MST | *Your solutions*

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Rectangular LED modules 540x270mm & 270x270mm

Product description

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

RecLED CRI 80 Optimum G3.1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Useful luminous flux[2] [lm]	Voltage[1] Vf [V]	Power[1] P [W]	Efficacy[1] [lm/W]	Current minimum If min[3] [mA]	Current maximum If max [mA]	Energy Efficiency Class
RecLED 270x270mm 1250lm 840 33V Opt G3.1	1010 127 83646	4000	225	1315	1364	30	6.7	197	60	900	B

RecLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Useful luminous flux[2] [lm]	Voltage[1] Vf [V]	Power[1] P [W]	Efficacy[1] [lm/W]	Current minimum If min[3] [mA]	Current maximum If max [mA]	Energy Efficiency Class
RecLED 270x270mm 1250lm 830 33V Opt G3	1010 117 88246	3000	225	1204	1242	29	6.6	184	60	900	C

RecLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Useful luminous flux[2] [lm]	Voltage[1] Vf [V]	Power[1] P [W]	Efficacy[1] [lm/W]	Current minimum If min[3] [mA]	Current maximum If max [mA]	Energy Efficiency Class
RecLED 270x270mm 1250lm 927 33V Opt G2	1010 117 35646	2700	250	1105	1145	30	7.6	146	60	900	D
RecLED 270x270mm 1250lm 930 33V Opt G2	1010 117 35746	3000	250	1187	1230	30	7.6	157	60	900	D
RecLED 270x270mm 1250lm 940 33V Opt G2	1010 117 35846	4000	250	1269	1315	30	7.6	168	60	900	D

RecLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Useful luminous flux[2] [lm]	Voltage[1] Vf [V]	Power[1] P [W]	Efficacy[1] [lm/W]	Current minimum If min[3] [mA]	Current maximum If max [mA]	Energy Efficiency Class
RecLED 270x270mm 1250lm 830 33V Opt G2	1010 117 21746	3000	225	1226	1268	30	6.8	181	60	900	C
RecLED 540x270mm 2500lm 830 66V Opt G2	1010 117 15746		225	2452	2536	60	14	181	60	900	C
RecLED 540x270mm 2500lm 830 33V Opt G2	1010 117 15946		450	2452	2536	30	14	181	120	1800	C
RecLED 270x270mm 1250lm 840 33V Opt G2	1010 117 21846	4000	225	1288	1332	30	6.8	191	60	900	C
RecLED 540x270mm 2500lm 840 66V Opt G2	1010 117 15846		225	2575	2664	60	14	191	60	900	C
RecLED 540x270mm 2500lm 840 33V Opt G2	1010 117 16046		450	2575	2664	30	14	191	120	1800	C

RecLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Useful luminous flux[2] [lm]	Voltage[1] Vf [V]	Power[1] P [W]	Efficacy[1] [lm/W]	Current minimum If min[3] [mA]	Current maximum If max [mA]	Energy Efficiency Class
RecLED 540x270mm 2500lm 927 66V Opt G2	1010 117 72846	2700	250	2211	2291	61	15	146	60	900	D
RecLED 540x270mm 2500lm 927 33V Opt G2	1010 117 72746		500	2211	2291	30	15	146	120	1800	D
RecLED 540x270mm 2500lm 930 66V Opt G2	1010 117 52546	3000	250	2374	2460	61	15	157	60	900	D
RecLED 540x270mm 2500lm 930 33V Opt G2	1010 117 52146		500	2374	2460	30	15	157	120	1800	D
RecLED 540x270mm 2500lm 940 66V Opt G2	1010 117 52646	4000	250	2538	2630	61	15	168	60	900	D
RecLED 540x270mm 2500lm 940 33V Opt G2	1010 117 52246		500	2538	2630	30	15	168	120	1800	D

[1]At nominal current and Tp
[2]At nominal current and 25°C
[3]It is recommended not to operate below minimum current in order to avoid un-even brightness
Tolerance range for optical and electrical ±10%

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Rectangular LED modules 540x270mm & 270x270mm

Temperature & humidity

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

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

Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Color coordinates

According to CIE 1931

Specification item	CIEx	CIEy
2700K	0.4578	0.4101
3000K	0.4338	0.4030
4000K	0.3818	0.3797
6500K	0.3123	0.3282

Certificates & standards

Specification item	Compliant
ENEC	Yes
CE	Yes
RoHS	Yes
REACH	Yes
IP rating	No IP rating

Lumen maintenance

for LinLED CRI 80 Optimum G3

RecLED CRI 80

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	46 000	42 000
	65°C	>60 000	>60 000	>60 000	>60 000	36 000	30 000
	85°C	>60 000	>60 000	>60 000	>60 000	31 000	25 000
If nom	45°C	>60 000	>60 000	>60 000	>60 000	40 000	32 000
	65°C	>60 000	>60 000	>60 000	>60 000	30 000	27 000
	85°C	>60 000	>60 000	>60 000	55 000	25 000	25 000

reported data based on LM80 LED data 10 000h

RecLED CRI 90

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	>60 000	>60 000
	85°C	>60 000	>60 000	>60 000	>60 000	48 000	42 000
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)

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Rectangular LED modules 540x270mm & 270x270mm

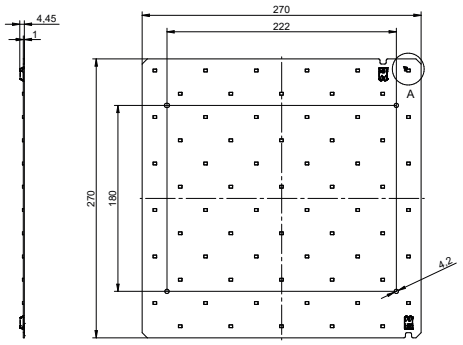
RecLED CRI 80

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	78 000	69 000
	55°C	>102 000	>102 000	>102 000	>102 000	78 000	69 000
	65°C	>102 000	>102 000	>102 000	>102 000	77 000	68 000
	75°C	>102 000	>102 000	>102 000	>102 000	76 000	67 000
	85°C	>102 000	>102 000	>102 000	>102 000	75 000	67 000
If max	45°C	>72 000	>72 000	>72 000	>72 000	48 000	36 000
	55°C	>72 000	>72 000	>72 000	>72 000	48 000	36 000
	65°C	>72 000	>72 000	>72 000	>72 000	48 000	36 000
	75°C	>72 000	>72 000	>72 000	69 000	45 000	33 000
	85°C	>72 000	>72 000	>72 000	67 000	42 000	33 000

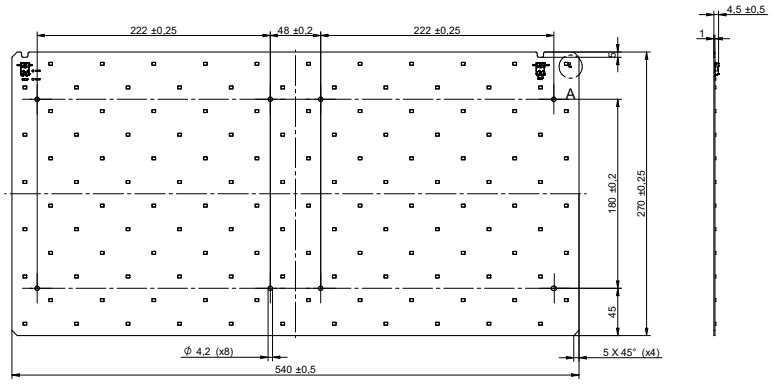
reported data based on LM80 LED data (@65mA 17000h / @160mA & 200mA 12000h)

Dimensions

RecLED 270x270mm



RecLED 540x270mm



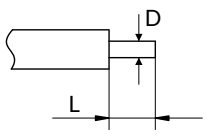
Mounting

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 creepeage 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
	0.2mm²	0.75mm²
	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:

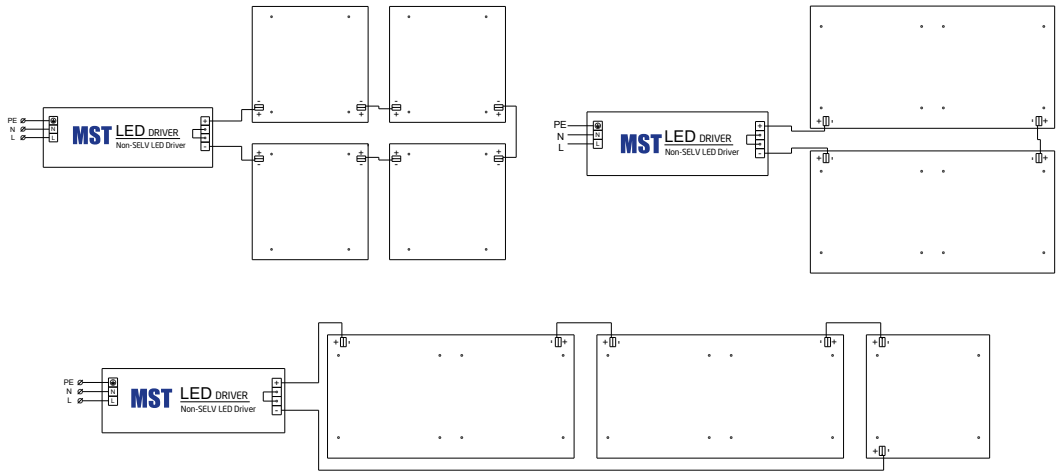
MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Rectangular LED modules 540x270mm & 270x270mm

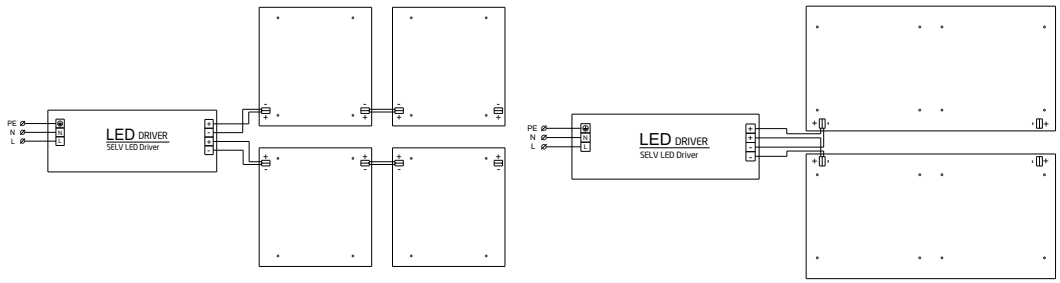
Connections

Max number of modules	Unit	Series	Parallel
RecLED 270x270mm ... 33V ...	[pcs]	8	4
RecLED 540x270mm ... 66V ...	[pcs]	4	2
RecLED 540x270mm ... 33V ...	[pcs]	8	2

Wiring for series connection system



Wiring for parallel connection system



To prevent irregular luminous intensity in parallel connection use only LED modules from the same V-code group.
V-code (e.g. "A", "B", "AB") is printed on the LED module and box label. Naming is not adequate to efficacy or luminous flux.

Energy Label / EPREL database

To obtain Energy Label for this product visit https://eprel.ec.europa.eu/ and enter model identifier

Model identifier consists of 10 digits XXXX XXX XXX. It is printed directly on the LED module or on product label. This is the number you can see in EPREL database.

Ordering code consist of 12 digits XXXX XXX XXX46. Additional last two digits means packaging of the product.

MST Sp. z o.o. Sp. k.
Chrobrego 8, 11-400 Kętrzyn, Poland
www.mst.pl

Rectangular LED modules 540x270mm & 270x270mm

Ordering codes

Product name	Ordering code	Pieces per box	Pieces per pallet	Box dimensions [mm]
RecLED 270x270mm 1250lm 840 33V Opt G3.1	1010 127 83646	16	1280	283 x 283 x 83
RecLED 270x270mm 1250lm 830 33V Opt G3	1010 117 88246	16	1280	283 x 283 x 83
RecLED 270x270mm 1250lm 927 33V Opt G2	1010 117 35646	16	1280	283 x 283 x 83
RecLED 270x270mm 1250lm 930 33V Opt G2	1010 117 35746	16	1280	283 x 283 x 83
RecLED 270x270mm 1250lm 940 33V Opt G2	1010 117 35846	16	1280	283 x 283 x 83
RecLED 270x270mm 1250lm 830 33V Opt G2	1010 117 21746	16	1280	283 x 283 x 83
RecLED 540x270mm 2500lm 830 66V Opt G2	1010 117 15746	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 830 33V Opt G2	1010 117 15946	10	560	553 x 283 x 58
RecLED 270x270mm 1250lm 840 33V Opt G2	1010 117 21846	16	1280	283 x 283 x 83
RecLED 540x270mm 2500lm 840 66V Opt G2	1010 117 15846	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 840 33V Opt G2	1010 117 16046	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 927 66V Opt G2	1010 117 72846	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 927 33V Opt G2	1010 117 72746	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 930 66V Opt G2	1010 117 52546	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 930 33V Opt G2	1010 117 52146	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 940 66V Opt G2	1010 117 52646	10	560	553 x 283 x 58
RecLED 540x270mm 2500lm 940 33V Opt G2	1010 117 52246	10	560	553 x 283 x 58