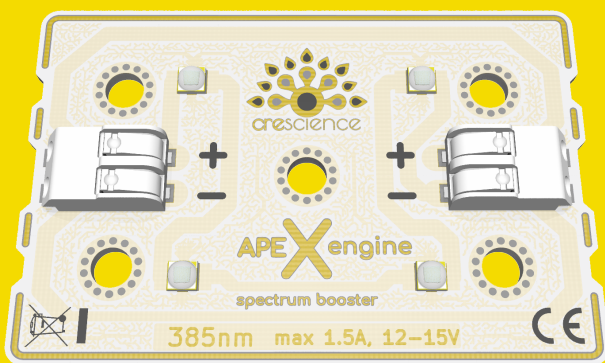


# APEXengine 385

## 385nm (Mk II)

### Datasheet and Application Notes



- Spektrumserweiterung regt Bildung sekundärer Pflanzenstoffe an
- maximale Flexibilität für alle Anwendungen durch modulares Design
- Montage auf Standard-Nutprofilen

**Note:** Only qualified personnel may carry out work such as the installation and maintenance of live components. Qualified personnel are persons who are familiar with the installation, commissioning and operation of the product and have the required qualifications. Relevant standards as well as the user instructions must be observed.

# 1 Specification

## 1.1 Absolute Maximum Ratings

Property	Max.
Current <sup>1</sup>	1500 mA
Voltage <sup>2</sup>	14 V
Power Consumption	22 W
Humidity	95 %RH <sup>3</sup>
Board-Temperature	60 °C

## 1.2 Typical Performance

Property	Typ.	Max.
Current	750 mA	1500 mA
Power Consumption	10.4 W	22.0 W
Radiant Power	5.9 W	11.3 W
PF <sup>4</sup>	19.2 μmol/s	36.6 μmol/s
PE <sup>4</sup>	1.8 μmol/J	1.7 μmol/J
Wavelength	385 nm	
FWHM	10 nm	
Beam Angle	120 °	
Operational Range CC <sup>1</sup>	12.0 - 15.0 V	
Operational Range CV <sup>2</sup>	0.0 - 1.5 A	

Test Conditions:  $T_j=25\text{ °C}$

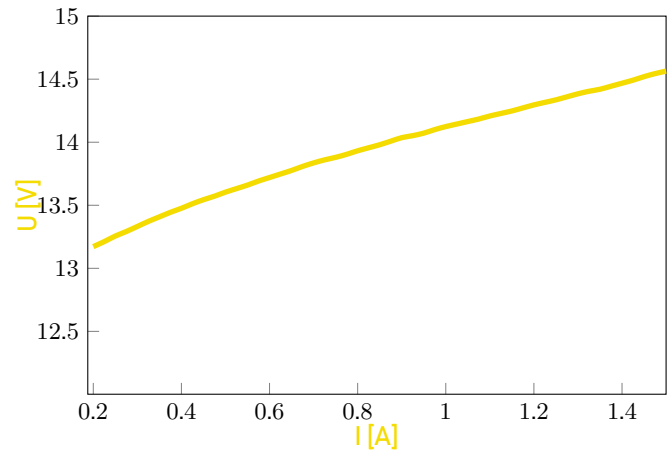
Tolerances: Voltage  $\pm 0.5\%$ , Photon Flux  $\pm 7\%$ , CRI  $\pm 3$

<sup>1</sup> Applies for constant current operation (CC)

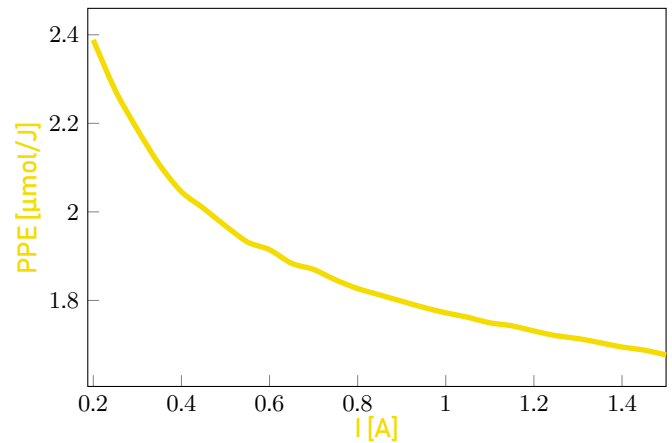
<sup>2</sup> Applies for constant voltage operation (CV)

<sup>3</sup> Non condensing

Voltage vs. Current

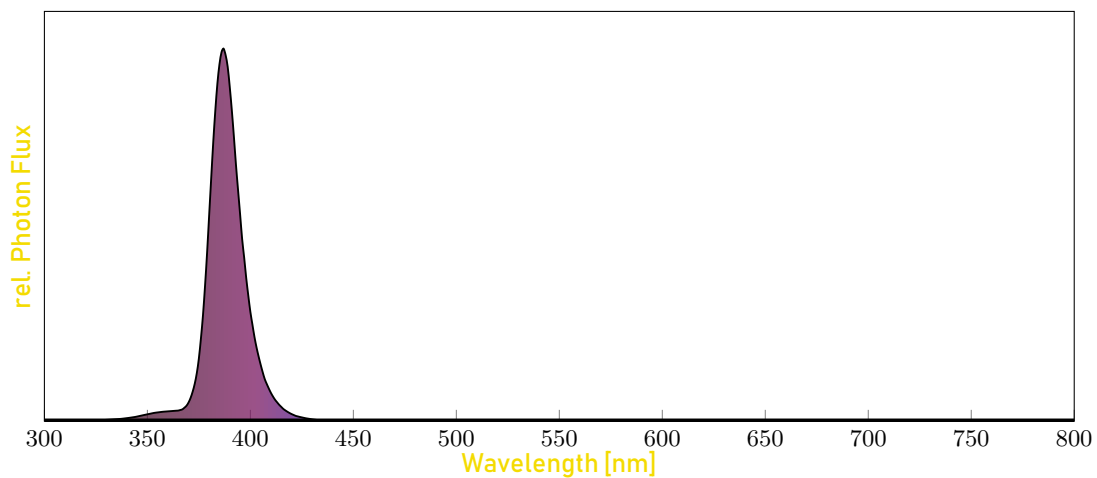


Photon Efficiency vs. Current



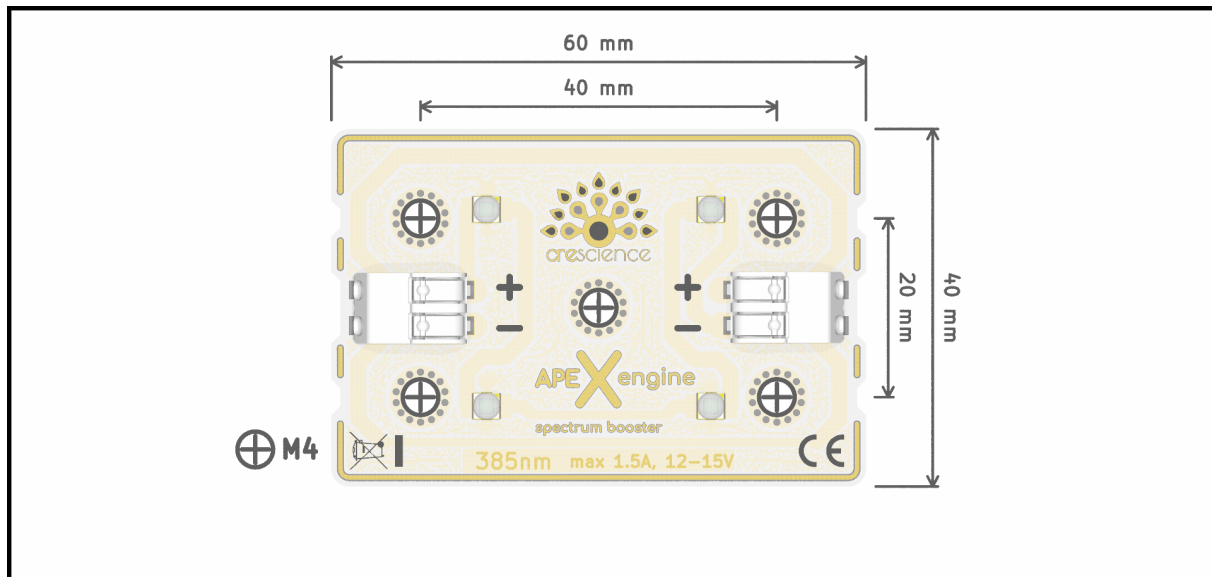
## 1.3 Spektrum 385nm

Photon Spectrum



## 1.4 Dimensions

**Outline Dimensions:** 60.0 mm x 40.0 mm x 7.5 mm  
**PCB Thickness:** 3 mm



## 1.5 Connection

**Connector:** Terminal for solid and fine-stranded wires.  
**Conductor cross-section:** 0.2 mm<sup>2</sup> - 0.75 mm<sup>2</sup> (AWG 24-18)  
 - *with ferrule:* 0.25 mm<sup>2</sup> - 0.34 mm<sup>2</sup>  
**Terminal strip length:** 7 - 9 mm  
**Wiring:** Direct plugging of *solid conductors*.  
 Opening of actuator for fine-stranded conductors.  
 Releasing of any connection by pressing the actuator.

## 2 Application Notes

### 2.1 General Notes

- Do not exceed the absolute maximum ratings.
- Operating the module well below the maximum specification ensures efficient operation and improves longevity.
- When mounting with screws, please use plastic washers to protect the module from damage.
- Prefer series connection.
- Prefer constant current operation.
- Ensure sufficient heat dissipation.

### 2.2 Safety

Work on live components must only be carried out when the device is de-energized and by qualified personnel. Observe the risk of burns when touching heat-conducting components. Life-threatening voltage may be present during operation. Contact protection must be ensured.

## Disclaimer

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