



# HF-Regulator II for TL5 lamps

## HF-R 249 TL5 EII 220-240V 50/60Hz

High-frequency electronic dimming ballast, using the analog protocol (1-10 V) for TL5 HE/HO and TL5 Eco lamps; The ballast is primarily designed for Indoor application. For outdoor application, the luminaire should be minimum Classland need to be sufficiently protected against water & dust. The installation should also be guard against any lightening surge or any other necessary electrical protection as deemed in such typical installation & application.

### Product data

| General Information                          |                  |
|--|------------------|
| Application Code                             | EII              |
| Type Version                                 | mk2              |
| Lamp Type                                    | TL5              |
| Number of Lamps                              | 2 piece/unit     |
| Number of Products on MCB (16A Type B) (Nom) | 12               |
| Automatic Restart                            | Yes              |
| Operating and Electrical                     |                  |
| Input Voltage                                | 220 to 240 V     |
| Input Frequency                              | 50 to 60 Hz      |
| Operating Frequency (Max)                    | 89 kHz           |
| Operating Frequency (Min)                    | 45 kHz           |
| Ignition Method                              | Programmed Start |
| Crestfactor (Max)                            | 1.7              |
| Power Factor 100% Load (Nom)                 | 0.98             |
| Ignition Time (Max)                          | 0.2 s            |
| Mains Voltage Performance (AC)               | -8% +6%          |

| Mains Voltage Safety (AC)              | -10% - +10%  |
|--|--|
| Earth Leakage Current (Max)            | 0.5 mA   |
| Inrush Current Width                   | 0.40 ms  |
| Power Losses (Nom)                     | 7.9 W  |
| Inrush Current Peak (Max)              | 45 A   |
| Wiring                                 |  |
| Connector Type Input Terminals         | WAGO 251 universal connector [ Suitable for both automatic wiring (ALF and ADS) and manual wiring] |
| Connector Type Output Terminals        | WAGO 251 universal connector [ Suitable for both automatic wiring (ALF and ADS) and manual wiring] |
| Connector Type Control Input Terminals | WAGO 251 universal connector [ Suitable for both automatic wiring (ALF and ADS) and manual wiring] |
| Wire Striplength                       | 8.0-9.0 mm   |
| Dual Fixture Master/Slave              | - [ not specified]   |
| Control Input Terminal Cross Section   | 0.50-1.00 mm <sup>2</sup>  |

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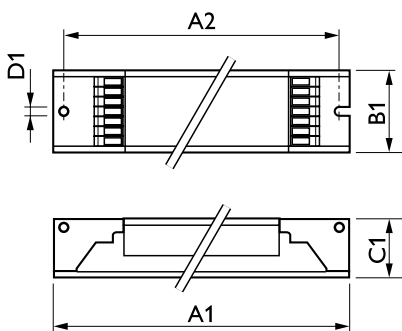
|  |                           |
|--|---------------------------|
| Input Terminal Cross Section             | 0.50-1.00 mm <sup>2</sup> |
| Output Terminal Cross Section            | 0.50-1.00 mm <sup>2</sup> |
| Auto Insert (ALF/ADS) Wire Cross Section | 0.5 mm <sup>2</sup>       |
| <b>System characteristics</b>            |                           |
| Rated Ballast-Lamp Power                 | 49 W                      |
| <b>Temperature</b>                       |                           |
| T-Ambient (Max)                          | 50 °C                     |
| T-Ambient (Min)                          | 10 °C                     |
| T-Storage (Max)                          | 80 °C                     |
| T-Storage (Min)                          | -25 °C                    |
| Stable Lamp Operation Temperature        | Not Specified             |
| T-Ignition (Max)                         | 50 °C                     |
| T-Ignition (Min)                         | 0 °C                      |
| <b>Controls and Dimming</b>              |                           |
| Control Interface                        | 1-10V                     |
| Regulating Level Power                   | 1%-100%                   |
| Control Input Protection                 | Yes (Basic insulation)    |
| <b>Mechanical and Housing</b>            |                           |
| Housing                                  | L 360x30x21               |
| <b>Emergency Operation</b>               |                           |
| Battery Voltage Lamp Ignition            | 196 V                     |
| Battery Voltage Lamp Operation           | 154-276                   |
| <b>Approval and Application</b>          |                           |
| Energy Efficiency Index                  | A1 BAT                    |

|                                    |   |
|------------------------------------|---|
| IP Classification                  | IP 20 [ Ingress Protection 20]                  |
| EMI 9 kHz ... 30 MHz               | EN55015   |
| EMI 30 MHz ... 1000 MHz            | EN55022 level B                                 |
| Safety Standard                    | IEC 61347-2-3                                   |
| Performance Standard               | IEC 60929                                       |
| Quality Standard                   | ISO 9000:2000                                   |
| Environmental Standard             | ISO 14001                                       |
| Harmonic Current Emission Standard | IEC 61000-3-2                                   |
| EMC Immunity Standard              | IEC 61547                                       |
| Vibration Standard                 | IEC68-2-6 F c                                   |
| Bumps Standard                     | IEC 68-2-29 Eb                                  |
| Humidity Standard                  | EN 61347-2-3 clause 11                          |
| Approval Marks                     | CE marking ENEC certificate VDE-EMV certificate |
| Temperature Marking                | Yes   |
| Emergency Standard                 | IEC 60598-2-22                                  |
| Hum And Noise Level                | Inaudible                                       |

### Product Data

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Full product code               | 871150091003530                   |
| Order product name              | HF-R 249 TL5 EII 220-240V 50/60Hz |
| EAN/UPC - Product               | 8711500910035                     |
| Order code                      | 913700608766                      |
| Numerator - Quantity Per Pack   | 1                                 |
| Numerator - Packs per outer box | 12                                |
| Material Nr. (12NC)             | 913700608766                      |
| Net Weight (Piece)              | 0.310 kg                          |

### Dimensional drawing



HF-R 249 TL5 EII 220-240V 50/60Hz

| Product                              | D1     | C1    | A1     | A2     | B1    |
|--------------------------------------|--------|-------|--------|--------|-------|
| HF-R 249 TL5 EII 220-240V<br>50/60Hz | 4.2 mm | 22 mm | 360 mm | 350 mm | 30 mm |

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