FULHAM LUMO SERIES

L05049-601000	LED Driver 40W, 60Vdc, 1050mA, Dimmable	**L1M1MLT105S-40E**
L05049-601000-ND	LED Driver 40W, 60Vdc, 1050mA	**L1MLT105S-40E**

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 featuresfor 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 andindustry leading low inrush current.

Feature-rich LED driver with high voltage output and very low inrush current

Engineered for Performance

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

Engineered for Reliability

- Low inrush current
- Thermal protection (automatic current limiter)
- Short and open circuit protection, overload and overvoltage protection

Engineered for Simplicity.

- Future-proof flexibility – industry leading voltage and current range enabling seamless support of LED generations and minimizing supply chain complexity

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.

5 YEAR WARRANTY

Product features

- Wide output voltage range 26 - 60 Vdc
- Wide range of current settings 245 – 1050 mA
- 0-10V-, 1-10 V- and potentiometer dimming
- Low output current ripple (<15 %) at 100 Hz
- Thermal protection: dimming instead of switch off
- Active open circuit output voltage protection
- Up to 90 % efficiency across a wide range of loads
- Power factor 0.98
- Max inrush current 1.29 A
- 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

Dimming

*** 1-10V

* Class II, enhanced insulation, when used with strain relieve.

** Class II, reinforced insulation, when built in without strain relieve

*** Not on the L05049-601000-ND

Specific technical data

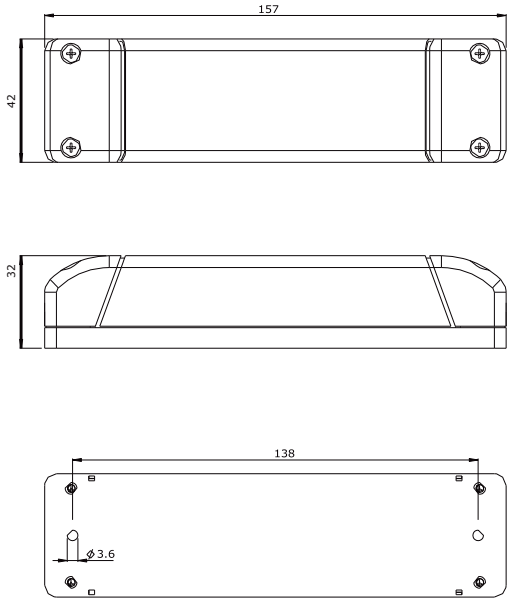
Type	Efficiency at full load	Output current (measured @ 240Vac)	Output voltage range	Open circuit output voltage	Max. output power	Dimming
L05049-601000	90 %	245 – 1050 mA	26 – 60 Vdc	62 Vdc	40W @ 230Vac 32W @ 110Vac	1 - 10 V, potentiometer 100K log b (SELV)
L05049-601000-ND	90 %	245 – 1050 mA	26 – 60 Vdc	62 Vdc	40W @ 230Vac 32W @ 110Vac	No

Technical data

Rated supply voltage	220-240Vac	
Input voltage	110-240Vac / 150-375Vdc*	
Mains frequency	50/60 Hz	
System input power	Max 47VA @ 240Vac	Max 37VA @ 110Vac
Dimming method	linear	
Minimum dim level	125mA +/- 10%	
Output current @ 240Vac	245mA to 1050mA	
Output current @ 110Vac	220mA to 850mA	
Output current tolerance	-5 % / +2%	
100 Hz ripple current at full load	< 15%	
Power factor at full load	0.98 @ 240Vac	0.99 @ 110Vac
Nominal line current	195mA @ 240Vac	340mA @ 110Vac
Startup time	< 1s	
Warm up time to 95% of light output	< 500ms	
Output isolation	SELV	
Surge protection (diff. / comm.)	3.5 kV / 6 kV	
IP classification	IP 20	
Circuit lifetime	50,000 hrs at Tc max.	
Case dimensions	157 x 42 x 32 mm	
Case material	Polyamide 6 (PA6)	

* External DC fuse is required

Dimensions



Inrush current

Mains max. peak inrush at full load	0.277A per driver on phase 60º (average starting angle)* 0.703A per driver on phase 90º (worst case starting angle)* 0.319A per driver on phase 60º (average starting angle)** 1.292A per driver on phase 90º (worst case starting angle)**

* Tested at 240 Vac 10 drivers parallel connected, with TTI HA1600A analyzer.
** Tested at 240 Vac 1 driver 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
L05049-601000(-ND)	44	57	70	87	44	57	70	87

Thermal specifications

Ambient temperature range (Ta)	-25 to +55°C*
Maximum case temperature (Tc)	< +72°C
Storage temperature range	-20 to +50°C

* When mounted on a heat conductive surface of at least 200cm², Otherwise Ta max = 40°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.

Active overcurrent protection

Overcurrent protection to allow hot swapping of LEDs higher than 15 Watt.

Secondary switching

The L05049-601000 series is designed to switch the LEDs on/off by switching the mains.
The L05049-601000 series is not designed to switch the LEDs directly on/off in the secondary powerline.

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.

Ambient temperature and cooling

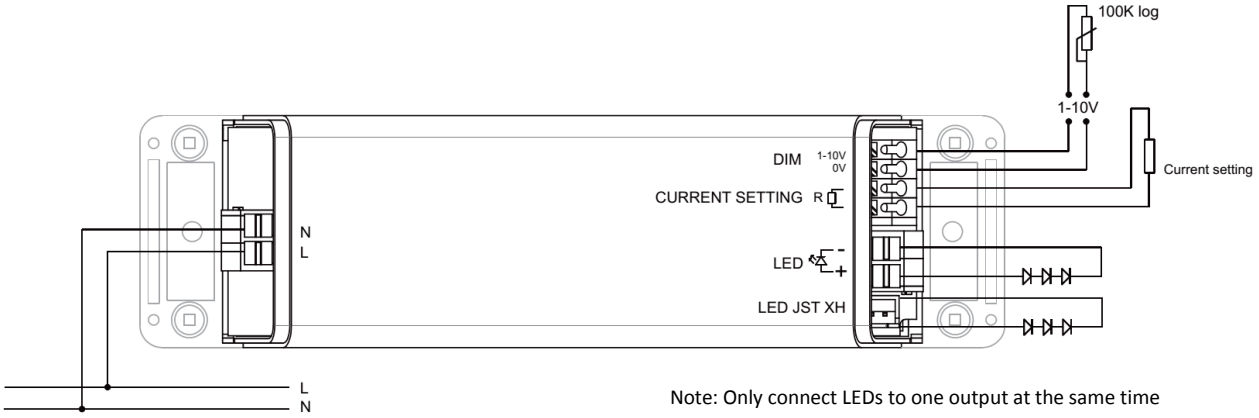
The rated ambient temperature is defined for a driver mounted on a thermally conductive surface of 200cm² per driver.
Always check if the surface is sufficient enough before installing the driver.
When the driver is not cooled, thermal protection might trigger at a lower temperature and the output power will be reduced.
When not mounted on a thermally conductive surface it is recommended to limit the maximum ambient temperature at 40°C.

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.

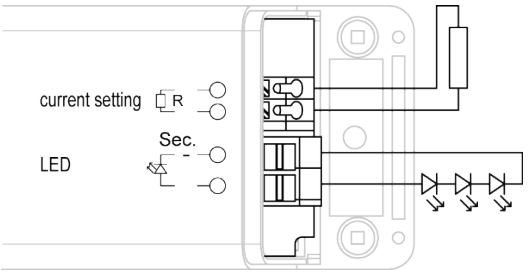
Wiring diagram

L05049-601000:

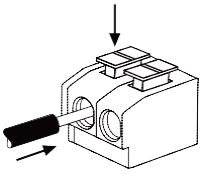


Note: Only connect LEDs to one output at the same time

L05049-601000-ND:



Wiring of device



Solid

wire preparation:

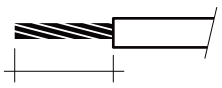
0.2 – 1.5 mm²

8.5 – 9.5 mm

Stranded

wire preparation:

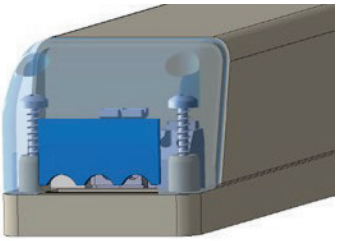
0.2 – 1.5 mm²

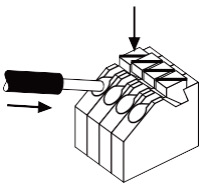


8.5 – 9.5 mm

Strain relief

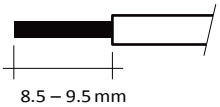
The strain relief insert can be reversed or removed to accommodate wiring of various diameters.





wire preparation:

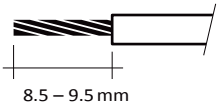
0.2 – 1.5 mm²



8.5 – 9.5 mm

wire preparation:

0.2 – 1.5 mm²



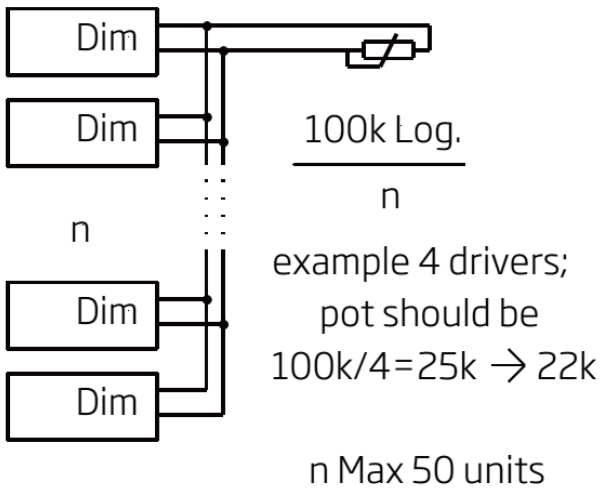
8.5 – 9.5 mm

Dimming

The L05049-601000 can be dimmed with 0-10V, 1-10V or a 100K log potentiometer.

The driver cannot be switched on/off with the dim input.

In case of multiple drivers on one dimmer make sure That the wires are fixed according to polarity



Output current resistor setting*

Resistor value	Output current (+/- 5%)
∞ (no resistor placed)	1050 mA
180KΩ	1010 mA
160 KΩ	1000 mA
120 KΩ	970 mA
100 KΩ	950 mA
82 KΩ	930 mA
68 KΩ	915 mA
56 KΩ	895 mA
47 KΩ	875 mA
39 KΩ	850 mA
33 KΩ	830 mA
27 KΩ	800 mA
22 KΩ	765 mA
18 KΩ	700 mA
15 KΩ	690 mA
12 KΩ	655 mA
10 KΩ	620 mA
8.2 KΩ	580 mA
6.2 KΩ	530 mA
5.6 KΩ	510 mA
4.7 KΩ	480 mA
3.9 KΩ	450 mA
3.3 KΩ	430 mA
2.7 KΩ	400 mA
2.2 KΩ	375 mA
1.8 KΩ	350 mA
1.5 KΩ	335 mA
1.2 KΩ	315 mA
1 KΩ	300 mA
820 Ω	290 mA
0 Ω (short)	245 mA

* Measured @ 230/240Vac

Ordering data

Part	Part number	Alternate part number	EAN code	Packaging carton	Multibox carton	Weight per piece
L05049-601000 LED Driver 40W, 60 Vdc, 1050 mA, Dimmable	L05049-601000	L1M1MLT105S-40E	8718801703809	50 pieces	150 pieces	188 g
L05049-601000-ND LED Driver 40W, 60 Vdc, 1050 mA	L05049-601000-ND	L1MLT105S-40E	8718801703816	50 pieces	150 pieces	188 g

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