

L05012 LED Driver 20W, 3-33 Vdc, 350-1400 mA L1MLT140S-20E

Engineered for Best Fixture Performance

Fulham LumoSeries drivers are all built on core engineering design principles for exceptional standards of performance and reliability in LED systems. Highest-grade critical components together with design features for thermal management ensure excellent reliability. Our low ripple designs create flicker-free lighting and perfectly smooth dimming. Simplicity of specification and installation is a key characteristic of all Fulham LumoSeries drivers. Hence the wide voltage and current ranges and industry leading low inrush current.



Robust driver with a compact form factor and continuous adjustable current feature.

Engineered for Performance

- Industry leading efficiency
- Excellent EMC behavior
- Very high power factor

Engineered for Reliability

- Thermal protection (automatic current limiter)
- Excellent EMC behavior
- Low inrush current
- Low output current ripple
- Short and open circuit protection, overload and overvoltage protection

Engineered for Simplicity

- Wide voltage and current range enabling many applications with just one driver product
- Stepless current adjustment allowing to fine tune light output post installation

5 year warranty

Fulham LumoSeries takes pride in the quality of its products. We not only develop all products in house, they are also produced to ensure guaranteed reliability and performance. Fulham LumoSeries drivers come with the assurance of a 5 year warranty. After all, with typical LED lifetimes of 50,000 hours, it is critical to have a power supply with equal reliability.



Product features

- Wide output voltage range 3-33 Vdc
- Wide range of current settings
- Max inrush current 1.54 A
- Low output current ripple (<15 %) at 100 Hz
- Thermal protection
- Open circuit output voltage protection
- Up to 85 % efficiency across a wide range of loads
- Power factor 0.9C
- ENEC certified
- Engineered and Manufactured in Europe
- SELV

Certificates and standards

- ENEC05, CE
- EN55015 / EN61000-3-2 / EN61347-2-13 / EN61347-1 / EN61547 / EN62384 / SELV

Classifications



Specific technical data

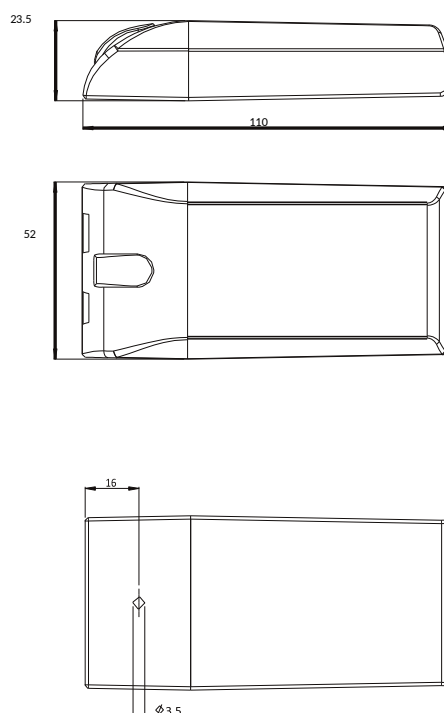
Type	Efficiency at full load	Output current	Output voltage range	Open circuit output voltage	Max. output power	Dimming
L05012	85 %	350 - 1400 mA	3 - 33 Vdc	33 Vdc	20 W @ 240Vac 15 W @ 115Vac	No

Technical data

Rated supply voltage	220-240 Vac
Input voltage	115-240 Vac / 150-375 Vdc*
Mains frequency	50/60 Hz
Output current tolerance	5%
100 Hz ripple current	<15%
Power factor at full load	0.9C
THD	%
Nominal line current at 240 Vac	115 mA
Startup time	< 500 ms
Warm up time to 95% of light output	< 2 sec
Output isolation	SELV
Surge protection (diff. / comm.)	2 kV / 6 kV
IP classification	IP 20
Circuit lifetime	50,000 hrs at Tc max.
Case dimensions	110 x 52 x 23.5 mm
Case material	Polyamide 6 (PA6)

* External DC fuse is required

Dimensions



Inrush current

Mains max. peak inrush at full load	0.821A per driver on phase 60° (average starting angle)* 1.190A per driver on phase 90° (worst case starting angle)* 0.862A per driver on phase 60° (average starting angle)** 1.539A per driver on phase 90° (worst case starting angle)**
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** Tested at 240 Vac 1 driver connected, with TTI HA1600A analyzer.

* Tested at 240 Vac 10 drivers parallel connected, with TTI HA1600A analyzer.

Maximum number of drivers on automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
L05012	81	105	130	162	81	105	130	162

Thermal specifications

Ambient temperature range (Ta)	-20 to 45°C
Maximum case temperature (Tc)	< 85°C
Storage temperature range	-20 to 50°C

Overload protection

If the maximum output power is exceeded, the LED driver reduces the LED output current. After elimination of the overload the nominal operation is restored automatically.

Over temperature protection

The LED driver is protected against thermal overload. If the temperature limit is exceeded, circuit the LED driver switches to protection mode. When the temperature drops within the operating limits, the LED driver will recover automatically.

Overcurrent protection

Overcurrent protection to allow hot swapping of LEDs higher than 3 Watt.

Short-circuit protection

In case of a short circuit the LED driver switches to protection mode. After the removal of the short-circuit the LED driver will recover automatically.

No-load operation

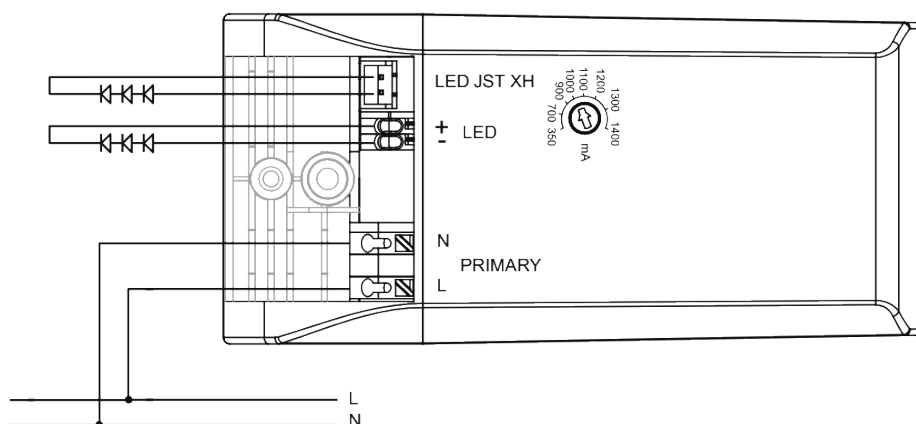
In no-load operation the output voltage will not exceed the specified open circuit output voltage.

LED load

Fulham LumoSeries LED drivers are designed to drive passive LEDs, - COB's and -LED assemblies

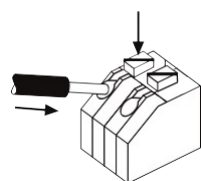
Proper function is not guaranteed when (LED)loads with active components are used.

Wiring diagram



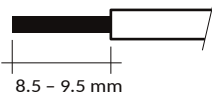
Note: Only connect LEDs to one output at the same time.

Wiring of device



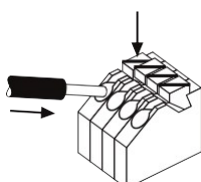
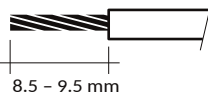
Solid

wire preparation:
0.2 – 1.5 mm²

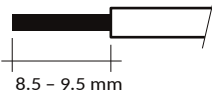


Stranded

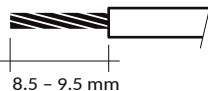
wire preparation:
0.2 – 1.5 mm²



wire preparation:
0.2 – 1.5 mm²

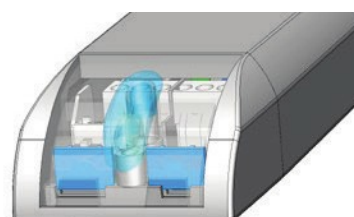


wire preparation:
0.2 – 1.5 mm²



Strain relief

The strain relief inserts can be removed to accommodate wiring of larger diameters.



Ordering data

Part	Part number	Alternate part number	EAN code	Packaging carton	Multibox carton	Weight per piece
L05012 LED Driver 20W 350mA-1400mA	L05012	L1MLT140S-20E	8718801703151	20 pieces	240 pieces	100 g

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Formerly Lumotech