

# LED Strip Special

velleman®



# DECORATIVE LED STRIPS



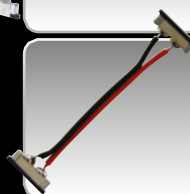
The technology of the LED strips is finally within everyone's reach. They offer plenty of possibilities both in terms of lighting and decoration. Give your home the best lighting. The LED strip has something for everyone, as you can adjust the light intensity as well as change colours. Your creativity will know no bounds!

## ACCESSORIES FOR SINGLE-COLOUR LED STRIPS

2 CONNECTORS



**POWER CABLE**  
164ft **CHLCON4**



**POWER CABLE**  
196" **CHLCON5**



**CONDUCTOR**  
**CHLCON6**

## ACCESSORIES FOR LED STRIPS

4 CONNECTORS



**POWER CABLE**  
164ft **CHLCON1**



**POWER CABLE**  
196" **CHLCON2**



**CONDUCTOR**  
**CHLCON3**



**12V**

**5M**  
x10mm

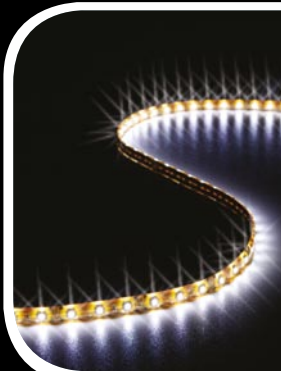
**16.4ft**  
x25/64"

**150**  
LEDs



type 5050

White **CHLS4W**  
Warm white **CHLS4WW**  
RGB **CHLS4RGB**  
Blue **CHLS4B**  
Green **CHLS4G**  
Red **CHLS4R**  
Yellow/amber **CHLS4Y**



**12V**

**5M**  
x10mm

**16.4ft**  
x25/64"

**300**  
LEDs



type 3528

White **CHLS3W**  
Warm white **CHLS3WW**  
Blue **CHLS3B**  
Green **CHLS3G**  
Red **CHLS3R**  
Yellow/amber **CHLS3Y**



**12V**

**5M**  
x12mm

**16.4ft**  
x15/32"

**150**  
WHITE



type 3528

**150**  
RGB

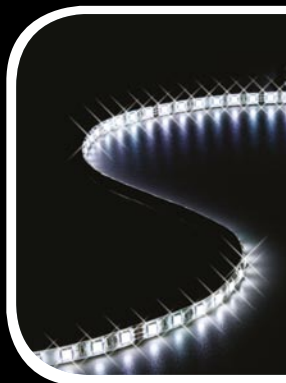



type 5050

RGB-white **CHLS16RGBW**

to be used with  
ref. CHLS16C






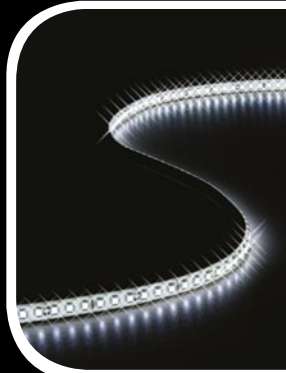
<b>24V</b>	<b>5M</b>	<b>16.4ft</b>
	x10mm	x25/64"
<b>300 LEDs</b>		
 type 5050		


White \_\_\_\_\_ **CHLS7W**  
 Warm white \_\_\_\_\_ **CHLS7WW**  
 RGB \_\_\_\_\_ **CHLS7RGB**  
 Blue \_\_\_\_\_ **CHLS7B**



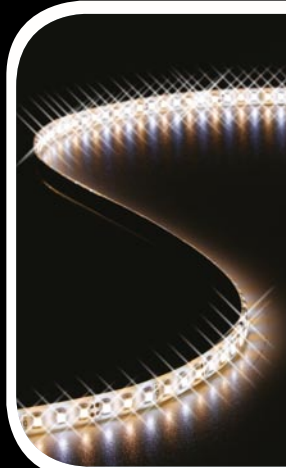
<b>12V</b>	<b>5M</b>	<b>16.4ft</b>
	x10mm	x25/64"
<b>300 LEDs</b>		
 type 5050		



White \_\_\_\_\_ **CHLS15W**  
 Warm white \_\_\_\_\_ **CHLS15WW**  
 RGB \_\_\_\_\_ **CHLS15RGB**



<b>24V</b>	<b>5M</b>	<b>16.4ft</b>
	x10mm	x25/64"
<b>600 LED</b>		
 type 3528		

White \_\_\_\_\_ **CHLS13W**  
 Warm white \_\_\_\_\_ **CHLS13WW**  
 Blue \_\_\_\_\_ **CHLS13B**



<b>12V</b>	<b>5M</b>	<b>16.4ft</b>
	x10mm	x25/64"
<b>300 WARM WHITE</b>		
 type 3528		
<b>300 NEUTRAL WHITE</b>		
 type 3528		

White & warm white \_\_\_\_\_ **CHLS18WWWC**

### **CHOOSING AN LED STRIP DEPENDS ON SEVERAL FACTORS:**

- The degree of water protection, which is expressed with an IP rating.
- The voltage of the LED. Generally, a 12V voltage is considered a safe low voltage and therefore it is widely used. An LED strip with a voltage of 24V has the advantage that the same wire diameter can span a greater distance between the power supply and your LED strip.
- The choice of an LED strip also depends on the number of LEDs on an LED strip. The more LEDs, the less visible distinctive light spots and the better the light distribution. This can be useful for indirect lighting over a small distance between the strip and the illuminated area, but is unimportant with greater distances.
- The overall intensity of the LED matters too. It is directly proportional to the number of dies or LED chips on an LED strip. This is not to be mistaken for the number of LEDs. A type 3528 LED has got 1 die per LED and a type 5050 LED has got 3 dies per LED. Theoretically this means a type 5050 LED produces three times the light a type 3528 does.



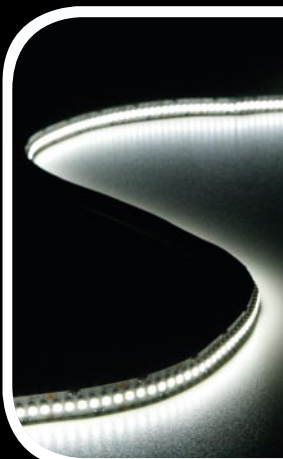
A TYPE 3528 LED HAS GOT 1 DIE



A TYPE 5050 LED HAS GOT 3 DIES



# LED STRIPS FOR LIGHTING



FLEXIBLE LED STRIP  
WITHOUT SILICONE COATING



24V

5M  
x10mm

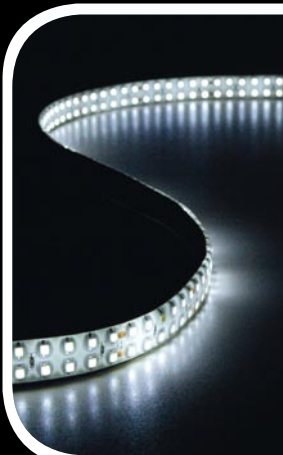
16.4ft  
x25/64"

1200  
LEDs



type 3528

White **CHLS19W**  
Warm white **CHLS19WW**



FLEXIBLE DUAL LEDSTRIP



24V

5M  
x15mm

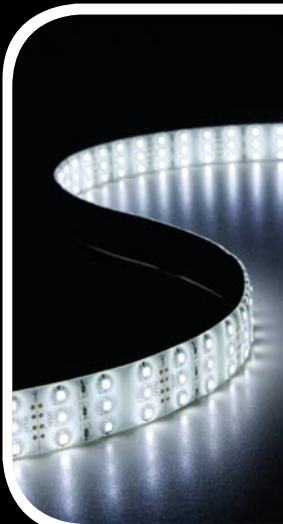
16.4ft  
x19/32"

1200  
LEDs

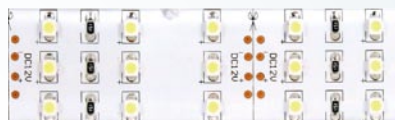


type 3528

White **CHLS20W**  
Warm white **CHLS20WW**



FLEXIBLE TRIPLE LEDSTRIP



12V

5M  
x24mm

16.4ft  
x15/16"

900  
LEDs



type 3528

White **CHLS21W**

Warm white **CHLS21WW**



# WATER PROOF LED STRIPS



**IP68**

6 = No ingress of dust; complete protection against contact.

8 = The equipment is suitable for continuous immersion in water under conditions of prolonged immersion.

## MOUNTING CLIPS FOR IP68 WATER PROOF LED STRIPS • 100 PIECES

for: CHLS11W, CHLS11WW,  
CHLS11B, CHLS11RGB, CHLS22W,  
CHLS22WW, CHLS22RGB



**HARD** CHLCLIP1



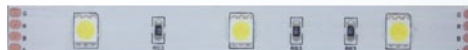
**FLEXIBLE** CHLCLIP2

## END CUP FOR CHLS11 LED STRIPS

- 4x: closed end cups
- 4x: cup with 2 holes for single colour strips
- 4x: cup with 4 holes for RGB strips



CHLSEC



**12V**

**5M**

**x10mm**

**16.4ft**  
**x25/64"**

**150**  
**LEDs**



type 5050

White (9000K) **CHLS11W**  
Warm white **CHLS11WW**  
RGB **CHLS11RGB**  
Blue **CHLS11B**



**12V**

**5M**

**x12mm**

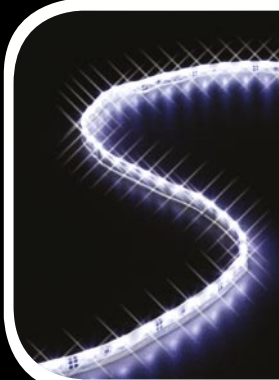
**16.4ft**  
**x15/32"**

**300**  
**LEDs**



type 5050

White **CHLS22W**  
Warm white **CHLS22WW**  
RGB **CHLS22RGB**



'SIDE VIEW'



**12V**

**5M**

**x8mm**

**16.4ft**  
**x5/16"**

**300**  
**LEDs**



type 335



White **CHLS9W**  
Warm white **CHLS9WW**



# SPECIAL LED STRIPS

## FLEXIBLE ANIMATED RGB LED "DATA" STRIP

Animated LED strip with 3 separate controlled segments. RGB controller with IR remote control and different animation programs. Contains 270 high brightness LEDs. Suitable for illuminated advertising and marking. Self-adhesive. It's possible to connect 2 strips to the same controller.



12V

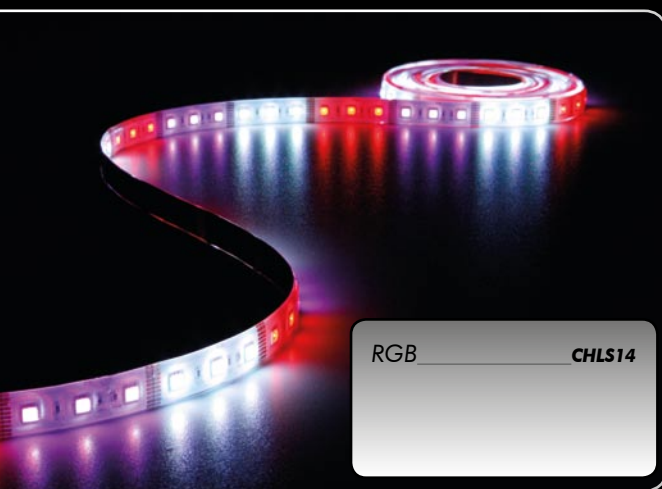
5M  
x16mm

16.4ft  
x5/8"

270  
LEDs

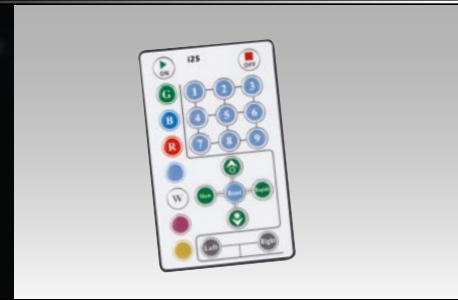
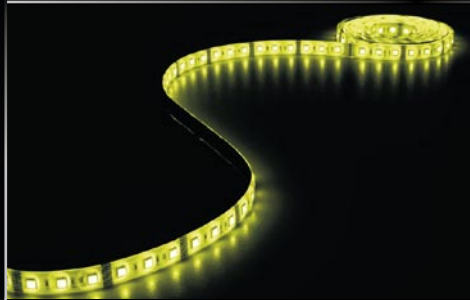


type 5050



RGB

CHLS14



## KIT WITH FLEXIBLE LED STRIP AND CONTROLLER

Supplied with remote control.



12V

2M  
x10mm

6.56ft  
x25/64"

60  
LEDs



type 5050

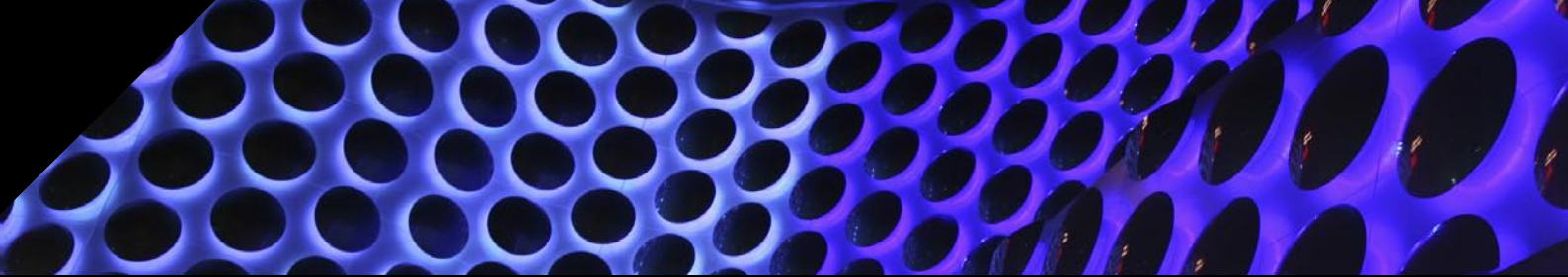


RGB

CHLS17RGB/2







## FLEXIBLE 1m/3ft LED STRIP

RGB LED strip for easier installation.



RGB **CHLS5RGB/1M**



12V

1M  
x10mm

3.28ft  
x25/64"

30  
LEDs



type 5050



### MAXIMUM DISTANCE

The more LED strips you connect, the greater the power consumption and the greater the current.

Since the wiring in an LED strip is very thin, it can only handle a limited amount of current without being damaged irreversibly.

Do not hesitate to ask your vendor for more details, he will inform you of the maximum length your LED strip installation can handle.

### FLEXIBLE LED MODULES COMPATIBLE WITH CHLS4RGB



12V

width:  
10mm  
25/64"



type 5050



50cm/1.64ft: 15 LED  
**CHLS80**

1m/3.28ft: 30 LED  
**CHLS81**



Corner • 3 LEDs **CHLS82**



T-shape • 3 LEDs **CHLS83**



Connection wire **CHLS84**

# OPERATING MODULES



		COLOUR		OPERATION
<b>RGB LED STRIP EFFECT GENERATOR</b> VM146	12VDC 3x3A	 256 levels/channel hard/smooth fade transition effects: speed adjust, memory, easy select		pushbutton
	24VDC 3x3A			
<b>RGB LED DIMMER AND COLOUR SELECTOR - TO BE USED WITH VM118R REMOTE</b> VM161	12VDC 3x3A	 7 colour tones	10 positions	 8 channel RF VM118R
	24VDC 3x1A			
<b>LED DIMMER WITH RF REMOTE CONTROL</b> VM152	12VDC 1x6A	1 colour	10 positions selectable automatic	 pushbutton + 2 channel RF VM130T (incl.)
	24VDC 1x6A			
<b>RGB LED EFFECT GENERATOR WITH RF REMOTE CONTROL</b> VM151	12VDC 3x3A	 5 user-editable colour tables hard/smooth fade transition effects: speed adjust, memory		 2 channel RF VM130T (incl.)
	24VDC 3x1A			
<b>RGB LED DIMMER AND COLOUR SELECTOR WITH RF REMOTE</b> VM162	12VDC 3x3A	 7 colour tones	10 positions	 2 channel RF VM130T (incl.)
	24VDC 3x1A			
<b>RGB LED DIMMER FOR DIN RAIL</b> VM150	12VDC 3x5A	 7 colour tones + single colour mode	19 positions selectable	2 pushbuttons: possible to connect 2 strips to the same controller
	24VDC 3x5A			
<b>0.10V RGB LED DIMMER FOR DIN RAIL</b> VM168	12VDC 1x5A	 selectable slow / fast response	256 positions	
	24VDC 1x5A			



A dimmer is a module connected between the power supply and the single colour LED strip. It controls the light intensity from 0 to 100%.  
An RGB controller is a module connected between the power supply and the RGB LED strip. You can choose the desired colour and adjust the brightness of the strip.  
Some controllers have built-in programs that can automatically change the colours.





**FOR A PROFESSIONAL FINISH** IN INTEGRATING YOUR LED STRIPS, YOU CAN USE OUR RANGE OF HOME AUTOMATION.

**FOR MORE INFORMATION**  
VISIT [WWW.VELBUS.EU](http://WWW.VELBUS.EU)  
OR ASK FOR OUR BROCHURE FROM YOUR VELBUS DEALER.



control via touchscreen.

wireless control via iPod, iPad, iPhone

control over timer-/pushbutton module (up to 8 buttons)



		COLOUR	OPERATION
<b>1. RGB LED CONTROLLER WITH REMOTE CONTROL</b> <b>CHLSC1</b>	12VDC 3x5A	 <b>20 pre-programmed output modes:</b> single colours, flash, strobe, fade...	pushbutton + 24 buttons IR 
	24VDC 3x5A		
<b>2. RGB LED CONTROLLER WITH REMOTE CONTROL</b> <b>CHLSC2</b>	12VDC 3x4A	 fixed modes and changing effects intensity adjustment	24 buttons IR 
	24VDC 3x1A		
<b>3. RGB+W LED CONTROLLER WITH DMX AND IR REMOTE</b> <b>CHLS16C</b>	12VDC 3x5A	 <b>4 DMX channels</b> red-green-blue-white <b>14 modes, colour and speed selection</b>	DMX + 18 buttons IR 
	24VDC 3x5A		

#### RGB POWER SLAVE MODULE 3 X 4A

Add more led strips to your existing controller.

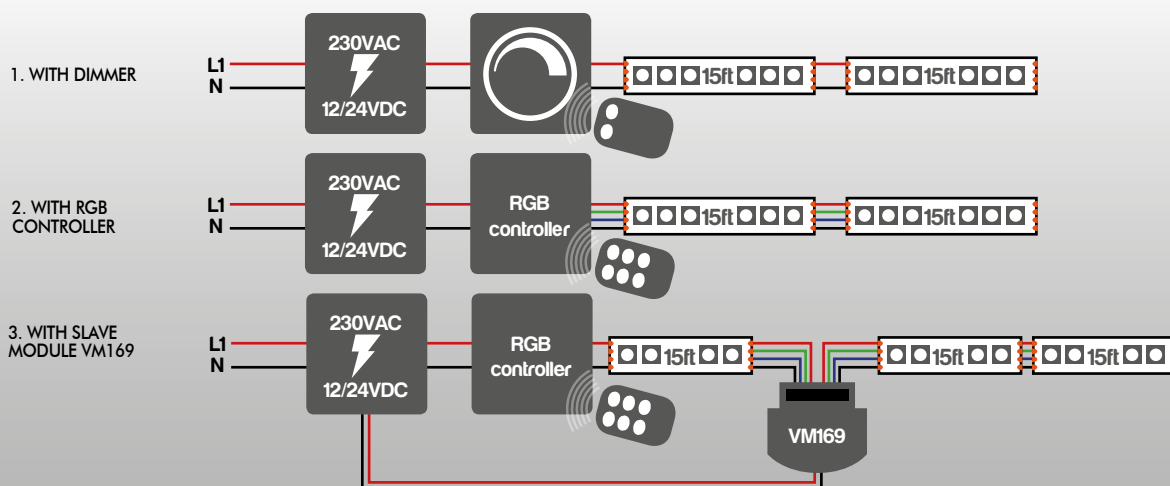
- every unit adds up to 144W (12V) or 288W (24V)
- works with a single power supply or multiple supplies
- eases distribution of led strips
- allows simultaneous use of 12V and 24V strips
- only 4 interconnecting wires required (e.g. CHLWIRE)



**3x  
4A  
12/24V**



The following schemes show how several LED strips can be connected consecutively.

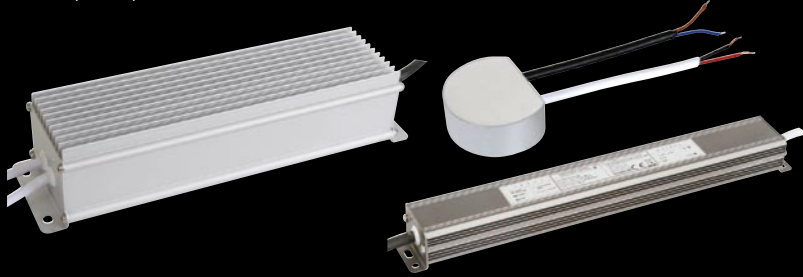


# POWER SUPPLIES

## CONSTANT VOLTAGE

Use: suspended ceiling, wet places, etc...

- short circuit protection
- overload protection
- over voltage protection (255V)
- thermal protection (80°)
- waterproof protection IP67



## SWITCHING POWER SUPPLY

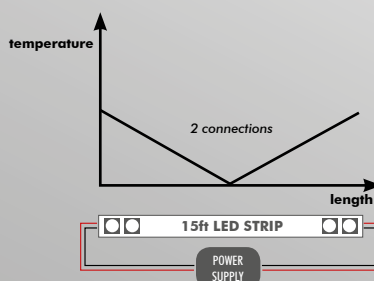
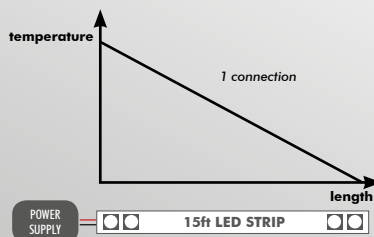
Use: switchboards, inaccessible places (ventilated and dust-free).

- cooling: by free air convection
- with screw connections
- protections:
  - short circuit
  - overload
- auto recovery
- 100% full load burn-in test
- high reliability



## USING AN LED STRIP

By default, an LED strip comes with a 1-wire connection. Under normal conditions, this is sufficient. When an LED strip is used in enclosures, LED profiles or in areas with reduced cooling, it is better to feed the LED strip via 2 connectors. The maximum current in the LED strip is then cut in half, thus ensuring lower operating temperature and a longer life.



## SWITCHING POWER SUPPLY - DIN

Use: switchboards, inaccessible places (ventilated and dust-free).

- with 4 screw connections
- protections:
  - short circuit
  - overload
- auto recovery
- 100% full load burn-in test
- high reliability



ORDER CODE			
<b>LPS00512R</b>	5W	12VDC	6.30 x 1.18 x 25/32 inch
<b>LPS01012C</b>	10W	12VDC	ø2.28 x 15/16 inch
<b>LPS01012R</b>	10W	12VDC	6.30 x 1.18 x 25/32 inch
<b>LPS02012R</b>	20W	12VDC	6.30 x 1.18 x 25/32 inch
<b>LPS04512B</b>	45W	12VDC	10.12 x 1.42 x 29/32 inch
<b>LPS04512R</b>	45W	12VDC	10.12 x 1.42 x 29/32 inch
<b>LPS06012R</b>	60W	12VDC	6.18 x 2.64 x 1.97 inch
<b>LPS08012R</b>	80W	12VDC	9.45 x 2.64 x 1.97 inch
<b>LPS10012R</b>	100W	12VDC	9.45 x 2.64 x 1.97 inch
<b>LPS10024R</b>	100W	24VDC	9.45 x 2.64 x 1.97 inch
<b>LPS15024R</b>	150W	24VDC	8.98 x 4.72 x 2.52 inch
<b>LPS20024R</b>	200W	24VDC	8.98 x 4.72 x 2.52 inch

<b>PSIN02512</b>	max. 25W	12VDC	3.94 x 3.82 x 1.38 inch
<b>PSIN02524</b>	max. 25W	24VDC	3.94 x 3.82 x 1.38 inch
<b>PSIN04012</b>	max. 40W	12VDC	3.94 x 3.82 x 1.46 inch
<b>PSIN04024</b>	max. 40W	24VDC	3.94 x 3.82 x 1.46 inch
<b>PSIN06012</b>	max. 60W	12VDC	3.94 x 3.82 x 1.38 inch
<b>PSIN06024</b>	max. 60W	24VDC	3.94 x 3.82 x 1.38 inch
<b>PSIN10012</b>	max. 100W	12VDC	3.94 x 3.82 x 1.38 inch
<b>PSIN10024</b>	max. 100W	24VDC	3.94 x 3.82 x 1.46 inch
<b>PSIN15012</b>	max. 150W	12VDC	3.94 x 4.33 x 1.97 inch
<b>PSIN15024</b>	max. 150W	24VDC	3.94 x 4.33 x 1.97 inch
<b>PSIN30012</b>	max. 300W	12VDC	3.94 x 4.49 x 1.93 inch
<b>PSIN30024</b>	max. 300W	24VDC	3.94 x 4.49 x 1.93 inch

ORDER CODE		
<b>PSIN03012D</b>	max. 30W	12VDC
<b>PSIN03024D</b>	max. 30W	24VDC
<b>PSIN06012D</b>	max. 60W	12VDC
<b>PSIN06024D</b>	max. 60W	24VDC

## USING THE PROPER POWER SUPPLY

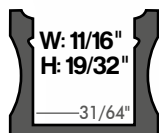
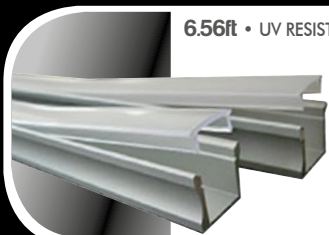
- The operating voltage of the power supply has to match the indicated supply voltage of the LED strip (12 of 24V). It is important that the output voltage of the power supply does not exceed the indicated voltage of the LED strip. The used power supply rating must be higher than the total consumption of all LED strips. In the summary table at the back you can find the consumption of each LED strip per meter. You only need to multiply the used power by the total length of the strip to calculate the total consumption (without exceeding the maximum distance).
- RGB dimmers and controllers are also limited by a maximum current beyond which they can be damaged. So make sure the power you use to feed the LED strip never exceeds the permitted current of the dimmer or RGB controller.



# ALUMINIUM LED PROFILES

- high-quality anodized aluminium profile for LED strips
- the aluminium profile will provide mechanical and thermal protection for the LEDs
- frosted diffuser for optimal light distribution and to cover the LED strips
- for indoor use only

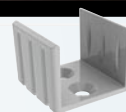
6.56ft • UV RESISTANT



CHLAP1

MOUNTING BRACKET

CHLAPB1



END CUP

CHLAPC1



BUILT-IN TYPE • 6.56ft

- recessed profile: to build into e.g. MDF, plaster...
- UV-resistant



CHLAP2

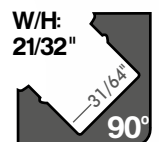
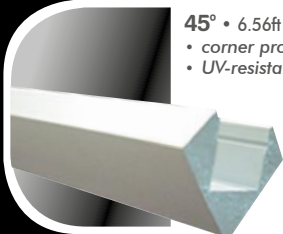
END CUP

CHLAPC2



45° • 6.56ft

- corner profile: to mount LED strips at an 45° inclination angle
- UV-resistant



CHLAP3

MOUNTING BRACKET

CHLAPB3



END CUP

CHLAPC3



45° CORNER • 6.56ft

- corner profile: to mount LED strips in a corner
- UV-resistant



CHLAP4

MOUNTING BRACKET

CHLAPB4



END CUP

CHLAPC4

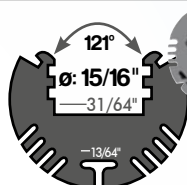


CLEAR DIFFUSER • 6.56ft  
for CHLAP1, CHLAP2, CHLAP3, CHLAP4

CHLAPD



ROUND • 6.56ft  
• round profile: to use as light fixture



CHLAP5

MOUNTING BRACKET

CHLAPB5



END CUP

CHLAPC5



WALL LIGHTNING ARM

CHLAPB5L

WALL ARM

CHLAPB5W

SUPPORT ARM

CHLAPB5S



# SUMMARY

IP		LED TYPE	NUMBER OF LEDs			V	A/m	W/m	COLOUR	ORDER CODE	
IP61	5m x 10mm 16.4ft x 25/64"	type 5050	150 30/m	3 LEDs = 10cm/3.94"	33 mm 1.3"	12V	0.32A	3.9W		CHLS4W: white	DECORATIVE LED STRIPS
							0.34A	4.1W		CHLS4WW: warm white	
							0.5A	5.9W		CHLS4RGB: RGB	
							0.36A	3.9W		CHLS4B: blue	
							0.34A	4.1W		CHLS4G: green	
							0.42A	5W		CHLS4R: red	
							0.42A	5.1W		CHLS4Y: yellow/amber	
IP61	5m x 10mm 16.4ft x 25/64"	type 3528	300 60/m	3 LEDs = 5cm/1.97"	16.5 mm 21/32"	12V	0.3A	3.6W		CHLS3W: white	
							0.3A	3.6W		CHLS3WW: warm white	
							0.3A	3.6W		CHLS3B: blue	
							0.28A	3.4W		CHLS3G: green	
							0.34A	4.1W		CHLS3R: red	
							0.32A	3.9W		CHLS3Y: yellow/amber	
IP61	5m x 12mm 16.4ft x 15/32"	5050+3528	2x150 30/m	6 LEDs = 10cm/3.94"	16.5 mm 21/32"	12V	0.8A	9.6W		CHLS16RGBW: RGB-white	
IP61	5m x 10mm 16.4ft x 25/64"	type 5050	300 60/m	6 LEDs = 10cm/3.94"	16.5 mm 21/32"	24V	0.42A	10.6W		CHLS7W: white	
							0.42A	10.6W		CHLS7WW: warm white	
							0.56A	13W		CHLS7RGB: RGB	
							0.44A	11W		CHLS7B: blue	
IP61	5m x 10mm 16.4ft x 25/64"	type 5050	300 60/m	3 LEDs = 5cm/1.97"	16.5 mm 21/32"	12V	0.84A	10.6W		CHLS15W: white	
							0.84A	10.6W		CHLS15WW: warm white	
							0.66A	8.6W		CHLS15RGB: RGB	
IP61	5m x 10mm 16.4ft x 25/64"	type 3528	600 120/m	6 LEDs = 5cm/1.97"	8.3 mm 21/64"	24V	0.34A	8W		CHLS13W: white	
							0.34A	8W		CHLS13WW: warm white	
							0.32A	7.8W		CHLS13B: blue	
IP61	5m x 10mm 16.4ft x 25/64"	type 3528	2x300 120/m	6 LEDs = 5cm/1.97"	8.3 mm 21/64"	12V	0.34A	2 x 3.6W		CHLS18WWW: white & warm white	
IP51	5m x 10mm 16.4ft x 25/64"	type 3528	1200 240/m	6 LEDs = 5cm/1.97"	4.2 mm 11/64"	24V	0.84A	20W		CHLS19W: white	LED STRIPS FOR LIGHTING
							0.84A	20W		CHLS19WW: warm white	
IP61	5m x 15mm 16.4ft x 19/32"	type 3528	1200 240/m	12 LEDs = 5cm/1.97"	8.4 mm 21/64"	24V	0.84A	20W		CHLS20W: white	
							0.84A	20W		CHLS20WW: warm white	
IP51	5m x 24mm 16.4ft x 15/16"	type 3528	900 180/m	9 LEDs = 5cm/1.97"	16.7 mm 21/32"	12V	1.16A	14W		CHLS21W: white	
							1.16A	14W		CHLS21WW: warm white	
IP68	5m x 10mm 16.4ft x 25/64"	type 5050	150 30/m	3 LEDs = 10cm/3.94"	33 mm 1.3"	12V	0.32A	3.9W		CHLS11W: white (9000K)	WATER PROOF LED STRIPS
							0.34A	4.1W		CHLS11WW: warm white	
							0.5A	7.2W		CHLS11RGB: RGB	
							0.32A	3.9W		CHLS11B: blue	
IP68	5m x 12mm 16.4ft x 15/32"	type 5050	300 60/m	3 LEDs = 5cm/1.97"	16.7 mm 21/32"	12V	1.2A	15W		CHLS22W: white	
							1.2A	15W		CHLS22WW: warm white	
							1.2A	15W		CHLS22RGB: RGB	
IP68	5m x 8mm 16.4ft x 5/16"	type 335	300 60/m	3 LEDs = 5cm/1.97"	16.5 mm 21/32"	12V	0.36A	4.4W		CHLS9W: white	
							0.36A	4.4W		CHLS9WW: warm white	
IP61	5m x 16mm 16.4ft x 5/8"	type 5050	270 54/m		18 mm 45/64"	12V	0.8A	9W		CHLS14: RGB	
IP61	2m x 10mm 6.56ft x 25/64"	type 5050	60 30/m	3 LEDs = 10cm/3.94"	33 mm 1.3"	12V	0.550A	6.25W		CHLS17RGB/2: RGB	SPECIAL LED STRIPS
IP61	1m x 10mm 3.28ft x 25/64"	type 5050	30 30/m	3 LEDs = 10cm/3.94"	33 mm 1.3"	12V	0.525A	7.4W		CHLS5RGB/1M: RGB	
	0.5m x 10mm 16.4ft x 25/64"	type 5050	15 30/m		33 mm 1.3"	12V	0.5A	6W		CHLS80: RGB, 50cm	
	1m x 10mm 3.28ft x 25/64"		30 = 30/m				0.5A	6W		CHLS81: RGB, 1m	
	6cm x 10mm 0.2ft x 25/64"		3				0.933A	11.3W		CHLS82: RGB, corner	
	10.5cm x 10mm 0.34ft x 25/64"		3				0.933A	11.3W		CHLS83: RGB, T-shape	

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