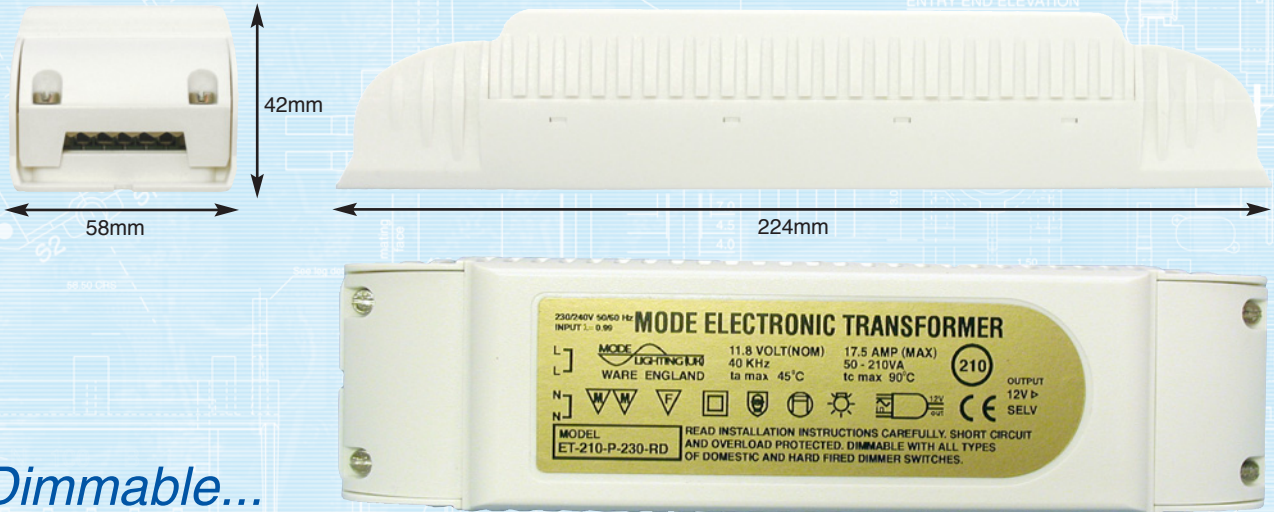


# Electronic Transformer: ET-HP for low voltage lighting

# ET-150-P ET-210-P



*Dimmable...*

- Dimmable with ALL types of domestic and hard-fired dimmer.
- Suitable for 50W to 150W or 210W loads.
- Self resetting, short circuit and overload protection.
- Flame retardant moulded enclosure, UL94-V0.
- Complies with EC EMC and Low Voltage Directives.
- Lightweight and compact size, only 400 grams.
- Complies with EMC Emission Standard EN 55015.
- Mode products are guaranteed for two years.
- Complies with EMC Immunity Standard EN 61547.
- Low audible noise throughout the dimming range.
- Energy efficient, ensures cool operating temperature.
- 12V and 24V versions available.
- Terminal covers and cable clamps.

## TECHNICAL DATA

| PRODUCT         | VOLTAGE    |                                 | CURRENT       |             | POWER |              | FREQUENCY |        | CONNECTIONS     |                  |
|-----------------|------------|---------------------------------|---------------|-------------|-------|--------------|-----------|--------|-----------------|------------------|
|                 | INPUT      | OUTPUT                          | INPUT         | OUTPUT      | INPUT | OUTPUT       | INPUT     | OUTPUT | INPUT TERMINALS | OUTPUT TERMINALS |
| ET-150-P-230-RD | 230 / 240V | 11.8V RMS nominal <sup>*2</sup> | 0.75 amp max. | 13 amp max. | 0.99  | 50 to 150 VA | 50/60Hz   | 40 kHz | 2 x L 2 x N     | Brass Pillars    |
| ET-210-P-230-RD | 230 / 240V | 11.8V RMS nominal <sup>*2</sup> | 0.9 amp max.  | 18 amp max. | 0.99  | 50 to 210 VA | 50/60Hz   | 40 kHz | 2 x L 2 x N     | Brass Pillars    |

| PRODUCT         | TEMPERATURE |           |           | PROTECTION    |            |                 | FUSING           |               |
|-----------------|-------------|-----------|-----------|---------------|------------|-----------------|------------------|---------------|
|                 | CASE RISE   | AMBIENT   | CASE      | SHORT CIRCUIT | OVERLOAD   | THERMAL         | PRIMARY          | SECONDARY     |
| ET-150-P-230-RD | 40°C max.   | 50°C max. | 90°C max. | Auto-reset    | Auto-reset | Auto-regulating | Fusible PCB link | None Required |
| ET-210-P-230-RD | 45°C max.   | 45°C max. | 90°C max. | Auto-reset    | Auto-reset | Auto regulating | Fusible PCB link | None Required |

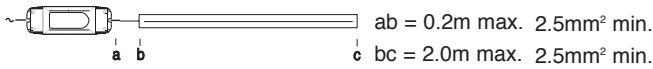
| PRODUCT         | SAFETY       | PERFORMANCE | EMC EMISSION | HARMONICS FLUCTUATIONS       | EMC IMMUNITY | REGULATION     | WEIGHT | EFFICIENCY    |
|-----------------|--------------|-------------|--------------|------------------------------|--------------|----------------|--------|---------------|
| ET-150-P-230-RD | EN 61347-2-2 | EN 61047    | EN 55015     | EN 61000-3-2<br>EN 61000-3-3 | EN 61547     | Better than 5% | 400g   | 96% (typical) |
| ET-210-P-230-RD | EN 61347-2-2 | EN 61047    | EN 55015     | EN 61000-3-2<br>EN 61000-3-3 | EN 61547     | Better than 5% | 400g   | 96% (typical) |

<sup>\*2</sup> 23.6V RMS nominal output units available.

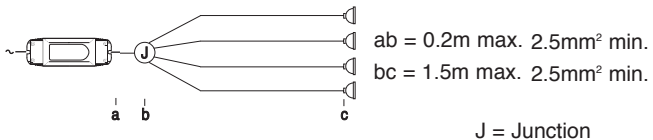
## INSTALLATION INSTRUCTIONS:- CONNECTION:

### FOR TRACK LIGHTING:-

**Wire/Track Length**   **Wire Size**



### FOR HARDWIRED LAMPS:-



Installation should be in accordance with the relevant National Wiring Regulations and other applicable Regulations. Compliance to the EC EMC and Low Voltage Directives may be invalidated if not used or installed according to the published specification.

Electronic Transformers operate at high frequencies. The output voltage cannot be measured on a standard voltmeter. The output leads should not be separated by more than 10mm and should be kept to a minimum length to achieve optimum regulation and EMC suppression. Electronic Transformers are not recommended for parallel rod or tensioned wire lighting systems. Observe dimmer manufacturer's recommended load ratings. Electronic Transformers should be located in well ventilated areas and should not be covered or enclosed by insulating materials.

## MODE ELECTRONIC TRANSFORMER RANGE

Mode are known throughout the lighting industry for manufacturing a superior range of high frequency Electronic Transformers for use with low voltage lighting. Since 1990, Mode Transformers have been specified by many leading lighting designers and luminaire manufacturers. They require a reliable product which can be dimmed by all types of dimmer and so avoid any compatibility issues. Mode Transformers can be dimmed by leading or trailing edge, commercial (hard fired) or domestic (diac), resistive or inductive dimmer types. The Mode ET-105-C-SD is fitted with a pre-wired boxed potentiometer to allow for localised control.

The PUMA Transformer is available in three models up to 105VA, with terminal inputs and either terminal or cable outputs. The ET-C range is also available up to 105VA with input cable and output cables. This is widely acknowledged as the quietest transformer available. The ET-HP and ET-XP range will control up to 315VA with input terminals and output terminals and have been designed for either 12 or 24-volt track lighting and architectural strip lighting. All models are compact, lightweight and comply with European EMC and Low Voltage Directives (CE).



CE Complies with EC EMC and Low Voltage Directives. For mounting on flammable surfaces. Independent converter.

Use with low voltage lighting (12 Volt). Class II construction. Safety isolating transformer, inherently short circuit proof.

## COMPANY SUMMARY

Mode was established in 1970 as an Original Equipment Manufacturer in Hertfordshire, England. Mode designs and manufactures electronic products principally for the lighting industry, initially supplying the discotheque market and more recently expanding into the architectural and cruise ship markets. Mode is a subsidiary of a privately owned Holding Company and has four associated electronic companies who together trade as "The Mode Group".