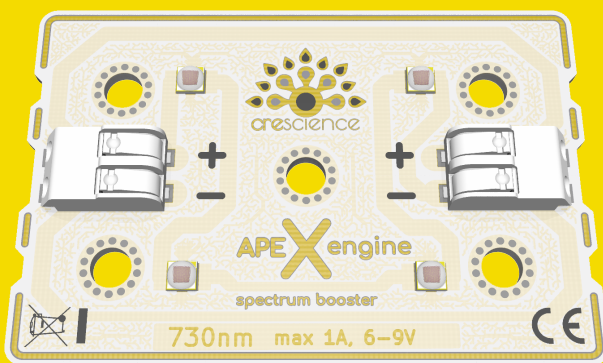


APEXengine 730

730nm (Mk II)

Datasheet and Application Notes



- Spektrumserweiterung - Regeneration
- breite Anwendungsmöglichkeit durch Modularität
- 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 ¹	1000 mA
Voltage ²	8.5 V
Power Consumption	9.3 W
Humidity	95 %RH ³
Board-Temperature	75 °C

1.2 Typical Performance

Property	Typ.	Max.
Current	500 mA	1000 mA
Power Consumption	4.0 W	9.0 W
Radiant Power	2.1 W	4.0 W
PF ⁴	12.7 μmol/s	25.0 μmol/s
PE ⁴	3.2 μmol/J	2.8 μmol/J
Wavelength	730 nm	
FWHM	30 nm	
Beam Angle	120 °	
Operational Range CC ¹	6.0 - 9.5 V	
Operational Range CV ²	0 - 1.0 A	

Test Conditions: $T_j=25\text{ °C}$

Tolerances: Voltage $\pm 0,5\%$, Photon Flux $\pm 7\%$, CRI ± 3

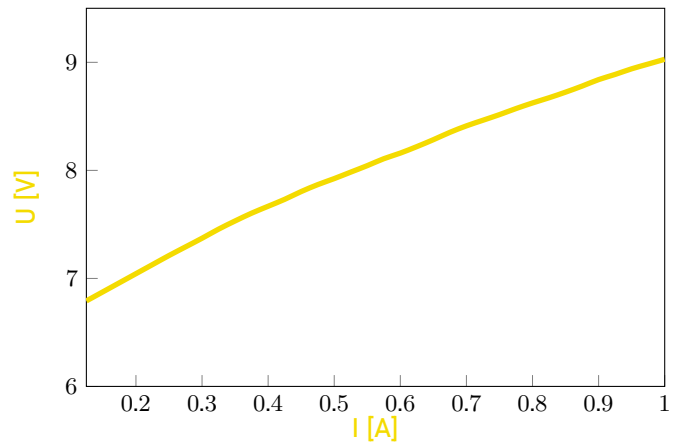
¹ Applies for constant current operation (CC)

² Applies for constant voltage operation (CV)

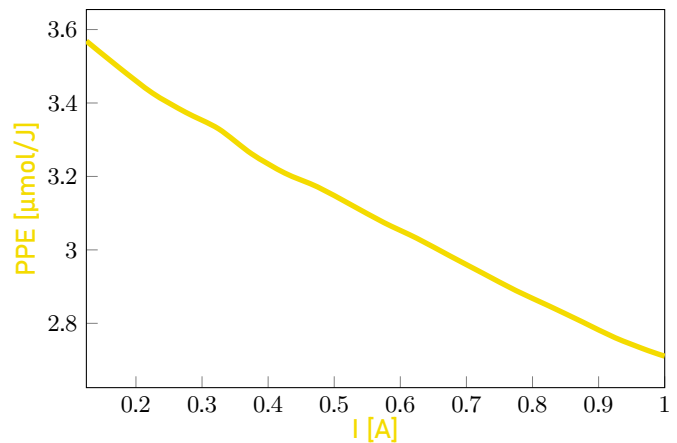
³ Non condensing

⁴ Not within PAR region

Voltage vs. Current

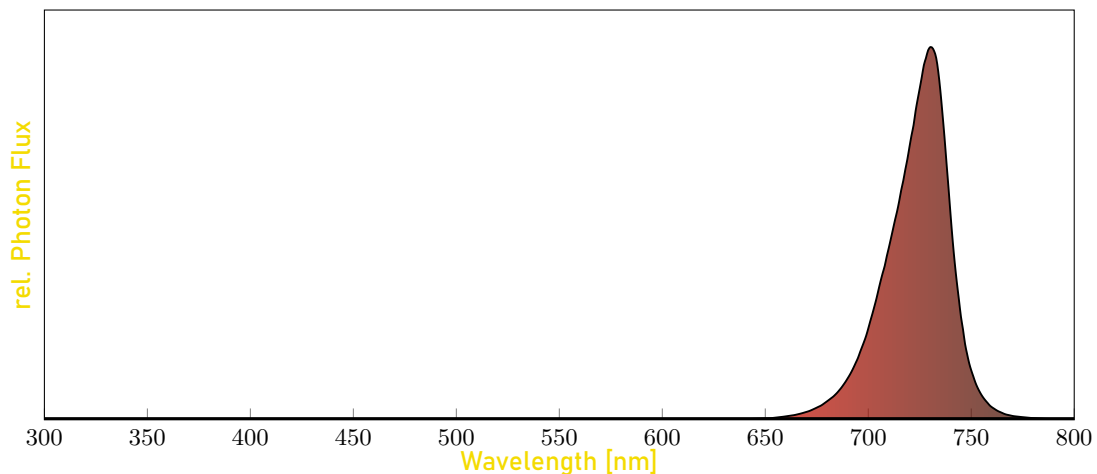


Photon Efficiency vs. Current



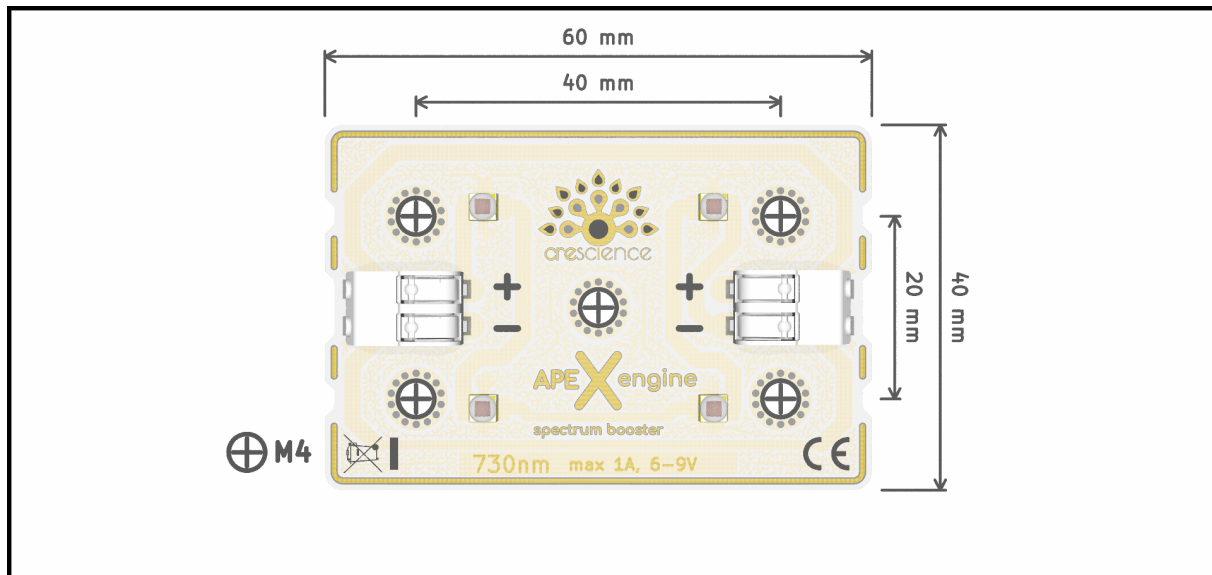
1.3 Spektrum 730nm

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 mm² - 0.75 mm² (AWG 24-18)
 - with ferrule: 0.25 mm² - 0.34 mm²
 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, [siehe Schaltskizzen](#).
- Prefer constant current operation, [siehe Treiberempfehlungen](#).
- Unsure sufficient heat dissipation, [siehe Wärmemanagementstudie](#).

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

The contents of this document and the user notes have been compiled with the greatest care and serve as general information; however, they do not replace individual advice and do not constitute any express or implied warranty, guarantee or assurance of the properties of the products described herein or their applicability or suitability for a particular purpose. Crescience UG (haftungsbeschränkt) is liable for damages resulting directly or indirectly from the use of the documents mentioned herein only in case of intent or gross negligence. This also applies to any damages due to lack of topicality, correctness, completeness or quality of the information provided. Changes in technology or product design are possible at any time and without prior notice.

Kontakt

CRESCIENCE UG (haftungsbeschränkt)
Nordendstr. 3
86956 Schongau
www.cre.science

E-Mail: info@crescience.de
WEEE-Register Nr.: DE 41415334