REDUNDANCY MODULE with DIODE: MPAx

- ***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

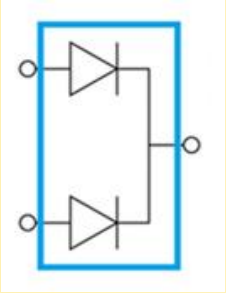
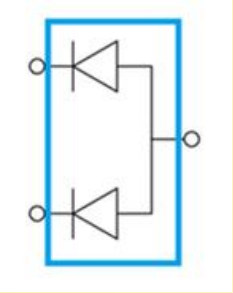
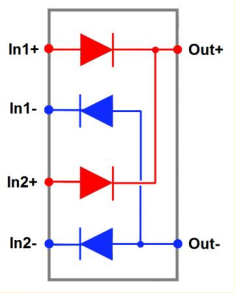
Inputs
2 or 3 inputs up to 280Vdc with common ground.

Output
equal to the higher input voltage - 1.2V

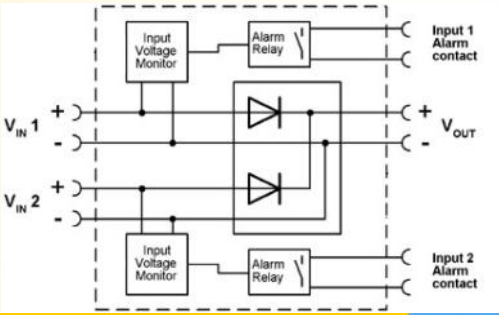
Monitoring relay (MPAx/R)
- Potential free contact (closed when power supply is ok)
- 1 relay per channel, signal a faulty power supply.

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, 6mm^2 section
- MPA4 : fixed screw terminal blocks, 25mm^2 section
- MPA5 : fixed screw terminal blocks, 35mm^2 section
- MPA6 : wiring on 8mm threaded brass rod
- Protection rating: IP20

MPA standard common cathode	MPA-AC common anode	MPAD common anode + cathode
		

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**)

90 days accuracy (20 °C +/- 2 °C) *DATA SHEET CAN BE DOWNLOADED ON WWW.LOREME.FR*

TECHNICAL SPECIFICATIONS

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

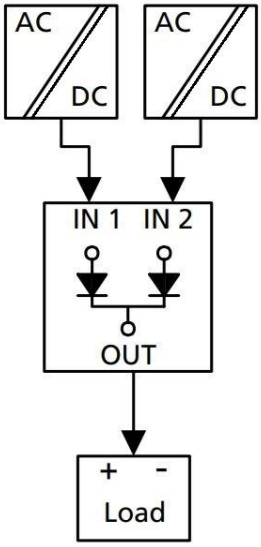
MTBF (MIL HDBK 217F) > 1 200 000 Hrs @ 25°C
life time > 200 000 Hrs @ 30°C (natural convection)
> 50 000 Hrs @ 30°C (ventilated)

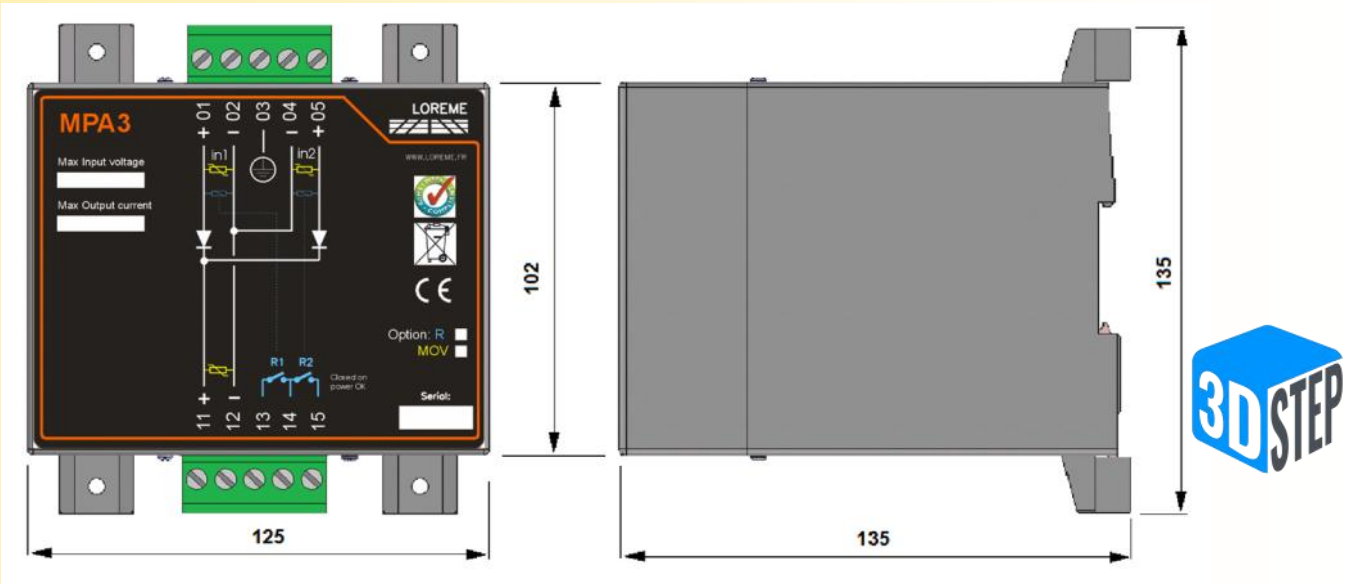
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

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 55011*
EN 61000-4-3 RF	*EN 61000-4-9 pulse MF*	*group 1*
EN 61000-4-4 EFT	*EN 61000-4-11 AC dips*	*class A*
EN 61000-4-5 CWG	*EN 61000-4-12 ring wave*	
EN 61000-4-6 RF	*EN 61000-4-29 DC dips*	

WIRING AND OUTLINE DIMENSIONS: MPA3

MPA3
Voltage : 20...280Vdc
Current :
20 Adc rated current,
30A @ 45°C max





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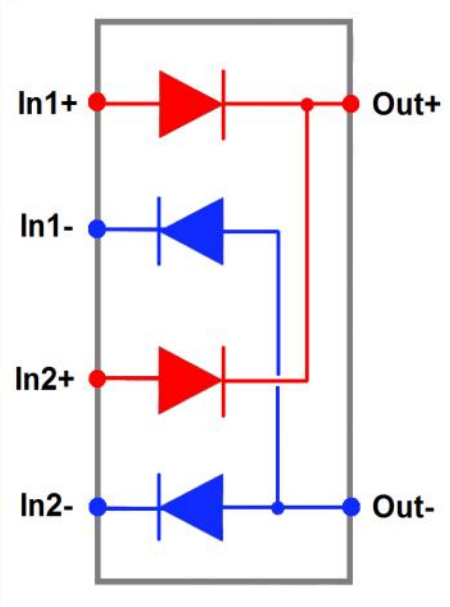
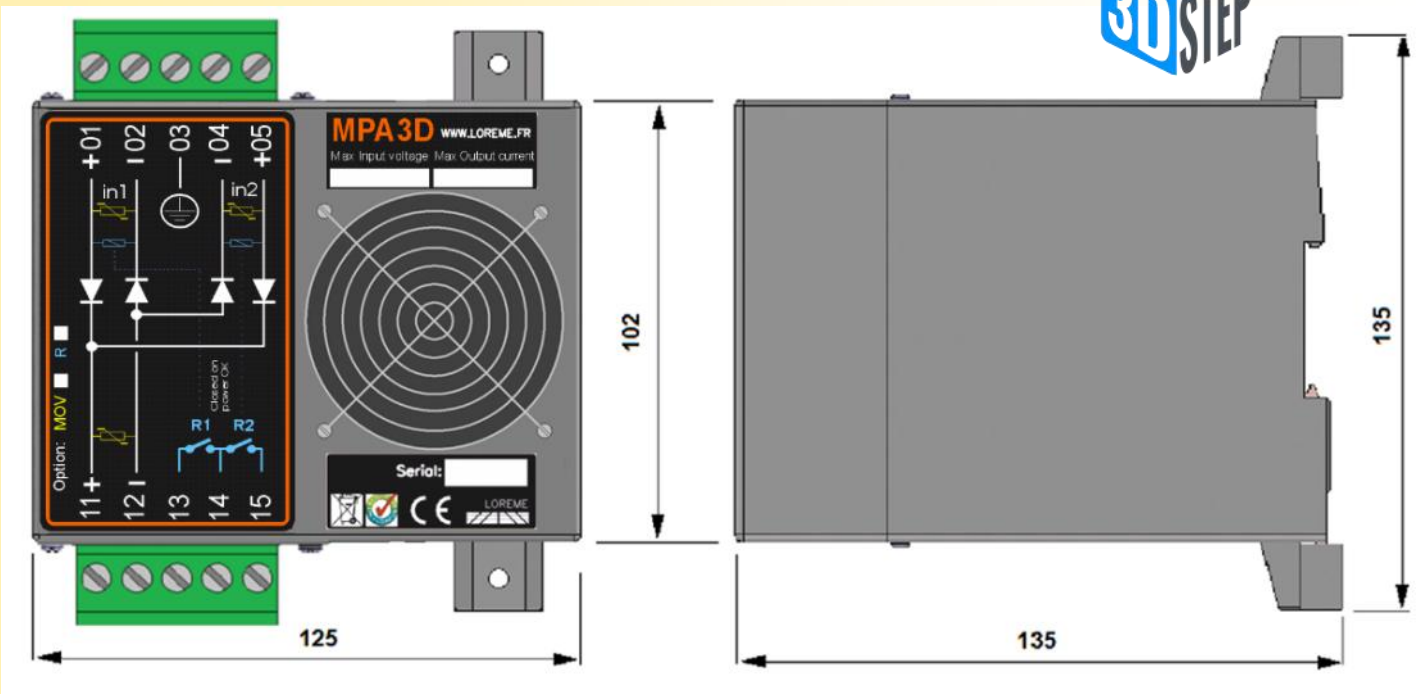
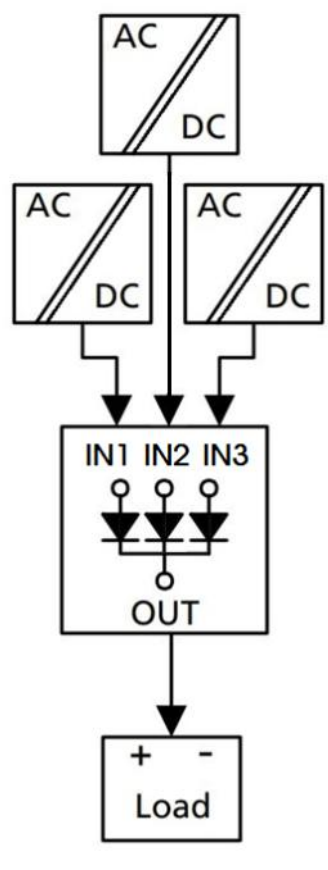
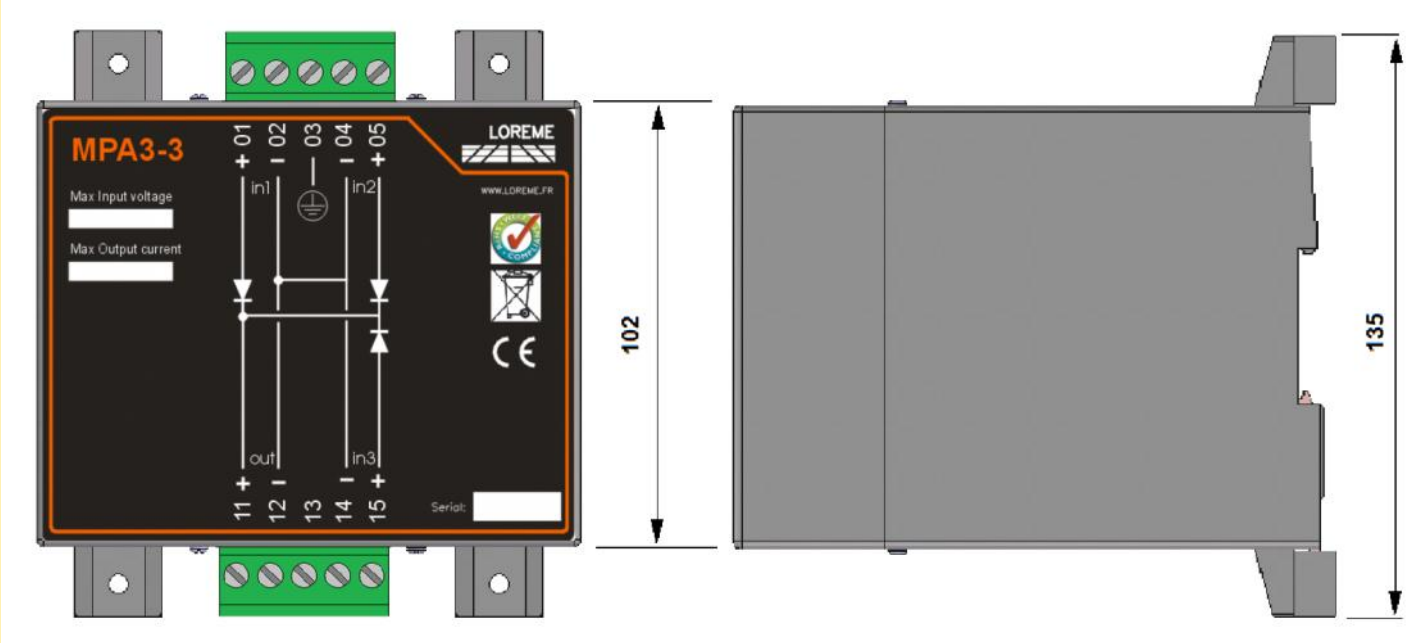


WIRING AND OUTLINE DIMENSIONS: MPA3D dual circuit common Cathode and common Anode

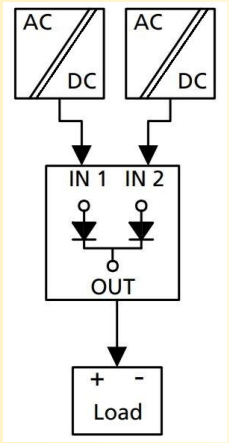


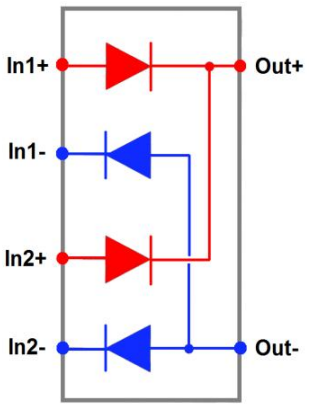


WIRING AND OUTLINE DIMENSIONS: MPA3-3 3 inputs version

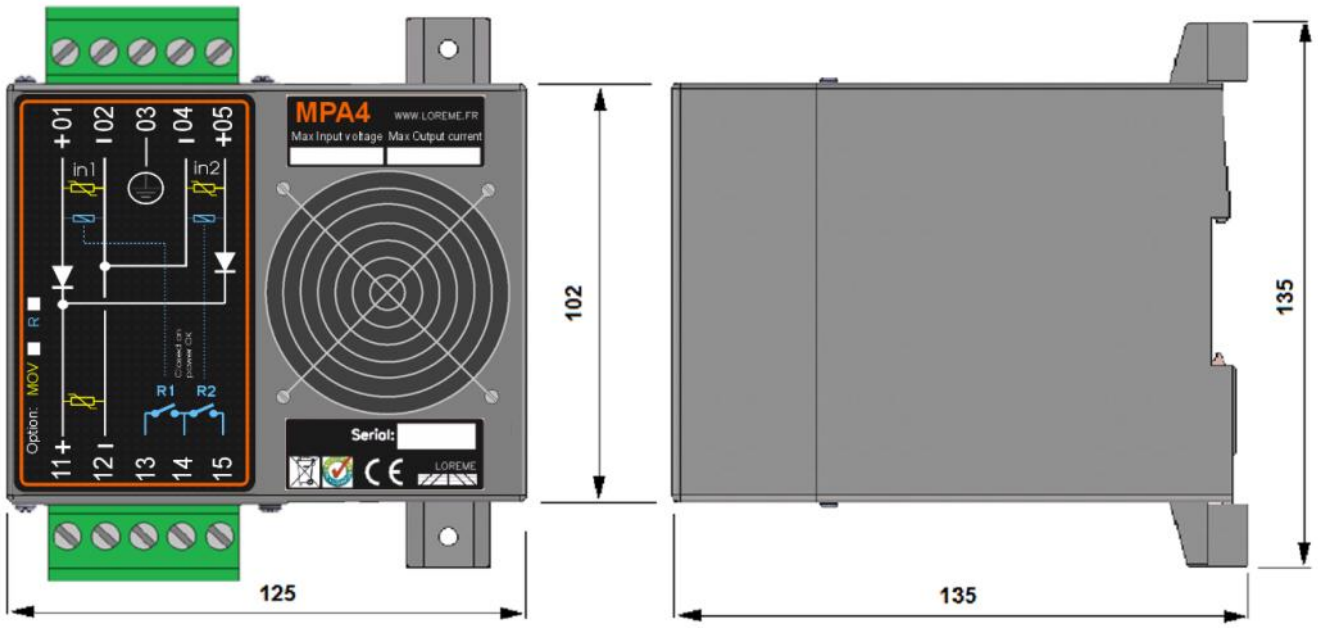


MPA4 and MPA4D Voltage 20...280Vdc
Rating current: 40Adc, 50A @ 45°C maxi

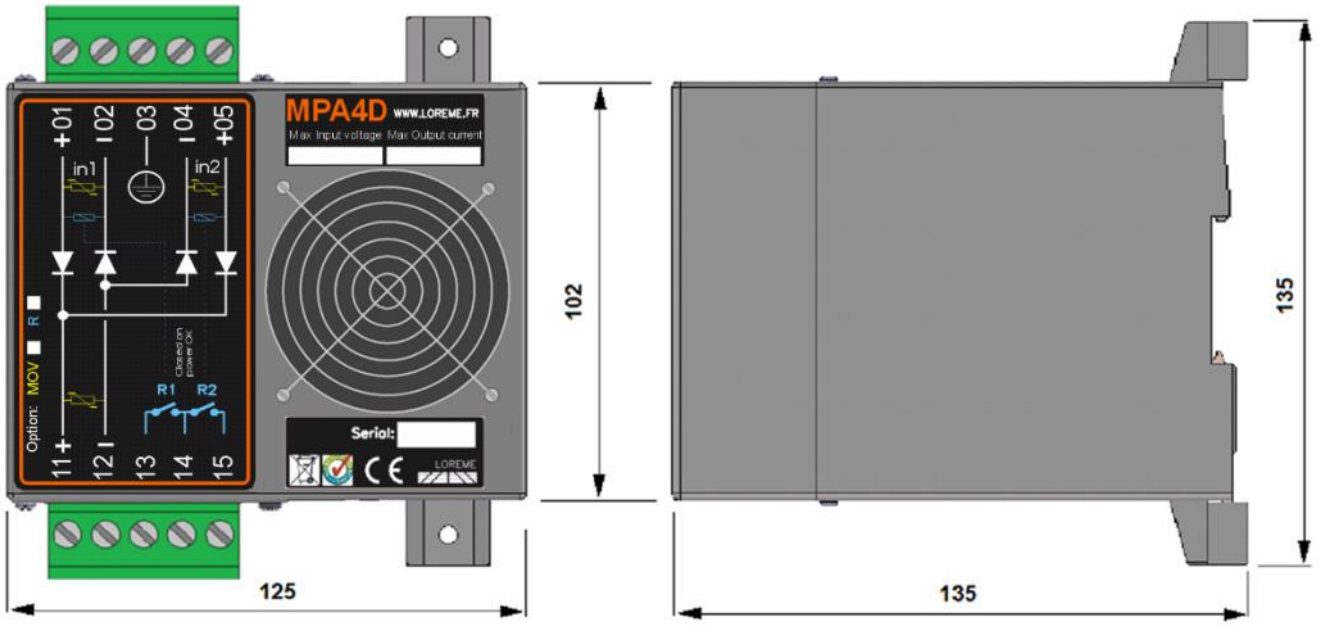




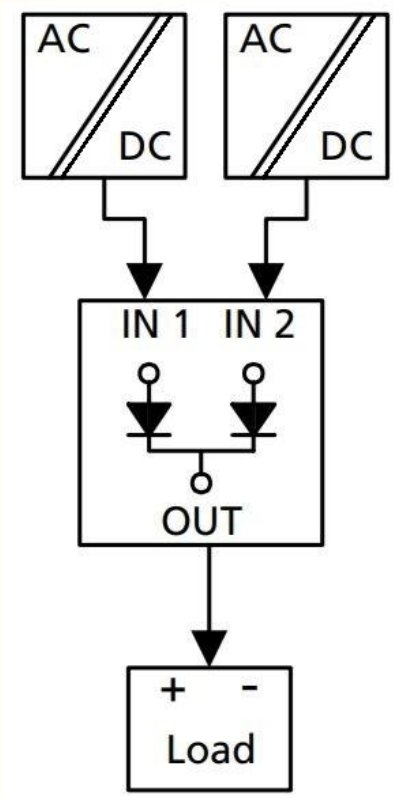
WIRING AND OUTLINE DIMENSIONS: MPA4



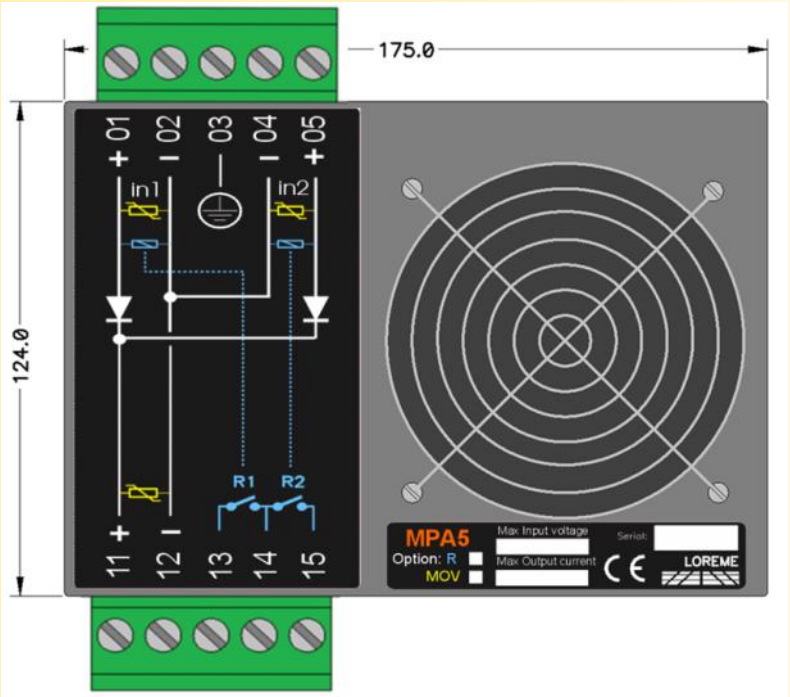
WIRING AND OUTLINE DIMENSIONS: MPA4D

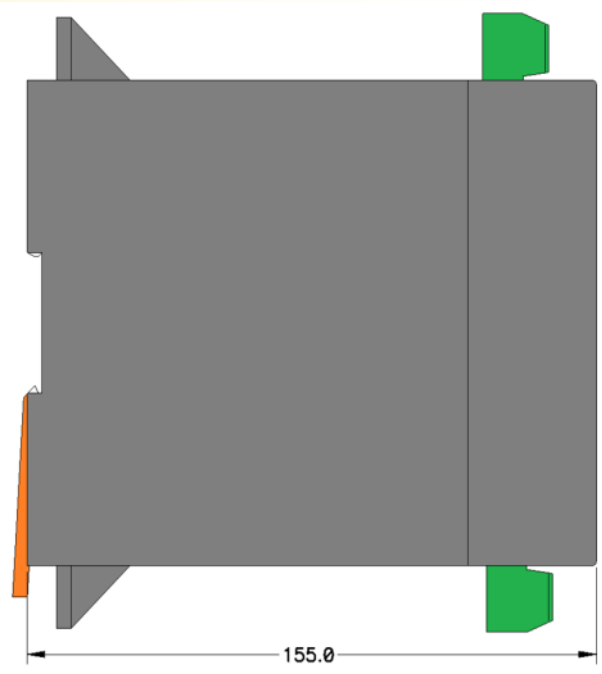


MPA5 Voltage 20...280Vdc
Rating current: 80 Adc, 100A @ 45°C maxi

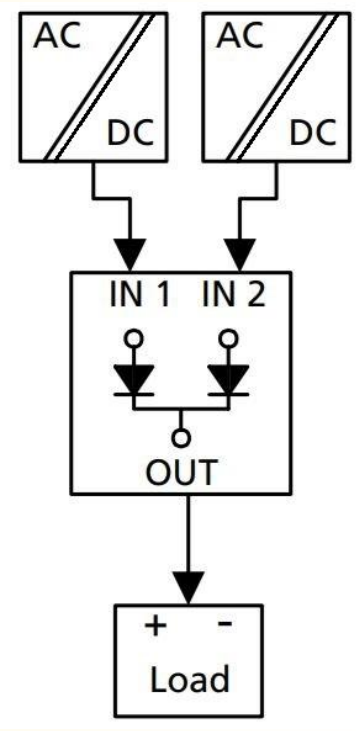


WIRING AND OUTLINE DIMENSIONS: MPA5

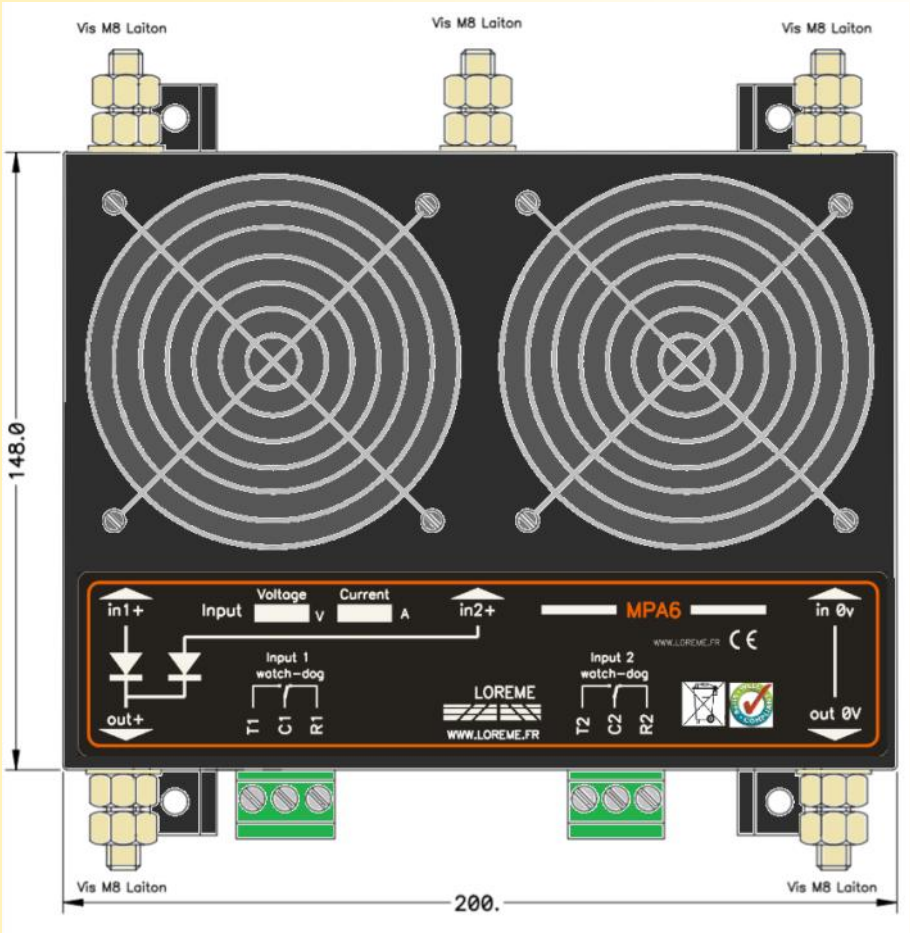


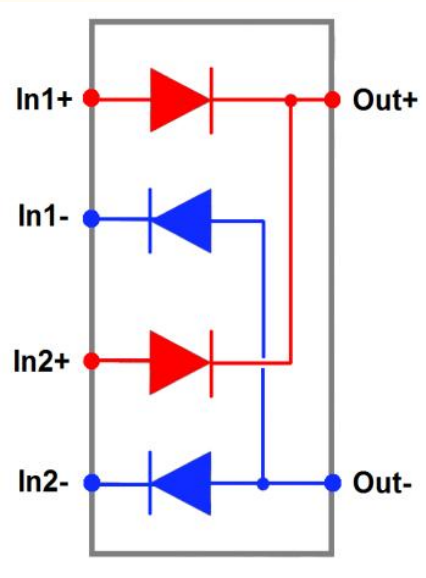


MPA6 Voltage 20...280Vdc
Rating current: 200 Adc, 250A @ 45°C maxi



WIRING AND OUTLINE DIMENSIONS: MPA6





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