

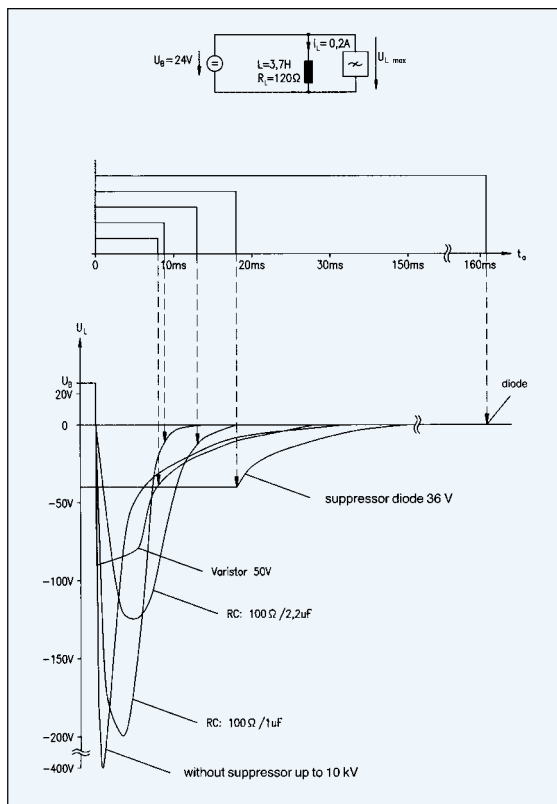
LUTZE Suppression Products



When electrical circuits with inductive loads are switched off, very often transient voltages spikes are produced. They may be several times higher than the normal operating voltage. These voltage peaks can drastically effect the normal operation of control and measuring units as well as regulating systems.

They may cause, for instance:

- Arcing at interrupter contacts, resulting in a reduction of the serviceable life of the contacts.
- The destruction of semi conductors, such as diodes, transistors, thyristors, or triacs, as a result of breakdown voltage.
- The disturbance of control and measuring units and regulating systems as a result of transient voltage surges.



Voltage diagrams showing the effect of fitting different types of suppression to a DC contactor.

In order to avoid the negative effects that arise when inductive loads are switched off, the switch-off voltage peaks must be kept at safe levels. The simplest and most effective method of achieving this is by applying appropriate suppression modules, fitted in parallel to the inductivity, and in some cases parallel to the contacts and semi conductors to be protected.

The selection criteria of these suppression modules are:

- Voltage load (AC or DC)
- Holding capacity of the load (coil capacity)
- Permissible switch-off voltage
- Permissible release delay
- Design, installation, space availability

Commonly used types of suppression modules are: RC combinations of resistance (R) and capacitance (C), varistors, diodes or avalanche diodes, and combinations. The comparison of these components is seen in the table opposite.

CUSTOMER
SPECIFIC
DESIGNS
AVAILABLE

Motor Suppressors



Multicompact style

- Din rail mounted
- Ratings from 4 to 15kVA, 660V
- Motor control gear can be mounted on the front of multicompact versions (max. width 45mm)
- Suppressor connection, resistor and capacitor in series, star connected

Contactor Suppressors



- Universal types for leading contactor brands
- RC, diode, varistor suppression elements
- 24V DC, 110V AC, 230V AC

Siemens Contactor Suppressors (Sirius types)



Solenoid Valve Suppressors



- Solenoid Valve Connectors with integral suppressor, LED indication and moulded leads (PVC or PUR) 2.5m or 5m
- Suppressor adaptors including LED indication

Suppressor	RC-combination	Varistor	Diode	Diode and Zener
Symbol Circuit				
Release delay	LOW	LOW	VERY HIGH	HIGH, DEP. ON Z VOLTG.

See Lutze Catalogue 3: Suppression Technology for complete range and specifications.