



# HF-Essential II for TL5/TL-D

## HF-E 114 TL5 II 220-240V 50/60Hz

Essentially smart and reliable HF-Essential II is the most cost-effective solution for reliably operation of a fluorescent lamp. It is also the ideal entry-level product for electromagnetic system users who want to take advantage of the benefits provided by electronic ballasts. The cost-saving and reliable HF-Essential II is energy efficiency class A2, and its robust design meets all relevant international safety and performance standards. HF-Essential II is the ideal choice for a broad range of new construction and retrofit applications within the commercial sector, including general surface mounting and office lighting, parking garages, warehouses and other applications. The ballast is primarily designed for Indoor application. For outdoor application, the luminaire should be minimum Class II and need to be sufficiently protected against water & dust. The installation should also be guard against any lightning surge or any other necessary electrical protection as deemed in such typical installation & application.

### Product data

| General Information                          |              |                                |                   |
|----------------------------------------------|--------------|--------------------------------|-------------------|
| Lamp Type                                    | TL5 II       | Power Factor 100% Load (Nom)   | 0.97              |
| Number of Lamps                              | 1 piece/unit | Mains Voltage Performance (AC) | 202-254V-8%+6%    |
| Number of Products on MCB (16A Type B) (Nom) | 80           | Mains Voltage Safety (AC)      | 198-264V-10%-+10% |
| Automatic Restart                            | Yes          | Earth Leakage Current (Max)    | 0.5 mA            |
| Operating and Electrical                     |              | Inrush Current Width           | 0.18 ms           |
| Input Voltage                                | 220 to 240 V | Ballast Factor (Nom)           | 1.08              |
| Input Frequency                              | 50 to 60 Hz  | Power Losses (Nom)             | 2.91 W            |
| Operating Frequency (Nom)                    | 43.09 kHz    | Inrush Current Peak (Max)      | 7.55 A            |
| Crestfactor (Nom)                            | 1.8          | Wiring                         |                   |
|                                              |              | Connector Type Input Terminals | Insert            |

## HF-Essential II for TL5/TL-D

|                                                |                                                                              |
|------------------------------------------------|------------------------------------------------------------------------------|
| Cable Capacity Output Wires Mutual (Max)       | 200 pF                                                                       |
| Connector Type Output Terminals                | Insert                                                                       |
| Cable Length Hot Wiring                        | 0.75 m                                                                       |
| Wire Striplength                               | 8.0-9.0 mm                                                                   |
| Dual Fixture Master/Slave                      | Possible, lamp wires 0.75m max. length<br>[ Master/Slave operation possible] |
| Input Terminal Cross Section                   | 0.50-1.50 mm <sup>2</sup>                                                    |
| Output Terminal Cross Section                  | 0.50-1.50 mm <sup>2</sup>                                                    |
| Cable Capacity Cold Output Wires - Earth (Max) | 200 pF                                                                       |
| Cable Capacity Hot Output Wires - Earth (Max)  | 200 pF                                                                       |

### System characteristics

|                          |      |
|--------------------------|------|
| Rated Ballast-Lamp Power | 14 W |
| Rated Lamp Power on TL5  | 14 W |

### Temperature

|                       |        |
|-----------------------|--------|
| T-Ambient (Max)       | 50 °C  |
| T-Ambient (Min)       | 0 °C   |
| T-Storage (Max)       | 80 °C  |
| T-Storage (Min)       | -40 °C |
| T-Case Lifetime (Nom) | 75 °C  |
| T-Case Maximum (Max)  | 75 °C  |

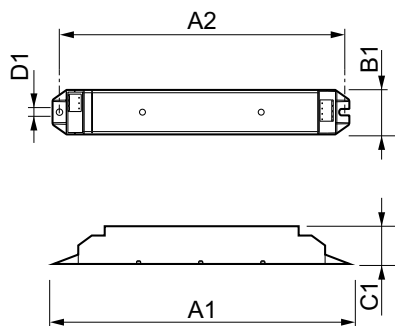
### Mechanical and Housing

|         |                 |
|---------|-----------------|
| Housing | L 280x29.3x22.7 |
|---------|-----------------|

### Emergency Operation

|                                       |              |
|---------------------------------------|--------------|
| Nominal Light Output After 60 Seconds | 100% of EBLF |
|---------------------------------------|--------------|

## Dimensional drawing



HF-E 114 TL5 II 220-240V 50/60Hz

|                                             |             |
|---------------------------------------------|-------------|
| Normal Operating Voltage (DC)               | 220-240 V   |
| Battery Voltage Guaranteed Operation        | 176-275 V   |
| Battery Voltage Guaranteed Ignition         | 186-275 V   |
| Emergency Ballast Lumen Factor (EBLF) (Nom) | 0.7 %       |
| Nominal Light Output After 5 Seconds        | 50% of EBLF |

### Approval and Application

|                         |                                                    |
|-------------------------|----------------------------------------------------|
| Energy Efficiency Index | A2                                                 |
| IP Classification       | IP 20 [ Ingress Protection 20]                     |
| EMI 9 kHz ... 30 MHz    | EN55015                                            |
| Vibration Standard      | IEC60068-2-6_2007-Fc                               |
| Bumps Standard          | IEC 60068-2-29:1993-Eb                             |
| Approval Marks          | CE marking KEMA Keur certificate RoHS<br>Compliant |
| Hum And Noise Level     | < 30 dB(A)                                         |

### Product Data

|                                 |                                  |
|---------------------------------|----------------------------------|
| Full product code               | 871869641697600                  |
| Order product name              | HF-E 114 TL5 II 220-240V 50/60Hz |
| EAN/UPC - Product               | 8718696416976                    |
| Order code                      | 913713041466                     |
| Numerator - Quantity Per Pack   | 1                                |
| Numerator - Packs per outer box | 50                               |
| Material Nr. (12NC)             | 913713041466                     |
| Net Weight (Piece)              | 0.082 kg                         |

| Product                             | D1     | C1      | A1       | A2       | B1      |
|-------------------------------------|--------|---------|----------|----------|---------|
| HF-E 114 TL5 II 220-240V<br>50/60Hz | 1.2 mm | 22.7 mm | 280.0 mm | 270.0 mm | 29.3 mm |

