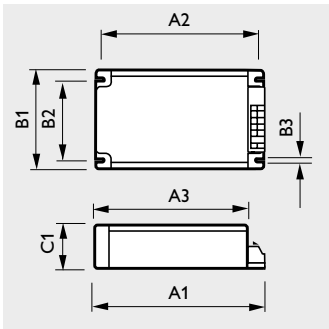


# HID-PrimaVision electronic ballasts for SDW-TG 50 and 100 W lamps

Lamp control gear



Dimensions in mm

| Ballast type                | A1   | A2  | A3  | B1 | B2 | B3  | C1 |
|-----------------------------|------|-----|-----|----|----|-----|----|
| HID-PV 50/S or 100/S SDW-TG | 150* | 134 | 136 | 90 | 70 | 4.5 | 40 |

\* including strain relief for independent use A1 = 185 mm

### Definition

Compact, one-piece, electronic ballasts for built-in (/S) or stand-alone (/I) applications with 50 W and 100 W 'mini WhiteSON' SDW-TG lamps.

### Description

System advantages

- Improved colour stability through U-processor 'Colour-Control' which compensates for colour shifts due to mains and lamp-voltage variations
- Electronic, low-frequency operation (typically 130 Hz), eliminates all visible lamp flicker
- Elimination of influence of mains voltage variations
- Long cable length allowed, typically 2 m
- More stable operation and faster run-up time
- Optimum end-of-lamp life protection including stopping circuitry and thermal cut-off.

Ballast

- Fully polyamide housing
- Simple strain relief ('cord grip') for independent use, class I or II.

### Applications

- Shops, retail premises, offices, public buildings, lobbies
- Also theatre/stage, outdoor architectural applications
- Suitable for indoor and outdoor applications; unit is completely potted; recommended luminaire classification > IP 23

Provisional

### Philips quality

This assures optimum quality regarding:

- System supplier
- As manufacturer of lamps and electronic control gear, Philips ensures that, from the earliest development stage, optimum lamp/ballast performance is maintained
- European standards
- Philips HID electronic ballasts comply with all relevant European rules and regulations.

### Compliances and approvals

- RFI < 30 MHz: EN 55015
- Harmonics: EN 61000-3-2
- Immunity: EN 61547
- Safety: EN 60926/  
EN 60928  
VDE 0712/  
14,22
- Performance: EN 60927/  
EN 60929
- Vibration & bump tests: IEC 68-2-6-FC  
IEC 68-2-29-Eb
- Approval marks: KEMA, VDE
- Quality standard: ISO 9001
- Enviromental standard: ISO 14001
- CE marking.



# HID-PrimaVision electronic ballasts for SDW-TG 50 and 100 W lamps

## Specification

| Ballast type        | For lamps    | System power W | Efficacy lm/W | Lamp power W | Efficacy lm/W | Lumen lm | T <sub>case</sub> life °C | T <sub>case</sub> max. °C | T <sub>ambient</sub> range °C |
|---------------------|--------------|----------------|---------------|--------------|---------------|----------|---------------------------|---------------------------|-------------------------------|
| HID-PV 50/S SDW-TG  | SDW-TG 50 W  | 62             | 40            | 54           | 43            | 2300     | 80                        | 90                        | -20...60                      |
| HID-PV 100/S SDW-TG | SDW-TG 100 W | 110            | 44            | 98           | 49            | 4800     | 80                        | 90                        | -20...50                      |

### Technical data for installation

|  |             |
|--|-------------|
| Rated mains voltage                    | 220 – 240 V |
| With tolerances for performance: +6%-8 | 206 – 254 V |
| With tolerances for operation:         | 180 – 264 V |
| Mains frequency                        | 50/60 Hz    |
| Operation frequency (typical)          | 130 Hz      |
| Power factor                           | > 0.95      |
| Ignition voltage                       | 3-4 kV      |

Air and creepage distance from any (metal) part that may become live, to earthed environment (class I) or test finger (class II) > 4 mm

Earth leakage current < 0,5 mA per ballast

Cable capacity HID-PV 50/S or 100/S SDW-TG Max. 200 pF

### Notes:

With three-phase mains supply, neutral should never be disconnected; otherwise circuitry could be damaged.  
For proper EMC wiring inside luminaire should be straight and as short as possible: mains wires should not run parallel to lamp wires.  
Thermo-protected circuit incorporates self-resetting facility; ignition attempts stop after 15 min.; mains supply must be switched off and on to reset ballast.

|                        |                   |
|------------------------|-------------------|
| Overvoltage protection | 48 hrs at 320 Vac |
|                        | 2 hrs at 350 Vac  |
|                        | 5 min. at 380 Vac |

Automatic restart after lamp replacement or voltage dip, lamp may take up to 15 min to restart.

|                             |   |
|-----------------------------|---|
| Insulation resistance test: | 500 V DC from line/Neutral to Earth (not between Line and Neutral)<br>Note: Ensure that the Neutral is reconnected again after above mentioned test is carried out and before the installation is put into operation. |
|-----------------------------|---|

### Mains current at 230 V\*

| Ballast             | Nominal current |
|---------------------|-----------------|
| HID-PV 50/S SDW-TG  | 0.27            |
| HID-PV 100/S SDW-TG | 0.50            |

\* For electronic HID gear run-up current < nominal current

### Inrush current

| Ballast             | Max. quantity of ballast per Miniature Circuit Breaker Type B 16 A | Inrush current 1/2 value time at typical mains impedance |
|---------------------|--|--|
| HID-PV 50/S SDW-TG  | 15   | 30 A / 500 µs  |
| HID-PV 100/S SDW-TG | 6  | 50 A / 500 µs  |

### Conversion table for max. quantities of ballasts on other types of Miniature Circuit Breaker

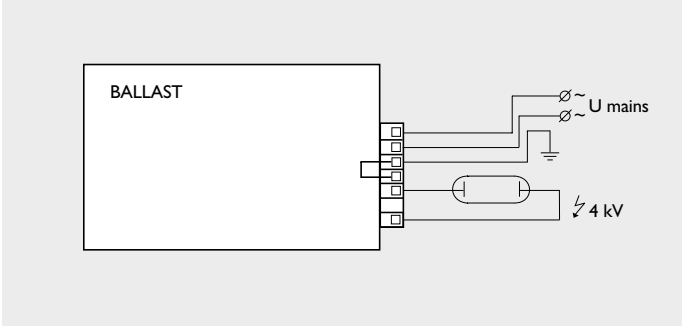
| MCB type | Relative number of ballasts |
|----------|-----------------------------|
| B        | 16 A                        |
| B        | 10 A                        |
| C        | 16 A                        |
| C        | 10 A                        |
| L, I     | 16 A                        |
| L, I     | 10 A                        |
| G, U, II | 16 A                        |
| G, U, II | 10 A                        |
| K, III   | 16 A                        |
| K, III   | 10 A                        |

### Notes:

- Data is based on a mains supply with an impedance of 400 mΩ (equal to 15 m cable of 2.5 mm<sup>2</sup> and other 20 m to the middle of the power distribution), under worst case conditions. With an impedance of 800 mΩ the number of ballasts can be increased by 10%.
- Measurements will be verified in real installations; therefore data are subject to change.
- In some cases the maximum number of ballasts is not determined by the MCB but by the maximum electrical load of the installation.
- Note that the maximum number of ballasts is given when these are all switched on at the same moment, i.e. by a wall switch.
- Measurements were carried out on single-pole MCB's. For multi-pole MCB's it is advisable to reduce the number of ballasts by 20%.
- The maximum number of ballasts which can be connected to one Residual Current Detector of 30 mA is 30.

# HID-PrimaVision electronic ballasts for SDW-TG 50 and 100 W lamps

Wiring diagram



Wiring is greatly simplified by the use of cage clamp contacts with push buttons.

Wire cross-section:  
 On the mains side: 0.75...2.5 mm²  
 On the lamp side: 0.75...2.5 mm²

Strip length: 6 mm

## Ordering and packing data

| Ballast             | Ordering<br>number | 1 Piece        |        | Bulk packing |            |      |     |        | EAN code | EOC            |                 |
|---------------------|--------------------|----------------|--------|--------------|------------|------|-----|--------|----------|----------------|-----------------|
|                     |                    | EAN code       | Weight | Qty.         | Dimensions |      |     | Volume |          |                | Weight<br>gross |
|                     |                    |                |        |              | l          | w    | h   |        |          |                |                 |
|                     |                    |                | kg     | pcs.         | cm         |      |     | m³     | kg       |                |                 |
| HID-PV 50/S SDW-TG  | 9137 001 486..     | 8711500 749277 | 0.725  | 10           | 39         | 16   | 10  | 0.007  | 7.485    | 8711500 749284 | 749277 30       |
| HID-PV 100/S SDW-TG | 9137 001 717..     | 8711500 748720 | 0.725  | 10           | 39         | 16   | 10  | 0.007  | 7.485    | 8711500 748737 | 748720 30       |
| Strain relief       | 9137 001 574..     | 8711500 539861 | t.b.a. | 10           | 15.5       | 13.7 | 8.5 | 0.0018 | 0.3      | 8711500 539878 | 539861 30       |

