

## LED Driver Linear non-SELV Rset L280

### Product description

- Constant current LED driver
- Fixed current output, adjustable by Rset
- Built-in type, for class I luminaire
- Safety according to EN 61347-1, 61347-2-13
- Performance according to EN 62384
- Harmonic current emission according to EN 61000-3-2
- Immunity according to EN 61547
- Non-isolated versions
- Low output ripple current - high quality of light
- Long lifetime - 100 000 hours
- Metal housing
- Optimized for indoor MST LED modules



### Electrical data

Specification item	Unit	LED Driver 40W 65-200V 0.15-0.42A R-L280	LED Driver 80W 90-220V 0.15-0.42A R-L280
Rated input voltage range	[V]	220 ... 240	220 ... 240
Rated input voltage	[V]	230	230
Rated input current <sup>1</sup>	[A]	0.19	0.38
Rated input frequency	[-]	50/60 Hz/DC	50/60 Hz/DC
Power factor <sup>1</sup>	[-]	0.99	0.99
Total harmonic distortion <sup>1</sup>	[%]	≤8	≤10
Efficiency <sup>1</sup>	[%]	91	92
Output voltage <sup>2</sup>	[V]	65 ... 200	90 ... 220
Maximum output voltage U-OUT	[V]	340	340
Output current <sup>2</sup>	[A]	0.15 ... 0.42	0.15 ... 0.42
Output current tolerance	[%]	± 5	± 5
Output power	[W]	15 ... 40	30 ... 80
Current ripple (LF) <sup>3</sup>	[%]	≤4	≤4
Dimmable	[-]	no	no
Control method	[-]	Rset	Rset

<sup>1</sup> at rated input voltage and load

<sup>2</sup> see operating window

<sup>3</sup> ripple = peak / average; ≤120 Hz

### Lifetime

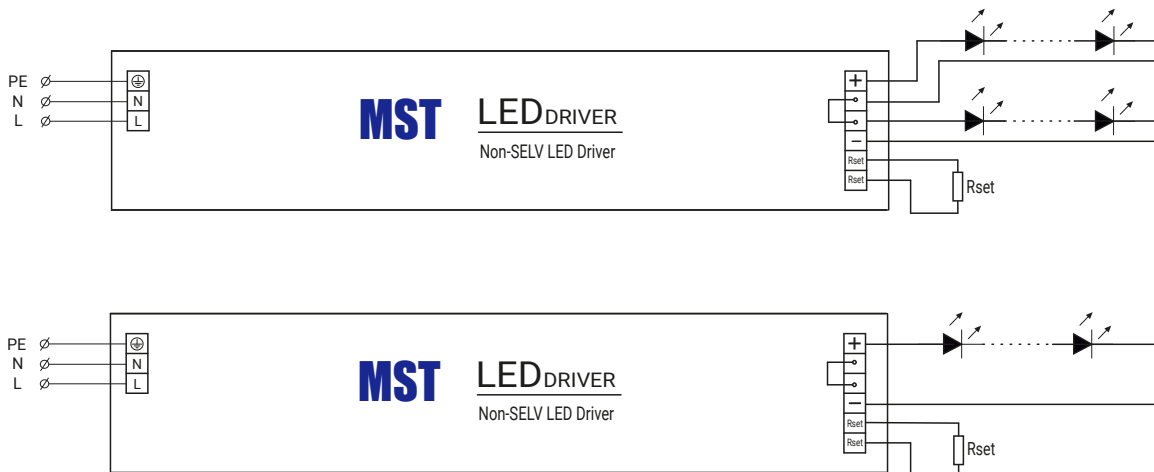
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Lifetime at Tp (max 10% failures)	[h]	100 000	100 000
Tp - temperature measured at Tc point	[°C]	70	60

### Wiring (solid wire only)

Specification item	Unit	Value
Wire cross section	[mm <sup>2</sup> ]	0.5 ... 1.5
Strip length	[mm]	8 ... 9

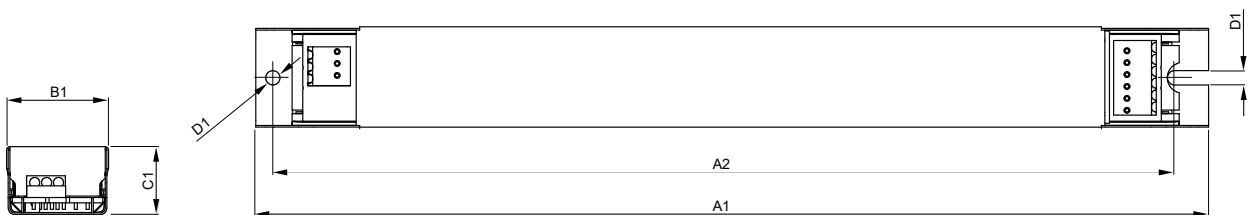
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### Wiring for serial connection system for R-L280 Driver



### Mechanical

Specification item	Unit	LED Driver 40W 65-200V 0.15-0.42A R-L280	LED Driver 80W 90-220V 0.15-0.42A R-L280
Length (A1)	[mm]	280	280
Width (B1)	[mm]	30	30
Height (C1)	[mm]	21	21
Fixing hole diameter (D1)	[mm]	4.2	4.2
Fixing hole distance (A2)	[mm]	265	265
Weight	[g]	184	194
Ingress protection	[-]	IP20	IP20



### Temperature & humidity

Specification item	Unit	LED Driver 40W 65-200V 0.15-0.42A R-L280	LED Driver 80W 90-220V 0.15-0.42A R-L280
Ambient temperature	[°C]	-25 ... +50	-25 ... +45
Tcase	[°C]	75	75
Relative humidity (non-condensing)	[%]	5 ... 85	5 ... 85
Storage ambient temperature	[°C]	-25 ... +50	-25 ... +50
Storage relative humidity (non-condensing)	[%]	5 ... 85	5 ... 85

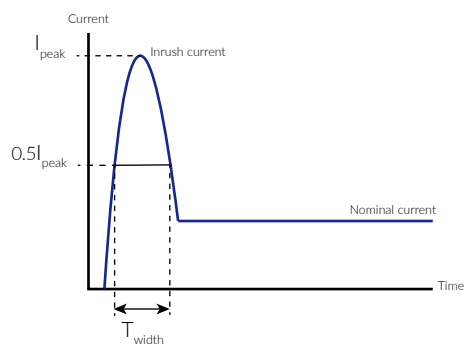
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### Surge immunity

Specification item	Unit	Value
Mains surge immunity - differential mode	[kV]	1
Mains surge immunity - common mode	[kV]	2

### Inrush current

Specification item	Unit	LED Driver 40W 65-200V 0.15-0.42A R-L280	LED Driver 80W 90-220V 0.15-0.42A R-L280
Inrush current $I_{peak}$	[A]	14	16
Inrush current $T_{width}$	[ $\mu$ s]	270	310



### Maximum number of drivers

Type of circuit breaker	Unit	LED Driver 40W 65-200V 0.15-0.42A R-L280	LED Driver 80W 90-220V 0.15-0.42A R-L280
B10	[pcs]	16	12
B13	[pcs]	20	15
B16	[pcs]	25	19
B20	[pcs]	31	24
B25	[pcs]	39	30
C10	[pcs]	26	20
C13	[pcs]	34	26
C16	[pcs]	42	31
C20	[pcs]	52	39
C25	[pcs]	65	49

Measurements of inrush and continuous current were taken at rated input voltage. Calculations are based on ABB series S200 circuit breakers as reference. The values shown in the table above are for guidance purpose only. Actual values may differ due to installation environment and used MCBs.

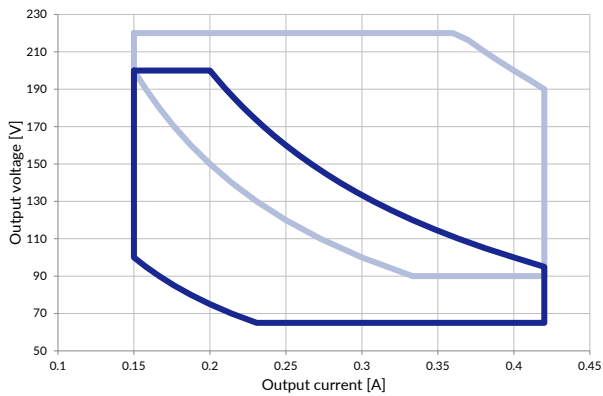
### Protections / Approvals

Specification item	Value
Open load protection	yes
Short circuit protection	yes
Approval marks	CE / ENEC

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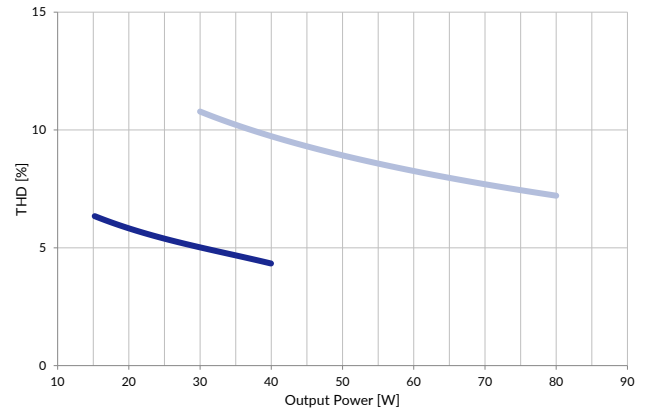
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### Operating window



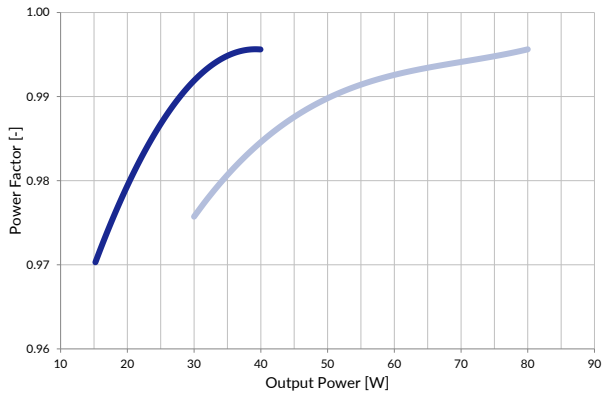
### THD vs output power

Typical values



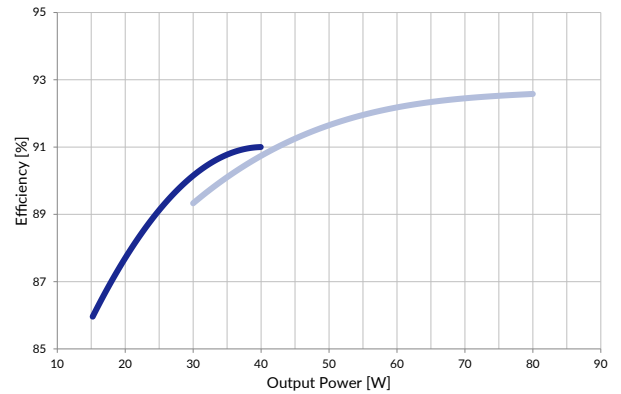
### Power factor vs output power

Typical values



### Efficiency vs output power

Typical values



## Ordering codes

Specification item	Unit	LED Driver 40W 65-200V 0.15-0.42A R-L280	LED Driver 80W 90-220V 0.15-0.42A R-L280
Ordering code	[-]	1010 120 12046	1010 120 12146
Pieces per box	[-]	24	24
Pieces per pallet	[-]	2880	2880
Pallet gross weight	[kg]	600	630

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### Rset ordering codes

Product name	Ordering code	I <sub>LED</sub> [mA]
Open	-	not allowed
Rset 36k Ohm	1010 115 15146	150
Rset 33k Ohm	1010 115 15246	154
Rset 27k Ohm	1010 115 15346	164
Rset 22k Ohm	1010 115 15446	175
Rset 18k Ohm	1010 115 15546	188
Rset 15k Ohm	1010 115 15646	201
Rset 12k Ohm	1010 115 15746	218
Rset 10k Ohm	1010 115 15846	233
Rset 8.2k Ohm	1010 115 15946	251
Rset 6.8k Ohm	1010 115 16046	267
Rset 5.6k Ohm	1010 115 16146	285
Rset 4.7k Ohm	1010 115 16246	300
Rset 3.9k Ohm	1010 115 16346	317
Rset 3.3k Ohm	1010 115 16446	331
Rset 2.7k Ohm	1010 115 16546	347
Rset 2.2k Ohm	1010 115 16646	362
Rset 1.8k Ohm	1010 115 16746	376
Rset 1.5k Ohm	1010 115 16846	387
Rset 1.2k Ohm	1010 115 16946	399
Rset 1k Ohm	1010 115 17046	407
Rset 0.82k Ohm	1010 115 17146	416
Rset 0.75k Ohm	1010 115 17246	420
Short	-	not allowed