



Data sheet

Constant current LED control gear
26 W, 350 / 500 / 700 mA, DALI, 1 – 10 V
Intelligent temperature protection
SELV output

Kompakt III LED

Luxtronic®

Kompakt III LED control gear

More than 25 years of experience in the design and development of electronic lighting products, the close cooperation with test authorities and the joint research in the sector of explosion protection enable the company Hadler to develop products in accordance with market trends which will exactly meet the requirements. Function and, above all, safety will take priority over other requirements.

Furthermore, in accordance with the company philosophy, Luxtronic ballasts also reflect the "second idea": Features offering an additional benefit and using the full competence of the company Hadler to allow for a unique position in the market. Both large-scale and small-scale series of the Luxtronic ballasts can be produced in a cost-effective way. The proximity to the market allows for short delivery times.

Michael Lamkowski
Head of Research & Development

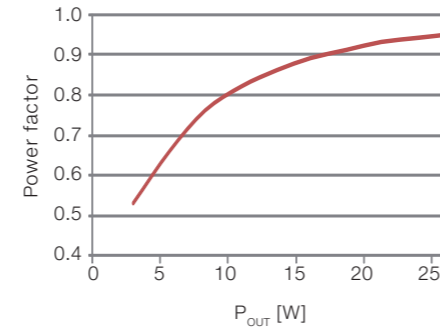


Table of contents

ECG 350 / 500 / 700 mA, 26 W, 220 – 240 V, DALI	4
ECG 350 / 500 / 700 mA, 26 W, 220 – 240 V, 1 – 10 V	8
ECG 350 / 500 / 700 mA, 26 W, 220 – 240 V	12

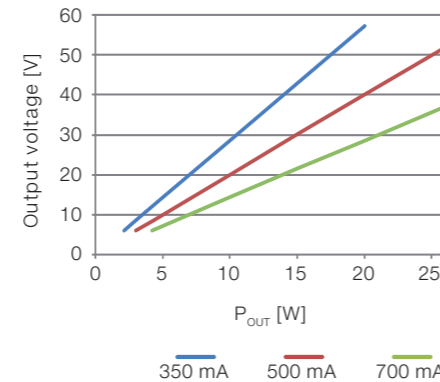
Input

Rated supply voltage	220 – 240 V
Mains frequency	0 / 50 – 60 Hz
Input voltage range a.c.	198 – 264 V
Input voltage range d.c.	176 – 276 V
Input current a.c.	135 mA at 230 V and full load
Input current d.c.	65 mA at 230 V and 50 % EOF _I
Power factor	0.95 at 230 V and full load (see graph)
Total Harmonic Distortion	≈ 8 % at full load



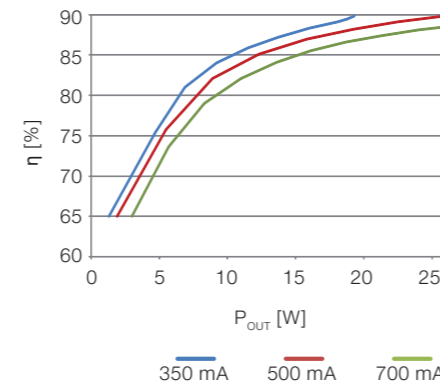
Output

Output characteristic	Constant current
Output voltage	6 – 57 V (see graph), SELV
Output current	350 / 500 / 700 mA, selectable
Output power	max. 26 W (max. 20 W @ 350 mA)
No. of output channels	1
Output current accuracy	+/- 5 %
Output current ripple	5 % at 100 Hz
Output dimming	PWM, 240 Hz
Dimming range	1 – 100 %



Efficiency

Stand-By Power consumption	0.3 W
No-load Power consumption	0.5 W
Electrical efficiency	≈ 0.90 at full load (see graph)



Interface

Dimming Interface	DALI, basic insulation
Interface control current	≤ 2 mA
Dimming curve	log / linear

Temperature, Lifetime

Ambient temperature range (T _a)	-25 – 55 °C		
Max. case temperature (T _c)	75 °C		
T _a	45 °C	50 °C	55 °C
T _c	65 °C	70 °C	75 °C
lifetime	100,000 h	80,000 h	60,000 h

Max. No. of ECG per circuit breaker

Type	B10	50 pcs.
	C10	50 pcs.
	B16	50 pcs.
	C16	50 pcs.

Wiring

Max. output cable length	200 cm
Input + Interface wire cross-section	0.5 – 1.5 mm ²
Output wire cross-section	0.5 – 1.5 mm ²

The wiring should be short and without crossings for best EMC results.

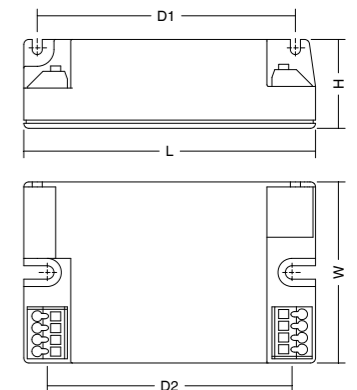
Dimensions

Length x Width x Height	87 x 54 x 27 mm
Mounting hole distances D1 / D2	77 / 74 – 82 mm
Mounting screws	M4 max.

(see schematic view on the right)

Ordering data

Weight	0.086 kg
Packaging unit	90 pcs.
Order No.	3 C 126 05 6



Emergency lighting, performance during DC power supply

The electronic ballast is equipped with an integrated supply voltage detection which allows a certain DC-supply mode.

The following values are factory-adjusted:

DC supply level	229	≈ 50% EOF _I (Emergency Output Factor)
“Time to light”	0.5 s	suitable for high-risk task area lighting

DALI commands influencing the light intensity (illuminance) will be ignored during DC power supply.

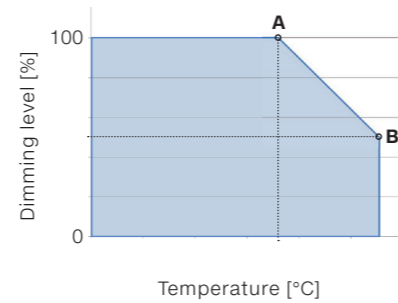
Temperature protection

The unit operates an integrated temperature overload protection which reduces the output power by linear decrease if a certain operating point “A” is reached and reduces the output power to zero if the temperature at operating point “B” is exceeded. The control gear restarts automatically if the temperature decreases by 5 K.

The following values are factory-adjusted:

Temperature “A”	$T_{board} = 95\text{ °C} \hat{=} T_c = 75 - 80\text{ °C}$
Temperature “B”	$T_{board} = 100\text{ °C} \hat{=} T_c = 80 - 85\text{ °C}$
Temperature limit level “B”	229 ≈ 50%

The current temperature of the electronic assembly (T_{board}), which represents the basis of the whole valuation process, can be retrieved via DALI from memory bank 0x02, address 0x0A.



Standards

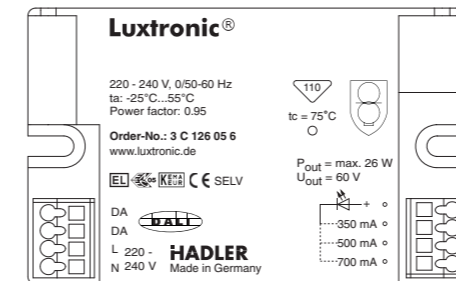
- EN 61347-1
- EN 61347-2-13
- EN 62384
- EN 55015
- EN 61547
- EN 61000-3-2
- EN 61000-3-3
- EN 62386-101
- EN 62386-102
- EN 62386-207

Suited for use in class I and class II luminaires

Markings

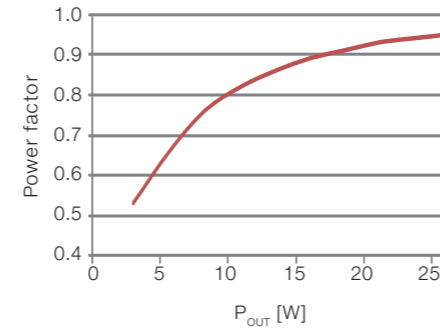


Wiring diagram



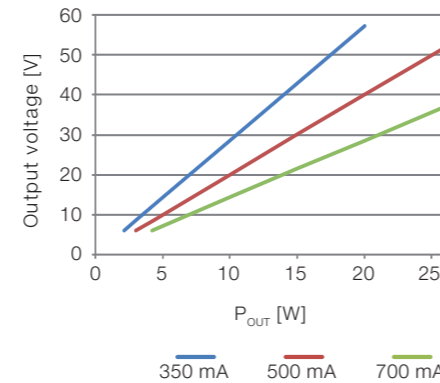
Input

Rated supply voltage	220 – 240 V
Mains frequency	0 / 50 – 60 Hz
Input voltage range a.c.	198 – 264 V
Input voltage range d.c.	176 – 276 V
Input current a.c.	135 mA at 230 V and full load
Input current d.c.	65 mA at 230 V and 50 % EOF _I
Power factor	0.95 at 230 V and full load (see graph)
Total Harmonic Distortion	≈ 8 % at full load



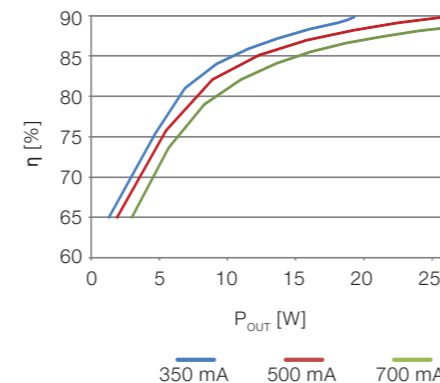
Output

Output characteristic	Constant current
Output voltage	6 – 57 V (see graph), SELV
Output current	350 / 500 / 700 mA, selectable
Output power	max. 26 W (max. 20 W @ 350 mA)
No. of output channels	1
Output current accuracy	+/- 5 %
Output current ripple	5 % at 100 Hz
Output dimming	PWM, 240 Hz
Dimming range	1 – 100 %



Efficiency

Stand-By Power consumption	n.a.
No-load Power consumption	≤ 1.0 W
Electrical efficiency	≈ 0.90 at full load (see graph)



Interface

Dimming Interface	1 – 10 V, basic insulation
Interface control current	max. 0.2 mA
Dimming curve	linear

Temperature, Lifetime

Ambient temperature range (T _a)	-25 – 55 °C		
Max. case temperature (T _c)	75 °C		
T _a	45 °C	50 °C	55 °C
T _c	65 °C	70 °C	75 °C
lifetime	100,000 h	80,000 h	60,000 h

Max. No. of ECG per circuit breaker

Type	B10	50 pcs.
	C10	50 pcs.
	B16	50 pcs.
	C16	50 pcs.

Wiring

Max. output cable length	200 cm
Input + Interface wire cross-section	0.5 – 1.5 mm ²
Output wire cross-section	0.5 – 1.5 mm ²

The wiring should be short and without crossings for best EMC results.

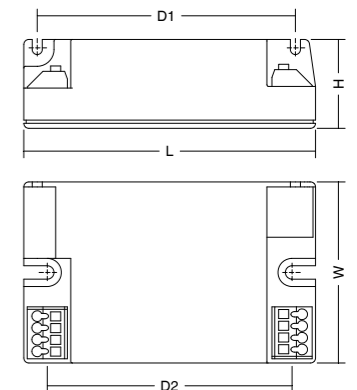
Dimensions

Length x Width x Height	87 x 54 x 27 mm
Mounting hole distances D1 / D2	77 / 74 – 82 mm
Mounting screws	M4 max.

(see schematic view on the right)

Ordering data

Weight	0.088 kg
Packaging unit	90 pcs.
Order No.	3 C 126 05 5



ECG 350 / 500 / 700 mA, 26 W, 220 – 240 V, 1 – 10 V

Emergency lighting, performance during DC supply mode

The electronic control gear is equipped with integrated supply voltage detection which allows a fixed output current of 50 % at DC supply mode.

Dimming commands and temperature protection functions that would change the light output are ignored in DC supply mode.

EOF ₁	50 %
“Time to light”	0.5 s suitable for high-risk task area lighting

Temperature protection, self-contained

The output current of the electronic control gear is slowly reduced down to 50 % in case of a thermal overload. The thermal protection function starts slightly above t_c max.

The control gear will be shut-down if the temperature is more than 10 K above t_c max. An automatic re-start with 50 % output current will be done after cool down to t_c max.

The temperature protection features are deactivated in DC supply mode.

Standards

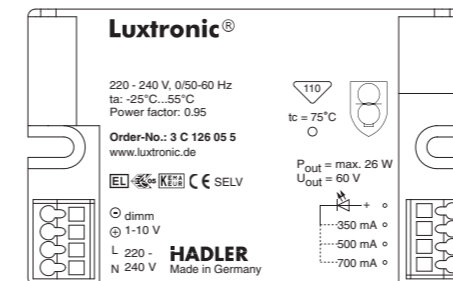
- EN 61347-1
- EN 61347-2-13
- EN 62384
- EN 55015
- EN 61547
- EN 61000-3-2
- EN 61000-3-3

Suited for use in class I and class II luminaires

Markings



Wiring diagram



Input

Rated supply voltage	220 – 240 V
Mains frequency	0 / 50 – 60 Hz
Input voltage range a.c.	198 – 264 V
Input voltage range d.c.	176 – 276 V
Input current a.c.	135 mA at 230 V and full load
Input current d.c.	65 mA at 230 V and 50 % EOF _I
Power factor	0.95 at 230 V and full load (see graph)
Total Harmonic Distortion	≈ 8 % at full load

Output

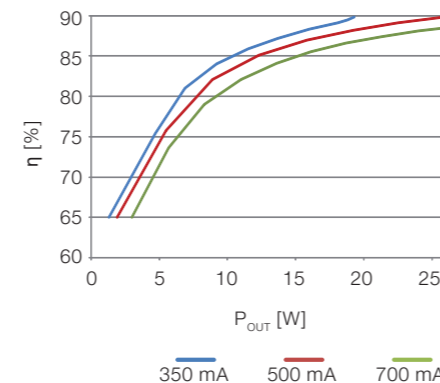
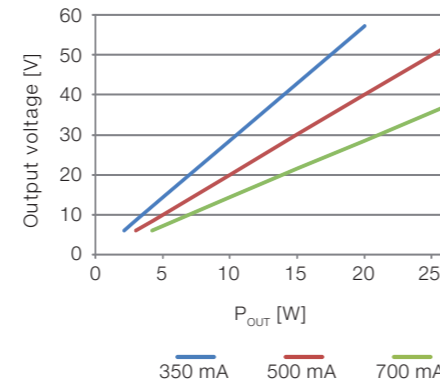
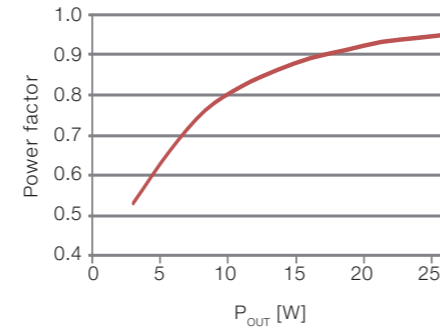
Output characteristic	Constant current
Output voltage	6 – 57 V (see graph), SELV
Output current	350 / 500 / 700 mA, selectable
Output power	max. 26 W (max. 20 W @ 350 mA)
No. of output channels	1
Output current accuracy	+/- 5 %
Output current ripple	5 % at 100 Hz
Output dimming	n.a.
Dimming range	n.a.

Efficiency

Stand-By Power consumption	n.a.
No-load Power consumption	≤ 1.0 W
Electrical efficiency	≈ 0.90 at full load (see graph)

Interface

Dimming Interface	n.a.
Interface control current	n.a.
Dimming curve	n.a.



Temperature, Lifetime

Ambient temperature range (T _a)	-25 – 55 °C		
Max. case temperature (T _c)	75 °C		
T _a	45 °C	50 °C	55 °C
T _c	65 °C	70 °C	75 °C
lifetime	100,000 h	80,000 h	60,000 h

Max. No. of ECG per circuit breaker

Type	B10	50 pcs.
	C10	50 pcs.
	B16	50 pcs.
	C16	50 pcs.

Wiring

Max. output cable length	200 cm
Input + Interface wire cross-section	0.5 – 1.5 mm ²
Output wire cross-section	0.5 – 1.5 mm ²

The wiring should be short and without crossings for best EMC results.

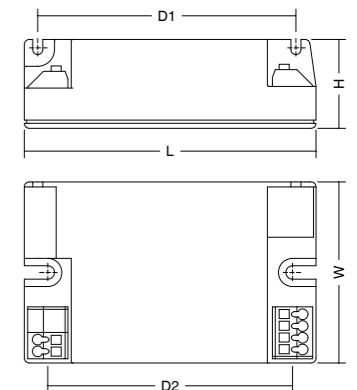
Dimensions

Length x Width x Height	87 x 54 x 27 mm
Mounting hole distances D1 / D2	77 / 74 – 82 mm
Mounting screws	M4 max.

(see schematic view on the right)

Ordering data

Weight	0.088 kg
Packaging unit	90 pcs.
Order No.	3 C 126 05 0



ECG 350 / 500 / 700 mA, 26 W, 220 – 240 V

Emergency lighting, performance during DC supply mode

The electronic control gear is equipped with integrated supply voltage detection which allows a fixed output current of 50 % at DC supply mode.

Temperature protection functions that would change the light output are ignored in DC supply mode.

EOF ₁	50 %
“Time to light”	0.5 s suitable for high-risk task area lighting

Temperature protection, self-contained

The output current of the electronic control gear is slowly reduced down to 50 % in case of a thermal overload. The thermal protection function starts slightly above t_c max.

The control gear will be shut-down if the temperature is more than 10 K above t_c max. An automatic re-start with 50 % output current will be done after cool down to t_c max.

The temperature protection features are deactivated in DC supply mode.

Standards

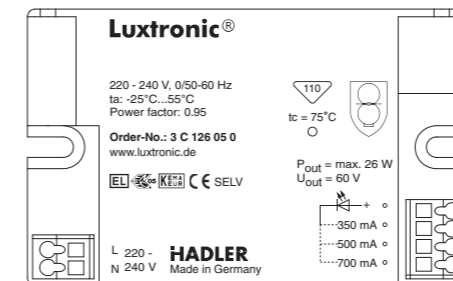
- EN 61347-1
- EN 61347-2-13
- EN 62384
- EN 55015
- EN 61547
- EN 61000-3-2
- EN 61000-3-3

Suited for use in class I and class II luminaires

Markings



Wiring diagram





<http://www.hadler-gmbh.de/en/luxtronic/all-products/>

Hadler GmbH
Fritzlärer Straße 19
34587 Felsberg-Neuenbrunslar
Tel.: +49 5662 9399-0
Fax: +49 5662 9399-29
E-Mail: info@hadler-gmbh.de

Luxtronic®