

## LEDlight 12 W Mini series

L05020 / L05020-390 / L05020-500 /  
L05020-40250 / L05020-40300

### Lumotech technology

Lumotech LED drivers are designed to efficiently power and control LED solutions for general lighting applications. System reliability is enhanced by features that protect the connected LED module, e.g. hot wiring, reduced ripple current and thermal derating. In the coming years LEDs will continue to increase in efficiency, creating challenges for OEMs. With Lumotech LED drivers, flexibility in luminaire design is assured thanks to an adjustable output current.



### Benefits

- **Designed with system reliability in mind:**
  - Low inrush current
  - Low output current ripple
  - Short and open circuit protection, overload and over voltage protection
  - Thermal protection (automatic current limiter)
  - Support for hot-swapping of LEDs >6W
  - Excellent EMC behavior
- **Future-proof flexibility - industry leading voltage and current range enabling seamless support of LED generations and minimizing supply chain complexity**

### Product features

- Many choices of output currents ideally matched with industry standard CoB LED arrays: 180 mA, 200 mA, 250 mA, 270 mA, 300 mA, 350mA, 390 mA, 500 mA, 700 mA
- Compact size
- Wide output voltage range 2-43 Vdc
- High efficiency across a wide range of loads
- Power factor 0.9
- SELV
- ENEC certified
- Engineered and Manufactured in Europe

### 5 year warranty

Lumotech takes pride in the quality of its products. We not only develop all products in house, they are also produced in our own manufacturing plants to ensure guaranteed reliability and performance. Lumotech 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.



### Certificates and standards

- ENEC05 (L05020-390 / L05020-40250 / L05020-40300 are pending), CE
- EN55015 / EN61000-3-2 / EN61347-2-13 / EN61347-1 / EN61547 / EN62384 / SELV

### Classifications



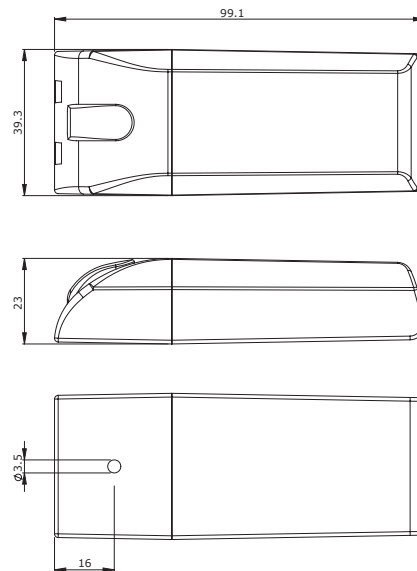
## Specific technical data

Type	Efficiency at full load	Output current	Output voltage range	Open circuit output voltage	Max. output power	Dimming
L05020	82%	350 or 700 mA	3 - 32 Vdc	32 Vdc	12 W	No
L05020-390	82%	270 or 390 mA	3 - 32 Vdc	32 Vdc	12 W	No
L05020-500	82%	500 or 700 mA	3 - 24 Vdc	24 Vdc	12 W	No
L05020-40250	82%	200 or 250 mA	20 - 43 Vdc	53 Vdc	12 W	No
L05020-40300	82%	180 or 300 mA	20 - 43 Vdc	46 Vdc	12 W	No

## Technical data

Rated supply voltage	220-240 Vac
Input voltage	110-240 Vac
Mains frequency	50/60 Hz
Output current tolerance	5 %
100 Hz ripple current at full load	<15 %
Power factor at full load	0.9
Nominal line current at 240 Vac	68 mA
Output voltage setting time	1 second
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 x 23 mm

## Dimensions



## Inrush current

Mains max. peak inrush at full load	0.7 A*
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\* Tested at 240 Vac, on phase 60° with TTI HA1600A analyzer.

## Maximum number of drivers on automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
LEDlight 12W mini series	53	68	84	105	40	49	60	75

## Thermal specifications

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

## Ordering data

Part	Part number	Packaging carton	Multibox carton	Weight per piece
LEDlight 12W 350 / 700 mA	L05020	20 pieces	240 pieces	77 g
LEDlight 12W 270 / 390 mA	L05020-390	20 pieces	240 pieces	77 g
LEDlight 12W 500 / 700 mA	L05020-500	20 pieces	240 pieces	77 g
LEDlight 12W 200 / 250 mA 43 Vdc	L05020-40250	20 pieces	240 pieces	77 g
LEDlight 12W 180 / 300 mA 43 Vdc	L05020-40300	20 pieces	240 pieces	77 g

### Thermal 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.

### 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.

### Overtemperature protection

The LED driver is protected against thermal overload. If the temperature limit is exceeded, the output current is reduced.

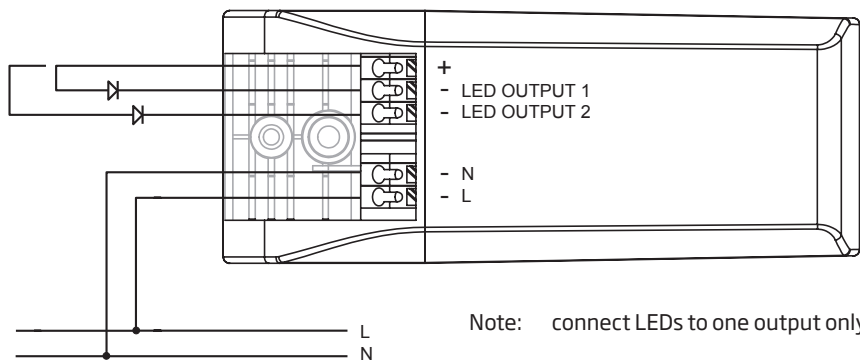
### No-load operation

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

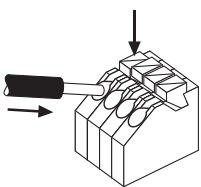
### Overcurrent protection

Overcurrent protection to allow hotswapping of LEDs higher than 6 Watt.

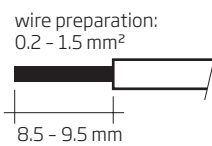
### Wiring diagram



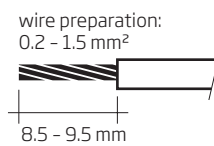
### Wiring of device



Solid

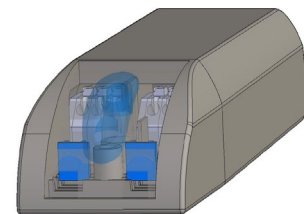


Stranded

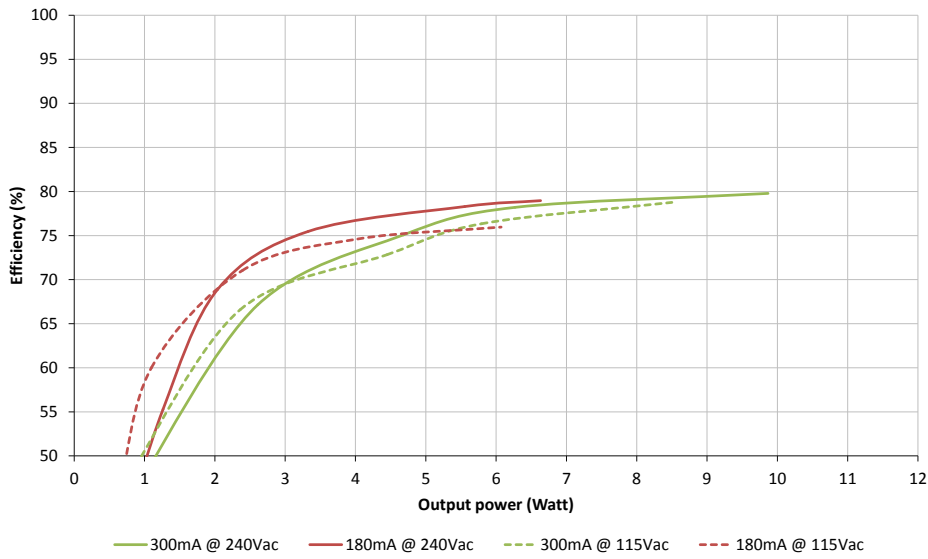


### Strain relief

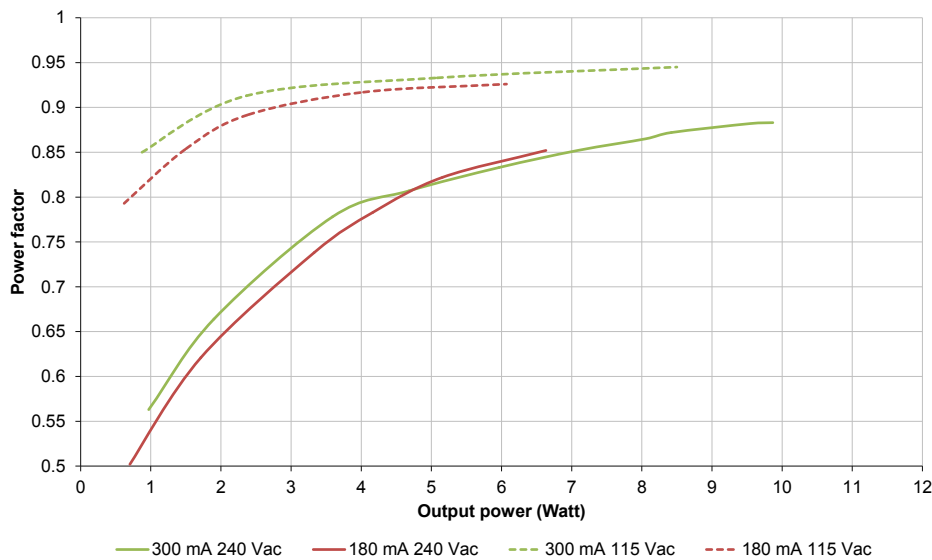
The strain relief inserts can be removed to accommodate wiring of larger diameters.



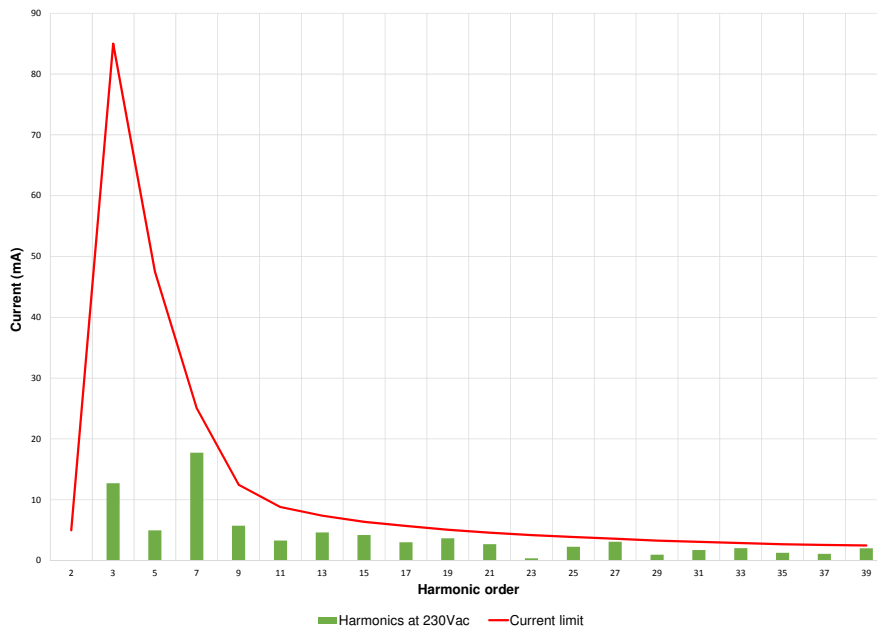
Efficiency (5020-40300)



Power factor (5020-40300)



Harmonics L05020-40300 (limit according to IEC 61000-3-2 table 2)



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