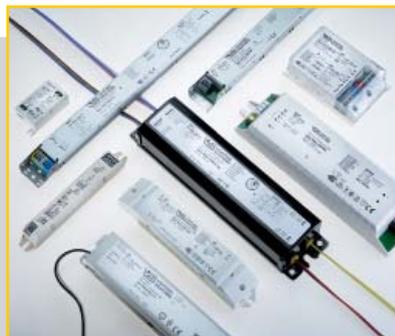


LEDLINE ECX

ELECTRONIC CONSTANT CURRENT DRIVERS



LED CONSTANT CURRENT DRIVERS

Electronic converters for LED modules operated with constant current

To ensure the safe operation of LEDs that are wired in series, the operating current must be limited to a constant value by the LED driver.

Light-emitting diodes are semiconductor devices with a light-emitting p-n junction. Due to the specific diode characteristics, the current can only flow through an LED in one direction. Coupled with the special properties of a semiconductor, this non-linear behaviour can increase the current and power uptake of an LED as it heats up.

If this effect is not limited, uncontrolled heating can finally destroy the semiconductor junction. For this reason, VS recommends using an external constant current driver to operate all constant current driven LED modules. To ensure that the same current flows through every LED, constant current driven LED modules can only be wired in series.

The constant current source has to be selected to suit the respective application, i.e. it must supply the required current and also provide sufficient voltage for the LED string.

The number of VS LED modules that can be connected to a single operating device is dependent on the forward voltage of the respective modules.

LEDLine ECX

- OVERLOAD PROTECTION
- SHORT CIRCUITING PROTECTION
- SELV OR SELV EQUIVALENT



Product Classification and Overview of LED Drivers

The electronic constant current drivers are optimised to operate constant current driven LED modules. Before connecting LED modules ensure that the power supply is disconnected from mains.

Product guarantee

The conditions for the product guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.

Most drivers are designed for DC-operation (mains frequency: 0 Hz) and can be used for emergency power supplies.

Primeline	ComfortLine	EasyLine
Programmability	Convenient	Focus on core functions
Intelligent functions	Intelligent functions	Costefficient
Maximum flexibility	Up to 100,000 hrs. expected service life time	Up to 50,000 hrs. expected service life time

Product overview by main application fields									
Main application field	Capacity range VV	Output current DC mA	Output voltage DC V	Ref. No.	Version	Current setting	Dimming	Max. service life time (hrs.)	Page data sheet
Office	6/10/14	150/250/350	17-40	186530	EasyLine	Push-in terminal	—	50,000	17
	14	350	2-40	186229	ComfortLine	—	—	100,000	15
	15/18/21	500/600/700	17-30	186529	EasyLine	Push-in terminal	—	50,000	17
	27.5/33/38.5	125/150/175	110-220*	186486	ComfortLine	Push-in terminal	—	100,000	11
	2x14	2x250	160-120	186656	ComfortLine	Push-in terminal	—	100,000	13
	28.5	500	19-57	186554	ComfortLine	—	—	100,000	16
	35	500	30-70	186504	EasyLine	—	—	50,000	18
	4x9	4x60	110-150	186384	ComfortLine	—	DALI, PUSH	100,000	8
			110-150	186305	ComfortLine	—	—	100,000	14
	40	100-400	30-120*	186585	ComfortLine	LEDSet	—	100,000	10
			30-70*	186586	ComfortLine	LEDSet	—	100,000	10
			28-114*	186444	ComfortLine	Push-in terminal	—	100,000	12
	2x20	2x350	17-57	186407	ComfortLine	—	1-10 V	100,000	9
				186406	ComfortLine	—	—	100,000	13
	42	350-700	34-120*	186446, 186575, 186576	Primeline	Programmable	DALI, PUSH	100,000	5
			34-120*	186565	ComfortLine	Resistor	DALI, PUSH	100,000	6
		350	80-120	186414	EasyLine	—	—	50,000	19
	44/47/47	200/225/250	94-220*	186487	ComfortLine	Push-in terminal	—	100,000	11
	46.8	275/300/325	72-170*	186488	ComfortLine	Push-in terminal	—	100,000	11
	2x28.5/2x40	2x500/2x700	17-57	186410	ComfortLine	Dip switch	1-10 V	100,000	9
				186409	ComfortLine	Dip switch	—	100,000	13
	60	700	46-86	186429	EasyLine	—	—	50,000	19
	77/84	350-700	60-220*	186445, 186577, 186578	Primeline	Programmable	DALI, PUSH	100,000	5
				186564	ComfortLine	Resistor	DALI, PUSH	100,000	6
	79/84/84	350/500/700	60-225*	186443	ComfortLine	Push-in terminal	—	100,000	12
	82.5/84.8/85	375/400/425	100-220*	186491	ComfortLine	Push-in terminal	—	100,000	11
	84.7/84.6/85.1	550/600/650	65-154*	186492	ComfortLine	Push-in terminal	—	100,000	11
	85	100-400	100-225*	186587	ComfortLine	LEDSet	—	100,000	10
		400-800	30-130*	186588	ComfortLine	LEDSet	—	100,000	10
	107	500	90-215	186460	ComfortLine	—	DALI, PUSH	100,000	8
186315				ComfortLine	—	—	100,000	14	
2x70	2x700	42-100	186356	ComfortLine	—	DALI, PUSH	100,000	7	
			186355	ComfortLine	—	1-10 V	100,000	9	
			186354	ComfortLine	—	—	100,000	13	

* Depends on the adjusted current output

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Product Classification and Overview of LED Drivers

Product overview by main application fields									
Main application field	Capacity range W	Output current DC mA	Output voltage DC V	Ref. No.	Version	Current setting	Dimming	Max. service life time (hrs.)	Page data sheet
Retail	10/14/20	250/350/500	17-40	186463	EasyLine	Push-in terminal	—	50,000	31
	15	350	30-43	186591	EasyLine	—	—	50,000	35
	15/18/21	500/600/700	17-30	186464	EasyLine	Push-in terminal	—	50,000	31
	17/19/22	400/450/500	25-43	186651, 186684	ComfortLine	Push-in terminal	—	100,000	25
	18/21/25	500/600/700	20-36	186523	EasyLine	Push-in terminal	—	50,000	33
	21.5	500	30-43	186592	EasyLine	—	—	50,000	35
	22/24/26	500/550/600	25-43	186671, 186689	ComfortLine	Push-in terminal	—	100,000	25
	24	350-700	14-34	186465, 186573, 186574	PrimeLine	Programmable	DALI, PUSH	100,000	20
				186280	ComfortLine	—	DALI, PUSH	100,000	21
				186279	ComfortLine	—	1-10 V	100,000	23
				186278	ComfortLine	—	—	100,000	27
	25	500	25-50	186363	EasyLine	—	—	50,000	34
	26/28/30	600/650/700	25-43	186652, 186685	ComfortLine	Push-in terminal	—	100,000	25
	27/32/35/37	500/600/700	27-54	186524	EasyLine	—	—	50,000	32
	28.5/34.2/40	500/600/700	25-57	186531	EasyLine	Push-in terminal	—	50,000	30
	30	700	30-43	186593	EasyLine	—	—	50,000	35
	30/32/34	700/750/800	25-43	186670, 186688	ComfortLine	Push-in terminal	—	100,000	25
	34	700	9-48	186177, 186195	ComfortLine	—	DALI, PUSH	100,000	22
	34/37/39	800/850/900	25-43	186653, 186686	ComfortLine	Push-in terminal	—	100,000	25
	34.4/39.8/45	800/925/1050	25-43	186532	EasyLine	Push-in terminal	—	50,000	30
	35	700/1050	16-50	186364, 186365	EasyLine	—	—	50,000	34
	37	350-700	30-53	186503, 186571, 186572	PrimeLine	Programmable	DALI, PUSH	100,000	20
				186308	ComfortLine	—	DALI, PUSH	100,000	21
				186306	ComfortLine	—	—	100,000	27
				186556	ComfortLine	—	—	100,000	26
	38.5	700	30-55	186594	EasyLine	—	—	50,000	35
	38.7	900	30-43	186669	EasyLine	—	—	50,000	35
	39	300-900	25-43	186650, 186694	ComfortLine	LEDSet	—	100,000	24
	40	700	20-57	186221, 186222	ComfortLine	—	DALI, PUSH	100,000	22
				186266, 186267	ComfortLine	—	—	100,000	28
				186330, 186331	ComfortLine	—	—	100,000	29
	41/43/45	950/1000/1050	25-43	186654, 186687	ComfortLine	Push-in terminal	—	100,000	25
	43/50/54	800/925/1050	27-54	186525	EasyLine	—	—	50,000	32
186595				EasyLine	—	—	50,000	35	
45	300-1050	25-43	186653, 186686	ComfortLine	LEDSet	—	100,000	25	
51.3	900	20-57	186386, 186387	ComfortLine	—	—	100,000	29	
			186196, 186197	ComfortLine	—	DALI, PUSH	100,000	22	
60	1050	20-57	186268, 186269	ComfortLine	—	—	100,000	28	
			186328, 186329	ComfortLine	—	—	100,000	29	
			186595	EasyLine	—	—	50,000	35	
Residential	5.2	700	50-30	186458	EasyLine	—	—	50,000	40
	5.6	700	2,8-8	186348	EasyLine	—	—	50,000	41
	6	150	27-41	186447	EasyLine	—	C	50,000	39
	7	350	8,4-20	186342	EasyLine	—	—	50,000	41
	8.75	350	3-25	186519	ComfortLine	—	—	100,000	38
	10	500	13-20	186448	EasyLine	—	C	50,000	39
	11	350	2-32	186679	ComfortLine	—	—	100,000	37
	12	250	27-48	186449	EasyLine	—	C	50,000	39
			8-24	186508	EasyLine	—	—	50,000	42
	12.6	350	8,4-36	186341	EasyLine	—	—	50,000	43
	15	500	8-30	186349	EasyLine	—	—	50,000	43
	16	500	2-32	186680	ComfortLine	—	—	100,000	37
	17	700	2-25	186681	ComfortLine	—	—	100,000	37
	18	350	32-52	186415	EasyLine	—	C	50,000	39
			16-26	186450	EasyLine	—	C	50,000	39
	20	350	18-57	186431	EasyLine	—	—	50,000	43
			40-57	186507	EasyLine	—	—	50,000	42
			2-19	186682	ComfortLine	—	—	100,000	37
	20.3	700	8-29	186350	EasyLine	—	—	50,000	43
	21	500	28-42	186505	EasyLine	—	C	50,000	39

* Depends on the adjusted current output

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Product Classification and Overview of LED Drivers

Product overview by main application fields									
Main application field	Capacity range W	Output current DC mA	Output voltage DC (V)	Ref. No.	Version	Current setting	Dimming	Max. service life time (hrs.)	Page data sheet
Residential	25	700	22-36	186416	EasyLine	—	C	50,000	39
	25.2	700	22-36	186353	EasyLine	—	—	50,000	43
	30	350	57-86	186430	EasyLine	—	—	50,000	45
		700	17-42	186393	ComfortLine	—	—	100,000	36
	31	700	30-45	186501	EasyLine	—	—	50,000	44
	31.5	1050	20-30	186351	EasyLine	—	—	50,000	45
	37.8	700	32-52	186451	EasyLine	—	C	50,000	39
		1050	18-36	186394, 186395	ComfortLine	—	C	100,000	36
	47	1050	27-45	186502	EasyLine	—	—	50,000	44
	60	700	43-86	186548	EasyLine	—	—	50,000	45
1050		40-58	186522	EasyLine	—	—	50,000	45	
Street	38.5	700	32-55	186490	ComfortLine	—	1-10 V	100,000	51
				186489	ComfortLine	—	—	100,000	53
	40	350	78-114	186550	ComfortLine	—	—	100,000	55
			39-57	186551	ComfortLine	—	—	100,000	55
			26-38	186552	ComfortLine	—	—	100,000	55
	42	350	40-115	186175	ComfortLine	—	—	100,000	56
	60	1050	28-57	186316	ComfortLine	—	1-10 V	100,000	50
	75	700	54-107	186400	ComfortLine	—	1-10 V	100,000	49
			54-107	186397	ComfortLine	—	Power reduction	100,000	52
	82/91/91	700/1000/1400	22-117*	186367	PrimeLine	Dip switch/DALI	DALI, MidNight	100,000	48
	100	700	70-143	186401	ComfortLine	—	1-10 V	100,000	49
			70-143	186398	ComfortLine	—	Power reduction	100,000	52
	150	350-1050	85-260*	186442	PrimeLine	Programmable	1-10 V	100,000	46
		700	107-214	186402	ComfortLine	—	1-10 V	100,000	49
		700/400	107-214	186509	ComfortLine	—	Power reduction	100,000	52
700/400		48-375	186202, 186203	ComfortLine	—	Power reduction	100,000	47	
Industry	19.95/28.5/34.2/39.9	350/500/ 600/700	20-57	186581	ComfortLine	Rotary switch	1-10 V	100,000	59
	38.7/45.1/51.6/60.2	900/1050/1200/1400	20-43	186208	ComfortLine	Rotary switch	1-10 V	100,000	58
	50	700	35-72	186452	EasyLine	—	—	50,000	61
	75	1050	35-72	186453	EasyLine	—	—	50,000	61
	100	1400	30-72	186454	EasyLine	—	—	50,000	61
	112	700	85-160	186299, 186300	ComfortLine	—	DALI, PUSH	100,000	57
				186297, 186298	ComfortLine	—	—	100,000	60
	121.8	1050	60-116	186617	EasyLine	—	—	50,000	61
	122.4	1700	30-72	186455	EasyLine	—	—	50,000	61
	126	1050	85-120	186303, 186304	ComfortLine	—	DALI, PUSH	100,000	57
				186301, 186302	ComfortLine	—	—	100,000	60
	151.2	2100	45-72	186456	EasyLine	—	—	50,000	61
	172.8	2400	45-72	186510	EasyLine	—	—	50,000	61
	201.6	2800	45-72	186477	EasyLine	—	—	50,000	61
Accessories									
iProgrammer	Ref. No. 186428	The iProgrammer is designed to let you configure LED drivers using the 3C function.							62

* Depends on the adjusted current output

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

PrimeLine LED Drivers – Dimmable with Programmable Current

**350-700 mA,
max. 42 W and max. 84 W**

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load:
0.95 (ECXd 700.150)
0.97 (ECXd 700.149)

Standby losses: < 0.5 W

Dimming

Dimming function is realised by hybrid dimming.

Analogue dimming: ≥ 275 mA

PWM dimming: < 275 mA

Dimming range: 3 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Programmability

The output current can be freely adjusted in 1 mA steps between 350 mA and 700 mA (factory setting: see table).

An iProgrammer (Ref. No. 186428) and a PC running the respective VS software are required for programming purposes.



Connection details

Mains voltage: 220-240 V $\pm 10\%$

Mains frequency: 50-60 Hz

DC operation: 198-264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

Push-in terminals: 0.2-1.5 mm²



Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

Product guarantee: 5 years

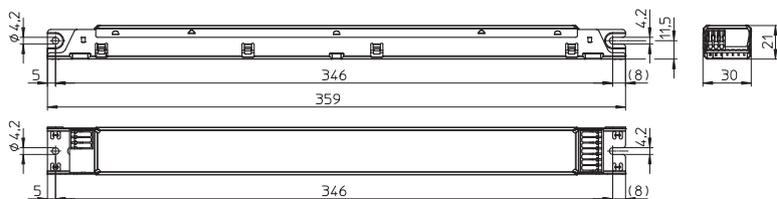


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.			
	186446, 186575, 186576		186445, 186577, 186578	
all	60 °C	50 °C	70 °C	65 °C
hrs.	50,000	100,000	50,000	100,000

M10



Max. output W	Type	Ref. No.	Mains voltage 50-60 Hz V	Mains current mA	Current output DC programmable mA	Factory setting mA	Voltage output* DC V	Max. voltage without load DC V	Efficiency at full load % [230 V]	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M10 - Dimensions: 359x30x21 mm												
42	ECXd 700.150	186446	220-240	215-200	350-700 $\pm 5\%$	350	34-120	< 250	> 91	-25 to 50	60	235
		500				> 91						
		700				> 90						
84	ECXd 700.149	186445	220-240	410-380	350-700 $\pm 5\%$	350	60-220	< 250	> 94	-25 to 50	70	265
		500				> 94						
		700				> 93						

* Depends on the adjusted current output

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable with Selectable Current

**350–700 mA,
max. 42 W and max. 84 W**

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.
Power factor at full load: > 0.95
Standby losses: < 0.4 W

Dimming

Dimming function is realised by hybrid dimming.
Analogue dimming: ≥ 275 mA
PWM dimming: < 275 mA
Dimming range: 3 to 100%
If no dimming interface is connected, brightness will stay at 100%.

Adjustable

The output current can be freely adjusted between 350 mA and 700 mA by using a resistor (according LEDset standard).



Connection details

Mains voltage: 220–240 V ±10%
Mains frequency: 50–60 Hz
DC operation: 198–264 V DC, 0 Hz
(can be reduced to 176 V with reduced service life time)
Push-in terminals: 0.2–1.5 mm²



Safety features

Electronic short-circuit protection
Overload and overtemperature protection
Protection against "no load" operation
Degree of protection: IP20
Protection class I
Product guarantee: 5 years



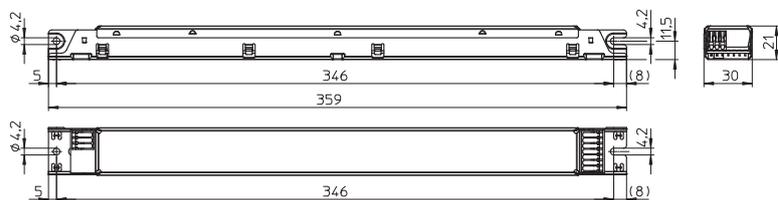
Expected service life time

at operation temperatures at t_c point



Operation current	Ref. No.			
	186565	186564		
all	60 °C	50 °C	70 °C	60 °C
hrs.	50,000	100,000	50,000	100,000

M10



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC programmable mA	Voltage output* DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M10 – Dimensions: 359x30x21 mm											
42	ECXd 700.214	186565	220–240	210–190	350–700 ±5%	34–120	< 250	> 90	–25 to 50	60	235
77	ECXd 700.213	186564	220–240	410–380	350–700 ±5%	60–220	< 250	> 93	–25 to 50	70	265
84											

* Depends on the adjusted current output

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

2x700 mA / max. 2x70 W

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.95

Standby losses: < 0.5 W

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.

Dimming range: 3 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV

Product guarantee: 5 years



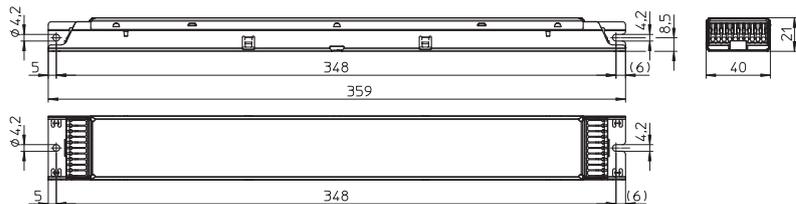
Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186356	
2x700 mA	85 °C	75 °C
hrs.	50,000	100,000



M12



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M12 – Dimensions: 359x40x21 mm

2x70	ECXd 2700.089	186356	198–264	834–625	2x700 ±5%	42–100	< 120	> 90	–20 to 50	85	400
			220–240	750–688							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

4x60 mA / max. 4x9 W

500 mA / max. 107 W

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Standby losses: < 0.5 W

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.

Dimming range: 3 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

Product guarantee: 5 years



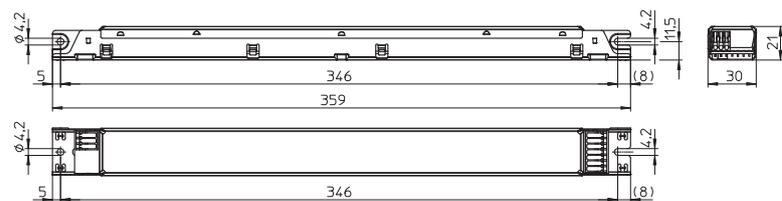
Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
all	70 °C	60 °C
hrs.	50,000	100,000



M10



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M10 – Dimensions: 359x30x21 mm											
4x9	ECXd 460.110	186384	198–264	190–140	4x60 ±5%	110–150	< 450	> 91	–25 to 65	70	230
			220–240	170–150							
107	ECXd 500.163	186460	198–264	557–412	500 +5/-10%	90–215	< 450	> 90	–20 to 50	70	220
			220–240	502–460							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

2x350 mA / max. 2x20 W
2x500 mA / max. 2x28.5 W
2x700 mA / max. 2x40 W
and max. 2x70 W

The linear LED constant-current drivers are designed for use in office and retail lighting.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.95

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current (M12) or with an analogue dimming signal (M10/M11).

Dimming range: 3 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV

Product guarantee: 5 years

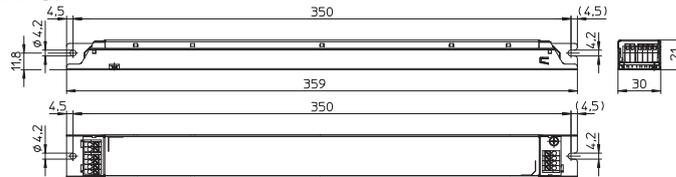
Expected service life time

at operation temperatures at t_c point

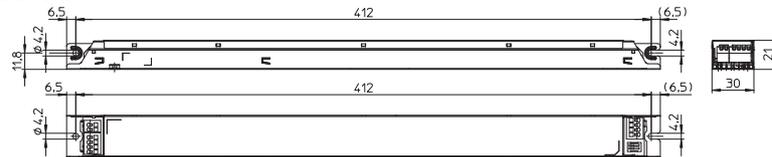
1-10V	
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Operation current	Ref. No. 186407		186410		186355	
	75 °C	65 °C	—	—	—	—
2x350 mA	—	—	75 °C	65 °C	—	—
2x500 mA	—	—	75 °C	65 °C	85 °C	75 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000

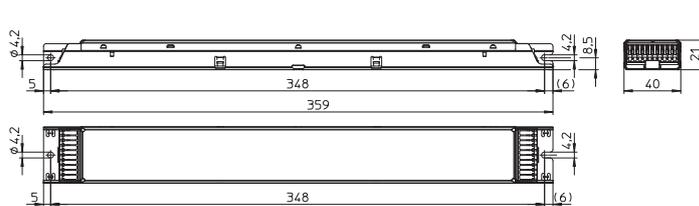
M10.1



M11.1



M12



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % [230 V]	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M10.1 – Dimensions: 359x30x21 mm

2x20	ECXd 2350.124	186407	198–264	500–340	2x350 ±5%	17–57	42	> 85	–20 to 50	75	270
			220–240	400–370							

M11.1 – Dimensions: 425x30x21 mm

2x28.5/ 2x40	ECXd 2700.127	186410	198–264	490–385	2x500 ±5%/ 2x700 ±5%	17–57	60	> 88	–20 to 50	75	310
			220–240	480–400							

M12 – Dimensions: 359x40x21 mm

2x70	ECXd 2700.088	186355	198–264	834–625	2x700 ±5%	42–100	120	> 90	–20 to 50	85	400
			220–240	750–688							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – with Selectable Current

**100–800 mA,
max. 40 W and max. 85 W**

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load:

> 0.98 (85 W), > 0.96 (40 W)

Adjustable

The output current can be freely adjusted between 100 mA and 800 mA by using a resistor (according LEDset standard).



Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

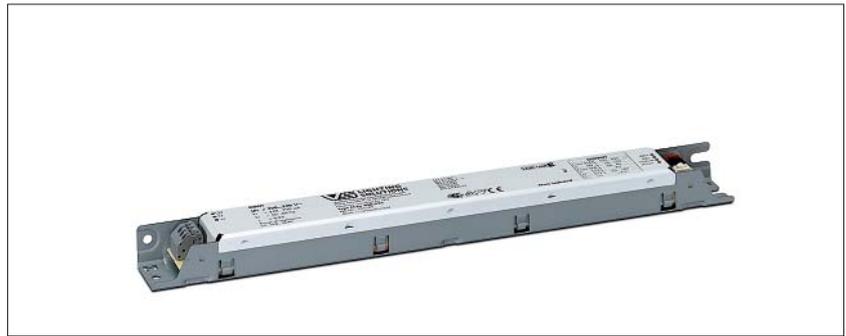
Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

Product guarantee: 5 years



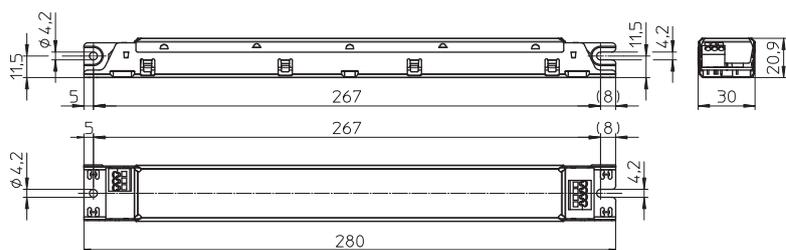
Expected service life time

at operation temperatures at t_c point



Operation current	Ref. No.					
	186585		186586, 186588		186587	
all	70 °C	60 °C	75 °C	65 °C	65 °C	55 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000

M7.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC programmable mA	Voltage output* DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M7.1 – Dimensions: 280x30x20.9 mm

40	ECXe 400.223	186585	220–240	210–190	100–400 ±5%	30–120	< 250	> 92	–25 to 60	70	180
40	ECXe 800.224	186586	220–240	210–200	400–800 ±5%	30–70	< 250	> 89	–25 to 50	75	190
85	ECXe 400.225	186587	220–240	410–380	100–400 ±5%	100–225	< 250	> 94	–25 to 50	65	183
85	ECXe 800.226	186588	220–240	420–390	400–800 ±5%	30–130	< 250	> 93	–25 to 50	75	190

* Depends on the adjusted current output

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – with Selectable Current

125 to 650 mA / 27.5 W to 85.1 W

The linear LED constant-current drivers are designed for use in office and retail lighting.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.97

Selectable current output

The required current output can be chosen by selecting the respective pin at the output terminal.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

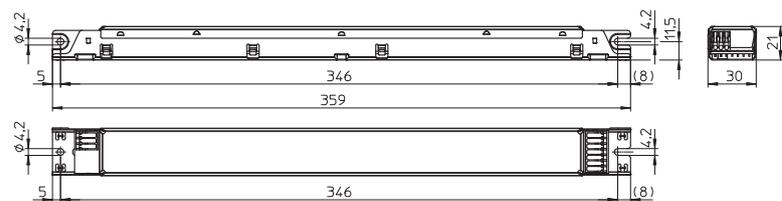
Product guarantee: 5 years

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186486		186487, 186488		186491, 186492	
	55 °C	45 °C	—	—	—	—
125–175 mA	—	—	60 °C	50 °C	—	—
200–325 mA	—	—	—	—	65 °C	55 °C
375–550 mA	—	—	—	—	70 °C	60 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000

M10



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M10 – Dimensions: 359x30x21 mm

27.5	ECXe 175.173	186486	220–240	150–140	125 ±5%	155–220	< 250	> 90	–20 to 60	70	220
33				175–165	150 ±5%	130–220		> 91			
38.5				200–190	175 ±5%	110–220		> 92			
44	ECXe 250.174	186487	220–240	220–205	200 ±5%	112–220	< 250	> 93	–20 to 60	70	220
47				230–220	225 ±5%	104–208		> 92			
47				235–220	250 ±5%	94–188		> 92			
46.8	ECXe 325.175	186488	220–240	235–220	275 ±5%	85–170	< 250	> 91	–20 to 60	75	220
46.8				235–220	300 ±5%	78–156		> 91			
46.8				235–220	325 ±5%	72–144		> 91			
82.5	ECXe 425.178	186491	220–240	410–375	375 ±5%	113–220	< 250	> 93	–20 to 50	65	243
84.8				420–385	400 ±5%	105–212		> 94			
85				420–390	425 ±5%	100–200		> 94			
84.7	ECXe 650.179	186492	220–240	420–390	550 ±5%	77–154	< 250	> 93	–20 to 50	65	244
84.6				420–390	600 ±5%	71–141		> 93		70	
85.1				420–390	650 ±5%	65–131		> 93		70	

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – with Selectable Current

**350/500/700 mA,
max. 40 W and max. 84 W**

The linear LED constant-current drivers are designed for use in office and retail lighting.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.97

Selectable current output

The required current output can be chosen by selecting the respective pin at the output terminal.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

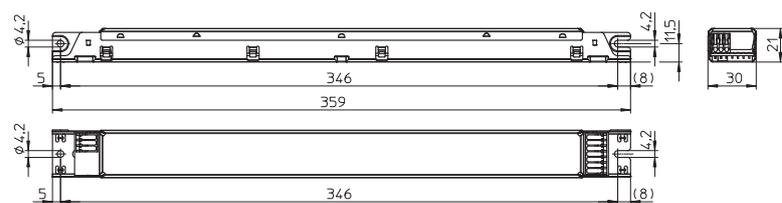
Product guarantee: 5 years

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186444		186443	
	350 mA	60 °C	50 °C	70 °C
500 mA	65 °C	55 °C	75 °C	65 °C
700 mA	70 °C	60 °C	80 °C	70 °C
hrs.	50,000	100,000	50,000	100,000

M10



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M10 – Dimensions: 359x30x21 mm

40	ECXe 700.148	186444	220–240	200–190	350 ±5%	57–114	< 250	> 90	–20 to 60	70	227
				205–190	500 ±5%	40–80		> 89		75	
				210–195	700 ±5%	28–57		> 88		80	
79	ECXe 700.147	186443	220–240	400–370	350 ±5%	120–225	< 250	> 94	–20 to 50	75	250
420–390				500 ±5%	80–170	> 93		75			
420–390				700 ±5%	60–120	> 92		80			

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

2x250 mA / max. 2x14 W
2x350 mA / max. 2x20 W
2x500 mA / max. 2x28.5 W
2x700 mA / max. 2x40 W
and max. 2x70 W

The linear LED constant-current drivers are designed for use in office and retail lighting.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9 C

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV

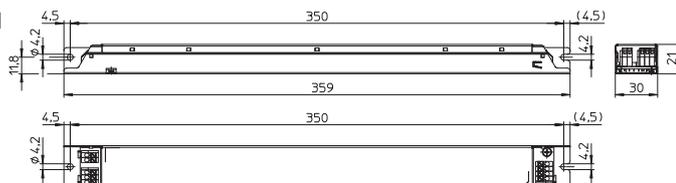
Product guarantee: 5 years

Expected service life time

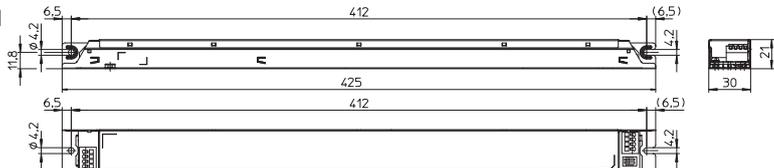
at operation temperatures at t_c point

Operation current	Ref. No.					
	186406, 186656		186409		186354	
2x350 mA	75 °C	65 °C	—	—	—	—
2x500 mA	—	—	75 °C	65 °C	—	—
2x700 mA	—	—	75 °C	65 °C	85 °C	75 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000

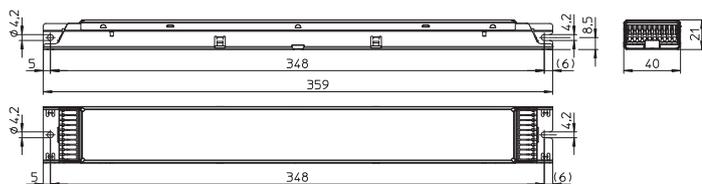
M10.1



M11.1



M12



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M10.1 – Dimensions: 359x30x21 mm											
2x14	ECXe 2250.246	186656	198–264	160–120	2x250	15–57	< 60	> 85	–25 to 50	75	306
			220–240	170–155							
2x20	ECXe 2350.123	186406	198–264	500–340	2x350 ±5%	17–57	< 60	> 85	–20 to 50	75	270
			220–240	400–370							
M11.1 – Dimensions: 425x30x21 mm											
2x28.5/ 2x40	ECXe 2700.126	186409	198–264	260–175	2x500 ±5%/ 2x700 ±5%	17–57	< 60	> 88	–20 to 50	75	310
			220–240	200–190							
M12 – Dimensions: 359x40x21 mm											
2x70	ECXe 2700.087	186354	198–264	834–625	2x700 ±5%	42–100	< 120	> 90	–20 to 50	85	400
			220–240	750–688							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

4x60 mA / max. 4x9 W

500 mA / max. 107 W

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.96

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation (except 186305):

198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

Product guarantee: 5 years

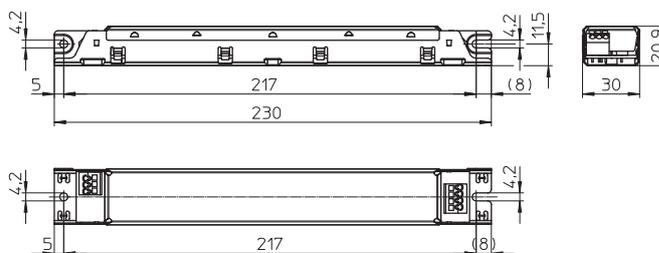


Expected service life time

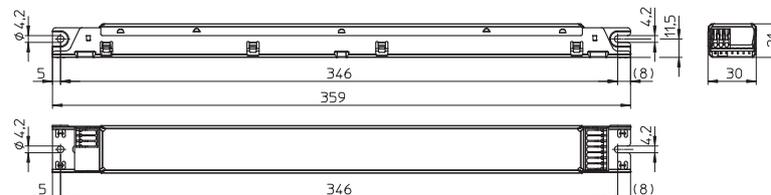
at operation temperatures at t_c point

Operation current	Ref. No. all types	
all	70 °C	60 °C
hrs.	50,000	100,000

M6.1



M10



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M6.1 – Dimensions: 230x30x20.9 mm											
4x9	ECXe 460.061	186305	—	—	4x60 ±5%	110–150	450	> 88	–20 to 60	70	156
			220–240	180–165							
M10 – Dimensions: 359x30x21 mm											
107	ECXe 500.068	186315	198–264	650–410	500 ±5%	90–215	450	> 94	–25 to 50	70	273
			220–240	520–440							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

350 mA / max. 14 W

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.55 C

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 176–264 V DC, 0 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years

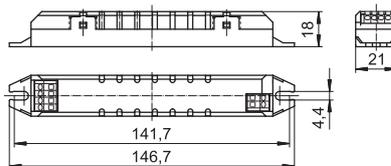


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.	
350 mA	80 °C	70 °C
hrs.	50,000	100,000

K21



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K21 – Dimensions: 146.7x21x18 mm

14	ECXe 350.031	186229	176–264 220–240	140–90 81–75	350 ^{+5/-10%}	2–40	42	> 81	-20 to 50	80	49
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

500 mA / max. 28.5 W

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Connection details

Mains voltage: 120–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

Product guarantee: 5 years

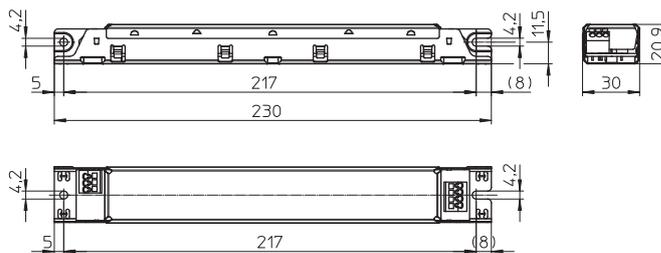


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186554	
500 mA	70 °C	60 °C
hrs.	50,000	100,000

M6.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M6.1 – Dimensions: 230x30x20.9 mm

28.5	ECXe 500.210	186554	120–240	280–140	500±5%	19–57	< 250	> 83	–25 to 50	70	152
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers – with Selectable Current

150/250/350 mA / max. 14 W
500/600/700 mA / max. 21 W

The linear LED constant-current drivers are designed for use in office and retail lighting.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.94

Selectable current output

The required current output can be chosen by selecting the respective pin at the output terminal.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV

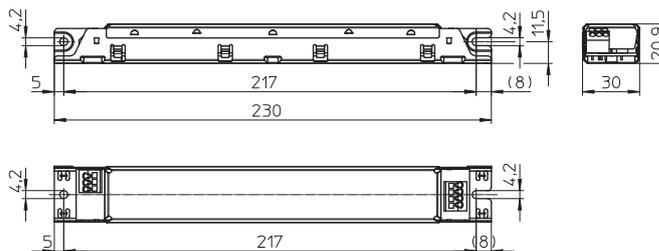
Product guarantee: 3 years

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186530		186529	
	150–350 mA	65°C	55 °C	–
500–700 mA	–	–	70 °C	60 °C
hrs.	30,000	50,000	30,000	50,000

M6.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M6.1 – Dimensions: 230x30x20.9 mm											
6	ECXe 350.198	186530	220–240	32–29	150 ±7.5%	17–40	< 60	> 84	–20 to 50	65	146
10				53–49	250 ±7.5%						
14				74–68	350 ±7.5%						
15	ECXe 700.197	186529	220–240	80–73	500 ±7.5%	17–30	< 60	> 84	–20 to 50	70	146
18				96–88	600 ±7.5%						
21				112–102	700 ±7.5%						

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

500 mA / max. 35 W

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 120–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

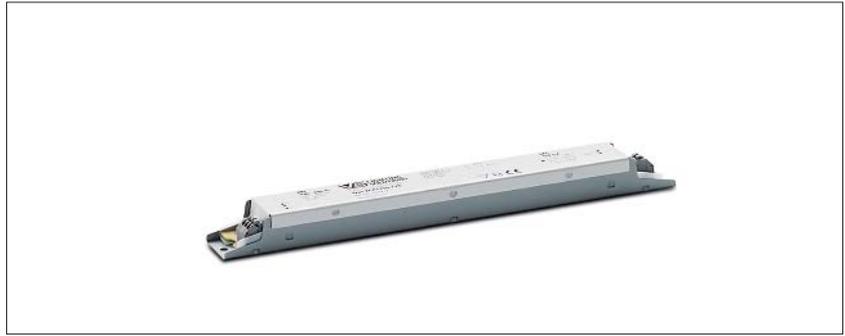
Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

Product guarantee: 3 years

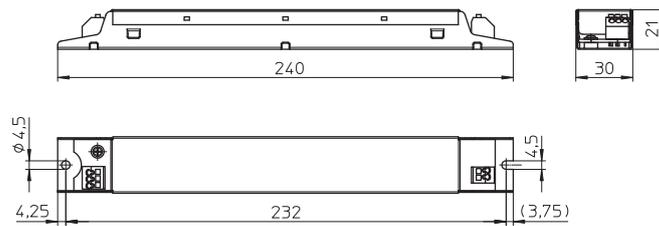


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186504	
500 mA	75 °C	65 °C
hrs.	30,000	50,000

M5.3



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M5.3 – Dimensions: 240x30x21 mm

35	ECXe 500.185	186504	120–240	330–165	500 ±5%	30–70	< 250	> 90	–15 to 50	75	158
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

350 mA / max. 42 W

700 mA / max. 60 W

The linear LED constant-current drivers are designed for use in office and retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9 C

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV (186429)

Product guarantee: 3 years

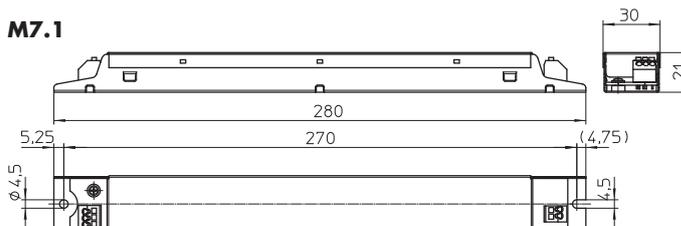


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186414		186429	
	70 °C	60 °C	—	—
350 mA	—	—	75 °C	65 °C
700 mA	—	—	—	—
hrs.	30,000	50,000	30,000	50,000

M7.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M7.1 – Dimensions: 280x30x21 mm

42	ECXe 350.129	186414	220–240	220–200	350 ±5%	80–120	< 130	> 88	–15 to 45	70	200
60	ECXe 700.140	186429	220–240	305–275	700 ±5%	46–86	< 95	> 89	–15 to 45	75	200

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

PrimeLine LED Drivers – with Programmable Current

350–700 mA / max. 24 W and max. 37 W

Compact casing shape with integrated cord grip optional for built-in or independent operation.



Electrical characteristics

Secondary side switching of LED modules is allowed (hot wiring).

Power factor at full load: > 0.95

Standby losses: < 0.5 W

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.

Dimming range: 1 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Programmability

The output current can be freely adjusted in 1 mA steps between 350 mA and 700 mA (factory setting: 350 mA).



An iProgrammer (Ref. No. 186428) and a PC running the respective VS software are required for programming purposes.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

With integrated through-wiring

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years

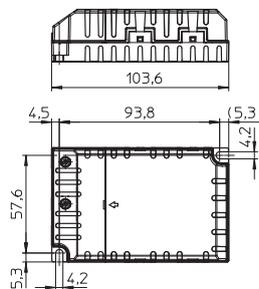
Expected service life time

at operation temperatures at t_c point

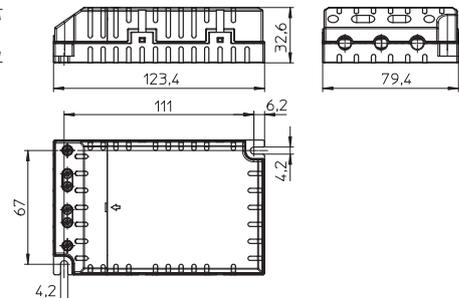


Operation current	Ref. No. all types	
all	75 °C	65 °C
hrs.	50,000	100,000

K2.1



K3.2



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC programmable mA	Factory setting mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K2.1 – Dimensions: 103.6x67.4x31 mm												
24	ECXd 700.166	186465	198–264	160–100	350–700 ±5%	350	14–34	< 45	> 84	–25 to 50	75	145
		186573	220–240	130–120		500						
		186574				700						
K3.2 – Dimensions: 123.4x79.4x32.6 mm												
37	ECXd 700.184	186503	198–264	235–155	350–700 ±5%	350	30–53	< 60	> 87	–25 to 50	75	190
		186571	220–240	200–180		500						
		186572				700						

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

700 mA / max. 24 W and max. 37 W

Compact casing shape with integrated cord grip optional for built-in or independent operation.

Electrical characteristics

Secondary side switching of LED modules is allowed (hot wiring).

Power factor at full load: > 0.9

Standby losses: < 0.5 W

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.

Dimming range: 1 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

With integrated through-wiring

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years



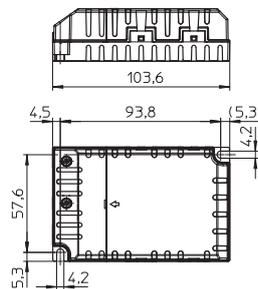
Expected service life time

at operation temperatures at t_c point

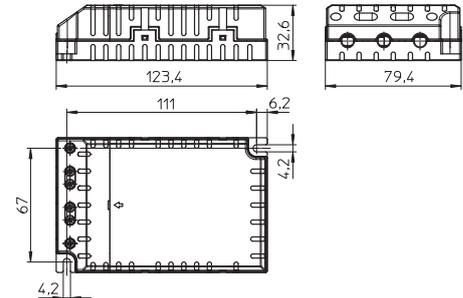
Operation current	Ref. No. all types	
all	75 °C	65 °C
hrs.	50,000	100,000



K2.1



K3.2



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K2.1 – Dimensions: 103.6x67.4x31 mm											
24	ECXd 700.044	186280	198–264	160–100	700 ±5%	14–34	< 45	> 84	–25 to 50	75	145
			220–240	130–120							
K3.2 – Dimensions: 123.4x79.4x32.6 mm											
37	ECXd 700.064	186308	198–264	235–155	700 ±5%	30–53	< 60	> 87	–25 to 50	75	190
			220–240	200–180							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

**700 mA / max. 34 W and max. 40 W,
1050 mA / max. 60 W**

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.97

Standby losses: < 0.5 W

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.

Dimming range: 0.5 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 176–264 V DC, 0 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

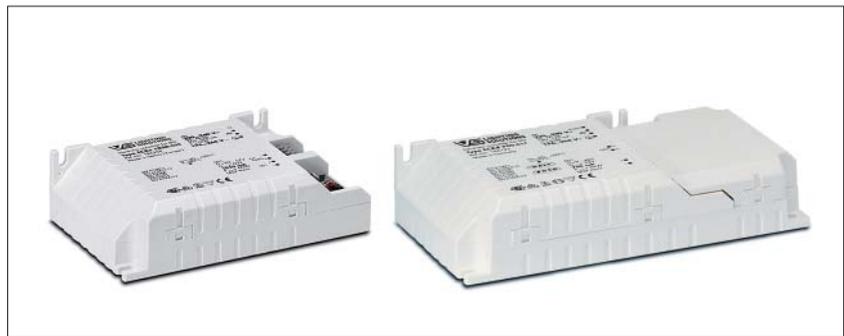
Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV equivalent

Product guarantee: 5 years



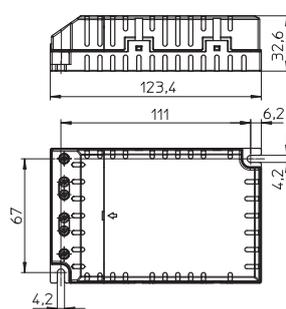
Expected service life time

at operation temperatures at t_c point

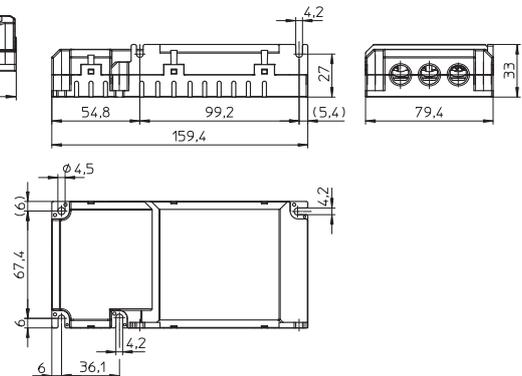
Operation current	Ref. No. all types	
700 mA	75 °C	65 °C
1050 mA	80 °C	70 °C
hrs.	50,000	100,000



K3



K3 with cord grip



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	12 V interface max. 2 W	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K3 – Dimensions: 123.4x79.4x33 mm

34	ECXd 700.017	186177	176–264	230–160	700 ±5%	9–48	52	> 85	no	–20 to 50	75	180
			220–240	190–170								
40	ECXd 700.026	186221	176–264	280–185	700 ±5%	20–57	60	> 85	yes	–20 to 50	75	186
			220–240	230–200								
60	ECXd 1050.020	186196	176–264	380–252	1050 ±5%	20–57	60	> 85	yes	–20 to 50	80	220
			220–240	305–275								

K3 with cord grip – Dimensions: 159.4x79.4x33 mm

34	ECXd 700.017	186195	176–264	230–160	700 ±5%	9–48	52	> 85	no	–20 to 50	75	215
			220–240	190–170								
40	ECXd 700.026	186222	176–264	280–185	700 ±5%	20–57	60	> 85	yes	–20 to 50	75	223
			220–240	230–200								
60	ECXd 1050.020	186197	176–264	380–252	1050 ±5%	20–57	60	> 85	yes	–20 to 50	80	250
			220–240	305–275								

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

700 mA / max. 24 W

Compact casing shape with integrated cord grip optional for built-in or independent operation.

Electrical characteristics

Secondary side switching of LED modules is allowed (hot wiring).

Power factor at full load: > 0.9

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.

Dimming range: 1 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

With integrated through-wiring

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years

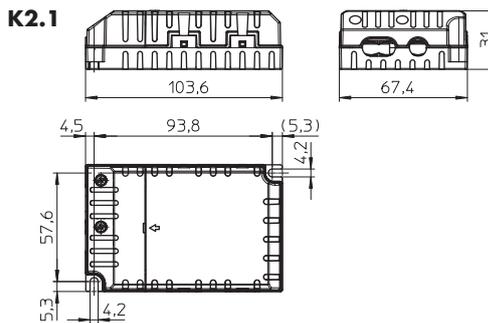


Expected service life time

at operation temperatures at t_c point

			1-10V

Operation current	Ref. No. 186279	
700 mA	75 °C	65 °C
hrs.	50,000	100,000



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K2.1 – Dimensions: 103.6x67.4x31 mm

24	ECXd 700.043	186279	198–264 220–240	160–100 130–120	700 ±5%	14–34	< 45	> 84	–25 to 50	75	145
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – with Adjustable Current

**300–900 mA, max. 39 W,
300–1050 mA, max. 45 W**

The compact LED constant-current drivers are designed for use in retail lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Efficiency at full load (230 V): > 90%

Adjustable

The output current can be freely adjusted between 300 mA and 900 mA or 1050 mA by using a resistor (according LEDset standard).



Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years



Expected service life time

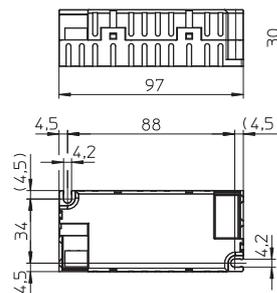
at operation temperatures at t_c point



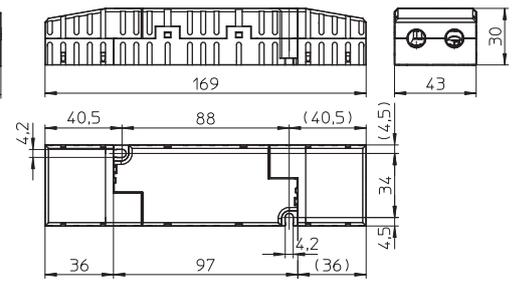
IEEE1789-2015

Operation current	Ref. No. all types	
	80 °C	70 °C
hrs.	50,000	100,000

K33.1



K33.1 with cord grip



Cord grip is also available separately
Ref. No.: 186690

Max. output W	Type	Ref. No.		Mains voltage 50–60 Hz V	Mains current mA	Current output DC programmable mA	Voltage output DC V	Max. voltage without load DC (V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight Built-in / Independent version g
		Built-in version	Independent version								
39	ECXe 900.241	186650	186694	220–240	205–190	300–900 ±5%	25–43	< 60	–20 to 50	80	140 / 150
45	ECXe 1050.251	186664*	186683*	220–240	228–210	300–1050 ±5%	25–43	< 60	–20 to 45	80	140 / 150

* Products under development; preliminary technical datas

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – with Selectable Current

400–1050 mA / max. 17–45 W

The compact LED constant-current drivers are designed for use in retail lighting.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Efficiency at full load (230 V): > 90%

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Selectable current output

The required current output can be chosen by selecting the respective pin at the output terminal.

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II SELV

Product guarantee: 5 years

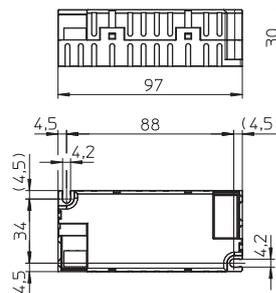
Expected service life time

at operation temperatures at t_c point

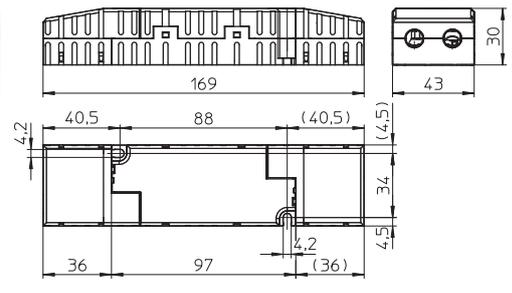
IEEE1789-2015

Operation current	Ref. No.					
	186653, 186654, 186686, 186687	186652, 186670, 186671, 186685, 186688, 186689	186651, 186684			
all	80 °C	70 °C	75 °C	65 °C	70 °C	60 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000

K33.1



K33.1 with cord grip



Cord grip is also available separately

Ref. No.: 186690

Max. output W	Type	Ref. No.		Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC (V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight Built-in / Independent version (g)
		Built-in version	Independent version								

K33.1 – Dimensions: 97x43x30 mm / K33.1 with cordgrip – Dimensions: 169x43x30 mm

17	ECXe 500.242	186651	186684	220–240	87–79	400 ±5%	25–43	< 60	–20 to 50	70	140 / 150
19					97–89	450 ±5%					
22					108–99	500 ±5%					
22	ECXe 600.255	186671	186689	220–240	109–100	500 ±5%	25–43	< 60	–20 to 50	75	140 / 150
24					119–109	550 ±5%					
26					130–120	600 ±5%					
26	ECXe 700.243	186652	186685	220–240	127–117	600 ±5%	25–43	< 60	–20 to 50	75	140 / 150
28					140–130	650 ±5%					
30					150–138	700 ±5%					
30	ECXe 800.254	186670	186688	220–240	152–140	700 ±5%	25–43	< 60	–20 to 50	75	140 / 150
32					163–149	750 ±5%					
34					173–159	800 ±5%					
34	ECXe 900.244	186653	186686	220–240	172–158	800 ±5%	25–43	< 60	–20 to 50	80	140 / 150
37					184–169	850 ±5%					
39					195–179	900 ±5%					
41	ECXe 1050.245	186654*	186687*	220–240	206–191	950 ±5%	25–43	< 60	–20 to 45	80	140 / 150
43					217–200	1000 ±5%					
45					228–210	1050 ±5%					

* Products under development; preliminary technical datas

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

700 mA / max. 37 W

Electrical characteristics

Secondary side switching of LED modules is allowed. (hot wiring)

Power factor at full load: > 0.9

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

With integrated through-wiring for L/N/PE

Push-in terminals: 0.25–2.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years

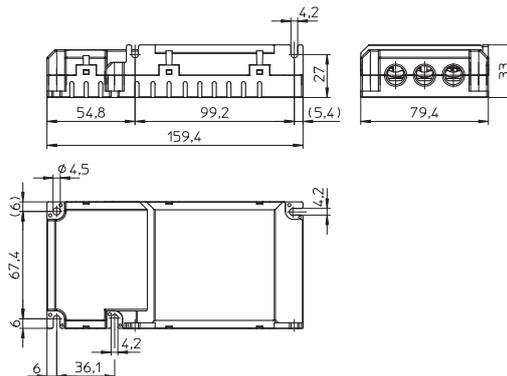


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186556	
	75 °C	65 °C
700 mA	50,000	100,000

K3 with cord grip



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current 235–155 mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K3 with cord grip – Dimensions: 159.4x79.4x33 mm

37	ECXe 700.211	186556	198–264 220–240	235–155 200–180	700 ±5%	30–53	< 60	> 87	-25 to 50	75	230
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

700 mA / max. 24 W and max. 37 W

Compact casing shape with integrated cord grip optional for built-in or independent operation.

Electrical characteristics

Secondary side switching of LED modules is allowed (hot wiring).

Power factor at full load: > 0.9

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

With integrated through-wiring

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

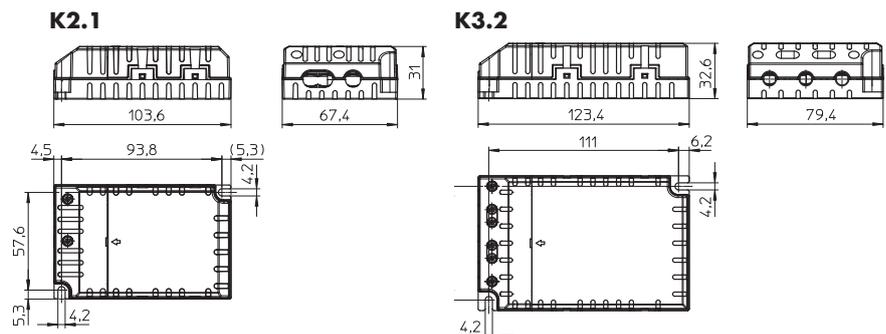
Product guarantee: 5 years



Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
700 mA	75 °C	65 °C
hrs.	50,000	100,000



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K2.1 – Dimensions: 103.6x67.4x31 mm											
24	ECXe 700.042	186278	198–264	160–100	700 ±5%	14–34	< 45	> 84	–25 to 50	75	135
			220–240	130–120							
K3.2 – Dimensions: 123.4x79.4x32.6 mm											
37	ECXe 700.062	186306	198–264	235–155	700 ±5%	30–53	< 60	> 87	–25 to 50	75	170
			220–240	200–180							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

700 mA / max. 40 W
1050 mA / max. 60 W
With 12 V interface

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.98

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 176–264 V DC, 0 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV equivalent

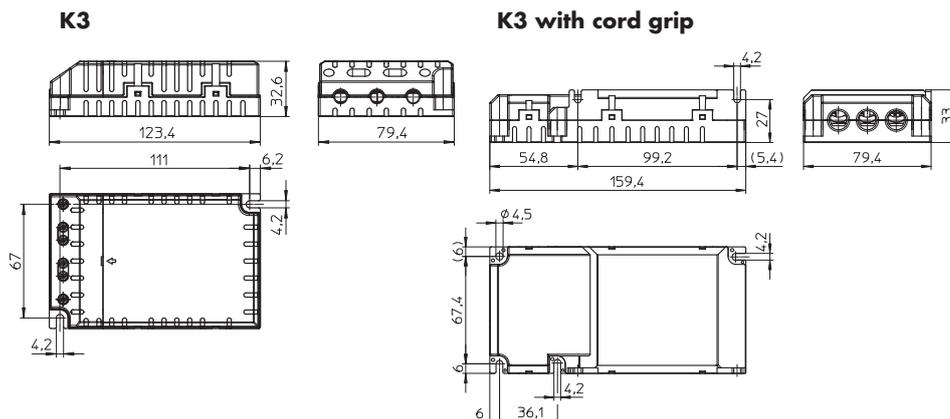
Product guarantee: 5 years



Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.			
	186266, 186267	186268, 186269		
700 mA	75 °C	65 °C	—	—
1050 mA	—	—	80 °C	70 °C
hrs.	50,000	100,000	50,000	100,000



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	12 V interface max. 2 W	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K3 – Dimensions: 123.4x79.4x33 mm

40	ECXe 700.034	186266	176–264 220–240	280–185 230–200	700 ±5%	20–57	60	> 85	yes	–20 to 50	75	182
60	ECXe 1050.035	186268	176–264 220–240	380–252 305–275	1050 ±5%	20–57	60	> 85	yes	–20 to 50	80	213

K3 with cord grip – Dimensions: 159.4x79.4x33 mm

40	ECXe 700.034	186267	176–264 220–240	280–185 230–200	700 ±5%	20–57	60	> 85	yes	–20 to 50	75	220
60	ECXe 1050.035	186269	176–264 220–240	380–252 305–275	1050 ±5%	20–57	60	> 85	yes	–20 to 50	80	248

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

700 mA / max. 40 W
900 mA / max. 51.3 W
1050 mA / max. 60 W

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.98

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 176–264 V DC, 0 Hz

With integrated through-wiring

Push-in terminals: 0.2–1.5 mm²



Safety features

Temporary electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

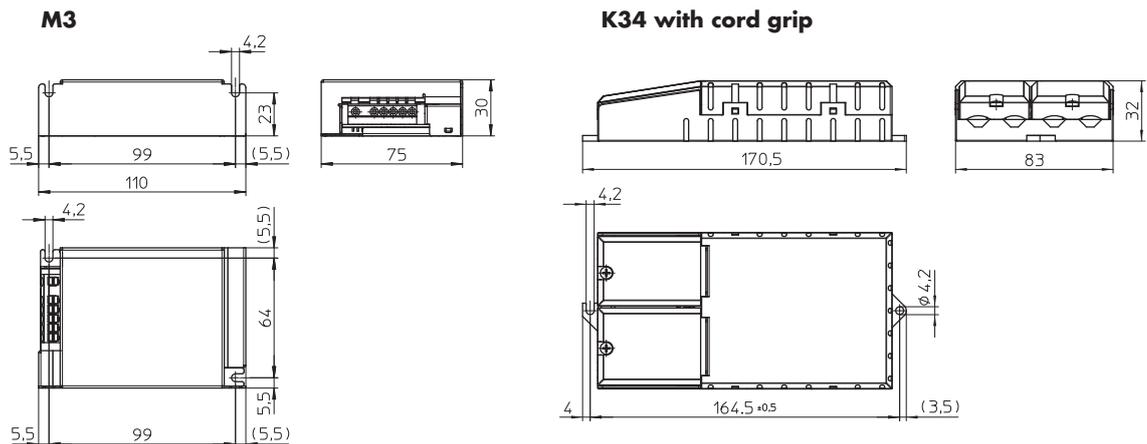
SELV equivalent

Product guarantee: 5 years

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
700 mA	75 °C	65 °C
900 mA	80 °C	70 °C
1050 mA	80 °C	70 °C
hrs.	50,000	100,000



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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M3 – Dimensions: 110x75x30 mm

40	ECXe 700.022	186330	176–264	250–160	700 ±5%	20–57	60	> 90	–20 to 60	75	210
			220–240	200–180							
51.3	ECXe 900.111	186386	176–264	325–210	900 ±5%	20–57	60	> 90	–20 to 60	80	210
			220–240	255–235							
60	ECXe 1050.021	186328	176–264	391–261	1050 ±5%	20–57	60	> 90	–20 to 60	80	226
			220–240	308–286							

K34 with cord grip – Dimensions: 170.5x83x32 mm

40	ECXe 700.022	186331	176–264	250–160	700 ±5%	20–57	60	> 90	–20 to 60	75	257
			220–240	200–180							
51.3	ECXe 900.111	186387	176–264	325–210	900 ±5%	20–57	60	> 90	–20 to 50	80	257
			220–240	255–235							
60	ECXe 1050.021	186329	176–264	391–261	1050 ±5%	20–57	60	> 90	–20 to 50	80	273
			220–240	308–286							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers – with Selectable Current

500/600/700 mA / max. 40 W
800/925/1050 mA / max. 45 W

Compact casing shape with integrated cord grip optional for built-in or independent operation.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Selectable current output

The required current output can be chosen by selecting the respective pin at the output terminal.

Safety features

Temporary electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

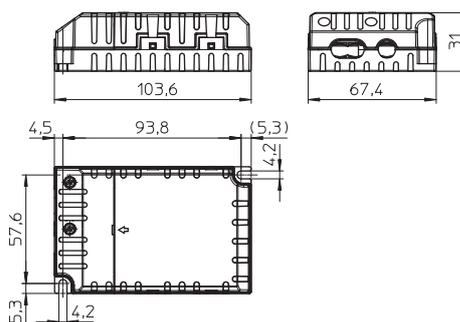
Product guarantee: 3 years

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
all	80 °C	70 °C
hrs.	30,000	50,000

K2.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K2.1 – Dimensions: 103.6x67.4x31 mm

28.5	ECXe 700.199	186531	220–240	145–130	500 ±7.5%	25–57	< 60	> 89	–20 to 50	80	135
34.2				175–160	600 ±7.5%			> 90			
40				200–185	700 ±7.5%			> 90			
34.4	ECXe 1050.200	186532	220–240	185–160	800 ±7.5%	25–43	< 60	> 89	–20 to 50	80	155
39.8				210–185	925 ±7.5%			> 89			
45				245–210	1050 ±7.5%			> 89			

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers – with Selectable Current

250/350/500 mA / max. 20 W
500/600/700 mA / max. 21 W

Compact casing shape with integrated cord grip optional for built-in or independent operation.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.93

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
	80 °C	70 °C
hrs.	30,000	50,000

Selectable current output

The required current output can be chosen by selecting the respective pin at the output terminal.

Safety features

Temporary electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

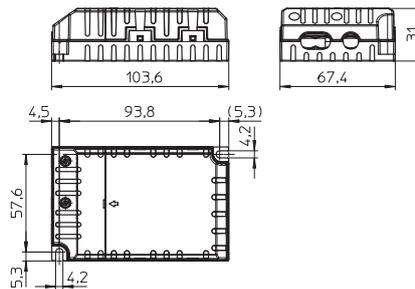
Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

K2.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K2.1 – Dimensions: 103.6x67.4x31 mm

10	ECXe 500.164	186463	220–240	53–48	250 ±7.5%	17–40	< 60	> 83	–20 to 50	75	145
14				73–67	350 ±7.5%			> 84			
20				104–95	500 ±7.5%			> 85			
15	ECXe 700.165	186464	220–240	80–71	500 ±7.5%	17–30	< 60	> 85	–20 to 40	75	145
18				94–86	600 ±7.5%			> 85			
21				110–100	700 ±7.5%			> 85			

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

500/600/700 mA / max. 37 W
800/925/1050 mA / max. 54 W

Compact casing shape for built-in operation.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.95

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals

primary: 0.25–1.5 mm²

secondary: 0.25–1.5 mm²

The output current can be selected with the connection of the different connection terminals with 500/600/700 mA or 800/925/1050 mA.

Safety features

Temporary electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV equivalent

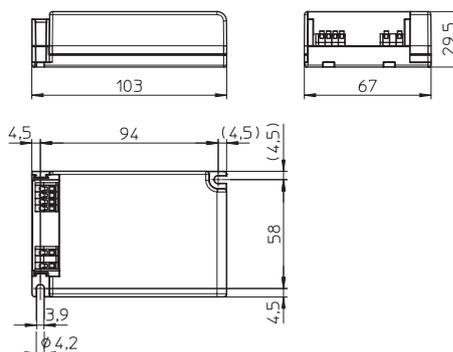
Product guarantee: 3 years



Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.			
	186524		186525	
all	75 °C	65 °C	80 °C	70 °C
hrs.	35,000	50,000	35,000	50,000



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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Dimensions: 103x67x29.5 mm

27	ECXe 700.195	186524	220–240	150	500 ±5%	27–54	< 60	> 87	–20 to 55	75	162
32				180	600 ±5%	27–54					
35				200	700 ±5%	27–50					
37				220	700 ±5%	27–54					
43	ECXe 1050.196	186525	220–240	250	800 ±5%	27–54	< 60	> 87	–20 to 50	80	183
50				280	925 ±5%	27–54					
50				280	1050 ±5%	27–50					
54				320	1050 ±5%	27–54					

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

500/600/700 mA / max. 25 W

Compact casing shape for built-in operation.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: 0.95

Connection details

Mains voltage: 220–240 V ± 10%

Mains frequency: 50–60 Hz

Push-in terminals

primary: 0.25–1.5 mm²

secondary: 0.25–1.5 mm²

The output current can be selected with the connection of the different connection terminals with 500/600/700 mA.

Safety features

Temporary electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV equivalent

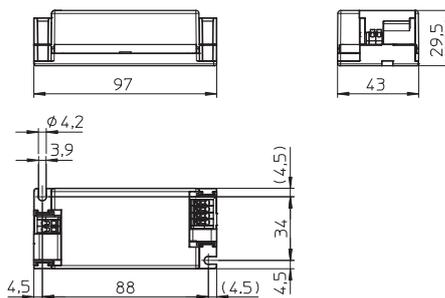
Product guarantee: 3 years



Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186523	
all	80 °C	70 °C
hrs.	35,000	50,000



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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Dimensions: 97x43x29.5 mm

18	ECXe 700.194	186523	220–240	120	500 ±5%	20–36	< 60	> 85	–20 to 50	80	90
21				140	600 ±5%						
25				160	700 ±5%						

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

500 mA / max. 25 W
700 mA / max. 35 W
1050 mA / max. 35 W

Compact casing shape with integrated cord grip
 optional for built-in or independent operation.

Electrical characteristics

Secondary side switching of LED modules
 is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Temporary electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

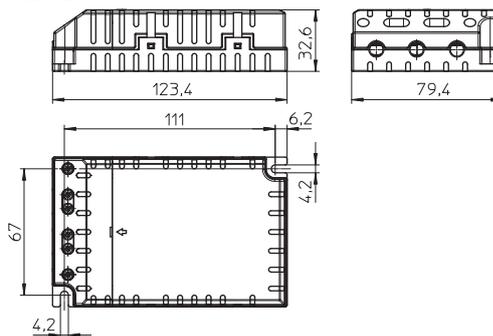


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
	70 °C	60 °C
hrs.	30,000	50,000

K3.2



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % [230 V]	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K3.2 – Dimensions: 123.4x79.4x32.6 mm

25	ECXe 500.093	186363	220–240	135–125	500 ±7.5%	25–50	< 60	> 89	–20 to 50	70	170
35	ECXe 700.094	186364	220–240	185–170	700 ±7.5%	25–50	< 60	> 89	–20 to 50	70	170
35	ECXe 1050.095	186365	220–240	185–170	1050 ±7.5%	16–34	< 60	> 90	–20 to 50	70	180

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

- 350 mA / max. 15 W**
- 500 mA / max. 21.5 W**
- 700 mA / max. 30 W / 38.5 W**
- 900 mA / max. 38.7 W**
- 1050 mA / max. 45 W**

Compact casing shape with integrated cord grip
optional for built-in or independent operation.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.5–2.5 mm²

Safety features

Temporary electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II SELV

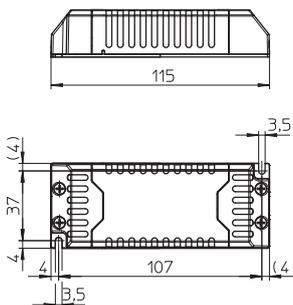
Product guarantee: 3 years

Expected service life time

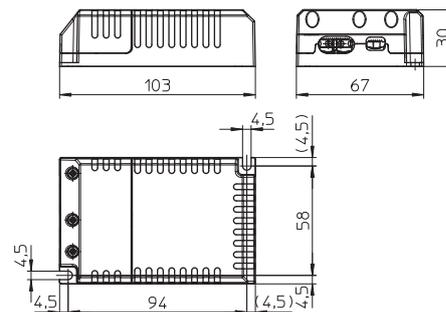
at operation temperatures at t_c point

Operation current	Best.-Nr.			
	186591, 186592	186593, 186594, 186595, 186669		
all	75 °C	65 °C	80 °C	70 °C
hrs.	30,000	50,000	30,000	50,000

K51.1



K26.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K51.1 – Dimensions: 115x45x25 mm											
15	ECXe 350.229	186591	220–240	90–70	350 ±7.5%	30–43	< 60	> 80	–20 to 50	75	82
21.5	ECXe 500.230	186592	220–240	130–100	500 ±7.5%	30–43	< 60	> 80	–20 to 50	75	94
K26.1 – Dimensions: 103x67x30 mm											
30	ECXe 700.231	186593	220–240	160–140	700 ±7.5%	30–43	< 60	> 80	–20 to 50	80	120
38.5	ECXe 700.232	186594	220–240	205–180	700 ±7.5%	40–55	< 60	> 80	–20 to 50	80	140
38.7	ECXe 900.253	186669	220–240	200–185	900 ±7.5%	30–43	< 48	> 80	–20 to 50	80	140
45	ECXe 1050.233	186595	220–240	235–210	1050 ±7.5%	30–43	< 60	> 80	–20 to 50	80	140

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

700 mA / max. 30 W
1050 mA / max. 37,8 W

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0,9

Dimming (except 186393)

Dimmable with phase-cutting trailing-edge dimmer
 Minimum dimmer load has to be observed.
 The compatibility of the driver and the dimmer has to be confirmed prior to installation to avoid flickering and/or noises.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years



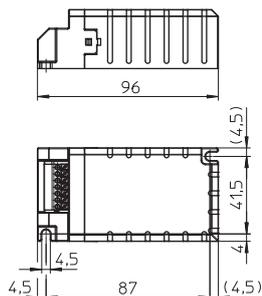
Expected service life time

at operation temperatures at t_c point

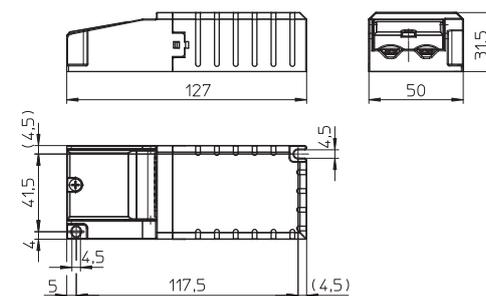


Operation current	Ref. No.			
	186393		186394, 186395	
700 mA	75 °C	65 °C	–	–
1050 mA	–	–	75 °C	65 °C
hrs.	50,000	100,000	50,000	100,000

K35



K35 with cord grip



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K35 – Dimensions: 96x50x31.5 mm											
30	ECXe 700.112	186393	220–240	155–140	700 ±5%	17–42	< 60	> 88	–25 to 50	75	130
K35 – Dimmable – Dimensions: 96x50x31.5 mm											
37,8	ECXd 1050.113	186394	220–240	200–180	1050 ±10%	18–36	< 60	> 85	–10 to 40	75	140
K35 with cord grip – Dimmable – Dimensions: 127x50x31.5 mm											
37,8	ECXd 1050.113	186395	220–240	200–180	1050 ±10%	18–36	< 60	> 85	–10 to 40	75	155

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

350 mA / max. 11 W
500 mA / max. 16 W
700 mA / max. 17 W
1050 mA / max. 20 W

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.55 C

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 176–264 V DC, 0 Hz
 (can be reduced to 176 V with reduced service life time)

Screw terminals: 2.5 mm²

With integrated cord grip

Safety features

Protection against transient main peaks up to 1 kV (between L and N)

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

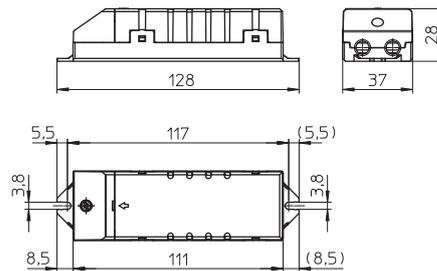
Protection class II

SELV

Product guarantee: 5 years



K39



Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.							
	186679		186680		186681		186682	
350 mA	70 °C	60 °C	–	–	–	–	–	–
500 mA	–	–	75 °C	65 °C	–	–	–	–
700 mA	–	–	–	–	75 °C	65 °C	–	–
1050 mA	–	–	–	–	–	–	75 °C	65 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000	50,000	100,000

Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K39 – Dimensions: 128x37x28 mm											
11	ECXe 350.009	186679	176–264	75–51	350 ±5%	2–32	34	> 87	–20 to 50	70	71
			220–240	122–117							
16	ECXe 500.010	186680	176–264	106–72	500 ±5%	2–32	34	> 88	–20 to 50	75	71
			220–240	160–155							
17	ECXe 700.011	186681	176–264	117–79	700 ±5%	2–25	34	> 87	–20 to 50	75	71
			220–240	188–178							
20	ECXe 1050.012	186682	176–264	137–92	1050 ±5%	2–19	34	> 87	–20 to 45	75	71
			220–240	210–202							

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

350 mA / max. 8.75 W

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.6

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz
(can be reduced to 176 V with reduced service life time)

Screw terminals: 2.5 mm²

Safety features

Protection against transient main peaks up to 1 kV (between L and N)



Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 5 years



Expected service life time

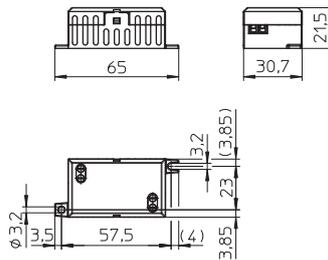
at operation temperatures at t_c point

Operation current	Ref. No. 186519	
350 mA	80 °C	70 °C
hrs.	50,000	100,000

Special Feature

Protection against transient main peaks up to 1 kV (between L and N)

K29



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
8.75	ECXe 350.192	186519	176–264 220–240	60–39 79–73	350 ±5%	3–25	26	> 78	–25 to 50	80	35

K29 – Dimensions: 65x30.7x21.5 mm

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers – Dimmable

150–700 mA / max. 6–36 W

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.85

Dimming

Dimmable with phase-cutting trailing-edge dimmer.

Minimum dimmer load has to be observed.

The compatibility of the driver and the dimmer has to be confirmed prior to installation to avoid flickering and/or noises.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Screw terminals: 0.5–2.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years



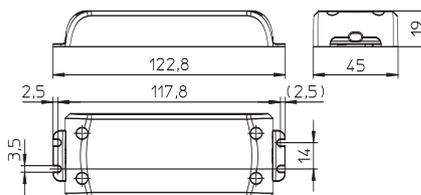
Expected service life time

at operation temperatures at t_c point

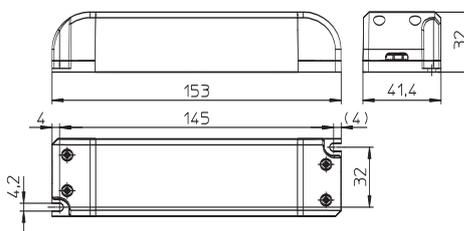


Operation current	Ref. No.		186505		186447, 186448, 186449, 186450	
	186415, 186416, 186451	70 °C	75 °C	65 °C	70 °C	60 °C
all	80 °C	70 °C	75 °C	65 °C	70 °C	60 °C
hrs.	30,000	50,000	30,000	50,000	30,000	50,000

K52



K53



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K52 – Dimensions: 122.8x45x19 mm

6	ECXd 150.151	186447	220–240	40–35	150 ±8%	27–41	60	> 78	–15 to 45	70	70
10	ECXd 500.152	186448	220–240	60–50	500 ±8%	13–20	30	> 80	–15 to 45	70	70
12	ECXd 250.153	186449	220–240	70–60	250 ±8%	27–48	60	> 80	–15 to 45	70	70

K53 – Dimensions: 153x41.4x32 mm

18	ECXd 350.130	186415	220–240	100–90	350 ±8%	32–52	60	> 85	–15 to 45	80	70
18	ECXd 700.134	186450	220–240	95–85	700 ±8%	16–26	35	> 85	–15 to 45	70	140
21	ECXd 500.186	186505	220–240	110–100	500 ±8%	28–42	50	> 85	–15 to 45	75	100
25	ECXd 700.131	186416	220–240	140–120	700 ±8%	22–36	60	> 85	–15 to 45	80	140
36	ECXd 700.155	186451	220–240	190–170	700 ±8%	32–52	60	> 83	–15 to 45	80	170

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

700 mA / max. 5.2 W

For applications according to EN 60335

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.5

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Pre-assembled connection leads

primary: 2x0.75 mm², length: 180 mm

secondary: 2x0.5–0.75 mm², length: 180 mm

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

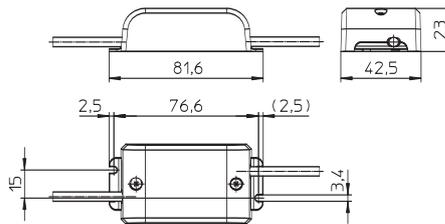


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186458	
	70 °C	60 °C
700 mA	30,000	50,000
hrs.		

K51



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % [230 V]	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K51 – Dimensions: 82x42.5x23 mm

5.2	ECXe 700.161	186458	220–240	50–30	700 ±8%	2.8–7.4	< 60	> 70	–15 to 45	70	45
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

350 mA / max. 7 W
700 mA / max. 5.6 W

Electrical characteristics

Secondary side switching of LED modules is not allowed.
 Power factor at full load: > 0.5

Connection details

Mains voltage: 220–240 V ±10%
 Mains frequency: 50–60 Hz
 Pre-assembled connection leads
 primary: 2x0.75 mm², length: 180 mm
 secondary: 2x0.5–0.75 mm², length: 180 mm

Safety features

Electronic short-circuit protection
 Overload protection
 Protection against "no load" operation
 Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

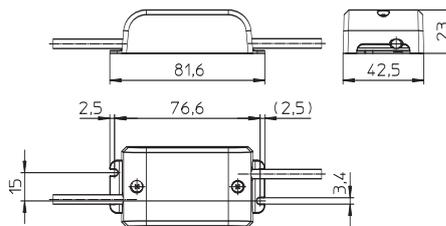


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
	75 °C	65 °C
hrs.	30,000	50,000

K51



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K51 – Dimensions: 81.6x42.5x23 mm

5.6	ECXe 700.081	186348	220–240	45–30	700 ±5%	2.8–8	< 60	> 70	–15 to 45	75	45
7	ECXe 350.079	186342	220–240	50–36	350 ±5%	8.4–20	< 60	> 70	–15 to 45	75	45

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

350 mA / max. 20 W

500 mA / max. 12 W

The LED constant-current drivers are designed for use in residential lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Screw terminals: 0.5–2.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

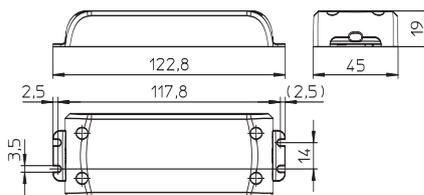


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.			
	186508	186507		
350 mA	–	–	75 °C	65 °C
500 mA	70 °C	60 °C	–	–
hrs.	30,000	50,000	30,000	50,000

K52



Products under development; preliminary technical datas

Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K52 – Dimensions: 122.8x45x19 mm											
12	ECXe 500.189	186508	220–240	64–58	500 ±5%	8–24	< 60	> 85	–15 to 45	70	65
20	ECXe 350.188	186507	220–240	107–98	350 ±5%	40–57	< 60	> 85	–15 to 45	75	70

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

350 mA / max. 12.6 W and 20 W

500 mA / max. 15 W

700 mA / max. 20.3 W and 25.2 W

The LED constant-current drivers are designed for use in residential lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.5 or > 0.95 (186353)

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Screw terminals: 0.5–2.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

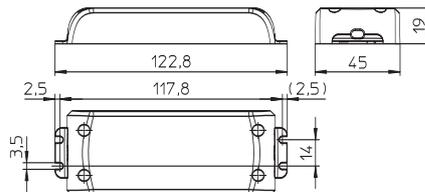


Expected service life time

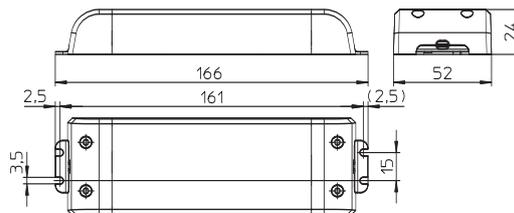
at operation temperatures at t_c point

Operation current	Ref. No.							
	186341, 186431	186349	186350	186353				
350 mA	75 °C	65 °C	—	—	—	—	—	—
500 mA	—	—	75 °C	65 °C	—	—	—	—
700 mA	—	—	—	—	75 °C	65 °C	70 °C	60 °C
hrs.	30,000	50,000	30,000	50,000	30,000	50,000	30,000	50,000

K52



K54



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K52 – Dimensions: 122.8x45x19 mm											
12.6	ECXe 350.078	186341	220–240	100–70	350 ±5%	8.4–36	< 60	> 83	–15 to 45	75	65
15	ECXe 500.082	186349	220–240	90–70	500 ±5%	8–30	< 60	> 83	–15 to 45	75	70
20	ECXe 350.142	186431	220–240	190–170	350 ±5%	18–57	< 63	> 85	–15 to 45	75	140
20.3	ECXe 700.083	186350	220–240	115–100	700 ±5%	8–29	< 60	> 83	–15 to 45	75	70
K54 – Dimensions: 166x52x24 mm											
25.2	ECXe 700.086	186353	220–240	130–115	700 ±8%	22–36	< 60	> 88	–15 to 45	70	140

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

700 mA / max. 31 W
1050 mA / max. 47 W

The LED constant-current drivers are designed for use in residential lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Screw terminals: 0.5–2.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

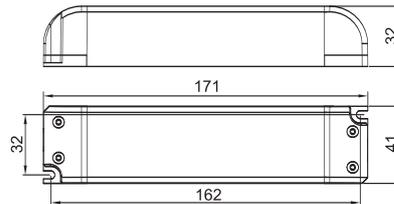


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.			
	186501		186502	
700 mA	75 °C	65 °C	—	—
1050 mA	—	—	80 °C	70 °C
hrs.	30,000	50,000	30,000	50,000

K55



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K53 – Dimensions: 171x41x32 mm

31	ECXe 700.182	186501	220–240	160–140	700 ±8%	30–45	< 55	> 87	–15 to 45	75	110
47	ECXe 1050.183	186502	220–240	245–215	1050 ±8%	27–45	< 57	> 89	–15 to 45	80	110

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

350–1050 mA / max. 30–60 W

The LED constant-current drivers are designed for use in residential lighting.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Screw terminals: 0.5–2.5 mm²

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

SELV

Product guarantee: 3 years

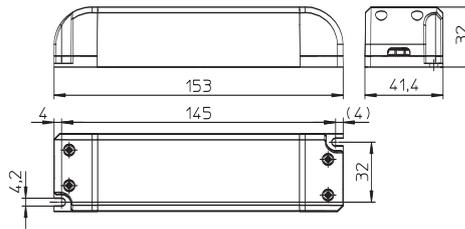


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.					
	186430		186351, 186522		186548	
350 mA	70 °C	60 °C	–	–	–	–
750 mA	–	–	–	–	75 °C	65 °C
1050 mA	–	–	75 °C	65 °C	–	–
hrs.	30,000	50,000	30,000	50,000	30,000	50,000

K53



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K53 – Dimensions: 153x41.4x32 mm

30	ECXe 350.141	186430	220–240	160–140	350 ±6%	57–86	< 90	> 89	–15 to 45	70	200
31.5	ECXe 1050.084	186351	220–240	150–145	1050 ±6%	20–30	< 60	> 88	–15 to 45	75	140
60	ECXe 700.206	186548	220–240	320–294	700 ±8%	43–86	< 120	> 85	–15 to 45	75	180
60	ECXe 1050.183	186522	220–240	320–294	1050 ±8%	40–58	< 70	> 85	–15 to 45	75	180

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

PrimeLine LED Drivers – Dimmable with Programmable Current

350–1050 mA / max. 150 W

These electronic LED constant current drivers are especially designed for use in street lighting systems.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Constant lumen output



Dimming

The dimming function is achieved by applying an analogue dimming signal to the nominal current.

Dimming range: 10 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Programmability

The output current can be freely adjusted in 1 mA steps between 350 mA and 1050 mA (factory setting: 350 mA).

An iProgrammer (Ref. No. 186428) and a PC running the respective VS software are required for programming purposes.



Connection details

Mains voltage: 220–240 V

Mains frequency: 50–60 Hz

Pre-assembled connection leads:

primary: 0.75 mm², length: 300 mm

secondary: 0.75 mm², length: 300 mm



Safety features

Protection against transient main peaks up to 6 kV (between L and N)



Double isolated

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP65

Protection class II

The LEDs are thermally protected by the driver's NTC interface, which ensures the current will be reduced when a critical temperature is reached



Product guarantee: 5 years

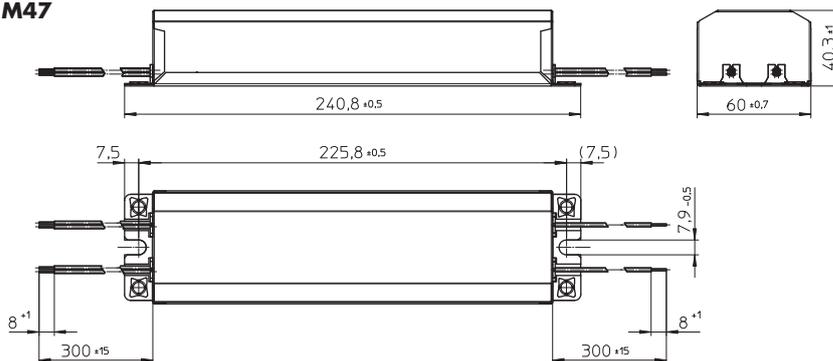
1-10V	
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Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
	80 °C	70 °C
350–1050 mA	50,000	100,000
hrs.		

M47



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output*	Max. voltage without load	Efficiency at full load	Ambient temperature	Casing temperature	Weight
W			50–60 Hz	mA	DC	DC	DC	% (230 V)	t _a °C	t _c °C	g
150	ECXd 1050G.146	186442	220–240	757–694	350–1050 ^{+5%}	85–260	< 310	> 91	–40 to 60	80	1050

Dimensions: 240.8x60x40.3 mm

150	ECXd 1050G.146	186442	220–240	757–694	350–1050 ^{+5%}	85–260	< 310	> 91	–40 to 60	80	1050
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* Depends on the adjusted current output

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – for Power Reduction

700/400 mA / max. 150 W

These electronic LED constant current drivers are especially designed for use in street lighting systems. They provide a simple power-reduction option by connecting a further phase, which makes it possible to switch between 700 mA and 400 mA.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Power reduction

The nominal current output will be reduced by connecting the control phase (LST) to 57%.

Connecting L (black) and LST (orange) to the mains voltage reduces output by lowering the output current. If this function is not used, an additional terminal should be provided in the luminaire to fix the LST wire.

Connection details

Mains voltage: 220–277 V ± 10%

Mains frequency: 50–60 Hz

K37: Push-in terminals: 0.75–2.5 mm²

K37 with cord grip:

Pre-assembled connection leads:

primary: 5x1 mm², 200 mm

secondary: 2x1.5 mm², 200 mm

Suitable for independent operation when capable connector acc. to EN 60598 is used.



Safety features

Protection against transient main peaks

up to 3 kV (between L and N) and

up to 4 kV (between L, N and PE)

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20 or

IP66 (K37 with cord grip)

Protection class I

Product guarantee: 5 years



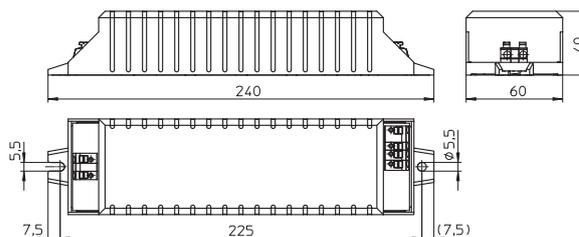
Expected service life time

at operation temperatures at t_c point

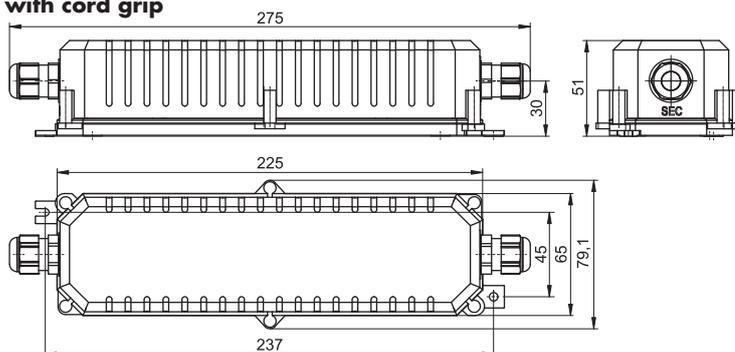
Operation current	Ref. No. all types	
all	75 °C	65 °C
hrs.	50,000	100,000



K37



K37 with cord grip



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K37 – Dimensions: 240x60x40 mm											
150	ECXd 700.023	186202	220–277	735–585	700 +5/-10%	48–215	445	> 93	-40 to 60	75	440
					400 +5/-10%	48–375					
K37 with cord grip – Dimensions: 275x79.1x51 mm											
150	ECXd 700.023	186203	220–277	735–585	700 +5/-10%	48–215	445	> 93	-40 to 60	75	560
					400 +5/-10%	48–375					

Power reduction can be effected with VS Power Switches PR12 K LC and PR12 K D. These power switches are used to switch the 230-V power reduction input on the LED driver of a luminaire.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

PrimeLine LED Drivers – Dimmable

700, 1000, 1400 mA / max. 91 W

The nominal current can be set to 700 mA, 1000 mA, 1400 mA with a dip switch or it can be adjusted with a DALI signal.

Electrical characteristics

Secondary side switching of LED modules is allowed (hot wiring).

Power factor at full load: > 0.98

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.

Dimming range: 10 to 100%

If no dimming interface is connected, brightness will stay at 100%.

MidNight – Multi-Step dimming

The MidNight concept is based on dimmable ballasts for integration in lampposts; these ballasts can be programmed to create different light scenes with different dimm settings.

Note: If DALI is not used, MidNight protocol is activated.

After the first switch-on of mains voltage the driver is waiting for 7 seconds to supply voltage to the LEDs.

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.75–2.5 mm²

Safety features

Protection against transient main peaks

up to 2 kV (between L and N) and

up to 4 kV (between L, N and PE)

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

Product guarantee: 5 years



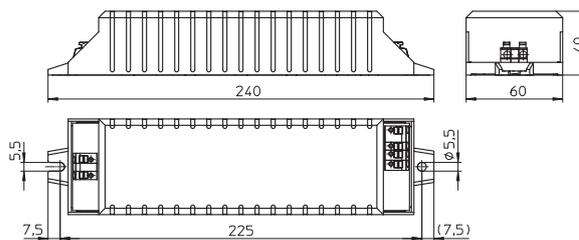
Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.	
	186367	
700 mA	70 °C	60 °C
1000 mA	80 °C	70 °C
1400 mA	85 °C	75 °C
hrs.	50,000	100,000



K37



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature t_a	Casing temperature t_c	Weight	
W			50–60 Hz		DC	DC	DC	% (230 V)	°C	°C	g	
K37 – Dimensions: 240x60x40 mm												
82	ECXd 1400.096	186367	220–240	450–150	700 ±5%	43–117	< 120	> 90	–40 to 50	70	445	
91					1000 ±5%	33–91				–40 to 45		80
					1400 ±5%	22–64				–40 to 40		85

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

700 mA / max. 75, 100 and 150 W

These electronic LED constant current drivers are especially designed for use in street lighting systems.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0,9

Dimming

The dimming function is achieved by applying an analogue dimming signal to the nominal current.

Dimming range: 10 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 120–277 V ±10%

Mains frequency: 50–60 Hz

Pre-assembled connection leads:

primary: 2x0.75 mm²

secondary: 4x0.75 mm²

Safety features

Protection against transient main peaks up to 6 kV (between L and N)

Electronic short-circuit protection

Overload protection

Overtemperature protection (186402)

Protection against "no load" operation

Degree of protection: IP65

Protection class II

Product guarantee: 5 years



Expected service life time

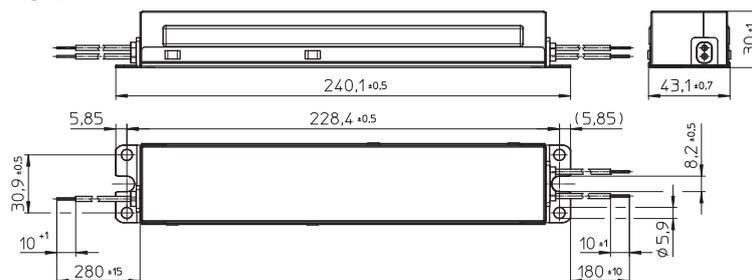
at operation temperatures at t_c point

1-10V	
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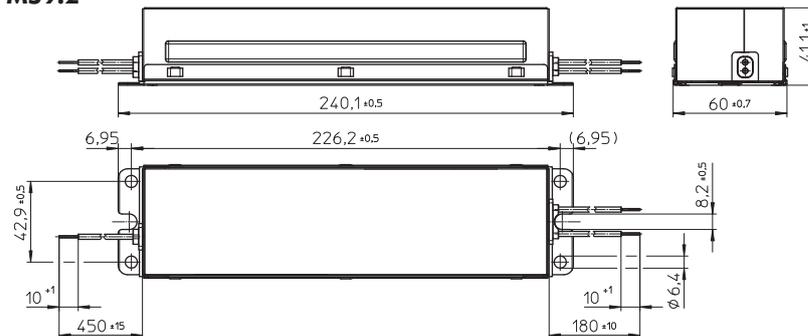
Operation current	Ref. No.				
	186400, 186402	186401			
700 mA	85 °C	75 °C	80 °C	70 °C	
hrs.	50,000	100,000	50,000	100,000	



M59.1



M59.2



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature	Casing temperature	Weight
W			50–60 Hz		DC	DC	DC	% (230 V)	t_a	t_c	g
			V	mA	mA	V	V		°C	°C	
M59.1 – Dimensions: 240.1x43.1x30 mm											
75	ECXd 700G.117	186400	120–277	700–304	700 ±5%	54–107	< 250	> 88	–40 to 55	85	625
M59.2 – Dimensions: 240.1x60x41.1 mm											
100	ECXd 700G.118	186401	120–277	917–398	700 ±5%	70–143	< 250	> 88	–40 to 55	80	1070
150	ECXd 700G.119	186402	120–277	1363–591	700 ±5%	107–214	< 250	> 88	–40 to 55	85	1070

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

1050 mA / max. 60 W

These electronic LED constant current drivers are especially designed for use in street lighting systems.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.96

Dimming

The dimming function is achieved by applying an analogue dimming signal to the nominal current.

Dimming range: 10 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ± 10%

Mains frequency: 50–60 Hz

Pre-assembled connection leads:

primary: 2x0.75 mm², length: 300 mm

secondary: 6x0.75 mm², length: 300 mm

Safety features

Protection against transient main peaks up to 4 kV (between L and N)

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP67

Protection class II

SELV

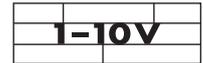
Product guarantee: 5 years



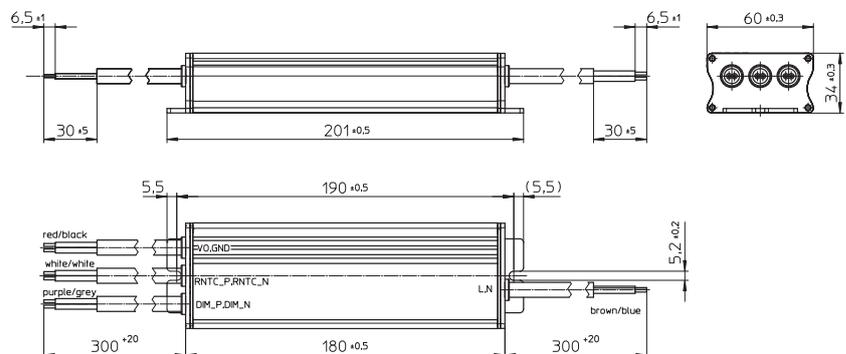
Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186316	
1050 mA	80 °C	70 °C
hrs.	50,000	100,000



M57



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature	Casing temperature	Weight
W			V	mA	DC mA	DC V	V	% (230 V)	t_a °C	t_c °C	g

M57 – Dimensions: 201x60x34 mm

60	ECXd 1050.069	186316	220–240	310–280	1050 ±5%	28–57	< 60	> 88	–40 to 50	80	730
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

700 mA / max. 38.5 W

These electronic LED constant current drivers are especially designed for use in street lighting systems.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.96

Dimming

The dimming function is achieved by applying analogue dimming signal to the nominal current.

Dimming range: 10 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 120–277 V ±10%

Mains frequency: 50–60 Hz

Pre-assembled connection leads:

primary: 2x0.75 mm², length: 228 mm

secondary: 4x0.75 mm², length: 228 mm

Safety features

Protection against transient main peaks up to 6 kV (between L and N)

Electronic short-circuit protection

Overload protection

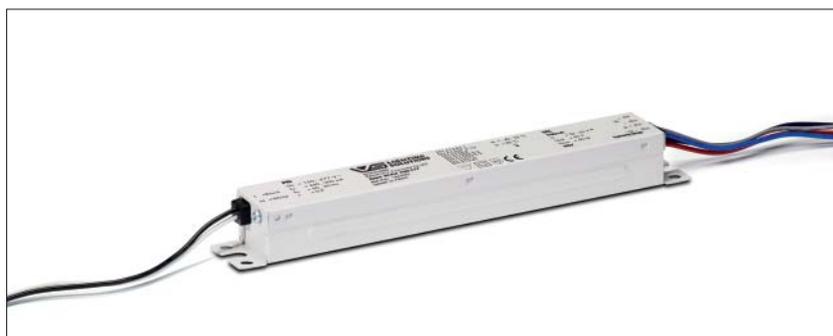
Protection against "no load" operation

Degree of protection: IP54

Protection class II

SELV

Product guarantee: 5 years



Expected service life time

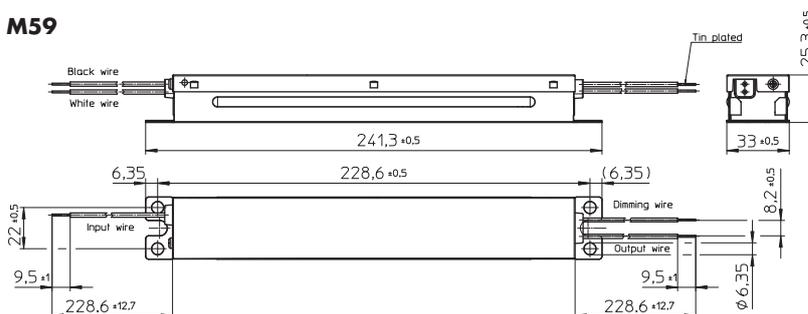
at operation temperatures at t_c point

Operation current	Ref. No. 186490	
700 mA	80 °C	70 °C
hrs.	50,000	100,000

1-10V



M59



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature t_a	Casing temperature t_c	Weight
W			V	mA	DC mA	DC V	V	% (230 V)	°C	°C	g
M59 – Dimensions: 241.3x33x25.3 mm											
38.5	ECXd 700G.177	186490	120–277	440–200	700 ±5%	32–55	60	> 85	–30 to 55	80	398

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – for Power Reduction

700/400 mA / max. 75, 100 and 150 W

These electronic LED constant current drivers are especially designed for use in street lighting systems. They provide a simple power-reduction option by connecting a further phase, which makes it possible to switch between 700 mA and 400 mA.

Electrical characteristics

Secondary side switching of LED modules is not allowed.
Power factor at full load: > 0.9

Connection details

Mains voltage: 120–277 V ±10%
Mains frequency: 50–60 Hz
Pre-assembled connection leads:
primary: 3x0.75 mm²
secondary: 2x0.75 mm²

Power reduction

The nominal current output will be reduced by connecting the control phase (LST) to 57%.



Connecting L (black) and LST (orange) to the mains voltage reduces output by lowering the output current. If this function is not used, an additional terminal should be provided in the luminaire to fix the LST wire.



Safety features

Protection against transient main peaks up to 6 kV (between L and N)
Electronic short-circuit protection
Overload protection
Protection against "no load" operation
Degree of protection: IP65



Expected service life time

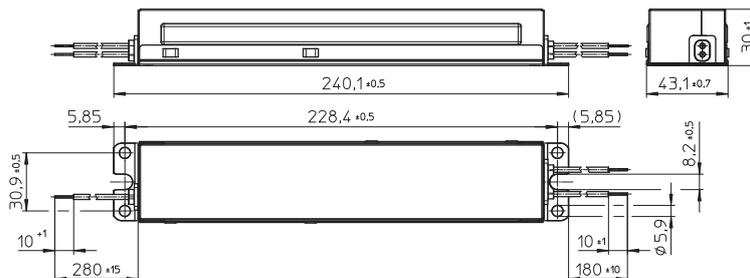
at operation temperatures at t_c point

Operation current	Ref. No.			
	186397, 186509	186398		
700 mA	85 °C	75 °C	80 °C	70 °C
hrs.	50,000	100,000	50,000	100,000

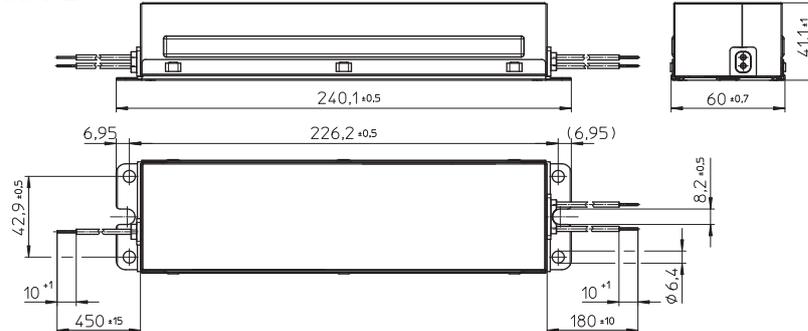
Protection class II

Product guarantee: 5 years

M59.1



M59.2



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature	Casing temperature	Weight
W			50–60 Hz		DC	DC	DC	% [230 V]	t_a	t_c	g
			V	mA	mA	V	V		°C	°C	

M59.1 – Dimensions: 240.1x43.1x30 mm

75	ECXe 700G.114	186397	120–277	700–304	700 ±5%	54–107	< 250	> 88	–40 to 55	85	625
					400 ±5%						

M59.2 – Dimensions: 240.1x60x41.1 mm

100	ECXe 700G.115	186398	120–277	917–398	700 ±5%	70–143	< 250	> 88	–40 to 55	80	1070
					400 ±5%						
150	ECXe 700G.190	186509	120–277	1363–591	700 ±5%	107–214	< 250	> 88	–40 to 55	85	1070
					400 ±5%						

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

700 mA / max. 38.5 W

These electronic LED constant current drivers are especially designed for use in street lighting systems.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 120–277 V ±10%

Mains frequency: 50–60 Hz

Pre-assembled connection leads:

primary: 2x0.75 mm², length: 228 mm

secondary: 2x0.75 mm², length: 228 mm

Safety features

Protection against transient main peaks up to 6 kV (between L and N)



Electronic short-circuit protection

Overload protection

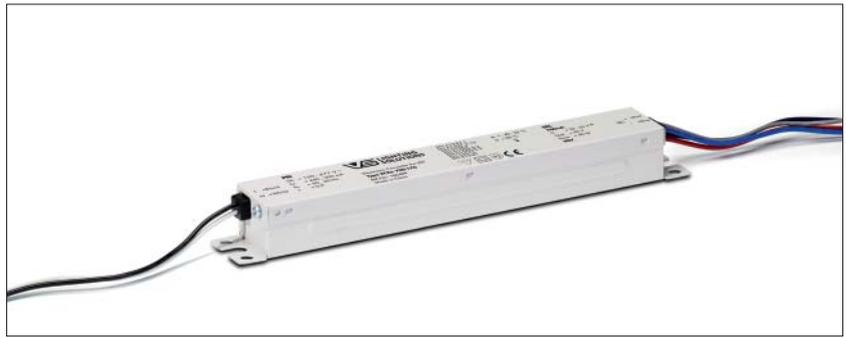
Protection against "no load" operation

Degree of protection: IP54

Protection class II

SELV

Product guarantee: 5 years

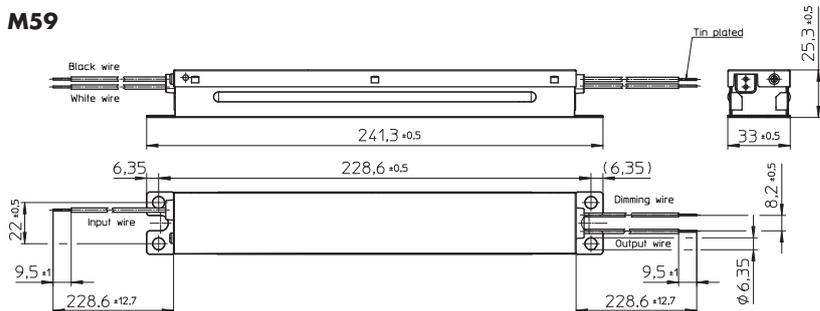


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.	
700 mA	80 °C	70 °C
hrs.	50,000	100,000

M59



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature	Casing temperature	Weight
W			V	mA	mA	V	V	% (230 V)	t_a °C	t_c °C	g
M59 – Dimensions: 241.3x33x25.3 mm											
38.5	ECXe 700G.176	186489	120–277	440–200	700 ±5%	32–55	60	> 85	–30 to 55	80	393

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

700 mA / max. 150 W

These electronic LED constant current drivers are especially designed for use in street lighting systems.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 120–277 V ±10%

Mains frequency: 50–60 Hz

Pre-assembled connection leads:

primary: 2x0.75 mm², length: 450 mm

secondary: 2x0.75 mm², length: 180 mm

Safety features

Protection against transient main peaks up to 6 kV (between L and N)



Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP65

Protection class II

Product guarantee: 5 years

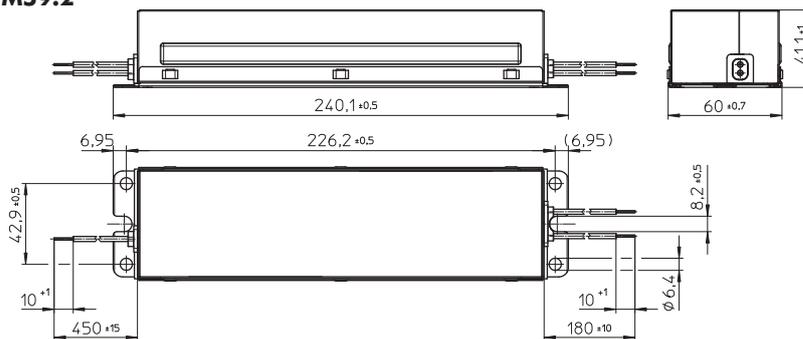


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186399	
700 mA	85 °C	75 °C
hrs.	50,000	100,000

M59.2



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature	Casing temperature	Weight
W			50–60 Hz		DC	DC	DC	% (230 V)	t_a	t_c	g
			V	mA	mA	V	V		°C	°C	

M59.2 – Dimensions: 240.1x60x41.1 mm

150	ECXe 700G.116	186399	120–277	1363–591	700 ±5%	107–214	< 250	> 88	–40 to 55	85	1070
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

350 mA / max. 40 W

700 mA / max. 40 W

1050 mA / max. 40 W

These electronic LED constant current drivers are especially designed for use in street lighting systems.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 120–277 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.75–2.5 mm²

Safety features

Protection against transient main peaks up to 4 kV (between L and N)



Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class II

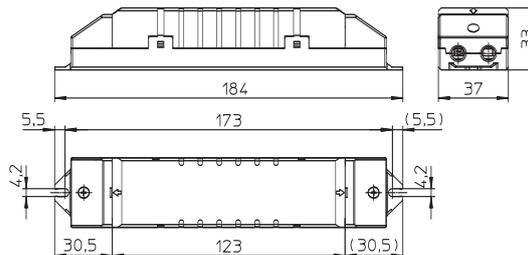
Product guarantee: 5 years

Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. 186550		186551		186552	
	70 °C	60 °C	—	—	—	—
350 mA	70 °C	60 °C	—	—	—	—
700 mA	—	—	70 °C	60 °C	—	—
1050 mA	—	—	—	—	75 °C	65 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000

K39.2



Products under development; preliminary technical datas

Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K39.2 – Dimensions: 184x37x33 mm											
40	ECXe 350.207	186550	120–277	387–168	350 ±5%	78–114	< 120	> 86	–25 to 50	70	160
40	ECXe 700.208	186551	120–277	387–168	700 ±5%	39–57	< 60	> 86	–25 to 50	70	160
40	ECXe 1050.209	186552	120–277	387–168	1050 ±5%	26–38	< 60	> 86	–25 to 50	75	160

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

350 mA / max. 42 W

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.97

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Push-in terminals: 0.75–2.5 mm²

Safety features

Protection against transient main peaks

up to 3 kV (between L and N) and

up to 4 kV (between L, N and PE)

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV equivalent

Product guarantee: 5 years

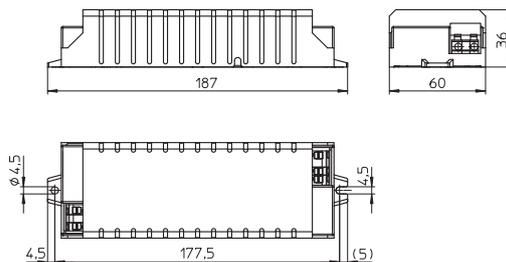


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.		
	186175		
350	70 °C	60 °C	
hrs.	50,000	100,000	

K30



Max. output	Type	Ref. No.	Mains voltage	Mains current	Current output	Voltage output	Max. voltage without load	Efficiency at full load	Ambient temperature	Casing temperature	Weight
W			V	mA	mA	V	V	% [230 V]	t_a °C	t_c °C	g

K30 – Dimensions: 187x60x36 mm

42	ECXe 350.015	186175	220–240	210–190	350 ±5%	40–115	120	> 90	–30 to 60	70	270
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The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable

700 mA / max. 112 W
1050 mA / max. 126 W
With 12 V interface

These electronic LED constant current drivers are designed for use in industrial hall lighting systems.



Electrical characteristics

Secondary side switching of LED modules is not allowed.
 Power factor at full load: > 0.95
 Standby losses: < 0.5 W

Dimming

The dimming function is achieved by applying a PWM signal to the nominal current.
 Dimming range: 3 to 100%
 If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ± 10%
 Mains frequency: 50–60 Hz
 DC operation: 198–264 V DC, 0 Hz
 (can be reduced to 176 V with reduced service life time)
 Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection
 Overload and overtemperature protection
 Protection against "no load" operation
 Degree of protection: IP20
 Protection class I
 The LEDs are thermally protected by the driver's NTC interface, which ensures the current will be reduced when a critical temperature is reached.
 Product guarantee: 5 years

NTC at LED module 10 k
 (Type Nurate NCP18XH103J03RB)

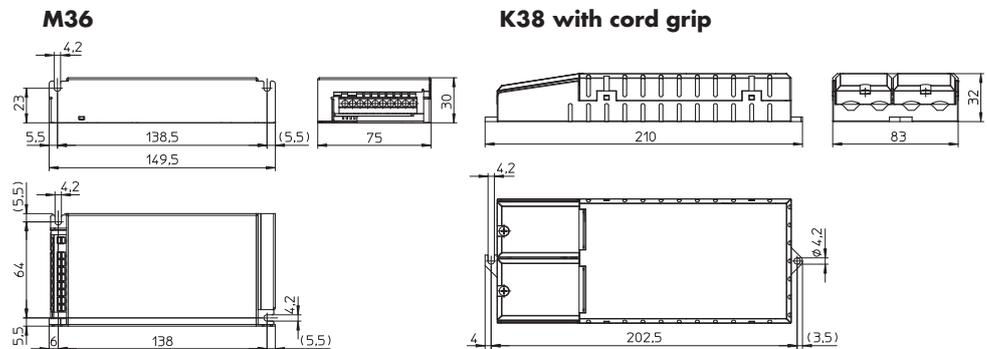
R (k)	Nominal current (%)
10	100
< 1.49	60
< 1.13	0 (off)



Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.	186299	186303	186300	186304
700 mA	70 °C	60 °C	—	—	80 °C
1050 mA	—	—	75 °C	65 °C	—
hrs	50.000	100.000	50.000	100.000	50.000



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	12 V interface max. 2 W	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M36 – Dimensions: 149.5x75x30 mm												
112	ECXd 700.058	186299	198–264	595–445	700 ±5%	85–160	< 450	> 91	yes	–25 to 50	70	288
			220–240	550–510								
126	ECXd 1050.060	186303	198–264	660–495	1050 ±5%	85–120	< 450	> 91	yes	–25 to 50	75	288
			220–240	630–590								
K38 with cord grip – Dimensions: 210x83x32 mm												
112	ECXd 700.058	186300	198–264	595–445	700 ±5%	85–160	< 450	> 91	yes	–25 to 50	80	335
			220–240	550–510								
126	ECXd 1050.060	186304	198–264	660–495	1050 ±5%	85–120	< 450	> 91	yes	–25 to 50	90	335
			220–240	630–590								

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable and Adjustable

900/1050/1200/1400 mA / max. 60.2 W

The dial can be used to set the current output to 900 mA (1), 1050 mA (2), 1200 mA (3) or 1400 mA (4).

Electrical characteristics

Secondary side switching of LED modules is not allowed.
Power factor at full load: > 0.95

Dimming

The dimming function is achieved by applying a PWM signal.

Dimming range: 3 to 100%

If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ± 10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

Push-in terminals: 0.2–1.5 mm²

(NTC interface: 0.2–0.5 mm²)

Safety features

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

SELV

The LEDs are thermally protected by the driver's NTC interface, which ensures the current will be reduced when a critical temperature is reached.

Product guarantee: 5 years



NTC at LED module 220 k	
R (k)	Nominal current (%)
34	100
27	60
16	0 (off)

1-10V	
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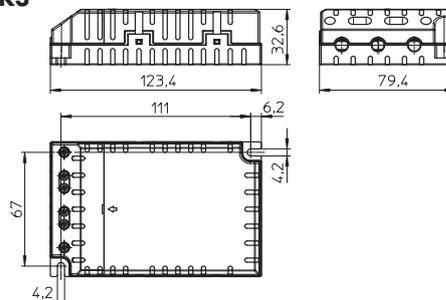


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No.	
	186208	
all	85 °C	75 °C
hrs.	50,000	100,000

K3



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50/60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
K3 – Dimensions: 123.4x79.4x33 mm											
38.7/ 45.1/ 51.6/ 60.2	ECXd 1400.025	186208	198–264 220–240	315–290 350–265	900 ^{+5/-10%} / 1050 ^{+5/-10%} / 1200 ^{+5/-10%} / 1400 ^{+5/-10%}	20–43	< 52	> 85	–20 to 50	85	230

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers – Dimmable and Adjustable

350/500/600/700 mA / max. 39.9 W

The dial can be used to set the current output to 350 mA (1), 500 mA (2), 600 mA (3) or 700 mA (4).

Electrical characteristics

Secondary side switching of LED modules is not allowed.
Power factor at full load: 0.95

Dimming

The dimming function is achieved by applying a PWM signal.
Dimming range: 3 to 100%
If no dimming interface is connected, brightness will stay at 100%.

Connection details

Mains voltage: 220–240 V ±10%
Mains frequency: 50–60 Hz
DC operation: 176–264 V DC, 0 Hz
Push-in terminals: 0.2–1.5 mm²
(NTC interface: 0.2–0.5 mm²)

Safety features

Electronic short-circuit protection
Overvoltage protection: 2 kV acc. to EN 51000-4-5
Overload protection
Protection against "no load" operation
Degree of protection: IP20

Protection class II

SELV

The LEDs are thermally protected by the driver's NTC interface, which ensures the current will be reduced when a critical temperature is reached.

Product guarantee: 5 years



NTC at LED module 220 kΩ	
R (kΩ)	Nominal current (%)
34	100
27	60
16	0 (off)

1-10V	
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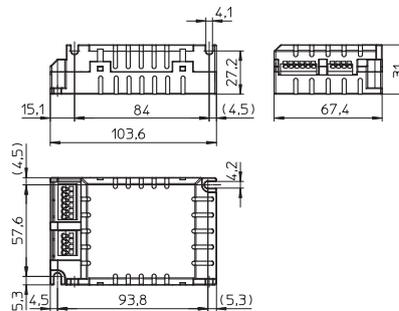


Expected service life time

at operation temperatures at t_c point

Operation current	Ref. No. all types	
all	80 °C	70 °C
hrs.	50,000	100,000

K2



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50/60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
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K2 – Dimensions: 103.6x67.4x31 mm

19.95/28.5/34.2/39.9	ECXd 700.024	186581	176–264	265–175	350 +5/-10% /	20–57	60	> 85	–20 to 50	80	190
			220–240	220–200	500 +5/-10% /						
					600 +5/-10% /						
					700 +5/-10%						

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

ComfortLine LED Drivers

700 mA / max. 112 W
1050 mA / max. 126 W
With 12 V interface

These electronic LED constant current drivers are designed for use in industrial hall lighting systems.



Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.95

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

DC operation: 198–264 V DC, 0 Hz

(can be reduced to 176 V with reduced service life time)

Push-in terminals: 0.2–1.5 mm²

Safety features

Electronic short-circuit protection

Overload and overtemperature protection

Protection against "no load" operation

Degree of protection: IP20

Protection class I

The LEDs are thermally protected

by the driver's NTC interface, which

ensures the current will be reduced

when a critical temperature is reached.

Product guarantee: 5 years

NTC at LED module 10 k

(Type Nurata NCP18XH103J03RB)

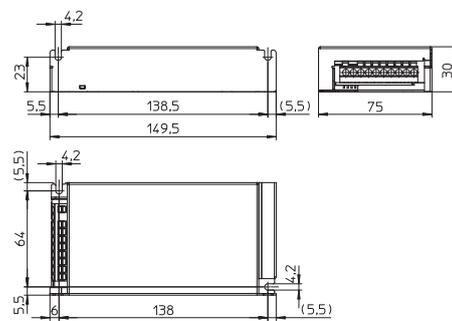
R (k)	Nominal current (%)
10	100
< 1.49	60
< 1.13	0 (off)

Expected service life time

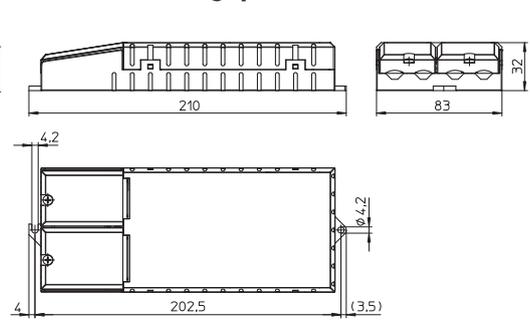
at operation temperatures at t_c point

Operation current	Ref. No.							
	186297	186301	186298	186302	186297	186301	186298	186302
700 mA	70 °C	60 °C	—	—	80 °C	70 °C	—	—
1050 mA	—	—	75 °C	65 °C	—	—	90 °C	80 °C
hrs.	50,000	100,000	50,000	100,000	50,000	100,000	50,000	100,000

M36



K38 with cord grip



Max. output W	Type	Ref. No.	Mains voltage 0 Hz, 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	12 V interface max. 2 W	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M36 – Dimensions: 149.5x75x30 mm												
112	ECXe 700.057	186297	198–264	595–445	700 ±5%	85–160	< 450	> 91	yes	–25 to 50	70	288
			220–240	550–510								
126	ECXe 1050.059	186301	198–264	660–495	1050 ±5%	85–120	< 450	> 91	yes	–25 to 50	75	288
			220–240	630–590								
K38 with cord grip – Dimensions: 210x83x32 mm												
112	ECXe 700.057	186298	198–264	595–445	700 ±5%	85–160	< 450	> 91	yes	–25 to 50	80	335
			220–240	550–510								
126	ECXe 1050.059	186302	198–264	660–495	1050 ±5%	85–120	< 450	> 91	yes	–25 to 50	90	335
			220–240	630–590								

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

EasyLine LED Drivers

700–2800 mA / max. 50–201.6 W

These electronic LED constant current drivers are especially designed for use in industrial hall lighting systems as well as for use in street lighting systems.

Electrical characteristics

Secondary side switching of LED modules is not allowed.

Power factor at full load: > 0.9

Connection details

Mains voltage: 220–240 V ±10%

Mains frequency: 50–60 Hz

Pre-assembled connection leads:

primary: 3x2.08 mm², length: 320 mm

secondary: 2x2.08 mm², length: 320 mm

Safety features

Protection against transient main peaks up to 1.5 kV (between L and N)

(186617: up to 4 kV between L and N)

Electronic short-circuit protection

Overload protection

Protection against "no load" operation

Degree of protection: IP67 (186617: IP65)

Protection class I

Product guarantee: 3 years

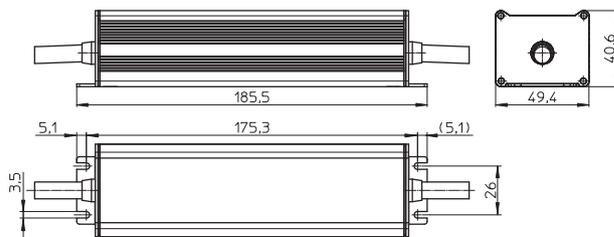


Expected service life time

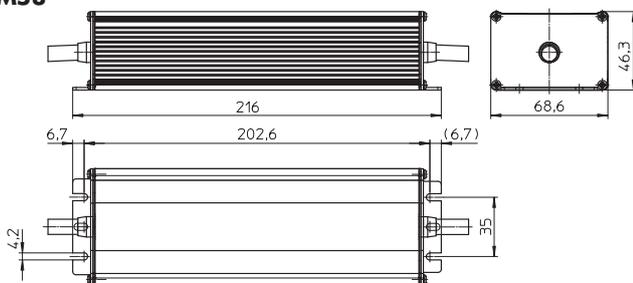
at operation temperatures at t_c point

Operation current	Ref. No. all types	
all	75 °C	65 °C
hrs.	30,000	50,000

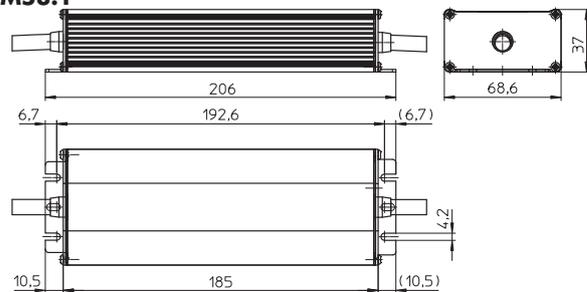
M56



M58



M58.1



Max. output W	Type	Ref. No.	Mains voltage 50–60 Hz V	Mains current mA	Current output DC mA	Voltage output DC V	Max. voltage without load DC V	Efficiency at full load % (230 V)	Ambient temperature t_a °C	Casing temperature t_c °C	Weight g
M56 – Dimensions: 185.5x49.4x40.6 mm											
50	ECXe 700.156	186452	220–240	255–235	700 ±5%	35–72	75	> 88	–30 to 50	75	520
75	ECXe 1050.157	186453	220–240	380–350	1050 ±5%	35–72	75	> 88	–30 to 50	75	520
M58 – Dimensions: 216x68.6x46.3 mm											
100	ECXe 1400.158	186454	220–240	510–470	1400 ±5%	30–72	75	> 90	–30 to 50	75	600
122.4	ECXe 1700.159	186455	220–240	625–580	1700 ±5%	30–72	75	> 90	–30 to 50	75	600
M58.1 – Dimensions: 206x68.6x37 mm											
121.8	ECXe 1050.235	186617	220–240	630–570	1050 ±5%	60–116	120	> 85	–40 to 50	75	840
151.2	ECXe 2100.160	186456	220–240	750–690	2100 ±5%	45–72	85	> 90	–30 to 50	75	840
172.8	ECXe 2400.167	186510	220–240	910–850	2400 ±5%	45–72	85	> 85	–30 to 50	75	840
201.6	ECXe 2800.168	186477	220–240	1040–960	2800 ±5%	45–72	85	> 85	–30 to 50	75	840

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

iProgrammer

For programming LED drivers

The iProgrammer is designed to let you configure LED drivers using the 3C function.

Using DALI commands, the iProgrammer enables various functions to be configured on all VS LED drivers that feature the "3C" symbol.

As an example, not only can the current be set to a precise level, but programming functions for the street lighting zone can also be transferred. Please refer to the manual at product page under www.vossloh-schwabe.com for detailed configuration procedures.

Technical notes

Configuration interface: DALI
 Ambient temperature t_a : 5 to 50 °C
 Push-in terminals: 0.2–1.5 mm²
 Degree of protection: IP20

Connections

Mains connection: 220–240 V AC/50–60 Hz
 Max. power consumption: 5 W
 USB 2.0

Software download

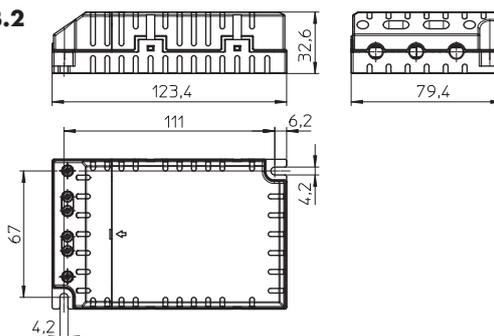
See product page under www.vossloh-schwabe.com

Functions

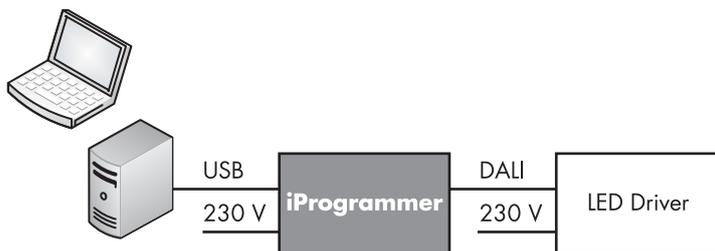
Configuring "3C" LED drivers



K3.2



Connection



Type	Ref. No.	Connection to PC/Laptop	Functions	Dimensions mm (LxWxH)	Weight g
iProgrammer	186428	USB 2.0	Configuring "3C" LED drivers	123.4x79.4x32.6	135

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.