LL1x23-80-E-DA*

1x23-80 W **Dimmable DALI** LED driver

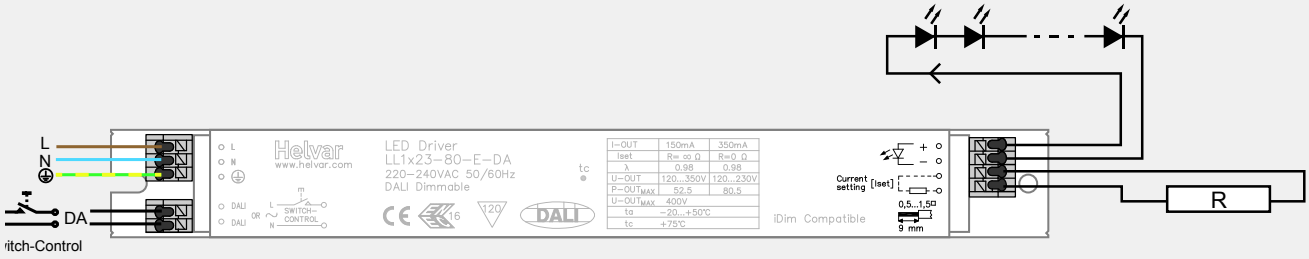
Helvar
freedom in lighting

- Dali control input 1 %-100 % dimming range
- Open & short circuit protection
- Adjustable constant current output: 150 (default) to 350 mA
- Maximum 80 W load
- Low stand-by power 0.4 W
- High efficiency 0.93
- Suitable for Class I luminaires

80 W 220-240 VAC 50-60 Hz

** Preliminary information. For availability please check with your sales representative*

Connections



Current setting (p.107)	
Resistor R	**output I_{fv}**
open	150 mA
0 Ω	350 mA

Note:

** Not suitable for load side switching operation.*

• Switch-Control is only allowed to use in Class I luminaires

Mains Characteristics

Voltage range	198-264 VAC
DC range	176 - 280 VDC, starting voltage > 190 VDC
Max mains current at full load	0.33-0.43 A
Frequency	0 / 50 - 60 Hz
U-OUT$_{max}$ (abnormal)	400 V

Load Output

Output current (I-OUT)	150 mA (default) - 350 mA
Max output power	80 W
Efficiency, at full load, typical	0.93

I-OUT	150 mA	350 mA
P-out (max)	80	80
U-OUT	150 -350	120-228
λ	0.98	0.98
η @ max	0.93	0.93

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	60 000h, at TC max (90 % survival rate)

Connections and Mechanical Data

Wire size	0.5 - 1.5 mm²
Wire type	solid core and fine-stranded
Maximum driver to LED wire length	5m
Weight	135 g
IP rating	IP20

Conformity & Standards

General and safety requirements	EN 61347-1
Particular safety requirements for d.c. or a.c. supplied electronic controlgear for LED modules, acc. to	EN 61347-2-13
Thermal protection class	EN61347, C5e
Mains current harmonics, acc. to	EN 61000-3-2
Limits for Voltage Fluctuations and Flicker, acc to	EN 61000-3-3
Radio Frequency Interference, acc. to	EN 55015
Immunity standard, acc. to	EN 61547
Performance requirements, acc to	EN 62384
Digital adressing lighting interface (DALI) *	EN62386-207

Compliant with relevant EU directives
ENEC & CE marked

* with additional extensions

Note: See pages 108-109 for dimensions

LL1x23-80-E-CC *

1x23-80 W **Constant Current** LED driver

Helvar
freedom in lighting

- Open & short circuit protection
- Adjustable and selectable constant current output: 150 (default) to 350 mA
- Maximum 80 W load
- High efficiency ≥ 0.95
- Suitable for Class I luminaires

80 W 220-240 VAC 50-60 Hz

*** Preliminary information. For availability please check with your sales representative**

Connections

Current setting (p.107) **	
Resistor R	**output I_{fv}**
open	120 mA
0 Ω	350 mA

Note:
** Not suitable for load side switching operation.*
*** Connect load between terminal (+) and (150mA / Iset) for adjusted output currents.*

Mains Characteristics

Voltage range	198-264 VAC,
DC range	176-280 VDC,
	starting voltage > 190 VDC
Max mains current at full load	0,33-0,43 A
Frequency	0 / 50 - 60 Hz
U-OUT_{max} (abnormal)	400 V

Load Output

Output current (I-OUT)	150 mA (default) - 350 mA
Max output power	80 W
Efficiency, at full load, typical	≥ 0.95

I-OUT	150 mA	200 mA	350 mA
P-out (max)	80	80	80
U-OUT	150 -350	120 - 350	120-228
λ	0.98	0.98	0.98
η @ max	0.95	0.95	0.95

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	60 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
Maximum driver to LED wire length	5m
Weight	135 g
IP rating	IP20

Conformity

General and safety requirements	EN 61347-1
Particular safety requirements for d.c. or a.c. supplied electronic controlgear for LED modules, acc. to	EN 61347-2-13
Thermal protection class	EN61347, C5e
Mains current harmonics, acc. to	EN 61000-3-2
Limits for Voltage Fluctuations and Flicker, acc to	EN 61000-3-3
Radio Frequency Interference, acc. to	EN 55015
Immunity standard, acc. to	EN 61547
Performance requirements, acc to	EN 62384

Compliant with relevant EU directives
ENEC & CE marked

Note: See pages 108-109 for dimensions