

# EVpack-fuse MEV55

550 VDC Max., L/R ≤ 1ms, 5 - 500A

## BATTERY FUSES

## BATTERY PACK FUSES



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UK Stockists for MERSEN DC fuses;

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## FEATURES & BENEFITS

- Design for DC applications
- Low watt losses
- High cycling performance
- Full coverage of battery module voltage and current
- Ultra compact size
- Current Ratings (In): 10 to 500A
- Interrupting Rating (IR): 20kA @ 550VDC, L/R < 1ms

## APPLICATIONS

- EV/HEV
- Electrical Energy Storage
- Battery pack protection
- Battery Disconnect Unit (BDU)
- Battery Junction Box for auxiliaries
- Battery charger
- Supercapacitor pack protection
- Backup protection for DC relay / disconnect / switch
- Maintenance Safety Disconnect (MSD)

## STANDARDS

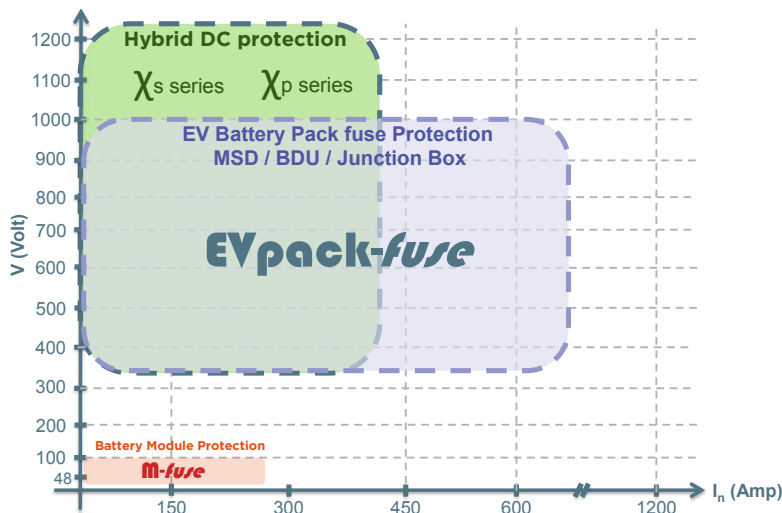
- Power Cycling & Vibration: JASO D622

EVpack-fuse line-up belongs to the new DC Over-Current protection (O.C.P.) range developed by MERSEN to address specific needs in EV/HEV and Battery Electrical Storage System.

EVpack-fuse provides the ultimate protection of the battery pack offering reliable clearing of DC fault currents.

It has been specifically engineered and tested to provide DC applications best-in-class protection performance: Up to 550VDC, Current rating (In)= 5 to 500A, Interrupting Rating (IR) = 20kA, L/R ≤ 1ms, Minimum Breaking Capacity (MBC) < 3kA for a perfect matching with DC contactor.

## Typical usage of EVpack-fuse in Mersen DC protection family



EV pack-fuse

## PRODUCT RANGE



MEV55C30

### MEV55C Ferrule Fuse

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55C5	550 V	5 A	0.25 W	10 A	10 s	7.5 g
MEV55C6	550 V	6 A	0.29 W	12 A	10 s	7.5 g
MEV55C7	550 V	7 A	0.31 W	14 A	10 s	7.5 g
MEV55C8	550 V	8 A	0.4 W	16 A	10 s	7.5 g
MEV55C10	550 V	10 A	0.45 W	20 A	10 s	7.5 g
MEV55C12	550 V	12 A	0.47 W	24 A	10 s	7.5 g
MEV55C15	550 V	15 A	0.49 W	30 A	100 s	7.5 g
MEV55C20	550 V	20 A	0.56 W	40 A	100 s	7.5 g
MEV55C25	550 V	25 A	0.63 W	50 A	100 s	7.5 g
MEV55C30	550 V	30 A	0.68 W	60 A	100 s	7.5 g
MEV55C50	550 V	50 A	1 W	180 A	10 s	7.5 g



MEV55C15-S

### MEV55C -S Surface Mount Fuse

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55C5-S	550 V	5 A	0.25 W	10 A	10 s	9.9 g
MEV55C6-S	550 V	6 A	0.29 W	12 A	10 s	9.9 g
MEV55C7-S	550 V	7 A	0.31 W	14 A	10 s	9.9 g
MEV55C8-S	550 V	8 A	0.4 W	16 A	10 s	9.9 g
MEV55C10-S	550 V	10 A	0.45 W	20 A	10 s	9.9 g
MEV55C12-S	550 V	12 A	0.47 W	24 A	10 s	9.9 g
MEV55C15-S	550 V	15 A	0.49 W	30 A	100 s	9.9 g
MEV55C20-S	550 V	20 A	0.56 W	40 A	100 s	9.9 g
MEV55C25-S	550 V	25 A	0.63 W	50 A	100 s	9.9 g
MEV55C30-S	550 V	30 A	0.68 W	60 A	100 s	9.9 g
MEV55C50-S	550 V	50 A	1 W	180 A	10 s	9.9 g



MEV55C30-P

### MEV55C -P PC Board Mount

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55C5-P	550 V	5 A	0.25 W	10 A	10 s	9.9 g
MEV55C6-P	550 V	6 A	0.29 W	12 A	10 s	9.9 g
MEV55C7-P	550 V	7 A	0.31 W	14 A	10 s	9.9 g
MEV55C8-P	550 V	8 A	0.4 W	16 A	10 s	9.9 g
MEV55C10-P	550 V	10 A	0.45 W	20 A	10 s	9.9 g
MEV55C12-P	550 V	12 A	0.5 W	24 A	10 s	9.9 g
MEV55C15-P	550 V	15 A	0.45 W	30 A	100 s	9.9 g
MEV55C20-P	550 V	20 A	0.54 W	40 A	100 s	9.9 g
MEV55C25-P	550 V	25 A	0.59 W	50 A	100 s	9.9 g
MEV55C30-P	550 V	30 A	0.65 W	60 A	100 s	9.9 g
MEV55C50-P	550 V	50 A	1.1 W	180 A	10 s	9.9 g

## PRODUCT RANGE



MEV55S400-TF

### MEV55S Type TF with Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-TF	550 V	160 A	6.3 W	920 A	260 ms	380 g
MEV55S200-TF	550 V	200 A	8 W	1150 A	260 ms	380 g
MEV55S250-TF	550 V	250 A	9.3 W	1430 A	260 ms	380 g
MEV55S315-TF	550 V	315 A	11.6 W	1800 A	260 ms	380 g
MEV55S350-TF	550 V	350 A	12 W	2000 A	260 ms	380 g
MEV55S400-TF	550 V	400 A	12.1 W	2290 A	260 ms	380 g
MEV55S450-TF	550 V	450 A	12.5 W	2580 A	500 ms	380 g
MEV55S500-TF	550 V	500 A	12.5 W	2860 A	1 s	380 g



MEV55S400-TFU

### MEV55S Type TF without Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-TFU	550 V	160 A	6.3 W	920 A	260 ms	375 g
MEV55S200-TFU	550 V	200 A	8 W	1150 A	260 ms	375 g
MEV55S250-TFU	550 V	250 A	9.3 W	1430 A	260 ms	375 g
MEV55S315-TFU	550 V	315 A	11.6 W	1800 A	260 ms	375 g
MEV55S350-TFU	550 V	350 A	12 W	2000 A	260 ms	375 g
MEV55S400-TFU	550 V	400 A	12.1 W	2290 A	260 ms	375 g
MEV55S450-TFU	550 V	450 A	12.5 W	2580 A	500 ms	375 g
MEV55S500-TFU	550 V	500 A	12.5 W	2860 A	1 s	375 g



MEV55S400-TI

### MEV55S Type TI with Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-TI	550 V	160 A	6.3 W	920 A	260 ms	382 g
MEV55S200-TI	550 V	200 A	8 W	1150 A	260 ms	382 g
MEV55S250-TI	550 V	250 A	9.3 W	1430 A	260 ms	382 g
MEV55S315-TI	550 V	315 A	11.6 W	1800 A	260 ms	382 g
MEV55S350-TI	550 V	350 A	12 W	2000 A	260 ms	382 g
MEV55S400-TI	550 V	400 A	12.1 W	2290 A	260 ms	382 g
MEV55S450-TI	550 V	450 A	12.5 W	2580 A	500 ms	382 g
MEV55S500-TI	550 V	500 A	12.5 W	2860 A	1 s	382 g



MEV55S400-TIU

### MEV55S Type TI without Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-TIU	550 V	160 A	6.3 W	920 A	260 ms	378 g
MEV55S200-TIU	550 V	200 A	8 W	1150 A	260 ms	378 g
MEV55S250-TIU	550 V	250 A	9.3 W	1430 A	260 ms	378 g
MEV55S315-TIU	550 V	315 A	11.6 W	1800 A	260 ms	378 g
MEV55S350-TIU	550 V	350 A	12 W	2000 A	260 ms	378 g
MEV55S400-TIU	550 V	400 A	12.1 W	2290 A	260 ms	378 g
MEV55S450-TIU	550 V	450 A	12.5 W	2580 A	500 ms	378 g
MEV55S500-TIU	550 V	500 A	12.5 W	2860 A	1 s	378 g

# EVpack-fuse MEV55

550 VDC Max., L/R ≤ 1ms, 5 - 500A

## PRODUCT RANGE



MEV55S400-DN

### MEV55S Type DN with Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-DN	550 V	160 A	6.3 W	920 A	260 ms	384 g
MEV55S200-DN	550 V	200 A	8 W	1150 A	260 ms	384 g
MEV55S250-DN	550 V	250 A	9.3 W	1430 A	260 ms	384 g
MEV55S315-DN	550 V	315 A	11.6 W	1800 A	260 ms	384 g
MEV55S350-DN	550 V	350 A	12 W	2000 A	260 ms	384 g
MEV55S400-DN	550 V	400 A	12.1 W	2290 A	260 ms	384 g
MEV55S450-DN	550 V	450 A	12.5 W	2580 A	500 ms	384 g
MEV55S500-DN	550 V	500 A	12.9 W	2860 A	1 s	384 g



MEV55S400-DNU

### MEV55S Type DN without Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-DNU	550 V	160 A	6.3 W	920 A	260 ms	379 g
MEV55S200-DNU	550 V	200 A	8 W	1150 A	260 ms	379 g
MEV55S250-DNU	550 V	250 A	9.3 W	1430 A	260 ms	379 g
MEV55S315-DNU	550 V	315 A	11.6 W	1800 A	260 ms	379 g
MEV55S350-DNU	550 V	350 A	12 W	2000 A	260 ms	379 g
MEV55S400-DNU	550 V	400 A	12.1 W	2290 A	260 ms	379 g
MEV55S450-DNU	550 V	450 A	12.5 W	2580 A	500 ms	379 g
MEV55S500-DNU	550 V	500 A	12.9 W	2860 A	1 s	379 g



MEV55S400-KS

### MEV55S Type KS with Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-KS	550 V	160 A	6.3 W	920 A	260 ms	380 g
MEV55S200-KS	550 V	200 A	8 W	1150 A	260 ms	380 g
MEV55S250-KS	550 V	250 A	9.3 W	1430 A	260 ms	380 g
MEV55S315-KS	550 V	315 A	11.6 W	1800 A	260 ms	380 g
MEV55S350-KS	550 V	350 A	12 W	2000 A	400 ms	380 g
MEV55S400-KS	550 V	400 A	12.1 W	2290 A	260 ms	380 g
MEV55S450-KS	550 V	450 A	12.5 W	2580 A	500 ms	380 g
MEV55S500-KS	550 V	500 A	12.9 W	2860 A	1 s	380 g



MEV55S400-KSU

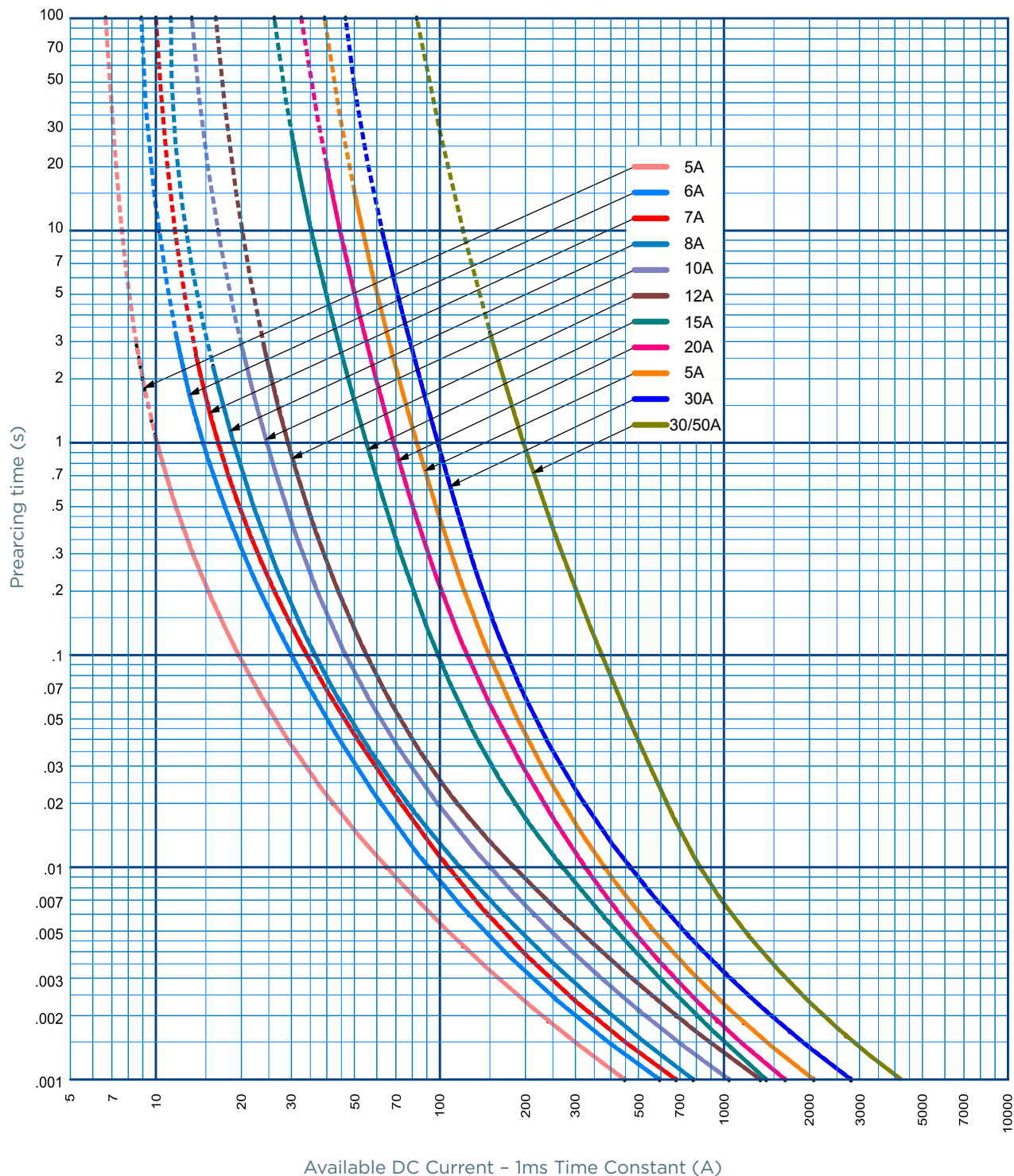
### MEV55S Type KS without Indicator

Catalog number	Rated DC voltage	Rated current I <sub>n</sub>	Power dissipation at 0.5 I <sub>n</sub>	Min. breaking capacity (MBC)	Max. time to clear MBC	Weight
MEV55S160-KSU	550 V	160 A	6.3 W	920 A	260 ms	375 g
MEV55S200-KSU	550 V	200 A	8 W	1150 A	260 ms	375 g
MEV55S250-KSU	550 V	250 A	9.3 W	1430 A	260 ms	375 g
MEV55S315-KSU	550 V	315 A	11.6 W	1800 A	260 ms	375 g
MEV55S350-KSU	550 V	350 A	12 W	2000 A	260 ms	375 g
MEV55S400-KSU	550 V	400 A	12.1 W	2290 A	260 ms	375 g
MEV55S450-KSU	550 V	450 A	12.5 W	2580 A	500 ms	375 g
MEV55S500-KSU	550 V	500 A	12.9 W	2860 A	1 s	375 g

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## TIME CURRENT CHARACTERISTIC CURVES

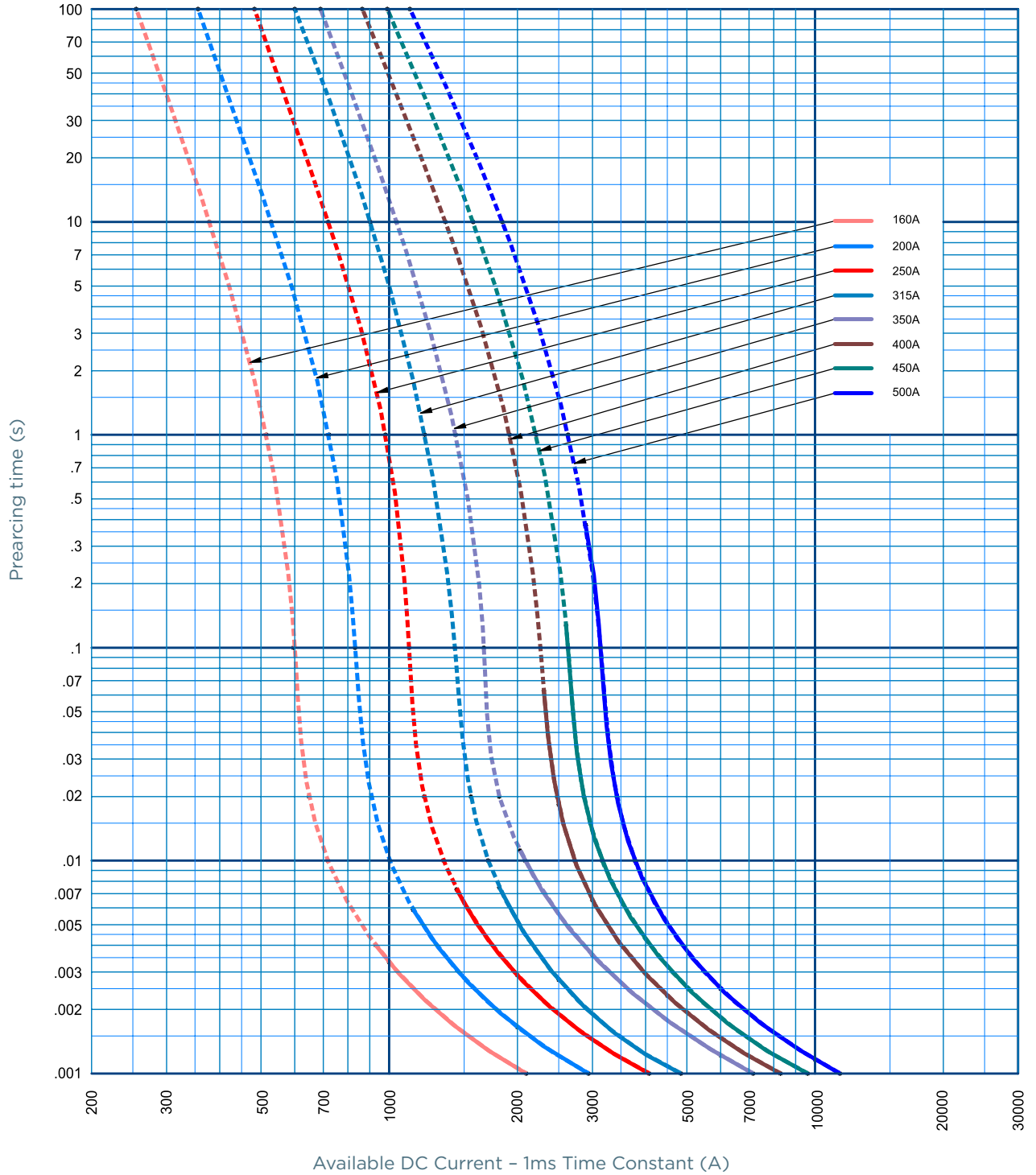
MEV55C, -S, -P



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TIME CURRENT CHARACTERISTIC CURVES

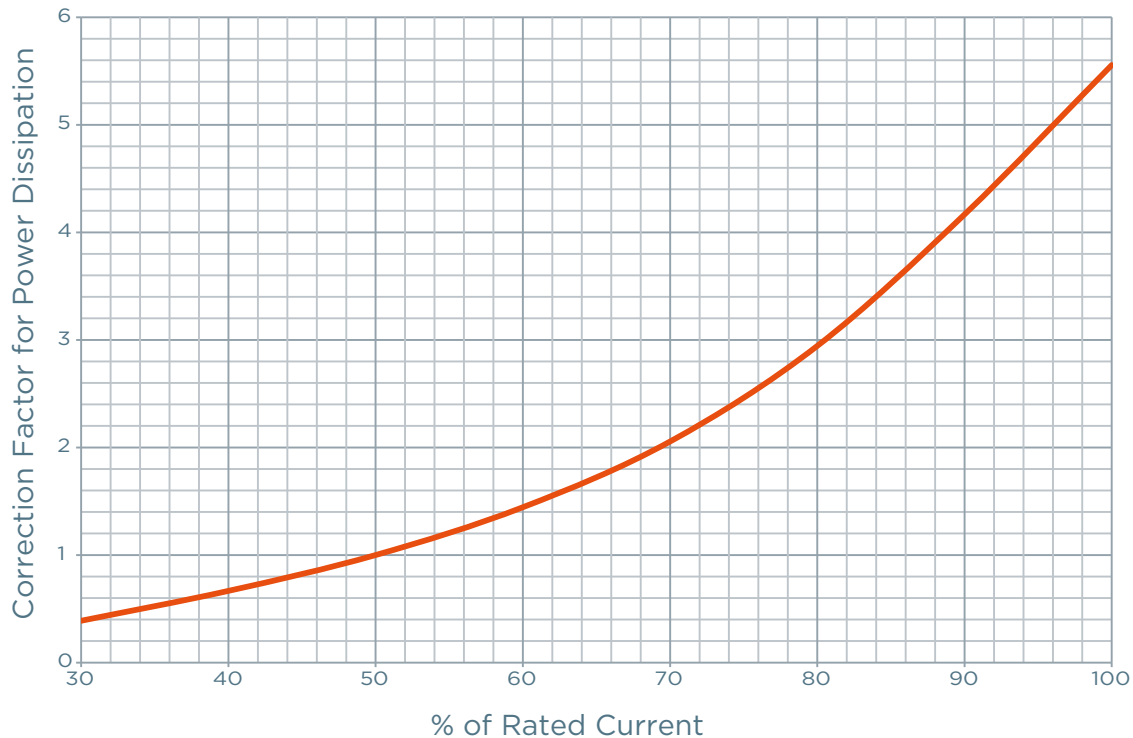
MEV55S, -TF, -TFU, -TI, -TIU, -DN, -DNU, -KS, -KSU



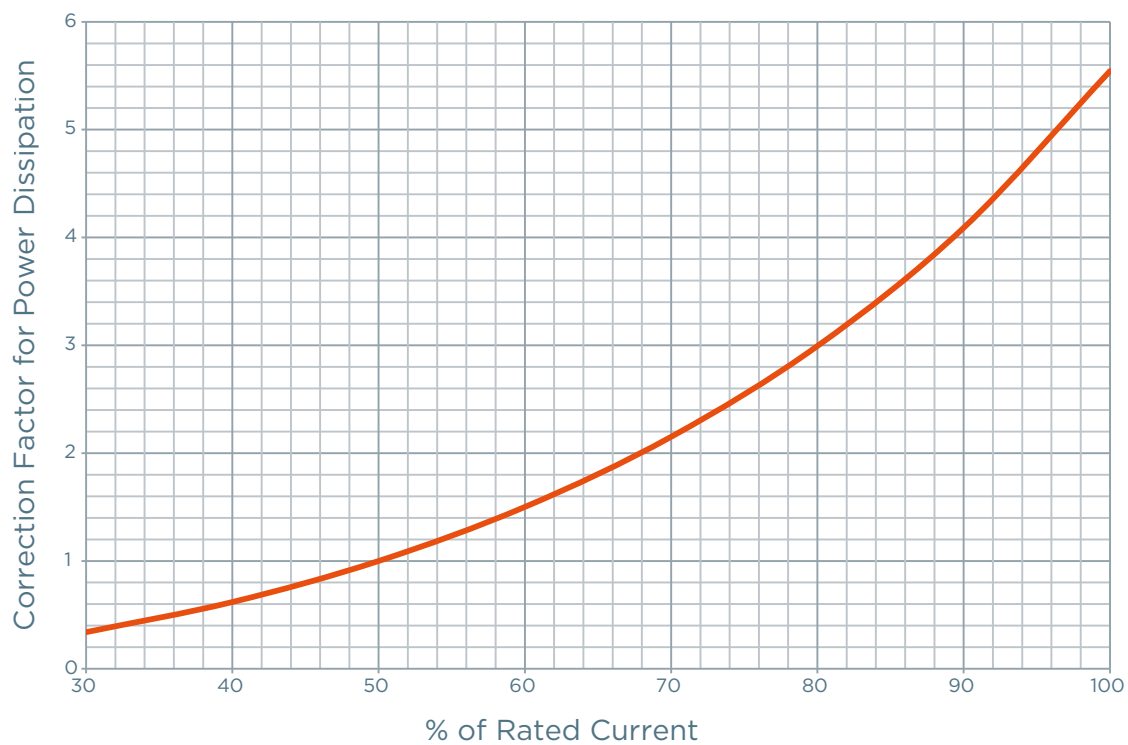
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## POWER DISSIPATION

### MEV55C, -S, -P



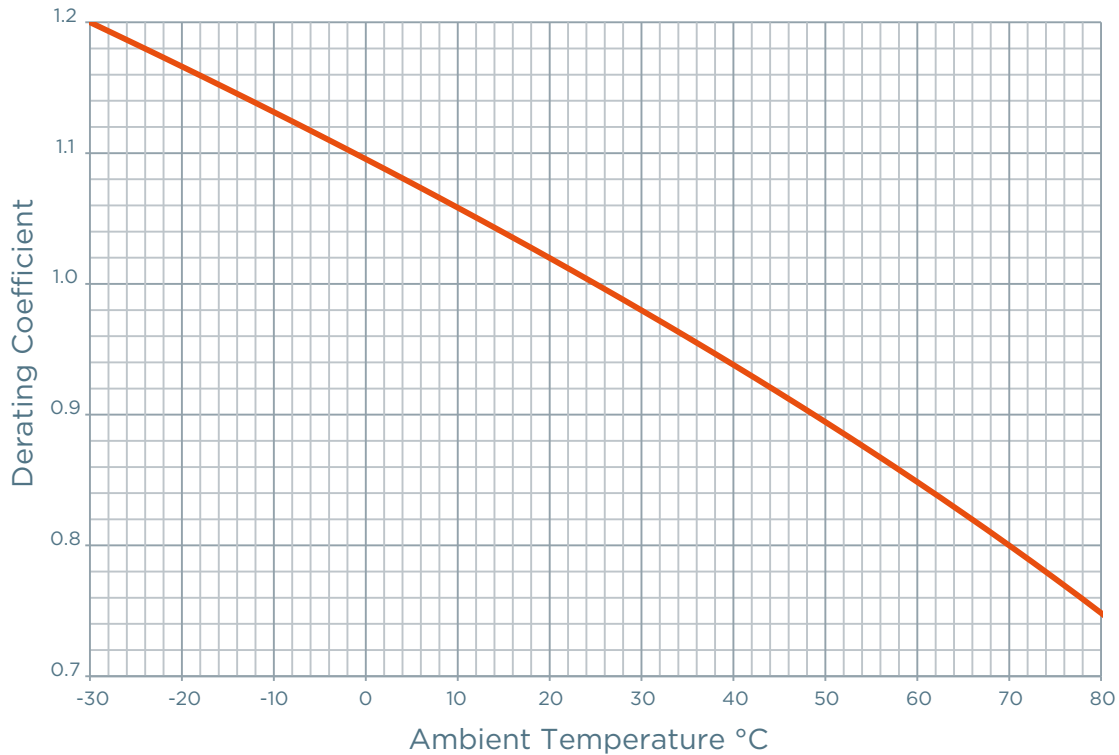
### MEV55S, -TF, -TFU, -TI, -TIU, -DN, -DNU, -KS, -KSU



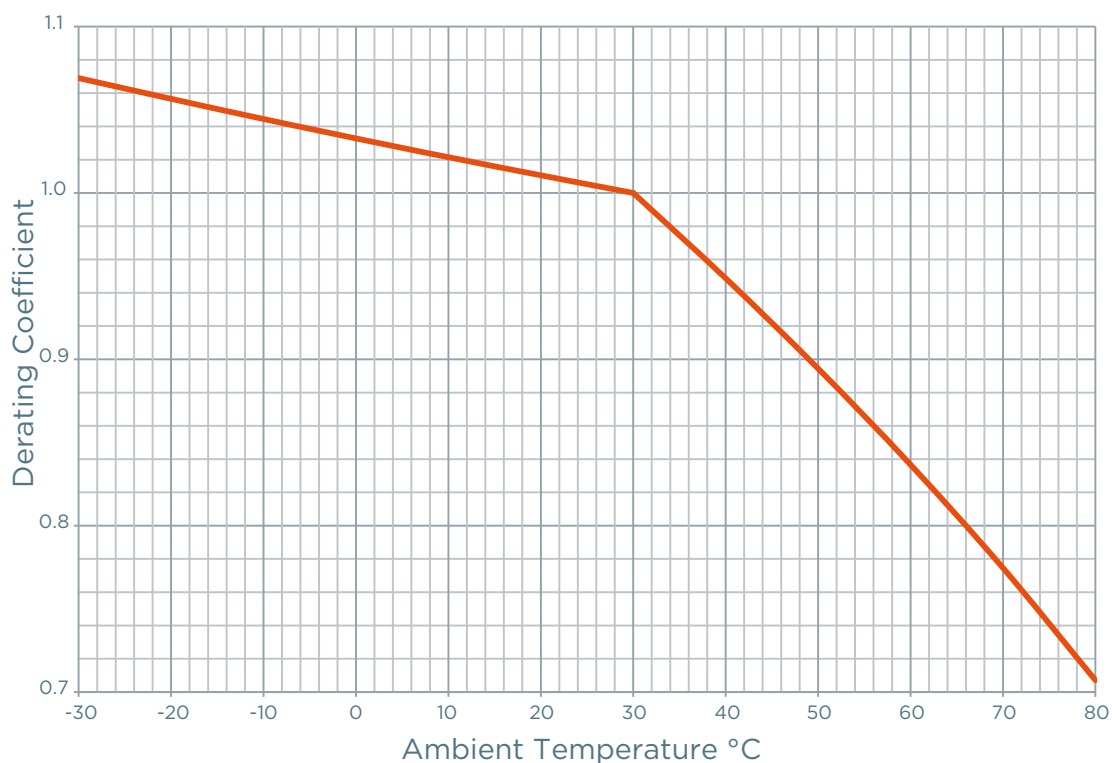
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## TEMPERATURE DERATING

### MEV55C, -S, -P



### MEV55S





# EVpack-fuse MEV55

550 VDC Max., L/R ≤ 1ms, 5 - 500A

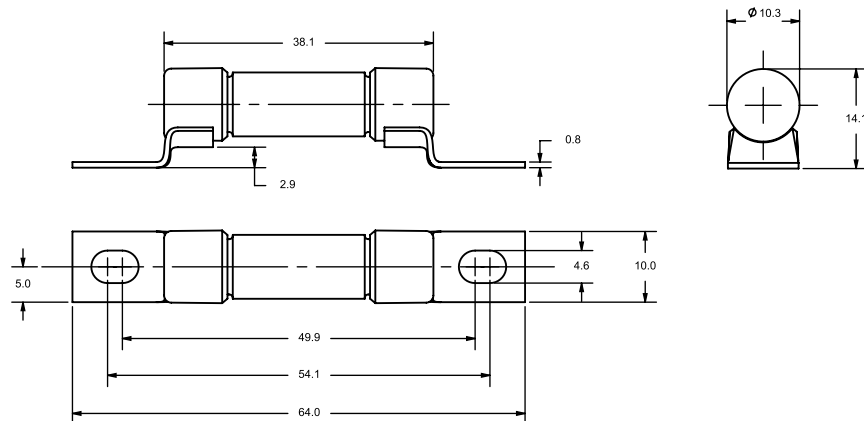
## DIMENSIONS

### MEV55C Ferrule Fuse (5-50A)



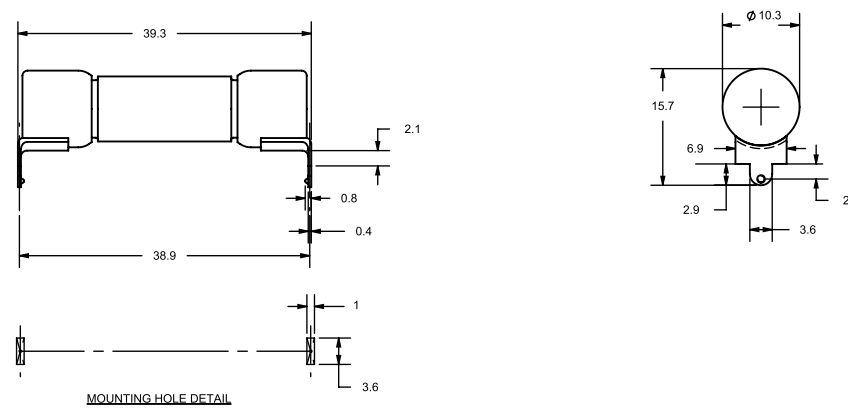
Dimensions in mm

### MEV55C -S Surface Mount Fuse (5-50A)



Dimensions in mm

### MEV55C -P PC Board Mount (5-50A)



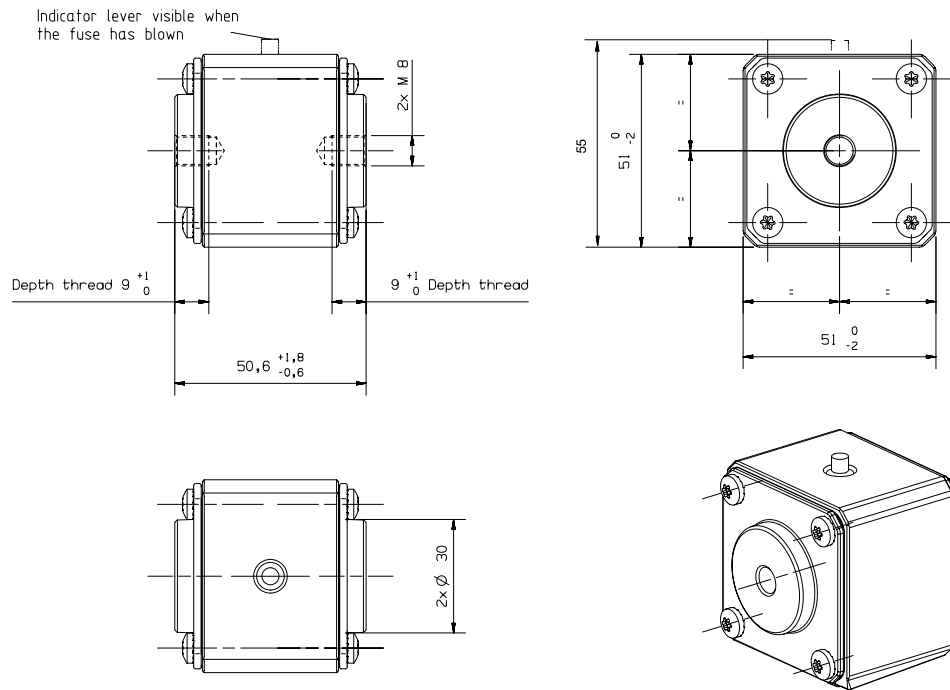
Dimensions in mm

# EVpack-fuse MEV55

550 VDC Max., L/R ≤ 1ms, 5 - 500A

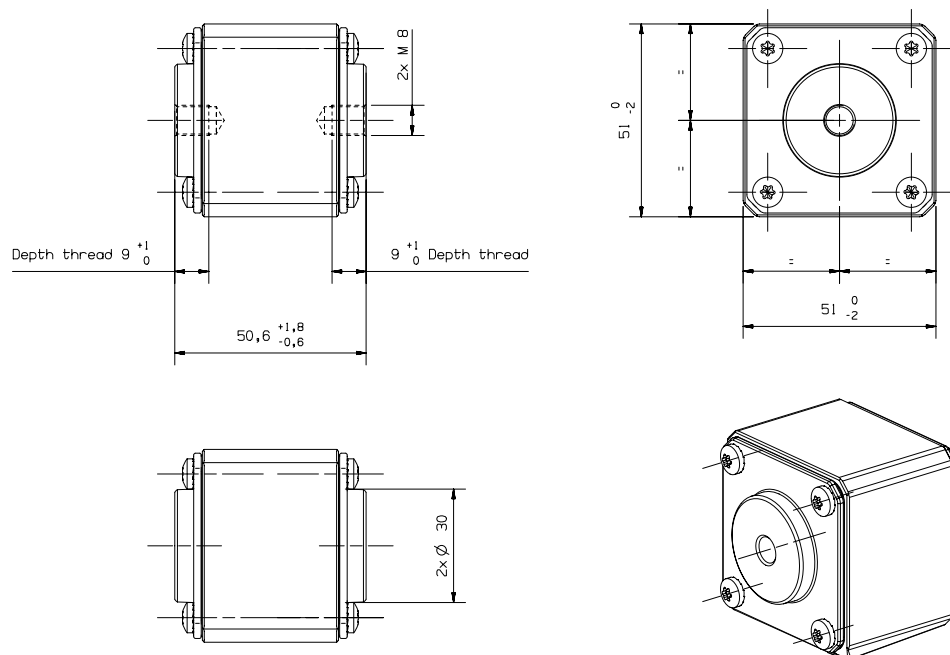
## DIMENSIONS

### MEV55S -TF (160-500A)



Dimensions in mm

### MEV55S -TFU (160-500A)



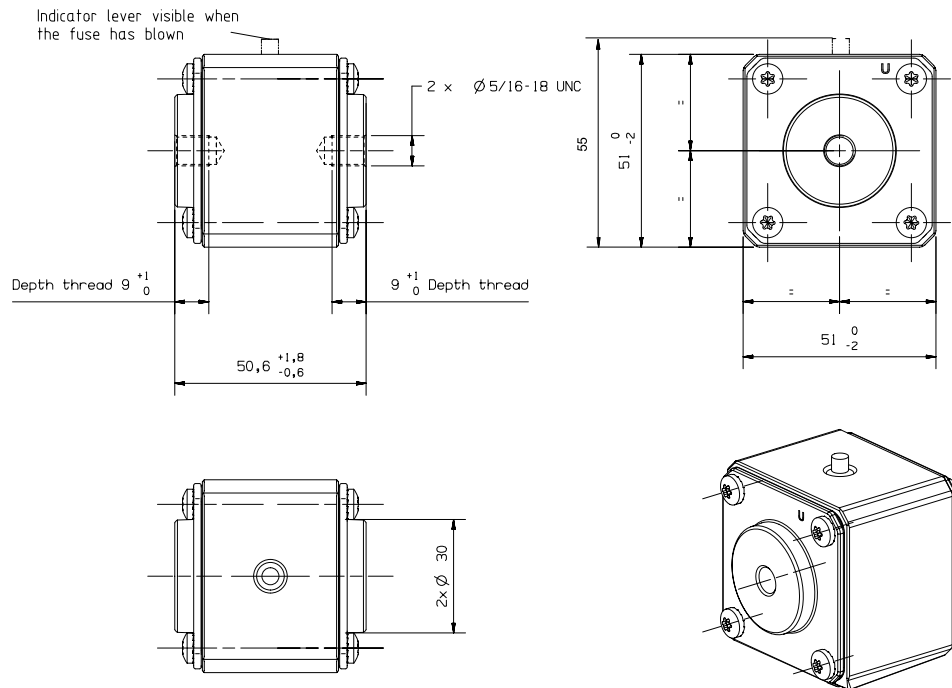
Dimensions in mm

# EVpack-fuse MEV55

550 VDC Max., L/R ≤ 1ms, 5 - 500A

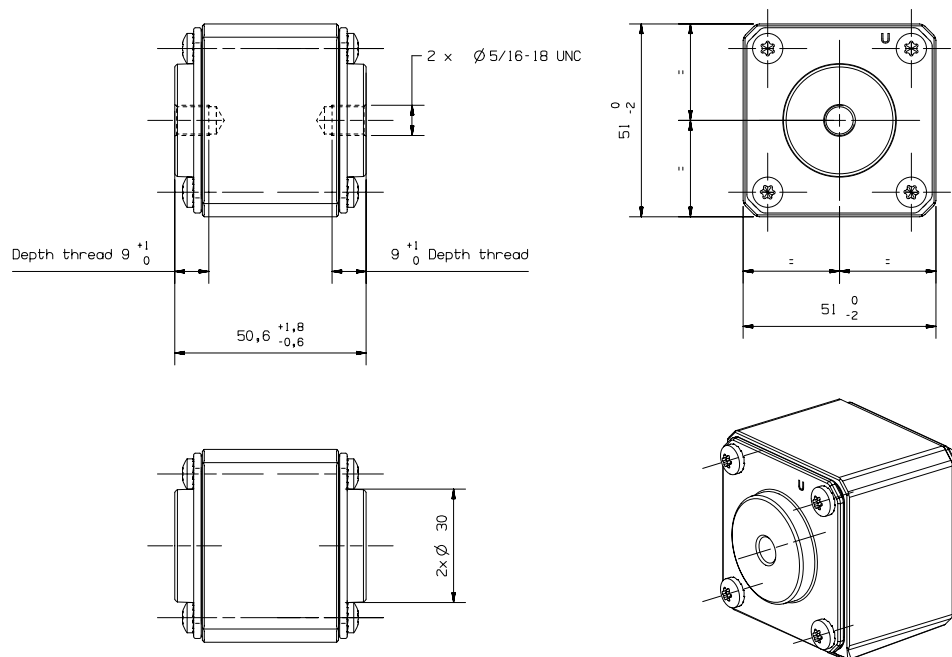
## DIMENSIONS

### MEV55S -TI (160-500A)



Dimensions in mm

### MEV55S -TIU (160-500A)



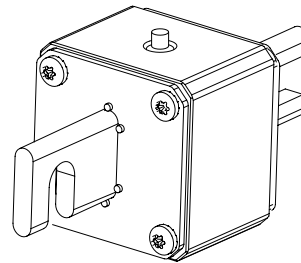
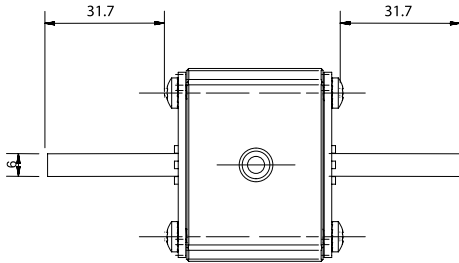
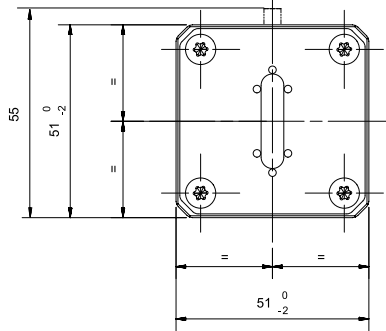
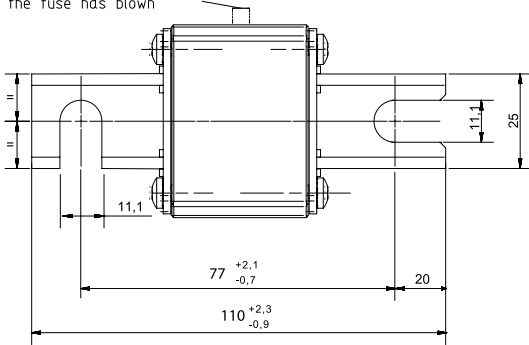
Dimensions in mm

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## DIMENSIONS

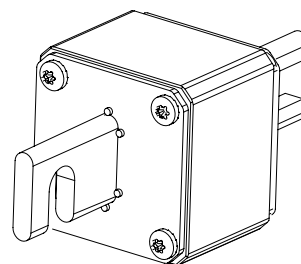
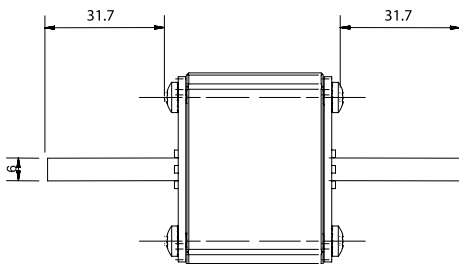
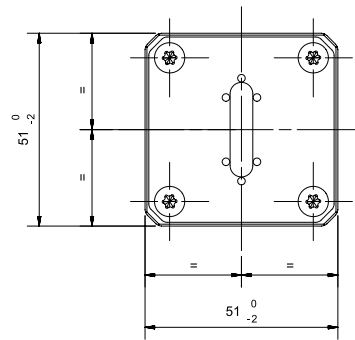
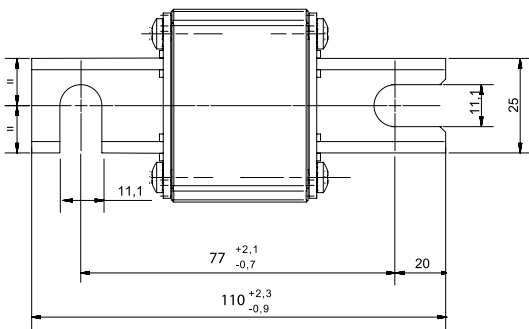
### MEV55S -DN (160-500A)

Indicator lever visible when the fuse has blown



Dimensions in mm

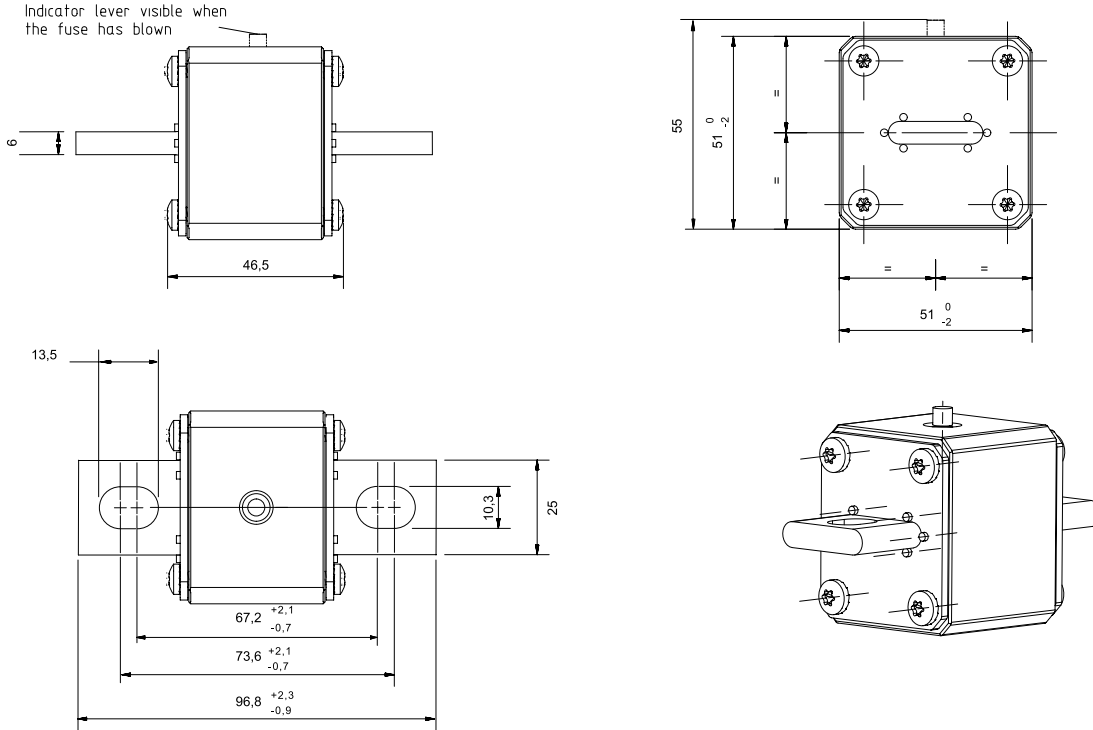
### MEV55S -DNU (160-500A)



Dimensions in mm

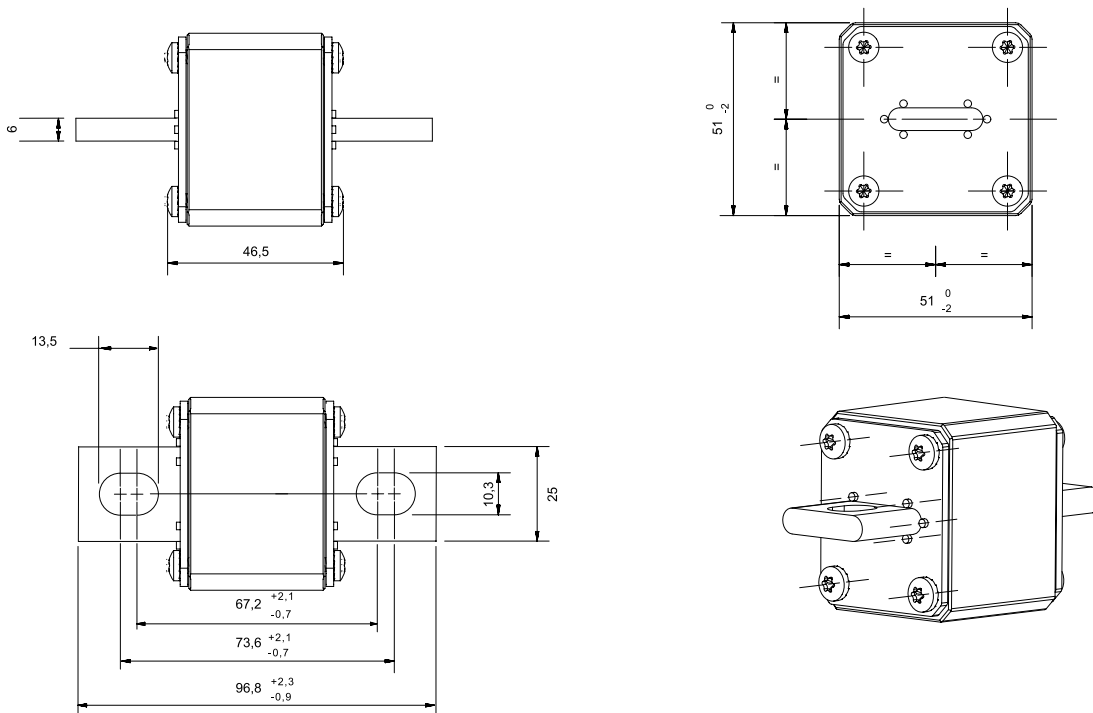
## DIMENSIONS

### MEV55S -KS (160-500A)



Dimensions in mm

### MEV55S -KSU (160-500A)



Dimensions in mm