

# HIGH QUALITY ELECTRONICS AND LED LIGHTING SOLUTIONS FOR VEHICLES



# CME

PRODUCT CATALOGUE

## COMPANY

CME-Lux Oy has supplied electronics for commercial vehicles since 1992. Our high-quality and multi-purpose products have consolidated their place together with the customer-oriented approach we take.

Our product range consists of interior lighting systems that are easy to install and have low running costs for the duration of their lifespan. Our main focus is LED lighting, the quality of which is top-notch and designed much more with the end user in mind than is the case with traditional lighting systems.

Other products in our range include automatic battery chargers, voltage and power supplies, as well as various bespoke customer solutions.

Our products are designed and manufactured in Finland and are primarily intended to meet the specific requirements of vehicles, be of high quality, and have low running and maintenance costs. With our network of high-quality design partners we are able to offer an unrivalled combination of modern and reliable products that provide our customers with added value. Thousands of buses have benefited from our high-quality products and can already be seen travelling the highways and byways of Europe.

Please, don't hesitate to be in touch - we'll be happy to tell you more about our products and operational practices.



## CME R&D

Determined to be the technological leader in the vehicle lighting industry, we value our customers and their needs. Therefore we invest in relentless development and refining of our products to meet the highest quality demands. Our electronic products have been tested and approved according to the current EC standards and our quality has been approved according to **ISO 9001**. All our products have 24 months guarantee.

## PARTNERS

Cooperation and partnerships are key issues also at CME-Lux Oy. As a networked company we cooperate with partners in raw materials, components, sub-assembling and marketing. Our distributors in different countries are provided with the latest technical and marketing information to ensure their success in their market with CME products.

Want to become a partner, please contact us and we will send you more info about the different possibilities to increase your sales with the CME product range.

# INTERIOR LED

In recent years we have focused our efforts on LED lighting techniques, developing top quality LED lamps with versatile functions and programmable control. The starting point for our design work is always the quality of our components, taking into account the specific nature of the surroundings, and the benefits that we can provide our clients in terms of the long-term savings in comparison to fluorescent lighting. We continuously develop our products and quickly roll out new lines so that our customers can benefit from the general trends in technological advances. Naturally, all of our products are retro compatible and this also makes it easier for the customer to upgrade their purchases. We also provide fluorescent lighting solutions.

It is quick and easy to retrofit strip lights with LED elements in order to turn them into fully-functioning LED lights. Upgrade measures have the power to increase the lifespan of bus lights, as well as bring about notable reductions in maintenance and repair costs over the course of their period of use. Moreover, the problematic waste associated with fluorescent lights can be reduced and the need to invest as a replacements parts diminished.



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## TECHNICAL DATA

	LED Inverter	LED Element
Input voltage nom	12 – 24Vdc -	
Input voltage range	10 – 32Vdc -	
Dimming	35%, 100%, Night light or stepless 0-100% by PWM	
LED		12 pcs LEDs + 3 blue LEDs
Angle and output		120°- 4,5 W – 170 lux@1 m
Color		4000 K
Temperature range	-40°... + 65°C	-40°... + 65°C
Connections	2,8 mm AMP	
Dimensions mm LxWxH	62 x 28 x 8	420 x 28 x 4
Weight	14 g	22 g
CME product number	91010	810006

## ■ CME- LED MODULES

CME-LED modules are an optimized solution for automotive use, the input range is 10-32V and the integrated control system guarantees a long lifespan even in harsh environments. The modules are optimized for a lifespan of 50,000 hours – 70% and need no cooling to achieve this lifetime. The modules can be connected to light lines and used without dimming, or dimming between 0 – 100% by PWM (pulse width modulation) or dimming with 2-steps. The modules can be easily installed also as replacement for the current fluorescent lighting. One Led inverter can be connected up to four led elements making it possible to form a single lighting element that is up to 1680mm long. Every led element contains three blue colored nighttime led lights.



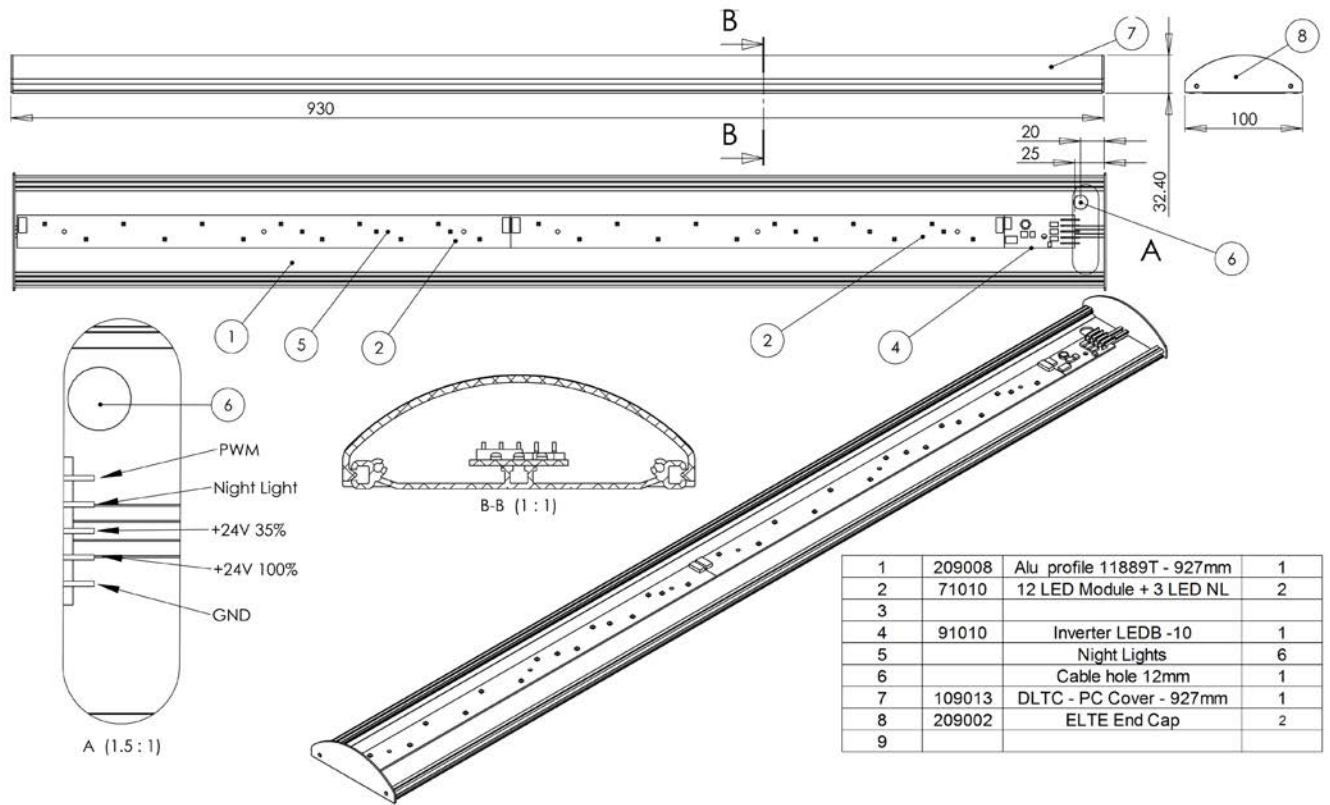
## ■ EL -SERIES

EL-Series lighting is surface mountable and a very low fixture, suitable especially for lighting lines. The base is aluminium and the diffuser is polycarbonate, clear or milk white. The ease of installation and maintenance is a significant benefit for bus- and coachbuilders as well as for traffic companies. The shape of the diffuser enables a strong light distribution and this element is used for single lightlines up to 7 meters in citybuses.



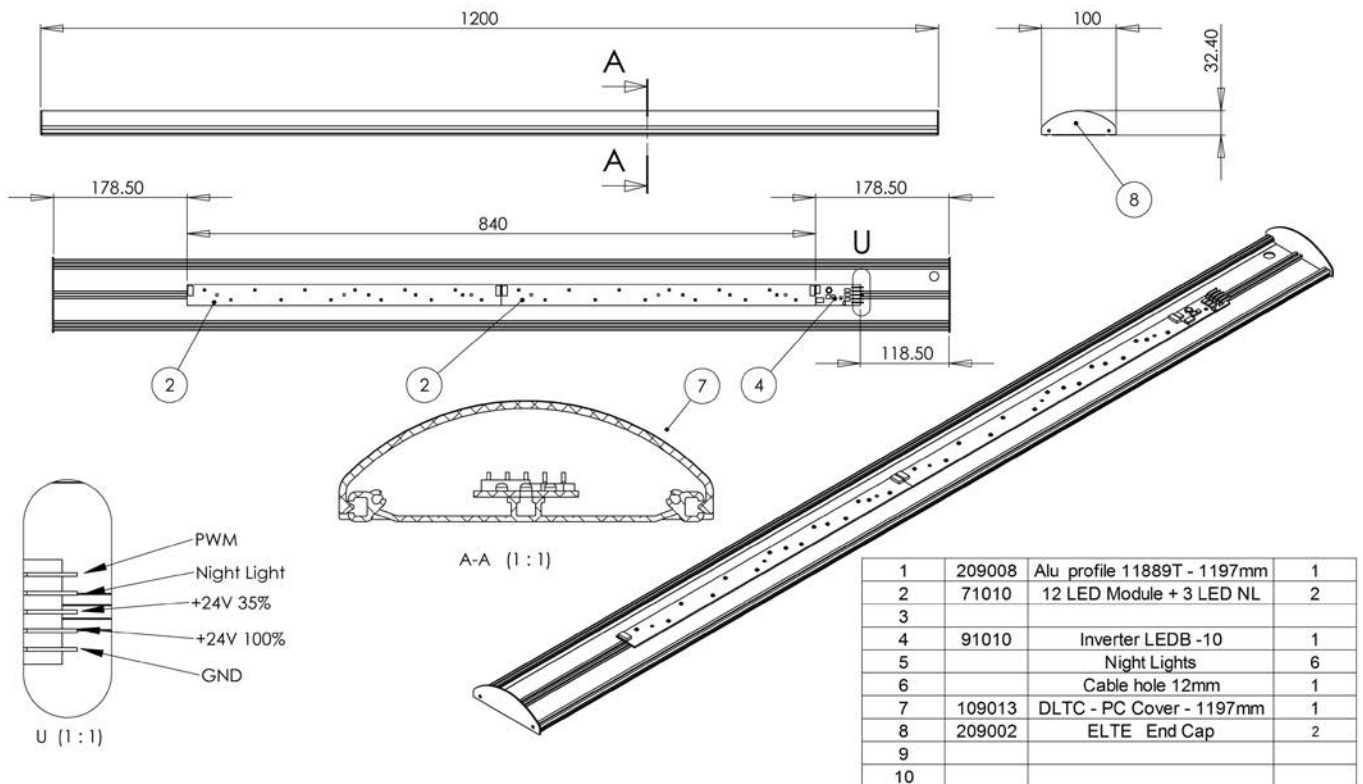
## EL 930

CME product number: 81009



## EL 1200

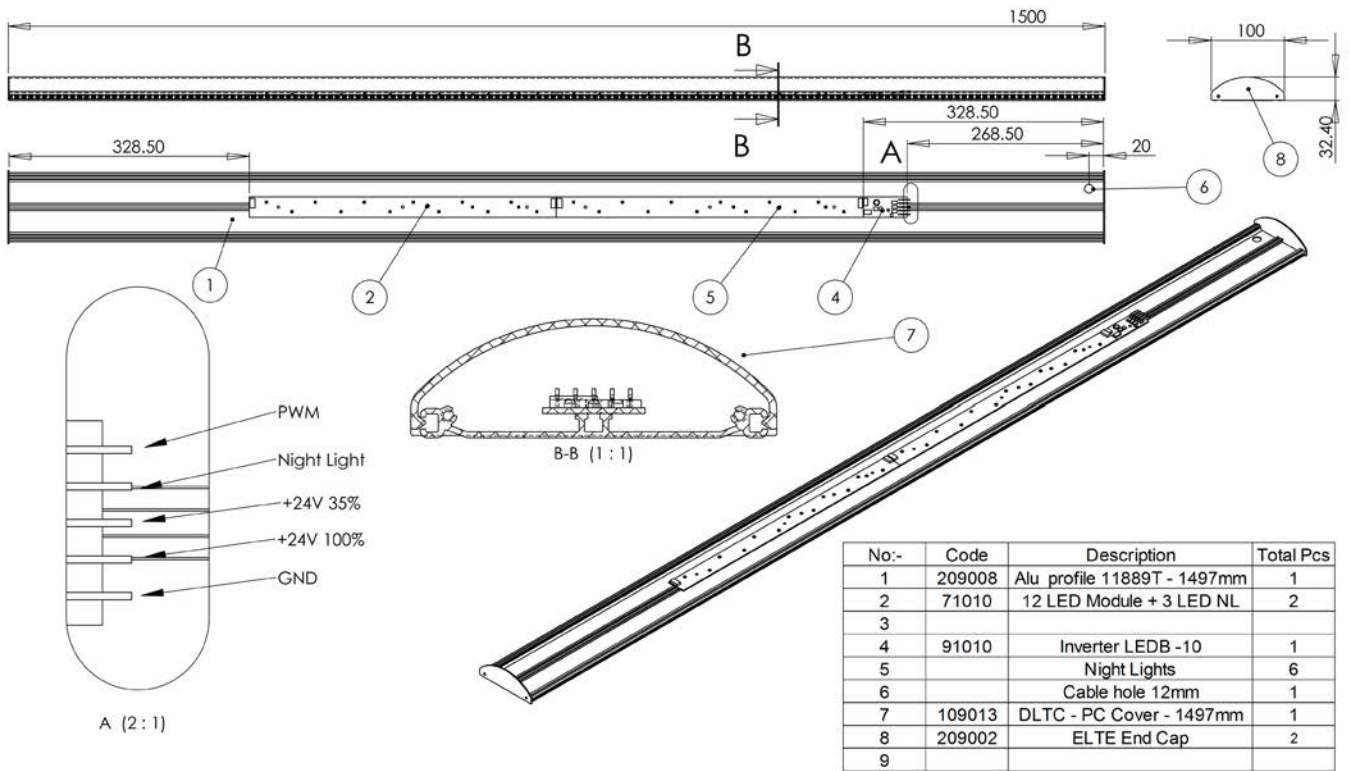
CME product number: 81012





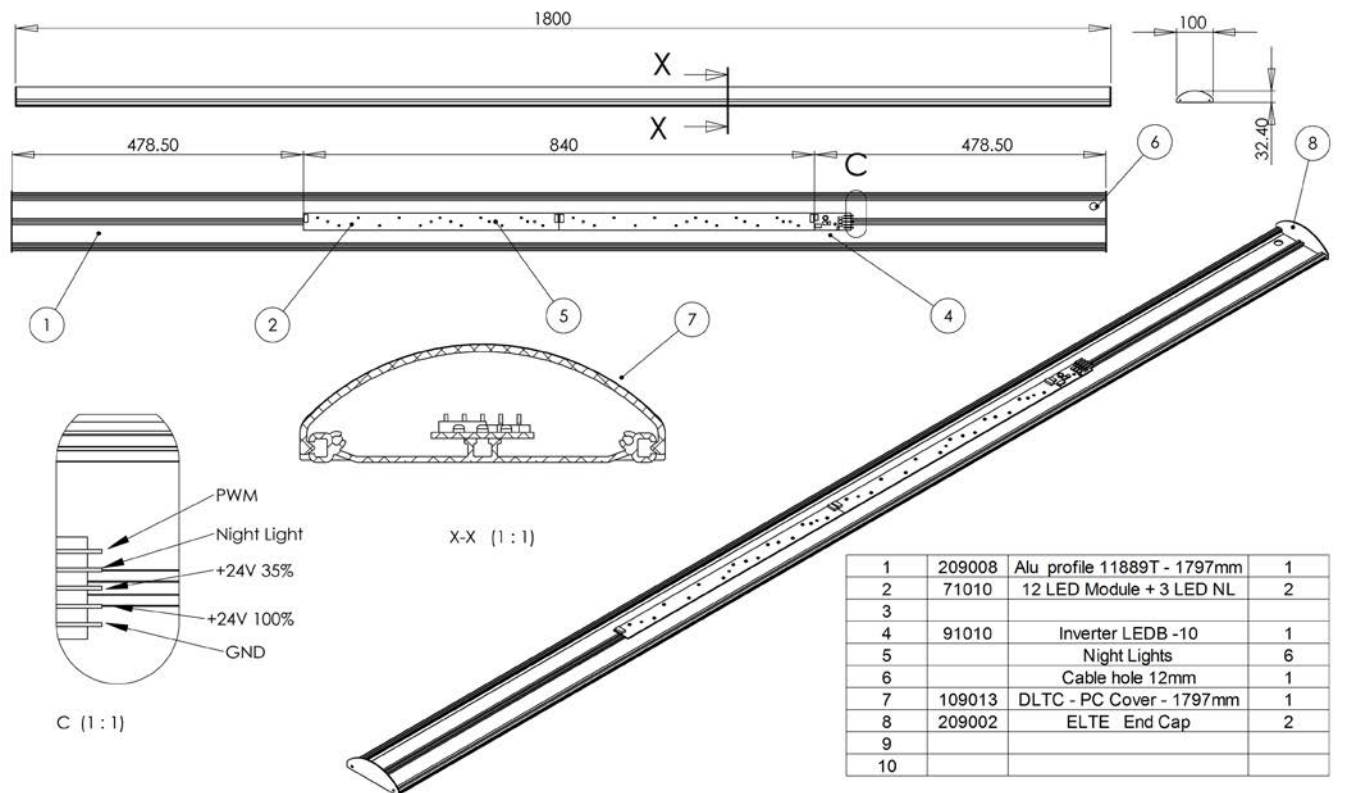
## EL 1500

CME product number: 81015



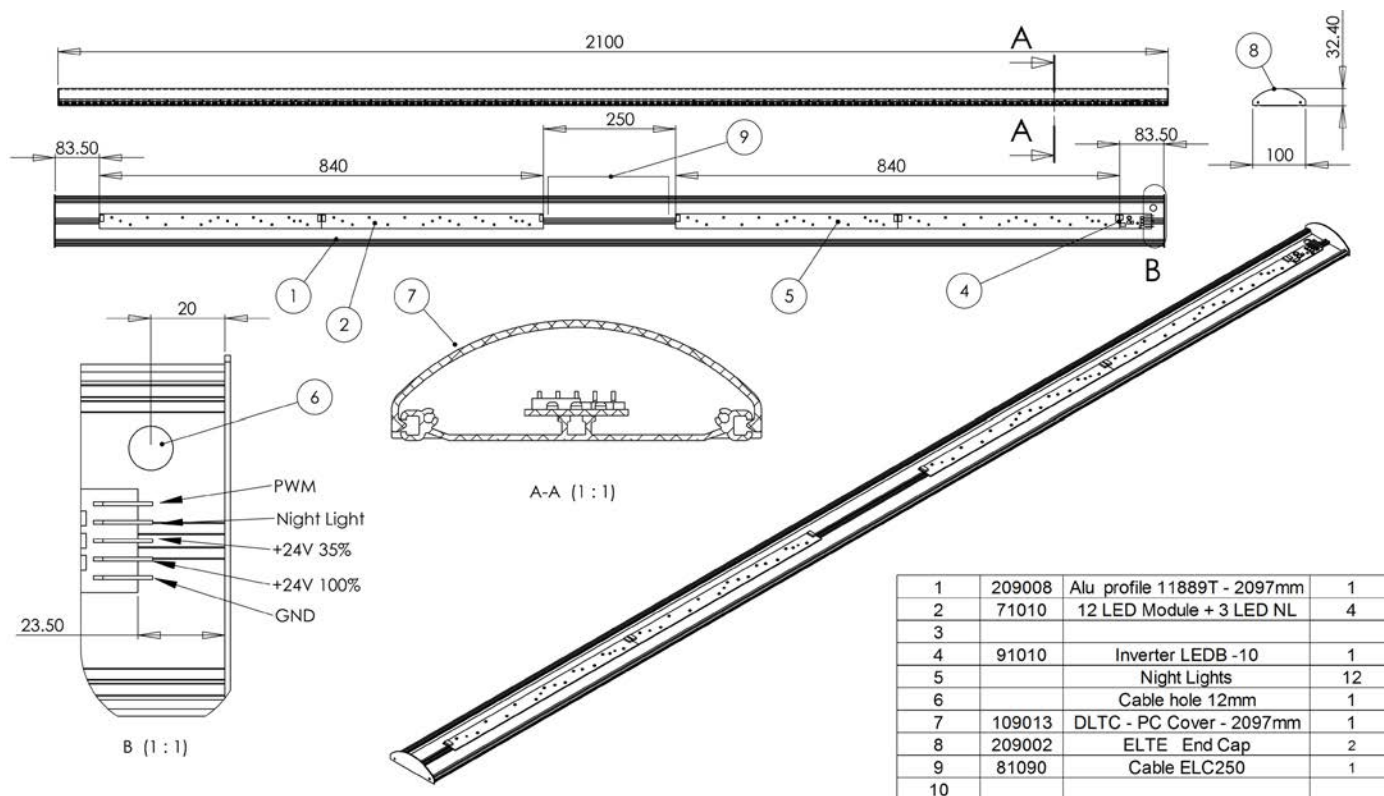
## EL 1800

CME product number: 81018



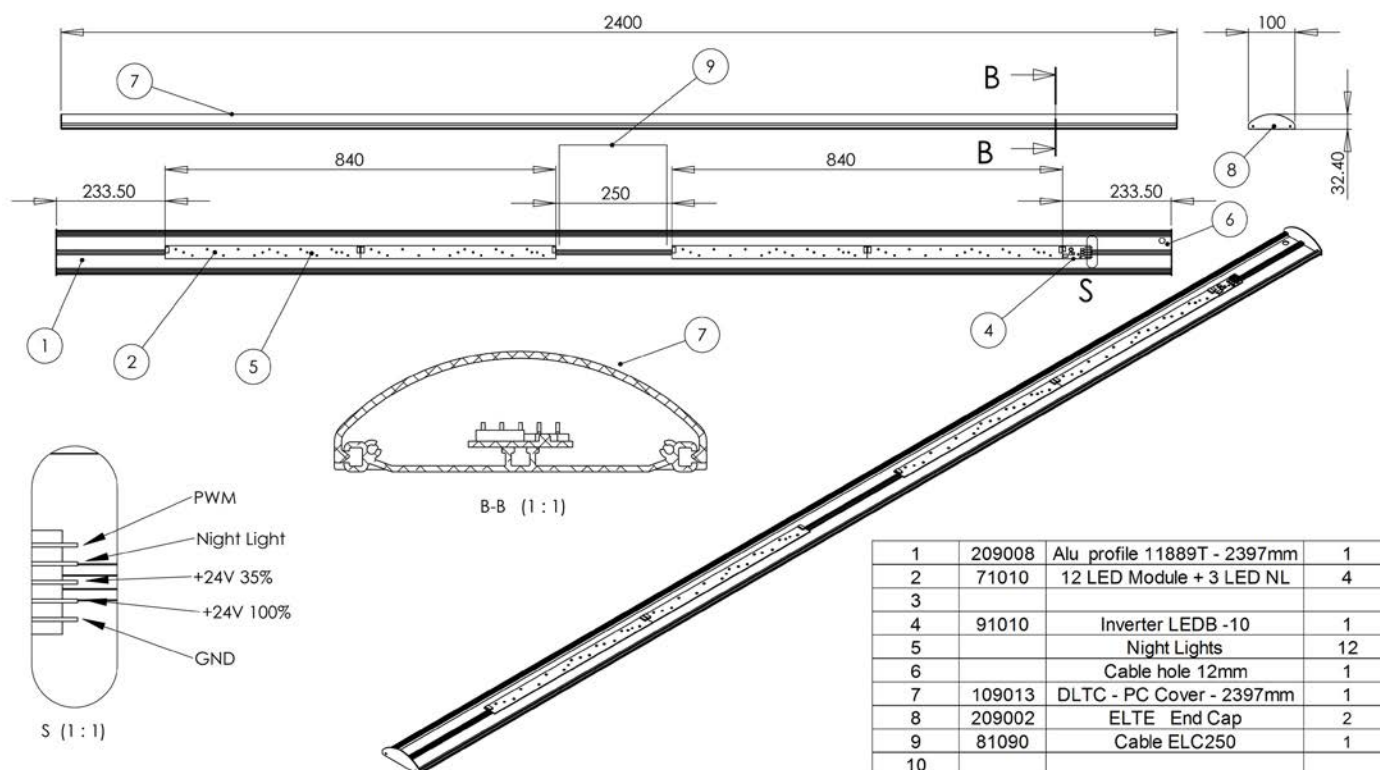
## EL 2100

CME product number: 81021



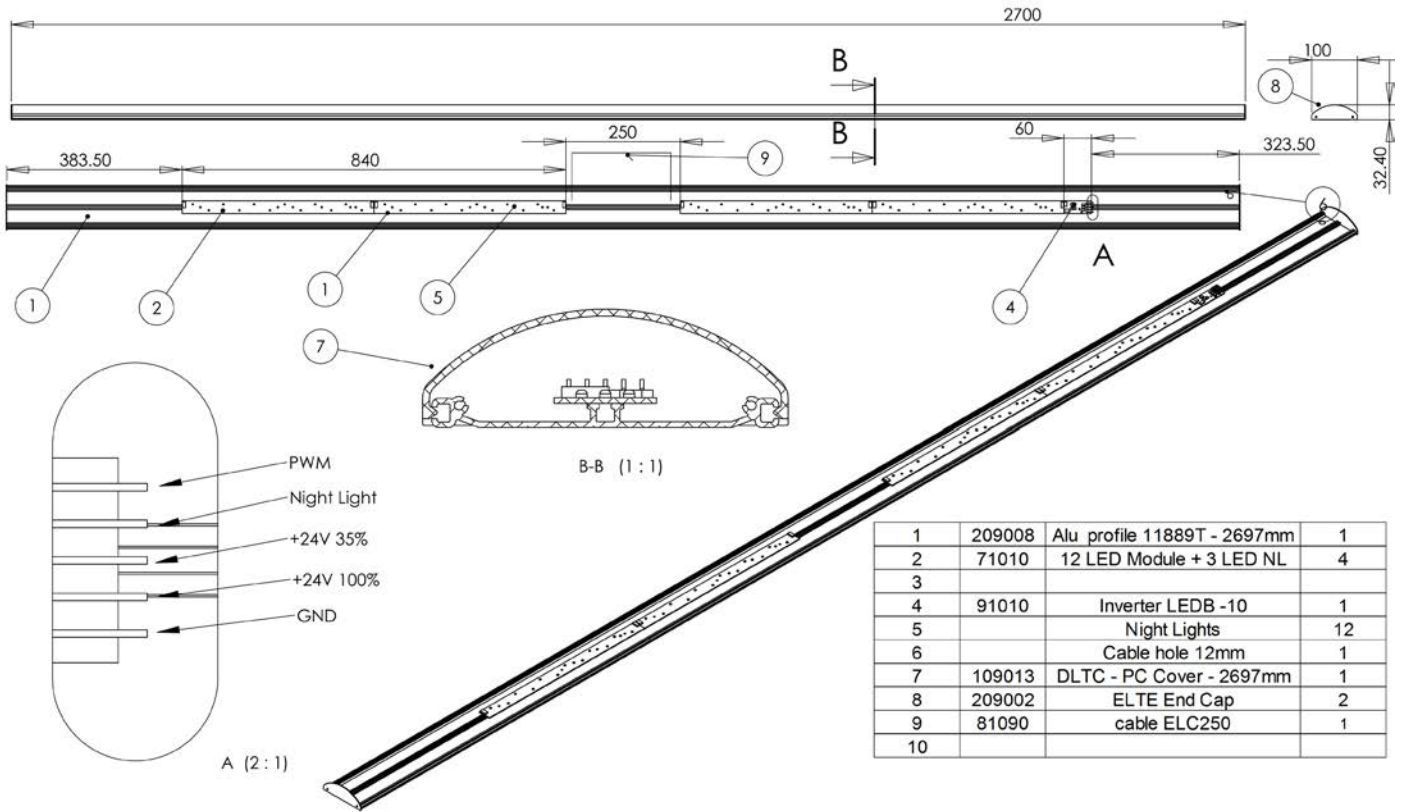
## EL 2400

CME product number: 81024



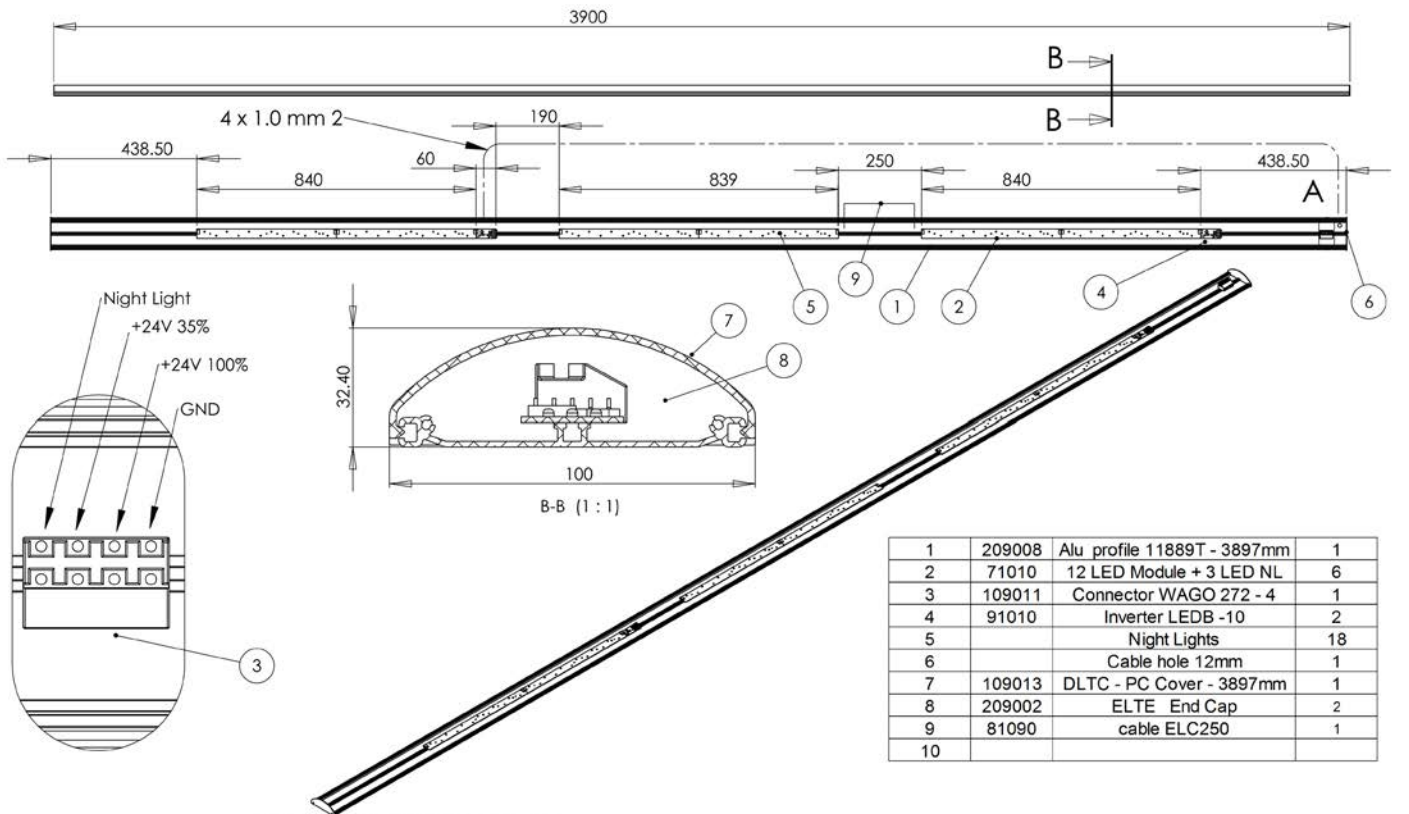
## EL 2700

CME product number: 81027



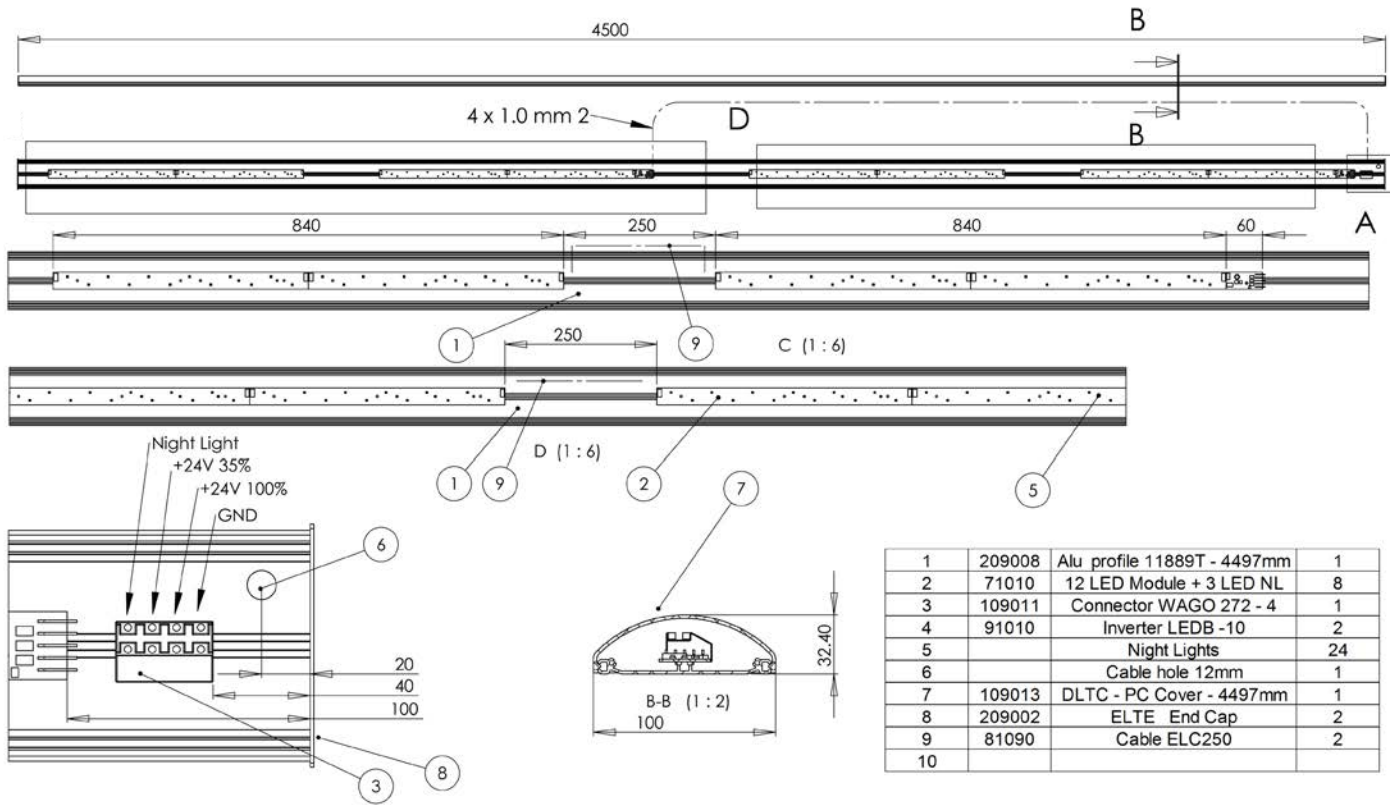
## EL 3900

CME product number: 81039





CME product number: 81045





# SMART CHARGERS

## SMART CHARGER (SC)

Smart Chargers are “switch on and forget”-chargers. Smart Charger ensures the best possible results in all conditions – even though one is using the charger from a badly adjusted AC-power source, such as a generator. The models can be delivered with different cabling and connection options.



SC	20A 12V – 24V	30A 12V – 24V	60A 12V – 24V	127A 12V – 24V
Output power	600W	800W	1600W	3200W
Input voltage	90 - 255 VAC	90 - 255 VAC	90 - 255 VAC	90 - 255 VAC
Charge current	20 A	30 A	60 A	127 A
Efficiency ratio	>86%	>86%	>86%	>86%
Power factor	1	1	1	1
Weight (kg)	1,5	1,5	1,9	2,3
(W x D x H)	230 x 112 x 73	230 x 112 x 73	267 x 135 x 85	80 x 250 x 400
Usage temp.	-25°C... +40°C	-25°C... +40°C	-25°C... +40°C	-25°C... +40°C
Output ripple	<200mV peak to peak			
CME product number:				
Shucko cable	500122	500132	500140	500150
Defa -cable	500120	500130		
Calix -cable	500121	500131		

Voltage depends on battery.

**SMART CHARGER 40A/80A/105A 12-24V ROBUST**

SC Robust chargers are designed to operate with different type of batteries in demanding conditions. With one Smart Charger you can handle most common type of batteries. Charge-programs of special batteries are also available. 24 months quarantee.



**SC 40 A ROBUST**

Output power            1100W - 3000W  
 Input voltage            -90-255VAC  
 Charge current           -40A  
 Efficiency ratio           >86%  
 Power factor             1

SC 40 A Passive cooling	300 x 230 x 107 (wdh, mm)	CME product number: 500180
SC 40 A Fan cooling	327 x 230 x 83	CME product number: 500181
SC 80 A Fan cooling	367 x 230 x 83	CME product number : 500183
SC 105 A Fan cooling	367 x 230 x 83	CME product number: 500184





## SMART CHARGER PRO WP 24V20A

Smart Charger PRO WP 24V20A is compact and fully waterproof charger for all kind of batteries. SC PRO is compatible with lead, gel and AGM batteries. These firmly covered models can be installed in hard circumstances without any loss of quality.

- 12 V
- Cables 4-6 mm<sup>2</sup>
- High efficiency ratio >95%
- Overheat protection
- Chargeprogram AGM/GEL
- Chargeprogram CaCa/std
- Chargeprogram traction
- Power supply
- Temperature optimized charge
- Waterproof, IP67
- Compact metallic cover
- Easy to install

CME product number: 500171



**SMART CHARGER (SC) WP 12V & 24V**

Smart Charger WP 12V and WP 24V are compact and fully water proof chargers for all types of batteries. The microprocessor based construction allows charging by battery type. These rugged models can be installed in harsh environments without disturbing the functions of the device. IP 65.



SC WP	12V 7A 100W	12V 17A 250W	12V 30A	24V 20A	24V 12A 300W
Input voltage	90 - 255 V	90 - 255 V	90 - 255 V	90 - 255 V	90 - 255 V
Output voltage	14,4/13,8	14,4/13,8	12	24	28,8/27,5
Efficiency	94,00%	94,00%	94,00%	94,00%	94,00%
Operating temp.	-30...+50C	-30...+50C	-30...+50C	-30...+50C	-30...+50C
WxDxH mm	138x77x42	198x98x46	198x98x46	198x98x46	198x98x46
Weight kg	0,8	1,2			1,2
Shcuko input cable	<		1,5 m		>
Output cable	<		1,5 m / 4 mm <sup>2</sup> with fuse		>
CME prod. number:	500170	500192	500174	500173	500182



# DC-DC CONVERTER

DC-DC Converter works with the latest switching technology in DC-DC conversion which gives the converters an efficiency of over 96%. The high efficiency results in low heat generation, and therefore powerloss is minimal. The internal electronics is protected against wrong polarization and short-circuit which prevents damage to the device by misuse.

The standard enclosure is IP 21 classified with protective coating on the electronics, but all models can be ordered with IP 67 classification.

All models have ON/OFF function for remote use.

- Wide range of models
- High efficiency >96%
- Overheating protection
- Polarity protection
- Current limited
- Short-circuit protection
- Safe to use
- Easy to install
- Small and compact
- User friendly
- DIN mount (option)
- Galvanic isolated



## MODELS AND SPECIFICATIONS

MODEL	12-12	12-12	12-24	24-12	24-12	24-12	24-24	24-24	24-24	48-12	48-24	48-12
ARTICLE	60300	60310	60311	60303	60312	60321	60304	60312	60324	60332	60333	60322
INPUT(V)	9-18	9-18	9-18	18-36	18-36	18-36	18-36	18-36	18-36	33-65	33-65	33-65
OUTPUT	12V	12V	24V	12V	12V	12V	24V	24V	24V	12V	24V	12V
POWER	100W	200W	200W	100W	200W	400W	100W	200W	400W	200W	200W	400W
ENCLOSURE	IP21	IP21	IP21	IP21	IP21	IP65	IP21	IP21	IP65	IP21	IP21	IP65
CONNECTIONS	6,3mm	6,3mm	6,3mm	6,3mm	6,3mm	cables	6,3mm	6,3mm	cables	6,3mm	6,3mm	cables
	Faston	Faston	Faston	Faston	Faston		Faston	Faston		Faston	Faston	
WEIGHT	200g	215g	215g	200g	215g	600g	200g	215g	600g	215g	215g	600g

ALL MODELS HAVE AN EFFICIENCY OF >96% AND ON/OFF FUNCTION

# POWER SUPPLIES & VOLTAGE REGULATOR

## SMART POWER



Smart Power offers top quality technology in a compact size. In order to ensure durability and quality top class-components have been used in the manufacturing of the power supply. The LCDdisplay shows the adjustable voltage and current in the power supply. The output voltage can be adjusted between 0–108 V and current up to 30 A.

### Models available:

- 18V – 0 50 A
- 36V – 0 30 A
- 54V – 0 20 A
- 72V – 0 15 A
- 108V – 0 10 A
- 144V – 0 7,5 A

## XTC VOLTAGE REGULATOR PWM

XTC Voltage Regulators have been developed to adjust the rotation speed of a DC-motor or the light capacity of an electric bulb. XTC Voltage Regulator PWM (pulse width modulation) can be used to adjust the rotation speed of a DC motor such as a ventilator. Adjusting rate stepless between 0–100%.



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PWM –version technical data		Absolute voltage and current
Type: XTC 24-20/PWM/REV4		
+VDC_IN	+20V...+30V	continuous 35V, pulse/load dump +58V / 1 s
+VDC_IN(pulse/load dump)		+58V / 1 s
+ VDC_OUT	0V...	+VDC_IN –0,5V
PWM_IN	+20V...+30V(HI), 0... +4V(LO)	
(PWM_IN)	200Hz<f<1KHz	
Iout (VDC_OUT)	0A...15A	continuous 17A, max. 5s /30A
Iin (VDC_IN)	0A...15A	
W x D x H	135 mm x 85 mm x 45 mm	

CME product number: 400181





SPECIAL CERTIFICATE



CME-Lux Oy

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