



# ALPHA PCB INDUSTRY INDUSTRIAL LED LUMINAIRE



# ALPHA PCB INDUSTRY INDUSTRIAL LED LUMINAIRE



## Product lines:

### ALPHA PCB INDUSTRY ECO LINE

**Application:** Standard ambient with temperature up to +45 °C.

### ALPHA PCB INDUSTRY PREMIUM

**Application:** Specially developed and long-term tested for installation in demanding work environment with ambient temperatures up to + 60 ° C.

## ADVANTAGES:

- Quality MADE IN CZECH - Certification TSU Piešťany, Slovakia,
- The modular system enables maximum flexibility of the luminous efficacy and input power,
- **The most powerful and most energy-saving LED luminaire for demanding work environment with temperature up to + 60 ° C \***,
- Combination of maximum design functionality and mechanical resistance,
- 5-year guarantee & 5-year guaranteed availability of replacement components,
- Laboratory tested lifetime of more than 60000 hours/L80 according to IES LM-80,
- Unbeatable price and high-quality ratio,
- Guarantee of the highest quality by using components from the leading European manufacturers,
- Low installation and maintenance expenses.

\* Product line ALPHA PCB INDUSTRY PREMIUM



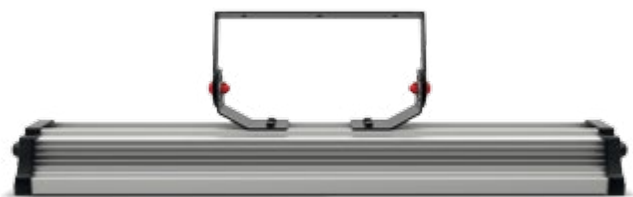
New Standard in LED lighting industry. Iconic design of the luminaire will give a new element of perception of industrial lightning architecture to your production premises. **Alpha PCB Industry Premium** is an absolute breakthrough in the LED lighting industry, it offers a significant reduction in energy consumption, durability, maximum flexibility of the modular system and innovative design. It is a great example of excellent light-technical engineering of **ALPHALIGHTING CZ Ltd.**

**Alpha PCB Industry with the value of total luminous flux up to 150 lm/W currently reaches the highest standard in high-performance industrial LED luminaires.**



## TECHNICAL ADVANTAGES

- Lighting technical parameters of the luminaire meet the requirements of IEC/STN EN 12464-1,
- Maximum luminaire efficiency up to 88%,
- Quick interchangeability of the individual luminaire components - system PLUG-IN,
- Simple and fast installation using the connector system, low installation and maintenance expenses,
- Excellent maximum light output and power consumption ratio – energy class A++,
- Maximum glare reduction – optical diffuser and grid technology,
- The possibility of mechanical adjustment of the desired angle of the luminaire tilt,
- Maximum mechanical resistance,
- Luminaires of ALPHA PCB INDUSTRY PREMIUM product line are fitted with TRIDONIC TALEXX integrated ballast with 100,000-hour lifetime at  $T_a + 65^\circ\text{C}$  and  $T_C 85^\circ\text{C}$ ,
- Luminaires of ALPHA PCB INDUSTRY ECOLINE product line are fitted with integrated ballast with a 50,000-hour lifetime at  $T_a + 45^\circ\text{C}$ ,
- CLO system (Constant Light Output) ensures a sufficient level of light intensity over the luminaire lifetime and increases the lifetime of LED chips.



## APPLICATION OPTIONS:



Industrial production halls with an installation height up to 15 m



Tunnels and roads



Chemical, petrochemical, agrochemical industries, plastics industry



Automotive industry, assembly sectors and boxes for surface treatment such as paint shops etc.



Metallurgical industry with the ambient temperature up to  $+60^\circ\text{C}$

## BASIC TECHNICAL PARAMETERS:

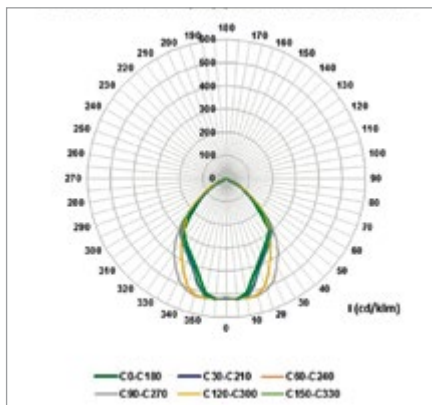
### Optical system – Clear glass with grid

Type	Total power input of the luminaire (W)	Total luminous flux of the luminaire (lm)	Luminous efficiency of the luminaire (lm/W)	Luminous flux of the light source (lm)	Luminous efficacy of the light source (lm/W)	Efficiency (%)
ALPHA PCB INDUSTRY 50	60	<b>9 000</b>	<b>150</b>	10 200	170	88
ALPHA PCB INDUSTRY 80	120	<b>18 000</b>	<b>150</b>	20 400	170	88
ALPHA PCB INDUSTRY 120	180	<b>27 000</b>	<b>150</b>	30 600	170	88
Modular variants PLUG-IN						
ALPHA PCB INDUSTRY 250	2 x 60 W/120 W	<b>18 000</b>	<b>150</b>	-	-	-
ALPHA PCB INDUSTRY 350	3 x 60 W/180 W	<b>27 000</b>	<b>150</b>	-	-	-
ALPHA PCB INDUSTRY 280	2 x 120 W/240 W	<b>36 000</b>	<b>150</b>	-	-	-
ALPHA PCB INDUSTRY 2120	2 x 180 W/360 W	<b>54 000</b>	<b>150</b>	-	-	-

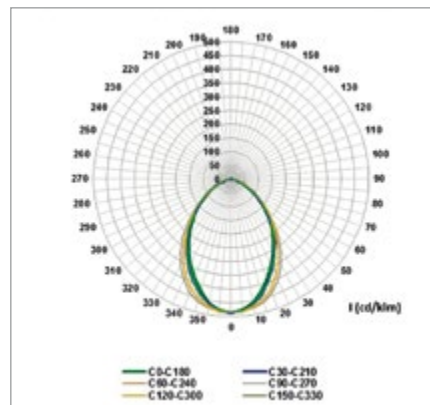
### Optical system – Opal glass with grid

Type	Total power input of the luminaire (W)	Total luminous flux of the luminaire (lm)	Luminous efficiency of the luminaire (lm/W)	Luminous flux of the light source (lm)	Luminous efficacy of the light source (lm/W)	Efficiency (%)
ALPHA PCB INDUSTRY 50	60	<b>8 700</b>	<b>145</b>	10 200	170	85
ALPHA PCB INDUSTRY 80	120	<b>17 400</b>	<b>145</b>	20 400	170	85
ALPHA PCB INDUSTRY 120	180	<b>26 100</b>	<b>145</b>	30 600	170	85
Modular variants PLUG-IN						
ALPHA PCB INDUSTRY 250	2 x 60 W/120 W	<b>17 400</b>	<b>145</b>	-	-	-
ALPHA PCB INDUSTRY 350	3 x 60 W/180 W	<b>26 100</b>	<b>145</b>	-	-	-
ALPHA PCB INDUSTRY 280	2 x 120 W/240 W	<b>34 800</b>	<b>145</b>	-	-	-
ALPHA PCB INDUSTRY 2120	2 x 180 W/360 W	<b>52 200</b>	<b>145</b>	-	-	-

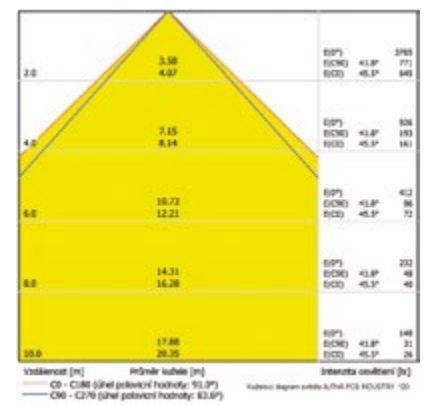
**Note:** The specified basic parameters are set at 4000K CCT (+/- 300K) colour temperature and colour rendering index Ra min. 80. At the colour temperature of CCT of 5000 (+/- 300K) and colour rendering index Ra min. 80, the total luminous flux of the luminaire (lm) will be about 5% higher.



Luminance curve of the luminaire ALPHA PCB INDUSTRY 120 optical system of clear glass with grid, CCT 4000 K

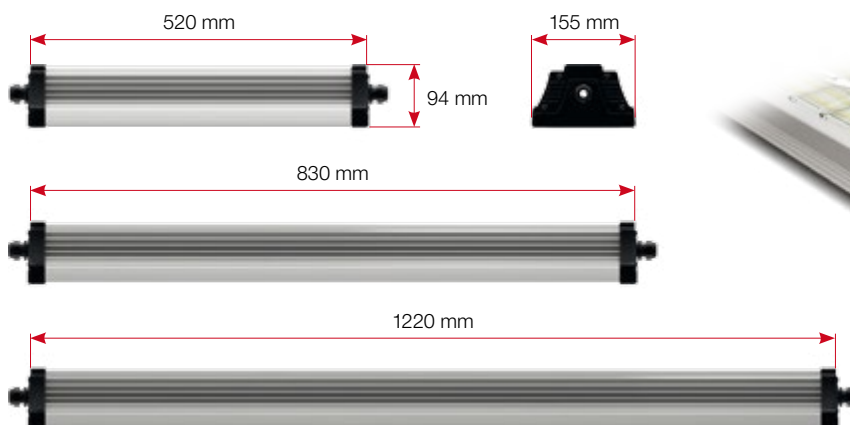


Luminance curve of the luminaire ALPHA PCB INDUSTRY 120 optical system of opal glass with grid, CCT 4000 K



Conical diagram of the luminaire ALPHA PCB INDUSTRY 120

## DIMENSIONS:

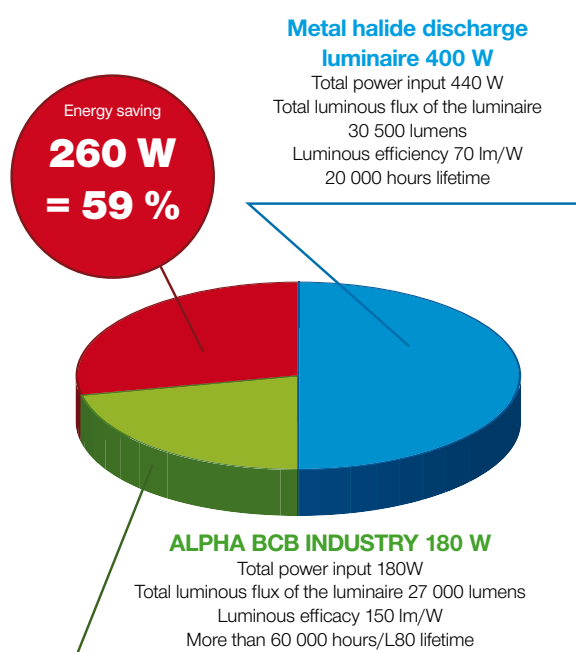
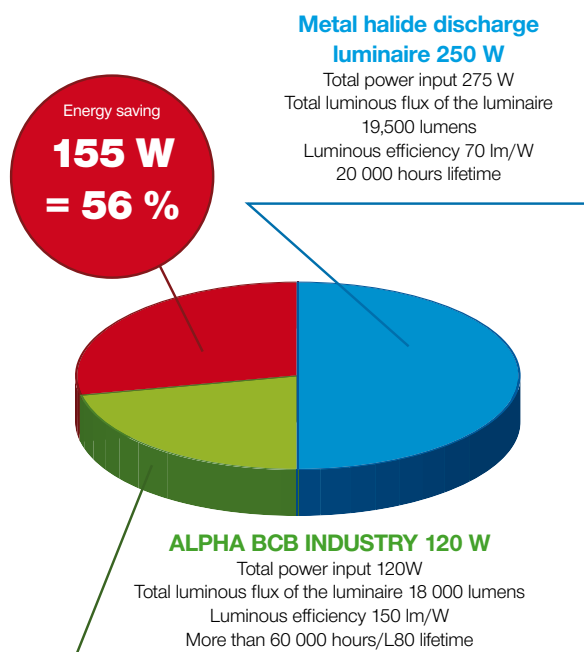


# BASIC TECHNICAL PARAMETERS:





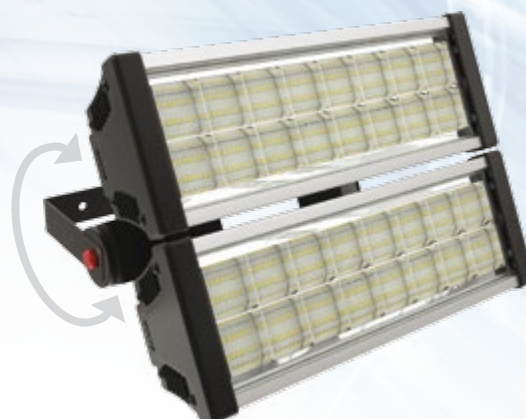
## PARAMETER COMPARISON OF ENERGY EFFICIENCY:



## LUMINAIRE CHARACTERISTICS:



Possibility of mechanical adjustment of the desired angle of the luminaire tilt from - 90 ° to + 90 ° with locking fuse.

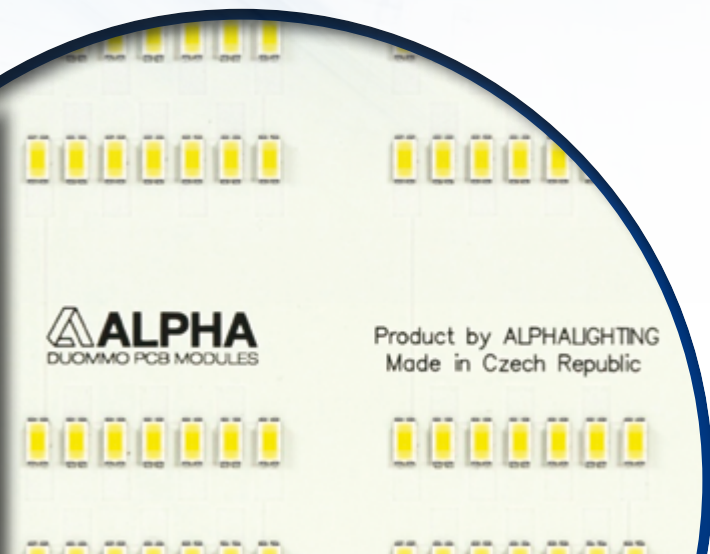
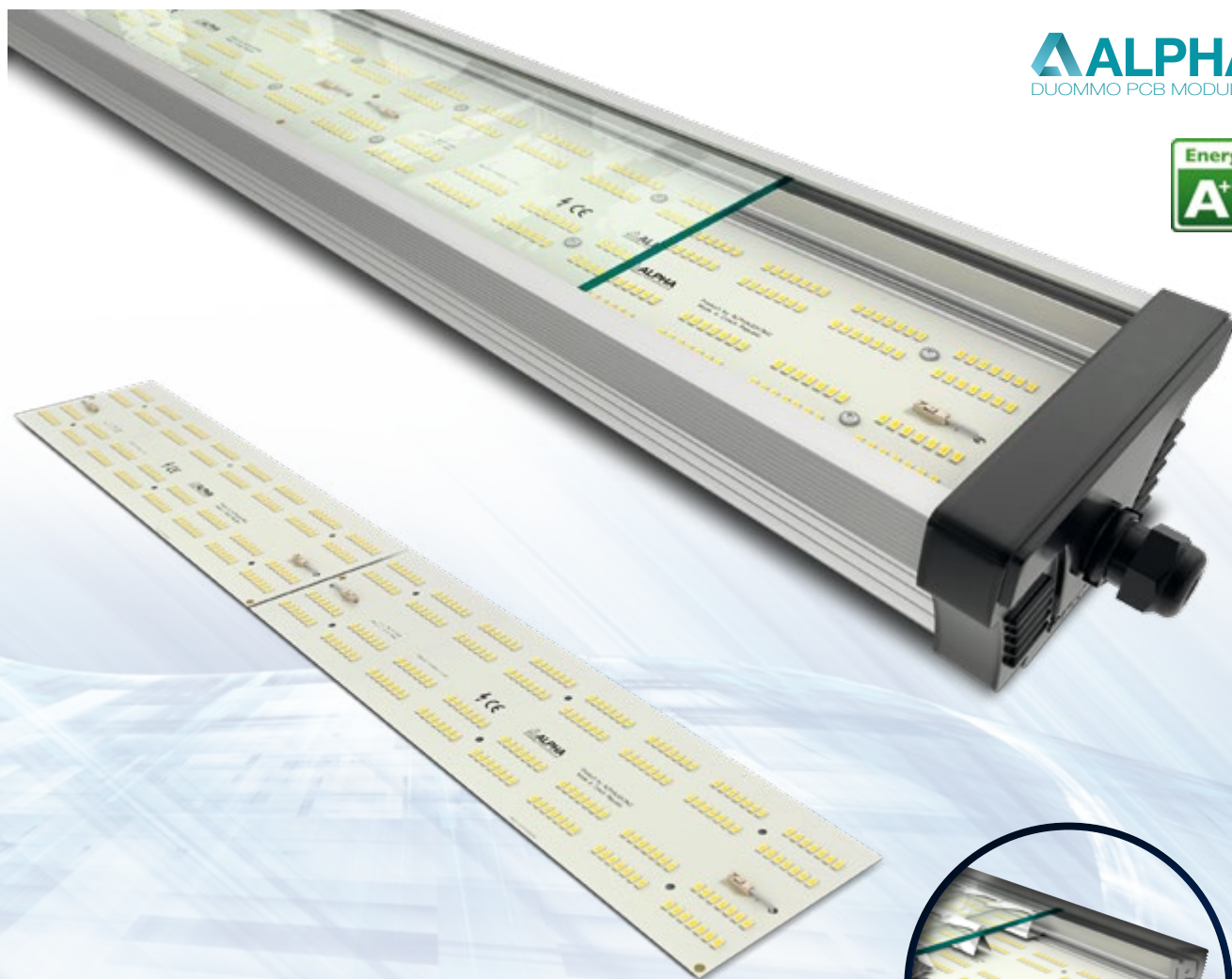


Modular system connection of the PLUG - IN connectors.

# Light source of the luminaire **MODUL ALPHA PCB DUOMMO**



**ALPHA**  
 DUOMMO PCB MODULES

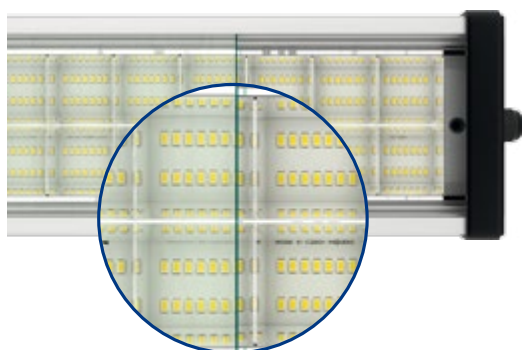


## TECHNICAL ADVANTAGES:

- PCB modules ALPHA PCB DUOMO MODULES with SAMSUNG LM561B+/S5 LED chips with a luminous flux of 180 lumen / W,
- Maximum possible value of LED chip luminous efficacy,
- Simple PCB module interchangeability.



# VARIABLE OPTICAL SYSTEM



Polycarbonate  
 MAKROLON<sup>®</sup> SX

## Clear diffuser polycarbonate MAKROLON<sup>®</sup> SX

- Maximum UGR flare reduction.
- Extreme efficiency + Low weight.
- Special surface diffuser is antistatic to dirt.
- Maximally resistant within the temperature range of -100 °C +120 °C.
- Mechanically resistant.
- Conforms to standard (ČSN EN 13501-1).



Opal heat - tempered safety glass  
 diffuser

## Opal diffuser tempered safety glass

- Maximum UGR flare reduction.
- Temperature up to +250 °C.
- Chemically resistant.
- Mechanically resistant.
- Conforms to standard (ČSN EN 12150-1).

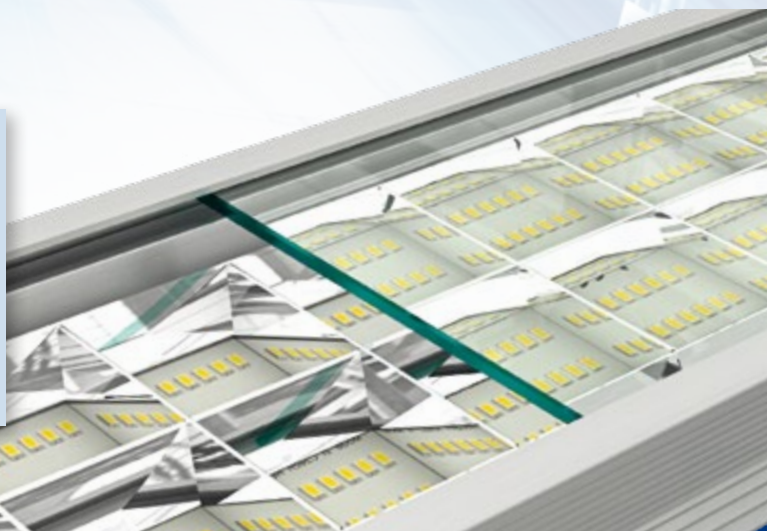


Clear heat - tempered safety glass  
 diffuser

## Clear diffuser tempered safety glass

- Temperature up to + 250 ° C.
- Chemically resistant
- Mechanically resistant.
- Conforms to standard (ČSN EN 12150-1).

**ALPHA PCB INDUSTRY LED  
 luminaires are equipped with  
 variable optical system with the  
 option to choose different  
 diffuser types.**





# MODULE VARIANTS – ALPHA PCB INDUSTRY:



**1 x 50 ALPHA PCB INDUSTRY**  
60 W/9 000 lumen  
520 x 150 x 100 mm/3,6 kg



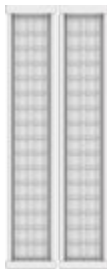
**2 x 50 ALPHA PCB INDUSTRY**  
120 W/18 000 lumen  
520 x 320 x 336 mm/9,2 kg



**3 x 50 ALPHA PCB INDUSTRY**  
180 W/27 000 lumen  
520 x 490 x 336 mm/13 kg



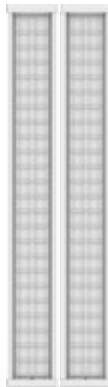
**1 x 80 ALPHA PCB INDUSTRY**  
120 W/18 000 lumen  
830 x 150 x 100 mm/5,9 kg



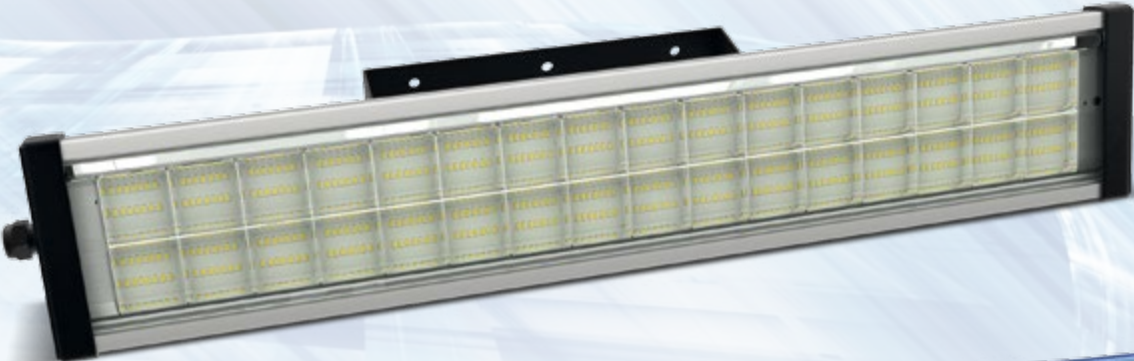
**2 x 80 ALPHA PCB INDUSTRY**  
240 W/36 000 lumen  
830 x 320 x 336 mm/14,2 kg



**1 x 120 ALPHA PCB INDUSTRY**  
180 W/27 000 lumen  
1220 x 150 x 100 mm/8,8 kg



**2 x 120 ALPHA PCB INDUSTRY**  
360 W/54 000 lumen  
1220 x 320 x 336 mm/20 kg





Výrobce – dodavatel  
Manufacturer – Supplier:  
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