



# M-USB



## Range of Converters for USB charging

- DC/DC or AC/DC Railway converters
- Input range 24-36VDC, 72-110VDC or 100-230VAC
- Output 5VDC with cable losses compensation
- 2.4A per USB output

### Mechanical / Environmental characteristics:

- Operating temperature: -25°C (-13°F) to +55°C (+131°F)
- Cable losses compensation up to 5 m (118.11 in)
- Spring terminal connection up to 1.5 mm<sup>2</sup> (AWG16) for flexible conductor with ferrule
- IP20
- Dimensions and weight, see table below

### Standards:

- Product EN 62684, EN 62680
- Application EN 50155
- Shocks / vibrations EN 61373
- EMC EN 50121-3-2
- Fire/smoke EN 45545-2
- ROHS, REACH

### Electrical characteristics:

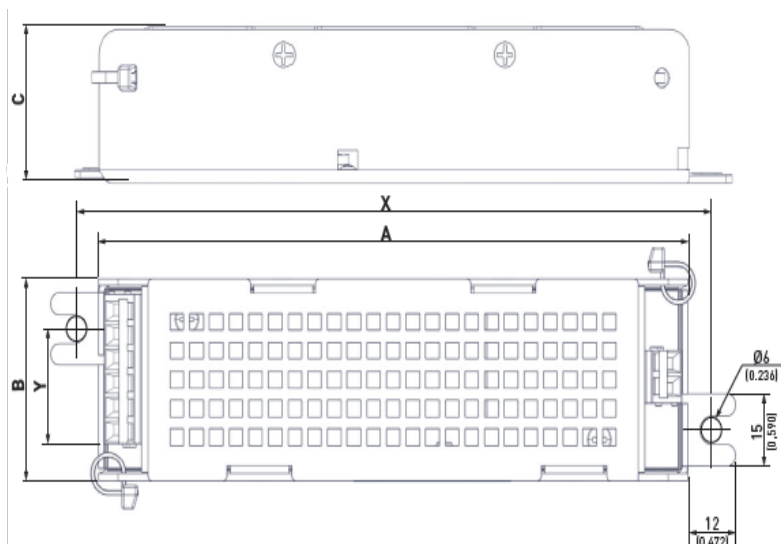
- 3 variant converters (see table below):
  1. 100-230VAC/5VDC - 1 output 2.4A
  2. 24-36VDC/5VDC - 2 outputs 2.4A
  3. 72-110VDC/5VDC - 2 outputs 2.4A
- Galvanic insulation In/Out, In/Frame: 1500V/3 mm (0.12 in)
- Short-circuit and overload protection
- Inrush current limitation
- MTBF > 500 000 hours
- Electrical efficiency > 0.83

### Options:

- Higher IP level study on demand based on mechanical envelope adaptation
- Other connection type on demand

### Mounting / connection:

- Standard fixation by 2 screws or 2 studs with nut, M4 or M5, n°8-32 UNC or n°10-24 UNC
- Alternative fixation with adapted bracket
- Mechanical fixation of wires on the casing with hose clamp



Labels: mm (in)  
g (lb)

CVS	A	B	C	X*	Y	Weight
1	150 (5.906)	42 (1.654)	33 (1.299)	162-165 (6.378 - 6.496)	21 (0.827)	210 (0.463)
2	165 (6.496)	60 (2.362)	33 (1.299)	177-180 (6.969 - 7.087)	39 (1.535)	350 (0.772)
3	165 (6.496)	60 (2.362)	33 (1.299)	177-180 (6.969 - 7.087)	39 (1.535)	350 (0.772)

\* The longer distance X is mandatory for a fixation with stud M5 or n°10-24 UNC