Data Sheet

BackLED MB – BB03MA

Benefits

- Flexible chain comprising 40 LED modules
- Full encapsulation – including the LEDs – for durable use in outdoor signage applications

Applications

- Signage and illuminated advertising
- Backlighting of standard size channel letters
- Backlighting of light boxes

Technical Operating Data

Product	Color	No. of LED-modules per chain	No. of LEDs per module	Voltage [V DC]*	Power chain / module [W]*	Radiance Angle [°]*	Wavelength [nm] Color Temp [K]*	Lum. Flux chain / module [lm]*
BB03MA-W4F-765	White	40	3	12	28.8/ 0.72	120	6500 K	3000/75

*) Due to the special conditions of the manufacturing processes of LED the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

Technical Features

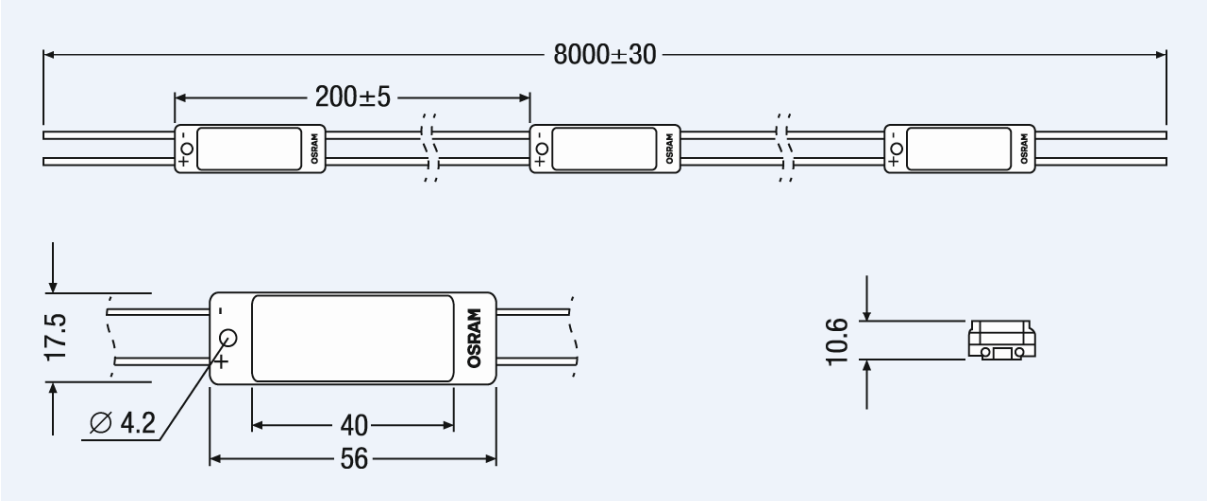
- LED chain comprising 40 LED modules connected by flexible cables
- The maximum length of the entire chain is 8.00m
- The maximum LED pitch is 200mm
- Three LEDs per module
- Minimum operating unit after cutting the chain is one module
- Mounting holes and pre-mounted adhesive tape allow for easy mounting
- Optimal operation on OPTOTRONIC® 12V power supplies
- Full encapsulation of the LED modules with ingress protection IP66
- Fully integrated heat sink
- Accessory: BackLED mounting profile BA03-MP for simplified installation in light boxes

Minimum / Maximum Ratings

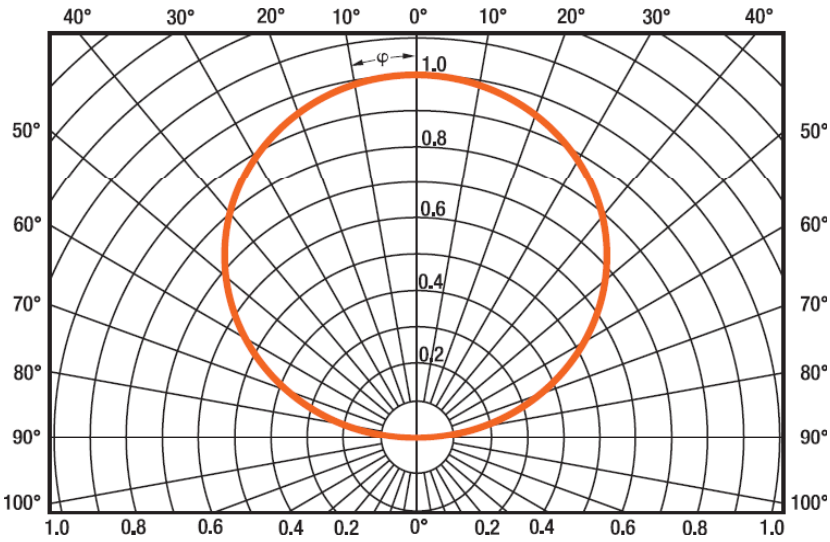
Product	Operating Temperature at Tc-Point [°C]*	Storage Temperature [°C]*	Voltage Range [V dc]*	Reverse Voltage [V dc]*
BB03MA-W4F-765	-25 … 65	-25 … 85	11 … 13	13

*) Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Modules. Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED Modules. The temperature of the LED modules must be measured at the Tc-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Dimensions



Light Distribution



Safety Information

- The LED module itself and all its components must not be mechanically stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- To avoid mechanical damage, the LED modules should be attached securely to the intended substrate. Heavy vibration should be avoided.

In order to drive OSRAM LED-Modules safely, it is absolutely necessary to operate them with an electronically stabilized power supply protecting against short circuits, overload and overheating.

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules must carry the CE mark.
In Europe the declarations of conformity must include the following standards:
CE: EN 61347-2-13, EN 55015, EN 61547 and EN 61000-3-2.
Also check for the mark of an independent authorized certification institute.
Please see the relevant application guides for more detailed information.

OSRAM OPTOTRONIC® electronic control gear complies to all relevant standards and guarantees safe operation.

- Installation of LED modules (with power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Observe correct polarity. Incorrect polarity will lead to no light emission.
- Parallel connection is highly recommended as safe electrical operation mode. Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and damage the LED module.
- Electrical contact is achieved with the contact cables. A maximum 160 modules (four full chains) can be operated on one OPTOTRONIC® 12V 120W. A maximum of 80 modules (two full chains) can be operated on one OPTOTRONIC® 12V 60W. A maximum of 40 modules (one full chain) can be operated on one OPTOTRONIC® 12V 30W. A maximum of 20 modules can be operated on one OPTOTRONIC® 12V 15W.
- Installation with more than 40 modules (one full chain) on one OPTOTRONIC® 120W or OPTOTRONIC® 60W may take the form with a power feed to the centre or with a splitting of the power feed to contact groups of LED modules.
- Detach the chains only by severing the connecting cables between the modules.
- Pay attention to ESD steps when mounting the module.
- When using power supplies other than OSRAM OPTOTRONIC®, in order to ensure continuous save operation, the output voltage has to be 12.0V +/-1.0V
- LED modules are dimmable by means of PWM (pulse width modulation). It is recommended using the following OSRAM control gears: OPTOTRONIC® OT DIM, OT DALI DIM, OT DALI DIM LI.
- The LED modules must not be operated in places which are directly exposed to atmospheric conditions. For outdoor applications, hence the LED module has to be protected by appropriate enclosures or covers. Operation in or under water is prohibited.
- Each LED module is equipped with a pre-mounted double-sided adhesive tape which allows for optional or additional mounting. Due to varying properties of adherends and multiple external influences during the operation of the modules, OSRAM assumes no liability and provides no guarantee for a permanent adherence of the modules to the surface. OSRAM recommends fixation of the modules by means of suitable screws.

Ordering Guide

Product group	Product name	EAN*	Shipping unit
BackLED MB	BB03MA-W4F-765	4008321861429	5 chains

*) EAN: Ordering number per single chain

Note: Typical performance data are subject to change without any further notice, particularly as LED technology evolves.

Sales and Technical Support

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