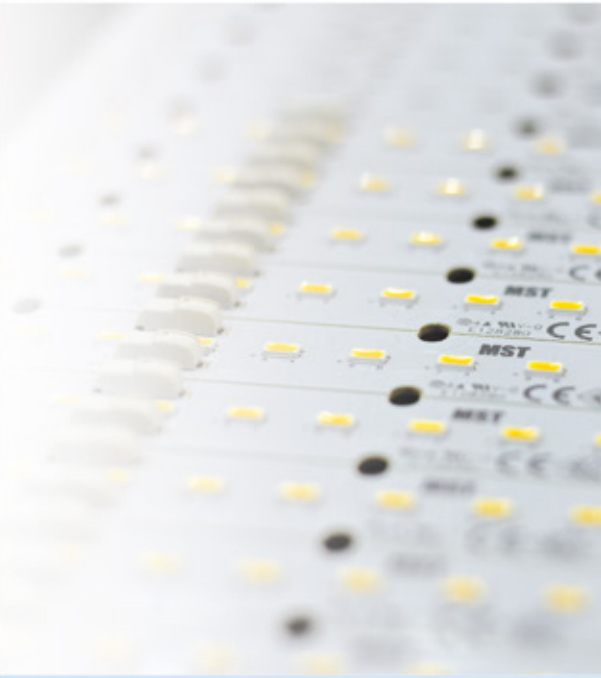
MST | *Your solutions*



- LED Indoor modules
- LED Outdoor modules
- LED UVC modules
- LED Drivers
- HID systems
- Compensational coils

Catalogue 2022/2023

MST | *Your solutions*

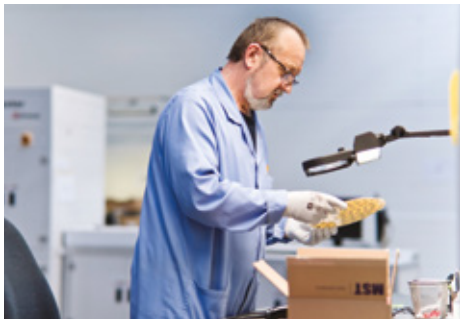
Our company operates in the electronics industry and produces lighting components.

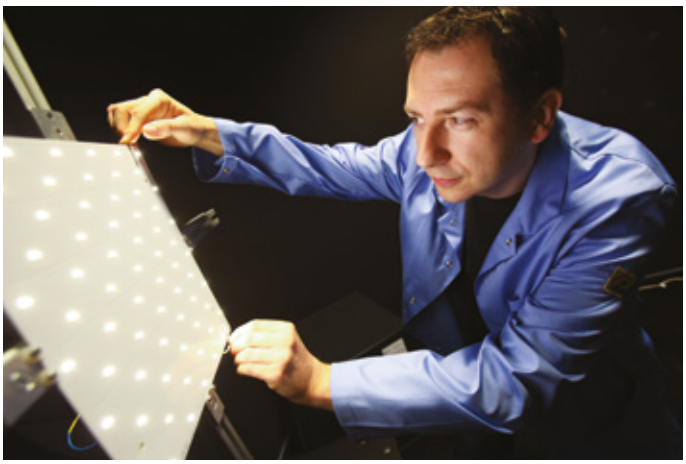
Mission

We enable our customers develop their businesses by providing competitive products, services and comprehensive solutions.

Vision

To maintain a profitable business in a competitive environment, we want to shape MST as a highly competent, cost-effective organization. Our strategic ambition is to exceed the market requirements by anticipating the changes in the business environment and management of business risk with the use of alternative scenarios.





About us

MST Sp. z o.o. Sp. k. arose from the management buyout of Philips Lighting electromagnetic ballasts factory in Kętrzyn.

We have been specializing in producing components for the lighting industry since 1996 and building our own MST brand since 2011.

Our portfolio includes conventional components as well as the latest technology LED modules and LED drivers.

The main region of our activity is Europe, Middle East and Africa, although with our products we also reach the farthest corners of the world.

Quality and competence

We have a laboratory accredited by the DEKRA in accordance with the norm 17025.
Our processes operate in accordance with VDA and ISO procedures.

Possess quality certificates: ISO 9001, 14001, OHSAS 18001.

We offer innovative technological and product solutions, both standard and designed for special requirements. We support our clients with knowledge and experience in the development process at every stage of the project.

Successively develop and invest in equipment and technologies so that our production processes are as effective as possible and the quality is at the highest, repeatable level.

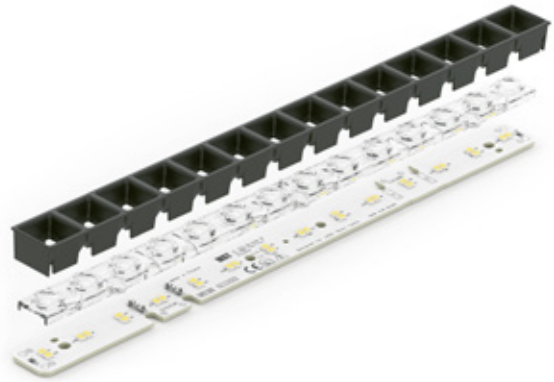
According the Golden Tail Strategy, we assume continuation sales of conventional products (HID ballasts, ignitors and electromagnetic ballasts for fluorescent lamps) until they are completely withdrawn by the market.

For more information, visit us at **www.mst.pl**

Table of contents

Linear LED modules
280x20mm DAISY-MINI 2C

A linear solution for premium class indoor lighting.
Optimized for LEDiL's DAISY-MINI optics.



Product description

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

LinLED 2C CRI 80 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x20mm 2x550lm 827-865 2x2C 42V DAISY-MINI G1	1010 117 67946	2700	85	542	571	39	3.3	163	10	150	D
		6500	85	587	618	39	3.3	176	10	150	
LinLED 280x20mm 1100lm 830 2C 42V DAISY-MINI G1	1010 117 68046	3000	165	1106	1145	40	6.5	170	20	300	C
LinLED 280x20mm 1100lm 840 2C 42V DAISY-MINI G1	1010 117 68146	4000	165	1162	1202	40	6.5	178	20	300	C

LinLED 2C CRI 90 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x20mm 2x550lm 927-965 2x2C 42V DAISY-MINI G1	1010 127 05146	2700	95	497	516	41	3.9	127	10	150	E
		6500	95	571	592	41	3.9	146	10	150	
LinLED 280x20mm 1100lm 927 2C 42V DAISY-MINI G1	1010 117 97746	2700	190	995	1031	41	7.8	127	20	300	E
LinLED 280x20mm 1100lm 930 2C 42V DAISY-MINI G1	1010 117 97846	3000	190	1069	1108	41	7.8	136	20	300	E
LinLED 280x20mm 1100lm 940 2C 42V DAISY-MINI G1	1010 117 97946	4000	190	1142	1184	41	7.8	146	20	300	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%

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

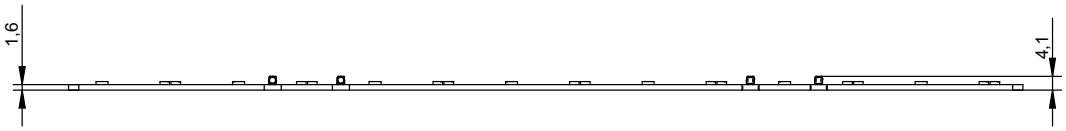
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

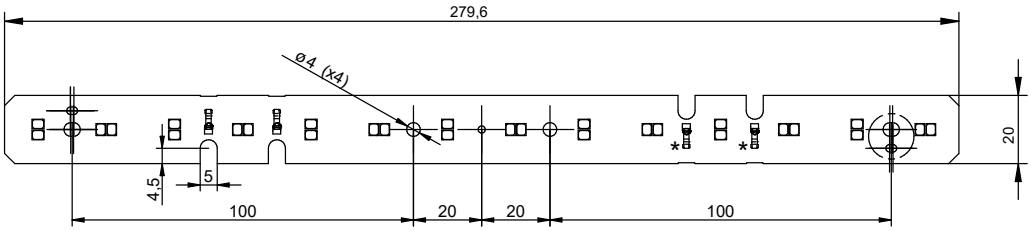
Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	250
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

Product name	Ordering code	Connectors (*)
LinLED 280x20mm 2x550lm 827-865 2x2C 42V DAISY-MINI G1	1010 117 67946	Yes
LinLED 280x20mm 1100lm 830 2C 42V DAISY-MINI G1	1010 117 68046	No
LinLED 280x20mm 1100lm 840 2C 42V DAISY-MINI G1	1010 117 68146	No
LinLED 280x20mm 2x550lm 927-965 2x2C 42V DAISY-MINI G1	1010 127 05146	Yes
LinLED 280x20mm 1100lm 927 2C 42V DAISY-MINI G1	1010 117 97746	No
LinLED 280x20mm 1100lm 930 2C 42V DAISY-MINI G1	1010 117 97846	No
LinLED 280x20mm 1100lm 940 2C 42V DAISY-MINI G1	1010 117 97946	No

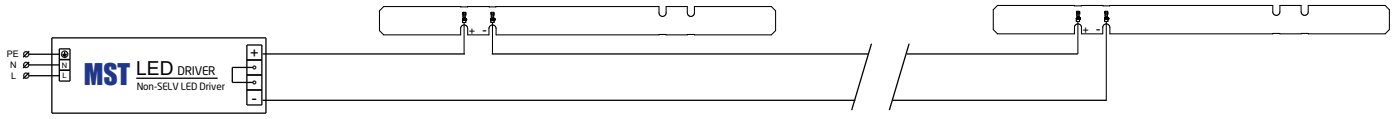


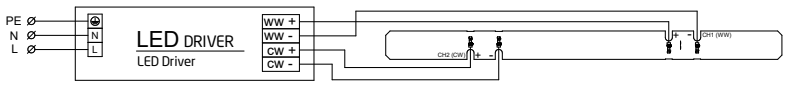


Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x20mm...	[pcs]	6	-

Wiring for series connection system (2C)





Linear LED modules
280x18mm DAISY-MINI 4C

A linear solution for premium class indoor lighting.
Optimized for LEDiL's DAISY-MINI optics.

Product description

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

LinLED 4C CRI 80 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x18mm 1100lm 830 4C 42V DAISY-MINI G1	1010 127 27846	3000	165	1107	1145	38	6.3	176	20	300	C
LinLED 280x18mm 1100lm 840 4C 42V DAISY-MINI G1	1010 127 27946	4000	165	1162	1203	38	6.3	184	20	300	C

LinLED 4C CRI 90 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x18mm 1100lm 927 4C 42V DAISY-MINI G1	1010 127 26446	2700	190	1000	1037	41	7.8	128	20	300	E
LinLED 280x18mm 1100lm 930 4C 42V DAISY-MINI G1	1010 127 26546	3000	190	1074	1113	41	7.8	137	20	300	E
LinLED 280x18mm 1100lm 940 4C 42V DAISY-MINI G1	1010 127 26646	4000	190	1148	1190	41	7.8	147	20	300	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%

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

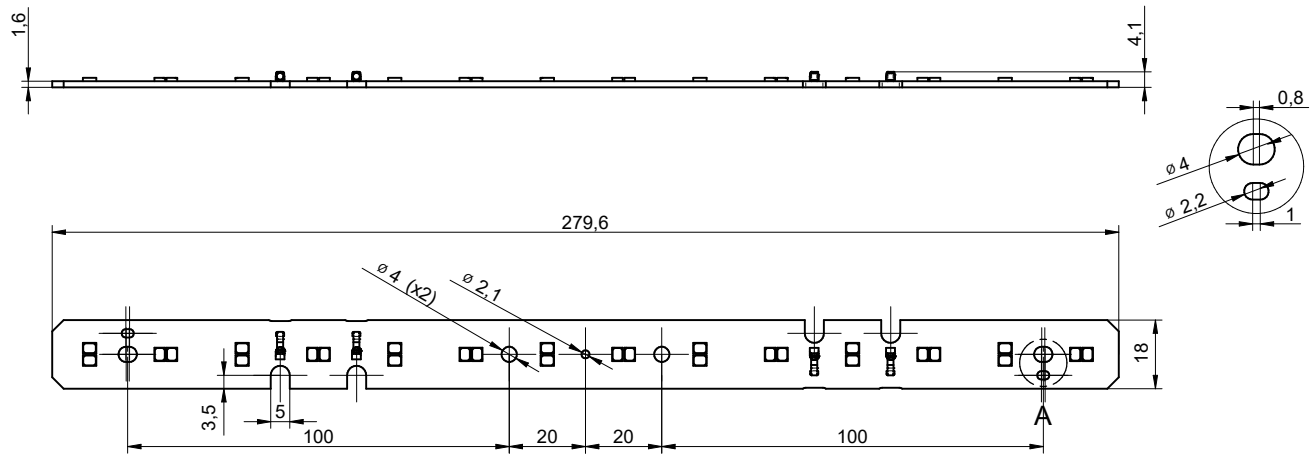
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

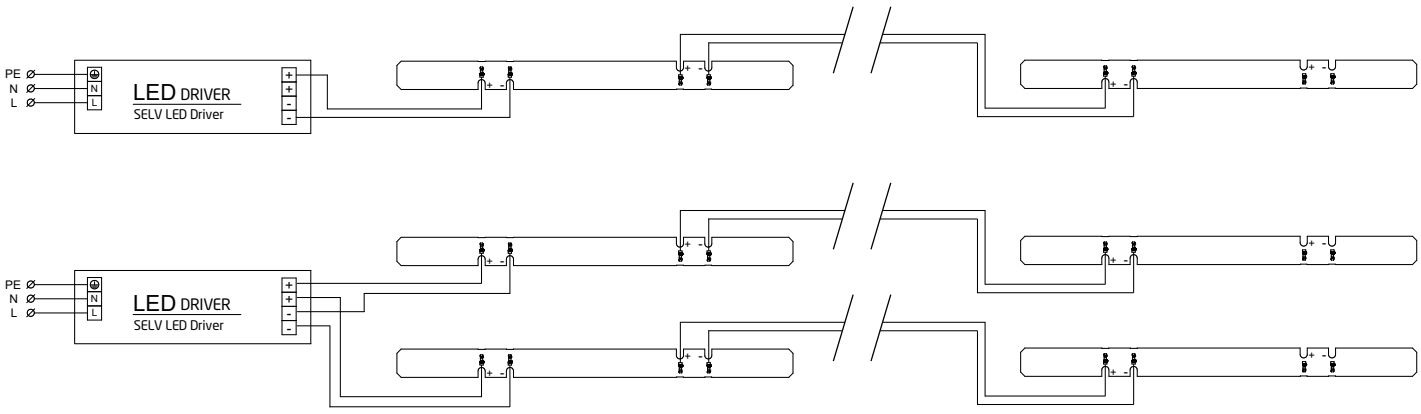
LinLED 280x20mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x18mm...	[pcs]	-	6

Wiring for parallel connection system (4C)



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.

Linear LED modules
156x28mm DAISY-4x1

A linear solution for premium class indoor lighting.
Optimized for LEDiL's DAISY-4x1 optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 156x28mm 2x200lm 827-865 2x2C 12V Opt G1	1010 117 46746	2700	110	193	199	12	1.3	151	10	150	D
		6500	110	209	215	12	1.3	163	10	150	
LinLED 156x28mm 2x400lm 827-865 2x2C 12V Opt G1	1010 117 49846	2700	220	386	398	12	2.6	151	20	300	D
		6500	220	418	430	12	2.6	163	20	300	
LinLED 156x28mm 400lm 830 2C 12V Opt G1	1010 117 46846	3000	220	397	410	12	2.6	155	20	300	D
LinLED 156x28mm 800lm 830 2C 12V Opt G1	1010 117 49946		440	794	819	12	5.1	155	40	600	D
LinLED 156x28mm 400lm 840 2C 12V Opt G1	1010 117 46946	4000	220	418	430	12	2.6	163	20	300	D
LinLED 156x28mm 800lm 840 2C 12V Opt G1	1010 117 50046		440	835	861	12	5.1	163	40	600	D

LinLED CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 156x28mm 2x400lm 927-965 2x2C 12V Opt G1	1010 117 65446	2700	260	373	386	12	3.1	119	20	300	E
		6500	260	428	444	12	3.1	137	20	300	
LinLED 156x28mm 800lm 930 2C 12V Opt G1	1010 127 07046	3000	485	754	781	12	5.8	130	40	600	E
LinLED 156x28mm 800lm 940 2C 12V Opt G1	1010 117 75446	4000	485	806	835	12	5.8	139	40	600	E

[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%

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

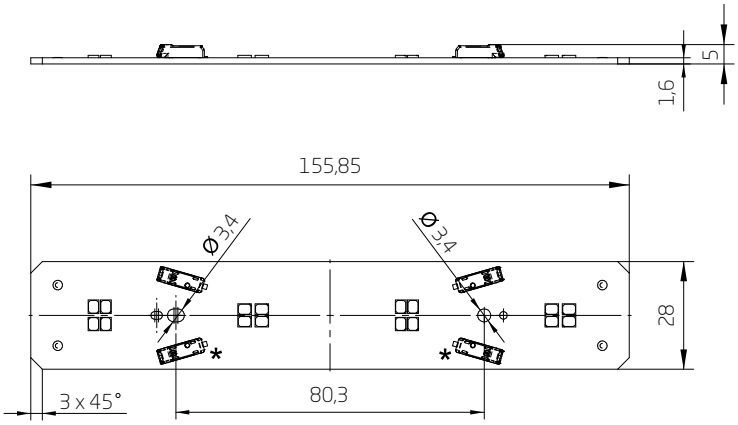
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

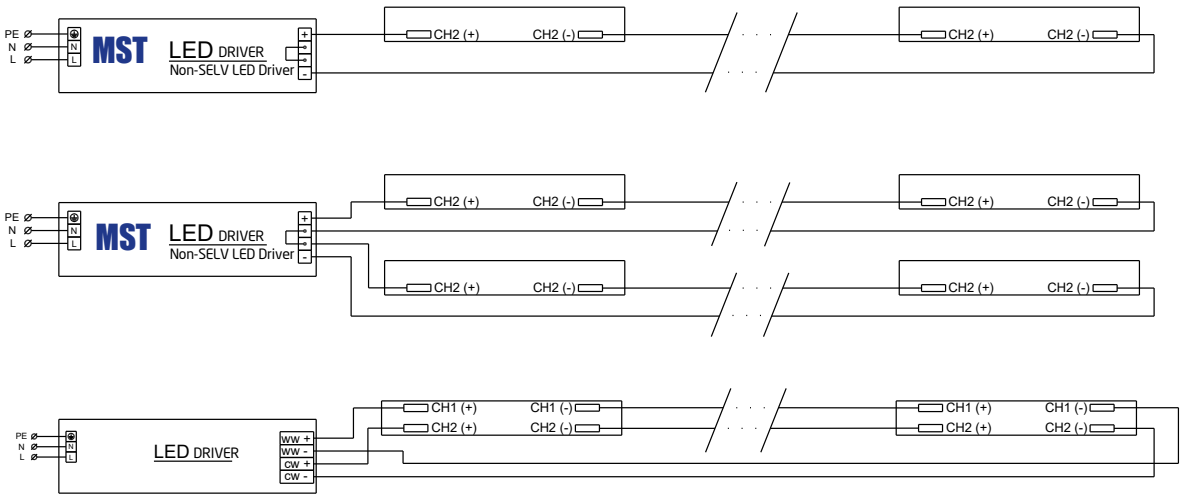
Product name	Ordering code	Connectors (*)
LinLED 156x28mm 2x200lm 827-865 2x2C 12V Opt G1	1010 117 46746	Yes
LinLED 156x28mm 2x400lm 827-865 2x2C 12V Opt G1	1010 117 49846	Yes
LinLED 156x28mm 400lm 830 2C 12V Opt G1	1010 117 46846	No
LinLED 156x28mm 800lm 830 2C 12V Opt G1	1010 117 49946	No
LinLED 156x28mm 400lm 840 2C 12V Opt G1	1010 117 46946	No
LinLED 156x28mm 800lm 840 2C 12V Opt G1	1010 117 50046	No
LinLED 156x28mm 2x400lm 927-965 2x2C 12V Opt G1	1010 117 65446	Yes
LinLED 156x28mm 800lm 930 2C 12V Opt G1	1010 127 07046	No
LinLED 156x28mm 800lm 940 2C 12V Opt G1	1010 117 75446	No



Connections

Max number of modules	Unit	Series	Parallel
LinLED 156x28mm...	[pcs]	23	-

Wiring for series connection system (2C)



Linear LED modules
280x28mm DAISY-7x1 2C

A linear solution for premium class indoor lighting.
Optimized for LEDiL's DAISY-7x1 optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED 2C CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x28mm 2x550lm 827-865 2x2C 42V Opt G1	1010 117 64046	2700	85	542	564	39	3.3	163	10	150	D
		6500	85	587	611	39	3.3	176	10	150	
LinLED 280x28mm 1100lm 830 2C 42V Opt G1	1010 117 64146	3000	165	1086	1130	39	6.5	168	20	300	C
LinLED 280x28mm 1100lm 840 2C 42V Opt G1	1010 117 64246	4000	165	1142	1189	39	6.5	177	20	300	C

LinLED 2C CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x28mm 1100lm 930 2C 42V Opt G1	1010 127 02846	3000	185	1044	1082	41	7.6	137	20	300	E
LinLED 280x28mm 1100lm 940 2C 42V Opt G1	1010 117 83646	4000	185	1116	1157	41	7.6	147	20	300	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%

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

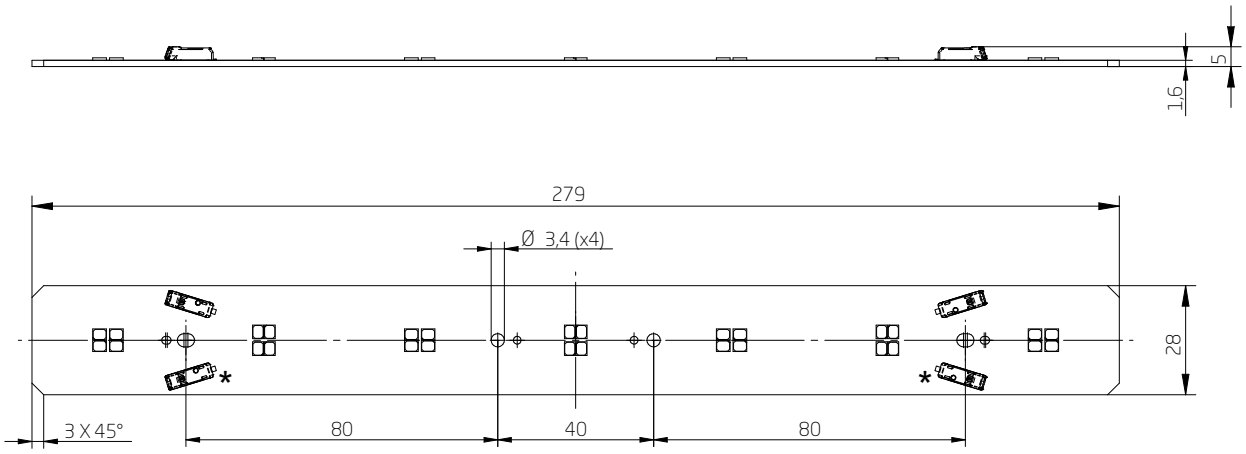
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	260
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

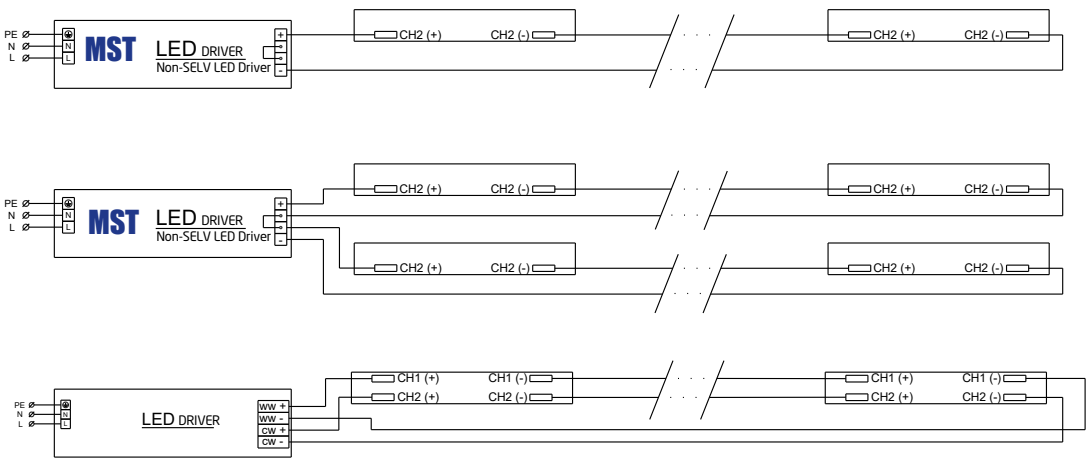
Product name	Ordering code	Connectors (*)
LinLED 280x28mm 2x550lm 827-865 2x2C 42V Opt G1	1010 117 64046	Yes
LinLED 280x28mm 1100lm 830 2C 42V Opt G1	1010 117 64146	No
LinLED 280x28mm 1100lm 840 2C 42V Opt G1	1010 117 64246	No
LinLED 280x28mm 1100lm 930 2C 42V Opt G1	1010 127 02846	No
LinLED 280x28mm 1100lm 940 2C 42V Opt G1	1010 117 83646	No



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x28mm...	[pcs]	6	-

Wiring for series connection system (2C)



Linear LED modules
280x28mm & 560x28mm
DAISY-7x1 4C

A linear solution for premium class indoor lighting.
Optimized for LEDiL's DAISY-7x1 optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 4C - four connectors for parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED 4C CRI 80 ZT25

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x28mm 1600lm 830 4C 21V DAISY 7x1(ZT25)	1010 127 17846	3000	540	1548	1638	19	10	148	10	1500	D
LinLED 280x28mm 1600lm 840 4C 21V DAISY 7x1(ZT25)	1010 127 17946	4000	540	1629	1723	19	10	156	10	1500	D

LinLED 4C CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x28mm 1100lm 830 4C 42V Opt G1	1010 117 89246	3000	165	1107	1145	38	6.3	176	20	300	C
LinLED 560x28mm 2200lm 830 4C 42V Opt G1	1010 127 08946		330	2213	2289	40	13	170	40	600	C
LinLED 280x28mm 1100lm 840 4C 42V Opt G1	1010 117 81446	4000	165	1162	1203	38	6.3	184	20	300	C
LinLED 560x28mm 1100lm 840 4C 42V Opt G1	1010 127 09046		330	2324	2405	40	13	178	40	600	C

LinLED 4C CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x28mm 1100lm 927 4C 42V Opt G1	1010 117 89346	2700	185	972	1008	41	7.6	128	20	300	E
LinLED 280x28mm 1100lm 930 4C 42V Opt G1	1010 117 89446	3000	185	1044	1082	41	7.6	137	20	300	E
LinLED 280x28mm 1100lm 940 4C 42V Opt G1	1010 117 81546	4000	185	1116	1157	41	7.6	147	20	300	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%

Temperature & humidity

Specification item	Unit	Value
Tp	[°C]	45 / 65*
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

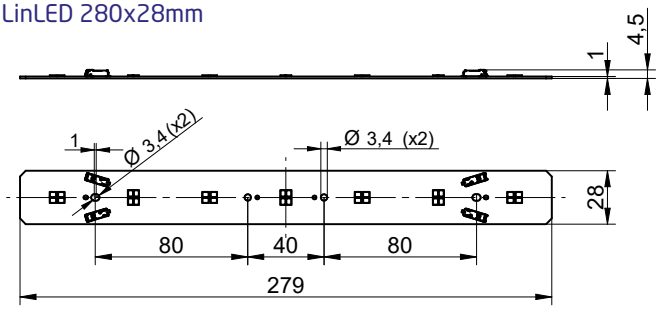
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation
* for LinLED 4C CRI 80 ZT25

Technical data

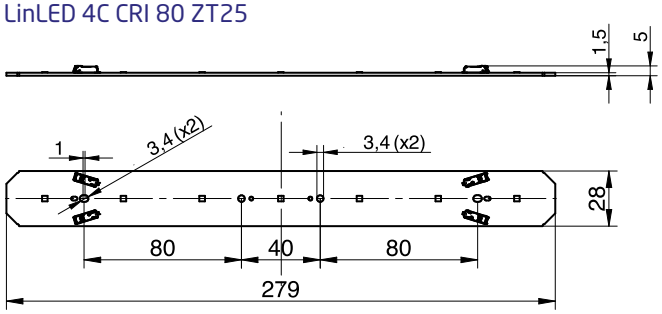
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

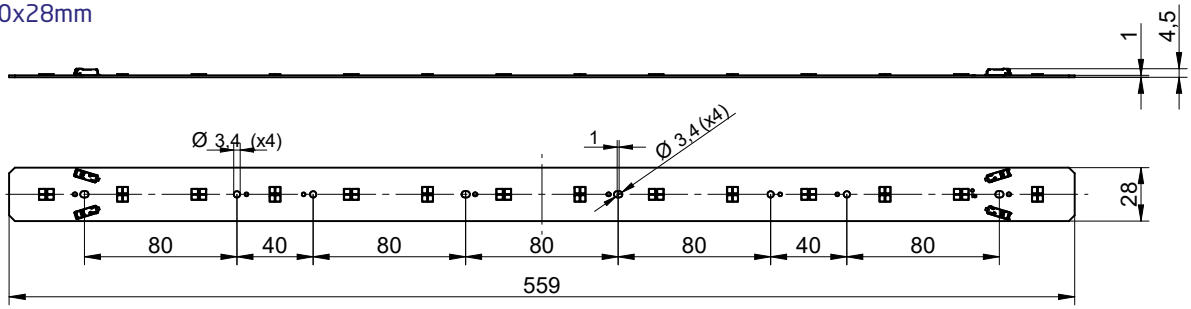
LinLED 280x28mm



LinLED 4C CRI 80 ZT25



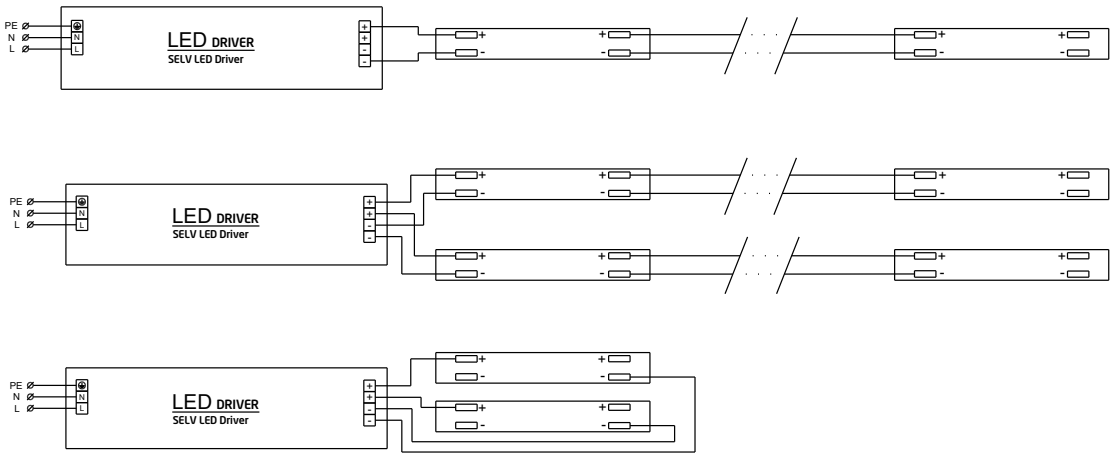
LinLED 560x28mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x28mm...	[pcs]	-	6
LinLED 560x28mm...	[pcs]	-	3

Wiring for parallel connection system (4C)



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.

Linear LED modules
1120x28mm DAISY-28x1 2C

A linear solution for premium class indoor lighting.
Optimized for LEDiL's DAISY-28x1 optics.
Compatible with DAISY-4x1

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED 2C CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 1120x28mm 2x2200lm 827-865 2x2C 84V Opt G1	1010 117 62446	2700	165	2109	2174	80	13	161	20	300	D
		6500	165	2283	2354	80	13	174	20	300	
LinLED 1120x28mm 2200lm 830 2C 84V Opt G1	1010 117 62246	3000	165	2172	2239	80	13	166	20	300	D
LinLED 1120x28mm 4400lm 830 2C 84V Opt G1	1010 117 62546		330	4344	4478	80	26	166	40	600	D
LinLED 1120x28mm 2200lm 840 2C 84V Opt G1	1010 117 62346	4000	165	2283	2354	80	13	174	20	300	C
LinLED 1120x28mm 4400lm 840 2C 84V Opt G1	1010 117 62646		330	4566	4707	80	26	174	40	600	C

[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%

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

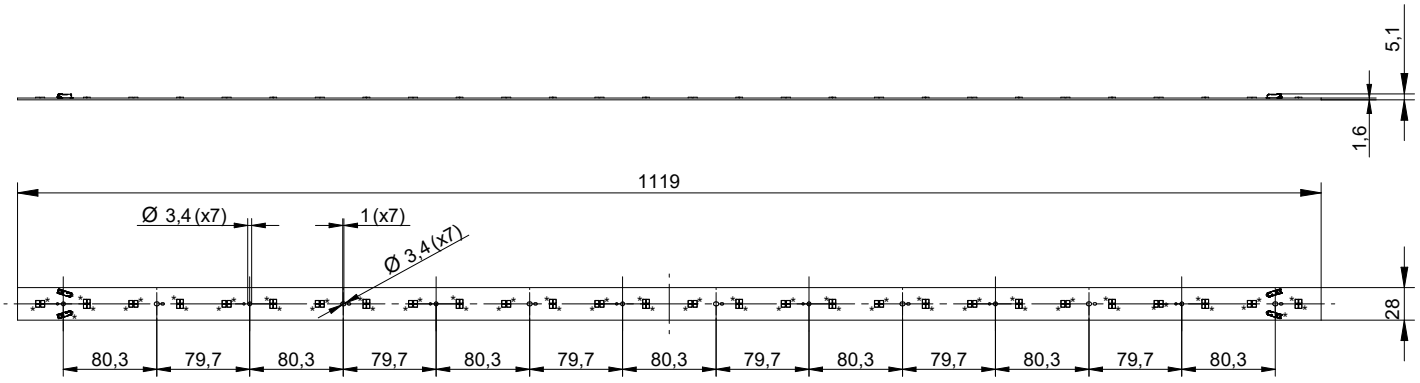
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage		280
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

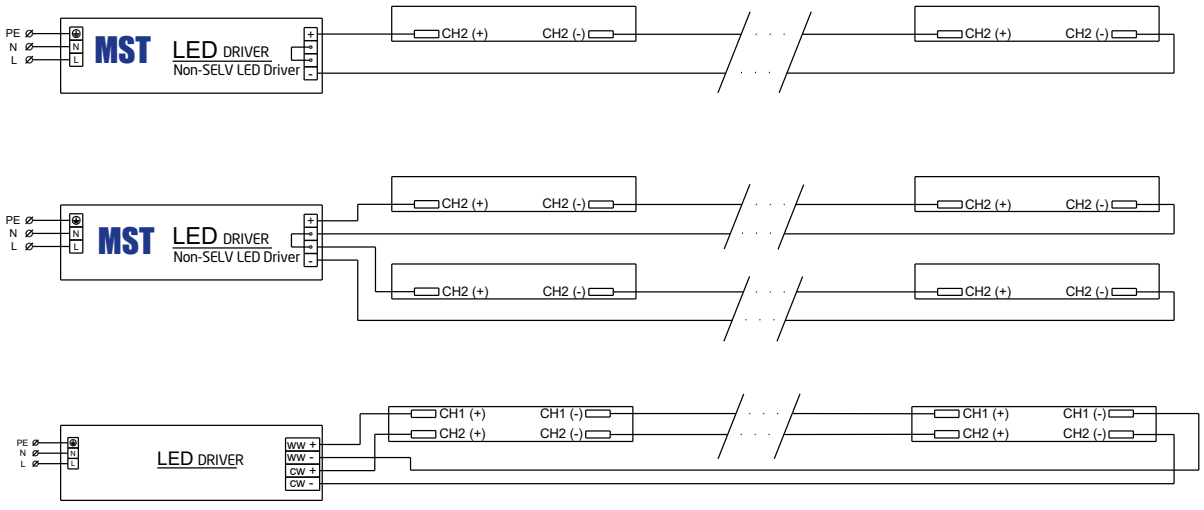
Product name	Ordering code	Connectors (*)
LinLED 1120x28mm 2x2200lm 827-865 2x2C 84V Opt G1	1010 117 62446	Yes
LinLED 1120x28mm 2200lm 830 2C 84V Opt G1	1010 117 62246	No
LinLED 1120x28mm 4400lm 830 2C 84V Opt G1	1010 117 62546	No
LinLED 1120x28mm 2200lm 840 2C 84V Opt G1	1010 117 62346	No
LinLED 1120x28mm 4400lm 840 2C 84V Opt G1	1010 117 62646	No



Connections

Max number of modules	Unit	Series	Parallel
LinLED 1120x28mm...	[pcs]	2	-

Wiring for series connection system (2C)



Linear LED modules
1120x28mm DAISY-28x1 4C

A linear solution for premium class indoor lighting.
Optimized for LEDiL's DAISY-28x1, DAISY-7x1,
DAISY-4x1 optics

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 4C - four connectors for parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED 4C CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 1120x28mm 4400lm 830 4C 42V Opt G1	1010 127 14446	3000	660	4425	4579	39	26	170	80	1200	C
LinLED 1120x28mm 4400lm 840 4C 42V Opt G1	1010 127 14546	4000	660	4648	4809	39	26	178	80	1200	C

[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%

Temperature & humidity

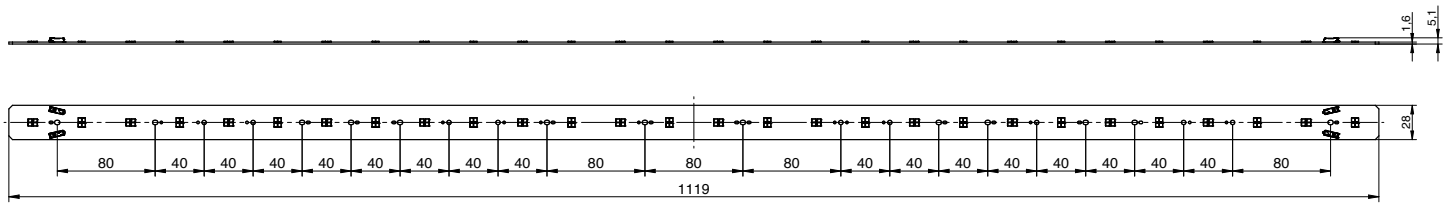
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

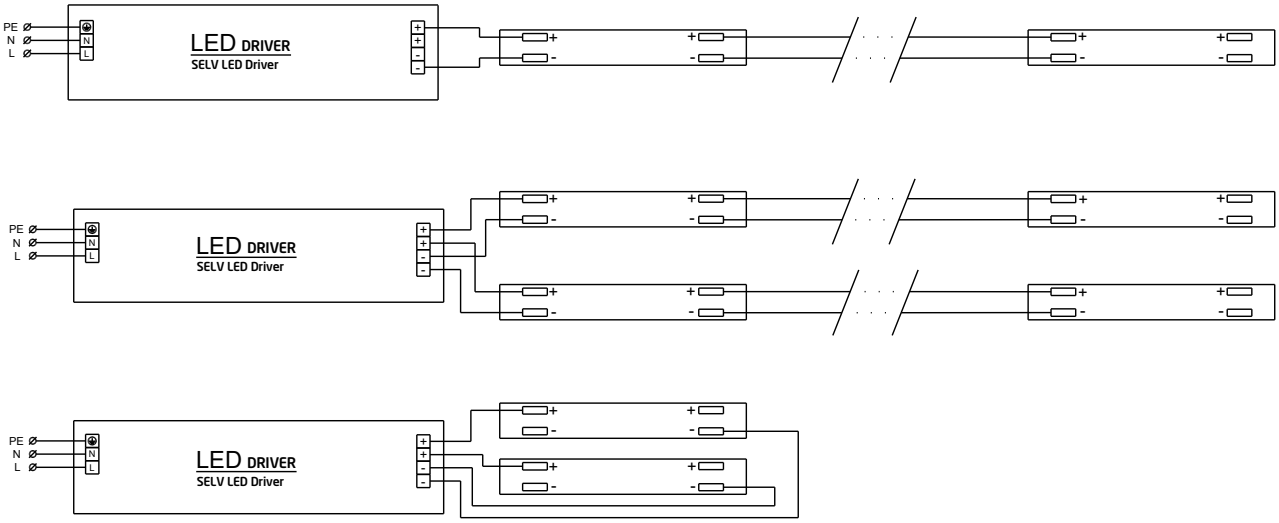
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage		60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions



Connections

Wiring for parallel connection system (4C)



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.

Rectangular LED modules
62x62mm DAISY-2x2

A rectangular solution for premium class indoor lighting. Optimized for LEDiL's DAISY-2x2 optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- Parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2200K to 6500K and CRI 80, 90

RecLED CRI 80 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 62x62mm 1600lm 827-865 36V G1	1010 117 66246	2700	160	762	782	35	5.7	134	20	240	E
		6500	160	824	846	35	5.7	145	20	240	
RecLED 62x62mm 1600lm 830 36V G1	1010 117 66346	3000	330	1627	1671	36	12	138	40	480	E
RecLED 62x62mm 1600lm 840 36V G1	1010 117 66446	4000	330	1723	1770	36	12	147	40	480	D

RecLED CRI 90 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 62x62mm 1600lm 930 36V G1	1010 117 96146	3000	360	1590	1634	35	13	125	40	480	E
RecLED 62x62mm 1600lm 940 36V G1	1010 117 96246	4000	360	1658	1703	35	13	130	40	480	E

[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%

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

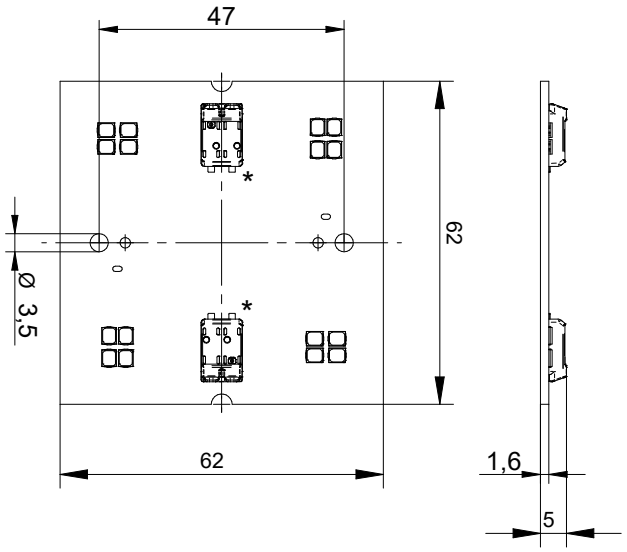
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage		60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

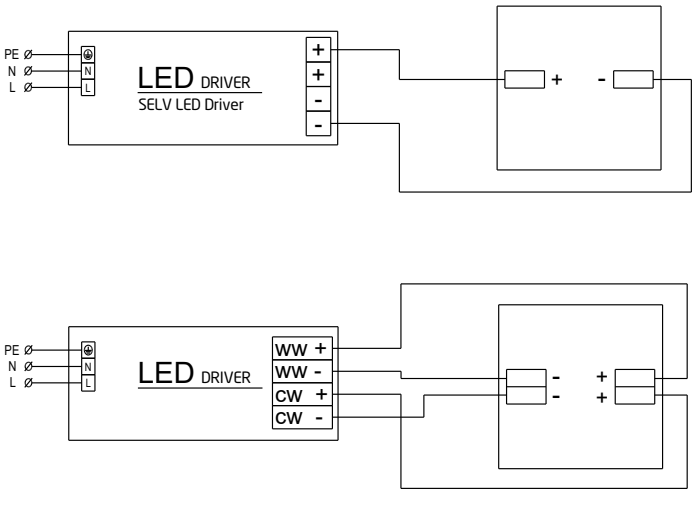
Product name	Ordering code	Connectors (*)
RecLED 62x62mm 1600lm 827-865 36V G1	1010 117 66246	2P
RecLED 62x62mm 1600lm 830 36V G1	1010 117 66346	1P
RecLED 62x62mm 1600lm 840 36V G1	1010 117 66446	1P
RecLED 62x62mm 1600lm 930 36V G1	1010 117 96146	1P
RecLED 62x62mm 1600lm 940 36V G1	1010 117 96246	1P



Connections

Max number of modules	Unit	Series	Parallel
RecLED 62x62mm...	[pcs]	-	1

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.

Linear LED modules
280x24mm LINNEA-GC

A linear solution for premium class indoor lighting.
Optimized for LEDiL's LINNEA-GC optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 1100lm 830 2C 30V Opt G1	1010 117 46546	3000	220	1091	1120	28	6.2	176	30	450	C
LinLED 280x24mm 1100lm 840 2C 30V Opt G1	1010 117 46646	4000	220	1140	1170	28	6.2	184	30	450	C

[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%

Temperature & humidity

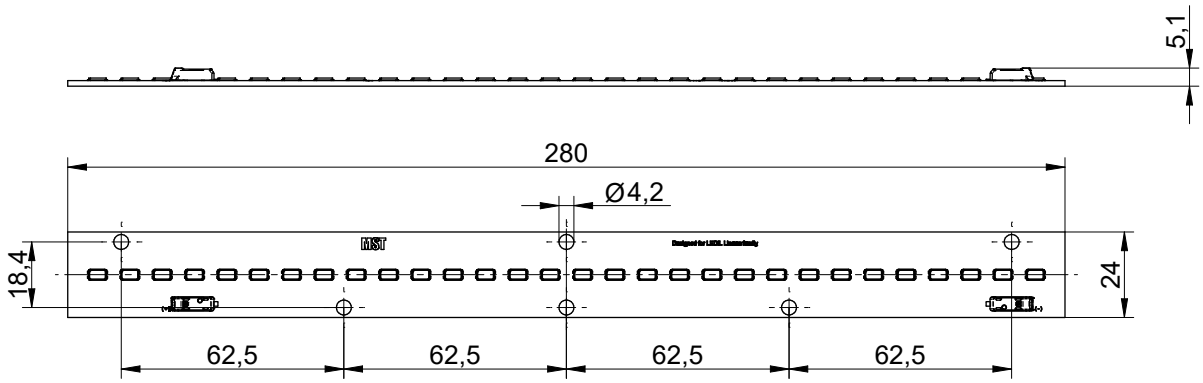
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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]	300
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

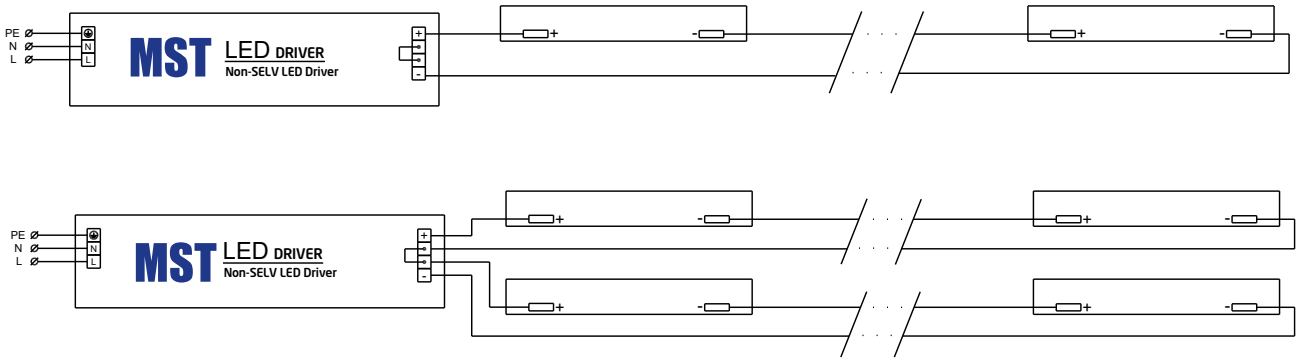
Dimensions



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x24mm...	[pcs]	11	-

Wiring for series connection system (2C)



Linear LED modules
280x24mm LINNEA-GC2

A linear solution for premium class indoor lighting.
Optimized for LEDiL's LINNEA-GC2
and BJB Pitch-dependent Linear Single Row Optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2700K to 6500K and CRI 70, 80, 90

LinLED CRI 80

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 1100lm 830 2C 36V LINNEA-GC2	1010 127 22346	3000	330	1813	1866	35	11	159	20	700	D
LinLED 280x24mm 1100lm 840 2C 36V LINNEA-GC2	1010 127 22446	4000	330	1925	1981	35	11	169	20	700	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%

Temperature & humidity

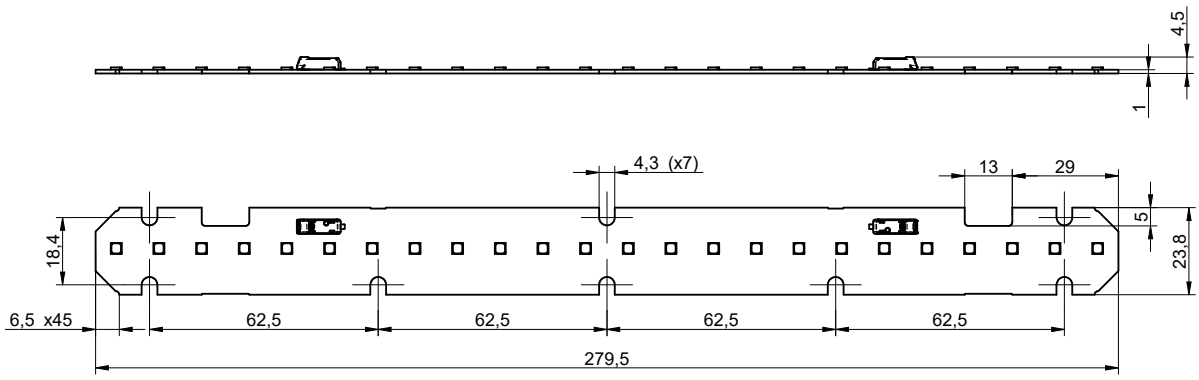
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

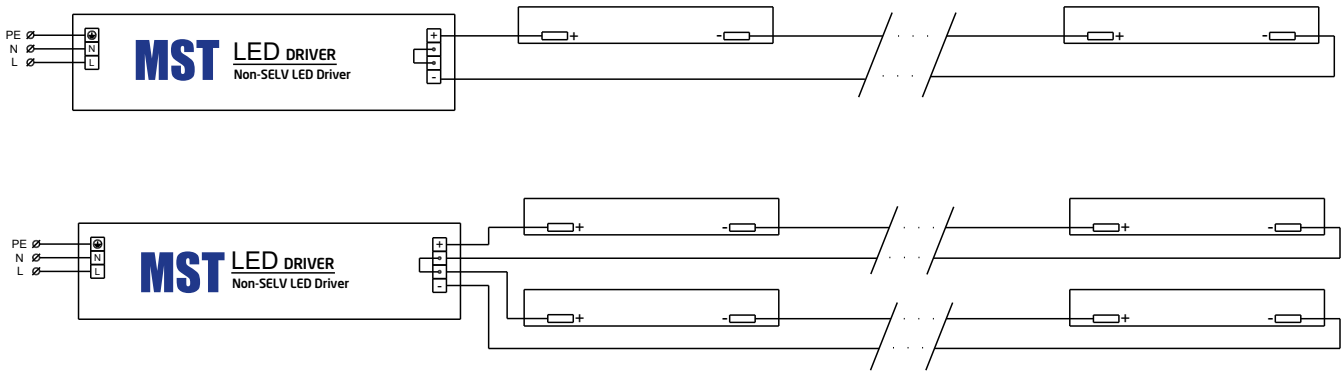
Dimensions



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x24mm...	[pcs]	9	-

Wiring for series connection system (2C)



Linear LED modules
280x26mm CLAUDIA

A linear solution for retail and industrial lighting.
Optimized for LEDiL's CLAUDIA optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x26mm 2x650lm 827-865 2C 42V Opt G1	1010 117 55846	2700	100	629	652	39	4.0	162	20	240	D
		6500	100	702	728	39	4.0	181	20	240	
LinLED 280x26mm 1000lm 830 2C 42V Opt G1	1010 117 62746	3000	145	964	1003	39	5.6	171	20	300	C
LinLED 280x26mm 1300lm 830 2C 42V Opt G1	1010 117 55546		185	1196	1240	39	7.0	167	40	400	C
LinLED 280x26mm 1000lm 840 2C 42V Opt G1	1010 117 62846	4000	145	1013	1054	39	5.6	180	20	300	C
LinLED 280x26mm 1300lm 840 2C 42V Opt G1	1010 117 52946		185	1304	1353	39	7.0	183	40	400	C

[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%

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

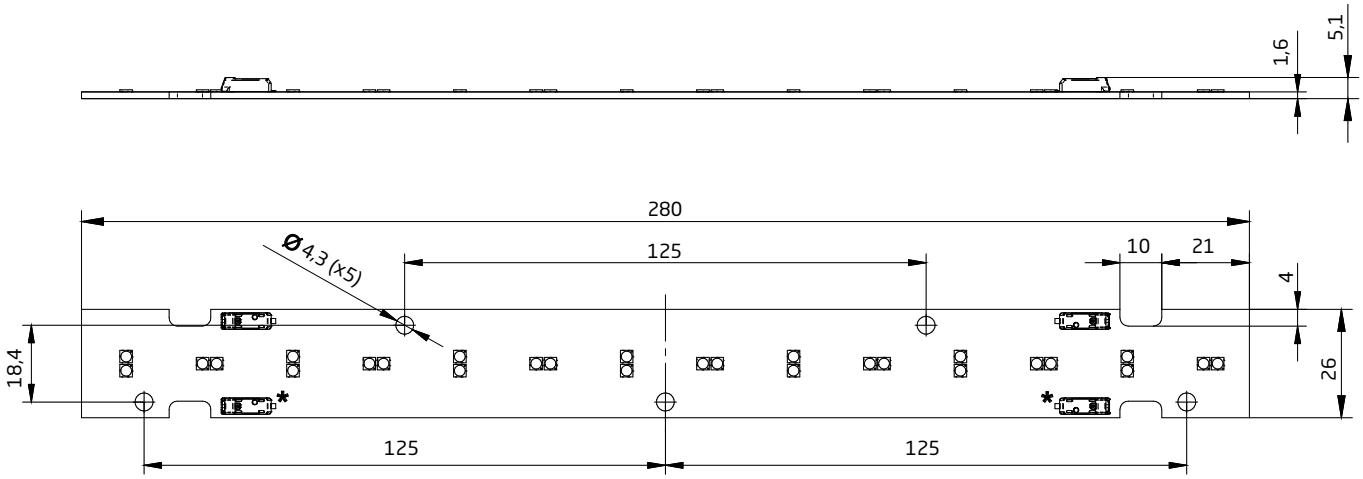
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

Specification item	Unit	1000lm	1300lm
Classification acc. to IEC 62031		built-in	built-in
Working voltage	[Vdc]	300	350
Beam angle	[deg]	120	120
Initial color consistency	[SDCM]	3	3
Photobiological safety		RG1 unlimited	RG1 unlimited

Dimensions

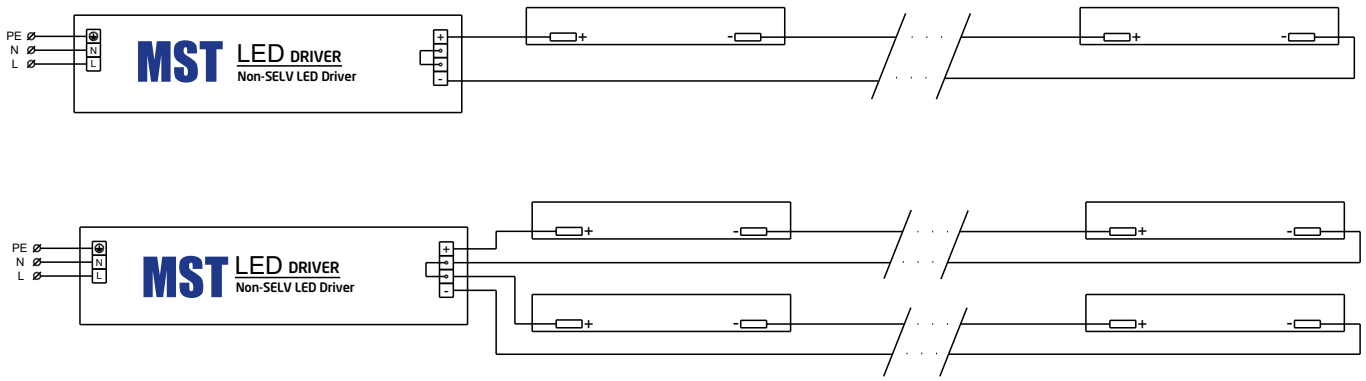
Product name	Ordering code	Connectors (*)
LinLED 280x26mm 2x650lm 827-865 2C 42V Opt G1	1010 117 55846	Yes
LinLED 280x26mm 1000 830 2C 42V Opt G1	1010 117 62746	No
LinLED 280x26mm 1300 830 2C 42V Opt G1	1010 117 55546	No
LinLED 280x26mm 1000 840 2C 42V Opt G1	1010 117 62846	No
LinLED 280x26mm 1300 840 2C 42V Opt G1	1010 117 52946	No



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x26mm...	[pcs]	8	-

Wiring for series connection system (2C)



Rectangular LED modules
147x47mm STRADA-IP-24

A rectangular solution for indoor and outdoor lighting.
Optimized for LEDiL's STRADA-IP-24 optics.

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 70, 80

RecLED CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 147x47mm 5800lm 730 3x8 5050 IP Opt G2	1010 117 95246	3000	460	5507	5926	65	30	184	80	1500	C
RecLED 147x47mm 5800lm 740 3x8 5050 IP Opt G2	1010 117 95346	4000	460	5769	6209	65	30	193	80	1500	B

[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%

Temperature & humidity

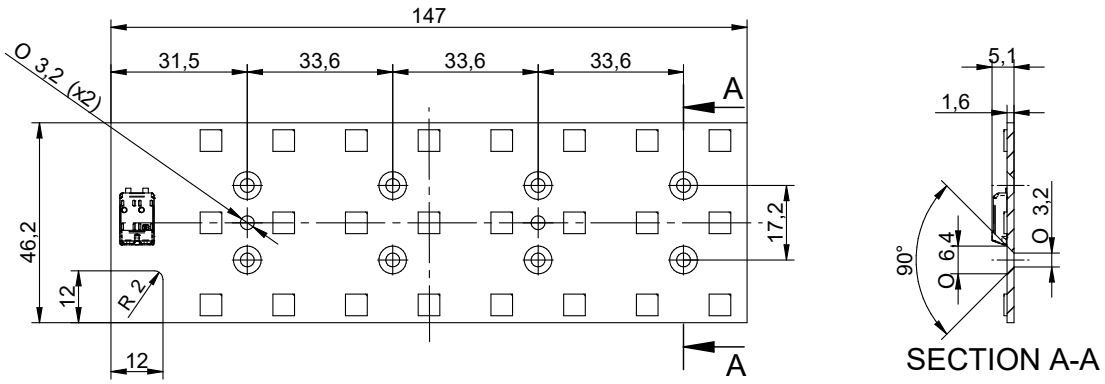
Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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]	160
Beam angle	[deg]	120
Initial color consistency	[SDCM]	5
Photobiological safety		RG2 (RG1 @ >0.5m distance)

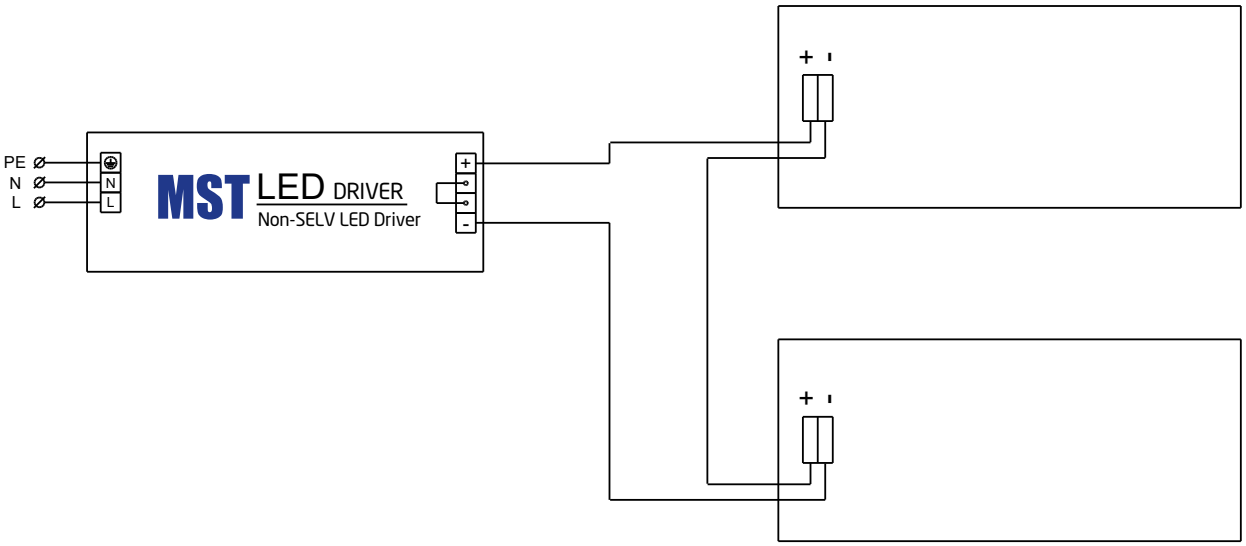
Dimensions



Connections

Max number of modules	Unit	Series	Parallel
RecLED 147x47mm...	[pcs]	2	-

Wiring for series connection system



Rectangular LED modules
80x80mm STRADELLA-IP-28

A rectangular solution for street, area andindustrial lighting. Optimized for LEDiL's STRADELLA-IP-28 optics.

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 70, 80, 90 and 95

RecLED CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 80x80mm 6800lm 730 28-IP Opt G2	1010 117 96346	3000	520	6490	6993	77	40	163	100	1500	D
RecLED 80x80mm 6800lm 740 28-IP Opt G2	1010 117 96446	4000	520	6903	7437	77	40	173	100	1500	C

[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%

Temperature & humidity

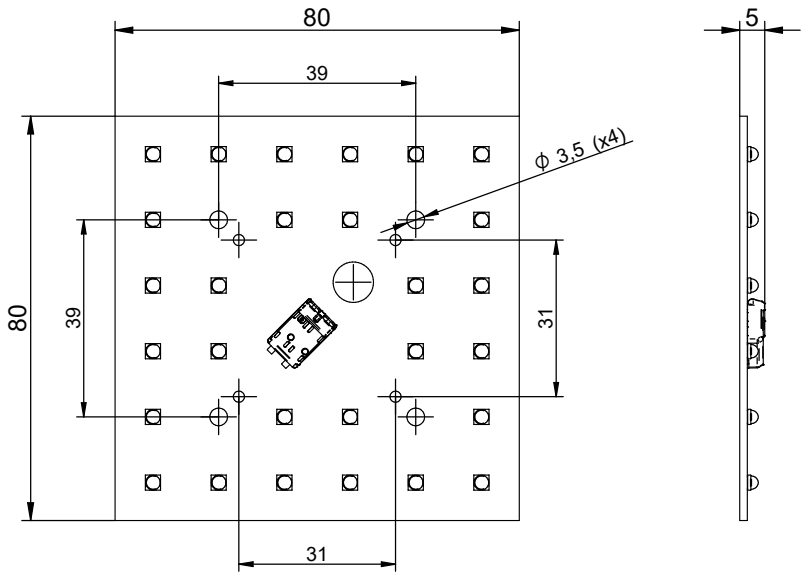
Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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]	420
Beam angle	[deg]	120
Initial color consistency	[SDCM]	5
Photobiological safety		RG2 (RG1 @ >0.5m distance)

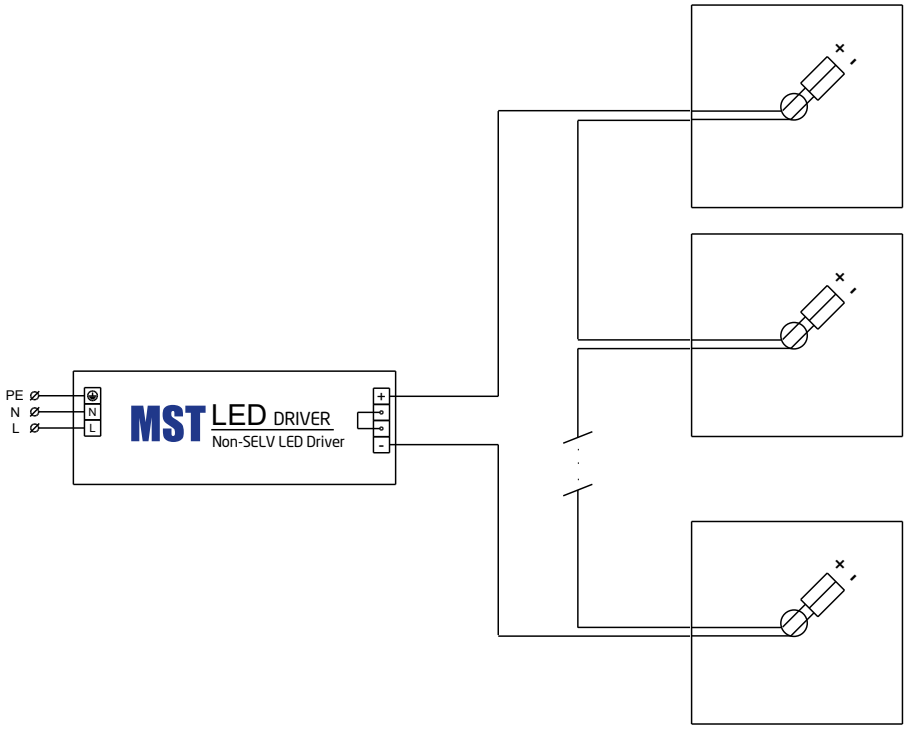
Dimensions



Connections

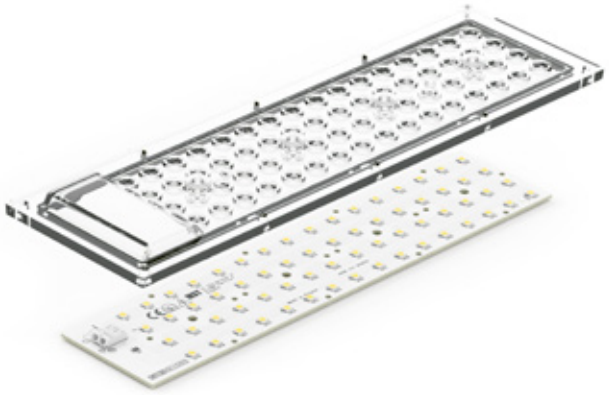
Max number of modules	Unit	Series	Parallel
RecLED 80x80mm...	[pcs]	4	-

Wiring for series connection system



Rectangular LED modules
223x50mm STRADELLA-IP-64

A rectangular solution for street, area andindustrial lighting. Optimized for LEDiL's STRADELLA-IP-64, STRADELLA-16 optics



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 2200K to 6500K and CRI 70, 80, 90

RecLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 223x50mm 4200lm 830 4x16 Opt G1	1010 127 15446	3000	500	3995	4204	44	22	183	40	720	C
RecLED 223x50mm 4200lm 840 4x16 Opt G1	1010 127 15546	4000	500	4211	4431	44	22	193	40	720	C

[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%

Temperature & humidity

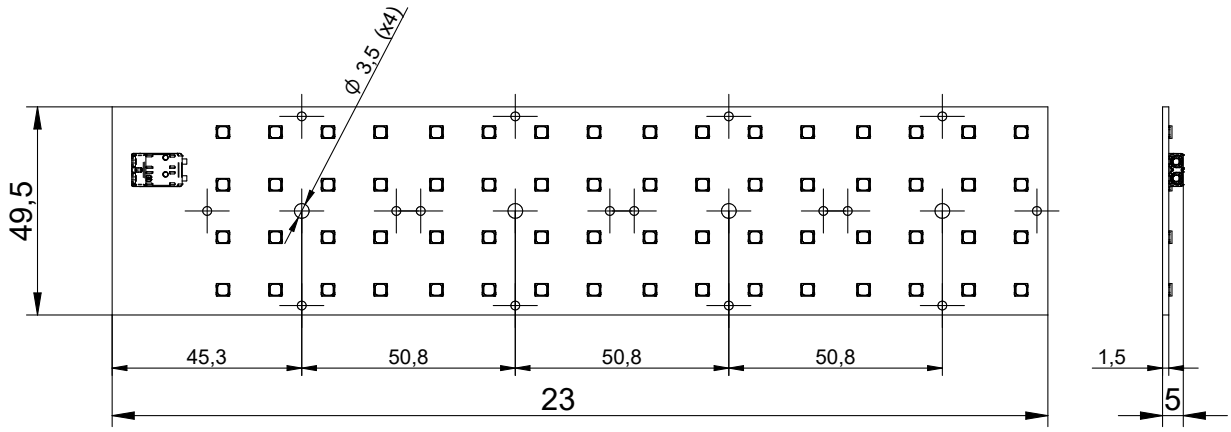
Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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]	400
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

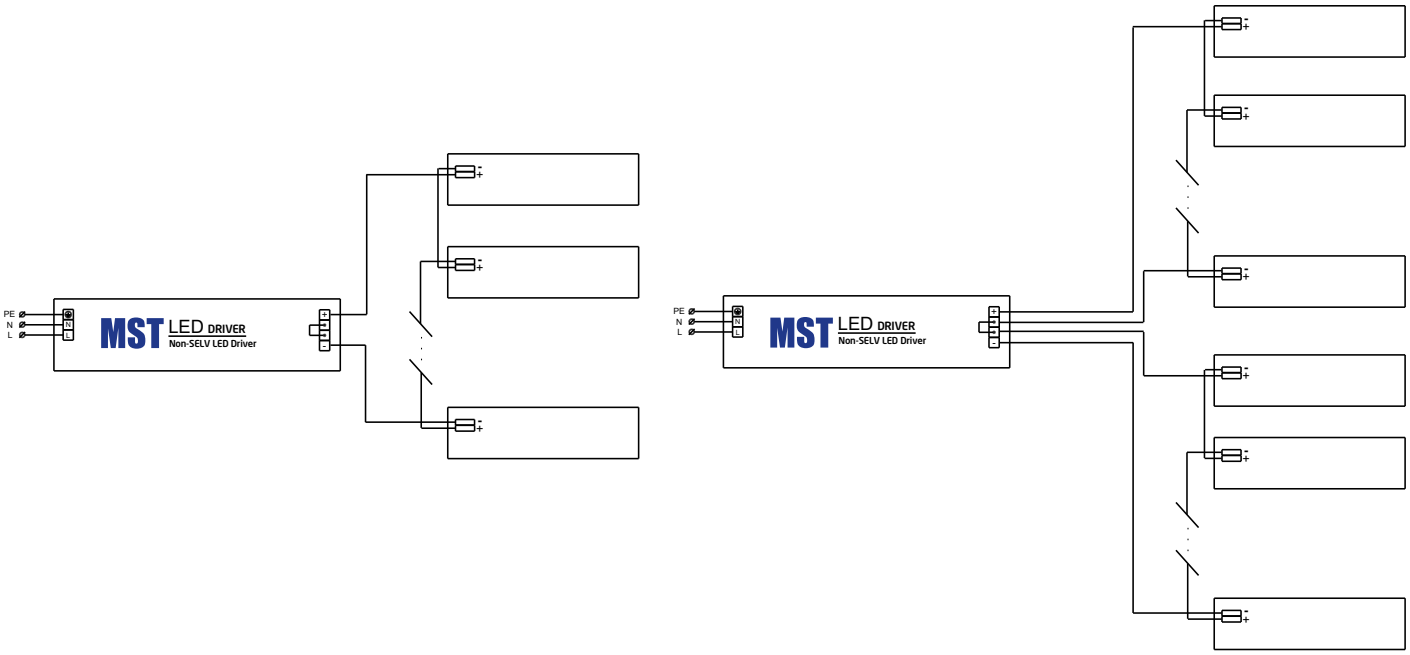
Dimensions



Connections

Max number of modules	Unit	Series	Parallel
RecLED 223x50mm...	[pcs]	9	-

Wiring for series connection system



Round LED modules
150mm VICTORIA-MINI

A round solution for industrial lighting.
Optimized for LEDiL's VICTORIA-MINI optics.

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

RdLED CRI 80

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 150mm 7000lm 830 120V VICTORIA-MINI	1010 127 14146	3000	350	7021	7275	112	39	180	40	600	C
RdLED 150mm 7000lm 840 120V VICTORIA-MINI	1010 127 14246	4000	350	7180	7439	112	39	184	40	600	C

[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%

Temperature & humidity

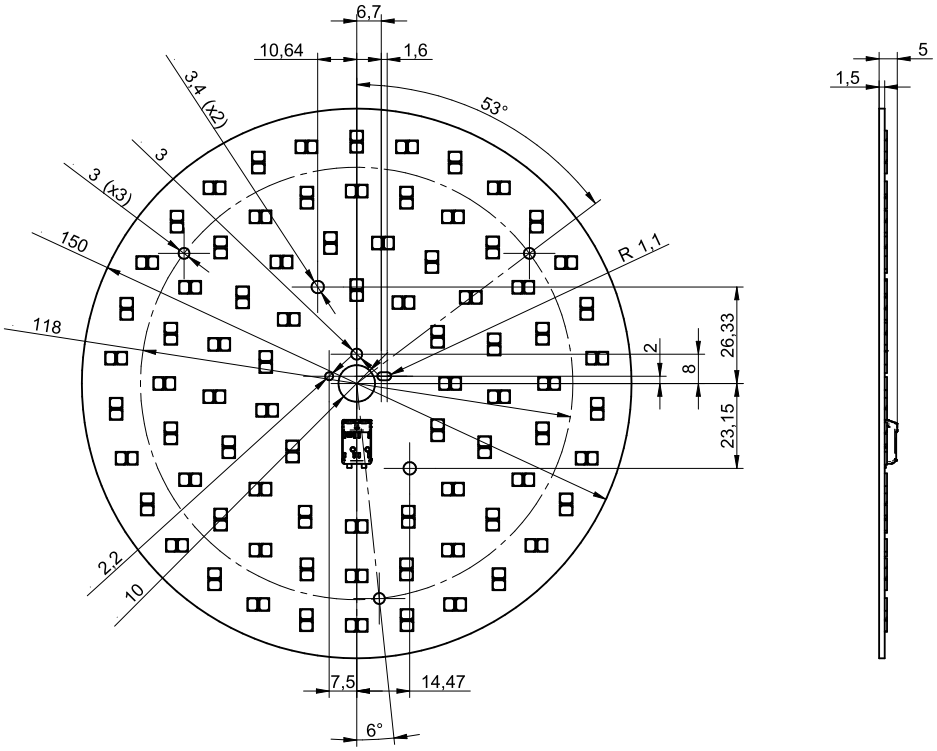
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

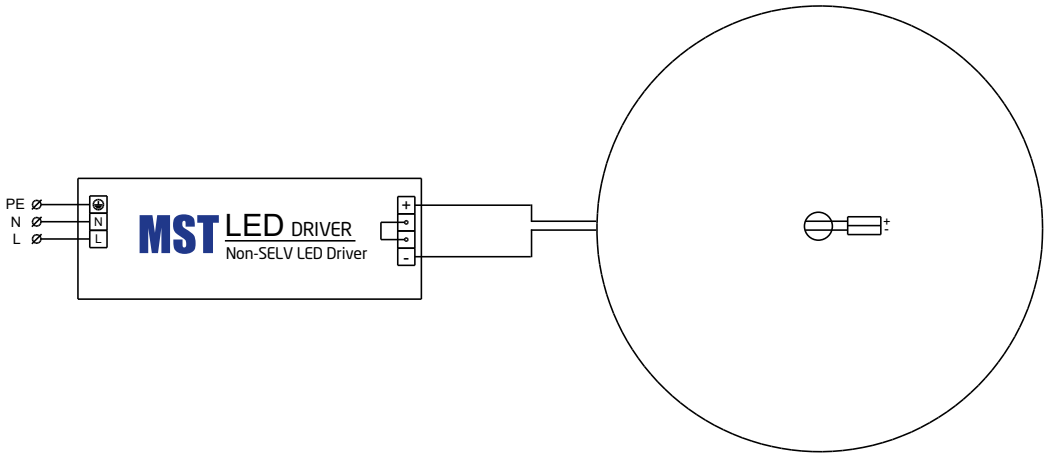
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions



Connections

Wiring for series connection system



Change in the design of linear LED modules

Details

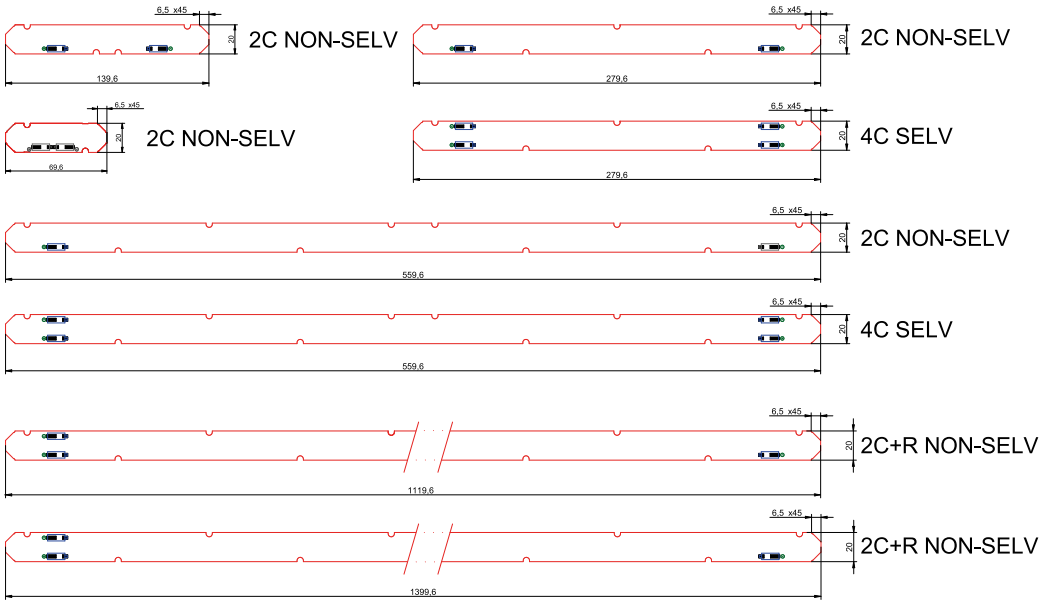
We would like to inform you about the change in the design of linear modules from the following families: 550lm per 1ft, 1100lm per 1ft, and 2000lm per 1ft. The modifications include:

- adding chamfers at the corners
- changing the length tolerance to + 0mm / -0.4mm
- limiting the number of mounting holes to the level specified in the Zhaga standard
- unifying the PCB thickness to 1mm (for 1120mm-4ft and 1400mm-5ft)

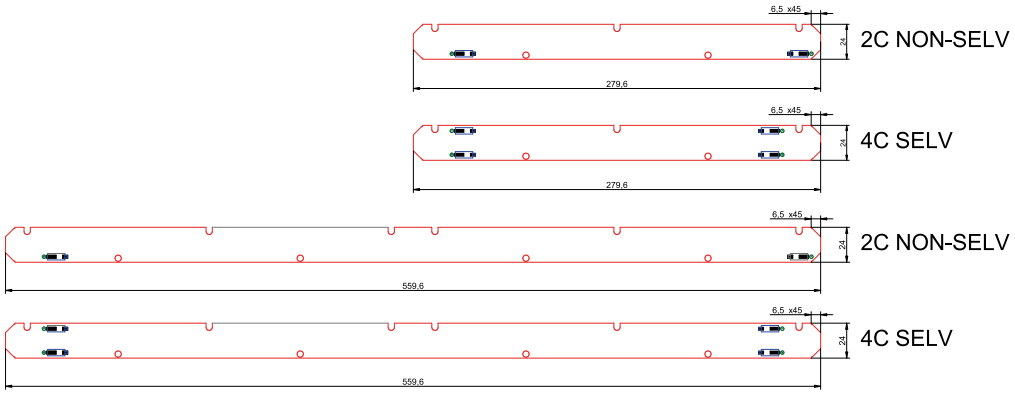
The electrical and lighting parameters, names and ordering codes will remain unchanged. We have provided a technical drawing showing the above changes. Since this process will be introduced successively in all our products, you can expect deliveries of both old and new modules within the next few months.

Technical drawings

500lm per 1ft & 1100lm per 1ft



2000lm per 1ft



2C NON-SELV - 2 CONNECTORS for series connection
2C+R NON-SELV - 2 CONNECTORS for series connection with return path
4C SELV - 4 CONNECTORS for parallel connection

Linear LED modules
Tunable White

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 4C - four connectors for parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2x1000lm 827-865 2x4C 42V Opt G1	1010 117 89046	2700	150	986	1020	40	6.0	165	20	300	D
		6500	150	1066	1103	40	6.0	179	20	300	
LinLED 560x24mm 2x2000lm 827-865 2x4C 42V Opt G1	1010 117 89146	2700	300	1971	2040	40	12	165	40	600	D
		6500	300	2132	2206	40	12	179	40	600	

LinLED CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2x1000lm 927-965 2x4C 42V Opt G1	1010 127 13946	2700	200	1040	1078	41	8.3	125	20	300	E
		6500	200	1194	1238	41	8.3	144	20	300	
LinLED 560x24mm 2x2000lm 927-965 2x4C 42V Opt G1	1010 127 14046	2700	400	2081	2157	41	17	125	40	600	E
		6500	400	2389	2476	41	17	144	40	600	

[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%

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

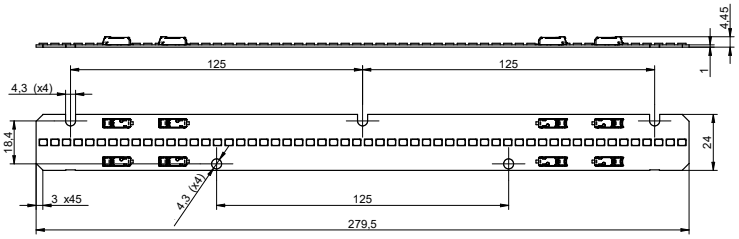
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

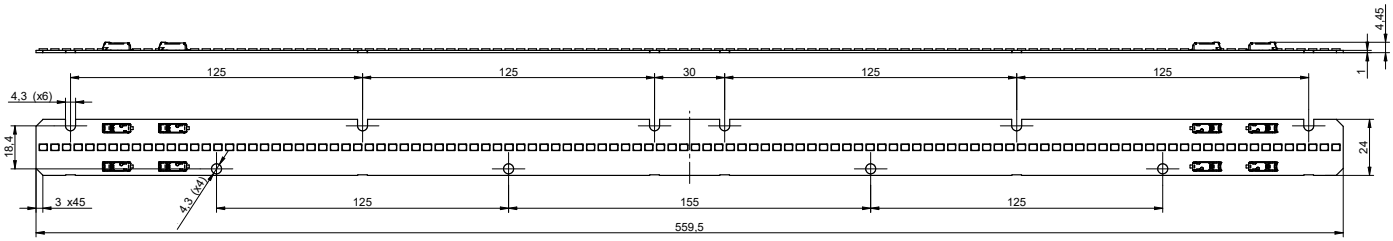
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

LinLED 280x24mm



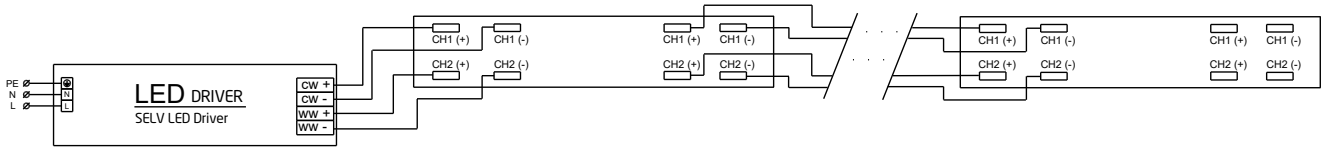
LinLED 560x24mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x24mm...	[pcs]	-	4
LinLED 560x24mm...	[pcs]	-	2

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.

Linear LED modules
3-Row

Optimized for LEDiL's FLORENCE-3R-IP, FLORENCE2-3R optics

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 70, 80, 90

LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x55mm 1100lm 927 3x11 33V Opt G2	1010 127 08446	2700	225	1032	1069	31	6.9	150	30	450	D
LinLED 280x55mm 1100lm 930 3x11 33V Opt G2	1010 127 08546	3000	225	1068	1107	31	6.9	156	30	450	D
LinLED 280x55mm 1100lm 940 3x11 33V Opt G2	1010 127 08646	4000	225	1141	1182	31	6.9	166	30	450	D

LinLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x55mm 2000lm 830 3x11 33V Opt G1	1010 117 54846		350	1890	1928	31	11	172	30	1050	C
LinLED 566x55mm 4000lm 830 3x22 66V Opt G1	1010 117 73546	3000	350	3779	3856	63	22	172	30	1050	C
LinLED 566x55mm 4000lm 830 3x22 33V Opt G1	1010 117 73346		700	3779	3856	31	22	172	60	2100	C
LinLED 280x55mm 2000lm 840 3x11 33V Opt G1	1010 117 54946		350	2001	2041	31	11	182	30	1050	C
LinLED 566x55mm 4000lm 840 3x22 66V Opt G1	1010 117 73646	4000	350	4002	4083	63	22	182	30	1050	C
LinLED 566x55mm 4000lm 840 3x22 33V Opt G1	1010 117 73446		700	4002	4083	31	22	182	60	2100	C

LinLED CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x55mm 2000lm 930 3x11 33V Opt G1	1010 117 95646	3000	450	1914	1972	32	14	134	30	1050	E
LinLED 280x55mm 2000lm 940 3x11 33V Opt G1	1010 117 90346	4000	450	2053	2115	32	14	144	30	1050	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%

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

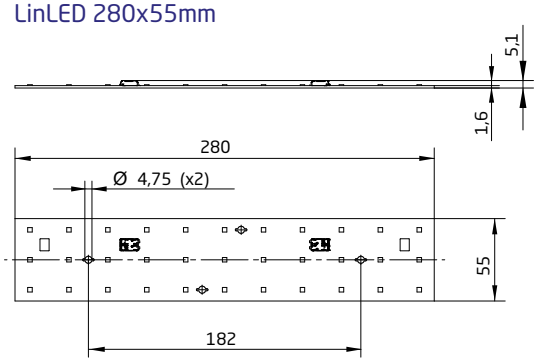
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

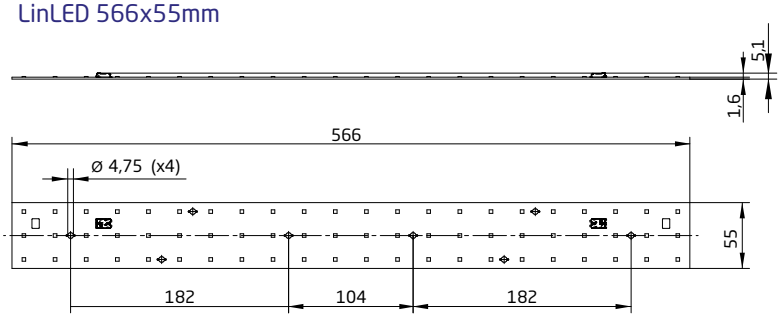
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

LinLED 280x55mm



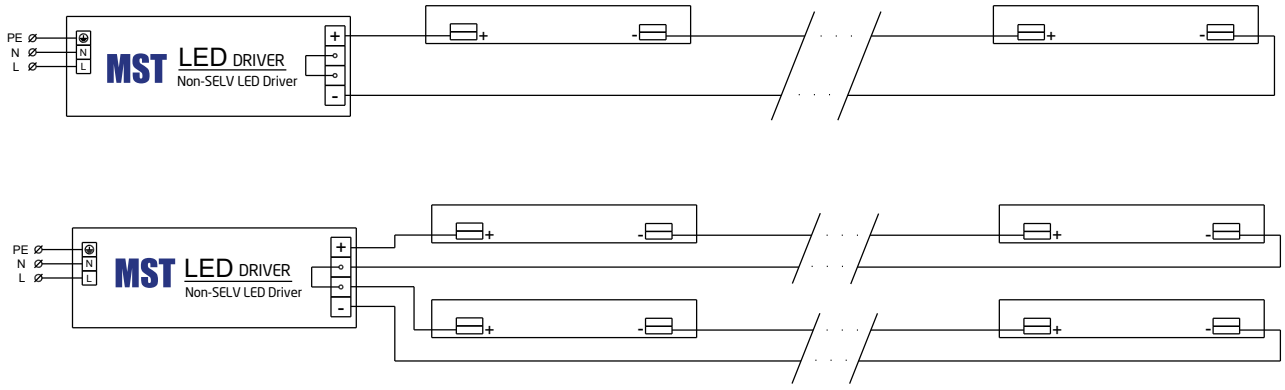
LinLED 566x55mm



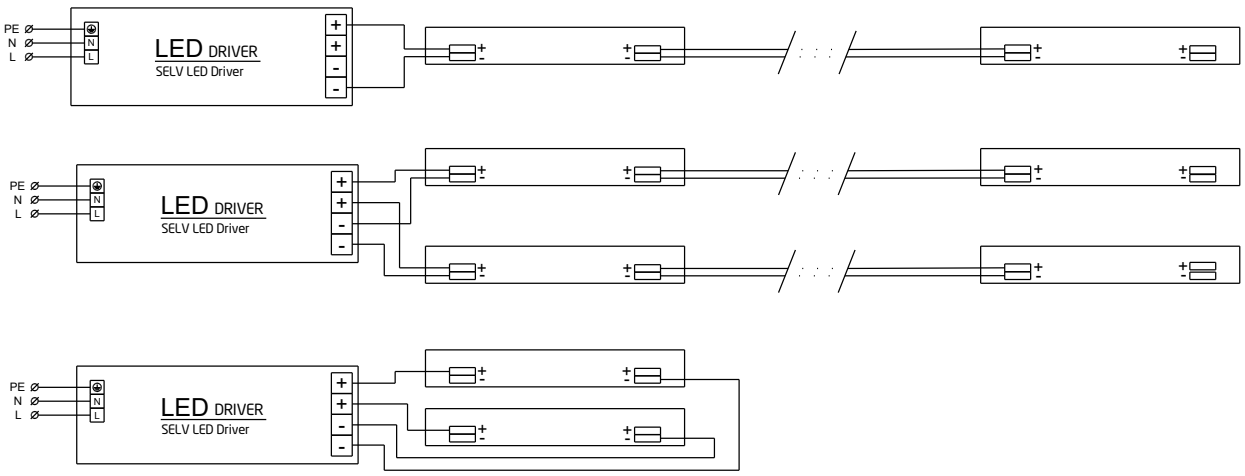
Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x55mm ... 33V ...	[pcs]	10	6
LinLED 566x55mm ... 66V ...	[pcs]	5	3
LinLED 566x55mm ... 33V ...	[pcs]	5	3

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.

Linear LED modules
550lm/1ft 2C

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2200K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 140x20mm 275lm 830 2C 9V Opt G3	1010 117 83746	3000	175	256	264	8.0	1.4	182	30	600	C
LinLED 280x20mm 550lm 830 2C 18V Opt G3	1010 117 83846		175	511	527	16	2.8	182	30	600	C
LinLED 560x20mm 1100lm 830 2C 36V Opt G3	1010 117 83946		175	1022	1054	32	5.6	182	30	600	C
LinLED 140x20mm 275lm 840 2C 9V Opt G3	1010 117 84046	4000	175	281	290	8.0	1.4	200	30	600	B
LinLED 280x20mm 550lm 840 2C 18V Opt G3	1010 117 84146		175	562	580	16	2.8	200	30	600	B
LinLED 560x20mm 1100lm 840 2C 36V Opt G3	1010 117 84246		175	1124	1159	32	5.6	200	30	600	B

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 140x20mm 275lm 830 2C 9V Opt G2	1010 117 31046	3000	185	263	272	8.4	1.6	169	30	450	D
LinLED 280x20mm 550lm 830 2C 18V Opt G2	1010 117 31446		185	526	545	17	3.1	169	30	450	C
LinLED 560x20mm 1100lm 830 2C 36V Opt G2	1010 117 32046		185	1053	1089	34	6.2	169	30	450	C
LinLED 140x20mm 275lm 840 2C 9V Opt G2	1010 117 31146	4000	185	277	286	8.4	1.6	177	30	450	C
LinLED 280x20mm 550lm 840 2C 18V Opt G2	1010 117 31546		185	553	572	17	3.1	177	30	450	C
LinLED 560x20mm 1100lm 840 2C 36V Opt G2	1010 117 32146		185	1106	1144	34	6.2	177	30	450	C

LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 140x20mm 275lm 927 2C 9V Opt G2	1010 117 33846	2700	210	241	250	8.5	1.8	135	30	450	E
LinLED 280x20mm 550lm 927 2C 18V Opt G2	1010 117 34746		210	482	499	17	3.6	135	30	450	E
LinLED 560x20mm 1100lm 927 2C 36V Opt G2	1010 117 35046		210	964	999	34	7.1	135	30	450	E
LinLED 140x20mm 275lm 930 2C 9V Opt G2	1010 117 33946	3000	210	259	268	8.5	1.8	145	30	450	D
LinLED 280x20mm 550lm 930 2C 18V Opt G2	1010 117 34846		210	518	536	17	3.6	145	30	450	D
LinLED 560x20mm 1100lm 930 2C 36V Opt G2	1010 117 35146		210	1035	1073	34	7.1	145	30	450	D
LinLED 140x20mm 275lm 940 2C 9V Opt G2	1010 117 34046	4000	210	277	287	8.5	1.8	155	30	450	D
LinLED 280x20mm 550lm 940 2C 18V Opt G2	1010 117 34946		210	553	573	17	3.6	155	30	450	D
LinLED 560x20mm 1100lm 940 2C 36V Opt G2	1010 117 35246		210	1107	1147	34	7.1	155	30	450	D

LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 140x20mm 275lm 830 2C 9V Bsc G1	1010 117 36446	3000	210	275	284	8.5	1.8	154	30	450	D
LinLED 280x20mm 550lm 830 2C 18V Bsc G1	1010 117 36846		210	549	568	17	3.6	154	30	450	D
LinLED 560x20mm 1100lm 830 2C 36V Bsc G1	1010 117 37446		210	1099	1137	34	7.1	147	30	450	D
LinLED 140x20mm 275lm 840 2C 9V Bsc G1	1010 117 36546	4000	210	290	300	8.5	1.8	163	30	450	D
LinLED 280x20mm 550lm 840 2C 18V Bsc G1	1010 117 36946		210	580	600	17	3.6	163	30	450	D
LinLED 560x20mm 1100lm 840 2C 36V Bsc G1	1010 117 37546		210	1160	1200	34	7.1	155	30	450	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%

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

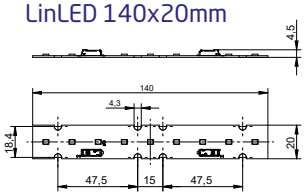
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

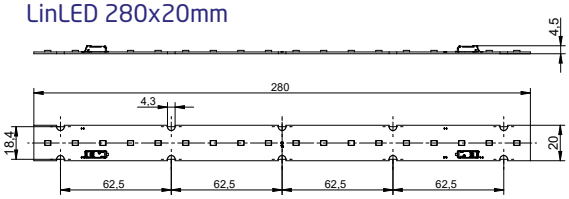
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

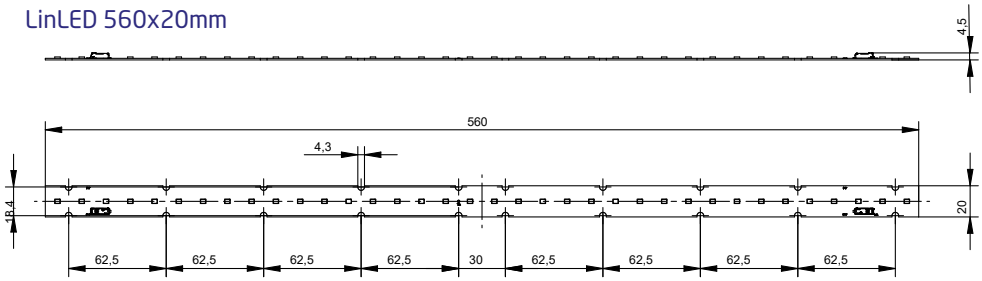
LinLED 140x20mm



LinLED 280x20mm



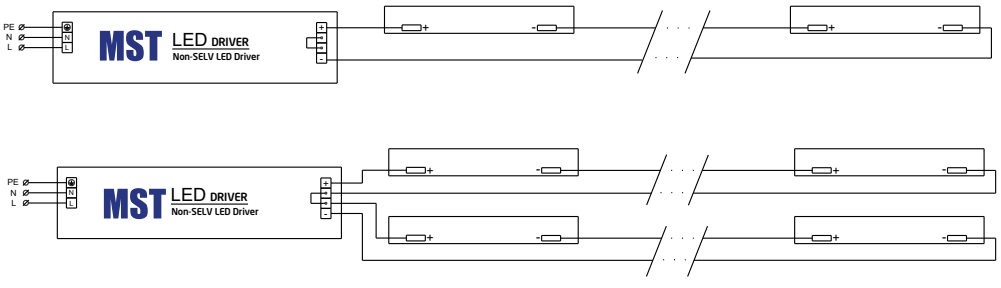
LinLED 560x20mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 140x20mm	[pcs]	37	-
LinLED 280x20mm	[pcs]	18	-
LinLED 560x20mm	[pcs]	9	-

Wiring for series connection system (2C)



Linear LED modules
550lm/1ft 4C

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 4C - four connectors for parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x20mm 550lm 830 4C 36V Opt G2	1010 117 94446	3000	90	529	548	35	3.1	170	10	150	C
LinLED 560x20mm 1100lm 830 4C 36V Opt G2	1010 117 94546		180	1057	1095	35	6.2	170	20	300	C
LinLED 280x20mm 550lm 840 4C 36V Opt G2	1010 117 94646	4000	90	553	573	34	3.1	178	10	150	C
LinLED 560x20mm 1100lm 840 4C 36V Opt G2	1010 117 94746		180	1107	1147	35	6.2	178	20	300	C

[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%

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

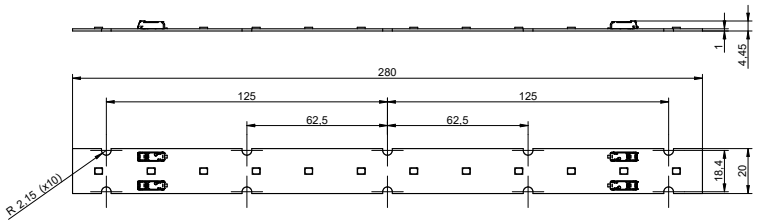
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

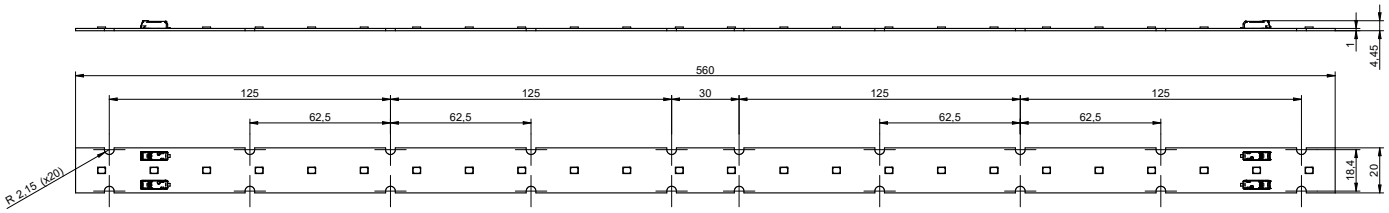
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

LinLED 280x20mm



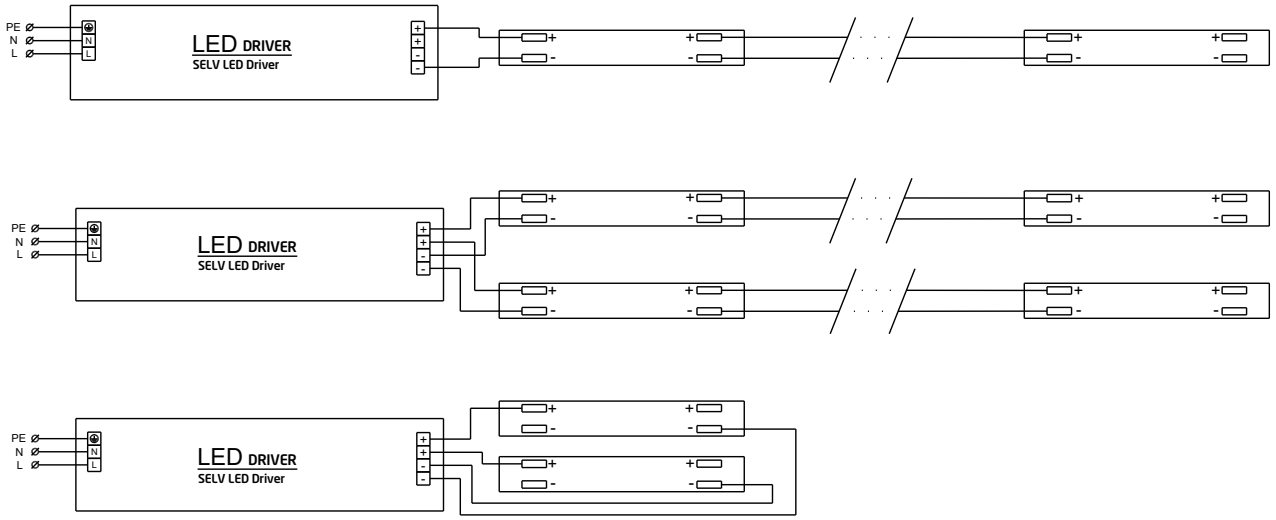
LinLED 560x20mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x20mm	[pcs]	-	6
LinLED 560x20mm	[pcs]	-	3

Wiring for parallel connection system (4C)



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.

Linear LED modules
1100lm/1ft 2C

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2200K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 70x20mm 275lm 830 2C 9V Opt G3	1010 127 21346	3000	175	256	264	8	1.4	182	30	600	C
LinLED 140x20mm 550lm 830 2C 18V Opt G3	1010 117 76146		175	511	527	16	2.8	182	30	600	C
LinLED 280x20mm 1100lm 830 2C 36V Opt G3	1010 117 76246		175	1022	1054	32	5.6	182	30	600	C
LinLED 560x20mm 2200lm 830 2C 72V Opt G3	1010 117 76346		175	2044	2109	64	11	182	30	600	C
LinLED 70x20mm 275lm 840 2C 9V Opt G3	1010 127 21446	4000	175	281	290	8	1.4	200	30	600	B
LinLED 140x20mm 550lm 840 2C 18V Opt G3	1010 117 76446		175	562	580	16	2.8	200	30	600	B
LinLED 280x20mm 1100lm 840 2C 36V Opt G3	1010 117 75046		175	1124	1159	32	5.6	200	30	600	B
LinLED 560x20mm 2200lm 840 2C 72V Opt G3	1010 117 75146		175	2247	2319	64	11	200	30	600	B

LinLED 24V/1ft CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 70x20mm 275lm 830 2C 6V Opt G3	1010 127 20446	3000	280	268	277	5.5	1.5	175	40	800	C
LinLED 140x20mm 550lm 830 2C 12V Opt G3	1010 127 09246		280	536	553	11	3.1	175	40	800	C
LinLED 280x20mm 1100lm 830 2C 24V Opt G3	1010 127 09346		280	1073	1107	22	6.1	175	40	800	C
LinLED 560x20mm 2200lm 830 2C 48V Opt G3	1010 127 09446		280	2146	2214	44	12	175	40	800	C
LinLED 70x20mm 275lm 840 2C 6V Opt G3	1010 127 20546	4000	280	291	300	5.5	1.5	190	40	800	C
LinLED 140x20mm 550lm 840 2C 12V Opt G3	1010 127 09546		280	581	600	11	3.1	190	40	800	C
LinLED 280x20mm 1100lm 840 2C 24V Opt G3	1010 127 09646		280	1162	1199	22	6.1	190	40	800	C
LinLED 560x20mm 2200lm 840 2C 48V Opt G3	1010 127 09746		280	2324	2398	44	12	190	40	800	C

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 70x20mm 275lm 830 2C 9V Opt G2	1010 127 20846	3000	185	263	272	8.4	1.6	169	30	450	D
LinLED 140x20mm 550lm 830 2C 18V Opt G2	1010 117 31246		185	526	545	17	3.1	169	30	450	C
LinLED 280x20mm 1100lm 830 2C 36V Opt G2	1010 117 31646		185	1053	1089	34	6.2	169	30	450	C
LinLED 560x20mm 2200lm 830 2C 72V Opt G2	1010 117 32246		185	2105	2178	67	12	170	30	450	C
LinLED 70x20mm 275lm 840 2C 9V Opt G2	1010 127 20946	4000	185	276	286	8.4	1.6	177	30	450	C
LinLED 140x20mm 550lm 840 2C 18V Opt G2	1010 117 31346		185	553	572	17	3.1	177	30	450	C
LinLED 280x20mm 1100lm 840 2C 36V Opt G2	1010 117 31746		185	1106	1144	34	6.2	177	30	450	C
LinLED 560x20mm 2200lm 840 2C 72V Opt G2	1010 117 32346		185	2213	2289	67	12	178	30	450	C

LinLED 24V/1ft CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 70x20mm 275lm 830 2C 6V Opt G2	1010 127 19946	3000	280	271	281	5.6	1.6	172	40	600	C
LinLED 140x20mm 550lm 830 2C 12V Opt G2	1010 117 94046		280	543	562	11	3.2	172	40	600	C
LinLED 280x20mm 1100lm 830 2C 24V Opt G2	1010 117 44046		280	1086	1124	23	6.3	172	40	600	C
LinLED 560x20mm 2200lm 830 2C 48V Opt G2	1010 117 44246		280	2172	2247	45	13	172	40	600	C
LinLED 70x20mm 275lm 840 2C 6V Opt G2	1010 127 20046	4000	280	285	295	5.6	1.6	180	40	600	C
LinLED 140x20mm 550lm 840 2C 12V Opt G2	1010 117 94146		280	570	590	11	3.2	180	40	600	C
LinLED 280x20mm 1100lm 840 2C 24V Opt G2	1010 117 44146		280	1141	1180	23	6.3	180	40	600	C
LinLED 560x20mm 2200lm 840 2C 48V Opt G2	1010 117 44346		280	2281	2360	45	13	180	40	600	C

LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 70x20mm 275lm 927 2C 9V Opt G2	1010 127 21046	2700	210	243	252	8.5	1.8	136	30	450	E
LinLED 140x20mm 550lm 927 2C 18V Opt G2	1010 117 34146		210	487	505	17	3.6	136	30	450	E
LinLED 280x20mm 1100lm 927 2C 36V Opt G2	1010 117 34446		210	974	1009	34	7.1	136	30	450	D
LinLED 560x20mm 2200lm 927 2C 72V Opt G2	1010 117 35346		210	1948	2019	68	14	136	30	450	D
LinLED 70x20mm 275lm 930 2C 9V Opt G2	1010 127 21146	3000	210	262	271	8.5	1.8	146	30	450	D
LinLED 140x20mm 550lm 930 2C 18V Opt G2	1010 117 34246		210	523	542	17	3.6	146	30	450	D
LinLED 280x20mm 1100lm 930 2C 36V Opt G2	1010 117 34546		210	1046	1084	34	7.1	146	30	450	D
LinLED 560x20mm 2200lm 930 2C 72V Opt G2	1010 117 35446		210	2092	2168	68	14	146	30	450	D
LinLED 70x20mm 275lm 940 2C 9V Opt G2	1010 127 21246	4000	210	280	290	8.5	1.8	156	30	450	D
LinLED 140x20mm 550lm 940 2C 18V Opt G2	1010 117 34346		210	559	579	17	3.6	156	30	450	D
LinLED 280x20mm 1100lm 940 2C 36V Opt G2	1010 117 34646		210	1118	1159	34	7.1	156	30	450	D
LinLED 560x20mm 2200lm 940 2C 72V Opt G2	1010 117 35546		210	2236	2318	68	14	156	30	450	D

LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 70x20mm 275lm 830 2C 9V Bsc G1	1010 127 20646	3000	210	262	271	8.5	1.8	146	30	450	D
LinLED 140x20mm 550lm 830 2C 18V Bsc G1	1010 117 36646		210	523	542	17	3.6	146	30	450	D
LinLED 280x20mm 1100lm 830 2C 36V Bsc G1	1010 117 37046		210	1046	1084	34	7.1	146	30	450	D
LinLED 560x20mm 2200lm 830 2C 72V Bsc G1	1010 117 37646		210	2092	2168	68	14	146	30	450	D
LinLED 70x20mm 275lm 840 2C 9V Bsc G1	1010 127 20746	4000	210	280	290	8.5	1.8	156	30	450	D
LinLED 140x20mm 550lm 840 2C 18V Bsc G1	1010 117 36746		210	559	579	17	3.6	156	30	450	D
LinLED 280x20mm 1100lm 840 2C 36V Bsc G1	1010 117 37146		210	1118	1159	34	7.1	156	30	450	D
LinLED 560x20mm 2200lm 840 2C 72V Bsc G1	1010 117 37746		210	2236	2318	68	14	156	30	450	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%

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

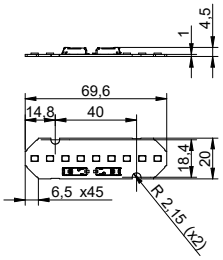
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

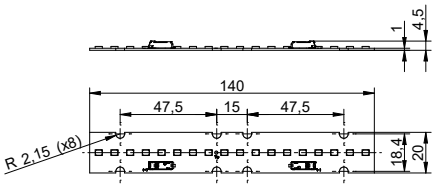
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

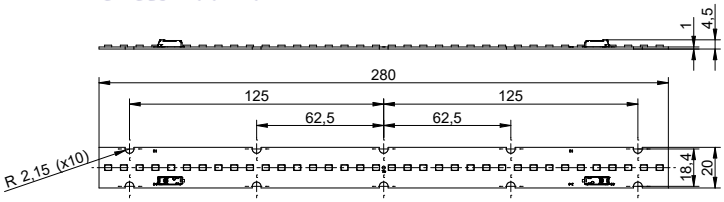
LinLED 70x20mm



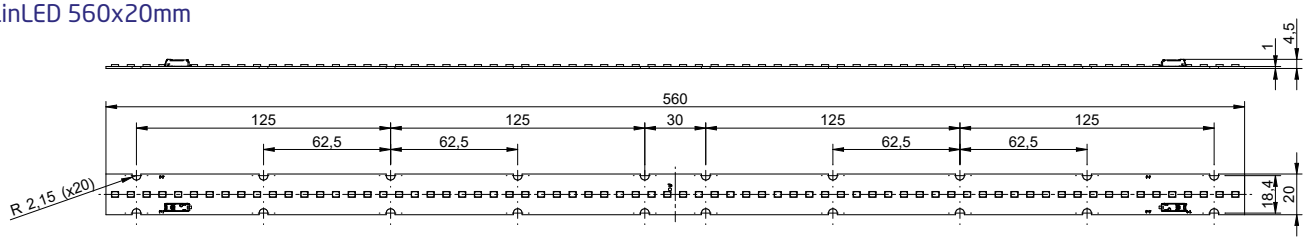
LinLED 140x20mm



LinLED 280x20mm

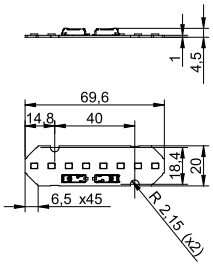


LinLED 560x20mm

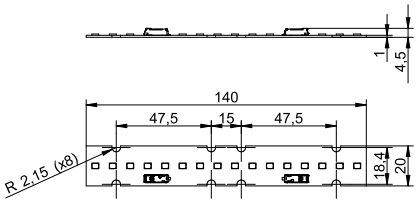


only for LinLED 24V/1ft CRI 80 Optimum G3 & LinLED 24V/1ft CRI 80 Optimum G2

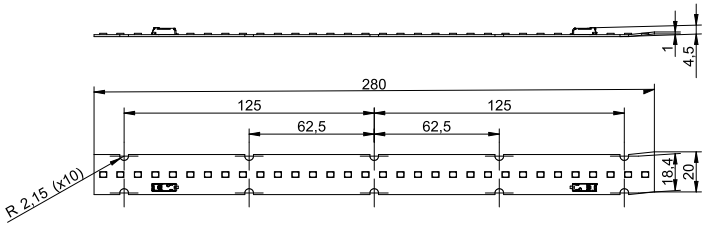
LinLED 70x20mm



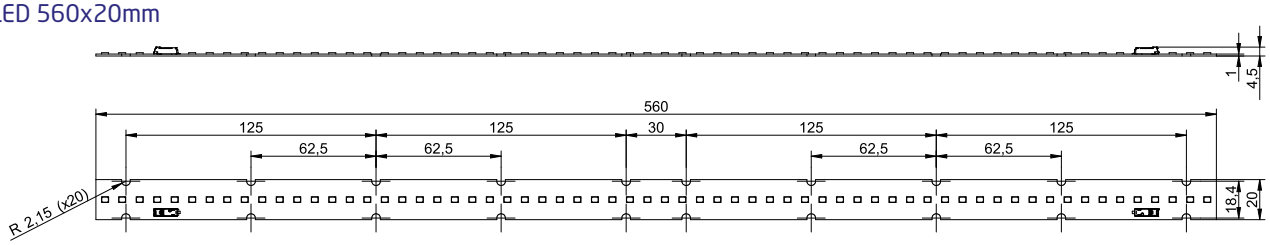
LinLED 140x20mm



LinLED 280x20mm



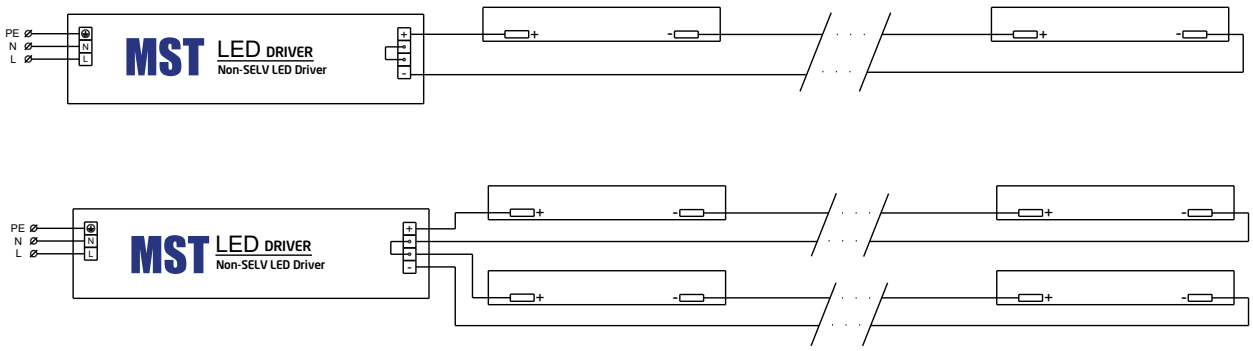
LinLED 560x20mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 70x20mm	[pcs]	38	-
LinLED 140x20mm	[pcs]	19	-
LinLED 280x20mm	[pcs]	9	-
LinLED 560x20mm	[pcs]	4	-

Wiring for series connection system (2C)



Linear LED modules
1100lm/1ft 2C+R

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C+R - two connectors for series system, with integrated return path (one additional connector) also recognized as a high voltage system - non-SELV
- Available CCT from 2200K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 1120x20mm 4400lm 830 2C+R 144V Opt G3	1010 117 84346	3000	175	4132	4262	128	22	185	30	600	C
LinLED 1400x20mm 5500lm 830 2C+R 180V Opt G3	1010 117 86446		175	5165	5327	160	28	185	30	600	C
LinLED 1120x20mm 4400lm 840 2C+R 144V Opt G3	1010 117 84446	4000	175	4477	4617	128	22	200	30	600	B
LinLED 1400x20mm 5500lm 840 2C+R 180V Opt G3	1010 117 86546		175	5596	5771	160	28	200	30	600	B

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 1120x20mm 4400lm 830 2C+R 144V Opt G2	1010 117 54046	3000	185	4332	4482	133	25	176	30	450	C
LinLED 1400x20mm 5500lm 830 2C+R 180V Opt G2	1010 117 54246		185	5415	5603	167	31	176	30	450	C
LinLED 1120x20mm 4400lm 840 2C+R 144V Opt G2	1010 117 54146	4000	185	4551	4708	133	25	184	30	450	C
LinLED 1400x20mm 5500lm 840 2C+R 180V Opt G2	1010 117 54346		185	5688	5885	167	31	184	30	450	C

LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 1120x20mm 4400lm 830 2C+R 144V Bsc G1	1010 117 54446	3000	210	4258	4389	136	29	149	30	450	D
LinLED 1400x20mm 5500lm 830 2C+R 180V Bsc G1	1010 117 54646		210	5493	5684	169	36	154	30	450	D
LinLED 1120x20mm 4400lm 840 2C+R 144V Bsc G1	1010 117 54546	4000	210	4475	4614	136	29	157	30	450	D
LinLED 1400x20mm 5500lm 840 2C+R 180V Bsc G1	1010 117 54746		210	5801	6002	169	36	163	30	450	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%

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

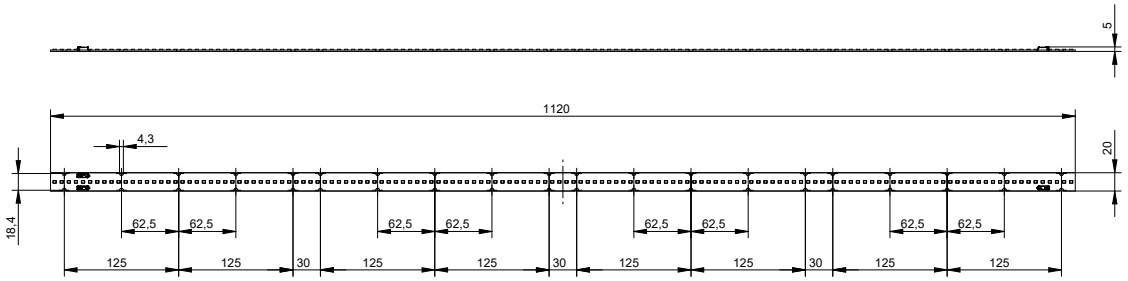
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

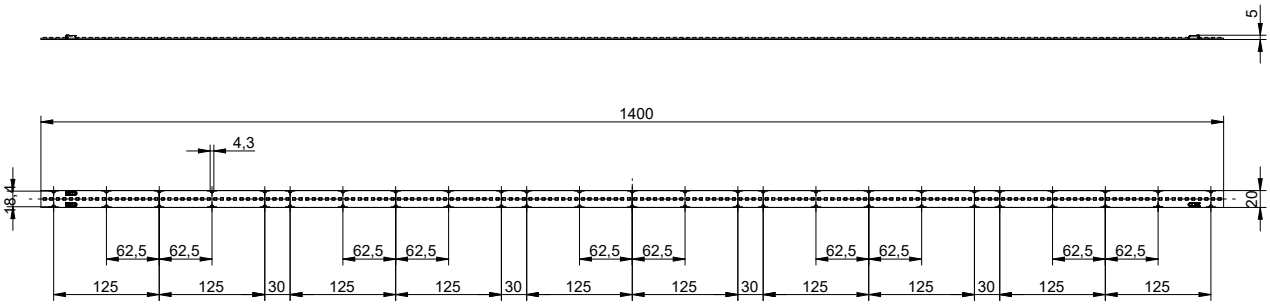
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

LinLED 1120x20mm

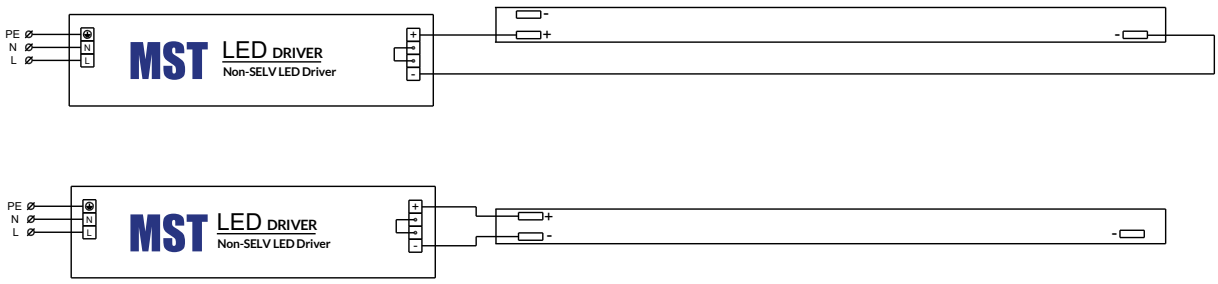


LinLED 1400x20mm



Connections

Wiring for series connection system with return path



Linear LED modules
1100lm/1ft 4C

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 4C - four connectors for parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2200K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x20mm 1100lm 830 4C 36V Opt G3	1010 117 84546	3000	175	1022	1054	32	5.6	182	30	600	C
LinLED 560x20mm 2200lm 830 4C 36V Opt G3	1010 117 84646		350	2044	2109	32	11	182	60	1200	C
LinLED 280x20mm 1100lm 840 4C 36V Opt G3	1010 117 84746	4000	175	1124	1159	32	5.6	200	30	600	B
LinLED 560x20mm 2200lm 840 4C 36V Opt G3	1010 117 84846		350	2247	2319	32	11	200	60	1200	B

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x20mm 1100lm 830 4C 36V Opt G2	1010 117 32646	3000	185	1053	1089	34	6.2	169	30	450	C
LinLED 560x20mm 2200lm 830 4C 36V Opt G2	1010 117 33246		370	2105	2178	34	12	169	60	900	C
LinLED 280x20mm 1100lm 840 4C 36V Opt G2	1010 117 32746	4000	185	1106	1144	34	6.2	177	30	450	C
LinLED 560x20mm 2200lm 840 4C 36V Opt G2	1010 117 33346		370	2213	2289	34	12	177	60	900	C

LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x20mm 1100lm 927 4C 36V Opt G2	1010 117 69946	2700	210	974	999	34	7.1	136	30	450	E
LinLED 560x20mm 2200lm 927 4C 36V Opt G2	1010 117 70046		420	1948	1998	34	14	136	60	900	E
LinLED 280x20mm 1100lm 930 4C 36V Opt G2	1010 117 40146	3000	210	1035	1073	34	7.1	145	30	450	D
LinLED 560x20mm 2200lm 930 4C 36V Opt G2	1010 117 40746		420	2071	2146	34	14	145	60	900	D
LinLED 280x20mm 1100lm 940 4C 36V Opt G2	1010 117 40246	4000	210	1107	1147	34	7.1	155	30	450	D
LinLED 560x20mm 2200lm 940 4C 36V Opt G2	1010 117 40846		420	2213	2294	34	14	155	60	900	D

LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x20mm 1100lm 830 4C 36V Bsc G1	1010 117 38046	3000	210	1048	1137	34	7.1	147	30	450	D
LinLED 560x20mm 2200lm 830 4C 36V Bsc G1	1010 117 38646		420	2197	2273	34	14	154	60	900	D
LinLED 280x20mm 1100lm 840 4C 36V Bsc G1	1010 117 38146	4000	210	1160	1200	34	7.1	163	30	450	D
LinLED 560x20mm 2200lm 840 4C 36V Bsc G1	1010 117 38746		420	2320	2401	34	14	163	60	900	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%

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

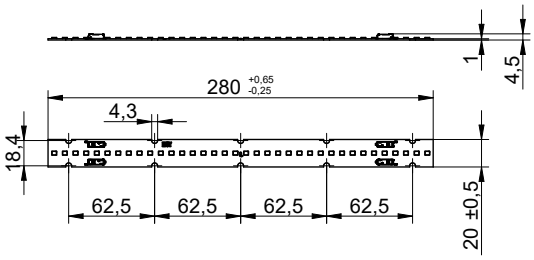
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

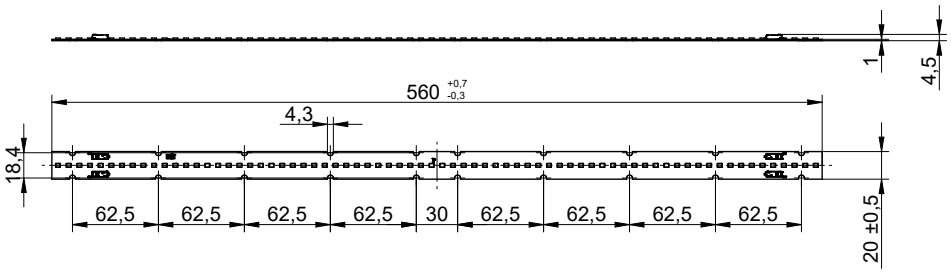
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

LinLED 280x20mm



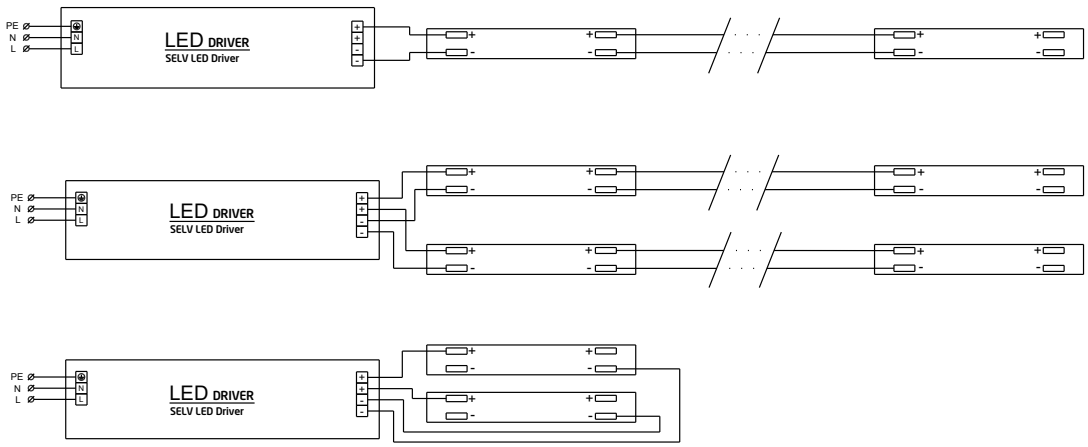
LinLED 560x20mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x20mm	[pcs]	-	8
LinLED 560x20mm	[pcs]	-	4

Wiring for parallel connection system (4C)



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.

Linear LED modules
2000lm/1ft 2C

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE, ENEC
- 2C - two connectors for series system, also recognized as a high voltage system - non-SELV
- Available CCT from 2200K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 830 2C 42V Opt G3	1010 117 76646	3000	280	1877	1937	38	11	177	40	600	C
LinLED 560x24mm 4000lm 830 2C 84V Opt G3	1010 117 76846		280	3755	3874	76	21	177	40	600	C
LinLED 280x24mm 2000lm 840 2C 42V Opt G3	1010 117 76746	4000	280	2064	2130	38	11	194	40	600	C
LinLED 560x24mm 4000lm 840 2C 84V Opt G3	1010 117 76946		280	4129	4260	76	21	194	40	600	C

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 830 2C 42V Opt G2	1010 117 31846	3000	280	1846	1910	40	11	166	40	600	D
LinLED 560x24mm 4000lm 830 2C 84V Opt G2	1010 117 32446		280	3691	3819	79	22	167	40	600	D
LinLED 280x24mm 2000lm 840 2C 42V Opt G2	1010 117 31946	4000	280	1940	2008	40	11	175	40	600	C
LinLED 560x24mm 4000lm 840 2C 84V Opt G2	1010 117 32546		280	3880	4015	79	22	175	40	600	C

LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 927 2C 42V Opt G2	1010 117 69646	2700	330	1680	1808	41	13	130	40	600	E
LinLED 560x24mm 4000lm 927 2C 84V Opt G2	1010 117 69746		330	3490	3617	81	27	130	40	600	E
LinLED 280x24mm 2000lm 930 2C 42V Opt G2	1010 117 39746	3000	330	1894	1963	41	13	141	40	600	E
LinLED 560x24mm 4000lm 930 2C 84V Opt G2			330	3787	3925	81	27	140	40	600	E
LinLED 280x24mm 2000lm 940 2C 42V Opt G2	1010 117 39846	4000	330	2024	2098	41	13	151	40	600	D
LinLED 560x24mm 4000lm 940 2C 84V Opt G2	1010 117 40046		330	4048	4196	81	27	151	40	600	D

LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 830 2C 42V Bsc G1	1010 117 37246	3000	335	2017	2087	40	13	144	40	600	D
LinLED 560x24mm 4000lm 830 2C 84V Bsc G1	1010 117 37846		335	4034	4174	80	27	144	40	600	D
LinLED 280x24mm 2000lm 840 2C 42V Bsc G1	1010 117 37346	4000	335	2130	2204	40	13	151	40	600	D
LinLED 560x24mm 4000lm 840 2C 84V Bsc G1	1010 117 37946		335	4260	4407	80	27	152	40	600	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%

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

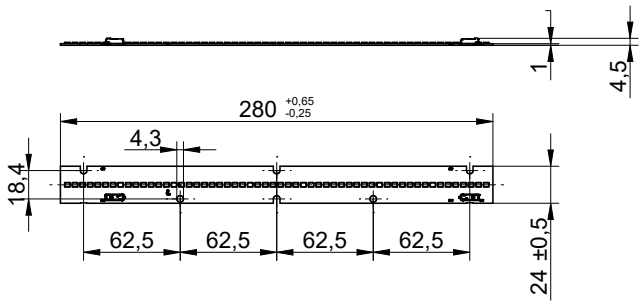
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

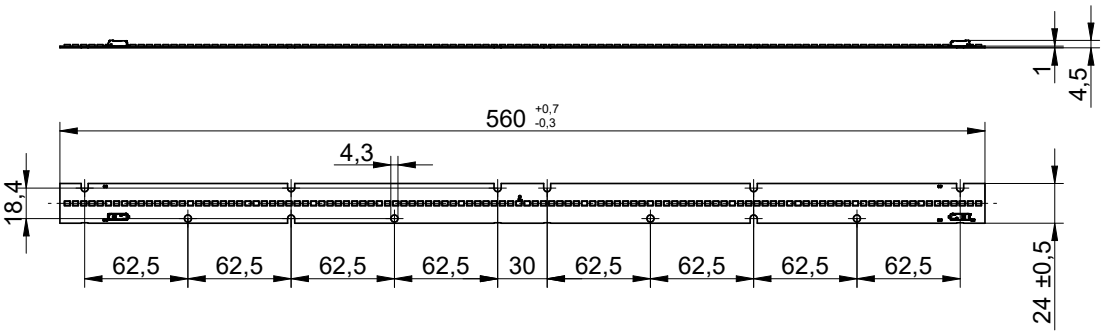
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

LinLED 280x24mm



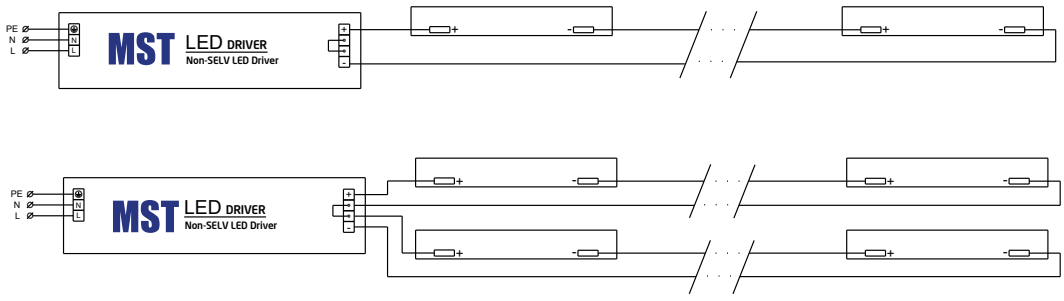
LinLED 560x24mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x24mm	[pcs]	8	-
LinLED 560x24mm	[pcs]	4	-

Wiring for series connection system (2C)



Linear LED modules
2000lm/1ft 4C

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Compliance and approval: CE
- 4C - four connectors for parallel system, also recognized as a low voltage system - SELV
- Available CCT from 2700K to 6500K and CRI 80, 90

LinLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 830 4C 42V Opt G3	1010 117 84946	3000	290	1942	2004	38	11	175	40	600	C
LinLED 560x24mm 4000lm 830 4C 42V Opt G3	1010 117 85046		580	3884	4008	38	22	175	80	1200	C
LinLED 280x24mm 2000lm 840 4C 42V Opt G3	1010 117 85146	4000	290	2104	2171	38	11	189	40	600	C
LinLED 560x24mm 4000lm 840 4C 42V Opt G3	1010 117 85246		580	4208	4342	38	22	189	80	1200	C

LinLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 830 4C 42V Opt G2	1010 117 32846	3000	280	1901	1967	38	11	179	40	600	C
LinLED 560x24mm 4000lm 830 4C 42V Opt G2	1010 117 33446		560	3802	3934	38	21	179	80	1200	C
LinLED 280x24mm 2000lm 840 4C 42V Opt G2	1010 117 32946	4000	280	1997	2066	38	11	188	40	600	C
LinLED 560x24mm 4000lm 840 4C 42V Opt G2	1010 117 33546		560	3994	4132	38	21	188	80	1200	C

LinLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 927 4C 42V Opt G2	1010 117 70146	2700	330	1745	1808	41	13	130	40	600	E
LinLED 560x24mm 4000lm 927 4C 42V Opt G2	1010 117 70246		660	3490	3617	41	27	130	80	1200	E
LinLED 280x24mm 2000lm 930 4C 42V Opt G2	1010 117 40346	3000	330	1894	1963	41	13	140	40	600	E
LinLED 560x24mm 4000lm 930 4C 42V Opt G2	1010 117 40946		660	3787	3925	41	27	141	80	1200	E
LinLED 280x24mm 2000lm 940 4C 42V Opt G2	1010 117 40446	4000	330	2024	2098	41	13	149	40	600	D
LinLED 560x24mm 4000lm 940 4C 42V Opt G2	1010 117 41046		660	4048	4196	41	27	151	80	1200	D

LinLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
LinLED 280x24mm 2000lm 830 4C 42V Bsc G1	1010 117 38246	3000	335	2017	2087	40	13	151	40	600	D
LinLED 560x24mm 4000lm 830 4C 42V Bsc G1	1010 117 38846		670	4034	4174	40	27	151	80	1200	D
LinLED 280x24mm 2000lm 840 4C 42V Bsc G1	1010 117 38346	4000	335	2130	2204	40	13	159	40	600	D
LinLED 560x24mm 4000lm 840 4C 42V Bsc G1	1010 117 38946		670	4260	4407	40	27	159	80	1200	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%

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

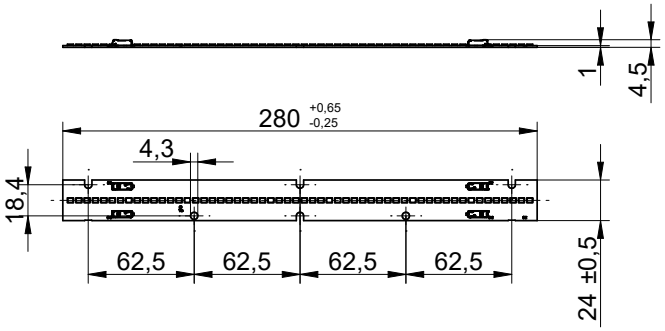
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

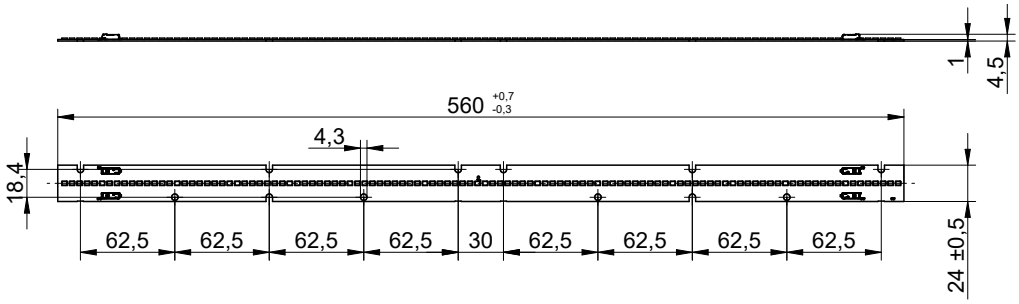
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

LinLED 280x24mm



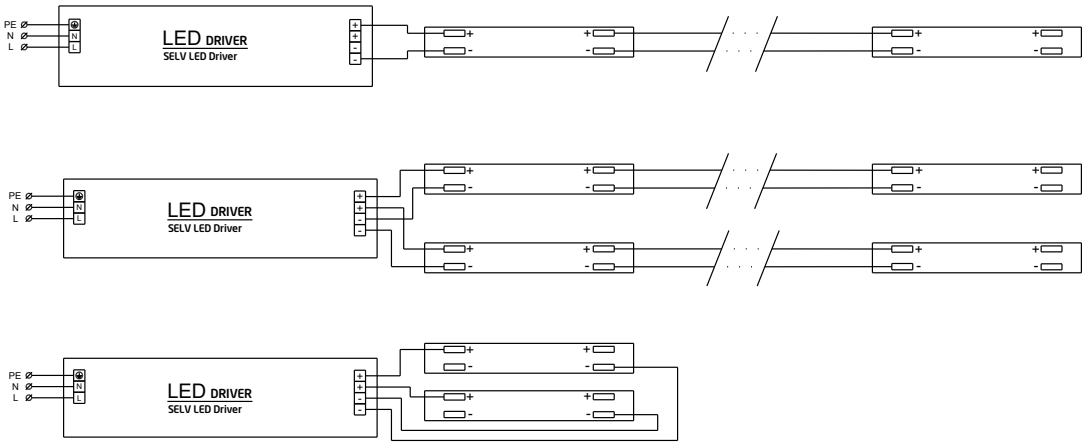
LinLED 560x24mm



Connections

Max number of modules	Unit	Series	Parallel
LinLED 280x20mm	[pcs]	-	8
LinLED 560x20mm	[pcs]	-	4

Wiring for parallel connection system (4C)



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.

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[1] ϕ [lm]	Usefull 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 250x250mm 1250lm 830 24V Opt G2	1010 127 06546	3000	300	1222	1267	22	6.5	189	80	1200	C
RecLED 250x250mm 1250lm 840 24V Opt G2	1010 127 06646	4000	300	1276	1322	22	6.5	197	80	1200	B

RecLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 250x250mm 1250lm 927 24V Opt G2	1010 127 06746	2700	350	1177	1221	22	7.6	155	80	1200	D
RecLED 250x250mm 1250lm 930 24V Opt G2	1010 127 06846	3000	350	1219	1263	22	7.6	161	80	1200	D
RecLED 250x250mm 1250lm 940 24V Opt G2	1010 127 06946	4000	350	1301	1349	22	7.6	172	80	1200	C

RecLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 250x250mm 1250lm 830 24V Opt G1	1010 127 06046	3000	315	1247	1290	22	6.9	182	80	1200	C
RecLED 250x250mm 1250lm 840 24V Opt G1	1010 127 06146	4000	315	1310	1355	22	6.9	191	80	1200	C

RecLED CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 250x250mm 1250lm 927 24V Opt G1	1010 127 06246	2700	355	1135	1176	22	7.8	145	80	1200	D
RecLED 250x250mm 1250lm 930 24V Opt G1	1010 127 06346	3000	355	1219	1263	22	7.8	156	80	1200	D
RecLED 250x250mm 1250lm 940 24V Opt G1	1010 127 06446	4000	355	1303	1350	22	7.8	167	80	1200	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%

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

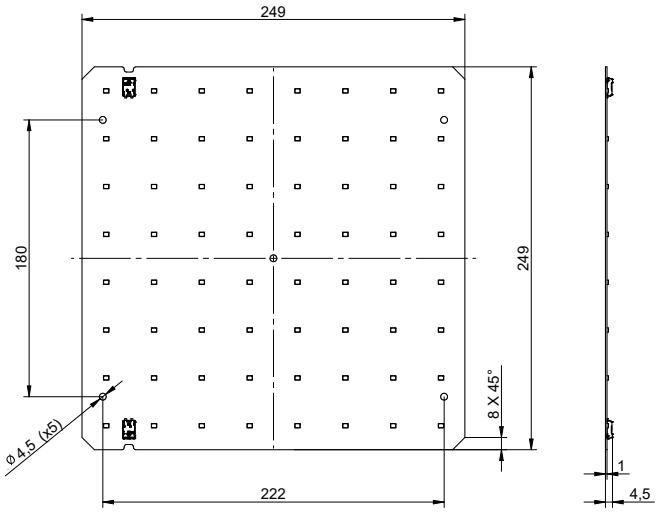
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

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

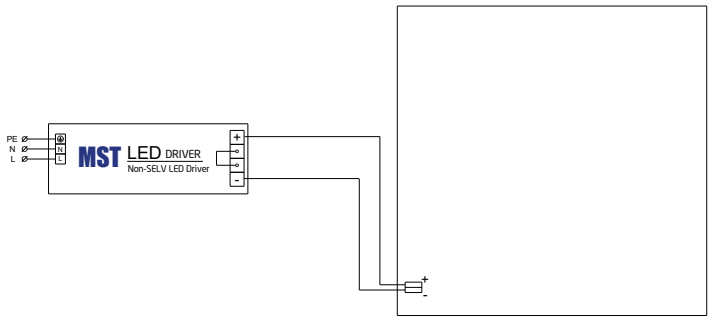
Dimensions

RecLED 250x250mm

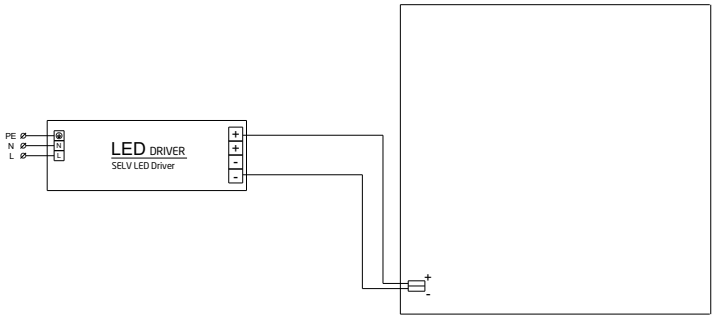


Connections

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.

Rectangular LED modules
400x400mm

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 G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 400x400mm 5000lm 830 36V Opt G2	1010 117 39446	3000	850	4942	5113	34	29	171	120	1800	C
RecLED 400x400mm 5000lm 830 108V Opt G2	1010 117 39246		280	4887	5056	102	29	172	120	600	C
RecLED 400x400mm 5000lm 840 36V Opt G2	1010 117 39546	4000	850	5191	5371	34	29	180	120	1800	C
RecLED 400x400mm 5000lm 840 108V Opt G2	1010 117 39346		280	5133	5311	102	29	180	120	600	C

RecLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 400x400mm 5000lm 927 36V Opt G2	1010 117 72946	2700	960	4371	4530	35	33	131	120	1800	E
RecLED 400x400mm 5000lm 927 108V Opt G2	1010 117 35946		320	4371	4530	104	33	131	40	600	E
RecLED 400x400mm 5000lm 930 36V Opt G2	1010 117 73046	3000	960	4695	4866	35	33	141	120	1800	E
RecLED 400x400mm 5000lm 930 108V Opt G2	1010 117 36046		320	4695	4866	104	33	141	40	600	E
RecLED 400x400mm 5000lm 940 36V Opt G2	1010 117 73146	4000	960	5019	5201	35	33	151	120	1800	D
RecLED 400x400mm 5000lm 940 108V Opt G2	1010 117 36146		320	5019	5201	104	33	151	40	600	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%

Temperature & humidity

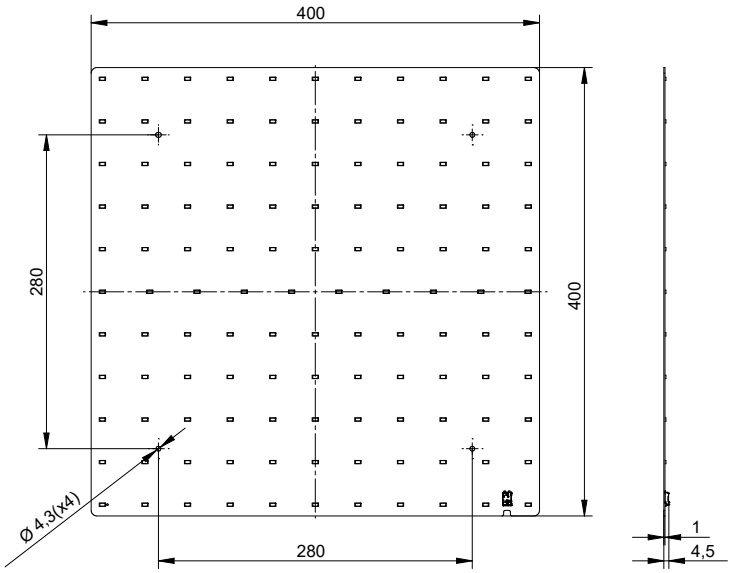
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

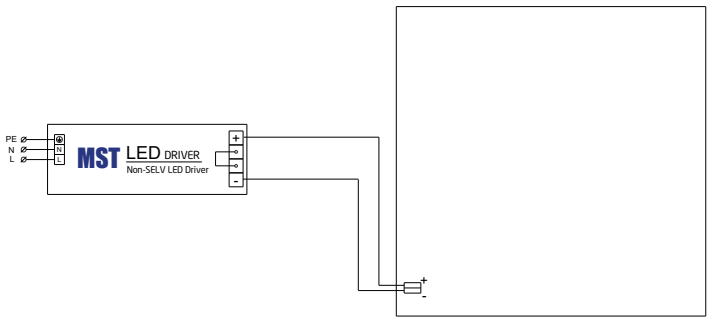
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

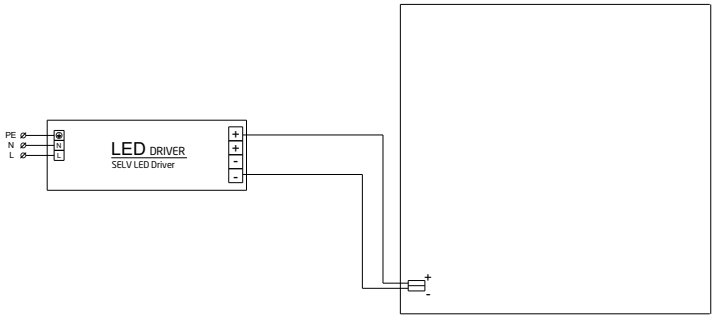


Connections

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.

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

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 270x270mm 1250lm 840 33V Opt G3	1010 117 88346	4000	225	1304	1345	29	6.6	199	60	900	B

RecLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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]	Usefull 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]	Usefull 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%

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

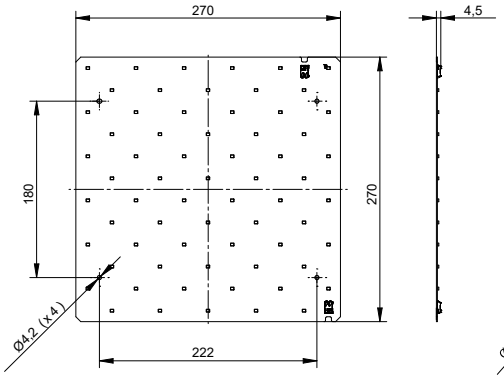
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

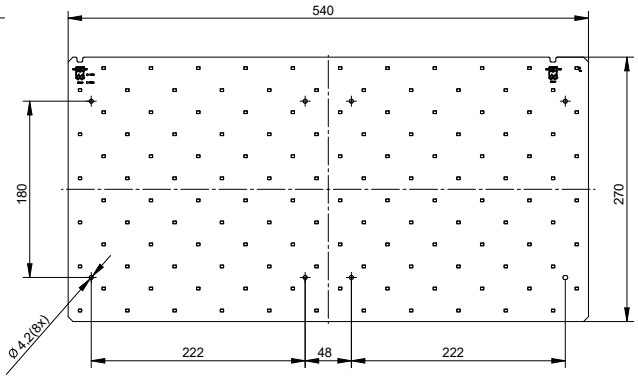
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

RecLED 270x270mm

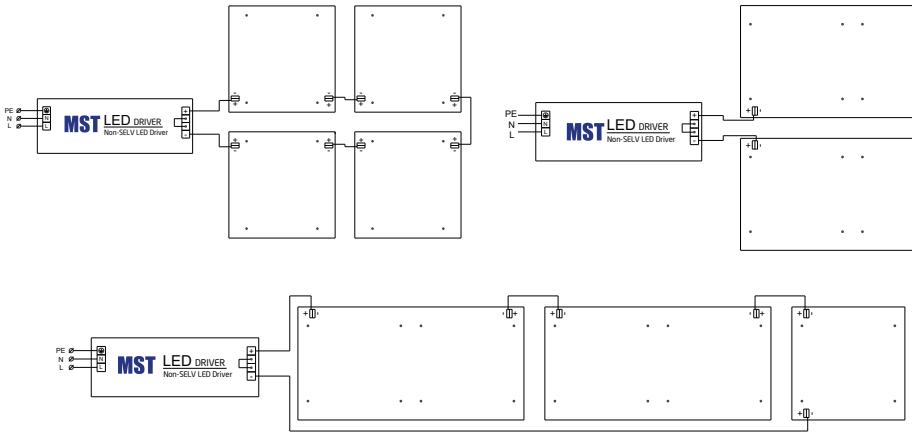


RecLED 540x270mm

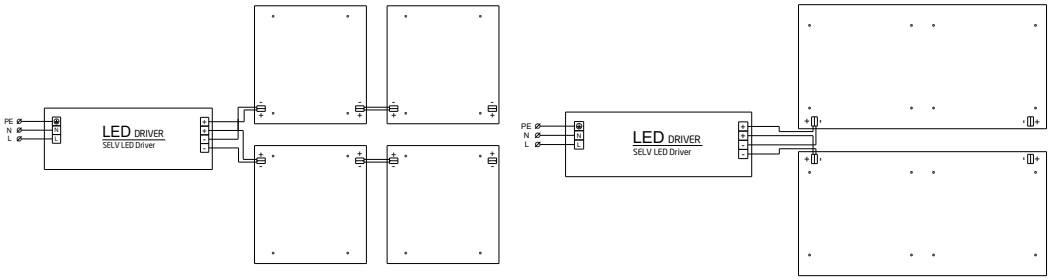


Connections

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.

Rectangular LED modules
487x237mm

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 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 487x237mm 2500lm 830 54V Opt G1	1010 117 98746	3000	280	2444	2528	50	14	173	40	600	C
RecLED 487x237mm 2500lm 840 54V Opt G1	1010 117 98846	4000	280	2567	2656	50	14	182	40	600	C

RecLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 487x237mm 2500lm 830 54V Bsc G1	1010 117 96846	3000	300	2347	2428	51	15	153	40	600	D
RecLED 487x237mm 2500lm 840 54V Bsc G1	1010 117 96946	4000	300	2478	2564	51	15	162	40	600	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%

Temperature & humidity

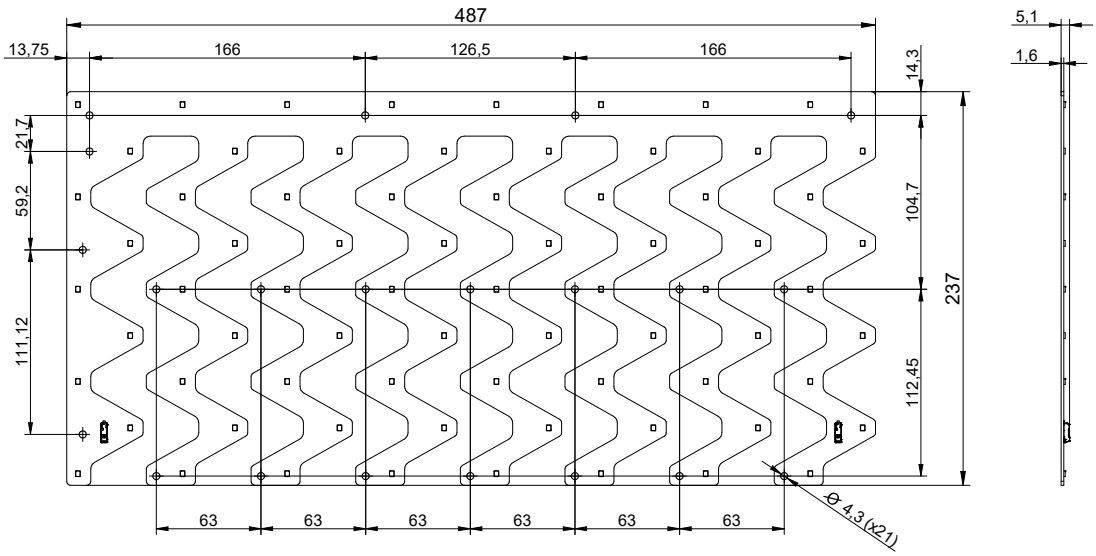
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

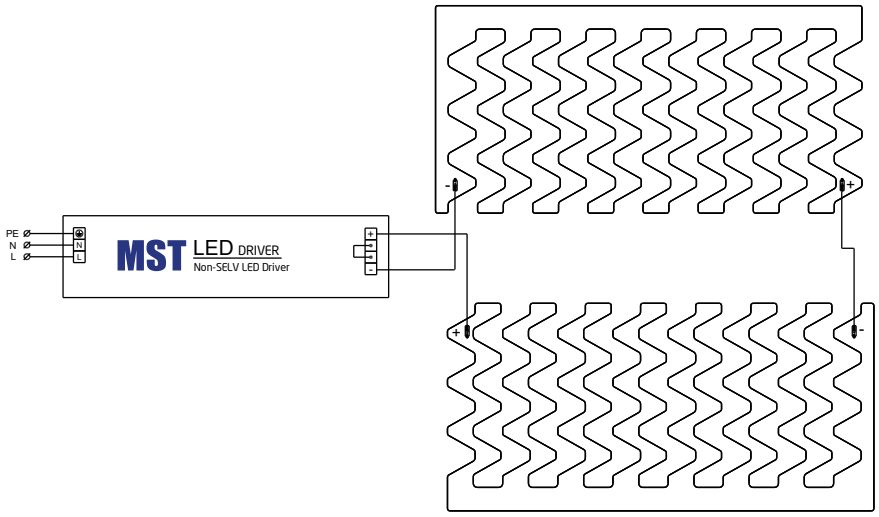
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

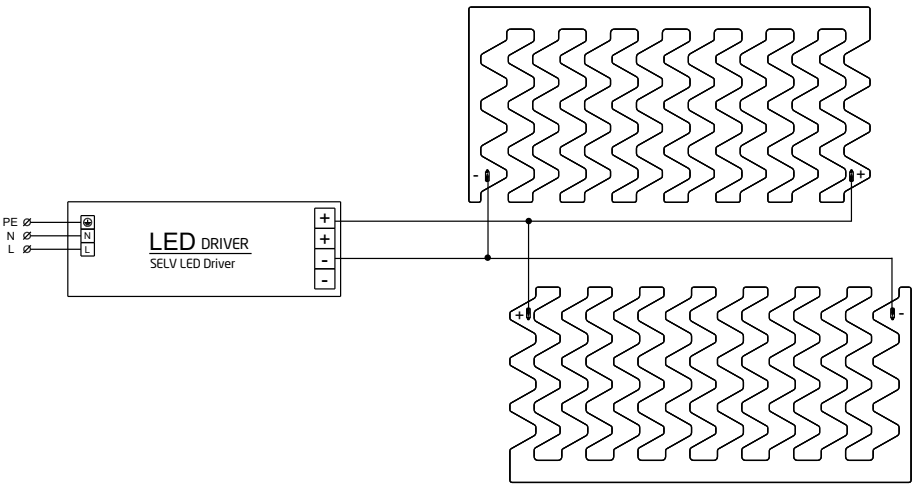


Connections

Wiring for series connection system



Wiring for parallel connection system

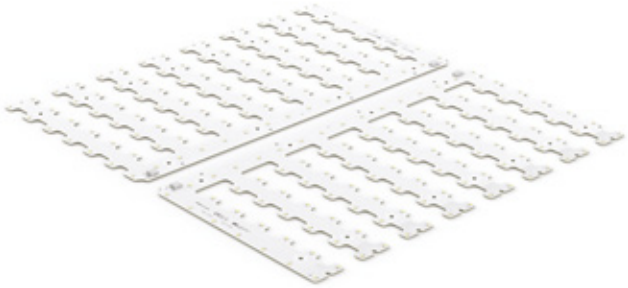


To prevent irregular luminous intensity in parallel connection use only LED modules from the same V-code group.
V-code (e.g. "A", "B", "AB") is printed on the LED module and box label. Naming is not adequate to efficacy or luminous flux.

Rectangular LED modules
510x255mm

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Series or parallel connection system
- Compliance and approval: CE
- Available CCT from 2200K to 6500K and CRI 80



RecLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 510x255mm 2500lm 830 42V Opt G1	1010 127 07846	3000	350	2290	2361	37	13	175	80	1280	C
RecLED 510x255mm 2500lm 840 42V Opt G1	1010 127 07946	4000	350	2424	2500	37	13	185	80	1280	C

[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%

Temperature & humidity

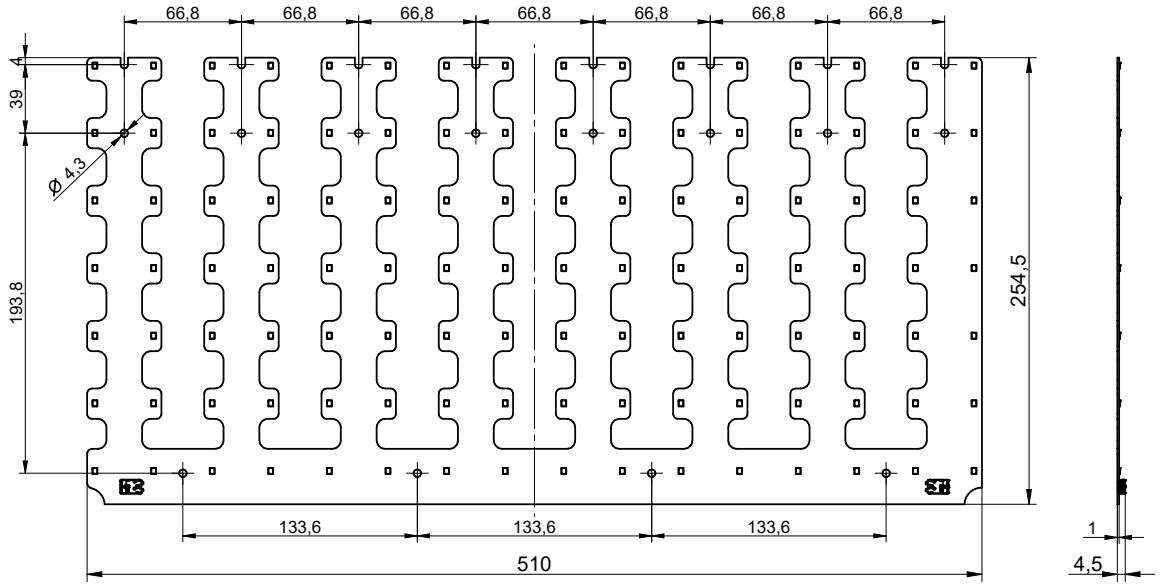
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

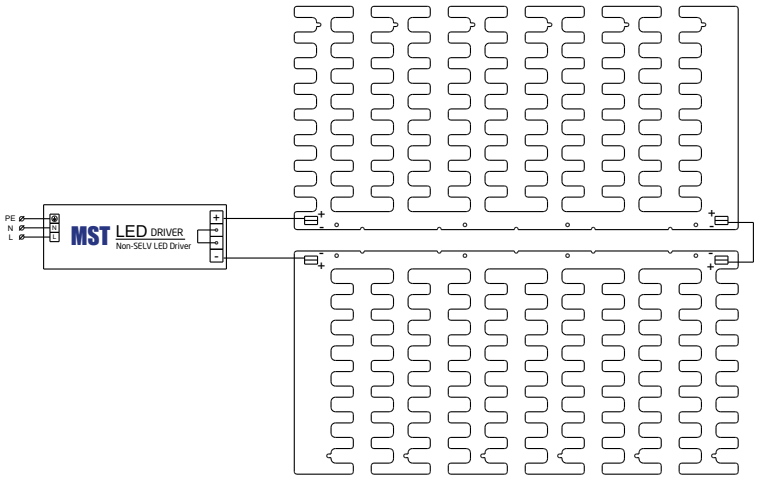
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

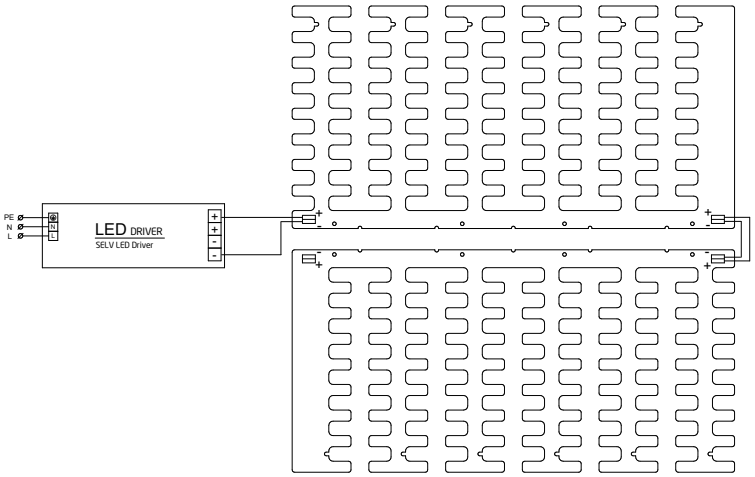


Connections

Wiring for series connection system



Wiring for parallel connection system

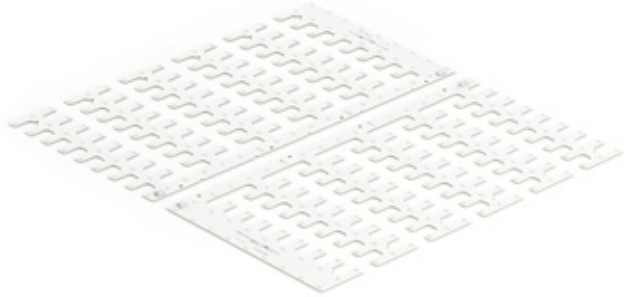


To prevent irregular luminous intensity in parallel connection use only LED modules from the same V-code group.
V-code (e.g. "A", "B", "AB") is printed on the LED module and box label. Naming is not adequate to efficacy or luminous flux.

Rectangular LED modules
519x261mm non-SELV

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 G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 519x261mm 2500lm 830 81V Opt G2	1010 117 88846	3000	180	2371	2445	71	13	186	60	900	C
RecLED 519x261mm 2500lm 840 81V Opt G2	1010 117 88946	4000	180	2568	2649	71	13	201	60	900	B

RecLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 519x261mm 2500lm 830 81V Opt G1	1010 117 47046	3000	185	2473	2558	73	13	184	60	900	C
RecLED 519x261mm 2500lm 840 81V Opt G1	1010 117 47146	4000	185	2597	2687	73	13	193	60	900	C

RecLED CRI 90 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 519x261mm 2500lm 927 81V Opt G1	1010 117 73246	2700	210	2289	2372	74	16	148	60	900	D
RecLED 519x261mm 2500lm 930 81V Opt G1	1010 117 67546	3000	210	2458	2547	74	15	159	60	900	D
RecLED 519x261mm 2500lm 940 81V Opt G1	1010 117 52446	4000	210	2628	2723	74	15	170	60	900	C

RecLED CRI 80 Basic G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 519x261mm 2500lm 830 81V Bsc G1	1010 117 45846	3000	210	2528	2615	74	16	163	60	900	D
RecLED 519x261mm 2500lm 840 81V Bsc G1	1010 117 45946	4000	210	2669	2762	74	16	172	60	900	C

[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%

Temperature & humidity

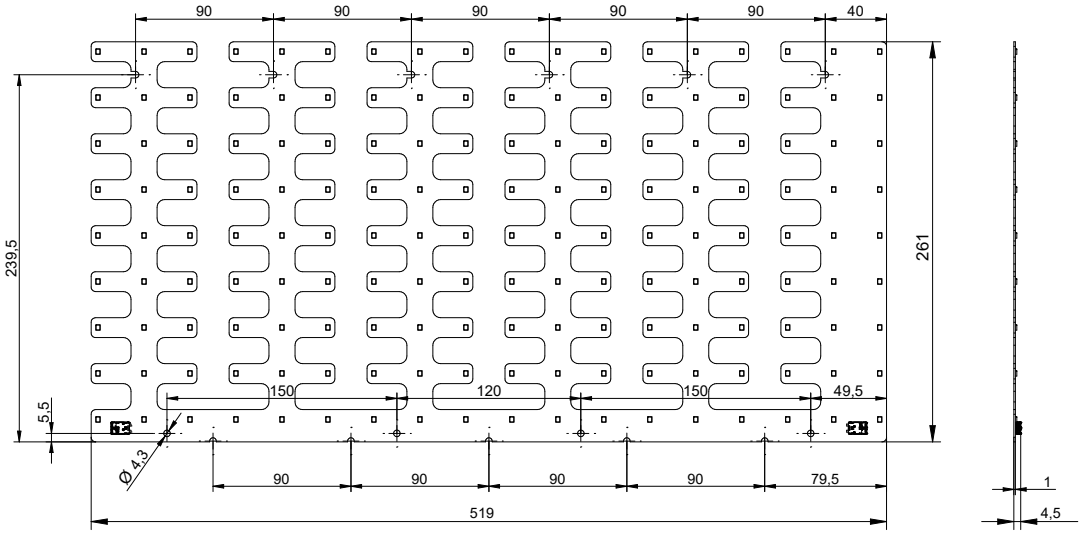
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

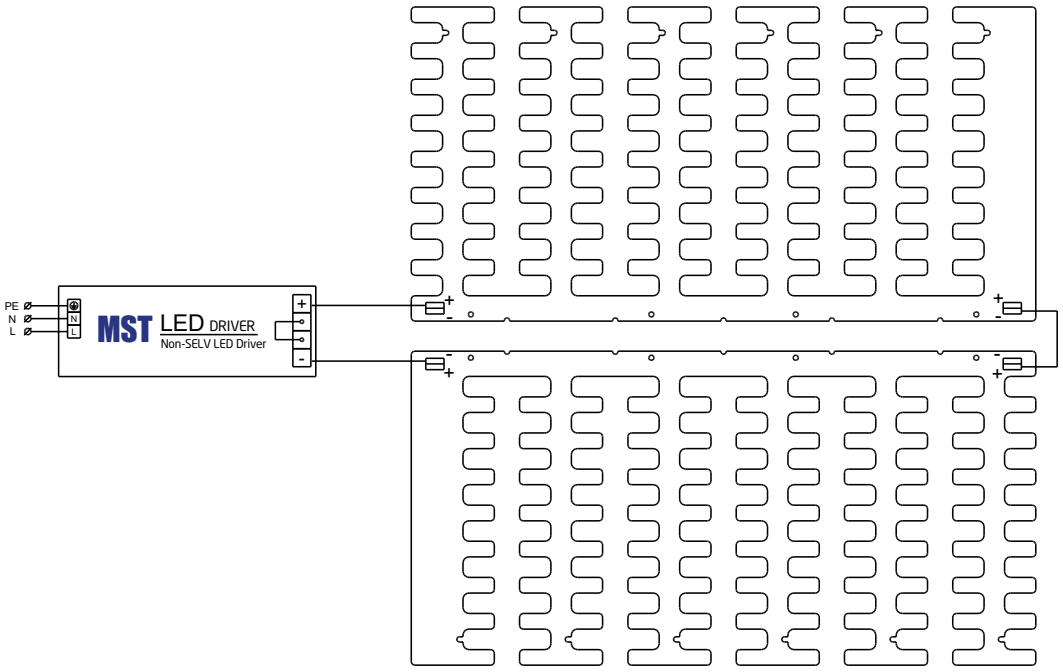
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions



Connections

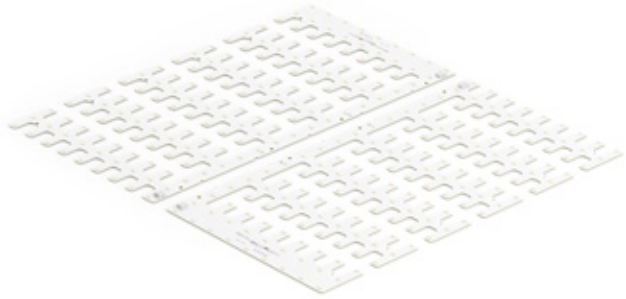
Wiring for series connection system



Rectangular LED modules
519x261mm SELV

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 G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 519x261mm 2500lm 830 48V Opt G1	1010 127 02446	3000	310	2455	2540	43	13	184	100	1500	C
RecLED 519x261mm 2500lm 840 48V Opt G1	1010 127 02546	4000	310	2579	2668	43	13	193	100	1500	C

[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%

Temperature & humidity

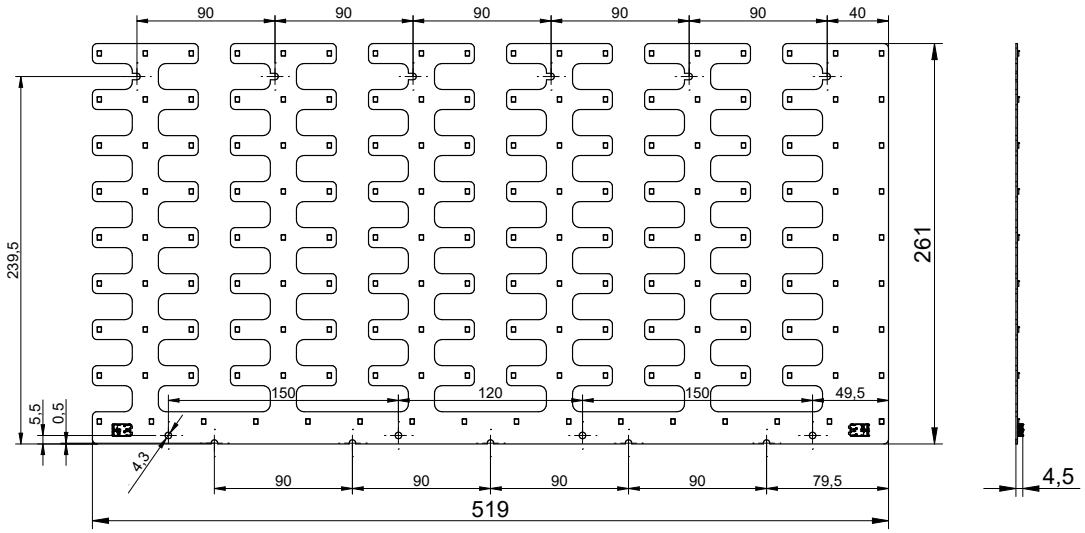
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

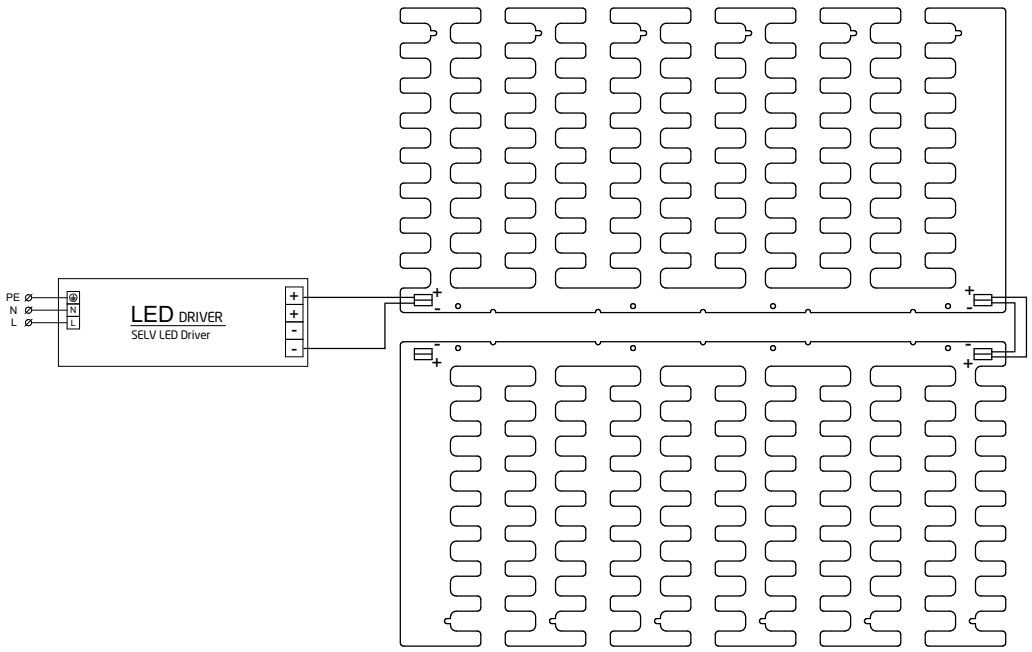
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	60
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions



Connections

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.

Round LED modules
190mm

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 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 190mm 1500lm 830 36V EMG Opt G2	1010 117 44646	3000	250	1481	1532	33	8.3	179	50	750	C
Emergency light			320	154	159	2.8	0.9	170	40	600	
RdLED 190mm 1500lm 840 36V EMG Opt G2	1010 117 44746	4000	250	1555	1609	33	8.3	188	50	750	C
Emergency light			320	161	167	2.8	0.9	179	40	600	

[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%

Temperature & humidity

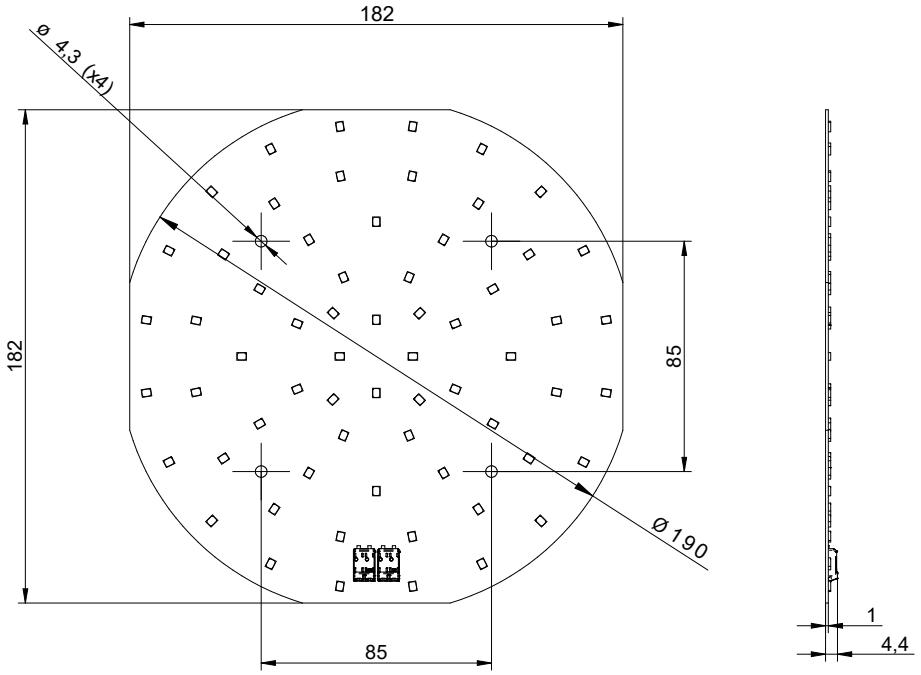
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

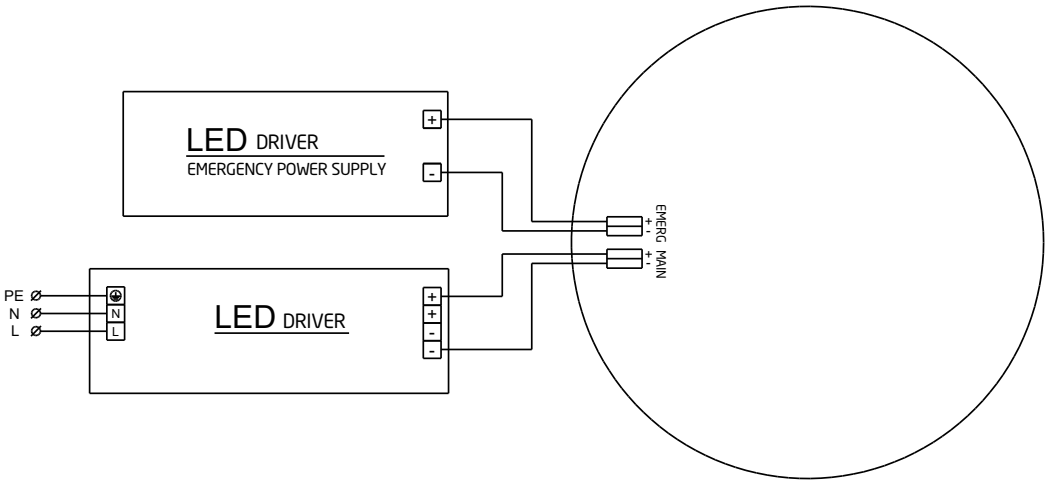
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions



Connections

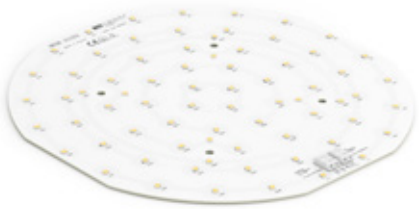
Wiring



Round LED modules
220mm

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 2200K to 6500K and CRI 80, 90



RdLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 220mm 1500lm 830 24V EMG Opt G2	1010 117 87646	3000	370	1436	1481	21	8	181	80	1200	C
Emergency light			450	211	218	2.8	1.3	166	40	600	
RdLED 220mm 1500lm 840 24V EMG Opt G2	1010 117 87746	4000	370	1556	1605	21	7.9	196	80	1200	B
Emergency light			450	229	236	2.8	1.3	180	40	600	

RdLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 220mm 1500lm 927 24V EMG Opt G2	1010 117 42246	2700	420	1325	1373	22	9.3	143	80	1200	D
Emergency light			520	186	193	3	1.6	119	40	600	
RdLED 220mm 1500lm 927 24V EMG SSW Opt G2	1010 117 75846		420	1325	1373	22	9.3	143	80	1200	D
Emergency light			520	186	193	3.0	1.6	119	40	600	
RdLED 220mm 1500lm 930 24V EMG Opt G2	1010 117 42346	3000	420	1423	1474	22	9.3	153	80	1200	D
Emergency light			520	200	208	3	1.6	128	40	600	
RdLED 220mm 1500lm 930 24V EMG SSW Opt G2	1010 117 50746		420	1423	1474	22	9.3	153	80	1200	D
Emergency light			520	200	208	3.0	1.6	128	40	600	
RdLED 220mm 1500lm 940 24V EMG Opt G2	1010 117 42446	4000	420	1521	1576	22	9.3	164	80	1200	D
Emergency light			520	214	222	3	1.6	137	40	600	
RdLED 220mm 1500lm 940 24V EMG SSW Opt G2	1010 117 50846		420	1521	1576	22	9.3	164	80	1200	D
Emergency light			420	178	222	3.0	1.2	143	40	600	

RdLED CRI 80 Optimum

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 220mm 1500lm 827-865 EMG 24V Optimum	1010 117 23046	2700	400	1486	1532	22	8.9	167	80	1200	C
		6500	400	1609	1659	22	8.9	181	80	1200	
Emergency light		6500	400	192	198	3.0	1.2	166	40	600	
RdLED 220mm 1500lm 830 EMG 24V Optimum	1010 117 21946	3000	380	1501	1553	22	8.3	180	80	1200	C
Emergency light			380	180	186	2.8	1.1	166	40	600	
RdLED 220mm 1500lm 830 EMG SSW 24V Optimum	1010 117 22146		380	1501	1553	22	8.3	180	80	1200	C
Emergency light			380	180	186	2.8	1.1	166	40	600	
RdLED 220mm 1500lm 840 EMG 24V Optimum	1010 117 22046	4000	380	1576	1631	22	8.3	189	80	1200	C
Emergency light			380	189	195	2.8	1.1	174	40	600	
RdLED 220mm 1500lm 840 EMG SSW 24V Optimum	1010 117 22246		380	1576	1631	22	8.3	189	80	1200	C
Emergency light			380	189	195	2.8	1.1	174	40	600	

[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%

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

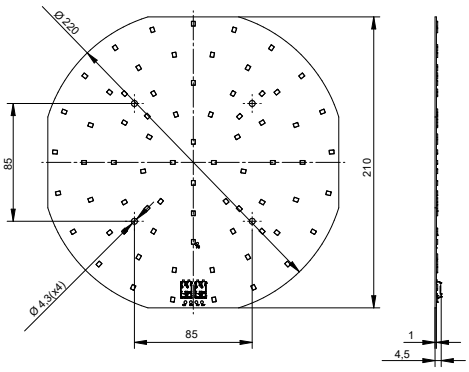
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

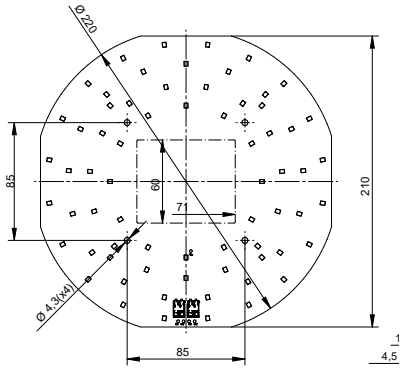
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

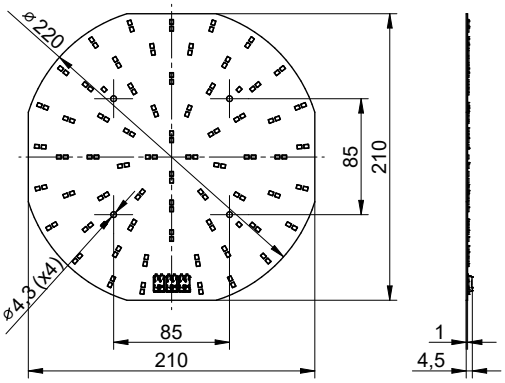
RecLED 220mm



RecLED 220mm SSW

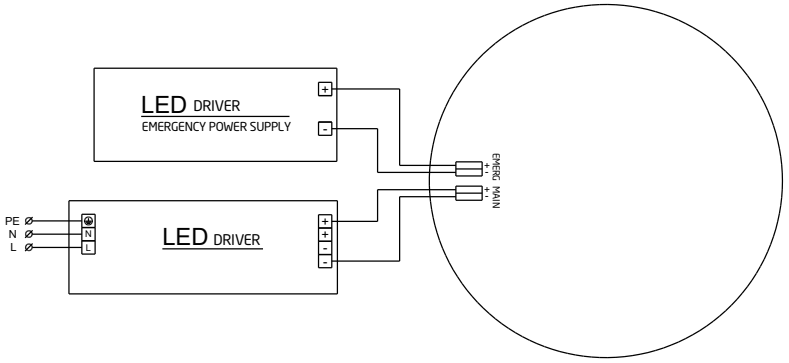


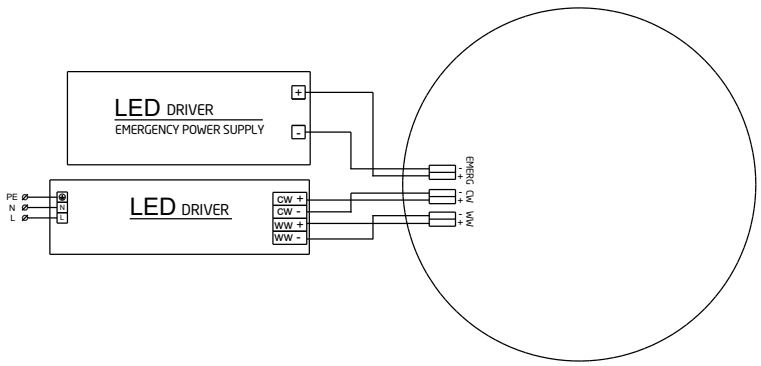
RecLED 220mm TW



Connections

Wiring





Round LED modules
255mm FLAT

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

RdLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 255mm 2500lm 830 42V FLAT Opt G1	1010 127 05246	3000	350	2422	2506	38	13	181	80	1200	C
RdLED 255mm 2500lm 840 42V FLAT Opt G1	1010 127 05346	4000	350	2544	2632	38	13	190	80	1200	B

[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%

Temperature & humidity

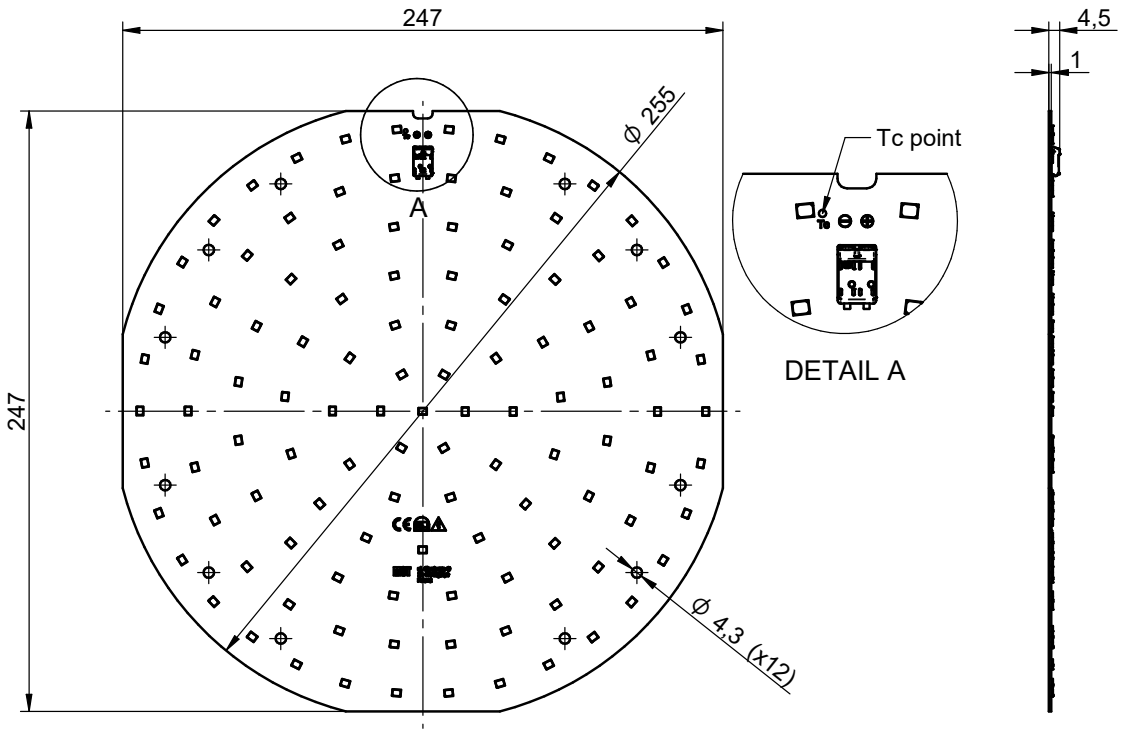
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

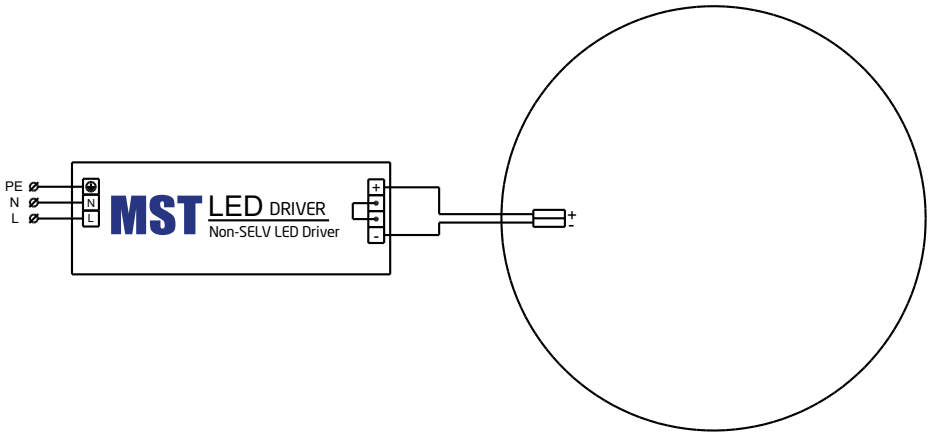
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

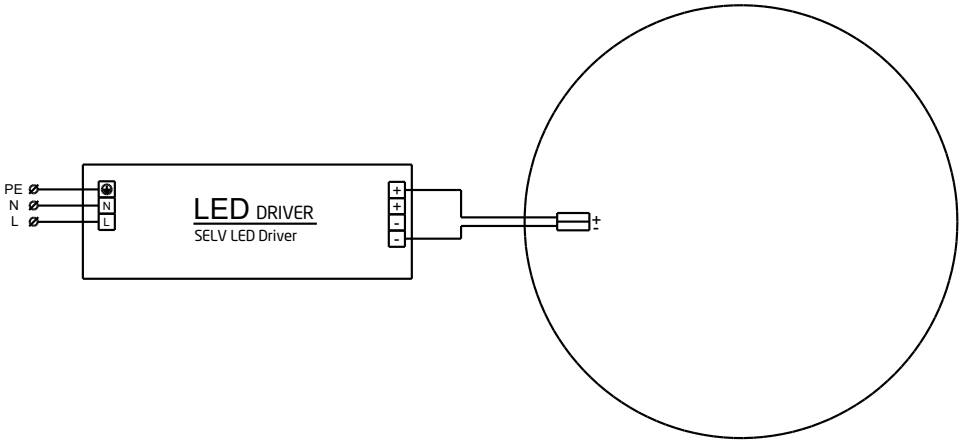


Connections

Wiring for series connection system



Wiring for parallel connection system



Round LED modules
315mm

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 2200K to 6500K and CRI 80, 90

RdLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 315mm 4000lm 830 24V EMG Opt G2	1010 117 82846	3000	1000	3846	3968	22	22	177	160	2500	C
Emergency light			450	215	222	2.7	1.2	174	60	1200	
RdLED 315mm 4000lm 840 24V EMG Opt G2	1010 117 82946	4000	1000	4166	4298	22	22	192	160	2500	C
Emergency light			450	233	240	2.7	1.2	188	60	1200	

RdLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 315mm 4000lm 927 24V EMG Opt G2	1010 117 42546	2700	1150	3550	3679	23	26	136	160	2400	E
Emergency light			450	173	179	2.9	1.3	134	60	900	
RdLED 315mm 4000lm 927 24V EMG SSW Opt G2	1010 117 87146		1150	3550	3679	23	26	136	160	2400	E
Emergency light			450	173	179	3	1.3	134	60	900	
RdLED 315mm 4000lm 930 24V EMG Opt G2	1010 117 42646	3000	1150	3813	3951	23	26	146	160	2400	D
Emergency light			450	186	193	2.9	1.3	144	60	900	
RdLED 315mm 4000lm 930 24V EMG SSW Opt G2	1010 117 50946		1150	3813	3951	23	26	146	160	2400	D
Emergency light			450	186	193	3	1.3	144	60	900	
RdLED 315mm 4000lm 940 24V EMG Opt G2	1010 117 42746	4000	1150	4075	4224	23	26	156	160	2400	D
Emergency light			450	199	206	2.9	1.3	154	60	900	
RdLED 315mm 4000lm 940 24V EMG SSW Opt G2	1010 117 51046		1150	4075	4224	23	26	156	160	2400	D
Emergency light			450	199	206	2.9	1.3	154	60	900	

RdLED CRI 80 Optimum

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 315mm 4000lm 827-865 EMG 36V Optimum	1010 117 27846	2700	700	3839	3958	34	24	162	100	1500	D
		6500	700	4157	4286	34	24	175	100	1500	
Emergency light		6500	450	222	229	2.8	1.3	174	60	900	
RdLED 315mm 4000lm 830 EMG 24V Optimum	1010 117 22346	3000	1050	4085	4227	22	23	175	160	2400	C
Emergency light			450	217	225	2.8	1.3	172	60	900	
RdLED 315mm 4000lm 830 EMG SSW 24V Optimum	1010 117 22546		1050	4085	4227	22	23	175	160	2400	C
Emergency light			450	217	219	2.8	1.3	172	60	900	
RdLED 315mm 4000lm 840 EMG 24V Optimum	1010 117 22446	4000	1050	4291	4440	22	23	183	160	2400	C
Emergency light			450	228	236	2.8	1.3	181	60	900	
RdLED 315mm 4000lm 840 EMG SSW 24V Optimum	1010 117 22646		1050	4291	4440	22	23	183	160	2400	C
Emergency light			450	228	236	2.8	1.3	181	60	900	

[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%

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

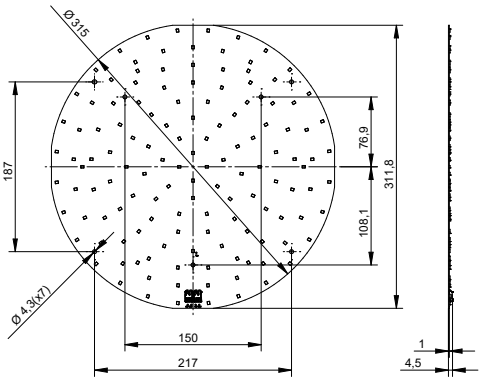
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

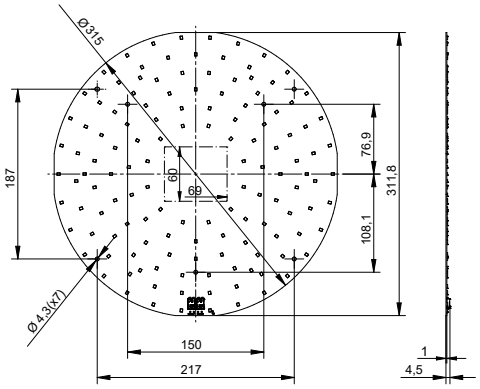
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

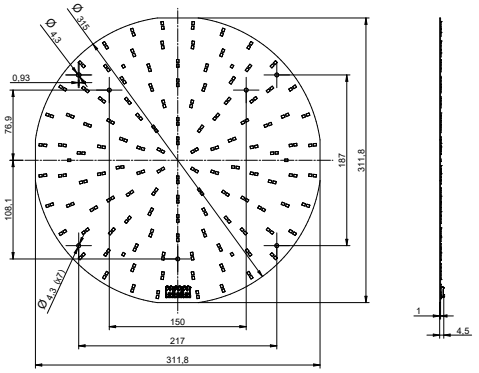
RecLED 315mm



RecLED 315mm SSW

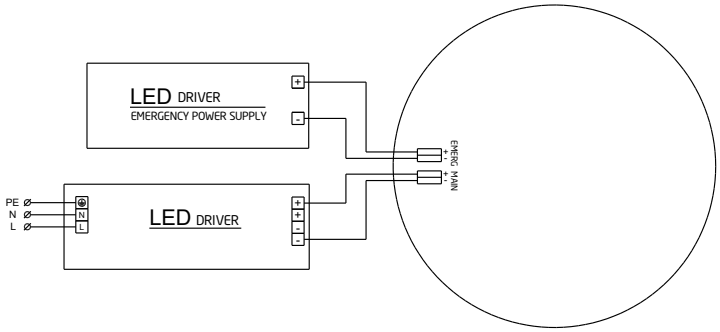


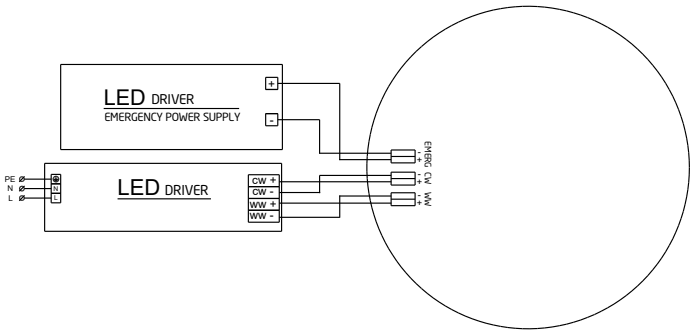
RecLED 315mm TW



Connections

Wiring





Round LED modules
350mm

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 Optimum G4

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 350mm 4000lm 830 36V Opt G4	1010 117 83046	3000	680	3878	4002	33	23	172	80	1600	C
RdLED 350mm 4000lm 840 36V Opt G4	1010 117 83146	4000	680	4202	4336	33	23	186	80	1600	C

RdLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 350mm 4000lm 830 144V Opt G3	1010 117 55946	3000	175	3969	4130	135	24	168	20	300	D
RdLED 350mm 4000lm 830 36V Opt G3	1010 117 56146		700	3969	4130	34	24	168	80	1200	D
RdLED 350mm 4000lm 840 144V Opt G3	1010 117 56046	4000	175	4174	4343	135	24	177	20	300	C
RdLED 350mm 4000lm 840 36V Opt G3	1010 117 56246		700	4174	4343	34	24	177	80	1200	C

RdLED CRI 90 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 350mm 4000lm 927 144V Opt G3	1010 117 68546	2700	200	3567	3697	142	28	125	20	300	E
RdLED 350mm 4000lm 927 36V Opt G3	1010 117 68846		800	3567	3697	36	28	125	80	1200	E
RdLED 350mm 4000lm 930 144V Opt G3	1010 117 68646	3000	200	3831	3971	142	28	135	20	300	E
RdLED 350mm 4000lm 930 36V Opt G3	1010 117 68946		800	3831	3971	36	28	135	80	1200	E
RdLED 350mm 4000lm 940 144V Opt G3	1010 117 68746	4000	200	4095	4245	142	28	144	20	300	D
RdLED 350mm 4000lm 940 36V Opt G3	1010 117 69046		800	4095	4245	36	28	144	80	1200	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%

Temperature & humidity

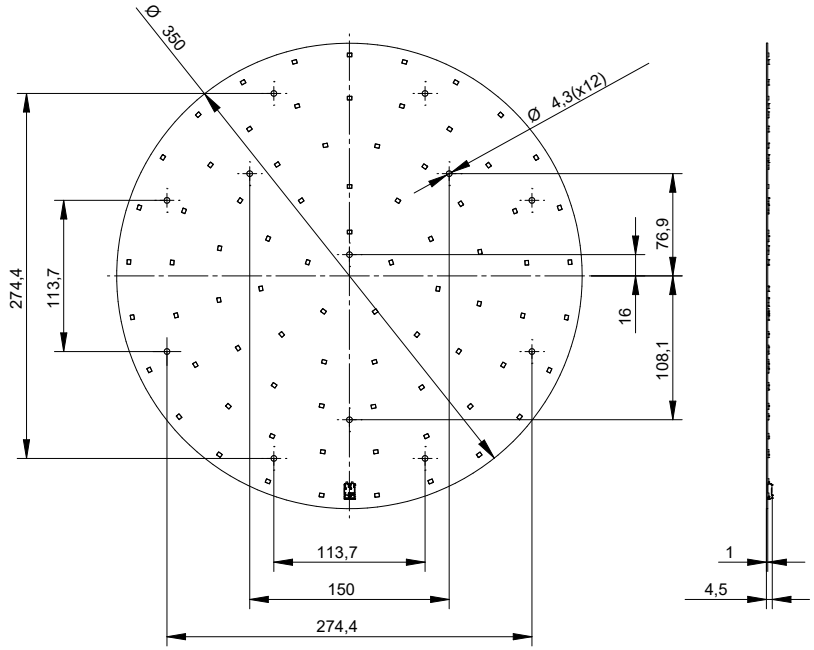
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

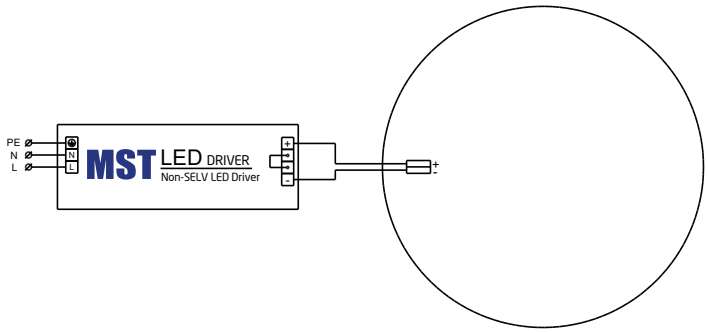
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

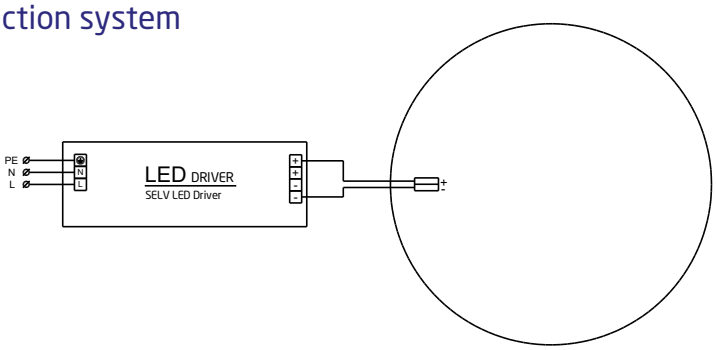


Connections

Wiring for series connection system



Wiring for parallel connection system



Round LED modules
350mm FLAT

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 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 350mm 4000lm 830 108V FLAT Opt G1	1010 117 85546	3000	225	3954	4091	99	22	178	60	900	C
RdLED 350mm 4000lm 830 36V FLAT Opt G1	1010 117 85346		670	3925	4061	33	22	178	180	2700	C
RdLED 350mm 4000lm 840 108V FLAT Opt G1	1010 117 85646	4000	225	4214	4359	99	22	190	60	900	C
RdLED 350mm 4000lm 840 36V FLAT Opt G1	1010 117 85446		670	4183	4328	33	22	190	180	2700	C

[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%

Temperature & humidity

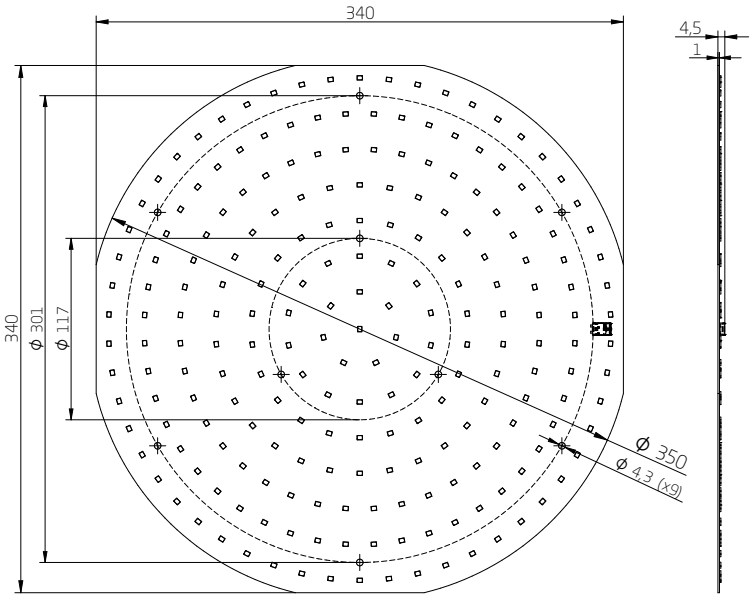
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

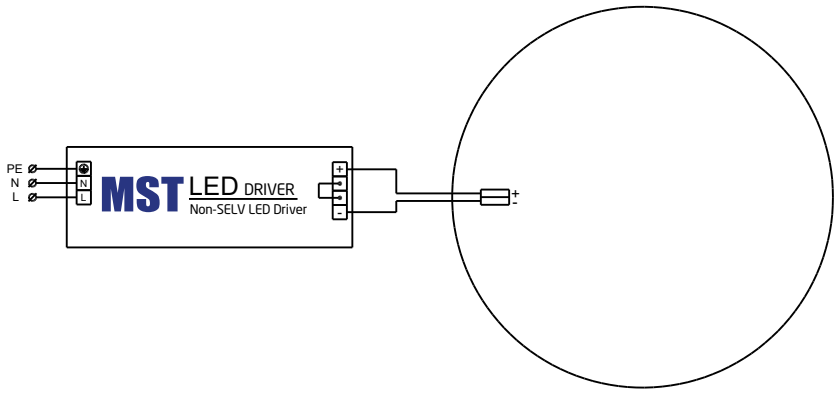
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

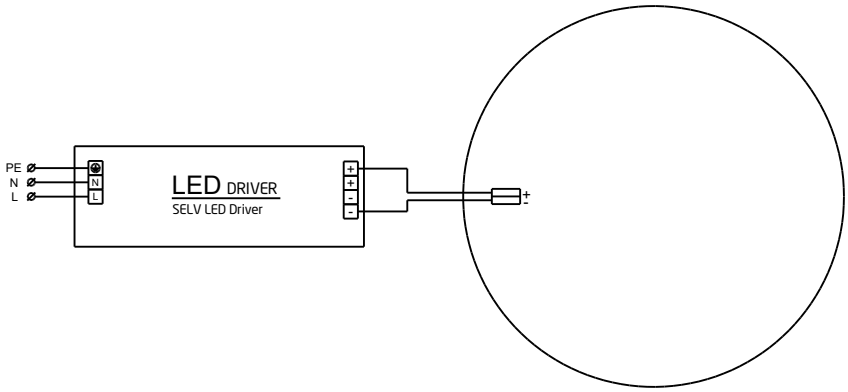


Connections

Wiring for series connection system



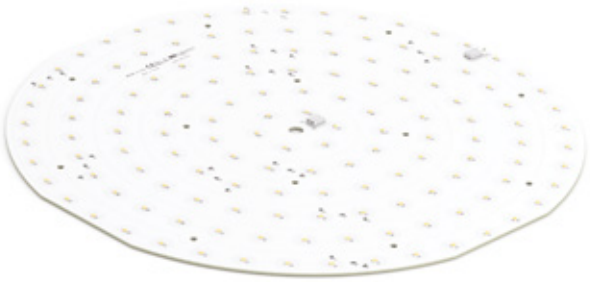
Wiring for parallel connection system



Round LED modules
400mm

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 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 400mm 4000lm 830 105V Opt G2	1010 117 90446	3000	225	3860	3994	98	22	176	40	600	C
RdLED 400mm 4000lm 830 42V Opt G2	1010 117 90646		565	3877	4011	39	22	175	100	1500	C
RdLED 400mm 4000lm 840 105V Opt G2	1010 117 90546	4000	225	4055	4195	98	22	184	40	600	C
RdLED 400mm 4000lm 840 42V Opt G2	1010 117 90746		565	4072	4213	39	22	184	100	1500	C

RdLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 400mm 4200lm 827-865 33V Opt G1	1010 117 41746	2700	780	4022	4161	31	24	167	120	1800	D
		6500	780	4350	4500	31	24	180	120	1800	C

[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%

Temperature & humidity

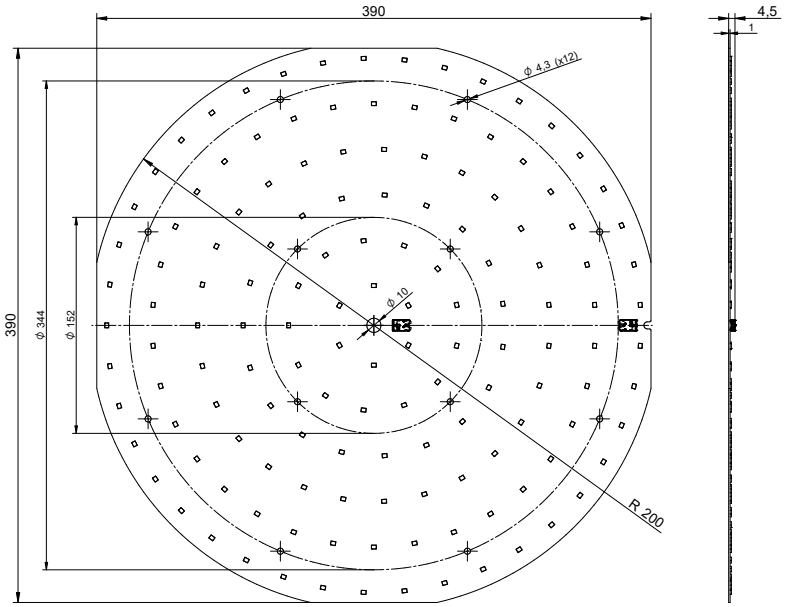
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

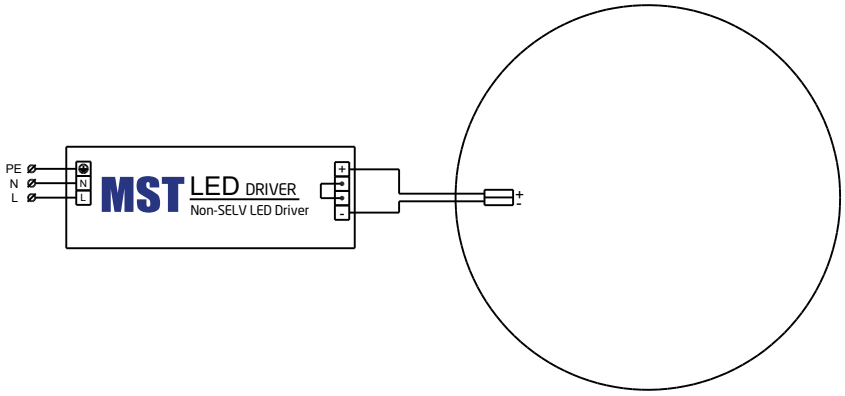
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

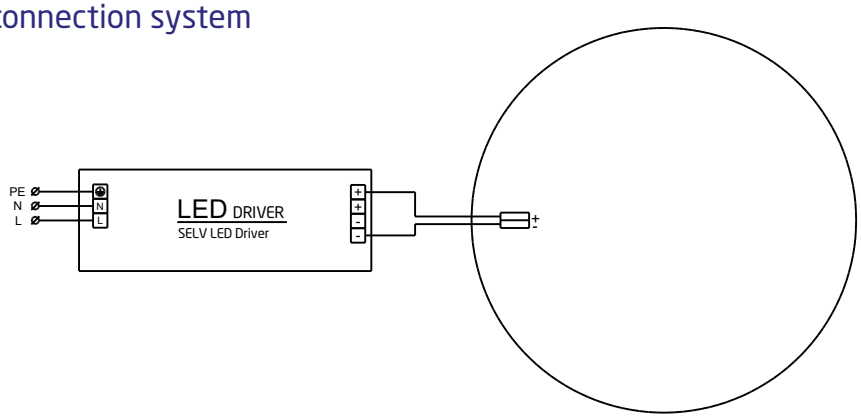


Connections

Wiring for series connection system



Wiring for parallel connection system



Round LED modules
440mm

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 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 440mm 5000lm 830 117V Opt G2	1010 117 72146	3000	260	4845	5042	108	28	173	40	600	C
RdLED 440mm 5000lm 830 39V Opt G2	1010 117 72346		780	4845	5042	36	28	172	120	1800	C
RdLED 440mm 5000lm 840 117V Opt G2	1010 117 72246	4000	260	5095	5302	108	28	182	40	600	C
RdLED 440mm 5000lm 840 39V Opt G2	1010 117 72446		780	5095	5302	36	28	181	120	1800	C

RdLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 440mm 5000lm 930 117V Opt G2	1010 117 71746	3000	290	4684	4855	111	32	145	40	600	D
RdLED 440mm 5000lm 930 39V Opt G2	1010 117 71946		870	4684	4855	37	32	145	120	1800	D
RdLED 440mm 5000lm 940 117V Opt G2	1010 117 71846	4000	290	5008	5190	111	32	155	40	600	D
RdLED 440mm 5000lm 940 39V Opt G2	1010 117 72046		870	5008	5190	37	32	155	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%

Temperature & humidity

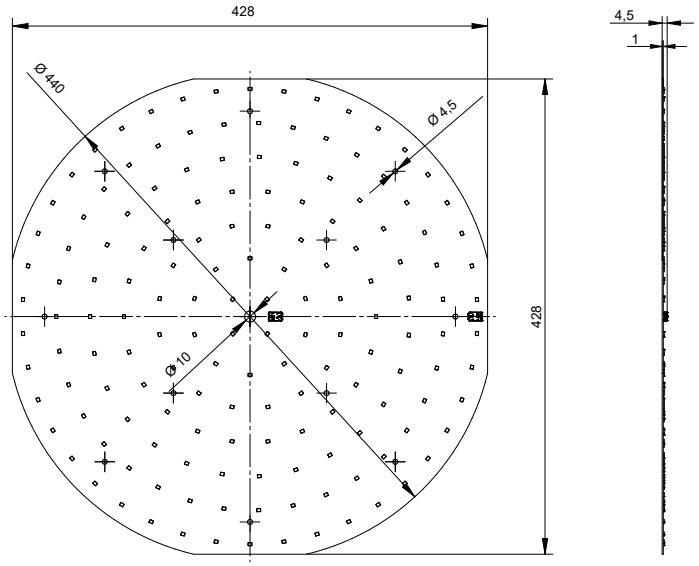
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

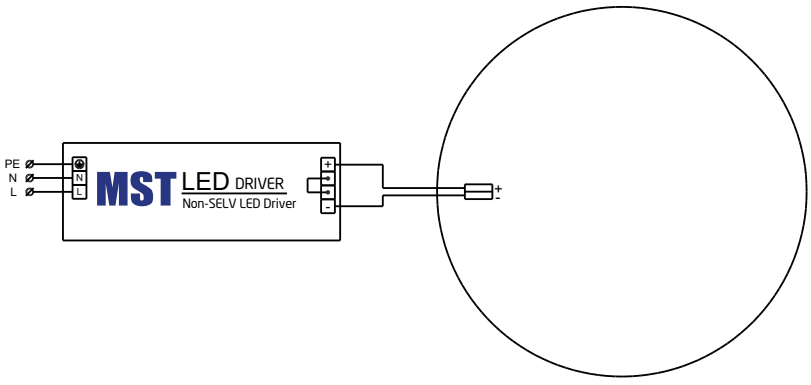
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

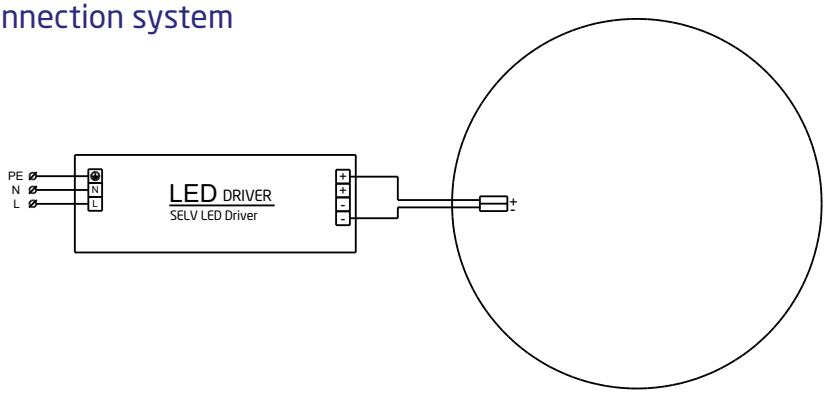


Connections

Wiring for series connection system



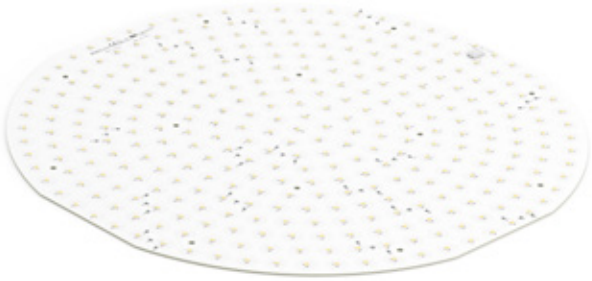
Wiring for parallel connection system



Round LED modules
440mm FLAT

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 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 440mm 5000lm 830 126V FLAT Opt G1	1010 117 85946	3000	235	4835	5001	114	27	180	80	1200	C
RdLED 440mm 5000lm 830 42V FLAT Opt G1	1010 117 85746		720	4936	5106	38	27	180	240	3600	C
RdLED 440mm 5000lm 840 126V FLAT Opt G1	1010 117 86046	4000	235	5152	5330	114	27	192	80	1200	C
RdLED 440mm 5000lm 840 42V FLAT Opt G1	1010 117 85846		720	5260	5442	38	27	192	240	3600	C

[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%

Temperature & humidity

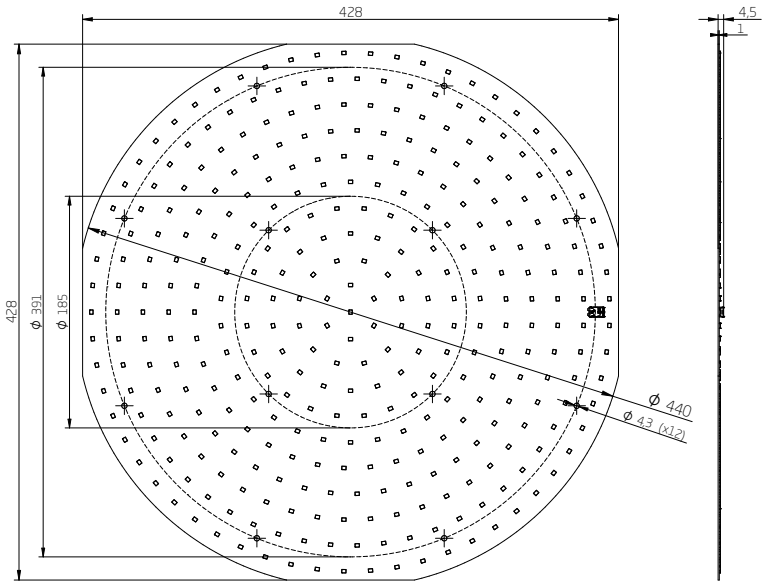
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

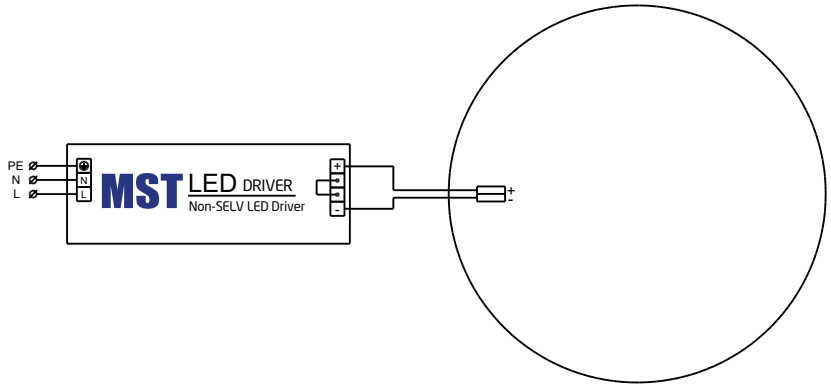
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

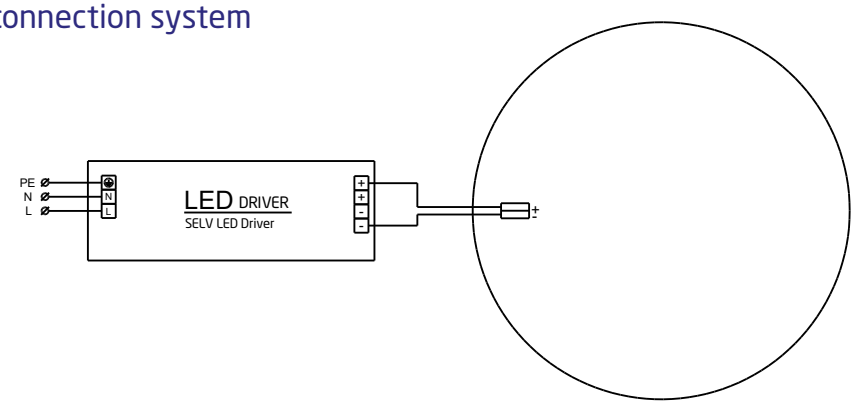


Connections

Wiring for series connection system



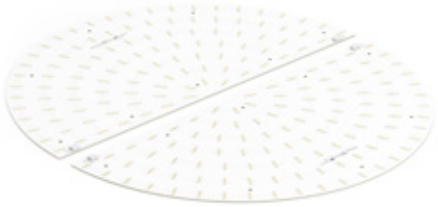
Wiring for parallel connection system

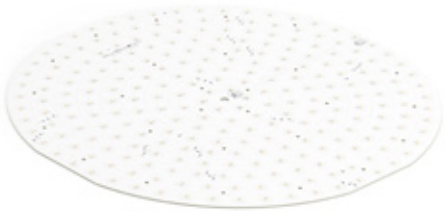


Round LED modules
530mm & 1/2 530mm

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 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 530mm 4000lm 830 126V Opt G2	1010 117 55246	3000	185	3847	3979	113	21	184	60	900	C
RdLED 530mm 4000lm 830 42V Opt G2	1010 117 55046		560	3881	4015	38	21	184	180	2700	C
RdLED 530mm 4000lm 840 126V Opt G2	1010 117 55346	4000	185	4040	4161	115	21	193	60	960	C
RdLED 530mm 4000lm 840 42V Opt G2	1010 117 55146		560	4077	4217	38	21	193	180	2700	C

RdLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 1/2 530mm 3000lm 827-865 39V Opt G1	1010 117 41846	2700	470	2902	3139	36	17	171	80	1200	D
		6500	470	3083	3247	36	17	185	80	1200	

[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%

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

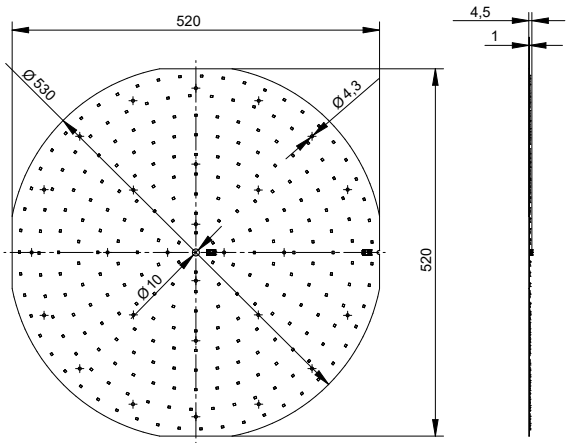
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

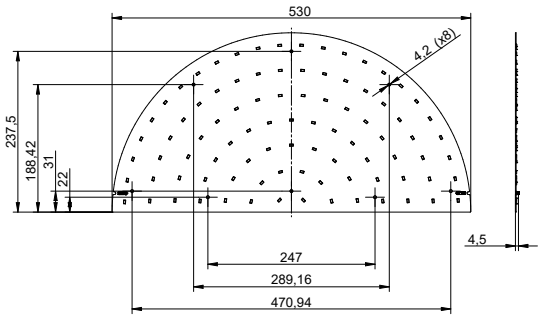
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

RecLED 530mm

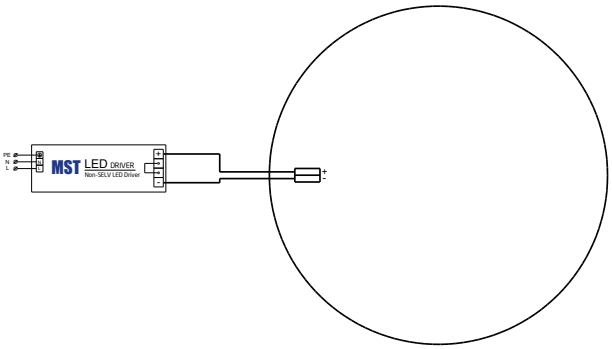


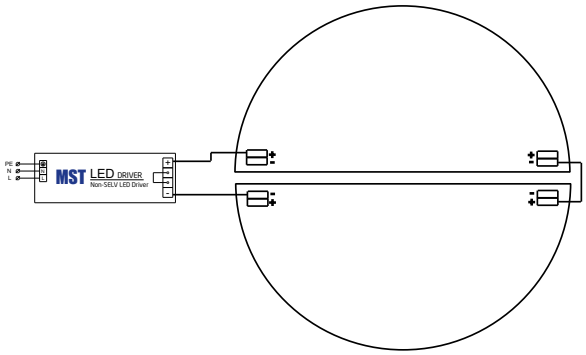
RecLED 1/2 530mm



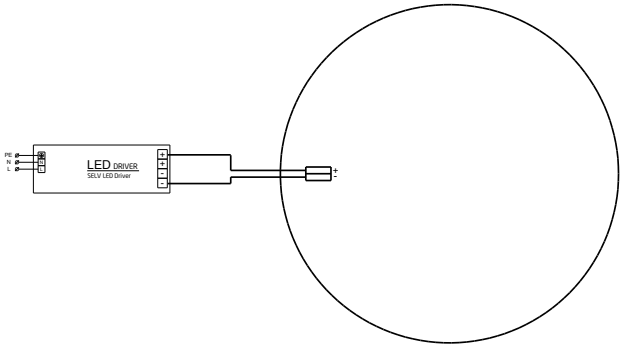
Connections

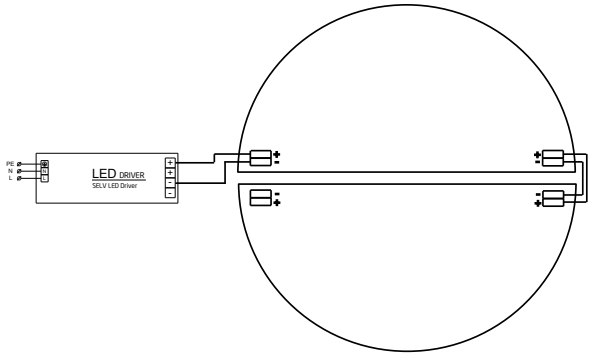
Wiring for series connection system





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.

Round LED modules
580mm

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 2200K to 6500K and CRI 80, 90

RdLED CRI 80 Optimum G3

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 580mm 8000lm 830 48V Opt G3	1010 117 83246	3000	980	7509	7748	44	43	175	140	2800	C
RdLED 580mm 8000lm 840 48V Opt G3	1010 117 83346	4000	980	8135	8394	44	43	190	140	2800	C

RdLED CRI 80 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 580mm 8000lm 830 168V Opt G2	1010 117 53246	3000	290	7785	8026	156	45	173	40	600	C
RdLED 580mm 8000lm 830 48V Opt G2	1010 117 53046		1020	7821	8063	44	45	172	140	2100	C
RdLED 580mm 8000lm 840 168V Opt G2	1010 117 53346	4000	290	8183	8436	156	45	181	40	600	C
RdLED 580mm 8000lm 840 48V Opt G2	1010 117 53146		1020	8221	8475	44	45	181	140	2100	C

RdLED CRI 90 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 580mm 8000lm 930 48V Opt G2	1010 117 98346	3000	1190	7770	8053	47	55	140	140	2100	E
RdLED 580mm 8000lm 940 48V Opt G2	1010 117 96046	4000	1190	8306	8608	47	55	150	140	2100	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%

Temperature & humidity

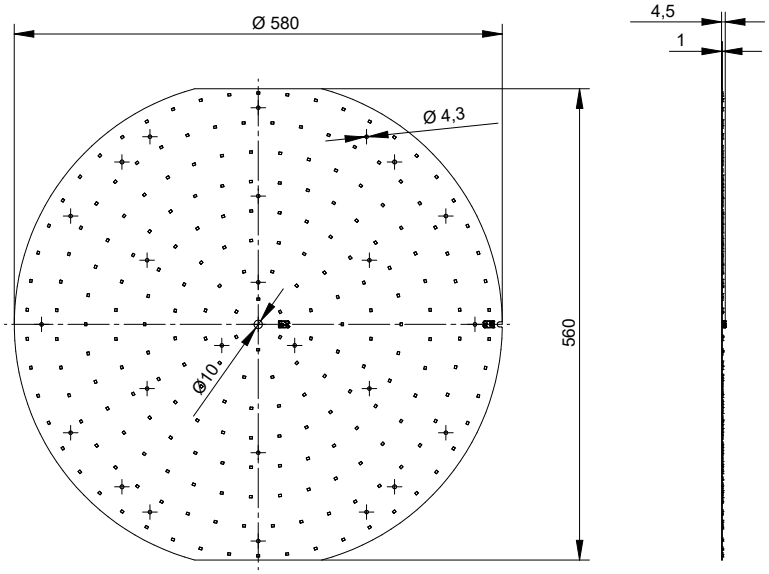
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

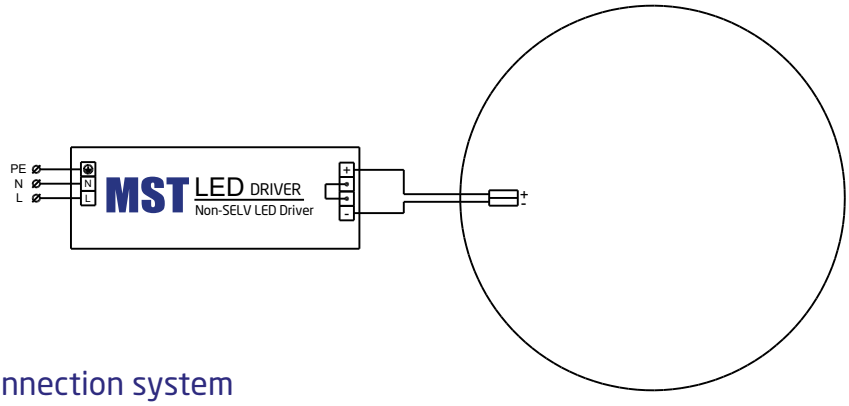
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

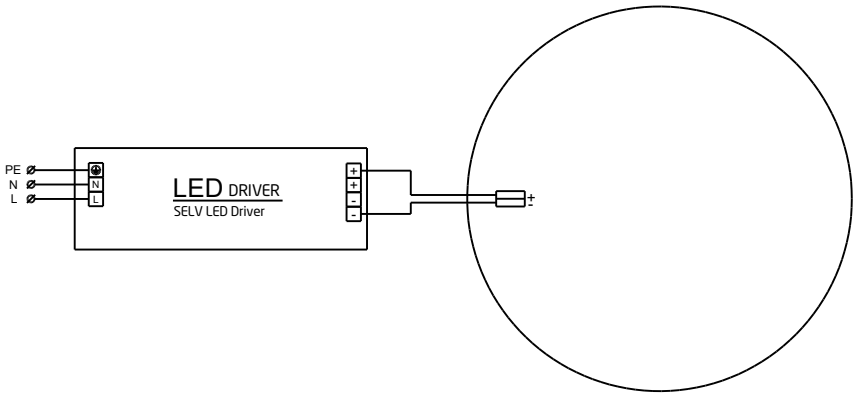


Connections

Wiring for series connection system



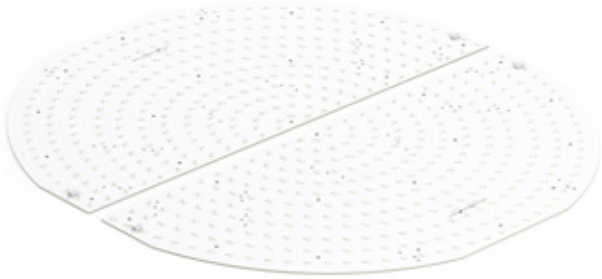
Wiring for parallel connection system



Round LED modules
1/2 740mm

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 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 1/2 740mm 5000lm 830 90V Opt G2	1010 117 87446	3000	320	4765	4930	82	26	182	100	1500	C
RdLED 1/2 740mm 5000lm 830 45V Opt G2	1010 117 87246		640	4765	4930	41	26	182	200	2500	C
RdLED 1/2 740mm 5000lm 840 90V Opt G2	1010 117 87546	4000	320	5005	5178	82	26	191	100	1500	C
RdLED 1/2 740mm 5000lm 840 45V Opt G2	1010 117 87346		640	5005	5178	41	26	191	200	2500	C

[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%

Temperature & humidity

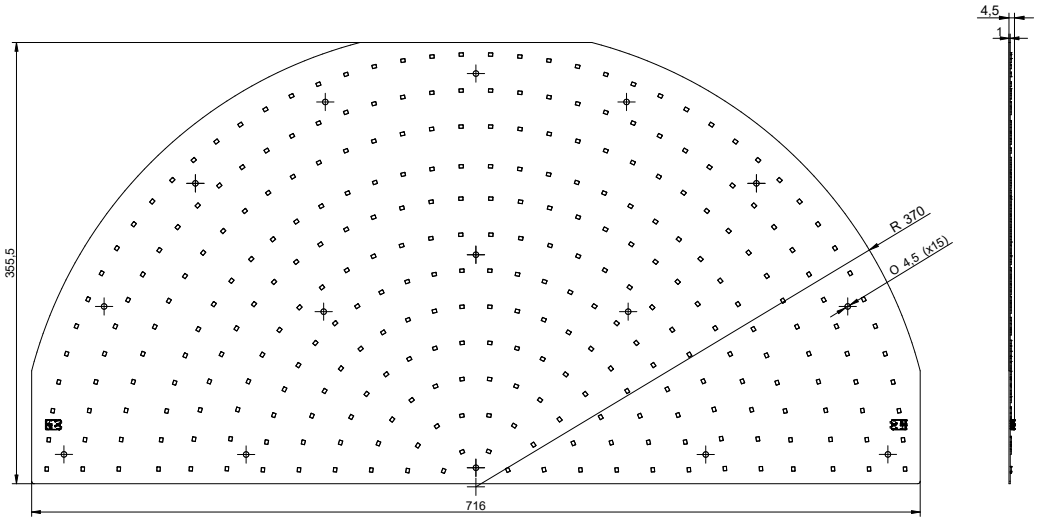
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

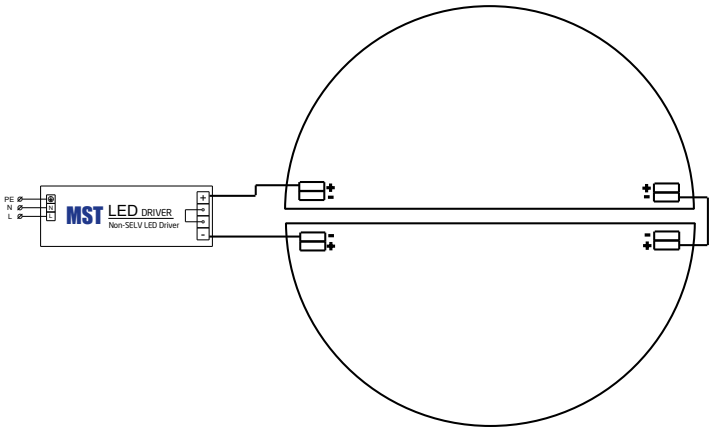
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	350
Beam angle	[deg]	120
Initial color consistency	[SDCM]	3
Photobiological safety		RG1 unlimited

Dimensions

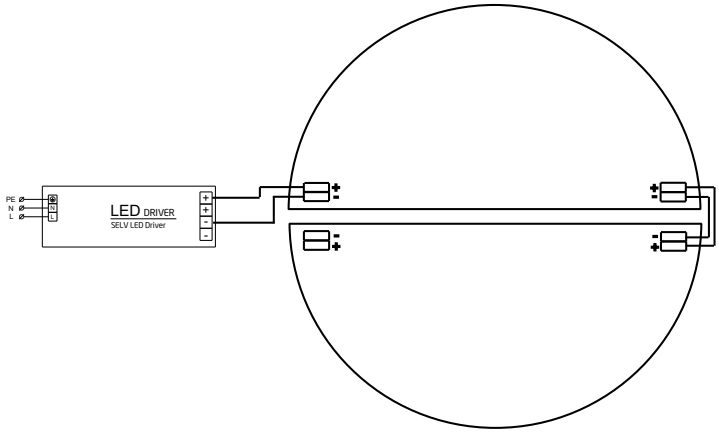


Connections

Wiring for series connection system



Wiring for parallel connection system

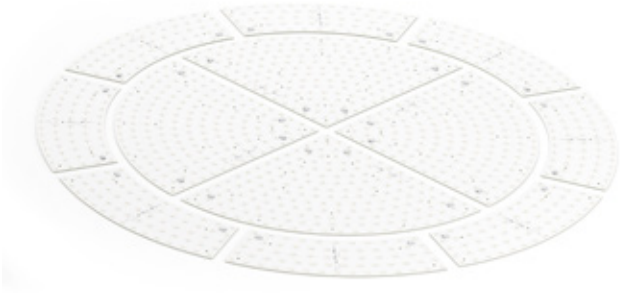


To prevent irregular luminous intensity in parallel connection use only LED modules from the same V-code group.
V-code (e.g. “A”, “B”, “AB”) is printed on the LED module and box label. Naming is not adequate to efficacy or luminous flux.

Round LED modules **1/4 800mm & Ring 1/8 820-1080mm**

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 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 1/4 800mm 3000lm 830 33V Opt G2	1010 117 87846	3000	540	2893	2984	29	16	185	160	2500	C
RdLED Ring 1/8 820-1080mm 1100lm 830 24V Opt G2	1010 117 88046		270	1052	1085	21	5.7	185	80	2500	C
RdLED 1/4 800mm 3000lm 840 33V Opt G2	1010 117 87946	4000	540	3134	3232	29	16	200	160	2500	B
RdLED Ring 1/8 820-1080mm 1100lm 840 24V Opt G2	1010 117 88146		270	1140	1175	21	5.7	200	80	2500	B

RdLED CRI 80 Optimum

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 1/4 800mm 3000lm 830 33V Optimum	1010 117 23246	3000	560	3047	3152	30	17	183	160	2400	C
RdLED Ring 1/8 820-1080mm 1100lm 830 24V Optimum	1010 117 23446		280	1108	1146	22	6.1	183	80	1200	C
RdLED 1/4 800mm 3000lm 840 33V Optimum	1010 117 23346	4000	560	3201	3311	30	17	192	160	2400	C
RdLED Ring 1/8 820-1080mm 1100lm 840 24V Optimum	1010 117 23546		280	1164	1204	22	6.1	192	80	1200	C

RdLED CRI 90 Optimum

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdLED 1/4 800mm 3000lm 930 33V Optimum	1010 117 46446	3000	600	2861	2964	30	18	158	160	2400	D
RdLED Ring 1/8 820-1080mm 1100lm 930 24V Optimum	1010 127 07146		300	1040	1078	22	6.6	158	80	1200	D
RdLED 1/4 800mm 3000lm 940 33V Optimum	1010 117 30946	4000	600	3058	3169	30	18	169	160	2400	C
RdLED Ring 1/8 820-1080mm 1100lm 940 24V Optimum	1010 127 07246		300	1112	1152	22	6.6	169	80	1200	C

[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%

Temperature & humidity

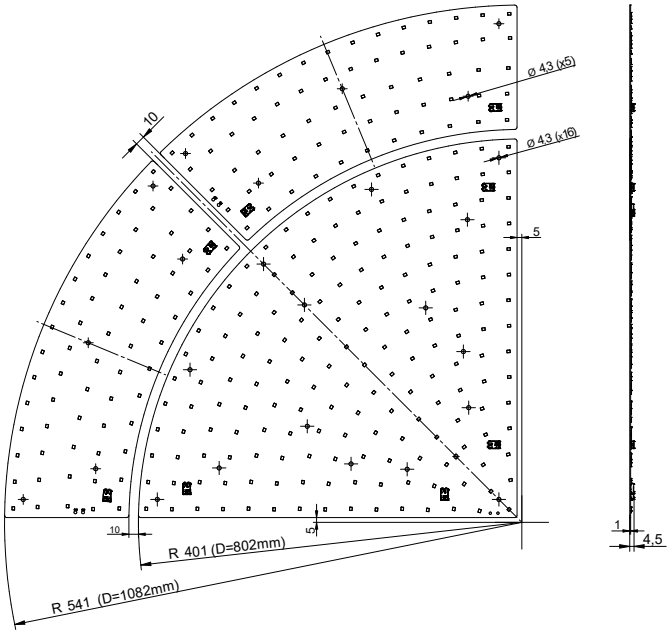
Specification item	Unit	Value
Tp	[°C]	45
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

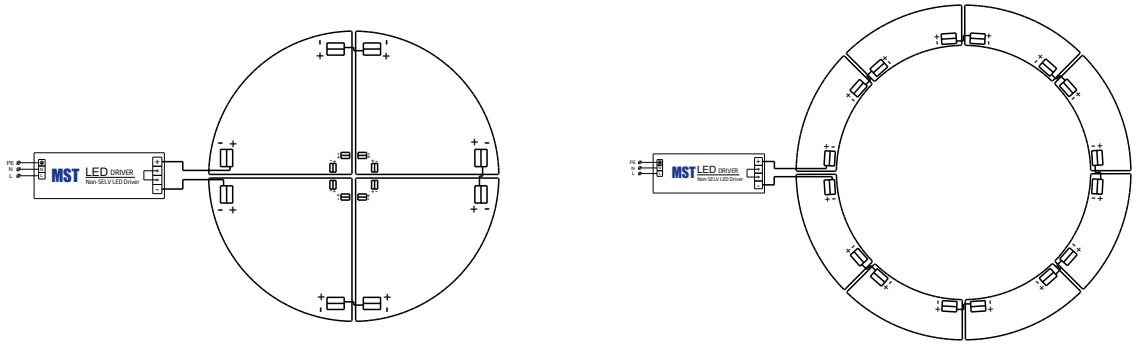
Specification item	Unit	RdLED 1/4 800mm	RdLED Ring 1/8 820-1080mm
Classification acc. to IEC 62031		built-in	built-in
Working voltage	[Vdc]	400	340
Beam angle	[deg]	120	120
Initial color consistency	[SDCM]	3	3
Photobiological safety		RG1 unlimited	RG1 unlimited

Dimensions

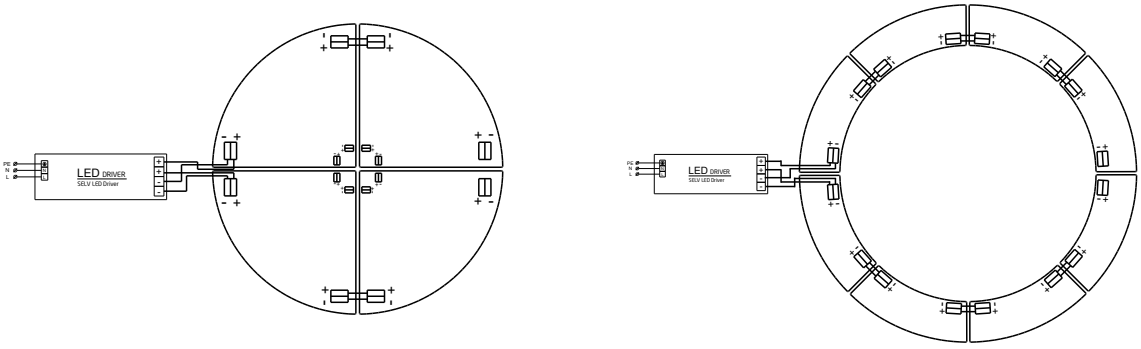


Connections

Wiring for series connection system



Wiring for parallel connection system

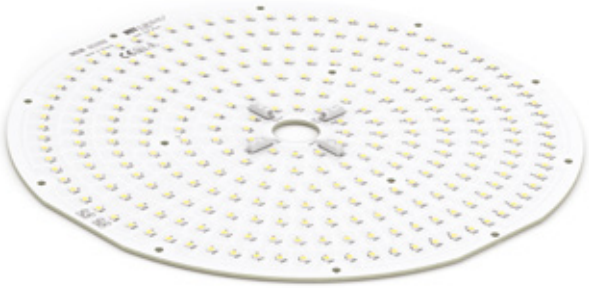


To prevent irregular luminous intensity in parallel connection use only LED modules from the same V-code group.
V-code (e.g. “A”, “B”, “AB”) is printed on the LED module and box label. Naming is not adequate to efficacy or luminous flux.

High Bay LED modules
250mm

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



RdLED CRI 80 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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
RdED 250mm 2x13000lm 840 170W 2x84V Opt G1	1010 117 64346	4000	1050	13044	14109	81	85	153	100	2000	D
			1050	13044	14109	81	85	153	100	2000	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%

Temperature & humidity

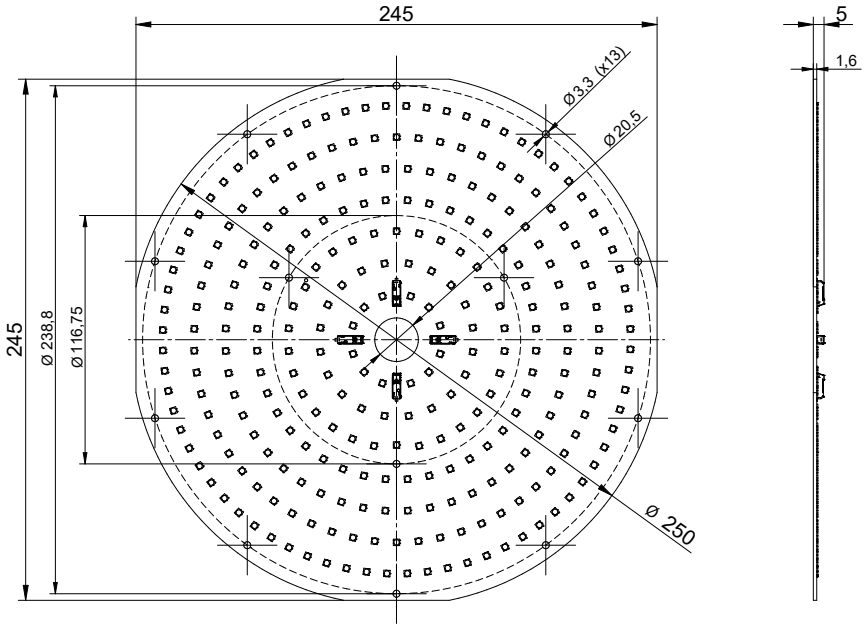
Specification item	Unit	Value
Tp	[°C]	65
Tp rated	[°C]	65
Tc	[°C]	85
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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

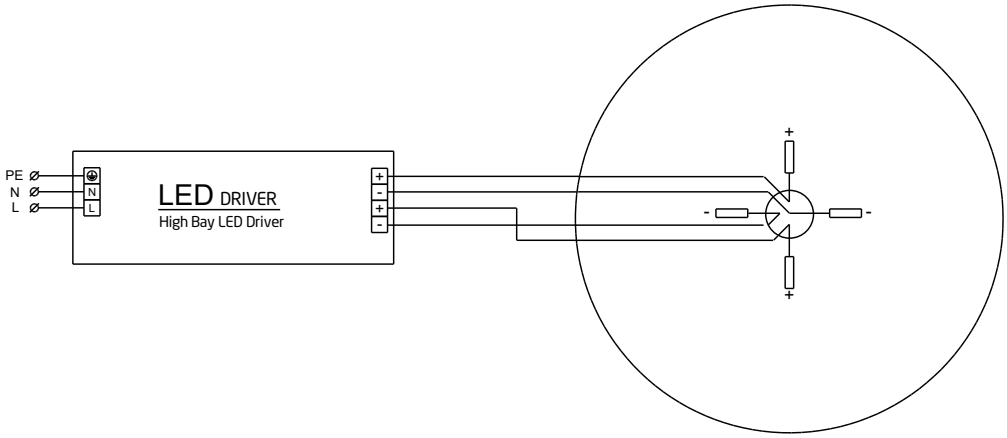
Technical data

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

Dimensions



Connections



Outdoor LED modules

A rectangular solution for outdoor lighting.
Compatible with standard 2x2 optics for example LEDiL Strada 2x2.

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 70, 80, 90, 95

RecLED 122x50mm 2x4 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 122x50mm 1900lm 730 2x4 Opt G2	1010 117 63146	3000	520	1854	1998	22	11	163	100	1500	D
RecLED 122x50mm 1900lm 740 2x4 Opt G2	1010 117 63246	4000	520	1972	2125	22	11	173	100	1500	C

RecLED 173x50mm 2x6 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 173x50mm 2900lm 730 2x6 Opt G2	1010 117 63446	3000	520	2782	2997	33	17	163	100	1500	D
RecLED 173x50mm 2900lm 740 2x6 Opt G2	1010 117 63546	4000	520	2958	3187	33	17	173	100	1500	C

RecLED 224x50mm 2x8 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 224x50mm 3800lm 730 2x8 Opt G2	1010 117 63746	3000	520	3709	3996	44	23	163	200	1500	D
RecLED 224x50mm 3800lm 740 2x8 Opt G2	1010 117 63846	4000	520	3944	4250	44	23	173	200	1500	C

RecLED 122x50mm 2x4 CRI 70 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 122x50mm 1900lm 730 2x4 Opt G1	1010 117 51246	3000	520	1796	1935	22	11	158	100	1500	D
RecLED 122x50mm 1900lm 740 2x4 Opt G1	1010 117 51346	4000	520	1913	2061	22	11	168	100	1500	C
RecLED 122x50mm 1900lm 765 2x4 Opt G1	1010 117 51446	6500	520	1913	2061	22	11	168	100	1500	C

RecLED 173x50mm 2x6 CRI 70 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 173x50mm 2900lm 730 2x6 Opt G1	1010 117 51546	3000	520	2693	2902	33	17	158	100	1500	D
RecLED 173x50mm 2900lm 740 2x6 Opt G1	1010 117 51646	4000	520	2870	3092	33	17	168	100	1500	C
RecLED 173x50mm 2900lm 765 2x6 Opt G1	1010 117 51746	6500	520	2870	3092	33	17	168	100	1500	C

RecLED 224x50mm 2x8 CRI 70 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 224x50mm 3800lm 730 2x8 Opt G1	1010 117 51846	3000	520	3591	3869	44	23	158	200	1500	D
RecLED 224x50mm 3800lm 740 2x8 Opt G1	1010 117 51946	4000	520	3827	4123	44	23	168	200	1500	C
RecLED 224x50mm 3800lm 765 2x8 Opt G1	1010 117 52046	6500	520	3827	4123	44	23	168	200	1500	C

[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%

Temperature & humidity

Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

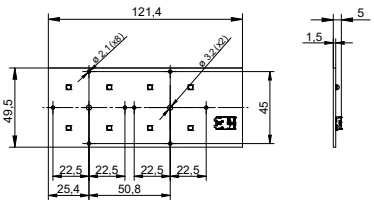
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

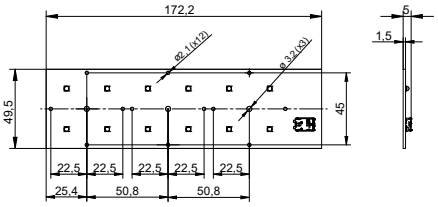
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	420
Beam angle	[deg]	120
Initial color consistency	[SDCM]	5
Photobiological safety		RG2 (RG1 at >0.5m distance)

Dimensions

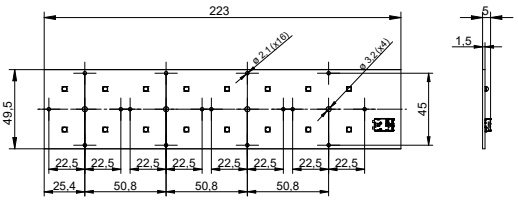
RecLED 122x50mm 2x4



RecLED 173x50mm 2x6



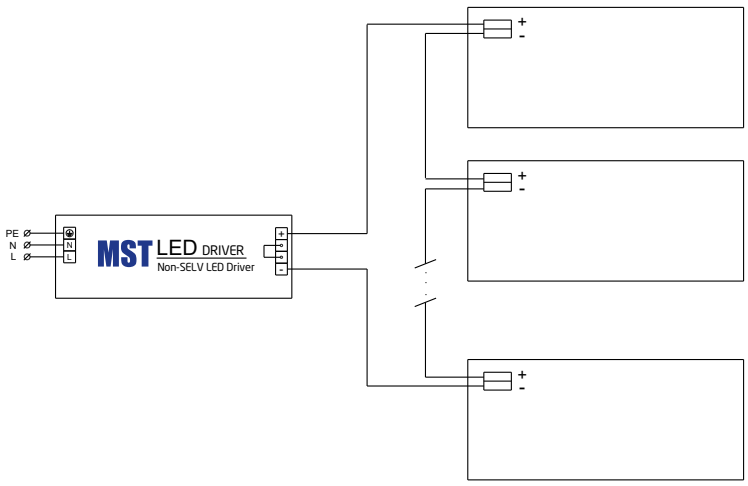
RecLED 224x50mm 2x8



Connections

Max number of modules	Unit	Series	Parallel
RecLED 122x50mm 2x4	[pcs]	16	-
RecLED 173x50mm 2x6	[pcs]	11	-
RecLED 224x50mm 2x8	pcs]	8	-

Wiring for series connection system



Outdoor LED modules
6x6 & 8x8

A rectangular solution for outdoor lighting.
Compatible with standard 2x2 optics for example LEDiL's STRADA-2x2.

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 70, 80, 90, 95

RecLED 173x151mm 6x6 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 173x151mm 8700lm 730 6x6 Opt G2	1010 117 91746	3000	520	8345	8991	99	51	163	100	1500	D
RecLED 173x151mm 8700lm 740 6x6 Opt G2	1010 117 91846	4000	520	8875	9562	99	51	173	100	1500	C

RecLED 224x202mm 8x8 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 224x202mm 15200lm 730 8x8 Opt G2	1010 117 92046	3000	520	14835	15984	175	91	163	100	1500	D
RecLED 224x202mm 15200lm 740 8x8 Opt G2	1010 117 92146	4000	520	15777	16998	175	91	173	100	1500	C

RecLED 173x151mm 6x6 CRI 70 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 173x151mm 8700lm 730 6x6 Opt G1	1010 117 65646	3000	520	8080	8705	99	51	158	200	1500	D
RecLED 173x151mm 8700lm 740 6x6 Opt G1	1010 117 65746	4000	520	8610	9276	99	51	168	200	1500	C
RecLED 173x151mm 8700lm 765 6x6 Opt G1	1010 117 65846	6500	520	8610	9276	99	51	168	200	1500	C

RecLED 224x202mm 8x8 CRI 70 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 224x202mm 15200lm 730 8x8 Opt G1	1010 117 65946	3000	520	14364	15476	175	91	158	200	1500	D
RecLED 224x202mm 15200lm 740 8x8 Opt G1	1010 117 66046	4000	520	15306	16491	175	91	168	200	1500	C
RecLED 224x202mm 15200lm 765 8x8 Opt G1	1010 117 66146	6500	520	15306	16491	175	91	168	200	1500	C

[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%

Temperature & humidity

Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

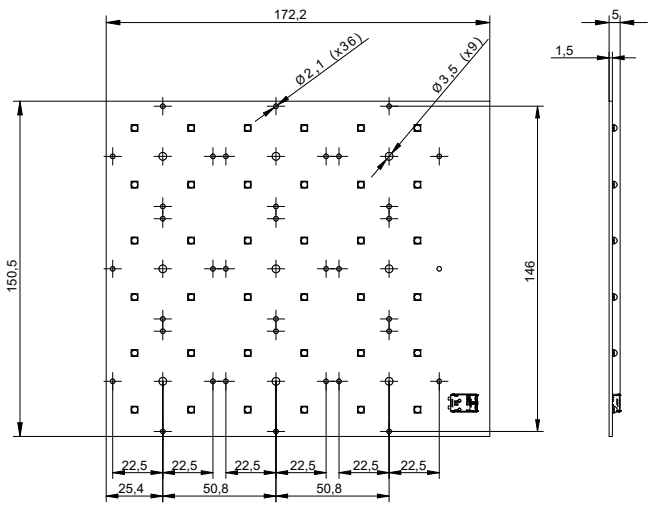
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

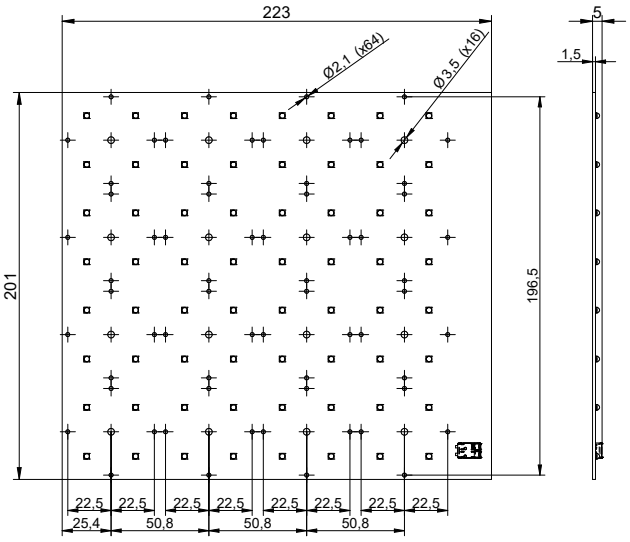
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	420
Beam angle	[deg]	120
Initial color consistency	[SDCM]	5
Photobiological safety		RG2 (RG1 at >0.5m distance)

Dimensions

RecLED 173x151mm



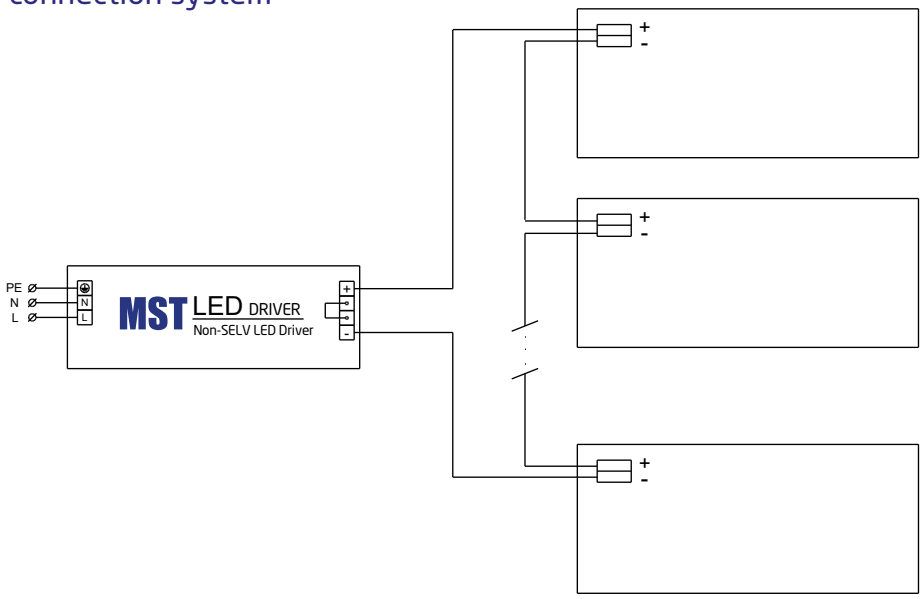
RecLED 224x202mm



Connections

Max number of modules	Unit	Series	Parallel
RecLED 173x151mm 6x6	[pcs]	3	-
RecLED 224x202mm 8x8	[pcs]	2	-

Wiring for series connection system



Outdoor LED modules
IP

A rectangular solution for outdoor lighting.
Compatible with standard 2x6 optics for example LEDiL's STRADA-IP-2x6.

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 70, 80, 90, 95

RecLED 146x45mm 2x6 IP CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 146x45mm 2900lm 730 2x6 IP Opt G2	1010 117 74146	3000	520	2782	2997	33	17	163	200	1500	C
RecLED 146x45mm 2900lm 740 2x6 IP Opt G2	1010 117 74246	4000	520	2958	3187	33	17	173	200	1500	C

RecLED 146x45mm 2x6 IP CRI 70 Optimum G1

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 146x45mm 2900lm 730 2x6 IP Opt G1	1010 117 73846	3000	520	2693	2902	33	17	158	200	1500	D
RecLED 146x45mm 2900lm 740 2x6 IP Opt G1	1010 117 73946	4000	520	2870	3092	33	17	168	200	1500	C
RecLED 146x45mm 2900lm 765 2x6 IP Opt G1	1010 117 74046	6500	520	2870	3092	33	17	168	200	1500	C

[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%

Temperature & humidity

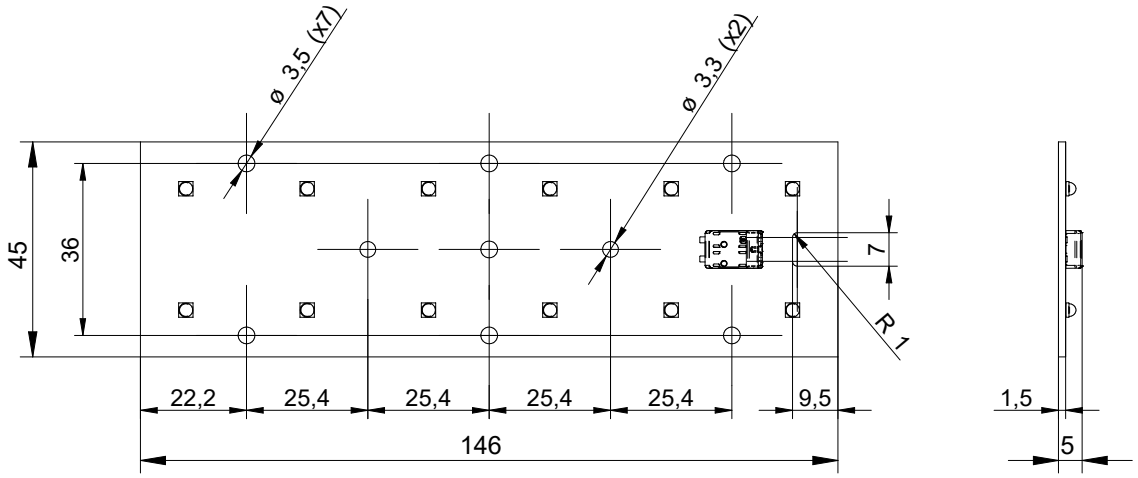
Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

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]	420
Beam angle	[deg]	120
Initial color consistency	[SDCM]	5
Photobiological safety		RG2 (RG1 at >0.5m distance)

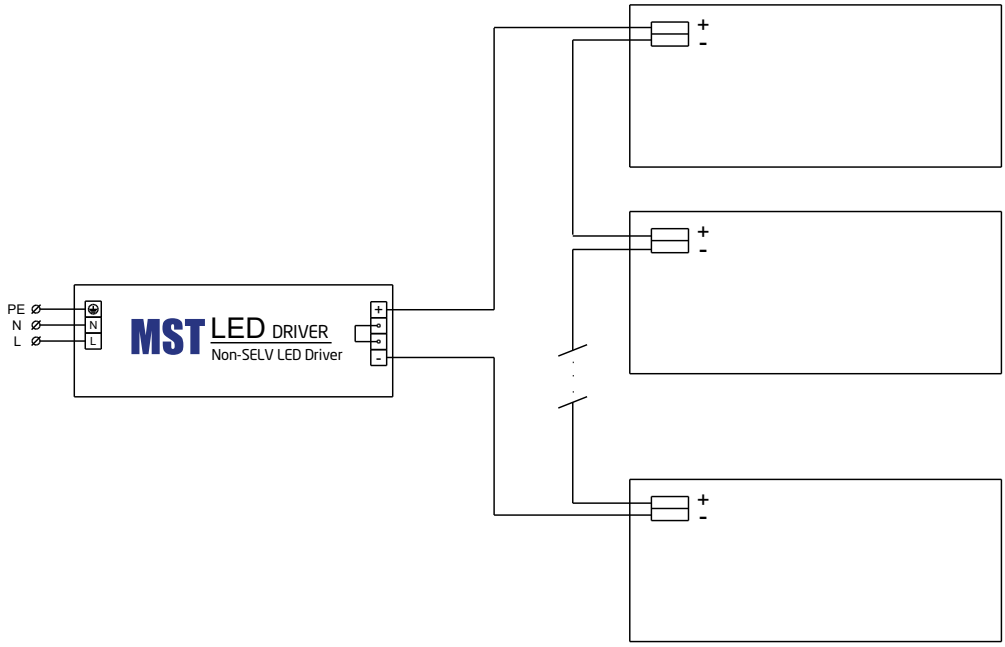
Dimensions



Connections

Max number of modules	Unit	Series	Parallel
RecLED 146x45mm 2x6	[pcs]	11	-

Wiring for series connection system



Outdoor LED modules
3535

A rectangular solution for outdoor lighting.
Compatible with standard 2x2 optics
for example LEDiL's STRADA-2x2.

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 2200K to 6500K and CRI 70, 75, 80, 90

RecLED 122x50mm 2x4 3535 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 122x50mm 1900lm 730 2x4 3535 Opt G2	1010 117 28246	3000	500	1862	2006	22	11	168	100	1500	B
RecLED 122x50mm 1900lm 740 2x4 3535 Opt G2	1010 117 28346	4000	500	1978	2132	22	11	179	100	1500	B

RecLED 173x50mm 2x6 3535 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 173x50mm 2900lm 730 2x6 3535 Opt G2	1010 117 28746	3000	500	2793	3010	33	17	168	100	1500	B
RecLED 173x50mm 2900lm 740 2x6 3535 Opt G2	1010 117 28846	4000	500	2968	3198	33	17	179	100	1500	B

RecLED 224x50mm 2x8 3535 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 224x50mm 3800lm 730 2x8 3535 Opt G2	1010 117 29246	3000	500	3724	4013	44	22	168	100	1500	B
RecLED 224x50mm 3800lm 740 2x8 3535 Opt G2	1010 117 29346	4000	500	3957	4264	44	22	179	100	1500	B

[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%

Temperature & humidity

Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

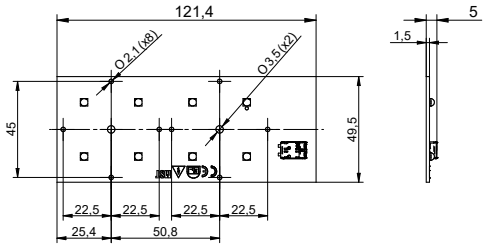
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

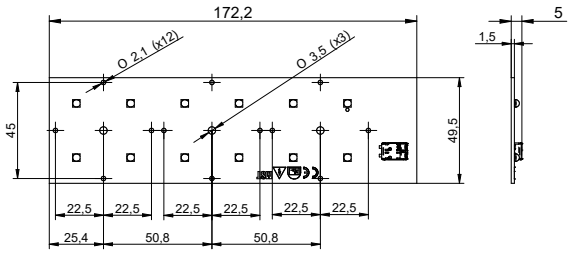
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	420
Beam angle	[deg]	128
Initial color consistency	[SDCM]	5
Photobiological safety		RG1

Dimensions

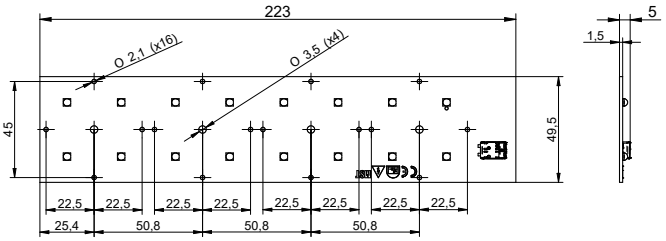
RecLED 122x50mm 2x4



RecLED 173x50mm 2x6



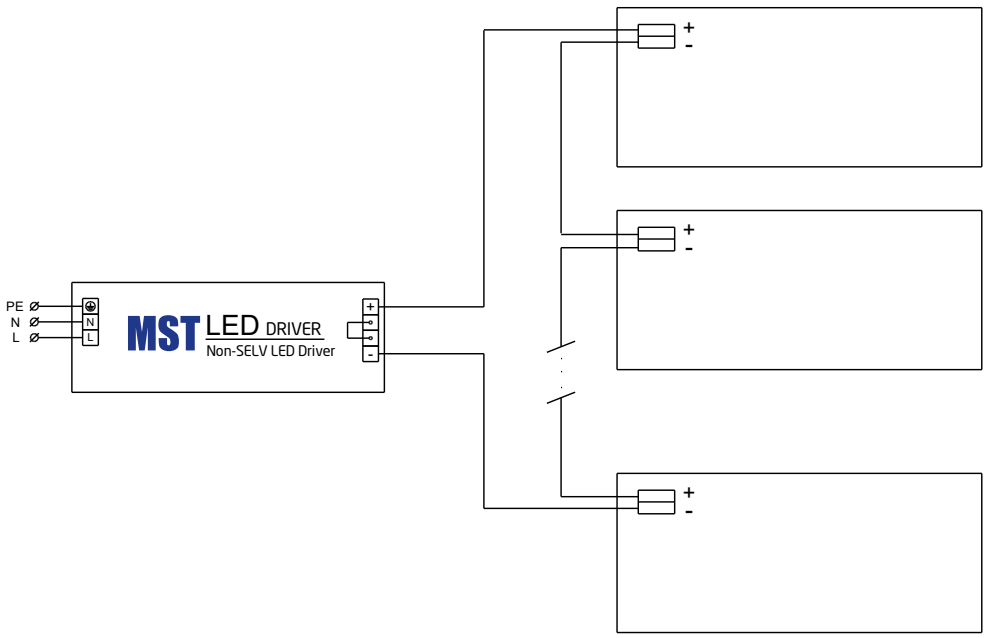
RecLED 224x50mm 2x8



Connections

Max number of modules	Unit	Series	Parallel
RecLED 122x50mm 2x4 3535	[pcs]	17	-
RecLED 173x50mm 2x6 3535	[pcs]	11	-
RecLED 224x50mm 2x8 3535	pcs]	8	-

Wiring for series connection system



Outdoor LED modules
5050

A rectangular solution for outdoor lighting.
Compatible with standard 2x2 optics for example LEDiL's STRADA-2x2-5050.

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 70, 80, 90, 95

RecLED 122x50mm 2x4 5050 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 122x50mm 1900lm 730 2x4 5050 Opt G2	1010 117 71046	3000	460	1836	1975	22	10	184	80	1600	C
RecLED 122x50mm 1900lm 740 2x4 5050 Opt G2	1010 117 71146	4000	460	1923	2070	22	10	193	80	1600	B

RecLED 173x50mm 2x6 5050 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 173x50mm 2900lm 730 2x6 5050 Opt G2	1010 117 71246	3000	460	2754	2963	33	15	184	80	1600	C
RecLED 173x50mm 2900lm 740 2x6 5050 Opt G2	1010 117 71346	4000	460	2885	3104	33	15	193	80	1600	B

RecLED 224x50mm 2x8 5050 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 224x50mm 3800lm 730 2x8 5050 Opt G2	1010 117 71446	3000	460	3671	3951	44	20	184	80	1600	C
RecLED 224x50mm 3800lm 740 2x8 5050 Opt G2	1010 117 71546	4000	460	3846	4139	43	20	193	80	1600	B

RecLED 274x50mm 2x10 5050 CRI 70 Optimum G2

Product name	Ordering code	Colour temperature [K]	Current nominal If nom [mA]	Luminous flux[1] ϕ [lm]	Usefull 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 274x50mm 4800lm 730 2x10 5050 Opt G2	1010 117 75946	3000	460	4589	4939	54	25	184	80	1600	C
RecLED 274x50mm 4800lm 740 2x10 5050 Opt G2	1010 117 76046	4000	460	4808	5174	54	25	193	80	1600	B

[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%

Temperature & humidity

Specification item	Unit	Value
Tp	[°C]	75
Tp rated	[°C]	75
Tc	[°C]	95
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

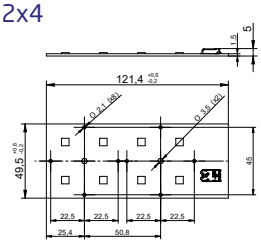
Tp - Temperature related to the performance parameters of the LED modules
Tp rated - Maximum operating temperature to which the rated performance characteristics are declared
Tc - Highest permissible value for safe operation

Technical data

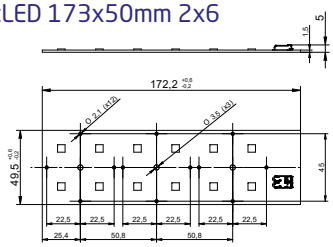
Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	420
Beam angle	[deg]	120
Initial color consistency	[SDCM]	5
Photobiological safety		RG2 (RG1 at >0.5m distance)

Dimensions

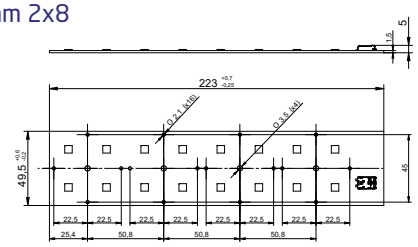
RecLED 122x50mm 2x4



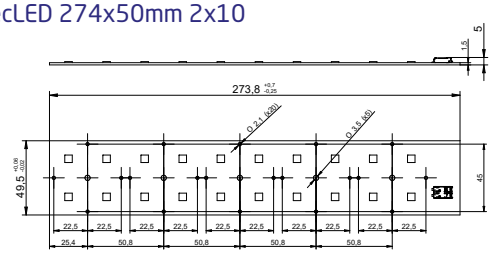
RecLED 173x50mm 2x6



RecLED 224x50mm 2x8



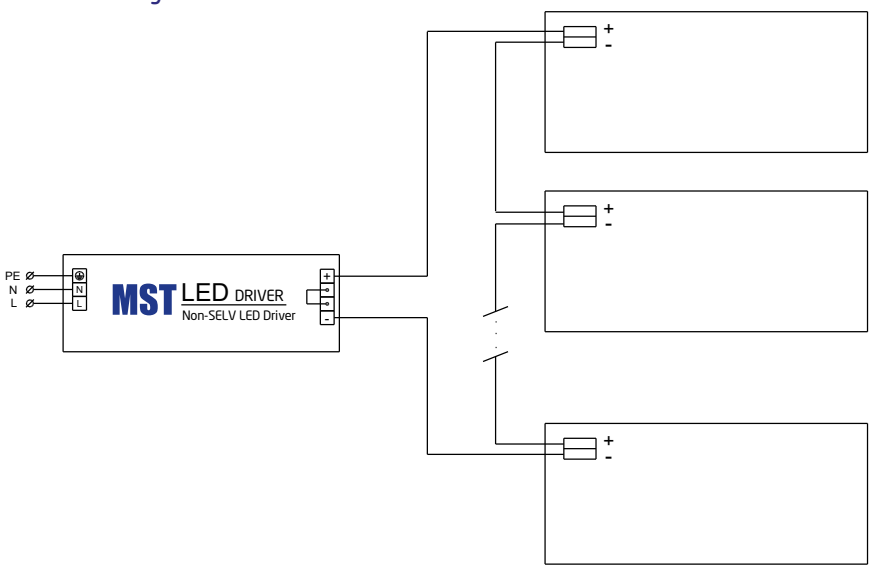
RecLED 274x50mm 2x10



Connections

Max number of modules	Unit	Series	Parallel
RecLED 122x50mm 2x4 5050	[pcs]	16	-
RecLED 173x50mm 2x6 5050	[pcs]	10	-
RecLED 224x50mm 2x8 5050	pcs]	8	-
RecLED 274x50mm 2x10 5050	pcs]	6	-

Wiring for series connection system



Linear LED modules UVC
281x20mm

A linear solution for professional UVC lighting applications. Optimized for LEDiL's VIOLET optics.

Product description

- Long life-time
- Built-in, constant current LED module
- Re-workable push-in terminals enabling easy connection
- Series system, also recognized as a high voltage system - non-SELV

LinLED UVC G1

Product name	Ordering code	Wavelength [nm]	Current nominal If nom [mA]	Radiant power* [mW]	Voltage* Vf [V]			Power* P [W]	Current minimum If min [mA]	Current maximum If max [mA]
					Min.	Typ.	Max.			
LinLED 281x20mm 425mW UVC 265nm 1x12 80V G1	1010 129 0014	260-270	350	425	51	73	95	25	100	500

*At nominal current and Tp
Tolerance range for optical and electrical ±10%

Temperature & humidity

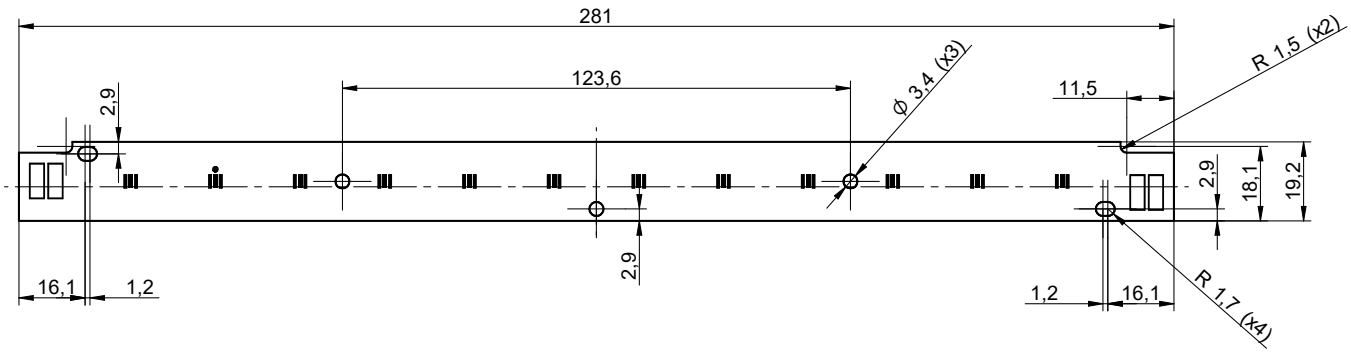
Specification item	Unit	Value
Tp	[°C]	65
Tc	[°C]	80
Relative humidity (non-condensing)	[%]	5 ... 85
Storage ambient temperature	[°C]	-25 ... +85
Storage relative humidity (non-condesing)	[%]	5 ... 85

Tp - Temperature related to the performance parameters of the LED modules
Tc - Highest permissible value for safe operation

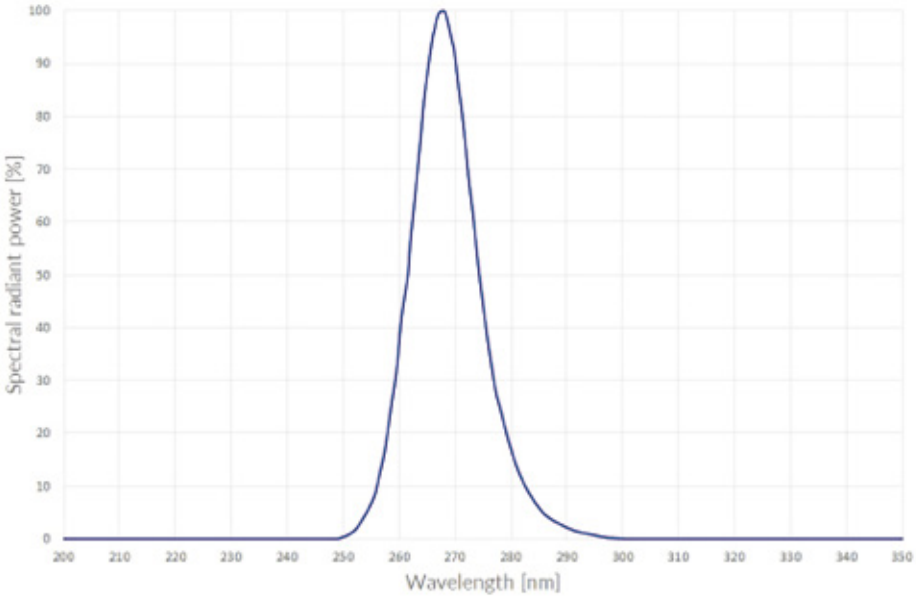
Technical data

Specification item	Unit	Value
Classification acc. to IEC 62031		built-in
Working voltage	[Vdc]	420
Beam angle	[deg]	130
Photobiological safety		RG3

Dimensions



Spectrum



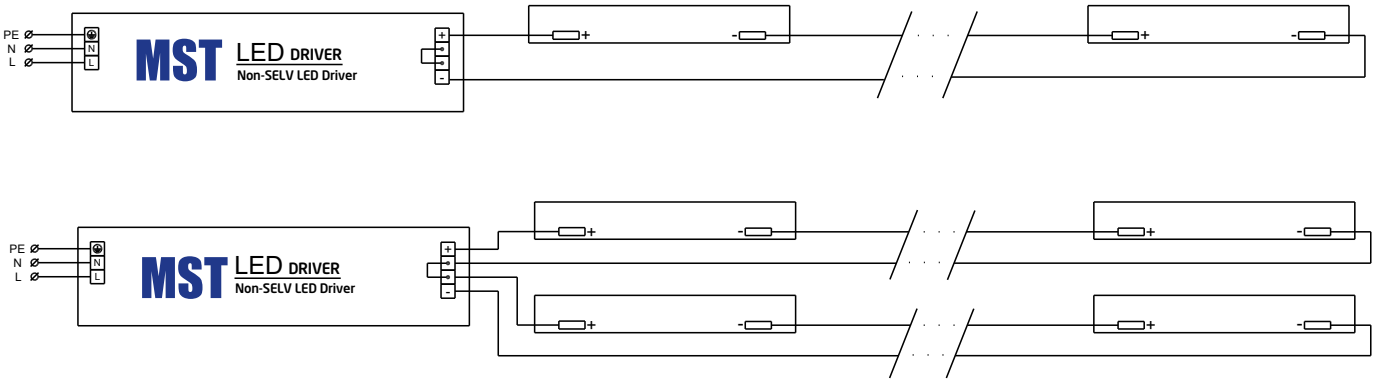
Safety precautions

Deep ultraviolet (UVC) LED modules are an irradiation source and require precautions to ensure safe use. In rare instances of prolonged direct exposure to UVC light, temporary eye and skin damage has been exhibited. Therefore, safety recommendations with UVC LEDs include protecting skin (in particular open wounds) and most importantly - the eyes from UVC radiation. UV radiation is easily absorbed by clothing, plastic or glass. Once absorbed, UV radiation is no longer active. When working with open UV radiation during maintenance, service or other situations, personal protective equipment covering all exposed areas is recommended. The effects of acute exposure to UV radiation are usually not severe and many symptoms are delayed. In the event of UV exposure, the following actions are recommended: See an ophthalmologist if eye damage is suspected, Treat skin lesions immediately, Follow your organization's EHS incident reporting procedure. source: www.klaran.com/is-uvc-safe

Connections

Max number of modules	Unit	Series	Parallel
LinLED 281x20mm	[pcs]	4	-

Wiring for series connection system



LED Driver Linear
SELV NFC 40W & 80W

Product description

- Constant current LED driver
- Fixed current output, adjustable in 1 mA steps by NFC
- Built-in type, for class I and II 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
- Isolated (SELV) versions
- Low output ripple current - high quality of light
- Long lifetime - 100 000 hours
- Metal housing
- Optimized for indoor MST LED modules
- Possibility of programming entire carton - quick programming (current setting)

Electrical data

Specification item	Unit	LED Driver 40W 25-54V 0.3-1A NFC-L360	LED Driver 80W 25-54V 0.7-2A NFC-L360
Rated input voltage range	[V]	220...240	220...240
Rated input current[1]	[A]	0.2	0.4
Rated input power[1]	[W]	46	91
Rated input frequency	[Hz]	50/60	50/60
Power factor[1]	[-]	0.99	0.99
Total harmonic distortion[1]	[%]	≤7	≤8
Efficiency[1]	[%]	88	89
Output voltage range[2]	[V]	25...54	25...54
Maximum output voltage U-OUT	[V]	60	60
Output current range[2]	[A]	0.3...1	0.7...2
Output current tolerance	[%]	±5	±5
Output power range	[W]	12...40	23...80
Current ripple (LF)[3]	[%]	≤4	≤4
PstLM	[-]	≤1	≤1
SVM	[-]	≤0.4	≤0.4
Dimmable	[-]	no	no
Control method	[-]	NFC	NFC

[1] at 230V, 50Hz, full load
[2] see operating window
[3] ripple = peak / average; ≤120 Hz

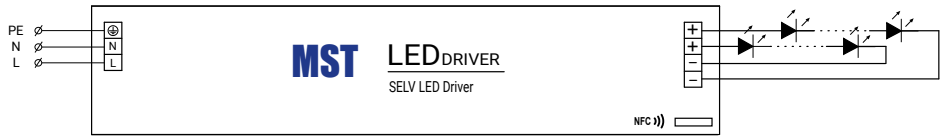
Lifetime

Specification item	Unit	LED Driver 40W 25-54V 0.3-1A NFC-L360	LED Driver 80W 25-54V 0.7-2A NFC-L360
Lifetime at Tp (max 10% failures)	[h]	100 000	100 000
Tp - temperature measured at Tc point	[°C]	70	60

Wiring (solid wire only)

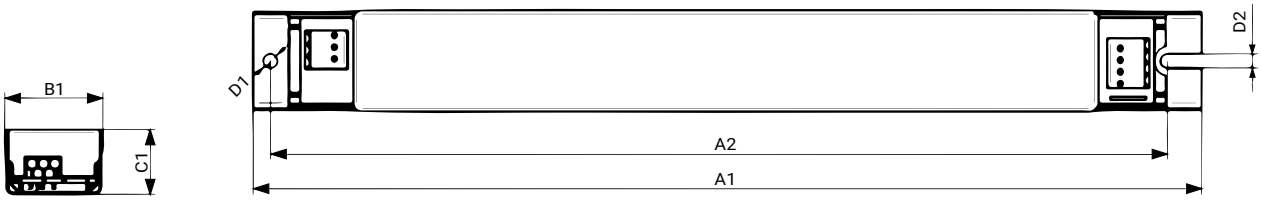
Specification item	Unit	Value
Wire cross section	[mm²]	0.5...1.5
Strip length	[mm]	8...9

Wiring



Mechanical

Specification item	Unit	LED Driver 40W 25-54V 0.3-1A NFC-L360	LED Driver 80W 25-54V 0.7-2A NFC-L360
Length (A1)	[mm]	360	360
Width (B1)	[mm]	30	30
Height (C1)	[mm]	21	21
Fixing hole diameter (D1)	[mm]	4.2	4.2
Fixing hole distance (A2)	[mm]	345	345
Weight	[g]	260	286
Ingress protection	[-]	IP20	IP20



Temperature & humidity

Specification item	Unit	LED Driver 40W 25-54V 0.3-1A NFC-L360	LED Driver 80W 25-54V 0.7-2A NFC-L360
Ambient temperature	[°C]	-20...+50	-20...+45
Tcase	[°C]	75	75
Relative humidity (non-condensing)	[%]	10...90	10...90
Storage ambient temperature	[°C]	-25...+85	-25...+85
Storage relative humidity (non-condensing)	[%]	10...90	10...90

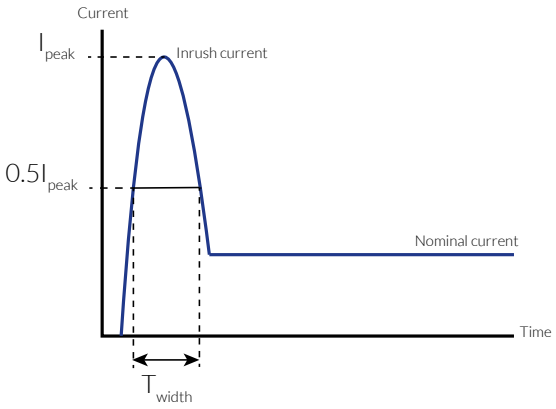
Surge immunity

Specification item	Unit	Value
Mains surge immunity - differential mode	[kV]	1
Mains surge immunity - common mode	[kV]	2
Surge voltage at output side (against PE)*	[kV]	≤2.5

* common mode

Inrush current

Specification item	Unit	LED Driver 40W 25-54V 0.3-1A NFC-L360	LED Driver 80W 25-54V 0.7-2A NFC-L360
Inrush current I_{peak}	[A]	16	22
Inrush current T_{width}	[µs]	260	220



Maximum number of drivers

Type of circuit breaker	Unit	LED Driver 40W 25-54V 0.3-1A NFC-L360	LED Driver 80W 25-54V 0.7-2A NFC-L360
B10	[pcs]	14	12
B13	[pcs]	19	16
B16	[pcs]	23	20
B20	[pcs]	29	25
B25	[pcs]	36	31
C10	[pcs]	24	21
C13	[pcs]	31	27
C16	[pcs]	38	33
C20	[pcs]	48	41
C25	[pcs]	59	52

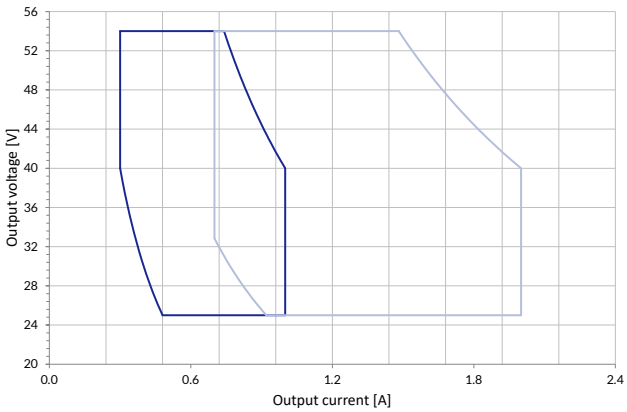
Measurements of inrush and continuous current were taken at rated input voltage. Calculations are based on ABB series S200 circuit breakers as reference.
The values shown in the table above are for guidance purpose only. Actual values may differ due to instalation environment and used MCBs.

Protections / Approvals

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

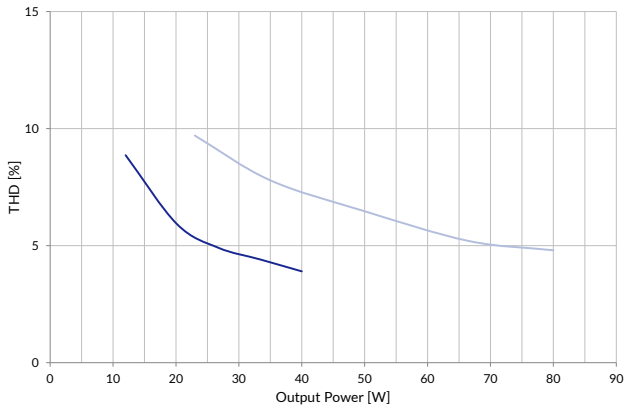
LED Driver 40W 25-54V 0.3-1A NFC-L360
LED Driver 80W 25-54V 0.7-2A NFC-L360

Operating window



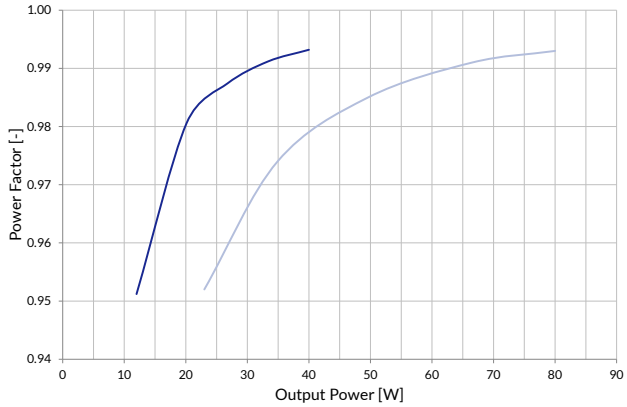
THD vs output power

Typical values



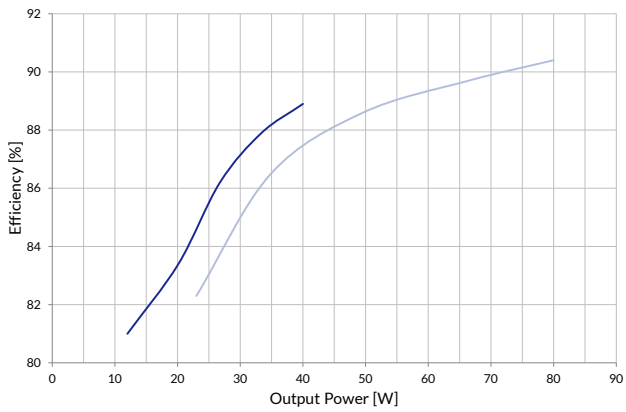
Power factor vs output power

Typical values



Efficiency vs output power

Typical values



Ordering codes

Specification item	Unit	LED Driver 40W 25-54V 0.3-1A NFC-L360	LED Driver 80W 25-54V 0.7-2A NFC-L360
Ordering code	[-]	1010 120 10246	1010 120 10346
Pieces per box	[pcs]	24	24
Pieces per pallet	[pcs]	2160	2160
Box dimensions	[mm]	373 x 133 x 154	373 x 133 x 154
Product weight	[g]	260	286
Pallet gross weight	[kg]	610	665

LED Driver Linear
non-SELV NFC 40W, 80W & 170W

Product description

- Constant current LED driver
- Fixed current output, adjustable in 1 mA steps by NFC
- 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 (non-SELV) versions
- Low output ripple current - high quality of light
- Long lifetime - 100 000 hours
- Metal housing
- Optimized for indoor MST LED modules
- Possibility of programming entire carton - quick programming (current setting)
- Increased surge immunity (170W)
- Increased temperature range (170W)

Electrical data

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Rated input voltage range	[V]	220...240	220...240	220...240
Rated input current[1]	[A]	0.2	0.38	0.79
Rated input power[1]	[W]	45	88	180
Rated input frequency	[Hz]	50/60	50/60	50/60
Power factor[1]	[-]	0.99	0.99	0.99
Total harmonic distortion[1]	[%]	≤7	≤8	≤7
Efficiency[1]	[%]	91	92	94
Output voltage range[2]	[V]	65...200	90...220	100...300
Maximum output voltage U-OUT	[V]	250	270	350
Output current range[2]	[A]	0.1...0.42	0.1...0.42	0.4...1.05
Output current tolerance	[%]	±5	±5	±5
Output power range	[W]	12...40	20...80	40...170
Current ripple (LF)[3]	[%]	≤4	≤4	≤4
PstLM	[-]	≤1	≤1	≤1
SVM	[-]	≤0.4	≤0.4	≤0.4
Dimmable	[-]	no	no	no
Control method	[-]	NFC	NFC	NFC

[1] at 230V, 50Hz, full load
[2] see operating window
[3] ripple = peak / average; ≤ 120 Hz

Lifetime

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Lifetime at Tp (max 10% failures)	[h]	100 000	100 000	100 000
Tp - temperature measured at Tc point	[°C]	65	60	65

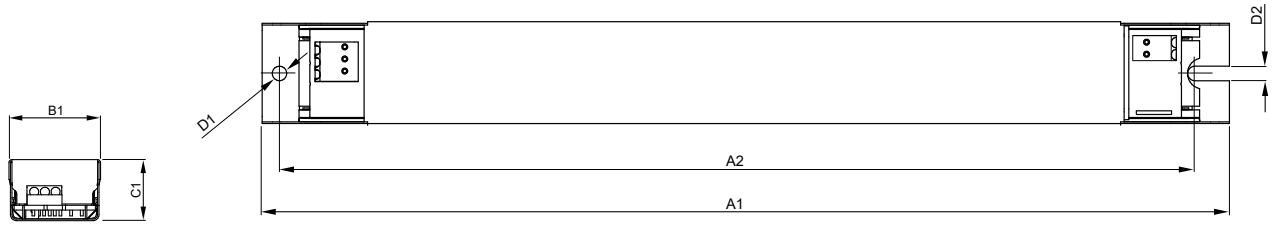
Wiring (solid wire only)

Specification item	Unit	Value
Wire cross section	[mm²]	0.5...1.5
Strip length	[mm]	8...9

Wiring

Mechanical

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Length (A1)	[mm]	280	280	360
Width (B1)	[mm]	30	30	30
Height (C1)	[mm]	21	21	21
Fixing hole diameter (D1)	[mm]	4.2	4.2	4.2
Fixing hole distance (A2)	[mm]	265	265	345
Weight	[g]	166	185	295
Ingress protection	[-]	IP20	IP20	IP20



Temperature & humidity

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Ambient temperature	[°C]	-20...+50	-20...+45	-40...+50
Tcase	[°C]	75	75	85
Relative humidity (non-condensing)	[%]	10...90	10...90	10...90
Storage ambient temperature	[°C]	-25...+85	-25...+85	-40...+85
Storage relative humidity (non-condensing)	[%]	10...90	10...90	10...90

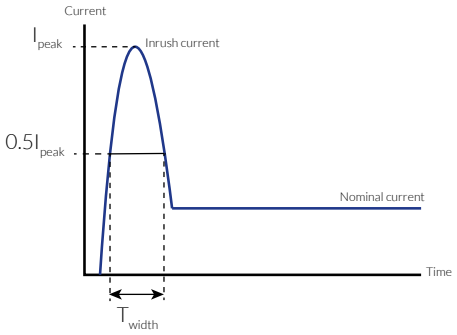
Surge immunity

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Mains surge immunity - differential mode	[kV]	1	1	2
Mains surge immunity - common mode	[kV]	2	2	4
Surge voltage at output side (against PE)*	[kV]	≤3.5	≤3.5	≤5

* common mode

Inrush current

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Inrush current I_{peak}	[A]	18	28	52
Inrush current T_{width}	[µs]	260	240	250



Maximum number of drivers

Type of circuit breaker	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
B10	[pcs]	13	9	5
B13	[pcs]	16	12	6
B16	[pcs]	20	14	7
B20	[pcs]	25	18	9
B25	[pcs]	32	22	11
C10	[pcs]	21	15	8
C13	[pcs]	27	19	10
C16	[pcs]	34	24	12
C20	[pcs]	42	30	15
C25	[pcs]	53	37	19

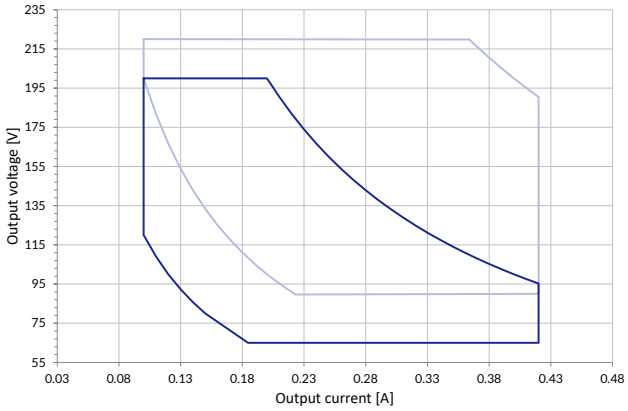
Measurements of inrush and continuous current were taken at rated input voltage. Calculations are based on ABB series S200 circuit breakers as reference.
The values shown in the table above are for guidance purpose only. Actual values may differ due to instalation environment and used MCBs.

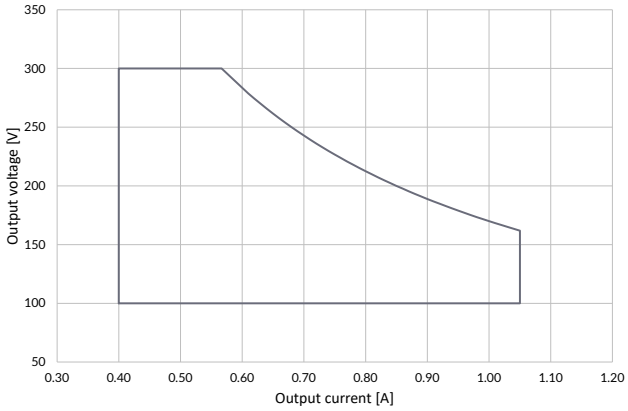
Protections / Approvals

Specification item	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Open load protection	yes	yes	yes
Short circuit protection	yes	yes	yes
Over power protection	no	no	yes
Approval marks	CE / ENEC	CE / ENEC	CE / ENEC

LED Driver 40W 65-200V 0.1-0.42A NFC-L280
LED Driver 80W 90-220V 0.1-0.42A NFC-L280
LED Driver 170W 100-300V 0.4-1.05A NFC-L360

Operating window



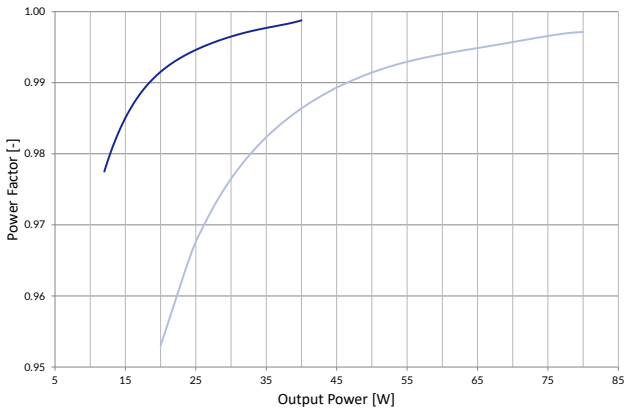


LED Driver 40W 65-200V 0.1-0.42A NFC-L280
LED Driver 80W 90-220V 0.1-0.42A NFC-L280

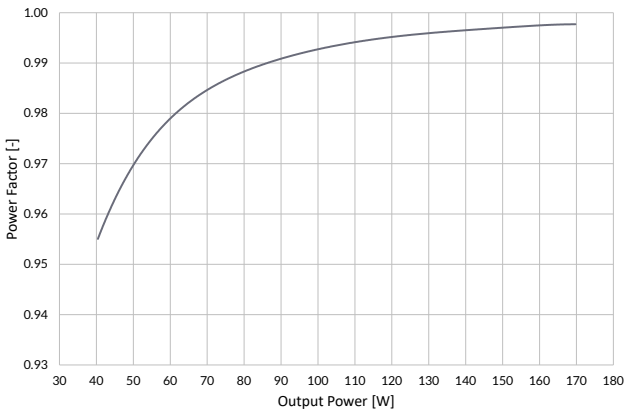
LED Driver 170W 100-300V 0.4-1.05A NFC-L360

Power factor vs output power

Typical values

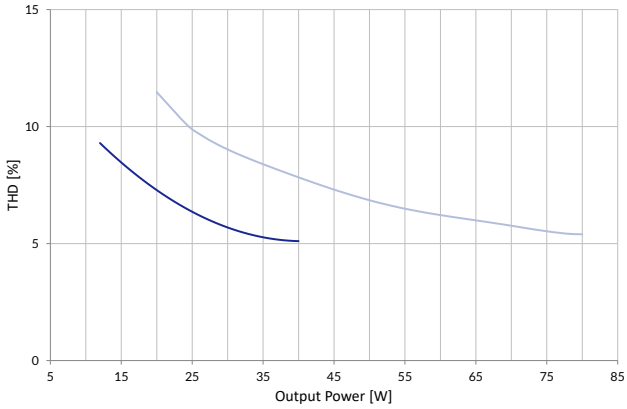


Typical values

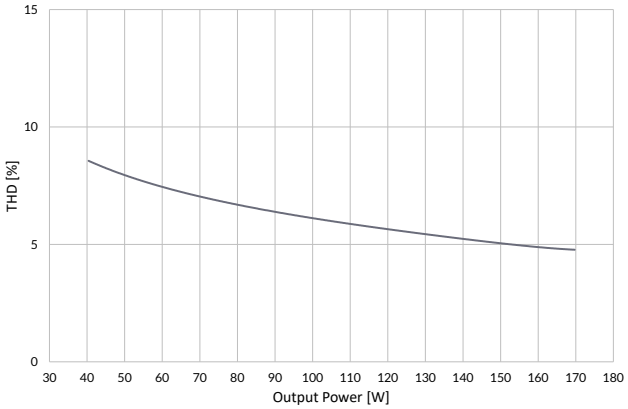


THD vs output power

Typical values

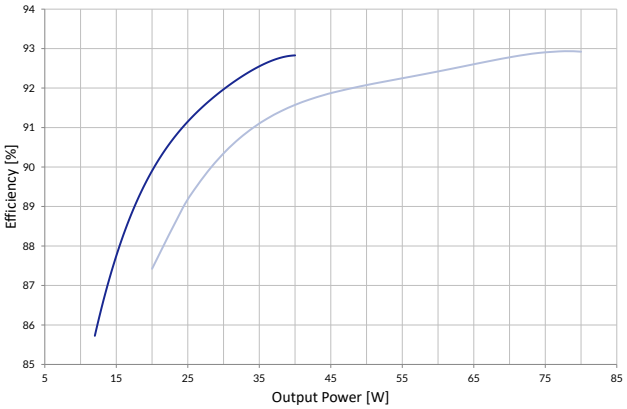


Typical values

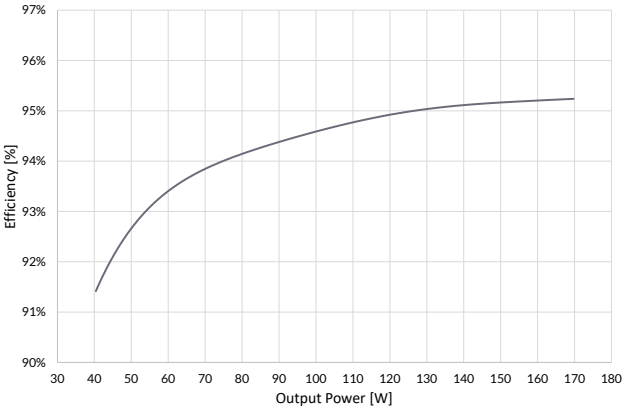


Efficiency vs output power

Typical values



Typical values



Ordering codes

Specification item	Unit	LED Driver 40W 65-200V 0.1-0.42A NFC-L280	LED Driver 80W 90-220V 0.1-0.42A NFC-L280	LED Driver 170W 100-300V 0.4-1.05A NFC-L360
Ordering code	[-]	1010 120 12346	1010 120 12446	1010 120 12946
Pieces per box	[pcs]	24	24	24
Pieces per pallet	[pcs]	2880	2880	2160
Box dimensions	[mm]	293 x 133 x 146	293 x 133 x 146	373 x 133 x 154
Product weight	[g]	166	185	295
Pallet gross weight	[kg]	600	630	700

Basic ballast for high pressure sodium and metal halide lamps

Product description

- Impregnated electromagnetic ballasts
- Screw terminal blocks
- For use in combination with semi-parallel or series ignitors
- Winding temperature Tw = 140°C

220V, 50Hz, copper windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 50 K300-I 220V 50Hz BC1-118	9137 002 84346	50	SON/MH	0.76	70	no	140	0.90	10	A3	118	94	61	52	6.2
BSN 70 K300-I 220V 50Hz BC1-118	9137 002 84546	70	SON/MH	0.98	75	no	140	0.95	12	A3	118	94	61	52	6.2
BSN 100 K300-I 220V 50Hz BC1-118	9137 002 84046	100	SON/MH	1.20	75	no	140	1.23	14	A3	118	94	61	52	6.2
BSN 150 K300-I 220V 50Hz BC2-126	9137 002 84146	150	SON/MH	1.80	75	no	140	1.96	18	A3	126	104	76	65	6.2
BSN 250 K300-I 220V 50Hz BC2-151	9137 002 84246	250	SON/MH	3.00	85	no	140	2.86	32	A3	151	129	76	65	6.2
BSN 400 K300-I 220V 50Hz BC3-166	9137 002 81846	400	SON/MH	4.45	85	no	140	3.60	45	A3	166	145	97	83	6.2
BSN 600 K300-I 220V 50Hz BC3-166	9137 002 84446	600	SON/MH	5.80	80	no	140	5.00	60	A3	166	145	97	83	6.2

220V, 50Hz, aluminium windings, with thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 50 K300-ITS-A 220V 50Hz BC1-118	1010 109 11746	50	SON/MH	0.76	75	yes	140	1.00	10	A3	118	94	61	52	6.2
BSN 70 K300-ITS-A 220V 50Hz BC1-123	1010 109 11846	70	SON/MH	0.98	75	yes	140	1.23	12	A3	123	98	61	52	6.2
BSN 100 K300-ITS-A 220V 50Hz BC2-126	1010 109 11946	100	SON/MH	1.20	75	yes	140	1.52	14	A3	126	104	76	65	6.2
BSN 150 K300-ITS-A 220V 50Hz BC2-151	1010 109 12046	150	SON/MH	1.80	75	yes	140	2.30	18	A3	151	129	76	65	6.2
BSN 250 K300-ITS-A 220V 50Hz BC3-143	1010 109 12146	250	SON/MH	3.00	85	yes	140	3.03	32	A3	143	121	97	83	6.2

220V, 50Hz, aluminium windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 70 K300-I-A 220V 50Hz BC1-123	1010 109 20646	70	SON/MH	0.98	75	no	140	1.23	12	A3	123	98	61	52	6.2
BSN 100 K300-I-A 220V 50Hz BC2-126	1010 109 20746	100	SON/MH	1.20	75	no	140	1.52	14	A3	126	104	76	65	6.2
BSN 150 K300-I-A 220V 50Hz BC2-151	1010 109 16046	150	SON/MH	1.80	75	no	140	2.30	18	A3	151	129	76	65	6.2
BSN 250 K300-I-A 220V 50Hz BC3-143	1010 109 16146	250	SON/MH	3.00	85	no	140	3.03	32	A3	143	121	97	83	6.2
BSN 400 K300-I-A 220V 50Hz BC3-166	1010 109 16246	400	SON/MH	4.45/4.60	80	no	140	4.45	45	A3	166	145	97	83	6.2

230V, 50Hz, copper windings, with thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BMH 35 K302-A2-ITS 230V 50Hz BC1-118	1010 109 25946	35	MH	0.53	35	yes	140	1.14	6	A2	118	94	61	52	6.2
BMH 70 K302-A2-ITS 230V 50Hz BC1-118	1010 109 26046	70	MH	0.98	55	yes	140	1.26	12	A2	118	94	61	52	6.2
BSN 50 K302-A2-ITS 230V 50Hz BC1-118	1010 109 23146	50	SON/MH	0.76	50	yes	140	1.26	10	A2	118	94	61	52	6.2
BSN 70 K302-A2-ITS 230V 50Hz BC1-118	1010 109 23246	70	SON/MH	0.98	55	yes	140	1.26	12	A2	118	94	61	52	6.2
BSN 100 K302-A2-ITS 230V 50Hz BC1-123	1010 109 23346	100	SON/MH	1.20	60	yes	140	1.40	14	A2	123	98	61	52	6.2
BSN 150 K302-A2-ITS 230V 50Hz BC2-134	1010 109 23446	150	SON/MH	1.80	60	yes	140	2.24	18	A2	134	113	76	65	6.2
BSN 250 K302-A2-ITS 230V 50Hz BC2-160	1010 109 23546	250	SON/MH	3.00	70	yes	140	3.25	32	A2	160	139	76	65	6.2
BSN 400 K302-A2-ITS 230V 50Hz BC3-166	1010 109 17946	400	SON/MH	4.45/4.60	80	yes	140	4.95	45	A2	166	145	97	83	6.2
BSN 600 K302-A2-ITS 230V 50Hz BC3-166	9137 002 79046	600	SON	5.80	80	yes	140	5.50	60	A2	166	145	97	83	6.2

230V, 50Hz, copper windings, without thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 50 K302-A2-I 230V 50Hz BC1-118	1010 109 23646	50	SON/MH	0.76	50	no	140	1.23	10	A2	118	94	61	52	6.2
BSN 70 K302-A2-I 230V 50Hz BC1-118	1010 109 23746	70	SON/MH	0.98	55	no	140	1.26	12	A2	118	94	61	52	6.2
BSN 100 K302-A2-I 230V 50Hz BC1-123	1010 109 23846	100	SON/MH	1.20	60	no	140	1.40	14	A2	123	98	61	52	6.2
BSN 150 K302-A2-I 230V 50Hz BC2-134	1010 109 23946	150	SON/MH	1.80	60	no	140	2.24	18	A2	134	113	76	65	6.2
BSN 250 K302-A2-I 230V 50Hz BC2-160	1010 109 24046	250	SON/MH	3.00	70	no	140	3.25	32	A2	160	139	76	65	6.2
BSN 400 K302-A2-I 230V 50Hz BC3-166	9137 002 81946	400	SON/MH	4.45/4.60	80	no	140	4.95	45	A2	166	145	97	83	6.2

230V, 50Hz, copper windings, with thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BMH 35 K302-ITS 230V 50Hz BC1-118	9137 002 80546	35	MH	0.53	50	yes	140	0.95	6	A3	118	94	61	52	6.2
BMH 70 K302-ITS 230V 50Hz BC1-118	9137 002 80846	70	MH	0.98	75	yes	140	1.23	12	A3	118	94	61	52	6.2
BSN 50 K302-ITS 230V 50Hz BC1-118	1010 109 17446	50	SON/MH	0.76	70	yes	140	0.93	10	A3	118	94	61	52	6.2
BSN 70 K302-ITS 230V 50Hz BC1-118	1010 109 17546	70	SON/MH	0.98	75	yes	140	1.23	12	A3	118	94	61	52	6.2
BSN 100 K302-ITS 230V 50Hz BC1-123	1010 109 17646	100	SON/MH	1.20	70	yes	140	1.38	14	A3	123	98	61	52	6.2
BSN 150 K302-ITS 230V 50Hz BC2-126	1010 109 17746	150	SON/MH	1.80	80	yes	140	2.03	18	A3	126	104	76	65	6.2
BSN 250 K302-ITS 230V 50Hz BC2-151	1010 109 17846	250	SON/MH	3.00	85	yes	140	2.93	32	A3	151	129	76	65	6.2

230V, 50Hz, copper windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 50 K302-I 230V 50Hz BC1-118	9137 002 82146	50	SON/MH	0.76	70	no	140	0.93	10	A3	118	94	61	52	6.2
BSN 70 K302-I 230V 50Hz BC1-118	9137 002 82646	70	SON/MH	0.98	75	no	140	1.23	12	A3	118	94	61	52	6.2
BSN 100 K302-I 230V 50Hz BC1-123	9137 002 81746	100	SON/MH	1.20	70	no	140	1.38	14	A3	123	98	61	52	6.2
BSN 150 K302-I 230V 50Hz BC2-126	9137 002 83046	150	SON/MH	1.80	80	no	140	2.03	18	A3	126	104	76	65	6.2
BSN 250 K302-I 230V 50Hz BC2-151	9137 002 83146	250	SON/MH	3.00	85	no	140	2.93	32	A3	151	129	76	65	6.2

230V, 50Hz, aluminium windings, with thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BMH 35 K302-ITS-A 230V 50Hz BC1-118	1010 109 15146	35	MH	0.53	65	yes	140	1.00	6	A3	118	94	61	52	6.2
BMH 70 K302-ITS-A 230V 50Hz BC1-123	1010 109 15246	70	MH	0.98	85	yes	140	1.23	12	A3	123	98	61	52	6.2
BSN 50 K302-ITS-A 230V 50Hz BC1-118	1010 109 10046	50	SON/MH	0.76	80	yes	140	1.00	10	A3	118	94	61	52	6.2
BSN 70 K302-ITS-A230V 50Hz BC1-123	1010 109 10146	70	SON/MH	0.98	85	yes	140	1.23	12	A3	123	98	61	52	6.2
BSN 100 K302-ITS-A 230V 50Hz BC2-126	1010 109 10246	100	SON/MH	1.20	75	yes	140	1.52	14	A3	126	104	76	65	6.2
BSN 150 K302-ITS-A 230V 50Hz BC2-151	1010 109 10346	150	SON/MH	1.80	75	yes	140	2.60	18	A3	151	129	76	65	6.2
BSN 250 K302-ITS-A 230V 50Hz BC3-143	1010 109 10446	250	SON/MH	3.00	80	yes	140	3.03	32	A3	143	121	97	83	6.2
BSN 400 K302-ITS-A 230V 50Hz BC3-166	1010 109 10546	400	SON/MH	4.45/4.60	80	yes	140	4.45	45	A3	166	145	97	83	6.2
BSN 600 K302-ITS-A 230V 50Hz BC3-193	1010 109 10646	600	SON	6.10	80	yes	140	5.95	60	A3	193	172	97	83	6.2

230V, 50Hz, aluminium windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 70 K302-I-A 230V 50Hz BC1-123	1010 109 29346	70	SON/MH	0.98	85	no	140	1.23	12	A3	123	98	61	52	6.2
BSN 100 K302-I-A 230V 50Hz BC2-126	1010 109 29446	100	SON/MH	1.20	75	no	140	1.52	14	A3	126	104	76	65	6.2
BSN 150 K302-I-A 230V 50Hz BC2-151	1010 109 29546	150	SON/MH	1.80	75	no	140	2.60	18	A3	151	129	76	65	6.2
BSN 250 K302-I-A230V 50Hz BC3-143	1010 109 29646	250	SON/MH	3.00	80	no	140	3.10	32	A3	143	121	97	83	6.2

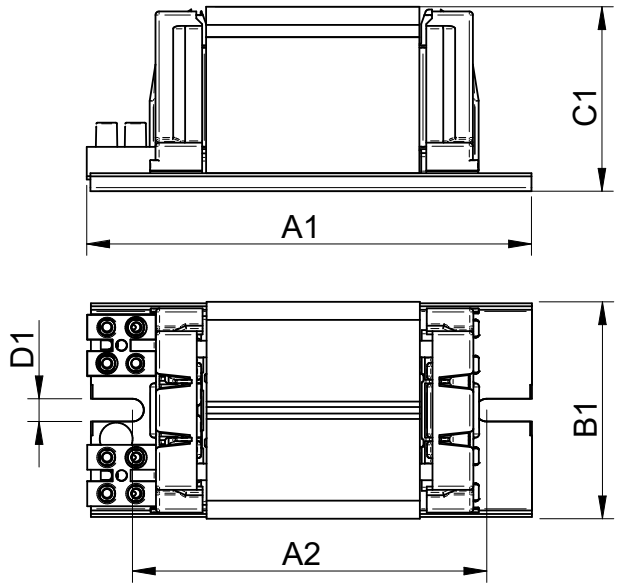
220V, 60Hz, copper windings, with thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 50 K301-ITS-220V 60Hz BC1-118	9137 002 96046	50	SON/MH	0.76	70	yes	140	0.90	7	A3	118	94	61	52	6.2
BSN 70 K301-ITS-220V 60Hz BC1-118	9137 002 93046	70	SON/MH	0.98	80	yes	140	0.95	9	A3	118	94	61	52	6.2
BSN 100 K301-ITS-220V 60Hz BC1-123	9137 002 91946	100	SON/MH	1.20	80	yes	140	1.11	10	A3	123	98	61	52	6.2
BSN 150 K301-ITS-220V 60Hz BC2-134	9137 002 88146	150	SON/MH	1.80	80	yes	140	1.98	16	A3	134	113	76	65	6.2
BSN 250 K301-ITS-220V 60Hz BC2-160	9137 002 92446	250	SON/MH	3.00	80	yes	140	2.80	26	A3	160	139	76	65	6.2
BSN 400 K301-ITS-220V 60Hz BC3-166	9137 002 87646	400	SON/MH	4.45/4.60	75	yes	140	4.75	26	A3	166	145	97	83	6.2

220V, 60Hz, copper windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 250 K301-I 220V 60Hz BC2-160	9137 002 87746	250	SON/MH	3.00	80	no	140	2.80	26	A3	160	139	76	65	6.2
BSN 600 K301-I 220V 60Hz BC3-166	9137 002 88246	600	SON	5.80	80	no	140	5.00	43	A3	166	145	97	83	6.2

Dimensions



Heavy Duty ballast for high pressure sodium and metal halide lamps

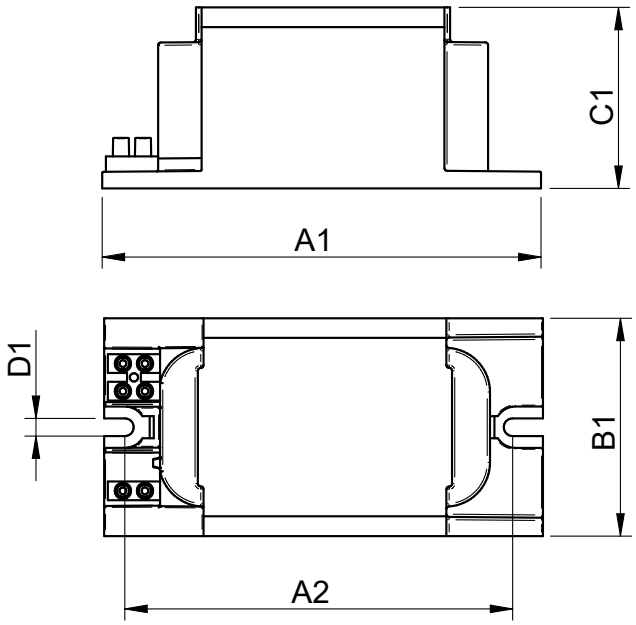
Product description

- Encapsulated electromagnetic ballasts, dedicated especially for harsh and corrosive environments
- Screw terminal blocks
- For use in combination with semi-parallel or series ignitors
- Winding temperature Tw = 130°C

230V, 50Hz, copper windings, with thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 50 L33-A2-TS 230V 50Hz HD1-118	1010 110 10446	50	SON/MH	0.76	50	yes	130	1.27	10	A2	118	103	65	53	6.2
BSN 70 L33-A2-TS 230V 50Hz HD1-118	9137 002 26546	70	SON/MH	0.98	55	yes	130	1.28	12	A2	118	103	65	53	6.2
BSN 100 L33-A2-TS 230V 50Hz HD1-123	1010 110 10146	100	SON/MH	1.20	65	yes	130	1.38	14	A2	123	108	65	53	6.2
BSN 150 L33-A2-TS 230V 50Hz HD2-126	1010 110 10246	150	SON/MH	1.80	60	yes	130	1.80	18	A2	126	107	81	66	6.2
BSN 250 L33-A2-TS 230V 50Hz HD2-151	1010 110 10346	250	SON/MH	3.00	75	yes	130	2.80	32	A2	151	132	81	66	6.2
BSN 400 L33-A2-TS 230V 50Hz HD3-166	9137 002 26946	400	SON/MH	4.45/4.60	75	yes	130	4.55	45	A2	166	147	102	84	6.2

Dimensions



Reinforced ballasts for high pressure sodium and metal halide lamps

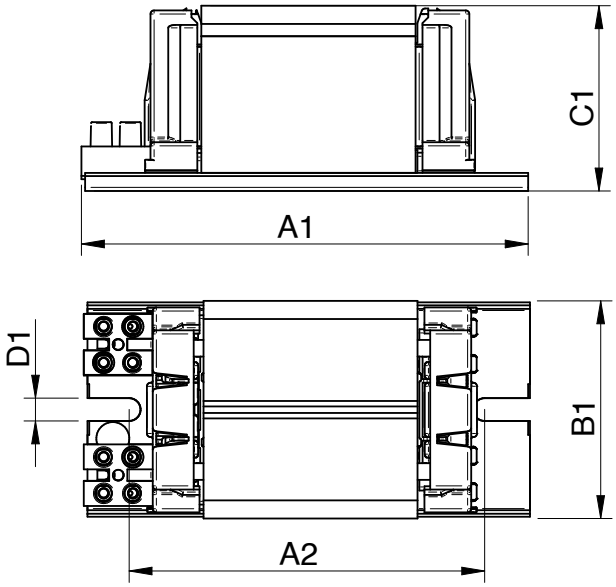
Product description

- Impregnated electromagnetic ballasts
- Dedicated for class II luminaires
- Screw terminal blocks
- For use in combination with series ignitors
- Winding temperature Tw = 140°C

230V, 50Hz, copper windings, with thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 70/50 K302-A2-TS-R 230V 50Hz BC1-118	1010 109 28646	70/50	SON/MH	0.98/0.76	50/40	yes	140	1.41	12	A2	118	94	61	52	6.2
BSN 70 K202-A2-TS-R 230V 50Hz BC1-118	1010 109 24646	70	SON/MH	0.98	55	yes	140	1.26	12	A2	118	94	61	52	6.2
BSN 100 K202-A2-TS-R 230V 50Hz BC1-123	1010 109 24746	100	SON/MH	1.20	60	yes	140	1.40	14	A2	123	98	61	52	6.2
BSN 150 K202-A2-TS-R 230V 50Hz BC2-134	1010 109 24846	150	SON/MH	1.80	55	yes	140	2.24	20	A2	134	113	76	65	6.2
BSN 250 K202-A2-TS-R 230V 50Hz BC2-160	1010 109 24946	250	SON/MH	3.00	70	yes	140	3.25	32	A2	160	139	76	65	6.2
BSN 400 K307-A2-TS-R 230/240V 50Hz BC3-166	9137 002 93446	400	SON/MH	4.45/4.60	80	yes	140	4.95	45	A2	166	145	97	83	6.2

Dimensions



Basic step dimming ballast for high pressure mercury lamps

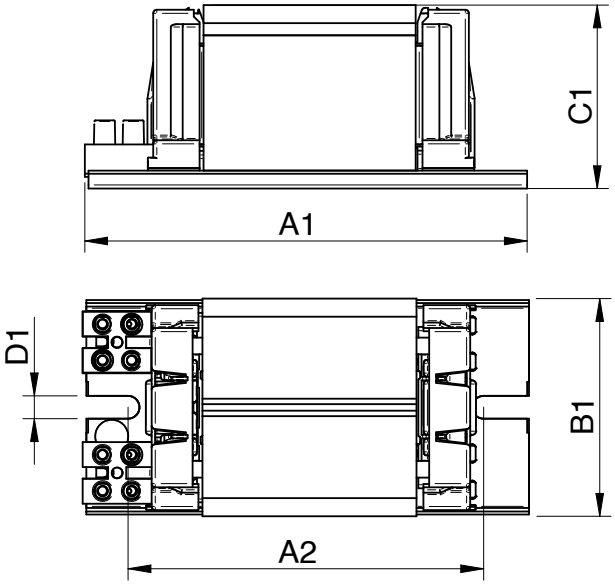
Product description

- Impregnated electromagnetic ballasts
- Dedicated for applications with power reduction (additional controller or power switch is required)
- Screw terminal blocks
- For use in combination with series ignitors
- Winding temperature Tw = 140°C

230V, 50Hz, copper windings, with thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BSN 70/50 K302-A2-TS 230V 50Hz BC1-123	1010 109 25446	70/50	SON/MH	0.98/0.76	50/40	yes	140	1.41	12	A2	123	98	61	52	6.2
BSN 100/70 K302-A2-TS 230V 50Hz BC1-123	1010 109 25546	100/70	SON/MH	0.98/1.20	55/65	yes	140	1.39	14	A2	123	98	61	52	6.2
BSN 150/100 K302-A2-TS 230V 50Hz BC2-134	1010 109 25646	150/100	SON/MH	1.80/1.20	60/40	yes	140	2.36	12/18	A2	134	113	76	65	6.2
BSN 250/150 K302-A2-TS 230V 50Hz BC2-160	1010 109 28746	250	SON	3.00	70	yes	140	3.27	32	A2	160	139	76	65	6.2
BSN 400/250 K407-A2-TS 230/240V 50Hz BC3-166	9137 002 86446	400/250	SON	4.60/4.45	80	yes	140	5.50	45	A2	166	145	97	83	6.2

Dimensions



Basic ballast for high pressure mercury lamps

Product description

- Impregnated electromagnetic ballasts
- Screw terminal blocks
- For use in combination with parallel ignitors for HPI lamps
- Winding temperature Tw = 140°C

220V, 50Hz, aluminium windings, without thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 250 K200-A2-A 220V 50Hz BC2-151	1010 109 14446	250	HPL/HPI	2.13/2.15	75	no	140	2.55	18	A2	151	129	76	65	6.2
BHL 400 K200-A2-A 220V 50Hz BC3-143	1010 109 14546	400	HPL/HPI	3.25/3.40	85	no	140	3.00	25/28	A3	143	121	97	83	6.2

220V, 50Hz, aluminium windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 125 K200-A 220V 50Hz BC2-126	1010 109 14546	125	HPL	1.15	65	no	140	1.51	10	A3	126	104	76	65	6.2

220V, 50Hz, copper windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimenstions				
											A1	A2	B1	C1	D1
BHL 80 K200 220V 50Hz BC1-118	9137 002 83746	80	HPL	0.80	70	no	140	0.96	7	A3	118	94	61	52	6.2
BHL 125 K200 220V 50Hz BC1-118	9137 002 83446	125	HPL	1.15	85	no	140	1.15	10	A3	118	94	61	52	6.2
BHL 250 K200 220V 50Hz BC2-126	9137 002 83546	250	HPL/HPI	2.13/2.15	85	no	140	2.02	18	A3	126	104	76	65	6.2
BHL 400 K200 220V 50Hz BC2-151	9137 002 83646	400	HPL/HPI	3.25/3.40	80/85	no	140	2.98	25/28	A3	151	129	76	65	6.2

230V, 50Hz, copper windings, with thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 250 K202-A2-TS 230V 50Hz BC2-126	1010 109 19046	250	HPL/HPI	2.13/2.15	85	yes	140	2.02	18	A2	126	104	76	65	6.2
BHL 400 K202-A2-TS 230V 50Hz BC2-151	1010 109 19446	400	HPL/HPI	3.25/3.40	80/85	yes	140	3.00	25/28	A2	151	129	76	65	6.2

230V, 50Hz, copper windings, without thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 125 K202-A2 230V 50Hz BC1-111	1010 109 28046	125	HPL	1.15	65	no	140	1.26	10	A2	111	94	61	52	6.2
BHL 250 K202-A2 230V 50Hz BC2-126	9137 002 83246	250	HPL/HPI	2.13/2.15	85	no	140	2.02	18	A2	126	104	76	65	6.2
BHL 400 K202-A2 230V 50Hz BC2-151	9137 002 84646	400	HPL/HPI	3.25/3.40	80/85	no	140	3	25/28	A2	151	129	76	65	6.2
BHL 700 K202-A2 230V 50Hz BC3-166	1010 109 21946	700	HPL	5.40	80	no	140	5.50	40	A2	166	145	97	83	6.2

230V, 50Hz, aluminium windings, with thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 250 K202-A2-TS-A 230V 50Hz BC2-151	1010 109 19246	250	HPL/HPI	2.13/2.15	85	yes	140	2.25	18	A2	151	129	76	65	6.2
BHL 400 K202-A2-TS-A 230V 50Hz BC2-166	1010 109 19646	400	HPL/HPI	3.25/3.40	75/80	yes	140	4.34	25/28	A2	166	145	97	83	6.2

230V, 50Hz, aluminium windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 50 K202-A 230V 50Hz BC1-118	1010 109 13146	50	HPL	0.61	80	no	140	1.0	7	A3	118	94	61	52	6.2
BHL 80 K202-A 230V 50Hz BC1-118	1010 109 13246	80	HPL	0.80	85	no	140	1.0	7	A3	118	94	61	52	6.2
BHL 125 K202-A 230V 50Hz BC1-126	1010 109 13346	125	HPL	1.15	85	no	140	1.51	10	A3	126	104	76	65	6.2
BHL 250 K202-A2-A 230V 50Hz BC2-151	1010 109 13446	250	HPL/HPI	2.13/2.15	85	no	140	2.55	18	A2	151	129	76	65	6.2
BHL 400 K202-A2-A 230V 50Hz BC2-166	1010 109 13546	400	HPL/HPI	3.25/3.40	75/80	no	140	4.34	25/28	A2	166	145	97	83	6.2

230V, 50Hz, copper windings, without thermal protection

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 125 K202 230V 50Hz BC1-118	9137 002 85946	125	HPL	1.15	85	no	140	1.15	10	A3	118	94	61	52	6.2

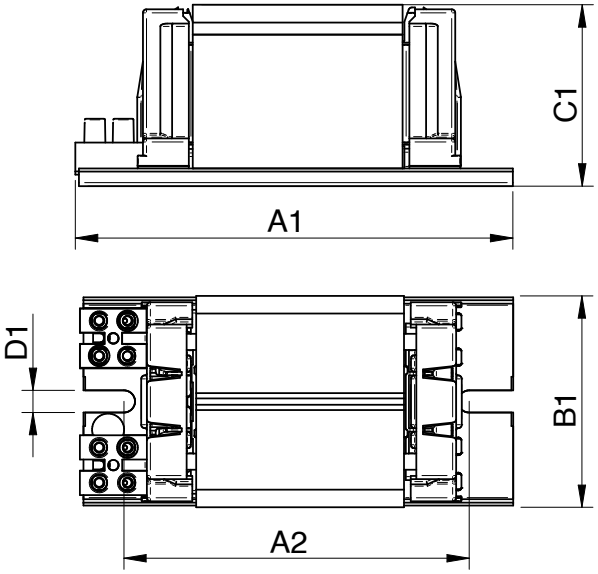
230V/240V, 50Hz, copper windings, with thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 250 K307-A2-TS 230/240V 50Hz BC2-134	1010 109 19146	250	HPL/HPI	2.13/2.15	80/85	yes	140	2.25	18	A2	134	113	76	65	6.2
BHL 400 K307-A2-TS 230/240V 50Hz BC2-160	1010 109 19546	400	HPL/HPI	3.25/3.40	80/85	yes	140	3.24	25/28	A2	160	139	76	65	6.2

230V/240V, 50Hz, copper windings, without thermal protection, A2 Class

Product name	Ordering code	Power [W]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions				
											A1	A2	B1	C1	D1
BHL 50/80 K407 230/240V 50Hz BC1-118	9137 002 86146	50/80	HPL	0.61/0.80	55/80	no	140	0.96	7	A3	118	94	61	52	6.2
BHL 80/125 K407 230/240V 50Hz BC1-118	9137 002 80246	80/125	HPL	0.80/1.15	50/80	no	140	1.23	7/10	A3	118	94	61	52	6.2
BHL 125 K307 230/240V 50Hz BC1-118	9137 002 86046	125	HPL	1.15	85	no	140	1.15	10	A3	118	94	61	52	6.2

Dimensions



Basic horticulture ballasts for high pressure sodium lamps

Product description

- Impregnated electromagnetic ballasts
- Horticulture applications
- Screw terminal blocks
- For use in combination with semi parallel ignitors or series ignitors
- Winding temperature Tw = 140°C

380V, 50Hz

Product name	Ordering code	Power [W]	Mains voltage [V]	Mains frequency [Hz]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions					
													A1	A2	B1	B2	C1	D1
BSN 600 K3014-A2-I 380V 50Hz BC3-166	9137 002 88546	600	380	50	SON	3.62	85	no	140	5.10	22.5µF/450V	A2	166	145	97	-	83	6.2

230V, 50Hz

Product name	Ordering code	Power [W]	Mains voltage [V]	Mains frequency [Hz]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions					
													A1	A2	B1	B2	C1	D1
BSN 250 K302-A2-ITS 230V 50Hz BC2-160	1010 109 23546	250	230	50	SON/MH	3	70	yes	140	3.25	32	A2	160	139	76	-	65	6.2
BSN 250 K302-ITS 230V 50Hz BC2-151	1010 109 17846	250	230	50	SON/MH	3	85	yes	140	2.93	32	A3	151	129	76	-	65	6.2
BSN 250 K302-ITS-A 230V 50Hz BC3-143	1010 109 10446	250	230	50	SON/MH	3	80	yes	140	3.03	32	A3	143	121	97	-	83	6.2
BSN 400 K302-ITS-A 230V 50Hz BC3-166	1010 109 10546	400	230	50	SON/MH	4	80	yes	140	4.45	45	A3	166	145	97	-	83	6.2
BSN 400 K302-A2-ITS 230V 50Hz BC3-166	1010 109 17946	400	230	50	SON/MH	4.45/4.60	80	yes	140	4.95	45	A2	166	145	97	-	83	6.2
BSN 600 K302-A2-ITS 230V 50Hz BC3-166	9137 002 79046	600	230	50	SON	5.80	80	yes	140	5.50	60	A2	166	145	97	-	83	6.2
BSN 600 K302-ITS-A 230V 50Hz BC3-193	1010 109 10646	600	230	50	SON	6.10	80	yes	140	5.95	60	A3	193	172	97	-	83	6.2

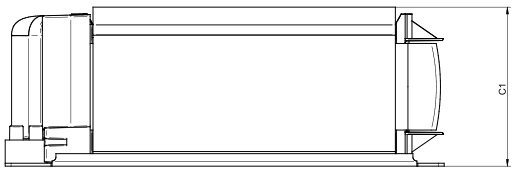
400V, 50Hz

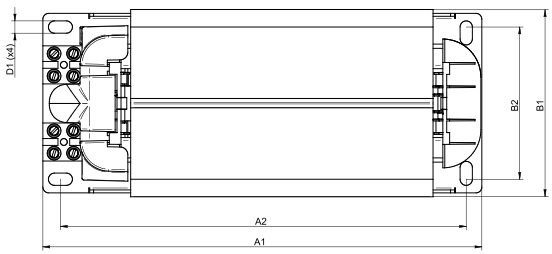
Product name	Ordering code	Power [W]	Mains voltage [V]	Mains frequency [Hz]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions					
													A1	A2	B1	B2	C1	D1
BSN 600 K309-A2-ITS 400V 50Hz BC3-166	9137 002 88346	600	400	50	SON	3.62	85	yes	140	5.50	22.5µF/450V	A2	166	145	97	-	83	6.2
BSN 600 K309-ITS-A 400V 50Hz BC3-193	1010 109 10746	600	400	50	SON	3.62	85	yes	140	5.95	22.5µF/450V	A3	193	172	97	78	83	6.2
BSN 750 K209-A2-TS 400V 50Hz BC3-193	1010 109 27546	750	400	50	SON	4.40	80	yes	140	7.00	28µF/450V	A2	193	172	97	-	83	6.2

480V, 60Hz

Product name	Ordering code	Power [W]	Mains voltage [V]	Mains frequency [Hz]	Lamps	Lamps current [A]	Delta T [°C]	Thermal protection	Tw [°C]	Weight [kg]	Capacitor [µF]	EEI	Dimensions					
													A1	A2	B1	B2	C1	D1
BSN 600 K3030-A2-ITS 480V 60Hz BC3-166	9137 002 92946	600	480	60	SON	3.26	85	yes	140	5.50	15µF/480V	A3	166	145	97	-	83	6.2

Dimensions





High Power ballasts for high pressure sodium, mercury and metal halide lamps

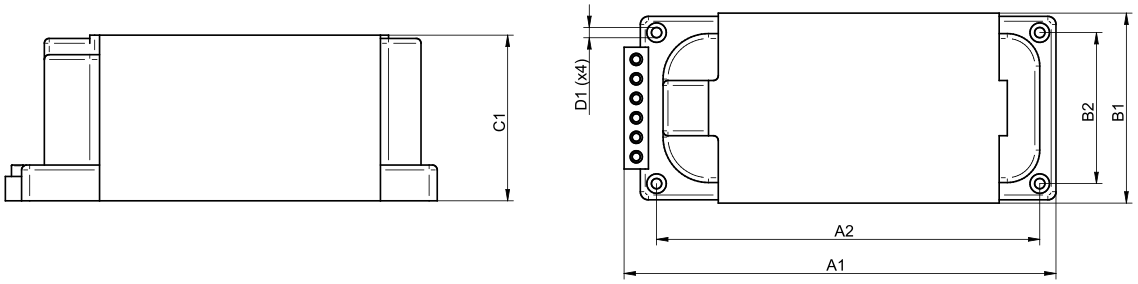
Product description

- Encapsulated ballasts for use with high power lamps
- A2 energy efficiency index
- For use in combination in series, semi-parallel (1000W), or parallel ignitor (HPI lamps)
- Encapsulated dedicated especially for harsh and corrosive environments
- Screw terminal blocks
- Copper windings
- Winding temperature Tw = 130°C

Heavy Duty, copper windings, A2 Class

Product name	Ordering code	Power [W]	Mains voltage [V]	Mains frequency [Hz]	Lamps	Lamps current [A]	Delta T [°C]	Weight [kg]	Capacitor [µF]	Dimensions					
										A1	A2	B1	B2	C1	D1
BSN 1000 L02-A2 220V 50Hz HP-257	9137 002 18146	1000	220	50	MHN-LA/ SON	9.30/10.30/ 10.60	70	11.50	100uF 280V	256	222	117	88	102	7
BSN 1000 L43-A2 220V 60Hz HP-257	9137 002 17646	1000	220	60	MHN-LA/ SON	9.30/10.30/ 10.60	70	11.50	100uF 280V	256	222	117	88	102	7
BSN 1000 L78-A2 230/240V 50Hz HP-257	9137 002 17546	1000	230/240	50	MHN-LA/ SON	9.30/10.30/ 10.60	70	11.50	100uF 280V	256	222	117	88	102	7
BHL 1000 L02-A2 220V 50Hz HP-207	9137 002 18446	1000	220	50	HPL	8.25	65	8.60	60uF 250V	206	172	117	88	102	7
BHL 1000 L78-A2 230/240V 50Hz HP-207	9137 002 17346	1000	230/240	50	HPL	7.50/8.25	65	8.60	60uF 250V	206	172	117	88	102	7
BMH 1800 L43-A2 220V 60Hz HP-317	9137 002 17846	1800	220	60	MHN-SA	17.30	80	17.50	200uF 280V	317	282	117	88	102	7
BMH 1800 L78-A2 230/240V 50Hz HP-317	9137 002 17746	1800	230/240	50	MHN-SA	17.30	80	17.50	200uF 280V	317	282	117	88	102	7
BHL 2000 L78-A2 230/240V 50Hz HP-317	9137 002 18046	2000	230/240	50	HPI	16.50	75	17.50	100uF 280V	317	282	117	88	102	7
BHD 2000 L76-A2 380/400/415V 50Hz HP-317	9137 002 32146	2000	230/400/415	50	MHN-LA/ SA/FC	9.60/10.30 11.00/11.30	70/75	17.50	60uF 450V	317	282	117	88	102	7
BHD 2000 L77-A2 400/415/430V 50Hz HP-317	9137 002 48746	2000	400/415/430	50	MHN-LA/ SA	9.60/10.30/ 11.30	70/75	17.50	60uF 450V	317	282	117	88	102	7
BMH 2000 L76-A2 380/400/415V 50Hz HP-257	9137 002 18246	1800 /2000	380/400/415	50	MHN-LA/ SA	10.50/9.60/ 10.30	65	17.50	60uF 450V	317	282	117	88	102	7
BHL 2000 L50-A2 360/380/400V 50Hz HP-257	9137 002 18346	2000	360/380/400	50	HPI	8.60/9.10	70	11.50	40uF 450V	256	222	117	88	102	7
BHL 2000 L76-A2 380/400/415V 50Hz HP-317	9137 002 17946	2000	380/400/415	50	HPI	8.60/9.10	70	17.50	40uF 450V	317	282	117	88	102	7

Dimensions



High Power ballasts for high pressure sodium, mercury and metal halide lamps

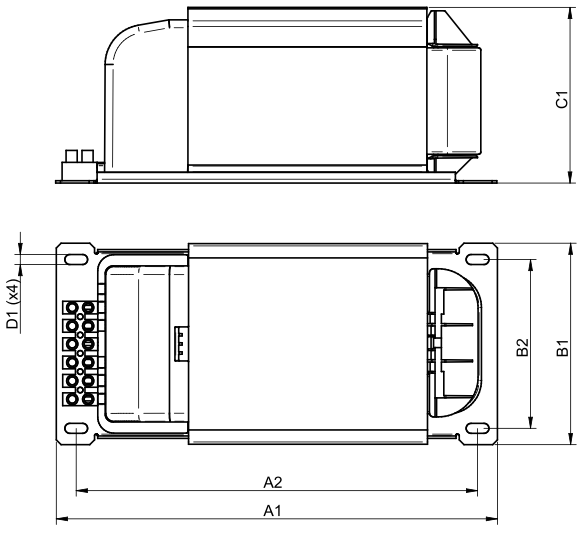
Product description

- Basic ballasts for use with high power lamps
- A2 energy efficiency index
- For use in combination with series, semi-parallel (1000W), or parallel ignitor (HPI lamps)
- Impregnated electromagnetic ballast
- Screw terminal blocks
- Aluminium windings
- Winding temperature Tw = 140°C

Basic, aluminium windings, A2 Class

Product name	Ordering code	Power [W]	Mains voltage [V]	Mains frequency [Hz]	Lamps	Lamps current [A]	Delta T [°C]	Weight [kg]	Capaci-tor [µF]	Dimensions					
										A1	A2	B1	B2	C1	D1
BSN 1000 L201-A2-A 220V 60Hz HP-228	9137 007 50646	1000	220	60	SON/MHN-LA	9.30/10.00/ 10.30/10.60	75	10.00	100uF 280V	228	204	126	106	112	7.0
BSN 1000 L307-A2-A 230/240V 50Hz HP-228	9137 002 75446	1000	230/240	50	SON/MHN-LA	9.30/10.00/ 10.30/10.60	70	10.30	100uF 280V	228	204	126	106	112	7.0
BSN 1000 L307-A2-A 230/240V 50Hz HP-228	9137 002 98646	1000	230/240	50	SON/MHN-LA	9.30/10.00/ 10.30/10.60	85	10.00	100uF 280V	228	204	126	106	112	7.0
BHL 1000 L201-A2-A 220V 60Hz HP-228	9137 007 50846	1000	220	60	HPL/HPI	7.50/8.25	75	7.65	60uF 250V	228	204	126	106	112	7.0
BHL 1000 L307-A2-A 230/240V 50Hz HP-228	9137 002 98546	1000	230/240	50	HPL/HPI	7.50/8.25	75	7.65	60uF 250V	228	204	126	106	112	7.0
BMH 2000 L5018-A2-A 380/400/415V 50Hz HP-317	9137 002 75346	2000	380/400/415	50	MHN-LA/FC/SA/ SB/SE	9.60/10.00/10.30 11.30/11.50	60/80	17.75	60uF 450V	317	292	126	106	112	7.0
BMH 2000 L5019-A2-A LA/FC 60/380/400/415V 50Hz HP-317	9137 002 98246	2000	360/380/400/ 415	50	MHN-LA/FC	9.60/10.00/10.30	85	16.00	60uF 450V	317	292	126	106	112	7.0
BMH 2000 L5030-A2-A 380/400/415V 60Hz HP-317	9137 002 98346	2000	380/400/415	60	MHN-LA/SA/ SB/FC	9.60/10.00/10.30 11.30/11.60	60/80	17.75	60uF 450V	317	292	126	106	112	7.0
BHL 2000 L4018-A2-A 380/400/415V 50Hz HP-277	9137 002 98446	2000	380/400/415	50	HPI	8.60/9.10	80	13.70	40uF 450V	277	244	126	106	112	7.0
BHL 2000 L4030-A2-A 380/400/415V 60Hz HP-228	9137 007 51046	2000	380/400/415	50	HPI	8.60/9.10	80	13.70	40uF 450V	277	244	126	106	112	7.0

Dimensions



High Power ballasts for high pressure sodium, mercury and metal halide lamps

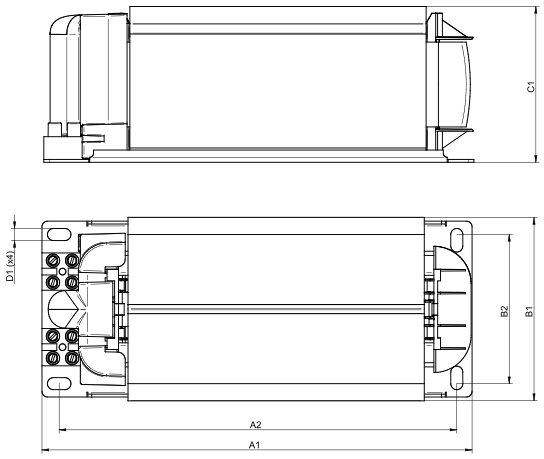
Product description

- Basic ballasts for use with high power lamps
- A2 energy efficiency index
- For use in combination with semi-parallel ignitors or series ignitors
- Narrow cross-section is ideal for pole mounting situation
- Screw terminal blocks
- Copper windings
- Winding temperature Tw = 140°C

Basic, copper windings, A2 Class

Product name	Ordering code	Power [W]	Mains voltage [V]	Mains frequency [Hz]	Lamps	Lamps current [A]	Delta T [°C]	Weight [kg]	Capacitor [µF]	Dimensions					
										A1	A2	B1	B2	C1	D1
BSN 1000 K300-A2-I 220V 50Hz BC3-285	1010 109 21246	1000	220	50	SON/ MHN-LA	10.30	80	9.50	100uF 280V	285	268	97	78	83	6.2
BSN 1000 K301-A2-I 220V 60Hz BC3-225	1010 109 25146	1000	220	60	SON/ MHN-LA	10.30	85	8.50	100uF 280V	225	208	97	78	83	6.2
BSN 1000 K302-A2-I 230V 50Hz BC3-285	1010 109 21346	1000	230	50	SON/ MHN-LA	10.30	75	11.00	100uF 280V	285	268	97	78	83	6.2
BSN 1000 K304-A2-I 240V 50Hz BC3-285	1010 109 21446	1000	240	50	SON/ MHN-LA	10.30/10.60/ 9.30	75	11.00	100uF 280V	285	268	97	78	83	6.2
BSN 1000 K309-A2-ITS 400V 50Hz BC3-225	1010 109 27946	1000	400	50	SON	5.00	70	9.00	28uF 250V	225	172	97	78	83	6.2
BHL 1000 K200-A2 220V 50Hz BC3-193	1010 109 20446	1000	220	50	HPL/HPI	7.50/8.25	80/85	6.70	60/65uF 250V	193	172	97	78	83	6.2
BHL 1000 K202-A2 230V 50Hz BC3-225	1010 109 21746	1000	230	50	HPL/HPI	7.50/8.25	70	8.50	60/65uF 280V	225	208	97	78	83	6.2

Dimensions



Ignitors for high intensity discharge lamps

Digital ignitors main features

- Long life performance
- Lamp state check
- Lamp end-of-life recognition
- Automatic switch off
- Automatic counter reset
- Strongly recommended for use with MH lamps due to the end of life effects

Semi-parallel ignitors

Product description

- Compact dimension
- Operating with wide range of lamps 35-1800W
- Available in digital and analog version
- To be used only with semi-parallel ballasts
- Available with screw and click mounting
- Screw terminal blocks

Product name	Ordering code	Power [W]	Lamps	Mains Voltage [V]	Mains frequency [Hz]	Ignition voltage[kV]		Tc [°C]	Ta [°C]	Cable length [m]	Housing	Dimensions			
						min	max					A1	A2	B1	C1
SK 578 220-240V 50/60Hz	1010 111 10146	35...1000	SON/MH	220-240	50/60	1.80	5.00	90	-30...+85	10*	Plastic click	64	57	40	28
SK 578-S 220-240V 50/60Hz	1010 111 10246	35...1000	SON/MH	220-240	50/60	1.80	5.00	90	-30...+85	10*	Plastic screw	68	58	40	28
SK 578 Digital 220-240V 50/60Hz	1010 111 10346	35...1000	SON/MH	220-240	50/60	1.80	5.00	90	-30...+85	10*	Plastic click	64	57	40	28
SK 578-S Digital 220-240V 50/60Hz	1010 111 10446	35...1000	SON/MH	220-240	50/60	1.80	5.00	90	-30...+85	10*	Plastic screw	68	58	40	28
SN 56 220-240V 50/60Hz	1010 111 11446	1000...1800	SON/MH	220-240	50/60	2.80	5.00	70	-20...+50	100*	Plastic click	113	106	40	35
SN 56-S 220-240V 50/60Hz	1010 111 11746	1000...1800	SON/MH	220-240	50/60	2.80	5.00	70	-20...+50	100*	Plastic screw	117	106	40	35
SN 59 220-240V 50/60Hz	1010 111 11546	1000...1800	SON/MH	220-240	50/60	2.80	5.00	70	-20...+50	40*	Plastic click	113	106	40	35
SN 59-S 220-240V 50/60Hz	1010 111 11846	1000...1800	SON/MH	220-240	50/60	2.80	5.00	70	-20...+50	40*	Plastic screw	117	106	40	35

*with typical cable of 100pF per meter

Semi-parallel horti ignitors

Product description

- Compact dimension
- Operating with 600W SON Green Power lamps
- Available in digital and analog version
- To be used only with semi-parallel ballasts
- Available with screw and click mounting
- Screw terminal blocks

Product name	Ordering code	Power [W]	Lamps	Mains Voltage [V]	Mains frequency [Hz]	Ignition voltage[kV]		Tc [°C]	Ta [°C]	Cable length [m]	Housing	Dimensions			
						min	max					A1	A2	B1	C1
SK 97 380-400V 50/60Hz	1010 111 10646	600	SON Green Power	380-400	50/60	3.70	5.00	90	-30...+85	10*	Plastic click	84	77	40	35
SK 97-S 380-400V 50/60Hz	1010 111 11046	600	SON Green Power	380-400	50/60	3.70	5.00	90	-30...+85	10*	Plastic screw	88	78	40	35
SK 98 Digital 380-480V 50/60Hz	1010 111 10746	600	SON Green Power	380-480	50/60	3.70	5.00	90	-30...+85	10*	Plastic click	113	106	40	35
SK 98-S Digital 380-480V 50/60Hz	1010 111 11146	600	SON Green Power	380-480	50/60	3.70	5.00	90	-30...+85	10*	Plastic screw	117	106	40	35

*with typical cable of 100pF per meter

Parallel ignitors

Product description

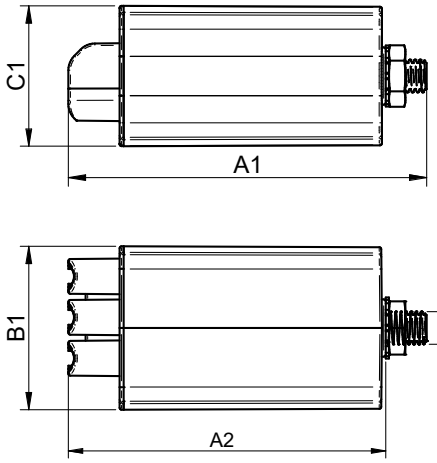
- Compact dimensions
- Operating with 250,400 and 2000 HPI lamp
- To be used only with parallel ballasts
- Available with screw and click mounting
- Screw terminal blocks

Product name	Ordering code	Power [W]	Lamps	Mains Voltage [V]	Mains frequency [Hz]	Ignition voltage[kV]		Tc [°C]	Ta [°C]	Cable length [m]	Housing	Dimensions			
						min	max					A1	A2	B1	C1
SI 51 220-240V 50/60Hz	1010 111 10846	250...400	HPI	220-240	50/60	0.58	0.75	85	-20...+75	1500*	Plastic click	84	77	40	35
SI 51-S 220-240V 50/60Hz	1010 111 10946	250...400	HPI	220-240	50/60	0.58	0.75	85	-20...+75	1500*	Plastic screw	88	78	40	35
SI 52 220-240V 50/60Hz	1010 111 11246	1000...2000	HPI	220-240	50/60	0.58	0.75	85	-20...+75	350*	Plastic click	84	77	40	35
SI 52-S 220-240V 50/60Hz	1010 111 11346	1000...2000	HPI	220-240	50/60	0.58	0.75	85	-20...+75	350*	Plastic screw	88	78	40	35
SI 54 380-440V 50/60Hz	1010 111 11646	2000	HPI	380-440	50/60	0.90	1.50	75	-20...+65	1200*	Plastic click	113	106	40	35
SI 54-S 380-440V 50/60Hz	1010 111 11946	2000	HPI	380-440	50/60	0.90	1.50	75	-20...+65	1200*	Plastic screw	117	106	40	35

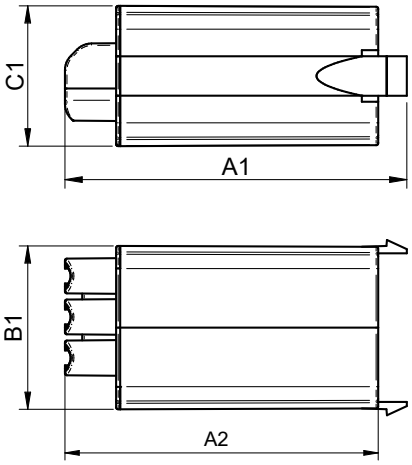
*with typical cable of 100pF per meter

Dimensions

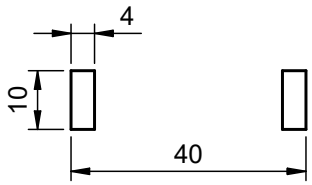
PLASTIC SCREW HOUSING



PLASTIC CLICK HOUSING



MOUNTING HOLES FOR CLICK VERSION



Parallel ignitors BAG

Product description

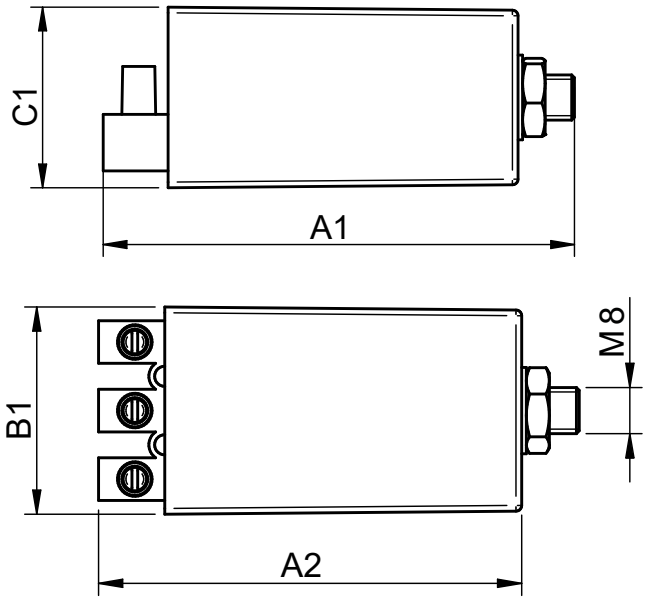
- Screw terminal block
- Compact dimensions
- To be used only with parallel ballasts
- Oparating with 250,400 and 1000W HPI lamps

Product name	Ordering code	Power [W]	Lamps	Mains Voltage [V]	Mains frequency [Hz]	Ignition voltage[kV]		Tc [°C]	Ta [°C]	Cable length [m]	Housing	Dimenstions			
						min	max					A1	A2	B1	C1
NP 603	8028 111 11746	250...1000	HPI-T	220-240	50/60	0.70	1.00	105	-30...+85	100*	Plastic screw	55	40	30	21.6

*with typical cable of 100pF per meter

Dimensions

PLASTIC SCREW HOUSING



Series ignitors

Product description

- Compact dimensions
- Available in digital and analog versions
- To be used with series or semi-parallel ballasts
- Available with screw mounting
- Screw terminal block

Digital ignitors main features: (SUD.. or TU.. types)

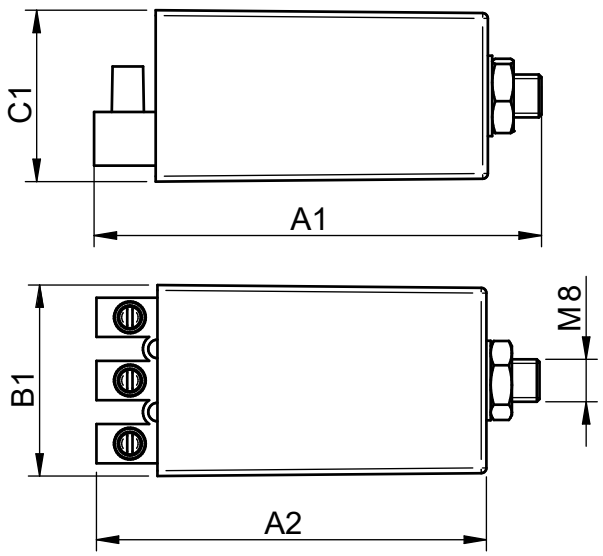
- Long life performance
- Lamp state check
- Lamp end-of-life recognition
- Automatic switch off
- Strongly recommended for use with MH lamps due to the end of life effects

Product name	Ordering code	Power [W]	Lamps	Mains Voltage [V]	Mains frequency [Hz]	Ignition voltage[kV]		Tc [°C]	Ta [°C]	Cable length [m]	Housing	Dimensions			
						min	max					A1	A2	B1	C1
NI 70 S 4K 220-240V 50/60Hz	1010 111 12846	35...70	SON	220-240	50/60	1.90	2.50	105	-30...+90	2*	Plastic screw	88	78	36	32
NI 70 S 4K-TU 220-240V 50/60Hz	1010 111 12646	35...70	SON	220-240	50/60	1.90	2.50	105	-30...+90	2*	Plastic screw	88	78	36	32
NI 400 LE 4K 220-240V 50/60Hz	1010 111 13046	35...400	SON/MH	220-240	50/60	3.50	5.00	105	-30...+70	1*	Plastic screw	88	78	36	32
NI 400 LE 4K-TU 220-240V 50/60Hz	1010 111 12446	35...400	SON/MH	220-240	50/60	3.50	5.00	105	30...+70	1*	Plastic screw	88	78	36	32
MZN 400 SU 220-240V 50/60Hz	1010 111 12346	35...400	SON/MH	220-240	50/60	4.00	5.00	105	-30...+85	1*	Aluminium screw	97	87	51	51
MZN 400 S-TU 220-240V 50/60Hz	1010 111 12546	35...400	SON/MH	220-240	50/60	3.50	5.00	105	-30...+70	1*	Aluminium screw	88	78	45	45
NI 1000 LE 220-240V 50/60Hz	1010 111 12046	400...1000	SON/MH	220-240	50/60	3.50	5.00	85	-30...+55	1*	Plastic screw	97	87	48	38
MZN 1000 S 220-240V 50/60Hz	1010 111 12246	400...1000	SON/MH	220-240	50/60	3.50	5.00	85	-30...+55	1*	Aluminium screw	93	83	51	51
380 MZN 2000 S 380-415V 50/60Hz	1010 111 12146	1000...2000	SON.MH	380-415	50/60	4.00	5.00	90	-30...+45	2*	Aluminium screw	93	83	51	51

*with typical cable of 100pF per meter

Dimensions

PLASTIC /ALUMINIUM SCREW HOUSING



Hot restrike ignitor

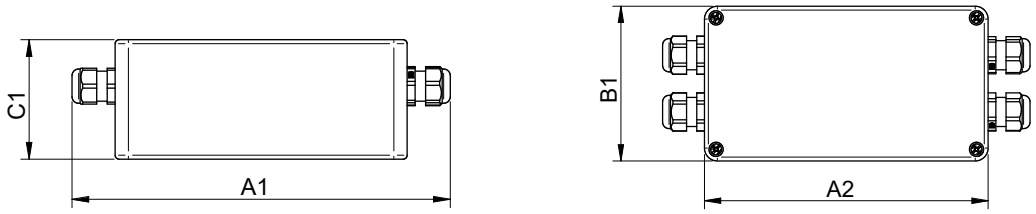
Product description

- Fully electronic ignitor with inteligent ignition managment
- Instant start of hot and cold lamp
- Automatic switch-off in case of abnormal lamp operation or end-of-life of lamp
- Individual adaptation of the ignition parameters
- Symetric ignition on both leads

Product name	Ordering code	Power [W]	Lamps	Mains Voltage [V]	Mains frequency [Hz]	Ignition voltage [kV]		Tc [°C]	Ta [°C]	Cable length [m]	Housing	Dimensions			
						min	max					A1	A2	B1	C1
230/480 ZIR 2000 AS 2L	1010 111 13146	250...2000	HIT/HST/HCI /HQI/MHN	230-480	50/60	25.00	40.00	80	-30...+50	0.3*	Plastic screw	290	220	120	92

Dimensions

PLASTIC SCREW HOUSING



Power switch for HID lamps power reduction

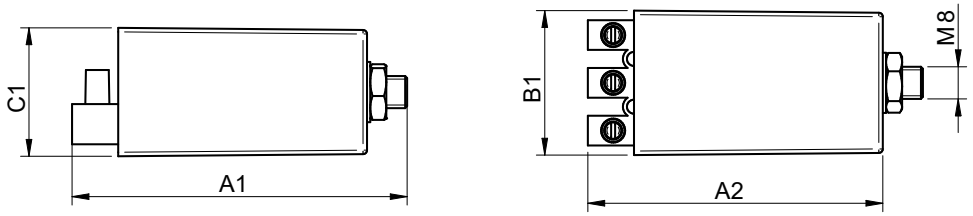
Product description

- Switch-over to reduce power operation without applying control voltage (acc. to minutes time delay)
- System works for 5 minutes of full load operation after start, independent of the applied control signal
- System switch-over to full power when applying control voltage (after delay time)
- Maximum switching lamp power: 600W for HID sodium lamp, and 700W for HID mercury lamp
- Maximum switching lamp current: 8A

Product name	Ordering code	Power [W]	Lamps	Mains Voltage [V]	Mains frequency [Hz]	Tc [°C]	Ta [°C]	Housing	Dimensions			
									A1	A2	B1	C1
NPV 700-TM05	8028 111 12046	50...700	HS/HM	220-240	50/60	80	-30...+80	Plastic screw	74	62	36	32

Dimensions

PLASTIC SCREW HOUSING

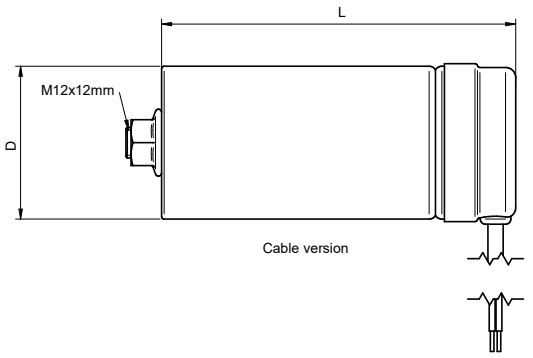


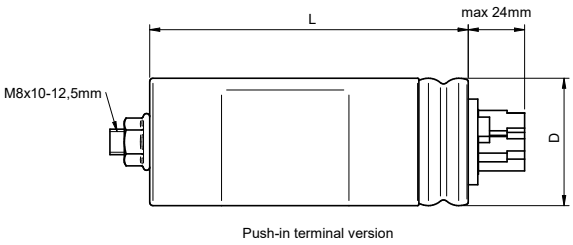
Capacitors

Product description

- Type B, aluminium housing
- Low inductance
- Push-in terminal (Wago 214 terminal) or cable (2x0,75mm²)
- Self-healing ability
- Overpressure safety break-action mechanism
- Discharge resistor
- Requirement a clearance of at least 10mm above the terminals to ensure proper activation break action mechanism

Dimension





Technical data	
Parameter	**Value**
Tolerance of capacitance	±5%
Rated frequency	50/60Hz
Relative humidity in capacitor environment at 20÷25°C	75% (annual average) 95% (max value within 30 days)
Service life	30000h
Condensation	Not permitted
Dissipation factor (tgd)	≤ 0,0015 at 50Hz/250V
Dielectric strength between terminals	2U_N/50Hz - 2sec
Dielectric strength between terminals connected together and case	2kV / 50Hz - 2sec

Product name	Ordering code	Capacitor [uF]	Mains voltage [V]	Ambient temp. [°C]	Terminal	Diameter D [mm]	Length L [mm]
CAP 4.5µF 250V MST I60	4010 401 13410	4.50	250	-40 ... +100	Push-in	25	62
CAP 6.5µF 250V MST I60	4010 401 13510	6.50	250	-40 ... +100	Push-in	25	62
CAP 8µF 250V MST I60	4010 401 13610	8.00	250	-40 ... +100	Push-in	25	74
CAP 9µF 250V MST I60	4010 401 13710	9.00	250	-40 ... +100	Push-in	30	62
CAP 10µF 250V MST I60	4010 401 12810	10.00	250	-40 ... +100	Push-in	30	74
CAP 12µF 250V MST I60	4010 401 12910	12.00	250	-40 ... +100	Push-in	30	74
CAP 12.5µF 250V MST I60	4010 401 13810	12.50	250	-40 ... +100	Push-in	30	74
CAP 14µF 250V MST I60	4010 401 13910	14.00	250	-40 ... +100	Push-in	30	74
CAP 16µF 250V MST I60	4010 401 14010	16.00	250	-40 ... +100	Push-in	30	87
CAP 18µF 250V MST I60	4010 401 13010	18.00	250	-40 ... +100	Push-in	40	74
CAP 20µF 250V MST I60	4010 401 13110	20.00	250	-40 ... +100	Push-in	40	74
CAP 25µF 250V MST I60	4010 401 13210	25.00	250	-40 ... +100	Push-in	40	74
CAP 32µF 250V MST I60	4010 401 10311	32.00	250	-40 ... +100	Push-in	40	87
CAP 45µF 250V MST I60	4010 401 10411	45.00	250	-40 ... +100	Push-in	40	100
CAP 50µF 250V MST I60	4010 401 14410	50.00	250	-40 ... +100	Push-in	45	100
CAP 60µF 250V MST I60	4010 401 10511	60.00	250	-40 ... +100	Push-in	45	100
CAP 100µF 280V MST 025	4010 401 11610	100.00	280	-40 ... +85	Cable	60	140
CAP 20µF 450V MST 025	4010 401 11711	20.00	450	-40 ... +85	Push-in	40	87
CAP 22.5µF 450V MST 25	4010 401 14310	22.50	450	-40 ... +85	Push-in	45	87
CAP 25µF 450V MST 025	4010 401 14210	25.00	450	-40 ... +85	Push-in	45	87
CAP 28uF 450V MST 025	4010 401 10610	28.00	450	-40 ... +85	Push-in	45	87
CAP 40µF 450V MST 025	4010 401 11410	40.00	450	-40 ... +85	Cable	60	90
CAP 60µF 450V MST 025	4010 401 11510	60.00	450	-40 ... +85	Cable	60	140
CAP 15uF 480V MST 025	4010 401 11211	15.00	480	-40 ... +85	Push-in	45	74

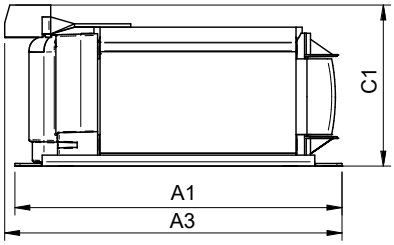
Compensation coils

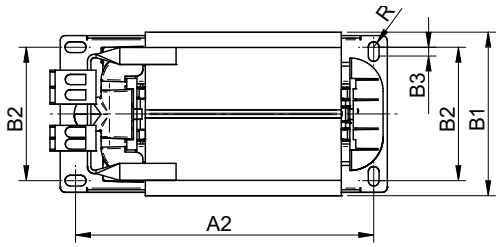
Product description

- Intended to consume capacitive VArs
- Product according to EN/IEC 60076-6
- Thermal protection integrated
- Additional ratings on request
- Copper windings
- Ambient temperature 40°C
- 3 phase reactor possible - star connection

Product name	Ordering code	Reactive power [kVar]	Inductance [mH]	Current [A]	Weight [kg]	Dimensions [mm]								Losses [W]	Insulation class
						A1	A2	A3	B1	B2	B3	C1	R1		
CEKO 1f/0,1/230 TS	1010 116 13442	0.10	1684	0.43	3.70	142	121	-	96	78	6	82	3	8.00	B
CEKO 1f/0,167/230	1010 116 13842	0.17	1008	0.73	1.30	118	93	118	61	-	6.3	52	3.15	11.40	B
CEKO 1f/0,2/230 TS	1010 116 13042	0.20	842	0.87	3.70	142	121	-	96	78	6	82	3	10.00	B
CEKO 1f/0,2/230	1010 116 14242	0.20	842	0.87	1.80	126	104	126	76	-	6.3	65	3.15	11.30	B
CEKO 1f/0,233/230	1010 116 14342	0.23	724	1.00	1.80	126	104	126	76	-	6.3	65	3.15	13.10	B
CEKO 1f/0,25/230 TS	1010 116 10142	0.25	673	1.09	3.70	142	121	-	96	78	6	82	3	11.00	B
CEKO 1f/0,267/230	1010 116 14442	0.27	631	1.16	2.25	133	111.5	133	76	-	6.3	65	3.15	13.70	B
CEKO 1f/0,3/230 TS	1010 116 10242	0.30	560	1.30	3.80	142	121	-	96	78	6	82	3	14.00	B
CEKO 1f/0,3/230	1010 116 14542	0.30	560	1.30	2.25	133	111.5	133	76	-	6.3	65	3.15	16.50	B
CEKO 1f/0,333/230	1010 116 14642	0.33	506	1.45	2.00	133	111.5	133	76	-	6.3	65	3.15	17.70	B
CEKO 1f/0,367/230	1010 116 14742	0.37	459	1.60	2.80	151	129	151	76	-	6.3	65	3.15	17.90	B
CEKO 1f/0,4/230 TS	1010 116 12642	0.40	421	1.74	4.00	142	121	-	96	78	6	82	3	17.00	B
CEKO 1f/0,433/230	1010 116 14842	0.43	389	1.88	3.20	160	138	160	76	-	6.3	65	3.15	18.90	B
CEKO 1f/0,45/230 TS	1010 116 13542	0.45	374	1.96	4.00	142	121	-	96	78	6	82	3	17.00	B
CEKO 1f/0,5/230 TS	1010 116 10342	0.50	337	2.17	4.00	142	121	-	96	78	6	82	3	22.00	B
CEKO 1f/0,5/230	1010 116 14942	0.50	337	2.17	3.20	160	138	160	76	-	6.3	65	3.15	23.20	B
CEKO 1f/0,55/230 TS	1010 116 13142	0.55	306	2.39	5.30	165	144	-	96	78	6	82	3	22.50	B
CEKO 1f/0,567/230	1010 116 15042	0.57	297	2.46	3.20	160	138	160	76	78	6.3	65	3.15	26.70	B
CEKO 1f/0,6/230 TS	1010 116 10442	0.60	280	2.61	5.30	165	144	-	96	78	6	82	3	23.40	B
CEKO 1f/0,667/230	1010 116 15142	0.67	253	2.90	3.60	142	121	-	96	78	6	82	3	22.00	B
CEKO 1f/0,75/230 TS	1010 116 10542	0.75	225	3.26	5.50	165	144	-	96	78	6	82	3	29.00	B
CEKO 1f/0,833/230 TS	1010 116 15242	0.83	202	3.62	5.50	165	144	-	96	78	6	83	3	30.90	B
CEKO 1f/1/230 TC TS	1010 116 11742	1.00	168	4.35	7.00	192	175	198	96	78	6	97	3	36.00	B
CEKO 1f/1/230 TS	1010 116 10642	1.00	168	4.35	7.00	192	175	-	96	78	6	83	3	36.00	B
CEKO 1f/1,25/230 TC TS	1010 116 12842	1.25	135	5.43	8.50	189	170	189	108	88	6	106	4	42.50	B
CEKO 1f/1,33/230 TC TS	1010 116 11842	1.33	127	5.78	9.50	189	170	192	108	88	6	106	4	46.00	B
CEKO 1f/1,5/230 TC TS	1010 116 11942	1.50	112	6.52	12.00	239	222	236	108	88	6	106	4	58.00	B
CEKO 1f/1,67/230 TC TS	1010 116 13742	1.67	101	7.26	13.00	239	108	88	108	88	6	106	4	65.00	B
CEKO 1f/2/230 TC TS	1010 116 12042	2.00	84	8.70	13.00	239	222	236	108	88	6	106	4	76.00	B
CEKO 1f/2,5/230 TC TS	1010 116 12142	2.50	67.3	10.87	16.50	299	222	298	108	88	6	106	4	92.00	B
CEKO 1f/3/230 TC TS	1010 116 12442	3.00	56.1	13.04	17.00	239	222	212	108	88	6	175	4	119.00	B
CEKO 1f/3,33/230 TC TS	1010 116 12242	3.33	50.6	14.48	19.00	239	222	212	108	88	6	175	4	125.00	B
CEKO 1f/4/230 TC TS	1010 116 12542	4.00	42.1	17.40	23.00	265	252	270	108	88	6	175	4	145.00	B
CEKO 1f/5/230 TC TS	1010 116 12342	5.00	33.68	21.74	27.00	300	282	302	108	88	6	175	4	208.00	B

Dimensions





Technical information

LED modules - definitions

If – forward current, which flows across the LED module, so that the LED will receive sufficient energy to emit light. In MST module marked value of If should be divided by the amount of strings in a specific product to have a value of single LED current.

Uf – forward voltage, which must be applied across the LED module, in order to turn the LED on. In MST module marked value of Uf should be divided by the amount of diodes connected in series in a specific product to have a value of single LED voltage.

Imax – highest permissible current flowing through the LED module. Operating the LED beyond the listed maximum ratings may affect module reliability and cause permanent damage.

Tp – temperature at the Tp-point is maximum operated temperature to which the rated performance characteristics are declared by the manufacturer. Temperature at Tp is relevant to the light output and life time of a LED module. For the MST LED module product's Tp point is placed at the same point as Tc**.**

Tc – highest permissible temperature which may occur on the outer surface (at the indicated place) under normal operating conditions. Tc is measured at thermally stable condition.

CRI – Colour Rendering Index is a quantitative measure of the ability of a light source to reproduce the colours of illuminated objects accurately when compared to a reference light source.

CCT – Correlated Colour Temperature of a light source is the temperature of an ideal black-body radiator that radiates light of comparable hue to that of the light source. Colour temperature gives a numerical estimate of what reference light source best approximates particular artificial light.

SDCM – Standard Deviation of Colour Matching – has the same meaning as a "MacAdam" ellipse and refer to the size of an ellipse around the black body locus. Staying within this ellipse results in a consistency of light which ensures that no colour difference is perceivable between one LED line and another with the naked eye in most applications.

Zhaga – global consortium of the light industry. Its overall aim is to develop interface specifications that allow LED light sources from different suppliers to be used interchangeably, without changing the luminaire design. Zhaga standard specific cover physical dimensions as well as photometric, electrical and thermal parameters of LED light engines.

Conventional system - definitions

ΔT (delta T) - it is the difference of temperature of the coil windings within an operating electromagnetic ballast compared to when it is in an off status.

ΔTabn (ΔT in abnormal situation) - it is the increase of winding temperature at 110% mains voltage when the starter is short circuited.

Tw (T windings) - it is the maximum temperature allowed for thewindings in an electromagnetic ballast. When the temperature higher then Tw (130 or 140 degrees, depending on the ballast type), the isolation around the wire can be damaged.

Ta (ambient temperature) - it is the temperature specified forthe product as maximum allowed surrounding temperature in the luminaire. The Ta (ambient temperature) of electromagnetic ballast is therefore approx. Tw-ΔT.

Thermo switch (TS) - it is for thermal protection against overheating. This prevents the ballast damage when the lamp reaches end of life.

PF (power factor) - it determines the amount of current that is consumed by a system. When the PF is low the current consumption is high. The PF can be improved by a PF capacitor or reactor (depend on PF character).

Reinforced ballasts (letter R in the naming) - these ballasts are designed to be used in class II luminaires.

Advantages of semi-parallel systems

- Ignitor is not self-heating
- Ballast generates high-energy ignition pulse that ignites lamps under all conditions
- Current does not flow through ignitor when lamp is operating therefore lifetime of digital semi-parallel ignitor can reach more than 10 years of operation
- High-energy ignition pulse, enabling remote gearing
- Silent system operation
- Semi-parallel ballasts can be used both with semi-parallel and series ignitors
- Semi-parallel system has lower energy consumption compared to series one

Features and benefits of aluminium wire

Raw material prices are growing, manufacturers of luminaires are looking for cheaper alternatives to improve their own competitiveness. Alternatives having equal or better performance. Because that MST decided to develop the new product platform based on aluminum wire. Years of experience in this field and positive users feedback unequivocally confirm the correctness of technological solutions adopted in the most critical elements of aluminium wire ballast design.
Main facts:

- aluminium wire has the same kind of insulation as copper wire (temperature index 200°C),
- experience with Fluo and HID ballasts with aluminium show that production process (winding etc.) has no negative influence on insulation quality,
- if during ballasts lifetime any insulation damages or cracks will appear, they will be quickly covered by oxide layer – due to this phenomenon overall insulation of aluminium wire is even better than copper wire,
- all ballasts with aluminium wire have Tw=140 (market standard is Tw=130),
- ballasts are tested (acc. IEC 61347) 30 days at 238°C (most of the copper wire ballasts are tested at 222°C)

High intensity discharge lamps naming applied by producers in lighting

	High-pressure sodium vapour lamps	Metal Halide lamps	High-pressure mercury vapour lamps	Low-pressure sodium vapour lamps
MST	SON	MH, HPI	HPL	SOX
BAG	HS	HI, MH	HPI	-
ELT	Na	HgI	Hg	-
Helvar	HS	HI	HM	-
OSRAM	Vialox NAV, Plantastar-T	Powerball HCI, Powerstar HQI	HQL	SOX
PHILIPS	SON	MHN, CDM, CDO, HPI	HPL	SOX
Tridonic	HS	HI	HM	-
Venture	HPS	MH	Mercury lamps	SOX
VosslohSchwabe	HS	HI	HM	-
Electrostart	HSI	MHI	MVI	-

HID wiring diagrams

SEMI-PARALLEL 220..240V
SK 578 (-S)
SK 578 (-S) Digital
SN 56 (-S)
SN 59 (-S)
Philips SN(D) 57
Philips SN(D) 58

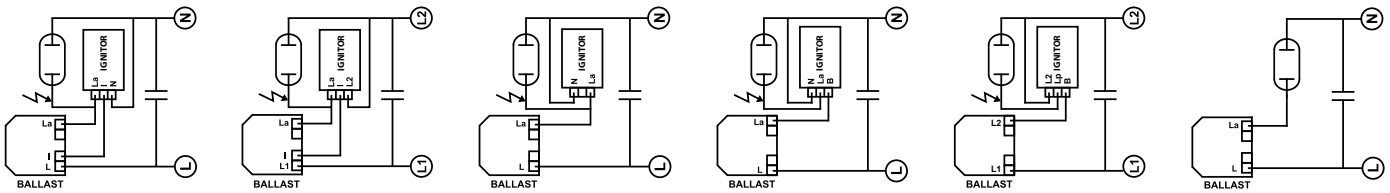
SEMI-PARALLEL 380..480V
SK 98 (-S) Digital
SK 97 (-S)

PARALLEL
SI 51 (-S)
SI 52 (-S)
SI 54 (-S)
Philips SX 26
Philips SX 76
NP 603

SERIES 220..240V
SU 10-S
SUD 10-S
SUD 40-S
SU 38-S
NI 70 S 4K (-TU)
NI 400 LE 4K (-TU)
MZN 400 S-TU
NI 1000 LE
MZN 1000 S

SERIES 360..430V
380 MZN 2000 S

NO IGNITOR



Cross reference table - lamp, ballast, ignitor and capacitor combination

Lamp type	Mains	Lamp power	Ballast type	SK 578 (-S)	SK 578 (-S) Digital	NI 70 S 4K-TU	NI 70 S 4K-TU	NI 400 LE 4K (-TU) MZN 400 S-TU	NI 400 LE 4K (-TU) MZN 400 S-TU	NI 1000 LE / MZN 1000 S	380 MZN 2000 S	SK 98 Digital	SK 97	SI 51 (-S)	SI 52 (-S)	SI 54 (-S)	NP 603	SN 56 (-S)	SN 59 (-S)	Philips SN(D) 57	Philips SN(D) 58	Philips SX 26	Philips SX 76	Capacitor
SON	220 - 240V 50/60Hz	50W	Basic	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10µF/250V
			Dual wattage	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	
		70W	Basic	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12µF/250V
			Dual wattage	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	
			Reinforced	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		100W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14µF/250V
			Dual wattage	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		150W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18µF/250V
			Dual wattage	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		250W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32µF/250V
			Dual wattage	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		400W	Basic	x	x	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	45µF/250V
			Dual wattage	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	
		600W	Basic	x	x	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	60µF/250V
		1000W	Basic aluminium	-	-	-	-	-	-	x	-	-	-	-	-	-	-	x	x	-	-	-	-	100µF/250V
			Basic copper	x	x	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	-	-	-	-	x	-	-	-	-	-	-	-	x	x	-	-	-	-	
SON Horti	220 - 240V 50/60Hz	250W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32µF/250V
		400W		x	x	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	45µF/250V
		600W		x	x	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	60µF/250V
	380 - 400V 50Hz	600W		-	-	-	-	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	22,5µF/450V
	480V 60Hz	600W		-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	15µF/480V
MH	220 - 240V 50/60Hz	35W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6µF/250V
		50W	Basic	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10µF/250V
			Heavy Duty	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	
		70W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12µF/250V
			Heavy Duty	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Reinforced	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		100W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14µF/250V
			Heavy Duty	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		150W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18µF/250V
			Heavy Duty	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		250W	Basic	x	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32µF/250V
			Heavy Duty	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		400W	Basic	x	x	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	45µF/250V
			Heavy Duty	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	x	-	-	
			Reinforced	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	
		1000W	Basic aluminium	-	-	-	-	-	-	x	-	-	-	-	-	-	-	x	x	-	-	-	-	100µF/250V
			Basic copper	x	x	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	
			Heavy Duty	-	-	-	-	-	-	x	-	-	-	-	-	-	-	x	x	-	-	-	-	
MH	360 - 430V 50/60Hz	2000W	Basic	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	60µF/450V
			Heavy Duty	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	
HPI	220 - 240V 50/60Hz	250W	Basic	-	-	-	-	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-	-	18µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-	-	
		400W	Basic	-	-	-	-	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-	-	25µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-	-	
		1000W	Basic	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-	-	-	-	-	60µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-	-	-	-	-	
		2000W	Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	145µF/250V
HPI	360 - 415V 50/60Hz	2000W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	40µF/450V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	
HPL	220 - 240V 50/60Hz	50W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7µF/250V
		80W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		125W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		250W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		400W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		1000W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60µF/250V
			Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SOX	220 - 240V 50/60Hz	18W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	4,5µF/250V
		26W	Basic	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	6µF/250V
		35W	Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	8µF/250V
		90W	Heavy Duty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	10µF/250V

Product naming

LED MODULES

RdLED 210mm 1500lm 830 SSW 2x4 5050 IP 33V EMG 2C Opt G1

Linear shape	LinLED
Rectangular shape	RecLED
Round shape - one piece	RdLED
1/2 part of round shape	RdLED 1/2
1/4 part of round shape	RdLED 1/4
Ring shape	RdLED Ring

Dimensions: length x width or diameter [mm]

Luminous flux [lm]

CRI > 70	7
CRI > 80	8
CRI > 90	9

Correlated colour temperature	CCT

Gx	Generation of module
Bsc	Basic version
Opt	Optimum version
xC	Connectors quantity
EMG	Emergency circuit
xxV	Voltage of module
IP	Ingress Protection
5050	LED Type
RxC	LED layout (Row x Column)
SSW	Sensor Switch Window

HID HEAVY DUTY BALLASTS

BSN 150 L33-A2-TS

High Pressure Sodium (SON)	BSN
Low Pressure Sodium (SOX)	BSX
High Pressure Mercury (HPL)	BHL
Metal Halide (MH)	BMH
Metal Halide (MH)	BHD

Lamp power

Low PF	L

A2	A2 Energy Efficiency Index
TS	Thermo Switch

02	220V 50Hz
33	230V 50Hz
34	240V 50Hz
40	230V 50Hz
43	220V 60Hz
50	360/380/400V 50Hz
76	380/400/415V 50Hz
77	400/415/430V 50Hz
78	230/240V 50Hz

HID BASIC BALLASTS

BSN 150 K407-A2-ITS-A

High Pressure Sodium (SON)	BSN
Low Pressure Sodium (SOX)	BSX
High Pressure Mercury (HPL)	BHL
Metal Halide (MH)	BMH

Lamp power

Semi-parallel types compatibile with SK/SK Digital ignitors	K
Low PF	L

Number of terminals

Screw terminal	0
Insert (poke-in) terminal	2

A2	A2 Energy Efficiency Index
TS	Thermo Switch
I	Ignitor tap
R	Reinforced
A	Aluminium wire

0	220V 50Hz
1	220V 60Hz
2	230V 50Hz
3	230V 60Hz
4	240V 50Hz
5	240V 60Hz
6	220/230V 50Hz
7	230/240V 50Hz
9	400V 50Hz
14	380V 50Hz
18	380/400/41V Hz
19	360/380/400/415V 50Hz
30	480V 60Hz or 380/400/415V 60Hz
80	220V 50Hz low profile
81	230V 50Hz low profile
82	240V 50Hz low profile

Notes

www.mst.pl

MST Sp. z o.o. Sp. k.
ul. Chrobrego 8, 11-400 Kętrzyn, Poland

T. +48 89 755 27 00, **F.** +48 89 755 27 98
E. office@mst.pl

MST | *Your solutions*