

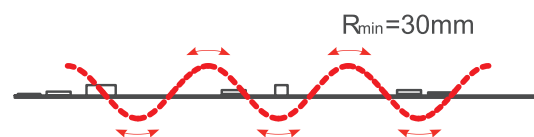


LED Strip - Commercial Low Temperature Series



Features

- Ultra low temperature, working temperature as low as 32°C;
- High brightness, high luminous efficiency;
- FPC flexible material, suitable for many shapes;
- Excellent weather resistance and UV resistance;
- Supporting PWM, DALI, DMX, 0-10V and other dimming modes;
- Cuttable and support customization
- Full UK support and advice







































Installation

- Fix with 3M adhesive.

Optical & Electrical Parameters

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TGR-L-12-HS-64-XXXX	12V DC	>80	2200K	496	123	4.0
			2500K	532	132	
			2700K	552	137	
			3000 K	581	144	
			3500 K	605	150	
			4000 K	613	152	
			5000 K	605	150	
			7000 K	597	148	
			10000 K	576	143	
TGR-L-12-HS-96-XXXX	12V DC	>80	2200K	637	123	5.2
			2500K	684	132	
			2700K	710	137	
			3000 K	746	146	
			3500 K	777	150	
			4000 K	787	153	
			5000 K	777	150	
			7000 K	767	146	
			10000 K	740	143	

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TGR-L-12-HS-128-XXXX	12V DC	>80	 2200K	755	123	6.2
			 2500K	810	132	
			 2700K	841	137	
			 3000 K	884	144	
			 3500 K	909	148	
			 4000 K	939	153	
			 5000 K	915	149	
			 7000 K	915	149	
			 10000 K	890	145	
Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TGR-L-24-HS-64-XXXX	24V DC	>80	 2200K	496	123	4.0
			 2500K	532	132	
			 2700K	552	137	
			 3000 K	581	144	
			 3500 K	605	148	
			 4000 K	613	151	
			 5000 K	605	148	
			 7000 K	597	146	
			 10000 K	576	143	
TGR-L-24-HS-XXXX	24V DC	>80	 2200K	637	123	5.2
			 2500K	684	132	
			 2700K	710	137	
			 3000 K	746	145	
			 3500 K	777	148	
			 4000 K	787	151	
			 5000 K	777	148	
			 7000 K	767	146	
			 10000 K	740	144	
TGR-L-24-HS-128-XXXX	24V DC	>80	 2200K	755	123	6.2
			 2500K	810	132	
			 2700K	841	137	
			 3000 K	884	145	
			 3500 K	909	149	
			 4000 K	939	152	
			 5000 K	915	149	
			 7000 K	915	148	
			 10000 K	890	145	

Other Parameters

Model No.	LED QTY (pcs/m)	Standard packing length	No Brightness Difference MAX (Single feed)	Working Temperature Max TC	Working Temperature	Storage Temperature
TGR-L-12-HS-64-XXXX	64	5.0m	2.5m	32°C	-20~+60 °C	-20~+70 °C
TGR-L-24-HS-64-XXXX	64	5.0m	5.0m	32°C		
TGR-L-12-HS-96-XXXX	96	5.0m	2.5m	34°C		
TGR-L-24-HS-96-XXXX	96	5.0m	5.0m	34°C		
TGR-L-12-HS-128-XXXX	128	5.0m	2.0m	35°C		
TGR-L-24-HS-128-XXXX	128	5.0m	4.0m	35°C		

NOTE:

- The above data was measured under standard conditions and actual data may be different. We would update data without further notice.
- The luminous flux was tested while the corresponding-color products were lightened.
- UL max run refers to operating length at UL class II @100W.24V.
- Luminous flux values were measured accordance to IES LM-80-08. LED chips with tolerance range of +/- 10%.
- Each maximum-run requires a dedicated power feed from the driver. Do not exceed the recommended maximum run length. Max run may exceed Class 2 limits.
- Actual wattage may be different from the calculated wattage due to voltage drop while using.
- Actual efficacy value is determined by the specific LED driver (power supply). An estimated efficacy value can be calculated as follows: Luminous intensity divided by average power consumption.
- Do not install products in the conditions that exceed the listed ambient temperature. Exceeding the maximum ambient temperature may damage LED chips, reduce the total lamp life, luminous intensity output, and/or adversely impact color consistency.
- Operating temperature was measured under the minimum and maximum ambient temperature environment.
- Cutting segments are marked on the profiles below.
- If the product power is greater than 15W, auxiliary heat dissipation appliances must be added.
- Working temperature Max refers to the maximum working temperature of the product under room temperature environment (25 ° C).

Performance

- LED chip data measured in accordance to IES LM-80-08.
- Photometric & Colorimetry data measured in accordance to IES LM-79-08, in the Tiger Power Innovation Lab.

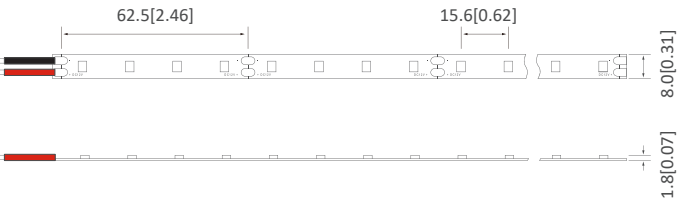
Compliance & Regulatory Approvals

	CE LVD	Standard: EN 60598-2-21: 2015; EN 60598-1: 2015; EN 62471: 2008; EN 62493:2015; EN 62031: 2015+A1: 2013+A2: 2015
	CE EMC	Standard: EN IEC 55015: 2019; EN IEC 61000-3-2: 2019; EN 61000-3-3:2013+A1: 2019;EN 61547: 2009
	CB	Standard: IEC 62031:2018
	UL LISTED	Standard: UL 2108 E354137-Low-voltage Lighting Systems, Power Units, Luminaires and Fittings
	RoHS	Standard: IEC62321

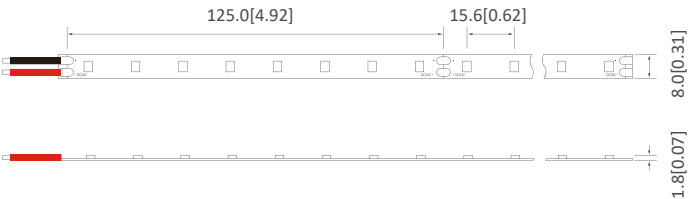
Profile Drawings

Unit: mm [inch]

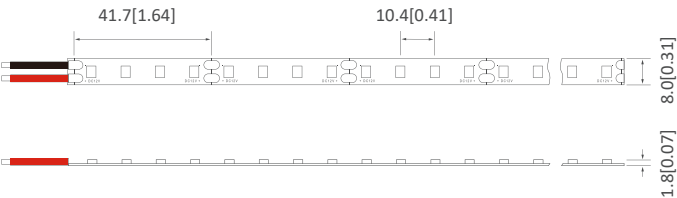
TGR-L-12-HS-64-XXXX



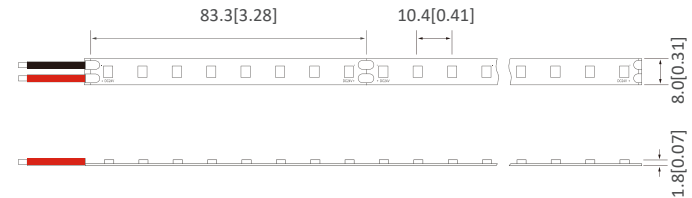
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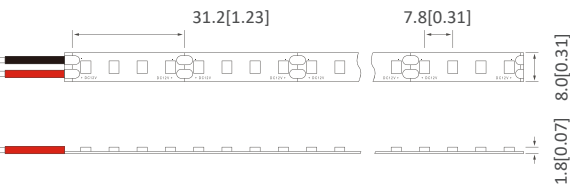
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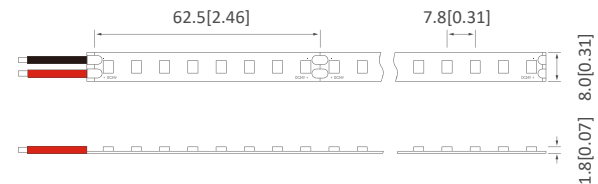
TGR-L-24-HS-XXXX



TGR-L-12-HS-128-XXXX

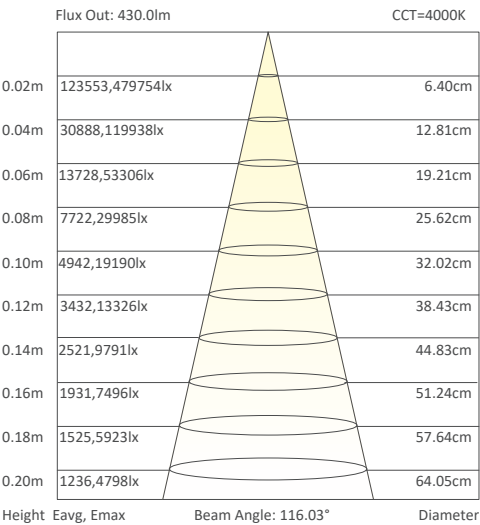
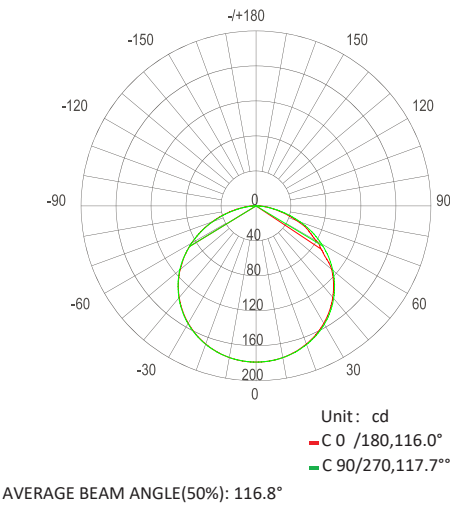


TGR-L-24-HS-128-XXXX



Note:

- For LED quantity less than 160leds/m with standard power, we recommend to use 20AWG parallel wire/sheathed cable with wire length less than 20cm, user need to reduce the max run when the wire length more than 20cm.
- For LED quantity more than 160leds/m with standard power, we recommend to use 18AWG parallel wire/sheathed cable in single feed, or 20AWG parallel wire or sheathed cable in both ends with wire length less than 20cm. Users need to reduce the max run properly when the wire length more than 20cm.
- Above conditions are only applicable to products with the PCB width of 10mm or more, for other width needs to be evaluated separately.

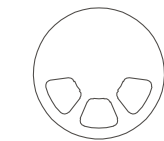


Note: above data tested with TGR-L-12-HS-64-XXXX at 4000K, for other data, please consult sales rep.

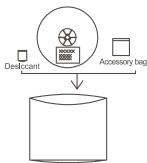
Reliability test

Project	Reference standards	Category	Test conditions	Outcome
Environmental test	Blueview standard	PTC test	TH = -40 - 60°C/ 2H, heating/cooling takes 45min, each cycle the test temperature lasts for 15min.	Pass
		Temperature cycling test	TH=60°C/4h, TA=20°C/1h,TL=-40°C/4h keep cycling and power on.	
		High temperature resistance test	Simulated TH=60°C power on.	
		Room temperature aging test	TH=25°C power on.	

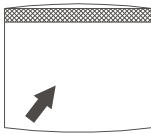
Packaging Information



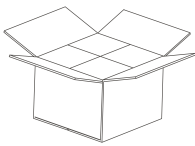
Label the reel;



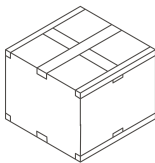
Put reel, accessory bag and desiccant together into static shielding bag;



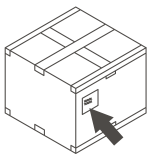
Seal and label the static shielding bag;



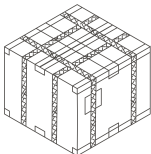
Put the packed static shielding bag into carton box;



Seal the carton box;



Label the box;



Use packing belt to pack. Add edge protectors if necessary.

Packaging information

Model No.	Product Size L*W (mm)	Carton Size (mm)	Meter/Reel	Reel/Carton	Net Weight (kg)	Gross Weight (kg)
TGR-L-12-HS-64-XXXX	5000*8	570*375*285	5	100	7.93 (1±10%)	12.50 (1±10%)
TGR-L-24-HS-64-XXXX	5000*8	570*375*285	5	100	8.36 (1±10%)	12.99 (1±10%)
TGR-L-12-HS-96-XXXX	5000*8	570*375*285	5	100	8.56 (1±10%)	12.19 (1±10%)
TGR-L-24-HS-XXXX	5000*8	570*375*285	5	100	8.56 (1±10%)	13.19 (1±10%)
TGR-L-12-HS-128-XXXX	5000*8	570*375*285	5	100	9.33 (1±10%)	13.12 (1±10%)
TGR-L-24-HS-128-XXXX	5000*8	570*375*285	5	100	9.35 (1±10%)	13.50 (1±10%)

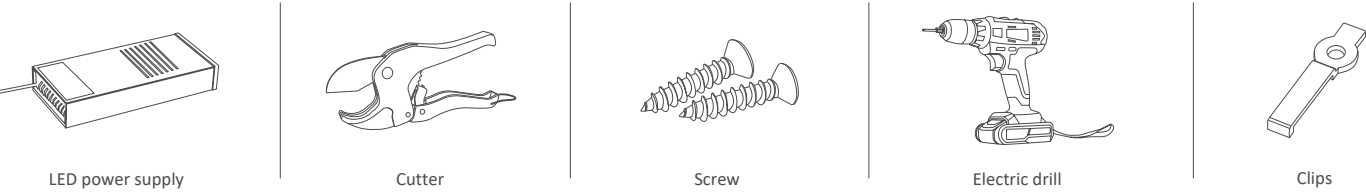
- NOTE:
- The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.
 - The gross weights of all above model are less than volume weight, the volume weight is14.96kg.

Recommended power supply upon working length

TGR-L-24-HS-64-XXXX					
Operating Length (m)	1.0	2.0	3.0	4.0	5.0
Total Power (W)	4.08	7.56	10.08	11.76	12.96
Head-to-tail Voltage Drop Rate (%)	0.42	1.67	3.27	5.03	6.47
Head-to-tail Current Drop Rate (%)	3.30	13.00	27.03	38.50	51.06
Single/Double feed	Single feed	Single feed	Double feed	Double feed	Double feed

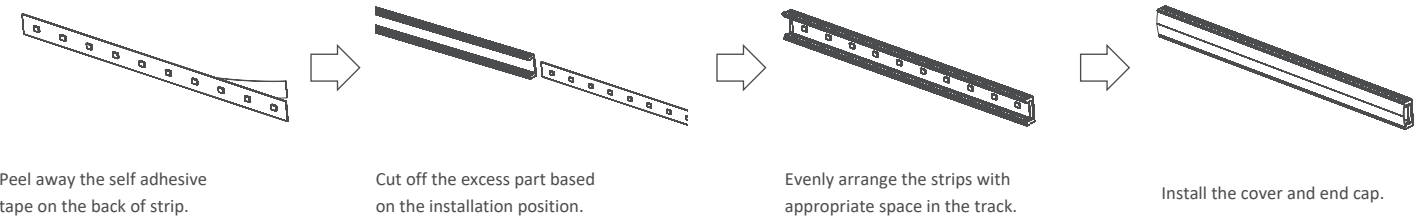
TGR-L-24-HS-64-XXXX					
Operating Length (m)	1.0	2.0	3.0	4.0	5.0
Total Power (W)	4.32	8.52	12.38	15.86	18.07
Head-to-tail Voltage Drop Rate (%)	0.17	0.42	0.71	1.17	1.67
Head-to-tail Current Drop Rate (%)	1.64	3.70	8.49	14.00	20.16
Single/Double feed	Single feed	Single feed	Single feed	Single feed	Single feed

Installation

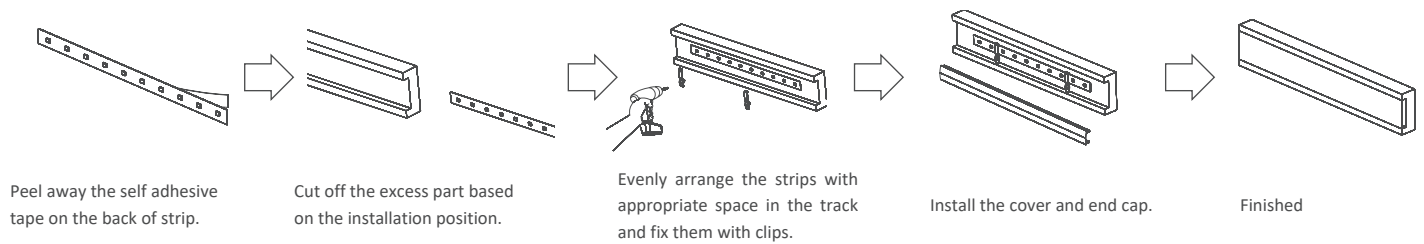


Installation Methods and Steps

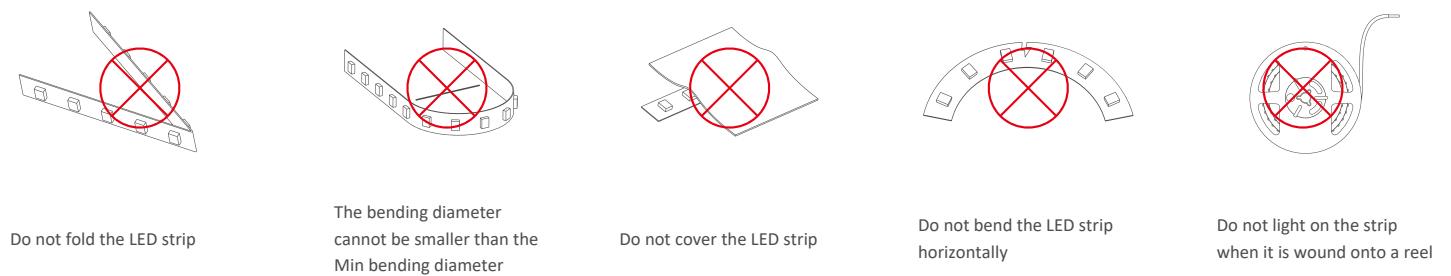
Aluminum channel installation



Covered channel installation



Warning Mark



Attention before installation

- Check whether the power line is screwed into the terminal firmly, and it is better not to pull it out by hand.
- Before installation, check that the product parameters are consistent with the requirements (Seeing product specifications or product labels)
- Load voltage, current, power and power supply should be matched with the product.
- Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit.
- Make sure the correct connection of positive and negative poles between products and power supply. Otherwise, the light will not be on.
- The wiring terminal must be provided with effective waterproof and anti-corrosion treatment.

Common Faults and Troubleshoot

Quick Guide		
Problems	Reasons	Solutions
All LEDs can not light on.	No electric supply.	Fix the short circuit problem.
	Automatic power protection from the open or short circuit in output of the power supply.	
	Wrong connection of power supply.	
LEDs can not light on partly.	Some switching mode power supplies are not powered.	Correctly connection.
	Power supply line error.	
	Mistaken wire connection of some of products	
Brightness of LED is inconsistent tor insufficient.	Power overloaded.	Replace with more powerful power.
	Power supply circuit excessive consumption.	Make sure the working voltage of the product within $\pm 5\%$ of standard voltage, or keep balance by circuit power consumption.
	Excessive quantities in series connection of the product	Reduce the quantities of the product in series connection to meet requirement.
LED flicker.	Connection point fault.	Remove bad connection point.
	Switching power supply failure.	Replace a new power supply.
	Wrong Installation or use of products	Please follow the instructions

LED Strip - Commercial Low Temperature Series

Warning

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation, especially for high voltage product.
- Do not use any organic chemical solvents.
- Use neutral glass adhesive to fix this product and it needs to be dried 4 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation, waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm² cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on.
- This product is for signage, and do not use as general lighting.
- Series connection within the max run.
- The length of the power cable between the power supply and the led strip should not exceed 2 meters. Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

Statements and Recycling

Statements:

- Repair should be operated by a qualified technician, if the external circuit or main line of this product is damaged.
- The parameters given in this manual are typical values and for reference only.
- All illustrations and drawings in this manual are for reference.
- This product is subject to change without notice.

Recycling:

- LED lighting products belongs to electronic products, please do recycling treatment according to the relevant WEEE directives.
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