

REDUNDANCY MODULE with DIODE: MPA2 MPA2L 250Vdc / 125Vdc / 115Vdc / 110Vdc / 48Vdc / 24Vdc / 12Vdc

LOREME

• For parallel connection of 2 DC power supplies

Increases system availability and safety

Ensures uninterrupted redundancy if one of power supplies fail.

• MPA2L(HV) : 12Vdc ... 125Vdc (280Vdc) maxi 10A

Low dissipation, dropout voltage < 1V

Option : monitoring relay

• MPA2 : 24Vdc version

+ monitoring relay

for power supplies diagnosis

+ resettable thermal protection

for each power supplies

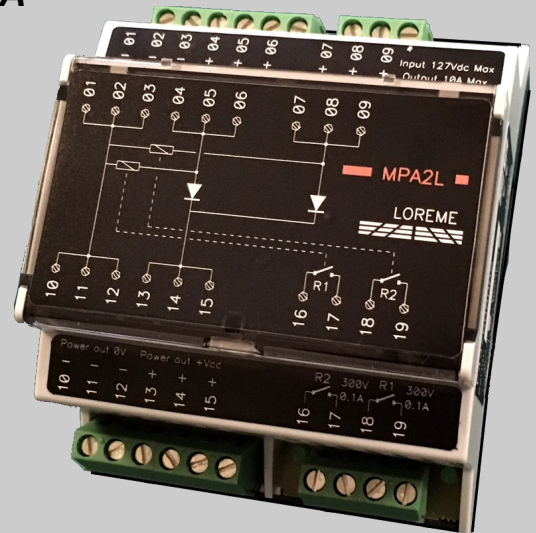
Option: inrush current limiter

until the output voltage is set.

• Application

Uninterruptible power supply,

installation needing 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

- Improve the operational safety,
- Increases the availability of installations,
- Increase micro cuts immunity

Inputs

- MPA2 : 2 voltage inputs 24V +/- 15% with common ground.
- MPA2L : 2 voltage inputs up to 127Vdc.
- MPA2LHV : 2 voltage inputs up to 280Vdc.

Monitoring relay (MPA2 only)

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

Special functions (option MPA2-LCA)

- Inrush current limiter on supply primary circuits.
- EMC protection, varistor surge protector.

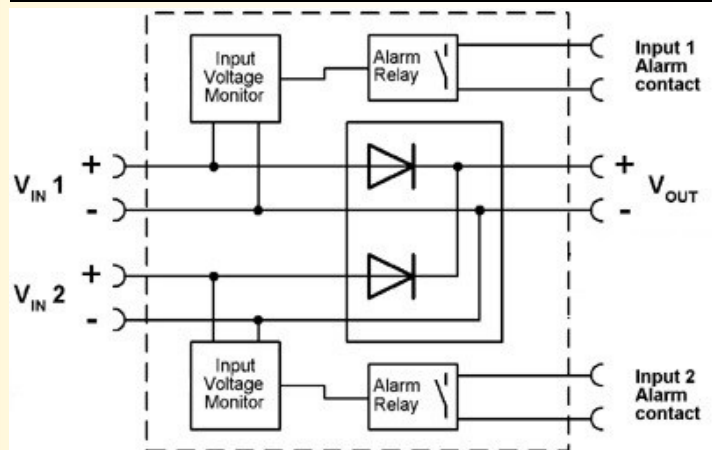
Output

- Protected with resettable fuse on MPA2 model
- Multi-output terminals (No need of external bridge connection)

Feature

- DIN rail mounting (symmetric according to EN50022)
- Screw terminal blocks (up to 2.5 mm²)
- Protection rating: IP20, conformal coating

Synoptic for MPA2 and MPA2L/R models



Version and order code:

[Request a quote](#)

MPA2: Redundancy module 24V / 5A with control relay (48Vdc version on request)

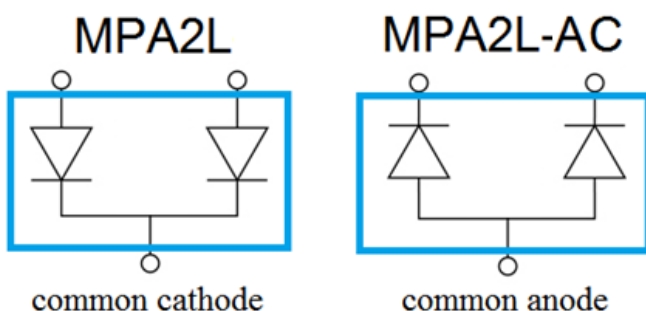
Option : **-LCA** Inrush current limiter and EMC protection for input power supplies

MPA2L: Redundancy module up to 127Vdc 10A maxi (voltage range: 12Vdc to 127Vdc)

MPA2LHV: Redundancy module up to 280Vdc 10A maxi (voltage range: 12Vdc to 280Vdc)

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

MPA2L Normal and reverse model (-AC)



	INPUT / POWER SUPPLY	
MPA2	Voltage	24dc +/- 15%
	Current	5Adc
MPA2L (HV)	Voltage	12 ... 127Vdc (280Vdc)
	Current	10Adc

Reverse polarity protected

OUTPUT

typical voltage	= input voltage - 0.42V @ 5A
maximal admissible overcurrent	3 x I / 5 seconds
MPA2 protection	tripping current 10A, tripping delay: 10s maxi

MONITORING RELAY

Potential free contact (open on failure)

MPA2 : electromechanical relay, 5 A / 250 V response time : 5ms

MPA2L : MOS FET relay 0.1A / 300 V response time : 2ms

OPTION *MPA2-LCA*

Primary inrush current limiter 5A @ 230Vca

Clipper: 230Vac varistor, withstand surge current 20us: 4500A

ENVIRONMENT

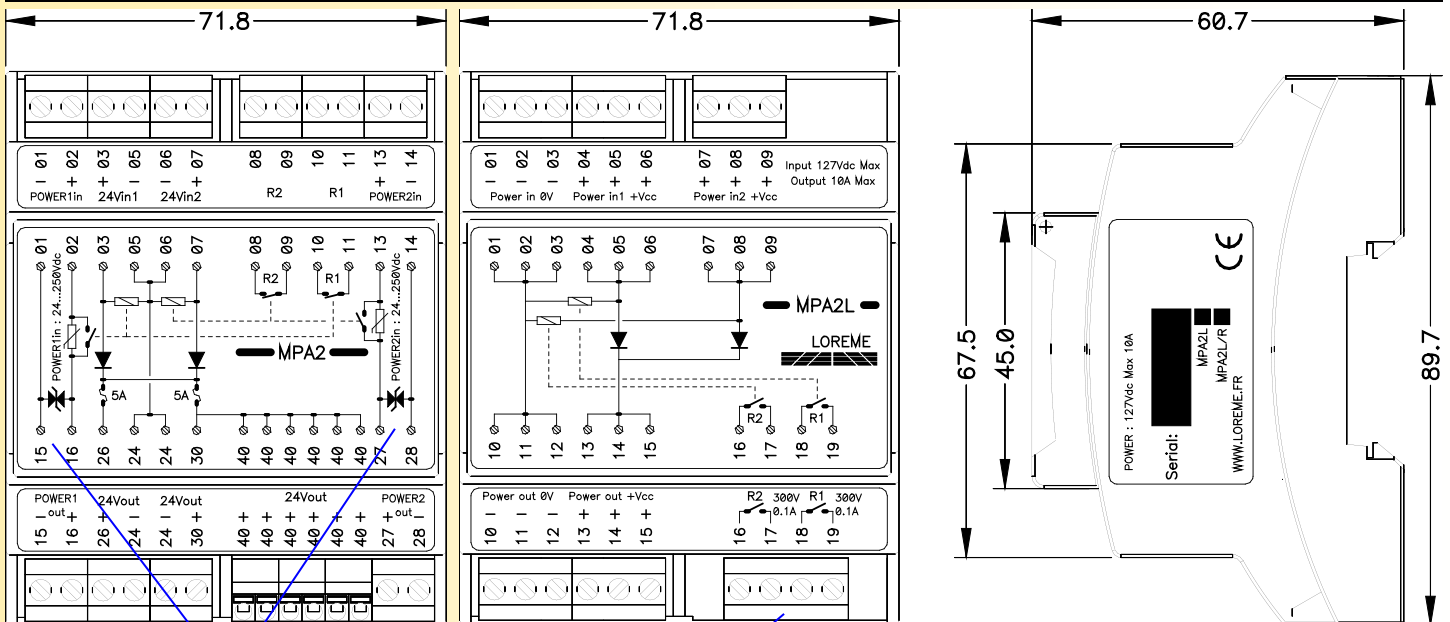
Operating temperature:	-40°C to 70°C
Storage temperature:	-40°C to 85°C
Humidity:	85 % non condensing
Protection rating (according to EN 60529):	IP20.
Weight:	150 g
Dielectric strength (power supply / relay)	2500Vac continuously
MTBF (MIL HDBK 217F)	> 1 200 000 Hrs @ 25°C
life time	> 200 000 Hrs @ 30°C
Shock IEC 60068-2-27 (operating)	5 G / 11 ms
Bump IEC 60068-2-29 (transportation)	30 G / 6 ms
Vibration IEC 60068-2-6 (operating)	1 G / 10 - 150 Hz
Vibration IEC 60068-2-6 (transportation)	2 G / 10 - 150 Hz

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

Immunity standard for industrial environments EN 61000-6-2		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		



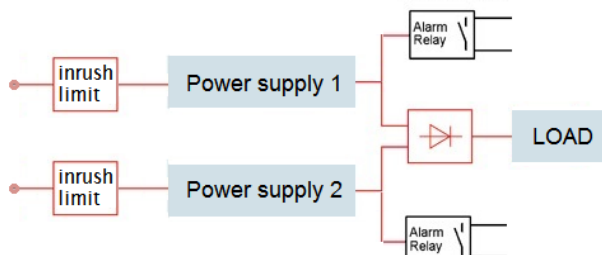
WIRING AND OUTLINE DIMENSIONS:



Option: Inrush current limiter and shock waves
EMC protection

Option:
Monitoring
relay

MPA2 application



Wiring of MPA2 with inrush current limiter

