

L05013-700	LED Driver 20W, 3-33 Vdc, 700 mA
L05013-1050	LED Driver 20W, 3-24 Vdc, 1050mA
L05013-1200	LED Driver 20W, 3-24 Vdc, 1200mA
L05013-48350	LED Driver 17W, 3-48 Vdc, 350mA
L05013-40500	LED Driver 20W, 3-40 Vdc, 500mA

L1MLT0700-20E
L1MLT1050-20E
L1MLT1200-20E
L1MLT0350-17E
L1MLT0500-20E

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 that Delivers best-in-class efficiency

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.



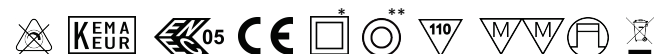
Product features

- Wide output voltage range 3- 48 Vdc
- Max inrush current 1.54 A
- Low output current ripple (<15 %) at 100 Hz
- Thermal protection: dimming instead of switch off
- Open circuit output voltage protection
- Up to 86 % 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

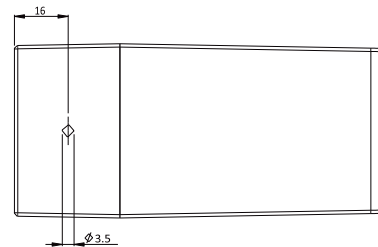
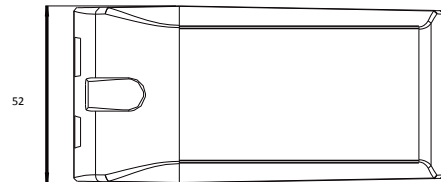
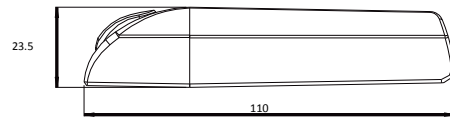
Type	Efficiency at full load	Output current	Output voltage range	Open circuit output voltage	Max. output	Nominal line current At 240Vac
L05013-700	85 %	700 mA	3 – 33 Vdc	33 Vdc	20 W	115 mA
L05013-1050	85 %	1050 mA	3 – 19 Vdc	24Vdc	20 W	115 mA
L05013-1200	85 %	1200 mA	3 – 17 Vdc	24 Vdc	20 W	115 mA
L05013-48350	85 %	350 mA	3 – 48 Vdc	50 Vdc	17 W	105 mA
L05013-40500	86.5 %	500 mA	3 – 40 Vdc	43 Vdc	20 W	115 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	< 2ms
Warm up time to 95% of light output	< 50ms
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

* 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)**

** 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
L05013, -700, -1050, -1200, 40500	85	111	136	170	85	111	136	170
L05013-48350	100	130	160	200	100	130	160	200

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, the output current is reduced.

Secondary switching

The L05013 series are designed to switch the LEDs on/off by using the dim input or by switching the mains.

The L05013 series 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

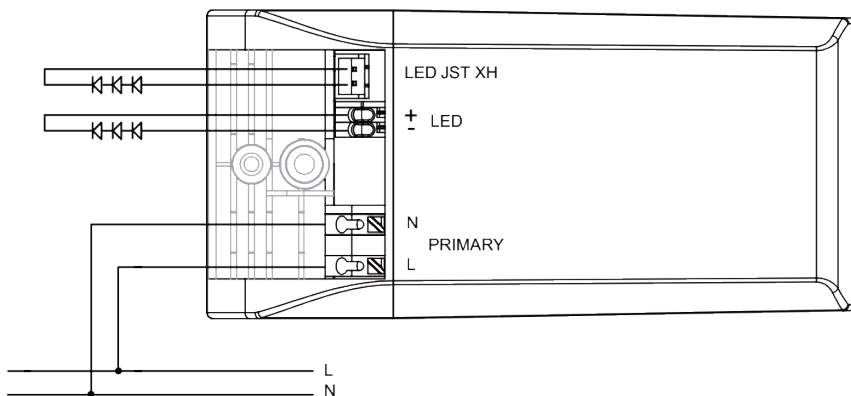
Overcurrent protection to allow hot swapping of LEDs higher than 3 Watt.

LED load

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

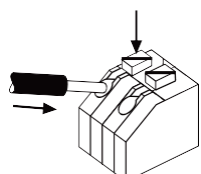
Proper function is not guaranteed when (LED)loads with active components are used.

Wiring diagram

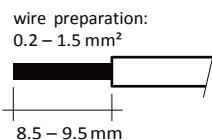


Note: Only connect LEDs to one output at the same time.

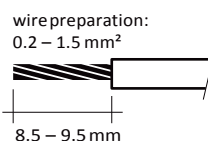
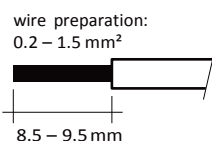
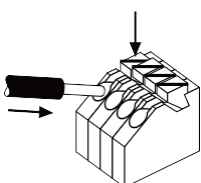
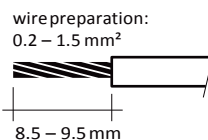
Wiring of device



Solid

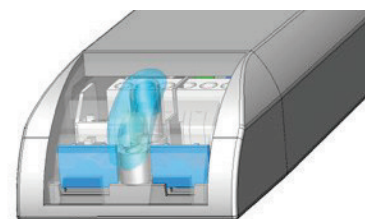


Stranded



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
L05013-700	LED Driver 20W 3-33V 700mA	L05013-700	L1MLT0700-20E	8718801703168	20 pieces	240 pieces	100 g
L05013-1050	LED Driver 20W 3-19V 1050mA	L05013-1050	L1MLT1050-20E	8718801703182	20 pieces	240 pieces	100 g
L05013-1200	LED Driver 20W 3-17V 1200mA	L05013-1200	L1MLT1200-20E	8718801703199	20 pieces	240 pieces	100 g
L05013-48350	LED Driver 17W 3-48V 350mA	L05013-48350	L1MLT0350-17E	8718801703731	20 pieces	240 pieces	100 g
L05013-40500	LED Driver 20W 3-40V 500mA	L05013-40500	L1MLT0500-20E	8718801703175	20 pieces	240 pieces	100 g

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