

## LEDlight 20 W Universal dimmable series L05016i / L05016Ci / L05016 CiD

**Lumotech®**

### 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 new challenges for OEMs. With Lumotech LED drivers, flexibility in luminaire design is assured thanks to adjustable current outputs.



### 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 >3W
  - Excellent EMC behavior
- **Future-proof flexibility - industry leading voltage and current range enabling seamless support of LED generations and minimizing supply chain complexity**
- **Dual output: 2 separate outputs on the same current**

### Product features

- Wide output voltage range 3 - 43 Vdc, ideally suited for driving CoB LED arrays
- Wide range of current settings
- Dual current output
- 1-10 V and pulse dimming
- Max inrush current 1.25 A
- Low output current ripple (<1 %) at 100 Hz
- Thermal protection: dimming instead of switch off
- Active output overvoltage protection
- Up to 85 % 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 (L05016Ci and L05016CiD are pending), CE
- EN55015 / EN61000-3-2 / EN61347-2-13 / EN61347-1 / EN61547 / EN62384 / SELV

### Classifications



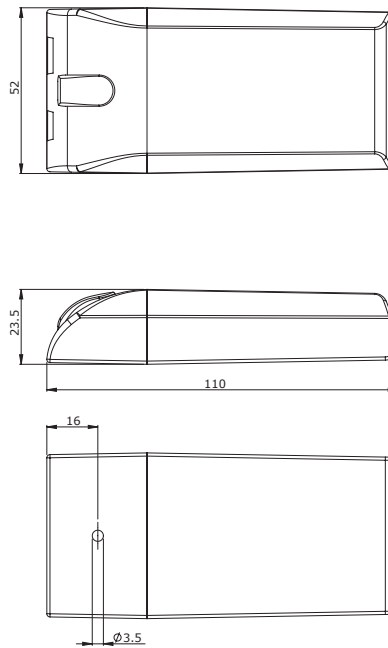
## Specific technical data

Type	Efficiency at full load	Output current	Output voltage range	Open circuit output voltage	Max. output power	Dimming
L05016i	85 %	Option 1: 250 - 1000 mA Option 2: 2 x 250 - 500 mA	3 - 33 Vdc	33 Vdc	20 W	1 - 10 V, potentiometer 100K log b, pulse (SELV)
L05016Ci	85 %	110 - 500 mA	3 - 43 Vdc	43 Vdc	20 W	1 - 10 V, potentiometer 100K log b, pulse (SELV)
L05016CiD	84 %	2 x 100 - 300 mA	3 - 45 Vdc	45 Vdc	20 W	1 - 10 V, potentiometer 100K log b, pulse (SELV)

## 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	<1 %
Power factor at full load	0.9
Standby power	200 mW
Nominal line current at 240 Vac	195 mA
Dimming method	PWM 230 Hz
Minimum dim level	15 mA - off
Non-volatile memory	no
Output voltage setting time	1 second
Output isolation	SELV
Surge protection (diff. / comm.)	2 kV / 6kV
IP classification	IP 20
Circuit lifetime	50,000 hrs at Tc max.
Case dimensions	110 x 52 x 23.5 mm

## Dimensions



## Inrush current

Mains max. peak inrush at full load	1.25 A*	* Tested at 240 Vac, on phase 60° with TTI HA1600A analyzer.
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## Maximum number of drivers on automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
L05016, L05016ci	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 pc.
LEDlight 20W Dimmable 250 - 1000 mA 2 channel adj. current	L05016i	20 pieces	240 pieces	110 g
LEDlight 20W Dimmable 110 - 500 mA adj. current 43 Vdc	L05016Ci	20 pieces	240 pieces	110 g
LEDlight 20W Dimmable 100 - 300 mA 2 ch. adj. curr. 45 Vdc	L05016CiD	20 pieces	240 pieces	110 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.

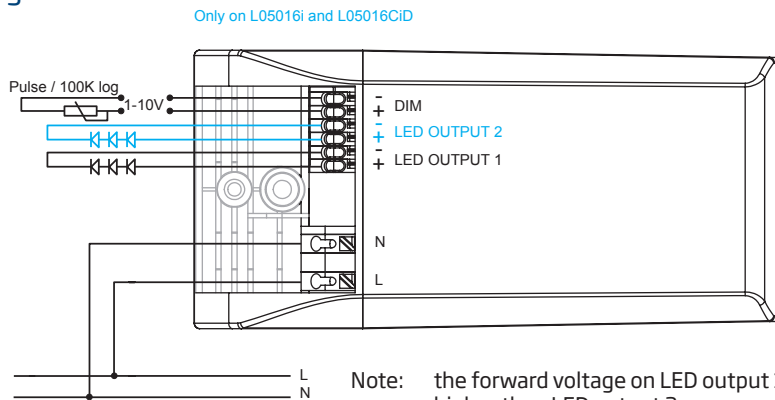
### No-load operation

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

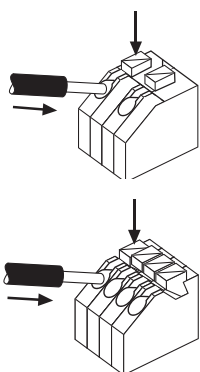
### Overcurrent protection

Overcurrent protection to allow hotswapping of LEDs higher than 3 Watt.

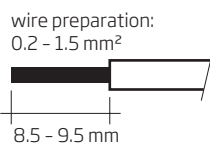
### Wiring diagram



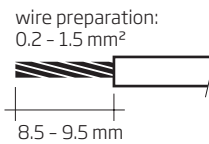
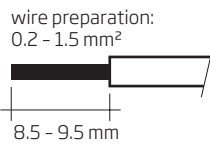
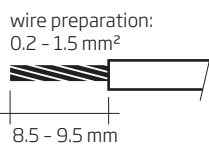
### Wiring of device



#### Solid

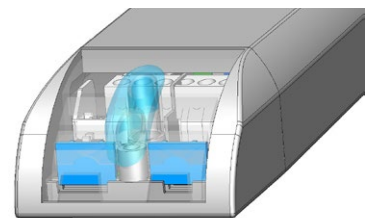


#### Stranded



### Strain relief

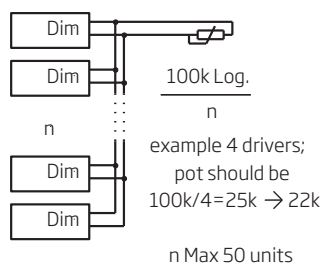
The strain relief inserts can be removed to accommodate wiring of larger diameters.



### Dimming

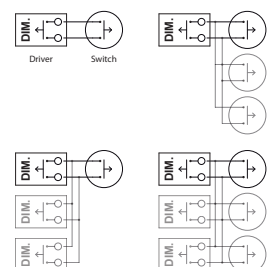
#### 1 - 10 V dimming

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

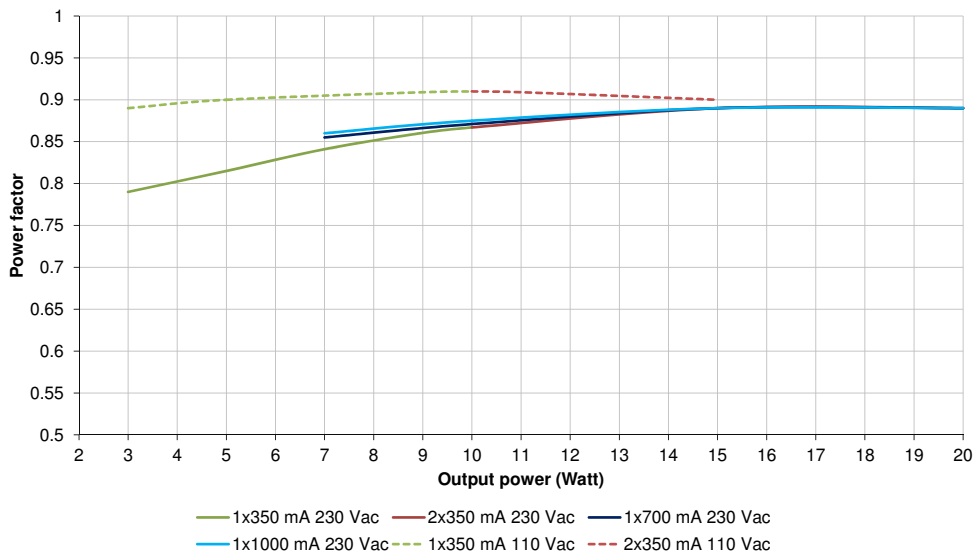


#### Pulse dimming

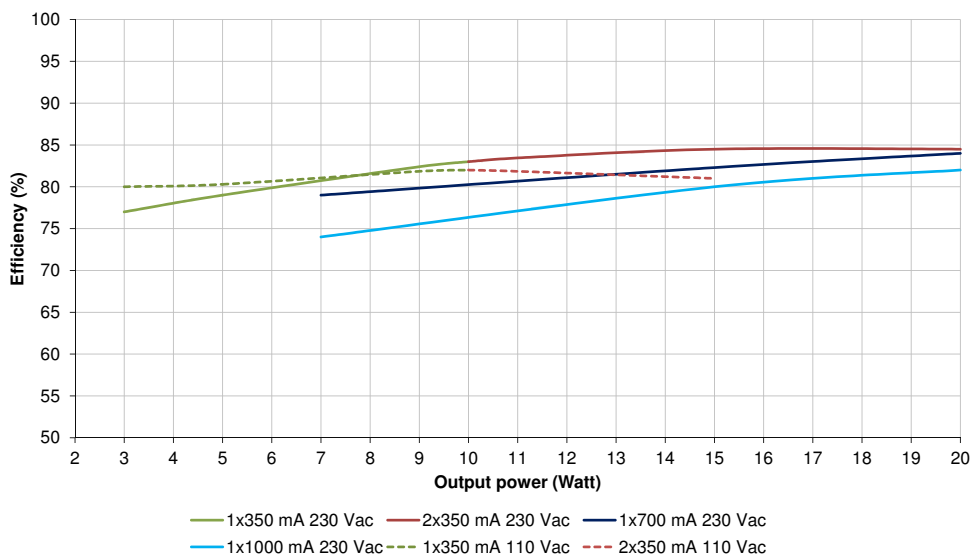
In case of multiple drivers on one dimmer make sure that the wires are fixed according to polarity.



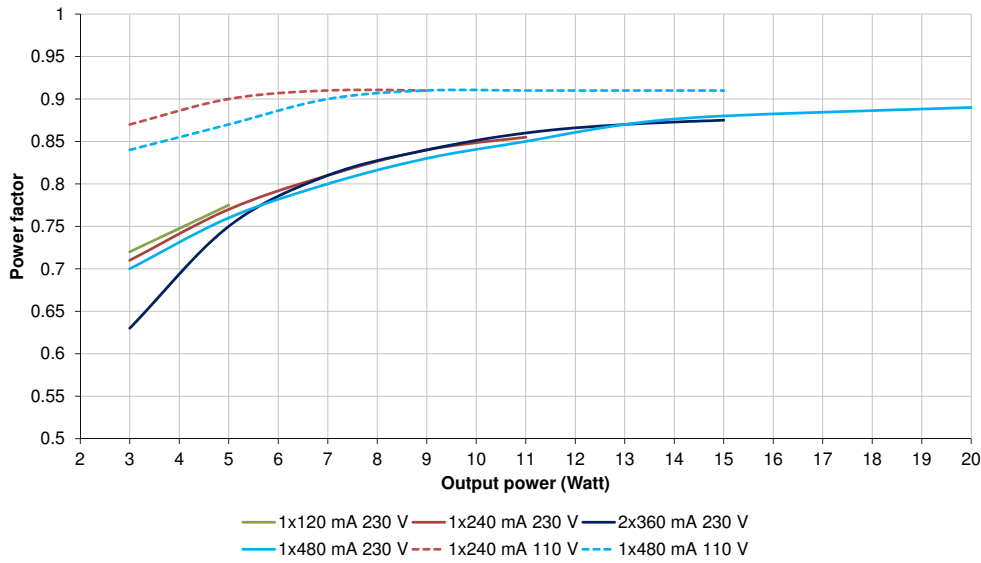
Power factor (L05016i)



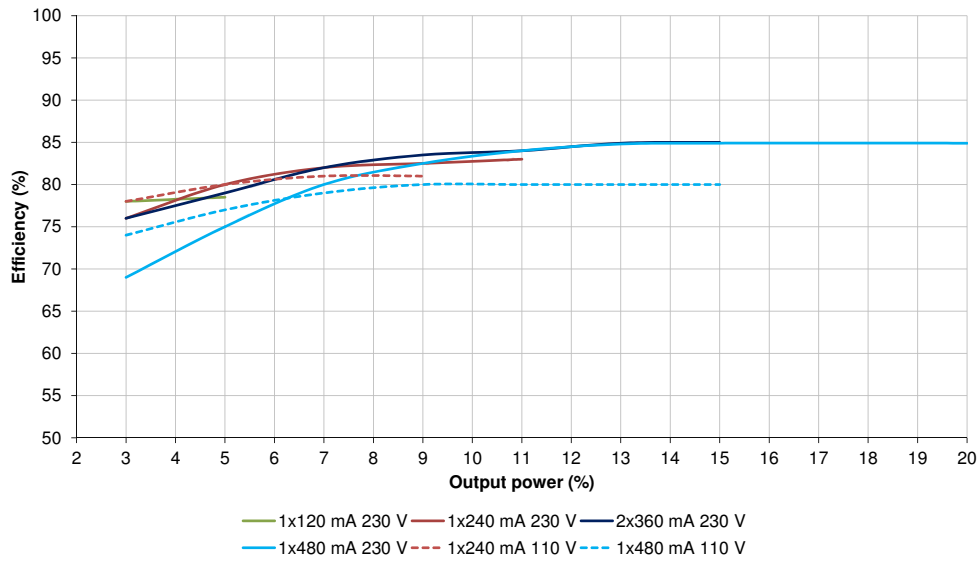
Efficiency (L05016i)



Power factor (L05016Ci)



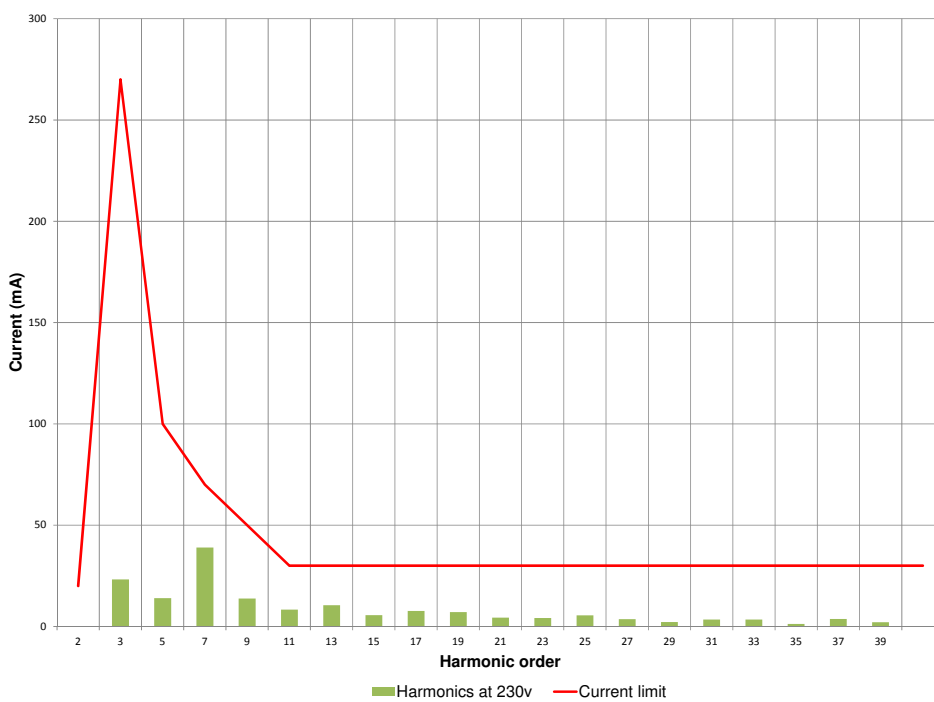
Efficiency (L05016Ci)



Harmonics L05016i (limit according to IEC 61000-3-2 table 2)



Harmonics L05016Ci (limit according to IEC 61000-3-2 table 2)



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