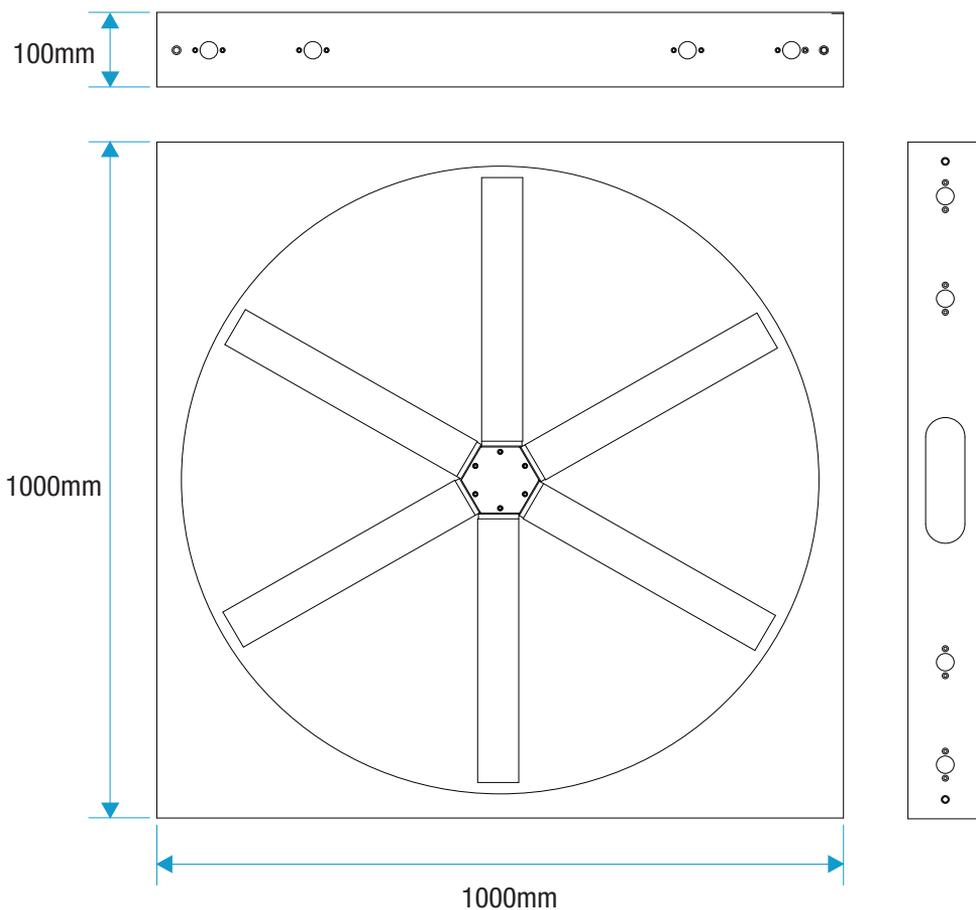


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# DIMENSIONS

ALL DIMENSIONS ARE IN MILLIMETERS



# SAFETY INSTRUCTION



## WARNING!

Read the safety precautions in this section before installing, powering, operating or servicing this product.

The following symbols are used to identify important safety information on the product and in this manual:



**DANGER!**  
Safety hazard.  
Risk of severe injury or death.



**DANGER!**  
Hazardous voltage. Risk of lethal or severe electric shock.



**WARNING!**  
Fire hazard.



**WARNING!**  
LED light emission. Risk of eye injury.



**WARNING!**  
Burn hazard. Hot surface. Do not touch.



**WARNING!**  
Wear protective eyewear.



**WARNING!**  
Refer to user manual.



**Warning! Risk Group 3 (high risk) LED product according to EN 62471. Do not look into the beam at a distance of less than 8.3 meters from the front surface of the product. Do not view the light output with optical instruments or any device that may concentrate the beam.**

This product is for professional use only. It is not for household use.

This product presents risks of severe injury or death due to fire and burn hazards, electric shock and falls.



Read this manual before installing, powering or servicing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture. If you have questions about how to operate the fixture safely, please contact your supplier.

### PROTECTION FROM ELECTRIC SHOCK



- Disconnect the fixture from AC power before removing or installing any cover or part and when not in use.
- Always ground (earth) the fixture electrically.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.
- Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Power input and throughput cables must be rated 20 A minimum, have three conductors 1.5 mm<sup>2</sup> (16 AWG) minimum conductor size and an outer cable diameter of 5 - 15 mm. Cables must be hard usage type (SJT or equivalent) and heat-resistant to 90° C minimum.
- Use only PowerCON TRUE 1<sup>®</sup> cable connectors to connect to power input sockets. Use only PowerCON TRUE 1<sup>®</sup> cable connectors to connect to power through put sockets.
- Isolate the fixture from power immediately if the power plug or any seal, cover, cable, or other component is damaged, defective, deformed, wet or showing signs of overheating. Do not reapply power until repairs have been completed.
- Refer any service operation not described in this manual to a qualified technician.
- Socket outlets used to supply fixture fixtures with power or external power switches must be located near the fixtures and easily accessible so that the fixtures can easily be disconnected from power.



## PROTECTION FROM BURNS AND FIRE



- The exterior of the fixture becomes hot during use. Avoid contact by persons and materials. Allow the fixture to cool for at least 5 minutes before handling.
- Keep all combustible materials (e.g. fabric, wood, paper) at least 100 mm away from the fixture.
- Keep flammable materials well away from the fixture.
- Ensure that there is free and unobstructed airflow around the fixture.



- Do not illuminate surfaces within 200 mm of the fixture.
- Do not attempt to bypass thermostatic switches or fuses.
- If you relay power from one fixture to another using power throughput sockets, do not connect more than ten fixture fixtures in total to each other in an interconnected chain.
- Connect only other fixture fixtures to fixture power throughput sockets.
- Do not connect any other type of device to these sockets.
- Do not stick filters, masks or other materials onto any optical component.
- Do not modify the fixture in any way not described in this manual.

## PROTECTION FROM INJURY



- Do not look continuously at LEDs from a distance of less than 3 meters from the front surface of the fixture without protective eyewear such as shade 4-5 welding goggles. At less than this distance, the LED emission can cause eye injury or irritation. At distances of 3 meters and above, light output is harmless to the naked eye provided that the eye's natural aversion response is not overcome.



- Do not look at LEDs with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light output.



- Ensure that persons are not looking at the LEDs from within 8.3 meters when the product lights up suddenly. This can happen when power is applied, when the product receives a DMX signal, or when SERVICE menu items are selected.
- Fasten the fixture securely to a fixed surface or structure when in use. The fixture is not portable when installed.
- Ensure that any supporting structure and/or hardware used can hold at least 10 times the weight of all the devices they support.
- Allow enough clearance around the head to ensure that it cannot collide with an object or another fixture when it moves.
- Check that all external covers and rigging hardware are securely fastened.
- Block access below the work area and work from a stable platform whenever installing, servicing or moving the fixture.
- Do not operate the fixture with missing or damaged covers, shields or any optical component.

# FIXTURE OVERVIEW

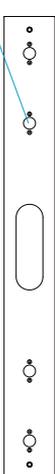
ATTACHMENT POINTS  
G-HOOK ART. NO. 520113 or 520114  
OMEGA BRACKET ART. NO. 875760

TOP

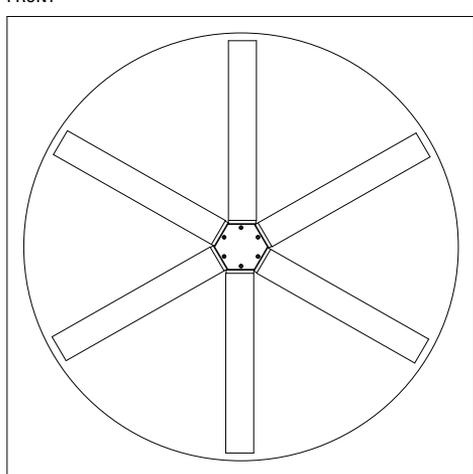


SAFETY CABLE ATTACHMENT POINTS

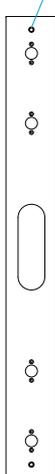
SIDE



FRONT

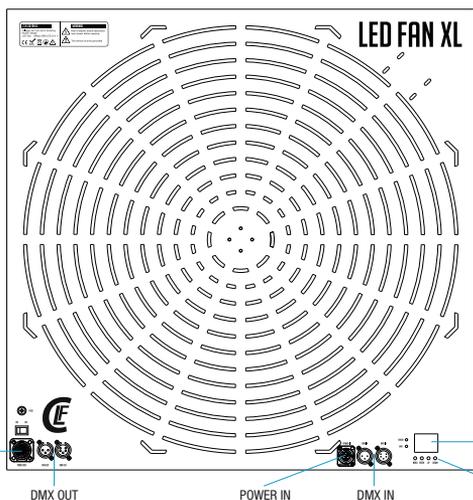


SIDE



BOTTOM

BACK



# INTRODUCTION

## PROPELLER LIKE LED EFFECT

- 6 fan blades
- RGB LEDs
- PowerCON True 1 in & out
- Different mounting positions
- LEDs controllable in two groups

## USING FOR THE FIRST TIME

**Warning!** Read “Safety Information” before installing, powering, operating or servicing the fixture. Before applying power to the fixture:

Check that the local AC mains power source is within the fixture’s power voltage and frequency ranges.

See “Power cables and power plug” on page 6. Install a PowerCON TRUE 1 @ power input connector power cable.

# AC POWER



**Warning!** Read “Safety Information” starting on before connecting the fixtures to AC mains power.

**Warning!** For protection from electric shock, the fixture must be grounded (earthed). The power distribution circuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault) protection.

**Warning!** Socket outlets or external power switches used to supply the fixture with power must be located near the fixture and easily accessible so that the fixtures can easily be disconnected from power.



**Important!** Do not insert or remove live PowerCON TRUE 1 @ connectors to apply or cut power, as this may cause arcing at the terminals that will damage the connectors.

**Important!** Do not use an external dimming system to supply power to the fixture, as this may cause damage to the fixture that is not covered by the product warranty.

The fixture can be hard-wired to a electrical installation if you want to install it permanently, or a power plug that is suitable for the local power outlets can be installed on the power cable.

## POWER VOLTAGE



**Warning!** Check that the voltage range specified on the fixtures serial number label matches the local AC mains power voltage before applying power to the fixture.

The fixtures accepts AC mains power at 100-240 V nominal, 50/60 Hz. Do not apply AC mains power to the fixture at any other voltage than specified.

## POWER CABLES

Power input and throughput cables must be rated 16A minimum, have three conductors 1.5 mm<sup>2</sup> (16 AWG) minimum conductor size and an outer cable diameter of 5 - 15 mm. Cables must be hard usage type (SJT or equivalent) and heat-resistant to 90°C minimum. In the EU the cable must be HAR approved or equivalent.

If you install a power plug on the power cable, install a grounding-type (earthed) plug that is rated 16A minimum. Follow the plug manufacturer's instructions. Table 1 shows standard wire color-coding schemes and some possible pin identification schemes; if pins are not clearly identified.

Wire Color (EU models)	Wire Color (US models)	Conductor	Symbol
Brown	Black	Live	L
Blue	White	Neutral	N
Yellow/Green	Green	Ground (earth)	 

Table 1: Wire color-coding and power connections

## RELAYING POWER TO OTHER DEVICES

Warning! Do not connect more than six fixtures in total to AC mains power in one interconnected chain. Power can be relayed to another device via the PowerCON TRUE 1 ® throughput socket.

If you daisy chain the fixtures in a chain so that they all draw AC mains power via the first fixture, certain points must be respected:

A heavy duty, three-conductor, 16 AWG or 1.5 mm<sup>2</sup> cable with SJT or equivalent cable jacket must be used to connect the first fixture to AC mains power.

- PowerCON TRUE 1 ® connectors must be used to draw AC mains power from the fixtures power throughput sockets and yellow PowerCON TRUE 1 ® connectors must be used to supply power at the fixture's power input sockets.
- No matter what the AC mains power voltage is, do not connect more than six fixture in total ( including the first fixture) to AC mains power in one interconnected daisy chain using power input and through out connectors.

# DATA LINK

A DMX 512 data link is required in order to control a fixture via DMX. The fixture has 3 & 5-pin XLR connectors for DMX data input and output. The pin-out on all connectors is pin 1 = shield, pin 2 = cold (-), and pin 3 = hot (+) Pins 4 and 5 in the 5-pin XLR connectors are not used.

## TIPS FOR RELIABLE DATA TRANSMISSION

To connect the fixture to data:

1. Connect the DMX data output from the controller to the 3 & 5-pin XLR connector of the nearest fixture.
2. Connect the DMX output of the fixture closest to the controller to the DMX input of the next fixture and continue connecting fixtures output to input.

# PHYSICAL INSTALLATION



Warning! The fixture must be either fastened to a flat surface such as a stage or wall, or clamped to a truss or similar structure in any orientation using a rigging clamp.

Warning! If the fixture can cause injury or damage if it falls, attach an approved safety cable to one of the safety cable attachment points on the base (see "Fixture overview").

Check that all surfaces to be illuminated are minimum 200 mm. from the fixture, that combustible materials (wood, fabric, paper, etc.) are minimum 100 mm. from the fixture, that there is free airflow around the fixture and that there are no flammable materials nearby.

## FASTENING THE FIXTURE TO A FLAT SURFACE

The fixture can be fastened to a fixed flat surface that is oriented at any angle. Check that the surface can support at least 10 times the weight of all fixtures and equipment to be installed on it.

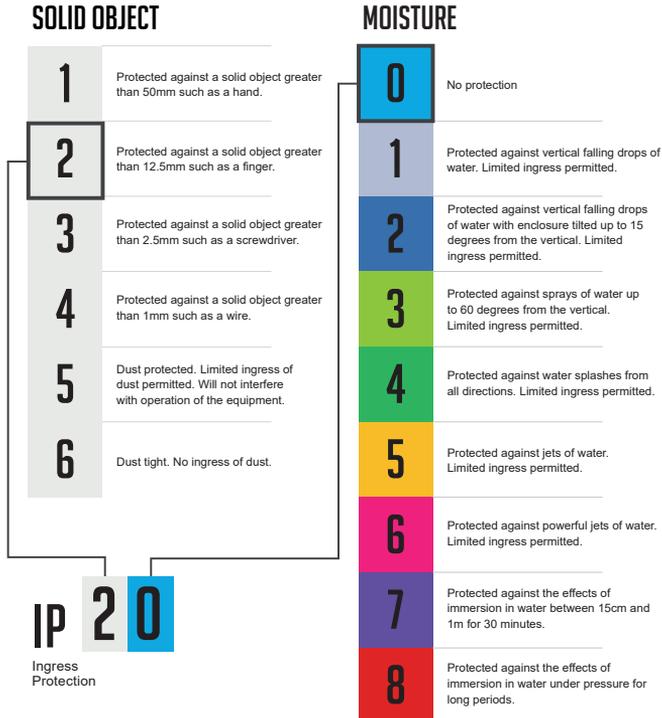


Warning! The supporting surface must be hard and flat or cooling may be blocked, which will cause overheating. Fasten the fixture securely. Do not stand it on a surface or leave it where it can be moved or can fall over. Attach a securely anchored safety cable to the safety cable attachment point (see "Fixture overview") if the fixture is to be installed in any location where it may fall and cause injury or damage if the primary attachment fails.

1. Block access under the work area. Working from a stable platform, hang the fixture on the truss with the arrow on the base towards the area to be illuminated. Tighten the rigging clamp.
2. Secure the fixture against clamp failure with a secondary attachment such as an approved safety cable that is rated for the weight of the fixture using one of the attachment points at the edges of the base (see "Fixture overview"). Do not use any other part of the fixture as a safety cable attachment point.
3. Do not connect more than two fixtures vertically

# OUTDOOR IP-RATED FIXTURES

CLF products are applied to official classified IP norm levels. For this product the IP rate is IP20.



## CONDENSATION/MOISTURE INSIDE HOUSING

Because of high humidity levels during production condensation can occur inside the housing. This is mostly visible on the coldest parts of the fixture, like the front glass or display. To prevent this problem we work with special conditioned areas for outdoor fixtures. Because of the breathing air valves it is still possible to get humidity inside the fixture. This will evaporate slowly. Do not put wet fixtures in a flightcase, this will help humidity enter the fixture.

## FIXTURES TEMPERATURE SPECIFICATION

Make sure the fixture is used within its working temperature range. Outside this range we cannot guarantee correct operation.

## TEMPORARY USAGE:

Stage event equipment is designed with temporary use in mind. Our product purpose is for theatre, festival, (disco) clubs and indoor & outdoor concerts. Long term use is possible but keep in mind that it can bring damage to aging materials and affect the coated surface (i.e. stainless steel). Rubber sealings will be negatively affected after long-term UV exposure and should be checked by qualified service technicians over time.

Tighten screws too hard will also affect the IP-rating.

# SETUP

Warning! Read “Safety Information” before installing, powering, operating the fixture.

## CONTROL PANEL AND MENU NAVIGATION

The onboard control panel and backlit graphic display are used to set the fixture's DMX address, configure individual fixture settings (personality), read out data and execute service utilities. See “Onboard control menus” for a complete list of menus and commands.

Using the control buttons

- To enter the menu select [MODE].
- Press [UP] and [DOWN] to scroll within a menu or adjust values.
- To enter a menu, select a function or apply a selection, press [ENTER].
- To escape a function or move back one level in the menu structure, press [MODE].

## DMX ADDRESS SETTING

The DMX address, also known as the start channel, is the first channel used to receive instructions from the controller. For independent control, each fixture must be assigned its to a separate channel. The DMX address can be configured by using the DMX ADDRESS menu in the control panel. For setting the DMX address press [ENTER] before you can change the address.

- The main screen will show a 'dot' and the backlight will be switched off when a DMX signal is detected.
- The fixture is fully RDM ready. So when you are using a RDM ready console you can address the unit and read out its complete status. For RDM functions please refer to the ANSI/ESTA E1.20-2006 standard

## CONTROL MODE

DMX control mode is selected in the CONTROL MODE menu. The fixture can be controlled with 2 DMX control modes:

	5ch	11ch
RGB group 1		✓
RGB group 2		✓
Master dimmer	✓	✓
Color macro	✓	✓
Macro speed	✓	✓
Strobe	✓	✓
Motor rotating	✓	✓

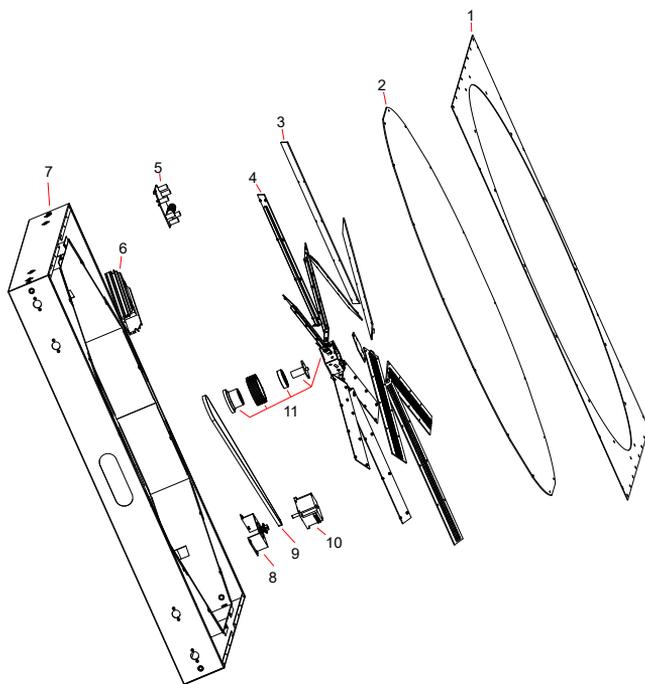
# ONBOARD CONTROL MENUS

NO.	Main menu	Menu level 2	Menu level 3	Remark
1	DMX address	001 - 507 (5CH) 501 (11CH)	Set DMX start address	
2	Control mode	11CH 5CH	Select DMX mode	
3	Auto mode	Auto 1 - 8 LED speed 1 - 10 Motor speed 1 - 10	Select Auto program, LED and motor speed	
4	Static color	RGB PART 1 RGB PART 2 Rotation	RED 0 - 100% GREEN 0 - 100% BLUE 0 - 100% RED 0 - 100% GREEN 0 - 100% BLUE 0 - 100% 0 - 255	Select static color and rotation status
5	Personality	Testing Dimmer Speed Calibration DMX hold Backlight display Display rotate	Yes / No Slow / Normal RED 100 - 255 GREEN 100 - 255 BLUE 100 - 255 On / Off On / Off On / Off	Select testing function
6	Info	Software version Error Usage time	Show software version Show error code Password 3255 to reset	
7	Factory reset	Yes / No	Reset to factory default	

# DMX PROTOCOL

NO.	Channel 5	DMX value	Functions	Remark
1	Master Dimmer	000 - 512	Master dimming 0-100%	
		000 - 010	No function	
2	Color Macro	011 - 150	Static colors	
		151 - 255	Color chasing	
3	Macro speed	000 - 255	Macro speed from slow to fast	
		000 - 010	Strobe open	
4	Strobe	011 - 250	Strobe from slow to fast	
		251 - 255	Strobe opne	
5	Motor Rotating	001 - 127	0-360 degree positioning	
		128 - 180	CCW rotating from slow to fast	
		181 - 191	Stop	
		192 - 250	CW rotating from slow to fast	
		251 - 255	Stop	
NO.	Channel 11	DMX value	Functions	Remark
1	Master dimmer	000 - 512	Master dimming 0-100%	
2	Group 1_Red	000 - 255	Group 1 Red 0-100%	
3	Group 1_Green	000 - 255	Group 1 Green 0-100%	
4	Group 1_Blue	000 - 255	Group 1 Blue 0-100%	
5	Group 2_Red	000 - 255	Group 2 Red 0-100%	
6	Group 2_Green	000 - 255	Group 2 Green 0-100%	
7	Group 2_Blue	000 - 255	Group 2 Blue 0-100%	
8	Color Macro	000 - 010	No function	
		011 - 150	Static colors	
		151 - 255	Color chasing	
9	Macro speed	000 - 255	Macro speed from slow to fast	
		000 - 010	Strobe open	
10	Strobe	011 - 250	Strobe from slow to fast	
		251 - 255	Strobe open	
11	Motor Rotating	001 - 127	0-360 degree positioning	
		128 - 180	CW rotating from slow to fast	
		181 - 191	Stop	
		192 - 250	CCW rotating from slow to fast	
		251 - 255	Stop	

# EXPLODED VIEW



NO.	Description	Part number	NO.	Description	Part number
1	Metal front cover	CLF-80-010	7	Metal frame	CLF-80-011
2	Plastic front cover	CLF-80-008	8	Metal support bracket motor	CLF-80-012
3	LED board	CLF-80-005	9	Timing belt	CLF-80-003
4	Metal support bracket LED board	CLF-80-013	10	Step motor	CLF-80-002
5	Main + display PCB	CLF-80-007	11	Complete central rotating part	CLF-80-009
6	Power supply	CLF-80-006			

# SPECIFICATIONS

<b>Power</b>	
Input voltage & rate	100~240V Nominal, 50/60 Hz
Standby power	15W
Nominal total power consumption (at nominal voltage 230V)	250W
Typical current (at nominal voltage 230V)	1,1A
Cos $\phi$	0,99
Power plug type	PowerCON True

<b>Configuration</b>	
LED color	RGB
Quantity of LED	1206 pcs
Dimming frequency	4000Hz
Dimmer resolution	16 bit

<b>Optical</b>	
Beam angle	125°

<b>Photometric</b>	
Output @1M	1525 lux
Output @5M	64 lux

<b>Heat management</b>	
Cooling type	Connection cooling
MAX ambient temp (Ta max)	40°C
MIN ambient temp (Ta min)	-20°C

<b>Menu</b>	
Auto program	YES
Static color	YES
Manual calibration	YES
Factory calibration	NO
Strobe speed	0-25Hz
Random strobe	NO

# SPECIFICATIONS

## Control

Control protocol	USITT DMX512/1990
DMX channel range	5/11 CH
RDM	NO
RDM compliance	NO
DMX input connection	DMX 3pin and 5pin in/out

## Hardware

Interface	Full color LCD display
Software upload method	Via PCB

## Installation

IP rating	IP20
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## Housing

Safety attachment point	YES
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## Physical

Net product weight	29Kg
Machine dimensions - length	1000mm
Machine dimensions - depth	100mm
Machine dimensions - height	1000mm

## Accessories

Included items	Powercable, manual
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## Approvals

Approved certifications	CE / RoHs
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The logo features a stylized 'CLF' monogram in a bold, black, sans-serif font. The 'C' is a thick, open circle on the left, and the 'LF' are stacked vertically to its right. To the right of the monogram, the words 'LED FAN XL' are written in a clean, black, uppercase, sans-serif font.

# CLF LED FAN XL