### ETZ SERIES ELECTRONIC TRANSFORMERS



Zamel Sp. z o.o. 43-200 Pszczyna, ul. Zielona 27 tel: +48 32 449 15 00 fax: +48 32 449 15 02 e-mail: ledix@ledix.pl. www.ledix.pl

### DESCRIPTION

The transformers of the ETZ series are designed to cooperate with halogen light sources supplied with 12 V AC voltage. They are made in few versions depending on the nominal output power. A characteristic feature of ETZ series transformers is the possibility of supplying very low loads (0 W). These devices have a range of protections (against short circuit, overload, thermal) and patented solutions that prolong the lifespan of halogen bulbs cooperating with these transformers and improve the safe use of the devices. The ETZ series is designed for surface mounting. The connection is done by means of screw joints. This transformers can cooperate with intelligent types of lightling dimmers.

#### **FEATURES**

- · patented solutions that prolong the lifespan of halogen bulb
- protections: short-circuit, overload (>200%Pn), thermal returnable for T > 100°C
- . cooperation with low loads from 0 W (e.g. selected LED lighting sources)
- · possible cooperation of a few transformers with one lighting dimmer
- · possible direct flush mounting on a basis with unknown flammability class (wood, drywalls)
- · easy and quick mounting

### **TECHNICAL DATA**

		ETZ-60	ETZ-70	ETZ-105	ETZ-150	
	ETZ-50	E1Z-60	E1Z-70	E1Z-105	ETZ-150	ETZ-210
Output						
Uout voltage	11,5 V AC					
Output power range	0 ÷ 50 W	0 ÷ 60 W	0 ÷ 70 W	0 ÷ 105 W	0 ÷ 150 W	0 ÷ 210 W
Nominal output current	4,3 A	5,2 A	6 A	9,1 A	13 A	18,2 A
Power factor	0,99					
Input						
Input rated voltage	230 V AC 50/60 Hz -15% + +10%					
Nominal frequency						
Voltage tolerance						
Nominal input current	0,22 A	0,27 A	0,32 A	0,46 A	0,65 A	0,93 A
Other						
Protections temperature	Yes - returning ≥100 °C  Yes - returning  Yes > 200%Pn					
Short circuit protection						
Overload protection						
Protection degree	IP20					
Overvoltage category	II					
Ambient temperature range	0 ÷ 40 °C					
Cooperation with light dimmers	Yes – recommended types					
Weight [g]	100	100	100	125	212	225
Reference standard	EN 61347-1, EN 61347-2-2, EN 61547, EN 55015, EN 61000-3-2, EN 60598					

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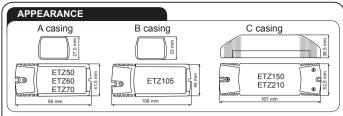
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## TECHNICAL DATA

	ETZ-50	ETZ-60	ETZ-70	ETZ-105	ETZ-150	ETZ-210
Output				•		
Uout voltage	11,5 V AC					
Output power range	0 ÷ 50 W	0 ÷ 60 W	0 ÷ 70 W	0 ÷ 105 W	0 ÷ 150 W	0 ÷ 210 W
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Power factor			(	),99		
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Other	,		•			
Protections temperature	Yes - returning ≥100 °C  Yes - returning  Yes > 200%Pn  IP20  II  0 +40 °C  Yes - recommended types			;		
Short circuit protection						
Overload protection						
Protection degree						
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### MOUNTING HINTS

- In case of flush mounting preserve minimum distances Fig. 1 shown in (Fig. 1).
- preserve a minimum distance of 30 cm between the transformer and the bulb or another transformer (Fig. 2),
- output cables should be as short as possible (up to 2 m) and their length for each bulb should be equal,
- . transformers' outputs should not be connected.
- · while applying output cables with a cross-section above 2.5 mm2, the connection of a greater number of bulbs should be done by means of a terminal strip with the func- Fig. 3 tion of a separator (Fig. 3).
- . lighting dimmers should be installed at the transformer's
- carry out the connection in Fig. 4 when there is a big distance between bulbs and a transformer.
- lead the wiring so that the 230 V AC input wires would not cross with 12 V AC output wires (Fig. 5).
- output wires have to be twisted in pairs (Fig. 6),
- wires stripping lengths (Fig. 7).

Transformer	The minimum cross-section of input wires for the nominal load	The total cross-section of output wires for the nominal load	Siutable cable types	
ETZ 50/60	2 x 0,25 mm <sup>2</sup>	2 x 1 mm <sup>2</sup>		
ETZ 70	2 x 0,4 mm <sup>2</sup>	2 x 1,5 mm <sup>2</sup>	H03VV2-F H03VV-F NYM	
ETZ 105	2 x 0,5 mm <sup>2</sup>	2 x 1,5 mm <sup>2</sup>		
ETZ 150	2 x 1 mm <sup>2</sup>	2 x (2 x 1,5 mm <sup>2</sup> )	H05VVF	
ETZ 210	2 x 1,5 mm <sup>2</sup>	2 x (2 x 1,5 mm <sup>2</sup> )		

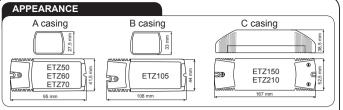
# 230 V min 10 cm min 30 cm ⋈⋰⋌ Fig. 2 min 30 cm = 230 V may 2 m Rys. 4 $\otimes \otimes$ 12V 230V 888 = 230 V Fig. 5 [mm] [mm] Fig. 7 ETZ50/60/70/105 14 ETZ150/210 40

### WARRANTY CARD

There is 24 months guarantee on the product

Salesman stamp and signature, date of sale

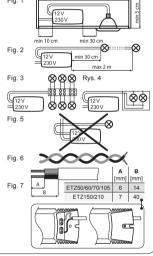
- 1. Zamel provides a two-year warranty for its products.
- 2 The Zamel warranty does not cover
- a) mechanical defects resulting from transport, loading / unloading or other circumstances b) defects resulting from incorrect installation or operation of Zamel products;
- c) defects resulting from any changes made by CUSTOMERS or third parties, to products sold or equipment necessary for the correct operation of products sold: d) defects resulting from force majeure or other aleatory events for which Zamel is not liable;
- e) power supply (batteries) to be equipped with a device in the moment of sale (if they appear);.
- 3. All complaints in relation to the warranty must be provided by the CUSTOMER in writing to the retailer
- after discovering a defect.; 4. Zamel will review complaints in accordance with existing regulations.
- 5. The way a complaint is settled, e.g. replacement of the product, repair or refund, is left to the discretion of Zamel
- 6. Guarantee does not exclude, does not limit, nor does it suspend the rights of the PURCHASER resulting from the discrepancy between the goods and the contract.



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ETZ 105	2 x 0,5 mm <sup>2</sup>	2 x 1,5 mm <sup>2</sup>		
ETZ 150	2 x 1 mm <sup>2</sup>	2 x (2 x 1,5 mm²)		
ETZ 210	2 x 1,5 mm <sup>2</sup>	2 x (2 x 1,5 mm²)		



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