



## Motor choke for DC-motors up to 200W

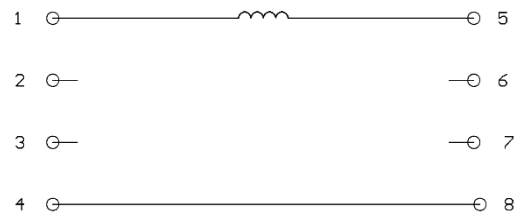
Design for currents up to 5 A

Motor choke with the following functions:

- for brushed motors
- compact size
- mountable on DIN rail
- robust and closed housing

To snap onto the DIN rail EN 50022

Unit width: 22,5 mm

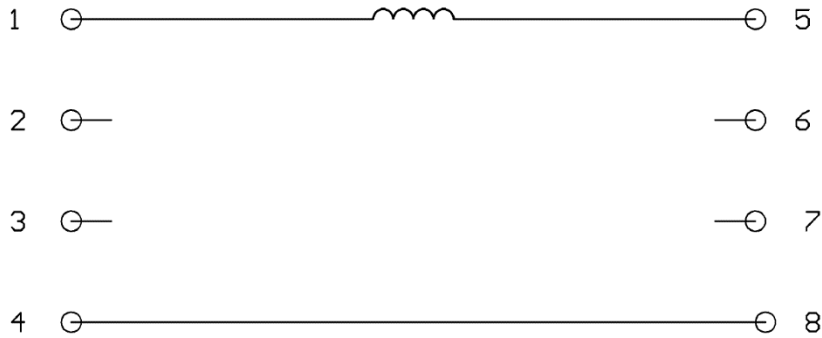


<b>Type</b>	<b>Maxi-IM-5-60</b>
<b>Article number</b>	<b>05.02.308</b>
<b>Operating data</b>	
Nominal voltage	$U_{nom}$ 12 .. 60 VDC
Max. current	5 A
inductance	100 $\mu$ H
resistance	28 mOhm
Max. frequency	100 kHz
<b>Other data</b>	
Dimensions	22,5 x 75,0 x 102,0 mm
Connectors	Screw terminals Single-wire 4mm <sup>2</sup> , fine-wire 2,5mm <sup>2</sup>
Permissible ambient temperature	$T_{amb}$ -20 .. +50 °C
Installing position / Assembly	any / top-hat rail EN 50022
Installation place	Switch cabinet
Weight	120 g
<b>Flammability</b>	
Housing, terminal, printed circuit board	UL94 HB

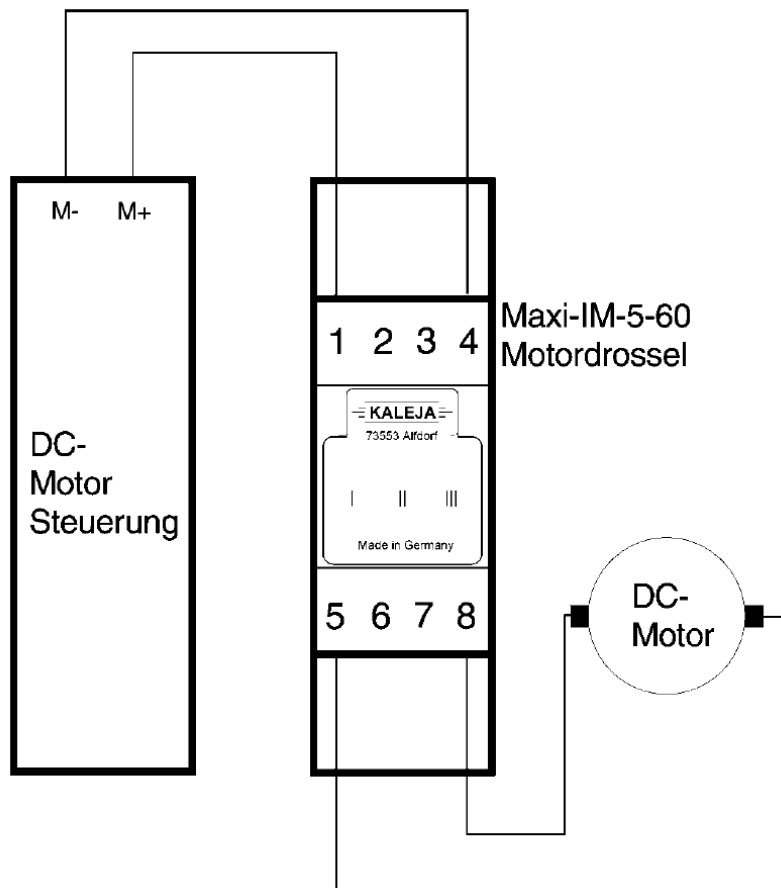
**Description**

The module Maxi-IM-5-60 is a motor choke for brushed motors. In most cases, this module is only necessary in conjunction with a PWM motor controller. Using this module provides the following advantages: lower current peaks  $di/dt$ , better EMC properties of the system, less heating in the motor, in-rush current is reduced. If a motor is used which has very low-impedance and has a low armature inductance, it is possible that the motor control detects a short circuit although none is present. By using this module, the short circuit detection can be improved in this case.

**Block diagram**



**Typical application**



## Safety notes

### Maximum operational data

The maximum operating data may not be exceeded.

### Installation

The installation and start-up must be performed by specialist personnel exclusively.

All affected components must be disconnected from the mains.

### Start-up

For the first start-up, the motor should be operated without load.

### Risk of death

Do not touch live parts after switching on!

The assembly must be operated exclusively on safety extra-low voltage. With operation on extra-low voltage (e.g. via autotransformer), death or injury can occur.

### Fire protection

The assembly must be installed in a switch cabinet, which is suitable as a fire protection enclosure.

The assembly must be safeguarded with a pre-fuse aligned with the nominal data.

### Field of application

The assembly may only be used as intended.

Other components must be checked for their approvals and regulations.

### Safety devices

An additional safety device must be used to bring the system into a safe state in case of a cable break, incorrect operation, failure of the control/controller unit.

### EMC / EMI

The wiring must be done according to EMC / EMI standards. If necessary, shielded cables and EMC suppressors must be used for the connected consumer.

For operation in a public low-voltage distribution network, the module must be supplied with an approved AC adapter.

If the module is supplied with an AC adapter, other equipment, operated on the same power supply, must be suitable for use in industrial environments.

### Repairs

Repairs must be performed by authorised persons exclusively. With unauthorised opening, the warranty cover is voided and this may also result in danger for the user and for the system.

### Maintenance

The assembly is wear-free by design.

For modules **with** cooling openings free air circulation must be checked at the cooling openings or on the housing at regular intervals. If necessary, the cooling holes / the housing must be cleaned.

Good ventilation must be ensured.

## contact details



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