

**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

- **Using range : 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 nominal, 50A maxi ( ventilated model )  
**MPA5** : 80A nominal, 100A maxi ( ventilated model )  
**MPA6** : 200A nominal, 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)**

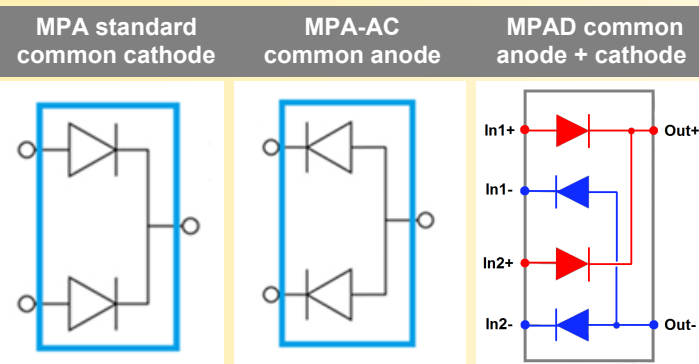
- Potential free contact (closed when power supply is ok)
- 1 relay per channel, signal a faulty power supply.

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

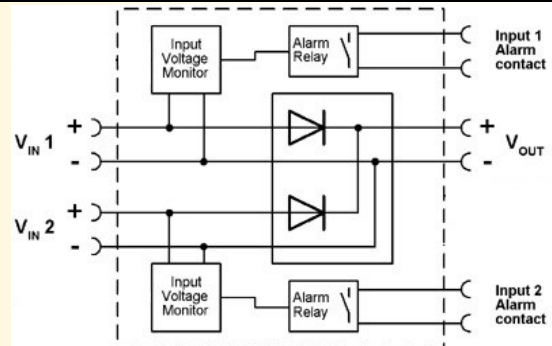
- EMC protection, varistor surge protector.

**Feature**

- Surface or DIN rail mounting (symmetric according to EN50022)
- MPA3 : pluggable screw terminal blocks, 6mm<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:** 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
- 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 customer RTE)

- 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)
- 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 rated 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
	Current	20Adc nominal, 30A @45°C maxi
MPA4	Voltage	20...280Vdc
	Current	40Adc nominal, 50A @45°C maxi
MPA5	Voltage	20...280Vdc
	Current	80Adc nominal, 100A @45°C maxi
MPA6	Voltage	20...280Vdc
	Current	200Adc nominal, 250A @45°C maxi
Reverse polarity protected		
OUTPUT		
Typical voltage	= input voltage - 1.6V @ nominal current	
Maxi overcurrent supported	3 x nominal current / 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	

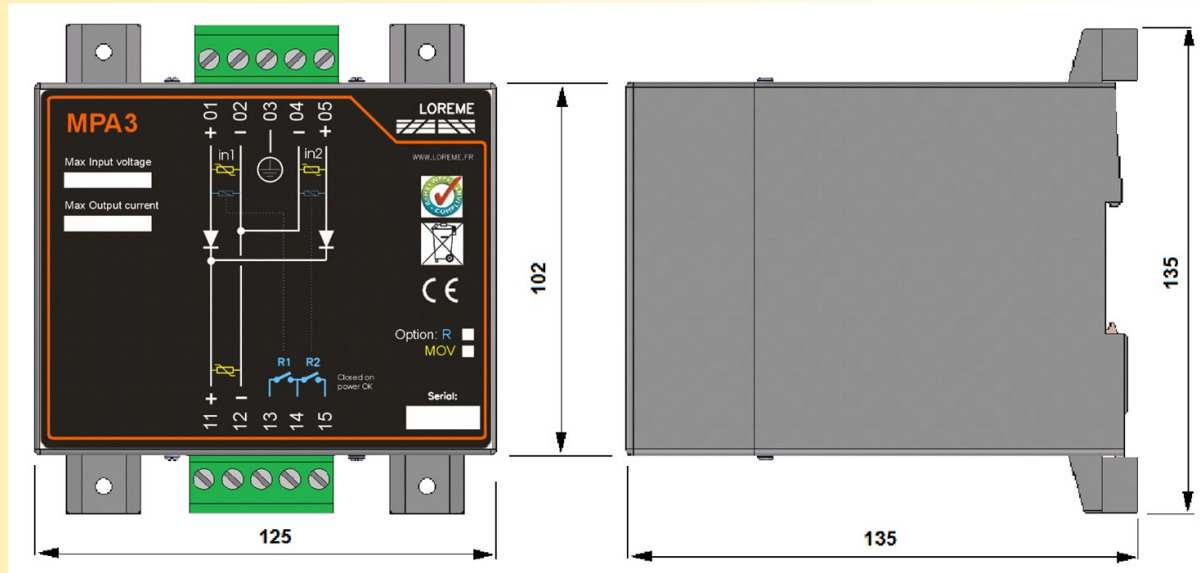
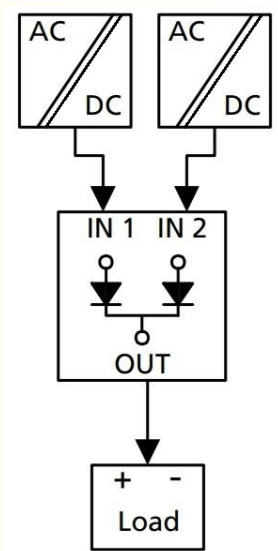
ENVIRONMENT	
Operating temperature:	-25°C to 60°C
Storage temperature:	-40°C to 85°C
Humidity:	85 % non condensed
Protection rating (according to EN 60529):	IP20
Weight:	950 g
Dielectric strength (power supply / relay)	2500Vac continuous
MTBF (MIL HDBK 217F)	> 1 200 000 Hrs @ 25°C
life time	> 200 000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

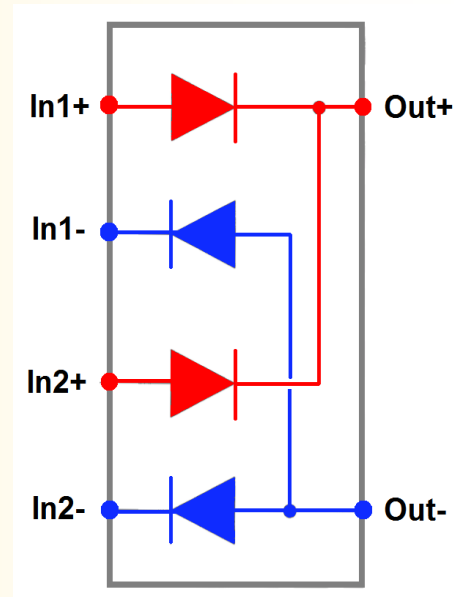


**WIRING AND OUTLINE DIMENSIONS: MPA3**

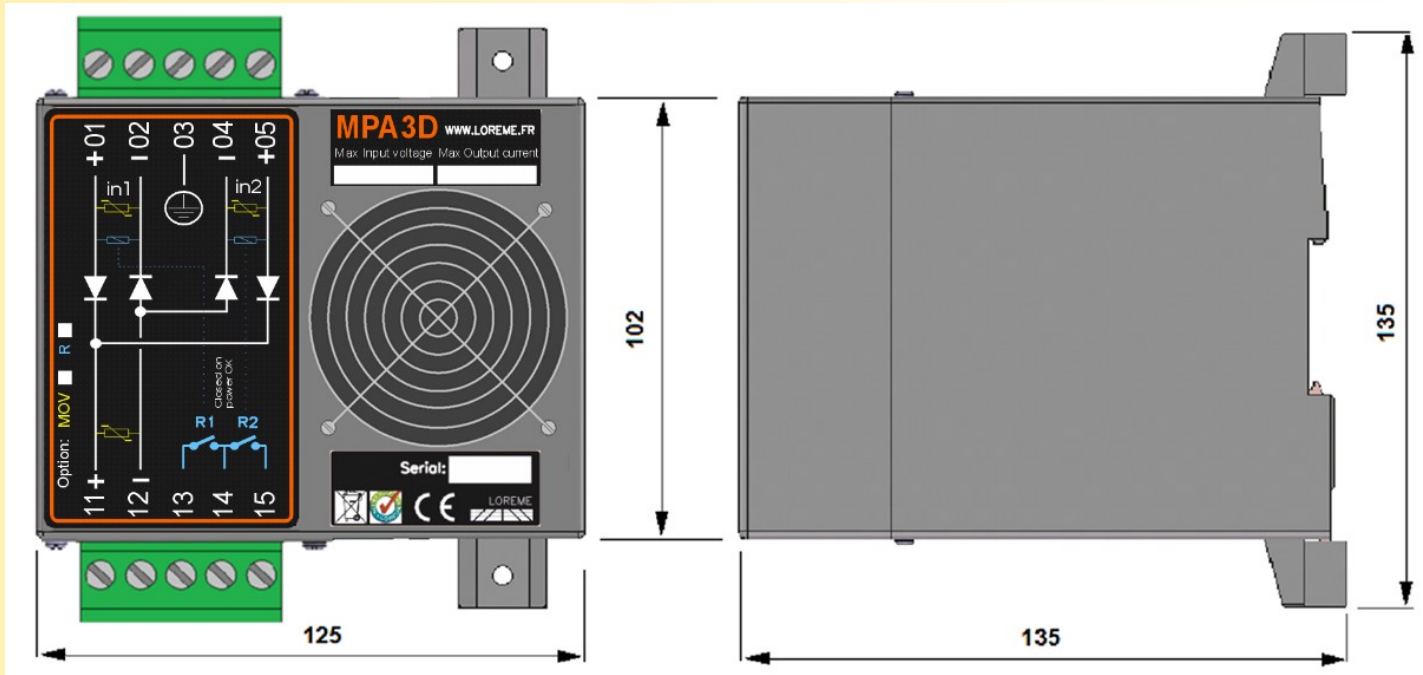
**MPA3**  
**Voltage : 20...280Vdc**  
**Current :**  
**20 Adc nominal,**  
**30A @ 45°C max**



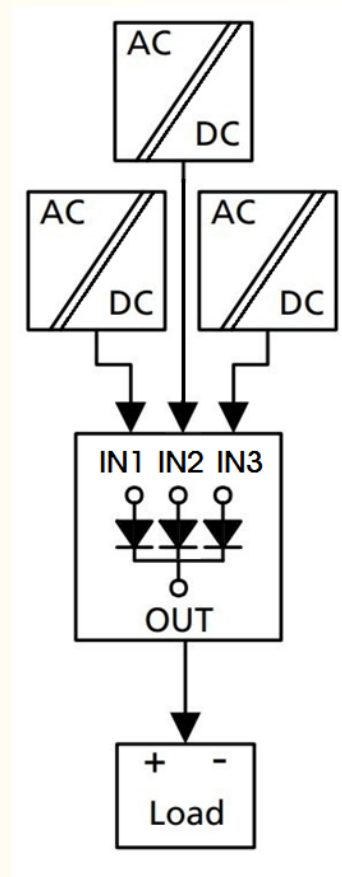
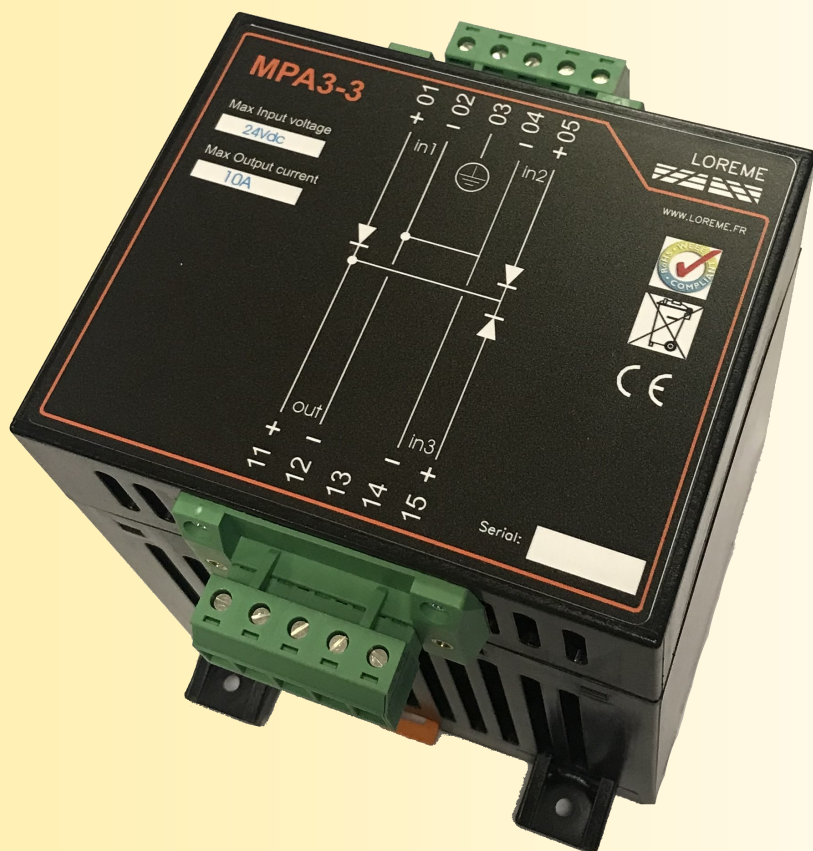
**MPA3D Voltage 20...280Vdc**  
**Current: 20 Adc nominal, 30A @ 45°C maxi**



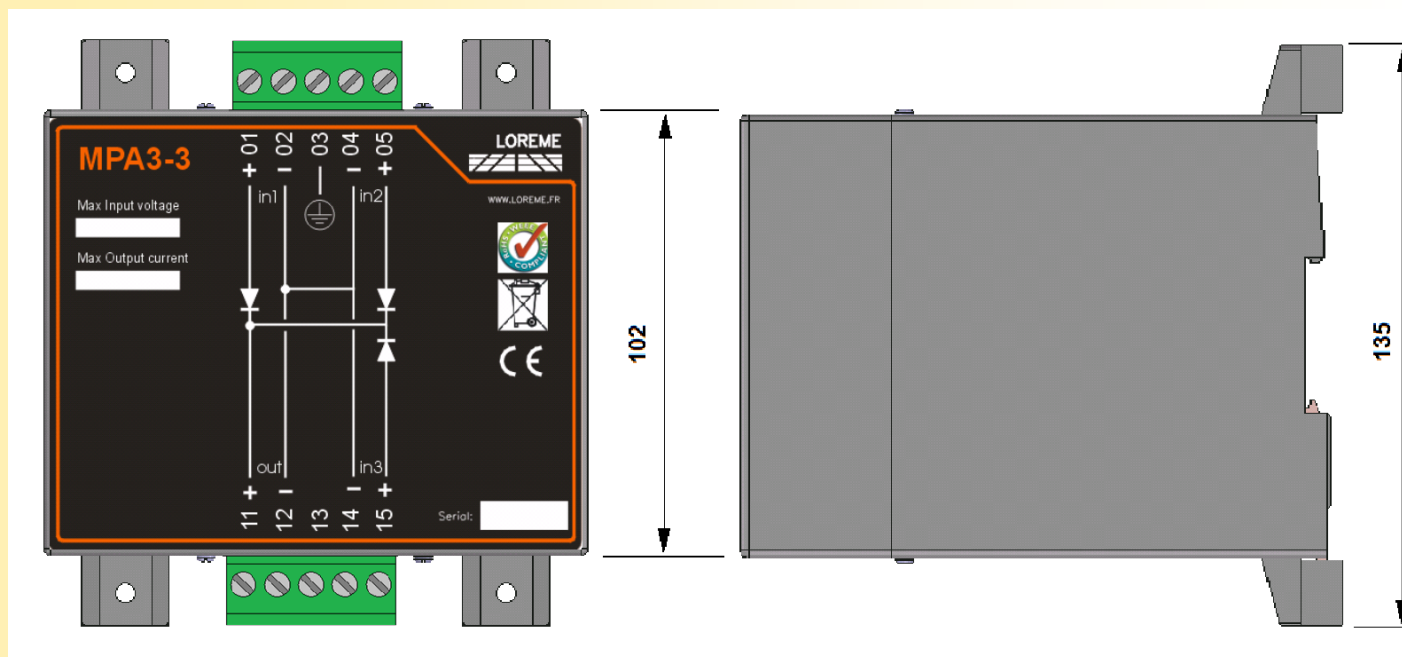
**WIRING AND OUTLINE DIMENSIONS: MPA3D dual circuit common Cathode and common Anode**



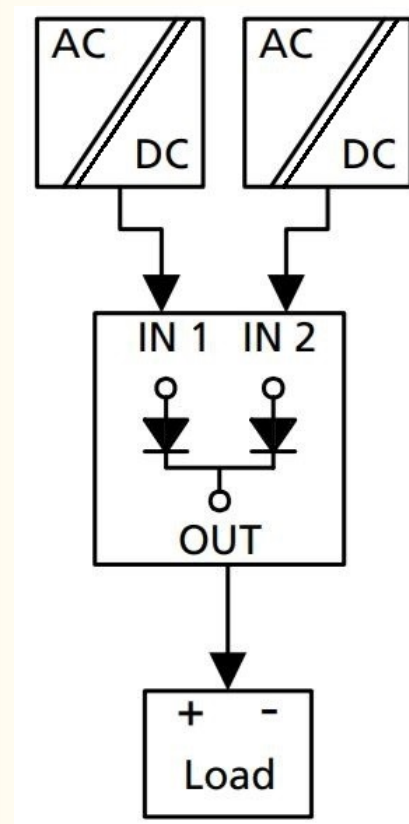
**MPA3-3 Voltage 20...280Vdc**  
**Current: 20 Adc nominal, 30A @ 45°C maxi**



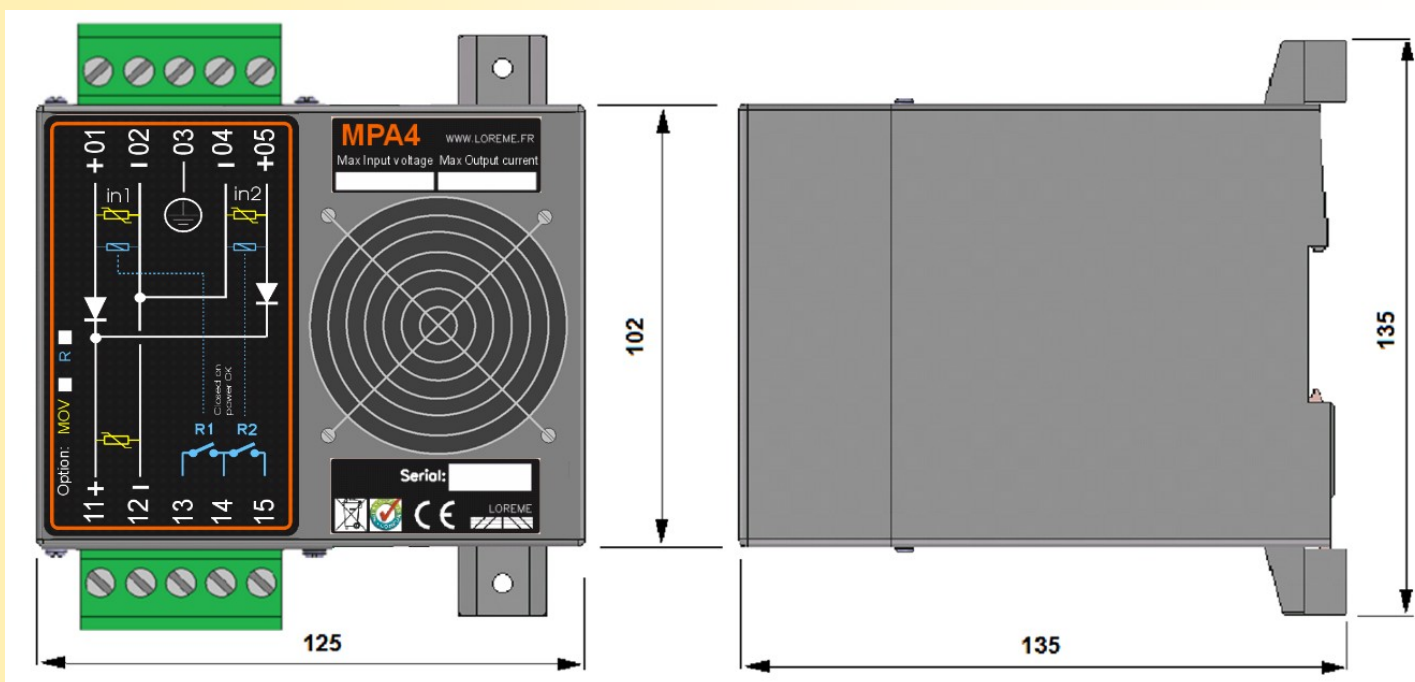
**WIRING AND OUTLINE DIMENSIONS: MPA3-3 3 inputs version**



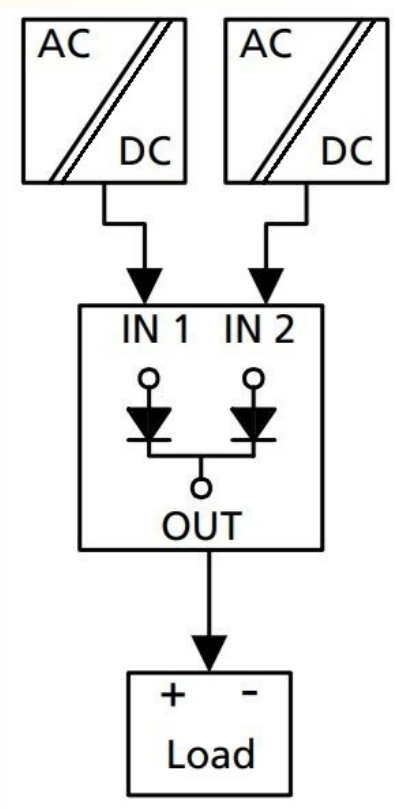
**MPA4** Voltage 20...280Vdc  
 Current 40A dc nominal, 50A @ 45°C maxi



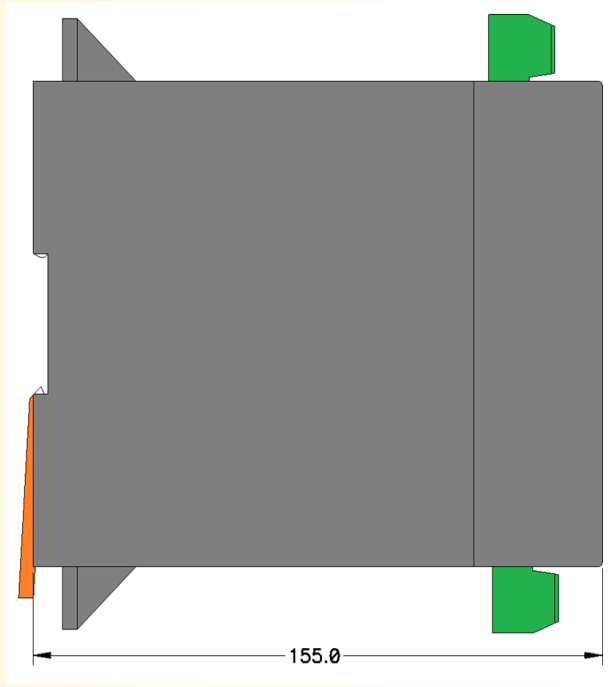
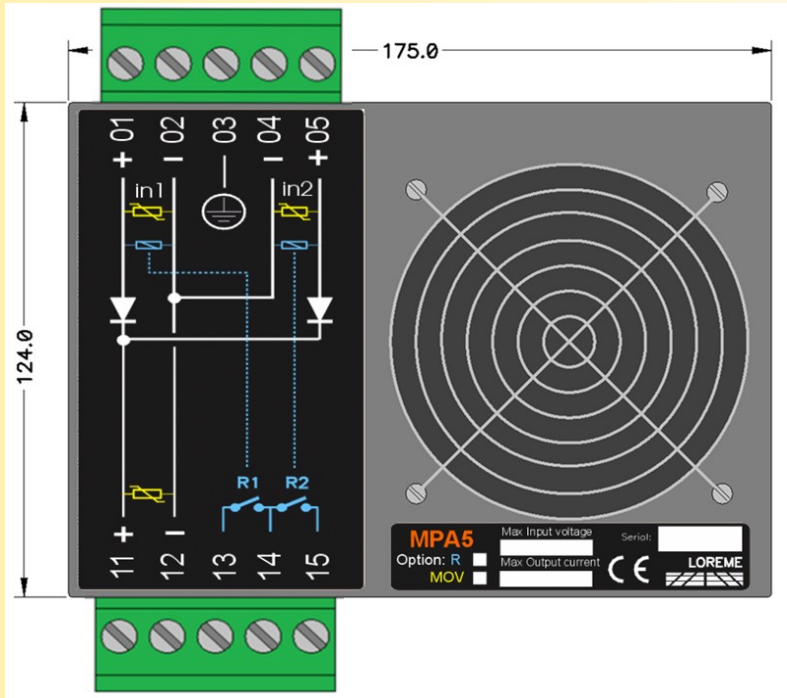
**WIRING AND OUTLINE DIMENSIONS: MPA4**



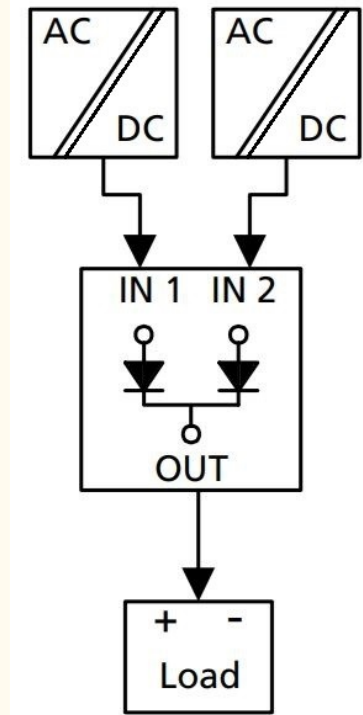
**MPA5** Voltage 20...280Vdc  
 Current 80 Adc nominal, 100A @ 45°C maxi



**WIRING AND OUTLINE DIMENSIONS: MPA5**



**MPA6** Voltage 20...280Vdc  
 Current 200 Adc nominal, 250A @ 45°C maxi



**WIRING AND OUTLINE DIMENSIONS: MPA6**

