



TRIDONIC

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Catalogue 2012

Magnetic transformers for low-voltage halogen lamps

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Standards – Product / function matrix

			EN 61558	Screw terminal 0.75 – 2.5 mm ²	Spring terminal 0.5 – 1.5 mm ²	Insulation class	Current-sensitive thermal controller	Thermal protection	Thermal protection and fuse	SELV	Wattage range
Installation	Type	Page									
Built-in applications	KTR	Page 8	●	●		B				●	50 – 105 W
	TMDC...K ^①	Page 9	●	●		H				●	50 – 105 W
	TMDC...W ^①	Page 10	●	●		H	●			●	20 – 105 W
	TMBB	Page 11	●		●	H	●			●	20 – 105 W
	TMBC...W ^①	Page 12	●		● ^②	H	●			●	150 – 300 W
	TMBC...U ^①	Page 12	●		● ^②	H		●		●	150 – 300 W
Remote applications	TMDD	Page 13	●			B	●			●	50 – 105 W
	OMT	Page 14	●		● ^②	F			●	●	150 – 300 W

^① W = Current-sensitive thermal controller

TP, U = Thermal protection

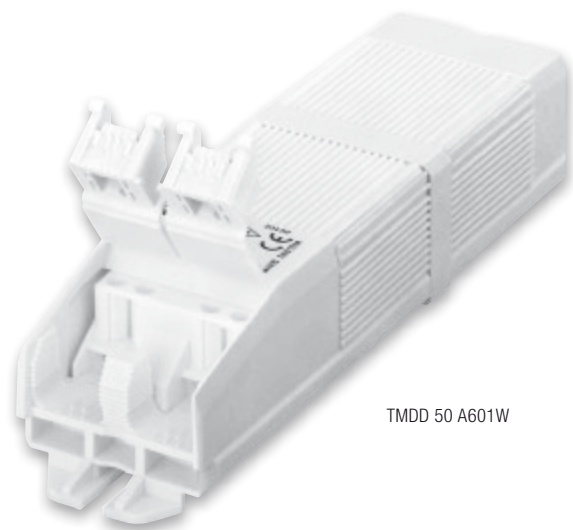
K = No current-sensitive thermal controller or thermal protection

^② Secondary side: screw terminal

Magnetic transformers for low-voltage halogen lamps

In principle, operation of low-voltage halogen lamps, which are universally popular for accent lighting, require a transformer which adapts the mains voltage to a 12 V operating voltage. There is a choice between magnetic and electronic transformers. The latter are divided up into phase-dimmable and digitally dimmable TE one4all models.

All transformers also ensure that the protective measures required by relevant standards are met, for instance in the event of a short circuit or voltage interruption.



Magnetic transformers are a rugged, extremely affordable solution offering long service life together with excellent thermal endurance.

Tridonic's diversified range of units for integration in luminaires and surface-mounted applications covers all relevant uses. The transformers guarantee operation of lamps in accordance with specifications, thereby enabling lamps to achieve their maximum luminous flux and service life.

Essentially, all Tridonic magnetic transformers are characterised by minimal power consumption, compact winding, optimised dimensions and high-quality materials. They are continuously controllable using phase-control dimmers for inductive loads.

Designed for long service life

Thanks to their high-quality insulating material, coil form and the quality of the copper wire used, KTR, TMDC, TMB and TMC type transformers for integration in luminaires and TMDD and OMT types for surface-mounted applications achieve a maximum service life of approximately 100,000 hours of operation, i.e. roughly ten years of continuous operation with a winding temperature of 130 °C ($t_w = 130\text{ °C}$). The winding temperature is calculated from the ambient temperature and the temperature increase due to intrinsic consumption. An upward or downward change in temperature of 10 °C causes doubling or halving of the life of the unit respectively.

The transformers can be protected on the line side either by a slow fuse or by a built-in current-sensitive thermal cutout appropriate to the transformer type. In addition there is protection on the secondary side against overloads and short-circuits trips if the lamp is faulty.

Constantly high quality

The consistently high quality and reliability of the Tridonic magnetic transformers is guaranteed by the use of high-grade materials together with manufacturing processes certified to ISO 9001. Fully automatic manufacture ensures constant reproducible quality. All transformers are subjected to 100 % final testing and safety testing.

Standards and approval marks

Magnetic transformers from Tridonic are ENEC certified, carry the CE mark and meet the European standard EN 61558 (IEC 61558) relating to safety, operation and electro-magnetic compatibility (EMC).

Specialist for integrated applications

KTR magnetic transformers are characterised by especially compact dimensions (28.6 x 41.5 mm) and an excellent price/performance ratio. Power ratings range from 50 to 105 VA.

Because of their dimensions, TMDC transformers are suitable for all applications where a device with a small cross-sectional area is needed, e.g. in tubetrack systems. This model is available with power ratings from 20 to 105 VA.

TMB transformers are compactly designed units of reduced length. The device has a cross-sectional area of 65 x 47 mm. Thanks to its high efficiency, the TMB model, which is available in versions from 20 to 300 VA, is also suitable for use at relatively high ambient temperatures.

Designed for surface-mounted applications

TMDD magnetic transformers are available as a Lovotec version and as a TMD enclosed version which are also suitable for integration or surface-mounting on furniture having unknown flammability characteristics. Thanks to their small cross-sectional area, these units are especially suitable for use in suspended ceilings.

OMT transformers are used when several lamps are connected, e.g. in the case of cord suspension or track systems. Power ratings range from 150 to 300 VA.



TMDC 105

Technical information

The latest technical information is available on the internet at: www.tridonic.com, menu "Technical data", submenu "Data sheets"

Personal enquiries

A form for personal enquiries is available on the internet at: www.tridonic.com, menu "Contact", submenu "Contact form"



KTR 50 – 105 VA 230/11.5 V

Lamp power 50 – 105 VA

Product description

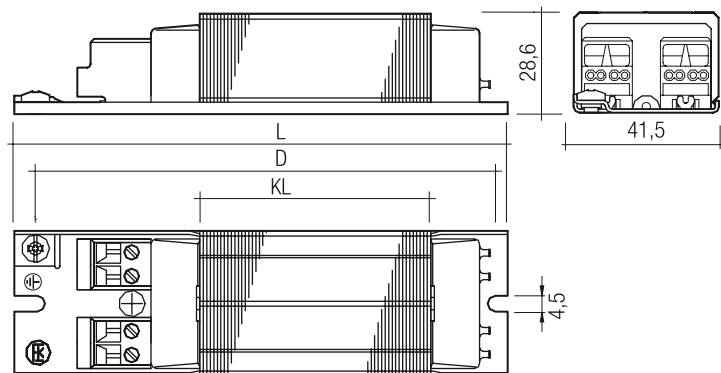
- Small transformer to EN 61558-2-1
 - Single insulation on the primary side
 - Screw terminals, nickel-plated,
0.75 – 2.5 mm² rigid and stranded wires
 - Terminal split (primary/secondary)
 - Insulation class B
- For product data sheet go to www.tridonic.com,
or available on request



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Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
KTR 50 230 V	86438472	20 pieces	960 pieces	0.75 kg
KTR 105 230 V	86438480	10 pieces	600 pieces	1.50 kg

Specific technical data

Type	Article number	Lamp power	Core length KL	Length L	Hole spacing D	UL / UO	Losses	Primary current	Ambient temperature t _a
KTR 50 230 V	86438472	30 – 50 VA	78 mm	153 mm	143 mm	83 %	12.6 W	270 mA	40 °C
KTR 105 230 V	86438480	50 – 105 VA	165 mm	240 mm	230 mm	87 %	20.3 W	535 mA	40 °C

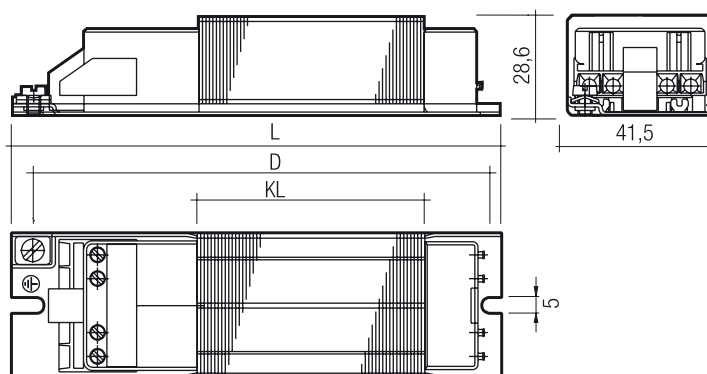


TMDC 50 – 105 VA 230/11.5 V

Lamp power 50 – 105 VA

Product description

- Screw terminals, nickel-plated,
0.75 – 2.5 mm² rigid and stranded wires
 - Insulation class H
- For product data sheet go to www.tridonic.com,
or available on request



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Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
TMDC 50 B001K 230 V	86451534	20 pieces	960 pieces	0.75 kg
TMDC 105 B001K 230 V	86451540	10 pieces	600 pieces	1.50 kg

Specific technical data

Type	Article number	Lamp power	Core length KL	Length L	Hole spacing D	UL / UO	Losses	Primary current	Ambient temperature t _a
TMDC 50 B001K 230 V	86451534	30 – 50 VA	78 mm	153 mm	143 mm	86 %	12 W	280 mA	80 °C
TMDC 105 B001K 230 V	86451540	50 – 105 VA	165 mm	240 mm	230 mm	87 %	25 W	495 mA	80 °C



TMDC 20 – 105 VA 230/11.5 V
Lamp power 20 – 105 VA

Product description

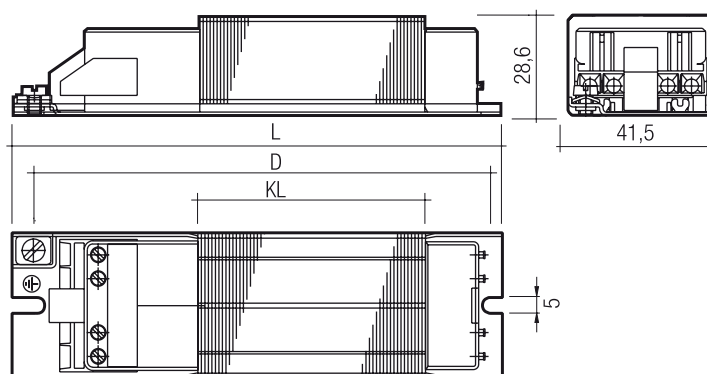
- Perfect protection system with reversible protection against short-circuit, overload and overtemperature
 - Screw terminals, nickel-plated,
0.75 – 2.5 mm² rigid and stranded wires
 - Insulation class H
- For product data sheet go to www.tridonic.com,
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Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
TMDC 20 B001W 230 V	24031030	25 pieces	1,250 pieces	0.40 kg
TMDC 50 B001W 230 V	24031052	20 pieces	960 pieces	0.75 kg
TMDC 70 B001W 230 V	24031071	20 pieces	800 pieces	1.10 kg
TMDC 105 B001W 230 V	24031093	10 pieces	600 pieces	1.50 kg

Specific technical data

Type	Article number	Lamp power	Core length KL	Length L	Hole spacing D	UL / UO	Losses	Primary current	Ambient temperature t _a	Trigger value, thermal protection
TMDC 20 B001W 230 V	24031030	20 VA	35 mm	110 mm	100 mm	82 %	6.4 W	120 mA	80 °C	150 °C
TMDC 50 B001W 230 V	24031052	50 VA	78 mm	153 mm	143 mm	86 %	12.0 W	280 mA	80 °C	150 °C
TMDC 70 B001W 230 V	24031071	70 VA	110 mm	195 mm	185 mm	88 %	20.0 W	410 mA	80 °C	150 °C
TMDC 105 B001W 230 V	24031093	105 VA	165 mm	240 mm	230 mm	87 %	25.0 W	495 mA	80 °C	150 °C

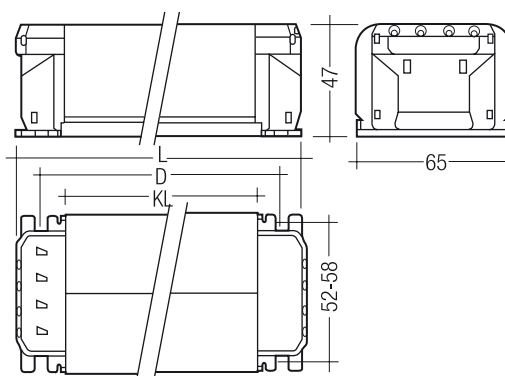


TMBB 20 – 105 VA 230/11.5 V

Lamp power 20 – 105 VA

Product description

- Primary/secondary-side spring terminals
0.5 – 1.5 mm² for rigid and 0.75 – 1.5 mm² for stranded wires
(end sleeves with a max. diameter of 1.6 mm)
 - Insulation class H
- For product data sheet go to www.tridonic.com,
or available on request



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Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
TMBB 20 B351W 230 V	20886012	10 pieces	480 pieces	0.51 kg
TMBB 35 B351W 230 V	20886034	10 pieces	480 pieces	0.61 kg
TMBB 50 B351W 230 V	20886237	10 pieces	480 pieces	0.80 kg
TMBB 80 B351W 230 V	20886075	10 pieces	480 pieces	1.14 kg
TMBB 105 B351W 230 V	20886081	10 pieces	480 pieces	1.34 kg

Specific technical data

Type	Article number	Lamp power	Core length KL	Length L	Hole spacing D	UL / U0	Losses	Primary current	Ambient temperature t _a	Trigger value, thermal protection
TMBB 20 B351W 230 V	20886012	20 VA	15 mm	51 mm	35.5 mm	82 %	4.8 W	104 mA	100 °C	160 °C
TMBB 35 B351W 230 V	20886034	35 VA	20 mm	56 mm	40.5 mm	84 %	6.8 W	178 mA	95 °C	160 °C
TMBB 50 B351W 230 V	20886237	50 VA	30 mm	66 mm	50.5 mm	89 %	7.5 W	245 mA	100 °C	160 °C
TMBB 80 B351W 230 V	20886075	80 VA	45 mm	81 mm	65.5 mm	88 %	11.3 W	375 mA	90 °C	160 °C
TMBB 105 B351W 230 V	20886081	105 VA	55 mm	91 mm	75.5 mm	88 %	15.3 W	505 mA	80 °C	160 °C



Applies to U-type devices:



Applies to W-type devices:



TMBC 150 – 300 VA 230/11.5 V
Lamp power 150 – 300 VA

Product description

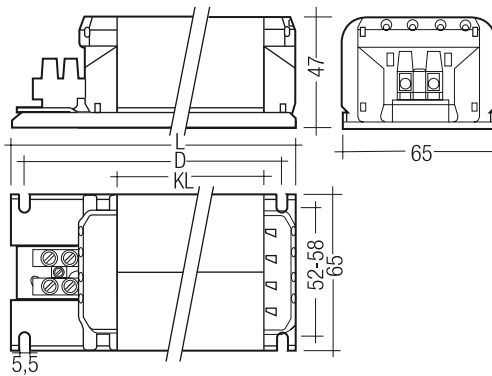
- Primary-side spring terminals
0.5 – 1.5 mm² for rigid and 0.75 – 1.5 mm² for stranded wires
(end sleeves with a max. diameter of 1.6 mm)
 - Secondary-side screw terminals,
150 VA 2.5 – 6 mm², 210 VA 4 – 10 mm², 300 VA 4 – 10 mm²
 - Insulation class H
- For product data sheet go to www.tridonic.com,
or available on request



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Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
U type				
TMBC 150 B551U 230 V	22158504	10 pieces	240 pieces	1.98 kg
TMBC 210 B551U 230 V	22158505	10 pieces	240 pieces	2.43 kg
TMBC 300 B551U 230 V	22115692	6 pieces	240 pieces	3.39 kg
W type				
TMBC 150 B551W 230 V	20886262	10 pieces	480 pieces	1.98 kg
TMBC 210 B551W 230 V	20886259	10 pieces	240 pieces	2.43 kg

Specific technical data

Type	Article number	Lamp power	Core length KL	Length L	Hole spacing D	UL / UO	Losses	Primary current	Ambient temperature t _a	Trigger value, thermal protection	Recommended fuse value mA/T
U type											
TMBC 150 B551U 230 V	22158504	100 – 150 VA	85 mm	154 mm	138.5 mm	91 %	16.7 W	703 mA	90 °C	155 °C	1,000
TMBC 210 B551U 230 V	22158505	140 – 210 VA	105 mm	170 mm	154.5 mm	91 %	23.5 W	962 mA	80 °C	155 °C	1,250
TMBC 300 B551U 230 V	22115692	200 – 300 VA	150 mm	220 mm	204.5 mm	93 %	29.0 W	1,415 mA	80 °C	155 °C	2,000
W type											
TMBC 150 B551W 230 V	20886262	100 – 150 VA	85 mm	154 mm	138.5 mm	91 %	16.7 W	703 mA	90 °C	160 °C	–
TMBC 210 B551W 230 V	20886259	140 – 210 VA	105 mm	170 mm	154.5 mm	91 %	23.5 W	962 mA	80 °C	160 °C	–

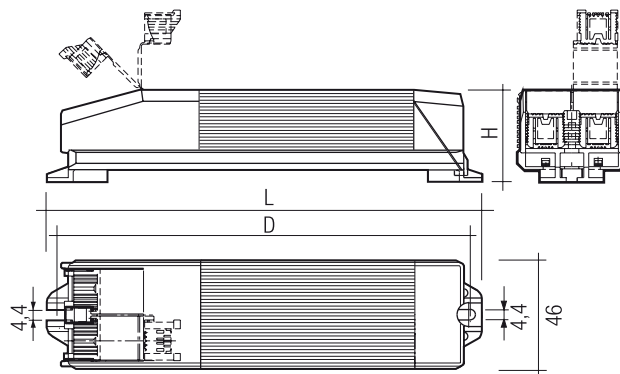


TMDD 50 – 105 VA 230/11.5 V

Lamp power 50 – 105 VA

Product description

- Perfect protection system with reversible protection against short-circuit, overload and overtemperature
 - Split cable clamps for primary and secondary-side conductors
 - Screw terminals, nickel-plated, 0.75 – 2.5 mm² rigid and stranded wires
 - Insulation class B
- For product data sheet go to www.tridonic.com, or available on request



Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
TMDD 50 A701W 230 V	86453803	10 pieces	600 pieces	0.80 kg
TMDD 60 A601W 230 V	24030650	10 pieces	600 pieces	1.04 kg
TMDD 105 A601W 230 V	24030679	10 pieces	400 pieces	1.65 kg

Specific technical data

Type	Article number	Lamp power	Length L	Hole spacing D	Height H	UL / UO	Losses	Primary current	Ambient temperature t _a	Trigger value, thermal protection	Max. casing temperature
TMDD 50 A701W 230 V	86453803	50 VA	182 mm	172 mm	41.4 mm	87 %	12 W	270 mA	35 °C	120 °C	80 °C
TMDD 60 A601W 230 V	24030650	60 VA	202 mm	192 mm	39.0 mm	88 %	13 W	310 mA	30 °C	120 °C	80 °C
TMDD 105 A601W 230 V	24030679	105 VA	272 mm	262 mm	39.0 mm	87 %	22 W	510 mA	25 °C	120 °C	80 °C



OMT 150 – 300 VA 230/240/12 V
Lamp power 150 – 300 VA

Product description

- Fuse and thermal protector
 - Dimming by means of symmetrical leading-edge phase dimmer
 - Double spring terminal on the primary side, for through-wiring 0.75 – 2.5 mm²
 - Screw terminal on the secondary side, up to 10 mm²
 - Insulation class F
- For product data sheet go to www.tridonic.com, or available on request

Technical data

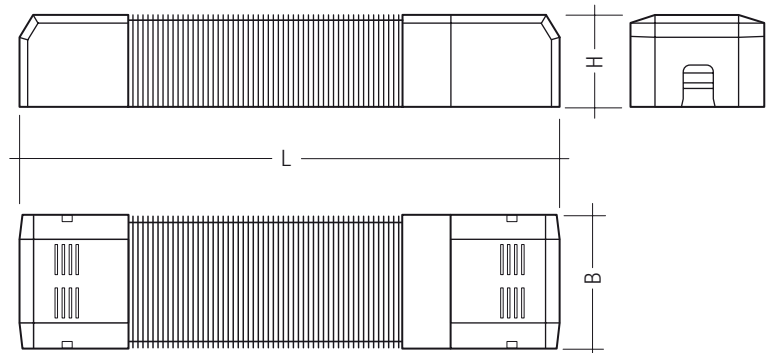
Mains voltage range	230 / 240 V
Mains frequency	50 / 60 Hz
Secondary voltage 230 / 240 V	11.4 – 11.9 V
Dimming	Balanced leading-edge phase dimmer



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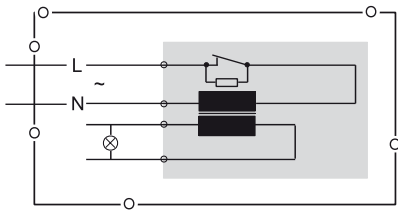
Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
OMT 150 A222W 150 VA	20882035	1 piece	138 pieces	2.4 kg
OMT 210 A222W 210 VA	20882041	1 piece	126 pieces	3.1 kg
OMT 300 A222W 300 VA	20882057	1 pieces	102 pieces	4.2 kg

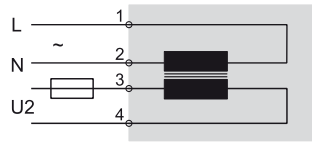
Specific technical data

Type	Article number	Dimensions L x W x H	Distance between mounting holes	Rated current 230 – 240 V	Lamp power range 230 V	Lamp power range 240 V	Efficiency at full load	λ at full load	Ambient temperature t _a	Recommended fuse value mA/T	Max. casing temperature
OMT 150 A222W 150 VA	20882035	233 x 77.2 x 65.5 mm	190 – 210 x 63 mm	0.71 – 0.75 A	70 – 150 W	140 – 150 W	88 %	0.93 – 0.94	-20 ... +35 °C	1,000	80 °C
OMT 210 A222W 210 VA	20882041	267 x 77.2 x 65.5 mm	223 – 243 x 63 mm	0.99 – 1.03 A	100 – 210 W	200 – 210 W	91 %	0.92 – 0.93	-20 ... +35 °C	1,250	80 °C
OMT 300 A222W 300 VA	20882057	322 x 77.2 x 65.5 mm	280 – 300 x 63 mm	1.36 – 1.44 A	150 – 300 W	250 – 300 W	90 %	0.96	-20 ... +35 °C	2,000	80 °C

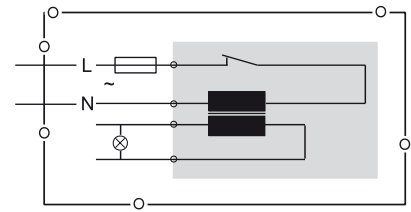
Transformer with current-sensitive thermal controller



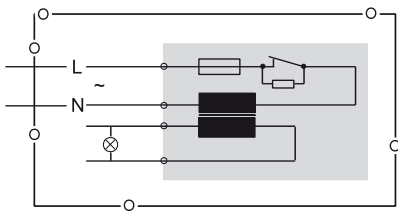
Transformer without internal protection – requires external protection



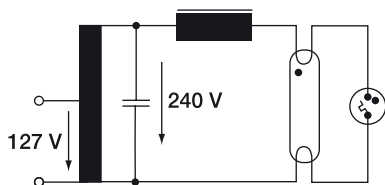
Transformer with thermal controller – external protection needed against short circuits



Transformer with thermal controller and built-in fuse to protect against short circuits



Circuit with energy-saving transformer



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