

## • For parallel coupling of 2 or 3 DC power supplies

Increases system availability and safety  
Allowing the replacement of one supply without cutoff

## • Range of use : 20Vdc ... 280Vdc

**MPA3** : 20A nominal, 30A maxi ( natural convection )

**MPA3-3** : version with 3 inputs 30A maxi

**MPAD** : 2 circuits with common anode and cathode

**MPA4** : 40A rating current, 50A maxi ( ventilated model )

**MPA5** : 80A rating current, 100A maxi ( ventilated model )

**MPA6** : 200A rating current, 250A maxi ( ventilated model )

Monitoring relay in option

## • DIN rail or surface mounting

## • Application rescued system or installation requiring a high level of availability.



The MPA provide an effective protection against the power supplies failure.

Through decoupling of two power supplies, the failure of one of them has no effect on the output, the other taking automatically its function without interruption.

The MPA monitor continuously the two power supplies, and provide an alarm via a contact relay if a failure is detected.

### Benefit

- Significantly improves the operational safety,
- Increases the availability of installations,
- Increases the immunity against power voltage dips

### Inputs

2 or 3 inputs up to 280Vdc with common ground.

### Output

equal to the higher input voltage - 1.2V

### Monitoring relay (MPAx/R)

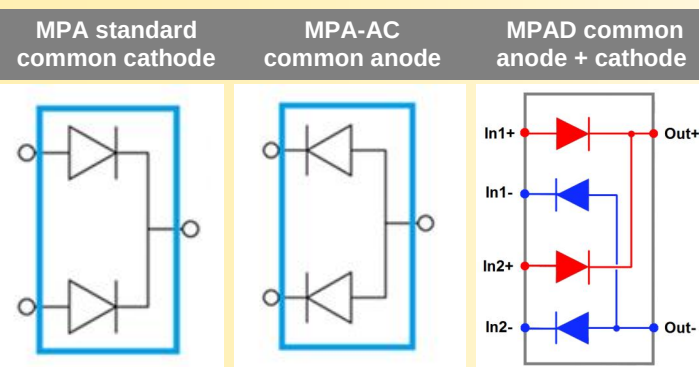
- Potential free contact (closed when power supply is ok)
- 1 relay per channel, signal a faulty power supply.

### Extended protection for harsh environment (option - MOV)

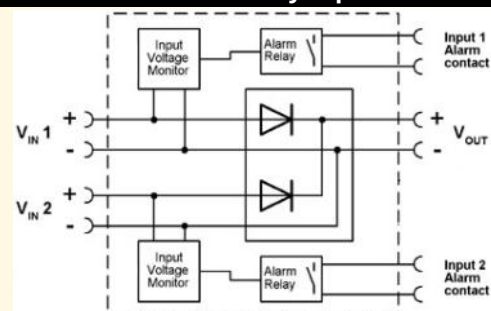
- EMC protection, varistor surge protector.

### Feature

- Surface or DIN rail mounting (symmetric according to EN50022)
- MPA3 : pluggable screw terminal blocks, 6mm<sup>2</sup> section
- MPA4 : fixed screw terminal blocks, 25mm<sup>2</sup> section
- MPA5 : fixed screw terminal blocks, 35mm<sup>2</sup> section
- MPA6 : wiring on 8mm threaded brass rod
- Protection rating: IP20



### Internal synoptic



Version and order code:

[Request a quote](#)

- MPA3:** Version with 2 inputs, 30A maxi
- MPA3 – ICC1200-20ms:** peak current up to 1200A (single pulse, 20ms)
- MPA3B:** Version with balanced current input
- MPA3D:** Version with common anode and cathode
- MPA3D-NV** version of MPA3D without ventilation, natural convection
- MPA3-3:** Version with 3 inputs, 30A maxi (Operating voltage range 20Vdc to 280Vdc)

**MPA3/R-MOV-RTE:** Version 127Vdc nominal / 30A with monitoring relay and varistor protection (model for RTE customers)

- MPA4:** Version 50A max (voltage to defined)
- MPA4D:** Version with common anode and cathode
- MPA4 – ICC1200-20ms:** peak current up to 1200A (single pulse, 20ms)
- MPA5:** Version 100A max (voltage to defined)
- MPA5D:** Version with common anode and cathode
- MPA6:** Version 250A max (voltage to defined)
- MPA6D:** Version with common anode and cathode

( Voltage : 20Vdc to 280Vdc. Rated voltage must be defined at order)

- Option :
- /R** input voltage monitoring relay
  - AC** Diode mounted in common Anode
  - MOV** varistor surge protector

note : options can be cumulated (no option for **MPA3-3** model)

## INPUT / POWER SUPPLY

|      |                                     |             |
|------|-------------------------------------|-------------|
| MPA3 | Voltage                             | 20...280Vdc |
|      | 20A rated current, 30A @45°C maxi   |             |
| MPA4 | Voltage                             | 20...280Vdc |
|      | 40A rated current, 50A @45°C maxi   |             |
| MPA5 | Voltage                             | 20...280Vdc |
|      | 80A rated current, 100A @45°C maxi  |             |
| MPA6 | Voltage                             | 20...280Vdc |
|      | 200A Rated current, 250A @45°C maxi |             |

Reverse polarity protected

## OUTPUT

|                            |                                        |
|----------------------------|----------------------------------------|
| Typical voltage            | = input voltage - 1.6V @ rated current |
| Maxi overcurrent supported | 3 x I / 5 sec.                         |
| Reverse leakage current    | < 200uA                                |
| Switching time             | < 250nsec                              |

## MONITORING RELAY ( MPAx/R)

|                                          |           |
|------------------------------------------|-----------|
| Potential free contact (open on failure) |           |
| switching capacity :                     | 5A / 250V |
| response time :                          | 5ms       |

## ENVIRONMENT

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Operating temperature:                     | -25°C to 60°C                             |
| Storage temperature:                       | -40°C to 85°C                             |
| Humidity:                                  | 85 % non condensed                        |
| Protection rating (according to EN 60529): | IP20                                      |
| Weight:                                    | 950 g                                     |
| Dielectric strength (power supply / relay) | 2500Vac continuous                        |
| MTBF (MIL HDBK 217F)                       | > 1 200 000 Hrs @ 25°C                    |
| life time                                  | > 200 000 Hrs @ 30°C (natural convection) |
|                                            | > 50 000 Hrs @ 30°C (ventilated)          |

## Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments and power station  
EN 61000-6-2 / EN 61000-6-5Emission standard for industrial environments  
EN 61000-6-4

|                  |                         |
|------------------|-------------------------|
| EN 61000-4-2 ESD | EN 61000-4-8 AC MF      |
| EN 61000-4-3 RF  | EN 61000-4-9 pulse MF   |
| EN 61000-4-4 EFT | EN 61000-4-11 AC dips   |
| EN 61000-4-5 CWG | EN 61000-4-12 ring wave |
| EN 61000-4-6 RF  | EN 61000-4-29 DC dips   |

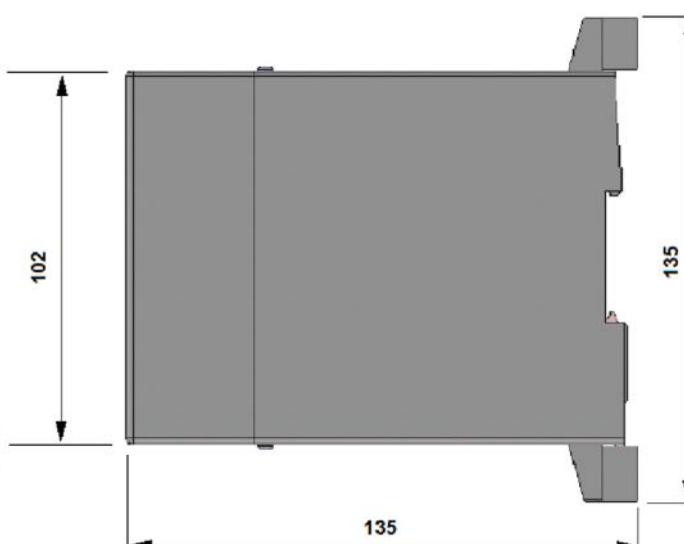
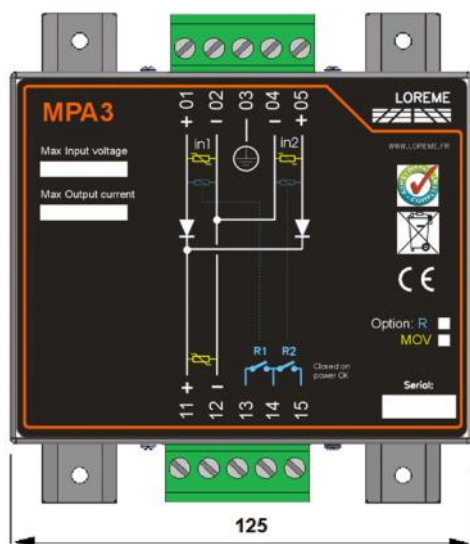
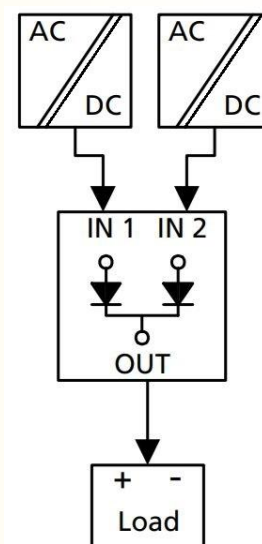
EN 55011  
group 1  
class A

## WIRING AND OUTLINE DIMENSIONS: MPA3

## MPA3

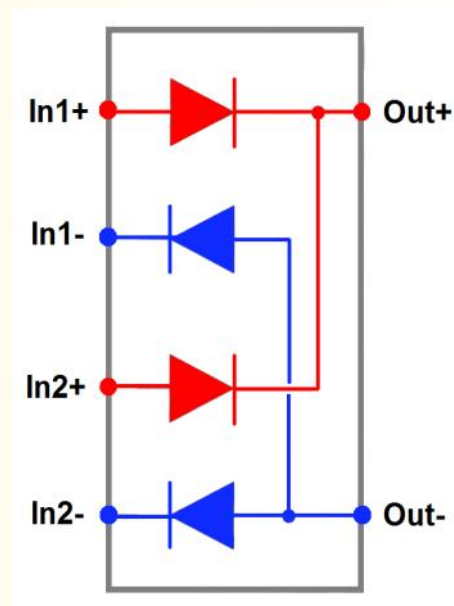
Voltage : 20...280Vdc

Current :

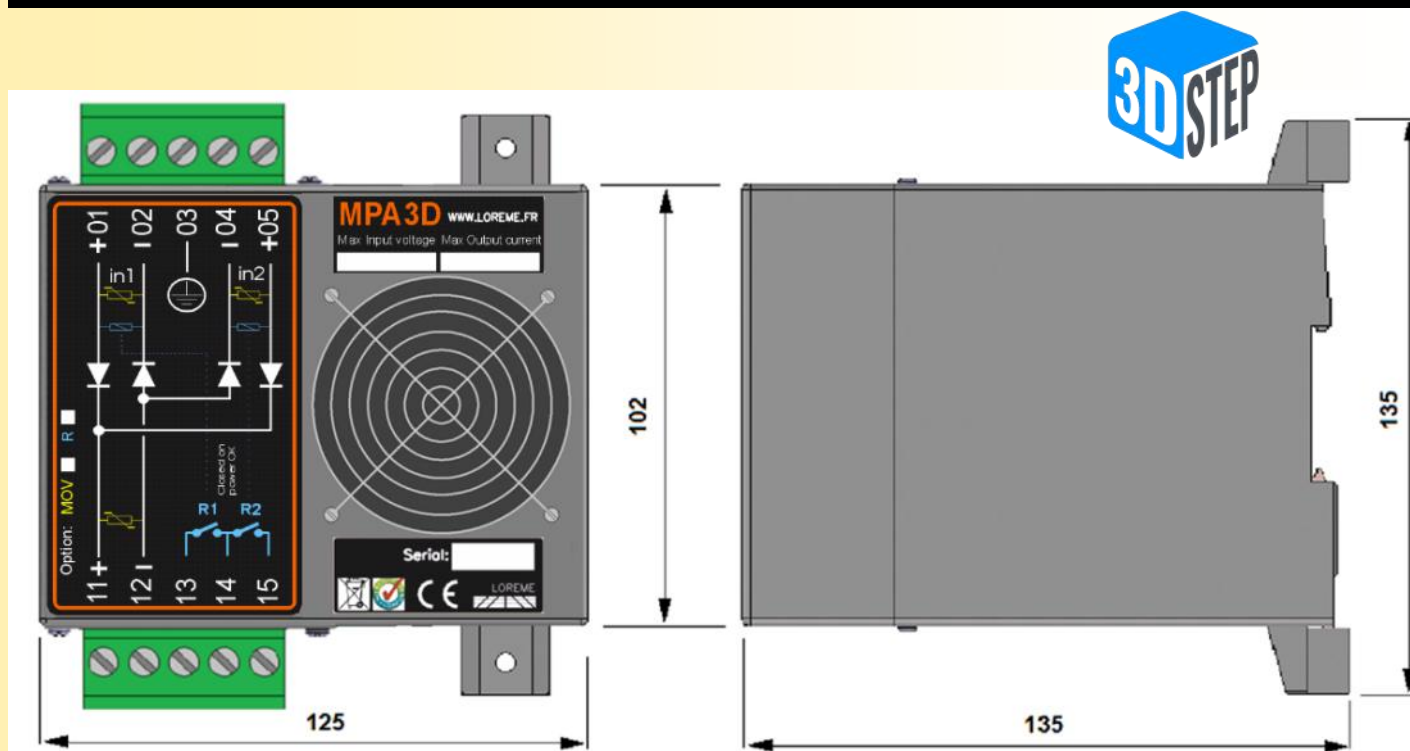
20 Adc rated current,  
30A @ 45°C max

**MPA3D Voltage 20...280Vdc**  
**Rating current: 20 Adc, 30A @ 45°C maxi**

**LOREME**

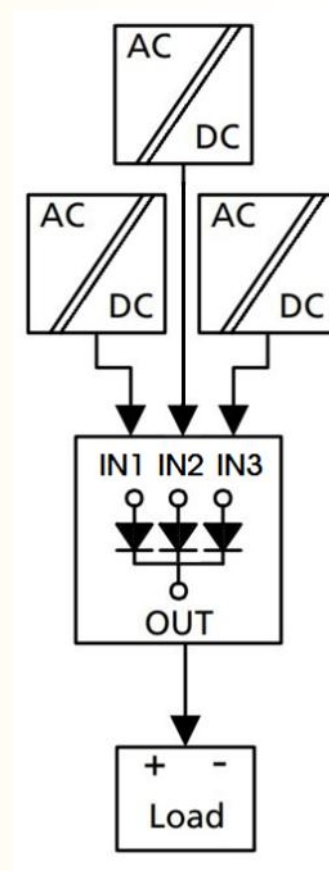


**WIRING AND OUTLINE DIMENSIONS: MPA3D dual circuit common Cathode and common Anode**

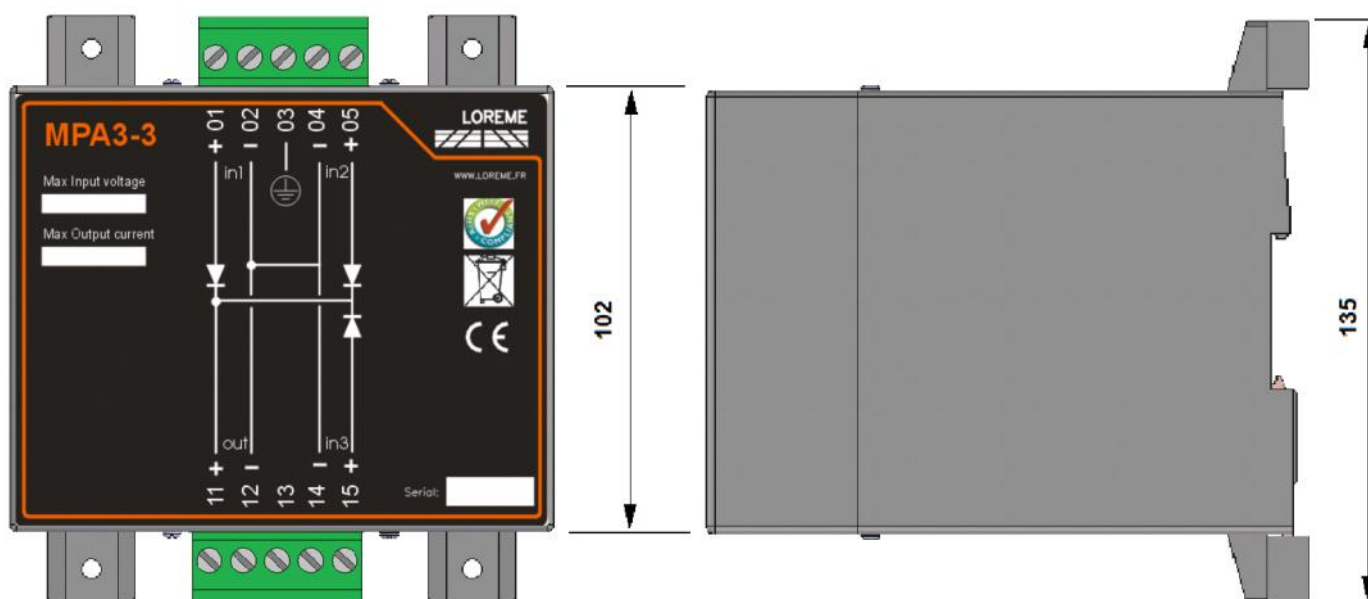


**MPA3-3 Voltage 20...280Vdc**  
**Rating current: 20 A dc, 30A @ 45°C maxi**

**LOREME**

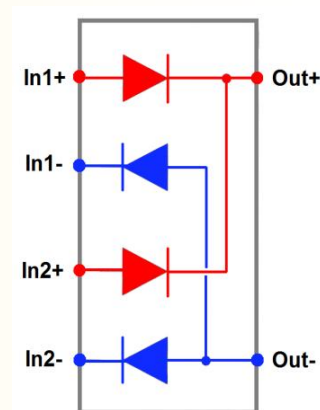
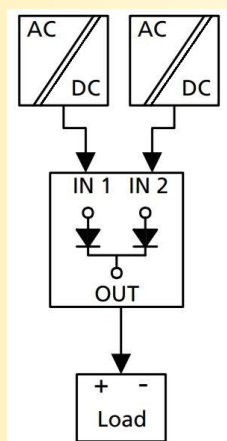


**WIRING AND OUTLINE DIMENSIONS: MPA3-3 3 inputs version**

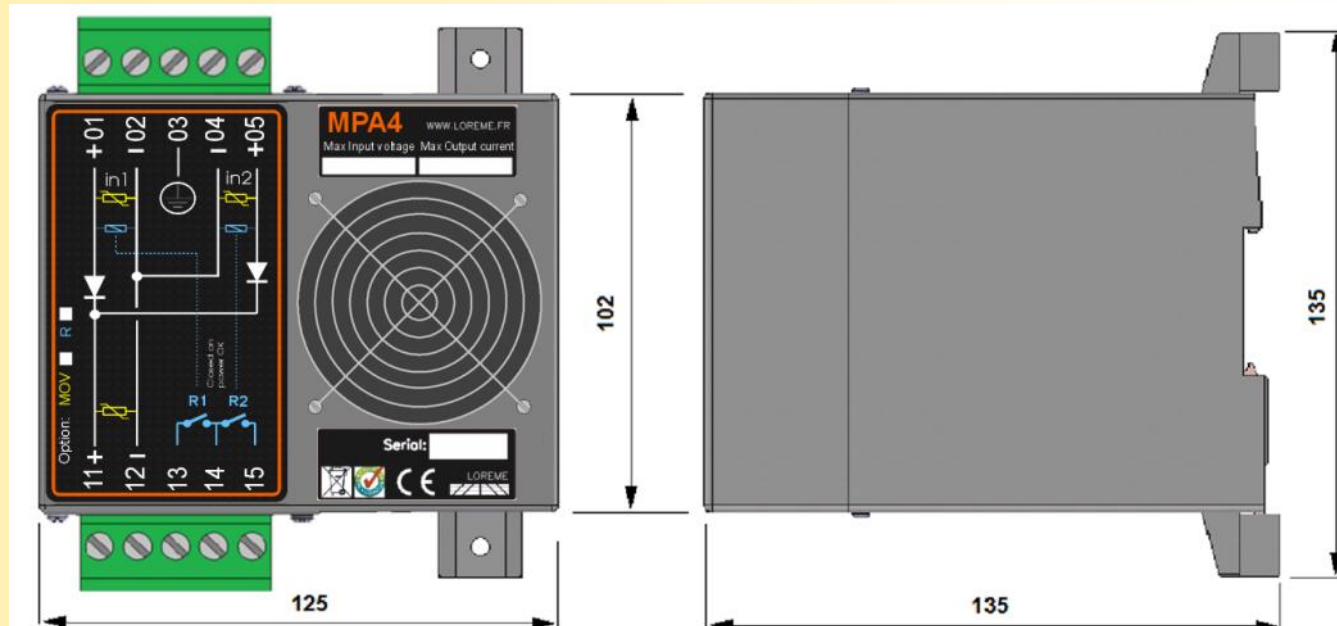


**MPA4 and MPA4D Voltage 20...280Vdc**  
**Rating current: 40A<sub>dc</sub>, 50A @ 45°C maxi**

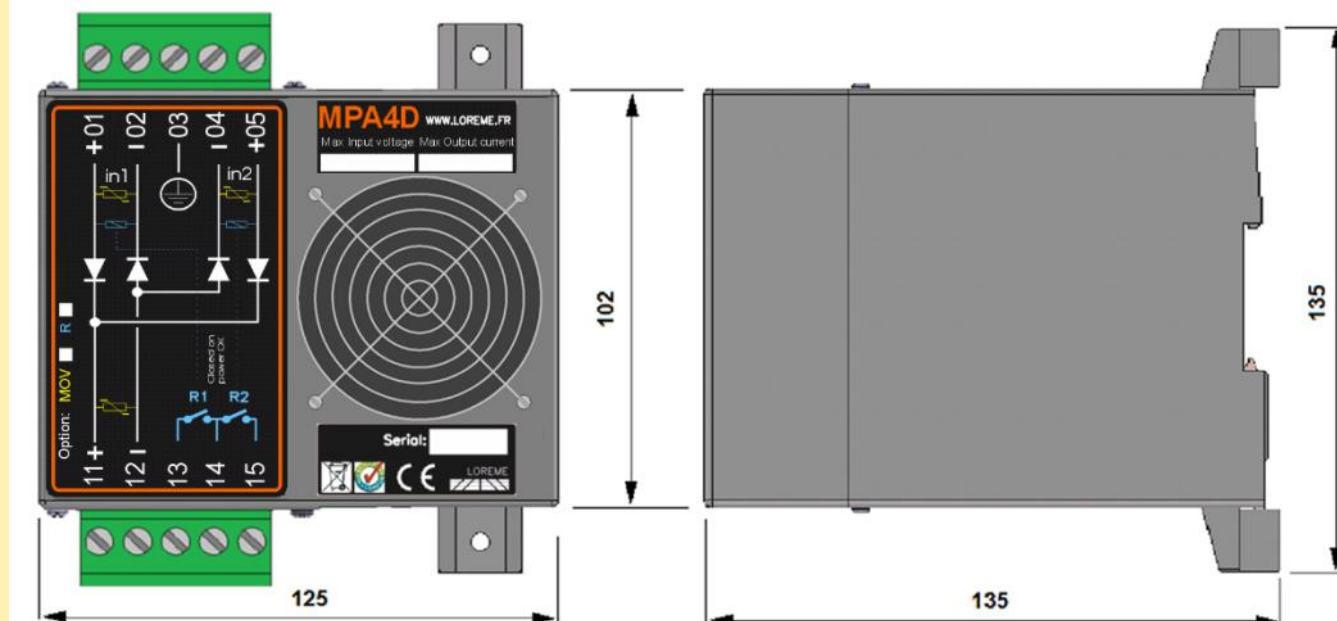
**LOREME**



#### WIRING AND OUTLINE DIMENSIONS: MPA4

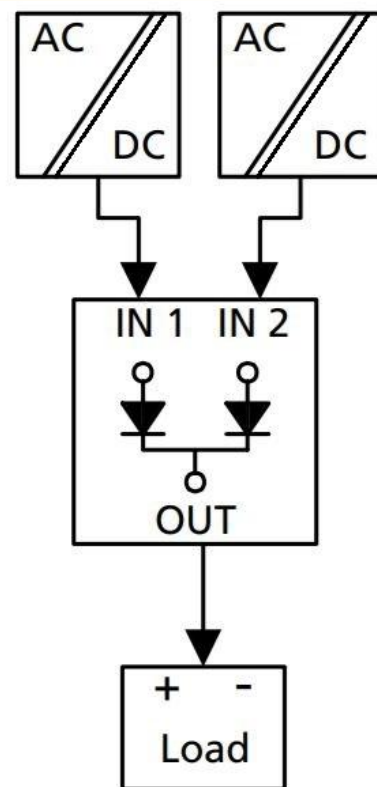


#### WIRING AND OUTLINE DIMENSIONS: MPA4D

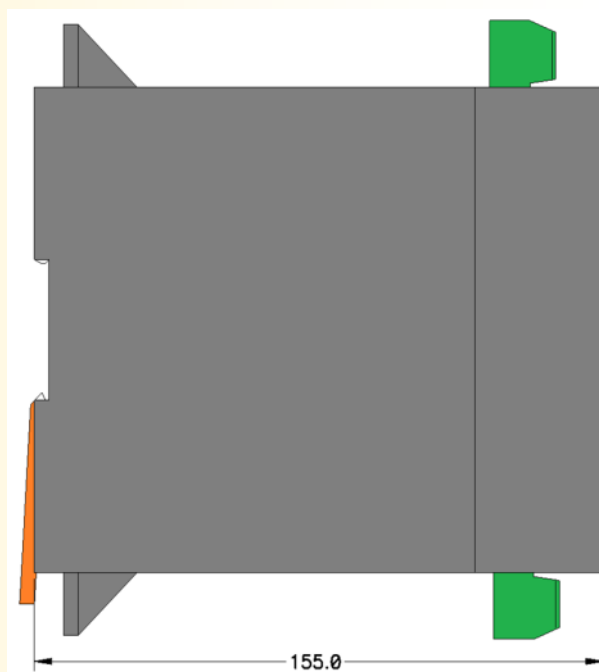
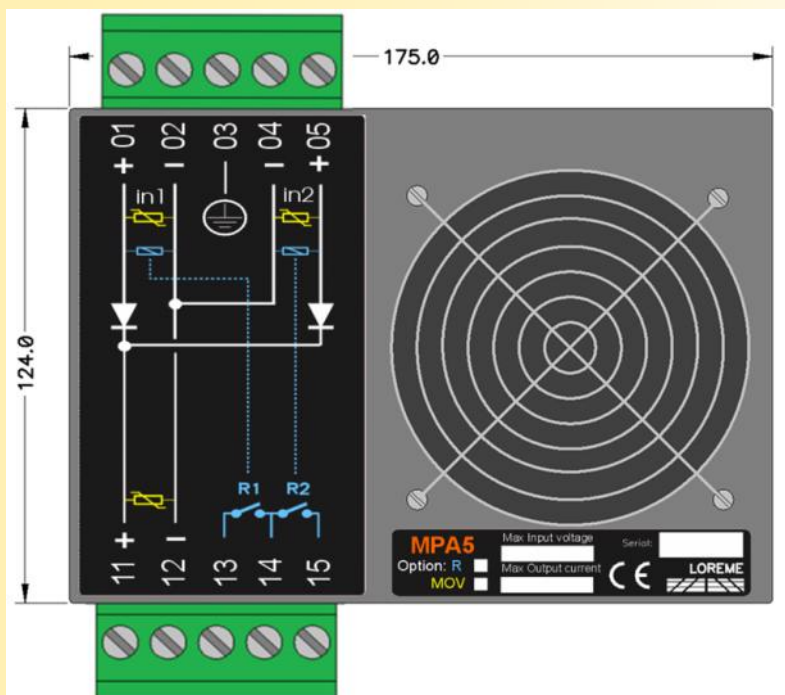


**MPA5** Voltage 20...280Vdc  
Rating current: 80 Adc, 100A @ 45°C maxi

**LOREME**

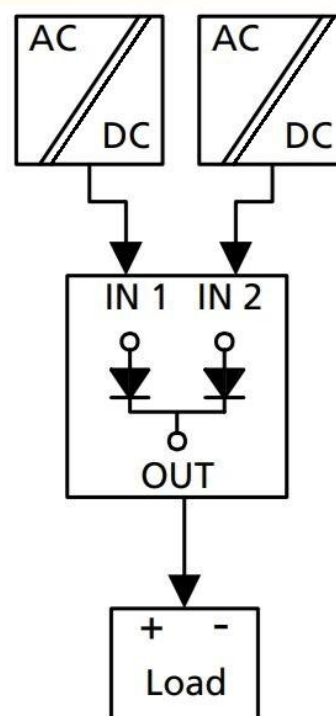


**WIRING AND OUTLINE DIMENSIONS: MPA5**

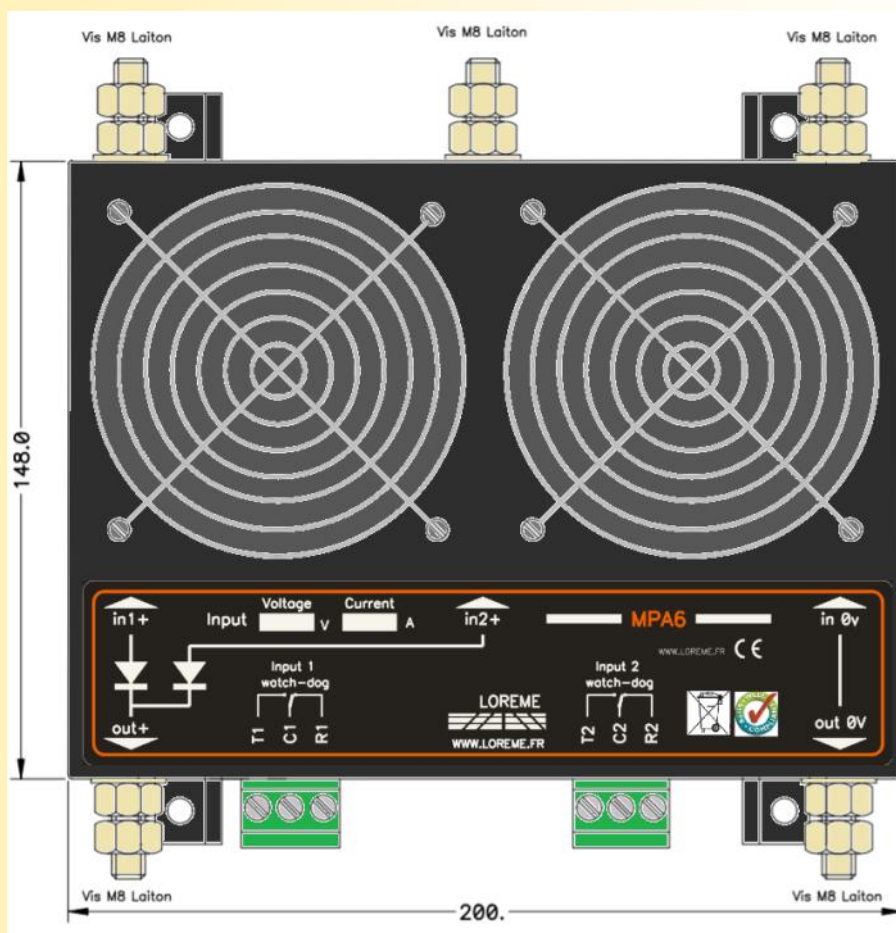


**MPA6** Voltage 20...280Vdc  
Rating current: 200 Adc, 250A @ 45°C maxi

**LOREME**

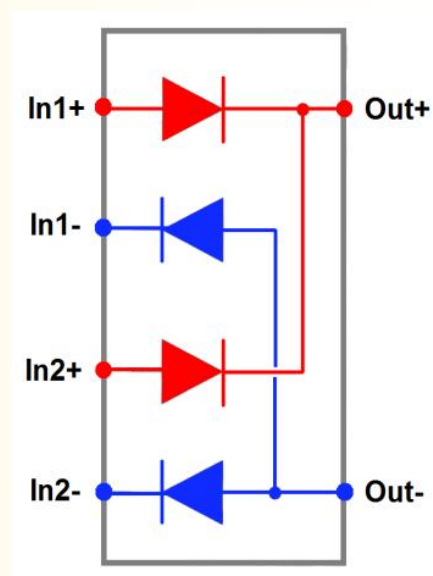


**WIRING AND OUTLINE DIMENSIONS: MPA6**



**MPA6D Voltage 20...280Vdc**  
**Rating current: 200 Adc, 250A @ 45°C maxi**

**LOREME**



**WIRING AND OUTLINE DIMENSIONS: MPA6D dual circuits common Cathode and Anode**

