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

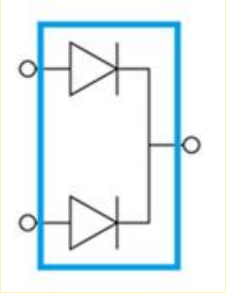
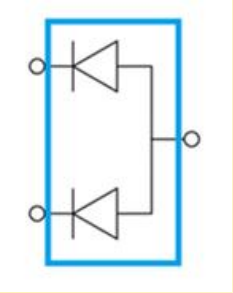
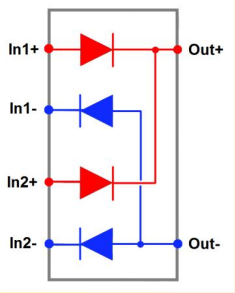
Inputs
2 or 3 inputs up to 280Vdc with common ground.

Output
equal to the higher input voltage - 1.2V

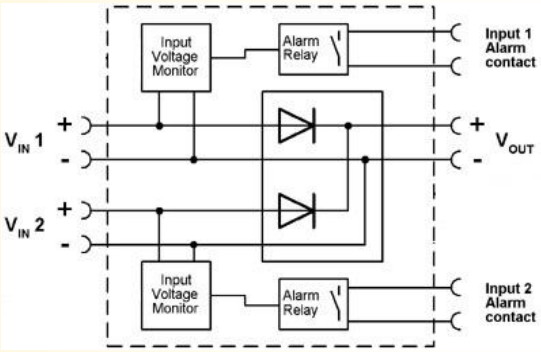
Monitoring relay (MPAx/R)
- Potential free contact (closed when power supply is ok)
- 1 relay per channel, signal a faulty power supply.

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, 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, up to 30A maxi
MPA3 – ICC1200-20ms: peak current up to 1200A (single pulse, 20ms)
MPA3D: Redundancy module with common anode and cathode
MPA3D-NV version of MPA3D without ventilation, natural convection
MPA3-3: Redundancy module with 3 inputs, up to 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 up to 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 up to 100A max (voltage to defined)
MPA5D: Redundancy module with common anode and cathode
MPA6: Redundancy module up to 250A max (voltage to defined)
(Operating voltage :20Vdc to 280Vdc, rated value to defined)

Option : **/R** input voltage monitoring relay ***(the rating voltage must be defined)***
-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
	Rating current	20Adc, 30A @45°C maxi
MPA4	Voltage	20...280Vdc
	Rating current	40Adc, 50A @45°C maxi
MPA5	Voltage	20...280Vdc
	Rating current	80Adc, 100A @45°C maxi
MPA6	Voltage	20...280Vdc
	Rating current	200Adc, 250A @45°C maxi

Reverse polarity protected

OUTPUT

Typical voltage	= input voltage - 1.6V @ rating current
Maxi overcurrent supported	3 x I / 5 sec.
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

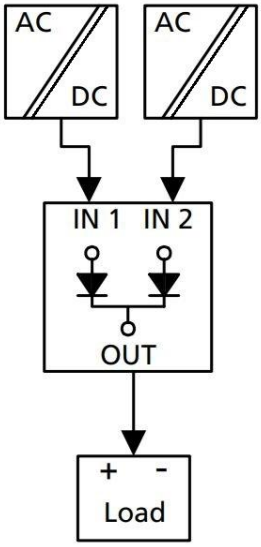
MTBF (MIL HDBK 217F) > 1 200 000 Hrs @ 25°C
life time > 200 000 Hrs @ 30°C (natural convection)
> 50 000 Hrs @ 30°C (ventilated)

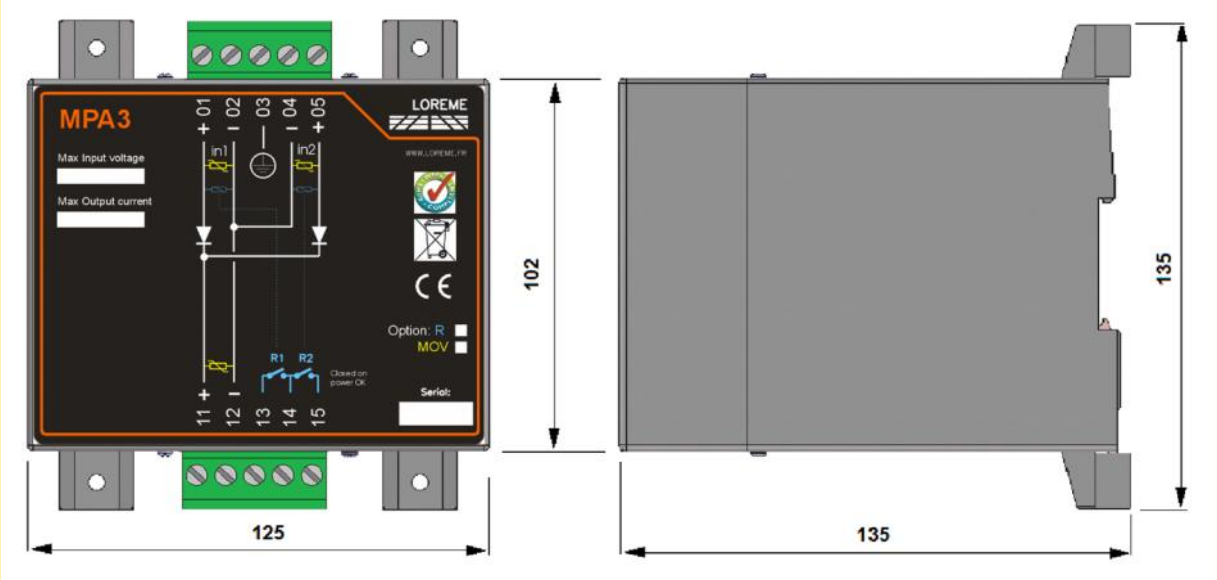
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

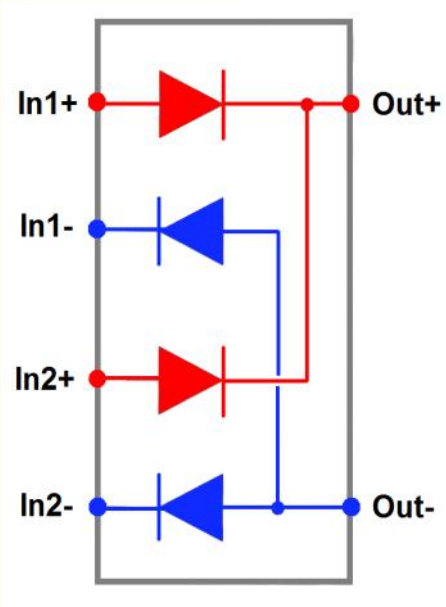
Immunity standard for industrial environments and power station EN 61000-6-2 / EN 61000-6-5		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	*EN 61000-4-8 AC MF*	*EN 55011*
EN 61000-4-3 RF	*EN 61000-4-9 pulse MF*	*group 1*
EN 61000-4-4 EFT	*EN 61000-4-11 AC dips*	*class A*
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

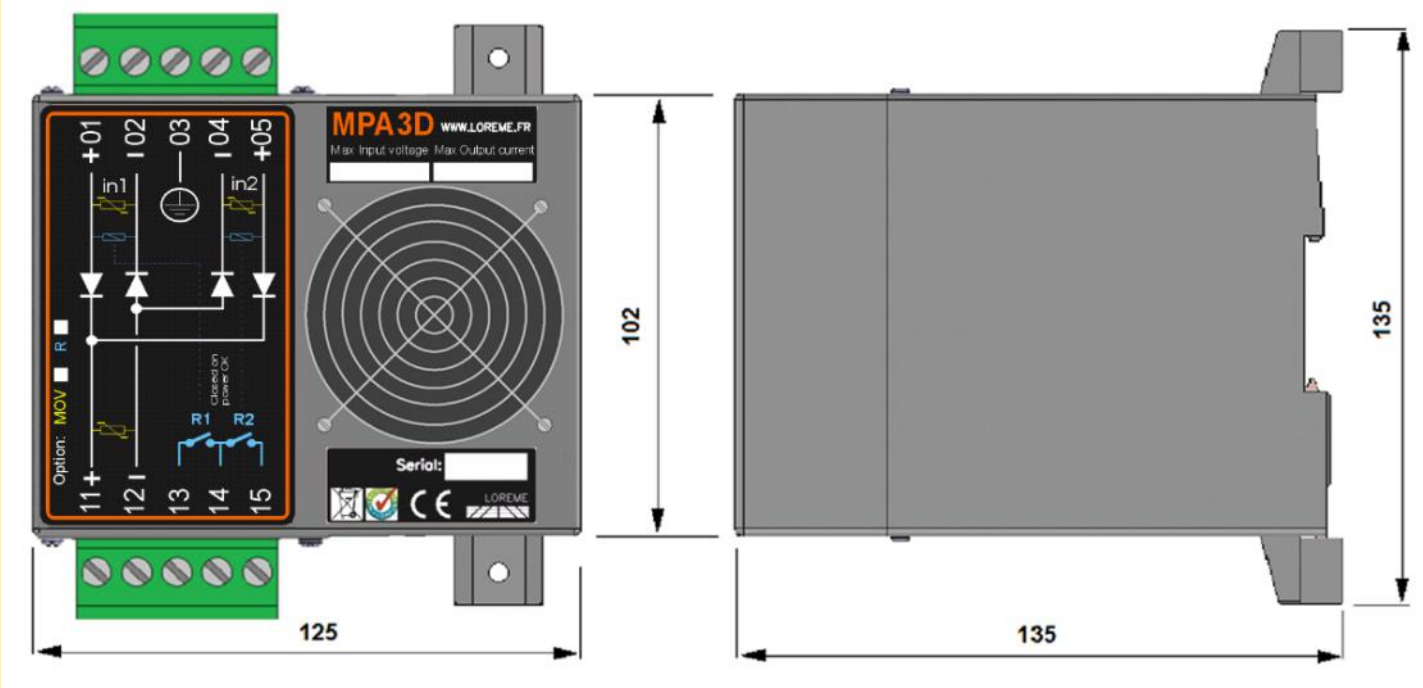
MPA3
Voltage : 20...280Vdc
Current :
20 Adc nominal,
30A @ 45°C max

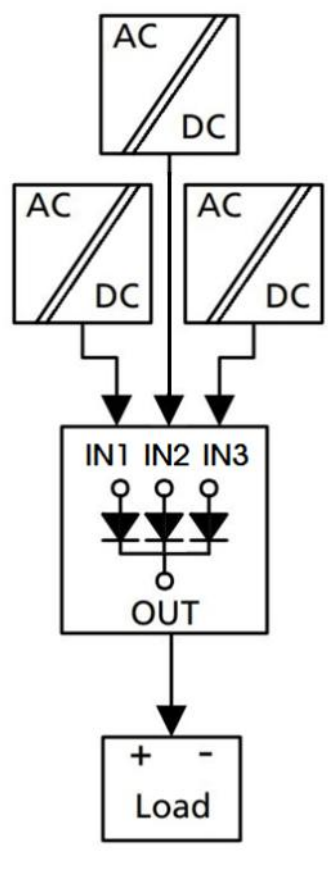




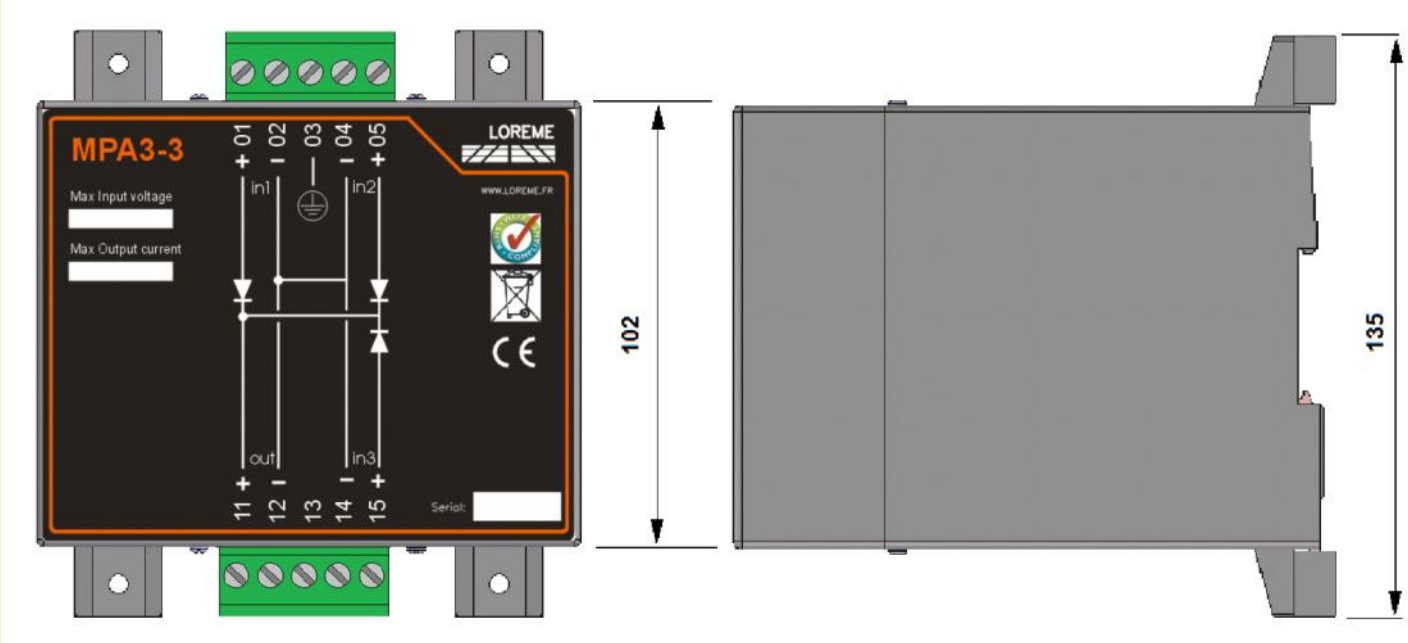


WIRING AND OUTLINE DIMENSIONS: MPA3D dual circuit common Cathode and common Anode

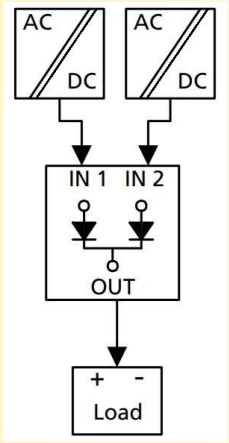


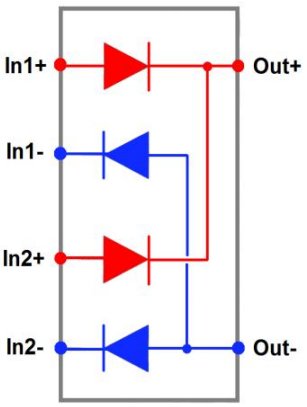


WIRING AND OUTLINE DIMENSIONS: MPA3-3 3 inputs version

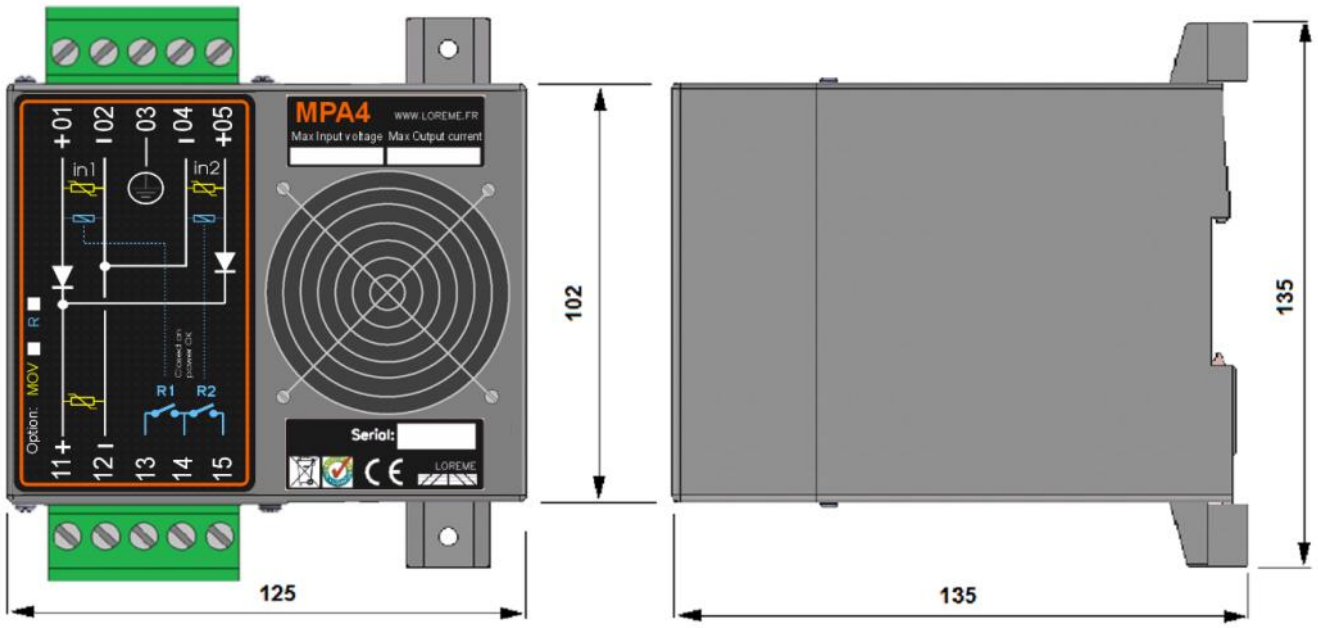


MPA4 Voltage 20...280Vdc
Rating current: 40Adc, 50A @ 45°C maxi

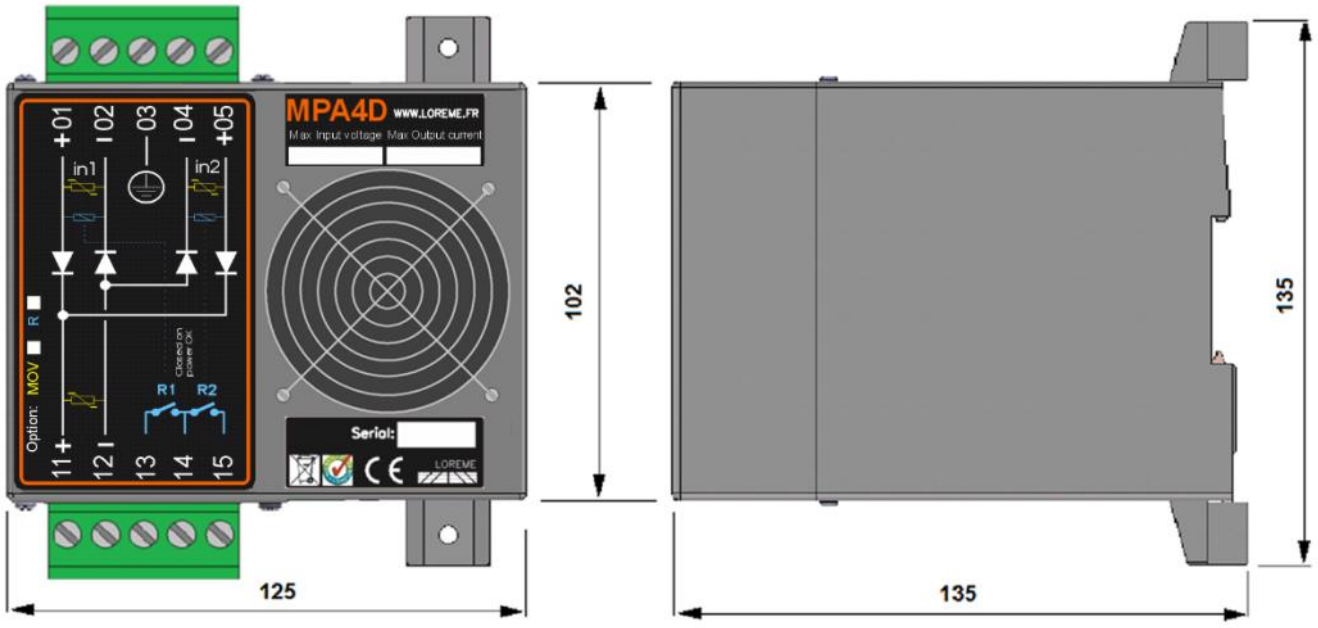


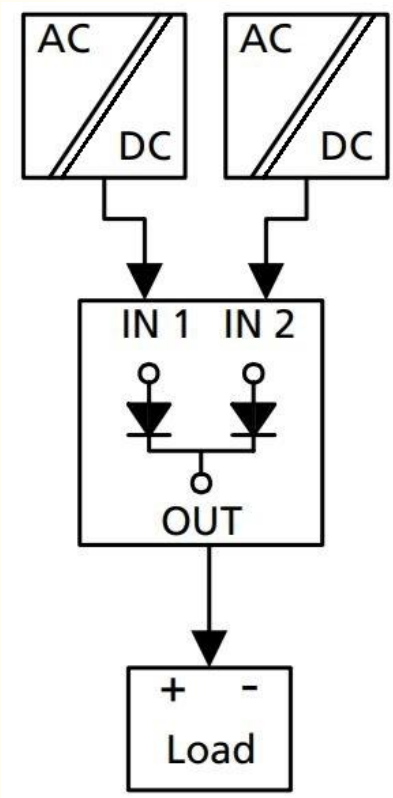


WIRING AND OUTLINE DIMENSIONS: MPA4

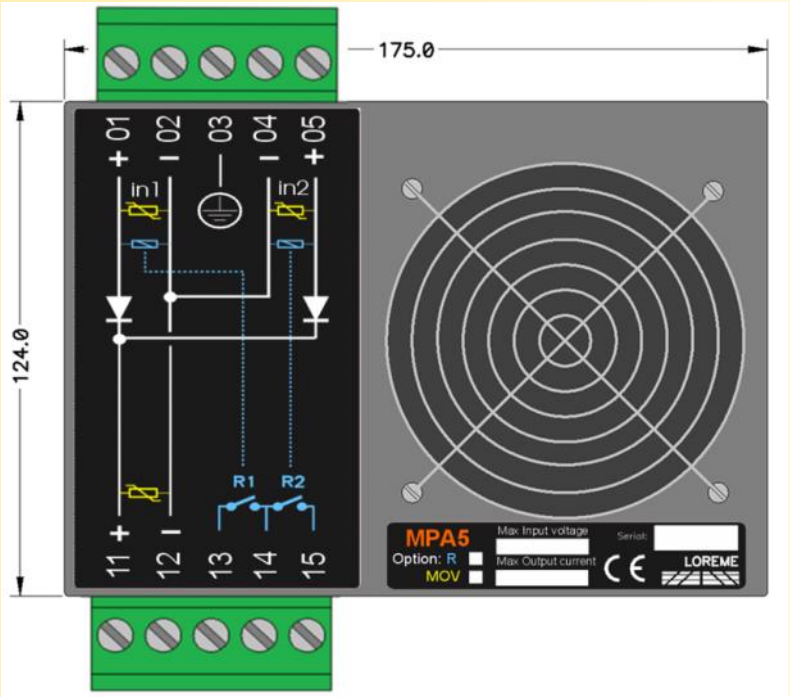


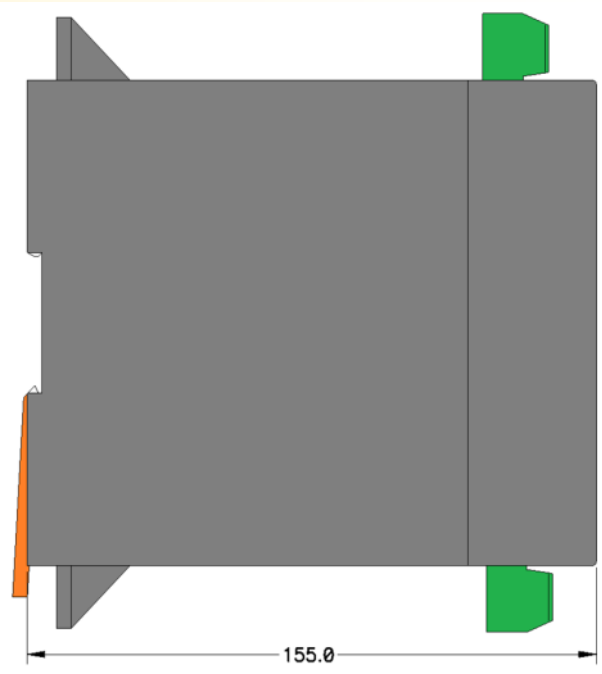
WIRING AND OUTLINE DIMENSIONS: MPA4D



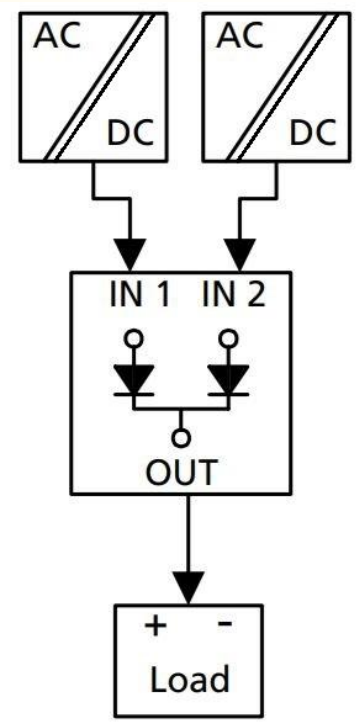


WIRING AND OUTLINE DIMENSIONS: MPA5





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



WIRING AND OUTLINE DIMENSIONS: MPA6