



Top team for sky-high demands

Digital HID ECG family POWERTRONIC® PTU



SEE THE WORLD IN A NEW LIGHT

OSRAM



POWERTRONIC® PTU

Universal electronic ballasts with outstanding advantages

A clear trend towards electronic operation is becoming distinctly visible for high-pressure discharge lamps. OSRAM is responding to this trend with the POWERTRONIC® PTU electronic ballasts. A wide range of high-pressure discharge lamps can be operated with these electronic ballasts: HCI® lamps with ultra-modern ceramic technology, as well as our classic HQI® lamp with quartz burner which has proved successful millions of times over.

The high-pressure discharge lamp stands out by virtue of highest lighting convenience, increased operating safety and very good cost-efficiency.

POWERTRONIC PTU 150 in Terminal 2 of Munich Airport, Germany

The double indirect floodlight with integrated electronic ballast is an innovative development.

New freedom in light design

POWERTRONIC® PTU are available in the rating classes 35, 70 and 150 W.

They impress by virtue of their very low power loss, low self-heating, good thermal behaviour, small dimensions and low weight. These characteristics permit the development of lighter and more compact luminaires.

The special IGBT pulse ignition ensures an absolutely reliable start which is gentle on the lamp and which prolongs therefore the lamp's life.

The special ignition also enables the electronic ballast to be installed at a distance of up to 3 metres from the lamp.

Brand quality and system expertise from a single source

POWERTRONIC® PTU from OSRAM stand out by virtue of ultra-modern circuit design, exclusively high-quality components and constantly perfect manufacture.

They display their full performance capability in system operation with the innovative HCI® and HQI® high-pressure discharge lamps from OSRAM.

Huge advantages thanks to microprocessor

A microprocessor in the electronic ballast controls all operating conditions in the lamp/electronic ballast system, so that the defined lamp characteristics are optimally maintained.

- Defined switch-off prevents the lamp from flickering at the end of its life
- No radio interference through ignition attempts by defective lamps
- Precise light planning possible as defined lamp operating data are monitored and maintained
- The life of the lamp is prolonged by gentle ignition and optimised lamp start-up
- Rapid, gentle re-ignition of ignition-critical lamps
- The electronic ballast is protected from improper operation in the event of excessive ambient temperatures



Which electronic ballast for which lamp

POWERTRONIC® PTUs are the first choice for innovative metal-vapour lamps from OSRAM. Ratings of 70 and 150 W are designed for installation in luminaires. With a cable clamp (PTU-CC) available as an accessory, the electronic

ballast becomes an independent installation accessory. On the POWERTRONIC® PTU 35 L the cable clamp is already integrated in the unit. The table shows which lamps can be operated with the respective electronic ballasts¹⁾:



| | HCI®-T | HCI®-TC | HCI®-TS | HCI®-E/P | HCI®-PAR ²⁾ | HQI®-T | HQI®-TS | HQI®-E | HQI®-R |
|--|--|---|--|--|---|--|--|--|--|
| POWERTRONIC® PTU 35/230-240  |  35 W |  35 W | | |  35 W | | | | |
| POWERTRONIC® PTU 35/230-240 L  |  35 W |  35 W | | |  35 W | | | | |
| POWERTRONIC® PTU 70/220-240  |  70 W |  70 W |  70 W |  70 W |  70 W |  70 W |  70 W |  70 W | |
| POWERTRONIC® PTU 150/220-240  |  150 W | |  150 W |  150 W | |  150 W |  150 W |  150 W |  150 W |

¹⁾as well as corresponding commercially available lamps; NAV and HCI-TT on request ²⁾in preparation

The lighting concept – low basic illumination and powerful, flexible highlight illumination with PTU and HCI® – meets the requirements of the Jewish Museum Berlin, Germany

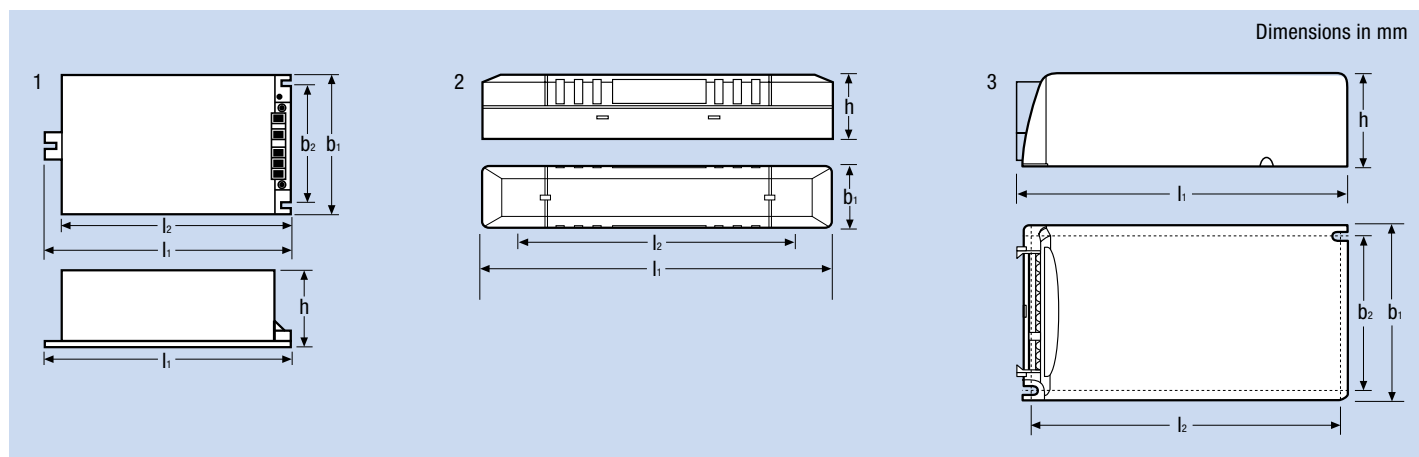




The strengths of POWERTRONIC® PTU at a glance

- Optimised system: HCI® and HQI® lamp and POWERTRONIC®
- Flicker-free operation of various lamps through 130 Hz square-wave control
- Units for installation in luminaires or with a cable clamp as an independent installation accessory
- Reliable and gentle ignition (distance lamp/electronic ballast up to 3 metres)
- High operating convenience as well as reliability: micro-processor for monitoring and controlling all operating conditions
- Defective lamps switched off
- Ignition time limitation
- Excellent thermal behaviour thanks to low power loss
- Compact design and low weight
- Conformity with relevant standards
- 50% longer lamp life compared with conventional ballast operation makes for longer maintenance intervals through gentle ignition and operation
- High electronic ballast service life of 50,000 h with a cumulative failure frequency of 10% max. at $T \leq T_c$

Technical Data



| Description | PTU 35/230-240 | PTU 35/230-240L | PTU 70/220-240 | PTU 150/220-240 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Product number (6-pack; EAN) | 4050300 602233 | 4050300 607856 | 4050300 178509 | 4050300 642406 |
| Mains voltage | 230-240 V~ | 230-240 V~ | 220-240 V~ | 220-240 V~ |
| Mains frequency | 50/60 Hz | 50/60 Hz | 50/60 Hz | 50/60 Hz |
| System power input | 43 W ± 2 W | 43 W ± 2 W | 80 W ± 3 W | 163 W ± 6 W |
| Power loss | 4 W ± 1 W | 4 W ± 1 W | 7 W ± 1 W | 13 W ± 1 W |
| Main power factor | 0.97 c | 0.97 c | >0.95 c | >0.95 c |
| Operating frequency | 130 Hz | 130 Hz | 130 Hz | 130 Hz |
| Igniting voltage | 5 kVp | 5 kVp | 5 kVp | 5 kVp |
| Lamp/ECG: | | | | |
| Max. line length (Max. capacity) | 3 m 200 pF | 3 m 200 pF | 3 m 200 pF | 3 m 200 pF |
| Max. ambient temperature at T_a | 60°C | 55°C | 50°C | 50°C |
| Max. temperature at T_c | 80°C | 80°C | 80°C | 80°C |
| Temperature range | -25°C to +60°C | -25°C to +55°C | -25°C to +50°C | -25°C to +50°C |
| Weight | ~ 400 g | ~ 300 g | ~ 350 g | ~ 500 g |
| Electronic ballast at 16* | 38 | 38 | 18 | 10 |
| Housing (illustration) (Dimensions l_1 x b_1 x h) | 1 136 x 88 x 40 mm | 2 220 x 47 x 44 mm | 3 134 x 88 x 39 mm | 3 163 x 88 x 39 mm |
| Length l_2 | 127.5 mm | 72.5 | 120 mm | 150 mm |
| Width b_2 | 72.5 | - | 78 mm | 78 mm |
| VDE Registration No. | 130112 | 130112 | 40004469 | 139056 |

| | | | | |
|------------------------------|---|------------|---|---|
| cable clamp: | - | integrated | Accessory PTU-SR 4050300 939902 | Accessory PTU-SR 4050300 939902 |
| Product number (6-pack; EAN) | | | | |

*Maximum permissible electronic ballast number on circuit breaker
Tripping characteristic B 16 A

