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PCB High Power

The OrgaLED® PCB High Power LED strip (IP20) is a high quality, flexible LED strip equipped with 3M double sided tape. Thanks to its small dimensions the PCB LED strip is ideal for usage in small (indoor) spaces.

For the latest version of this datasheet, visit our website:

www.organiclighting.com

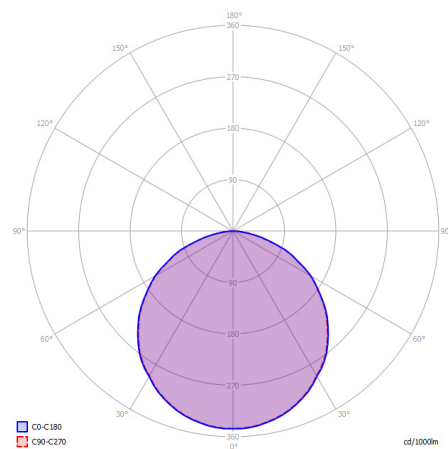
Available Colors

- OrgaLED® PCB 2400K High Power
- OrgaLED® PCB 2700K High Power
- OrgaLED® PCB 3000K High Power
- OrgaLED® PCB 4000K High Power
- OrgaLED® PCB 6500K High Power

Features

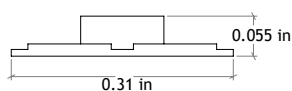
- Made in USA/EU
- Very flexible (bend radius > 0.79")
- Ideal for small indoor spaces
- Dimmable
- Effective heat dissipation
- Excellent lumen/ Watt ratio
- Binning ± 50K
- Available in long lengths
- Available in various colors
- Extensive range of accessories
- Plug & Play system

Symmetric Diagram



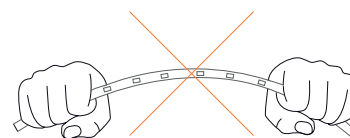
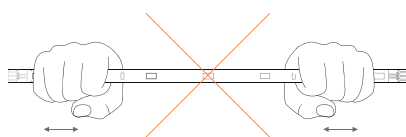
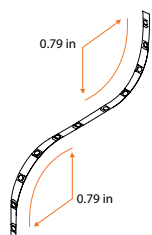
Product Codes & Characteristics

	PCB High Power 2400K	PCB High Power 2700K	PCB High Power 3000K	PCB High Power 4000K	PCB High Power 6500K
Product code	012199	012192	012193	012194	012195
Power (24 V DC)	2.7 W/ft	2.7 W/ft	2.5 W/m	2.6 W/ft	2.6 W/ft
Power (25 V DC)	2.8 W/ft	2.8 W/ft	2.6 W/ft	2.7 W/ft	2.7 W/ft
CRI	> 80	> 80	> 80	> 80	> 80
Luminous flux	223 lm/ft	254 lm/ft	228 lm/ft	263 lm/ft	251 lm/ft
Luminous efficiency	82 lm/W	94 lm/W	90 lm/W	100 lm/W	96 lm/W
Spool length	max. 32.8 ft				
Section length	2 in				
LED	Duris™ E 3				
Number of LEDs	6 per section / 36.5 per ft				
Max. connection length	32.8 ft				
Operation voltage	24 V DC				
Max. operation voltage	25 V DC				
Beam angle	120°				
Dimensions	0.31 x 0.055 in				
Dimmable	PWM dimming, 24 V DC Common Anode				
Binning	± 50K				
Weight	0.1 oz/ft				
Expected lifetime	B50/L70 > 60,000 hours @ 104 °F				
Degree of protection (IP)	IP20				
Storage temperature	-40 °F - 185 °F				
Operation temperature	-22 °F - 167 °F				
Minimal bending radius	0.79 in				
Max. connection length between -4 °F and -22 °F is 23 ft					

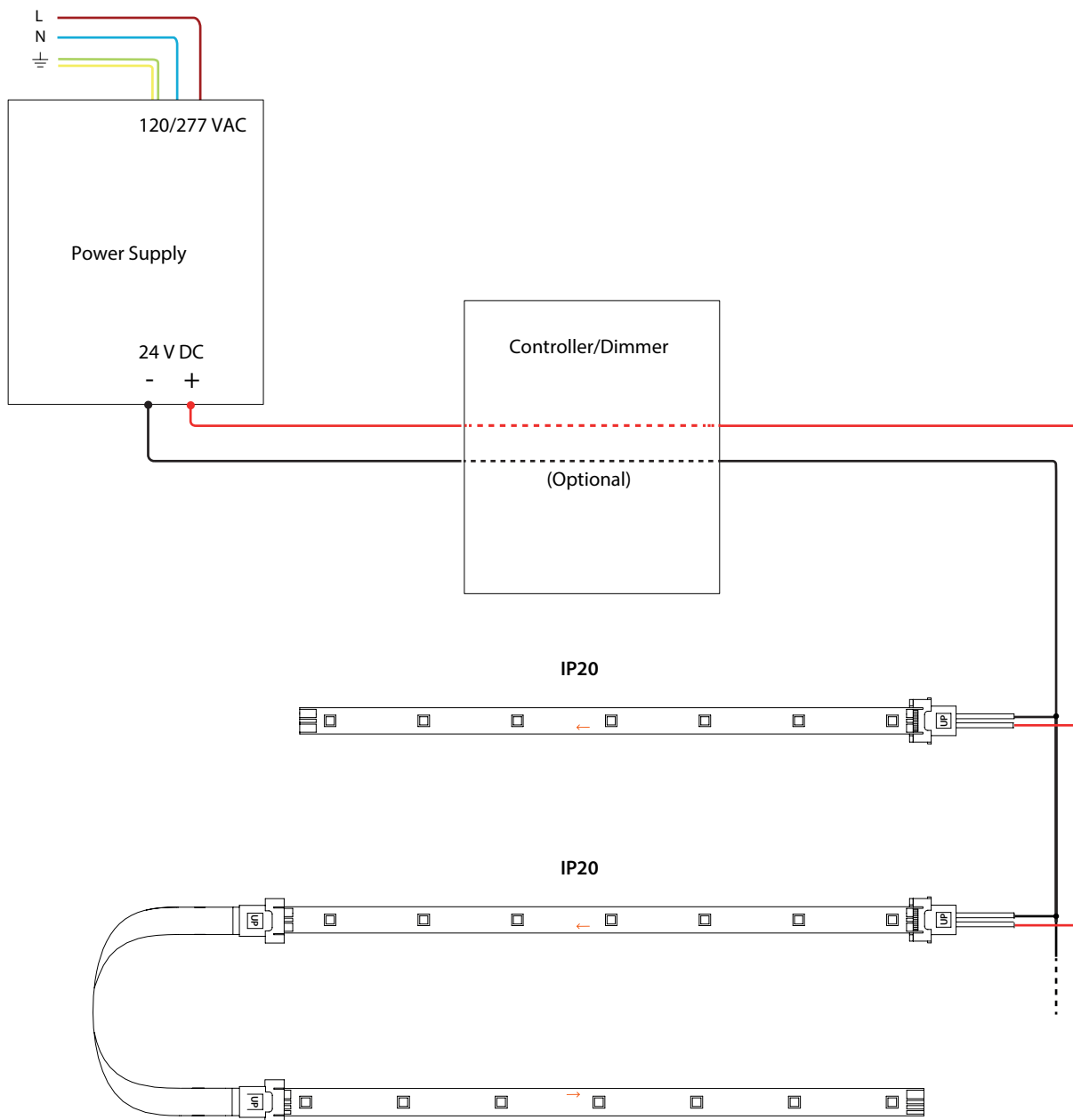


Bending Radius

Maximum bending radius is 0.79 in. Solely bend up or downward. Do not compress, stretch or bend the LED strip.



Power & Connection Diagram



Power Supply - 24V DC

To calculate the power consumption of a single length of LED strip, use the equation below.

$$P_{STRIP} = W_{WATTS} \times X_{LENGTH} \times 110\%$$

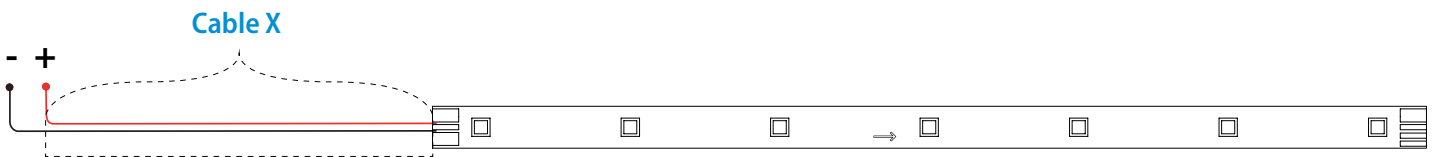
- P_{STRIP} Calculated power consumption of one LED strip in Watt
- W_{WATTS} Typical power consumption in Watt per foot of the selected LED strip
This value can be found under 'Product characteristics' on page 2
- X_{LENGTH} Length of the connected LED strip in feet
- 110% Safety margin to buffer differences over all production batches

Cable Selection

The OrgaLED® LED strips need a minimum voltage at the beginning of the LED strip to function according to the specifications. The table below gives an indication of the maximum cable length based on the cable thickness and power supply voltage. The connection between the cable and LED strip is with a cable length of 3.28 ft.

In case the required length is larger than the length mentioned in this table, the supply voltage is different or if a detailed wire plan with branches is planned, please contact your distributor for a detailed cable calculation.

Wire Gauge	LED strip	Max. cable x length	
		@ 24 V DC	@ 25V DC
20 AWG x 2	3.28 ft	110.00 ft	215.12 ft
	16.4 ft	18.63 ft	39.63 ft
	32.8 ft	7.18 ft	17.71 ft
18 AWG x 2	3.28 ft	165.51 ft	323.62 ft
	16.4 ft	28.01 ft	59.64 ft
	32.8 ft	10.82 ft	26.64 ft
16 AWG x 2	3.28 ft	220.04 ft	430.24 ft
	16.4 ft	37.27 ft	79.29 ft
	32.8 ft	14.40 ft	35.43 ft
14 AWG x 2	3.28 ft	331.03 ft	647.24 ft
	16.4 ft	56.03 ft	119.29 ft
	32.8 ft	21.68 ft	53.31 ft



Symbols



UL is a world leader in product safety testing and certification. UL sets standards and tests products to make sure they meet standards.



The ETL Listed mark indicates that your product has been tested by Intertek and found in compliance with accepted UL standards.



Electro Static Discharge (ESD) sensitive device, apply standard ESD precautions when handling the product.



Manufacturer's declaration that the product meets the applicable EC directives.



Suitable for mounting on all surfaces and suitable to cover with insulating material.



Restriction of Hazardous Substances (RoHS): product complies with the RoHS directive and each homogeneous material does not exceed the limits for the materials mentioned under the RoHS directive (Pb, Hg, Cd, Cr6+, PBB and PBDE).



Protected against ingress of solid foreign objects ≥ 0.49 inches. Not-protected against ingress of water.



Bending of the LED strip is possible with a radius of ≥ 0.79 inches in the specified direction.



Electrical appliance class III: this product is designed to be supplied from an extra-low voltage (≤ 60.0 V DC or ≤ 42.4 V AC).



System guarantee of 5 years when the complete system consist of OrgaLED® products with the 5 year system warranty logo.

Disclaimer

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