

1x70 W DALI controllable LED driver

70 W 220-240 VAC 50-60 Hz

- Selectable constant current output: 350 (default) to 700 mA
- DALI control input 1 % - 100 % dimming range
- Low standby power 0.4 W
- Accept DC mains in case of central emergency battery
- Protected up to 4 kV power network fast transients
- Over load, open & short circuit protection
- High efficiency > 0.91
- Suitable for Class I luminaires



Mains Characteristics

Voltage range	198 - 264 VAC
DC range	176 - 280 VDC, Starting voltage > 195 VDC
Max mains current at full load	0.33- 0.42 A
Frequency	0 / 50 - 60 Hz
U-OUT _{max} (abnormal)	250 V

Load Output

Output current (I-OUT)	350 - 700 mA
Max output power	70 W
Efficiency, at full load, typical	≥ 0.91

I-OUT	350 mA	700 mA
P-out (max)	70 W	70 W
U-OUT	50 - 200 V	50 - 100 V
λ	0.98	0.98
η @ max	0.91	0.91

Operating Conditions and Characteristics

Max.temperature at tc point	75 °C
Ambient temperature range	-20...+50 °C
Storage temperature range	-40...+80 °C
Maximum relative humidity	No condensation
Life time	50 000h, at TC max (90% survival rate)

Connections and Mechanical Data

Wire size	0.5 - 1.5 mm ²
Wire type	Solid core and fine-stranded
Wiring insulation	According to EN 60598
Maximum driver to LED wire length	5 m
Weight	242 g
IP rating	IP20

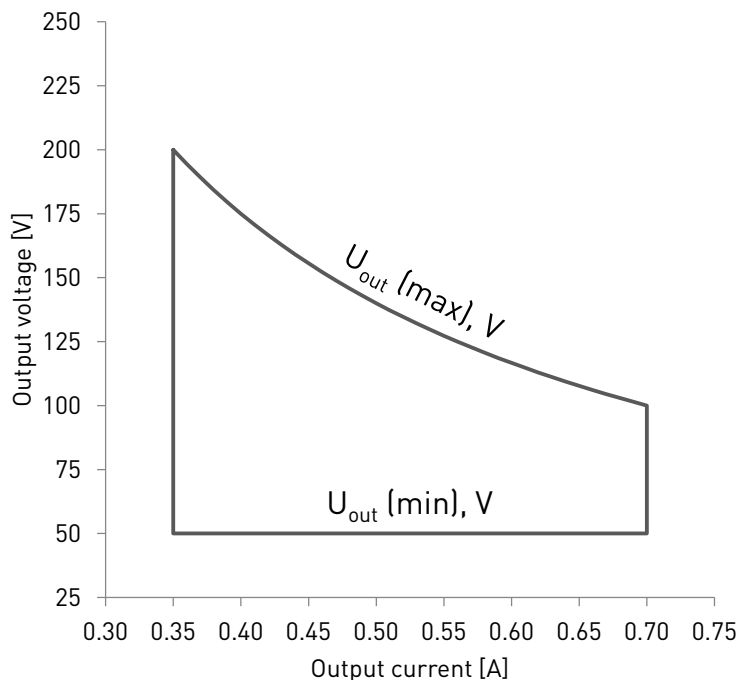
Conformity & Standards

General and safety requirements	EN 61347-1
Particular safety requirements for DC or AC supplied electronic control gear for LED modules	EN 61347-2-13
Thermal protection class	EN 61347, C5e
Mains current harmonics	EN 61000-3-2
Limits for Voltage Fluctuations and Flicker	EN 61000-3-3
Radio Frequency Interference	EN 55015
Immunity standard	EN 61547
Performance requirements	EN 62384
Digital addressing lighting interface (DALI) *	EN 62386-207

Compliant with relevant EU directives
ENEC & CE marked

* with additional extensions

Operating window



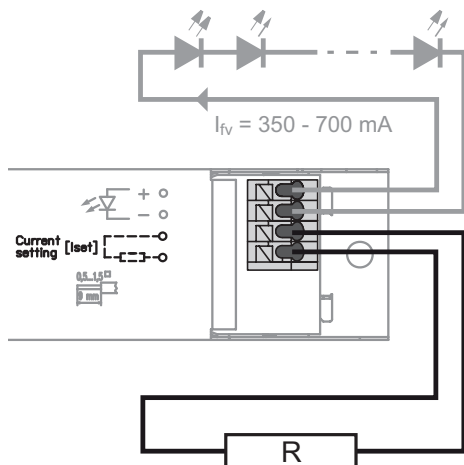
Note:

- Dimming between 1% - 100 % possible across the whole operating window

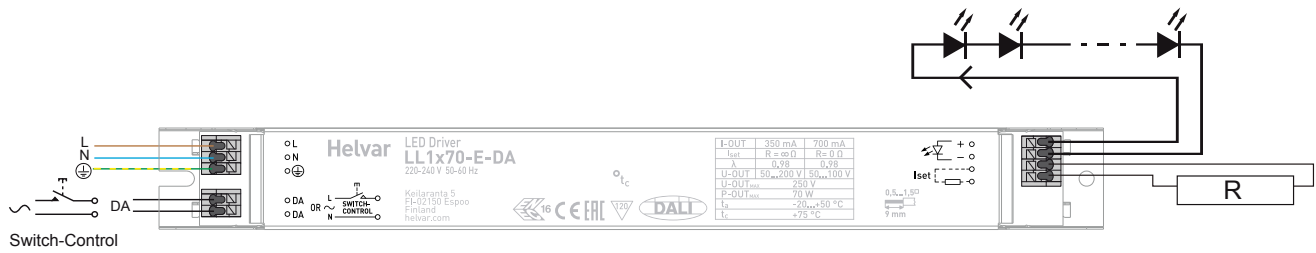
Output current setting

- Driver output current is determined by value of the resistor R connected.
- It is recommended for the current setting resistor to be physically as close as possible to the driver and always inside the actual luminaire.

R	I _{out} (mA)
0 Ω	700
1k Ω	650
1k2 Ω	640
1k5 Ω	630
1k8 Ω	620
2k2 Ω	600
2k7 Ω	580
3k3 Ω	570
3k9 Ω	550
4k7 Ω	540
5k6 Ω	520
6k8 Ω	505
8k2 Ω	490
10k Ω	475
12k Ω	460
15k Ω	450
22k Ω	420
27k Ω	410
33k Ω	405
39k Ω	400
56k Ω	390
68k Ω	380
100k Ω	375
120k Ω	370
330k Ω	365
820k Ω	360
∞ Ω	355



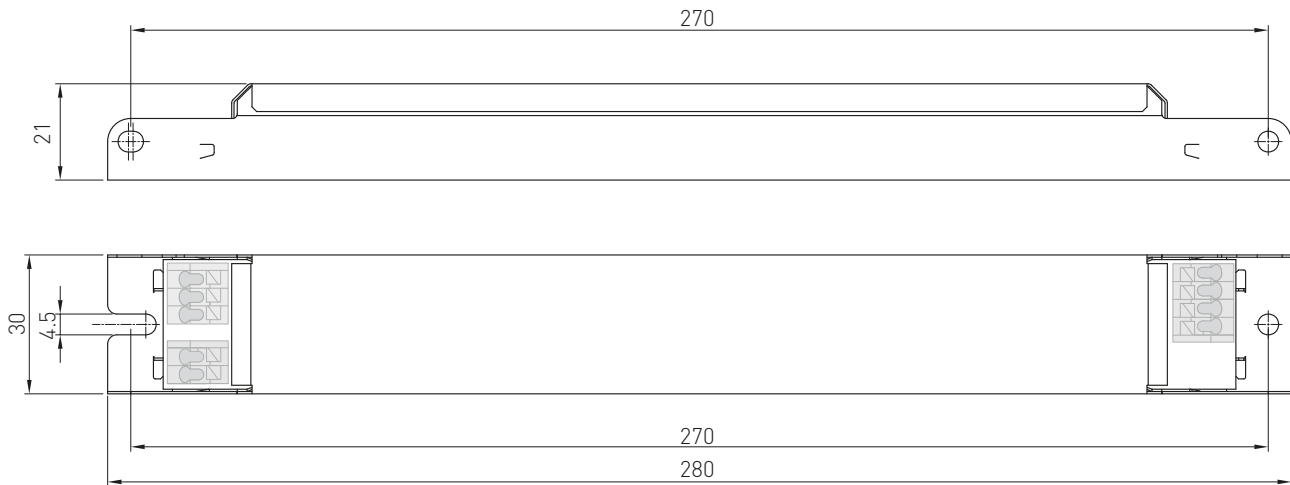
Connections



Note:

- Not suitable for load side switching operation.
- Driver output and current setting circuit are not isolated from mains

Dimensions



Quantity of LED control gear for miniature circuit breakers (MCB's)

	Quantity of drivers per miniature circuit breaker 16 A Type C		Typical inrush current I _{peak} (A)	1/2 value time Δt (μs)	Calculated energy I _{peak} ² Δt (A ² s)
	Based on I _{cont}	Based on I _{peak}			
LL1x70-E-DA	31	53	33	148.0	0.146500

Type-C MCB's with trip characteristics in according to EN 60898 are recommended.