

# INRUSH CURRENT LIMITER

## AC + DC

### • Limiting the inrush current at start-up

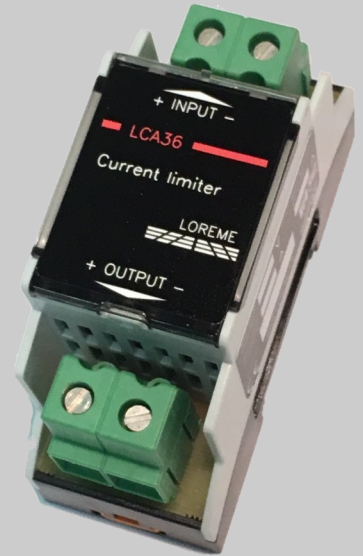
*avoid to oversize protections  
protection of power sources like batteries  
Increases system availability and safety  
avoid the blocking of power supplies*

### • Wide operational range

*Rating voltage 12 to 270Vac or dc  
Rating current up to 16A*

### • Applications

*Current clamping for capacitive loads  
DC/DC converter, power supply ...*



The LCA36 is a inrush peak current limiter for capacitive load. It works like a current clamping circuit, it limits the peaks of current in the load when starting installations.

#### Description:

The tripping current or inrush current is the name of an 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 LCA36 reduce voltage drops in the cables, allowing to reduce the cabling sections and to install small and fast circuit breakers for better protection and more reliable starting without overloads (avoid the blocking of certain power supplies).

The LCA36 is designed for use in automation systems that require high availability, allowing the non triggering of protection during 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.

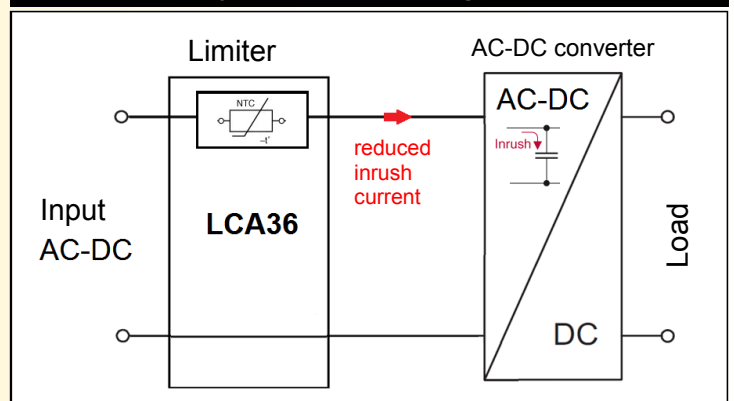
#### Characteristics:

- Power supply 12...265 Vac-dc. Rated voltage to be defined
- Limiting current up to 50A. Rated current to be defined
- Low dissipated power < 3 Watts
- Not polarized
- Limiting time: 4s typical

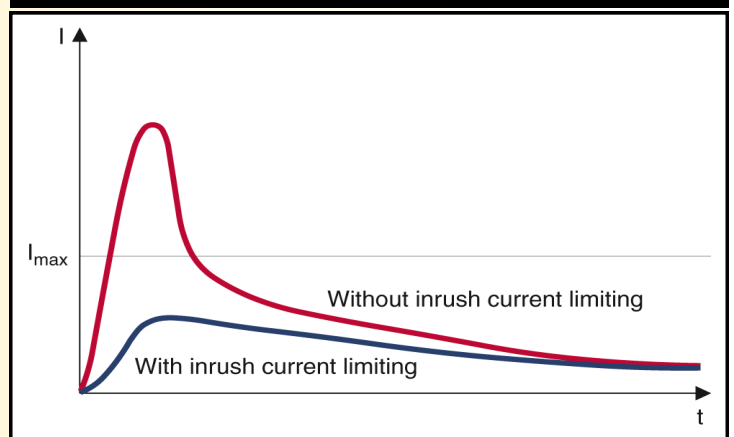
#### Feature:

- Symmetrical DIN rail mounting,
- Connection with screw terminals ( up to 16mm<sup>2</sup> section),
- Conformal coating,
- Protection rating (housing/terminal blocks) : IP20
- Resistant, protected against shock and vibrations

#### Typical application diagram :



#### Curve of current limitation effect



Version and order code:

[Request a quote](#)

**LCA36 - U - i / i max** : Current limiter  
 U : rated operating voltage  
 i : nominal current consumed by load  
 i max : limited current.

**CURRENT LIMITER characteristics**

Limiting time	4s typical
Peak dissipated power (during limitation)	300 Watts max
Dissipated power (without limitation)	3 Watts Max
Number of start-up cycles	1 per minute max
Cooling	natural convection
Voltage drop (without limitation)	1V max

**POWER SUPPLY**

12.....265 Vac/dc (rated voltage to be defined)  
Not polarized

**ENVIRONMENT**

Operational temperature	-20 to 50 °C
Storage temperature	-40 to 85 °C
Humidity	95 % non condensing
Climatic resistance:	500 hours at 95% Hr , 55°C in air
Weight	50 g
Protection rating	IP 20
MTBF (MIL HDBK 217F)	> 4 000 000 Hrs @ 25°C
MTBF (MIL HDBK 217F)	> 1 500 000 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

**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:**

