

Operating Instructions Electronic transformers for lowvoltage halogen lamps



1. Safety instructions



Attention: Electrical equipment must be installed and fitted by qualified electricians only.

To prevent electric shocks, always shut off the mains supply (by cutting out the circuit-breaker) before working on the device or before replacing the lamp.

Any non-observance of the safety warnings and fitting instructions may result in damage to the device and cause fire or other hazards.



The symbols used to identify dimmer loads designate the type of the electrical behaviour of loads connected to dimmers:
C = capacitive

2. Function

Use for 12 V halogen lamps.

The device can only be dimmed with JUNG TRONIC or Universal dimmers.



Never use dimmers from other manufacturers.

Using dimmers from other manufacturers may involve a risk of fire.

Lamp-saving soft-start at switch-on (except for 40 W / 70 W Qu).

Overload and over-temperature protection by automatic reduction of power (40 / 70 / 105 / 150 W transformers) or shut-off until device has cooled down (70 W Qu and 200 W transformer).

Short-circuit protection (40 / 70 / 105 / 150 W transformers):

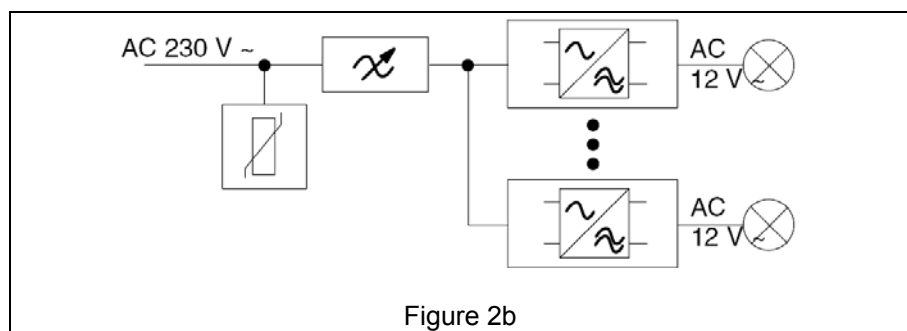
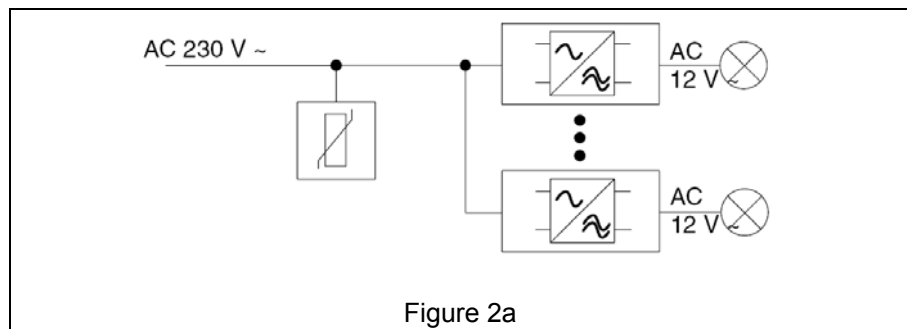
Shut-off with automatic restart after removal of short-circuit.

Short-circuit protection (200 W transformer):

Shut-off with automatic restart if short-circuit is removed within 5 seconds. Thereafter, permanent shut-off until manual restart.

3. Fitting instructions

TRONIC transformers are protected against transient overvoltages (mains voltage peaks) in acc. with EN 61547. To protect them against higher overvoltages (produced by the switching of fluorescent lamps, discharge lamps, motors and other inductive loads) install a separate load circuit for TRONIC transformers. The TRONIC transformer may otherwise be damaged if the circuit is switched by peak voltages. If there is a risk of mains voltage spikes, an overvoltage protection module must be used in addition and connected on the primary side in parallel to the TRONIC transformers (between L and N) fig. (2)a. If TRONIC transformers are to be dimmed, the overvoltage protection module must be connected in parallel to the series connection of dimmer and TRONIC transformers, fig. (2)b.

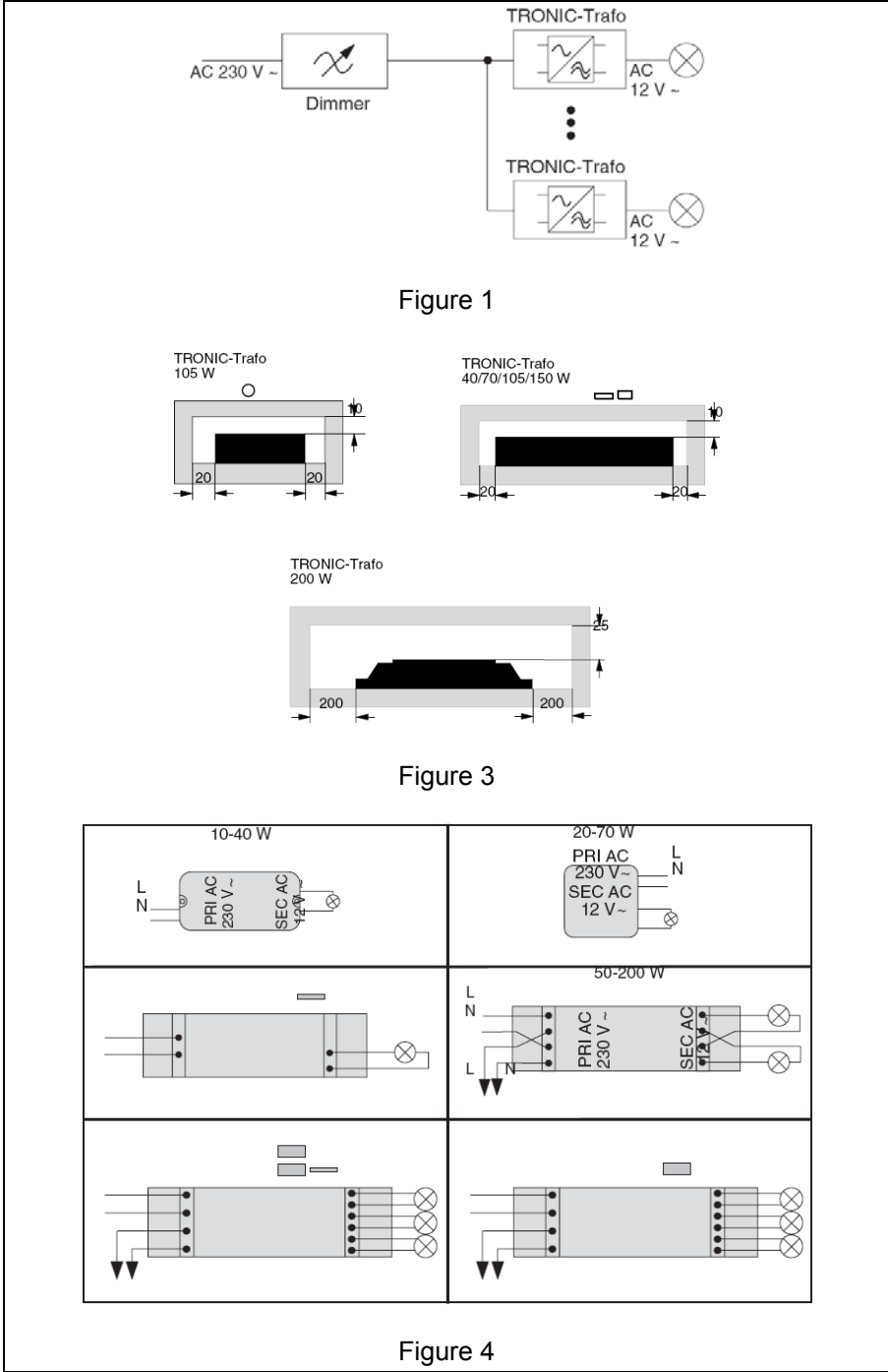


1 overvoltage protection module is sufficient for about 10 TRONIC transformers per circuit.

Observe the power rating limits of the transformers.

Insufficient loading may lead to flickering of the lamps connected.

Install and connect the transformers as shown in figure (1), (3) (keep twice the distance between individual transformers) and figure (4).



Avoid sources of heat (e.g. lamps) in the immediate vicinity of the transformer. In critical cases, measure the temperature at the Tc point. Recommended cross-section and type of secondary cable, fig (5).

Secondary cable: see technical data, fig. (9).

Power per line	Wire cross-section	Recommended type of secondary wire
≤ 40 W	≥ 0,75 mm ²	z.B. H 03 V V-F 2 x 0,75 mm ²
50 W – 105 W	≥ 1,5 mm ²	z.B. H 05 V V-F 2 x 1,5mm ²
110 W – 150 W	≥ 2,5 mm ²	z.B. H 05 V V-F 2 x 2,5 mm ²
155 W – 200 W	distribute power to at least 2 lines (min. 2 x 1,5 mm ²)	

Figure 5

If several lamp circuits are to be connected to a transformer, it is recommended to use a distributor, fig. (6).

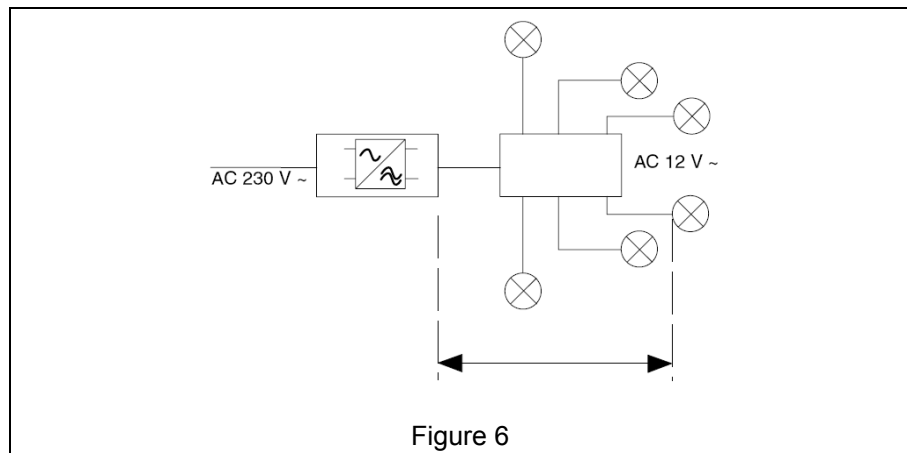


Figure 6

The secondary line must not be connected to the secondary line of other TRONIC transformers and not be laid close to the mains supply line, fig. (7).

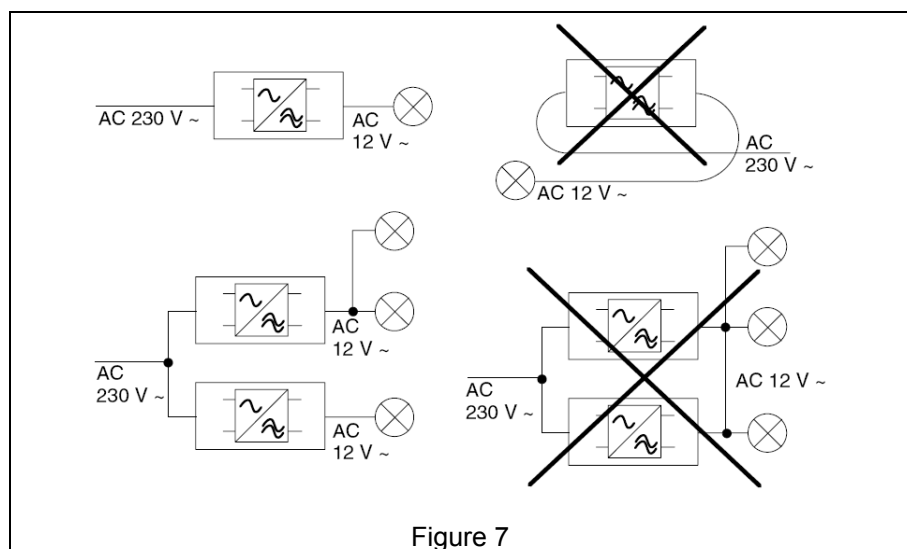
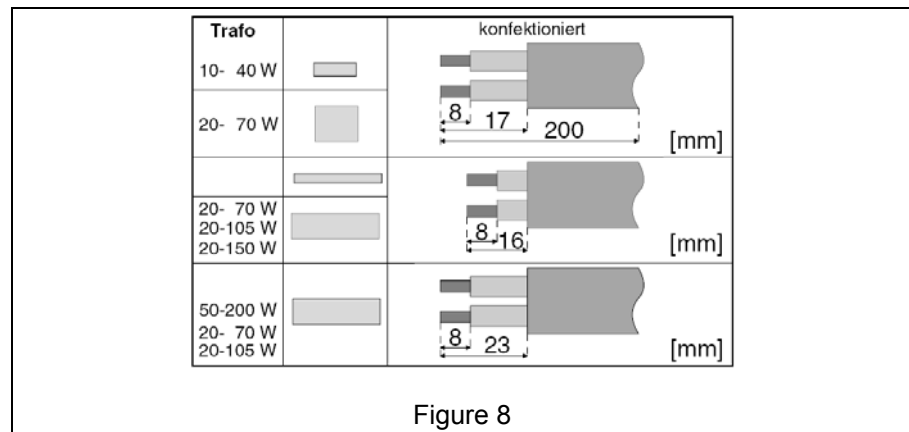


Figure 7

In TRONIC transformers without stress-relief, the cable must be protected against pushing and pulling with a suitable clamp at the TRONIC transformer.

For TRONIC transformers with prepared connecting cable, a suitable box to connect the mains supply must be used.

For TRONIC transformers equipped with a stressrelieving device, use at least a H 05 VV-F 2x1.5 mm² cable for the mains supply. Stripping length for outer cable sheath and base insulation: see fig. (8).



Important: When TRONIC transformers with multipoint terminals on the primary side for mains supply through-connection are used, the maximum number of interconnected TRONIC transformers is limited to 10.

4. Technical data

	10-40 W Trafo	20-70 W Trafo	20-70 W Trafo	20-105 W Trafo	20-150 W Trafo	50-200 W Trafo
Design / Dimension (mm)	 73 x 35,5 x 18	 49 x 48 x 28	 152 x 43,5x 17,5	 175 x 42 x 18	 176 x 42 x 38	 212 x 48,5 x 46
Nominal rating	10-40 W T50	20-60 W T50 20-70 W T40	20-70 W T50	20-105 W T50	20-150 W T50	50-200 W T50
Supply voltage	AC 230 V ~					
Mains frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 Hz
Output voltage	11,7 V eff ~ 50 kHz	11,7 V eff ~ 40 kHz	11,7 V eff ~ 40 kHz	11,8 V eff ~ 40 kHz	11,7 V eff ~ 40 kHz	11,5 V eff ~ 40 kHz
Primary current	0,18 A (40 W)	0,33 A (60 W)	0,33 A (70 W)	0,45 A (105 W)	0,71 A (150 W)	0,95 A (200 W)
Max. ambient temperature	50 °C	50 °C (60 W)	50 °C	50 °C	50 °C	45 °C
Max. housing temperature	85 °C	75 °C	90 °C	80 °C	75 °C	65 °C
Max. length of secondary line	2 m	2 m	2 m	2 m	2 m	2 m

Figure 9

5. Acceptance of guarantee

We accept the guarantee in accordance with the corresponding legal provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault:

ALBRECHT JUNG GMBH & CO. KG

Service-Center

Kupferstr. 17-19

D-44532 Lünen

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General equipment

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KNX/EIB equipment

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E-Mail: mail.vkm@jung.de

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