

LED MODULES READYLINE COB

BUILT-IN MODULE
38 MM – 120 V



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EDC_38C_xxW_xxx_120A_VS4

Typical Applications

- Residential lighting
- Replacement for CFL downlights
- Integration in reflector luminaires
- Furniture lighting



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- **DIRECT MAINS CONNECTION**
- **DIMMABLE**
- **HIGH POWER FACTOR**
- **LONG SERVICE LIFETIME: 50,000 HOURS**
- **UL APPROVED**
- **WIDE RANGE OF 50 MM OPTICS (MR16)**



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Technical Notes

- LED built-in module for integration into luminaires
- Mains voltage: 120 V AC
- Power factor: > 0.95
- THD: < 20 %
- Dimensions (ØxH): Ø 38 x 4.7 mm
- On-Board push-in connector
- Light emitting surface (LES)
Ø 10 mm: 4 W, 6 W, 8 W



Electrical Characteristics

at $t_c = 55^\circ\text{C}$

Type	Typ. supply voltage AC $V \pm 10\%$	Operation frequency Hz	Typ. power consumption at 120 V W	Power factor	Total harmonic distortion (THD) %	Flicker percent %	Flicker index
EDC_38C_4W_XXX_120A_VS4	120	50–60	4	0.95	< 20	100	0.33
EDC_38C_6W_XXX_120A_VS4	120	50–60	6	0.95	< 20	100	0.33
EDC_38C_8W_XXX_120A_VS4	120	50–60	8	0.95	< 20	100	0.33

Maximum Ratings

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

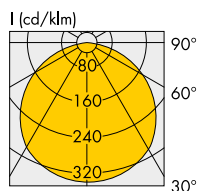
Type	Power consumption W	Operation voltage range AC (V)		Operation temperature range at t_c point		Ambient temperature range		Storage temperature range	
		min.	max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	$^\circ\text{C}$ min.	$^\circ\text{C}$ max.
EDC_38C_xW_XXX_120A_VS4	4, 6	110	130	-30	+65	-30	+55	-30	+85
EDC_38C_8W_XXX_120A_VS4	8	110	130	-30	+65	-30	+50	-30	+85

Operating Life

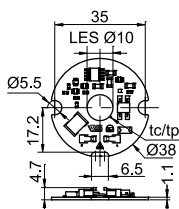
L70/B50

Temperature at t_c	Service life time
55 $^\circ\text{C}$	50,000 h
65 $^\circ\text{C}$	40,000 h

Typical Light Distribution Curve



Mechanical Dimensions



4 W, 6 W, 8 W

Production Code

EDC_XX X_XXW_X XX_XXX X_VSX							
Type	Shape	Power	CRI	Colour	Mains voltage	Voltage type	Version
38 C	4W	8 27	120 A	1			
57 S	6W	9 30	230 D	2			
	8W	35		3			
	10W	40		4			
	15W	50		5			
	20W			6			
	30W						
	40W						

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Optical Characteristics at $t_c = 55\text{ °C}$, at 120 V AC

Typ. output W	Type	Ref. No.	Colour	Correlated colour temperature* K	Luminous flux (lm) and typ. efficiency (lm/W)**			Typ. beam angle (°)	Typ. CRI R_a
					min. lm	typ. lm	typ. lm/W		
4	EDC_38C_4W827_120A_VS4	563996	warm white	2700	318	353	88	120	80
	EDC_38C_4W830_120A_VS4	563997	warm white	3000	342	380	95	120	80
	EDC_38C_4W835_120A_VS4	563998	warm white	3500	349	388	97	120	80
	EDC_38C_4W840_120A_VS4	563999	neutral white	4000	356	395	99	120	80
	EDC_38C_4W850_120A_VS4	564000	cool white	5000	366	407	102	120	80
	EDC_38C_4W927_120A_VS4	564001	warm white	2700	280	311	78	120	90
	EDC_38C_4W930_120A_VS4	564002	warm white	3000	301	334	84	120	90
	EDC_38C_4W935_120A_VS4	564003	warm white	3500	307	341	85	120	90
	EDC_38C_4W940_120A_VS4	564004	neutral white	4000	313	348	87	120	90
	EDC_38C_4W950_120A_VS4	564005	cool white	5000	322	358	89	120	90
6	EDC_38C_6W827_120A_VS4	564006	warm white	2700	477	530	88	120	80
	EDC_38C_6W830_120A_VS4	564007	warm white	3000	513	570	95	120	80
	EDC_38C_6W835_120A_VS4	564008	warm white	3500	523	581	97	120	80
	EDC_38C_6W840_120A_VS4	564009	neutral white	4000	534	593	99	120	80
	EDC_38C_6W850_120A_VS4	564010	cool white	5000	549	610	102	120	80
	EDC_38C_6W927_120A_VS4	564011	warm white	2700	420	466	78	120	90
	EDC_38C_6W930_120A_VS4	564012	warm white	3000	451	502	84	120	90
	EDC_38C_6W935_120A_VS4	564013	warm white	3500	460	512	85	120	90
	EDC_38C_6W940_120A_VS4	564014	neutral white	4000	469	522	87	120	90
	EDC_38C_6W950_120A_VS4	564015	cold white	5000	483	537	89	120	90
8	EDC_38C_8W827_120A_VS4	564016	warm white	2700	636	707	88	120	80
	EDC_38C_8W830_120A_VS4	564017	warm white	3000	684	760	95	120	80
	EDC_38C_8W835_120A_VS4	564018	warm white	3500	698	775	97	120	80
	EDC_38C_8W840_120A_VS4	564019	neutral white	4000	711	790	99	120	80
	EDC_38C_8W850_120A_VS4	564020	cold white	5000	732	813	102	120	80
	EDC_38C_8W927_120A_VS4	564021	warm white	2700	560	622	78	120	90
	EDC_38C_8W930_120A_VS4	564022	warm white	3000	602	669	84	120	90
	EDC_38C_8W935_120A_VS4	564023	warm white	3500	614	682	85	120	90
	EDC_38C_8W940_120A_VS4	564024	neutral white	4000	626	696	87	120	90
	EDC_38C_8W950_120A_VS4	564025	cold white	5000	644	716	89	120	90

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

Minimum order quantity: 200 pcs.

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Accessories for LED Modules ReadyLine COB



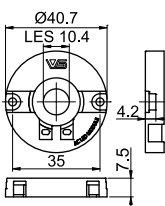
Holder

Dimensions (ØxH): 40.7x7.5 mm

Material: plastic, white

Packaging unit: 100 pcs.

Ref. No.: 563993



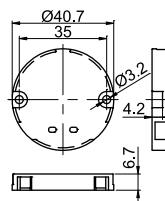
Cover

Dimensions (ØxH): 40.7x6.7 mm

Material: PC, transparent

Packaging unit: 50 pcs.

Ref. No.: 563994



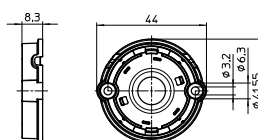
Holder for reflectors PLUS and lenses Evolve 50

Dimensions (ØxH): 41.55x8.3 mm

Material: PET, natural (5 VA)

Packaging unit: 200 pcs.

Ref. No.: 568634



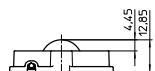
LES protection

Material: PC, opaque

Fixation: click-in

Packaging unit: 1000 pcs.

Ref. No.: 604024



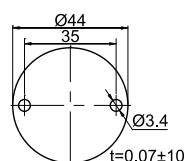
Thermal Pad

Dimensions (ØxH): 44x0.07 mm

Thermal conductivity λ : 2 W/mK

Packaging unit: 100 pcs.

Ref. No.: 563995



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Reflectors PLUS for ReadyLine COB

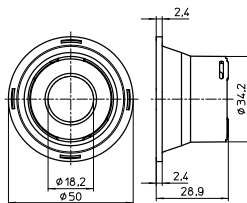
Technical notes

For click-in fixation on holders 568632/568634

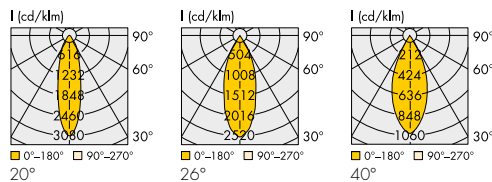
Diameter: 50 mm

Material: PC

Packaging units: 30 pcs.



Ref. No.	For LED modules	Beam angle (°)	Cover	Optical efficiency (%)	Weight g
603686	ReadyLine COB 38 mm	20	Frost	86	10
603688	ReadyLine COB 38 mm	26	Frost	85	10
604920	ReadyLine COB 38 mm	40	Frost	84	10



Lenses Evolve 50 for ReadyLine COB

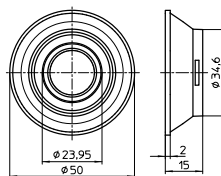
Technical notes

For click-in fixation on holders 568632/568634

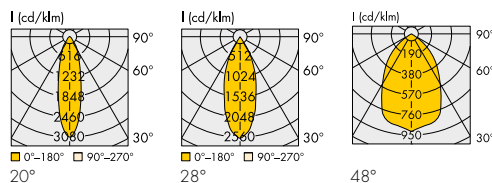
Diameter: 50 mm

Material: PC

Packaging units: 30 pcs.



Ref. No.	For LED modules	Beam angle (°)	Cover	Optical efficiency (%)	Weight g
603673	ReadyLine COB 38 mm	20	—	87	15
603674	ReadyLine COB 38 mm	28	—	86	15
604879	ReadyLine COB 38 mm	48	—	89	15





* In addition with mixing chamber

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Assembly and Safety Information

The LED modules are designed for direct mains operation (120 V AC). Installation must be carried out under observation country specific relevant safety regulations and standards.

- The LED module is a built-in lighting module to assemble into luminaires. 
- Suitable for luminaires of protection class I, grounding is mandatory to comply with safety standards.
- In case of applications in luminaires of protection class II the safety regulations acc. to luminaire safety standards must be observed.
- Operation of the LED module is not allowed when it is not built-in into a luminaire. Depending on application, luminaire application specific safety standards have to be observed (e.g. UL 8750). Depending on the use of the luminaire in different countries (export), the country specific safety standards have to be regarded (e.g. UL 8750).
 - Regard to sufficient isolation acc. country specific standards.
 - Live parts must not be touched. Luminaire must be closed acc. country specific standards. Danger of life!!! 
- Clearance and creepage distances of the module are designed for class I luminaires (basic insulation). For built-in of the module the required standards have to be observed (e.g. UL 8750).
- Do not exceed values given in this specification.
- Do not exceed max t_c temperature of 85 °C.
- The module must be fixed onto a thermally conductive surface. Heat sink must cover the entire backside surface of the module.
- When installing/screwing the module into a luminaire, please ensure that cables are not squeezed between luminaire/heat-sink and LED module.
- Please ensure standard ESD (electrostatic discharge) protection measures are employed when handling and installing LED modules. Electrostatic discharge can damage LEDs.
- The LED modules are connected via two on board push-in connectors for flexible or solid conductors.
 - Conductor section: AWG22-AWG18
 - Flexible: 0.45 mm² – 0.96 mm²
 - Solid: 0.324 mm² – 0.82 mm²
 - Strip length: 6 mm ±0.5 mm
 - The AWG22 flexible cable has to be tinned
 - The AWG20 and AWG18 wires have to be twisted.
 - The contacts can be released with a flat-headed screwdriver with a width of 3 mm. It has to be ensured, that the used cables do not decrease clearance and creepage distance of the modules. The cable must be put in completely (as far as isolation will go) into terminal. Used cables must fulfil luminaire safety standards (UL 8750). Other country specific standards have to be regarded.
- Parallel connection is mandatory for safe electrical operation. Serial connection of LED modules is not allowed.
- Due to the used electronic parts on the module not all available phase-cutting dimmers are compatible. Dimmable with phase-cutting leading- and trailing-edge dimmer. Minimum dimmer load has to be observed. The compatibility of the dimmer and the modules has to be confirmed prior to installation to avoid flickering.

- The modules must be fixed with M4 screws. Fixation only with flat or cylinder head screws (M4) (no countersunk screws). Max. torque for PCB: 0.6 Nm (M4), max. torque with holder: 0.3 Nm (M4).
- To ensure problem-free operation, the specified maximum temperature at the t_c point (see "Operating Life") must be observed. To satisfy this point, it is necessary to put measures in place to ensure any heat is dissipated from the LED module 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. Relevant country and application specific standards have to be regarded.
- Installation by qualified electrician only
- Do not add or change wires while circuit is active
- Do not make modifications on module
- Do not use adhesives to attach that outgas organic vapour
- Do not use together with material containing sulfur
- Do not operate module with AC generators
- Do not operate modules by DC
- LED modules must not be subjected to any undue mechanical stress, e. g.: LED module
 - handle modules carefully
 - avoid shear and compressive forces onto the modules during handling and installation
 - avoid vibrations of more than 2 kHz, 40 G
- If module is used in rooms with fast moving parts as the light modulation might cause stroboscopic effects.
- This LED module might interfere with displays and cameras due to modulation.

Applied Standards

- UL 8750
Standard for LED Equipment for Use in Lighting Products

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.

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Tested dimmers for LED Modules ReadyLine COB

ReadyLine COB modules are dimmable with common phase-cut dimmers.

Minimum dimmer load has to be observed.

The compatibility of the dimmer and the modules has to be approved prior to installation.

- ASPIRE COOPER
- LUTRON DIVA. DVCL153P-WH
- SKYLARK SELV-300P
- SKYLARK SLV-600P
- LUTRON MIR-600
- LUTRON MIR-600M-WH
- LUTRON DIVA. DV-600P
- LUTRON ARIADNI. AW-600P-WH
- LUTRON SKYLARK. S-600P-WH
- LUTRON NOVA T. NTLV-600
- LUTRON TG-600P-WH
- LEVITON IPI 10-1 LZ
- LUTRON GL-6000H-DK
- LEVITON NO. 6683-T
- LEVITON NO. 6602
- LEVITON NO. 6681
- LEVITON NO. 6631-LA
- STEPUP COOPER
- ARROWHART COOPER. SF10P-W
- JASCO PRODUCTS XOOOPKSTEP
- LUTRON NOVA T. NT 1000
- LUTRON DIVA. DVTV-WH
- LUTRON MAESTRO. MA-600-WH
- LEVITON IP710-DL
- LEVITON IPE04
- LEVITON NO. 6674
- LUTRON SKYLARK. CT-600P
- LEVITON 1G4411
- LEVITON 1D4405
- LUTRON GL X52-F04160