



Driver LCA 150W 24V one4all SC PRE
premium series

Product description

- Dimmable 24 V constant voltage LED Driver for flexible constant voltage strips
- Can be either used built-in or independent with clip-on strain-relief (see data sheet chapter: 1. Standards)
- One4all interface and ready2mains enable different dimming options
- Dimming range 1 to 100 %
- No additional external dimmer is needed
- Suitable for emergency escape lighting systems acc. to EN 50172
- Nominal life-time up to 50,000 h
- 5-year guarantee

Typical application

- Cove lighting, facade accent lighting, ceiling integration

Technical details

- 24 V, 150 W
- Small design (325 x 43 x 30 mm) with stretched-compact strain relief
- Small cross section
- Push terminal for simple wiring
- Output terminals (+/-) equipped twice for more flexibility in the application

Interfaces

- one4all (DALI DT 6, DSI, switchDIM, corridorFUNCTION)
- ready2mains (configuration and dimming via mains)
- Terminal blocks: 45° push terminals

System solution

- Tridonic LLE-FLEX ADV 600, 1,200, 1,800 lm/m
- Tridonic LLE-FLEX EXC 600, 1,200, 1,800, 2,500 lm/m
- In connection with Flex accessories wire to PCB plug

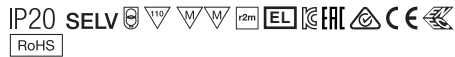


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System solution

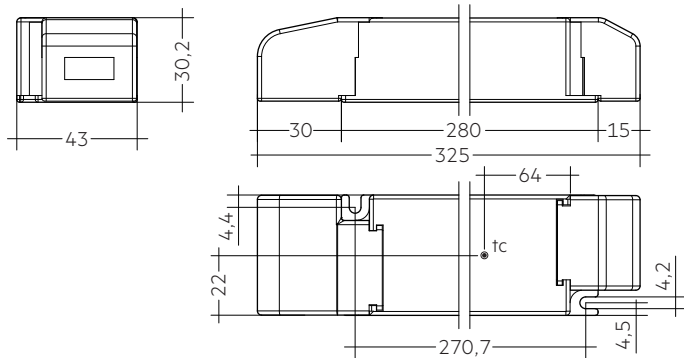




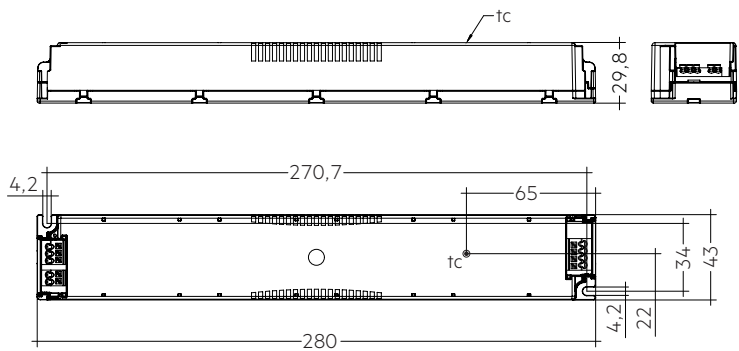
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Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
DC voltage range	176 – 280 V
Mains frequency	0 / 50 / 60 Hz
Typ. current (at 230 V, 50 Hz, full load) ^①	710 mA
Typ. current (220 V, 0 Hz, full load, 15 % dimming level)	129 mA
Leakage current (at 230 V, 50 Hz, full load) ^②	< 320 µA
Max. input power	160 W
Typ. efficiency (at 230 V / 50 Hz / full load)	94 %
λ (at 230 V, 50 Hz, full load) ^③	0.99
Typ. power input on stand-by ^②	< 0.44 W
Typ. input current in no-load operation	66.4 mA
Typ. input power in no-load operation ^②	2.5 W
In-rush current (peak / duration)	60.2 A / 195 µs
THD (at 230 V, 50 Hz, full load) ^③	< 4.3 %
Starting time (at 230 V, 50 Hz, full load) ^④	< 0.63 s
Starting time (DC mode)	< 0.32 s
Switchover time (AC/DC) ^⑤	< 0.32 s
Turn off time (at 230 V, 50 Hz, full load)	< 8 ms
Output voltage tolerance	± 1 V
Output LF voltage ripple (< 120 Hz)	± 5 %
Max. output voltage (no-load voltage)	60 V
PWM frequency	~ 1 kHz
Dimming range	1 – 100 %
Mains surge capability (between L – N)	1 kV
Mains surge capability (between L/N – PE)	2 kV
Life-time	up to 50,000 h
Dimensions L x W x H	325 x 43 x 29.8 mm



With strain-relief



Without strain-relief

Ordering data

Type	Article number	Packaging carton ^⑥	Packaging pallet	Weight per pc.
Multi packaging				
LCA 150W 24V one4all SC PRE	28001437	10 pc(s).	390 pc(s).	0.272 kg
Single packaging				
LCA 150W 24V one4all SC PRE SP	28001923	10 pc(s).	240 pc(s).	0.298 kg

^④ The strain relief is included in both packaging variants.
In the single packaging each Driver has also an individual packaging.

Specific technical data

Type	Load	Forward voltage	Output current	Max. output power (at 24 V, full load)	Typ. power consumption (at 24 V, full load)	Typ. current consumption (at 24 V, full load)	Max. casing temperature t _c	Ambient temperature t _a max.
LCA 150W 24V one4all SC PRE	10 %	24 V	625 mA	15 W	191 W	122 mA	80 °C	-25 ... +60 °C
	20 %	24 V	1.250 mA	30 W	34.3 W	174 mA	80 °C	-25 ... +60 °C
	30 %	24 V	1.875 mA	45 W	49.7 W	235 mA	80 °C	-25 ... +60 °C
	40 %	24 V	2.500 mA	60 W	65.2 W	298 mA	85 °C	-25 ... +55 °C
	50 %	24 V	3.125 mA	75 W	80.7 W	364 mA	85 °C	-25 ... +55 °C
	60 %	24 V	3.750 mA	90 W	96.3 W	430 mA	85 °C	-25 ... +55 °C
	70 %	24 V	4.375 mA	105 W	112.1 W	498 mA	90 °C	-25 ... +50 °C
	80 %	24 V	5.000 mA	120 W	127.7 W	565 mA	90 °C	-25 ... +50 °C
	90 %	24 V	5.625 mA	135 W	143.3 W	633 mA	90 °C	-25 ... +50 °C
	100 %	24 V	6.250 mA	150 W	159.3 W	702 mA	90 °C	-25 ... +50 °C

^① Valid at 100 % dimming level.

^② Depending on the DALI traffic at the interface.

^③ Valid for immediate change of power supply type otherwise the starting time is valid.

1. Standards


EN 55015
 EN 61000-3-2
 EN 61000-3-3
 EN 61347-1
 EN 61347-2-13
 EN 62384
 EN 61547
 EN 62386-101 (according to DALI standard V2)
 EN 62386-102
 EN 62386-207
 According to EN 50172 for use in central battery systems
 According to EN 60598-2-22 suitable for emergency lighting installations

For devices with strain-reliefs the following test marks apply:

 ... Class II luminaires

 ... Independent device

For devices without strain-reliefs the following test mark apply:

 ... Double or reinforced insulation

2. Thermal details and life-time

2.1 Expected life-time

Expected lifetime							
Type	Output load	ta	40 °C	45 °C	50 °C	55 °C	60 °C
	100 – 150 W	tc	80 °C	80 °C	90 °C		
		Life-time	95,000 h	75,000 h	55,000 h		
LCA 150W 24V one4all SC PRE	50 – 100 W	tc	65 °C	70 °C	75 °C	85 °C	
		Life-time	>100,000 h	>100,000 h	80,000 h	60,000 h	
	< 50 W	tc	55 °C	60 °C	65 °C	70 °C	80 °C
		Life-time	>100,000 h	>100,000 h	>100,000 h	80,000 h	60,000 h

The LED control gear is designed for a life-time stated above under reference conditions and with a failure probability of less than 10 %.

The relation of tc to ta temperature depends also on the luminaire design.
 If the measured tc temperature is approx. 5 K below tc max., ta temperature should be checked and eventually critical components (e.g. ELCAP) measured. Detailed information on request.

3. Installation / wiring

3.1 Circuit diagram

