

• Allow the coupling of two alternative network

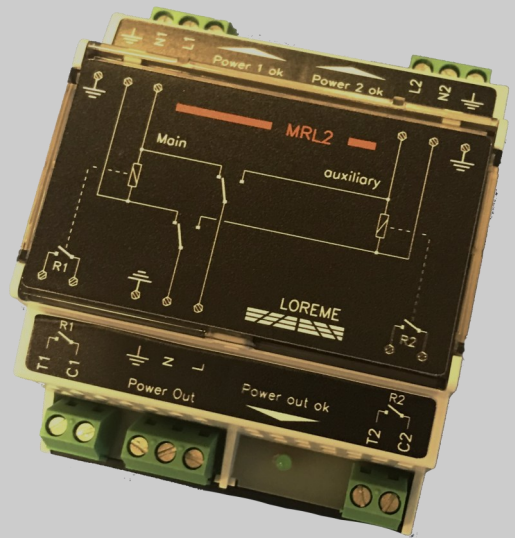
- Available operating voltage 24Vac, 48Vac, 115Vac, 230Vac
- Improve the availability of installation
- Increase installation safety
- Changeover without cut-off < 10ms
- Watchdog relays integrated

Signal the failure of one of power inputs

- Low voltage dropout < 0.2V
- For 6A max load
- Embedded EMC protection (varistor)

• Application

- Backed up system
- Installation needing a high level of availability



The MRL2 provide an effective protection against the failure of AC power supplies. Through decoupling of two power supplies, the failure of one of them has no effect on output, the other taking automatically its function without interruption.

The redundancy module monitor continuously the power supplies and provide an alarm via a contact relay if a failure is detected (loss of redundancy).

Benefits

- improve the operational safety
- increase the availability of installations
- increase micro cut immunity

Inputs / Power supplies

- 2 AC voltage inputs, single-phase or bi-phase

Output

- Automatic selection of valid source.
(priority on input #1)
- Switching time < 8 ms
- admissible current of 6A rms. 16A peak
- EMC protection, varistor clipper embedded

Monitoring relays (Watchdog)

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

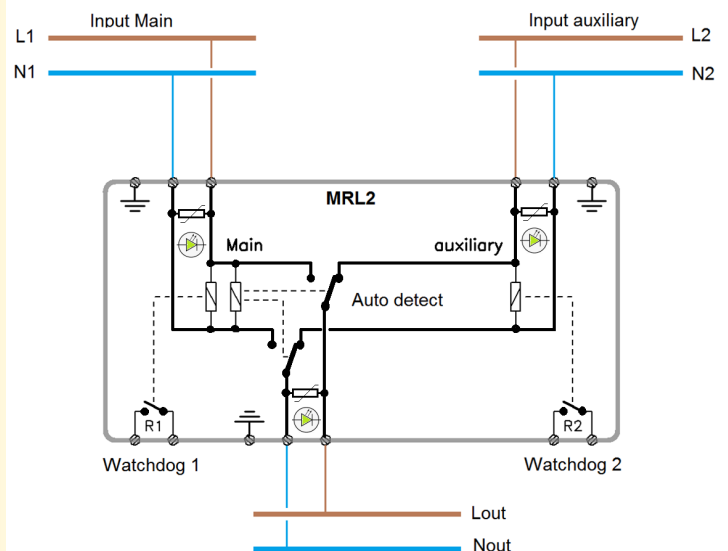
Signalisation

- One green LED for input #1
- One green LED for input #2
- One green LED for power out OK

Feature

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

MRL2 synoptic, using and implementation



Version and order code:

MRL2-U: Redundancy module for alternative voltage

U: Rating voltage input
to be defined at order
24Vac
48Vac
115Vac
230Vac

Option : 400Vac three-phase on request

INPUT / POWER SUPPLY

Nominal voltage 230 Vac +/- 25%
 according to version 110-115 Vac +/- 25%
 48 Vac +/- 25%
 24 Vac +/- 25%

OUTPUT

Voltage dropout < 0.2V
 Nominal current 6Aac
 Switching time input #1 to input #2 < 5 ms
 (on loss of input #1)
 input #2 to input #1 < 12 ms
 (on input #1 comeback)
 Clipper : Varistor, withstand surge current 20uS : 4500A

MONITORING RELAYS

Potential free contact (open on failure)
 Electromechanical relays, 8 A / 250 V, response time : 5 ms

ENVIRONMENT

Operating temperature: -25 to 60 °C
 Storage temperature: -40 to +85 °C
 Humidity: 85 % non condensed
 Protection rating (according to EN 60529): IP20.
 Weight: 150 g.
 Dielectric strength (power supply / relay) 2500 Vac continuous
 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 CEI 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 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:**