

## Round LED modules 530mm & 1/2 530mm

### 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



### RdLED CRI 80 CJ G4

| Product name                             | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> Φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|------------------------------------------|----------------|------------------------|-----------------------------|-----------------------------------|----------------------------------------|----------------|--------------------------|------------------------------|------------------------------------------|-----------------------------|-------------------------|
| RdLED 1/2 530mm 3000lm 827-865 39V CJ G4 | 1010 147 28446 | 2700                   | 460                         | 2881                              | 2954                                   | 35             | 16                       | 180                          | 80                                       | 1200                        | C                       |
| RdLED 530mm 4000lm 830 42V CJ G4         | 1010 147 82546 | 6500                   | 460                         | 3178                              | 3259                                   | 37             | 16                       | 198                          | 80                                       | 1200                        | B                       |
| RdLED 530mm 4000lm 830-126V CJ G4        | 1010 147 82746 | 3000                   | 540                         | 3941                              | 4041                                   | 111            | 20                       | 198                          | 180                                      | 3600                        | B                       |
| RdLED 530mm 4000lm 840 42V CJ G4         | 1010 147 82646 |                        | 180                         | 3941                              | 4041                                   | 37             | 20                       | 198                          | 60                                       | 1200                        | B                       |
| RdLED 530mm 4000lm 840 126V CJ G4        | 1010 147 82846 | 4000                   | 540                         | 4098                              | 4203                                   | 111            | 20                       | 206                          | 180                                      | 3600                        | B                       |
|                                          |                |                        | 180                         | 4098                              | 4203                                   |                | 20                       | 206                          | 60                                       | 1200                        |                         |

### RdLED CRI 80 CN G3

| Product name                             | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> Φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|------------------------------------------|----------------|------------------------|-----------------------------|-----------------------------------|----------------------------------------|----------------|--------------------------|------------------------------|------------------------------------------|-----------------------------|-------------------------|
| RdLED 1/2 530mm 3000lm 827-865 39V CN G3 | 1010 147 28346 | 2700                   | 470                         | 2885                              | 2986                                   | 35             | 17                       | 175                          | 80                                       | 1200                        | C                       |
|                                          |                | 6500                   | 470                         | 3130                              | 3240                                   | 35             | 17                       | 190                          | 80                                       | 1200                        |                         |

### RdLED CRI 80 LG G2

| Product name                      | Ordering code  | Colour temperature [K] | Current nominal If nom [mA] | Luminous flux <sup>1</sup> Φ [lm] | Useful luminous flux <sup>2</sup> [lm] | Voltage Vf [V] | Power <sup>1</sup> P [W] | Efficacy <sup>1</sup> [lm/W] | Current minimum If min <sup>3</sup> [mA] | Current maximum If max [mA] | Energy Efficiency Class |
|-----------------------------------|----------------|------------------------|-----------------------------|-----------------------------------|----------------------------------------|----------------|--------------------------|------------------------------|------------------------------------------|-----------------------------|-------------------------|
| RdLED 530mm 4000lm 830 42V LG G2  | 1010 147 82146 |                        | 570                         | 3954                              | 4077                                   | 38             | 21                       | 185                          | 180                                      | 3600                        | C                       |
| RdLED 530mm 4000lm 830 126V LG G2 | 1010 147 82346 | 3000                   | 190                         | 3954                              | 4077                                   | 113            | 21                       | 185                          | 60                                       | 1200                        | C                       |
| RdLED 530mm 4000lm 840 42V LG G2  | 1010 147 82246 |                        | 570                         | 4201                              | 4332                                   | 38             | 21                       | 196                          | 180                                      | 3600                        | C                       |
| RdLED 530mm 4000lm 840 126V LG G2 | 1010 147 82446 | 4000                   | 190                         | 4201                              | 4332                                   | 113            | 21                       | 196                          | 60                                       | 1200                        | C                       |

<sup>1</sup>At nominal current and T<sub>p</sub>

<sup>2</sup>At nominal current and 25°C

<sup>3</sup>It is recommended not to operate below minimum current in order to avoid un-even brightness

Tolerance range for optical and electrical ±10%

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## Temperature &amp; 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-condensing) | [%]  | 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 | CIE <sub>x</sub> | CIE <sub>y</sub> |
|--------------------|------------------|------------------|
| 2700K              | 0.4578           | 0.4101           |
| 3000K              | 0.4338           | 0.4030           |
| 4000K              | 0.3818           | 0.3797           |
| 6500K              | 0.3123           | 0.3282           |

## Certificates &amp; standards

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

## Lumen maintenance

for LE G5, LG G2, LA G3

| Forward current | Tp temp.     | L70 [h]  |          | L80 [h]  |          | L90 [h]  |          |
|-----------------|--------------|----------|----------|----------|----------|----------|----------|
|                 |              | B50      | B10      | B50      | B10      | B50      | B10      |
| If nom          | 45°C>100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
|                 | 55°C>100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
|                 | 65°C>100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 |
|                 | 75°C>100 000 | >100 000 | >100 000 | >100 000 | >100 000 | >100 000 | 98 000   |
|                 | 85°C>100 000 | >100 000 | >100 000 | >100 000 | >100 000 | 81 000   | 73 000   |
| If max          | 45°C>100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   | 42 000   |
|                 | 55°C>100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   | 42 000   |
|                 | 65°C>100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   | 42 000   |
|                 | 75°C>100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   | 42 000   |
|                 | 85°C>100 000 | >100 000 | 92 000   | 87 000   | 45 000   | 42 000   | 42 000   |

Calculated data based on LM80 LED data (12 000h)

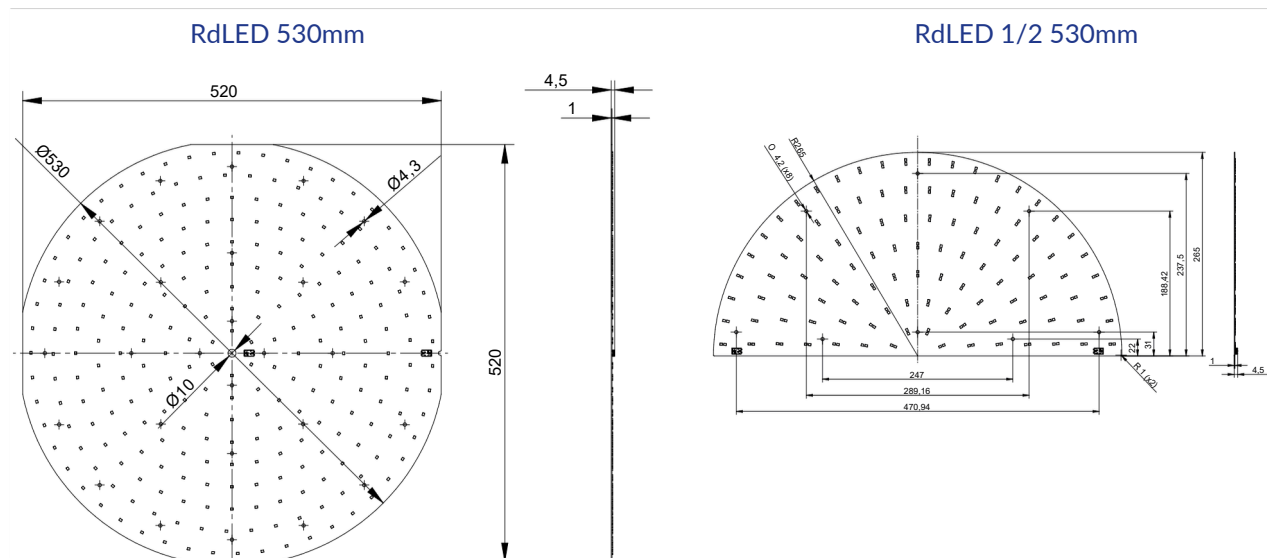
for CJ G4, CN G3

| 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 | >102 000 | >102 000 | >102 000 |
|                 | 55°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 |
|                 | 65°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | 89 000   | 88 000   |
|                 | 75°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | 75 000   | 74 000   |
|                 | 85°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | 64 000   | 63 000   |
| If max          | 45°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 | >102 000 |
|                 | 55°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | 97 000   | 96 000   |
|                 | 65°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | 82 000   | 81 000   |
|                 | 75°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | 69 000   | 68 000   |
|                 | 85°C>102 000 | >102 000 | >102 000 | >102 000 | >102 000 | 59 000   | 58 000   |

Reported data based on LM80 LED data (17 000h)

## Round LED modules 530mm & 1/2 530mm

### Dimensions



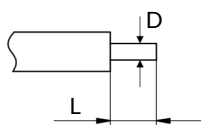
### Mounting

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 <sup>2</sup> | 0.75mm <sup>2</sup> |
|                                                   | AWG 24             | AWG 18              |

| L - strip length | Min | Max |
|------------------|-----|-----|
|                  | 8mm | 9mm |

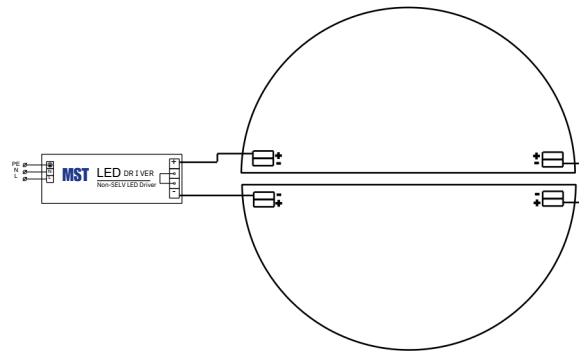
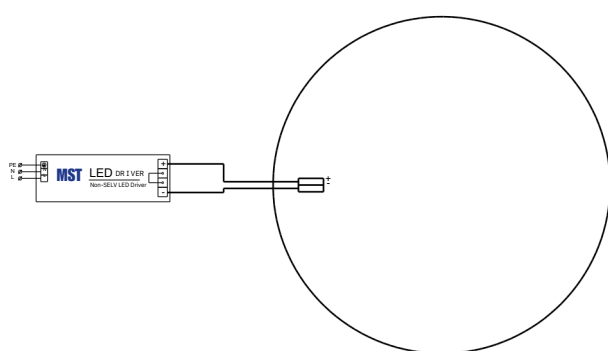
Opening for the release of wires from the top with release pin Electroterminal art. 881 167 884:



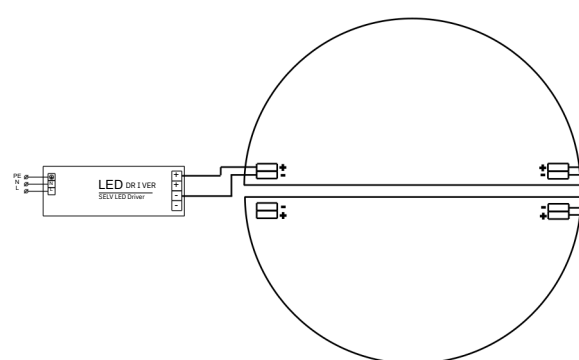
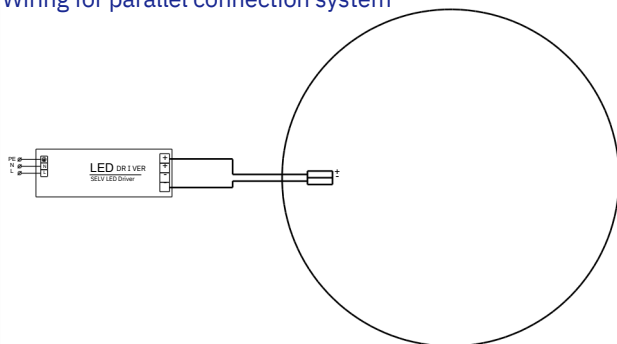
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### Connections

#### 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.

### Ordering codes

| Product name                             | Ordering code  | Pieces per box | Pieces per pallet | Box dimensions [mm] |
|------------------------------------------|----------------|----------------|-------------------|---------------------|
| RdLED 1/2 530mm 3000lm 827-865 39V CJ G4 | 1010 147 28446 | 12             | 672               | 553 x 283 x 58      |
| RdLED 530mm 4000lm 830 42V CJ G4         | 1010 147 82546 | 12             | 336               | 548 x 548 x 58      |
| RdLED 530mm 4000lm 830 126V CJ G4        | 1010 147 82746 | 12             | 336               | 548 x 548 x 58      |
| RdLED 530mm 4000lm 840 42V CJ G4         | 1010 147 82646 | 12             | 336               | 548 x 548 x 58      |
| RdLED 530mm 4000lm 840 126V CJ G4        | 1010 147 82846 | 12             | 336               | 548 x 548 x 58      |
| RdLED 1/2 530mm 3000lm 827-865 39V CN G3 | 1010 147 28346 | 12             | 672               | 553 x 283 x 58      |
| RdLED 530mm 4000lm 830 42V LG G2         | 1010 147 82146 | 12             | 336               | 548 x 548 x 58      |
| RdLED 530mm 4000lm 830 126V LG G2        | 1010 147 82346 | 12             | 336               | 548 x 548 x 58      |
| RdLED 530mm 4000lm 840 42V LG G2         | 1010 147 82246 | 12             | 336               | 548 x 548 x 58      |
| RdLED 530mm 4000lm 840 126V LG G2        | 1010 147 82446 | 12             | 336               | 548 x 548 x 58      |