

• **Limits the inrush current at start-up**

*avoid to oversizing protections  
 protection of power sources like batteries  
 increases system availability and safety  
 avoid the blocking of power supplies*

• **Wide operating range possible**

*Nominal voltage from 20Vdc to 300Vdc  
 or 48 Vac to 265Vac  
 Nominal current up to 16A  
 Bypass relay embedded*

• **Applications**

*Current limiter for capacitive load  
 DC/DC converter, power supplies ...*



The LCA37 is a active inrush current limiter with a temporized bypass relay ensuring a more efficiency operation compare to a NTC. It cut-off the current peak in the load at the installations start-up and does not dissipate power when operating.

**Operation :**

The tripping current or inrush current is the name of a transient overcurrent that occur when powering up some electrical devices. (ex: AC/DC - DC/DC converters, capacitor, ...)

This peak current can reach 10 to 20 times the steady state current. By limiting this transient current, the LCA37 decrease the voltage drops in the cable, allowing to reduce the cable sections and to install small and fast breakers for better protection and more reliable starting without overloads. (avoid the blocking of some power supplies)

The LCA37 is designed for use in automation system that require high availability, allowing the non triggering of protection at the power up or reboot. It limits also the constraints on battery powered systems. It is suitable when DC/DC converters operate in parallel which can generate peak current up to several hundred amperes.

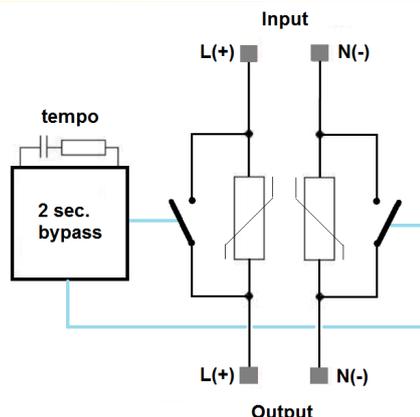
**Characteristics:**

- Universal AC and DC power supply, rated voltage to be defined
- Limiting current up to 50A, rated current to be defined
- Low dissipated power < 1 Watts
- Not polarized
- Limitation time: 2 seconds typical

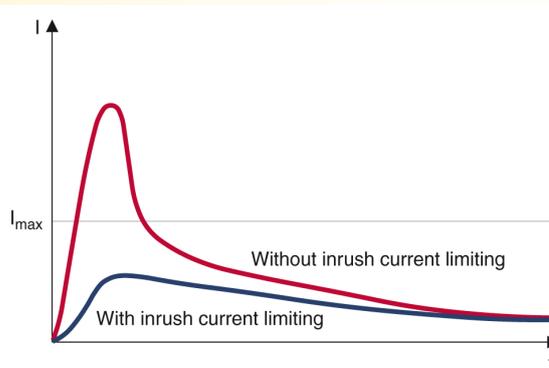
**Features:**

- DIN rail mounting (symmetrical) according to EN 50022
- Wiring on screw terminal blocks (wire section up to 4 mm<sup>2</sup>)
- Conformal coating.
- Protection rating (case/terminal blocks) : IP20
- Modular case UL94V-0 according to DIN43880
- Resistant to shock and vibrations

**Synoptic**



**Inrush current curve**



Version and order code:

[Request a quote](#)

**LCA37 - U - i / i max** : inrush current limiter  
 U : rated operating voltage  
 i : rated current consumed by the load  
 i max : tripping limitation current.

**LIMITER CHARACTERISTICS**

Current limitation delay 2 seconds typical  
 Dissipated peak power (during limitation) 500 Watts maxi  
 Dissipated power (operating without limitation) < 1 W  
 Number of start cycles 4 per minute maxi  
 Cooling natural convection  
 Voltage drop (operating without limitation) < 0.2V (bypass relay ON)

**POWER SUPPLY**

48.....265 Vac / 20...300Vdc (rated voltage must be defined)  
 Not polarized  
 rated current 16A / peak 100A

**ENVIRONMENT**

Operating temperature -25 to 60 °C  
 Storage temperature -40 to 85 °C  
 Humidity 95 % not condensed  
 Climatic endurance : 500 hours at 95% Hr in air at 55°C  
 Weight 150 g  
 Protection rating IP 20  
 MTBF (MIL HDBK 217F) > 2 000 000 Hrs @ 25°C  
 MTBF (MIL HDBK 217F) > 500 000 Hrs @ 70°C  
 Life time > 100 000 Hrs @ 30°C  
 Life time > 50 000 Hrs @ 50°C  
 Dielectric strength No isolation  
 Insulation resistance No isolation  
 Shock IEC 60068-2-27 (operating) 15 G / 11 ms  
 Bump IEC 60068-2-29 (transportation) 40 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 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:**

