

REDUNDANCY MODULE with DIODE: MPAx

250Vdc /127Vdc /125Vdc /115Vdc /110Vdc /48Vdc /24Vdc



- **For parallel coupling of 2 or 3 DC power supplies**
Increases system availability and safety
Ensures uninterrupted redundancy
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 redundant module 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 redundant module monitor continuously the two power supplies, and provide an alarm via a contact relay if a failure is detected (loss of redundancy).

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)

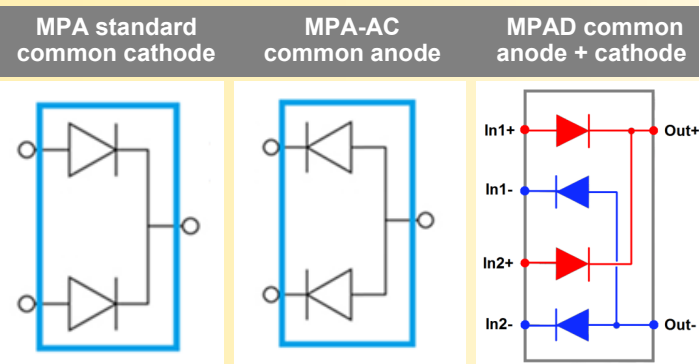
- Potential free contact (closed when power supply is ok)
- 1 relay per channel, signal a faulty power supply.

Extended protection for harsh environment (option - MOV)

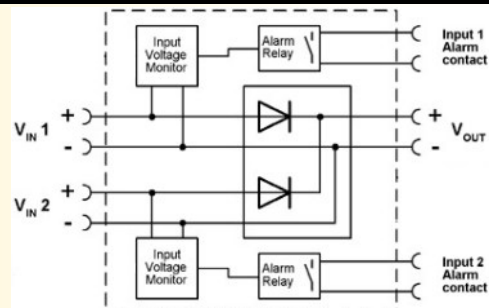
- EMC protection, varistor surge protector.

Feature

- Surface or DIN rail mounting (symmetric according to EN50022)
- MPA3 : pluggable screw terminal blocks, 6mm² section
- MPA4 : fixed screw terminal blocks, 25mm² section
- MPA5 : fixed screw terminal blocks, 35mm² section
- MPA6 : wiring on 8mm threaded brass rod
- Protection rating: IP20



Internal synoptic



Version and order code:

[Request a quote](#)

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

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

- MPA4:** Redundancy module, 50A max (voltage to defined)
- MPA4D:** Redundancy module with common anode and cathode
- MPA4 – ICC1200-20ms:** peak current up to 1200A (single pulse, 20ms)
- MPA5:** Redundancy module, 100A max (voltage to defined)
- MPA5D:** Redundancy module with common anode and cathode
- MPA6:** Redundancy module, 250A max (voltage to defined)
- MPA6D:** Redundancy module 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 61000-6-5

Emission 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



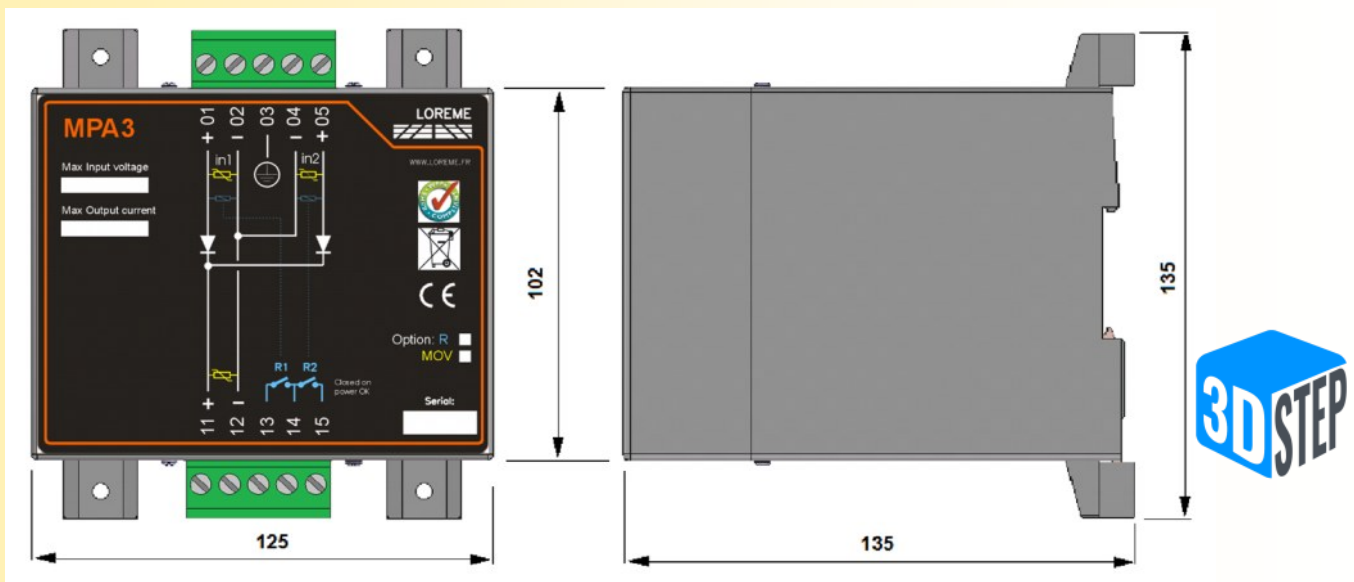
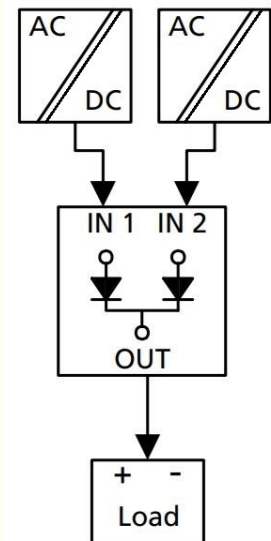
WIRING AND OUTLINE DIMENSIONS: MPA3

MPA3

Voltage : 20...280Vdc

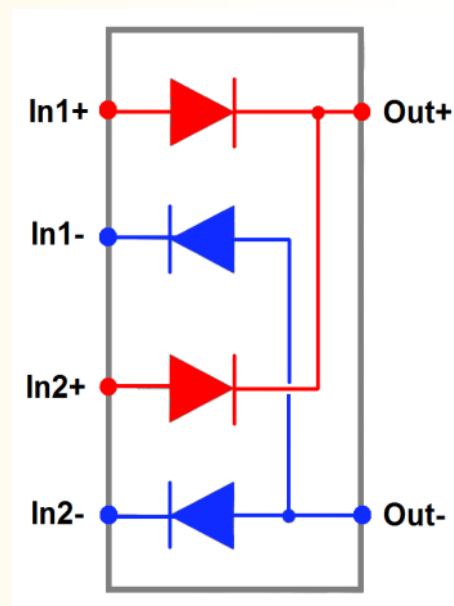
Current :

20 Adc rated current,
 30A @ 45°C max

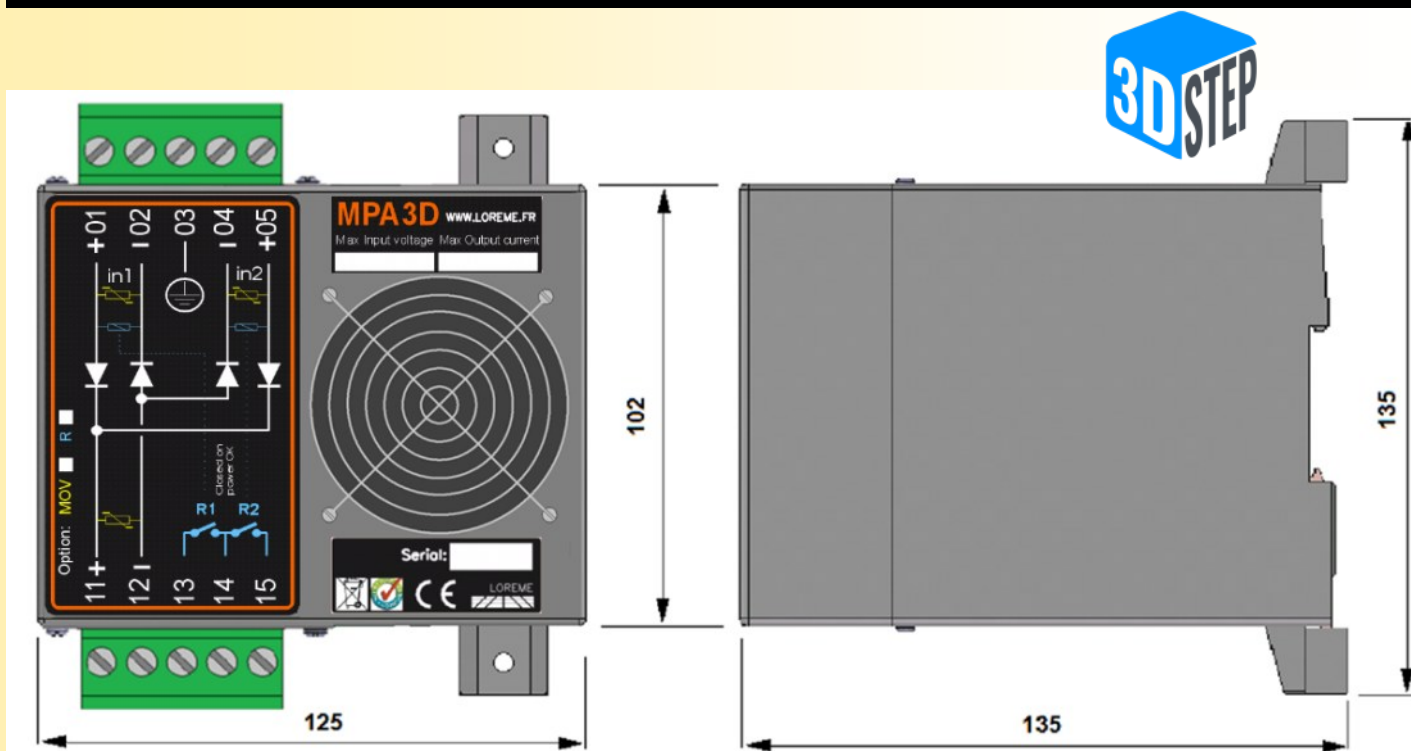


MPA3D Voltage 20...280Vdc
Rating current: 20 A_{dc}, 30A @ 45°C maxi

LOREME

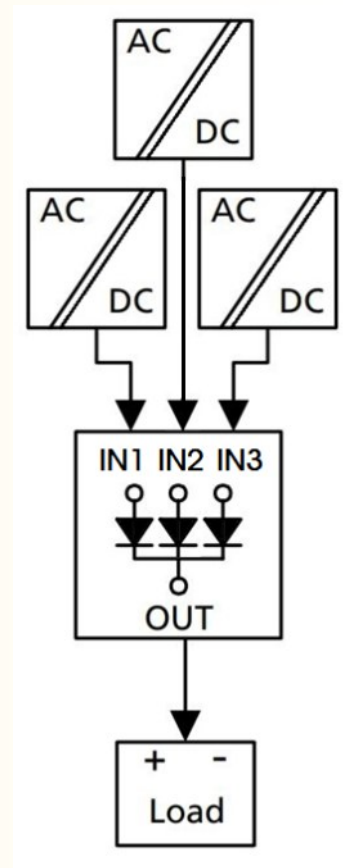
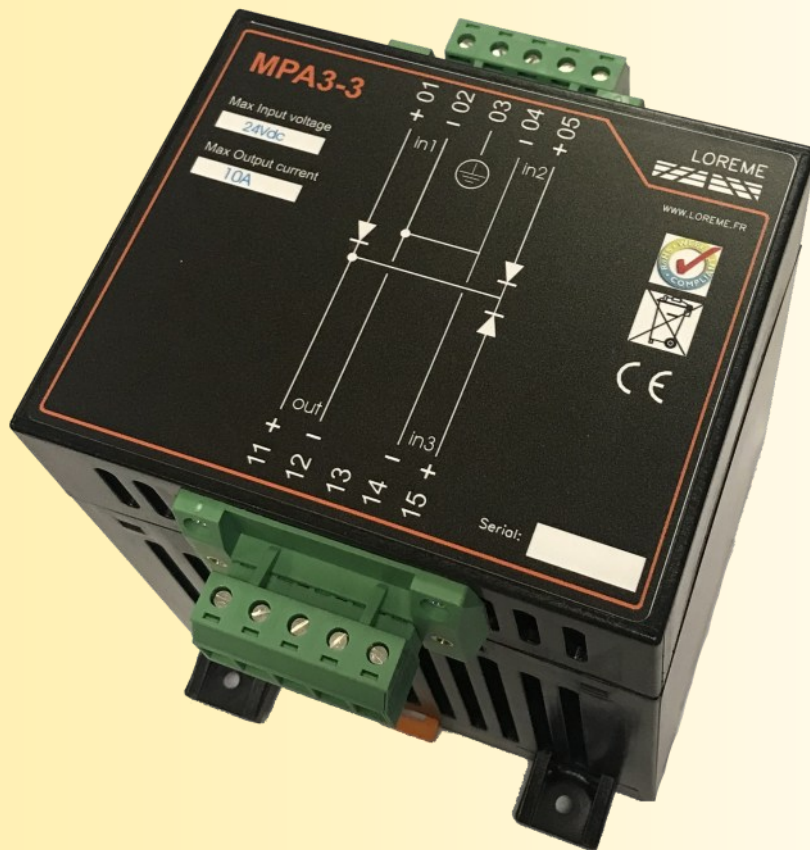


WIRING AND OUTLINE DIMENSIONS: MPA3D dual circuit common Cathode and common Anode

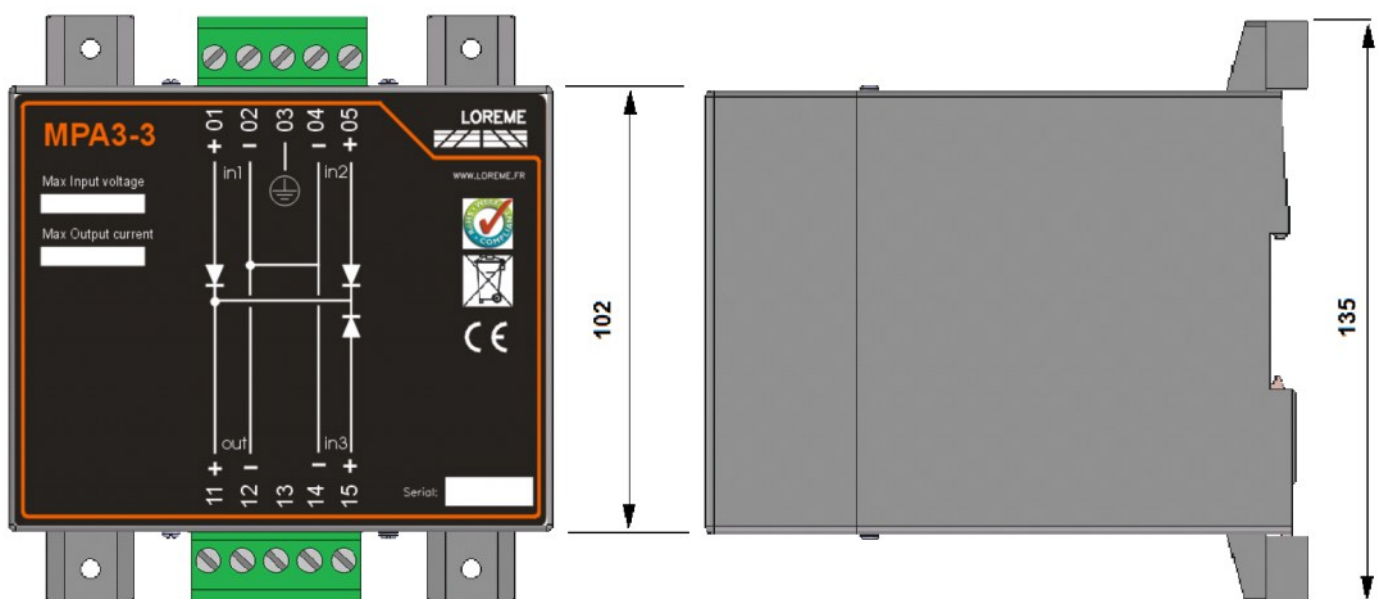


MPA3-3 Voltage 20...280Vdc
Rating current: 20 Adc, 30A @ 45°C maxi

LOREME

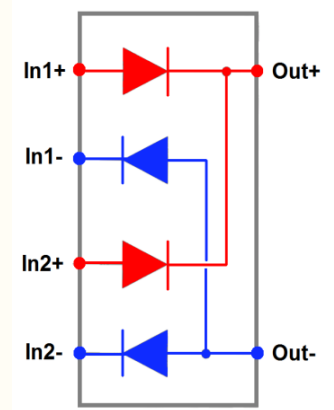
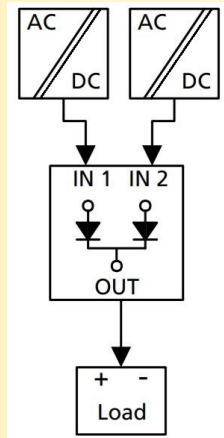


WIRING AND OUTLINE DIMENSIONS: MPA3-3 3 inputs version

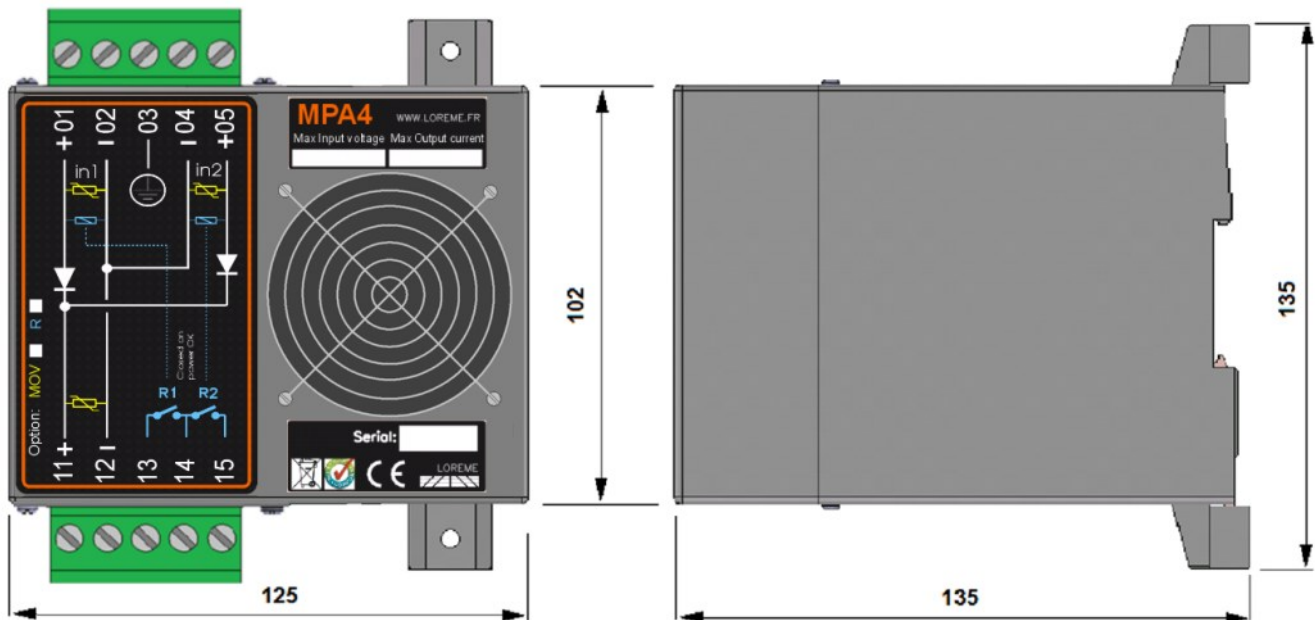


MPA4 and MPA4D Voltage 20...280Vdc
Rating current: 40A_{dc}, 50A @ 45°C maxi

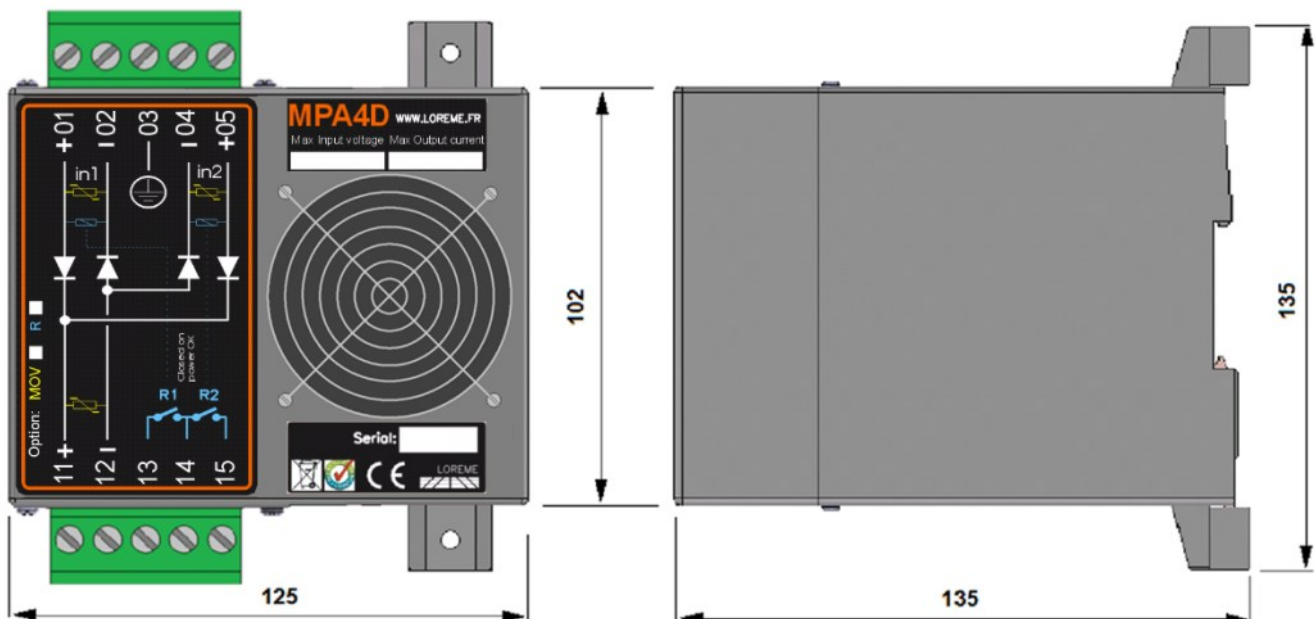
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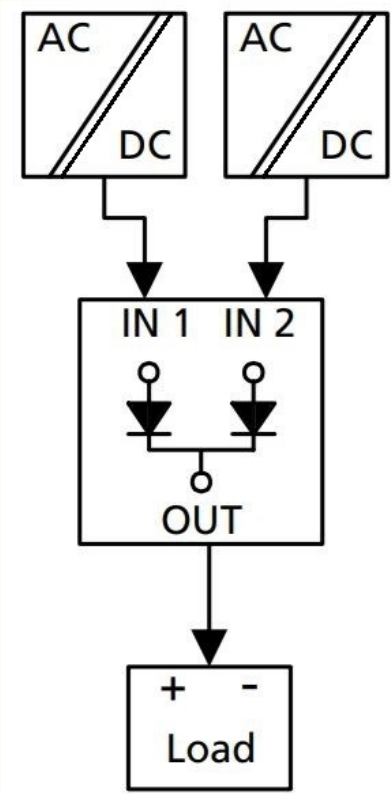
WIRING AND OUTLINE DIMENSIONS: MPA4



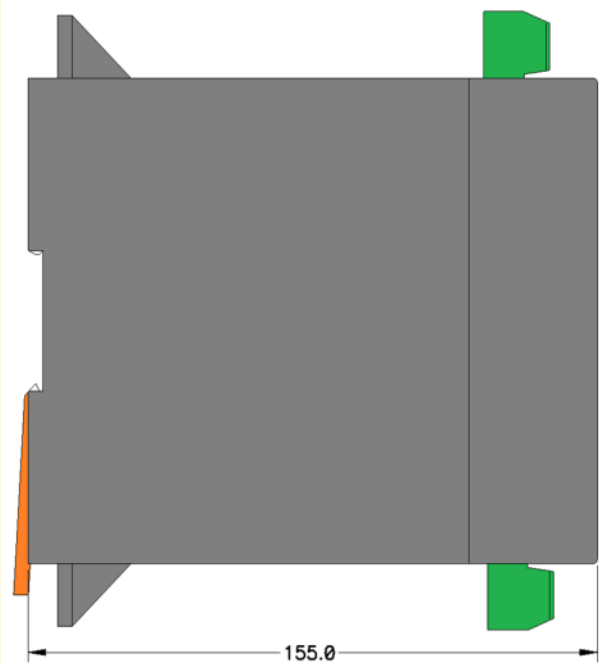
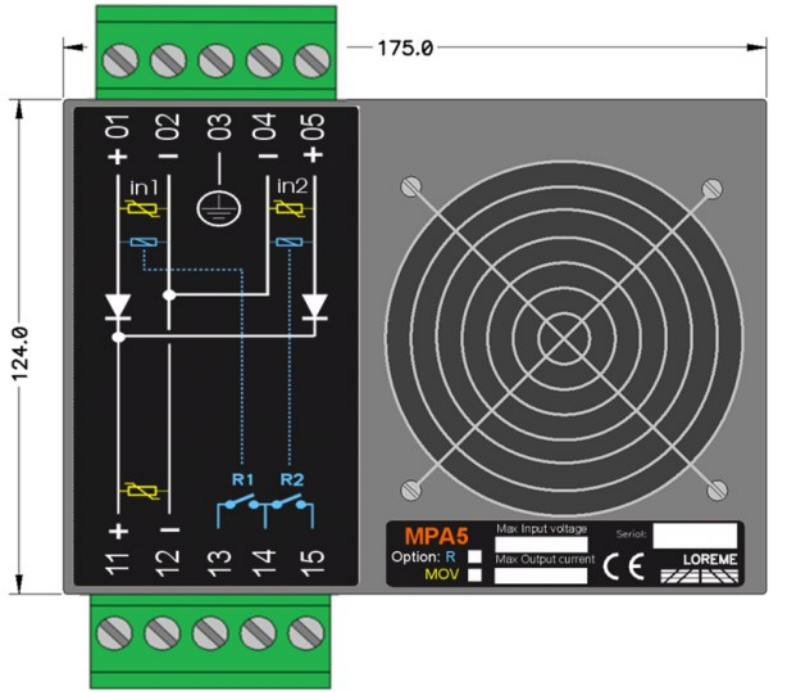
WIRING AND OUTLINE DIMENSIONS: MPA4D



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

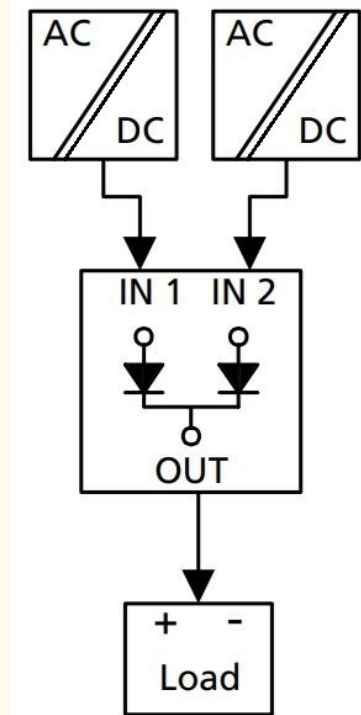


WIRING AND OUTLINE DIMENSIONS: MPA5

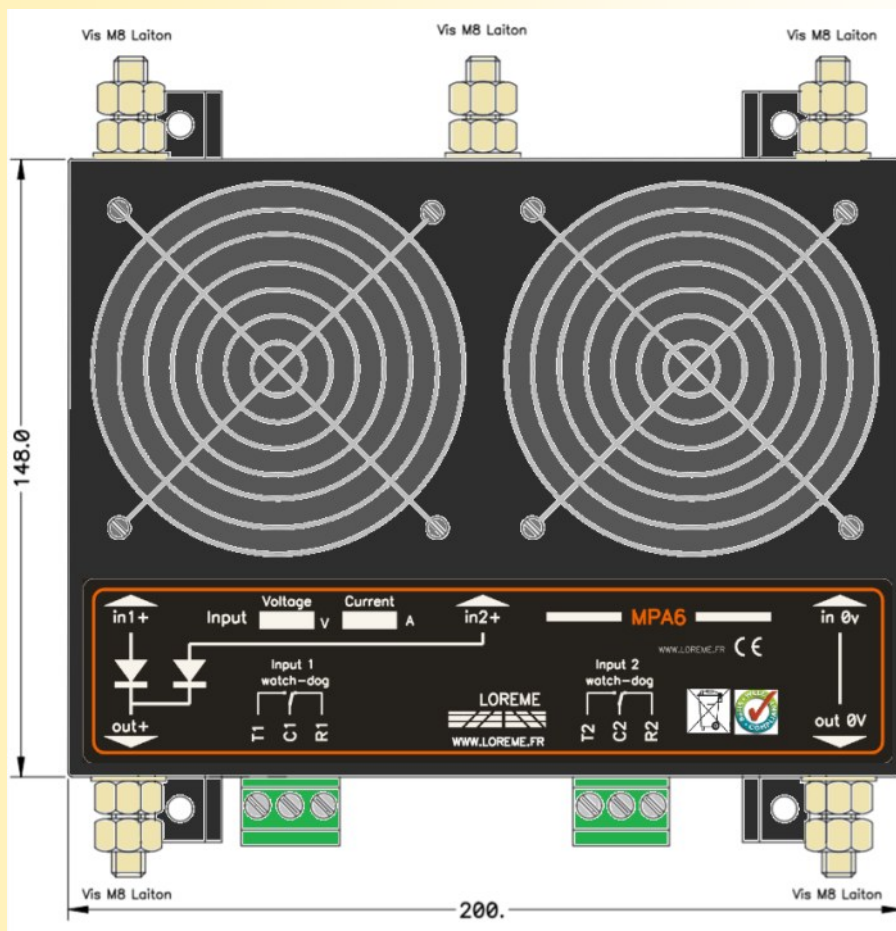


MPA6 Voltage 20...280Vdc
Rating current: 200 A dc, 250A @ 45°C maxi

LOREME

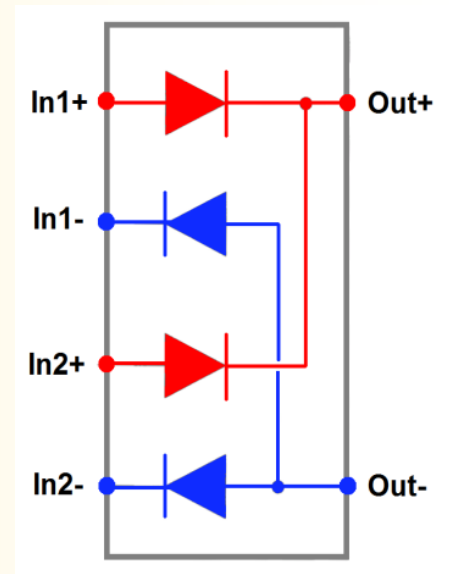


WIRING AND OUTLINE DIMENSIONS: MPA6



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

LOREME



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

