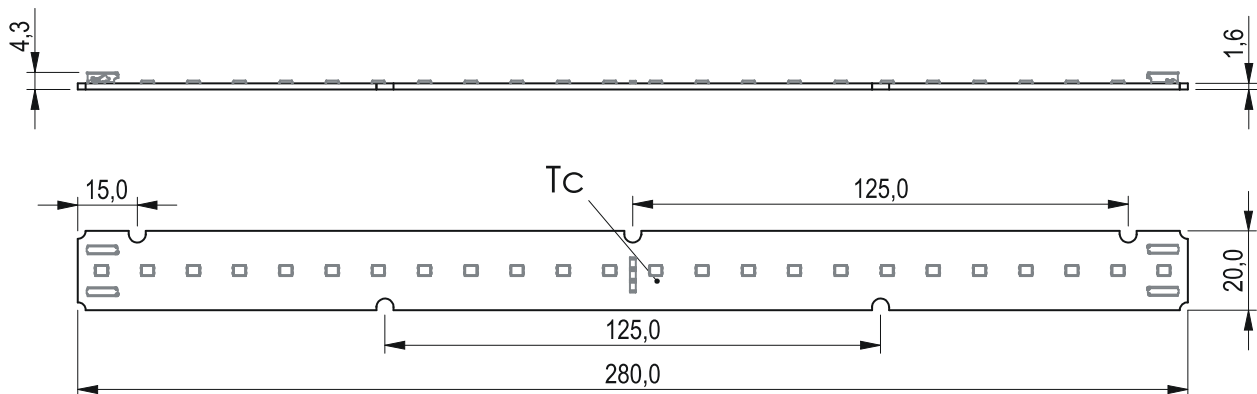


A2820L24

Drawing



Technical data

| | |
|-------------------------------------|----------------|
| Nominal forward current | 350 / 700 mA |
| Maximum forward current | 600 / 1200 mA |
| Ambient temperature range | -25 ... +45 °C |
| tc | 85 °C |
| tp rated | 45 °C |
| Lumen maintenance L80B10 | 60000h |
| Lumen maintenance L70B50 | >72000h |
| Max. working voltage for insulation | 400 V |
| Insulation test voltage | 1800 V |
| Classification acc. to IEC 62031 | Built-in |
| Risk group (IEC 62471) | RG1 |
| Type of protection | IP00 |
| Beam characteristic | 120 ° |

Product details

- Built-in LED module
- Long life-time
- Ideal for linear luminaires
- Perfectly uniform light
- Dimmension according to L28W2
- 5 years guarantee

| Product code | Photometric code | Useful luminous flux at tp=25 °C | Expected luminous flux at tp rated | Forward current | Min. forward voltage at tp=85 °C | Max. forward voltage at tp=25 °C | Power consumption at tp=25 °C | Efficacy at tp=25 °C | Expected efficacy of at tp rated | Energy classification |
|------------------|------------------|----------------------------------|------------------------------------|-----------------|----------------------------------|----------------------------------|-------------------------------|----------------------|----------------------------------|-----------------------|
| A2820L24-350-827 | 827/359 | 1330 lm | 1280 lm | 350 mA | 21,8 V | 23,2 V | 7,9 W | 167 lm/W | 163 lm/W | D |
| A2820L24-350-830 | 830/359 | 1370 lm | 1320 lm | 350 mA | 21,8 V | 23,2 V | 7,9 W | 172 lm/W | 167 lm/W | C |
| A2820L24-350-840 | 840/359 | 1430 lm | 1370 lm | 350 mA | 21,8 V | 23,2 V | 7,9 W | 180 lm/W | 175 lm/W | C |
| A2820L24-350-850 | 850/359 | 1430 lm | 1370 lm | 350 mA | 21,8 V | 23,2 V | 7,9 W | 180 lm/W | 175 lm/W | C |
| A2820L24-700-827 | 827/359 | 1330 lm | 1280 lm | 700 mA | 10,9 V | 11,6 V | 7,9 W | 167 lm/W | 163 lm/W | D |
| A2820L24-700-830 | 830/359 | 1370 lm | 1320 lm | 700 mA | 10,9 V | 11,6 V | 7,9 W | 172 lm/W | 167 lm/W | C |
| A2820L24-700-840 | 840/359 | 1430 lm | 1370 lm | 700 mA | 10,9 V | 11,6 V | 7,9 W | 180 lm/W | 175 lm/W | C |
| A2820L24-700-850 | 850/359 | 1430 lm | 1370 lm | 700 mA | 10,9 V | 11,6 V | 7,9 W | 180 lm/W | 175 lm/W | C |



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| | | | | | | | | | | |
|------------------|---------|---------|---------|--------|-------|--------|-------|----------|----------|---|
| A2820L24-350-927 | 927/359 | 1110 lm | 1070 lm | 350 mA | 22,2V | 23,6 V | 8,1 W | 137 lm/W | 133 lm/W | E |
| A2820L24-350-930 | 930/359 | 1130 lm | 1100 lm | 350 mA | 22,2V | 23,6 V | 8,1 W | 140 lm/W | 137 lm/W | E |
| A2820L24-350-940 | 940/359 | 1190 lm | 1150 lm | 350 mA | 22,2V | 23,6 V | 8,1 W | 147 lm/W | 143 lm/W | D |
| A2820L24-700-927 | 927/359 | 1110 lm | 1070 lm | 700 mA | 11,1V | 11,8 V | 8,1 W | 137 lm/W | 133 lm/W | E |
| A2820L24-700-930 | 930/359 | 1130 lm | 1100 lm | 700 mA | 11,1V | 11,8 V | 8,1 W | 140 lm/W | 137 lm/W | E |
| A2820L24-700-940 | 940/359 | 1190 lm | 1150 lm | 700 mA | 11,1V | 11,8 V | 8,1 W | 147 lm/W | 143 lm/W | D |

| Multiplier | tp 25 °C | tp 45 °C | tp 65 °C | tp 85 °C | If 350 mA | If 400 mA | If 500 mA | If 600 mA |
|------------------------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| Expected luminous flux | 1 | 0,96 | 0,93 | 0,89 | 1 | 1,13 | 1,40 | 1,67 |
| Efficacy | 1 | 0,97 | 0,94 | 0,91 | 1 | 0,98 | 0,96 | 0,93 |

Thermal details

Temperature has a great influence on the lifetime of LED products. Exceeding the permissible temperatures can significantly shorten the life of the module or even lead to its destruction. It is necessary to verify compliance with the maximum allowable temperature at the reference point under stable operating conditions. The maximum value should be determined based on the application-specific worst-case conditions. Both reference point temperatures (t_c and t_p) are measured at the same location.

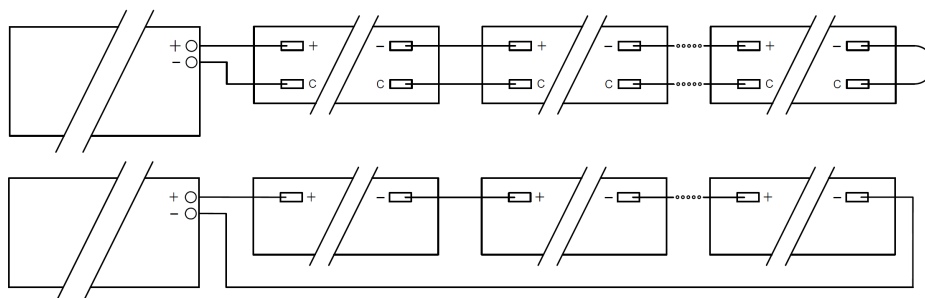
Instalation

The module are not protected against overvoltages, overcurrents,overloads or short-circuit currents. Wrong polarity can damage the module. The module must be powered by a SELV or non-SELV constant current LED driver. Module can be mounted diectly on earthed metal parts of luminaire only when max working voltage for insulation is higher than max. output voltage of LED driver (also against earth). Otherwise additional insulation between LED module and heat sink is required. At voltages > 60 V an additional protection against direct touch (test finger) to the light emitting side of the module has to be guaranteed. This is typically achieved by means of a non removable light distributor over the module or by a suitable luminaire construction.

Risk of sulfurization

The LED uses a silver-plated lead frame and its surface color may change to black (or dark colored) when it is exposed to sulfur (S),chlorine (Cl) or other halogen compound. Sulfurization of lead frame may cause intensity degradation, change of chromaticity coordinates and, in extreme cases, open circuit. It requires caution. Due to possible sulfurization of lead frame, the LED Modules should not be usedand stored together with oxidizing substances made of materials such as rubber, plain paper, lead solder cream, etc.

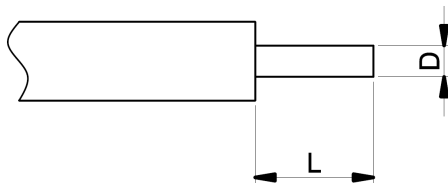
Wiring example



A2820L24

Wiring type and cross section

The wiring can be in stranded wires or solid with a cross section of 0.2 to 0.75mm².



| | | |
|------------------------|--------------------|---------------------|
| D - wire cross section | Min | Max |
| | 0,2mm ² | 0,75mm ² |
| L - strip length | Min | Max |
| | 7,5mm | 9,5mm |

Photometric code

| 1 digit | 2+3 digit | 4 digit | 5 digit | 6 digit |
|---------|---------------------------------------|-----------------|--|--|
| CRI | Colour temperature in Kelvin x 100 | MacAdam initial | Mac Adam after 25 % of the lifetime (max. 6000 h) | Luminous flux after 25% of the lifetime (max. 6000 h) |
| 7 70-79 | | | | 7 ≥ 70 |
| 8 80-89 | | | | 8 ≥ 80 |
| 9 ≥90 | | | | 9 ≥ 90 |