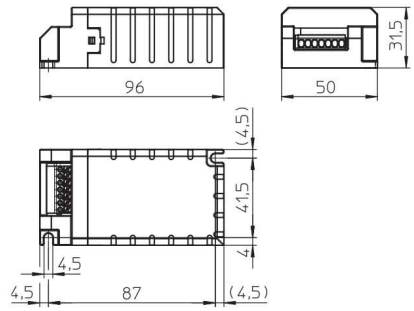
Compact Electronic Ballasts for HI Lamps 35 W

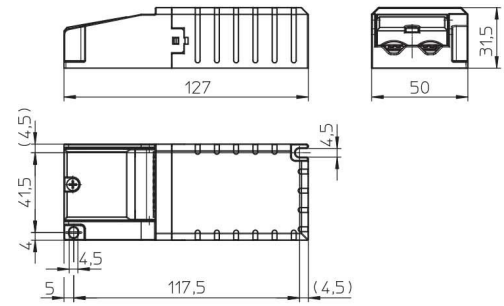
Shape: K35

Casing: heat-resistant polyamide, encapsulated with polyurethane
For ceramic discharge tube lamps (C-HI)
Power factor: > 0.9
Operation frequency: 135 Hz
Push-in terminals: 0.5–1.5 mm²
Constant power consumption
Protection against "no load" operation
For luminaires of protection class I and II
Degree of protection: IP20
Permissible load capacity: 120 pF
RFI-suppressed
Fixing brackets for screws M4
for base mounting
No flickering of defective lamps

K35



K35 with cord grip



Lamp				Electronic ballast										System
Output W	Type	Base	Power consumption W	Type	**Ref. No.**	Voltage AC 50, 60 Hz V –10%+6%	Mains current A	Energy efficiency	Ambient temperature t_a (°C)	Casing temperature t_c (°C)	Ignition voltage kV	Weight g		Output W
K35 – Electronic built-in ballasts														
35	HI	GU6.5, G8.5, GX8.5, GX10, G12	1 x 39	EHXc 35G.327 B	**188993**	220–240	0.2	A2	–15 to 45	max. 80	2–4	180		43.5
K35 – Independent electronic ballasts with cord grip														
35	HI	GU6.5, G8.5, GX8.5, GX10, G12	1 x 39	EHXc 35G.327 I	**188994**	220–240	0.2	A2	–15 to 45	max. 80	2–4	195		43.5

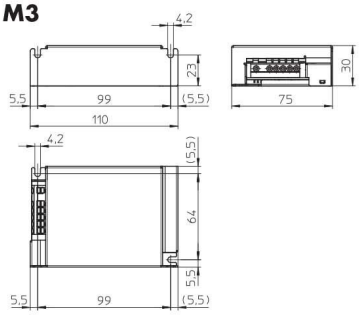
Circuit diagrams see page 87

Electronic Ballasts for HI Lamps 35 and 70 W

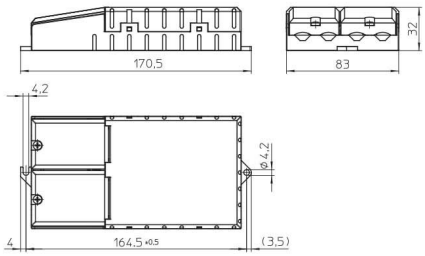
Shape: M3/K34

Casing: aluminium (M3),
heat-resistant polycarbonate (K34)
For ceramic discharge tube lamps (C-HI)
Power factor: ≥ 0.95
Ignition voltage: max. 5 kV
Operation frequency: 173 Hz
Push-in terminals with lever opener: 0.75–2.5 mm²
Total harmonic distortion: < 10%
Temperature protection
Constant power consumption
Protection against "no load" operation
For luminaires of protection class I (metal casing)
For luminaires of protection class I and II (plastic casing)
Degree of protection: IP20
Permissible load capacity: 20–120 pF
RFI-suppressed
Fixing brackets for screws M4
for base mounting
No flickering of defective lamps

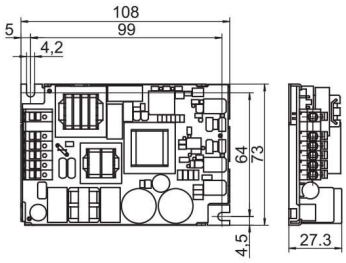
M3



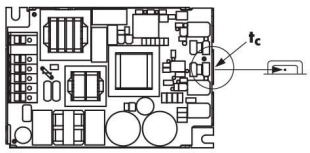
K34 with cord grip



M3 built-in PCB



t_c point definition



Lamp				Electronic ballast								System
Output W	Type	Base	Power consumption W	Type	**Ref. No.**	Voltage AC 50, 60 Hz V ±10%	Mains current A	Energy efficiency	Ambient temperature t_a (°C)	Casing temperature t_c (°C)	Weight g	Output W
M3 – Electronic built-in ballast (with cap)												
35	HI	GU6.5, G8.5, GU8.5, GX8.5, G12, E27	1 x 39	EHXc 35.325	**183033**	220–240	0.20–0.18	A2	–20 to 65	max. 80	220	43
70	HI	G8.5, GU8.5, GX8.5, G12, PG12-2, E27, RX7s	1 x 73	EHXc 70.326	**183036**	220–240	0.36–0.34	A2	–20 to 55	max. 80	220	80
M3 Built-in PCB – Electronic built-in ballasts (without cap)												
35	HI	GU6.5, G8.5, GU8.5, GX8.5, G12, E27	1 x 39	EHXc 35.325	**183034**	220–240	0.20–0.18	A2	–20 to 65	max. 80	180	43
K34 – Independent electronic ballasts with cord grip												
35	HI	GU6.5, G8.5, GU8.5, GX8.5, G12, E27	1 x 39	EHXc 35.325	**183035**	220–240	0.20–0.18	A2	–20 to 65	max. 75	260	43
70	HI	G8.5, GU8.5, GX8.5, G12, PG12-2, E27, RX7s	1 x 73	EHXc 70.326	**183038**	220–240	0.36–0.34	A2	–20 to 55	max. 75	260	80

Circuit diagrams see page 87

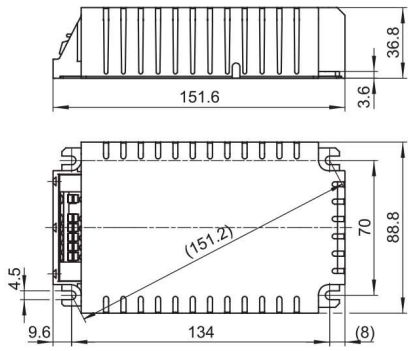
Electronic Ballasts for HI Lamps 150 W

Shape: K31

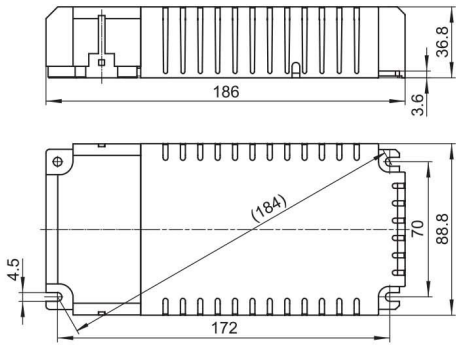
Casing: heat-resistant polycarbonate
For ceramic discharge tube lamps (C-HI)
Power factor: 0.98
Ignition voltage: max. 5 kV
Operation frequency: 170 Hz
Push-in terminals with lever opener: 0.75–2.5 mm²
Total harmonic distortion: < 10%
Temperature protection
Constant power consumption
Protection against "no load" operation
For luminaires of protection class I and II
Degree of protection: IP20
Permissible load capacity: 20–240 pF
RFI-suppressed
Fixing brackets for screws M4
for base mounting

K31

K31



K31 with cord grip

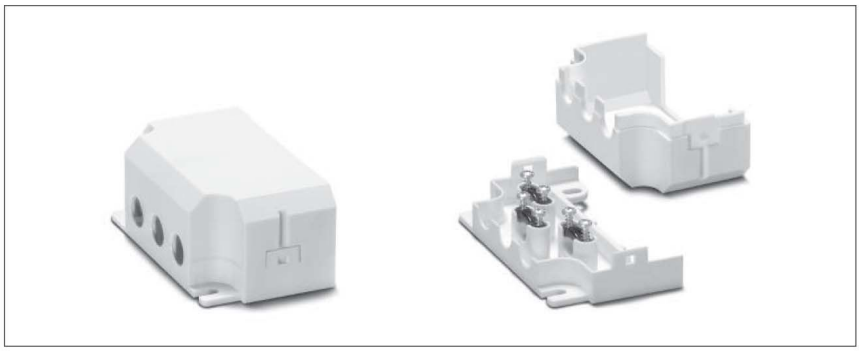


Lamp				Electronic ballast									System
Output W	Type	Base	Power consumption W	Type	**Ref. No.**	Voltage AC 50, 60 Hz V ±10%	Mains current A	Energy efficiency	Ambient temperature t_a (°C)	Casing temperature t_c (°C)	Casing	Weight g	Output W
K31 – Electronic built-in ballasts													
150	HI	G12, PGX12-2, E27, E40, RX7s	1 x 147	EHXc 150G.334	**183046**	220–240	0.73–0.67	A2	–20 to 45	max. 85	K31	540	160
K31 – Independent electronic ballasts with cord grip													
150	HI	G12, PGX12-2, E27, E40, RX7s	1 x 147	EHXc 150G.334	**183047**	220–240	0.73–0.67	A2	–20 to 45	max. 85	K31	582	160

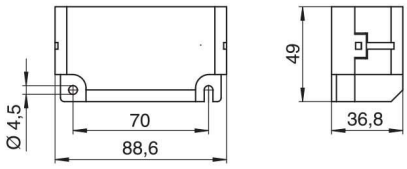
Circuit diagrams see page 87

Cord Grip for Electronic Built-in Ballasts

For shape K31



By using the cord grip electronic built-in ballasts for metal halide lamps become independent ballasts.
Material: heat-resistant polycarbonate
For use with electronic built-in ballasts with casing K31
For mains leads:
H03VV-F 3X0.75 or NYM 3X1.5 mm²
For lamp leads: SIHY-Cu 3X1 mm²
or SIHSI-Cu 3X1 mm²
Weight: 50 g
Unit: 20 pcs.
By turning the cable clamp by 180° the lead diameter can be reduced to 5 mm.
Ref. No.: 188080



Luminaire Protection Device SP 230/10K

For electronic devices

When electronic components form part of lighting systems, it is often necessary to protect such components against power-supply interruptions and electric overloads (power surges).

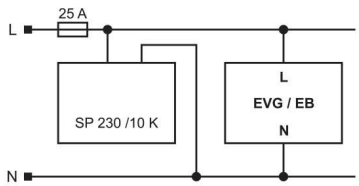
These can be caused by switching inductive loads or by atmospheric discharges such as lightning striking the mains or the ground. A further cause can be induced voltages from neighbouring cables when working with leading-edge phase-cutting controls.

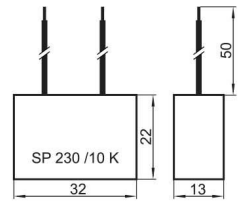
The SP230/10K protection unit reduces overvoltages at the connection terminals of electronic components. The remaining residual voltage is then reduced to a respective protective level, based on the discharge current (see diagram below).

In our Innovative Systems catalogue you will find further products of this series.

Suitable for luminaires of protection class I and II
Solid connecting wire: 0.75 mm²
Lead length: 50 mm

Wiring diagram



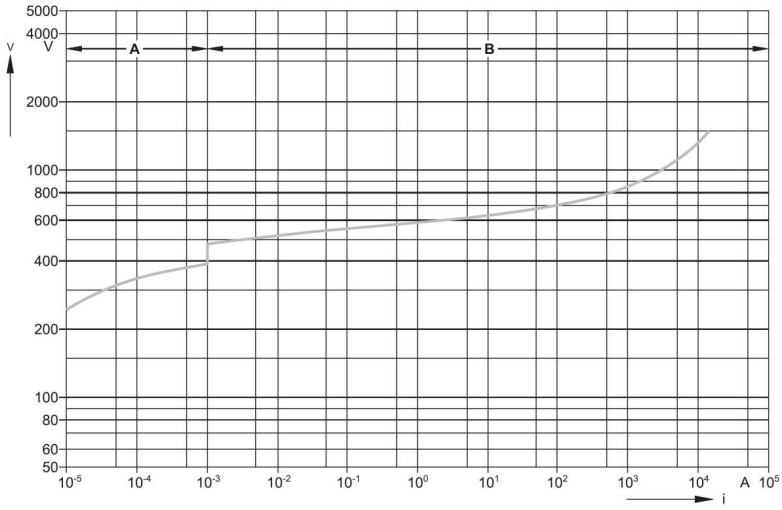


Type	**Best.-Nr.**	Voltage AC 50, 60 Hz V ±10%	Impulse voltage U_{OC} (V)	Impulse discharge current I_N (8/20 µs) (A)	Protection level at discharge current of 1,000 A (V)	Min. ambient temperature t_a (°C)	Casing temperature t_c (°C)	Weight g
SP 230/10 K	**147230**	220–240	max. 10,000	max. 10,000	≤ 850	–30	max. 80	20

Bandwidth of the standard impulse: tr = 20 µs
The protection unit can withstand at least 10 spikes of 5 kA.

Residual voltage, based on the discharge current (B)

A = Leak current | B = Protection levels



Source: Epcos Databook 2011