

Active INRUSH CURRENT LIMITER *delayed action* high current AC+ DC

LCA125



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

*avoid to oversize protections
protection of power sources like batteries
increases system availability and safety
avoid the blocking of power supplies
allows the soft start of motors*

- **Wide operating range available**

*Voltage from 20Vdc to 300Vdc or 48 Vac to 265Vac
Nominal current up to 30A
Limitation current up to 100A
Bypass relay embedded*

- **Applications**

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



The LCA125 is an active inrush current limiter with a delayed bypass relay ensuring a more efficiency operation compare to a NTC element. 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, motors...)

This peak current can reach 10 to 20 times the steady state current. By limiting this transient current, the LCA125 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 LCA125 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.

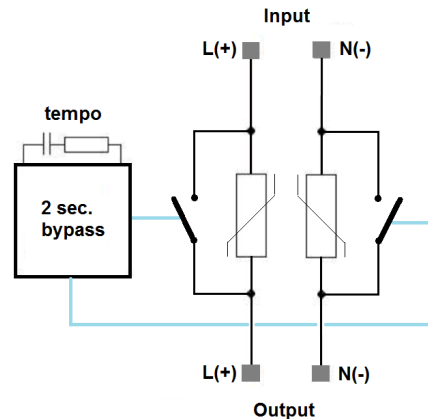
Characteristics:

- Universal AC and DC power supply, nominal voltage to be defined.
- Limiting current up to 100A, nominal current to be defined
- Low dissipated power
- Not polarized
- Limitation time: 3 seconds typical

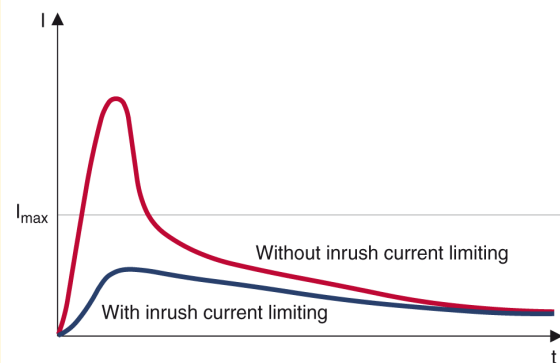
Features:

- DIN rail mounting (symmetrical) according to EN 50022
- Wiring on screw terminal blocks (wire section up to 16 mm²)
- 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](#)

LCA125 - U - i / i max : inrush current limiter
 U : Nominal operating voltage
 i : Nominal current consumed by the load
 i max : tripping limitation current.

LIMITER CHARACTERISTICS

Current limitation delay 3 seconds typical
 Dissipated peak power (during limitation) 5000 Watts maxi
 Dissipated power (operating without limitation) < 5 W
 Number of start cycles 2 per minute maxi
 Cooling natural convection
 Voltage drop (operating without limitation) < 0.2V (bypass relay ON)

POWER SUPPLY

Not polarized Ac + Dc
 20...90Vdc and 48...85Vac or 90Vdc...300Vdc and 85...265Vac
 (Nominal operating voltage must be defined)
 nominal current up to 30A / 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 500 g
 Protection rating IP 20
 MTBF (MIL HDBK 217F) > 2 000 000 Hrs @ 25°C
 Life time > 100 000 Hrs @ 30°C
 Dielectric strength No isolation
 Insulation resistance No isolation

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:

