HAHN

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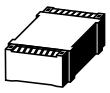

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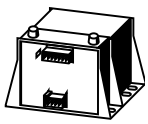

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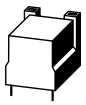

- Ignition transformers
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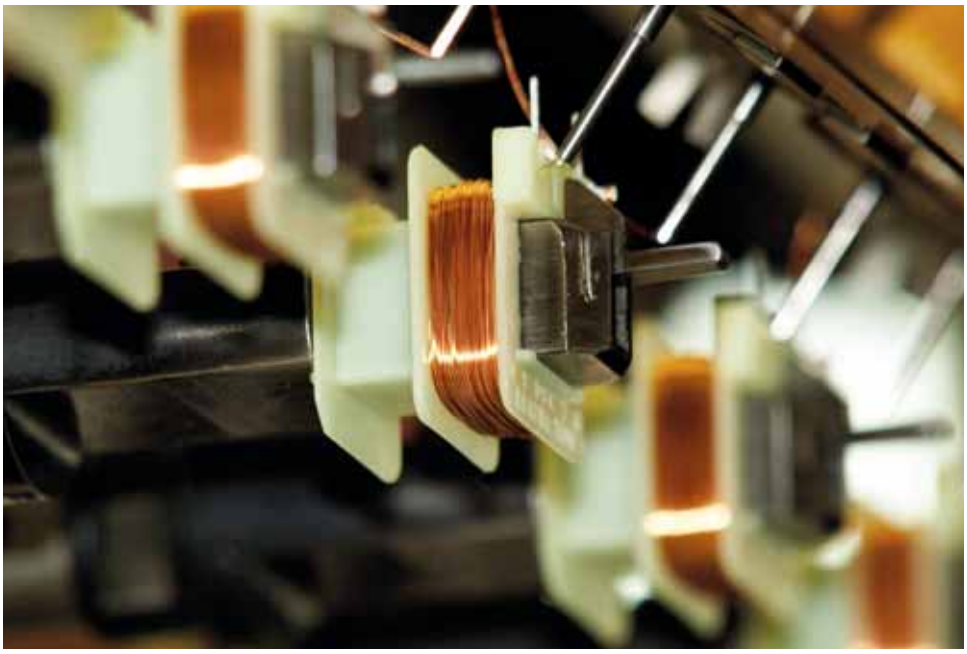
Interesting news about HAHN



HAHN Quality – Performance that builds trust.

HAHN-History

This has been the corporate philosophy of the HAHN company since its foundation in 1949. Right from the start, it was the maxim of HAHN to supply products of high quality and to base all efforts on customer-requirements and satisfaction. Corporate growth has been achieved to a dynamic and reliable extent. The ongoing expansion of the manufacturing facilities furthered the improvement in quality and HAHN was able to invest in new products. Today, HAHN employs a workforce of approaching 500, which serve an international clientele in various industrial sectors. HAHN's principal aim is to continue to supply quality products and to provide reliable customer service and thus contribute to the success of its customers.

1949
- Founded on April 21st, the company was registered as an armature winding works, repair shop for electric motors, generators, electrical installations and the sale of domestic electrical appliances

1969
- September – commencement of small size transformer production in the storage space of the newly renovated electrical installation shop

1971
- Construction of the first new hall building of 700 square meters floor space

1981
- Opening of new production and warehouse hall of 1,600 total square meters floor space

1985
- Extension of the production floor space by some 600 square meters

1990
- Extension of the storage space by some 500 square meters

1994
- Removal of the final inspection and quality control facility and the standard transformer inventory into a new hall building of some 1,000 square meter floor space

1995
- A new raw materials' and semi-finished products' warehouse was constructed with a floor area of some 600 square meters

1996
- Award of the DIN EN ISO 9001:1994 certification
- New warehouse and goods' consignment facility was constructed with a floor space of some 600 square meters

1998
- Commissioning of the new manufacturing facility in Güsten
- Extension of the trading floor space by some 20,000 square meters
- Production capacity was extended by 20%
- A new reception area was opened

2002
- Award of the DIN EN ISO 9001:2000 certification for the locations at Hungen and Güsten in Germany

2003
- Approval/Authorization of an UL-Electro-Isolation-System class F (HAHN 155-1)
- Disposable and reusable packagings are given the designation 'Blue Angel'

2004
- A third manufacturing facility has been set up in the Ukraine

2005
- Starting production in our new manufacturing facility in Ukraine

2008
- Award of the DIN EN ISO 9001:2008 certification for the location at Hungen, Güsten and Ukraine
- Approval/Authorization of an UL-Electro-Isolation-System class B (HAHN 130-1)

2009/2010
- Hungen works – Site expansion with warehouse building transformed into high-bay warehouse, extended staff car park
- Güsten works – Further investments in automation
- Ukraine works – Continuous increase in production capacity

2011/2012
- Structure and beginning of production for ignition transformers at plant Güsten
- Approval/Authorization of 2nd UL-Electro-Isolation-System class F (HAHN 155-2)
- Update of the approvals according to DIN EN 61558-1/2005 and DIN EN 61558-2-6/2009 for all HAHN-Series-Products
- Continuous increase in production capacity

HAHN Locations

The parent company in Hungen, Germany
All the business decisions of HAHN are taken here, just only half an hour away by car from Frankfurt's International Airport; in terms of a qualitative and consumer-oriented corporate cultural philosophy. New, user-friendly products are developed here. Progressive production technology for highest process quality and economically high volume is located here. All employees are trained to satisfy customer requirements all over the world.

Production in Güsten, Saxony-Anhalt, Germany
The rising demand for HAHN products in Eastern European countries made it necessary to transfer partial production into a region near the border in order to reduce logistical costs.

3rd Production Plant in Novovolynsk (Ukraine)
With foundation of the 3rd plant in Eastern Europe, HAHN removed the manual production from plant Hungen and Güsten to Novovolynsk. Custom-made and wage-intensive products made this step necessary to be as one of the leading transformer producer further more competitive on the constantly growing market.

Hungen/Hesse

Güsten/Saxony-Anhalt

Novovolynsk (Ukraine)

HAHN Electronic Component Parts

Quality awareness, product liability legislation and the growing demands of worldwide markets today make it necessary for equipment and appliance manufacturers to pass on these stringent requirements to their subcontractors and suppliers to ensure, that no component or assembly can become a critical weak spot. HAHN successfully meets these requirements. All products leaving the HAHN works have been manufactured of high grade, quality-controlled raw materials or semi-manufactures on the most modern production equipment. A quality management system meeting **DIN EN ISO 9001:2008** German and European standards provides the means for ensuring such high quality.

HAHN permanently maintains a large stock inventory of all items and sizes. Customers can take advantage of this service as required, by means of placing call orders – no matter what item of size is required – the comprehensive range from capacities 0.35 VA to 200.0 VA is always available. A detailed overview can be found on the following pages of this catalog.

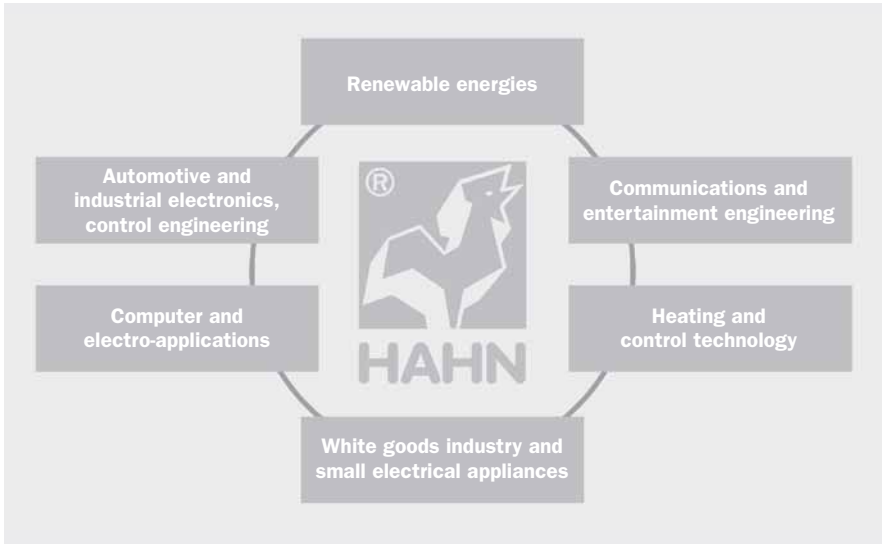
HAHN has its own laboratory with TDAP the qualification for all the prerequisites, to carry out tests for VDE-marks, an expert's report or for certificates in an international procedure together with VDE-experts to carry out.

More electrical safety and long service life for consumers' appliances

- Chokes
- Coils, custom-made coils
- Control transformers
- Current- and voltage converters
- Flat-type transformers
- Inductive assembly components
- Isolating transformers
- Mains transformers
- Printed circuit-board transformers
- Safety transformers
- Single-phase transformers
- Small size transformers
- SMPS-transformers
- Special transformers
- Three-phase transformers
- Ignition transformers and electronic ignition devices

All HAHN transformers carry a test certificate, so that customers obtain an assurance of maximum electrical safety and long service-life for their equipment and appliances. HAHN invites new customers and other interested parties to place their reliance on its quality products and services.

Highest quality and customer-orientated services in all industries



Quality and economy in the production process

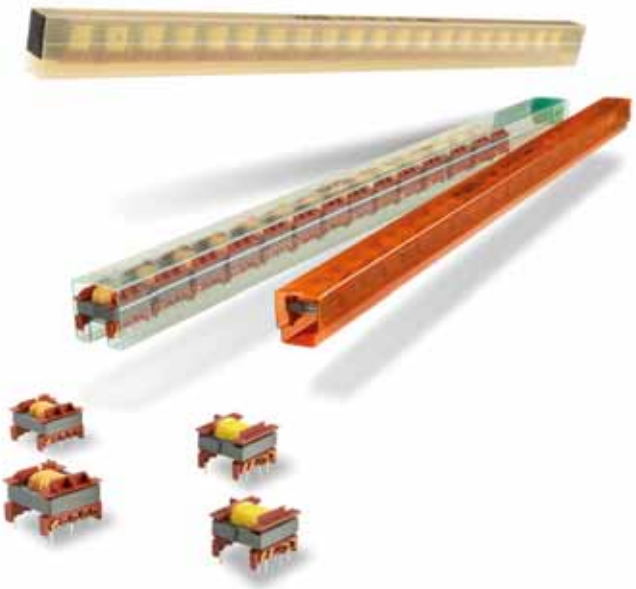
HAHN products are characterized by their performance and reliability. Ongoing in-house quality control management ensures uncompromising raw material selection and the highest standards of production with the corporate aim of achieving reliability and an optimum of economy and efficiency for customers.

To ensure the competitiveness of its products, HAHN attaches great importance to automation in production. Modern technology with automatic assembly lines, integrated quality control devices, transfer systems and ‘intelligent’ production equipment are the prerequisites for highly rationalised and flexible manufacturing facilities. This minimizes costs and positively influences the marketability of its products. All the corporate-related decisions of HAHN are thus taken from an economic and ecological viewpoint. HAHN already exceeds such requirements by implementing numerous appropriate measures of such a nature. For example, all works-internal movements are carried out with electric vehicles and in the areas of production and distribution, HAHN employs reusable packaging.

All according to customer requirements

Packed and consigned

In order to meet the requirements of any specific trade and industry, HAHN can provide practically any desired problem solution in the areas of packing and distribution. No matter whether customers require cases, cartons, polystyrene or plastic packagings – whether ‘just-in-time’ delivery, special forwarding services or self collection – HAHN can always provide customers with the right problem solution. The examples mentioned above meet current standards, whereby the new designed plastic tubes is worthy of special mention. The transformers can thus be extracted from a ‘magazine’ and inserted directly into customers’ production. ESD-conform packaging is contemporary and has come to stay on the European market. HAHN will, of course re-accept packagings returned in a usable condition. These can be cleaned and used again for further consignments to customers.



Content

ErP Series

ErP ready!

ErP-Eco Design solutions
- Frame size EI 30
- Switch-Mode-Power-Supply of HS series

Printed-Circuit-Board transformers

Output Power: 1.3 VA – 2.8 VA

EI 30 ErP

10	**DINEN61558-2-6**	**VDE**	115801/124257
VDE-Mark for Glow-Wire-Test	**DINEN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	E177280
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	99204

- according to REACH regulation
- according to RoHs regulation
- according to ErP regulation

ErP ready

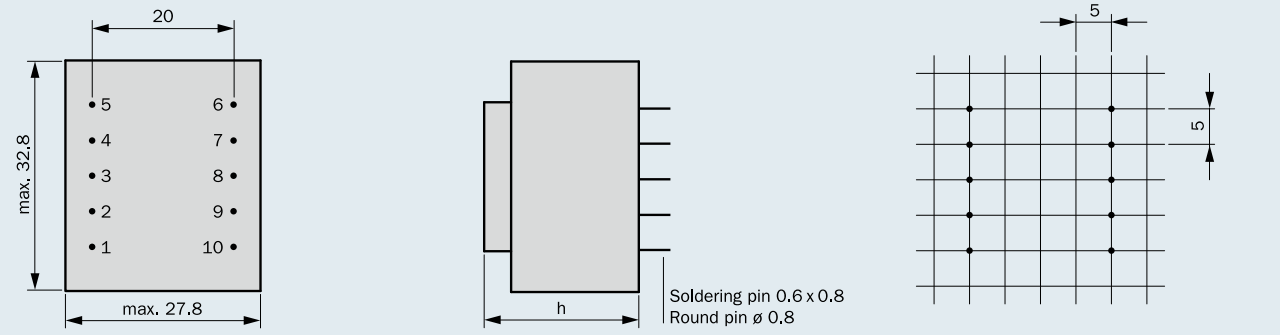
EBPG ErP

We have expanded our program for you in the course of ErP (Energy related Products).

The **ErP Serie 2013** of **HAHN** is perfect for applications of the electric power supply in electrical and electronic household and office equipment with “stand by” and “off” conditions. Already today where a reduced **power consumption** of $P_0 < 0,4$ W is required, the **ErP Serie 2013** of **HAHN** will be a solution.

- Primary voltages up to 250 V
- Secondary voltages 2 V to max. 38 V or 2 x 2 V to max. 2 x 19 V
- Output Power up to 2.8 VA
- Short-circuit-proof
- Temperature class ta 70 °C/F
- Vacuum-encapsulated, bobbin with dual chamber windings
- Per item tested quality with certificate
- Excellent temperature fluctuation resistance properties
- Self-extinguishing cast housing and sealing material
- Minimal size available

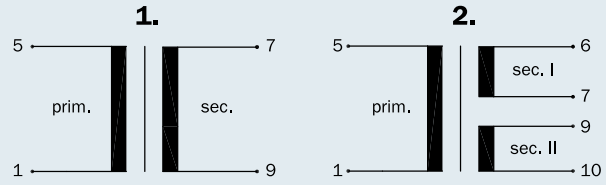
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



2.) double voltage – bridge: 7 + 9, double current – bridge: 6 + 9/7 + 10

Frame size/Core height	Output Power ta 70 °C/F	Size (h)	Weight	Packaging unit
BV EI 307 8... /11.5 mm	1.3 VA	22.1 mm	0.076 kg	50 pieces
BV EI 303 8... /12.5 mm	1.5 VA	23.8 mm	0.081 kg	50 pieces
BV EI 304 8... /15.5 mm	2.1 VA	26.8 mm	0.099 kg	50 pieces
BV EI 305 8... /18.0 mm	2.3 VA	29.5 mm	0.111 kg	50 pieces
BV EI 306 8... /23.0 mm	2.8 VA	34.0 mm	0.135 kg	50 pieces

Printed-Circuit-Board transformers

Output Power: up to 2.8 VA

EI 30 ErP

ErP ready!

1.3 VA ta 70 °C/F

Frame size/Core height
BV EI 307 .... / 11.5 mm

inherently short-circuit-proof

no load power loss
< 0.4 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 307 8009	230	1 – 5	1 x 6	217	7 – 9	1 x 10.7	1
BV EI 307 8011	230	1 – 5	1 x 9	144	7 – 9	1 x 15.7	1
BV EI 307 8001	230	1 – 5	1 x 12	108	7 – 9	1 x 19.8	1
BV EI 307 8002	230	1 – 5	2 x 12	54	6 – 7/9 – 10	2 x 19.8	2
BV EI 307 8012	230	1 – 5	1 x 15	87	7 – 9	1 x 25.0	1

1.5 VA ta 70 °C/F

Frame size/Core height
BV EI 303 .... / 12.5 mm

inherently short-circuit-proof

no load power loss
< 0.4 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 303 8008	230	1 – 5	1 x 9	167	7 – 9	1 x 14.0	1
BV EI 303 8021	230	1 – 5	2 x 9	83	6 – 7/9 – 10	2 x 14.0	2
BV EI 303 8023	230	1 – 5	1 x 12	125	7 – 9	1 x 18.8	1

2.1 VA ta 70 °C/F

Frame size/Core height
BV EI 304 .... / 15.5 mm

inherently short-circuit-proof

no load power loss
< 0.4 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 304 8013	230	1 – 5	1 x 6	350	7 – 9	1 x 11.0	1
BV EI 304 8024	230	1 – 5	1 x 7.5	280	7 – 9	1 x 13.9	1
BV EI 304 8014	230	1 – 5	1 x 9	233	7 – 9	1 x 16.2	1
BV EI 304 8005	230	1 – 5	1 x 12	175	7 – 9	1 x 20.5	1
BV EI 304 8006	230	1 – 5	2 x 12	88	6 – 7/9 – 10	2 x 20.5	2
BV EI 304 8015	230	1 – 5	1 x 15	140	7 – 9	1 x 27.0	1

2.3 VA ta 70 °C/F

Frame size/Core height
BV EI 305 .... / 18.0 mm

inherently short-circuit-proof

no load power loss
< 0.4 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 305 8022	230	1 – 5	1 x 7.5	307	7 – 9	1 x 13.2	1
BV EI 305 8019	230	1 – 5	1 x 9	255	7 – 9	1 x 16.0	1
BV EI 305 8020	230	1 – 5	2 x 9	127	6 – 7/9 – 10	2 x 15.7	2

2.8 VA ta 70 °C/F

Frame size/Core height
BV EI 306 .... / 23.0 mm

inherently short-circuit-proof

no load power loss
< 0.4 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 306 8016	230	1 – 5	1 x 6	467	7 – 9	1 x 10.5	1
BV EI 306 8017	230	1 – 5	1 x 9	311	7 – 9	1 x 16.1	1
BV EI 306 8003	230	1 – 5	1 x 12	233	7 – 9	1 x 21.4	1
BV EI 306 8007	230	1 – 5	2 x 12	117	6 – 7/9 – 10	2 x 21.4	2
BV EI 306 8018	230	1 – 5	1 x 15	187	7 – 9	1 x 26.1	1
BV EI 306 8034	230	1 – 5	2 x 9	155	6 – 7/9 – 10	2 x 16.2	2

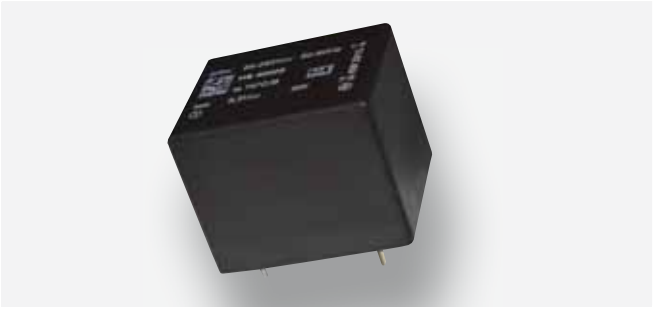
Switch-Mode-Power-Supply

HS series

HS ErP

VDE-Mark for Glow-Wire-Test	DIN EN 60 335-1	VDE	on request
	UL 5085-3	UL	on request
	UL 5085-1	UL	on request
	C22.2	CSA	on request

- according to REACH regulation
- according to RoHs regulation
- according to ErP regulation



ErP ready

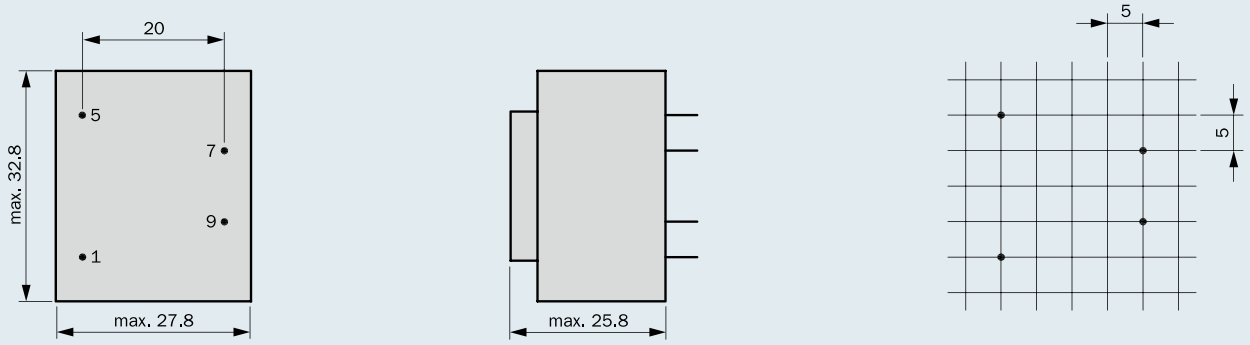
EBPG ErP

Ecological in design – and solutions based on switch mode technology developed by **HAHN**. Within the scope of the Eco-Design Directive for energy-related products, we have expanded our product portfolio for you.

The new **HS series** by **HAHN** incorporating switch mode technology has a no load power loss of **< 0.15 W** and an efficiency of > 70 %! It is ideal for applications within the broad input voltage range of 85 – 265 V for power supplies.

Design is short-circuit-proof and wiring is strictly isolated according to DIN EN 61558-2-16 and DIN EN 60950. All components are UL- and DIN EN 60335-compliant. The power of the safety extra-low output voltage is up to 3 W.

Connecting pins



Dimensions without tolerances ± 0.3 mm,
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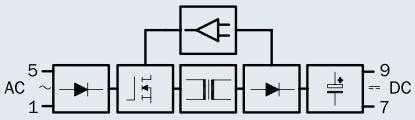
Connection scheme



3.0 W
ta 70 °C/F

inherently short-circuit-proof

no load power loss
< 0.15 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V (DC)	Current sec. mA (DC)	Connecting pins sec.	Connection scheme
HS 40003	85 – 265 V	1 – 5	1 x 3.3	900	7 – 9	1
HS 40005	85 – 265 V	1 – 5	1 x 5	600	7 – 9	1
HS 40009	85 – 265 V	1 – 5	1 x 9	333	7 – 9	1
HS 40012	85 – 265 V	1 – 5	1 x 12	250	7 – 9	1
HS 40015	85 – 265 V	1 – 5	1 x 15	200	7 – 9	1
HS 40018	85 – 265 V	1 – 5	1 x 18	167	7 – 9	1
HS 40024	85 – 265 V	1 – 5	1 x 24	125	7 – 9	1

Content

BV 20 Series

- Printed-Circuit-Board transformers frame size EE 20 (0.35 VA – 0.5 VA)

Printed-Circuit-Board transformers

Output Power: 0.35 VA – 0.5 VA

BV20

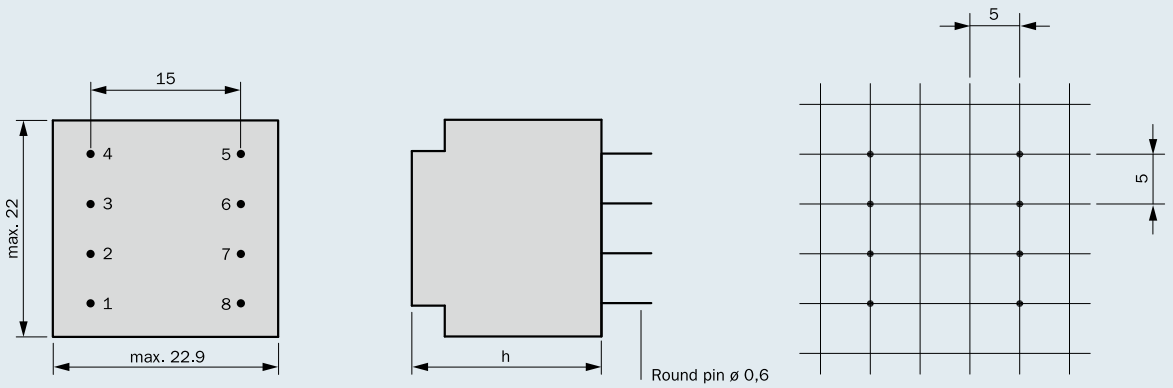
	DIN EN 61558-2-6	**VDE**	115642
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	99204

- according to REACH regulation
- according to RoHs regulation

- Minimal size available
- Primary voltages from 12 V to 250 V
- Secondary voltages from 4 V to 24 V or 2 x 3 V to 2 x 12 V
- Output Power up to 0.5 VA
- Further voltages on demand
- Inherently short-circuit-proof
- Vacuum-encapsulated, bobbin type with dual chamber windings
- Temperature class ta 70 °C/B
- High electrical safety and long service-life features
- Per item tested quality with certificate
- Excellent temperature fluctuation resistance properties
- Self-extinguishing cast housing and sealing material

Thanks to its minimal size the BV 20 is the ideal problem solution for appliance manufacturers requiring small components and who are not prepared to enter into any comprises as regards quality and performance demands. Processing with double-coated windings, special extreme heat-resistant epoxy insulating resins and self-extinguishing encapsulation housing materials give HAHN transformers extra electrical safety reserves enabling applications of extreme limits to be addressed.
The BV 20 with insulation class B properties is especially suitable for printed circuit boards, computer processors, other electronic applications, domestic appliances, telecommunications', lighting and photo technologies. Particularly in regard to competitiveness on international markets and the product liability of manufacturers, the BV 20 offers users the greatest functional electrical safety and long-life service by reason of its superior quality for their products.

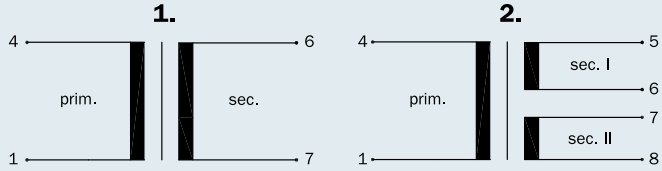
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



2.) double voltage – bridge: 6 + 7, double current – bridge: 5 + 7/ 6 + 8

Frame size/Core height	Output Power ta 70 °C/B	Size (h)	Weight	Packaging unit
BV 201 .... / 6 mm	0.35 VA	15 mm	0.025 kg	176 pieces
BV 202 .... /10 mm	0.50 VA	19 mm	0.035 kg	88 pieces

0.35 VA ta 70 °C/B

Frame size/Core height
BV 201 .... / 6 mm

inherently short-circuit-proof

no load power loss
type 1.2 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV 201 0128	230	1 – 4	1 x 6	58	6 – 7	1 x 10.0	1
BV 201 0142	230	1 – 4	2 x 6	29	5 – 6/7 – 8	2 x 10.6	2
BV 201 0143	230	1 – 4	1 x 7.5	47	6 – 7	1 x 12.6	1
BV 201 0136	230	1 – 4	1 x 9	39	6 – 7	1 x 14.4	1
BV 201 0144	230	1 – 4	2 x 9	19	5 – 6/7 – 8	2 x 16.2	2
BV 201 0145	230	1 – 4	1 x 12	29	6 – 7	1 x 20.8	1
BV 201 0146	230	1 – 4	2 x 12	15	5 – 6/7 – 8	2 x 19.7	2
BV 201 0147	230	1 – 4	1 x 15	23	6 – 7	1 x 26.1	1
BV 201 0149	230	1 – 4	1 x 18	19	6 – 7	1 x 30.4	1
BV 201 0150	230	1 – 4	1 x 21	17	6 – 7	1 x 36.0	1
BV 201 0135	230	1 – 4	1 x 24	15	6 – 7	1 x 36.8	1

0.5 VA ta 70 °C/B

Frame size/Core height
BV 202 .... / 10 mm

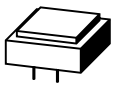
inherently short-circuit-proof

no load power loss
type 1.5 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV 202 0154	230	1 – 4	1 x 6	83	6 – 7	1 x 10.2	1
BV 202 0155	230	1 – 4	2 x 6	42	5 – 6/7 – 8	2 x 9.7	2
BV 202 0156	230	1 – 4	1 x 7.5	67	6 – 7	1 x 12.8	1
BV 202 0157	230	1 – 4	1 x 9	55	6 – 7	1 x 15.4	1
BV 202 0158	230	1 – 4	2 x 9	28	5 – 6/7 – 8	2 x 15.4	2
BV 202 0159	230	1 – 4	1 x 12	42	6 – 7	1 x 21.2	1
BV 202 0160	230	1 – 4	2 x 12	21	5 – 6/7 – 8	2 x 21.2	2
BV 202 0161	230	1 – 4	1 x 15	33	6 – 7	1 x 25.9	1
BV 202 0162	230	1 – 4	1 x 18	28	6 – 7	1 x 30.9	1
BV 202 0163	230	1 – 4	1 x 21	24	6 – 7	1 x 36.2	1
BV 202 0164	230	1 – 4	1 x 24	21	6 – 7	1 x 41.2	1

Content

EI 30 Series



- Printed-Circuit-Board transformers
  frame size EI 30 (0.5 VA – 3.6 VA)
- Flat-type Printed-Circuit-Board transformers with small base areas
  frame size EI 30/40 (1.6 VA – 8.0 VA)

Printed-Circuit-Board transformers

Output Power: 0.5 VA – 3.6 VA

EI 30

	DIN EN 61558-2-6	**VDE**	115801/124257
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	E177280
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	99204

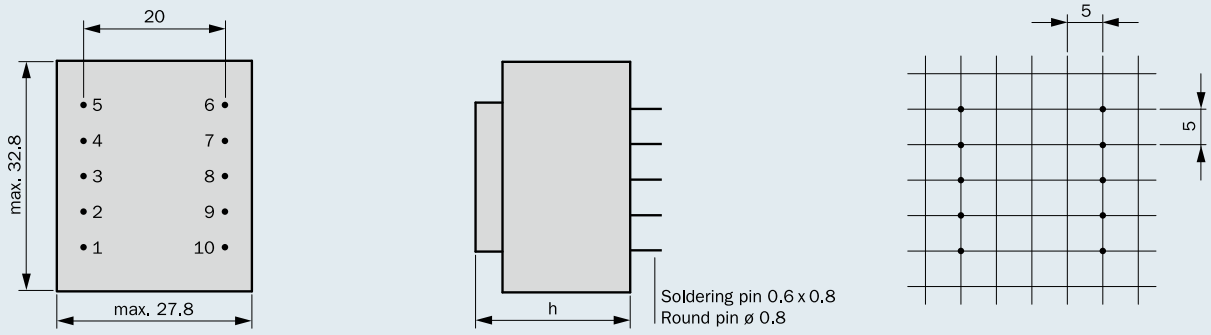
- according to REACH regulation
- according to RoHs regulation

- Primary voltages from 12 V to 250 V or 2 x 12 V to 2 x 125 V
- Secondary voltages from 2 V to max. 38 V or 2 x 2 V to max. 2 x 19 V
- Output Power up to 3.6 VA
- Short-circuit-proof
- Vacuum-encapsulated, bobbin with dual chamber windings
- Temperature class ta 40 °C/F and ta 70 °C/F
- Per item tested quality with certificate
- Excellent temperature fluctuation resistance properties
- Self-extinguishing cast housing and sealing material
- Minimal size available

Several hundreds of types provide safety and long service-life for printed circuit boards, household appliances, leisure electronics, heating and control technol ogy as well as in assembly techniques. Transformers for special requirements with lower open-circuit (no-load) loss capacity are also available in the range.

Enhanced customer benefit due to ongoing high quality standards throughout 40 years experience in transformer technology.

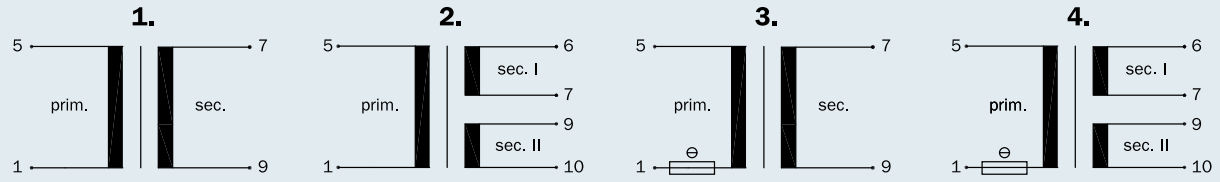
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



2.+4.) double voltage – bridge: 7 + 9, double current – bridge: 6 + 9/7 + 10

Frame size/ Core height	Output Power ta 40 °C/F	Output Power ta 70 °C/F	Output Power ta 70 °C/F with thermo-fuse	Height (h)	Weight	Packaging unit
BV EI 301 .... / 5.5 mm	0.6 VA	0.5/0.7 VA	0.65 VA	15.2 mm	0.044 kg	50 pieces
BV EI 302 .... /10.5 mm	1.8 VA	1.5 VA	1.8 VA	21.8 mm	0.070 kg	50 pieces
BV EI 307 .... /11.5 mm	2.2 VA	1.8 VA	1.8 VA	22.1 mm	0.076 kg	50 pieces
BV EI 303 .... /12.5 mm	2.3 VA	1.9 VA	2.3 VA	23.8 mm	0.081 kg	50 pieces
BV EI 304 .... /15.5 mm	2.6 VA	2.1 VA	2.4 VA	26.8 mm	0.099 kg	50 pieces
BV EI 305 .... /18.0 mm	3.0 VA	2.3 VA	2.7 VA	29.5 mm	0.111 kg	50 pieces
BV EI 306 .... /23.0 mm	3.6 VA	3.0 VA	3.4 VA	34.0 mm	0.135 kg	50 pieces

0.5 VA ta 70 °C/F

Frame size/Core height
BV EI 301..../ 5.5 mm

inherently short-circuit-proof

no load power loss
type. 1.0 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 301 3005	230	1–5	1 x 6	83	7–9	1 x 10.2	1
BV EI 301 3538	230	1–5	2 x 6	41	6–7/9–10	2 x 10.1	2
BV EI 301 3017	230	1–5	1 x 7.5	67	7–9	1 x 12.2	1
BV EI 301 3970	230	1–5	2 x 7.5	33	6–7/9–10	2 x 11.7	2
BV EI 301 2911	230	1–5	1 x 9	56	7–9	1 x 14.7	1
BV EI 301 3172	230	1–5	2 x 9	28	6–7/9–10	2 x 13.3	2
BV EI 301 2824	230	1–5	1 x 12	42	7–9	1 x 18.0	1
BV EI 301 3971	230	1–5	2 x 12	21	6–7/9–10	2 x 18.7	2
BV EI 301 2845	230	1–5	1 x 15	33	7–9	1 x 22.8	1
BV EI 301 2741	230	1–5	2 x 15	17	6–7/9–10	2 x 23.3	2
BV EI 301 2967	230	1–5	1 x 18	28	7–9	1 x 26.0	1
BV EI 301 3020	230	1–5	1 x 21	24	7–9	1 x 30.6	1
BV EI 301 2807	230	1–5	1 x 24	21	7–9	1 x 35.5	1

0.7 VA ta 70 °C/F

Frame size/Core height
BV EI 301..../ 5.5 mm

inherently short-circuit-proof

no load power loss
type. 2.3 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 301 3582	230	1–5	1 x 6	117	7–9	1 x 10.3	1
BV EI 301 3583	230	1–5	2 x 6	58	6–7/9–10	2 x 10.5	2
BV EI 301 3584	230	1–5	1 x 7.5	94	7–9	1 x 12.7	1
BV EI 301 3585	230	1–5	2 x 7.5	47	6–7/9–10	2 x 12.7	2
BV EI 301 3586	230	1–5	1 x 9	78	7–9	1 x 14.6	1
BV EI 301 3587	230	1–5	2 x 9	39	6–7/9–10	2 x 14.6	2
BV EI 301 3588	230	1–5	1 x 12	58	7–9	1 x 19.5	1
BV EI 301 3589	230	1–5	2 x 12	29	6–7/9–10	2 x 19.5	2
BV EI 301 3590	230	1–5	1 x 15	47	7–9	1 x 24.5	1
BV EI 301 3591	230	1–5	2 x 15	23	6–7/9–10	2 x 24.5	2
BV EI 301 3592	230	1–5	1 x 18	39	7–9	1 x 28.3	1
BV EI 301 3593	230	1–5	1 x 21	33	7–9	1 x 32.9	1
BV EI 301 3594	230	1–5	1 x 24	29	7–9	1 x 37.8	1

0.65 VA ta 70 °C/F

Frame size/Core height
BV EI 301..../ 5.5 mm

non inherently short-circuit-proof with thermo-fuse

no load power loss
type. 2.3 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 301 7002	230	1–5	1 x 6	108	7–9	1 x 10.5	3
BV EI 301 7003	230	1–5	2 x 6	54	6–7/9–10	2 x 10.5	4
BV EI 301 7004	230	1–5	1 x 7.5	87	7–9	1 x 13.0	3
BV EI 301 7005	230	1–5	2 x 7.5	43	6–7/9–10	2 x 13.0	4
BV EI 301 7006	230	1–5	1 x 9	72	7–9	1 x 15.4	3
BV EI 301 7007	230	1–5	2 x 9	36	6–7/9–10	2 x 15.4	4
BV EI 301 7008	230	1–5	1 x 12	54	7–9	1 x 20.4	3
BV EI 301 7009	230	1–5	2 x 12	27	6–7/9–10	2 x 20.4	4
BV EI 301 7010	230	1–5	1 x 15	43	7–9	1 x 24.9	3
BV EI 301 7011	230	1–5	2 x 15	21	6–7/9–10	2 x 24.9	4
BV EI 301 7012	230	1–5	1 x 18	36	7–9	1 x 30.1	3
BV EI 301 7013	230	1–5	1 x 21	31	7–9	1 x 35.1	3
BV EI 301 7014	230	1–5	1 x 24	27	7–9	1 x 40.0	3

1.8 VA ta 40 °C/F

Frame size/Core height **BV EI 302..../ 10.5 mm**

inherently short-circuit-proof

no load power loss **type. 2.2 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 302 2000	230	1–5	1 x 6	300	7–9	1 x 8.8	1
BV EI 302 2005	230	1–5	2 x 6	150	6–7/9–10	2 x 8.8	2
BV EI 302 3021	230	1–5	1 x 7.5	240	7–9	1 x 10.7	1
BV EI 302 3562	230	1–5	2 x 7.5	120	6–7/9–10	2 x 11.0	2
BV EI 302 2001	230	1–5	1 x 9	200	7–9	1 x 12.6	1
BV EI 302 2006	230	1–5	2 x 9	100	6–7/9–10	2 x 13.0	2
BV EI 302 2002	230	1–5	1 x 12	150	7–9	1 x 16.9	1
BV EI 302 2007	230	1–5	2 x 12	75	6–7/9–10	2 x 18.3	2
BV EI 302 2003	230	1–5	1 x 15	120	7–9	1 x 21.2	1
BV EI 302 2008	230	1–5	2 x 15	60	6–7/9–10	2 x 21.8	2
BV EI 302 2004	230	1–5	1 x 18	100	7–9	1 x 25.4	1
BV EI 302 3022	230	1–5	1 x 21	86	7–9	1 x 30.4	1
BV EI 302 2990	230	1–5	1 x 24	75	7–9	1 x 34.5	1

1.5 VA ta 70 °C/F

Frame size/Core height **BV EI 302..../ 10.5 mm**

inherently short-circuit-proof

no load power loss **type. 1.4 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 302 2020	230	1–5	1 x 6	250	7–9	1 x 8.2	1
BV EI 302 2025	230	1–5	2 x 6	125	6–7/9–10	2 x 8.4	2
BV EI 302 3058	230	1–5	1 x 7.5	200	7–9	1 x 10.5	1
BV EI 302 3561	230	1–5	2 x 7.5	100	6–7/9–10	2 x 10.5	2
BV EI 302 2021	230	1–5	1 x 9	166	7–9	1 x 12.1	1
BV EI 302 2026	230	1–5	2 x 9	83	6–7/9–10	2 x 12.4	2
BV EI 302 2022	230	1–5	1 x 12	125	7–9	1 x 16.6	1
BV EI 302 2027	230	1–5	2 x 12	62	6–7/9–10	2 x 16.6	2
BV EI 302 2023	230	1–5	1 x 15	100	7–9	1 x 20.7	1
BV EI 302 2028	230	1–5	2 x 15	50	6–7/9–10	2 x 20.7	2
BV EI 302 2024	230	1–5	1 x 18	83	7–9	1 x 24.5	1
BV EI 302 2029	230	1–5	2 x 18	41	6–7/9–10	2 x 24.8	2
BV EI 302 3059	230	1–5	1 x 21	71	7–9	1 x 28.6	1
BV EI 302 2989	230	1–5	1 x 24	62	7–9	1 x 33.5	1

1.8 VA ta 70 °C/F

Frame size/Core height **BV EI 302..../ 10.5 mm**

non inherently short-circuit-proof with thermo-fuse

no load power loss **type. 2.1 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 302 7015	230	1–5	1 x 6	300	7–9	1 x 9.8	3
BV EI 302 7016	230	1–5	2 x 6	150	6–7/9–10	2 x 10.6	4
BV EI 302 7017	230	1–5	1 x 7.5	240	7–9	1 x 12.2	3
BV EI 302 7018	230	1–5	2 x 7.5	120	6–7/9–10	2 x 13.4	4
BV EI 302 7019	230	1–5	1 x 9	200	7–9	1 x 14.6	3
BV EI 302 7020	230	1–5	2 x 9	100	6–7/9–10	2 x 15.9	4
BV EI 302 7021	230	1–5	1 x 12	150	7–9	1 x 19.4	3
BV EI 302 7022	230	1–5	2 x 12	75	6–7/9–10	2 x 20.9	4
BV EI 302 7023	230	1–5	1 x 15	120	7–9	1 x 24.3	3
BV EI 302 7024	230	1–5	2 x 15	60	6–7/9–10	2 x 24.8	4
BV EI 302 7025	230	1–5	1 x 18	100	7–9	1 x 29.2	3
BV EI 302 7026	230	1–5	1 x 21	86	7–9	1 x 34.1	3
BV EI 302 7027	230	1–5	1 x 24	75	7–9	1 x 38.8	3

1.8 VA ta 70 °C/F

Frame size/Core height
BV EI 307 .... / 11.5 mm

inherently short-circuit-proof

no load power loss
type. 1.0 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 307 3842	230	1–5	1 x 6	300	7–9	1 x 9.7	1
BV EI 307 3843	230	1–5	2 x 6	150	6–7/9–10	2 x 9.4	2
BV EI 307 3844	230	1–5	1 x 7.5	240	7–9	1 x 12.7	1
BV EI 307 3845	230	1–5	2 x 7.5	120	6–7/9–10	2 x 12.4	2
BV EI 307 3846	230	1–5	1 x 9	200	7–9	1 x 14.5	1
BV EI 307 3847	230	1–5	2 x 9	100	6–7/9–10	2 x 14.3	2
BV EI 307 3801	230	1–5	1 x 12	150	7–9	1 x 18.7	1
BV EI 307 3848	230	1–5	2 x 12	75	6–7/9–10	2 x 18.9	2
BV EI 307 3849	230	1–5	1 x 15	120	7–9	1 x 24.5	1
BV EI 307 3850	230	1–5	2 x 15	60	6–7/9–10	2 x 24.5	2
BV EI 307 3851	230	1–5	1 x 18	100	7–9	1 x 28.4	1
BV EI 307 3852	230	1–5	1 x 21	86	7–9	1 x 33.4	1
BV EI 307 3853	230	1–5	1 x 24	75	7–9	1 x 37.9	1

1.8 VA ta 70 °C/F

Frame size/Core height
BV EI 307 .... / 11.5 mm

non inherently short-circuit-proof with thermo-fuse

no load power loss
type. 1.1 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 307 7079	230	1–5	1 x 6	300	7–9	1 x 9.8	3
BV EI 307 7080	230	1–5	2 x 6	150	6–7/9–10	2 x 9.8	4
BV EI 307 7081	230	1–5	1 x 7.5	240	7–9	1 x 12.9	3
BV EI 307 7082	230	1–5	2 x 7.5	120	6–7/9–10	2 x 13.2	4
BV EI 307 7083	230	1–5	1 x 9	200	7–9	1 x 14.7	3
BV EI 307 7084	230	1–5	2 x 9	100	6–7/9–10	2 x 15.2	4
BV EI 307 7085	230	1–5	1 x 12	150	7–9	1 x 19.4	3
BV EI 307 7086	230	1–5	2 x 12	75	6–7/9–10	2 x 20.1	4
BV EI 307 7087	230	1–5	1 x 15	120	7–9	1 x 24.1	3
BV EI 307 7088	230	1–5	2 x 15	60	6–7/9–10	2 x 24.1	4
BV EI 307 7089	230	1–5	1 x 18	100	7–9	1 x 28.9	3
BV EI 307 7090	230	1–5	1 x 21	86	7–9	1 x 34.8	3
BV EI 307 7091	230	1–5	1 x 24	75	7–9	1 x 38.5	3

2.3 VA ta 40 °C/F

Frame size/Core height **BV EI 303 .... / 12.5 mm**

inherently short-circuit-proof

no load power loss **type. 2.0 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 303 2010	230	1–5	1 x 6	383	7–9	1 x 8.5	1
BV EI 303 2015	230	1–5	2 x 6	191	6–7/9–10	2 x 9.4	2
BV EI 303 3611	230	1–5	1 x 7.5	307	7–9	1 x 11.4	1
BV EI 303 3612	230	1–5	2 x 7.5	153	6–7/9–10	2 x 12.4	2
BV EI 303 2011	230	1–5	1 x 9	255	7–9	1 x 12.9	1
BV EI 303 2016	230	1–5	2 x 9	127	6–7/9–10	2 x 14.6	2
BV EI 303 2012	230	1–5	1 x 12	191	7–9	1 x 17.4	1
BV EI 303 2017	230	1–5	2 x 12	95	6–7/9–10	2 x 18.7	2
BV EI 303 2013	230	1–5	1 x 15	153	7–9	1 x 21.6	1
BV EI 303 2018	230	1–5	2 x 15	76	6–7/9–10	2 x 23.5	2
BV EI 303 2014	230	1–5	1 x 18	127	7–9	1 x 25.8	1
BV EI 303 3563	230	1–5	1 x 21	110	7–9	1 x 30.2	1
BV EI 303 2991	230	1–5	1 x 24	96	7–9	1 x 34.3	1

1.9 VA ta 70 °C/F

Frame size/Core height **BV EI 303 .... / 12.5 mm**

inherently short-circuit-proof

no load power loss **type. 1.2 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 303 2030	230	1–5	1 x 6	316	7–9	1 x 8.6	1
BV EI 303 2035	230	1–5	2 x 6	158	6–7/9–10	2 x 9.3	2
BV EI 303 3060	230	1–5	1 x 7.5	253	7–9	1 x 11.0	1
BV EI 303 2095	230	1–5	2 x 7.5	126	6–7/9–10	2 x 12.3	2
BV EI 303 2031	230	1–5	1 x 9	211	7–9	1 x 12.9	1
BV EI 303 2036	230	1–5	2 x 9	105	6–7/9–10	2 x 13.9	2
BV EI 303 2032	230	1–5	1 x 12	158	7–9	1 x 17.2	1
BV EI 303 2037	230	1–5	2 x 12	79	6–7/9–10	2 x 18.5	2
BV EI 303 2033	230	1–5	1 x 15	126	7–9	1 x 21.5	1
BV EI 303 2038	230	1–5	2 x 15	63	6–7/9–10	2 x 22.0	2
BV EI 303 2034	230	1–5	1 x 18	105	7–9	1 x 25.8	1
BV EI 303 3013	230	1–5	1 x 21	90	7–9	1 x 30.0	1
BV EI 303 2100	230	1–5	1 x 24	79	7–9	1 x 35.5	1

2.3 VA ta 70 °C/F

Frame size/Core height **BV EI 303 .... / 12.5 mm**

non inherently short-circuit-proof with thermo-fuse

no load power loss **type. 2.0 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 303 7028	230	1–5	1 x 6	383	7–9	1 x 9.4	3
BV EI 303 7029	230	1–5	2 x 6	191	6–7/9–10	2 x 9.7	4
BV EI 303 7030	230	1–5	1 x 7.5	306	7–9	1 x 11.3	3
BV EI 303 7031	230	1–5	2 x 7.5	153	6–7/9–10	2 x 12.2	4
BV EI 303 7032	230	1–5	1 x 9	256	7–9	1 x 13.8	3
BV EI 303 7033	230	1–5	2 x 9	128	6–7/9–10	2 x 14.3	4
BV EI 303 7034	230	1–5	1 x 12	191	7–9	1 x 17.4	3
BV EI 303 7035	230	1–5	2 x 12	96	6–7/9–10	2 x 19.1	4
BV EI 303 7036	230	1–5	1 x 15	153	7–9	1 x 22.3	3
BV EI 303 7037	230	1–5	2 x 15	76	6–7/9–10	2 x 23.7	4
BV EI 303 7038	230	1–5	1 x 18	128	7–9	1 x 26.4	3
BV EI 303 7039	230	1–5	1 x 21	110	7–9	1 x 30.5	3
BV EI 303 7040	230	1–5	1 x 24	96	7–9	1 x 34.0	3

2.6 VA ta 40 °C/F

Frame size/Core height
BV EI 304 .... / 15.5 mm

inherently short-circuit-proof

no load power loss
type. 1.0 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 304 2040	230	1–5	1 x 6	434	7–9	1 x 10.4	1
BV EI 304 2045	230	1–5	2 x 6	217	6–7/9–10	2 x 10.8	2
BV EI 304 3564	230	1–5	1 x 7.5	346	7–9	1 x 12.5	1
BV EI 304 2840	230	1–5	2 x 7.5	173	6–7/9–10	2 x 12.5	2
BV EI 304 2041	230	1–5	1 x 9	289	7–9	1 x 15.9	1
BV EI 304 2046	230	1–5	2 x 9	145	6–7/9–10	2 x 16.2	2
BV EI 304 2042	230	1–5	1 x 12	217	7–9	1 x 21.7	1
BV EI 304 2047	230	1–5	2 x 12	108	6–7/9–10	2 x 22.4	2
BV EI 304 2043	230	1–5	1 x 15	174	7–9	1 x 27.4	1
BV EI 304 2044	230	1–5	1 x 18	145	7–9	1 x 30.9	1
BV EI 304 2995	230	1–5	1 x 21	123	7–9	1 x 32.1	1
BV EI 304 2992	230	1–5	1 x 24	108	7–9	1 x 41.7	1

2.1 VA ta 70 °C/F

Frame size/Core height
BV EI 304 .... / 15.5 mm

inherently short-circuit-proof

no load power loss
type. 0.7 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 304 2080	230	1–5	1 x 6	350	7–9	1 x 10.5	1
BV EI 304 2085	230	1–5	2 x 6	175	6–7/9–10	2 x 11.2	2
BV EI 304 2889	230	1–5	1 x 7.5	280	7–9	1 x 13.7	1
BV EI 304 2773	230	1–5	2 x 7.5	140	6–7/9–10	2 x 14.2	2
BV EI 304 2081	230	1–5	1 x 9	234	7–9	1 x 16.0	1
BV EI 304 2086	230	1–5	2 x 9	117	6–7/9–10	2 x 16.2	2
BV EI 304 2082	230	1–5	1 x 12	175	7–9	1 x 21.5	1
BV EI 304 2087	230	1–5	2 x 12	88	6–7/9–10	2 x 22.0	2
BV EI 304 2083	230	1–5	1 x 15	140	7–9	1 x 26.5	1
BV EI 304 2084	230	1–5	1 x 18	117	7–9	1 x 30.0	1
BV EI 304 2843	230	1–5	1 x 21	100	7–9	1 x 33.4	1
BV EI 304 2868	230	1–5	1 x 24	88	7–9	1 x 37.3	1

2.4 VA ta 70 °C/F

Frame size/Core height
BV EI 304 .... / 15.5 mm

non inherently short-circuit-proof with thermo-fuse

no load power loss
type. 1.0 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 304 7041	230	1–5	1 x 6	400	7–9	1 x 10.6	3
BV EI 304 7042	230	1–5	2 x 6	200	6–7/9–10	2 x 10.1	4
BV EI 304 7043	230	1–5	1 x 7.5	320	7–9	1 x 13.2	3
BV EI 304 7044	230	1–5	2 x 7.5	160	6–7/9–10	2 x 13.2	4
BV EI 304 7045	230	1–5	1 x 9	266	7–9	1 x 16.3	3
BV EI 304 7046	230	1–5	2 x 9	133	6–7/9–10	2 x 16.9	4
BV EI 304 7047	230	1–5	1 x 12	200	7–9	1 x 21.8	3
BV EI 304 7048	230	1–5	2 x 12	100	6–7/9–10	2 x 21.8	4
BV EI 304 7049	230	1–5	1 x 15	160	7–9	1 x 26.7	3
BV EI 304 7095	230	1–5	2 x 15	80	6–7/9–10	2 x 24.7	4
BV EI 304 7050	230	1–5	1 x 18	133	7–9	1 x 32.6	3
BV EI 304 7051	230	1–5	1 x 21	114	7–9	1 x 37.2	3
BV EI 304 7052	230	1–5	1 x 24	100	7–9	1 x 42.3	3

3.0 VA ta 40 °C/F

Frame size/Core height **BV EI 305..../ 18.0 mm**

inherently short-circuit-proof

no load power loss **type. 1.0 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 305 2050	230	1–5	1 x 6	500	7–9	1 x 10.7	1
BV EI 305 2055	230	1–5	2 x 6	250	6–7/9–10	2 x 10.7	2
BV EI 305 3565	230	1–5	1 x 7.5	400	7–9	1 x 13.7	1
BV EI 305 2922	230	1–5	2 x 7.5	200	6–7/9–10	2 x 13.7	2
BV EI 305 2051	230	1–5	1 x 9	334	7–9	1 x 17.3	1
BV EI 305 2056	230	1–5	2 x 9	167	6–7/9–10	2 x 15.7	2
BV EI 305 2052	230	1–5	1 x 12	250	7–9	1 x 20.3	1
BV EI 305 2057	230	1–5	2 x 12	125	6–7/9–10	2 x 20.3	2
BV EI 305 2053	230	1–5	1 x 15	200	7–9	1 x 26.7	1
BV EI 305 2054	230	1–5	1 x 18	167	7–9	1 x 32.5	1
BV EI 305 2188	230	1–5	1 x 21	143	7–9	1 x 35.7	1
BV EI 305 2993	230	1–5	1 x 24	125	7–9	1 x 42.0	1

2.3 VA ta 70 °C/F

Frame size/Core height **BV EI 305..../ 18.0 mm**

inherently short-circuit-proof

no load power loss **type. 0.8 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 305 2878	230	1–5	1 x 6	383	7–9	1 x 11.6	1
BV EI 305 2882	230	1–5	2 x 6	192	6–7/9–10	2 x 10.9	2
BV EI 305 2893	230	1–5	1 x 7.5	307	7–9	1 x 15.2	1
BV EI 305 2894	230	1–5	2 x 7.5	153	6–7/9–10	2 x 13.0	2
BV EI 305 2879	230	1–5	1 x 9	255	7–9	1 x 17.6	1
BV EI 305 2866	230	1–5	2 x 9	127	6–7/9–10	2 x 16.1	2
BV EI 305 2800	230	1–5	1 x 12	192	7–9	1 x 21.4	1
BV EI 305 2847	230	1–5	2 x 12	96	6–7/9–10	2 x 21.5	2
BV EI 305 2805	230	1–5	1 x 15	153	7–9	1 x 28.2	1
BV EI 305 2844	230	1–5	2 x 15	76	6–7/9–10	2 x 24.5	2
BV EI 305 2851	230	1–5	1 x 18	128	7–9	1 x 32.4	1
BV EI 305 2772	230	1–5	1 x 21	110	7–9	1 x 38.4	1
BV EI 305 2874	230	1–5	1 x 24	96	7–9	1 x 45.4	1

2.7 VA ta 70 °C/F

Frame size/Core height **BV EI 305..../ 18.0 mm**

non inherently short-circuit-proof with thermo-fuse

no load power loss **type. 1.0 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 305 7053	230	1–5	1 x 6	450	7–9	1 x 10.9	3
BV EI 305 7054	230	1–5	2 x 6	225	6–7/9–10	2 x 10.3	4
BV EI 305 7055	230	1–5	1 x 7.5	360	7–9	1 x 13.7	3
BV EI 305 7056	230	1–5	2 x 7.5	180	6–7/9–10	2 x 13.4	4
BV EI 305 7057	230	1–5	1 x 9	300	7–9	1 x 16.2	3
BV EI 305 7058	230	1–5	2 x 9	150	6–7/9–10	2 x 16.8	4
BV EI 305 7059	230	1–5	1 x 12	225	7–9	1 x 20.7	3
BV EI 305 7060	230	1–5	2 x 12	112	6–7/9–10	2 x 22.1	4
BV EI 305 7061	230	1–5	1 x 15	180	7–9	1 x 26.6	3
BV EI 305 7062	230	1–5	2 x 15	90	6–7/9–10	2 x 24.6	4
BV EI 305 7063	230	1–5	1 x 18	150	7–9	1 x 33.0	3
BV EI 305 7064	230	1–5	1 x 21	128	7–9	1 x 37.6	3
BV EI 305 7065	230	1–5	1 x 24	112	7–9	1 x 42.9	3

3.6 VA ta 40 °C/F

Frame size/Core height
BV EI 306 .... / 23.0 mm

inherently short-circuit-proof

no load power loss
type. 1.3 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 306 3595	230	1–5	1 x 6	600	7–9	1 x 10.8	1
BV EI 306 3596	230	1–5	2 x 6	300	6–7/9–10	2 x 10.8	2
BV EI 306 3597	230	1–5	1 x 7.5	480	7–9	1 x 13.3	1
BV EI 306 3598	230	1–5	2 x 7.5	240	6–7/9–10	2 x 13.3	2
BV EI 306 3599	230	1–5	1 x 9	400	7–9	1 x 15.7	1
BV EI 306 3600	230	1–5	2 x 9	200	6–7/9–10	2 x 15.7	2
BV EI 306 3601	230	1–5	1 x 12	300	7–9	1 x 21.0	1
BV EI 306 3602	230	1–5	2 x 12	150	6–7/9–10	2 x 21.0	2
BV EI 306 3603	230	1–5	1 x 15	240	7–9	1 x 24.5	1
BV EI 306 3604	230	1–5	2 x 15	120	6–7/9–10	2 x 24.5	2
BV EI 306 3605	230	1–5	1 x 18	200	7–9	1 x 31.4	1
BV EI 306 3606	230	1–5	1 x 21	171	7–9	1 x 35.5	1
BV EI 306 3607	230	1–5	1 x 24	150	7–9	1 x 42.0	1

3.0 VA ta 70 °C/F

Frame size/Core height
BV EI 306 .... / 23.0 mm

inherently short-circuit-proof

no load power loss
type. 0.8 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 306 3359	230	1–5	1 x 6	500	7–9	1 x 10.5	1
BV EI 306 3360	230	1–5	2 x 6	250	6–7/9–10	2 x 10.5	2
BV EI 306 3361	230	1–5	1 x 7.5	400	7–9	1 x 12.7	1
BV EI 306 3362	230	1–5	2 x 7.5	200	6–7/9–10	2 x 12.7	2
BV EI 306 3363	230	1–5	1 x 9	333	7–9	1 x 15.9	1
BV EI 306 3364	230	1–5	2 x 9	167	6–7/9–10	2 x 15.9	2
BV EI 306 3365	230	1–5	1 x 12	250	7–9	1 x 20.3	1
BV EI 306 3366	230	1–5	2 x 12	125	6–7/9–10	2 x 20.3	2
BV EI 306 3367	230	1–5	1 x 15	200	7–9	1 x 23.8	1
BV EI 306 3368	230	1–5	2 x 15	100	6–7/9–10	2 x 24.0	2
BV EI 306 3369	230	1–5	1 x 18	167	7–9	1 x 29.2	1
BV EI 306 3371	230	1–5	1 x 21	143	7–9	1 x 34.3	1
BV EI 306 3372	230	1–5	1 x 24	125	7–9	1 x 38.4	1

3.4 VA ta 70 °C/F

Frame size/Core height
BV EI 306 .... / 23.0 mm

non inherently short-circuit-proof with thermo-fuse

no load power loss
type. 1.3 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 306 7066	230	1–5	1 x 6	566	7–9	1 x 11.0	3
BV EI 306 7067	230	1–5	2 x 6	283	6–7/9–10	2 x 10.7	4
BV EI 306 7068	230	1–5	1 x 7.5	453	7–9	1 x 13.6	3
BV EI 306 7069	230	1–5	2 x 7.5	226	6–7/9–10	2 x 12.4	4
BV EI 306 7070	230	1–5	1 x 9	378	7–9	1 x 16.0	3
BV EI 306 7071	230	1–5	2 x 9	189	6–7/9–10	2 x 16.8	4
BV EI 306 7072	230	1–5	1 x 12	283	7–9	1 x 21.0	3
BV EI 306 7073	230	1–5	2 x 12	141	6–7/9–10	2 x 22.1	4
BV EI 306 7074	230	1–5	1 x 15	226	7–9	1 x 26.0	3
BV EI 306 7075	230	1–5	2 x 15	113	6–7/9–10	2 x 24.6	4
BV EI 306 7076	230	1–5	1 x 18	189	7–9	1 x 32.2	3
BV EI 306 7077	230	1–5	1 x 21	162	7–9	1 x 37.5	3
BV EI 306 7078	230	1–5	1 x 24	141	7–9	1 x 43.1	3

Flat-type Printed-Circuit-Board transformers with small base areas

EI 34

Output Power: 1.6 VA – 8.0 VA

10	**DIN EN 61558**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

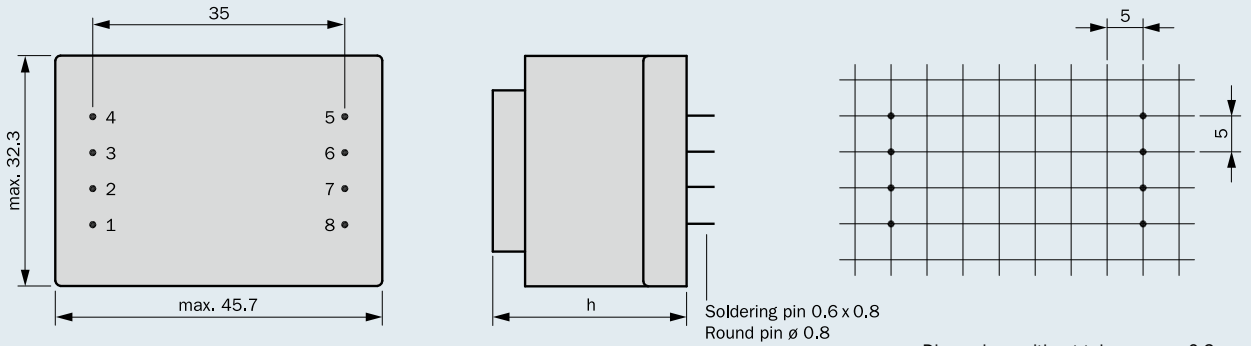
- according to REACH regulation
- according to RoHs regulation

- Primary voltages up to 230 V
- Secondary voltages from 2 V to max. 38 V
- Output Power up to 8.0 VA
- Temperature class ta 70 °C/B
- Short-circuit-proof
- Vacuum-encapsulated, bobbin with dual chamber windings
- Per item tested quality with certificate
- Excellent temperature fluctuation resistance properties
- Self-extinguishing cast housing and sealing material
- Minimal size available

The EI 34 Series provides solutions for applications requiring low heights and a small base areas. HAHN offers rapid and economic problem solutions for customer applications especially developed by our experienced R&D development engineers. The EI 34 Transformers meet the stringent requirements of the DIN EN 61558 and DIN VDE 0570 standards. Short-circuit-proof and non short-circuit-proof transformers are available in five different stacking heights. Outputs from 1.6 VA to 8.0 VA, at an ambient temperature of 70 °C, are supplyable to meet customer requirements in encapsulated versions.

HAHN has established itself on the market as a reliable and innovative supplier with its application-oriented solutions.

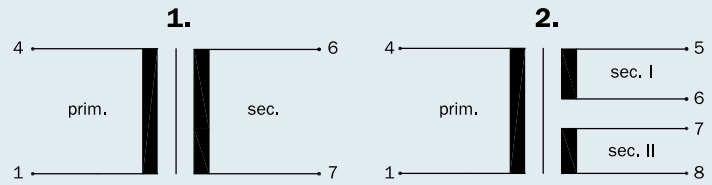
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



2.) double voltage – bridge: 6 + 7, double current – bridge: 5 + 7/ 6 + 8

Frame size/Core height	Output Power ta 70 °C/B inherently short-circuit-proof	Output Power ta 70 °C/B non short-circuit-proof	Height (h)	Weight	Packaging unit
BV EI 341 .... / 5.5 mm	1.6 VA	–	16.2 mm	75 g	36 pieces
BV EI 342 .... / 7.5 mm	2.0 VA	–	18.1 mm	90 g	36 pieces
BV EI 343 .... /10.5 mm	2.4 VA	3.0 VA	21.0 mm	120 g	36 pieces
BV EI 344 .... /16.5 mm	–	5.0 VA	26.9 mm	165 g	36 pieces
BV EI 345 .... /26.0 mm	–	8.0 VA	36.7 mm	245 g	36 pieces

Flat-type Printed-Circuit-Board transformers with small base areas

Output Power: up to 2.4 VA

1.6 VA ta 70 °C/B

Frame size/Core height **BV EI 341..../ 5.5 mm**

inherently short-circuit-proof

no load power loss **type. 1.7 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 341 0001	230	1–4	1 x 6	266	6–7	1 x 10.0	1
BV EI 341 0002	230	1–4	2 x 6	133	5–6/7–8	2 x 9.7	2
BV EI 341 0003	230	1–4	1 x 7.5	213	6–7	1 x 12.8	1
BV EI 341 0004	230	1–4	2 x 7.5	107	5–6/7–8	2 x 13.5	2
BV EI 341 0005	230	1–4	1 x 9	178	6–7	1 x 15.1	1
BV EI 341 0006	230	1–4	2 x 9	89	5–6/7–8	2 x 15.1	2
BV EI 341 0007	230	1–4	1 x 12	133	6–7	1 x 19.6	1
BV EI 341 0008	230	1–4	2 x 12	67	5–6/7–8	2 x 20.3	2
BV EI 341 0009	230	1–4	1 x 15	107	6–7	1 x 25.5	1
BV EI 341 0010	230	1–4	2 x 15	53	5–6/7–8	2 x 24.7	2
BV EI 341 0011	230	1–4	1 x 18	89	6–7	1 x 30.1	1
BV EI 341 0012	230	1–4	1 x 21	76	6–7	1 x 35.6	1
BV EI 341 0013	230	1–4	1 x 24	67	6–7	1 x 39.6	1

2.0 VA ta 70 °C/B

Frame size/Core height **BV EI 342..../ 7.5 mm**

inherently short-circuit-proof

no load power loss **type. 1.0 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 342 0014	230	1–4	1 x 6	333	6–7	1 x 10.7	1
BV EI 342 0015	230	1–4	2 x 6	167	5–6/7–8	2 x 10.7	2
BV EI 342 0016	230	1–4	1 x 7.5	266	6–7	1 x 13.5	1
BV EI 342 0017	230	1–4	2 x 7.5	133	5–6/7–8	2 x 13.5	2
BV EI 342 0018	230	1–4	1 x 9	222	6–7	1 x 15.6	1
BV EI 342 0019	230	1–4	2 x 9	111	5–6/7–8	2 x 16.1	2
BV EI 342 0020	230	1–4	1 x 12	167	6–7	1 x 21.4	1
BV EI 342 0021	230	1–4	2 x 12	83	5–6/7–8	2 x 21.4	2
BV EI 342 0022	230	1–4	1 x 15	133	6–7	1 x 27.0	1
BV EI 342 0024	230	1–4	1 x 18	111	6–7	1 x 31.4	1
BV EI 342 0025	230	1–4	1 x 21	95	6–7	1 x 37.6	1
BV EI 342 0026	230	1–4	1 x 24	84	6–7	1 x 43.2	1

2.4 VA ta 70 °C/B

Frame size/Core height **BV EI 343..../ 10.5 mm**

inherently short-circuit-proof

no load power loss **type. 0.7 W**

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 343 0027	230	1–4	1 x 6	400	6–7	1 x 10.4	1
BV EI 343 0028	230	1–4	2 x 6	200	5–6/7–8	2 x 10.4	2
BV EI 343 0029	230	1–4	1 x 7.5	320	6–7	1 x 13.3	1
BV EI 343 0030	230	1–4	2 x 7.5	160	5–6/7–8	2 x 13.3	2
BV EI 343 0031	230	1–4	1 x 9	267	6–7	1 x 16.1	1
BV EI 343 0032	230	1–4	2 x 9	134	5–6/7–8	2 x 15.4	2
BV EI 343 0033	230	1–4	1 x 12	200	6–7	1 x 20.8	1
BV EI 343 0034	230	1–4	2 x 12	100	5–6/7–8	2 x 20.2	2
BV EI 343 0035	230	1–4	1 x 15	160	6–7	1 x 26.8	1
BV EI 343 0037	230	1–4	1 x 18	134	6–7	1 x 31.2	1
BV EI 343 0038	230	1–4	1 x 21	114	6–7	1 x 35.9	1
BV EI 343 0039	230	1–4	1 x 24	100	6–7	1 x 41.2	1

Flat-type Printed-Circuit-Board transformers with small base areas

EI 34

Output Power: up to 8.0 VA

3.0 VA ta 70 °C/B

Frame size/Core height
BV EI 343 .... / 10.5 mm

non short-circuit-proof

no load power loss
type. 1.2 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 343 0040	230	1–4	1 x 6	500	6–7	1 x 10.1	1
BV EI 343 0041	230	1–4	2 x 6	250	5–6/7–8	2 x 10.1	2
BV EI 343 0042	230	1–4	1 x 7.5	400	6–7	1 x 12.3	1
BV EI 343 0043	230	1–4	2 x 7.5	200	5–6/7–8	2 x 12.8	2
BV EI 343 0044	230	1–4	1 x 9	333	6–7	1 x 14.6	1
BV EI 343 0045	230	1–4	2 x 9	167	5–6/7–8	2 x 14.6	2
BV EI 343 0046	230	1–4	1 x 12	250	6–7	1 x 19.1	1
BV EI 343 0047	230	1–4	2 x 12	125	5–6/7–8	2 x 19.1	2
BV EI 343 0048	230	1–4	1 x 15	200	6–7	1 x 23.5	1
BV EI 343 0049	230	1–4	2 x 15	100	5–6/7–8	2 x 24.5	2
BV EI 343 0050	230	1–4	1 x 18	167	6–7	1 x 27.7	1
BV EI 343 0051	230	1–4	1 x 21	143	6–7	1 x 31.9	1
BV EI 343 0052	230	1–4	1 x 24	125	6–7	1 x 36.5	1

5.0 VA ta 70 °C/B

Frame size/Core height
BV EI 344 .... / 16.5 mm

non short-circuit-proof

no load power loss
type. 1.3 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 344 0053	230	1–4	1 x 6	834	6–7	1 x 8.7	1
BV EI 344 0054	230	1–4	2 x 6	417	5–6/7–8	2 x 8.7	2
BV EI 344 0055	230	1–4	1 x 7.5	667	6–7	1 x 11.0	1
BV EI 344 0056	230	1–4	2 x 7.5	334	5–6/7–8	2 x 11.0	2
BV EI 344 0057	230	1–4	1 x 9	555	6–7	1 x 12.6	1
BV EI 344 0058	230	1–4	2 x 9	278	5–6/7–8	2 x 12.6	2
BV EI 344 0059	230	1–4	1 x 12	417	6–7	1 x 17.3	1
BV EI 344 0060	230	1–4	2 x 12	208	5–6/7–8	2 x 16.5	2
BV EI 344 0061	230	1–4	1 x 15	334	6–7	1 x 21.6	1
BV EI 344 0062	230	1–4	2 x 15	167	5–6/7–8	2 x 21.6	2
BV EI 344 0063	230	1–4	1 x 18	278	6–7	1 x 25.4	1
BV EI 344 0064	230	1–4	1 x 21	238	6–7	1 x 29.6	1
BV EI 344 0065	230	1–4	1 x 24	208	6–7	1 x 31.8	1

8.0 VA ta 70 °C/B

Frame size/Core height
BV EI 345 .... / 26.0 mm

non short-circuit-proof

no load power loss
type. 1.7 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 345 0066	230	1–4	1 x 6	1332	6–7	1 x 8.2	1
BV EI 345 0067	230	1–4	2 x 6	667	5–6/7–8	2 x 8.2	2
BV EI 345 0068	230	1–4	1 x 7.5	1067	6–7	1 x 10.3	1
BV EI 345 0069	230	1–4	2 x 7.5	533	5–6/7–8	2 x 10.3	2
BV EI 345 0070	230	1–4	1 x 9	888	6–7	1 x 11.6	1
BV EI 345 0071	230	1–4	2 x 9	444	5–6/7–8	2 x 11.6	2
BV EI 345 0072	230	1–4	1 x 12	667	6–7	1 x 15.7	1
BV EI 345 0073	230	1–4	2 x 12	333	5–6/7–8	2 x 15.7	2
BV EI 345 0074	230	1–4	1 x 15	533	6–7	1 x 20.6	1
BV EI 345 0075	230	1–4	2 x 15	267	5–6/7–8	2 x 20.6	2
BV EI 345 0076	230	1–4	1 x 18	444	6–7	1 x 23.1	1
BV EI 345 0077	230	1–4	1 x 21	380	6–7	1 x 26.8	1
BV EI 345 0078	230	1–4	1 x 24	334	6–7	1 x 30.4	1

Content

EI Series

- Printed-Circuit-Board transformers
  frame size EI 38 – EI 96 (4.5 VA – 200 VA)

Printed-Circuit-Board transformers

Output Power: 4.5 VA

EI 38

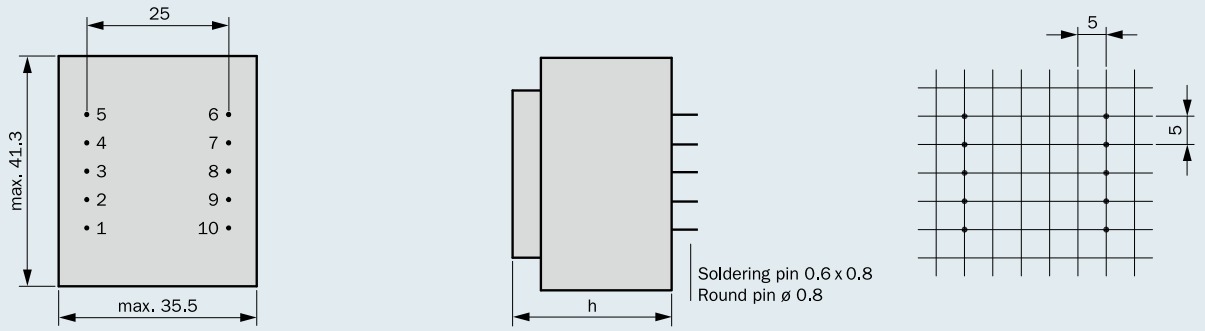
10	**DIN EN 61558-2-6**	**VDE**	119359
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	1290235

- according to REACH regulation
- according to RoHs regulation

- Output Power up to 4.5 VA
- Non short-circuit-proof at temperature class ta 70 °C/B
- Standard type cast housing “0”
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

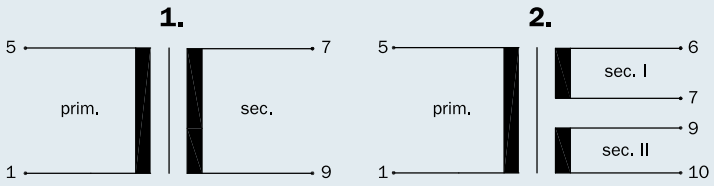
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



2.) double voltage – bridge: 7 + 9, double current – bridge: 6 + 9/ 7 + 10

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight	Packaging unit
BV EI 382 .... /13.6 mm	4.5 VA	28.1 mm	0.150 kg	30 pieces

Printed-Circuit-Board transformers

Output Power: 4.5 VA

EI 38

4.5 VA
ta 70 °C/B

Frame size/Core height
BV EI 382..../
13.6 mm

non short-circuit-proof

no load power loss
type. 1.5 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 382 1185	230	1–5	1 x 6	750	7–9	1 x 9.7	1
BV EI 382 1186	230	1–5	2 x 6	375	6–7/9–10	2 x 9.2	2
BV EI 382 1187	230	1–5	1 x 7.5	600	7–9	1 x 10.6	1
BV EI 382 1188	230	1–5	2 x 7.5	300	6–7/9–10	2 x 11.0	2
BV EI 382 1189	230	1–5	1 x 9	500	7–9	1 x 13.0	1
BV EI 382 1190	230	1–5	2 x 9	250	6–7/9–10	2 x 13.0	2
BV EI 382 1191	230	1–5	1 x 12	375	7–9	1 x 17.0	1
BV EI 382 1192	230	1–5	2 x 12	187	6–7/9–10	2 x 18.4	2
BV EI 382 1193	230	1–5	1 x 15	300	7–9	1 x 20.8	1
BV EI 382 1194	230	1–5	2 x 15	150	6–7/9–10	2 x 21.2	2
BV EI 382 1195	230	1–5	1 x 18	250	7–9	1 x 24.4	1
BV EI 382 1196	230	1–5	2 x 18	125	6–7/9–10	2 x 24.9	2
BV EI 382 1267	230	1–5	1 x 21	215	7–9	1 x 29.0	1
BV EI 382 1197	230	1–5	1 x 24	187	7–9	1 x 33.5	1

Printed-Circuit-Board transformers

Output Power: 2.5 VA – 9.0 VA

EI 38

	DIN EN 61558-2-6	VDE	on request
VDE-Mark for Glow-Wire-Test	DIN EN 60 335-1	VDE	on request
	UL 5085-3	UL	on request
	UL 5085-1	UL	on request
	C22.2	CSA	on request

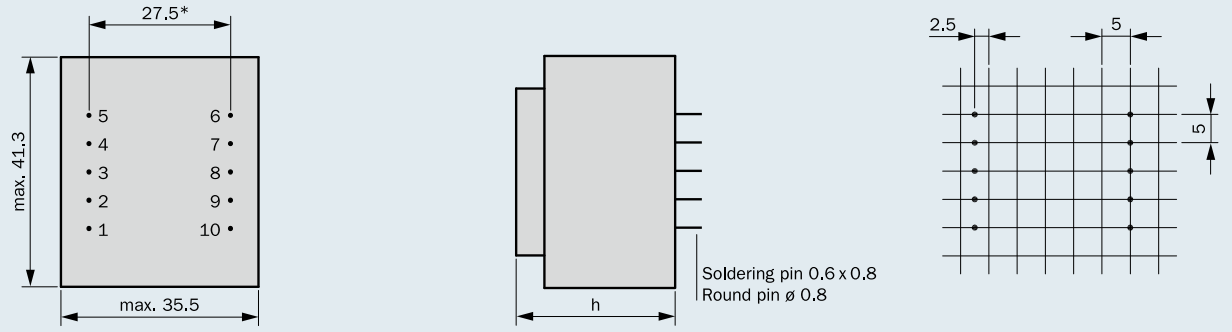
- according to REACH regulation
- according to RoHs regulation

Individual version!

Parallel to the cataloged EI 38 series transformers. HAHN also produces other variants. e.g. with integrated thermo fuse or thermo switch. other housing-. fixing- and connective options as well as non-encapsulated transformers.

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight
BV EI 381 .... / 7.5 mm	2.5 VA	22.1 mm	0.100 kg
BV EI 382 .... /13.6 mm	4.5 VA	28.1 mm	0.150 kg
BV EI 383 .... /16.5 mm	6.0 VA	30.8 mm	0.190 kg
BV EI 384 .... /28.0 mm	9.0 VA	42.8 mm	0.280 kg

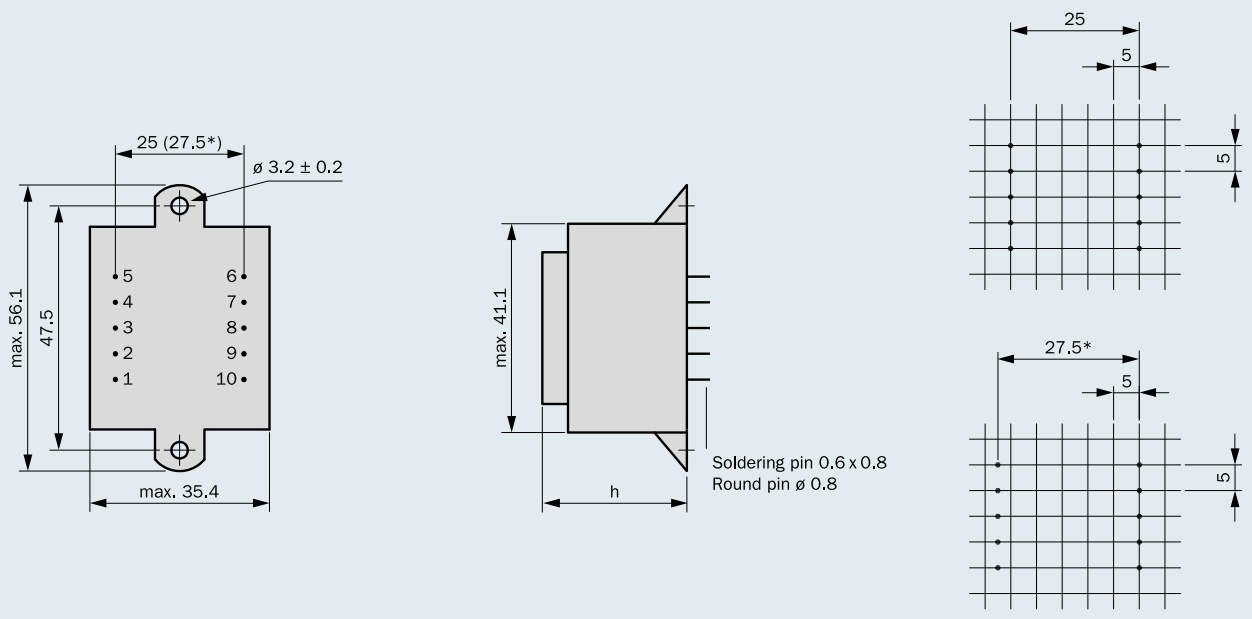
Type cast housing “0”



View looking onto pins
* alternative version with connecting grid 27.5 mm

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

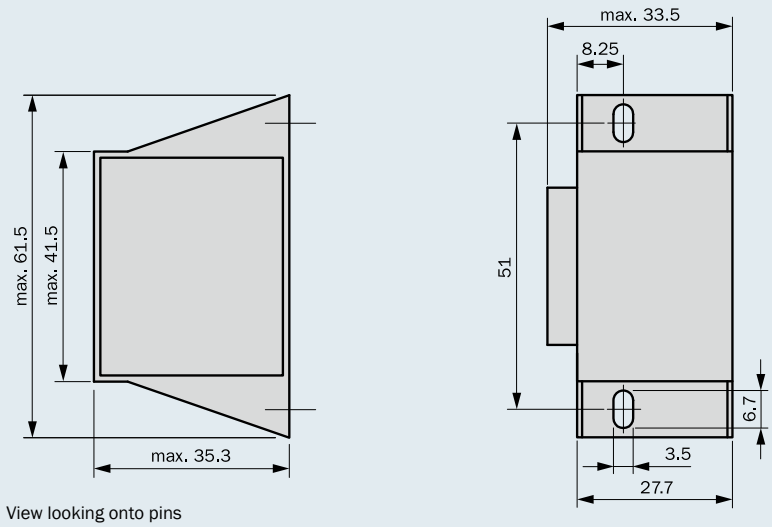
Type cast housing “K” with 2 fixing straps



View looking onto pins
* alternative version with connecting grid 27.5 mm

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” for upright mounting



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Printed-Circuit-Board transformers

Output Power: 6.0 VA

EI 42

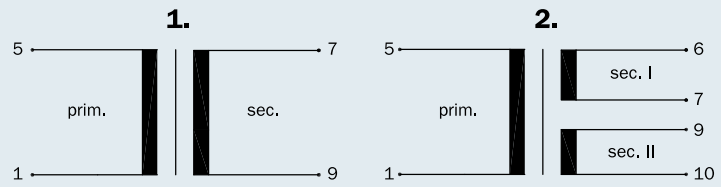
10	**DIN EN 61558-2-6**	**VDE**	119359
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

- Output Power up to 6.0 VA
- Non short-circuit-proof at temperature class ta 70 °C/B
- Standard type cast housing “K” and “O”
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service life features
- High voltage resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

Connection scheme (only connected pins are present)

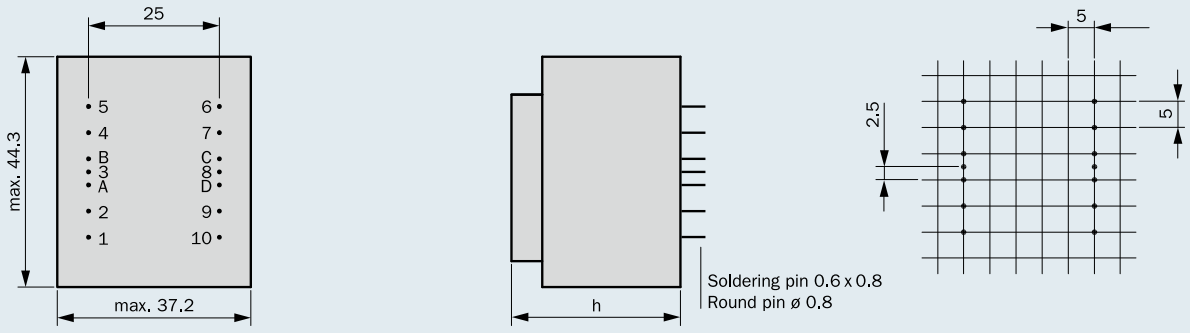


2.) double voltage – bridge: 7 + 9, double current – bridge: 6 + 9/ 7 + 10

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight	Packaging unit
BV EI 422 .... /14.8 mm	6.0 VA	32.3 mm	0.200 kg	30/21 pieces*

* it depends on kind of cast housing

Connecting pins type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “0”

6.0 VA
ta 70 °C/B

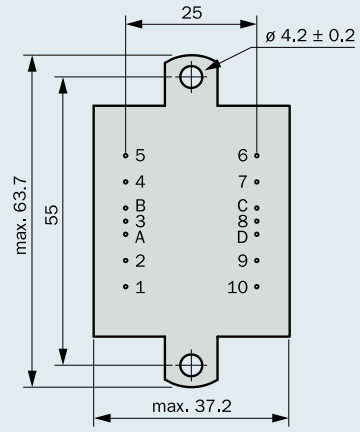
Frame size/Core height
BV EI 422..../
14.8 mm

non short-circuit-proof

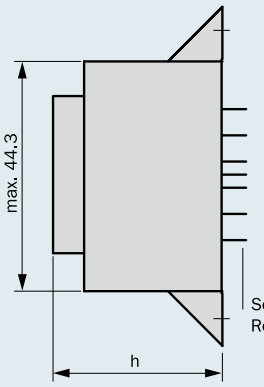
no load power loss
type. 1.3 W

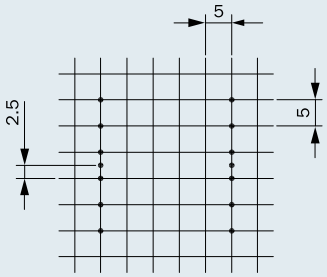
Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 422 1320	230	1 – 5	1 x 6	1000	7–9	1 x 8.7	1
BV EI 422 1298	230	1 – 5	2 x 6	500	6–7/9–10	2 x 8.7	2
BV EI 422 1303	230	1 – 5	1 x 7.5	800	7–9	1 x 10.9	1
BV EI 422 1304	230	1 – 5	2 x 7.5	400	6–7/9–10	2 x 10.9	2
BV EI 422 1285	230	1 – 5	1 x 9	667	7–9	1 x 13.0	1
BV EI 422 1281	230	1 – 5	2 x 9	334	6–7/9–10	2 x 13.0	2
BV EI 422 1275	230	1 – 5	1 x 12	500	7–9	1 x 16.7	1
BV EI 422 1260	230	1 – 5	2 x 12	250	6–7/9–10	2 x 16.7	2
BV EI 422 1276	230	1 – 5	1 x 15	400	7–9	1 x 20.2	1
BV EI 422 1305	230	1 – 5	2 x 15	200	6–7/9–10	2 x 20.6	2
BV EI 422 1289	230	1 – 5	1 x 18	334	7–9	1 x 24.6	1
BV EI 422 1306	230	1 – 5	2 x 18	167	6–7/9–10	2 x 24.6	2
BV EI 422 1355	230	1 – 5	1 x 21	285	7–9	1 x 27.1	1
BV EI 422 1307	230	1 – 5	1 x 24	250	7–9	1 x 30.8	1

Connecting pins type cast housing “K” with 2 fixing straps



View looking onto pins





Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “K”

6.0 VA
ta 70 °C/B

Frame size/Core height
BV EI 422..../
14.8 mm

non short-circuit-proof

no load power loss
type. 1.3 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 422 1218	230	1 – 5	1 x 6	1000	7–9	1 x 8.7	1
BV EI 422 1219	230	1 – 5	2 x 6	500	6–7/9–10	2 x 8.7	2
BV EI 422 1220	230	1 – 5	1 x 7.5	800	7–9	1 x 10.9	1
BV EI 422 1221	230	1 – 5	2 x 7.5	400	6–7/9–10	2 x 10.9	2
BV EI 422 1222	230	1 – 5	1 x 9	667	7–9	1 x 13.0	1
BV EI 422 1223	230	1 – 5	2 x 9	334	6–7/9–10	2 x 13.0	2
BV EI 422 1224	230	1 – 5	1 x 12	500	7–9	1 x 16.7	1
BV EI 422 1225	230	1 – 5	2 x 12	250	6–7/9–10	2 x 16.7	2
BV EI 422 1226	230	1 – 5	1 x 15	400	7–9	1 x 20.2	1
BV EI 422 1227	230	1 – 5	2 x 15	200	6–7/9–10	2 x 20.6	2
BV EI 422 1228	230	1 – 5	1 x 18	334	7–9	1 x 24.6	1
BV EI 422 1229	230	1 – 5	2 x 18	167	6–7/9–10	2 x 24.6	2
BV EI 422 1354	230	1 – 5	1 x 21	285	7–9	1 x 27.1	1
BV EI 422 1230	230	1 – 5	1 x 24	250	7–9	1 x 30.8	1

10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

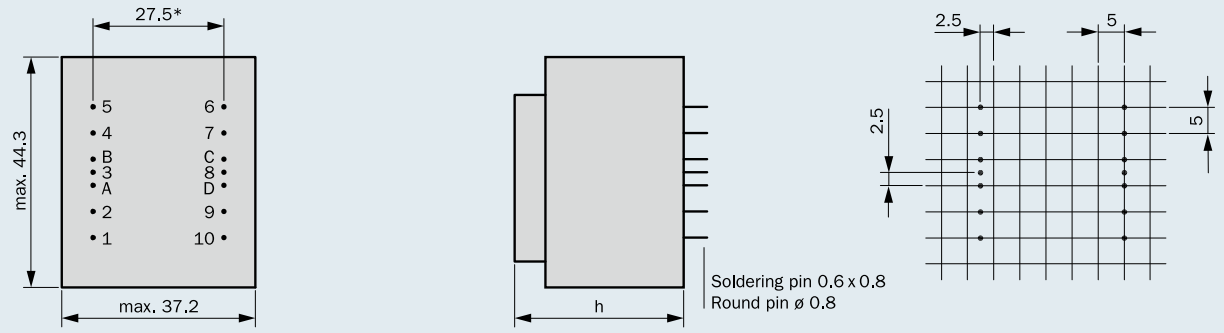
Individual version!

Parallel to the cataloged EI 42 series transformers, HAHN also produces other variants, e.g. with integrated thermo fuse or thermo switch, other housing-, fixing- and connective options as well as non-encapsulated transformers.

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight
BV EI 421 .... / 8.5 mm	3.0 VA	26.2 mm	0.120 kg
BV EI 422 .... /14.8 mm	6.0 VA	32.3 mm	0.200 kg
BV EI 423 .... /20.0 mm*	10.0 VA	38.0 mm	0.250 kg

* only type cast housing “0”

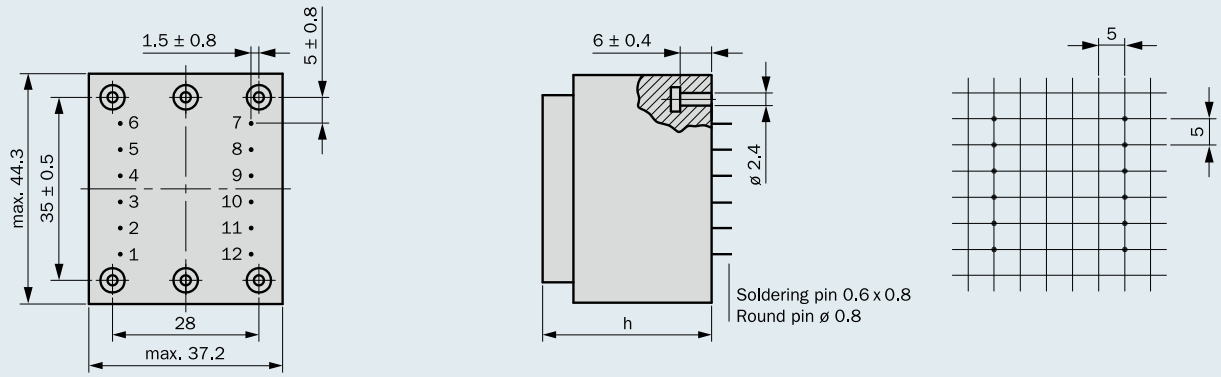
Connecting pins type cast housing “0”



View looking onto pins
* alternative version with connecting grid 27.5 mm

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

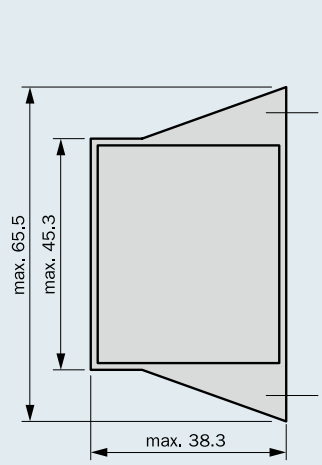
Connecting pins type cast housing “0” with fixing band



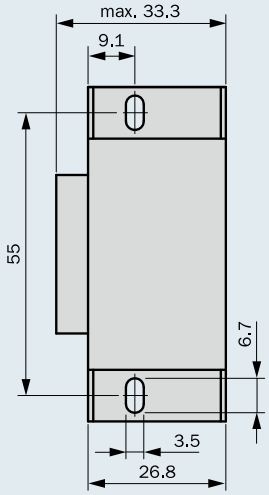
View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connecting pins type cast housing “SV” for upright mounting



View looking onto pins



Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Printed-Circuit-Board transformers

Output Power: 7.0 VA – 15.0 VA

EI 48

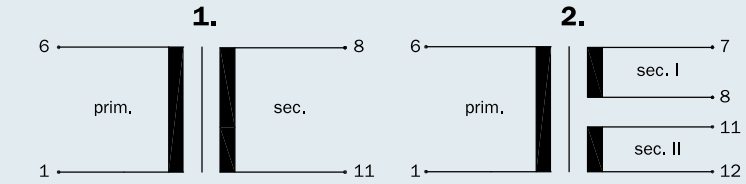
10	**DIN EN 61558-2-6**	**VDE**	108266
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

- Output Power up to 15.0 VA
- Non short-circuit-proof at temperature class ta 70 °C/B
- Standard type cast hou sing “K” and “0”
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

Connection scheme (only connected pins are present)



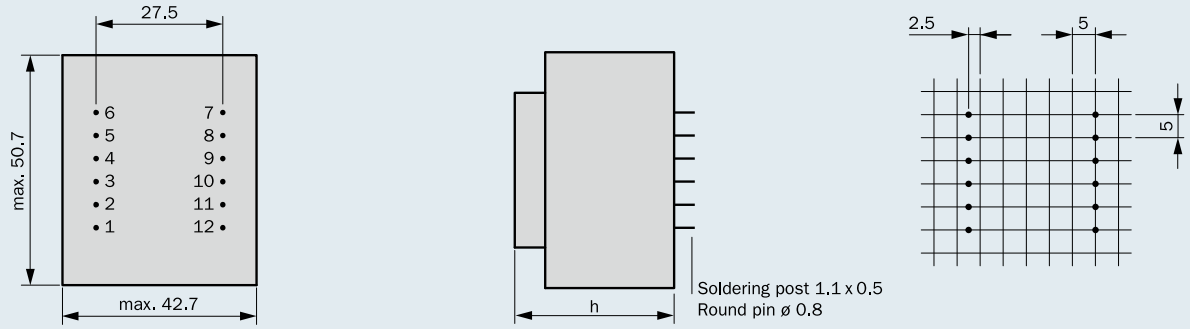
2.) double voltage – bridge: 8 + 11, double current – bridge: 7 + 11/ 8 + 12

Frame size/Core height	Output power ta 70 °C/B	Height (h)	Weight	Packaging unit
BV EI 480 .... /12.5 mm*	7.0 VA	30.2 ± 0.5 mm	0.250 kg	20/16 pieces**
BV EI 481 .... /16.8 mm	10.0 VA	34.6 ± 0.5 mm	0.300 kg	20/16 pieces**
BV EI 482 .... /20.5 mm	12.0 VA	38.5 ± 0.5 mm	0.350 kg	20/16 pieces**
BV EI 483 .... /25.5 mm	15.0 VA	43.5 ± 0.5 mm	0.450 kg	20/16 pieces**

* only type cast housing ’0‘

** it depends on kind of cast housing

Connecting pins type cast housing "0"



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing "0"

7.0 VA
ta 70 °C/B

Frame size/Core height
BV EI 480..../
12.5 mm

non short-circuit-proof

no load power loss
type. 2.3 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 480 1385	230	1–6	1 x 6	1167	8–11	1 x 7.9	1
BV EI 480 1386	230	1–6	2 x 6	583	7–8/11–12	2 x 7.9	2
BV EI 480 1387	230	1–6	1 x 7.5	933	8–11	1 x 9.8	1
BV EI 480 1388	230	1–6	2 x 7.5	467	7–8/11–12	2 x 9.8	2
BV EI 480 1389	230	1–6	1 x 9	788	8–11	1 x 11.8	1
BV EI 480 1390	230	1–6	2 x 9	388	7–8/11–12	2 x 11.8	2
BV EI 480 1391	230	1–6	1 x 12	583	8–11	1 x 15.8	1
BV EI 480 1392	230	1–6	2 x 12	292	7–8/11–12	2 x 15.8	2
BV EI 480 1393	230	1–6	1 x 15	467	8–11	1 x 19.5	1
BV EI 480 1394	230	1–6	2 x 15	233	7–8/11–12	2 x 19.5	2
BV EI 480 1395	230	1–6	1 x 18	389	8–11	1 x 23.3	1
BV EI 480 1396	230	1–6	2 x 18	195	7–8/11–12	2 x 23.3	2
BV EI 480 1397	230	1–6	1 x 21	333	8–11	1 x 27.5	1
BV EI 480 1398	230	1–6	1 x 24	292	8–11	1 x 31.3	1

Type cast housing "0"

10.0 VA
ta 70 °C/B

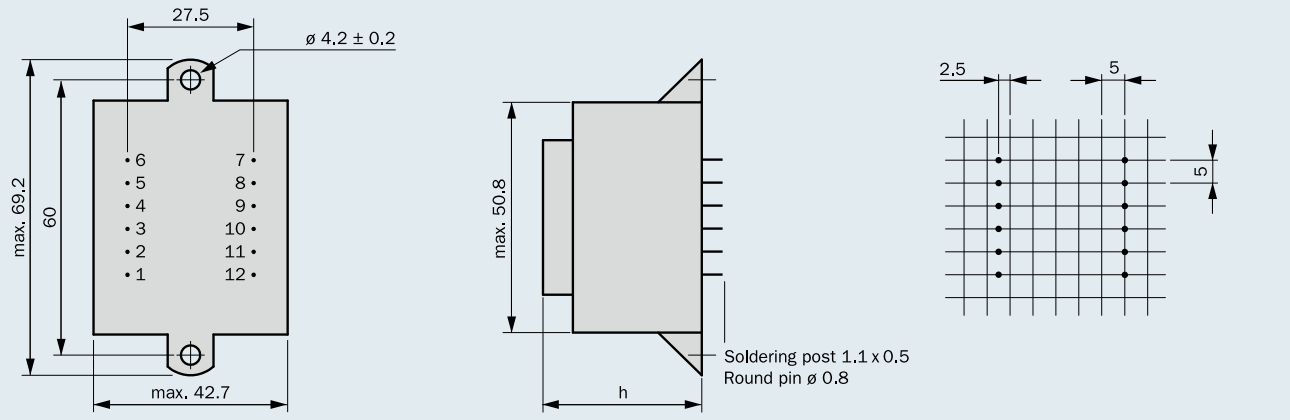
Frame size/Core height
BV EI 481..../
16.8 mm

non short-circuit-proof

no load power loss
type. 2.0 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 481 1325	230	1–6	1 x 6	1667	8–11	1 x 7.6	1
BV EI 481 1305	230	1–6	2 x 6	833	7–8/11–12	2 x 7.6	2
BV EI 481 1312	230	1–6	1 x 7.5	1333	8–11	1 x 9.8	1
BV EI 481 1326	230	1–6	2 x 7.5	667	7–8/11–12	2 x 9.8	2
BV EI 481 1291	230	1–6	1 x 9	1111	8–11	1 x 11.5	1
BV EI 481 1271	230	1–6	2 x 9	556	7–8/11–12	2 x 11.5	2
BV EI 481 1295	230	1–6	1 x 12	834	8–11	1 x 15.5	1
BV EI 481 1327	230	1–6	2 x 12	417	7–8/11–12	2 x 15.3	2
BV EI 481 1323	230	1–6	1 x 15	667	8–11	1 x 18.6	1
BV EI 481 1324	230	1–6	2 x 15	333	7–8/11–12	2 x 18.6	2
BV EI 481 1307	230	1–6	1 x 18	556	8–11	1 x 22.3	1
BV EI 481 1328	230	1–6	2 x 18	278	7–8/11–12	2 x 22.3	2
BV EI 481 1381	230	1–6	1 x 21	477	8–11	1 x 25.1	1
BV EI 481 1329	230	1–6	1 x 24	417	8–11	1 x 28.7	1

Connecting pins type cast housing “K” with 2 fixing straps



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “K”

10.0 VA ta 70 °C/B

Frame size/Core height
BV EI 481..../ 16.8 mm

non short-circuit-proof

no load power loss
type. 2.0 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 481 1142	230	1–6	1 x 6	1667	8–11	1 x 7.6	1
BV EI 481 1134	230	1–6	2 x 6	833	7–8/11–12	2 x 7.6	2
BV EI 481 1182	230	1–6	1 x 7.5	1333	8–11	1 x 9.8	1
BV EI 481 1188	230	1–6	2 x 7.5	667	7–8/11–12	2 x 9.8	2
BV EI 481 1167	230	1–6	1 x 9	1111	8–11	1 x 11.5	1
BV EI 481 1118	230	1–6	2 x 9	556	7–8/11–12	2 x 11.5	2
BV EI 481 1172	230	1–6	1 x 12	834	8–11	1 x 15.5	1
BV EI 481 1119	230	1–6	2 x 12	417	7–8/11–12	2 x 15.3	2
BV EI 481 1184	230	1–6	1 x 15	667	8–11	1 x 18.6	1
BV EI 481 1120	230	1–6	2 x 15	333	7–8/11–12	2 x 18.6	2
BV EI 481 1185	230	1–6	1 x 18	556	8–11	1 x 22.3	1
BV EI 481 1192	230	1–6	2 x 18	278	7–8/11–12	2 x 22.3	2
BV EI 481 1273	230	1–6	1 x 21	477	8–11	1 x 25.1	1
BV EI 481 1186	230	1–6	1 x 24	417	8–11	1 x 28.7	1

Type cast housing “K”

12.0 VA ta 70 °C/B

Frame size/Core height
BV EI 482..../ 20.5 mm

non short-circuit-proof

no load power loss
type. 1.8 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 482 1231	230	1–6	1 x 6	2000	8–11	1 x 8.3	1
BV EI 482 1232	230	1–6	2 x 6	1000	7–8/11–12	2 x 8.3	2
BV EI 482 1233	230	1–6	1 x 7.5	1600	8–11	1 x 10.6	1
BV EI 482 1236	230	1–6	2 x 7.5	800	7–8/11–12	2 x 10.6	2
BV EI 482 1237	230	1–6	1 x 9	1333	8–11	1 x 12.4	1
BV EI 482 1238	230	1–6	2 x 9	667	7–8/11–12	2 x 12.4	2
BV EI 482 1239	230	1–6	1 x 12	1000	8–11	1 x 16.3	1
BV EI 482 1240	230	1–6	2 x 12	500	7–8/11–12	2 x 16.3	2
BV EI 482 1241	230	1–6	1 x 15	800	8–11	1 x 19.9	1
BV EI 482 1242	230	1–6	2 x 15	400	7–8/11–12	2 x 19.9	2
BV EI 482 1243	230	1–6	1 x 18	667	8–11	1 x 23.5	1
BV EI 482 1234	230	1–6	2 x 18	333	7–8/11–12	2 x 23.5	2
BV EI 482 1382	230	1–6	1 x 21	572	8–11	1 x 26.1	1
BV EI 482 1244	230	1–6	1 x 24	500	8–11	1 x 30.3	1

Type cast housing **"K"**

15.0 VA
ta 70 °C/B

Frame size/Core height
BV EI 483 .... / 25.5 mm

non short-circuit-proof

no load power loss
type. 2.5 W

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 483 1260	230	1–6	1 x 6	2500	8–11	1 x 7.8	1
BV EI 483 1257	230	1–6	2 x 6	1250	7–8/11–12	2 x 7.8	2
BV EI 483 1258	230	1–6	1 x 7.5	2000	8–11	1 x 9.5	1
BV EI 483 1245	230	1–6	2 x 7.5	1000	7–8/11–12	2 x 9.5	2
BV EI 483 1246	230	1–6	1 x 9	1667	8–11	1 x 12.0	1
BV EI 483 1247	230	1–6	2 x 9	833	7–8/11–12	2 x 12.0	2
BV EI 483 1248	230	1–6	1 x 12	1250	8–11	1 x 15.9	1
BV EI 483 1249	230	1–6	2 x 12	625	7–8/11–12	2 x 15.9	2
BV EI 483 1250	230	1–6	1 x 15	1000	8–11	1 x 19.1	1
BV EI 483 1251	230	1–6	2 x 15	500	7–8/11–12	2 x 19.1	2
BV EI 483 1252	230	1–6	1 x 18	833	8–11	1 x 22.8	1
BV EI 483 1259	230	1–6	2 x 18	417	7–8/11–12	2 x 22.8	2
BV EI 483 1302	230	1–6	1 x 21	714	8–11	1 x 26.0	1
BV EI 483 1253	230	1–6	1 x 24	625	8–11	1 x 30.6	1

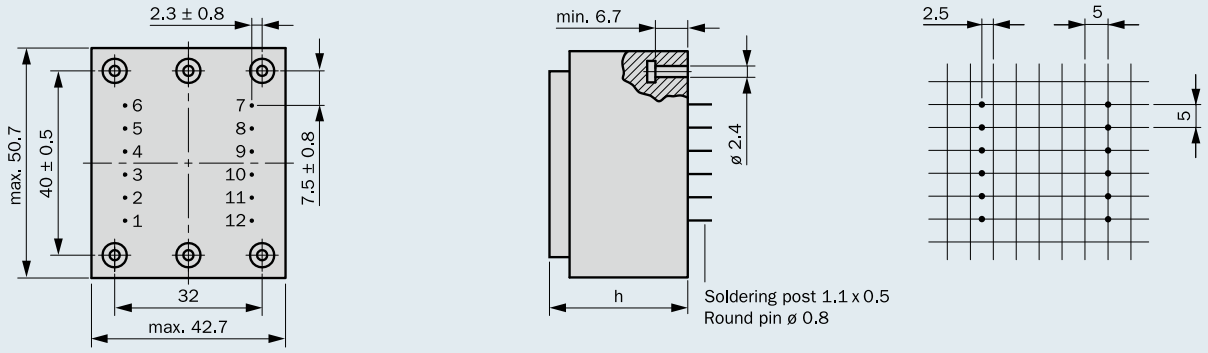
10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

Individual version!

Parallel to the cataloged EI 48 series transformers, HAHN also produces other variants, e.g. with integrated thermo fuse or thermo switch, other housing-, fixing- and connective options as well as non-encapsulated transformers.

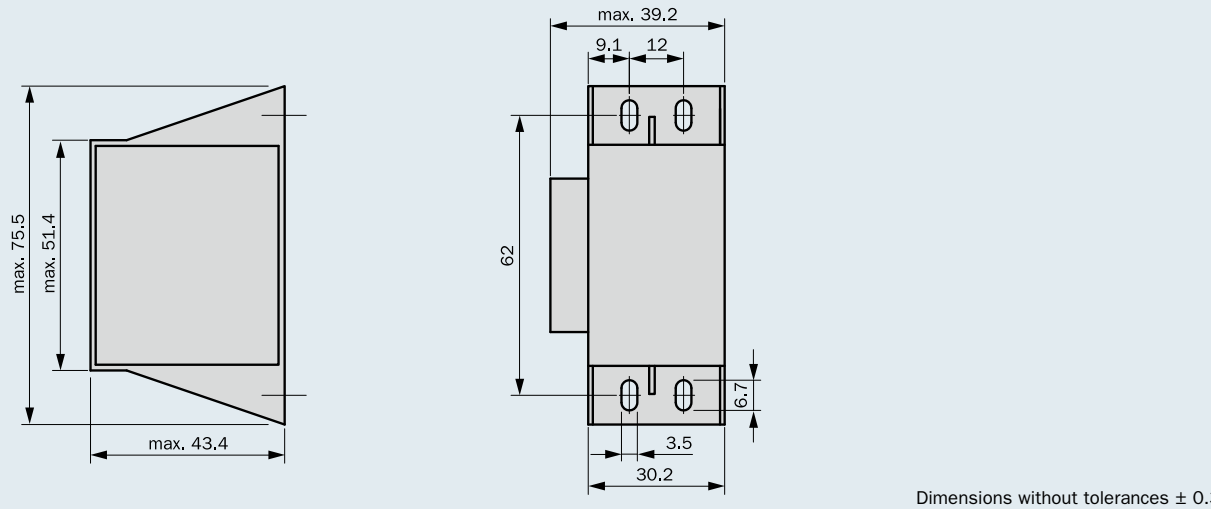
Type cast housing “0” with fixing band



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” for upright mounting



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Printed-Circuit-Board transformers

Output Power: 12.0 VA – 22.0 VA

EI 54

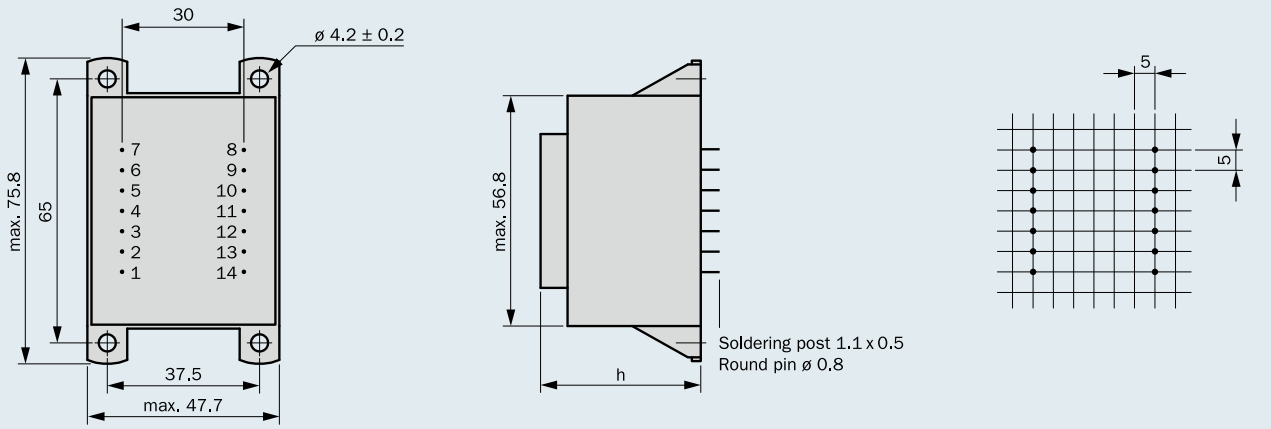
10	**DIN EN 61558-2-6**	**VDE**	108267
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

- Output Power up to 22.0 VA
- Non short-circuit-proof at temperature class ta 70 °C/B
- Standard type cast housing “KK”
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

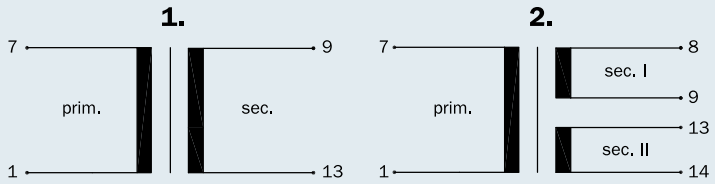
Type cast housing “KK” with 4 fixing straps



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



2.) double voltage – bridge: 9 + 13, double current – bridge: 8 + 13/ 9 + 14

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight	Packaging unit
BV EI 540 .... /14.0 mm*	12.0 VA	35.0 ± 0.5 mm	0.350 kg	14 pieces
BV EI 541 .... /18.8 mm	16.0 VA	38.8 ± 0.5 mm	0.400 kg	14 pieces
BV EI 542 .... /23.0 mm	20.0 VA	43.2 ± 0.5 mm	0.500 kg	14 pieces
BV EI 543 .... /25.5 mm	22.0 VA	47.4 ± 0.5 mm	0.550 kg	14 pieces

* only type cast housing ‘0‘

12.0 VA ta 70 °C/B

Frame size/Core height
BV EI 540 .... / 14.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 540 1137	230	1–7	1 x 6	2000	9–13	1 x 8.1	1
BV EI 540 1138	230	1–7	2 x 6	1000	8–9/13–14	2 x 8.1	2
BV EI 540 1139	230	1–7	1 x 7.5	1600	9–13	1 x 9.9	1
BV EI 540 1140	230	1–7	2 x 7.5	800	8–9/13–14	2 x 9.9	2
BV EI 540 1141	230	1–7	1 x 9	1333	9–13	1 x 12.2	1
BV EI 540 1142	230	1–7	2 x 9	667	8–9/13–14	2 x 12.2	2
BV EI 540 1143	230	1–7	1 x 12	1000	9–13	1 x 15.8	1
BV EI 540 1144	230	1–7	2 x 12	500	8–9/13–14	2 x 15.8	2
BV EI 540 1145	230	1–7	1 x 15	800	9–13	1 x 19.4	1
BV EI 540 1146	230	1–7	2 x 15	400	8–9/13–14	2 x 19.4	2
BV EI 540 1147	230	1–7	1 x 18	667	9–13	1 x 23.5	1
BV EI 540 1148	230	1–7	2 x 18	334	8–9/13–14	2 x 23.5	2
BV EI 540 1149	230	1–7	1 x 24	500	9–13	1 x 30.6	1

16.0 VA ta 70 °C/B

Frame size/Core height
BV EI 541 .... / 18.8 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 541 1121	230	1–7	1 x 6	2667	9–13	1 x 7.9	1
BV EI 541 1128	230	1–7	2 x 6	1334	8–9/13–14	2 x 7.9	2
BV EI 541 1122	230	1–7	1 x 7.5	2134	9–13	1 x 9.7	1
BV EI 541 1129	230	1–7	2 x 7.5	1067	8–9/13–14	2 x 9.7	2
BV EI 541 1123	230	1–7	1 x 9	1778	9–13	1 x 11.7	1
BV EI 541 1130	230	1–7	2 x 9	889	8–9/13–14	2 x 11.7	2
BV EI 541 1124	230	1–7	1 x 12	1333	9–13	1 x 15.2	1
BV EI 541 1131	230	1–7	2 x 12	667	8–9/13–14	2 x 15.2	2
BV EI 541 1125	230	1–7	1 x 15	1067	9–13	1 x 19.1	1
BV EI 541 1132	230	1–7	2 x 15	534	8–9/13–14	2 x 19.1	2
BV EI 541 1126	230	1–7	1 x 18	889	9–13	1 x 22.3	1
BV EI 541 1150	230	1–7	2 x 18	445	8–9/13–14	2 x 22.3	2
BV EI 541 1110	230	1–7	1 x 24	667	9–13	1 x 29.1	1

20.0 VA ta 70 °C/B

Frame size/Core height
BV EI 542 .... / 23.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 542 1151	230	1–7	1 x 6	3334	9–13	1 x 7.7	1
BV EI 542 1152	230	1–7	2 x 6	1667	8 – 9/13 – 14	2 x 7.7	2
BV EI 542 1153	230	1–7	1 x 7.5	2667	9–13	1 x 9.5	1
BV EI 542 1154	230	1–7	2 x 7.5	1334	8 – 9/13 – 14	2 x 9.5	2
BV EI 542 1155	230	1–7	1 x 9	2223	9–13	1 x 11.4	1
BV EI 542 1156	230	1–7	2 x 9	1112	8–9/13–14	2 x 11.4	2
BV EI 542 1157	230	1–7	1 x 12	1667	9–13	1 x 15.0	1
BV EI 542 1158	230	1–7	2 x 12	834	8–9/13–14	2 x 15.0	2
BV EI 542 1159	230	1–7	1 x 15	1334	9–13	1 x 18.6	1
BV EI 542 1160	230	1–7	2 x 15	667	8–9/13–14	2 x 18.6	2
BV EI 542 1161	230	1–7	1 x 18	1112	9–13	1 x 21.8	1
BV EI 542 1162	230	1–7	2 x 18	556	8–9/13–14	2 x 21.8	2
BV EI 542 1163	230	1–7	1 x 24	834	9–13	1 x 29.5	1

22.0 VA
ta 70 °C/B

Frame size/Core height
BV EI 543 .... /
25.5 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 543 1166	230	1–7	1 x 6	3667	9–13	1 x 7.4	1
BV EI 543 1167	230	1–7	2 x 6	1834	8–9/13–14	2 x 7.4	2
BV EI 543 1168	230	1–7	1 x 7.5	2934	9–13	1 x 8.9	1
BV EI 543 1169	230	1–7	2 x 7.5	1467	8–9/13–14	2 x 8.9	2
BV EI 543 1170	230	1–7	1 x 9	2445	9–13	1 x 10.7	1
BV EI 543 1171	230	1–7	2 x 9	1223	8–9/13–14	2 x 10.7	2
BV EI 543 1172	230	1–7	1 x 12	1834	9–13	1 x 14.5	1
BV EI 543 1173	230	1–7	2 x 12	917	8–9/13–14	2 x 14.5	2
BV EI 543 1174	230	1–7	1 x 15	1467	9–13	1 x 17.9	1
BV EI 543 1175	230	1–7	2 x 15	734	8–9/13–14	2 x 17.9	2
BV EI 543 1176	230	1–7	1 x 18	1223	9–13	1 x 21.0	1
BV EI 543 1177	230	1–7	2 x 18	612	8–9/13–14	2 x 21.0	2
BV EI 543 1178	230	1–7	1 x 24	917	9–13	1 x 28.0	1

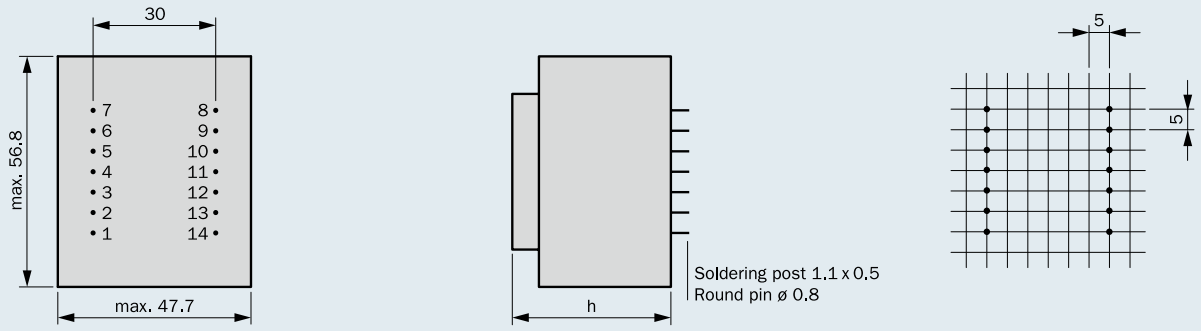
10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

Individual version!

Parallel to the cataloged EI 54 series transformers, HAHN also produces other variants, e.g. with integrated thermo fuse or thermo switch, other housing-, fixing- and connective options as well as non-encapsulated transformers.

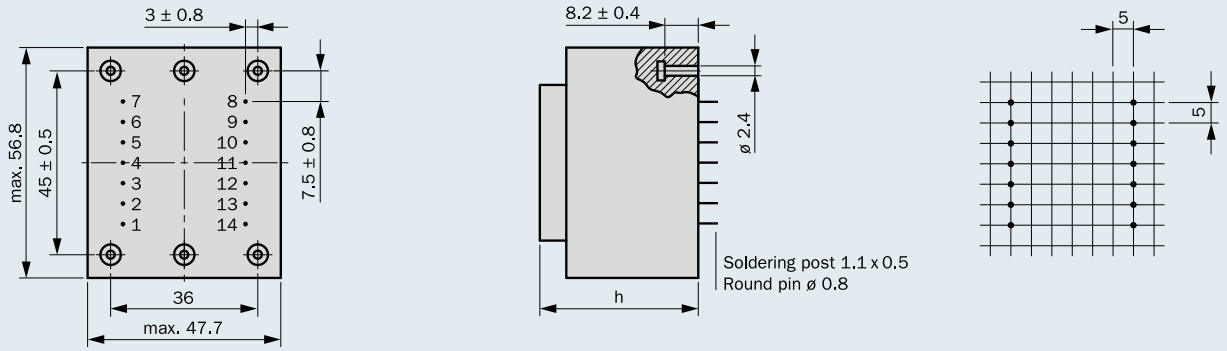
Type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

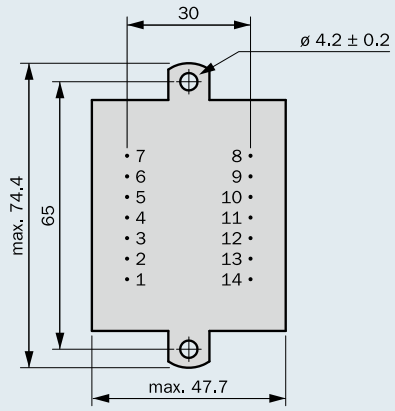
Type cast housing “0” with fixing band

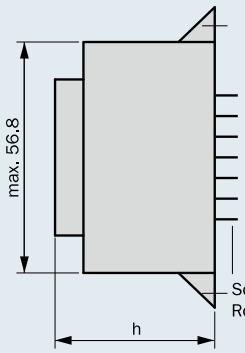


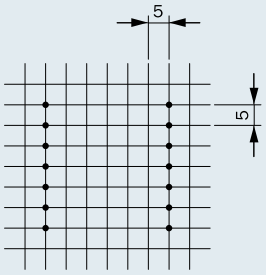
View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “K” with 2 fixing straps



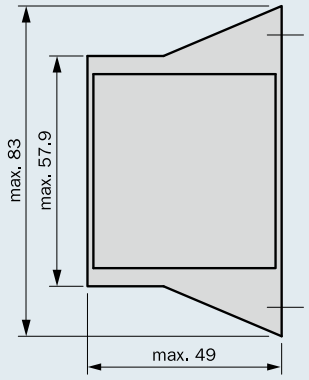


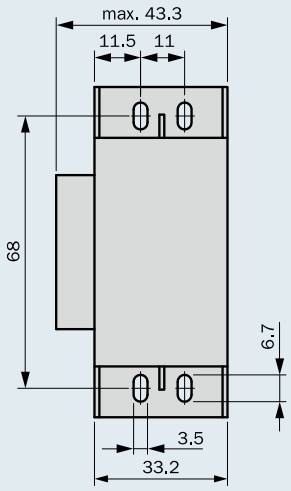


View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” for upright mounting





View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Printed-Circuit-Board transformers

Output Power: 17.0 VA – 35.0 VA

EI 60

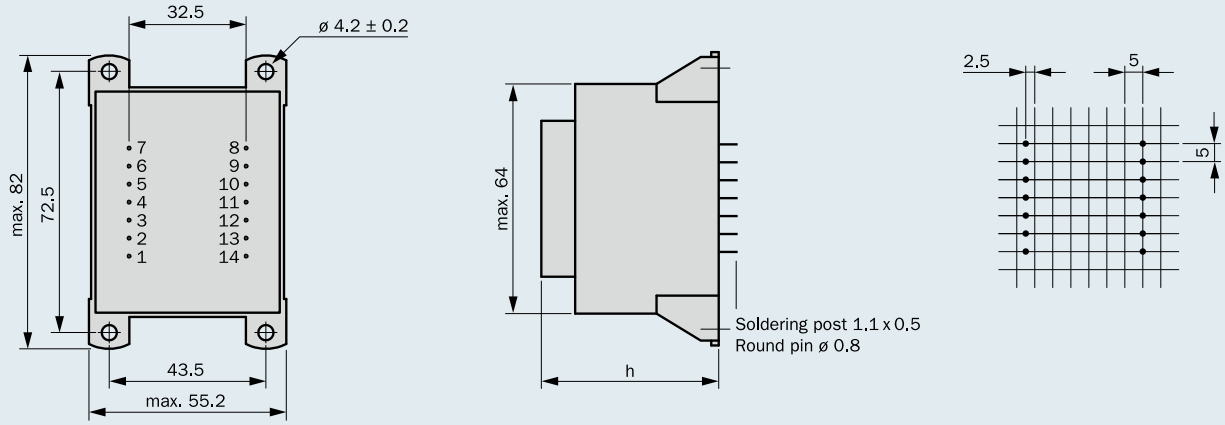
	DIN EN 61558-2-6	**VDE**	110044
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

- Output Power up to 35.0 VA
- Non short-circuit-proof at temperature class ta 70 °C/B
- Standard type cast housing “KK”
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

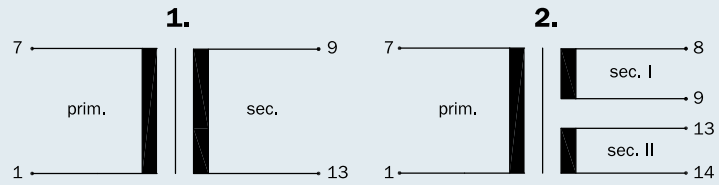
Connecting pins type cast housing “KK” with 4 fixing straps



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



2.) double voltage – bridge: 9 + 13, double current – bridge: 8 + 13/ 9 + 14

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight	Packaging unit
BV EI 600 .... /16.0 mm*	17.0 VA	40.5 ± 0.5 mm	0.450 kg	10 pieces
BV EI 601 .... /21.0 mm	20.0 VA	44.7 ± 0.5 mm	0.600 kg	10 pieces
BV EI 602 .... /25.5 mm	28.0 VA	49.2 ± 0.5 mm	0.700 kg	10 pieces
BV EI 603 .... /30.5 mm	30.0 VA	54.2 ± 0.5 mm	0.800 kg	10 pieces
BV EI 604 .... /35.0 mm	35.0 VA	57.3 ± 0.5 mm	0.900 kg	10 pieces

* only type cast housing ‘0‘

17.0 VA ta 70 °C/B

Frame size/Core height
BV EI 600..../ 16.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 600 1050	230	1–7	1 x 6	2834	9–13	1 x 7.4	1
BV EI 600 1051	230	1–7	2 x 6	1417	8–9/13–14	2 x 7.4	2
BV EI 600 1052	230	1–7	1 x 7.5	2267	9–13	1 x 9.3	1
BV EI 600 1053	230	1–7	2 x 7.5	1134	8–9/13–14	2 x 9.3	2
BV EI 600 1054	230	1–7	1 x 9	1889	9–13	1 x 11.1	1
BV EI 600 1055	230	1–7	2 x 9	945	8–9/13–14	2 x 11.1	2
BV EI 600 1056	230	1–7	1 x 12	1417	9–13	1 x 15.2	1
BV EI 600 1057	230	1–7	2 x 12	708	8–9/13–14	2 x 15.2	2
BV EI 600 1058	230	1–7	1 x 15	1134	9–13	1 x 18.2	1
BV EI 600 1065	230	1–7	2 x 15	567	8–9/13–14	2 x 18.7	2
BV EI 600 1072	230	1–7	1 x 18	944	9–13	1 x 21.9	1
BV EI 600 1061	230	1–7	2 x 18	472	8–9/13–14	2 x 21.9	2
BV EI 600 1062	230	1–7	1 x 24	708	9–13	1 x 28.9	1

20.0 VA ta 70 °C/B

Frame size/Core height
BV EI 601..../ 21.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 601 1069	230	1–7	1 x 6	3334	9–13	1 x 7.0	1
BV EI 601 1070	230	1–7	2 x 6	1667	8–9/13–14	2 x 7.0	2
BV EI 601 1071	230	1–7	1 x 7.5	2667	9–13	1 x 8.8	1
BV EI 601 1059	230	1–7	2 x 7.5	1334	8–9/13–14	2 x 8.8	2
BV EI 601 1060	230	1–7	1 x 9	2223	9–13	1 x 10.5	1
BV EI 601 1042	230	1–7	2 x 9	1111	8–9/13–14	2 x 10.5	2
BV EI 601 1046	230	1–7	1 x 12	1667	9–13	1 x 14.2	1
BV EI 601 1043	230	1–7	2 x 12	834	8–9/13–14	2 x 14.2	2
BV EI 601 1064	230	1–7	1 x 15	1334	9–13	1 x 17.0	1
BV EI 601 1044	230	1–7	2 x 15	667	8–9/13–14	2 x 17.0	2
BV EI 601 1066	230	1–7	1 x 18	1111	9–13	1 x 20.5	1
BV EI 601 1068	230	1–7	2 x 18	556	8–9/13–14	2 x 20.5	2
BV EI 601 1067	230	1–7	1 x 24	834	9–13	1 x 27.6	1

28.0 VA ta 70 °C/B

Frame size/Core height
BV EI 602..../ 25.5 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 602 1011	230	1–7	1 x 6	4667	9–13	1 x 7.1	1
BV EI 602 1018	230	1–7	2 x 6	2334	8–9/13–14	2 x 7.1	2
BV EI 602 1012	230	1–7	1 x 7.5	3734	9–13	1 x 8.8	1
BV EI 602 1019	230	1–7	2 x 7.5	1867	8–9/13–14	2 x 8.8	2
BV EI 602 1013	230	1–7	1 x 9	3111	9–13	1 x 10.6	1
BV EI 602 1020	230	1–7	2 x 9	1556	8–9/13–14	2 x 10.6	2
BV EI 602 1014	230	1–7	1 x 12	2334	9–13	1 x 14.4	1
BV EI 602 1021	230	1–7	2 x 12	1167	8–9/13–14	2 x 14.4	2
BV EI 602 1015	230	1–7	1 x 15	1867	9–13	1 x 17.8	1
BV EI 602 1022	230	1–7	2 x 15	934	8–9/13–14	2 x 17.8	2
BV EI 602 1016	230	1–7	1 x 18	1556	9–13	1 x 20.5	1
BV EI 602 1076	230	1–7	2 x 18	778	8–9/13–14	2 x 20.5	2
BV EI 602 1017	230	1–7	1 x 24	1167	9–13	1 x 27.4	1

30.0 VA ta 70 °C/B

Frame size/Core height
BV EI 603 .... / 30.5 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 603 1023	230	1–7	1 x 6	5000	9–13	1 x 7.0	1
BV EI 603 1030	230	1–7	2 x 6	2500	8–9/13–14	2 x 7.0	2
BV EI 603 1024	230	1–7	1 x 7.5	4000	9–13	1 x 8.7	1
BV EI 603 1031	230	1–7	2 x 7.5	2000	8–9/13–14	2 x 8.7	2
BV EI 603 1025	230	1–7	1 x 9	3334	9–13	1 x 10.2	1
BV EI 603 1032	230	1–7	2 x 9	1667	8–9/13–14	2 x 10.2	2
BV EI 603 1026	230	1–7	1 x 12	2500	9–13	1 x 13.7	1
BV EI 603 1034	230	1–7	2 x 12	1250	8–9/13–14	2 x 13.7	2
BV EI 603 1027	230	1–7	1 x 15	2000	9–13	1 x 16.8	1
BV EI 603 1035	230	1–7	2 x 15	1000	8–9/13–14	2 x 16.8	2
BV EI 603 1028	230	1–7	1 x 18	1667	9–13	1 x 20.3	1
BV EI 603 1080	230	1–7	2 x 18	834	8–9/13–14	2 x 20.3	2
BV EI 603 1029	230	1–7	1 x 24	1250	9–13	1 x 27.0	1

35.0 VA ta 70 °C/B

Frame size/Core height
BV EI 604 .... / 35.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 604 1082	230	1–7	1 x 6	5834	9–13	1 x 7.0	1
BV EI 604 1083	230	1–7	2 x 6	2917	8–9/13–14	2 x 7.0	2
BV EI 604 1084	230	1–7	1 x 7.5	4667	9–13	1 x 8.7	1
BV EI 604 1085	230	1–7	2 x 7.5	2334	8–9/13–14	2 x 8.7	2
BV EI 604 1086	230	1–7	1 x 9	3889	9–13	1 x 10.3	1
BV EI 604 1087	230	1–7	2 x 9	1994	8–9/13–14	2 x 10.3	2
BV EI 604 1088	230	1–7	1 x 12	2917	9–13	1 x 13.9	1
BV EI 604 1089	230	1–7	2 x 12	1458	8–9/13–14	2 x 13.9	2
BV EI 604 1090	230	1–7	1 x 15	2334	9–13	1 x 17.1	1
BV EI 604 1091	230	1–7	2 x 15	1167	8–9/13–14	2 x 17.1	2
BV EI 604 1092	230	1–7	1 x 18	1994	9–13	1 x 20.3	1
BV EI 604 1093	230	1–7	2 x 18	972	8–9/13–14	2 x 20.3	2
BV EI 604 1094	230	1–7	1 x 24	1458	9–13	1 x 26.9	1

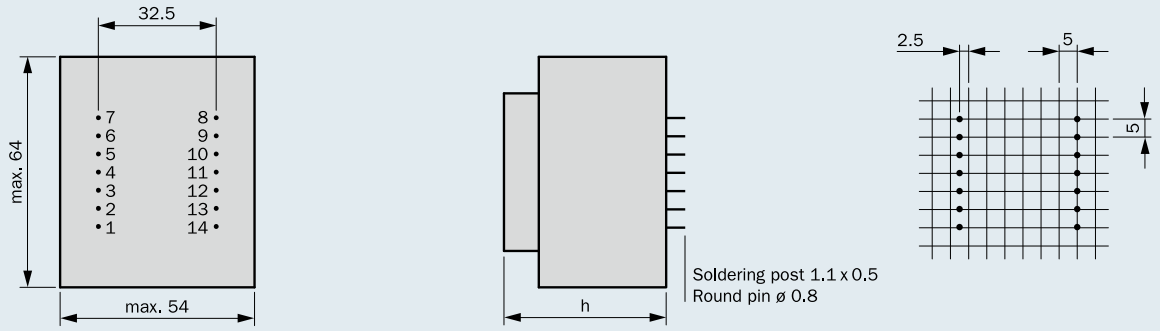
10	DIN EN 61558-2-6	VDE	on request
VDE-Mark for Glow-Wire-Test	DIN EN 60 335-1	VDE	on request
	UL 5085-3	UL	on request
	UL 5085-1	UL	on request
	C22.2	CSA	on request

- according to REACH regulation
- according to RoHs regulation

Individual version!

Parallel to the cataloged EI 60 series transformers, HAHN also produces other variants, e.g. with integrated thermo fuse or thermo switch, other housing-, fixing- and connective options as well as non-encapsulated transformers.

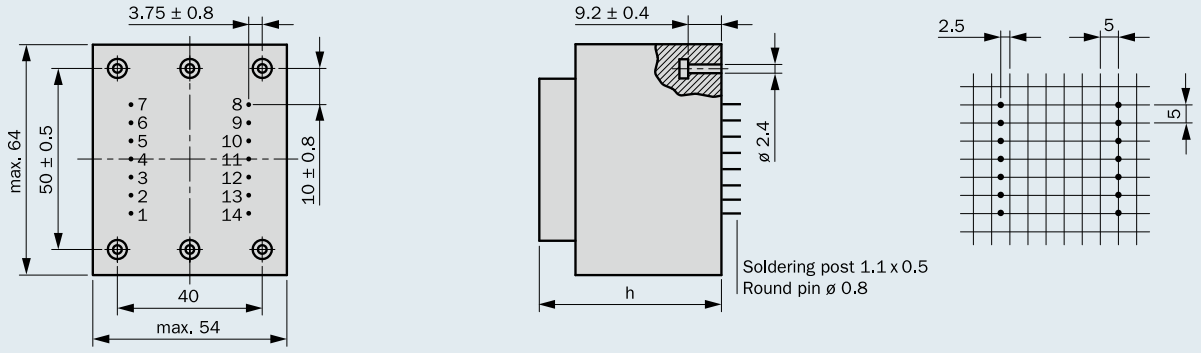
Type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

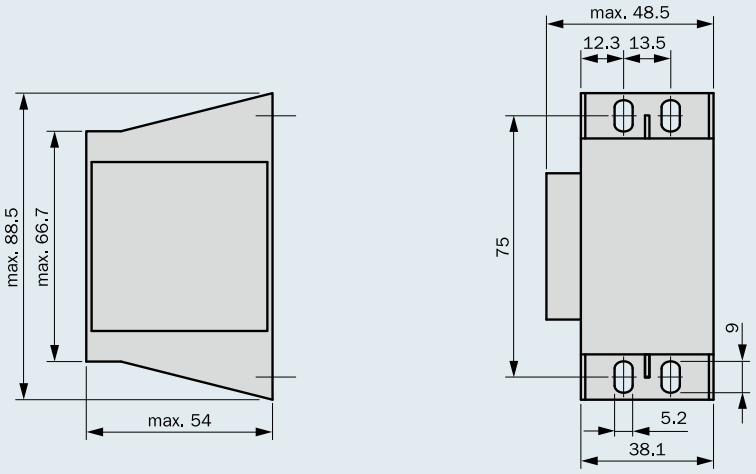
Type cast housing “0” with fixing band



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” with fixing band



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Printed-Circuit-Board transformers

Output Power: 17.0 VA – 50.0 VA

EI 66

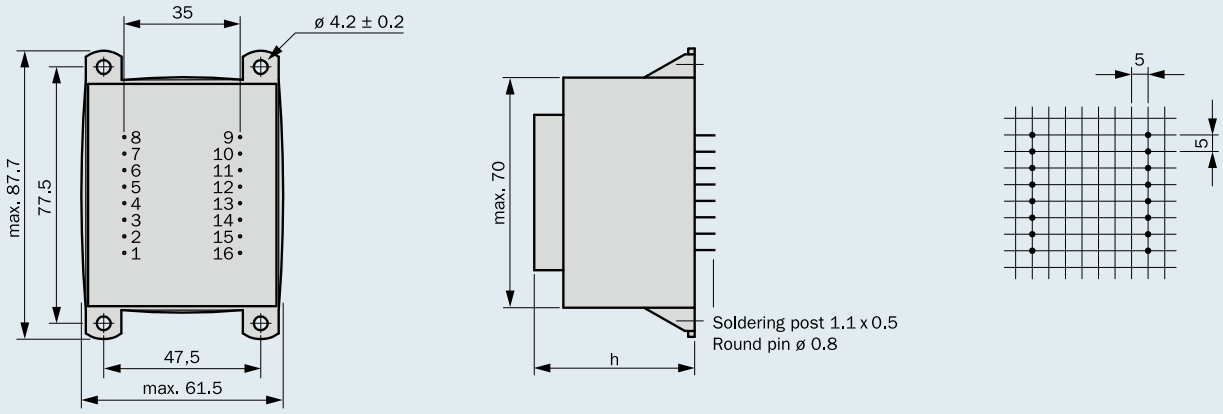
10	**DIN EN 61558-2-6**	**VDE**	108268
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	1486889

- according to REACH regulation
- according to RoHs regulation

- Output Power up to 50.0 VA
- Non short-circuit-proof at temperature class ta 70 °C/B
- Standard type cast housing “KK”
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

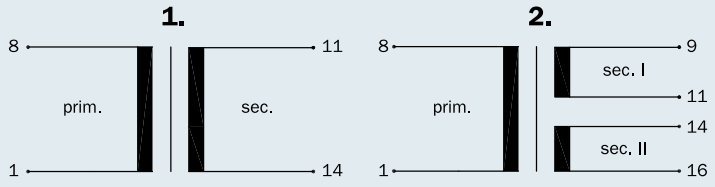
Connecting pins type cast housing “KK” with 4 fixing straps



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (present only connected pins)



2.) double voltage – bridge: 11 + 14, double current – bridge: 9 + 14/ 11 + 16

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight	Packaging unit
BV EI 660 .... /12.0 mm	17.0 VA	38.5 ± 0.5 mm	0.500 kg	9 pieces
BV EI 661 .... /18.0 mm	25.0 VA	44.5 ± 0.5 mm	0.700 kg	9 pieces
BV EI 662 .... /23.0 mm	33.0 VA	48.5 ± 0.5 mm	0.800 kg	9 pieces
BV EI 663 .... /30.0 mm	44.0 VA	55.8 ± 0.5 mm	0.950 kg	9 pieces
BV EI 664 .... /34.8 mm	47.0 VA	60.2 ± 0.5 mm	1.000 kg	9 pieces
BV EI 665 .... /40.0 mm	50.0 VA	66.5 ± 0.5 mm	1.200 kg	9 pieces

17.0 VA ta 70 °C/B

Frame size/Core height **BV EI 660..../ 12.0 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 660 1060	230	1–8	1 x 6	2833	11–14	1 x 7.4	1
BV EI 660 1061	230	1–8	2 x 6	1417	9–11/14–16	2 x 7.7	2
BV EI 660 1062	230	1–8	1 x 7.5	2267	11–14	1 x 9.1	1
BV EI 660 1063	230	1–8	2 x 7.5	1133	9–11/14–16	2 x 9.1	2
BV EI 660 1064	230	1–8	1 x 9	1889	11–14	1 x 10.8	1
BV EI 660 1065	230	1–8	2 x 9	944	9–11/14–16	2 x 10.8	2
BV EI 660 1066	230	1–8	1 x 12	1417	11–14	1 x 14.4	1
BV EI 660 1067	230	1–8	2 x 12	708	9–11/14–16	2 x 14.2	2
BV EI 660 1068	230	1–8	1 x 15	1133	11–14	1 x 18.0	1
BV EI 660 1069	230	1–8	2 x 15	567	9–11/14–16	2 x 17.8	2
BV EI 660 1070	230	1–8	1 x 18	944	11–14	1 x 21.0	1
BV EI 660 1071	230	1–8	2 x 18	472	9–11/14–16	2 x 21.7	2
BV EI 660 1072	230	1–8	1 x 24	708	11–14	1 x 28.0	1

25.0 VA ta 70 °C/B

Frame size/Core height **BV EI 661..../ 18.0 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 661 1073	230	1–8	1 x 6	4167	11–14	1 x 7.3	1
BV EI 661 1074	230	1–8	2 x 6	2083	9–11/14–16	2 x 7.3	2
BV EI 661 1075	230	1–8	1 x 7.5	3333	11–14	1 x 9.0	1
BV EI 661 1076	230	1–8	2 x 7.5	1667	9–11/14–16	2 x 9.0	2
BV EI 661 1077	230	1–8	1 x 9	2778	11–14	1 x 10.9	1
BV EI 661 1078	230	1–8	2 x 9	1389	9–11/14–16	2 x 10.6	2
BV EI 661 1079	230	1–8	1 x 12	2083	11–14	1 x 13.9	1
BV EI 661 1080	230	1–8	2 x 12	1042	9–11/14–16	2 x 13.9	2
BV EI 661 1081	230	1–8	1 x 15	1667	11–14	1 x 17.4	1
BV EI 661 1082	230	1–8	2 x 15	833	9–11/14–16	2 x 17.4	2
BV EI 661 1083	230	1–8	1 x 18	1389	11–14	1 x 20.9	1
BV EI 661 1084	230	1–8	2 x 18	694	9–11/14–16	2 x 20.5	2
BV EI 661 1085	230	1–8	1 x 24	1042	11–14	1 x 27.9	1

33.0 VA ta 70 °C/B

Frame size/Core height **BV EI 662..../ 23.0 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 662 1086	230	1–8	1 x 6	5500	11–14	1 x 7.0	1
BV EI 662 1087	230	1–8	2 x 6	2750	9–11/14–16	2 x 7.0	2
BV EI 662 1088	230	1–8	1 x 7.5	4400	11–14	1 x 8.5	1
BV EI 662 1089	230	1–8	2 x 7.5	2200	9–11/14–16	2 x 8.5	2
BV EI 662 1090	230	1–8	1 x 9	3667	11–14	1 x 10.3	1
BV EI 662 1091	230	1–8	2 x 9	1833	9–11/14–16	2 x 10.3	2
BV EI 662 1092	230	1–8	1 x 12	2750	11–14	1 x 14.0	1
BV EI 662 1093	230	1–8	2 x 12	1375	9–11/14–16	2 x 14.0	2
BV EI 662 1094	230	1–8	1 x 15	2200	11–14	1 x 16.9	1
BV EI 662 1095	230	1–8	2 x 15	1100	9–11/14–16	2 x 16.9	2
BV EI 662 1096	230	1–8	1 x 18	1833	11–14	1 x 20.1	1
BV EI 662 1097	230	1–8	2 x 18	917	9–11/14–16	2 x 20.1	2
BV EI 662 1098	230	1–8	1 x 24	1375	11–14	1 x 26.8	1

44.0 VA ta 70 °C/B

Frame size/Core height
BV EI 663..../ 30.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 663 1099	230	1–8	1 x 6	7333	11–14	1 x 6.8	1
BV EI 663 1100	230	1–8	2 x 6	3667	9–11/14–16	2 x 6.8	2
BV EI 663 1101	230	1–8	1 x 7.5	5867	11–14	1 x 8.8	1
BV EI 663 1102	230	1–8	2 x 7.5	2933	9–11/14–16	2 x 8.6	2
BV EI 663 1103	230	1–8	1 x 9	4889	11–14	1 x 10.5	1
BV EI 663 1104	230	1–8	2 x 9	2444	9–11/14–16	2 x 10.3	2
BV EI 663 1105	230	1–8	1 x 12	3667	11–14	1 x 13.7	1
BV EI 663 1106	230	1–8	2 x 12	1833	9–11/14–16	2 x 13.7	2
BV EI 663 1107	230	1–8	1 x 15	2933	11–14	1 x 17.2	1
BV EI 663 1108	230	1–8	2 x 15	1467	9–11/14–16	2 x 17.2	2
BV EI 663 1109	230	1–8	1 x 18	2444	11–14	1 x 20.2	1
BV EI 663 1110	230	1–8	2 x 18	1222	9–11/14–16	2 x 20.2	2
BV EI 663 1111	230	1–8	1 x 24	1833	11–14	1 x 26.9	1

47.0 VA ta 70 °C/B

Frame size/Core height
BV EI 664..../ 34.8 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 664 1112	230	1–8	1 x 6	7833	11–14	1 x 7.3	1
BV EI 664 1113	230	1–8	2 x 6	3917	9–11/14–16	2 x 7.1	2
BV EI 664 1114	230	1–8	1 x 7.5	6267	11–14	1 x 8.6	1
BV EI 664 1115	230	1–8	2 x 7.5	3133	9–11/14–16	2 x 8.6	2
BV EI 664 1116	230	1–8	1 x 9	5222	11–14	1 x 10.1	1
BV EI 664 1117	230	1–8	2 x 9	2611	9–11/14–16	2 x 10.1	2
BV EI 664 1118	230	1–8	1 x 12	3917	11–14	1 x 13.4	1
BV EI 664 1119	230	1–8	2 x 12	1960	9–11/14–16	2 x 13.4	2
BV EI 664 1120	230	1–8	1 x 15	3133	11–14	1 x 16.4	1
BV EI 664 1121	230	1–8	2 x 15	1570	9–11/14–16	2 x 16.4	2
BV EI 664 1122	230	1–8	1 x 18	2610	11–14	1 x 19.7	1
BV EI 664 1123	230	1–8	2 x 18	1306	9–11/14–16	2 x 19.7	2
BV EI 664 1124	230	1–8	1 x 24	1958	11–14	1 x 26.3	1

50.0 VA ta 70 °C/B

Frame size/Core height
BV EI 665..../ 40.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV EI 665 1125	230	1–8	1 x 6	8333	11–14	1 x 6.9	1
BV EI 665 1126	230	1–8	2 x 6	4167	9–11/14–16	2 x 6.7	2
BV EI 665 1127	230	1–8	1 x 7.5	6667	11–14	1 x 8.5	1
BV EI 665 1128	230	1–8	2 x 7.5	3333	9–11/14–16	2 x 8.5	2
BV EI 665 1129	230	1–8	1 x 9	5556	11–14	1 x 10.0	1
BV EI 665 1130	230	1–8	2 x 9	2778	9–11/14–16	2 x 10.0	2
BV EI 665 1131	230	1–8	1 x 12	4167	11–14	1 x 13.0	1
BV EI 665 1132	230	1–8	2 x 12	2083	9–11/14–16	2 x 13.0	2
BV EI 665 1133	230	1–8	1 x 15	3333	11–14	1 x 16.4	1
BV EI 665 1134	230	1–8	2 x 15	1667	9–11/14–16	2 x 16.4	2
BV EI 665 1135	230	1–8	1 x 18	2778	11–14	1 x 19.7	1
BV EI 665 1136	230	1–8	2 x 18	1388	9–11/14–16	2 x 19.7	2
BV EI 665 1137	230	1–8	1 x 24	2083	11–14	1 x 26.1	1

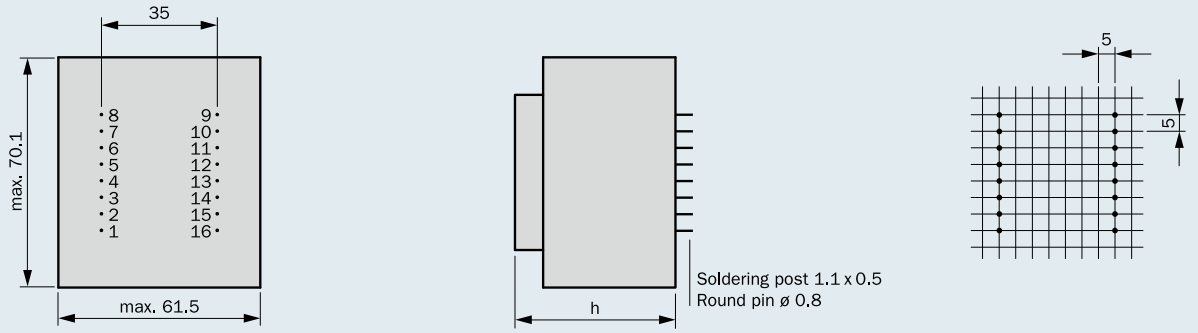
10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

Individual version!

Parallel to the cataloged EI 66 series transformers, HAHN also produces other variants, e.g. with integrated thermo fuse or thermo switch, other housing-, fixing- and connective options as well as non-encapsulated transformers.

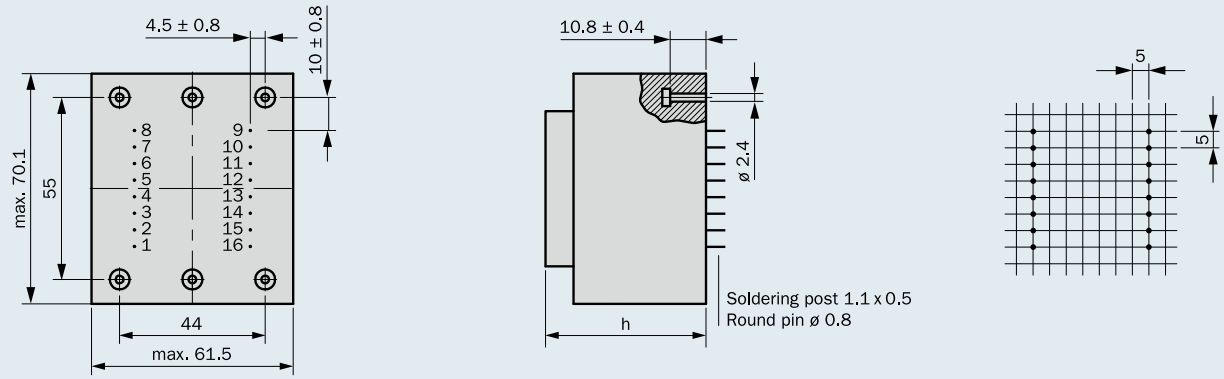
Type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

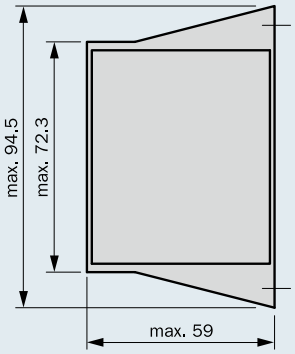
Type cast housing “0” with fixing band



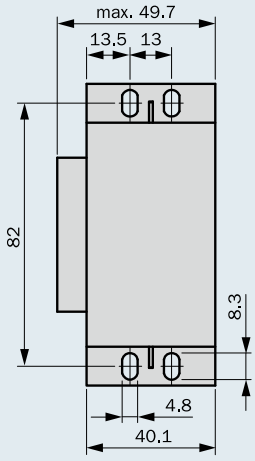
View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” for upright mounting



View looking onto pins



Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

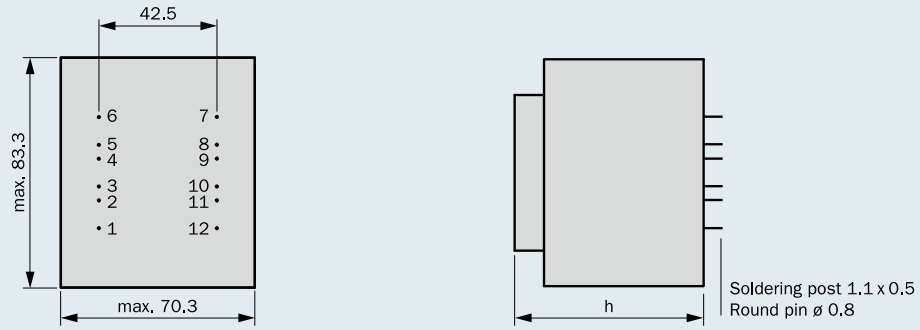
- according to REACH regulation
- according to RoHs regulation

Individual version!

Custom-made models are available on request, e.g. with or without mounting brackets, other heights, pin configurations or connections.

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight
BV EI 781 .... /27.5 mm	50.0 VA	59.0 ± 0.5 mm	1.250 kg
BV EI 782 .... /36.5 mm	60.0 VA	68.0 ± 0.5 mm	1.500 kg
BV EI 783 .... /40.5 mm	70.0 VA	72.0 ± 0.5 mm	1.700 kg

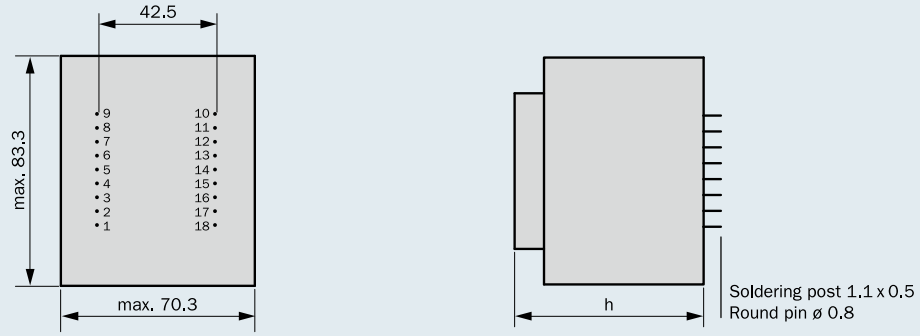
Type cast housing “0” with 12 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

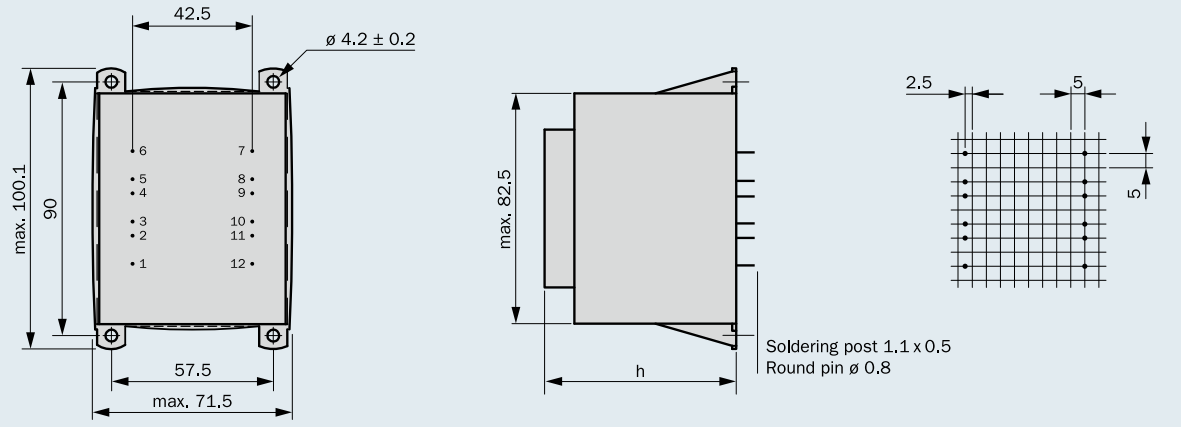
Type cast housing “0” with 18 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

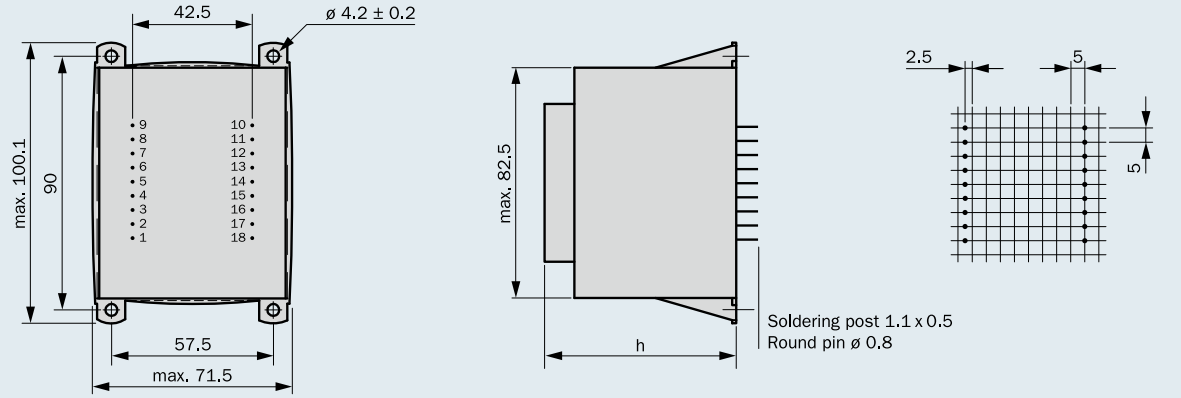
Type cast housing “KK” with 12 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

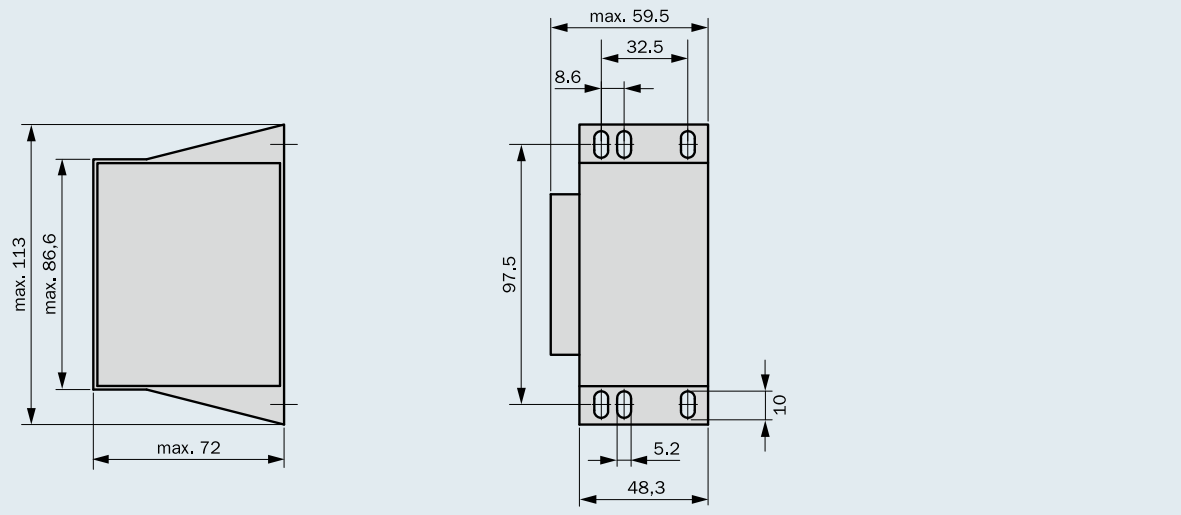
Type cast housing “KK” with 18 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” for upright mounting



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Printed-Circuit-Board transformers

Output Power: 75.0 VA – 100.0 VA

EI 84

10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

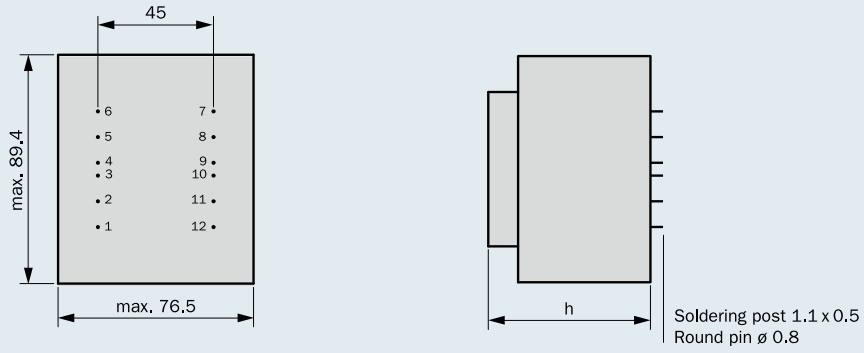
- according to REACH regulation
- according to RoHs regulation

Individual version!

Custom-made models are available on request, e.g. with or without mounting brackets, other heights, pin configurations or connections.

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight
BV EI 841 .... /29.5 mm	75.0 VA	63.0 ± 0.5 mm	1.600 kg
BV EI 842 .... /43.5 mm	100.0 VA	76.5 ± 0.5 mm	2.100 kg

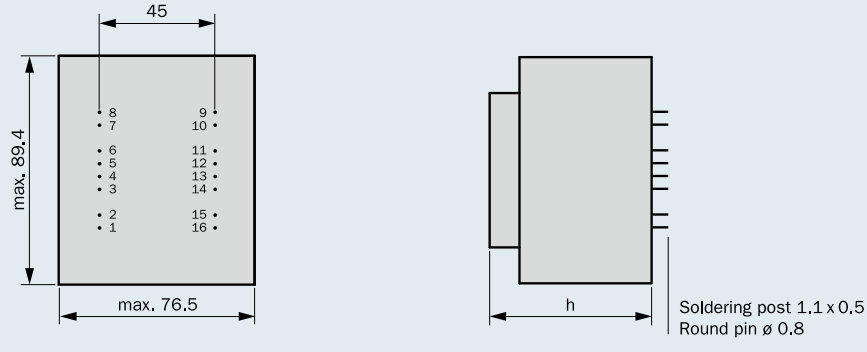
Type cast housing “0” with 12 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

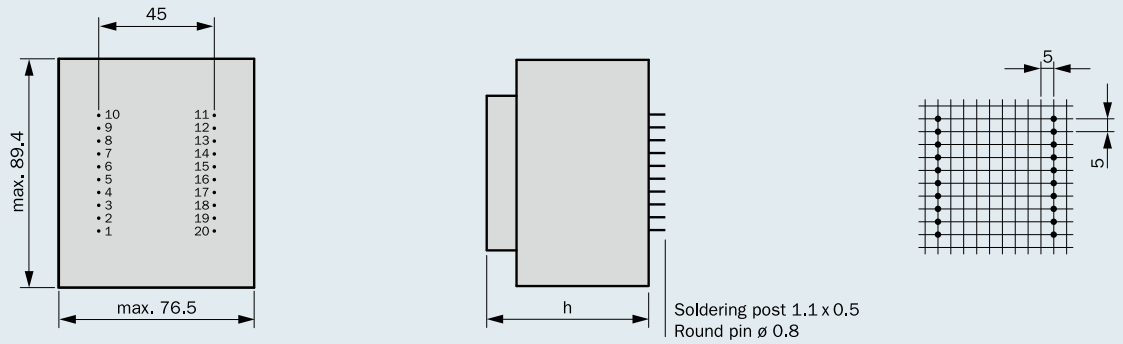
Type cast housing “0” with 16 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

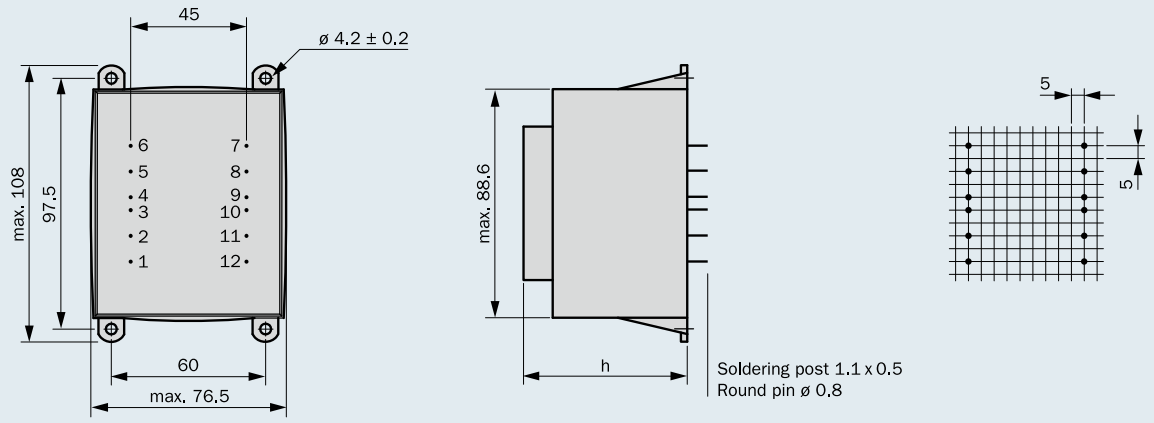
Type cast housing “0” with 20 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

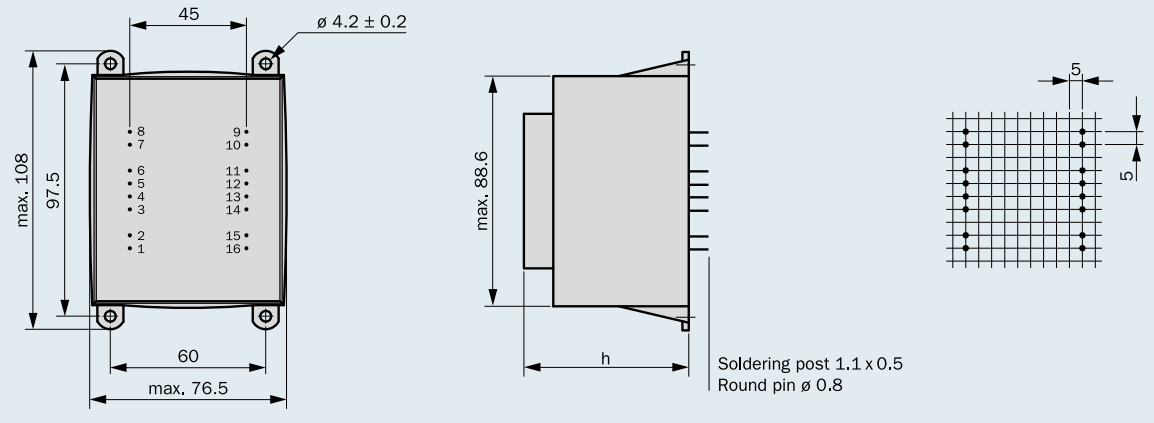
Type cast housing “KK” with 12 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

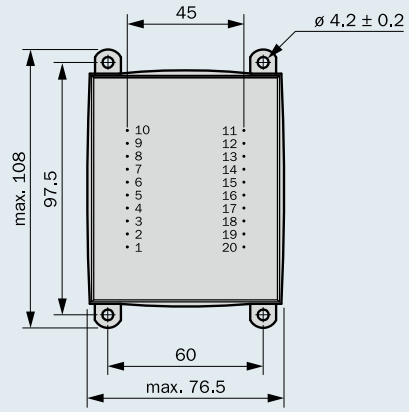
Type cast housing “KK” with 16 connection pins



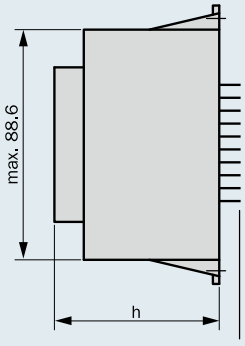
View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

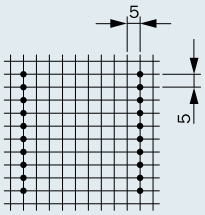
Type cast housing “KK” with 20 connection pins



View looking onto pins

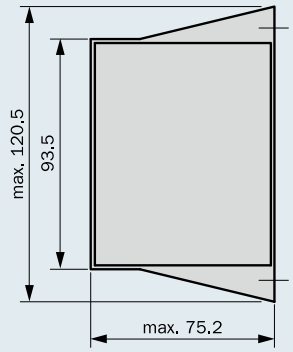


Soldering post 1.1 x 0.5
Round pin ø 0.8

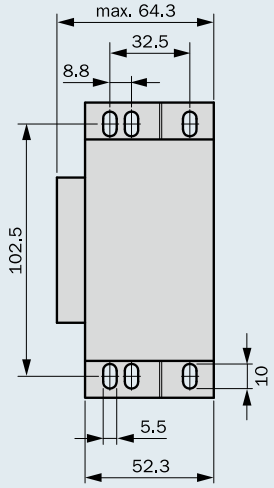


Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” for upright mounting



View looking onto pins



Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Printed-Circuit-Board transformers

Output Power: 130.0 VA – 200.0 VA

EI 96

10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

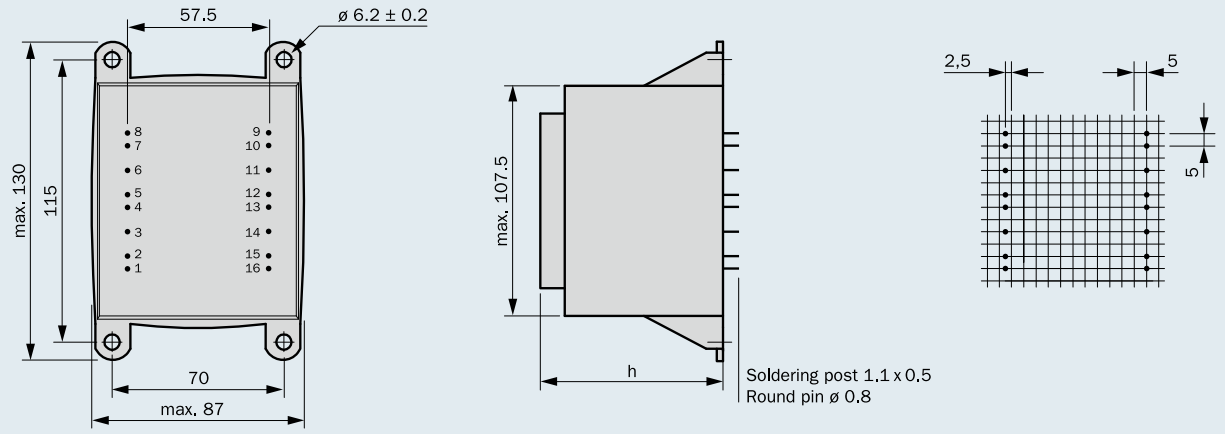
- according to REACH regulation
- according to RoHs regulation

Individual version!

Custom-made models are available on request, e.g. with or without mounting brackets, other heights, pin configurations or connections.

Frame size/Core height	Output Power ta 70 °C/B	Height (h)	Weight
BV EI 961 .... /35.7 mm	130.0 VA	74.6 ± 0.5 mm	2.600 kg
BV EI 962 .... /45.5 mm	160.0 VA	84.4 ± 0.5 mm	3.800 kg
BV EI 963 .... /59.7 mm	200.0 VA	98.4 ± 0.5 mm	4.600 kg

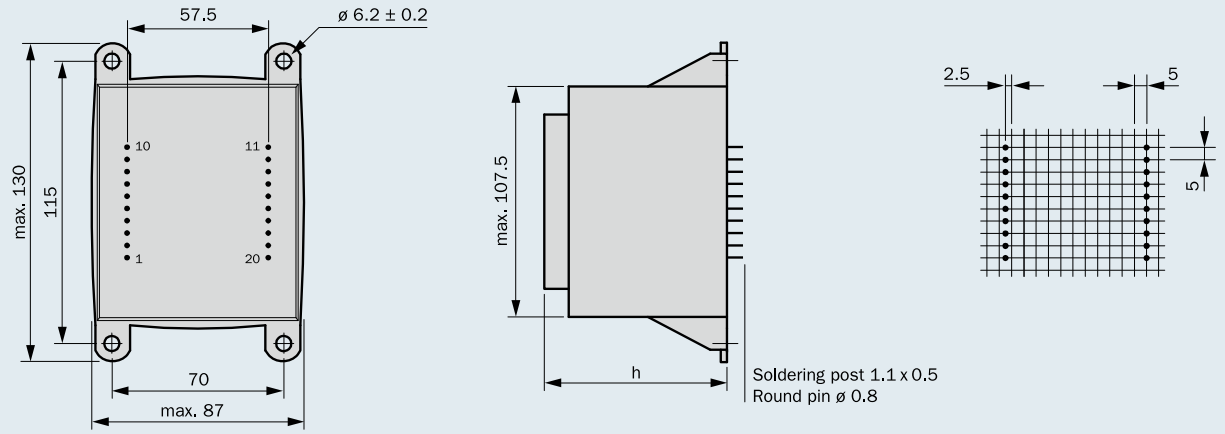
Type cast housing “KK” with 16 connection pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

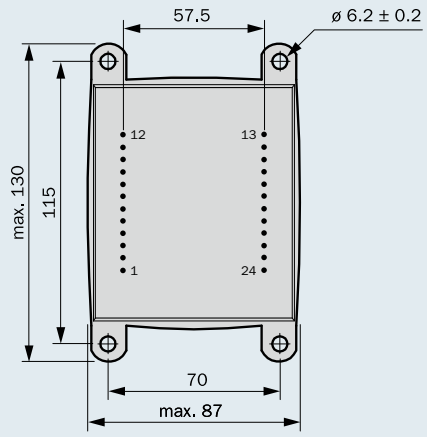
Type cast housing “KK” with 20 connection pins



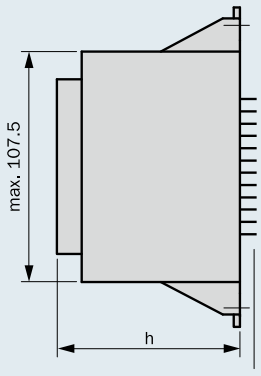
View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

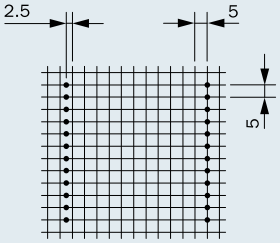
Type cast housing “KK” with 24 connection pins



View looking onto pins

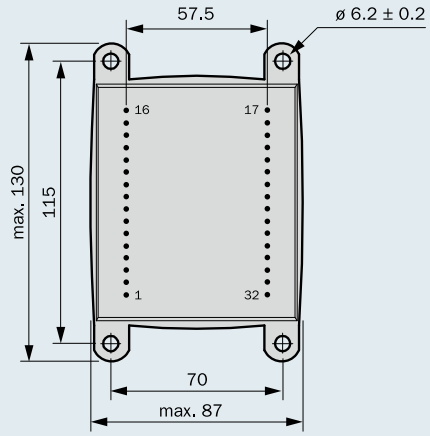


Soldering post 1.1 x 0.5
Round pin ø 0.8

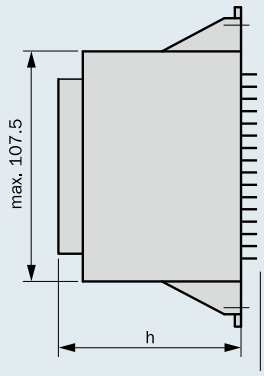


Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

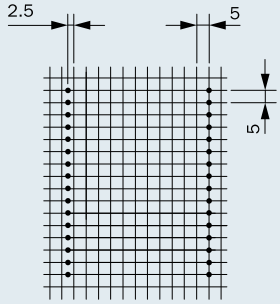
Type cast housing “KK” with 32 connection pins



View looking onto pins

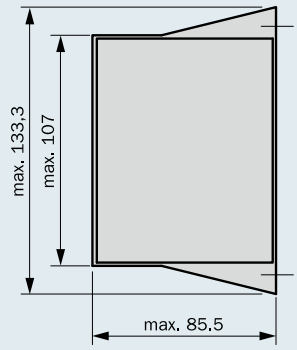


Soldering post 1.1 x 0.5
Round pin ø 0.8

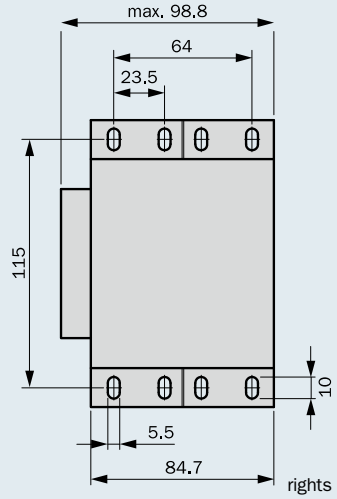


Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Type cast housing “SV” for upright mounting



View looking onto pins



Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Content

UI Series

- Printed-Circuit-Board Flat-type transformers frame size UI 21 – UI 48 (1.0 VA – 60 VA)

Printed-Circuit-Board Flat-type transformers

Output Power: 1.0 VA

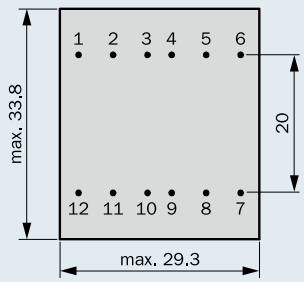
UI 21

05 KEMA KEUR	**DIN EN 61558**	**DEKRA**	2147944.01
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	1077600

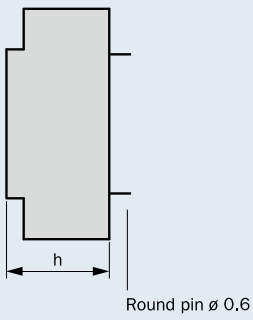
- according to REACH regulation
- according to RoHs regulation

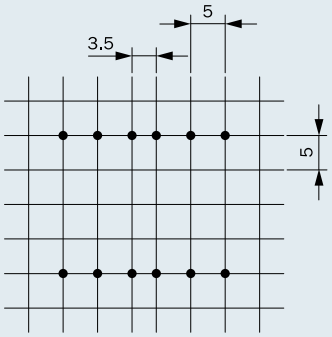
- Output Power up to 1.0 VA
- Temperature class ta 70 °C/B
- Inherently short-circuit-proof
- Excellent temperature fluctuation resistance properties
- Vacuum-encapsulated, bobbin type with dual chamber windings
- High electrical safety and long service-life features
- High voltage resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Connecting pins



View looking onto pins

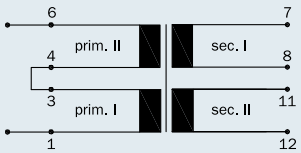




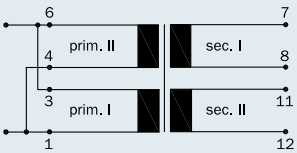
Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)

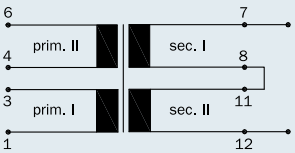
1.
Primary 230 V



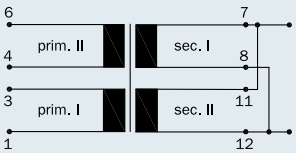
2.
Primary 115 V



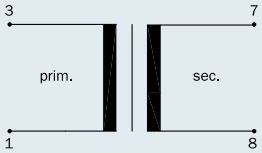
3.
Sekundary double voltage



4.
Sekundary double current



5.
Primary 230 V



Test voltage: up to 6000 V

Frame size/Core height	Output Power ta 70 °C/B	Size (h)	Weight	Packaging unit
BV UI 21 .... /7.3 mm	1.0 VA	14.9 mm	0.050 kg	40 pieces

Printed-Circuit-Board
Flat-type transformers

Output Power: 1.0 VA

1.0 VA
ta 70 °C/B

Frame size/Core height
BV UI 21 .... /
7.3 mm

inherently short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. m A	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 21 0011	230	1 – 3	1 x 3	333	7 – 8	1 x 4.7	5
BV UI 21 0012	230	1 – 3	1 x 6	166	7 – 8	1 x 10.4	5
BV UI 21 0013	230	1 – 3	1 x 7.5	133	7 – 8	1 x 12.9	5
BV UI 21 0014	230	1 – 3	1 x 9	111	7 – 8	1 x 14.4	5
BV UI 21 0015	230	1 – 3	1 x 10	100	7 – 8	1 x 15.4	5
BV UI 21 0016	230	1 – 3	1 x 12	83	7 – 8	1 x 20.4	5
BV UI 21 0017	230	1 – 3	1 x 15	67	7 – 8	1 x 24.6	5
BV UI 21 0018	230	1 – 3	1 x 18	56	7 – 8	1 x 29.1	5
BV UI 21 0019	230	1 – 3	1 x 21	47	7 – 8	1 x 34.0	5
BV UI 21 0021	230	1 – 3	1 x 24	41	7 – 8	1 x 39.7	5
BV UI 21 0001	2 x 115	1 – 3/4 – 6	2 x 3	166	7 – 8/11 – 12	2 x 5.8	1 – 4
BV UI 21 0002	2 x 115	1 – 3/4 – 6	2 x 6	83	7 – 8/11 – 12	2 x 11.4	1 – 4
BV UI 21 0008	2 x 115	1 – 3/4 – 6	2 x 7.5	67	7 – 8/11 – 12	2 x 13.1	1 – 4
BV UI 21 0003	2 x 115	1 – 3/4 – 6	2 x 9	56	7 – 8/11 – 12	2 x 17.1	1 – 4
BV UI 21 0009	2 x 115	1 – 3/4 – 6	2 x 10	50	7 – 8/11 – 12	2 x 17.4	1 – 4
BV UI 21 0004	2 x 115	1 – 3/4 – 6	2 x 12	41	7 – 8/11 – 12	2 x 21.8	1 – 4

Printed-Circuit-Board Flat-type transformers

Output Power: 3.0 VA – 16.0 VA

UI 30

KEMA KEUR	**DIN EN 61558**	**DEKRA**	2147944.01
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	1077600

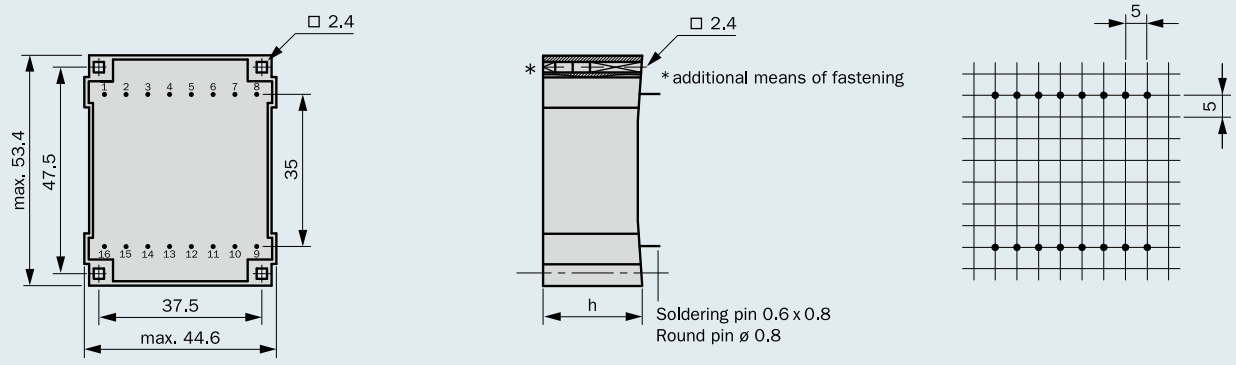
- according to REACH regulation
- according to RoHs regulation

- Output Power up to 16.0 VA
- Temperature class ta 70 °C/B, butnon short-circuit-proof
- Vacuum-encapsulated, bobbin type with dual chamber windings
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance up to 6000 V
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

Parallel to the cataloged UI 30 series transformers, HAHN also produces other variants, e. g. with integrated thermo fuse or thermo switch.

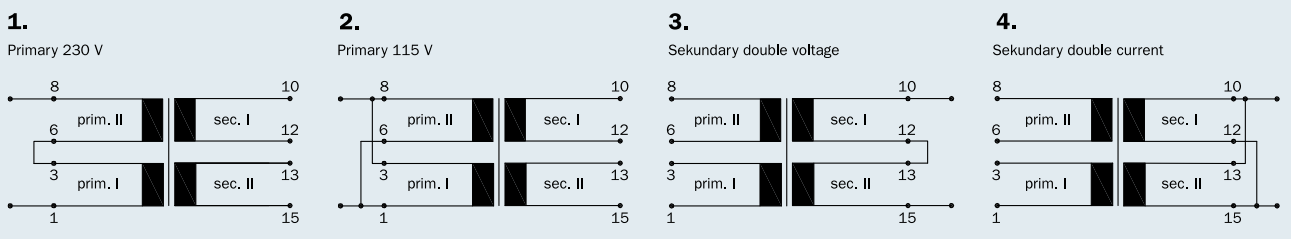
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



Test voltage: up to 6000 V

Frame size/Core height	Output Power ta 70 °C/B	Size (h)	Weight	Packaging unit
BV UI 301 .... / 5.5 mm	3.0 VA	17.8 mm	0.130 kg	20 pieces
BV UI 302 .... / 7.5 mm	4.0 VA	19.8 mm	0.150 kg	20 pieces
BV UI 303 .... / 10.5 mm	6.0 VA	22.8 mm	0.180 kg	20 pieces
BV UI 304 .... / 16.5 mm	10.0 VA	28.8 mm	0.260 kg	20 pieces
BV UI 305 .... / 26.0 mm	16.0 VA	37.6 mm	0.370 kg	20 pieces

Printed-Circuit-Board
Flat-type transformers

Output Power: up to 16.0 VA

3.0 VA ta 70 °C/B

Frame size/Core height **BV UI 301 .... / 5.5 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 301 0167	2 x 115	1–3/6–8	2 x 6	250	10–12/13–15	2 x 7.9	1–4
BV UI 301 0168	2 x 115	1–3/6–8	2 x 9	167	10–12/13–15	2 x 14.0	1–4
BV UI 301 0133	2 x 115	1–3/6–8	2 x 12	126	10–12/13–15	2 x 18.4	1–4
BV UI 301 0166	2 x 115	1–3/6–8	2 x 15	100	10–12/13–15	2 x 22.8	1–4

4.0 VA ta 70 °C/B

Frame size/Core height **BV UI 302 .... / 7.5 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 302 0164	2 x 115	1–3/6–8	2 x 6	333	10–12/13–15	2 x 10.1	1–4
BV UI 302 0161	2 x 115	1–3/6–8	2 x 9	222	10–12/13–15	2 x 13.5	1–4
BV UI 302 0144	2 x 115	1–3/6–8	2 x 12	166	10–12/13–15	2 x 20.2	1–4
BV UI 302 0165	2 x 115	1–3/6–8	2 x 15	133	10–12/13–15	2 x 24.9	1–4

6.0 VA ta 70 °C/B

Frame size/Core height **BV UI 303 .... / 10.5 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 303 0162	2 x 115	1–3/6–8	2 x 6	500	10–12/13–15	2 x 9.0	1–4
BV UI 303 0179	2 x 115	1–3/6–8	2 x 7.5	400	10–12/13–15	2 x 11.4	1–4
BV UI 303 0158	2 x 115	1–3/6–8	2 x 9	334	10–12/13–15	2 x 12.8	1–4
BV UI 303 0145	2 x 115	1–3/6–8	2 x 12	250	10–12/13–15	2 x 17.2	1–4
BV UI 303 0163	2 x 115	1–3/6–8	2 x 15	200	10–12/13–15	2 x 21.8	1–4

10.0 VA ta 70 °C/B

Frame size/Core height **BV UI 304 .... / 16.5 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 304 0155	2 x 115	1–3/6–8	2 x 6	833	10–12/13–15	2 x 8.7	1–4
BV UI 304 0129	2 x 115	1–3/6–8	2 x 7.5	667	10–12/13–15	2 x 10.0	1–4
BV UI 304 0153	2 x 115	1–3/6–8	2 x 9	555	10–12/13–15	2 x 12.4	1–4
BV UI 304 0154	2 x 115	1–3/6–8	2 x 12	416	10–12/13–15	2 x 16.0	1–4
BV UI 304 0136	2 x 115	1–3/6–8	2 x 15	333	10–12/13–15	2 x 19.7	1–4
BV UI 304 0159	2 x 115	1–3/6–8	2 x 18	277	10–12/13–15	2 x 23.4	1–4

16.0 VA ta 70 °C/B

Frame size/Core height **BV UI 305 .... / 26.0 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 305 0147	2 x 115	1–3/6–8	2 x 6	1330	10–12/13–15	2 x 7.5	1–4
BV UI 305 0148	2 x 115	1–3/6–8	2 x 9	888	10–12/13–15	2 x 10.9	1–4
BV UI 305 0149	2 x 115	1–3/6–8	2 x 12	666	10–12/13–15	2 x 14.6	1–4
BV UI 305 0150	2 x 115	1–3/6–8	2 x 15	533	10–12/13–15	2 x 18.0	1–4
BV UI 305 0151	2 x 115	1–3/6–8	2 x 18	444	10–12/13–15	2 x 21,5	1–4
BV UI 305 0152	2 x 115	1–3/6–8	2 x 21	380	10–12/13–15	2 x 25,0	1–4

Printed-Circuit-Board
Flat-type transformers

Output Power: 10.0 VA – 30.0 VA

UI 39

KEMA KEUR	**DIN EN 61558**	**DEKRA**	2147944.01
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	1077600

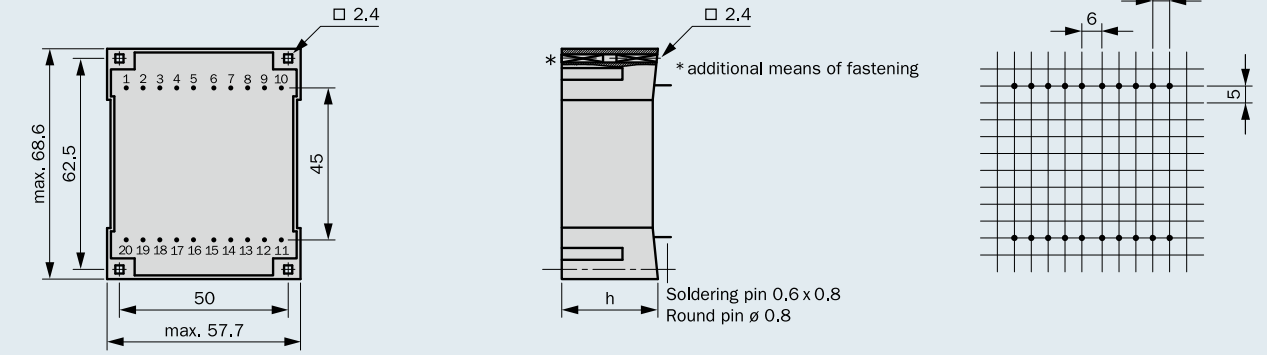
- according to REACH regulation
- according to RoHs regulation

- Output Power up to 30.0 VA
- Temperature class ta 70 °C/B, non short-circuit-proof
- Vacuum encapsulated, bobbin type with dual chamber windings
- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance up to 6000 V
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

Parallel to the cataloged UI 39 series transformers, HAHN also produces other variants, e.g. with integrated thermo fuse or thermo switch.

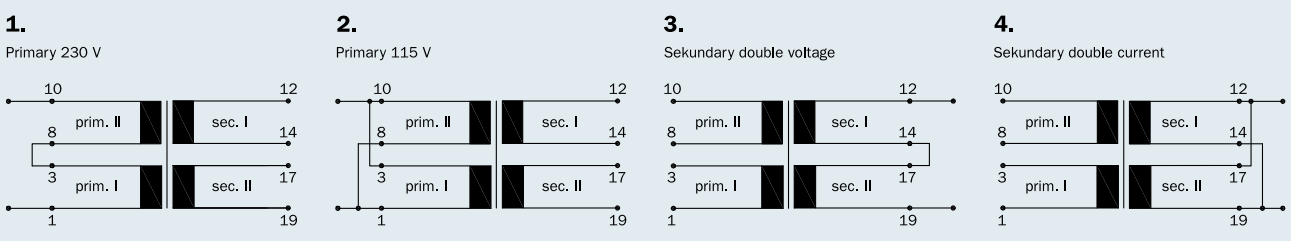
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



Test voltage: up to 6000 V

Frame size/Core height	Output Power ta 70 °C/B	Size (h)	Weight	Packaging unit
BV UI 392 .... / 8.0 mm	10.0 VA	23.0 mm	0.290 kg	12 pieces
BV UI 393 .... / 10.2 mm	14.0 VA	25.2 mm	0.330 kg	12 pieces
BV UI 394 .... / 13.5 mm	18.0 VA	28.5 mm	0.390 kg	12 pieces
BV UI 395 .... / 17.0 mm	24.0 VA	32.0 mm	0.460 kg	12 pieces
BV UI 396 .... / 21.0 mm	30.0 VA	36.0 mm	0.550 kg	12 pieces

10.0 VA ta 70 °C/B

Frame size/Core height **BV UI 392 .... / 8.0 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 392 0092	2 x 115	1–3/8–10	2 x 6	833	12–14/17–19	2 x 8.2	1–4
BV UI 392 0076	2 x 115	1–3/8–10	2 x 9	556	12–14/17–19	2 x 11.9	1–4
BV UI 392 0093	2 x 115	1–3/8–10	2 x 12	416	12–14/17–19	2 x 16.4	1–4
BV UI 392 0077	2 x 115	1–3/8–10	2 x 15	333	12–14/17–19	2 x 19.3	1–4
BV UI 392 0094	2 x 115	1–3/8–10	2 x 18	277	12–14/17–19	2 x 23.8	1–4

14.0 VA ta 70 °C/B

Frame size/Core height **BV UI 393 .... / 10.2 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 393 0085	2 x 115	1–3/8–10	2 x 6	1166	12–14/17–19	2 x 8.0	1–4
BV UI 393 0074	2 x 115	1–3/8–10	2 x 9	778	12–14/17–19	2 x 12.0	1–4
BV UI 393 0081	2 x 115	1–3/8–10	2 x 12	583	12–14/17–19	2 x 15.6	1–4
BV UI 393 0078	2 x 115	1–3/8–10	2 x 15	467	12–14/17–19	2 x 19.9	1–4
BV UI 393 0062	2 x 115	1–3/8–10	2 x 18	389	12–14/17–19	2 x 23.7	1–4

18.0 VA ta 70 °C/B

Frame size/Core height **BV UI 394 .... / 13.5 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 394 0086	2 x 115	1–3/8–10	2 x 6	1500	12–14/17–19	2 x 8.0	1–4
BV UI 394 0110	2 x 115	1–3/8–10	2 x 7.5	1200	12–14/17–19	2 x 9.8	1–4
BV UI 394 0063	2 x 115	1–3/8–10	2 x 9	1000	12–14/17–19	2 x 12.0	1–4
BV UI 394 0087	2 x 115	1–3/8–10	2 x 12	750	12–14/17–19	2 x 15.5	1–4
BV UI 394 0088	2 x 115	1–3/8–10	2 x 15	600	12–14/17–19	2 x 19.6	1–4
BV UI 394 0075	2 x 115	1–3/8–10	2 x 18	500	12–14/17–19	2 x 23.2	1–4

24.0 VA ta 70 °C/B

Frame size/Core height **BV UI 395 .... / 17.0 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 395 0089	2 x 115	1–3/8–10	2 x 6	2000	12–14/17–19	2 x 7.4	1–4
BV UI 395 0190	2 x 115	1–3/8–10	2 x 7.5	1600	12–14/17–19	2 x 9.3	1–4
BV UI 395 0098	2 x 115	1–3/8–10	2 x 9	1333	12–14/17–19	2 x 11.0	1–4
BV UI 395 0091	2 x 115	1–3/8–10	2 x 12	1000	12–14/17–19	2 x 14.7	1–4
BV UI 395 0083	2 x 115	1–3/8–10	2 x 15	800	12–14/17–19	2 x 18.2	1–4
BV UI 395 0099	2 x 115	1–3/8–10	2 x 18	666	12–14/17–19	2 x 22.0	1–4
BV UI 395 0100	2 x 115	1–3/8–10	2 x 21	571	12–14/17–19	2 x 25.0	1–4

30.0 VA ta 70 °C/B

Frame size/Core height **BV UI 396 .... / 21.0 mm**

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 396 0101	2 x 115	1–3/8–10	2 x 6	2500	12–14/17–19	2 x 7.3	1–4
BV UI 396 0187	2 x 115	1–3/8–10	2 x 7.5	2000	12–14/17–19	2 x 9.0	1–4
BV UI 396 0102	2 x 115	1–3/8–10	2 x 9	1666	12–14/17–19	2 x 10.7	1–4
BV UI 396 0079	2 x 115	1–3/8–10	2 x 12	1250	12–14/17–19	2 x 14.1	1–4
BV UI 396 0103	2 x 115	1–3/8–10	2 x 15	1000	12–14/17–19	2 x 17.6	1–4
BV UI 396 0080	2 x 115	1–3/8–10	2 x 18	833	12–14/17–19	2 x 21.2	1–4

Printed-Circuit-Board Flat-type transformers

Output Power: 40.0 VA – 60.0 VA

UI 48

KEMA KEUR	**DIN EN 61558**	**DEKRA**	2147944.01
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	E98173
	C22.2	**CSA**	1077600

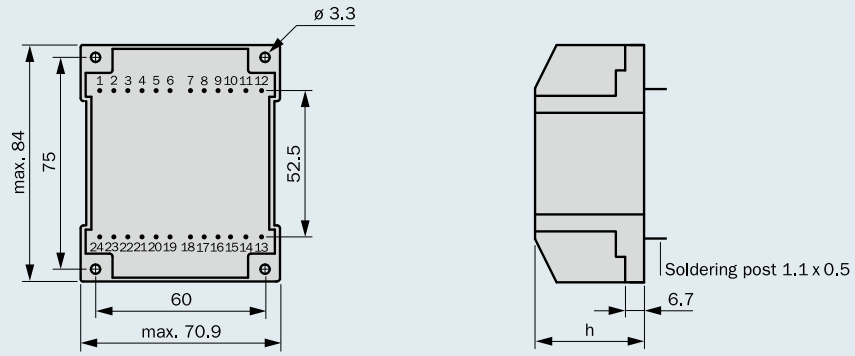
- according to REACH regulation
- according to RoHs regulation

- Output Power up to 60.0 VA
- Temperature class ta 70 °C/B, non short-circuit-proof
- Excellent temperature fluctuation resistance properties
- Vacuum-encapsulated, bobbin type with dual chamber windings
- High electrical safety and long service-life features
- High voltage resistance up to 6000 V
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate

Protection extern secondary by:
- Micro fuse according to IEC 127 or
- PTC resistance

Parallel to the cataloged UI 48 series transformers, HAHN also produces other variants, e.g. with integrated thermo fuse or thermo switch.

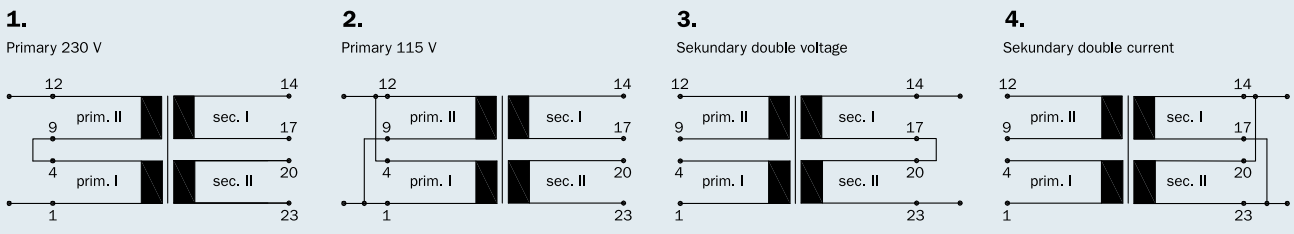
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



Test voltage: up to 6000 V

Frame size/Core height	Output Power ta 70 °C/B	Size (h)	Weight	Packaging unit
BV UI 481 .... /17.0 mm	40.0 VA	38.7 mm	0.780 kg	6 pieces
BV UI 482 .... /26.0 mm	60.0 VA	47.9 mm	1.100 kg	6 pieces

Printed-Circuit-Board
Flat-type transformers

Output Power: up to 60.0 VA

40.0 VA
ta 70 °C/B

Frame size/Core height
BV UI 481..../
17.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 481 0001	2 x 115	1–4/9–12	2 x 6	3333	14–17/20–23	2 x 7.3	1–4
BV UI 481 0002	2 x 115	1–4/9–12	2 x 9	2222	14–17/20–23	2 x 10.8	1–4
BV UI 481 0003	2 x 115	1–4/9–12	2 x 12	1666	14–17/20–23	2 x 14.3	1–4
BV UI 481 0004	2 x 115	1–4/9–12	2 x 15	1333	14–17/20–23	2 x 17.7	1–4
BV UI 481 0005	2 x 115	1–4/9–12	2 x 18	1111	14–17/20–23	2 x 21.7	1–4

60.0 VA
ta 70 °C/B

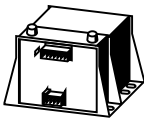
Frame size/Core height
BV UI 482..../
26.0 mm

non short-circuit-proof

Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage V	Current sec. mA	Connecting pins sec.	No-load voltage V	Connection scheme
BV UI 482 0007	2 x 115	1–4/9–12	2 x 6	5000	14–17/20–23	2 x 7.3	1–4
BV UI 482 0008	2 x 115	1–4/9–12	2 x 9	3333	14–17/20–23	2 x 10.5	1–4
BV UI 482 0009	2 x 115	1–4/9–12	2 x 12	2500	14–17/20–23	2 x 14.0	1–4
BV UI 482 0010	2 x 115	1–4/9–12	2 x 15	2000	14–17/20–23	2 x 17.5	1–4
BV UI 482 0011	2 x 115	1–4/9–12	2 x 18	1666	14–17/20–23	2 x 21.1	1–4
BV UI 482 0012	2 x 115	1–4/9–12	2 x 21	1428	14–17/20–23	2 x 24.5	1–4

Content

RAST 5 Series



- Transformers with RAST 5 connecting technology
  frame size EI 48 – EI 84 (10.0 VA – 120 VA)

Transformers
Output Power:
10.0 VA – 120.0 VA

RAST 5

10	**DIN EN 61558-2-6**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

- High Output Power up to 120.0 VA
- Primary voltages from 12 V to 400 V
- Secondary voltages from 6 V to 24 V or 2 x 6 V to 2 x 24 V
- Minimal size available
- Vacuum-encapsulated, bobbin with dual chamber windings
- Per item tested quality with certificate
- Temperature class ta 70 °C/B meeting VDE 0570/DIN EN 61558 regulations
- High electrical safety and long service-life features
- Excellent temperature fluctuation resistance properties
- Self-extinguishing cast housing and sealing material

RAST 5 Transformers frame size EI 48 to EI 84.
All transformers of the RAST 5 series are equipped with a variable user-friendly parallel-wired connector to VDE 0627/ PM 906 (Regulations of the Association of German Electrical Engineers). This greatly facilitates the assembly of the components by as much as a third. It only remains to attach the lead connectors to the primary and secondary sides. The tedious and time-consuming routines of soldering, screw-attachment or individual plug-ins is no longer required. Especially coded connectors with form guides ensure proper assembly. Confusion in connecting up routines is impossible, even for a layman. Lead connectors are prefabricated, thus also reducing costs.

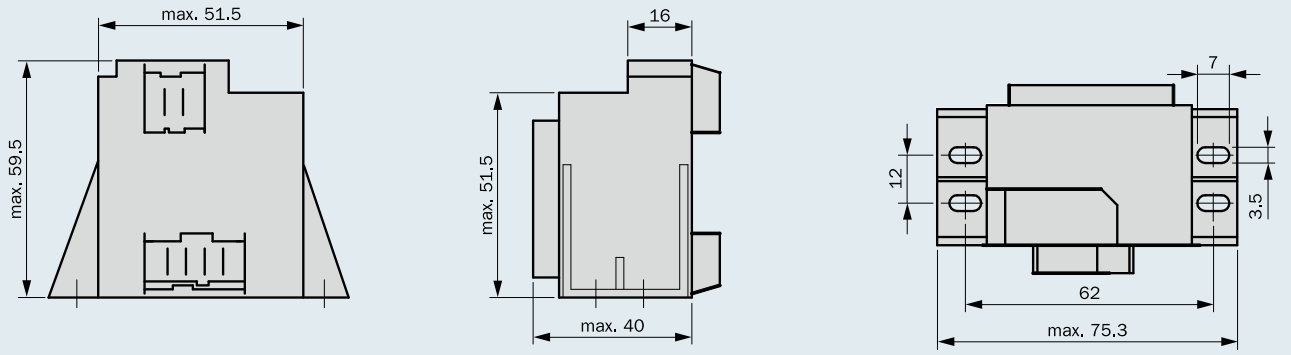
The RAST 5 interconnective techniques developed by HAHN for transformers provide makers of electrical and white goods with assured economical- and electrical safety aspects in the manufacture of appliances.

Transformers

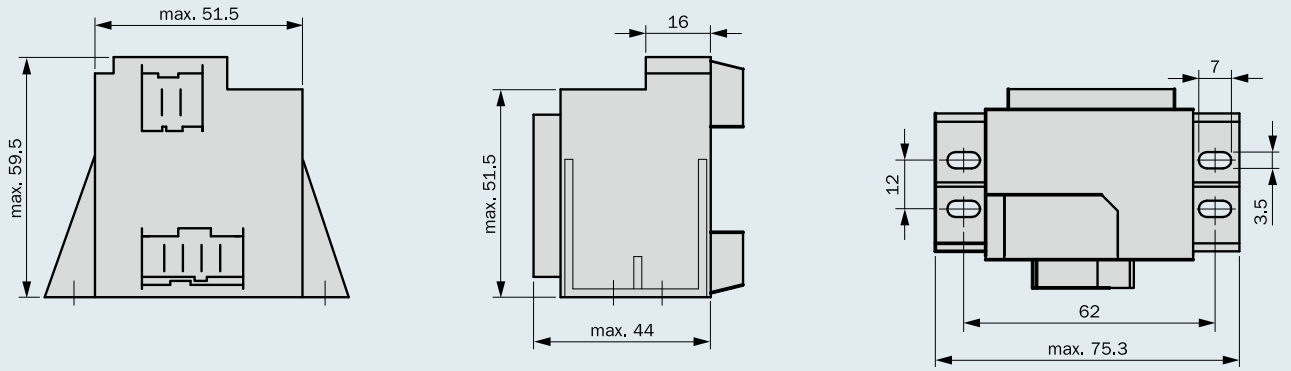
Output Power:
10.0 VA – 16.0 VA

Frame size	Output Power ta 70 °C/B	Packaging unit
EI 48 / 16.8	10.0 VA	12 pieces
EI 48 / 20.5	12.0 VA	12 pieces
EI 54/ 18.8	16.0 VA	10 pieces

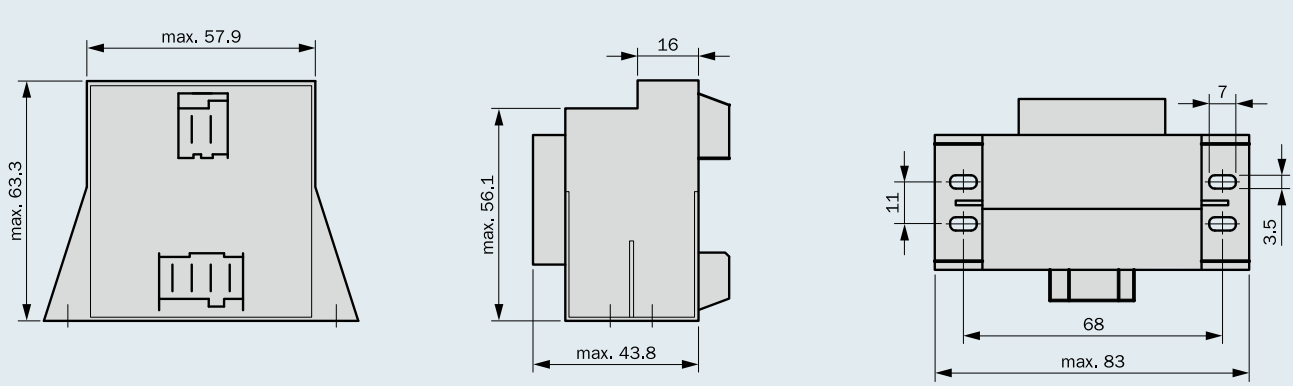
Connecting pins Version EI 48 / 16.8



Connecting pins Version EI 48 / 20.5



Connecting pins Version EI 54 / 18.8



Transformers

Output Power:

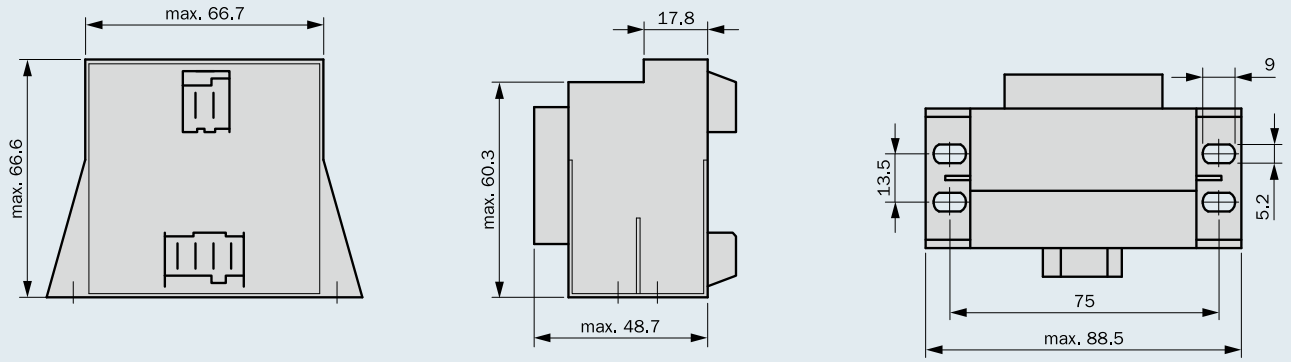
20.0 VA – 40.0 VA

RAST 5

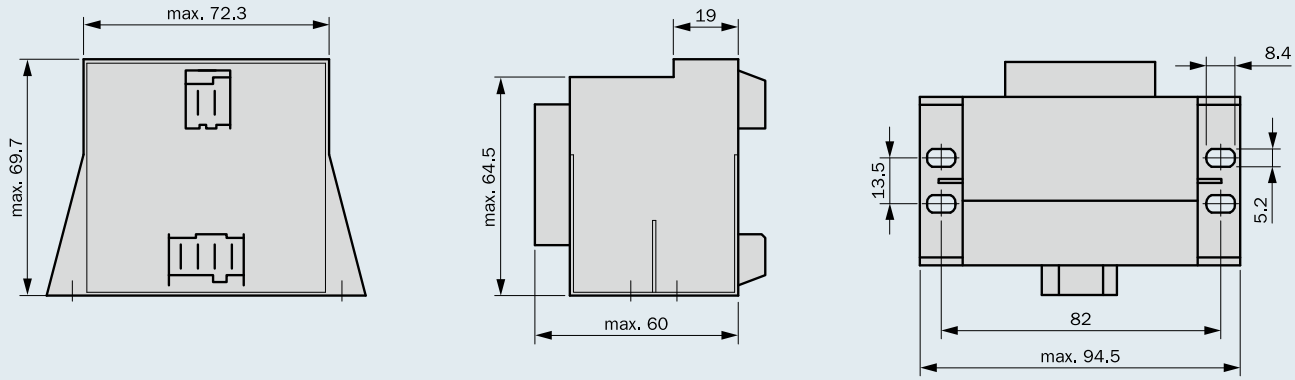
Frame size	Output Power ta 70 °C/B	Packaging unit
EI 60 / 21.0	20.0 VA	8 pieces
EI 66 / 30.0	40.0 VA	8 pieces

Maximum Convenience combined with cogent Quality. Equipped with service- and user-friendly connective techniques plus the usual quality benefits of the EI transformer series. Designed to customer requirements – capacities from 10.0 VA to 120.0 VA. Temperature class ta 70 °C/B. Vacuum encapsu lated items are, subjected of course to 100 % quality control.

Connecting pins Version EI 60 / 21.0



Connecting pins Version EI 66 / 30.0



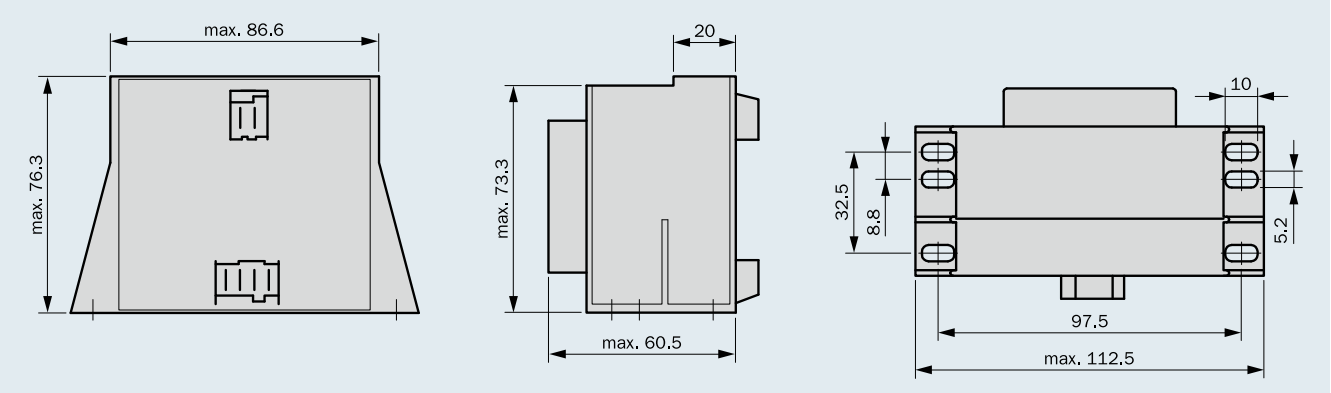
Transformers

Output Power:
50.0 VA – 120.0 VA

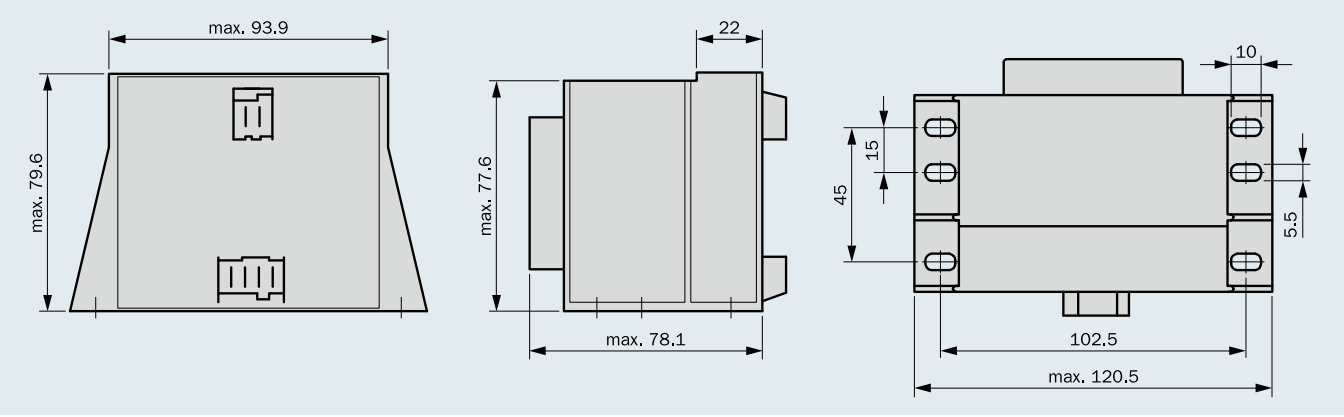
Frame size	Output Power ta 70 °C/B	Packaging unit
EI 78 / 27.5	50.0 VA	4 pieces
EI 84 / 43.5	120.0 VA	4 pieces

Maximum Convenience combined with cogent Quality. Equipped with service- and user-friendly connective techniques plus the usual quality benefits of the EI transformer series. Designed to customer requirements – capacities from 10.0 VA to 120.0 VA. Temperature class ta 70 °C/B. Vacuum encapsu lated items are, subjected of course to 100 % quality control.

Connecting pins Version EI 78 / 27.5



Connecting pins Version EI 84 / 43.5



Content

Flyback converter / SMPS-Converter

- Flyback converters frame size EF 16/5 – 8 mm creeping distance
- Individual version 8 mm creeping distance
- Flyback converters frame size EF 20/5 – 4 mm creeping distance
- Individual version 4 mm creeping distance

Flyback converters for Switch Mode Power Supplies

EF

HAHN flyback converters with the following characteristics:
- Construction to DIN EN 61 558, DIN EN 60 950
- Operational frequency 10 – 500 kHz
- Increased creeping distance 12 mm possible

Insulating material classification
- E / 120 °C
- B / 130 °C (optional)
- F / 155 °C (optional)
- UL 9 – V0 (optional)
- 100 % unleaded

100 % piece inspections
- Inductivity
- Turns ratio
- Winding direction
- Voltage resistance (50 Hz / 1 s)

Switch Mode Power Supplies with HAHN flyback converters – can be employed for lower and middle range capacities with the structural size quantities EF 12.6 to EF 30.0. Through the use of high-quality of core materials it is possible to reach working frequencies up to the MHZ-area.

Considerable know-how and specialist experience in transformer technology for open, encapsulated, impregnated or vacuum encapsulated converters are guarantees for HAHN quality and optimum customer benefit.

Current developments in electronic components involve ever shorter research and development time periods and every greater manufacturing reliability.

HAHN has the opportunity of optimally developing flyback converters for well known manufacturers of regulator controllers, e. g. Power Integration, Infinion, Philips or ON Semiconductor as customer-specific components. These were all rapid-, economic- and high quality problem solutions from HAHN.

Frame size	Output Power*	Packaging unit
EF 12.6/4	up to 5 W	300 pieces
EF 16/5	up to 9 W	176 pieces
EF 20/6	up to 20 W	176 pieces
EF 25/7	up to 45 W	60 pieces
EF 30/7	up to 70 W	48 pieces

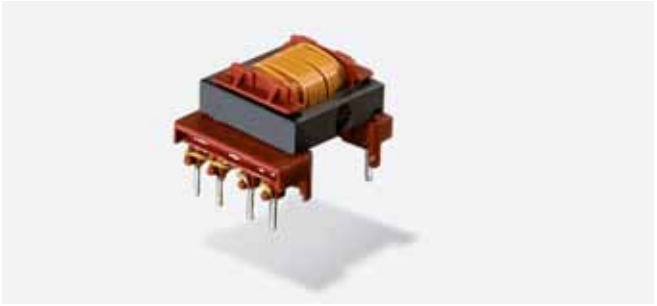
* dependent on input voltage range and switch governor type

Flyback converters for Switch Mode Power Supplies

EF16/5

Output Power: 5 – 7 W

10	DIN EN 61 558	VDE	on request
VDE-Mark for Glow-Wire-Test	DIN EN 60 335-1	VDE	on request
	UL 5085-3	UL	on request
	UL 5085-1	UL	on request
	C22.2	CSA	on request



- according to REACH regulation
- according to RoHs regulation

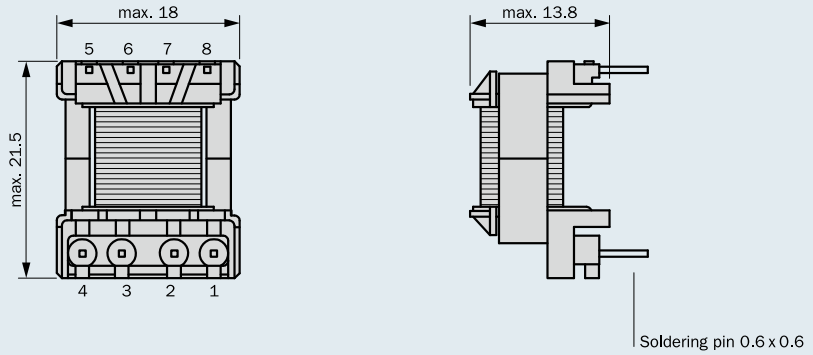
Technical Specifications

- Construction to DIN EN 61 558, DIN EN 60 950
- Creeping distance 8 mm min.
- 100 % unleaded
- UL listed materials
- Insulating material classification B (130 °C)
- Two outputs for connection in parallel or in series (*)

100 % piece inspection

- Inductance
- Turns ratio
- Winding direction
- Voltage resistance (50 Hz/1 s)

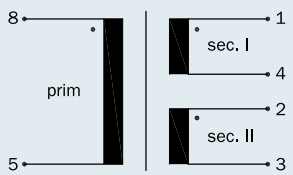
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



double voltage – bridge: 4 + 2, double current – bridge: 1 + 2/4 + 3

Flyback converters for Switch Mode Power Supplies

EF 16/5

Output Power: 5 – 7 W

5 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-II® Product family TNY 264	V 50100*	85 – 265	5 – 8	3	830	1 – 4	3	830	2 – 3
	V 50101*	85 – 265	5 – 8	9	280	1 – 4	9	280	2 – 3
	V 50102*	85 – 265	5 – 8	12	210	1 – 4	12	210	2 – 3
	V 50103*	85 – 265	5 – 8	15	170	1 – 4	15	170	2 – 3

* Two outputs for connection in parallel or in series

5 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-II® Product family TNY 266	V 50104	85 – 265	5 – 8	12	390	1 – 2	3.3	100	3 – 4
	V 50105	85 – 265	5 – 8	24	195	1 – 2	3.3	100	3 – 4
	V 50106	85 – 265	5 – 8	12	375	1 – 2	5	100	3 – 4
	V 50107	85 – 265	5 – 8	24	187	1 – 2	5	100	3 – 4

7 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-III® Product family TNY 276	V 50110*	85 – 265	5 – 8	3	1170	1 – 4	3	1170	2 – 3
	V 50111*	85 – 265	5 – 8	9	390	1 – 4	9	390	2 – 3
	V 50112*	85 – 265	5 – 8	12	290	1 – 4	12	290	2 – 3
	V 50113*	85 – 265	5 – 8	15	230	1 – 4	15	230	2 – 3

* Two outputs for connection in parallel or in series

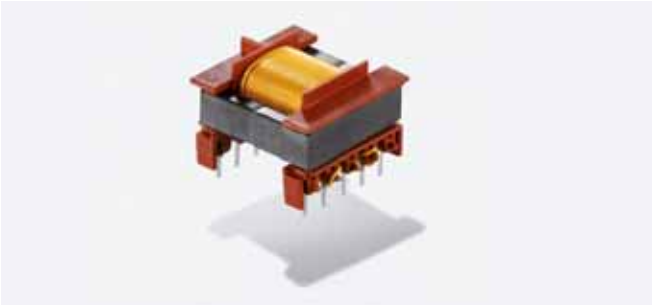
7 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-III® Product family TNY 276	V 50114	85 – 265	5 – 8	12	555	1 – 2	3.3	100	3 – 4
	V 50115	85 – 265	5 – 8	24	277	1 – 2	3.3	100	3 – 4
	V 50116	85 – 265	5 – 8	12	540	1 – 2	5	100	3 – 4
	V 50117	85 – 265	5 – 8	24	270	1 – 2	5	100	3 – 4

Flyback converters for Switch Mode Power Supplies

EF 20/6

Output Power: 8–16 W

10	**DIN EN 61 558**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

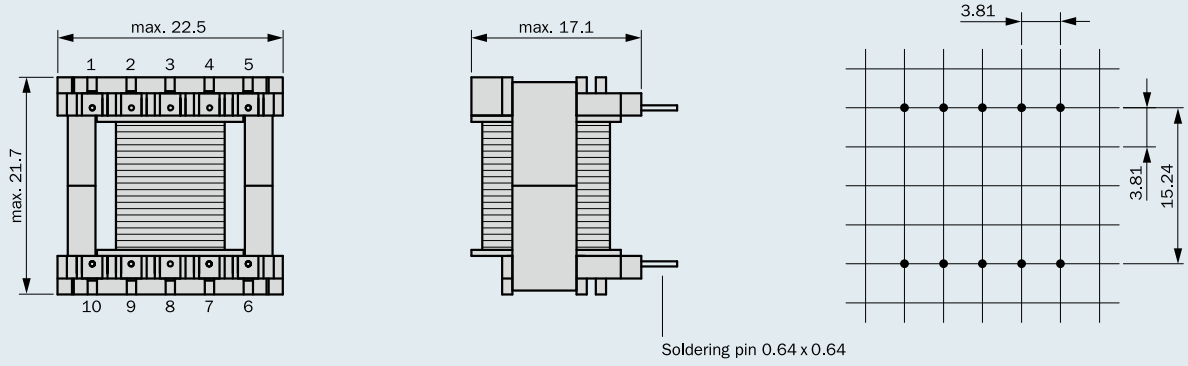


- according to REACH regulation
- according to RoHs regulation

Technical Specifications
- Construction to DIN EN 61 558, DIN EN 60 950
- Creeping distance 4 mm min.
- 100 % unleaded
- UL listed materials
- Insulating material classification E (120 °C)
- Two outputs for connection in parallel or in series(*)

100 % piece inspection
- Inductance
- Turns ratio
- Winding direction
- Voltage resistance (50 Hz/1 s)

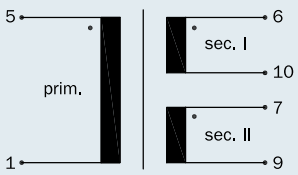
Connecting pins



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme (only connected pins are present)



double voltage – bridge: 10 + 7, double current – bridge: 6 + 7/10 + 9

Flyback converters for Switch Mode Power Supplies

EF 20/6

Output Power: 8–16 W

8 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-II® Product Family TNY 267	V 50200*	85 – 265	1 – 5	3	1330	6 – 10	3	1330	7 – 9
	V 50201*	85 – 265	1 – 5	9	440	6 – 10	9	440	7 – 9
	V 50202*	85 – 265	1 – 5	12	330	6 – 10	12	330	7 – 9
	V 50203*	85 – 265	1 – 5	15	270	6 – 10	15	270	7 – 9

*Two outputs for connection in parallel or in series

8 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-II® Product Family TNY 267	V 50204	85 – 265	1 – 5	12	640	6 – 7	3.3	100	9 – 10
	V 50205	85 – 265	1 – 5	24	320	6 – 7	3.3	100	9 – 10
	V 50206	85 – 265	1 – 5	12	625	6 – 7	5	100	9 – 10
	V 50207	85 – 265	1 – 5	24	312	6 – 7	5	100	9 – 10

16 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-III® Product Family TNY 279	V 50210*	85 – 265	1 – 5	3	2670	6 – 10	3	2670	7 – 9
	V 50211*	85 – 265	1 – 5	9	890	6 – 10	9	890	7 – 9
	V 50212*	85 – 265	1 – 5	12	670	6 – 10	12	670	7 – 9
	V 50213*	85 – 265	1 – 5	15	530	6 – 10	15	530	7 – 9

*Two outputs for connection in parallel or in series

16 W	Order No.	Primary voltage V	Connecting pins prim.	Secondary voltage I V	Current sec. I mA	Connecting pins sec. I	Secondary voltage II V	Current sec. II mA	Connecting pins sec. II
TinySwitch-III® Product Family TNY 278	V 50214	85 – 265	1 – 5	12	1300	6 – 7	3.3	100	9 – 10
	V 50215	85 – 265	1 – 5	24	650	6 – 7	3.3	100	9 – 10
	V 50216	85 – 265	1 – 5	12	1290	6 – 7	5	100	9 – 10
	V 50217	85 – 265	1 – 5	24	645	6 – 7	5	100	9 – 10

Flyback converters for Switch Mode Power Supplies

8 mm creeping distance

EF

10	**DIN EN 61 558**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

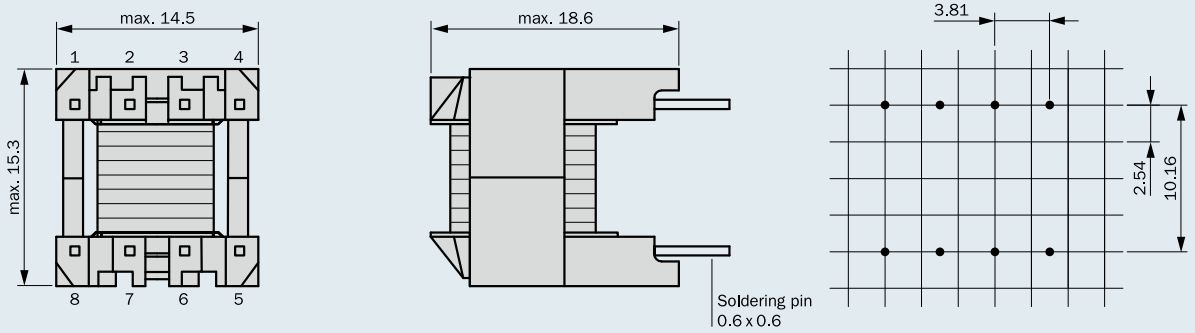
Individual version!

All Flyback converters are produced according to customer specifications.

Current developments in electronic components involve ever shorter research and development time periods and every greater manufacturing reliability.

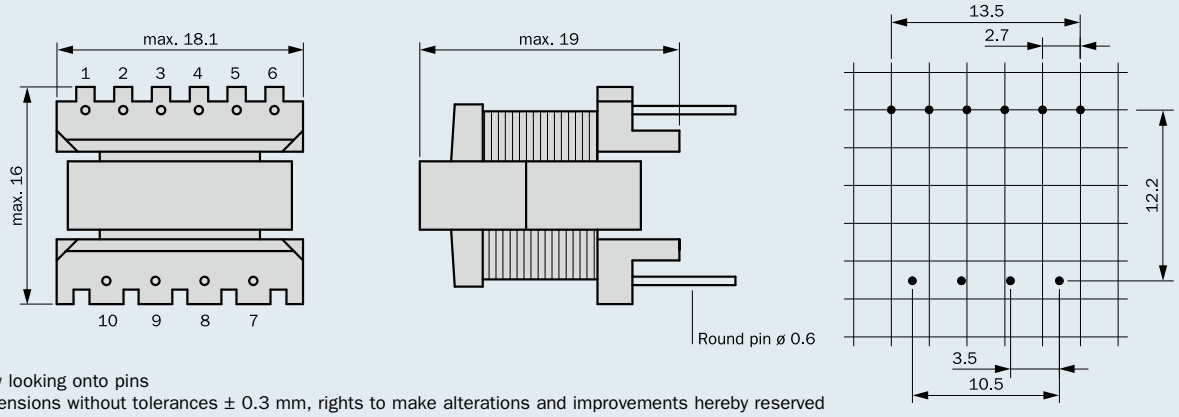
HAHN has the opportunity of optimally developing flyback converters for well known manufacturers of regulator controllers, e.g. Power Integration, Infinion, Philips or ON Semiconductor as customer-specific components. These were all rapid-, economic- and high quality problem solutions from HAHN.

Connecting pins version EF 13/6



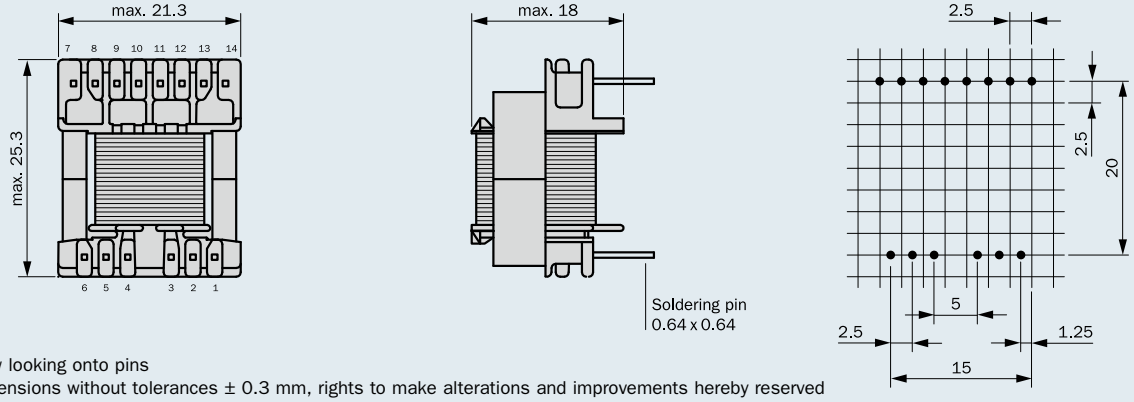
View looking onto pins
Dimensions without tolerances ± 0.3 mm, rights to make alterations and improvements hereby reserved

Connecting pins version EF 16/5



View looking onto pins
Dimensions without tolerances ± 0.3 mm, rights to make alterations and improvements hereby reserved

Connecting pins version EF 20/6



View looking onto pins
Dimensions without tolerances ± 0.3 mm, rights to make alterations and improvements hereby reserved

Flyback converters for Switch Mode Power Supplies

4 mm creeping distance

EF

10	**DIN EN 61 558**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	on request
	UL 5085-3	**UL**	on request
	UL 5085-1	**UL**	on request
	C22.2	**CSA**	on request

- according to REACH regulation
- according to RoHs regulation

Individual version!

All Flyback converters are produced according to customer specifications.

Current developments in electronic components involve ever shorter research and development time periods and every greater manufacturing reliability.

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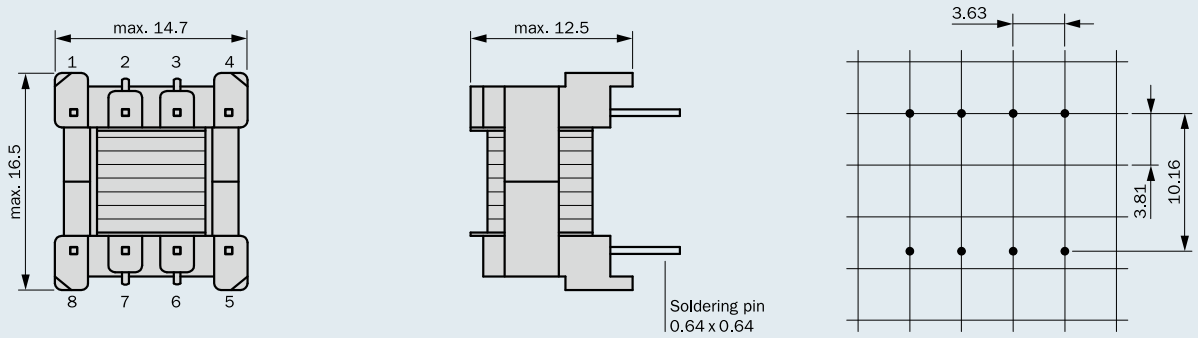
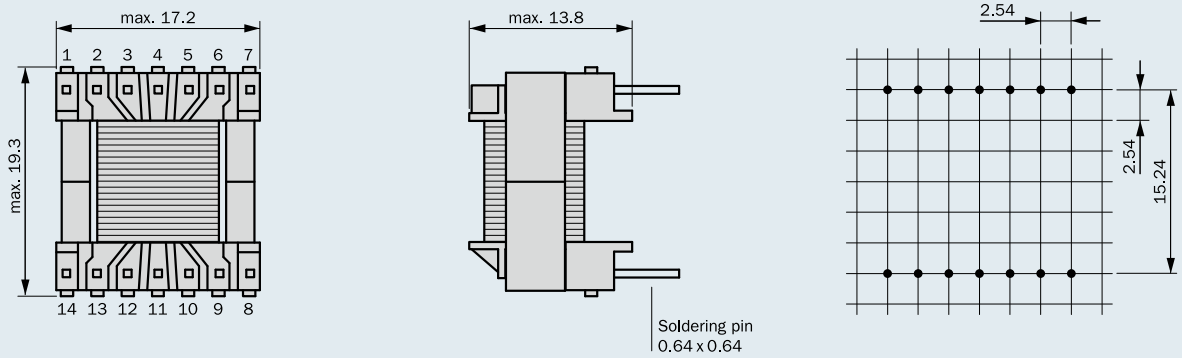
Connecting pins version EF 12/4



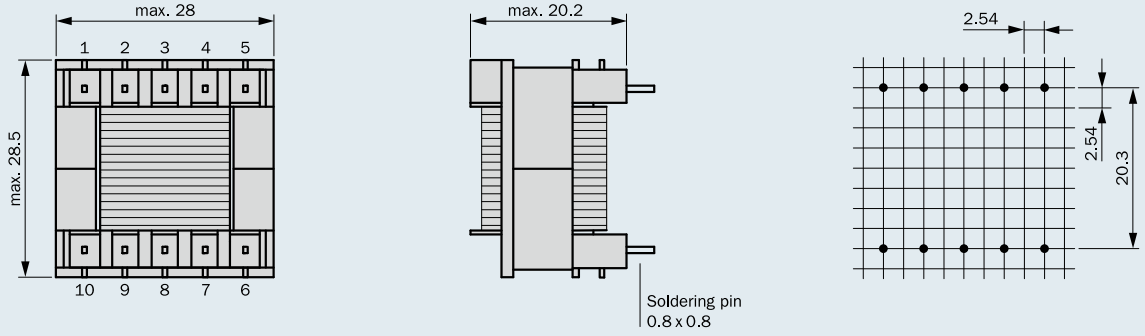
View looking onto pins
Dimensions without tolerances ± 0.3 mm, rights to make alterations and improvements hereby reserved

Connecting pins version EF 16/5



View looking onto pins
Dimensions without tolerances ± 0.3 mm, rights to make alterations and improvements hereby reserved

Connecting pins version EF 25/7



View looking onto pins
Dimensions without tolerances ± 0.3 mm, rights to make alterations and improvements hereby reserved

Content

Ignition transformers

- Ignition transformers
- Electronic ignition devices

Ignition transformers

For safe and stable ignition of gas heating systems!

- Circuit board assembly
- Compact design
- For unipolar or bipolar ignition
- For one or two ignition points
- Stringent individual quality-testing
- Self-extinguishing potting and housing material

Ignition transformers from HAHN guarantee safe and stable ignition of your gas-powered heating systems. Compact in design, they are ideal for use with printed circuit boards.

Within our comprehensive Quality Management System which includes several interim checks, each component is subjected to a final 100% test. In this test, not only the characteristic data are checked but a high-voltage insulation test is carried out.

The specially selected components are all subjected to a glow wire test according to DIN EN 60 335-1:2005, section 30.2.3.

Electronic ignition devices

For safe and stable ignition of boiler systems in the heating industry.

Electronic stroke-spark ignition for use in gas-condensing boiler systems. High-performance ignition for oil-burning systems.

- Voltages 230 V~ and 120 V~
- Single- or dual-pole ignition
- One or two ignition points
- Quality is based on individual testing
- EMV according to DIN EN 55014-1 and DIN EN 55014-2
- Construction according to DIN EN 60335-1 and DIN EN 60335-2-102

Electronic ignition devices from HAHN are designed according to the highest requirements in heating and industrial plants.

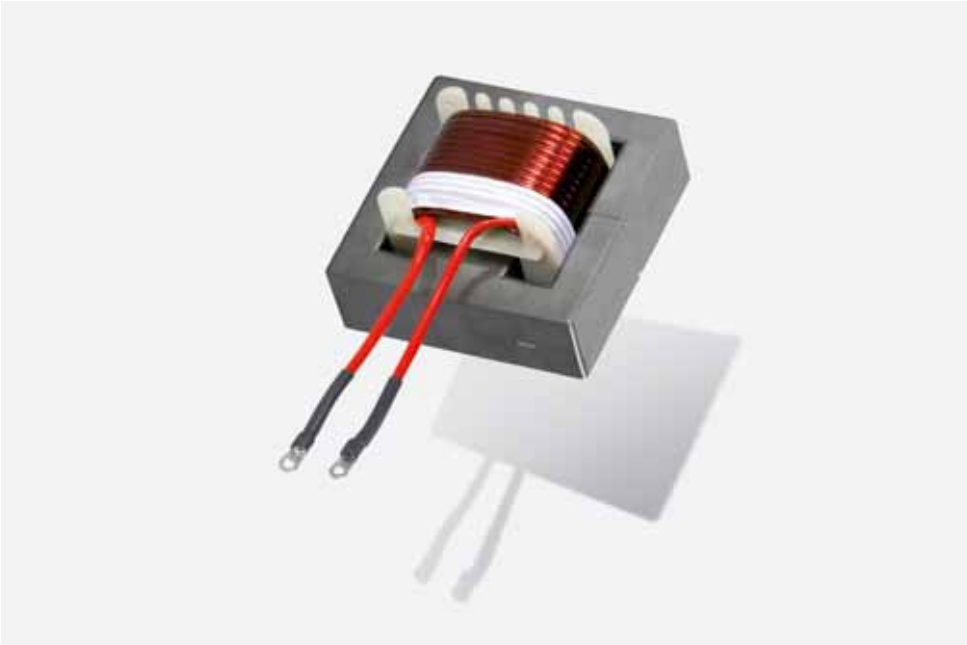
Continuous monitoring of all process steps and the use of top-quality components guarantee safety, reliability and durability. All components are subjected to a 100% individual final check. Here, not only characteristic data are checked; integrated high-voltage tests are carried out that guarantee voltage stability. All ignition devices are compliant with current national and international standards.

For the user, national regulations are binding. Protection from electrical contact is the responsibility of the user.

Content

Choke program

- Extended mains choke series
- Extensive range of customer-specific chokes



Choke program

We supply green power!
The increasing requirements regarding the electromagnetic compatibility of network harmonics according to DIN EN 61000 -3 has motivated HAHN to provide economical solutions for optimizing your products – whether by supplying alternative energy to networks or by reducing harmonics caused by conversion.

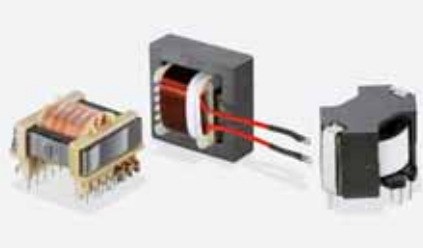
HAHN, with its vast experience and technical know-how, is now able to provide solutions in the form of a wide range of customized coils. The application areas comprise smoothing chokes, commutation chokes, power chokes, PFC chokes and storage chokes in various core materials such as laminated sheet metal, tape-wound core, iron powder and ferrite.

Whether it's a matter of designing a choke, optimizing connections and wiring, assembly via foot angle or top-hat rail G 35, our vastly experienced team of highly qualified development engineers will be able to help.

Choke program

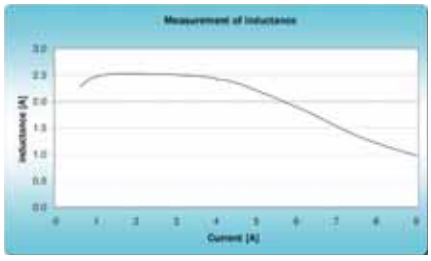
Laminated Iron Core Chokes/Tape-wound Core Choke
- Frequency range 0–400 Hz
- Current range 0–200 A
- Types EI 30 to EI 120, UI 30 to UI 120, tape-wound core SUI
- Open, impregnated or vacuum-encapsulated
- Economically priced and customized to your own specific requirements with respect to design, fitting and contacting

Iron Powder Core Chokes
- Frequency range 0–100 kHz
- Current range 0–30 A
- Types: toroidal or pot core
- Open, impregnated or vacuum-encapsulated
- Economically priced and customized to your own specific requirements with respect to design, fitting and contacting

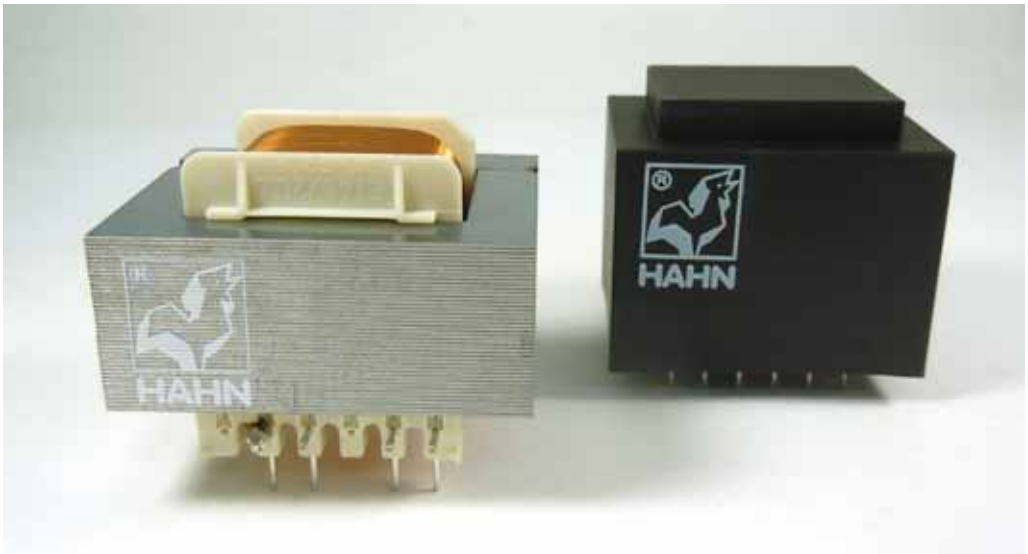


Ferrite Chokes
- Frequency range 10 kHz–1 MHz
- Current range 0–200 A
- Types EE 13–EE 120, RM, PQ, UI to 126, toroidal
- Open, impregnated or vacuum-encapsulated
- Economically priced and customized to your own specific requirements with respect to design, fitting and contacting

Lead by Know-how!
By using state-of-the-art measurement technology and through cooperation with a technical university in the area of EMC, HAHN is able to provide you with comprehensive support right from the beginning of your development work. This will save you time and money.



Extended mains choke Series



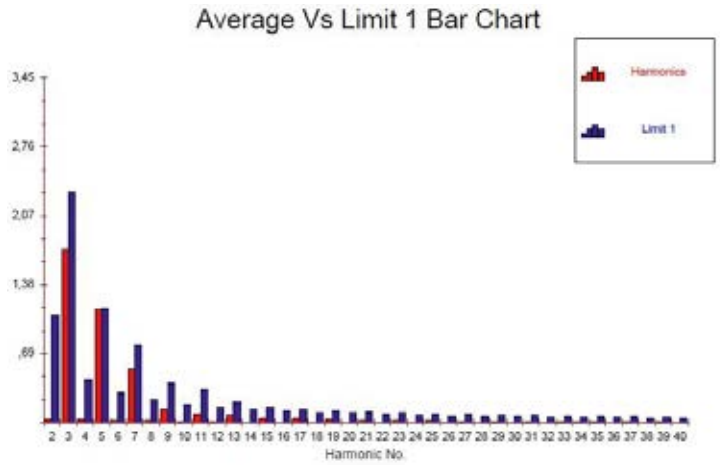
One of the most important environmental conditions for the smooth operation of electrical equipment is a reliable quality of supply networks. Disturbances and influences caused by power-ups, switching power supplies, frequency controllers, etc., endanger equipment and systems in their operational safety.
A significant area of the disturbances and influences on the mains voltage set phase effects; they do arise when resources are operated with a nonlinear current - voltage characteristic or with non-stationary operating behavior of a power grid. This problem of network perturbations gains through the increased use of power electronics with increased emission increasingly important.

In view of the increasing network pollution and the necessary reduction to comply with the power network stability, the requirements are to be adapted to device manufacturers to comply with the electromagnetic compatibility. With the harmonization of EU Directive 2004/108/EC towards the new version 2014/30/EG with effect from 20th April 2016, new guidelines have been applied for the marketing of new devices in Europe.

In order to meet these future requirements on the grid-connected emissions, HAHN provides you already an extended mains choke series, which allows you within very short time to optimize the EMC-features of your device, compliant to the new standard location.

With a power range up to 10 A as well as a wide range of inductance values, this series covers completely the range of common household appliances using their typical plug connected load. Through compliance with the standards in relation to the relevant standards EN 61558-2-20 for chokes , EN 62041, as well as the compliance with the glow wire tests of all materials used in accordance with EN 60335-1 and the use of insulation to the insulation class B and F UL 1446 , the integration of these components is quick and easy.

Investments in new measurement techniques also allow customized solutions.
Our HAHN development team and our technical support team will be happy to answer your questions.



Mains chokes (PFC)

Inductivity: 1.0–20.0 mH
Nominal current: max. 5.2 A

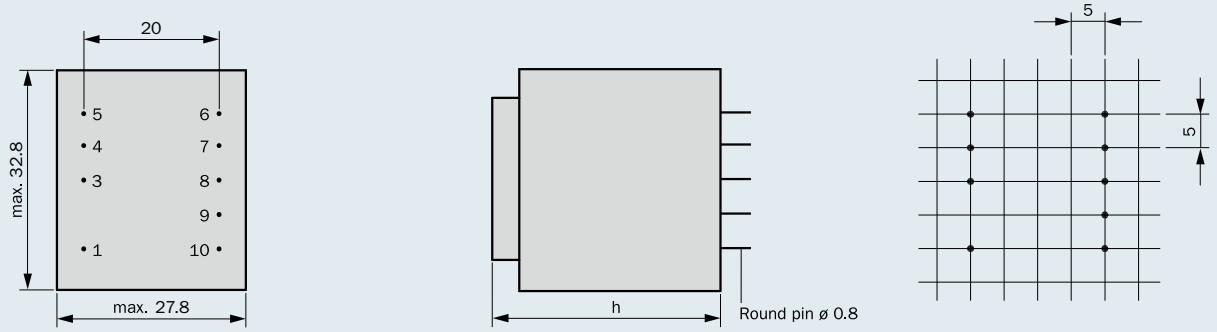
EI 30

	DIN EN 61558-2-20 **DIN EN 62041**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 1446	**UL**	E237745

- according to REACH regulation
- according to RoHs regulation

- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance to core
- Per item tested quality with certificate
- For the standard version with cast housing “0”: Self-extinguishing cast housing and sealing material

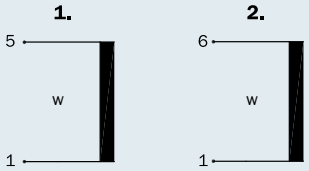
Connecting pins Type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme



Frame size/Core height	Nominal current ta 70 °C	Height (h)	Weight	Packaging unit
BVD EI 306 1... /23.0 mm	max. 5.2 A	max. 34.3 mm	0.145 kg	50 pieces

Mains chokes (PFC)

Inductivity: 1.0–20.0 mH

Nominal current: max. 5.2 A

EI 30

Type in cast housing “O”

ta 70 °C/F

Frame size/Core height
BVD EI 306 1.../ 23.0 mm

vacuum-encapsulated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 306 1001	5.2 A	1.0 mH	1–6	3+4+5+7+8+9+10	2
BVD EI 306 1002	4.2 A	1.5 mH	1–6	3+4+5+7+8+9+10	2
BVD EI 306 1003	3.6 A	2.0 mH	1–6	3+4+5+7+8+9+10	2
BVD EI 306 1004	3.5 A	2.5 mH	1–5	3+4+6+7+8+9+10	1
BVD EI 306 1005	3.2 A	3.0 mH	1–5	3+4+6+7+8+9+10	1
BVD EI 306 1006	3.0 A	3.5 mH	1–5	3+4+6+7+8+9+10	1
BVD EI 306 1007	2.9 A	4.0 mH	1–5	3+4+6+7+8+9+10	1
BVD EI 306 1008	2.5 A	4.5 mH	1–5	3+4+6+7+8+9+10	1
BVD EI 306 1009	2.3 A	5.0 mH	1–5	3+4+6+7+8+9+10	1
BVD EI 306 1010	1.9 A	10.0 mH	1–6	3+4+5+7+8+9+10	2
BVD EI 306 1011	1.5 A	15.0 mH	1–5	3+4+6+7+8+9+10	1
BVD EI 306 1012	1.3 A	20.0 mH	1–5	3+4+6+7+8+9+10	1

Mains chokes (PFC)

Inductivity: 1.0–15.0 mH
Nominal current: max. 4.7 A

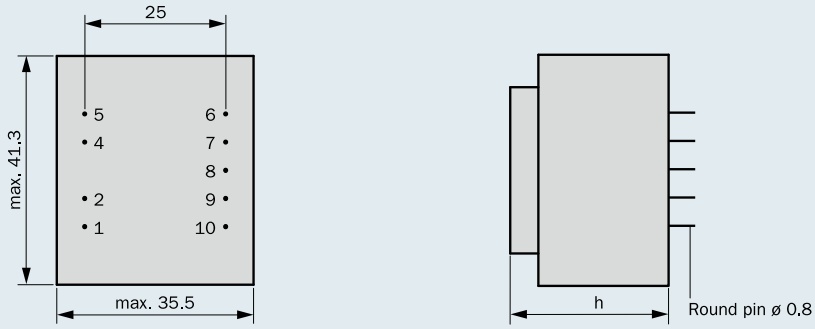
EI 38

	DIN EN 61558-2-20 **DIN EN 62041**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 1446	**UL**	E237745

- according to REACH regulation
- according to RoHs regulation

- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance to core
- Per item tested quality with certificate
- For the standard version with cast housing “0”: Self-extinguishing cast housing and sealing material

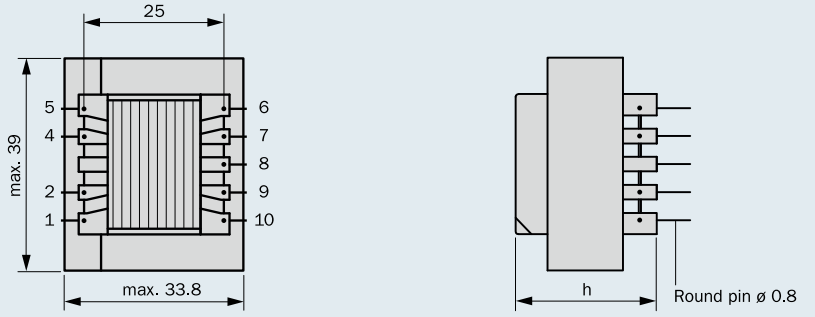
Connecting pins Type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

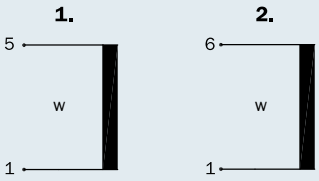
Connecting pins Type open



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme



Frame size/Core height	Nominal current ta 70 °C	Height (h)	Weight	Packaging unit
BVD EI 382 1... /13.6 mm	max. 4.7 A	max. 28.6 mm	0.165 kg	30 pieces
BVD EI 382 0... /13.6 mm	max. 4.4 A	max. 26.9 mm	0.140 kg	30 pieces

Type cast housing “O”

ta 70 °C/B

Frame size/Core height
BVD EI 382 1.../ 13.6 mm

vacuum-encapsulated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 382 1001	4.7 A	1.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 1002	4.7 A	1.5 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 1003	4.0 A	2.0 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 1004	2.2 A	2.5 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 1005	2.2 A	3.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 1006	2.2 A	3.5 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 1007	3.2 A	4.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 1008	2.8 A	4.5 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 1009	2.7 A	5.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 1010	2.0 A	10.0 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 1011	1.5 A	15.0 mH	1–6	2+4+5+7+8+9+10	1

Type open

ta 70 °C/F

Frame size/Core height
BVD EI 382 0.../ 13.6 mm

open,
vacuum-impregnated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 382 0001	4.4 A	1.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 0002	4.4 A	1.5 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 0003	3.5 A	2.0 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 0004	2.1 A	2.5 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 0005	2.0 A	3.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 0006	2.0 A	3.5 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 0007	2.8 A	4.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 0008	2.4 A	4.5 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 0009	2.3 A	5.0 mH	1–6	2+4+5+7+8+9+10	1
BVD EI 382 0010	1.7 A	10.0 mH	1–5	2+4+6+7+8+9+10	2
BVD EI 382 0011	1.4 A	15.0 mH	1–6	2+4+5+7+8+9+10	1

Mains chokes (PFC)

Inductivity: 1.0 – 20.0 mH
Nominal current: max. 5.9 A

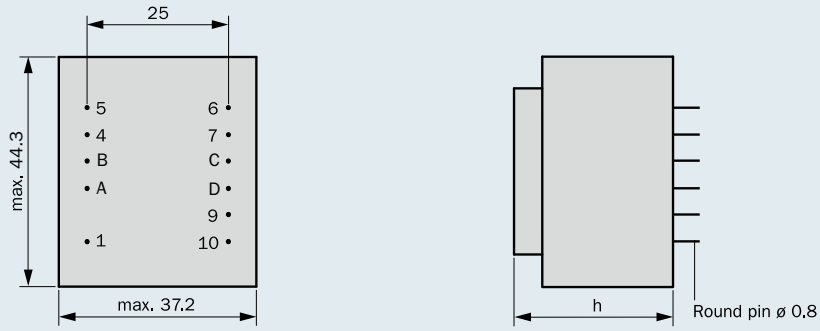
EI 42

10	**DIN EN 61558-2-20** **DIN EN 62041**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 1446	**UL**	E237745

- according to REACH regulation
- according to RoHs regulation

- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance to core
- Per item tested quality with certificate
- For the standard version with cast housing “0”: Self-extinguishing cast housing and sealing material

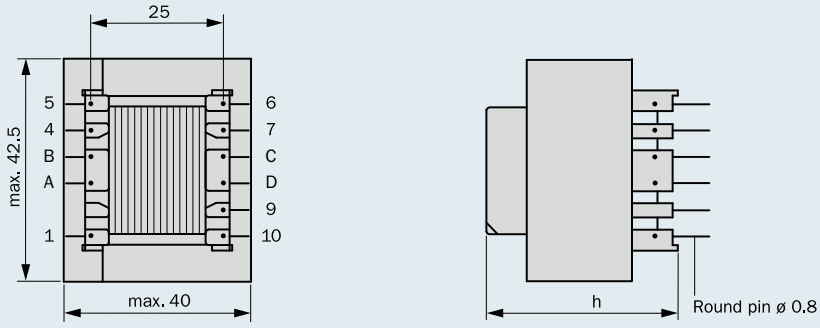
Connecting pins Type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

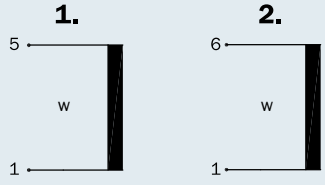
Connecting pins Type open



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme



Frame size/Core height	Nominal current ta 70 °C	Height (h)	Weight	Packaging unit
BVD EI 423 1... /20.0 mm	max. 5.9 A	max. 38.3 mm	0.270 kg	30 pieces
BVD EI 423 0... /20.0 mm	max. 5.0 A	max. 36.3 mm	0.235 kg	28 pieces

Type cast housing “O”

ta 70 °C/B

Frame size/Core height
BVD EI 423 1.../ 20.0 mm

vacuum-encapsulated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 423 1001	5.9 A	1.0 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 1002	5.9 A	1.5 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 1003	5.2 A	2.0 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 1004	4.5 A	2.5 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 1005	4.5 A	3.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 1006	4.4 A	3.5 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 1007	4.4 A	4.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 1008	4.0 A	4.5 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 1009	4.0 A	5.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 1010	2.9 A	10.0 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 1011	2.4 A	15.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 1012	2.0 A	20.0 mH	1–5	A+B+4+6+7+C+D+9+10	1

Type open

ta 70 °C/F

Frame size/Core height
BVD EI 423 0.../ 20.0 mm

open,
vacuum-impregnated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 423 0001	5.0 A	1.0 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 0002	5.0 A	1.5 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 0003	4.6 A	2.0 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 0004	3.9 A	2.5 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 0005	3.9 A	3.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 0006	3.7 A	3.5 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 0007	3.7 A	4.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 0008	3.3 A	4.5 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 0009	3.3 A	5.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 0010	2.5 A	10.0 mH	1–6	A+B+4+5+7+C+D+9+10	2
BVD EI 423 0011	2.1 A	15.0 mH	1–5	A+B+4+6+7+C+D+9+10	1
BVD EI 423 0012	2.0 A	20.0 mH	1–5	A+B+4+6+7+C+D+9+10	1

Mains chokes (PFC)

Inductivity: 1.0–20.0 mH
Nominal current: max. 8.7 A

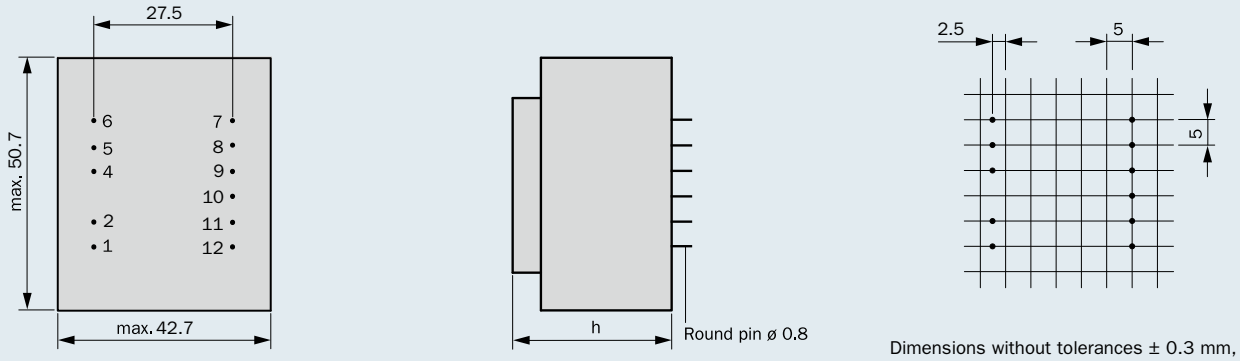
EI 48

10	**DIN EN 61558-2-20** **DIN EN 62041**	**VDE**	on request
VDE-Mark for Glow-Wire-Test	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 1446	**UL**	E237745

- according to REACH regulation
- according to RoHs regulation

- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance to core
- Per item tested quality with certificate
- For the standard version with cast housing “0”: Self-extinguishing cast housing and sealing material

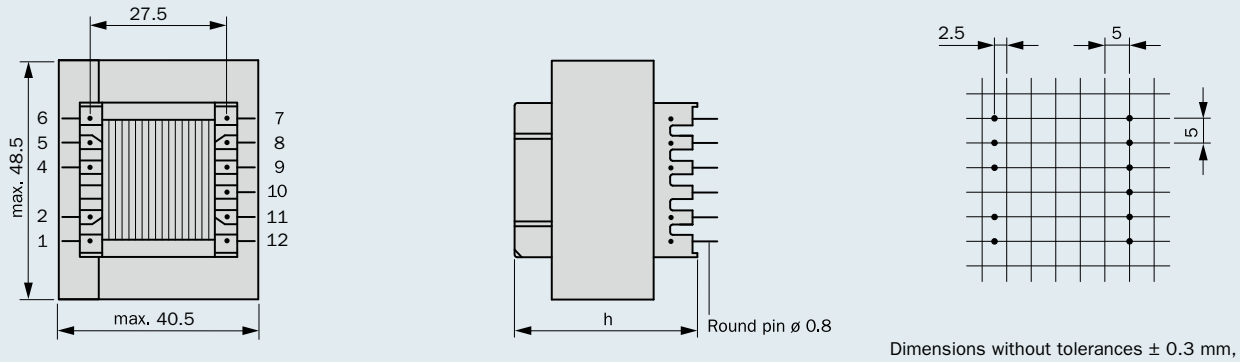
Connecting pins Type cast housing “0”



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

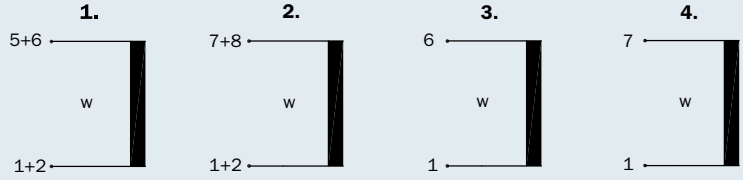
Connecting pins Type open



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme



Frame size/Core height	Nominal current ta 70 °C	Height (h)	Weight	Packaging unit
BVD EI 482 1... /20.5 mm	max. 8.7 A	max. 39.0 mm	0.360 kg	20 pieces
BVD EI 482 0... /20.5 mm	max. 7.9 A	max. 37.3 mm	0.315 kg	20 pieces

Mains chokes (PFC)

Inductivity: 1.0 – 20.0 mH

Nominal current: max. 8.7 A

Type cast housing "O"

ta 70 °C/B

Frame size/Core height
BVD EI 482 1.../ 20.5 mm

vacuum-encapsulated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 482 1001	8.7 A	1.0 mH	1/2–5/6	4+7+8+9+10+11+12	1
BVD EI 482 1002	7.8 A	1.5 mH	1/2–7/8	4+5+6+9+10+11+12	2
BVD EI 482 1003	6.8 A	2.0 mH	1–7	2+4+5+6+8+9+10+11+12	4
BVD EI 482 1004	5.6 A	2.5 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 1005	5.5 A	3.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 1006	4.7 A	3.5 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 1007	4.4 A	4.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 1008	4.4 A	4.5 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 1009	4.2 A	5.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 1010	3.0 A	10.0 mH	1–7	2+4+5+6+8+9+10+11+12	4
BVD EI 482 1011	2.5 A	15.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 1012	2.2 A	20.0 mH	1–6	2+4+5+7+8+9+10+11+12	3

Type open

ta 70 °C/F

Frame size/Core height
BVD EI 482 0.../ 20.5 mm

open,
vacuum-impregnated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 482 0001	7.9 A	1.0 mH	1/2–5/6	4+7+8+9+10+11+12	1
BVD EI 482 0002	7.3 A	1.5 mH	1/2–7/8	4+5+6+9+10+11+12	2
BVD EI 482 0003	6.0 A	2.0 mH	1–7	2+4+5+6+8+9+10+11+12	4
BVD EI 482 0004	5.0 A	2.5 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 0005	5.0 A	3.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 0006	4.2 A	3.5 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 0007	3.9 A	4.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 0008	3.9 A	4.5 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 0009	3.9 A	5.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 0010	2.7 A	10.0 mH	1–7	2+4+5+6+8+9+10+11+12	4
BVD EI 482 0011	2.3 A	15.0 mH	1–6	2+4+5+7+8+9+10+11+12	3
BVD EI 482 0012	2.0 A	20.0 mH	1–6	2+4+5+7+8+9+10+11+12	3

Mains chokes (PFC)

Inductivity: 1.0 – 20.0 mH

Nominal current: max. 7.7 A

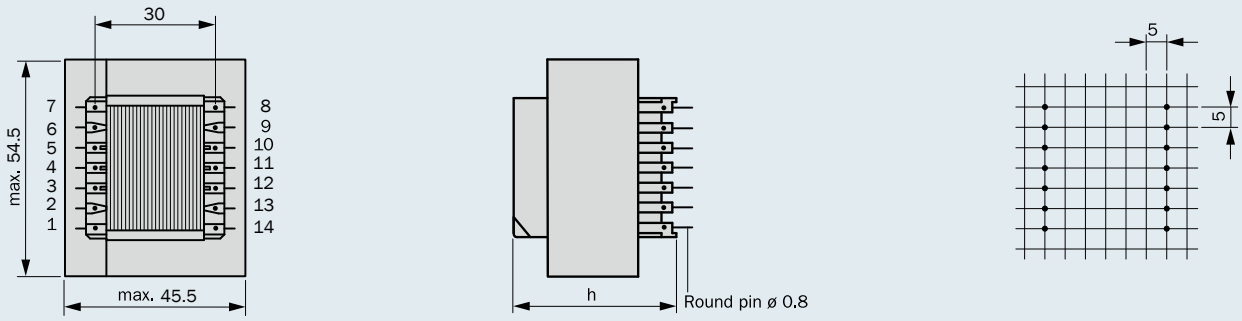
EI 54

10 DVE	**DIN EN 61558-2-20** **DIN EN 62041**	**VDE**	on request
DVE **VDE-Mark for Glow-Wire-Test**	**DIN EN 60 335-1**	**VDE**	102961/84814
	UL 1446	**UL**	E237745

- according to REACH regulation
- according to RoHs regulation

- Excellent temperature fluctuation resistance properties
- High electrical safety and long service-life features
- High voltage resistance to core
- Per item tested quality with certificate

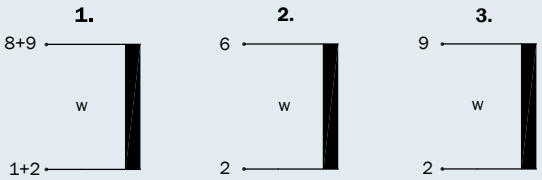
Connecting pins Type open



View looking onto pins

Dimensions without tolerances ± 0.3 mm,
rights to make alterations and improvements hereby reserved

Connection scheme



Frame size/Core height	Nominal current ta 70 °C	Height (h)	Weight	Packaging unit
BVD EI 542 0... /23.0 mm	max. 7.7 A	max. 42.3 mm	0.440 kg	15 pieces

Mains chokes (PFC)

Inductivity: 1.0 – 20.0 mH

Nominal current: max. 7.7 A

Type open

ta 70 °C/F

Frame size/Core height
BVD EI 542 0.../ 23.0 mm

open,
vacuum-impregnated

Order No.	Nominal current	Nominal inductivity	Connecting pins	Not connected pins	Connection scheme
BVD EI 542 0001	7.7 A	1.0 mH	1/2–8/9	3+4+5+6+7+10+11+12+13+14	1
BVD EI 542 0002	6.3 A	1.5 mH	1/2–8/9	3+4+5+6+7+10+11+12+13+14	1
BVD EI 542 0003	5.5 A	2.0 mH	2–6	1+3+4+5+7+8+9+10+11+12+13+14	2
BVD EI 542 0004	5.5 A	2.5 mH	2–6	1+3+4+5+7+8+9+10+11+12+13+14	2
BVD EI 542 0005	5.1 A	3.0 mH	2–6	1+3+4+5+7+8+9+10+11+12+13+14	2
BVD EI 542 0006	4.5 A	3.5 mH	2–6	1+3+4+5+7+8+9+10+11+12+13+14	2
BVD EI 542 0007	4.1 A	4.0 mH	2–6	1+3+4+5+7+8+9+10+11+12+13+14	2
BVD EI 542 0008	3.9 A	4.5 mH	2–9	1+3+4+5+6+7+8+10+11+12+13+14	3
BVD EI 542 0009	3.9 A	5.0 mH	2–9	1+3+4+5+6+7+8+10+11+12+13+14	3
BVD EI 542 0010	3.0 A	10.0 mH	2–6	1+3+4+5+7+8+9+10+11+12+13+14	3
BVD EI 542 0011	2.5 A	15.0 mH	2–6	1+3+4+5+7+8+9+10+11+12+13+14	2
BVD EI 542 0012	2.0 A	20.0 mH	2–9	1+3+4+5+6+7+8+10+11+12+13+14	3

Content

Special solutions

- Electrical Power Supply Facilities / Supply units
- Transformers Top-Hat-Rail Fixtures EI 48 – EI 78
- Transformers in open version, vacuum impregnated version
- Customer-specific winding goods / Fine-wire-coils

Electrical Power Supply Facilities / Supply units

Safety coupled with HAHN quality for your applications!
Should you need an AC or DC power supply?
These are available from HAHN with integrated components (residual ripple < = 5 %).

Today, our flexible production allows us to make transformers both with and without rectification. Special safeguards protect your products in line with the stringent requirements of VDE/ ENEC and UL. Our highly qualified and experienced HAHN developers coupled with our own tooling facility guarantee rapid and economic solutions for you.

Our technical superiority, comprehensive Quality Management and interim testing programs for each individual component guarantee reliable functionality.

Our highly flexible production concept, proven technology and product experience makes it possible to fulfill and technically implement practically any individual requirements you may have along with the amounts you require.

Transformers both with and without secure insulation, automatic transformers and unregulated power supplies round off the HAHN product range. Our own development and production within Europe guarantee solutions with optimal customer benefits.

Electrical Power Supply Facilities / Supply units

Custom-made bunch of cables

- Vacuum-encapsulated, dual chamber windings
- Excellent temperature fluctuation reactivity
- Highest degrees of safety and durability
- High degree of voltage-leak resistance
- Self-extinguishing cast housing and sealing material
- Per item tested quality with certificate
- Transformers conform to European Standard DIN EN 61558 and UL 1310

Fuse elements

Following supply connector variants are possible

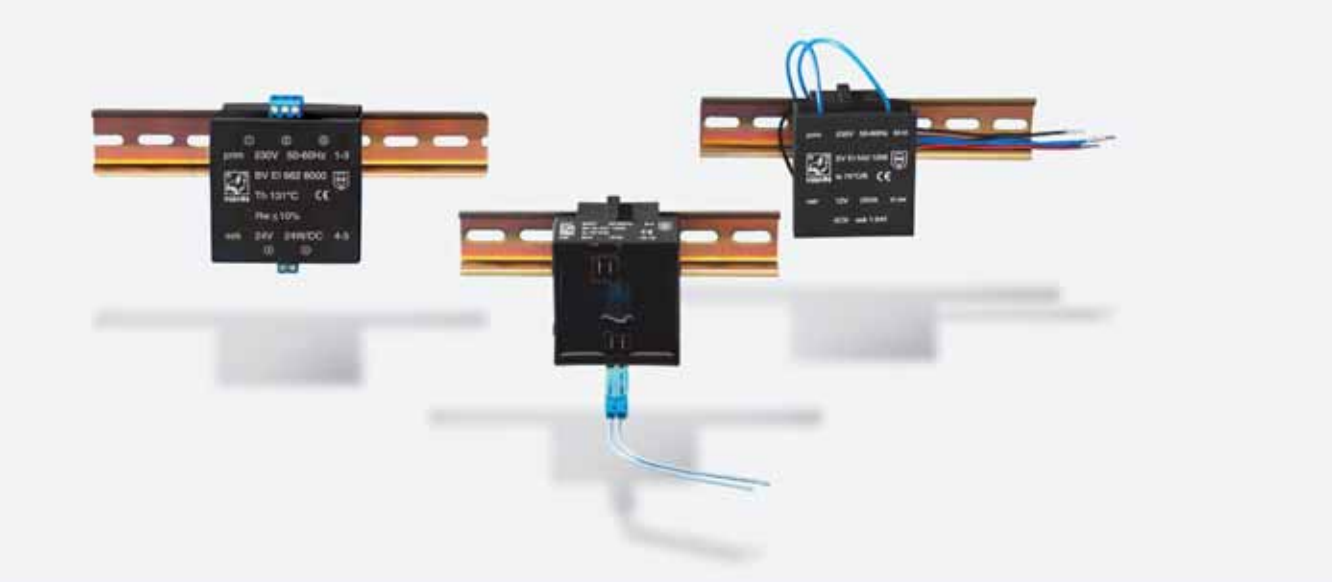
- Flat plugs
- Rast 5
- Terminal blocks
- Custom-made connectors

Rectifier units

	Frame size	Output Power (max.)	Dimensions (axbxh)
AC	EI 48	12.0 W* / ta 70°C/B	
DC	EI 48	6.0 VA* / ta 40°C/B	
AC	EI 54	20.0 VA* / ta 70°C/B	60x64x52
DC	EI 54	10.0 W* / ta 40°C/B	60x64x52
AC	EI 60	30.0 VA* / ta 70°C/B	66x67x60
DC	EI 60	16.0 W* / ta 40°C/B	66x67x60
AC	EI 66	47.0 VA* / ta 70°C/B	72x70x66
DC	EI 66	24.0 W* / ta 40°C/B	72x70x66
AC	EI 78	60.0 VA* / ta 70°C/B	84x76x74
DC	EI 78	40.0 W* / ta 40°C/B	84x76x74
AC	EI 84	100.0 VA* / ta 70°C/B	91x80x79
DC	EI 84	50.0 W* / ta 40°C/B	91x80x79

*dependent on types of supply connection and circuit breaking facilities

Transformers for Top-Hat-Rail Fixtures



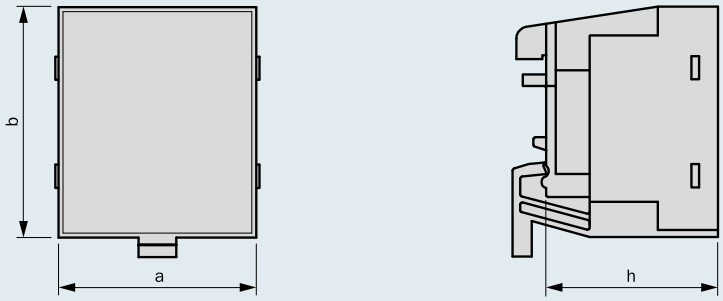
- Vacuum-encapsulated, dual chamber windings
- Excellent temperature fluctuation reactivity
- Highest degrees of safety and durability
- High degree of voltage-leak resistance
- self-extinguishing sealing material
- Per item tested quality with certificate
- Transformers conform to European Standard DIN EN 61558

Following supply connector variants are possible
- Flat plugs
- Rast 5
- Terminal blocks
- Custom-made connectors

HAHN quality now available for switchgear cabinets and domestic supply services
HAHN transformers are suitable for mounting in switchgear cabinets with the application of special encapsulation bonnets complying with German Industrial and European Standard: DIN EN 50 022 and equipped with snap-on fixtures. These encapsulated transformers stand for optimal durability and a rapid simplified mounting for such facilities.

Ongoing quality control – even at the level of components – as well as 100 % piece verification ensures the highest degree of quality from the HAHN works.

Connecting pins version RAST 5

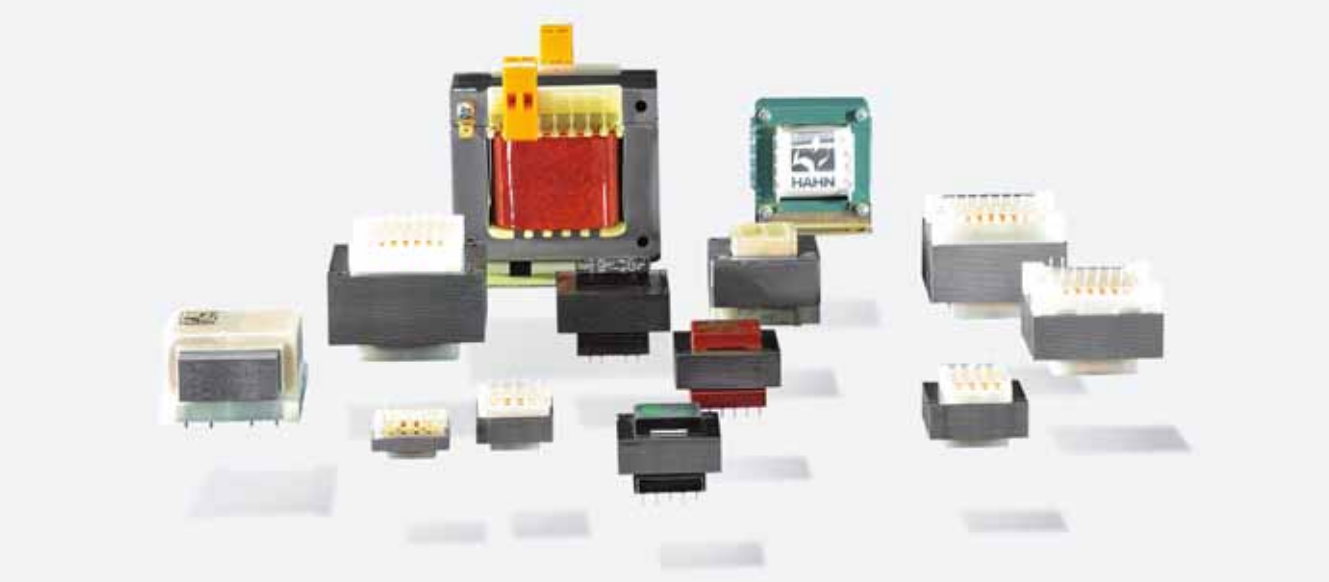


Dimensions without tolerance indications ± 1 mm

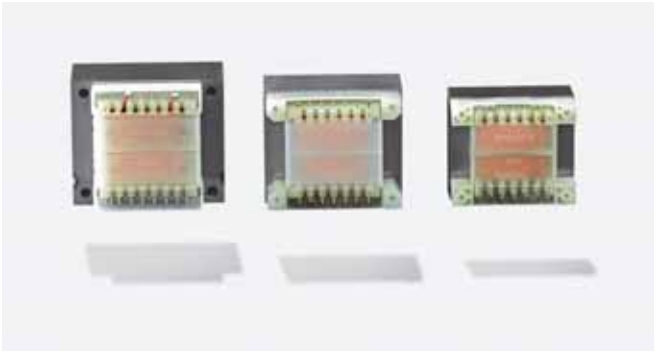
Frame Size	Output Power ta 70 °C/B	Dimensions (a x b x h)
EI 48	12.0 VA*	max. 53.8 x 61.1 x 45
EI 54	20.0 VA*	max. 59.7 x 64.2 x 52
EI 60	30.0 VA*	max. 66.2 x 67.1 x 60
EI 66	47.0 VA*	max. 72.2 x 70.1 x 66
EI 78	60.0 VA*	max. 84.7 x 78.6 x 74

* dependent on types of supply connection and circuit breaking facilities

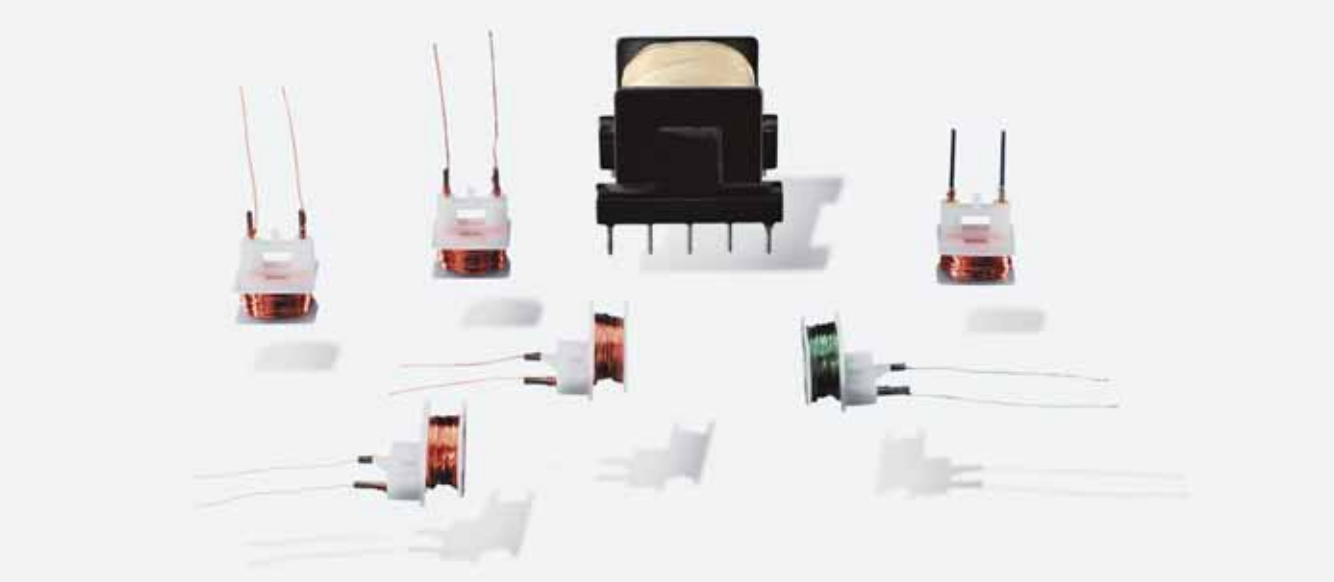
Transformers in open version, vacuum impregnated version



Open single-phase transformers for the power supply of appliances and assemblies. For applications with restricted spacing, HAHN's unsealed transformers are a real alternative. New versions have been introduced by reducing the casing volume. Reduced weights lead to reduced costs and can be realized in the form of printed circuit transformers, size EI 30 – EI 96 as well as UI 30 – UI 48. Applications for switch cabinets can be fitted with the sizes EI 60 – EI 150. Attachment facilities with angle pieces for top-hat rails are available. Impregnation with resin protects the unit against environmental impingements. The use of dual chamber bobbin windings guarantees an electrically safe galvanic separation to VDE 0570/DIN EN 61 558 regulations. The materials employed meet insulation class B (130 °C) minimum. Class F (155 °C) is also available on request.



Customer-specific winding goods / Fine-wire-coils



HAHN has gained a niche in the market as a reliable supplier of application-oriented special transformer coils. Our customer contact staff are exceedingly well motivated and contribute extensively to the success of the business.

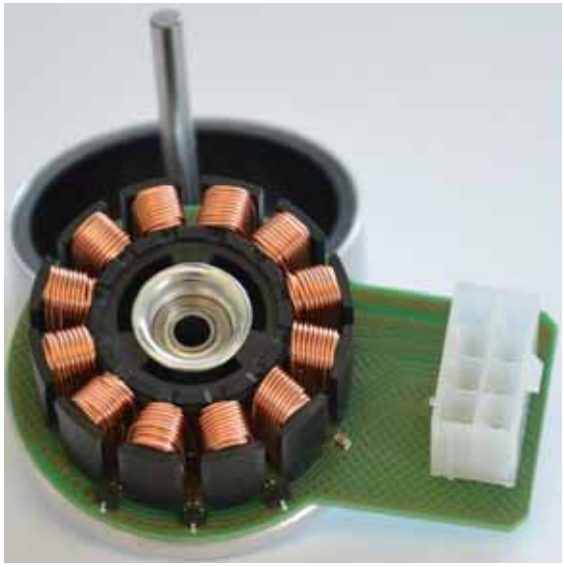
HAHN is already able to produce special transformer coils in all the various constructions types to consumer specifications.

HAHN will work together with the customer to develop all manner of applications to obtain an appropriate and viable problem solution. The high grade quality of HAHN products and the readiness of the HAHN organisation to provide an appropriate customer service are also contributions to the success of the business.

HAHN's secret lies in the employment of optimised components and the consequent exploitation inherent in the possibilities of hi-tech manufacturing. This enables specialty components in high grade quality to be produced in conjunction with many years of close collaboration with its subcontractors and suppliers as well as the benefit of flexible manufacturing facilities. HAHN's experienced research and development department and its special in-house tooling facility are guarantees for rapid and economic problem solutions straight from the HAHN works.

No matter whether small amounts or large volumes – the highly flexible manufacturing concept with extensively automated production equipment – makes it possible to meet practically any consumer requirement and to implement this materially and technically; and, this not only in a highly economic manner but also on a short-term basis.

Pole coil winding goods for BLDC motor



The BLDC motor (brushless DC motor) is constructed as a three-phase synchronous machine whose efficiency exceeds 85%. It is characterized by its long life and smooth running.

Applications of BLDC are e.g. drives for fans and household appliances and compressors, model airplanes, electric actuator in the form of servo motors to drive systems for machine tools.

In addition, the BLDC motor meets the ErP guidelines. It is used for establishing requirements for the eco-design of energy related products (ERP).
This is what brings the efficiency of energy of motors, with regard to the environment and soaring energy costs, more and more into focus.

The energy efficiency of engines can be improved by:

- The use of dynamo sheet with improved magnetic properties
- Improving the cooling in the engine
- Reduction of production tolerances
- **Reduction of losses in the pole windings by**
  Optimization of winding structure / winding execution

With regard to the last point, the winding task, HAHN can rely on over 45 years of experience in production of coiled products.
From the beginning, HAHN relies on high product quality, innovation and progressive, solid expansion of production.

HAHN is distributing more than 100,000 pieces per day worldwide.

Due to our supportive development activity, we have experience in the coil construction, which is of significant importance for new developments. Together with our customers we bring this experience into their new projects in the field of coil design for BLDC motors.

In order to improve and realize the projects of our customers professionally, our R & D department and our technical support team of HAHN are available at any time.

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