



## OTSEN FLEX LED GIMBAL Light

The OTSEN FLEX Gimbal Light is a high-quality, adjustable gimbal light designed for precision illumination. It features a honeycomb structure for glare reduction and is equipped with a premium OSRAM chip and OSRAM driver, ensuring superior performance and reliability. With an IP44 rating, it is suitable for a variety of indoor applications, offering protection against dust and moisture. Delivering an impressive 110 lumens per watt, this fixture provides exceptional energy efficiency. Constructed from high-quality aluminum die-cast material, it ensures durability and effective heat dissipation. The adjustable design allows for flexible light direction, making it an ideal choice for professional lighting solutions.

## Application Areas

- Shopping Mall
- Hotels
- Residential
- Commercial
- Offices
- Schools

**OSRAM**  
DRIVER

**OSRAM**  
LED CHIPS



## Product Features

- Very clean appearance design, provide a nice look.
- High lumen efficiency reach up to 110Lm/W.
- Provide uniform light distribution ,the light is soft and comfortable .
- Special spraying process, with very good anti-rust ability.
- 220-240V input, PF>0.90, it's a flicker free product.
- OSRAM driver and OSRAM chip
- 50,000H, 5 Years warranty .
- Flicker Free.
- Beam angle 120°

## Product & Information

Luminaire Details	Product Name	OTSEN-FLEX GIMBAL LIGHT
	Product Type	GIMBAL LIGHT
	Product code	OT-FLEX-WH BK
	Luminaire Type	COB
	Fixture Type	Adjustable
	Light Emission	Spot Emission
	IP Rating	IP44
	Input Voltage	220-240V
	Output Currents	700mA
	Wattage	15W, 30W, 45W, 60W, 90W, 120W
	Mounting Type	Recessed
	Source brand	OSRAM
	Control Gearbrand	OSRAM by Inventronics
	Luminaire Efficacy	110lm/W
	Available CCT	3000K, 4000K, 5000K & 6500K
	Power Factor	>0.9
	THD	>50%
	McAdamBinning	Step 3
	Body Material	Aluminium Die Cast
	Reflector Type	PC Reflector
	Materials of optics	Glass
	Storage Temperature (Ts)	-40°C to 60°C
	Ambient Temperature (Ta)	-40°C to 45°C)
	Humidity	RH 10-90 %
	Over Voltage Protection	Available
	Short circuit Protection	Available
	No-Load Protection	Available
	Surge Protection Voltage	4kV(L/N)

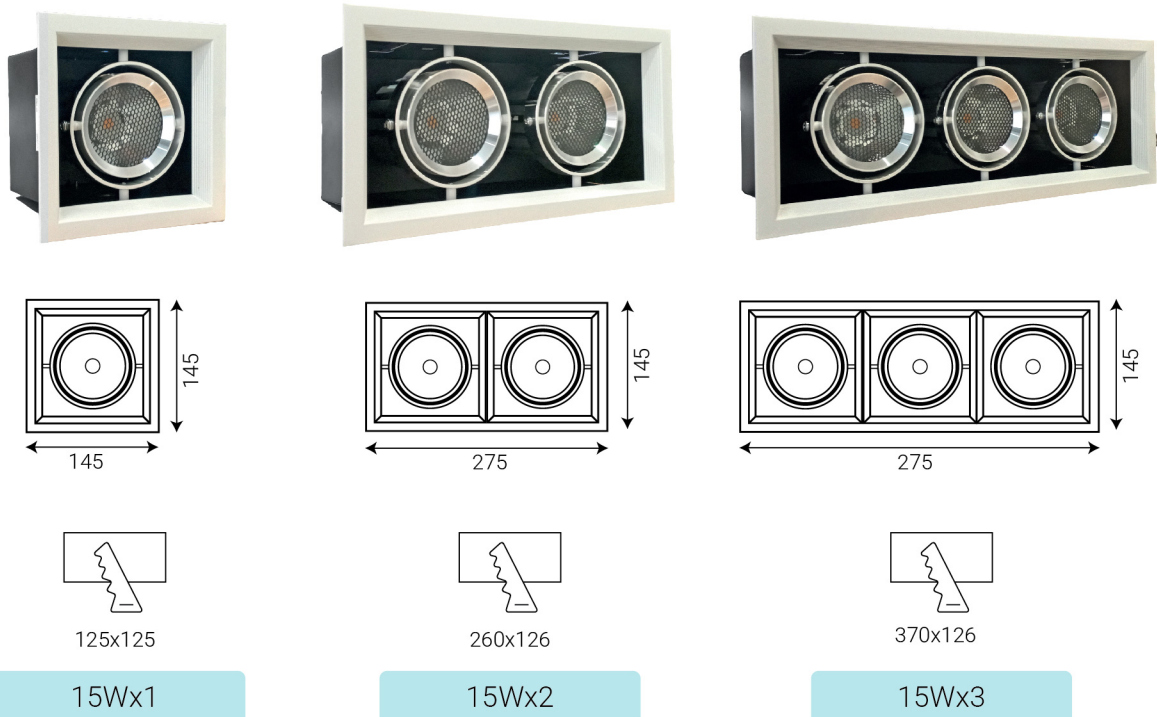




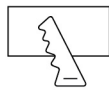
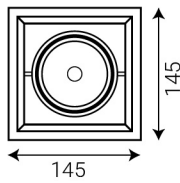
## Product Details

Model	Power(W)	Colour Temperature	Luminous (LM)	Dimensions	Cutout Dimensions	Angle (Reflector)
OT FLEX WH BK	15Wx1	3000K - 6000K	1650LM	145X145 mm	Ø 125x125mm	120°
OT FLEX WH BK	15Wx2	3000K - 6000K	3300LM	145X275 mm	Ø 126x260mm	120°
OT FLEX WH BK	15Wx3	3000K - 6000K	4950LM	145X275 mm	Ø 126x370mm	120°
OT FLEX WH BK	20Wx1	3000K - 6000K	2200LM	145X145 mm	Ø 125x125mm	120°
OT FLEX WH BK	20Wx2	3000K - 6000K	4400LM	145x275 mm	Ø 125x260mm	120°
OT FLEX WH BK	20Wx3	3000K - 6000K	6600LM	145X295 mm	Ø 125x370mm	120°
OT FLEX WH BK	30Wx1	3000K - 6000K	3300LM	185X185 mm	Ø 160x160mm	120°
OT FLEX WH BK	30Wx2	3000K - 6000K	6600LM	185X370 mm	Ø 160x350mm	120°
OT FLEX WH BK	30Wx3	3000K - 6000K	9900LM	185X500 mm	Ø 160x380mm	120°

## Product Structural Design & Size

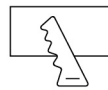
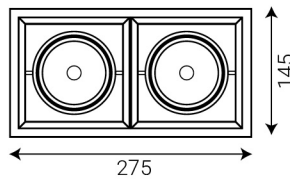


## Product Structural Design & Size



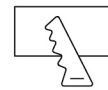
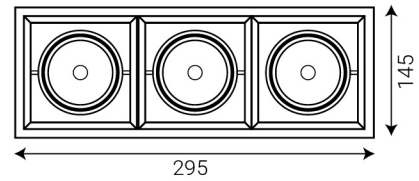
125x125

20Wx1



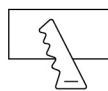
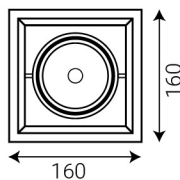
260x125

20Wx2



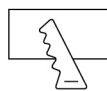
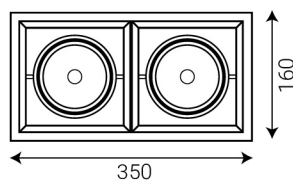
370x125

20Wx3



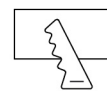
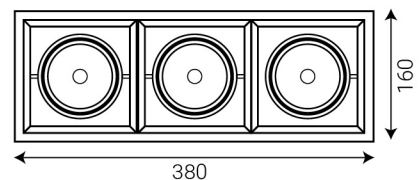
185x185

30Wx1



185x370

30Wx2



185x500

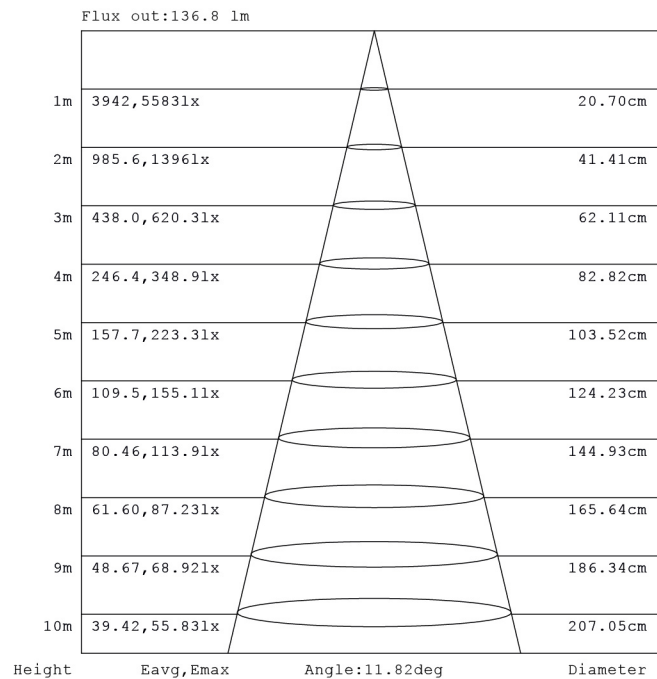
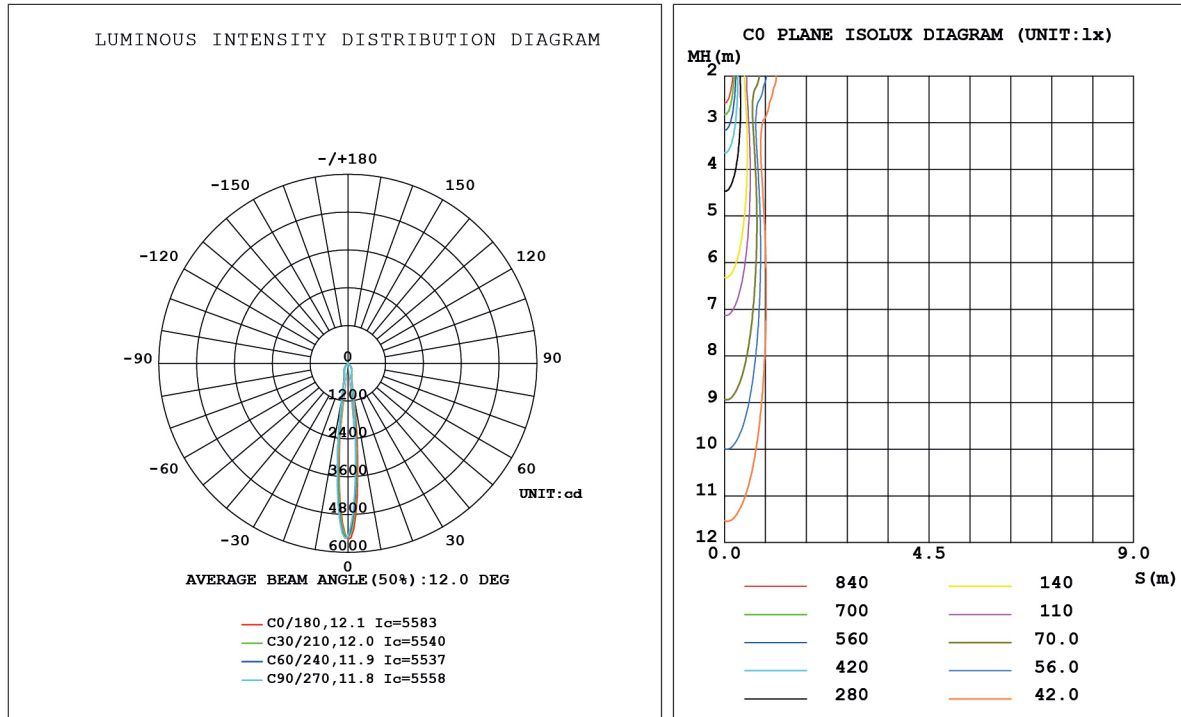
30Wx3





## Product Photometric Details

15W

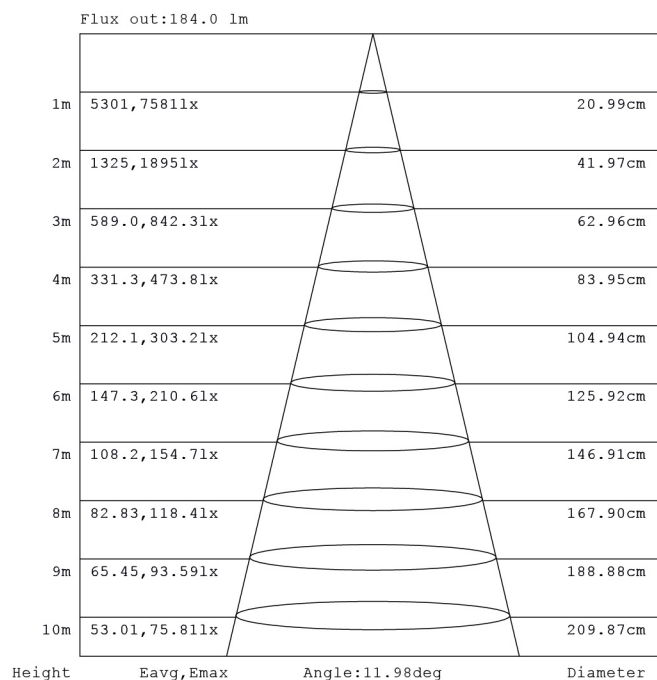
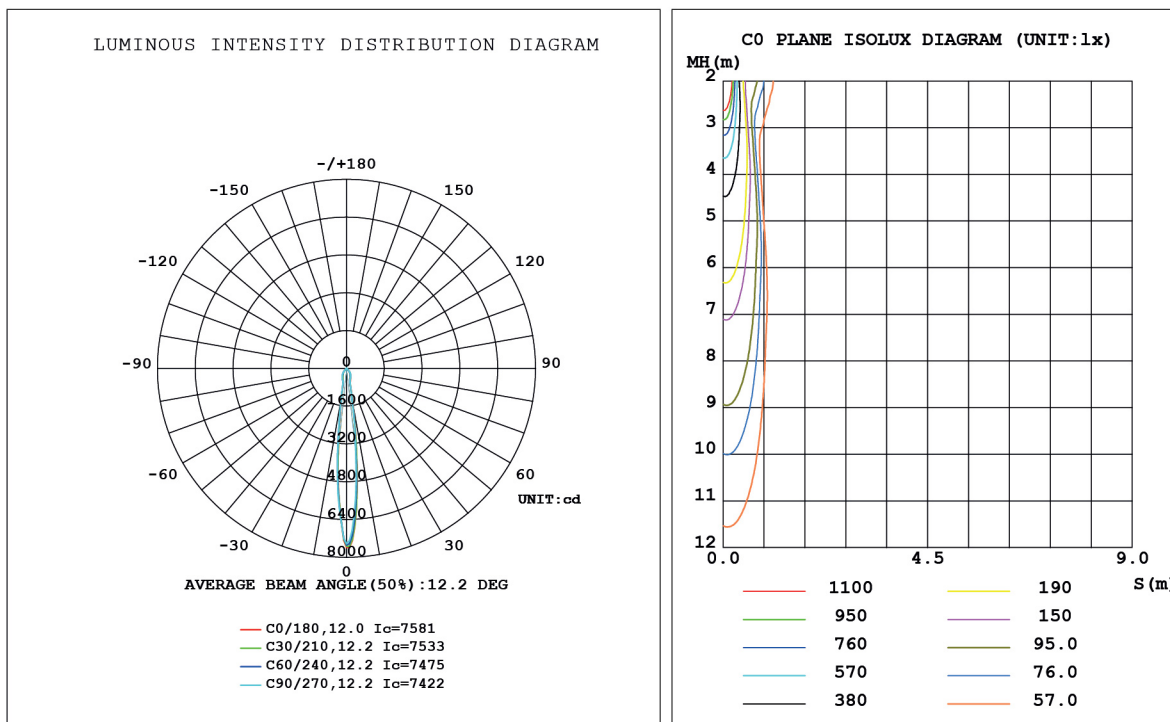


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.



## Product Photometric Details

20W

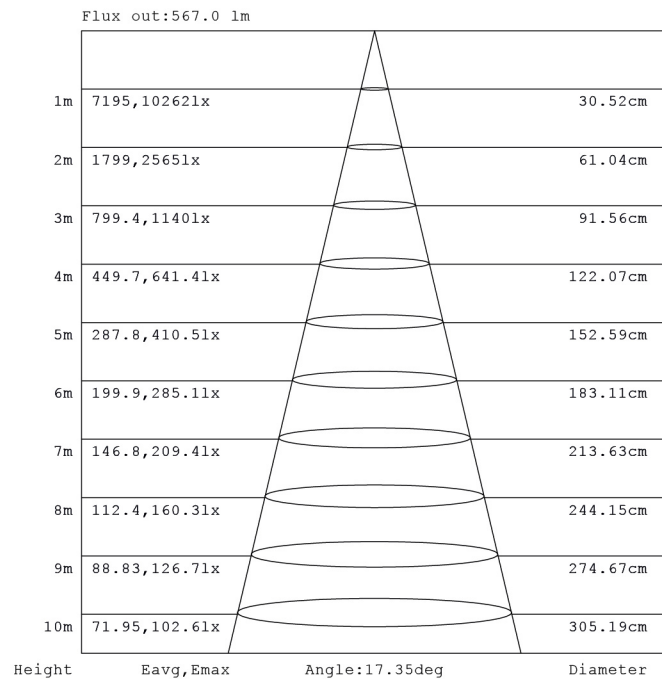
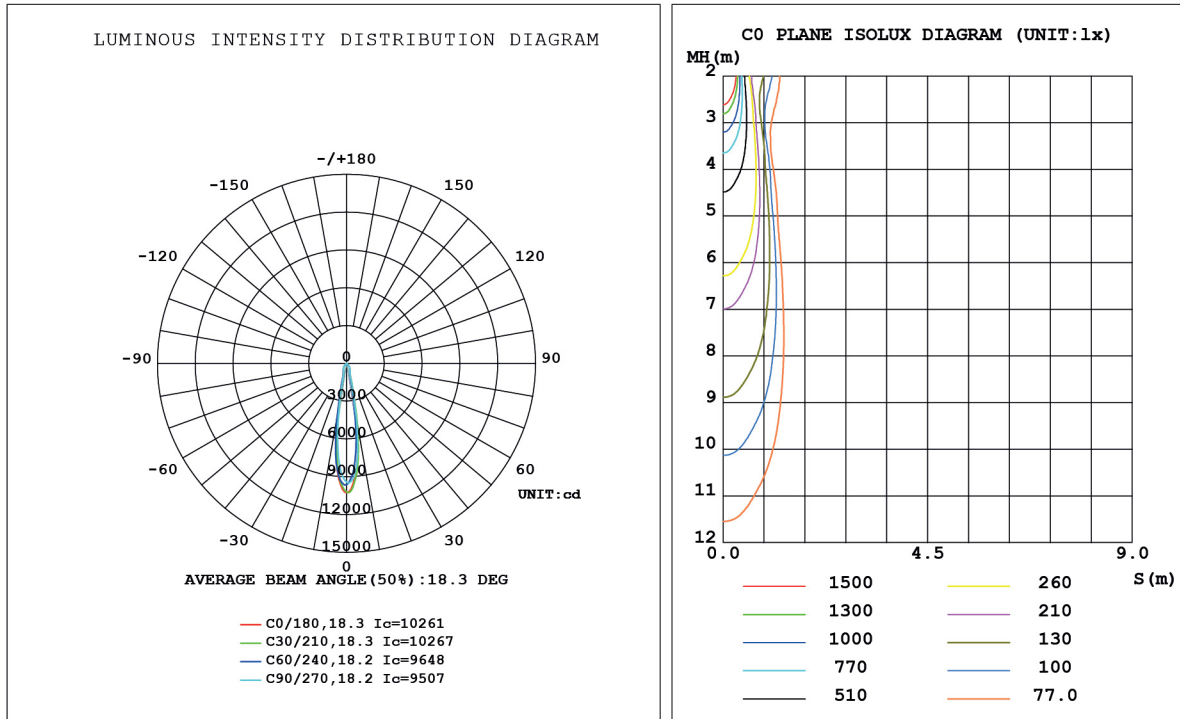


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.



## Product Photometric Details

30W



Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.





inventronics

## EM 30/220-240/700 II

### Constant Current LED Power Supply 700mA

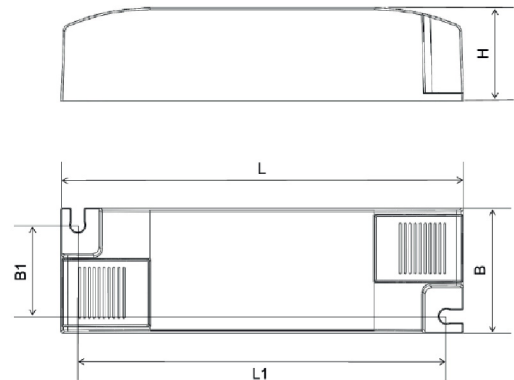
Element LED Power Supply fits in light fixtures for office, shop lighting or other indoor applications that require high quality of light

#### Benefits:

High compatibility with COBs and discrete LEDs;  
High quality of light with ripple current < 5%  
Safe and reliable  
Safety ensured by OSRAM (SELV)

#### Applications

Panel lights, Downlights and other indoor luminaires  
For class II luminaires, independent installations



L	119mm
L1	109mm
B	37mm
B1	27mm
H	27.5mm

#### Approval marks and Symbol



#### Product Features

- Output currents: 700mA
- Output voltage: 30VDC – 42VDC
- Output power: 21W – 29.4W
- Input voltage : 220 – 240 VAC
- Suitable for class II luminaires
- 35'000 h lifetime at  $t_c \text{ max} = 75^\circ\text{C}$
- Fixed Output (i.e. no dimming)
- Typ. Efficiency: 88%
- SELV
- Ambient temp range,  $t_a$ :  $-20^\circ\text{C}$  to  $+40^\circ\text{C}$



## Electrical Specifications

	Item	Value	Unit	Remarks
Input	Nominal Voltage	220 – 240	Vac	
	Nominal frequency	50/60	Hz	
	AC voltage range	198 – 264	Vac	Permitted voltage range
	DC voltage range	176 – 280	Vdc	Operational for safety
	Maximum voltage	300	V	2hrs
	Nominal current	150	mA	220V
	Total Harmonic Distortion (THD)	< 15	%	Full load, 230 V, 50 Hz / see graphs
	Power factor	0.95		Full load, 230 V, 50 Hz / see graphs
	Efficiency	88	%	Full load, 230 V, 50 Hz, typical / see graphs
	No-load power	NA	W	230V, typical
	Power loss	4	W	@230V, Input power 33.4 W max.
	Protection class	II		Suitable for class II luminaires
	Inrush current	33.8	A	twidth = 142 $\mu$ s typical (measured at 50% Ipeak)
	Max. units per circuit breaker	B10: 38; B16: 61; C10: 50; C16: 80		
	Leakage current	< 0.7	mA	Output floating
Output	Nominal voltage range	30 – 42	V <sub>DC</sub>	
	Maximum voltage	60	V <sub>DC</sub>	Open circuit
	Nominal current range	700	mA	
	Current accuracy	$\pm 7.5$ %		
	Current ripple	< 5%		Ripple / average @ 100 Hz
	Nominal power range	21 – 29.4	W	Partial Load
	Maximum power	29.4	W	Ta $\leq$ 40°C
	Galvanic isolation	SELV		3, 75 kVrms. Output to mains - Touch current < 0.7 mA
Dim	Dimming control	No		Not dimmable
	Dimming range	NA	%	
	Dimming technique	NA		
	Frequency	NA	Hz	
	Galvanic isolation	NA		
Environment	Ambient temperature range t <sub>a</sub>	-20 ...+40	°C	
	Max. case temperature t <sub>c</sub> max	75	°C	Measured on t <sub>c</sub> point indicated of the product label.
	Max. case temp. in fault condition	110	°C	
	Storage temperature range	-40 ...+85	°C	Cool down before operating
	Relative humidity	5 ... 95	%	Not condensing
	Surge transient protection	1   2	kV	L/N   LN/PE acc. IEC 61547 Clause 5.7
	Environmental rating	Indoor		
	IP rating	IP 20		
	Mains switching cycles	> 100'000		
	Expected lifetime	35'000	hrs	@tc = 75°C, max. 10% failure rate
	Expected lifetime	50'000	hrs	@tc = 65°C, max. 10% failure rate

### Protection

#### Overload

Automatic, reversible

#### No load

Automatic, reversible

#### Short-circuit

Automatic, reversible

#### Input overvoltage

Maximum allowed input voltage 300V AC/ 2hrs

#### Output overvoltage

Yes, limitation of Output voltage  $\leq$  60V

#### Output under voltage

NA



## Wiring Diagram

Terminal:

Max. cable length :

Geometry (l x b x h):

Weight:

Push in terminals

2 m

119 x 37 x 27.5 mm

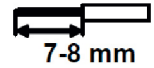
88g

wire preparation:

push in

s:0.75--1.5

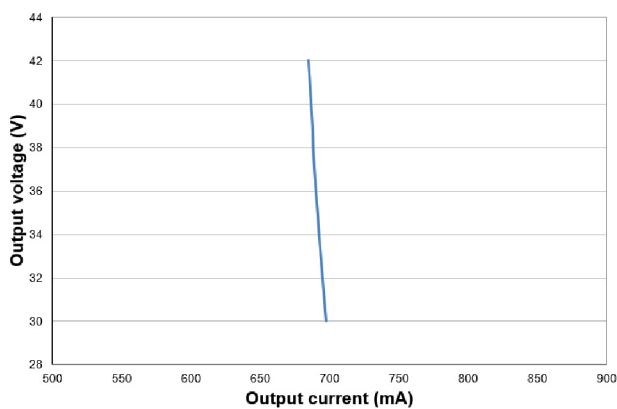
f:0.75--1.5



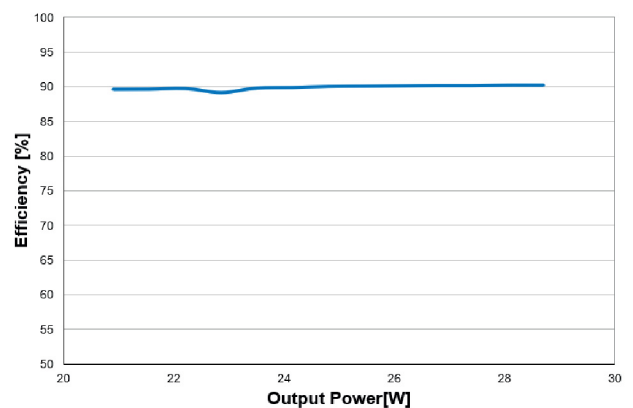
For independent: 0.75-1.5 mm<sup>2</sup>

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

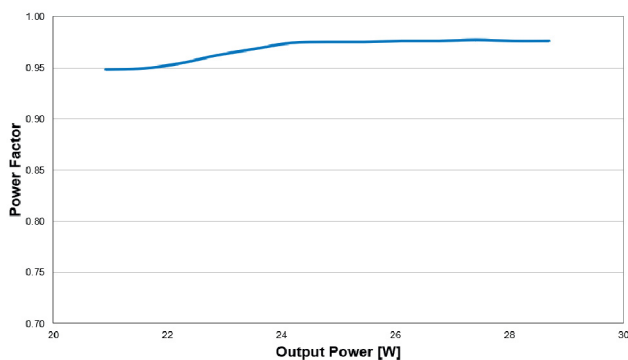
### Typical Operating window



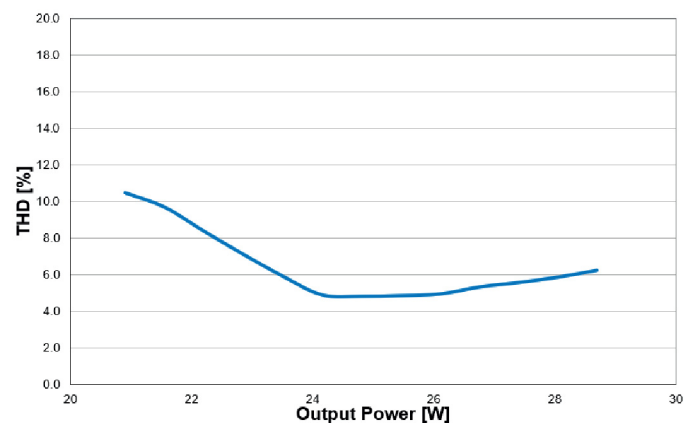
### Typical Efficiency Vs load



### Typical Power factor Vs load



### Typical THD Vs load





## Standards

Safety: IEC 61347-1, IEC 61347-2-13

Performance: IEC 62384

Harmonic content: IEC 61000-3-2

Immunity: IEC 61547

IEC 61000-3-3

EAN10	Product name	Pcs/ box
4055462434302	EM 30/220-240/700 II	100

Ecodesign regulation information:

Intended for use with LED modules.

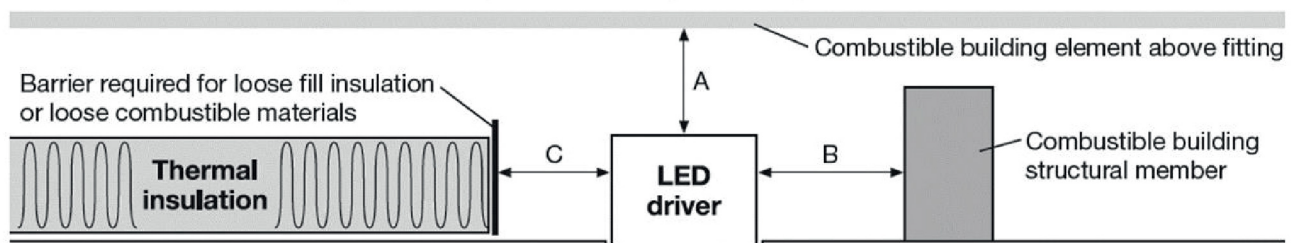
The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

ELEMENT EM II classified as "Non IC": The independent LED driver cannot be abutted against or covered by normally flammable materials or used in installations where building insulation or debris is, or may be, present in normal use.

No use for residential installations.

The minimum clearance distance from the top and sides of the independent LED driver to normally flammable building elements is  $A=B=C=10\text{mm}$ .





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