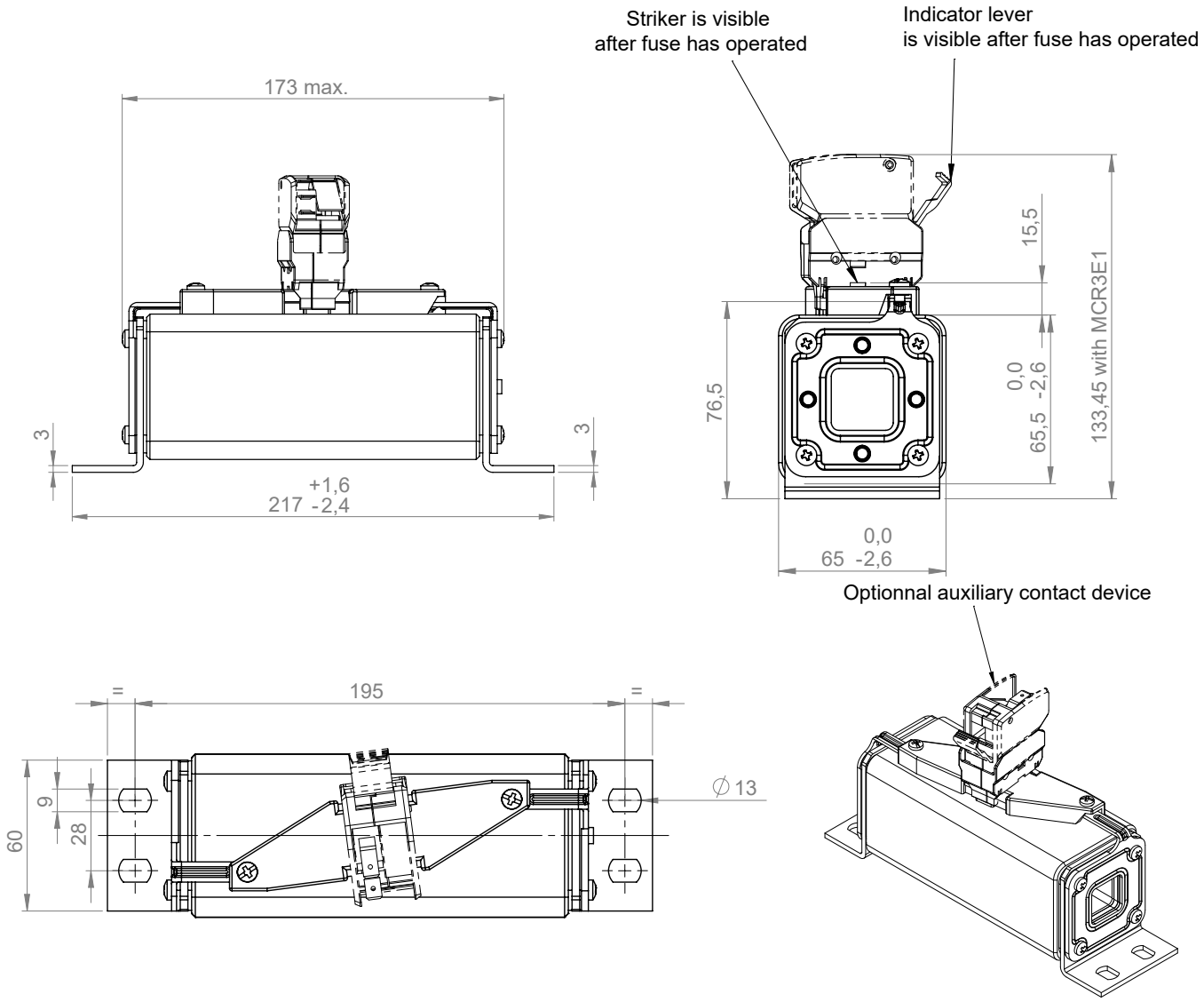
TEMPERATURE DERATING

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



DIMENSIONS

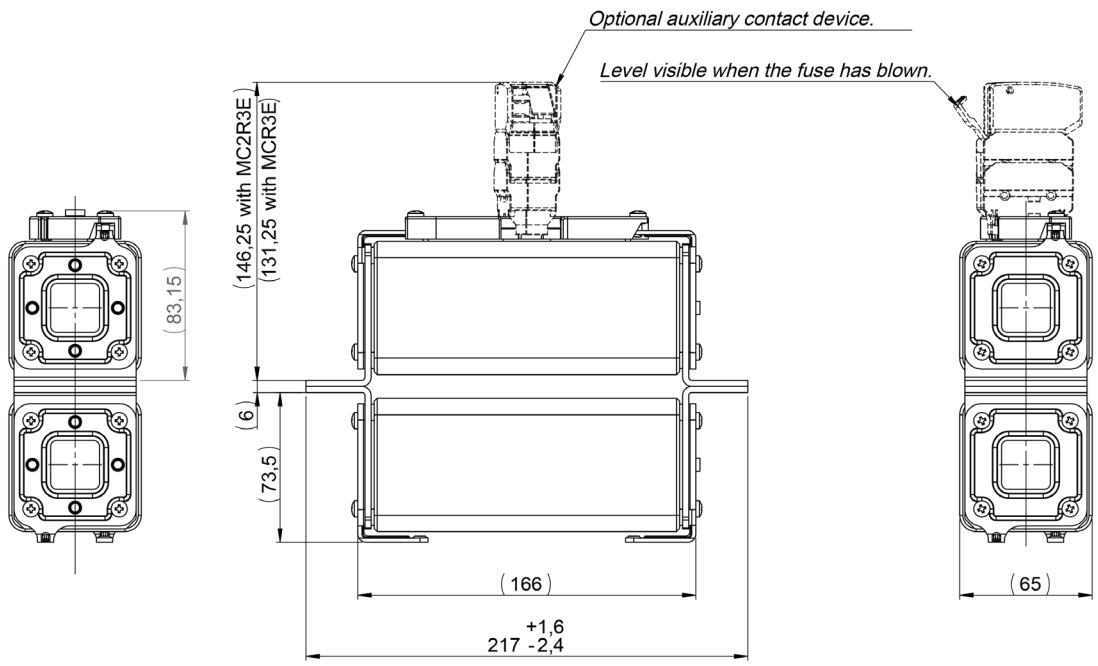
Size 122 aR 1800VDC

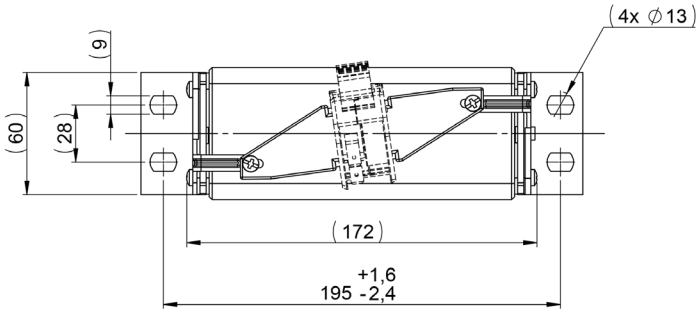


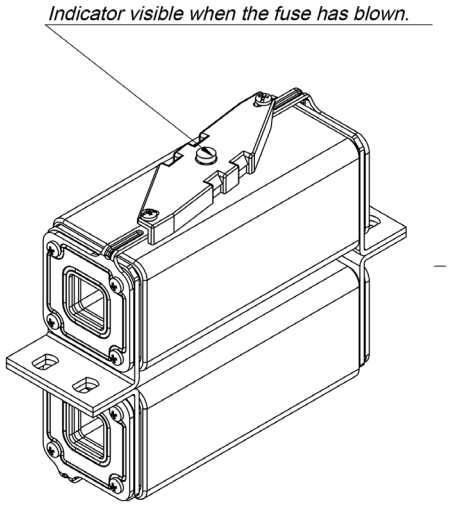
Dimensions in mm

DIMENSIONS

Size 2 x 122 aR 1800VDC







Dimensions in mm