

Rectangular LED modules 250x250mm

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- Available CCT from 2700K to 6500K and CRI 80, 90



RecLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* ϕ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
RecLED 250x250mm 1250lm 830 24V Opt G2	1010 127 06546	3000	300	1222	22	6.5	189	1200
RecLED 250x250mm 1250lm 840 24V Opt G2	1010 127 06646	4000	300	1276	22	6.5	197	1200

RecLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* ϕ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
RecLED 250x250mm 1250lm 927 24V Opt G2	1010 127 06746	2700	520	1746	22	12	152	1200
RecLED 250x250mm 1250lm 930 24V Opt G2	1010 127 06846	3000	520	1807	22	12	158	1200
RecLED 250x250mm 1250lm 940 24V Opt G2	1010 127 06946	4000	520	1929	22	12	168	1200

RecLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* ϕ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
RecLED 250x250mm 1250lm 830 24V Opt G1	1010 127 06046	3000	315	1247	22	6.9	182	1200
RecLED 250x250mm 1250lm 840 24V Opt G1	1010 127 06146	4000	315	1310	22	6.9	191	1200

RecLED CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux* ϕ [lm]	Voltage* Vf [V]	Power* P [W]	Efficacy* [lm/W]	Current maximum If max [mA]
RecLED 250x250mm 1250lm 927 24V Opt G1	1010 127 06246	2700	355	1135	22	7.8	145	1200
RecLED 250x250mm 1250lm 930 24V Opt G1	1010 127 06346	3000	355	1219	22	7.8	156	1200
RecLED 250x250mm 1250lm 940 24V Opt G1	1010 127 06446	4000	355	1303	22	7.8	167	1200

*At nominal current and T_p
Tolerance range for optical and electrical $\pm 10\%$

Temperature & humidity

Specification item	Unit	Value
T _p	[°C]	45
T _p rated	[°C]	65
T _c	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condensing)	[%]	5 ... 85

T_p - Temperature related to the performance parameters of the LED modules
T_p rated - Maximum operating temperature to which the rated performance characteristics are declared
T_c - Highest permissible value for safe operation

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Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Energy Efficiency Class		A++
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Initial color coordinates		Acc. to CIE 1931
Photobiological safety		RG1 unlimited

Certificates & standards

Specification item	Compliant
ENEC	No
CE	Yes
RoHS	Yes
REACH	Yes
Zhaga	Comply with Book 7
IP rating	No IP rating

Lumen maintenance RecLED CRI 80

for RecLED CRI 80 Optimum G2 & RecLED CRI 80 Optimum G1

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>102 000	>102 000	>102 000	>102 000	79 000	69 000
	55°C	>102 000	>102 000	>102 000	>102 000	79 000	69 000
	65°C	>102 000	>102 000	>102 000	>102 000	77 000	69 000
	75°C	>102 000	>102 000	>102 000	>102 000	77 000	68 000
	85°C	>102 000	>102 000	>102 000	>102 000	76 000	68 000
If max	45°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	55°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	65°C	>72 000	>72 000	>72 000	>72 000	48 000	37 000
	75°C	>72 000	>72 000	>72 000	>72 000	45 000	35 000
	85°C	>72 000	>72 000	>72 000	69 000	43 000	34 000

reported data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

RecLED CRI 80

for RecLED CRI 90 Optimum G1

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>102 000	>102 000	>102 000	>102 000	77 000	68 000
	55°C	>102 000	>102 000	>102 000	>102 000	77 000	68 000
	65°C	>102 000	>102 000	>102 000	>102 000	76 000	67 000
	75°C	>102 000	>102 000	>102 000	>102 000	75 000	66 000
	85°C	>102 000	>102 000	>102 000	>102 000	74 000	66 000
If max	45°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	55°C	>72 000	>72 000	>72 000	>72 000	51 000	39 000
	65°C	>72 000	>72 000	>72 000	>72 000	48 000	37 000
	75°C	>72 000	>72 000	>72 000	>72 000	45 000	35 000
	85°C	>72 000	>72 000	>72 000	69 000	43 000	34 000

reported data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

RecLED CRI 90

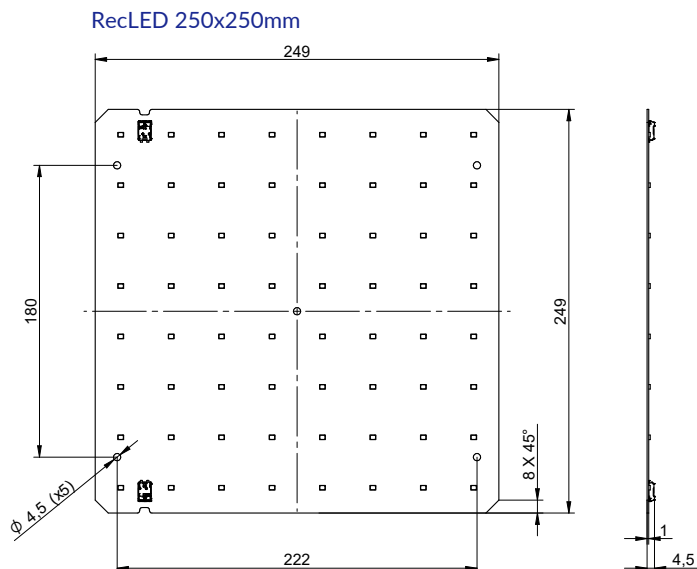
for RecLED CRI 90 Optimum G1

Forward current	Tp temp.	L70 [h]		L80 [h]		L90 [h]	
		B50	B10	B50	B10	B50	B10
If nom	45°C	>60 000	>60 000	>60 000	>60 000	>60 000	>60 000
	65°C	>60 000	>60 000	>60 000	>60 000	54 000	53 000
	85°C	>60 000	>60 000	>60 000	>60 000	43 000	38 000
If max	45°C	>60 000	>60 000	52 000	49 000	29 000	28 000
	65°C	>60 000	>60 000	47 000	44 000	25 000	24 000
	85°C	>60 000	58 000	41 000	38 000	22 000	19 000

reported data based on LM80 LED data (10 000h)

Rectangular LED modules 250x250mm

Dimensions



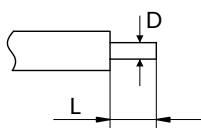
Mounting

LED Modules cannot be exposed to tensile or compressive stresses. For this purpose it is necessary that the modules are assembled to a flat surface by only rounded head screws. Additionally plastic flat washer should be used to ensure creepage distance between screw's head and surface of the pcb. Max. torque for fixing: 0,5Nm.

LED modules are sensitive to electrostatic discharge (ESD). Follow safety regulations according to IEC 61340-5-1.

Wiring

Wire cross section and strip length:



D - wire cross section (solid and flexible wires)	Min	Max
	0.2mm ²	0.75mm ²
	AWG 24	AWG 18

L - strip length	Min	Max
	8mm	9mm

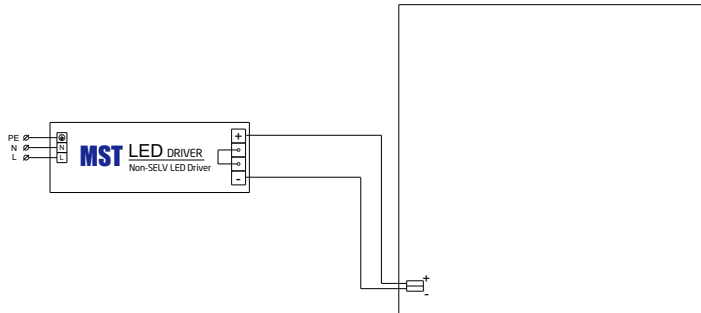
Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:



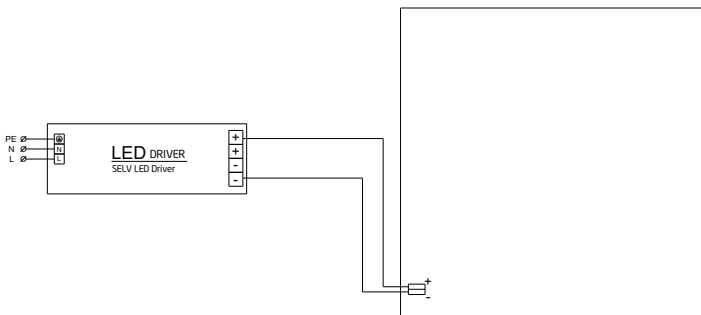
Rectangular LED modules 250x250mm

Connections

Wiring for series connection system



Wiring for parallel connection system



Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RecLED 250x250mm 1250lm 830 24V Opt G2	1010 127 06546	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 840 24V Opt G2	1010 127 06646	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 927 24V Opt G2	1010 127 06746	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 930 24V Opt G2	1010 127 06846	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 940 24V Opt G2	1010 127 06946	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 830 24V Opt G1	1010 127 06046	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 840 24V Opt G1	1010 127 06146	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 927 24V Opt G1	1010 127 06246	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 930 24V Opt G1	1010 127 06346	12	1280	283 x 283 x 83
RecLED 250x250mm 1250lm 940 24V Opt G1	1010 127 06446	12	1280	283 x 283 x 83