SMA Magnetics Sp. z o.o. is the magnetic components manufacturer that operates in field of electrical engineering in area of electronics and power electronics. The company offers a wide range of inductive components starting from measuring instruments such as current transformers up to power transformers and inductors as alone or part of an inductive block assembly that contains complete solution for power electronics converters.

**About us**

To provide efficient solutions for ELECTROTECHNICAL sector

**Mission**

- High performing team
- Financially stable
- Competitive
- Process oriented

**Vision**

**History**

- 1981 establishment of Zakład Elektroniki i Elektromechaniki
- 2001 beginning of cooperation with SMA Solar Technology AG
- 2004 development of choke arrangements into one filter module
- 2011 dtw is acquired by SMA
- 2012 company structural changes - interfacing with SMA HQ

- 1991 establishment of dtw elektronika Stefan Domagała
- 2003 collaboration with SMA expanded by the inductor development for PV inverters
- 2007 company dtw Sp. z o. o. was founded
- 2011 R&D at dtw became SMA’s competence center for magnetics
- 2017 change name of the company to SMA Magnetics Sp. z o.o.
The distinctive factor of SMA Magnetics Sp. z o. o. out of competitors is an unique technology, advanced production management tools and R&D team closely cooperating with customers in development of optimisation of customized products. Range of products and technical solutions is only limited by technical barriers and customer requirements. The company operates on a worldwide range.

Why us?

Reliable terminations are a key for product long term operation. In order to provide the best quality of our products, apart from brazed soft and hard solders, our products use advanced welding processes based on ultrasonic and resistive welding. We are qualified in joining copper with aluminium. Cable’s terminations are crimped, pressed or ultrasonically formed.

We have possessed the expertise in polyurethane and epoxy potted products. The resin is not only a mechanical protection of the product, but also encapsulates it and helps to dissipate a heat.

A high quality of potted products is provided by the resin degassing process in a vacuum chambers system. The degassing minimises a risk of air trapped in the product structure, provides homogenous and complete filling with the resin.

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Technologies

Magnetic core manufacturing

- Custom made cores are heart of our products:
  - Toroidal cores - wound from magnetic steel tape
  - Toroidal cores - based on solid and multi-gapped ferrites
  - Block cores - stamped in-house from high-performance magnetic steel
  - EI core - stacked for custom design

Winding Technology

- We specialise in linear and toroidal windings. Our manufacturing experience and technology know-how allow for optimum design based on a classical approach with copper and Litz magnet wires as well as foil windings and edge wound flat wire. Furthermore, our products benefit from aluminium that replaces copper in some applications. Where desired, our products based on toroidal cores can be wound with high fill factor of the core window.

Connection Technology

- Reliable terminations are a key for product long term operation. In order to provide the best quality of our products, apart from brazed soft and hard solders, our products use advanced welding processes based on ultrasonic and resistive welding. We are qualified in joining copper with aluminium. Cable’s terminations are crimped, pressed or ultrasonically formed.

Product Protection against Environment

- We have possessed the expertise in polyurethane and epoxy potted products. The resin is not only a mechanical protection of the product, but also encapsulates it and helps to dissipate a heat.

Degassing process

- A high quality of potted products is provided by the resin degassing process in a vacuum chambers system. The degassing minimises a risk of air trapped in the product structure, provides homogenous and complete filling with the resin.
Rated RMS current: Depends on the application, typically is not exceeding 1000 A.

Rated voltage: ≤ 1100 V

Insulation class: B, F or H

Protection Class and Ingress Protection: IP00-IP67

Designed for applications and built under, but not limited to, standards e.g.: EN 60721-3-2, EN 60999-1, EN 61558-1, IEC60721, IEC62109-1, IEC62109-2, UL50E, UL94, UL486A, UL508C, UL746C, UL840, UL1446, UL1741, UL5085-1/-2, UL60950-1, UL62109-1, UL62109-2, JETGRO02[2015], JETGRO03[2015], JETGRO0002-1-7.0, DIN46228, DIN46234, DIN46235, DIN EN 60352, DIN 60529, IPC/WHMA-A-620B, Compatibility with RoHS 2011/65/UE and REACH

Typical range of parameters:
- Rated power: Depends on the application and transformer size. Typical realisation up to 10 kVA for grid operated transformers and beyond 200 kVA for high frequency designs.
- Primary voltage: ≤ 1500 V
- Secondary voltage: ≤ 1500 V
- Insulation class: B, F or H
- Protection Class and Ingress Protection: IP00-IP67

Product development and manufacturing is based on customer’s requirements.

Transformers

Solutions & Products

Chokes

Solutions & Products

Typical range of parameters:
- Rated RMS current: Depends on the application, typically is not exceeding 1000 A.
- Rated voltage: ≤ 1100 V
- Insulation class: B, F or H
- Protection Class and Ingress Protection: IP00-IP67

Designed for applications and built under, but not limited to, standards e.g.: EN 60721-3-2, EN 60999-1, EN 61558-1, IEC60721, IEC62109-1, IEC62109-2, UL50E, UL94, UL486A, UL508C, UL746C, UL840, UL1446, UL1741, UL5085-1/-2, UL60950-1, UL62109-1, UL62109-2, JETGRO02[2015], JETGRO03[2015], JETGRO0002-1-7.0, DIN46228, DIN46234, DIN46235, DIN EN 60352, DIN 60529, IPC/WHMA-A-620B, Compatibility with RoHS 2011/65/UE and REACH

Typical range of parameters:
- Rated RMS current: Depends on the application, typically is not exceeding 1000 A.
- Rated voltage: ≤ 1100 V
- Insulation class: B, F or H
- Protection Class and Ingress Protection: IP00-IP67

Designed for applications and built under, but not limited to, standards e.g.: EN 60721-3-2, EN 60999-1, EN 61558-1, IEC60721, IEC62109-1, IEC62109-2, UL50E, UL94, UL486A, UL508C, UL746C, UL840, UL1446, UL1741, UL5085-1/-2, UL60950-1, UL62109-1, UL62109-2, JETGRO02[2015], JETGRO03[2015], JETGRO0002-1-7.0, DIN46228, DIN46234, DIN46235, DIN EN 60352, DIN 60529, IPC/WHMA-A-620B, Compatibility with RoHS 2011/65/UE and REACH

Requirements

Product development and manufacturing is based on customer’s requirements.

Types

- Power transformers
- Isolating transformers including safety isolating transformers
- Embedded transformers
- High frequency transformers for switched mode power supplies and resonant converters

- For dc-ac inverter
- For dc-dc converter
- For frequency
- Resonant
- EMC filters

- Power transformers
- Isolating transformers including safety isolating transformers
- Embedded transformers
- High frequency transformers for switched mode power supplies and resonant converters
Filters and power blocks
Solutions & Products

- Transformers’ blocks
- Transformer-less blocks

Requirements
Product development and manufacturing is based on customer’s requirements.

Typical range of parameters
- Rated power: Depends on the operating voltage, current and switching frequency. Usually rated power is not exceeding 300 kVA.
- Rated voltage: ≤ 1500 V
- Insulation class: B, F or H
- Protection Class and Ingress Protection: IP00-IP67
- Designed for applications and built under, but not limited to, standards e.g.: EN 60721-3-2, EN 60999-1, EN 61558-1, IEC60721, IEC62109-1, IEC62109-2, UL50E, UL94, UL486A, UL508C, UL746C, UL840, UL1446, UL1741, UL5085-1/-2, UL60950-1, UL62109-1, UL62109-2, JETGR002(2015), JETGR003(2015), JETGR00002-1-7.0, DIN46228, DIN46234, DIN46235, DIN EN 60352, DIN 60529, IPC/WHMA-A-620B, Compatibility with RoHS 2011/65/UE and REACH

Special solutions
Solutions & Products

- Current transformers
- Voltage transformers

Requirements
Product development and manufacturing is based on customer’s requirements.

Typical range of parameters
- Rated current: ≤ 100 A
- Rated voltage: ≤ 1000 V
- Insulation class: B, F or H
- Protection Class and Ingress Protection: IP00-IP67
- Designed for applications and built under, but not limited to, standards e.g.: EN 60721-3-2, EN 60999-1, EN 61558-1, IEC60721, IEC62109-1, IEC62109-2, UL50E, UL94, UL486A, UL508C, UL746C, UL840, UL1446, UL1741, UL5085-1/-2, UL60950-1, UL62109-1, UL62109-2, JETGR002(2015), JETGR003(2015), JETGR00002-1-7.0, DIN46228, DIN46234, DIN46235, DIN EN 60352, DIN 60529, IPC/WHMA-A-620B, Compatibility with RoHS 2011/65/UE and REACH
How do we work?

- Discussing technical and commercial details of the product
- Conceptual work of engineers
- Presentation of the product concept
- Prototype preparation
- Testing the prototype before sending to customer
- Testing the prototype by the customer
- Adjustments of parameters after the customer’s testing
- Acceptance and signing the contract
- Product launch for serial manufacturing
- Manufacturing
- Quality control
- Product sales