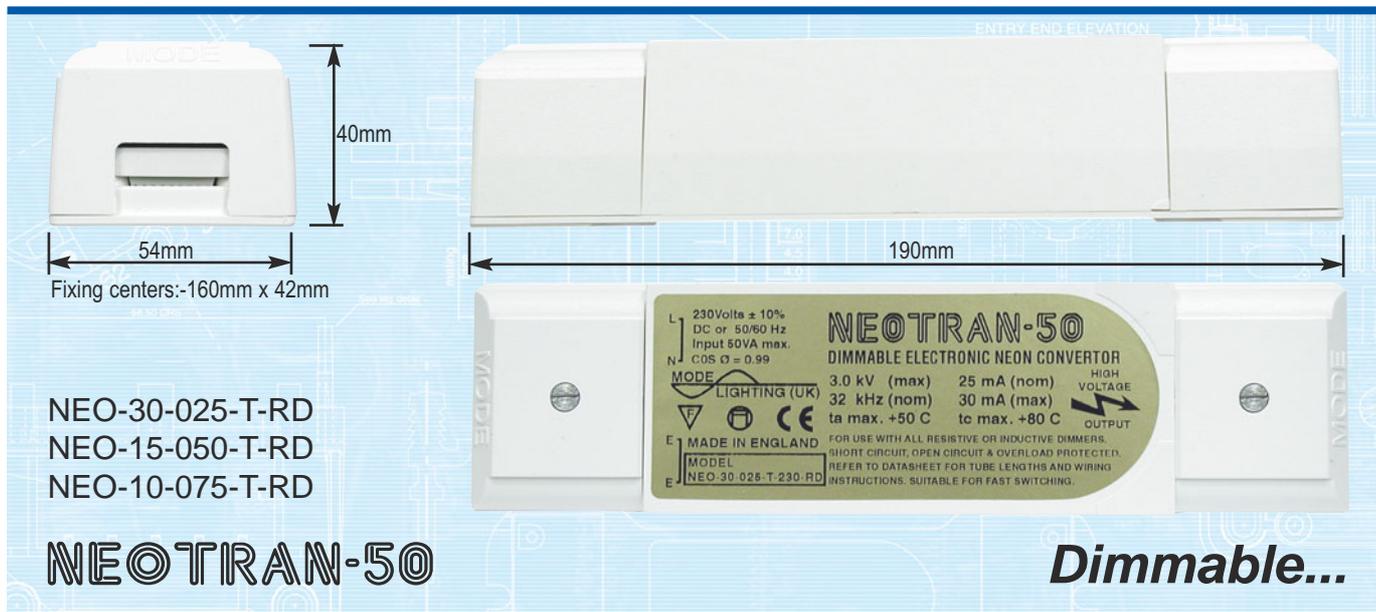


Neon Convertors

NEOTRAN-50



NEO-30-025-T-RD
NEO-15-050-T-RD
NEO-10-075-T-RD

NEOTRAN-50

Dimmable...

- Dimmable with all types of dimmer.
- Constant current High Frequency output.
- No minimum length of tubing.
- Open circuit, short circuit and overload protected.
- Lightweight and compact size.
- Complies with EC EMC and Low Voltage Directives (CE).
- Designed to meet EN 61050 and EN 50107/EN61347-2-10 (Draft)
- Terminal covers and cable clamps.
- Mode products are guaranteed for two years.

| TECHNICAL DATA | | NEO-30-025-T | NEO-15-050-T | NEO-10-075-T |
|-----------------------|--|---|---|--|
| INPUT | Voltage Power Power Factor Frequency Connection | * 230 Volts ±10% 50 watts maximum 0.99 DC or 50/60 Hz Screw terminals | * 230 Volts ±10% 50 watts maximum 0.99 DC or 50/60 Hz Screw terminals | * 230 Volts ±10% 50 watts maximum 0.99 DC or 50/60 Hz Screw terminals |
| OUTPUT | Voltage Current S/C Current Frequency Connection | 3000V maximum 25mA nominal 30mA maximum 32kHz Brass terminals | 1500V maximum 50mA nominal 60mA maximum 32kHz Brass terminals | 995V maximum (low voltage) 75mA nominal 90mA maximum 32kHz Brass terminals |
| EFFICIENCY | | 92% typical | 92% typical | 92% typical |
| REGULATION | | 5% typical | 5% typical | 5% typical |
| ISOLATION | | 4240 volt to EN 60065 | 4240 volt to EN 60065 | 4240 volt to EN 60065 |
| TEMPERATURE | Ambient Case | -20°C to +50°C maximum. +80°C maximum | -20°C to +50°C maximum. +80°C maximum | -20°C to +50°C maximum. +80°C maximum |
| DIMENSIONS | | 190mm x 54mm x 40mm | 190mm x 54mm x 40mm | 190mm x 54mm x 40mm |
| FIXING CENTRES | | 160mm x 42mm | 160mm x 42mm | 160mm x 42mm |
| WEIGHT | | 250 grammes | 250 grammes | 250 grammes |
| PROTECTION | Open Circuit Overload | Shut down Shut down Short circuit proof | Shut down Shut down Short circuit proof | Shut down Shut down Short circuit proof |
| FUSING | Primary | Fusible PCB link | Fusible PCB link | Fusible PCB link |
| EMC EMISSION | | EN 55015 | EN 55015 | EN 55015 |
| EMC IMMUNITY | | EN 61547 | EN 61547 | EN 61547 |
| HARMONICS | | EN 61000-3-2 | EN 61000-3-2 | EN 61000-3-2 |
| SAFETY | | EN 61050 EN 50107 EN 61347-2-10 (Draft) | EN 61050 EN 50107 EN 61347-2-10 (Draft) | EN 61050 EN 50107 EN 61347-2-10 (Draft) |
| CASE MATERIAL | | Flame retardant to UL94 - V0 | Flame retardant to UL94 - V0 | Flame retardant to UL94 - V0 |
| CASE COLOUR | | White | White | White |

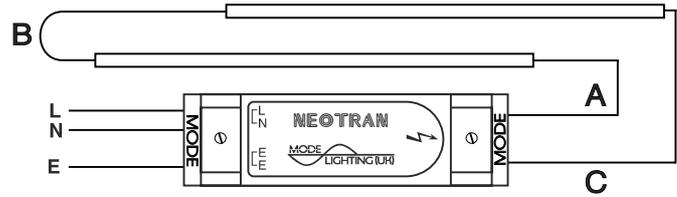
* 115 Volts ± 10% versions available to special order.

DESCRIPTION

Mode NEOTRAN High Frequency Electronic Neon and Argon Convertors have unique circuitry for fast flashing and smooth dimming with all types of dimmer. They are an ideal choice for static or animated displays, interior signs, cornice lighting and discotheque lighting. They have a considerable weight and size advantage over similarly rated wirewound transformers.

Under load fault conditions the NEOTRAN will shut down requiring the mains supply to be switched off for ten seconds to reset the convertor.

CONNECTION



INSTALLATION INSTRUCTIONS

The NEOTRAN operates at high frequency (32kHz) and it is important that the HT lead capacitance is kept to a minimum. Observe the following:-

- 1. Keep all HT leads as short as possible. See maximum cable length chart below.
- 2. Use the correct type of HT cable. Do not use screened HT cable types A, D, or E. For HT wiring use either of these low capacitance cables:
 - i) Type C - 8.0 mm PVC sheathed silicone with a minimum silicone diameter of 6.5 mm.
 - ii) Type H - 6.5 mm PVC sheathed polyethylene with a minimum polyethylene diameter of 3.0 mm.
- 3. Separate all HT cables and tubes of different circuits by at least 30 mm.
- 4. Observe the maximum total tube length as specified in the loading charts as below.

The Mode NEOTRAN should be mounted in a well ventilated position and should not be covered by insulation materials. It can be safely mounted onto any metal surface. Ensure that all cables are secured by the cable clamps and that the terminal covers are correctly fitted.

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

H.T. (OUTPUT) CABLE LENGTHS

| MAXIMUM CABLE LENGTH: A + B + C (see connection diagram) | | | |
|--|----------------------|----------------------|----------------------|
| MOUNTING SURFACE | DIGITRAN 30-025-T-DD | DIGITRAN 15-050-T-DD | DIGITRAN 10-075-T-DD |
| Mounted directly onto Metal. Use only type C cable. | 4m | 8m | 12m |
| Mounted directly onto Brick or Concrete | 5m | 10m | 15m |
| Mounted on 35 mm supports above any surface | 10m | 20m | 30m |

LOADING CHARTS (50VA)

All tubes must be connected in series up to the total maximum tube length as detailed below. All tube lengths are in metres and are measured between electrodes.

| MODEL 30-025 | ARGON GAS (BLUE) | | | | | MODEL 15-050 | ARGON GAS (BLUE) | | | | | MODEL 10-075 | ARGON GAS (BLUE) | | | | |
|--------------|-----------------------|-----|-----|-----|-----|--------------|-----------------------|-----|-----|-----|-----|--------------|-----------------------|-----|-----|-----|-----|
| | N° OF TUBES | | | | | | N° OF TUBES | | | | | | N° OF TUBES | | | | |
| ømm | 1 | 2 | 3 | 4 | 5 | ømm | 1 | 2 | 3 | 4 | 5 | ømm | 1 | 2 | 3 | 4 | 5 |
| | Total length (metres) | | | | | | Total length (metres) | | | | | | Total length (metres) | | | | |
| 20 | 6.4 | 6.1 | 5.8 | 5.5 | 5.2 | 20 | 3.2 | 3.0 | 2.9 | 2.7 | 2.6 | 25 | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 |
| 18 | 5.5 | 5.2 | 4.9 | 4.6 | 4.3 | 18 | 2.8 | 2.6 | 2.5 | 2.4 | 2.3 | 20 | 2.1 | 2.0 | 1.9 | 1.8 | 1.7 |
| 15 | 4.6 | 4.4 | 4.2 | 4.0 | 3.8 | 15 | 2.3 | 2.1 | 2.0 | 1.9 | 1.8 | 18 | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 |
| 12 | 3.7 | 3.5 | 3.3 | 3.1 | 2.9 | | | | | | | 15 | 1.5 | 1.4 | 1.3 | 1.2 | 1.1 |
| 10 | 3.2 | 3.0 | 2.8 | 2.6 | 2.4 | | | | | | | | | | | | |
| MODEL 30-025 | NEON GAS (RED) | | | | | MODEL 15-050 | NEON GAS (RED) | | | | | MODEL 10-075 | NEON GAS (RED) | | | | |
| | N° OF TUBES | | | | | | N° OF TUBES | | | | | | N° OF TUBES | | | | |
| ømm | 1 | 2 | 3 | 4 | 5 | ømm | 1 | 2 | 3 | 4 | 5 | ømm | 1 | 2 | 3 | 4 | 5 |
| | Total length (metres) | | | | | | Total length (metres) | | | | | | Total length (metres) | | | | |
| 20 | 5.3 | 5.1 | 4.9 | 4.7 | 4.5 | 20 | 2.7 | 2.6 | 2.5 | 2.4 | 2.3 | 25 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 |
| 18 | 4.5 | 4.3 | 4.1 | 3.9 | 3.7 | 18 | 2.3 | 2.2 | 2.1 | 2.0 | 1.9 | 20 | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 |
| 15 | 3.8 | 3.6 | 3.4 | 3.2 | 3.0 | 15 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 18 | 1.5 | 1.4 | 1.3 | 1.2 | 1.1 |
| 12 | 3.0 | 2.8 | 2.6 | 2.4 | 2.2 | | | | | | | 15 | 1.3 | 1.2 | 1.1 | 1.0 | 0.9 |
| 10 | 2.7 | 2.5 | 2.3 | 2.1 | 1.9 | | | | | | | | | | | | |