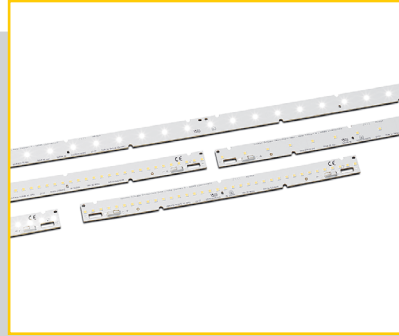


LED LINE SMD W2 EASYLINE GEN. 3



LED LINE SMD W2 EASYLINE GEN. 3 L07/14/28/56/112

MLE SC W2 G3

Typical Applications

Built-in luminaires/general illumination

- Office lighting
- Retail, corridor and shelf lighting
- T5/T8 replacement as built-in module
- Industry lighting

LED Line SMD W2 EasyLine Gen. 3 L07/14/28/56/112

- **LONG SERVICE LIFE TIME: 90,000 H (L80, B10)**
- **HIGHLY EFFICIENT: UP TO 185 LM/W
AT T_p = 50 °C**
- **5 LENGTHS AVAILABLE: 70 / 140 / 280 / 560 /
1120 MM**
- **ENEC PENDING**



LED Line SMD W2 EasyLine Gen. 3

Technical Notes

- LED built-in module for integration into luminaires
- Dimensions

MLE SC W2/70: 70x20 mm

MLE SC W2/140: 140x20 mm

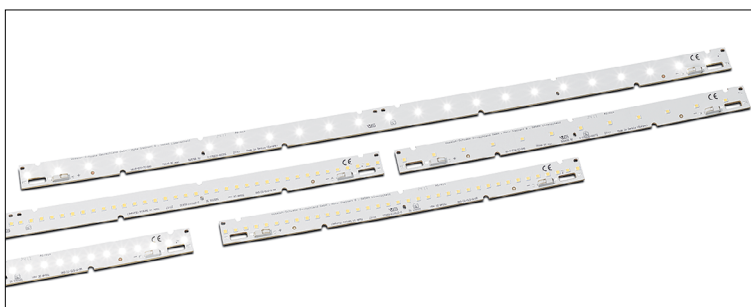
MLE SC W2/280: 280x20 mm

MLE SC W2/560: 560x20 mm

MLE SC W2/1120: 1120x20 mm

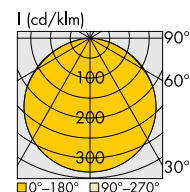


- Driving current: 150 mA / 200 mA / 250 mA / 300 mA
- Driving current: 150 mA / 200 mA / 250 mA / 300 mA / 350 mA / 400 mA (HE variant)
- On-board push terminal system
- Beam angle: 120°



Typical Light Distribution Curve

Data are available in .ldt format for download under www.vossloh-schwabe.com.



Covers and W2 optics

Please visit our homepage www.vossloh-schwabe.com for details for suitable covers and W2 optics

Electrical Characteristics

at $t_p = 50^\circ\text{C}$

Type	No. of SMDs	Typ. voltage DC						Temperature coefficient mV/K	Typ. power consumption					
		150 mA V	200 mA V	250 mA V	300 mA V	350 mA V	400 mA V		150 mA W	200 mA W	250 mA W	300 mA W	350 mA W	400 mA W
LED Line SMD W2 EasyLine Gen. 3 – L07														
MLE SC W2/70 x/3R/yz G3	3	2.7	2.7	2.8	2.8	/	/	-1.03	0.4	0.5	0.7	0.8	/	/
MLE SC W2/70 x/6/yz G3	6	5.4	5.5	5.6	5.6	/	/	-2.06	0.8	1.1	1.4	1.7	/	/
LED Line SMD W2 EasyLine Gen. 3 – L14														
MLE SC W2/140 x/6R/yz G3	6	5.4	5.5	5.6	5.6	/	/	-2.06	0.8	1.1	1.4	1.7	/	/
MLE SC W2/140 x/12/yz G3	12	10.8	11.0	11.2	11.3	/	/	-4.12	1.6	2.2	2.8	3.4	/	/
LED Line SMD W2 EasyLine Gen. 3 – L28														
MLE SC W2/280 x/12R/yz G3	12	10.8	11.0	11.2	11.3	/	/	-4.12	1.6	2.2	2.8	3.4	/	/
MLE SC W2/280 x/24/yz G3	24	21.7	22.0	22.3	22.6	/	/	-8.24	3.2	4.4	5.6	6.8	/	/
MLE SC W2/280 x/36/yz HE G3	36	24.0	24.4	24.6	24.9	25.2	25.4	-9.27	3.6	4.9	6.2	7.5	8.8	10.2
LED Line SMD W2 EasyLine Gen. 3 – L56														
MLE SC W2/560 x/24R/yz G3	24	21.7	22.0	22.3	22.6	/	/	-8.24	3.2	4.4	5.6	6.8	/	/
MLE SC W2/560 x/48/yz G3	48	43.3	44.0	44.6	45.2	/	/	-16.48	6.5	8.8	11.2	13.6	/	/
MLE SC W2/560 x/72/yz HE G3	72	48.1	48.7	49.3	49.8	50.3	50.8	-18.54	7.2	9.7	12.3	15.0	17.6	20.3
LED Line SMD W2 EasyLine Gen. 3 – L112														
MLE SC W2/1120 x/48R/yz G3	48	43.3	44.0	44.6	45.2	/	/	-16.48	6.5	8.8	11.2	13.6	/	/
MLE SC W2/1120 x/96/yz G3	96	86.6	88.0	89.2	90.3	/	/	-32.95	13.0	17.6	22.3	27.1	/	/
MLE SC W2/1120 x/144/yz HE G3	144	96.1	97.4	98.6	99.7	100.7	101.6	-37.07	14.4	19.5	24.6	29.9	35.2	40.7

Voltage and power consumption tolerance: $\pm 10\%$ | **Use of external LED constant current driver required.**

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the module.

Type	Operating current (mA)	Operation temperature range at t_c point		Storage temperature range		Max. allowed repetitive peak current for frequencies ≥ 100 Hz (mA)
		$^\circ\text{C min.}$	$^\circ\text{C max.}$	$^\circ\text{C min.}$	$^\circ\text{C max.}$	
MLE SC W2 G3	300	-10	+80	-20	+70	540
MLE SC W2 HE G3	400					720

Operating Life

L80/B10

in hours at measured temperature at t_p point

Type	150 mA			200 mA			250 mA			300 mA			350 mA and 400 mA		
	40 $^\circ\text{C}$	50 $^\circ\text{C}$	80 $^\circ\text{C}$	40 $^\circ\text{C}$	50 $^\circ\text{C}$	80 $^\circ\text{C}$	40 $^\circ\text{C}$	50 $^\circ\text{C}$	80 $^\circ\text{C}$	40 $^\circ\text{C}$	50 $^\circ\text{C}$	80 $^\circ\text{C}$	40 $^\circ\text{C}$	50 $^\circ\text{C}$	80 $^\circ\text{C}$
MLE SC W2 G3	72.000	72.000	57.000	72.000	72.000	56.000	72.000	72.000	55.000	72.000	72.000	55.000	/	/	/
MLE SC W2 HE G3	90.000	90.000	86.000	72.000	72.000	56.000	72.000	72.000	55.000	72.000	72.000	55.000	72.000	72.000	55.000

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LED Line SMD W2 EasyLine Gen. 3 - L07/14/28/56/112

Optical Characteristics – CRI > 80

at $I_p = 50^\circ\text{C}$

CRI: $R_a > 80$

Type	Ref. No. Connection "x"			Colour	Correlated colour temp. * K	Typ. luminous flux ** and typ. efficiency ** at												Photometric code
	top	bottom	small top			150 mA		200 mA		250 mA		300 mA		350 mA		400 mA		
	(T)	(B)	(S)			lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	
LED Line SMD W2 EasyLine Gen. 3 – L07																		
MLE SC W2/70 x/3R/830 G3	573991	/	573999	WW	3000	70	175	95	172	120	169	140	166	/	/	/	/	830/349
MLE SC W2/70 x/3R/840 G3	573992	/	574000	NW	4000	75	182	100	179	125	176	145	173	/	/	/	/	840/349
MLE SC W2/70 x/3R/850 G3	573993	/	on request	CW	5000	75	182	100	179	125	176	145	173	/	/	/	/	850/349
MLE SC W2/70 x/3R/865 G3	573994	/	on request	CW	6500	70	178	95	175	120	172	145	169	/	/	/	/	865/349
MLE SC W2/70 x/6/830 G3	573995	/	574001	WW	3000	140	175	190	172	235	169	280	166	/	/	/	/	830/349
MLE SC W2/70 x/6/840 G3	573996	/	574002	NW	4000	150	182	195	179	245	176	295	173	/	/	/	/	840/349
MLE SC W2/70 x/6/850 G3	573997	/	on request	CW	5000	150	182	195	179	245	176	295	173	/	/	/	/	850/349
MLE SC W2/70 x/6/865 G3	573998	/	on request	CW	6500	145	178	190	175	240	172	285	169	/	/	/	/	865/349
LED Line SMD W2 EasyLine Gen. 3 – L14																		
MLE SC W2/140 x/6R/830 G3	574003	574011	574015	WW	3000	140	175	190	172	235	169	280	166	/	/	/	/	830/349
MLE SC W2/140 x/6R/840 G3	574004	574012	574016	NW	4000	150	182	195	179	245	176	295	173	/	/	/	/	840/349
MLE SC W2/140 x/6R/850 G3	574005	on request	on request	CW	5000	150	182	195	179	245	176	295	173	/	/	/	/	850/349
MLE SC W2/140 x/6R/865 G3	574006	on request	on request	CW	6500	145	178	190	175	240	172	285	169	/	/	/	/	865/349
MLE SC W2/140 x/12/830 G3	574007	574013	574017	WW	3000	285	175	380	172	470	169	565	166	/	/	/	/	830/349
MLE SC W2/140 x/12/840 G3	574008	574014	574018	NW	4000	295	182	395	179	490	176	585	173	/	/	/	/	840/349
MLE SC W2/140 x/12/850 G3	574009	on request	on request	CW	5000	295	182	395	179	490	176	585	173	/	/	/	/	850/349
MLE SC W2/140 x/12/865 G3	574010	on request	on request	CW	6500	290	178	385	175	480	172	575	169	/	/	/	/	865/349
LED Line SMD W2 EasyLine Gen. 3 – L28																		
MLE SC W2/280 x/12R/830 G3	574019	574031	574037	WW	3000	285	175	380	172	470	169	565	166	/	/	/	/	830/349
MLE SC W2/280 x/12R/840 G3	574020	574032	574038	NW	4000	295	182	395	179	490	176	585	173	/	/	/	/	840/349
MLE SC W2/280 x/12R/850 G3	574021	on request	on request	CW	5000	295	182	395	179	490	176	585	173	/	/	/	/	850/349
MLE SC W2/280 x/12R/865 G3	574022	on request	574123	CW	6500	290	178	385	175	480	172	575	169	/	/	/	/	865/349
MLE SC W2/280 x/24/830 G3	574023	574033	574039	WW	3000	570	175	755	172	940	169	1125	166	/	/	/	/	830/349
MLE SC W2/280 x/24/840 G3	574024	574034	574040	NW	4000	590	182	785	179	980	176	1175	173	/	/	/	/	840/349
MLE SC W2/280 x/24/850 G3	574025	on request	on request	CW	5000	590	182	785	179	980	176	1175	173	/	/	/	/	850/349
MLE SC W2/280 x/24/865 G3	574026	on request	on request	CW	6500	580	178	770	175	960	172	1145	169	/	/	/	/	865/349
MLE SC W2/280 x/36/830 HE G3	574027	574035	574041	WW	3000	640	178	850	175	1065	173	1275	170	1480	168	1690	166	830/349
MLE SC W2/280 x/36/840 HE G3	574028	574036	574042	NW	4000	665	185	890	182	1105	180	1325	177	1545	175	1760	173	840/349
MLE SC W2/280 x/36/850 HE G3	574029	on request	on request	CW	5000	665	185	890	182	1105	180	1325	177	1545	175	1760	173	850/349
MLE SC W2/280 x/36/865 HE G3	574030	on request	on request	CW	6500	655	181	870	178	1085	176	1295	173	1510	171	1720	169	865/349

3000 K = warm white (WW), 4000 K = neutral white (NW), 5000 K and 6500 K = cool white (CW)

* Colour tolerance: 3 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LED Line SMD W2 EasyLine Gen. 3 - L07/14/28/56/112

Optical Characteristics – CRI > 80

at $t_p = 50^\circ\text{C}$

CRI: $R_a > 80$

Type	Ref. No. Connection "x"			Colour	Correlated colour temp. * K	Typ. luminous flux** and typ. efficiency** at												Photometric code
	top	bottom	small top			150 mA		200 mA		250 mA		300 mA		350 mA		400 mA		
	(T)	(B)	(S)			lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	

LED Line SMD W2 EasyLine Gen. 3 – L56

MLE SC W2/560 x/24R/830 G3	574043	574055	574061	WW	3000	570	175	755	172	940	169	1125	166	/	/	/	/	830/349
MLE SC W2/560 x/24R/840 G3	574044	574056	574062	NW	4000	590	182	785	179	980	176	1175	173	/	/	/	/	840/349
MLE SC W2/560 x/24R/850 G3	574045	on request	on request	CW	5000	590	182	785	179	980	176	1175	173	/	/	/	/	850/349
MLE SC W2/560 x/24R/865 G3	574046	on request	on request	CW	6500	580	178	770	175	960	172	1145	169	/	/	/	/	865/349
MLE SC W2/560 x/48/830 G3	574047	574057	574063	WW	3000	1135	175	1510	172	1880	169	2255	166	/	/	/	/	830/349
MLE SC W2/560 x/48/840 G3	574048	574058	574064	NW	4000	1185	182	1575	179	1960	176	2345	173	/	/	/	/	840/349
MLE SC W2/560 x/48/850 G3	574049	on request	on request	CW	5000	1185	182	1575	179	1960	176	2345	173	/	/	/	/	850/349
MLE SC W2/560 x/48/865 G3	574050	on request	on request	CW	6500	1160	178	1540	175	1915	172	2295	169	/	/	/	/	865/349
MLE SC W2/560 x/72/830 HE G3	574051	574059	574065	WW	3000	1280	178	1705	175	2125	173	2545	170	2965	168	3380	166	830/349
MLE SC W2/560 x/72/840 HE G3	574052	574060	574066	NW	4000	1335	185	1775	182	2215	180	2650	177	3085	175	3520	173	840/349
MLE SC W2/560 x/72/850 HE G3	574053	on request	on request	CW	5000	1335	185	1775	182	2215	180	2650	177	3085	175	3520	173	850/349
MLE SC W2/560 x/72/865 HE G3	574054	on request	on request	CW	6500	1305	181	1735	178	2165	176	2590	173	3015	171	3440	169	865/349

LED Line SMD W2 EasyLine Gen. 3 – L112

MLE SC W2/1120 x/48R/830 G3	574067	574079	574085	WW	3000	1135	175	1510	172	1880	169	2255	166	/	/	/	/	830/349
MLE SC W2/1120 x/48R/840 G3	574068	574080	574086	NW	4000	1185	182	1575	179	1960	176	2345	173	/	/	/	/	840/349
MLE SC W2/1120 x/48R/850 G3	574069	on request	on request	CW	5000	1185	182	1575	179	1960	176	2345	173	/	/	/	/	850/349
MLE SC W2/1120 x/48R/865 G3	574070	on request	on request	CW	6500	1160	179	1540	175	1915	172	2295	169	/	/	/	/	865/349
MLE SC W2/1120 x/96/830 G3	574071	574081	574087	WW	3000	2275	175	3020	172	3765	169	4505	166	/	/	/	/	830/349
MLE SC W2/1120 x/96/840 G3	574072	574082	574088	NW	4000	2365	182	3145	179	3920	176	4690	173	/	/	/	/	840/349
MLE SC W2/1120 x/96/850 G3	574073	on request	on request	CW	5000	2365	182	3145	179	3920	176	4690	173	/	/	/	/	850/349
MLE SC W2/1120 x/96/865 G3	574074	on request	on request	CW	6500	2315	178	3075	175	3835	172	4590	169	/	/	/	/	865/349
MLE SC W2/1120 x/144/830 HE G3	574075	574083	574089	WW	3000	2565	178	3410	175	4250	173	5090	170	5925	168	6760	166	830/349
MLE SC W2/1120 x/144/840 HE G3	574076	574084	574090	NW	4000	2670	185	3550	182	4430	180	5300	177	6170	175	7040	173	840/349
MLE SC W2/1120 x/144/850 HE G3	574077	on request	on request	CW	5000	2670	185	3550	182	4430	180	5300	177	6170	175	7040	173	850/349
MLE SC W2/1120 x/144/865 HE G3	574078	on request	on request	CW	6500	2610	181	3475	178	4330	176	5185	173	6035	171	6885	169	865/349

3000 K = warm white (WW), 4000 K = neutral white (NW), 5000 K and 6500 K = cool white (CW)

* Colour tolerance: 3 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$

Minimum order quantity (packaging unit)

L07	L14	L28 / L56 / L112
120 pcs.	48 pcs.	24 pcs.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

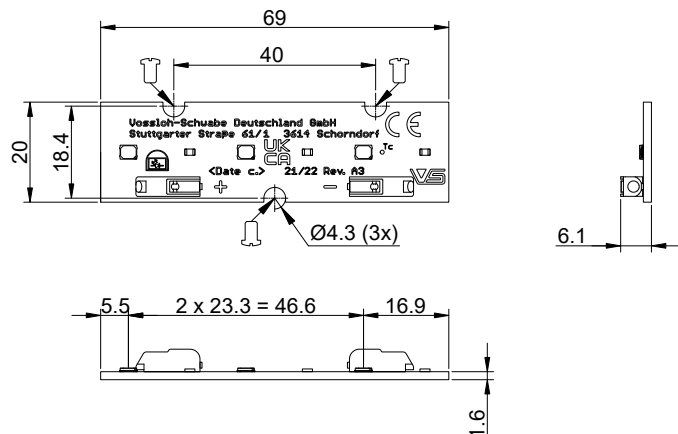
Mechanical Dimensions

T = Top Connection

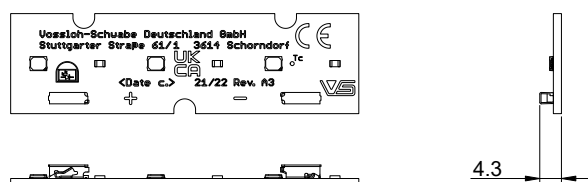
B = Bottom Connection

S = Small Top Connection

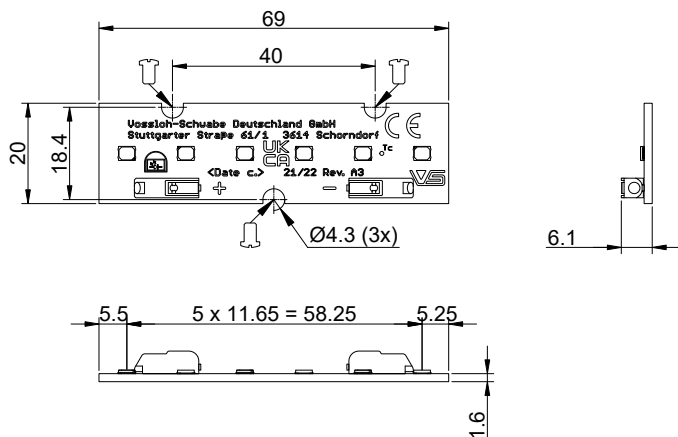
MLE SC W2/70 T/3R/yz G3



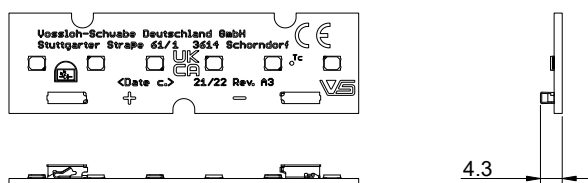
MLE SC W2/70 S/3R/yz G3



MLE SC W2/70 T/6/yz G3



MLE SC W2/70 S/6/yz G3



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

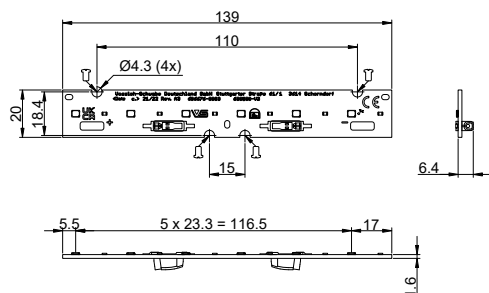
Mechanical Dimensions

T = Top Connection

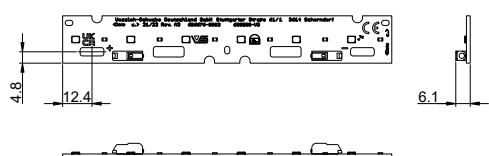
B = Bottom Connection

S = Small Top Connection

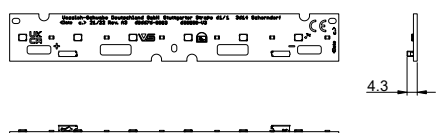
MLE SC W2/140 B/6R/yz G3



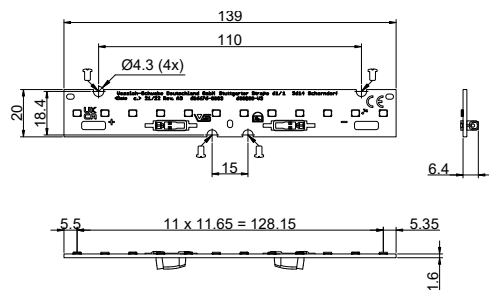
MLE SC W2/140 T/6R/yz G3



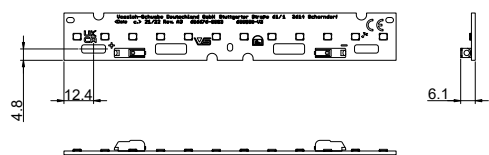
MLE SC W2/140 S/6R/yz G3



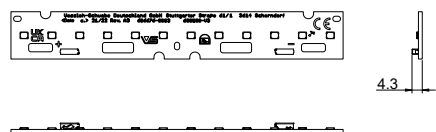
MLE SC W2/140 B/12/yz G3



MLE SC W2/140 T/12/yz G3



MLE SC W2/140 S/12/yz G3

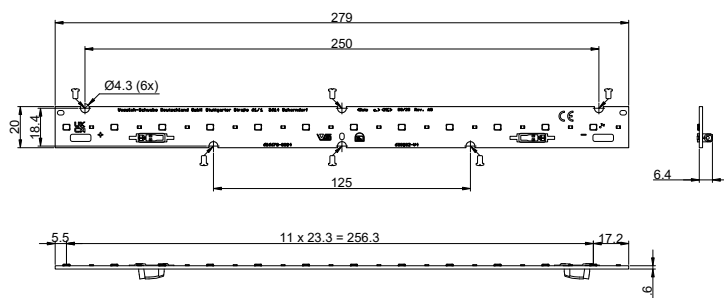


The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

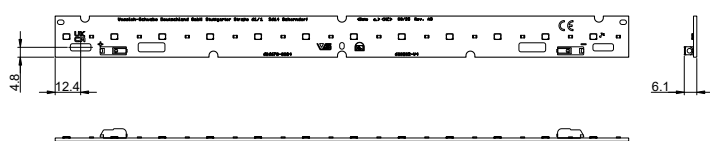
Mechanical Dimensions

T = Top Connection
B = Bottom Connection
S = Small Top Connection

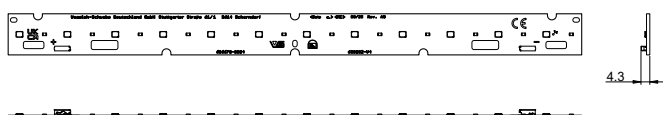
MLE SC W2/280 B/12R/yzz G3



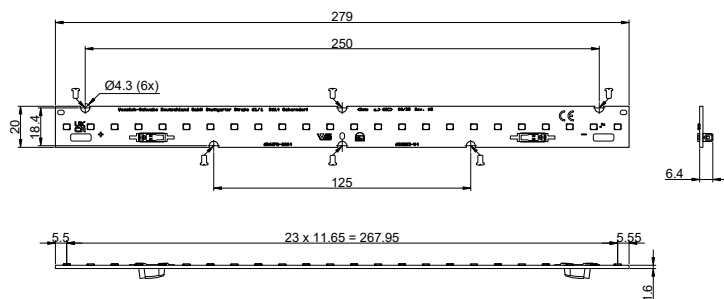
MLE SC W2/280 T/12R/yzz G3



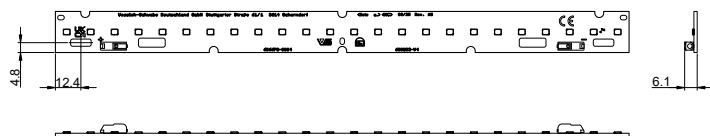
MLE SC W2/280 S/12R/yzz G3



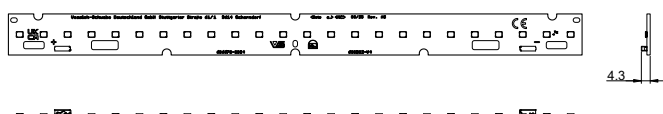
MLE SC W2/280 B/24/yzz G3



MLE SC W2/280 T/24/yzz G3



MLE SC W2/280 S/24/yzz G3

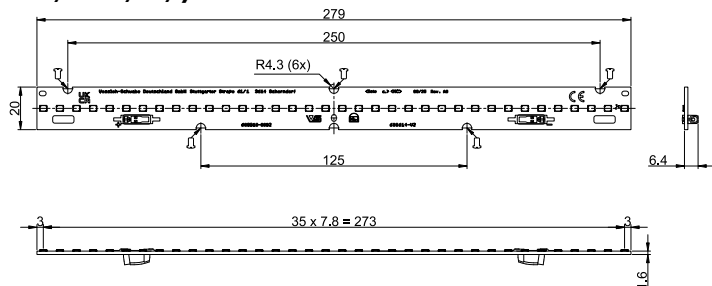


The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

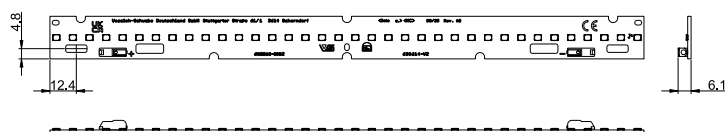
Mechanical Dimensions

T = Top Connection
B = Bottom Connection
S = Small Top Connection

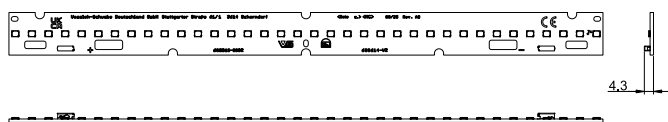
MLE SC W2/280 B/36/yz HE G3



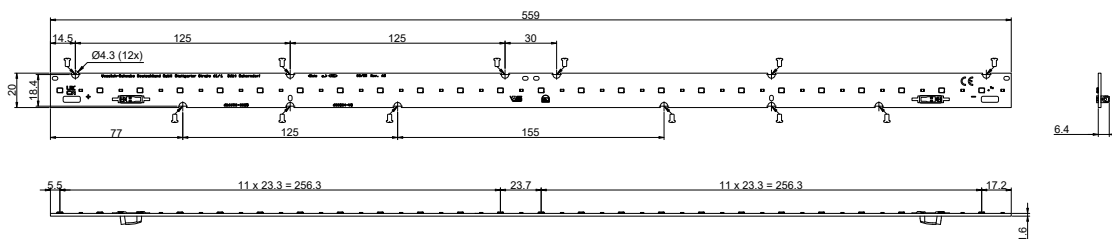
MLE SC W2/280 T/36/yz HE G3



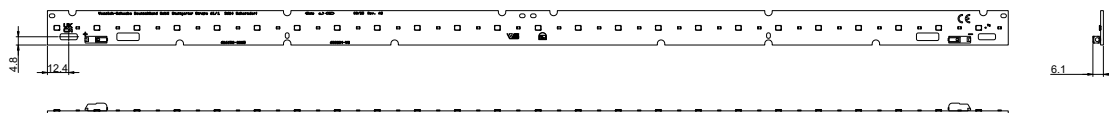
MLE SC W2/280 S/36/yz HE G3



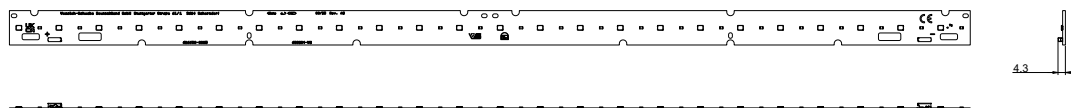
MLE SC W2/560 B/24R/yz G3



MLE SC W2/560 T/24R/yz G3



MLE SC W2/560 S/24R/yz G3

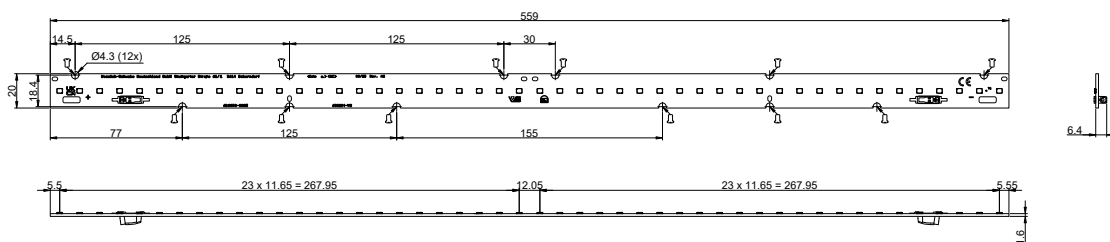


The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

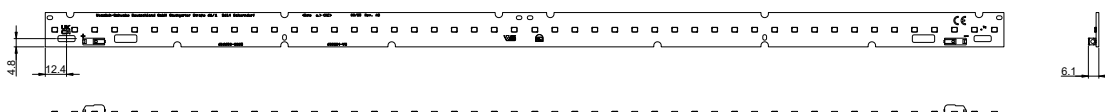
Mechanical Dimensions

T = Top Connection
B = Bottom Connection
S = Small Top Connection

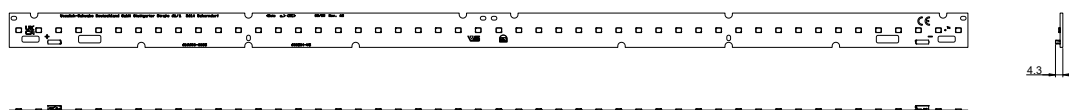
MLE SC W2/560 B/48/yz G3



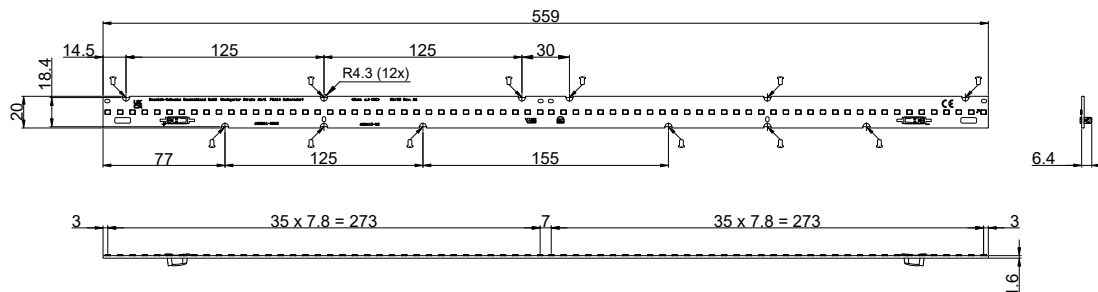
MLE SC W2/560 T/48/yz G3



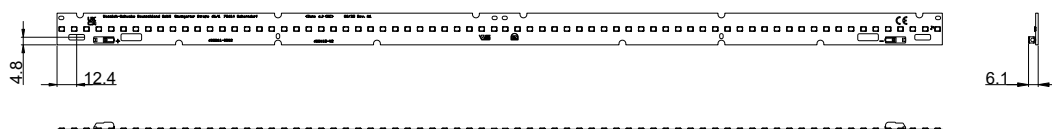
MLE SC W2/560 S/48/yz G3



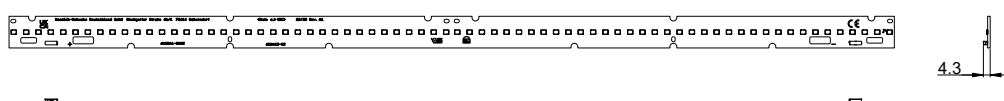
MLE SC W2/560 B/72/yz HE G3



MLE SC W2/560 T/72/yz HE G3



MLE SC W2/560 S/72/yz HE G3

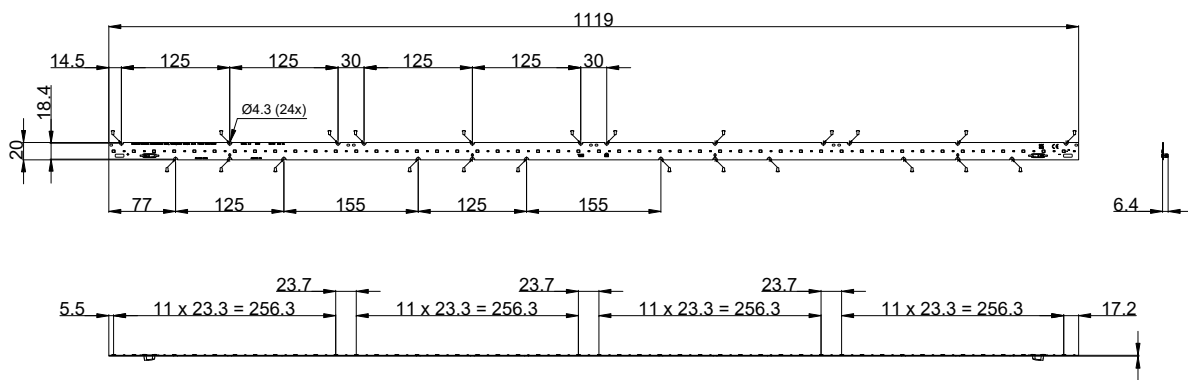


The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

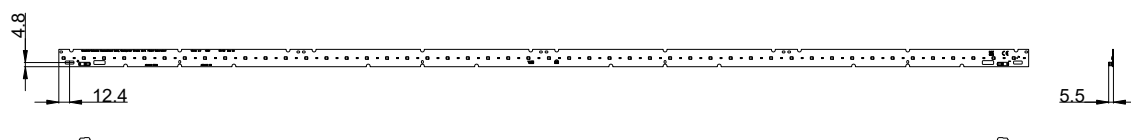
Mechanical Dimensions

T = Top Connection
B = Bottom Connection
S = Small Top Connection

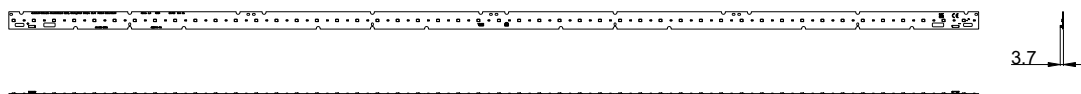
MLE SC W2/1120 B/48R/yz G3



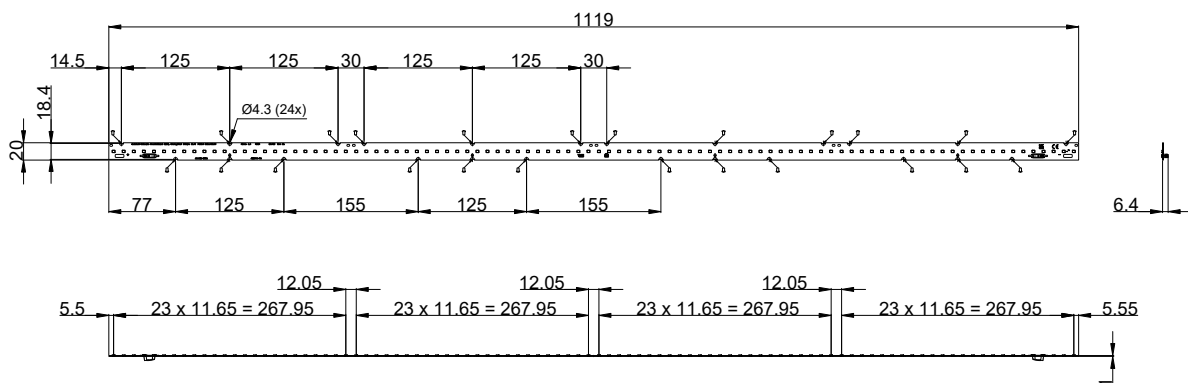
MLE SC W2/1120 T/48R/yz G3



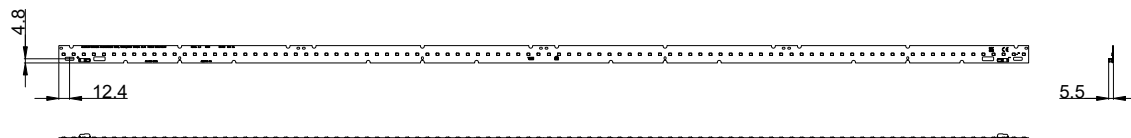
MLE SC W2/1120 S/48R/yz G3



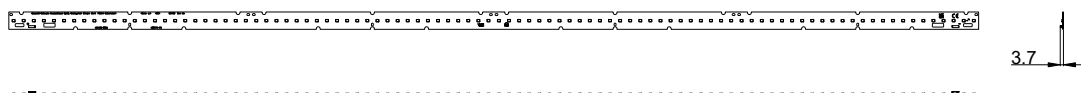
MLE SC W2/1120 B/96/yz G3



MLE SC W2/1120 T/96/yz G3



MLE SC W2/1120 S/96/yz G3



The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

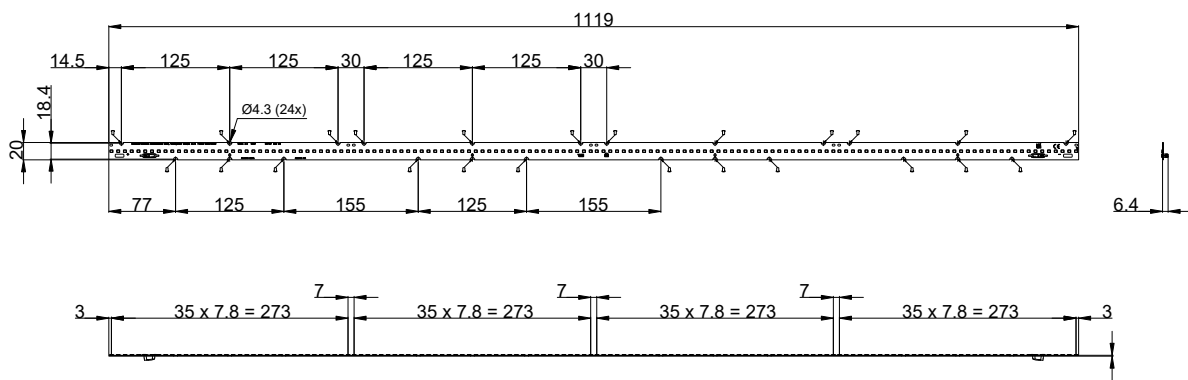
Mechanical Dimensions

T = Top Connection

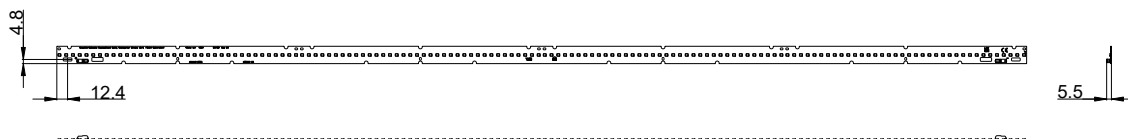
B = Bottom Connection

S = Small Top Connection

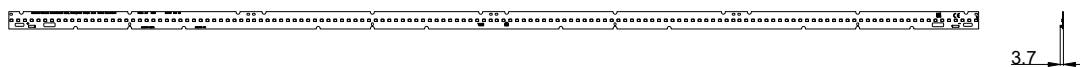
MLE SC W2/1120 B/144/yz HE G3



MLE SC W2/1120 T/144/yz HE G3



MLE SC W2/1120 S/144/yz HE G3



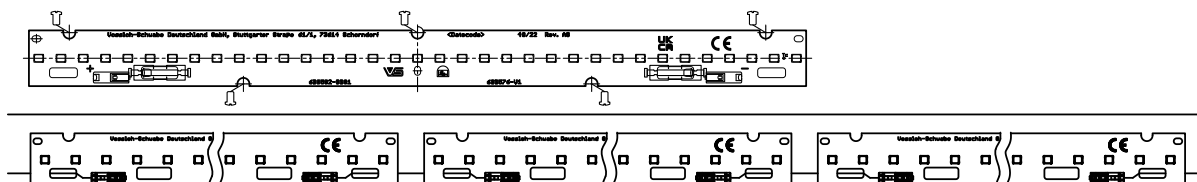
The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Connection Example

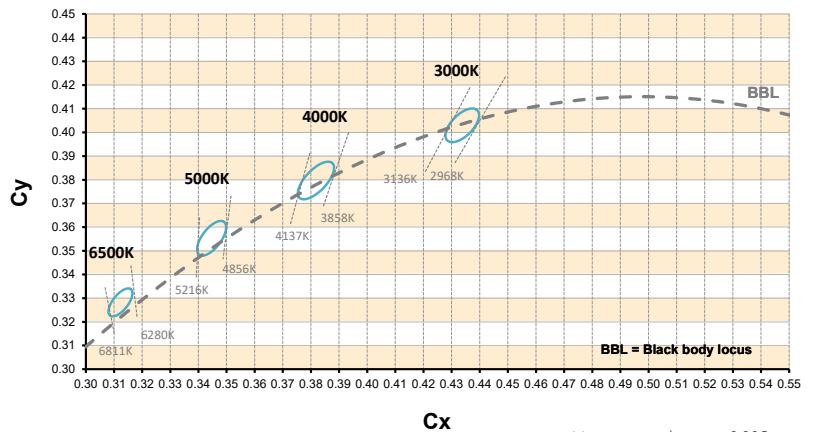
- The number of modules that can be connected in series depends on the available output voltage of the LED driver.
- The clearance and creepage distances are designed for working voltages up to:

350V DC basic (185V DC reinforced)
MLE SC W2/70: 70x20 mm
MLE SC W2/140: 140x20 mm
MLE SC W2/280: 280x20 mm
MLE SC W2/560: 560x20 mm
300V DC basic (150V DC reinforced)
MLE SC W2/1120: 1120x20 mm

- In case of assembly of the LED modules in profiles (e.g. aluminium) where the profile touches the top edge of the PCB the clearance and creepage distances are reduced to 175 V DC (basic insulation) and 40 V DC (reinforced insulation).
- Max. diameter of screw head (M4): Ø 8 mm
- Only the marked holes  are fixing holes for screws M4. Please do not use other holes for fixation!



Bins



Linear LED Constant Current Drivers

Please visit our homepage for details for suitable LED constant current drivers: www.vossloh-schwabe.com

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

Nomenclature Example

MLE SC W2/280 T/24/840 G3

Generation

CCT

30 = 3000 K

40 = 4000 K

50 = 5000 K

65 = 6500 K

CRI

8 = 80 CRI minimum

Number of LEDs

Connection

T = Top

B = Bottom

S = Small Top

Length

70 = 70 mm

140 = 140 mm

280 = 280 mm

560 = 560 mm

1120 = 1120 mm

Width

W2 = 20 mm

Technology

SC = SMD Constant Current

Product Line

E = Easy

Product Area & Shape

ML = Module Linear

Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- Consider safety regulations acc. EN 60598 in the luminair design, especially when the operating LED driver is not galvanic isolated.
 - In mode of operation regard to sufficient isolation.
 - Live parts must not be touched in operation mode.
-  Danger of death!!!
- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- Adequate anti-static electricity measures, including the use of conductive shoes, ionizers, work bench grounding, wrist straps, flooring and stools should be used.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - avoid any pressure on the light emitting surface
- Safe operation only possible by the use of external constant current sources (I_{max} , see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
- The module can be fixed with M4 screws. Fixation only with flat or cylinder head screws (M4) (no countersunk screws)
Max. torque: 1.2 Nm (M4)
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- For interconnection the LED modules is equipped with push-in terminals. WAGO 2060 for T variant; WAGO 2065 for S variant; BJB 46.111.1001.50 for B variant.
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- Measurement tolerances:
 - luminous flux: $\pm 7\%$
 - voltage: $\pm 3\%$
 - CRI: ± 1
- The following points must be observed when connecting LED modules in parallel:
 - All LED strings that are wired in parallel must contain the same number of LEDs (symmetrical loading).
 - Owing to differing forward biases, there can be a difference of up to 10% in brightness between modules connected in parallel.

- To ensure problem-free operation, the specified maximum temperature at the t_p point (see "Operating Life") must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.
- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognised as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Due to the manufacturing process, the PCBs of the LED assembly modules can have sharp edges and corners. Care must therefore be taken during handling and installation to avoid injury.
- For optimal load of used constant current driver the modules can only be connected in series. The quantity of LED modules is limited by the sum of forward voltage and the capacity of used constant current driver. Safety regulations acc. to EN 60598 has to be observed if the sum of forward voltage exceed the permitted touchable value.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure. Detailed information can be found in our "Chemical Incompatibility" PDF on our website www.vossloh-schwabe.com
- The photobiological safety of the LED modules must be classified into risk groups in accordance with EN 62471: 2008.
Rating in accordance with IEC / TR 62778: risk group 1 within the complete range of allowed operating current per LED module (up to 300 mA and up to 400 mA for HE variant)

Applied Standards

EN 62031

LED modules for general lighting – Safety specifications



pending

EN 62471

Photobiological safety of lamps and lamp systems

Product Guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com). We will be happy to send you these conditions upon request.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.