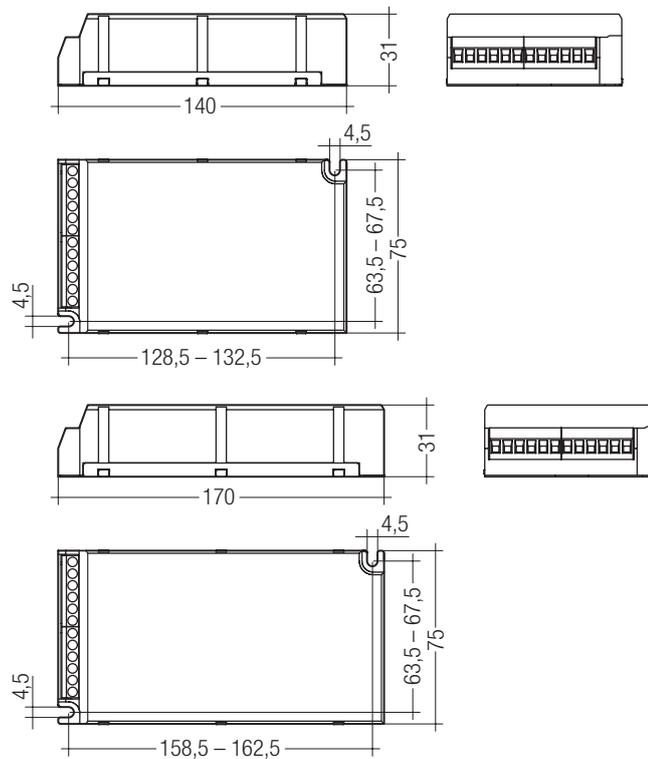




PCI B011 Twin PCI PRO, built-in applications

Product description

- For metal halide lamps
- Also for mobile luminaires with connectors
- Pulse packets for increased ignition energy (pulseCONTROL technology)
- With patented circuit elements
- Flicker-free light
- Colour stability thanks to constant power
- Guaranteed long life
- No acoustic resonance
- Two independent lamp output circuits
- Safety shutdown of an affected lamp circuit if a lamp is missing or faulty
- Greatly reduced reignition time
- Hardly any EMC interference in the ignition phase
- Automatic shutdown on overheating
- Lower section of casing made of steel
- Upper section of casing made of Makrolon, VO material, black
- Screw terminals: $\leq 1.5 \text{ mm}^2$ for stranded wire, $\leq 2.5 \text{ mm}^2$ for solid wire



Technical data

Mains voltage range	220 – 240 V
AC voltage range	198 – 254 V
DC voltage range	153 – 320 V
Mains frequency	0 / 50 / 60 Hz
Max. ignition voltage	5 kVp
Operating frequency	145 Hz
Type of protection	IP20



Standards, page 2

Wiring diagrams and installation examples, page 2

Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pcs.
For luminaires with 2 lamps				
PCI 2/35 B011	86458207	15 pieces	900 pieces	0.32 kg
PCI 2/70 B011	86458209	15 pieces	600 pieces	0.41 kg

Specific technical data

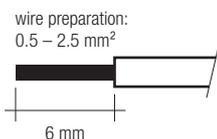
Lamp wattage	Lamp type	Type	Article number	Dimensions L x W x H	Lamp power	Circuit power ^①	EEL	Efficiency	Current at 50 Hz 230 V	λ at 50 Hz 230 V	Max. cable length to lamp	tc point max.	Ambient temperature ta	tc/ta for $\geq 50,000 \text{ h}$
For luminaires with 2 lamps														
2 x 35 W	HI	PCI 2/35 B011	86458207	140 x 75 x 31 mm	2 x 39 W	87 W	A2	> 89 %	0.38 A	0.97	per 1.5 m / 120 pF	65 °C	-25 ... +50 °C	65/50 °C
2 x 70 W	HI	PCI 2/70 B011	86458209	170 x 75 x 31 mm	2 x 72 W	158 W	A2	> 91 %	0.70 A	0.97	per 1.5 m / 120 pF	70 °C	-25 ... +40 °C	70/40 °C

① At ta = 25 °C.

Installation instructions

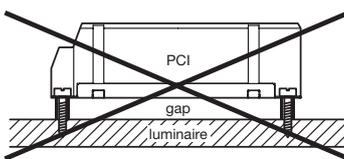
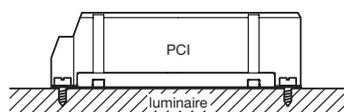
Wiring type and cross section

Stranded wire with end ferrule with a cross section of 1.5 mm² or solid wire up to 2.5 mm² may be used for wiring. Strip 6 mm of insulation from the cables to ensure perfect operation of the screw terminals.



Mounting recommendation

To ensure optimum heat removal the ECG should be mounted on a metal plate (luminaire body) No insulators between the ECG and the the cooling surface (air, adhesive tape, etc.). Finally important remains the temperature measurement.



If several ballasts are installed in masts, boxes, etc., measures must be taken to avoid overheating of individual components.

Standards

- EN 55015 (radio interference)
- EN 61000-3-2 (mains harmonics)
- EN 61347-2-12
- EN 61547 (interference immunity)
- CE mark
- EMV-VDE mark
- ENEC mark

Harmonic distortion in the mains supply

Ballast Type	THD	3	5	7	9	11
PCI 2/35	7.5	6.0	3.5	3.5	3.5	1.5
PCI 2/70	7.5	4.5	5.0	2.5	2.5	1.0

Loading of automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
Installation Ø	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²
PCI 2/35	14	25	36	42	8	14	18	18
PCI 2/70	7	14	20	20	4	6	7	7

Radio interference

- Do not cross mains and lamp cables.
- Do not lay mains cables together with lamp cables (ideally they should be 5–10 cm apart).
- Do not lead mains cables too closely along the electronic ballast.
- Twist lamp cables.
- Increase the distance between lamp cables and earthed metal surfaces.
- Keep the mains cable in the luminaire short.
- Parallel runs (x) of mains and lamp cables must be kept as short as possible.

Important advise

When a lamp is changed (at the end of its life), if a lamp is missing or after overtemperature shutdown the mains voltage of the ECG must be disconnected.

Warning – starting voltage up to max. 5kV!

Not suitable for use with lamps with integral ignitors.

Note on wiring

The length of the lamp wires is limited by the value of cable capacitance. The maximum of 120 pF would enable connection of approximately 1.5 metres of lamp wire for each lamp.

In class 1 luminaires it is necessary to earth the ballast and the luminaire via the earth terminal, in class 2 luminaires not.

To avoid the damage of the control gear, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).

**Ballast lumen factor
EN 60929 8.1**

Type	AC/DC BLF at U = 198-254 V, 25 °C
PCI 2/35	1.0
PCI 2/70	1.0

Safety switch off

End of life of the lamps

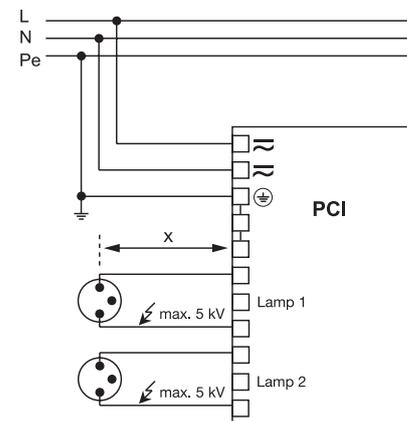
At the end of their useful life, lamps often cycle on/off. The PCI ballast recognises this condition and switches off the lamp, after three complete on/off cycles and whilst the supply has been unswitched. Complete lamp switch off enables easy identification of a defective lamp in the application. After a change of the faulty lamp and an interruption of the mains supply (mains reset) the ballast will strike the lamp. When there is no lamp in circuit or a defective lamp is connected to the ballast, the ballast will switch off after approx. 25 minutes (3.5 minutes of ignition time).

Overtemperature shutdown

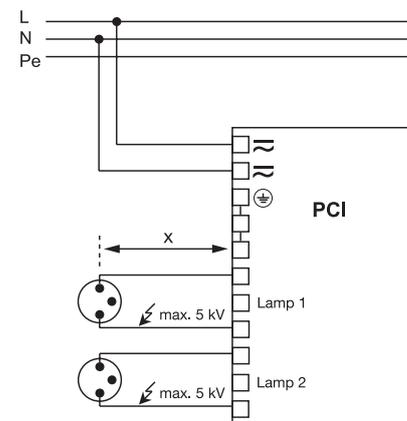
The units shut down at Δt approx. +10 °C compared with tc/ta. A mains reset must be carried out so that the units switch on again.

Overload strength

320 V_{ac} / 1 h



Circuit diagram PCI class 1 application



Circuit diagram PCI class 2 application