

# Line filter

for applications in all areas of power electronics

## ► 1-phase

- Current range up to 36 Aeff
- Compact design
- Low leakage current

## ► 3-/ 4-phase

- Current range up to 3 x 300 Aeff
- Ultra-compact design
- Touch-safe terminals
- UL 1283 certified



**LGF ELEKTROTECHNIK GMBH & Co.KG**

Regensburger Str. 215 - D-90478 Nürnberg

Phone: + 49 911 660014-0

info@lgf-filter.de

www.lgf-filter.de



**LGF ELEKTROTECHNIK GMBH & Co.KG**  
since 1996

# LGF

Filter

**Line filter - Inductive components**  
**Motor filter - Soft magnetic cores**  
**Assemblies - Customised developments**

## Motor Chokes - Filter

Designed for applications with long shielded motor cables, motors with low impulse voltage strength and multiple motors connected in parallel.

- Linear frequency response up to 200kHz
- Current range up to 150Aeff
- Motor-heating and -noise reduction
- Compact design
- Touch-safe terminals



## Why choose LGF?

- Industry-compatible standard products, compliant with national and international standards (UL & CSA approved)
- High flexibility and short lead times due to modular construction
- Tailor-made solutions, customized to your exact needs
- Certified testing and QM system according to DIN EN ISO 9001:2015

## Our Service

- ✓ Qualified advice - material, manufacturing and process expertise
- ✓ Flexible production and buffer storage for fast delivery
- ✓ In-house testing and measurement services

Your trusted partner for customized solutions



more than  
**40 Years**  
EMC-Experience

# Inductive Components

## Current compensated chokes up to 600A

- Suitable for horizontal and vertical PCB mounting
- Configured with lead-out cables according to customer requirements (ring cable lugs, pin cable lugs, and wire end sleeves)
- Wound with Cu-round wire, rectangular profile or highfrequency (HF)-strand
- Available with amorphous, nanocrystalline, powder or ferrite cores



## Linear chokes up to 300A

- Commutation chokes
- Motor chokes
- Boost chokes suitable for horizontal and vertical PCB mounting
- Configured with lead-out cables according to customer preferences
- (ring cable lugs, pin cable lugs, and wire end sleeves)
- Wound with Cu-round wire, rectangular profile, or highfrequency (HF)-strand
- Available with ring, cut and shell cores

## Line chokes

- Available with SiFe-, amorphous and nanocrystalline cores



## Current- and Voltage Transformers (50Hz-500kHz)

- Horizontal and vertical designs
- Solid primary connection or through-hole design
- Integrated resistor
- Available with SiFe, nickel-iron, ferrite and nanocrystalline cores
- Suitable for PCB mounting or lead-out wire ends
- Extremely flat designs
- Smallest design for high-resistance electronic termination
- Mountable on rails or cables



## Amorphous Cores

- Low strip thicknesses and small coercive field strengths
- Permeability from  $\mu$  200 to 10,000
- High saturation induction  $B_s=1.5T$
- Good frequency response in the kHz range
- Low costs for the iron-based variants
- Ring band, oval or cut strip cores



# Soft magnetic cores

## Ferrite cores

- Cost-efficient base material
- Simple shaping through pressing and subsequent sintering
- Tight tolerances achieved through grinding
- Oxide material, hence high resistance and low losses
- Good frequency response up to approx. 3 GHz
- Permeability  $\mu = 1,000$  to 15,000
- Saturation induction  $B_s$  up to 0.5T
- Available in ring, RM, PQ, EI, ETD and UI core shapes



## Iron powder cores

- Cost-effective base material
- Simple shaping through pressing (with tight tolerances)
- Grain size 50 to 100  $\mu m$
- Minimal eddy current losses due to grain isolation & plastic binder
- High saturation induction up to 1.8T
- Permeability  $\mu = 10$  to 250
- Low stray losses due to the distributed air gap
- Good frequency response in kHz range
- Available in ring, RM, PQ, ETD, EI, UI, shell and toroids core shapes



## Nanocrystalline Cores

- Low strip thicknesses
- High specific electrical resistance due to high silicon content and surface structures in Nm range
- Smallest coercive field strengths
- Wide permeability range from  $\mu$  200 to 100,000
- High saturation induction  $B_s=1.2T$
- Excellent frequency response up to GHz-range
- Virtually free from magnetostriction
- Available as ring band, oval or cut strip cores
- With diameters from 6.0mm to 400mm