



Make your big signs stand out

Philips Affinium LED string system high power, designed for channel letters above three meters high.

The Philips Affinium LED string system high power, is designed to give you up to 400% more light. * That means bigger light output, for bigger signs with an easy-to-install LED string system that includes both LED string and driver. Not only do you get 400% more light, but the uniformity is also ensured by the broad viewing angle. Energy consumption and maintenance is cut dramatically with Philips Affinium LED string high power compared to old lighting technology such as neon or fluorescent lighting.

Benefits for end users e.g. banks, retailers

- Optimal representation of the corporate identity
- Up to 50% energy saving
- Less maintenance

Big benefits for signmakers

- Up to 400% more light
- Quick and easy installation
- Outdoor proof
- Excellent light and colour uniformity
- Optimal for large channel letters above three meters high

Savings in energy consumption

Energy consumption is only around 5W per meter, compared with 20W per meter for neon, enabling more brightness. This reduction of energy consumption allows substantial savings to be made in operating costs. That's better for your customers and better for the environment.

Quick and easy installation

Philips Affinium LED string high power offers many features that enable fast layouts and installation, saving you time and money.

- Easy to cut at any position
- Philips dedicated mounting clips must be used to attach Affinium LED string high power to the backplate.
- The system operates at 24V making it safe to install
- The flexible string wiring allows accurate positioning of the individual LED devices

Outdoor proof

The overall system (LED string, driver and accessories) are fully outdoor proof and have an IP66 rating, ensuring high reliability. What's more, Philips LED string starts instantly, even at temperatures as low as -20°C.

*** Note:** compared to our existing Affinium LED string portfolio

Quality and uniformity of light

To ensure a uniform light distribution, the LEDs have a broad angle of light output (angle of luminous flux is 130°). Furthermore, the wiring of the string is extremely flexible, allowing a uniform light distribution even in the most complex layouts. The cool white colour is also well maintained between different signs for consistent presentation of your customer's corporate identity.

All Philips LEDs are carefully selected ensuring visual consistency between the different LED strings.

Guaranteed performance

When you install Philips Affinium LED string system, you have piece of mind with our three year performance guarantee. This guarantee ensures high customer satisfaction. For more information about our guarantee visit www.philips.com/signage

Lower maintenance costs

As well as immediate energy savings, the high reliability and long lifetime also offer savings in maintenance costs. Both the LED string high power and drivers are maintenance-free for up to 50,000 hours, whereas conventional systems often need replacing after just 20,000 hours. The lumen maintenance of the system is 50% at 50,000 hours at an ambient temperature of 40°C.

Why choose Philips Affinium LED string high power?

- Improved quality on larger channel letters
- Savings in energy consumption
- Savings in maintenance costs
- Reliable, high-quality brand presentation, for your customers
- Three year guarantee on the complete system

Tools to support your customer presentation

To help you in presenting your LED string proposition to your customers, Philips has developed two important tools.

1. LED Sign Advisor

The design of an LED string based channel letter is different from that of a traditional neon or fluorescent system. To help you create the optimal design that meets your customer's requirements, Philips has developed a unique LED string Sign Advisor. Based on the graphic format of your sign, this tool calculates the layout of the LEDs for optimal light distribution, as well as the total costs involved to realize this layout.

2. Cost savings calculator

Based on your customer's actual data and numbers, this tool provides insights into the actual savings that your customer can expect when selecting the Philips Affinium LED string system over a neon or fluorescent solution.

Compliances and approvals

- Safety EN 60598
- Endurance
 - High temp storage +100°C 96hrs IEC 68-2-1
 - Low temp storage -40°C 96hrs IEC 68-2-2
 - Damp heat 85%RH/85°C 96hrs IEC 68-2-3
 - Temp/shock -40°C/100°C 45'/45' 260 cycles IEC 68-2-14
- Mechanical
 - Vibration and bump IEC 60068-2-29 (Affinium LED string tested with mounting clips)
- Quality
 - Ingress protection IP 66 (EN 60598, EN 60529)
 - Complying damp and wet locations (ANSI/UL 2108, low voltage lighting systems)
 - Approval marks ENEC 05, UL recognition (pending) CSA (pending)
 - Quality standard ISO 9001-2000
 - Environmental standard ISO 14001
 - CE marking

Specification

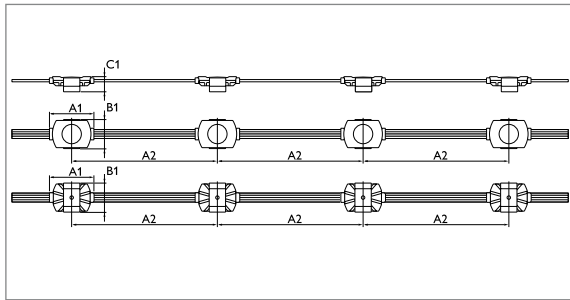
Type	LED Power Driver W	Wavelength nanometer nm	Color temp. Kelvin K	Power W	Lumen per device Lm	Lumen per meter Lm/m
Affinium LED string hp blue P17	20 / 60 / 100	470+/-6	-	0.8	10	62
Affinium LED string hp green P17	20 / 60 / 100	528+/-7	-	0.7	22	134
Affinium LED string hp W3000 P17 (warm white)	20 / 60 / 100	-	3000+/-175	0.7	31	184
Affinium LED string hp W6300 P17 (cool white)	20 / 60 / 100	-	6300+/-700	0.8	50	300

Type	Beam angle °	Ambient temp. range min./max. ° C	Spacing between devices min./max. mm
Affinium LED string hp blue P17	130	-20 / +60	90 / 175
Affinium LED string hp green P17	130	-20 / +60	90 / 175
Affinium LED string hp W3000 P17 (warm white)	130	-20 / +60	90 / 175
Affinium LED string hp W6300 P17 (cool white)	130	-20 / +60	90 / 175

Note

* The pitch between the LED devices is set at 175 mm. In practice the pitch will be 167 mm when the devices are in use. The 13-mm overshoot (175-167) is to allow room for maneuver when creating curves in the application.

Dimensions



Dimensions	mm
A1	56
A2	175
A3	20
B1	35
B2	8.67
C1	18
D1	4.2

Definitions

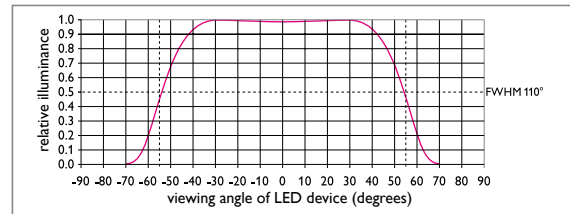
String: Chain of LED devices

LED device: Encapsulated LED device with integrated electronics (including six LEDs)



LED string high power device

Optical characteristics



Quantities of LEDs per driver (for upto three branches*)

No extra wire

Affinium LED string high power	Max. number of LED devices	LED power driver		
		20W	60 W	100 W
blue	per driver ¹	24	72	120
	per branch ²	24	60	60
green	per driver ¹	24	72	120
	per branch ²	24	60	60
warm white	per driver ¹	24	72	130
	per branch ²	24	60	60
cool white	per driver ¹	24	72	120
	per branch ²	24	60	60

Note:

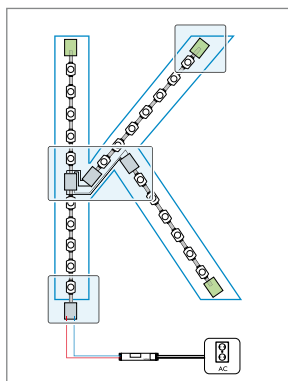
per driver¹ the total number of LEDs per driver may not be exceeded.

per branch² if more branches (up to three) are used, the number of LEDs per branch may not be exceeded.

* if you want to apply more than three branches, please contact your local Philips office.

You can find information on extended cable lengths between drivers and LED strings in the application guide.

Installation example



Constructing a channel letter using LED strings

More detailed information and installation advice in:

1. the application guide
2. the installation instructions added to the LED string packaging
3. www.philips.com/signage or
4. via your distributor or local Philips office.

Note:

Please note that the LED string is only suitable for connection to a Class 2 power source (Philips LED power driver), with energy limited supply.

Ordering

Philips Affinium LED string high power	Box packaging	Dimensions (cm) packaging			Weight incl. packaging g	EOC
		L	W	H		
Affinium LED string hp blue P17	1x10 mtr	47	56	4.5	2150	8727900 815559 00
Affinium LED string hp green P17	1x10 mtr	47	56	4.5	2150	8727900 805857 00
Affinium LED string hp W3000 P17 (warm white)	1x10 mtr	47	56	4.5	2150	8727900 805871 00
Affinium LED string hp W6300 P17 (cool white)	1x10 mtr	47	56	4.5	2150	8727900 805864 00

Accessories	Box packaging	Dimensions (cm) packaging			Weight incl. packaging g	EOC
		L	W	H		
LS HP Mounting Clip ²	62 pcs	15	15	15	450	8727900 805895 30
LS HP Cable 4xAWG24	50 mtr	18	18	1.5	250	8727900 805901 00
LS Connector Xtend+LS Applicator Tool ¹	10 pcs/1 pc	7.7	4.8	4.2	50	8711559 763972 30
LS HP Connector End Cap	10 pcs	7.7	4.8	4.2	50	8727900 805932 00
LS Mounting Tape 210 pads	1 reel of 210 pads	11	11	2.5	85	8711559 764016 00
LS Mounting Tape 1700 pads	1 reel of 1680 pads	25	25	2.5	680	8711559 764030 00
LS Connector Tool ³	1 pc	29	25	10	1000	8711559 765686 00

1 In each box of LS Connector Xtend an applicator is included to connect the strings and driver.

2 The dedicated mounting clips are mandatory, when installing Philips Affinium LED string high power. The use of self-adhesive tapes has been tested for stainless steel, aluminium and PMMA.

If other materials or coatings are used, please ensure that these are compatible with the adhesive tape.

3 This tool can be ordered when many strings have to be connected (for small quantities you can use the LS Applicator Tool)

Philips LED power driver (IP 66)	Box packaging	Dimensions (cm) packaging			Weight incl. packaging g	EOC
		L	W	H		
20W-24 V 100-240V	10	27	23	9	2050	8711500 911940 30
60W-24 V 100-240V	10	40	27	9	6600	8711500 911469 30
100W-24 V 100-240V	10	40	27	9	6600	8711500 911964 30

LED Power Drivers are advised for indoor and outdoor use (IP66). In the USA Xitanium outdoor LED drivers can be applied.

Your distributor or local Philips Advance office can provide more detailed information.

3M Accessories	
3M Tissues	available from supplier 3M at www.3m.com
VHB™ Cleaner	available from supplier 3M at www.3m.com



© 2009 Koninklijke Philips Electronics N.V.

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication there of does not convey nor imply any license under patent- or other industrial or intellectual property rights.

Document order number: 3222 635 54631
03/2009

www.philips.com/signage