

L05020	LED Driver 12W, 3-32 Vdc,	350/700 mA	L1MLT070S-12E
L05020-390	LED Driver 12W, 3-32 Vdc,	270/390 mA	L1MLT039S-12E
L05020-500	LED Driver 12W, 3-24 Vdc,	500/700 mA	L1MLT050S-12E
L05020-40250	LED Driver 11W, 20-43 Vdc,	200/250 mA	L1MLT025S-10E
L05020-40300	LED Driver 12W, 20-43 Vdc,	180/300 mA	L1MLT030S-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.



An LED driver in a compact form factor with solid performance ideal for single LED or COB array solutions

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

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 3-32 Vdc or 20-43Vdc
- Wide range of currents to match with industry standard COB arrays: 180-, 200-, 250-, 270-, 300-, 350-, 390-, 500- and 700mA
- Low inrush current.
- Low output current ripple (<15 %) at 100 Hz
- Thermal protection: dimming instead of switch off
- Open circuit output voltage protection
- Up to 82 % 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



* Class II, enhanced insulation, when used with strain relieve.
** Class II, reinforced insulation, when built in without strain relieve

Specific technical data

Type	Efficiency at full load	Output current	Output voltage range	Open circuit output voltage	Max. output	Nominal line current At 240Vac
L05020	82 %	350- or 700 mA	3 – 32 Vdc	33 Vdc	12 W	68 mA
L05020-390	82 %	270- or 390 mA	3 – 32 Vdc	33 Vdc	12 W	68 mA
L05020-500	82 %	500- or 700 mA	3 – 24 Vdc	24 Vdc	12 W	68 mA
L05020-40250	80 %	200- or 250 mA	20 – 43 Vdc	43 Vdc	11 W	65 mA
L05020-40300	82 %	180- or 300 mA	20 – 43 Vdc	43 Vdc	12 W	68 mA

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
Startup time	< 10ms
Warm up time to 95% of light output	< 10ms
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	99 x 39 23 mm
Case material	Polyamide 6 (PA6)

* External DC fuse is required

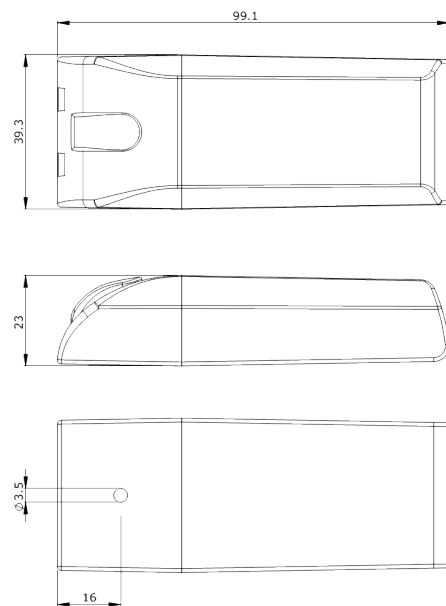
Inrush current

Mains max. peak inrush at full load	0.70A per driver on phase 60° (average starting angle)*
	2.80A per driver on phase 90° (worst case starting angle)*
	0.73A per driver on phase 60° (average starting angle)**
	2.90A per driver on phase 90° (worst case starting angle)**

** Tested at 240 Vac 1 driver connected, with TTI HA1600A analyzer.

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

Dimensions



Maximum number of drivers on automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
L05020	131	170	209	261	131	170	209	261
L05020-390	133	172	212	265	133	172	212	265
L05020-500	131	171	210	263	131	171	210	263
L05020-40250	144	187	230	287	144	187	230	287
L05020-300	134	174	214	268	134	174	214	268

Thermal specifications

Ambient temperature range (Ta)	-20 to 50°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, the output current is reduced.

Secondary switching

The L05020 series drivers are designed to switch the LEDs on/off by switching the mains.

The L05020 series drivers are not designed to switch the LEDs directly on/off in the secondary power line.

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.

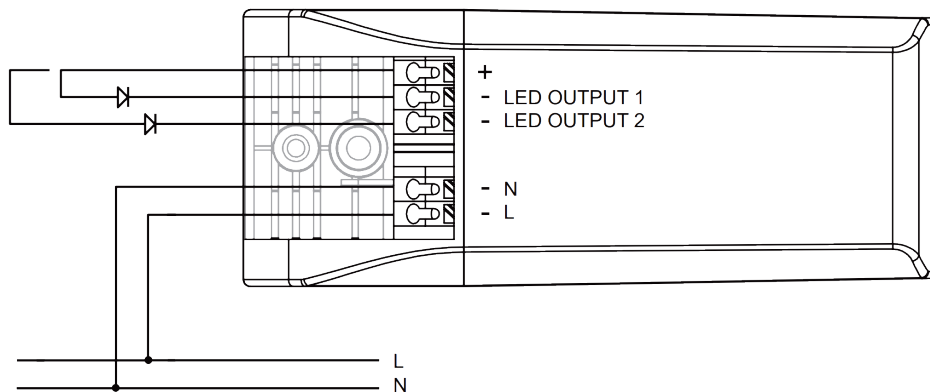
Overcurrent protection

Overcurrent protection to allow hot swapping of LEDs higher than 6 Watt.

LED load

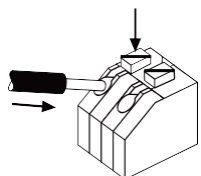
Fulham LumoSeries LED drivers are designed to drive passive LEDs, -COB's and -LED assemblies
Proper function is not guaranteed when (LED)loads with active components are used.

Wiring diagram

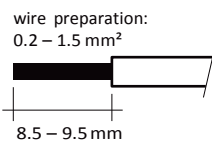


Note: Only connect LEDs to one output at the same time.

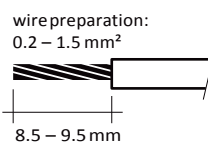
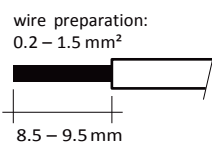
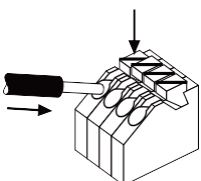
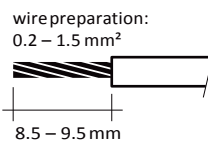
Wiring of device



Solid

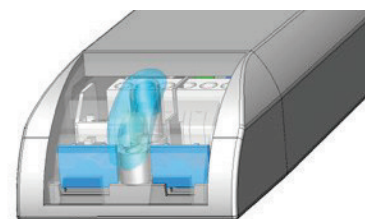


Stranded



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
L05020	LED Driver 12W 3-32V 350/700mA	L05020	L1MLT070S-12E	8718801703267	20 pieces	240 pieces	80 g
L05020-390	LED Driver 12W 3-32V 270/390mA	L05020-390	L1MLT039S-12E	8718801703274	20 pieces	240 pieces	80 g
L05020-500	LED Driver 12W 3-24V 500/700mA	L05020-500	L1MLT050S-12E	8718801703281	20 pieces	240 pieces	80 g
L05020-40250	LED Driver 11W 20-43V 200/250mA	L05020-40250	L1MLT025S-11E	8718801703298	20 pieces	240 pieces	80 g
L05020-40300	LED Driver 12W 20-43V 250/300mA	L05020-40300	L1MLT030S-12E	8718801703304	20 pieces	240 pieces	80 g

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Formerly Lumotech